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ITALY

IFPSM

INTERNATIONAL FEDERATION OF PURCHASING & SUPPLY MANAGEMENT

ADACI Associazione Italiana Acquisti e Supply Management

The IFPSM World Summit is organized in collaboration with ADACI, the Italian Association of Purchasing and Supply Management

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Summary

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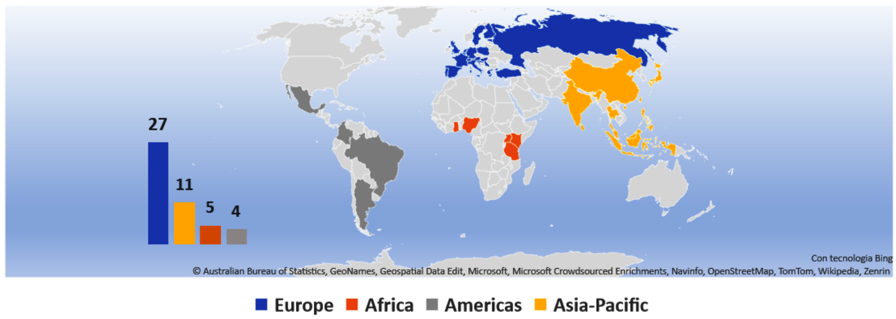

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Summary

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Michele Anzivino

In varietate concordia (United in diversity)

A simmetrica distanza dall'anno 2000, i due congressi della Federazione Internazionale affidati ad ADACI - Venezia 1977 e Firenze 2023 - segnano due momenti chiave dell'avvento e dello sviluppo delle tecnologie digitali, che hanno trasformato in modo radicale e pervasivo la nostra vita e l'intero ecosistema.

In questo contesto, sempre più globalizzato e multipolare, gli organismi sovranazionali, quali l'IFPSM, hanno la funzione di assicurare la collaborazione internazionale e gli scambi di best practices, a vantaggio di una crescita equa, inclusiva e sostenibile per le generazioni future.

In occasione del Summit di Firenze, l'organo istituzionale di ADACI, APPROVVIGIONARE, propone un'edizione speciale, preparata in collaborazione con autori ed esperti di molte associazioni.

L'obiettivo è quello di raggiungere i 250.000 operatori che costituiscono la comunità del procurement e supply management dell'IFPSM, aggiornandoli su varie tematiche della professione, sulla storia dell'IFPSM e sui suoi membri attuali. Grazie a questa diffusione capillare, ogni professionista che partecipa a tale comunità potrà conoscere quanto fatto da colleghi di altre regioni ed apprezzare il lavoro svolto dalla propria associazione o dal proprio istituto.

"In varietate concordia."

Questo motto, scelto dall'Unione Europea nel 2000, che impegna i diversi paesi aderenti a trovare modi concordi per comprendersi e convivere insieme, nel rispetto reciproco di interessi, identità e culture diverse, ben si addice anche all'IFPSM.

*Rimanere **uniti nella diversità** non è facile, ma assicura valore aggiunto e consente lo sviluppo armonico del nostro sistema economico e sociale*

At a symmetrical distance from year 2000, the two congresses of the International Federation entrusted to ADACI - Venice 1977 and Florence 2023 - mark two key moments of the rise and development of digital technologies that have radically and pervasively transformed our life and the entire ecosystem.

In this increasingly globalized and multipolar environment supranational organisations, such as IFPSM, are expected to ensure international collaboration and the exchange of best practices for the benefit of equitable, inclusive and sustainable growth for the future generations.

On the occasion of the Florence Summit, APPROVVIGIONARE, house organ of ADACI, proposes a special edition, prepared in collaboration with authors and experts of several associations.

The goal is to reach the 250,000 operators of the IFPSM procurement and supply management community, updating them on various topics of the profession, on the history of IFPSM and on its current members. Thanks to this widespread diffusion, every professional who participates in that community will be informed of what is done by colleagues of other regions and will appreciate the activities performed by its association or institute.

"In varietate concordia."

This motto, chosen by the European Union in 2000, which commits the various member countries to find mutually agreeable ways to understand and live together, with mutual respect for different interests, identities and cultures, is also applies to IFPSM.

*Remaining **united in diversity** is not easy, but it ensures added value and allows for the harmonious development of our economic and social system.*

Fabrizio Santini
ADACI President

Welcome to Florence

Gentili lettori,

dopo aver ospitato a Venezia nel 1977 il primo Congresso Mondiale degli Approvvigionamenti, ADACI e la procurement community italiana sono onorati di ospitare il ventiquattresimo World Summit dell'IFPSM, ovvero il forum mondiale più esclusivo del settore e il luogo ideale per lo scambio di conoscenze e best practices tra operatori sia pubblici che privati in tema di procurement e di gestione delle filiere produttive.

*Oggi come allora, la procurement community internazionale si riunisce per un confronto aperto di opinioni. Ancora una volta si confronteranno diverse culture e modelli di business: quelli americani, europei, cinesi e giapponesi. Realtà diverse che nessuno pretende di modificare o emulare, la cui conoscenza è però di fondamentale importanza per sapersi muovere su mercati tanto diversi. Relatori provenienti da vari paesi si cimenteranno sui temi caldi del procurement, focalizzandosi sul tema di base del summit: '**Procurement to lead innovation and value capture, while coping with inflation, shortages and geopolitical instability**', ovvero: '**Gli acquisti come promotore di innovazione e valore aggiunto e, al contempo, come forza di contrasto all'inflazione, carenza di materiali e instabilità geopolitica**'.*

Comprare oggi infatti, non significa solo portare a casa quanto serve 'facendo saving', ma essere promotori di innovazione di prodotti e processi unitamente a colleghi di altre funzioni, fornitori e partner. Significa automatizzare i processi d'acquisto, ricorrendo ove opportuno al supporto dell'intelligenza artificiale, nonché adottare concetti di sostenibilità applicata.

Lo scenario in cui ha luogo il Summit è caratterizzato dalla revisione delle politiche di globalizzazione e da forme di multipolarismo politico-economico, da un'inflazione elevata e più resiliente del previsto, dalla scarsità di materie prime e da prezzi elevati. Nuovi scenari e sfide sempre più stimolanti per gli operatori del procurement e supply management che, ancora una volta, dovranno aggiornare le proprie strategie, assicurando innovazione e valore aggiunto, favorendo di conseguenza la competitività aziendale. Nell'ambito di questo nuovo ecosistema, è necessario adeguare ed affinare le loro competenze e procedere alla loro qualificazione formale.

Un doveroso ringraziamento va a quanti si sono impegnati per la gestione e per il successo di questo prestigioso evento.

Dear readers,

after hosting the first World Procurement Congress in Venice in 1977, ADACI and the Italian procurement community are honored to host the twenty-fourth World Summit of IFPSM, which is the world's most exclusive procurement and supply management forum and the ideal venue for the exchange of knowledge and best practices between both public and private procurement operators in terms of procurement and supply chains management.

*Today as then, the international procurement community meets for open discussions. Once again different cultures and business models will confront each other: American, European, Chinese and Japanese. Different realities that no one intends to modify or emulate, but the knowledge of which is of fundamental importance to know how to move on such markets. Speakers from various countries will talk about the hot topics of procurement, focusing on the basic theme of the summit: '**Procurement to Lead Innovation and Value Capture while Coping with Inflation, Shortages and Geopolitical Instability**' or procurement as a promoter of innovation and value creation, while contrasting inflation and materials shortages and overcoming the impacts of the current geopolitical dynamism.*

Buying today, in fact, does not only mean bringing home what is required by 'saving', but being promoters of product and process innovation together with colleagues of other functions, suppliers and partners. It means automating purchasing processes, recurring where appropriate to the support of artificial intelligence, as well as adopting concepts of applied sustainability.

The scenario in which the Summit takes place is characterized by the reshape of globalization policies and by forms of political-economic multipolarity, high inflation which is more resilient than expected, scarcity of raw materials and high prices. New scenarios and increasingly stimulating challenges for procurement and supply management operators who, once again, have to update their strategies, ensuring innovation and added value, thus promoting the company's competitiveness.

Within this new ecosystem, it is necessary to adapt and refine their competencies and promote their formal qualification.

Sincere thanks go to all those who have committed themselves to the management and success of this prestigious event.

Welcome to our Summit

Chris Oanda
IFPSM President

*It is a great honour and pleasure for me, also on behalf of the Board and Council of IFPSM to welcome you to this World Summit. It is a memorable occasion as we are back in the Country which hosted in 1977 the first World Procurement and Materials Management Congress. We gather here, as delegates of forty-six associations spread across five continents and operators of a procurement community of over 250,000 professionals that operates in the academic world, in public administration and industry. Our World Summit theme: '**Procurement to Lead Innovation and Value Capture while Coping with Inflation, Shortages and Geopolitical Instability**', aptly captures the challenges that our supply chains face right now. Prior to the COVID-19 pandemic, we were already enabling businesses in identifying partners for greener supply chains and logistics innovation to reduce the overall carbon footprint across the world.*

Over the years, technology adoption and the wide application of the Internet as a medium for instant mass communication, has enabled the creation of partnerships at every corner of the earth. Suppliers of any country and size can now supply goods and assistance to the furthest of customers, with perfect traceability of the transactions made. The financial instruments that enable international trade are ubiquitous, traceable and easy to use. Commercial and financial supply chains have been at the heart of this evolution, enabling economic growth and expansion of production and trade.

*Covid-19 pandemic has been a sort of wake-up call that not only disrupted all forms of normal life as we normally knew it, but had a significant negative impact on international commerce and specifically tested the resilience of supply chains and logistics in coping with major service disruptions to both demand and supply. By Quarter 3 of 2023 during our World Summit, it will be one year since the full-scale recovery from the Covid 19 impact took shape across many parts of the world and across many sectors of commerce. In that time and to support the global economic recovery challenges, the supply chain and procurement practice has found itself at the centre of world attention to provide answers to the key question: '**How will Procurement Lead Innovation and Value Capture while Coping with Inflation, Shortages and Geopolitical Instability?***

*The IFPSM World Summit 2023, seeks to respond to this challenge. IFPSM Board and ADACI have invited the very best professionals from across the world to share experiences and give perspectives on our theme topic. Led by the famous Professor **Peter Kraljic**, the inventor of the evergreen matrix of purchasing strategies, most presenters will be available to interact and network freely at group and one-on-one sessions which we have missed dearly over the last 3 years.*

We trust you will enjoy the hospitality of ADACI and savour the history, culture and charm of Florence.

*È per me un grande onore e piacere, anche a nome del Board e del Consiglio dell'IFPSM, darvi il benvenuto a questo Summit, che torna nel Paese che ospitò nel 1977 il 1° Congresso Mondiale degli Approvvigionamenti e Materials Management. Ci riuniamo qui, come delegati di quarantasei associazioni sparse in cinque continenti e operatori di una procurement community di oltre 250.000 professionisti che opera nel mondo accademico, nella pubblica amministrazione e nell'industria. Il tema di base del summit: '**Procurement to Lead Innovation and Value Capture while Coping with Inflation, Shortages and Geopolitical Instability**', coglie in modo appropriato le sfide che le nostre supply chain devono affrontare in questo momento. Già prima della pandemia di COVID-19, eravamo orientati alla realizzazione di filiere di fornitura più sostenibili e innovative per aumentarne l'efficienza e contenere l'emissione dei cosiddetti 'gas serra'.*

L'adozione delle tecnologie abilitanti e l'uso di Internet come mezzo di comunicazione istantanea, ha consentito, negli ultimi decenni, lo sviluppo di relazioni commerciali e lo scambio di beni e servizi, in ogni angolo del pianeta. Fornitori di qualsiasi paese e dimensione possono oggi fornire beni e assistenza al più lontano dei clienti, con perfetta tracciabilità delle transazioni effettuate. Gli strumenti finanziari che abilitano il commercio internazionale sono onnipresenti, tracciabili e di facile utilizzo. Le filiere di fornitura commerciali e finanziarie sono state al centro di questa evoluzione, abilitando crescita economica ed espansione della produzione e del commercio.

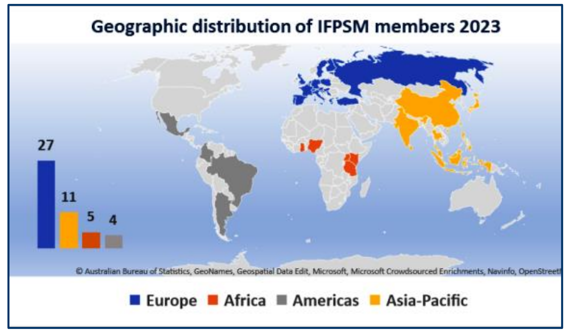
*La pandemia di Covid-19 è stata uno shock che ha sconvolto sia il nostro abituale modo di vivere, che il commercio internazionale. In particolare, ha messo a dura prova la resilienza delle supply chain e della logistica, dando luogo a molti fermi produttivi più o meni prolungati nel tempo. Col prossimo mese di settembre, proprio durante il nostro vertice mondiale, la ripresa su vasta scala in molti paesi e settori del commercio avrà maturato il suo dodicesimo mese consecutivo. In questo periodo compratori e supply chain manager hanno pesantemente contribuito alla ripresa economica, dando una risposta concreta alla domanda: '**In che modo il procurement può essere promotore di innovazione e valore aggiunto e, al contempo, contrastare l'inflazione, la mancanza di materiali e l'instabilità geopolitica?**'*

*Il World Summit del 2023, cerca di rispondere a questa grande sfida. Il board della Federazione e ADACI hanno reclutato esperti provenienti da diversi settori, capaci di fare un'analisi dello scenario attuale e dare risposte concrete al tema di base del Summit. Guidati dal famosissimo **Peter Kraljic**, l'inventore della matrice evergreen delle politiche d'acquisto, la maggior parte dei relatori sarà disponibile per interagire, sia in sessioni individuali che di gruppo, che ci è mancato molto negli ultimi 3 anni.*

Avremo modo, tra l'altro, di apprezzare l'ospitalità di ADACI e di assaporare storia, cultura e fascino di Firenze.

Markku Henttinen
IFPSM CEO

Next Megatrends



Dear IFPSM Members and Practitioners,

IFPSM is a global federation of over 40 national and regional purchasing and supply chain management associations worldwide. Our mission is to increase the ability of IFPSM member organizations to be more effective in serving their own members.

At-the-moment practitioners of our field are suffering from the broken supply chains. Procurement Officers are having a tough time with materials needed, including the increasing prices. In Europe we also do have the very unwished war in Ukraine, which has caused enormous destruction, suffering and loss of lives of innocent, peace loving people.

The megatrends (referring to PwC's 5 megatrends) will remain despite the hopefully temporary effects.

The Rapid Urbanization

It´s evident that an increasing number of people are living in the urban areas. Consumers are expecting quick delivery services to the offices, or their homes be it food or consumer goods. From the physical distribution perspective this means a new type of distribution system with city hubs is needed.

The Climate Change and Resource Scarcity

We are all aware of global warming and the undesired effects of climate change. The heavily increasing population and heavy usage of fossil energy resources has added to the carbon footprint of humankind. Governments will put stricter restrictions in place. Consumers set demands to get more information on the footprint and sustainability of the goods they consume, whether food or non-food.

The Shift in Global Economic Power

The Asia/Pacific region is well on the way to take the leadership in the Global economy.

The locations of production units will keep on shifting to better locations based on continuous optimization. Procurement officers need to put focus on risk elements, which may vary from political to non-acceptable working conditions and usage of child labor in addition to product quality and supply capability risks.

The Demographic and Social Change

In developed countries, especially in Europe, the population is ageing, and the younger generations are smaller and smaller. The ageing population needs different infrastructure and different services and products. The technological development will enable all types of virtual services, virtual doctors, nursing, and self-made laboratory analyses possible.

The Technological Breakthroughs

We all are aware of the Internet of things, intelligent sensors, Artificial Intelligence, Big data, Digital twins, Block chains and 3D Printing. Nanotechnology in all areas is making a tremendous change. Artificial intelligence revolutionizes supply chains. AI can collect product ideas from the procurement market, calculate their commercial success in advance, and determine the most reasonable delivery method through the supply chain. The change is not much different from earlier industrial changes.

To conclude, pandemic-era, and the recovery period, has shown how important it is to all organizations that capable professionals manage the Procurement and supply chain processes. This won´t come without companies investing on human resources, training and education and technology.

IFPSM
INTERNATIONAL FEDERATION OF PURCHASING & SUPPLY MANAGEMENT

MEMBERS 2023

Europe

ABCAL – Achat Logistique Supply Chain

ADACI – Associazione Italiana Acquisti e Supply Management

AERCE

APCADEC – Associação Portuguesa de Compras e Aprovisionamento

BME – Association for Supply Chain Management, Procurement and Logistics

BMÖ – Bundesverband Materialwirtschaft, Einkauf und Logistik in Österreich

CNA – Conseil National des Achats

ΕΙΠ – Ελληνικό Ινστιτούτο Προμηθειών

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СРПСКО УДРУЖЕЊЕ ПРОФЕСИОНАЛАЦА У ЛАНЦУ СНАБДЕВАЊА

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TUSMOD

Purchasing Association of Slovenia

Asia - Pacific

CFLP

IAPI – Indonesian Procurement Professional Association

IIMM – Indian Institute of Materials Management

IPS HONG KONG

ISMM – Institute of Supply and Materials Management (Incorporated in Sri Lanka by Act of Parliament No.3 of 1981)

JMMA – 一般社団法人日本資材管理協会 Japan Materials Manegement Association

MIPMM – The Malaysian Institute of Purchasing and Materials Management

PASIA – Procurement and Supply Institute of Asia

PISM – Shaping the future of supply management

PSCMT – Purchasing & Supply Chain Management Association of Thailand | Since 1988

tass – Taiwan Alliance for Sustainable Supply

Africa

CIPSMN – Chartered Institute of Purchasing and Supply Management of Nigeria

CISCM – Chartered Institute of Supply Chain Management - Ghana

KISM – Kenya Institute of Supplies Management

PSPTB – Procurement and Supplies Professionals and Technicians Board – "Committed to Excellence"

The Institute of Procurement Professionals of Uganda

Americas

AACAM – Asociación Argentina de Compras y Administración de Materiales

ACOPC – Procurement Experts

aprocal – Asociación de Profesionales en Compras, Abastecimiento y Logística, A.C.

CBEC – Conselho Brasileiro dos Executivos de Compras

Mirela Senica
European Chair of IFPSM

Message from the IFPSM Europe Regional Chair

Greetings to the IFPSM World Wide Summit

Dear Members of the IFPSM, dear Procurement Colleagues and dear Friends,

The world is slowly getting back to normal. However, there are still many challenges that procurement professionals will face in 2023 due to the disruption in global supply chains, the ongoing war in Ukraine with Russia, and other trade disputes among countries. Many procurement professionals are still strategizing how they will face with all of these challenges.

The key is a strong procurement strategy due to the fact that there are many factors to consider when making a decision.

What can we expect from 2023? Compared with the December 2022 projections, the technical assumptions include tighter financing conditions, lower oil prices, significantly lower wholesale gas and electricity prices and an appreciation of the euro. Business investment is expected to be weak in 2023 but to recover in 2024-25.

Price pressures in the global economy remain high, but sharp disinflation is projected in the export prices of euro area competitors.

Due to all challenges in last years, Procurement and Supply chain teams have been in high focus by all businesses and high performing teams are successfully navigating these complexities. Although Procurement is still heavily focused on costs, most of procurement organizations have expanded value propositions to influence demand, drive innovation, digitalization and artificial intelligence solutions wherever possible so that there is more focus on strategic suppliers and partners to foster commercial compliance, increase speed to market, and drive continuous improvement of procurement and supply chain support.

Procurement organizations centralized their procurement activities, established industry leadership in supply chain responsibility, expended the role in risk management, established sourcing category expertise, collaborated with suppliers to drive measurable innovations and re-designed procurement processes and workflows.

Procurement leaders continuously invest in their talents and people so that they can support business with specific set of skills to develop and enable global category sourcing strategies, manage global strategic suppliers, client relationships and deliver client value.

The Procurement Trends for 2023 (by Procurement Tactics)

1. Sustainability

Now the storm of the pandemic is slowing down in 2023, procurement managers will need to focus on sustainability. Many procurement professionals are seeing how customers and investors prefer businesses with sustainability in their operations.

A study by McKinsey has found that the usual consumer company's supply chain is responsible for more than 80% of carbon emissions. Due to this, procurement professionals are faced with the task of lowering the impacts of companies on the environment. Procurement professionals look for ways in implementing sustainability in their procurement.

Additionally, buying trends are increasingly being driven by conscious consumers nowadays. These conscious customers prioritize factors such as the impact of a business on the environment and society when buying or doing business with them.

2. Supplier Safety Stocking

After two years of hard times for suppliers to keep up with the demand, suppliers will work on pre-Covid stocks in their warehouses again in 2023 to secure a supply of products for their clients as there are many delayed deliveries of products due to increased demand.

As the world is slowly going back to normal, the surge of delayed products is starting to overwhelm the inventory of many businesses. The unexpected rise in the number of products was evident as many companies put their products on sale with huge discounts.

3. Importance of relationship building

If the last few years taught us something, it is that we need to have good relationships with our suppliers. Many companies without good relationship management found themself with no delivered products last year because suppliers preferred to deliver to other companies with whom they have good relationships.

4. Governments becoming more involved in trade

Governments may look closely at supply chains as a matter of national security. If this continues, the intervention of the government in sourcing and trade of materials and services may become a big challenge for supply chain professionals. This trend has already been amplified due to the war between Ukraine and Russia.

5. Empathy in negotiation

The days when only one party must gain the best benefit are over. Today, if we want to be able to land a deal, we must put ourself first in their shoes.

The key to a successful negotiation is that we understand the other party which we can do by knowing empathic negotiation design.

6. The evolving role of The Chief Procurement Officer (CPO)

The role of the Chief Procurement Officer (CPO) continuously evolves through the years. CPO is no longer an operational function. It is a strategic advisor who helps to shape the business, especially in tough times. The pandemic exposed holes in businesses with their processes, policies, supply chains, and resiliency. Therefore, CPOs must focus on driving technological innovation to improve reliability, transparency, and efficiency in supply chains.

7. Circular supply chains

A circular supply chain will soon replace the old linear supply chain where manufacturers refurbished used products for resale due to the rising cost of materials and to help the environment recover from waste.

8. Trade security and the continued rise in prices

Many experts expect prices to continue increasing which makes the economic outlook for most of the world rough in 2023. Many industries can still feel the effect of supply chain disruptions during the global shutdown due to COVID-19 which has gotten worse because of the war between Ukraine and Russia.

9. Integration of technological advancements

Artificial intelligence (AI) and automation are widely used in a range of industries nowadays to streamline their processes. It has been around for decades but has continued to be upgraded which makes the tasks easier.

AI uses machine learning to make decisions on its own without guidance from a human. Thus, it can be used for automated supply chain tracking in the years to come to reduce errors and streamline the supply chain of a business.

Additionally, blockchain is currently cited as one of the most progressive technologies even if it is often associated with digital securities.

10. Higher focus on online security

As many processes of a business are being moved into the digital world, the company's valuable data is left vulnerable to threats like hackers. According to a survey by PwC, cybercrime is the biggest fraud that many businesses face today.

11. Time for Training

For the last two years, there has been a huge number of employees leaving their companies which they call "The Great Resignation". Due to this, many companies promoted high-performing individuals in order to retain them.

A recent poll by Gartner found that the number one priority of CPOs in 2022 and the years to come is talent acquisition. The war for talent is on and companies will try their best to get you hired if you perform well.

In Europe, IFPSM had first face to face meeting after pandemic in March 2023 in Brussels offering members opportunity to collaborate and to discuss about trends in European countries. I am particularly pleased with sharing best practices sessions between members from Europe. After regional meeting in Brussels we had three virtual meetings with an excellent participation rate and sharing best practices from Finland, Portugal and Israel presenting eService, EIPM awards and IFPSM Program Accreditation Standards.

In global IFPSM network we have 24 association members from Europe therefore I am extremely happy and proud to be part of this community and I count on all of you and your contribution to making out IFPSM as the best forum to exchange projects, ideas and best practices from procurement community.

The World Summit 2023 of the International Federation of Purchasing and Supply Management, organized in collaboration with ADACI, the Italian Association of Procurement and Supply Management, will be held this year in Europe, in Florence on 22 and 23 September 2023. It represents the world's most exclusive procurement and supply management forum and the ideal venue for the exchange of knowledge and best practices between both public and private operators.

I am looking forward to meet all of you and to have opportunity to broad our knowledge about procurement and supply chain benchmarking, international network, culture and upper-level trainings.

I would like to thank you all for your support, to the IFPSM office, Mr. Markku Henttinen and Mrs. Saana Rantanen, ADACI - the Italian Association of Procurement and Supply Management team who did great job with preparation of World Summit 2023 and all European and IFPSM Board members for their collaboration.

Since its foundation in 1968, ADACI has been a qualified cultural and professional point of reference for those who work and do research in procurement, supply management, materials planning, logistics and facility management; dynamic and strategic functions that ensure a considerable contribution to the company's competitiveness. Founding member of the International Federation of Purchasing and Supply Management (IFPSM), ADACI is represented in its board and plays a proactive role in several activities and projects. To confirm its relevance, we recall that the first World Congress of the Federation was assigned to ADACI and was held in Venice in April 1977.

Now, IFPSM has once again chosen Italy for its 24th World Summit, which will be organized in Florence on 22 and 23 September.

Pursuant to law 4/2013, ADACI has been recognized by the Ministry of Economic Development (now Ministry of Enterprises and Made in Italy) as an association entitled to issue the professional qualification certificate for procurement professionals. In conjunction RINA (Accredited Italian Authority, specialised in various fields, including certification), it has issued a disciplinary for third-party certification for public procurement operators. In a few months both private and public procurement operators could also be certified according to UNI PdR (preliminary norm issued by the Italian Standardisation Body) whose preparation has been supported by ADACI.

Its '*vision*' and '*mission*' clearly illustrate who is ADACI and which are its main objectives.

Vision

To be the point of reference of the procurement and supply management community, contributing to the appropriate management of resources, innovation and value creation, in compliance with the principles of the 2030 Agenda for sustainable and inclusive development.

Mission:

- Promote research and development in collaboration with the academic world, organize events and encounters to analyze the geopolitical context, discuss business models and exchange best practices.
- Promote continuous learning and qualification standards in the areas of interest, taking into account the specific economic and social environment and the evolution of markets and technologies.
- Promote the full recognition of the functions it represents in the business, academic world and opinion makers in general.

Partners and operational network

ADACI has about 1,300 members distributed in six multi-regional sections (Centre, South and Islands - Emilia Romagna e Marche - Lombardy and Liguria - Piedmont and Valle d'Aosta - Tuscany and Umbria - Tre Venezie), but its operational network involves several thousand people.

Major conferences and events

Negotiorum Fucina	The annual summit of the association. Two days of presentations and roundtable discussions.
CPO Lounge Community	The annual meeting of the CPOs, during which P&SCM executives meet and discuss.
ADACI Opportunity	The agora where buyers and sellers meet and ADACI supports the most qualified companies.
ADACI Magister	The event during which representatives of the academic world present new business models and the results of their research.
SMART ADACI	An initiative promoted by ADACI, in collaboration with the academic community, focused on research and publication of class A Papers.
ADACI PA	Meetings focused on public procurement key issues.
ADACI Workshop	Regional workshops on the trend of commodity prices and markets.
University Campus	Training and information activities for students close to graduation.
University Masters	Collaborations with: Polimi, the Graduate School of Management of Milan, universities of Udine, Rome Tor Vergata, Pisa and Bologna.

IFPSM Members: *Europe*

ABCAL - Belgian Association of Purchasing, Logistics and Supply Chain Professionals

Foundation Date: **1958**

ABCAL is a Belgian association for executives and professionals in purchasing and logistics. It offers networking, training, and knowledge-sharing opportunities to promote excellence and innovation in procurement and logistics management.

President: **Emmanuel Stenier**	Professional Certification	Procurement Diploma (DAP - IFPSM PAS accredited training) - Transversal Supply Chain Management (PITRASC) - Advanced Purchasing Negotiation (SPM) - Logistics Diploma (DAL)
Members: **400**		
Email: info@abcal.org	Main Event	JCAL (Purchasing, Logistics and Supply Chain Management Day).

AERCE - Spanish Association of Purchasing, Contracting and Supply Professionals

Foundation Date: **1981**

AERCE represents the interests of professionals and Purchasing, Contracting and Supply departments in Spain, both from private companies or organizations and from Public Administration Entities and Bodies. Its mission is to promote the development of a sustainable purchasing function by driving innovation in supply chain management and creating value through the search for excellence.

President: **Gonzalo Fornos**	Professional Certification	*Purchasing Expert - Advanced Purchasing Management - Purchasing Management Executive Master in Purchasing Management - The Centro Superior de Estudios Universitarios La Salle certifies the training modules of AERCE, so that the training is offered with the possibility of obtaining a university degree.*
Members: **7,000**		
Email: admmad@aerce.org	Main Event	Events and networking.

APCADEC - The Portuguese Association for Purchasing and Materials Management

Foundation Date: **1964**

APCADEC is a non profit organization that congregates procurement and supply chain professionals promoting the knowledge around Procurement and Supply Chain topics, a strong network, training and events. Aims to strengthen the skills of the associates, bring a more strategic view around procurement, contribute to the growing ethic of procurement activities in Portugal through the creation of the first Procurement Ethic Code (already subscribed by a significant number of Portuguese companies), increase the networking and best practice sharing between Procurement professionals and give visibility on the main trends in the market.

President: **João Correia Botelho**		
Members: **450** *(30 are company)*	Professional Certification	Professional training actions. Connection to the Universities in the field of the post-graduation studies and certification of the graduated professionals. Agreement with EIPM and Top Portuguese Business Schools.
Email: mail@apcadec.org.pt	Main Event	Seminars, conferences, webinars and network events.

BME - German Association of Supply Chain Management, Procurement and Logistics

Association for Supply Chain Management, Procurement and Logistics

Foundation Date: **1954**

BME is the leading procurement association and network for those responsible for purchasing, supply chains and logistics in Germany, with around 90 employees. The purchasing volume by the BME members amounts to around 1.25 trillion euros annually (aro 1/3 of German GDP). More than 300 voluntary members are active in the 38 regional committees and +400 companies are involved in over 25 specialist groups of the association. The BME is currently focusing on: Sustainable Procurement, Digital Supply Chains, Mobility Transition, Modern Purchasing Organisations, Public Procurement and Global Supply Chains.

Members: **9,750** *in 38 regions* (+ **1,100** young professional)	Professional Certification	**Certified Procurement Manager, Certified Procurement for SME.** Various certifications in compliance, sustainability and innovation in procurement.
Email: info@bme.de	Main Event	The annual BME-Symposium in Berlin (r.d. 1,200 participants). In addition, there is a network with B2B matchmaking in Europe, Asean, China and worldwide.

Gundula Ullah
BME, Chairwoman of the Board

Helena Melnikov
BME, CEO

Olaf Holzgrefe
BME, Head of International & Affairs

Considering the historical role of BME in the establishment of the first international Organisation of purchasing and in the foundation of IFPMM, we devote it a special tribute:

***1958 Dusseldorf** - BME promoted the establishment of the EFP (European Foundation of Purchasing).*

***1974 London** - BME is the key founder member of IFPMM (currently IFPSM) and the German Hans Ovelgönne is elected founder President.*

***1982 Dublin** - Past President Hans Ovelgönne made a fund available to IFPMM for advanced research in procurement and materials management.*

IFPSM Members: *Europe*

Austrian Federal Association of Purchasing, Materials Management and Logistic

BMÖ is an autonomous and non-political federation established under Austrian Law to strengthen the profession of Purchasing & Supply Chain Management in the economic and educational system and to satisfy the needs of organisations in the area of Procurement, SCM, Materials Management and Logistic, both in the public and private sector.

Foundation Date: **1998**		
President: **Stefan Braun** *CEO:* **Heinz Pechek** *Members:* **165** *company* **16** *personal*	**Professional Certification**	**BMÖ–Academy** (with approximately 130-150 training days a year) ***Programme:*** Professional Strategic Purchasing and Supply Chain Management in cooperation with Middle Sex University London and KMU-Academy Linz.
Email: sekretariat@bmoe.at	**Main Event**	Austrian Annual Conference in Purchasing - Three/four other conferences per year.

CNA - National Purchasing Council

CNA is the reference association for the Purchasing and External Resources professions; a network of sharing, expertise, professional meetings and proximity for its members (Purchasing Directors and managers, buyers and consultants throughout France), network of enthusiasts, ambassadors of values. CAN created the "Responsible Supplier Relations Charter" with the aim of raising awareness among economic players of the issues inherent in responsible purchasing and the quality of customer-supplier relations.

Foundation Date: **1944**		
President: **Jean-Luc Baras**		
Members: **18,000** *in 11 regions*	**Professional Certification:**	The Higher School of Supply (ESAP)
Email: contact@cna-asso.fr	**Main Event**	Around 200 national and regional events (Purchasing Universities, Workshops, Plenary conferences, Public Procurement Forum, etc.)

EIP – Hellenic Institute of Purchasing

EIP is the Hellenic Non-Profit, Non-Political, Non-Union Association with the purpose of Research and Study, Presentation and Promotion of modern Scientific Methods, Measures, Systems and Mechanisms as well as the developments of international practice for the promotion, development and more efficient operation of the vital sector of Purchasing, Procurement and Supply Management of Organizations, Businesses and Legal Entities of Public and Private Law.

Foundation Date: **1978**		
President: **Ignatios Michailidis** *Members:* **85** *(25 are company)*	**Professional Certification**	**CSM** - *Certificate in Supply Management* **CL** - *International Logistics Certification*
Email: info@hellenicsupply.org	**Main Event**	National Conference Procurement & Supply Management

EIPM - European Institute of Purchasing Management

EIPM is at the intersection of the business and the academic worlds. Currently with branches in Geneva and Shanghai and partnerships in Brazil, India, Mexico, North America, Poland and the United Arab Emirates, the Institute has developed a complete range of solutions to meet the training and development needs of its large base of international clients in all sectors of industry and service. With a wide geographic coverage, providing solutions to companies across four continents, EIPM's multinational staff and international network allow EIPM to organise educational programmes all over the world, balancing global objectives and local requirements. EIPM publishes regularly, notably the EIPM Value Creation Observatory, the EIPM Journal of Supply Excellence and the book Global Industrial Trends. The Faculty is composed of prominent professors, consultants and executives of leading companies from different sectors. EIPM maintains a dedicated customer service team, responsive to individual and organisations' needs.

Foundation Date: **1990**

Founder and President: **Bernard Garcia**

Research & MBA Director: **Hervé Legenvre**

Email: info@eipm.org

Professional Certification	*EIPM Certification For Newcomers - EIPM Certification for "Cat-man" & Lead Buyers EIPM Certification for Managers - Executive Diploma in Purchasing - Executive MBA in Partnership with IEDC*
Main Event	Workshops & Webinars - CPO Round Table - CPO Breakfast - EIPM Annual Purchasing Conference

FZUP – Federation of Purchasing and Supply Management - Russia

FZUP is an Interregional Trade Union of Supply Workers aimed at the development of departments of organisations, business processes, specialist, from performing the functions of cost reduction to achieving the functions of creating added value.

Foundation Date: **1968**		
President: **D.N. Lapin** *Members:* **209** *(14 are company)*	**Professional Certification**	**CSMP** - *Certified Supply Management Professional*
Email: info@fzup.ru	**Main Event**	*N/A*

IFPSM Members: *Europe*

HALPIM – Hungarian Association of Logistics, Purchasing and Inventory Management

Foundation Date: **1991**

President: **Péter Horváth**

HALPIM considers supply chains as an end-to-end, integrated process. HALPIM's members come from various industries and functions, from procurement, supply chain management, production to inventory management, logistics, warehousing. The association's main goal is to provide a platform for networking, knowledge development, and information sharing.

Members: **1,200**	**Professional Certification**	Modular logistics training system.
Email: logisztika@logisztika.hu	**Main Event**	Annual HALPIM Conference and Procurement Conference, Supply Chain Day in Hungary.

HUND- Croatian Association of Purchasing

Foundation Date: **2004**

President: **Mirela Senica**

HUND is non-profit organization, gathering procurement professionals in Croatia with the aim of promoting the procurement profession within the business and social community, exchanging experiences and best practices in the domain of procurement. The association was conceived as a central place for connecting procurement professionals from various branches of activity, both from the private and public sectors, in order to improve their knowledge, competences and skills in the field of procurement, but also to enable them to build a business network with other procurement professionals from Croatia and abroad.

Members: **+ 100**	**Professional Certification**	*N/A*
Email: info@hund.hr	**Main Event**	Croatian Annual procurement conference and 1-2 quarterly events

Integra Technology School

Foundation Date: N/A

Managing Director: **Susana Olivera Oficina**

Email: informacion@integratecnologia.es

Integra Technology School is a Business School specialized in Higher Education, with the mission to train professionals and leaders of national and international companies through superior programs with a focus on applying knowledge to the business environment. Integra Technology School together with UDIMA, the distance university of Madrid, want to contribute with a comprehensive training for the entire career of the leader in the field of Purchasing and Logistics, guiding him to respond to the challenges of the sector. For this, they have created a School of Comprehensive Purchasing and Logistics Supply Chain, with a training model based on theoretical content, which provides complete knowledge of each specialty, a group of teachers who each lead their subject from experience interacting with Through use cases and practical examples, achieving that the student ends with knowledge, experience and confidence to lead any area in any organization.

Professional Certification:
Master in Strategic Purchasing Management and Management - Master in Integral Logistics and Purchasing Supply Chain Management Expert in Strategic Purchasing Management - Expert in Purchasing Management Functions - SAPS/4HANA Sourcing and Procurement

Main Event: Free Events, Webinars and Masterclass.

IPLMA - Israeli Purchasing Logistics Management Association

Foundation Date: **1962**

President: **Gil Zefoni**

IPLMA brings togheter executives and managers from all areas and levels of the purchasing, materials management, supply chain, and logistics fields. IPLMA is a public, non-profit, volunteer-based association, a network of purchasing executives, supply managers, material management, and logistic managers.

Members: **809**	**Professional Certification**	**PAS (CPM)** *Certified Purchasing Manager* **PAS (APLP)** *Accreditation of the Accredited Purchasing, Logistics, and Warehouse Practitioner*
Email: iplma@iplma.org.il	**Main Event**	Annual Israeli conference in purchasing and logistics.

LOGY – Finnish Association of Purchasing and Logistics

Foundation Date: **1957**

CEO: **Markku Henttinen**

Members: **5,000** *individual*, **360** *corporate*

LOGY, a non-profit association of individuals and legal entities, is on a mission to elevate Finnish procurement and logistics practices worldwide. By providing knowledge to members (individuals and organizations), fostering innovation and collaboration, LOGY contributes to the growth and prosperity of not only the Finnish economy but also societies globally.

Professional Certification:
Procurement Operational Basis - LOGY's Purchase License (Level 1) - Procurement keys and tools - LOGY's Procurement Professional License (Level 2) - Leadership and Development - LOGY's Procurement Strategic Professional License (Level 3) - Operational basis of Supply Chain Management - LOGY Logistics License (Level 1) - Supply Chain Keys and Tools - LOGY's Supply Chain Management Professional License (Level 2) - Managing and Developing the Supply Chain - LOGY's Supply Chain Management Strategic Professional License (Level 3)

Email: yhdistys@logy.fi	**Main Event**	Annual logistics and procurement conference LOGY Conference .

IFPSM Members: *Europe*

MINTEC

Foundation Date: **1982**
President: **Randall Beard**
Email: sales@mintecglobal.com

Mintec enables the world's largest food and manufacturing brands to implement more efficient and sustainable procurement strategies. It does this through a cutting-edge SaaS platform, Mintec Analytics, which delivers market prices and analysis for thousands of commodities, food ingredients and associated materials. The data and tools empower customers to understand prices better, analyse their spend and negotiate with confidence.

NEVI – Dutch Association for Purchasing Management

Foundation Date: **1956**
President: **Siep Eilander**
Members: **6,500**
Email: info@nevi.nl

Nevi is the Dutch knowledge network for Procurement, Contract and Supply Management, committed to raising the purchasing profession to a higher level for individuals, organizations and society.

Professional Certification	Certified programs including exam and official industry recognized nevi diploma: **Nevi 1** and **Nevi 2** (both for private and public sector) *Nevi Procurement Management Program / Nevi Procurement Leadership Program* *Nevi Contract and Supplier Management / Nevi SRM*
Main Event	CPO-summit - Nevi University Procurement Experience - Nevi Healthcare Congress

Positive Purchasing

Foundation Date: **2003**
CEO: **Jonathan O'Brien**
Email: team@positivepurchasing.com

Positive Purchasing provides world leading digital platforms, tools, training and consulting for strategic procurement and negotiation to organizations around the world. They offer specialist programs in Category Management, Supplier Relationship Management, Negotiation, The Buyer's Toolkit and Sustainable Procurement, each of which is built upon proven methodologies developed over the last 20 years.

A number of courses hold the IFPSM: Programme Accreditation Standard (PAS) and count as credit towards the Positive Purchasing Master Practitioner in Strategic Procurement programme. The online instructor-led courses also hold Continual Professional Development (CPD) accreditation, these include Category Management, Supplier Relationship Management, Red Sheet® Negotiation, The Buyer's Toolkit, Sustainable Procurement and Finance for Procurement Professionals.

Procure.ch - Trade Association for Purchasing and Supply Management Switzerland

Foundation Date: **1955**
President: **Adrian Jungo**
CEO: **Andreas Kyburz**
Members: **1,900**
Email: kyburz@procure.ch

The Trade Association for Purchasing and Supply Management accompany procurement employees at industrial, trading and service companies throughout their professional careers. Its focus is on using ongoing training and excellent networks to equip purchasing experts for the challenges of their daily work.

Professional Certification	***Purchasing Manager with federal diploma IFPSM Global Standard***
Main Event	Annual Conference in Bern (May). Over 50 Networking Events in Switzerland.

PROLOG - Estonian Supply Chain Management Association

Foundation Date: **1999**
President: **Tõnis Hintsov**
Members: **182** *(52 are company)*
Email: info@prolog.ee

PROLOG is a voluntary association of natural and legal persons, the purpose of which is to promote the management of purchasing, procurement and supply chains, the continuous improvement and development of the professional skills of the members of the association and, through this, the improvement of the economic life and social sphere of Estonia.

Professional Certification	***Supply Chain Academy***
Main Event	Supply Chain Conference

PSML – Polish Supply Management Leaders

Foundation Date: **2002**
CEO: **Mariusz Gerałtowski**
Members: **412** *(37 are company)*
Email: biuro@psml.pl

PSML is a non profit organization representing the interests of Polish supply chain, logistics and procurement managers, acting to create a supply chain competence center in Poland on the scale of Europe. Working with partners from various environments, it creates and promotes good business practices and, in cooperation with universities and business, conducts intensive activities for the development of competences and human resources.

Professional Certification	IT Dialogue Academy - Academic Programme: Postgraduate studies at Kozminski University - Top Young 100 Program
Main Event	PROCON POLZAK - Top Young 100 Conference

Members: *Europe*

SILF - Swedish National Association of Purchasing & Logistic

Foundation Date: **1956**

President: **Lovisa Söderholm**

Silf Competence is Sweden's and the Nordic region's leading training provider in purchasing, logistics, public procurement, business negotiation and law. Silf offer open trainings, licenses, entire certification programs, business academies and consulting services for both individual and organization's skills and career development.

Members: **4,000** *individual* **300** *corporate*	**Professional Certification**: **CISilf** *Certified Buyer* – **CUSilf** *Certified Purchaser* - **EJLog** Certified Logistics **ESLog** Certified Logistics - *Procurement Leadership Program*
Email: silfonline@silf.se	**Main Event**: Annual Supply Chain Summit

SAPPP - Serbian Association Public Procurement Professionals

Foundation Date: **2012**

President: **Stevan Radunović**

SAPPP is a non-governmental and non-profit association, established for an indefinite period to achieve goals in the field of public procurement. The objectives of the Association are to promote the development and improvement of the profession, knowledge, experience, skills and good practice, as well as civil and professional influence in the field of public procurement.

Members: **207**	**Professional Certification**: *Certificate of Public Procurement Officer*
Email: office@upjn.org.rs	**Main Event**:

SSCPA – Serbian Supply Chain Professional Association

Foundation Date: **2016**

SSCPA is a non-profit, non-governmental professional association of professionals in the supply chain (planning, procurement, logistics, production, customer service, project and innovation management).

President: **Goran Popovic** *Members:* **260** *(80 are company)*	**Professional Certification**: *N/A*
Email: office@supplychain.rs	**Main Event**: Regional Supply Chain Forum

TÜSAYDER - Association of Purchase Professionals and Managers - Turkey

Foundation Date: **2012**

President: **Meric Atalay**

TÜSAYDER contributes to the rise of the purchasing profession in Turkey, within the framework of a sustainable and ethical purchasing approach. Furthermore, the association is focused to promote the creation of highly productive, competitive institutions and organizations by ensuring the professional development in national and international cooperation.

Members: **763** *(13 are company)*	**Professional Certification**: Tusayder Academy Education
Email: info@tusayder.org	**Main Event**: Annual Purchasing Summit

TÜSMOD - The Turkish Association of Procurement and Supply Chain Management

Foundation Date: **2019**

President: **Gürkan Hürylmaz**

TUSMOD is unique high non-profit organization, focused to Purchasing and Supply Chain Management and applied to be chamber of the profession. It runs the IFPSM PAS certificate program together with top universities and determines the TPSCM professional title criteria. TÜSMOD collaborates with relevant government institutions for import strategies.

Members: **300**	**Professional Certification**: IFPSM PAS & TPSCM - Academy: PSCM with Bosphorus University
Email: Info@tüsmod.org	**Main Event**: CPO Türkiye Summit

ZNS - Purchasing Association of Slovenia

Foundation Date: **2003**

President: **Marina Lindič**

ZNS is a non-profit, non-political, independent oriented National Organization, based in Slovenia that aims to develop a community of procurement, finance, manufacturing, IT, and executives a common venue to share ideas and best practices to address the needs and concerns of supply management professionals in Slovenia. **Dr Peter Kraljič is an Honorary Member of ZNS**

Members: **370**	**Professional Certification**: Seminars on topical purchasing issues
Email: info@zns-zdruzenje.si	**Main Event**: Every year: Regional Purchasing Conference and Purchasing Summit

Cai Jin
Vice President and AP Regional Chair, IFPSM

Message from the IFPSM Asia-Pacific Regional Chair

Reflecting on Our Journey, Shaping The Shared Future

As the Vice President and Asia Pacific Regional Chair of IFPSM, it is with great pleasure that I present this summary of our strategy, activities, and accomplishments in the region leading up to the highly anticipated IFPSM World Summit, set to be held in September in the beautiful city of Florence, Italy.

Over the past year, our region has focused on several key areas to advance the goals of IFPSM and promote excellence in purchasing and supply management. Through concerted efforts and the support of our dedicated members, we have made significant progress in these areas.

First and foremost, collaboration has been at the forefront of our initiatives. We have actively engaged with regional member associations to foster knowledge sharing and best practices. Several successful events, including World Summit, AP regular meetings, AP annual conferences, and forums have taken place, creating opportunities for members to exchange ideas, build relationships, and promote the growth of our field.

Our commitment to professional development has been unwavering. We have promoted Global Standards tailored to the specific needs of our members. By enhancing their skills and knowledge, we aim to empower professionals with benchmark certificate recognized in IFPSM network as well as in logistics and procurement fields.

In line with our focus on innovation, we have encouraged the adoption of e-service platform in IFPSM network. Through eservice platform we may reach huge potential markets, and promote our products through IFPSM networks, which is also the IFPSM advocate in procurement and supply chain.

Lastly, we have placed a strong emphasis on advocating sustainable practices across the region. Our region has consensus future procurement and supply chain will be shaped by digitalization, resilience and sustainability goals.

The main events in our region have been a testament to our commitment and progress. We have hosted World Summit in Bali, Indonesia and AP regional annual conferences in Xiamen, China, that have attracted industry leaders and experts from around the world, providing a platform for knowledge exchange and thought-provoking discussions. These events have covered a wide range of topics, including supply chain resilience, digital transformation, risk management, and sustainability.

Looking ahead, we are eagerly preparing for the IFPSM World Summit in Florence, Italy. This flagship event will bring us together to explore emerging trends, share insights, and shape the future of our profession. We are excited to contribute to this prestigious gathering by showcasing our region's achievements, best practices, and innovative approaches.

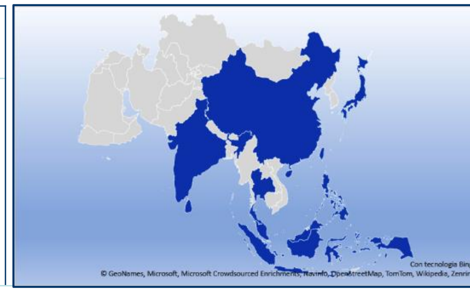
I am proud of the accomplishments of AP region as well as IFPSM, which we have achieved together. By prioritizing collaboration, professional development, innovation, and sustainability, we have fostered a vibrant and dynamic community of procurement and supply management professionals in our region. Together, we are making significant strides towards advancing our field and shaping its future.

I look forward to the IFPSM World Summit in Florence, where we can further showcase our region's achievements and collectively work towards a more prosperous and sustainable future.

Marco Polo Bridge over the Yongding River, near Beijing

IFPSM Members: *Asia Pacific*

CFLP - China Federation of Logistics & Purchasing



Foundation Date: **2000**

CFLP is the most authoritative non-profit organization in China that promotes the development of the logistics, purchasing, and supply chain fields through research, training, standards, and related services. CFLP is also responsible for publishing the Chinese PMI. CFLP collaborates with partners worldwide to promote professionalism and best practices in the industry.

President: **He Liming**

Professional Certification: *Professional Proficiency Certificate of Purchasing Practitioners (**PPCPP**) - Certified Supply Chain Professional (**CSCP**)*

Members:
700 *industrial groups*
300 *individual*

Academia Programs: CFLP have collaborations with academic institutions and offer academic programs related to logistics and purchasing. And China Society of Logistics (CSL) is under the CFLP, which serves as a platform and provides CFLP with professors, scholars, and academia who specialize in the purchasing and supply chain domain.

Email: shxiao@aliyun.com

Main Event: Over 100 conferences and seminars organized by CFLP every year, and including serval global and international events, such as Global logistics technology conference, Global cold chain logistics summit, Logistics academy annual conference and Logistics entrepreneur annual conference.

IAPI - Association of Indonesian Procurement Experts

Foundation Date: **2008**

IAPI want to become a vehicle and forum for Indonesian Procurement Experts to improve capabilities and exchange information and cooperation between members to make a positive contribution to the welfare of society in the field of procurement of goods and services. Mission: increasing national capacity through the procurement of goods and services; building synergies and partnerships with all stake holders to develop the professionalism of goods/services procurement experts in Indonesia.

President: **Sonny Sumarsono**

Members: **492**

Professional Certification: ***CPSp*** *- Certified Procurement Specialist -* ***CPOf*** *- Certified Procurement Officer*

Email: www.iapi-indonesia.org

Main Event: Procurement National Meeting.

IIMM - Indian Institute of Materials Management

Foundation Date: **1960**

IIMM is the only Indian Professional body representing professionals from Procurement: a wide spectrum of professionals engaged in various facets of materials management, responsible for planning, sourcing, control, and distribution of materials and services (Private and Public Sector organizations).

President: **H. K. Sharma**

Members: **9,000**

Professional Certification: *Graduate And Post Graduate Diploma In Materials Management - Post Graduate Diploma in Logistics & SCM - Diploma in Supply Chain Management, Professional Diploma in Contract Management, Professional Diploma in Stores Management, Professional Diploma in International Trade.*

Email: admin@iimm.org
iimmnhq55@gmail.com

Main Event: NATCOM: yearly two-day national event of Convention / Technical seminars, deliberating on the latest trends in Materials and Supply Chain Management.

IPSHK – The Institute of Purchasing & Supply of Hong Kong

Foundation Date: **1973**

The main objectives of the Institute are to promote professionalism in the purchasing and supply disciplines and to bring into association those engaged in the professions for the advancement of study and practices in the purchasing and supply management functions.

President: **Ir Dannies Y.K. Ho**

Members: **1,300**

Professional Certification:
IPSHK's License: **L1** - *Purchase License (Procurement Operational Basis)*
L2 - *Procurement Professional License (Procurement keys and tools)*
L3 - *Procurement Strategic Professional License (Leadership and Development)*

Email: admin@ipshk.org

Main Event: Workshop and conferences

ISMM - Institute of Supply and Materials Management - Sri Lanka

Foundation Date: **1972**

ISMM is the leading specialized institution which fosters the professional development of Purchasing and Supply function in Sri Lanka. Recognition of its expertise led the ISMM to obtain the Membership of the Organization of Professional Associations of Sri Lanka in 1976 and the ISMM was incorporated by the Parliament by Act No. 3 of 1981.

President: **Jayantha Gallehewa**

Members: **1,100**

Professional Certification: *Graduate Diploma in Purchasing and Supply Chain Management - Advanced Diploma in Purchasing and Logistics Management - Advanced Diploma in Logistics and Warehouse Management - Certificate Course in Store Keeping*

Email: info@ismm.edu.lk

Main Event: National Supply Chain Day of Sri Lanka (24th October every Year), National Supply Chain Excellence Awards (Best Supply Practicing Organization of the Year, Best Supply Chain Professional of the Year), CEO Forums, International Seminars, Annual General Meeting.

Members: *Asia Pacific*

JMMA - Japan Material Management Association

Foundation Date: **1958**
President: **Michio Nakano**
Members: **150** *(10 are company)*
Email: info_jmma@jmma.gr.jp

Jmma aims to promote the rationalization of management in the fields of material planning, purchasing, outsourcing, inventory, warehousing, transportation, value engineering, and related legal studies, thereby contributing to the prosperity of the industrial society and the increase in corporate profits. With corporate executives, managers and practitioners of each department as the core, and with the support and guidance of academic experts and government agencies, etc., JMMA will investigate related issues, and also focus on education and enlightenment in each field.

Professional Certification: "Materials manager" is a consultant qualification officially registered with the All Japan Management Federation.

MIPMM - Malaysian Institute of Purchasing and Materials Management

Foundation Date: **1977**
President: **Yang Chor Leong**
Members: **208** *(26 are company)*
Email: admin@mipmm.org

MIPMM is a non-profit, self sustainable institution focused on promoting and upgrading educational standards of the profession by providing training and certification to meet the increasing demand for qualified and competent workforce of the industry. The Institute has shown significant progress during its existence of nearly two decades and has fortified its role as the leading institution in the field of purchasing and materials management. MIPMM is managed by Strategic Alliance Resources (Asia Pacific).

Professional Certification: *Certified Procurement Practitioner (CPP) & Certified Halal Supply Chain Professional (CHSCP)*

Main Event: Bi-Annual SCM Summit.

PASIA - Procurement and Supply Institute of Asia

Foundation Date: **2004**
Chairman: **Charlie Villasenor**
Email: info@pasia.org

PASIA is the largest and premier association for Supply Chain, Procurement, and Logistics headquartered in Asia operating globally. PASIA delivers world-class training, certifications, conferences & events, research, membership, and corporate partnerships. While its solutions and implementation arm, PASIA Shared Services and TransProcure, an APICS Partner, are focused and strong on consulting, services and technology.

Professional Certification: **CSPP** *Certified Supply Planning Professional* - **CSSP** *Certified Strategic Sourcing Professional*
CWLP *Certified Warehouse and Logistics Professional* - **CISCP** *Certified Integrated Supply Chain Professional*

Main Event: Free Events, Webinars and Masterclass

PISM - Philippine Institute for Supply Management

Foundation Date: **1968**
President: **Charmaine Abueva**
Members: **300** *companies*
Email: jen@pism.org

PISM, the country's premiere professional association of supply management practitioners, is as a non-stock, non-profit organization. Driven by its mission, the organization has set up different commissions catering to the needs of its members namely, Events, Membership, Professional Development Center and Chapters & Linkages.

Professional Certification: *National Certified Professional: Purchasing - Demand and Replenishment - Customer Service and Logistics Operations / Certified Professional in Supply Management (**CPSM**)*

Main Event: Annual SUPPLYLINK Conference & Exhibits and timely Industry Group Forum

PSCMT – Purchasing and Supply Management Thailandia

Foundation Date: **1988**
President: **Akanit Smitabindu**
Members: **13,000**
Email: helpdesk@pscmt.or.th

PSCMT is an independent organization, not involved in any political or interest, with the purpose to be a center for disseminating knowledge about the procurement and supply chain profession. The association is committed to developing the procurement and supply chain industry of Thailand to advance with international standards.

Professional Certification:
CPS and **Adv CPS** - *Certified Professional in Purchasing and Supply*
CPSM - *Certified Professional in Supply Management*
TPQI Level - *Thailand Professional Qualifications (Logistics – Procurement)*

Main Event: Annual General Meeting

TASS - Taiwan Alliance for Sustainable Supply

Foundation Date: **2017**
Founding Chairman: **Shu-Shin (Steve) Lai**
Email: Steve.Lai@go-tass.org

TASS was initially chartered in providing the platform for the diversity of exchange expertises across the Environmental Protection, Academic and Industry related subjects. TASS commits to work closely together with Taiwanese supply chain partners in establishing the global recognised Green Supply Chain standard. TASS is not only enhancing the technical capabilities of information related techniques, but also fostering the competitive advantages in the leading-edge position for the entire Taiwanese semiconductor industries. TASS wishes to formulate the new green and environmental-friendly competences that the "Taiwanese Green Miracle" would be seen and recognised globally.

Richard Asante-Amoah
IFPSM Africa Regional Chair

Message by IFPSM Africa Regional Chair

Flashes On Africa

On assumption of my office at the beginning of 2023, I tried, from one side, to better understand the relationships between IFPSM and the member association of the region, analyzing, among others, the main activities carried out jointly, and from the other, I tried to analyse, in critical terms, what should be done or improved in the near future. Talking about the past, I deem useful to remember that the first African association, South Africa, joined IFPSM in 1975, one year after the foundation of the latter. Nigeria Joined the Federation in 1979 and Kenya and Uganda in 1980.
With reference to the main activities performed in the last 20 years, it is useful to mention:

- *The IFPSM council of Sun City of 2003 during which the Chinese Federation CFLP formally joined IFPSM.*
- *The World Summit held in Mombasa on 10-13 September 2019, whose basic theme was: 'Sustainable Procurement and Supply Chain Practices for the 21st Century'.*
- *The provision by Kenya, Nigeria, Tanzania and Ghana of vibrant professional training and exams. In addition, Tanzania and Kenya enjoy an IFPSM International accreditation enabling the students to be qualified for international jobs in Procurement and Supply Chain.*
- *KISM (Kenya) had the opportunity to work in collaboration with German companies and ITC of Geneva to support local firms and strengthening their supply chains for local and export trade. Other associations in Africa are expected do to something similar in the coming future.*
- *In the recent past, some universities in Africa, under the auspices of IFPSM, have engaged in joint Postgraduate/Doctoral Summer research programs with universities in Europe e.g University of Twente. Again,*
- *In the World Summit of Florence, under a specific request of some African associations, ADACI and IFPSM have arrange a Public Procurement Forum dedicated to the exchange of experience and expertise between African PSM Leaders and leading Italian, Indian and Israeli experts in public procurement.*

With reference to what has to be done or improved in next future, we should make all possible efforts in order to:

- *Create, with the support of IFPSM and possibly of some national or international authorities, new African associations of procurement and supply chain management, ensuring their proactive and professional programmes and activities within the local procurement community and economic system. Actually, IFPSM is scarcely present in Africa - 5 countries out of 54 - and too many buyers are still too focused on purchasing and less on supply chain management and logistics.*
- *The Africa story and situation are unique and we need to benchmark our strategies and business models with those of the most advanced countries, to improve our procurement and supply chain processes, ensuring the competitiveness of our companies and the continuous growth of our economies.*
- *We need to drive the demand for a stronger collaboration with some member associations of IFPSM, to the benefit of our regional associations, universities and SMEs.*
- *With the support of IFPSM we must concur in achieving the sustainability targets.*
- *Most of our products are competing with some local Institutes or Associations in Africa. As member of the Federation, we are supposed to be an umbrella body and therefore our context of operations should also reflect the federation ideas and international best practices.*

I take this opportunity to congratulate Volta River Authority a Power Generation corporation of Ghana and one of the most efficient Power Generation entity in Africa, McDan Group, a leading Sub-Saharan end-to-end Supply Chain entity, and all other entities who have honoured the IFPSM President's special invitation and recognition of excellence to attend this conference to be recognised. I want to wish all of us a great progressive conference and may the hospitality of Florence overwhelm us.

Long live IFPSM, Long Live IFPSM Africa.

Members: *Africa*

In the pictures below:

The leaders of the IFPSM African Associations

CIPSMN NIGERIA	CISCM GHANA	IPPU UGANDA	KISM KENYA	PSPTB TANZANIA
				
President Alhaji Jubrin Ado	*President* Richard O. Okrah	*Chairperson* Pelly R. Mugasi	*Chairman* John Karani	*Executive Director* Godfred Mbanyi

IFPSM Members: *Africa*

CIPSMN - Chartered Institute of Purchasing and Supply Management of Nigeria

Foundation Date: **1974**

President: **Alhaji Jubrin Ado**

CIPSMN vision is to excel as the National Reference point within the core competence of the purchasing and supply chain Management Profession in Nigeria. **CIPSMN** mission is to become the most preferred in Inventory Management and Physical Distribution, Development of local content, Wise spend management, Industrial and Commercial Outsourcing, Investment and Innovation, Promoting Impartiality, Absolute Transparency and Honesty. The motto of the association is 'Value for Money'.

Members: **5,000**	**Professional Certification**	*CIPSMN is the only Institute in Nigeria that is authorized by law to regulate training, examinations and practice of purchasing and supply chain management.*
Email: info@cipsmn.com	**Main Event**	Annual Conference

CISCM - Chartered Institute of Supply Chain Management of Ghana

Foundation Date: **2009**

President: **Richard O. Okrah**

CISCM is the Integrated (end-to-end) Supply Chain Management Professional body with global membership headquartered in Ghana, incorporated in 2009. Its focus is on the macro supply chain management - mindset and thinking, leadership and integration. Mission statement is to promote the recognition of end-to-end supply chain management through sound leadership, research, training, engagement and ethical professional service for sustainable development and growth. Core values: integrity, knowledge, effective application, honesty, dedication, service and safety. CISCM now is hosting the Africa Region Chairmanship for IFPSM.

Members: **1,010**	**Professional Certification**	*Continuing professional development - Competence based seminars and workshops*
Email: info@ciscm.org ciscmgh@gmail.com	**Main Event**	Annual investiture and induction ceremony - World supply chain week commemoration Women in supply chain annual conference - CISCM Recognition nigh Advocacies engagements on integrated supply chain management mindsets .

IPPU - Institute of Procurement Professionals of Uganda

Foundation Date: **2004**

President: **Pelly R. Mugasi**

Members: **300**

Email: ippu.uganda@gmail.com

IPPU is a professional body that was established to bring together both the public and private sector procurement and supply chain professionals in Uganda. Since 2005, various meetings and consultations between the Public Procurement and Disposal of Public Assets Authority (PPDA), the Ministry of Finance, the Planning and Economic Development (MOFPED) and other partners, led to the formation of a committee which was given the mandate to promote a local professional body. The organization's main objective is to prescribe, regulate the practice and conduct of members of the procurement profession and to promote procurement professional standards in Uganda.

KISM - Kenya Institute of Supplies Management

Foundation Date: **2007**

President: **John Karani**

Members: **4,825**

Email: admin@kism.or.ke

KISM is a national body for professionals in the practice of procurement and supply chain management. The Institute draws its mandate from the "Supplies Practitioners Management Act No.17 of 2007." This Act provides the legal framework within which the Institute is established and operates as a corporate body promoting learning, development of best practices, and application of the same to the practice of procurement and supply chain management.

Its mission Statement is to train, register licence, discipline and regulate supply chain management practitioners.

PSPTB - Procurement and Supplies Professionals and Technicians Board - Tanzania

Foundation Date: **1978**

President: **Godfred Mbanyi**

PSPTB established in 2007 by Parliamentary Act No. 23 is the successor of both the National Board for Materials Management (NBMM) founded in 1981 by Parliamentary Act No.9, and Materials Management Caretaker Committee (MMCC). MMCC founded in 1978 laid down foundation for professionalism which later gave rise to the birth of NBMM. Its mission is 'To oversee the development of Procurement and Supply Practices by Regulating the profession and conduct of professionals in order to achieve best value for money in Procurement and Supply Chain Management'.

Members: *N/A*	**Professional Certification**	Basic (2 levels) and Professional (7 levels) Stages - REGISTRATION OF EXPERTS, TECHNICIANS AND CONSULTING COMPANIES - Under the provisions of Act No. 23 of 2007
Email: info@psptb.go.tz	**Main Event**	Annual Professional Conference.

Cesar S. Leal Rodriguez

IFPSM Americas Regional Chair

Message from the IFPSM Americas Regional Chair

Aprocal - Mexico organize in Cancun Global Summit 2024

Presently, only Argentina, México, Colombia and Brazil are members of IFPSM within America´s region.

It is worth highlighting, that Argentina, Mexico and Chile were founders of IFPSM, and Canada and United States were members during many years.

While it is not clear why there is an apparent lack of interest on behalf of the associations, it is also certain that South American associations are generally very small, lacking enough funds and staffs, and that several countries do not have any association related to Purchasing / Supply at all.

In some cases, there are strict restrictions to make payments outside of the country, which makes impossible to pay fees to IFPSM.

It is also worth mentioning that the pandemic caused by COVID-19 had serious consequences on most Latin American economies, with strong negative growth during 2020 and 2021, and only now are beginning to recover.

In the case of Mexico, the downturn in 2020 was close to -8.2 % GDP.

Specifically, talking about Procurement & Supply Chain, it became clear that many companies had focused so much on efficiency / profitability, during the several years of relative stability, that any consideration about risk management was completely forgotten.

So, many supply chains collapsed and recovery was long and painful.

SOURCE:

https://es.statista.com/grafico/23135/paises-latinoamericanos-en-el-ranking-de-competitividad-digital/

https://datos.bancomundial.org/region/america-latina-y-el-caribe

Now, 2023, the focus remains in keep building resiliency, with high hopes that technology advances (particularly digitalization and Artificial Intelligence) will significantly help in the recovery; however, it is not quite clear exactly when and how these will take place.

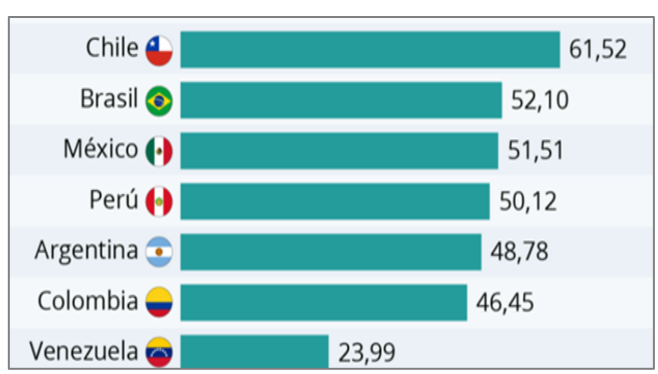
Within this context, we feel the Regional Chair should focus on developing stronger ties with Latin American associations, promoting integration as a region, looking for synergies and helping those less developed to join IFPSM to leverage their networking.

In the recent past, Aprocal has homologated its certification procedures with Colombia and Argentina.

One step in this direction was the selection of www.aprocal.org.mx Mexico to organize Global Summit 2024 in Cancun. This will be second time for Mexico, who organized the event in 1979.

Our aim is to develop stronger networking within Americas associations and actual members of IFPSM plus provide knowledge sharing on best practices and updates on trends within Sourcing.

For example, is necessary to develop the digital competitiveness within Latin America, below the ranking 2020 as example.



IFPSM Members: *Americas*

AACAM - ARGENTINE ASSOCIATION OF MATERIALS PURCHASING AND MANAGEMENT

Foundation Date: **1953**

President: **CARLOS FERNANDEZ**

Members: **500**

Email: info@aacam.com.ar

AACAM is a non-profit association whose statutory purpose is to transmit, publish and share knowledge, experiences and key information on all matters of Purchasing, Contracting and Supply for institutions and companies. AACAM is a professional association that brings together purchasing managers from small, medium and large companies. Its main function is the promotion, dissemination and training of techniques and the application of adequate methodologies for correct and efficient management in the entire field of Purchasing, Contracting and Supply.

PROFESSIONAL CERTIFICATION	**CPP** – *Professional Certification in Purchasing*
MAIN EVENT	Annual Congress

ACOPC - ASOCIACION DE PROFESIONALES EN COMPRAS / PROCUREMENT PROFESSIONALS ASSOCIATION

Foundation Date: **2017**

Chancellor: **CARLOS TOBON**

Members: **+ 900**

Email: info@acopc.com.co

ACOPC promotes and encourages training, research, updating and dissemination of the best professional practices of the Strategic Purchasing and Supply function with international standards, as a generating center of profitability and efficiency in all businesses and companies throughout Latin America. ACOPC always seeks to raise the professional level and quality of employment of the Members of the Association.

PROFESSIONAL CERTIFICATION	**CPCA** - *Professional Certification in Procurement and Supply* *(5 levels: basic – under development – advanced – outstanding – excellent)*
MAIN EVENT	Annual Congress

APROCAL - ASSOCIATION OF PROFESSIONALS IN PURCHASING, SUPPLY AND LOGISTICS AC

Foundation Date: **1999**

President: **MARIO ANDRADE**

Members: **105** *(5 are companies)*

Email: aprocal@aprocal.org.mx

Aprocal is the organization that brings together, trains and certifies the skills of personnel in the areas of purchasing, supply and logistics of companies in Mexico, with the mission to contribute to increasing the competitiveness of companies through the professionalization of purchasing, supply and logistics functions, and to be the national authority in the establishment of performance standards in the areas of its competence.

PROFESSIONAL CERTIFICATION	***Diploma** in: Strategic Supply – Logistics - Public Contracting* **CPAM** - *Certified as a Procurement Professional* / **CEAP** - *Certified as a Public Procurement Specialist* / **CPLM** - *Certified as a Professional in Logistics* **CPCM** - *Certified as a Purchasing Professional*
MAIN EVENT	Annual Congress

CBEC - BRAZILIAN COUNCIL OF PURCHASING EXECUTIVES

Foundation Date: **2004**

President: **LISLEY PÓLVORA**

Members: **262** *(12 are industrial groups)*

Email: cbec@cbec.org.br

CBEC is a non-profit association with nationwide coverage, whose objectives are to promote the appreciation of the purchasing area by recognizing its strategic character, enabling the exchange of experiences and better practices among its members, consolidate the identity of the Purchasing area and encourage the practice of the highest ethical principles and efficiency in the exercise of the profession, in order to increase the competitiveness of companies.

PROFESSIONAL CERTIFICATION	**CPP** - *Certified Purchasing Professional* *(5 levels: basic – under development – advanced – outstanding – excellent)*
MAIN EVENT	Purchasing Competitiveness Forum - Purchasing Sustainability Forum - International Purchasing Congress

MILANO COLORI

MILANO COLORI è una società attiva nello sviluppo, importazione e distribuzione a livello Europeo di materie prime chimiche e ingredienti.



MILANO COLORI importa e distribuisce materie prime nei seguenti segmenti applicativi:

MATERIE SCIENCE

- Pitture e Vernici
- Tessile e Cuoio
- Materiali per Edilizia e Costruzioni
- Materie Plastiche, Poliuretani e Gomme
- Intermedi chimici e solventi

LIFE SCIENCE

- Personale care
- Cosmetica
- Igiene e Detergenza
- Nutrizione Umana ed Animale, Enologia

MILANO COLORI SRL
Via Monte Nevoso, 2 - 20095
Cusano Milanino (MI)

+39 02 91.83.993
sales@milano-colori.com
www.milano-colori.com

La società è nata nei primi anni 90 focalizzandosi inizialmente sulle materie prime chiave per i sistemi vernicianti per il settore Automotive con partnership con i primari player del settore. Nel corso degli anni MILANO COLORI ha ampliato le proprie collaborazioni con i principali produttori di materie prime chimiche estendendo i settori forniti e la gamma delle materie prime distribuite, diventando così uno dei più importanti distributori a livello europeo.

MiILANO COLORI opera attraverso due hub logistici in grado di fornire servizio per tutte le tipologie di materie prime chimiche, sia solide che liquide, offrendo anche la possibilità di riconfezionare o miscelare i prodotti secondo le specifiche necessità dei clienti utilizzatori. Il tutto nel rispetto dell'ambiente e delle normative in materia di sicurezza.

La società fornisce anche un servizio tecnico e di assistenza per lo sviluppo di nuove formulazioni al fine di supportare i propri clienti nello sviluppo e nella creazione di nuovi prodotti innovativi, anche attraverso i propri laboratori e la collaborazione con primari enti di ricerca a livello internazionale.

IFPMM (1974)

IFPSM (2004)

Camogli, 30 e 31 maggio 1988

ADACI, presieduta da **Giovanni Atti**, ha avuto il piacere di ospitare, nel 20° anniversario della sua fondazione, il Comitato Esecutivo ed il **15° Consiglio** dell'**IFPMM**, presieduto da **Hugo Salvisberg** *(foto sotto)*.

Camogli, 30 and 31 May 1988

ADACI, chaired by **Giovanni Atti**, had the pleasure of hosting, on the 20th anniversary of its foundation, the Executive Committee and the **15th Council** of **IFPMM**, chaired by **Hugo Salvisberg** *(picture below)*.

*Nella foto: **Hugo Salvisberg** (Presidente IFPMM), seduto senza giacca e, accanto verso destra, **Gudde Olsbro** (Segretario Generale uscente IFPMM) e **Albert A. Röösly** (Segretario Generale in carica) terzo e quarto seduti da sinistra: **Karl Panos** (Segretario Generale nel 1996-2003) e **Ken Snooks** (Presidente IFPMM nel 1990-1991) in piedi, dietro Hugo Salvisberg e GuddeOlsbro, con giacca nera: **Ashok Sharma** (Presidente IFPMM nel 1992-1993).*

*In the picture: **Hugo Salvisberg** (IFPMM President), sitting without jacket and, nearby to right, **Gudde Olsbro** (former IFPMM Secretery General) and **Albert A. Röösly** (IFPMM Secretary General) seated third and fourth from the left : **Karl Panos** (IFPMM Secretary General in 1996-2003) and **Ken Snooks** (IFPMM President in 1990-1991) standing, back to Ugo Salvisberg and Gudde Olsbro, with black jacket : **Ashok Sharma** (IFPMM President in 1992-1993).*

Origine e Sviluppo dell'IFPSM

*Questo articolo di **Giovanni Atti**, Past President di **ADACI** e membro del Board dell'**IFPSM**, riproduce in parte e integra il contenuto dello scritto di **Mike Taylor**[2]: **«IFPMM is 10-year-old»**, pubblicato dal **Giornale della Federazione** nel **1984** e riporta la sintesi dei fatti salienti della sua seconda decade di vita.*

Introduzione

Scopo del presente articolo è far conoscere alla comunità internazionale del procurement i principali eventi che hanno caratterizzato le origini e i primi vent'anni di vita della Federazione Internazionale degli Acquisti e Supply Management, nonché gli sforzi compiuti per far crescere un'organizzazione che avrebbe promosso nel tempo la conoscenza tra persone che esercitano la stessa professione, lo scambio di modelli e pratiche di business, la collaborazione nel campo della ricerca e sviluppo e il riconoscimento del ruolo del procurement in ambito aziendale, accademico e governativo. L'IFPSM è un'organizzazione internazionale indipendente, apolitica e senza fini di lucro. La sua storia è la storia di persone lungimiranti che vi hanno dedicato molto del loro tempo, convinte che la collaborazione, le sinergie e gli scambi informativi oltre i confini nazionali, avrebbero arricchito e fatto progredire la 'professione' e avrebbero contribuito alla crescita sostenibile del nostro sistema economico.

Le attuali tensioni geopolitiche stanno cambiando l'assetto del sistema economico globale. Le mutevoli alleanze stanno creando una nuova mappa globale delle relazioni economiche. Nel commercio globale[3] stiamo vivendo tre distinti cambiamenti: dalla dipendenza alla diversificazione, dall'efficienza alla sicurezza e dalla globalizzazione alla regionalizzazione delle forniture strategiche. Tutto ciò non significa limitare il commercio globale, ma lavorare assieme per renderlo più sicuro in contesti sempre meno prevedibili.

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[1] Fino al 7 Novembre 2004 l'acronimo della Federazione era IFPMM: International Federation of Purchasing and Materials Management.

[2] Mike Taylor è stato Segretario Generale della Federazione dalla sua nascita fino al 1981. Precedentemente era stato Direttore Generale dell'Institute of Purchasing and Supply inglese, di cui fu anche il primo Presidente dopo la fusione delle due preesistenti associazioni britanniche.

[3] Rif. A new global map: European resilience in a changing world. Discorso di Christine Lagarde, Presidente della Banca Centrale Europea, fatto al Peterson Institute for International Economics il 22 Aprile 2022.

Origin and development of the IFPSM

*This article, written by **Giovanni Atti**, Past President of **ADACI** and member of the Board of **IFPSM**, integrates and reproduces part of **Mike Taylor**[2] report: **«IFPMM is 10-year-old»**, published by the **IFPMM Journal** in **1984**, and presents a summary of the key events of the second decade of the Federation.*

Introduction

The purpose of this article is to make the international procurement community aware of the key events that characterized the origin and the first two decades of life of the International Federation of Purchasing and Materials Management, as well as of the efforts made to improve an organisation that would have promoted the knowledge among people practicing the same profession, the exchange of business models and practices, the collaboration in R&D, training and education, and the recognition of the role of procurement in business, academia and government. IFPSM is an independent, non-profit oriented and non-political international organisation. Its history is the history of forward-thinking people who have dedicated much of their time to it, convinced that collaboration, synergies and internationalisation would have enriched and advanced the profession and contributed to the sustainable growth of our economic system.

The current geopolitical tensions are changing the global economy. Shifting alliances are creating a new global map of economic relations. We are experiencing three distinct shifts in global trade[3]: from dependence to diversification, from efficiency to security and from globalisation to regionalisation of strategic supplies. All this does not mean restricting global trade. Rather we must work towards making trade safer in these unpredictable times, while also leveraging our regional strength.

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[1] Until November 7, 2004 IFPSM was denominated IFPMM: International Federation of Purchasing and Materials Management.

[2] Mike Taylor has been the Secretary General of the Federation from its foundation until 1981. He was previously Director General of the English Institute of Purchasing and Supply of which he had been the first President when the two professional associations in Britain merged.

[3] Ref. A new global map: European resilience in a changing world. Keynote speech by Christine Lagarde, President of the ECB, at the Peterson Institute for International Economics on 22 April 2022.

È quindi opportuno preservare, anzi rafforzare il funzionamento delle istituzioni multilaterali e ridare vigore alla cooperazione internazionale.

Leggendo lo scritto di Taylor, emerge chiaramente l'entusiasmo tipico della nascita e sviluppo di un organismo internazionale, unico nel suo genere. Questa passione e fervore sono oggi meno evidenti, anche perché molti sono i protagonisti nel mondo del procurement e molte sono le informazioni di dominio pubblico di cui ognuno può fruire in modo autonomo, senza far parte di un'organizzazione internazionale.

In aggiunta, le grandi strategie di produzione internazionale e di assetto delle supply chain globali dipendono in misura crescente dalle politiche economiche governative nazionali o di organismi internazionali quali l'Unione Europea e meno può dire in proposito una federazione. Molte associazioni o istituti godono inoltre di una struttura organizzativa complessa che li rende più autonomi rispetto al passato e spesso transnazionali. Il contesto è quindi cambiato, ma il ruolo dell'IFPSM nella gestione di progetti quali:

- la definizione di standard internazionali di formazione e di qualifica delle competenze a livelli differenziati, per i settori sia privato che pubblico;
- le modalità di governance di un'associazione e le sue possibili modalità di sviluppo;
- lo scambio internazionale di best practices di settore e
- la spinta allo sviluppo professionale e alla diffusione del sapere, associata all'assegnazione di riconoscimenti professionali internazionali,.

è insostituibile. Gli scambi informativi tra centinaia di persone che durante i summit parlano dei loro problemi, sapendo di trovarsi tra amici in una moderna agorà, in cui nessuno cerca di imporre all'altro il proprio punto di vista e in cui tutti sanno che le scelte e i modelli di business non sono validi in senso assoluto, ma in relazione al contesto socio-economico di riferimento, danno un valore aggiunto immensamente maggiore di una ricerca fatta in Internet, con tutti i limiti dello strumento.

La Federazione inoltre, può meglio delle singole associazioni gestire i rapporti con altre organizzazioni internazionali e favorire lo sviluppo armonico del sistema economico globale, anche attraverso il supporto dato ad associazioni che sono scarsamente strutturate o che hanno più difficoltà a diffondere modelli di business, sillabi educativi e best practices.

IFPSM: i primi vent'anni della sua storia

Il 13 Maggio 1974 presso l'Oxford ed il Cambridge Club di London, la Federazione Europea e la Federazione Internazionale degli Acquisti cessarono di esistere e il 14 Maggio 1974 venne costituita l'International Federation of Purchasing and Materials Management.

It is therefore necessary to preserve the functioning of multilateral institutions and restore strength to international cooperation.

Reading Taylor's report, a creative enthusiasm, typical of the birth and development of the international bodies, emerges clearly. Today this passion and fervor are less evident also because many are the actors in procurement and supply management and there is a lot of information in the public domain that can be assessed autonomously, without being part of an international organisation.

In addition, most of the international production and global supply chain strategies increasingly depend on the economic policies of national governments or international bodies such as the European Union, and less a federation can say about it. Many associations or institutes also enjoy a complex organisation structure which make them more autonomous than in the past and often transnational. The context has therefore changed, but the role of the IFPSM in fields such as:

- the definition of international standards of training and qualification of competencies at different proficiency levels, both in private and public sectors;
- the rules of governance of an association and its possible ways of development;
- the international exchange of sector best practices and
- the push towards professional development and the dissemination of knowledge associated with the assignments of international awards,

is irreplaceable. The exchanges of information between hundreds of people who talk about their problems during the summits, knowing that they are among friends in a modern agora, where no one tries to impose his point of view on the other and where everyone knows that the choices and business models are not valid in an absolute sense, but in relation to the socio-economic context of reference, ensure a greater added value than a search done on the Internet, with all the limitations of the tool.

Furthermore, the Federation can manage relations with other international organisations better that individual associations, and can favour the harmonious development of the global economic system, also through the support given to associations that are less structured or that have more difficulties in spreading business models, education syllabuses and best practices.

IFPSM: the first 20 years of its history

On 13 May 1974 in the Oxford and Cambridge Club of London, the European and International Federation of Purchasing (EFP and IFP) were dissolved, and on 14 May 1974 the International Federation of Purchasing and Materials Management was constituted.

Atto costitutivo

Le associazioni, qui di seguito elencate, si impegnano e convengono di costituire tra loro e con tutti coloro che dovessero aderirvi successivamente, un'associazione internazionale denominata International Federation of Purchasing and Materials Management, il cui statuto sarà allegato al presente atto e prodotto in tanti originali quante sono le parti interessate.

Londra, 14 Maggio 1974

Constitutive Act

The associations named hereunder hereby undertake and agree to establish among themselves and all those who may join them afterwards, an International Association called the International Federation of Purchasing and Materials Management, the constitution of which shall be appended to the present act, made as in many copies as there are parties interested.

London, 14 May 1974

CONSTITUTIVE ACT

The Associations named hereunder hereby undertake and agree to establish among themselves and all those who may join them afterwards an International Association called the International Federation of Purchasing and Materials Management, the constitution of which shall be appended to the present act.
Made in as many copies as there are parties interested,
London, 14 May 1974.

ASSOCIATION	SIGNATURE
Austrian Federation of Purchasing	[illegible]
Purchasing Management Association of Canada	[illegible]
Danske Indkøbschefers Landsforening	[illegible]
Suomen Ostopäällikköiden Yhdistys ry	[illegible]
Compagnie des Dirigeants d'Approvisionnement et Acheteurs de France	[illegible]
Association pour le perfectionnement des approvisionnements dans le secteur public	C. F. Capogna
[illegible]	[illegible]
National Association of Materials Management	[illegible]
Irgun menahalei rekesh, ISRAEL	
Associazione degli approvvigionatori e compratori italiani	[illegible]
Confederacion Mexicana de Asociaciones de Ejecutivos de Compras y Abastecimiento A.C.	[illegible]
Nederlandse Vereniging voor Inkoop-Efficiency	[illegible]
NORSK INNKJØPSLEDERFORBUND	[illegible]
PURCHASING ASSOCIATION of the PHILIPPINES	[illegible]
ASSOCIAÇÃO PORTUGUESA DOS CHEFES DE APROVISIONAMENTO E DE COMPRAS	[illegible]
Svenska Inköpsledares Förening, SILF	[illegible]
Schweizerische Einkäufer-Vereinigung	[illegible]
INSTITUTE OF PURCHASING & SUPPLY	[illegible]
NATIONAL ASSOCIATION OF PURCHASING MANAGEMENT	Arthur R. Cooke

L'European Federation of Purchasing (EFP) era stata fondata a Dusseldorf (Germania) nel 1958 e nel 1974 contava 13 associazioni[4]. Fin dall'inizio, era solita organizzare una Conferenza Internazionale ogni due anni e questo aveva consentito alle persone di vari paesi di conoscersi e di costituire il tessuto portante della Federazione stessa. Molte sono state le iniziative promosse e gestite negli anni dall'EFP. Nel 1969, ad esempio, ADACI[5], unitamente alle associazioni francese e belga, diede vita alla Conferenza Pedagogica Internazionale degli Acquisti (CPIA) con sede a Ginevra. Un'organizzazione che aveva lo scopo di definire i programmi e le modalità organizzative dei percorsi formativi avanzati dei propri membri. Esperti di chiara fama in ambito acquisti, quali Birmann, Colaneri e Clotuche si incontrarono più volte per discutere e armonizzare contenuti e sillabi formativi da utilizzare.

EFP iniziò ad erogare seminari informativi e formativi in quasi tutti i paesi delle associazioni che facevano capo alla stessa e pubblicò la Bibliografia dei testi e scritti esistenti in ambito acquisti e gestione materiali, presentando una breve sintesi di ognuno di essi. Il primo codice di etica professionale fu sottoposto alle associazioni della Federazione durante la Conferenza di Copenaghen del 1970, mentre nel corso della Conferenza dell'AIA del 1972, furono definite le sue tre direttrici di base: promozione, addestramento & formazione e sviluppo associativo. Nel 1973 la CPIA chiudeva i battenti e le sue attività venivano incorporate nelle strutture formative dei suoi paesi membri.

Nonostante l'esistenza di diverse iniziative e progetti, c'era, in quel periodo, un senso di inquietudine all'interno dell'EFP. Nessuna associazione extraeuropea infatti aveva cercato di aderirvi. Nel 1964, nel corso della quarta Conferenza della Federazione, fu istituito a Londra un comitato internazionale il cui scopo era quello di riunire le associazioni d'acquisto di tutto il mondo. La soluzione più logica e naturale di dar luogo ad una federazione internazionale non fu purtroppo raggiunta, soprattutto a causa di incomprensioni tra alcuni degli attori in campo. Tutto questo fece sì che il 15 Maggio del 1965 fosse istituita a New York la Federazione Internazionale degli Acquisti (International Federation of Purchasing – IFP), una derivazione strutturata dell'International Committee of Purchasing creato a Londra nel 1964.

Gli anni della Separazione

Le due Federazioni non erano ostili l'una all'altra, né si complementavano in termini di obiettivi e attività. Erano di fatto specularmente sovrapposte.

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[4] Molte sono state le attività gestite dai membri dell'EFP. Sfortunatamente non c'è traccia di tutte e mi limito quindi a citare quelle reperite negli archivi storici di ADACI.

[5] A quel tempo l'associazione era denominata ADAI: Associazione degli Approvvigionatori Italiani.

EFP was founded in Düsseldorf (Germany) in 1958, and in 1974 it had thirteen members[4]. From the beginning, it used to organise an international conference every two years and this allowed people from various countries to know each other and to form the backbone or the cement of the Federation itself. There have been many initiatives promoted and managed by EFP. In 1969 for example, ADACI[5] set up, together with the French and Belgian Associations, the International Pedagogical Conference on Purchasing (CPIA) based in Geneva (CH). An organisation whose main purpose was the definition of the syllabus and organisation of the advanced educational paths to offer to their members. Outstanding experts in purchasing, such as Birmann, Colaneri and Clotuche met several times to discuss and harmonize contents and training methods to be used.

EFP started organizing seminars in almost all its member countries and published the Bibliography of existing texts and writings in the field of purchasing and materials management, presenting a brief summary for each of them. The first Code of Professional Ethics was submitted to the associations of the Federation at the Copenhagen Conference of 1970, while during the 1972 Hague Conference, its three basic guidelines were defined: promotion, education & training and membership development. In 1973 the activities of CPIA had been replaced by the education and training facilities of the member countries.

Despite the existence of several initiatives and projects, there was a sense of disquiet inside the European Federation. In fact, no associations outside Europe had tried to become affiliated. In 1964, at the fourth EFP Conference in London, an International Committee was set up to find ways of bringing purchasing associations throughout the world together. The natural solution of having one international federation was not reached, mainly due to misunderstandings between some people. All this led to the establishment of the International Federation of Purchasing (IFP) on May 15, 1965, a structured derivation of the International Committee of Purchasing created in London in 1964.

The years of separation

The two federation were not hostile to each other. Neither did they complement one another. They overlapped.

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[4] There have been many collaborations between the member associations of EFP. Unfortunately, there is no trace of all of them and I limit myself to mention some of those found in the historical archives of ADACI.

[5] At that time ADAI: Association of Italian Purchasers.

L'onere di far fronte a due iscrizioni e di reperire le risorse professionali per le attività di entrambe le federazioni mise sotto pressione l'intero assetto internazionale. Ciò nonostante, da questa complessa situazione scaturirono pregevoli risultati. La rivalità tra l'EFP e l'IFP durò quasi dieci anni e l'unificazione avvenne allorquando la collaborazione internazionale stava ormai consolidandosi nell'ambito di vari organismi sovranazionali quali le Nazioni Unite. Ma, a quel tempo, non tutti erano convinti che una federazione mondiale avrebbe assicurato migliori risultati. Fortunatamente, dopo un incontro preliminare alla Fiera di Bruxelles, cinque associazioni europee intrapresero il cammino che avrebbe poi portato all'unificazione.

Nei suoi nove anni di vita, l'International Federation of Purchasing ha pubblicato un glossario in inglese, francese e olandese con riferimenti incrociati tra le tre lingue, ha istituito una serie di comitati per favorire la specializzazione e ottimizzare i sistemi di comunicazione ed ha istituito il Servizio di Informazioni sull'Esportazione, successivamente denominato Servizio di Informazione sull'Approvvigionamento. Nel suo ambito sono stati costituiti i Gruppi Specialistici tra operatori che operavano nello stesso settore. Molte lodevoli iniziative, ma il conflitto di interessi e una marcata competizione con l'EFP non sono mai venuti meno. Fin dall'inizio, IFP ha tenuto la riunione annuale del suo Consiglio ogni due anni, contemporaneamente alla Conferenza dell'EFP.

A Copenaghen, nel 1970, hanno avuto finalmente inizio proficui scambi tra i dirigenti delle due federazioni e nel 1971 furono nominati due rappresentanti per parte, per valutare come superare il problema della separazione. Un documento consultivo fu inviato ai membri di entrambi i Consigli per le dovute analisi e considerazioni e, successivamente, gli stessi si riunirono a Rotterdam, a bordo della M.V. Lorelei, con l'obiettivo di formulare proposte per la fusione delle due federazioni. Apparentemente tutto sembrava andare per il verso giusto, ma non tutte le associazioni erano favorevoli alla fusione e, fino a Maggio 1974, rimase incerto se la maggioranza del 75%, richiesta per lo scioglimento e la fusione delle due federazioni, fosse ottenibile nell'ambito di entrambi i Consigli.

Il 13 Maggio del 1974 furono approvate le risoluzioni formali di scioglimento di entrambe le federazioni e quella sera non esisteva formalmente alcuna federazione, ma coloro che avevano lavorato separatamente durante il giorno, cenarono insieme in un'atmosfera costruttiva.

La nuova Federazione

Il giorno successivo fu indetto un comitato congiunto sotto la presidenza di Harold A. Berry (NAPM USA) e Preben Maare (Danimarca) e i rappresentanti delle due federazioni decisero di costituire una nuova Federazione, firmandone l'atto costitutivo e formando un nuovo Consiglio.

Of the thirteen members of EFP, eleven also joined IFP and two did not. Various attempts were made to define spheres of influence, but they succeeded only on paper. The burden of dealing with two subscriptions and finding the professional resources for the activities of both federations put the whole international structure under pressure. Nevertheless, some valuable work emanated from this complex situation. The rivalry between the European Federation of Purchasing (EFP) and the International Federation of Purchasing (IFP) lasted almost ten years and the unification took place when the international collaboration was consolidating within various supranational bodies such as the United Nations. But, at that time, not everyone was convinced that a world federation would have ensured better results. Fortunately, after a preliminary meeting at the Brussel exhibition, five European associations embarked on the path which would later lead to the unification.

In its nine years of existence, the International Federation of Purchasing has published a glossary in English, French and Dutch with cross-references from one language to the others, has arranged an extensive committee structure to overcome the problems of communication and set up the Export Information Service, subsequently called the Supply Information Service. Specialized groups were formed among members working in the same industry. Many valuable initiatives, but the conflict of interest with the EFP has never disappeared. Since the beginning, IFP has held the annual meeting of its Council every two years at the same time as the EFP Conference.

At Copenhagen in 1970 there were valuable exchanges between the officers of the two federations. In 1971 each federation nominated two representatives to consider how the problem of separation could be overcome. A consultative document was produced and sent to the council members of both federations for considerations. Subsequently the two councils had a meeting aboard MV Lorelei in Rotterdam. with the aim to make proposals for a merger of the two federations. It sounded simple enough, but not every association was in favour of the merger and it remained uncertain until May 1974, whether the 75% majority required for dissolution could be obtained in the council of both federations.

On 13 May they both passed formal resolutions of dissolution. On that evening there was constitutionally no federation, but those who had worked separately during the day dined together at night in a constructive atmosphere.

The new Federation

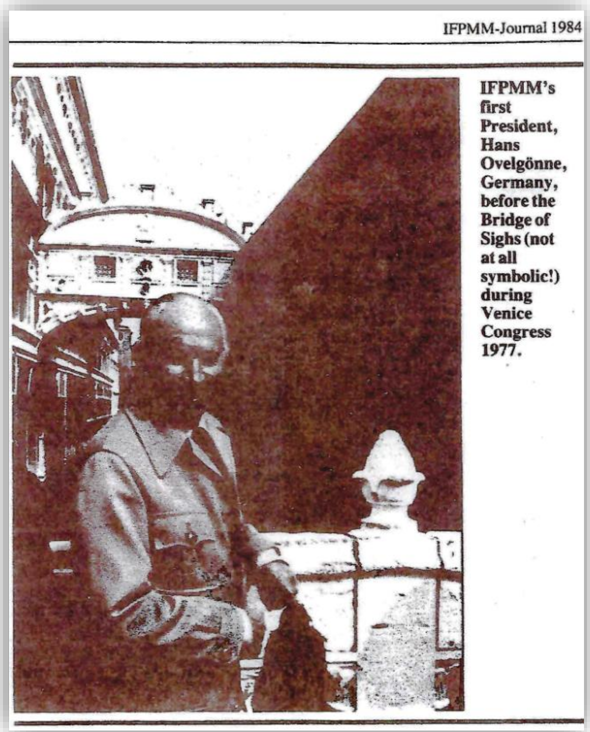
The next day a joint committee met under the co-presidency of Harold A. Berry (USA-NAPM) and Preben Maare (Denmark). The representatives of the associations present agreed to form a new federation, signed its Constitutive Act and formed the new Council.

Com'è noto, Hans Ovelgönne dell'associazione tedesca fu eletto Presidente Fondatore della nuova Federazione. A valle della sua nomina, il nuovo consiglio estese alle sette associazioni non presenti all'incontro londinese, il titolo di fondatore della nuova Federazione. I verbali dell'incontro evidenziarono gli sforzi e le capacità dei delegati che riuscirono dopo vari tentativi a dar luogo ad un nuovo organismo imperniato sulla collaborazione internazionale.

L'aggiunta al nome della Federazione del suffisso '*e Gestione dei Materiali*' rappresentò un passo significativo dello sviluppo della nostra funzione. A quel tempo infatti la maggioranza delle associazioni aveva inserito la gestione dei materiali nei propri obiettivi e titolo associativo. Era stato raggiunto un generale consenso circa il fatto che la '*funzione dei materiali*' avrebbe potuto fornire un maggior valore aggiunto, qualora procurement e magazzini fossero stati conglobati in un'unica unità organizzativa.

As is well known, Mr. Hans Ovelgönne of Germany was elected Founder President of the New Federation. After his appointment, he chaired the new Council which extended to the seven associations not present at the London meeting the title of founder of the new Federation. The minutes of the meeting showed how the minds of the delegates were working towards the creation of an effective instrument for the international collaboration.

The addition of the suffix '*and Materials Management*' to the name of the Federation was a significant step in the development of our function. At that time, in fact, the majority of associations had included materials management in their objectives and membership title. A general consensus had been reached that the '*materials function*' could provide greater added value, if procurement and warehouses were merged into a single organisation unit.

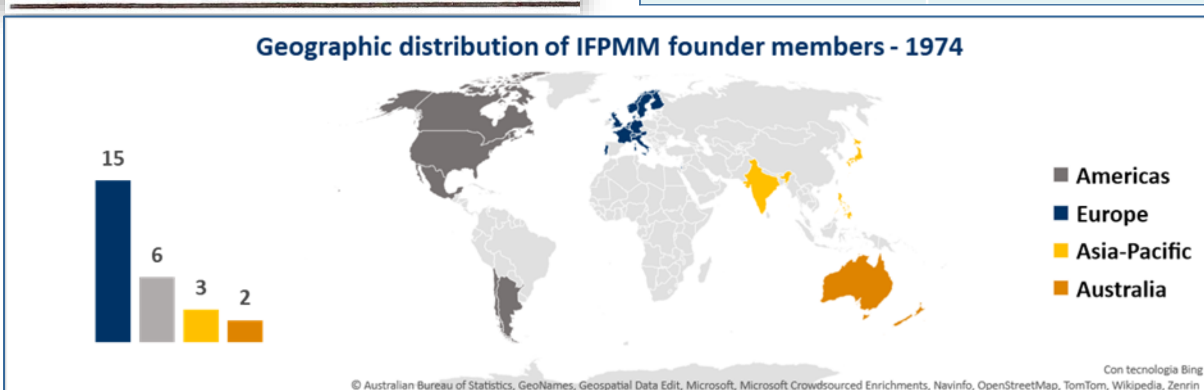


IFPMM-Journal 1984

IFPMM's first President, Hans Ovelgönne, Germany, before the Bridge of Sighs (not at all symbolic!) during Venice Congress 1977.

The 26 founder members of IFPMM - 1974

Argentina	*Israel*
Australia	*Italy*
Austria	*Japan*
Belgium ABCA	*Mexico*
Canada	*Netherlands*
Cile	*New Zeland*
Denmark	*Norway*
Finland	*Philippines*
France APASP	*Portugal*
France CDAF	*Sweden*
Germany	*Switzerland*
Great Britain	*USA NAPM*
India	*USA NIGP*



Le prime decisioni

Il primo Consiglio dell'IFPMM decise di mantenere gran parte della struttura organizzativa dell'IFP, più adatta ad una federazione mondiale rispetto a quella dell'EFP. Fu anche costituito un comitato esecutivo per gestire l'operatività della Federazione. Le decisioni di maggior rilievo prese dal comitato erano poi soggette all'approvazione del Consiglio nella sua riunione annuale.

La Costituzione e il Regolamento della Federazione, predisposti da un comitato paritetico, furono accettati provvisoriamente ed inviati a tutte le associazioni per un'attenta analisi e la formulazione di eventuali proposte di modifica ad un Comitato Costituzionale istituito ad hoc. Fu altresì deciso:

- che le riviste delle varie associazioni fossero distribuite gratuitamente a chi ne avesse fatto richiesta;
- di continuare il Servizio Informativo sull'Offerta di Mercato;
- di istituire comitati permanenti per lo sviluppo professionale, lo sviluppo associativo, la standardizzazione, il commercio internazionale e le relazioni con le altre organizzazioni internazionali,
- di migliorare l'organizzazione dei gruppi specialistici dedicati alle principali materie prime e commodity.

Early decisions

The first IFPMM Council decided to keep much of the organisational structure of IFP as more appropriate to a world-wide Federation than the EFP one. An executive committee was also set up to manage the affairs of the Federation. Its power to act was subject to approval in all major matters at the next annual meeting of the Council.

A Constitution and Rules of Order, drafted by the Joint Committee were accepted provisionally, but member associations were asked to analyse these documents and make proposals for amendments to an ad hoc constitutional committee.
It was also decided that:

- the journals of the members were to be circulated free of charge to any member association which desired them;
- the Information Service on Supply Markets was to be continued;
- there were to be standing committees on professional development, association development, standardisation, international commerce and relations with other international organisations;
- specialised groups, dedicated to the main raw materials and commodities, were to continue.

1974 - IFPMM Constituent Charter signatories *(3° from right, standing: Giorgio Gallo ADACI delegate)*

Fu altresì deciso di celebrare la fusione tra le due federazioni, aggiungendo alla Medaglia Gardner dell'EFP, che commemorava la figura di un grande presidente della stessa, il nome di Harry Thémoin, il primo Presidente dell'IFP. Il risultato fu la Medaglia Gardner-Thémoin, assegnata ogni anno a chi si fosse particolarmente distinto negli acquisti internazionali e nel materials management. Il primo Comitato Esecutivo focalizzò la propria attenzione su tematiche gestionali di carattere finanziario e amministrativo.
Qualche mese dopo, ebbe luogo la nona e ultima Conferenza dell'European Federation of Purchasing.

Nella sua fase di progettazione, l'incertezza sulla fusione delle due organizzazioni aveva gettato ombre e dubbi sulla riuscita della Conferenza.
Fu quindi deciso di organizzarla in partnership col Financial Times, il principale quotidiano economico europeo stampato sia in Germania che in Gran Bretagna. Il tutto ebbe inizio con un ricevimento presso la Guidhall nella City of London, cui fece seguito un banchetto nella sala medievale. Questa pregevole cornice avrebbe assicurato il successo a qualsiasi raduno internazionale. Erano presenti 500 delegati più i loro accompagnatori. La Conferenza celebrò di fatto la costituzione della nuova Federazione, piuttosto che l'ultima riunione dell'EFP.

La seconda riunione del Consiglio si tenne nel Maggio 1975 a Lisbona. Molte delle commissioni permanenti non presentarono al Consiglio alcun report e l'incontro fu caratterizzato da scarsa vitalità e propositività anche da parte delle associazioni che avevano preparato le attese relazioni. Apparì chiaro a tutti che la struttura dei comitati non era efficace e ciò era principalmente dovuto al fatto che i suoi membri avevano difficoltà ad incontrarsi.
Il Comitato esecutivo, che si riuniva tre volte l'anno, si era invece rivelato uno strumento più efficace e, per questo, furono assegnate allo stesso nuove responsabilità. In aggiunta fu istituito un comitato per analizzare in che modo la Federazione avrebbe potuto migliorare il suo sistema di governance.

Il Consiglio di Hügel

Grazie alle relazioni del Presidente Ovelgönne, la riunione del Consiglio del 1976 si tenne nella splendida Villa Hügel situata in un parco secolare vicino a Essen. L'incontro fu contrassegnato da numerose decisioni in linea col parere di una commissione nominata ad hoc. I comitati scarsamente efficaci furono aboliti e alcuni delegati assunsero incarichi specifici da portare a termine in base ad un programma temporale ben definito.
L'associazione canadese, ad esempio, si impegnò a raccogliere informazioni sulle modalità di addestramento e formazione delle varie associazioni della Federazione e l'opuscolo predisposto sull'argomento dalla stessa, venne pubblicato nel 1977 e fu seguito da due edizioni di aggiornamento, nel 1979 e nel 1983.

Finally, it was decided to symbolize the merger by adding to the EFP Gardner Medal, which commemorated an outstanding president of EFP, the name of Harry Thémoin, the first president of IFP. The Garner-Thémoin medal was the result. It was awarded annually by the Executive Committee for distinguished services to international purchasing and materials management. The first Executive Committee focused its attention on management issues of financial and administrative nature.
A few months later, the ninth and last Conference of the European Federation of Purchasing took place.

In its planning stage, uncertainty about the merger of the two organisations had cast its shadows and doubts on the success of the Conference.
It was therefore decided to organize it in conjunction with the Financial Times, Europe's leading business newspaper which is printed both in Germany and Great Britain. It all began with a reception at the Guidhall in the City of London, followed by a banquet in the medieval hall. This fine setting would have ensured success at any international gathering. There were 500 delegates plus their companions. The Conference actually celebrated the establishment of the new Federation, rather than the last meeting of the EFP.

The second meeting of the Council was held in May 1975 in Lisbon. Many of the standing committees failed to report the Council and the meeting was characterized by lack of vitality and proactiveness, even on the part of the associations that had prepared the planned reports. It was clear to all that the committee structure was not effective and this was mainly due to the fact that its members had difficulties meeting each other.
The Executive Committee, which met three times a year, had instead proved to be a more effective instrument and, for this reason, new responsibilities were assigned to it. In addition, a committee was set up to analyse how the Federation could improve its governance system.

At der Hügel

Thanks to the relations of President Ovelgönne, the 1976 Council meeting was held in the splendid Villa Hügel located in a centuries-old park near Essen. The meeting was marked by numerous decisions in line with the suggestions of an ad hoc appointed committee. Ineffective committees were abolished and some delegates undertook specific assignments to be completed to an agreed time-table.
PMAC, the Canadian association for example, undertook to collect information on training and education arrangements of the various associations, and the brochure prepared on the subject was published in 1977 and was followed by two updated editions in 1979 and in 1983.

Ad Essen furono altresì discussi e aggiornati i parametri di riferimento degli awards al fine di contribuire a migliorare la letteratura sugli acquisti e sulla gestione dei materiali e fu istituito il Maple Leaf Award[6], un premio per il miglior progetto presentato dalle associazioni, su un tema annualmente scelto dal Consiglio. Per la prima volta inoltre, varie associazioni si assunsero la responsabilità dello sviluppo associativo nei paesi limitrofi. Questa decisione, unitamente al lancio dell'Energy Report e di un nuovo piano per l'interscambio di informazioni sull'andamento dei mercati di fornitura e sull'aggiornamento della Bibliografia della Federazione, confermavano che essa stava diventando più operativa ed efficiente. L'Energy Report fu istituito a seguito delle difficoltà di approvvigionamento conseguenti all'abissale aumento dei prezzi del petrolio da parte dell'OPEC[7].
L'effetto di questa decisione fece precipitare il mondo occidentale nella più grave crisi economica dai tempi della grande depressione degli anni trenta e fece rinviare di un anno la data del primo Congresso Mondiale della Federazione.

Il Congresso di Venezia

Nel 1977 la ripresa economica in ambito internazionale era stata sufficientemente significativa per giustificare la decisione di tenere il primo Congresso Mondiale della Federazione a Venezia. Il tema del forum fu: *'Acquisti efficaci e Gestione dei Materiali: un contributo vitale per lo sviluppo del sistema economico*.' L'intervento più significativo fu quello del professor H.C. Pestel, Ministro della Scienza nel Governo della Bassa Sassonia (Germania) e, a quel tempo, uno dei membri del Club di Roma, che aveva allertato il mondo sull'uso improprio e sullo spreco delle risorse a limitata disponibilità.

La rilevanza del tema per la funzione materiali, focalizzò l'attenzione dei delegati sulle strategie da attuare. Il ruolo e gli obiettivi dei manager degli acquisti nell'impresa furono a lungo dibattuti e, tenuto conto dell'importanza del tema, fu deciso di organizzare nel mese di giugno del 1978 un simposio internazionale ad hoc vicino ad Helsinki. Lo stesso confermò l'interesse e il successo attesi ed evidenziò l'importanza di discutere determinate tematiche tra manager di respiro internazionale.

A Venezia, dopo tre anni di intenso lavoro e frequenti scambi epistolari, fu approvato l'aggiornamento della Costituzione della Federazione e adottato un nuovo sistema di governance. Nuovi delegati furono eletti in sostituzione di quelli che avevano guidato la Federazione nei primi tre anni. In base alla nuova costituzione, essi sarebbero rimasti in carica per soli ventiquattro mesi.

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[6] Al vincitore veniva consegnata una Medaglia offerta dall'Associazione Canadese e mille franchi svizzeri.

[7] Aumenti dell'ordine del 400%

At Essen the subjects or the key enablers of the awards of the Federation were also discussed and updated with the aim of improving the literature on purchasing and materials management. The Maple Leaf Award[6], a prize on the best project presented by the associations on a theme annually chosen by the Council, was also instituted. Furthermore, for the first time, various associations assumed the responsibility for associations development in neighboring countries. This decision, together with new plans for the exchange of information on business trends, the update of the Federation Bibliography and the inception of the Energy Report, gave a very strong impression that the Federation was moving towards more meaningful work. The Energy Report was instituted following the supply difficulties which followed the quadrupling of the price of petroleum products by OPEC. The effect of this unilateral action was to plunge the western world into the most severe economic crisis since the great depression of the thirties and, for the Federation, it meant the postponement of its first world Congress until the following year.

Congress in Venice

By 1977 there had been sufficient recovery to justify the decision to hold the Congress in Venice. It succeeded beyond most expectations. The theme of the Congress was: '*Effective purchasing and materials management: a vital contribution to economic health*'. The most distinguished address was given by Professor H.C. Pestel, Minister of Science in the Government of Lower Saxony, Germany. Dr Pestel was at that time a member of the Executive Committee of the Club of Rome that had lately alerted the world to the misuse and waste of potentially scarce resources.

The relevance of the topic to the materials function, focused the attention of the delegates on the strategies to implement. The role and objectives of purchasing managers within the enterprise was discussed for the first time in the Federation, and taking into account the relevance of the topic, it was agreed to organise in June 1978 an international symposium at Federation level near Helsinki. The same confirmed the expected interest and success of the meeting and highlighted the importance of discussing certain issues between international managers.

In Venice, after three years of intense work and frequent exchange of correspondence, the updating of the Constitution of the Federation was also approved together with a new governance system. New delegates replaced those who had led the Federation in the first three years. Under the new Constitution they were expected to serve for only two years.

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[6] The winner was given a medal offered by the Canadian association together with a thousand Swiss francs.

L'americano A.E. Jones, divenne il nuovo Presidente e il suo primo atto fu quello di rendere omaggio al suo predecessore Hans Ovelgönne, una persona la cui visione, intelligenza, determinazione e pragmatismo avevano consentito alla Federazione di superare i difficili anni del suo avvio e consolidamento.

The American A.E. Jones, became the new President, and his first act was to pay a tribute to the work of his predecessor President Ovelgönne, a person whose vision, intelligence, drive and pragmatism who enabled the Federation to overcome the difficult years of its start-up and consolidation.

List of the Presidents of IFPSM

Years	Name and surname	Country	Years	Name and surname	Country
1974-1976	Hans Ovelgönne	Germany	2000-2001	Attila Chikan	Hungary
1977-1978	A.E.Jones	USA	2002-2003	Richard Moras	India
1979-1980	D.F. Cooper	Great Britain	2004-2005	Rick Grimm	USA (NIGP)
1981-1982	John Pedersen	Denmark	2006-2007	Ken James	Great Britain
1983-1985	Victor F. Diego	Argentina	2008-2009	Paul Novak	USA (ISM)
1986-1987	Madhav L. Capoor	India	2010-2012	Svante Axelsson,	Sweden
1988-1989	Hugo Salvisberg	Switzerland	2013-2015	Sören Wammen	Denmark
1990-1991	Ken Snooks	Great Britain	2016	Cheryl P. Farrow	Canada
1992-1993	Ashok Sharma	India	2017-2019	He Liming	China
1994-1995	Klaus Bapp	Germany	2020-2022	Marina Lindič	Slovenia
1996-1997	William A. Bales	USA	2023-	Chris Oanda	Kenya
1998-1999	Stuart Humby	Great Britain			

La Federazione guarda all'Occidente

Dopo quattro riunioni del Consiglio e il suo primo Congresso Mondiale in Europa, la Federazione spostò l'attenzione verso le Americhe, in cui si svolsero i successivi due Consigli ed il 2° Congresso Mondiale.
L'incontro dell'assemblea della Federazione del 1978 si tenne infatti in Canada, presso l'imponente Harbour Castle Hotel di Toronto. Fu una riunione molto costruttiva nel cui ambito si guardò più alla validità ed efficacia delle decisioni prese che non al rispetto degli aspetti formali che spesso caratterizzano questi incontri. Le cinque associazioni che avevano predisposto un accurato studio sull'andamento dei mercati dell'offerta, ne presentarono il risultato al gruppo di studio costituito all'uopo a Venezia, mettendo in evidenza che il sistema comunicativo della Federazione era inadeguato, in quanto non riusciva a distribuire, in modo tempestivo, informazioni rilevanti alle varie associazioni. Il Presidente chiese a tutti di individuare gli obiettivi che la Federazione avrebbe potuto e dovuto efficacemente perseguire. I delegati ebbero due giorni a disposizione per analizzare la situazione e presentare idee e proposte di miglioramento.
Il verbale della riunione riportò 30 diverse proposte.
Buona parte delle stesse indicava le modalità attraverso le quali la Federazione avrebbe potuto sostenere in modo efficace e costruttivo la crescita degli operatori del procurement e materials management.

The Federation goes west

After four Council meetings and its first Congress in Europe, the Federation held the next two Councils and its second Congress in America.
The 1978 meeting was in Canada. The venue was the commanding Harbour Castle Hotel in Toronto.
It has been a very constructive meeting, concerned with effective action rather than the preservation of the formal aspects that often characterize these encounters.
The five member associations which produced business trend analyses had submitted information to the study team set up in Venice.
The conclusion reached was that communication in the Federation were inadequate to provide timely information for meaningful reports.
The President asked everyone to identify the objectives that the Federation could and should have effectively pursued.
The delegates had two days to analyse the situation and to present ideas and proposals.
The minutes of the meeting reported thirty different proposals.
Most of them indicated the ways in which the Federation could have effectively and constructively supported the growth of procurement and materials management operators.

Il tempo dedicato a questa analisi e alla predisposizione delle varie proposte non fu inutile. Negli anni successivi infatti, molte delle idee e progetti ipotizzati in quella sede furono intrapresi e portati a termine. Alcuni non furono mai concretizzati. Forse gli obiettivi considerati erano stati troppo ampi.

Il Consiglio successivo fu organizzato in Messico, immediatamente prima del secondo congresso mondiale. L'attenzione dei delegati si concentrò sull'analisi delle condizioni contrattuali di base e sulle modalità e procedure da seguire negli acquisti internazionali. Le condizioni contrattuali tipo, proposte e successivamente pubblicate dall'associazione svizzera nelle quattro lingue delle Federazione, furono poi messe a disposizione di tutte le associazioni. L'utilizzo delle stesse da parte di altre organizzazioni, quali la Camera di Commercio Internazionale e il SITPRO[8], testimoniarono della validità degli output della Federazione e l'opportunità di dar luogo a sinergie con altre organizzazioni internazionali.

L'agenda del Consiglio prevedeva anche l'analisi delle modalità da seguire per rendere più efficaci le relazioni della Federazione. Fu altresì deciso che l'IFPMM avrebbe comunque dovuto focalizzare la propria attenzione su problematiche di carattere internazionale e non su attività di competenza delle singole associazioni e che un elevato livello di competenza professionale era considerato un prerequisito essenziale per l'immagine pubblica della Federazione. Al termine della seduta consiliare, fu eletto il nuovo Presidente, l'inglese D.F. Cooper in sostituzione dell'americano Jones, la cui presidenza fu contrassegnata da una gestione creativa e ferma delle varie attività dell'IFPMM. Egli ebbe modo di visitare buona parte delle associazioni della Federazione, offrendo loro sostegno e incoraggiamento. Con l'occasione iniziarono a circolare, all'interno e all'esterno della Federazione, gli opuscoli '*How to Buy*' supportati dalle camere di commercio dei paesi promotori delle singole iniziative. Il primo fu pubblicato dall'associazione americana NAPM[9], ma negli anni successivi ne seguirono altri.

Durante il Congresso Mondiale di Città del Messico, focalizzato sul tema: '*Acquisti e gestione materiali come fattori chiave nel commercio mondiale*', il network tra le associazioni della Federazione divenne particolarmente attivo e l'intero congresso ebbe luogo in un'atmosfera costruttiva e di grande apertura. I relatori posero l'accento sulle diverse competenze professionali necessarie per rendere efficace la gestione degli acquisti nel commercio internazionale.

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[8] SITPRO era un ente pubblico non governativo della Gran Bretagna, con sede a Londra. Istituito come società per azioni, aveva il compito di rimuovere le barriere che limitavano il commercio internazionale, attraverso la semplificazione e l'armonizzazione delle procedure commerciali. La sua attività continuò fino al 2010.

[9] National Association of Purchasing Management, oggi ISM: Institute for Supply Management.

The time dedicated to this analysis and to the preparation of the various proposals was not useless. In fact, in the following years, many of the ideas and projects hypothesized there were undertaken and completed. Some were never materialized. Perhaps the objectives considered had been too broad.

The next Council meeting was held in Mexico, immediately before the second World Congress. The attention of the delegates focused on the analysis of the basic contractual conditions and on the procedures to be followed in international purchases. The standard contractual conditions proposed and subsequently published by the Swiss association in the four languages of the Federation, were then made available to all associations. The use of such publications by other international bodies, such as the International Chamber of Commerce and SITPRO[7], testified the validity of the Federation's outputs and the opportunity to create synergies with others international organisations.

The agenda of the Council also envisaged the analysis of the methods to be followed to make the relations of the Federation more effective, and it was agreed that IFPMM should have focused its attention on international issues and not on activities falling within the competence of the individual associations. A high level of professional competence was considered an essential prerequisite for the public image of the Federation. At the end of the Council meeting, the English D.F. Cooper was elected to succeed President Jones, whose presidency was market by a firm and creating handling of Federation affairs. The member associations, many of which he had visited, had received much support and encouragement by his presence. On this occasion, the '*How to buy*' brochures, supported by the Chambre of Commerce of the countries promoting the individual initiative began to circulate, both inside and outside the Federation. The first was published by the American association NAPM[8], but others followed in subsequent years.

During the World Congress in Mexico City, focused on the theme '*Purchasing and Materials Management as key factors in the World Trade*', the network between the associations of the Federation was particularly active and the entire Congress took place in a constructive and open atmosphere. The speakers emphasized different aspects of the professional skills which were required to make purchasing and materials management effective in international trade.

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[7] SITPRO was a UK non-departmental public body, based in London, constituted as a limited company and was focused on the removal of barriers to international trade through the simplification and harmonisation of trade procedures. It was closed as part of government cut-backs in September 2010.

[8] National Association of Purchasing Management, today ISM: Institute for Supply Management.

Il più autorevole fu Guido R. Hanselmann, Vice Presidente Esecutivo della svizzera Union Bank che parlò dei problemi monetari e inflazionistici degli acquisti internazionali. I dettagli da lui messi in evidenza sulle decisioni e scelte operative degli executive del procurement effettuate in periodi di instabilità, misero in evidenza la grande conoscenza che aveva dell'argomento.

Il Congresso di Città del Messico rappresentò un altro passo fondamentale per la crescita e sviluppo della Federazione.

Dalle Americhe all'India

All'inizio del 1980 il Consiglio tenne la sua settima riunione a Bombay, in occasione dell'annuale Convention dell'Associazione Indiana, ospitata dalla locale sezione dell'associazione. Durante l'incontro fu deciso di porre fine all'attività dei gruppi specialistici. Problemi di lingua e la distanza che separava i vari delegati, furono probabilmente la principale causa di tale decisione. È superfluo ricordare che Internet e le videoconferenze non avevano ancora fatto la loro apparizione. Quel Consiglio servì anche a capire che, per avere successo, gli obiettivi e le attività della Federazione avrebbero dovuto essere chiari e ben definiti.

I gruppi specialistici, ad esempio, avevano solo un vago mandato, quello di mantenere i contatti tra gli operatori dello stesso settore. Se questi gruppi erano venuti meno al loro scopo, le varie attività regionali registravano invece un buon gradimento da parte di quasi tutte le associazioni delle Federazione.

Le regioni Asia-Pacifico e Sud America, lontane dall'asse Europa-Nord America, pianificarono e realizzarono con successo conferenze e attività regionali. Una di queste ebbe luogo a Buenos Aires nel 1979. In quel periodo, molti furono i contatti con paesi in cui non esistevano associazioni di categoria in ambito procurement. La minuta di una di queste conferenze riportò che i paesi in cui i membri della Federazione stavano svolgendo attività di tipo 'missionario' erano ben dodici.

Complementare a questo ampliamento di interessi, fu il rapporto con altre organizzazioni internazionali. La Federazione infatti godeva già di uno status consultivo presso le Nazioni Unite ed era, ad esempio, intervenuta per far modificare una loro pubblicazione, focalizzata sulla gestione delle forniture, ma presentata in modo tale da offrire un quadro riduttivo e semplicistico del ruolo e del 'modus operandi' del Procurement e Materials Management.

Per evitare fraintendimenti di sorta e diffondere in modo capillare e corretto il concetto del procurement e il ruolo della Federazione, fu predisposto un memorandum ad hoc, in cui venivano, tra l'altro, indicate le modalità da seguire in attività di cooperazione tecnica con i paesi in via di sviluppo.

The most authoritative was Guido R. Hanselmann, Executive Vice President of the Union Bank of Switzerland. He spoke about the impact of monetary problems and inflation on international procurement. The insights he highlighted on the decisions and operational choices of procurement executives made in period of instability, showed that Mr. Hanselmann was a master in our field.

The Congress of Mexico City has been another fundamental step of the growth and development of the Federation.

And so, to India

Early in 1980 the Council held its seventh meeting in Bombay. The occasion was the annual convention of the Indian association, hosted by the Bombay branch. That Council meeting saw the final demise of the specialist groups. Language problems and the distance that separated the various delegates were probably the main reasons of that decision. It goes without saying that the Internet and video conferencing had not yet made their appearance. That Council also served to understand that, to be successful, the objectives of the Federation would have to be clear and well defined.

The specialist groups, for example, had only a vague mandate, that of maintaining contacts between operators in the same sector. If these groups had failed their purpose, the various regional activities instead recorded a good appreciation by almost all the associations of the Federation.

The Asia-Pacific region and South America, remote from the Europe-North America concentration of the Federation were planning regional conferences. One had already taken place in Buenos Aires in 1979. At that time, there were many contacts with countries in which there were no procurement associations. The minutes of one of these conferences reported that the countries in which the members of the Federation were carrying out activities of a 'missionary' type were as many as twelve.

Complementary to this broadening of interest, were the relations with other international organisations. In fact, the Federation already enjoyed a consultative non-governmental status in the United Nations and had, for example, intervened to have one of their publications, focused on the management of supplies, modified as it was presented in such a way to offer a reductive and simplistic picture of the role and 'modus operandi', latin expression for 'way to work', of procurement and materials management.

To avoid misunderstandings of any kind and to disseminate the concept of procurement and the role of the Federation in a detailed and correct manner, an ad hoc memorandum was prepared, in which, among the other things, the methods to be followed in technical cooperation activities with the developing countries had been included.

Il memorandum fu distribuito a tutte le agenzie non governative nel corso di una conferenza preparatoria delle Nazioni Unite sulla cooperazione tecnica. Questa conferenza purtroppo coincise, in termini di date, col Congresso Mondiale di Stoccolma e questo impedì alla Federazione di essere debitamente rappresentata.

Nel 1980, l'Associazione Indiana presentò uno studio sulle modalità di gestione delle Public Relations e sulle problematiche ad esse connesse, evidenziando altresì i relativi costi. Fu quindi deciso di realizzare il Giornale della Federazione da usare anche come veicolo di base per facilitare l'instaurazione delle relazioni. In quel periodo la Federazione prese anche posizione formale su tematiche di carattere macroeconomico quali la domanda e l'offerta di mercato, i cartelli, l'utilizzo appropriato delle risorse mondiali, le politiche commerciali internazionali e l'innovazione tecnica. Prescindendo dalla validità intrinseca di questi studi, non sempre condivisi a livello interassociativo, queste attività furono viste come un'opportunità per portare la Federazione in primo piano tra le agenzie internazionali, oltre che essere di chiaro interesse per le varie associazioni della Federazione.

Il Gruppo Nordico ospita la Federazione

Il terzo Congresso Mondiale di Stoccolma fu organizzato in modo congiunto dalle associazioni danese, finlandese, norvegese e svedese e, come d'abitudine, fu preceduto dal Consiglio della Federazione. Durante lo stesso, furono presentati i codici di etica di sedici associazioni, unitamente ai loro principi e standard applicativi. In questa fase non fu proposto di definire un codice comune da far applicare a tutte le associazioni, ma il Presidente Cooper esortò tutti i membri a verificare l'adeguatezza dei propri regolamenti ed a muoversi verso un consenso globale sugli standard etici.

Fu altresì concordato un emendamento alla costituzione in base al quale i tre vice presidenti senza portafoglio venivano sostituiti da vice presidenti nominati dal Comitato Esecutivo per compiti regionali e altri incarichi speciali. La loro nomina era chiaramente soggetta all'approvazione del Consiglio e il loro mandato non doveva superare i quattro anni. Il Consiglio sottolineò che essi avrebbero dovuto essere considerati come parte delle operazioni mondiali della Federazione. Non c'era quindi alcuna intenzione di inibire le attività regionali, ma i membri delle stesse avrebbero dovuto operare sotto la guida del Consiglio, l'organo di governo della Federazione.

Come da regolamento, il Consiglio nominò il suo quarto Presidente, il danese John Pedersen. Nell'accettare il suo ruolo, egli si congratulò con Cooper per aver gestito con cura l'Energy Report durante la peggior crisi petrolifera fino ad allora registrata.

The memorandum was distributed to all non-governmental agencies at a United Nations preparatory conference on technical cooperation. This event unfortunately coincided, in terms of dates, with the Stockholm World Congress and this prevented the Federation from being duly represented.

In 1980, the Indian association presented a study on management methods and issues related to public relations, also highlighting the related costs. It was therefore decided to create the Journal of the Federation to be used as a basic vehicle to facilitate the establishment of relations. The opportunity to use consultants was also analysed. In that period the Federation also took a formal position on macroeconomic issues such as market supply and demand, cartels, the appropriate use of world resources, international trade policies and technical innovation. Regardless of the intrinsic validity of these studies, not always shared at an inter-association level, these activities were seen as an opportunity to put the Federation at the same professional level of other international organisations, as well as being of clear interest to its member associations.

The Nordic Group host the Federation

The third World Congress in Stockholm was jointly organized by the Danish, Finnish, Norwegian and Swedish associations and, as usual, was preceded by the Federation Council. During the same, the code of ethics of sixteen associations was presented, together with the relevant principles and application standards. At this stage it was not proposed to define a common code to be applied by all associations, but President Cooper urged all members to verify the adequacy of their regulations and to move towards a global consensus on ethical standards.

An amendment to the Constitution was also agreed whereby the three Vice-Presidents without portfolios were replaced by Vice-Presidents appointed by the Executive Committee for regional duties and other special assignments. Their appointment was clearly subject to the approval by the Council and their term of office had not to exceed four years. The Council underlined that they should have been considered as part of the worldwide operations of the Federation. There was therefore no intention to inhibit regional activities, but the members of regional groups should have operated under the guidance of the Council, the governing body of the Federation.

As per regulation, the Council appointed its fourth President, the Danish John Pedersen. In accepting his role, he congratulated Cooper for having carefully handled the Energy Report during the worst oil crisis on record.

Anche Cooper, parimenti al suo predecessore, ebbe modo di visitare quasi tutte le associazioni della Federazione e la sua presenza alle conferenze regionali servì a promuovere uno spirito unitario. Il suo approccio deciso e al di sopra delle parti, rese, tra l'altro, possibili aperte discussioni sul futuro della Federazione. Fu una guida concreta, realista, attenta e interessata ai problemi delle associazioni aderenti.

Il tema di base del Congresso mondiale di Stoccolma fu imperniato sulla '*Disponibilità di materie prime e sulla proiezione dei loro prezzi negli anni '80*', un argomento definito dalle quattro associazioni organizzatrici nella convinzione che sarebbe stato di grande interesse professionale per tutti gli operatori del procurement e materials management. E così fu senza ombra di dubbio. I relatori furono quattro esperti del settore che, oltre a trattare in modo esaustivo l'argomento, enfatizzarono la necessità di prendere decisioni veloci, tenendo però conto delle previsioni sulla variazione dei prezzi rilasciate da organismi affidabili.

Al termine del congresso i vari delegati ebbero l'opportunità di portare a casa non solo quanto consentiva la loro memoria, ma anche una relazione con tutte le presentazioni, compreso quanto detto durante le varie discussioni. Fu chiaramente il risultato di un'organizzazione efficiente.

La Federazione raccoglie i frutti di quanto seminato negli anni

I componenti del nuovo Comitato Esecutivo diedero subito inizio ad una fase concreta e costruttiva. Il primo numero del Giornale della Federazione fu pubblicato nell'ottobre del 1981 e questo grazie al generoso apporto dell'associazione norvegese che si era assunta l'onere e la responsabilità della sua pubblicazione, sotto la guida del Presidente Pedersen. Nel corso della sua presidenza vennero pubblicati quattro numeri del Giornale. Un vero successo nei confronti di un'iniziativa non condivisa da tutte le associazioni.

In questo periodo, furono altresì nominati i vice presidenti per le attività regionali, con una chiara definizione delle aree di delimitazione delle loro attività e degli obiettivi attesi. Grazie ad un impegno non indifferente da parte dell'associazione svizzera, fu pubblicata altresì la Bibliografia della Federazione[10] in quattro lingue e venne deciso che la sua distribuzione non avrebbe dovuto essere gratuita. Il costo dell'abbonamento per ogni singolo membro fu stabilito in 0,85 franchi svizzeri. Questa fonte di finanziamento consentì alla Federazione di accumulare in pochi anni la cospicua somma di 100.000 franchi svizzeri.

Per mitigare l'impatto dell'aumento dei costi di gestione e del nuovo ufficio del segretario generale, si fece ricorso ad altre attività remunerate.

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[10] Elenco dei principali testi sugli acquisti e sintesi dei concetti espressi negli stessi.

Cooper, like his predecessor, had been able to visit almost all associations of the Federation and his presence at the Regional Conferences had been powerful in promoting unity. His energetic approach made possible, among other things, open discussions on the future of the Federation. He had been a concrete and realistic gentleman, very observant and interested to the problems of the member associations.

The basic theme of the Stockholm World Congress was focused on the '*Availability of raw materials and the projection of their prices in the 80s*', a topic defined by the four organising associations in the belief that it would have been of great professional interest to all procurement and materials management operators. And so, it had been without any doubt. The speakers were four experts in the sector who, in addition to dealing exhaustively with the subject, emphasized the need to take quick decisions, however taking into account the forecasts on price changes released by reliable bodies.

At the end of the Congress, the various delegates had the opportunity to bring home not only what their memory allowed, but also a report with all the presentations, including what was said during the various discussions. It was clearly the sign and the result of an efficient organisation.

The harvest begins

The members of the new Executive Committee did not take long to turn that end into a new beginning and to start a concrete and constructive phase. The first issue of the Journal of the Federation was published in October 1981, and this thanks to the generous contribution of the Norwegian association which had assumed the burden and responsibility for its publication, under the guidance of President Pedersen. Four issues of the Journal were published during his presidency. A real success for an initiative not shared by all associations.

In this period, the Vice Presidents for regional activities were also appointed, with a clear definition of the areas of delimitation of their activities and the expected objectives. Thanks to a heavy commitment on the part of the Swiss association, the Bibliography of the Federation[9] had been published in four languages and it was decided that its distribution shouldn't't' have been free. The cost of its subscription for each individual member was set at 0.85 Swiss francs. This source of funding allowed the Federation to accumulate the large sum of 100,000 Swiss francs in a few years.

To mitigate the impact of the increase in the operating costs of the Federation and to afford the costs of the new office of the secretary general, there had been recourse to other sources of profitable activities.

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[9] List of the main texts on procurement and materials management inclusive of a summary of their content.

La Federazione ha sempre fatto affidamento alle entrate finanziarie associate alla possibilità di utilizzare il suo nome e logo per congressi, conferenze e seminari. Potevano anche essere prese in considerazione altre fonti di finanziamento, ma sarebbe stato necessario valutarne i rischi, le implicazioni e le controindicazioni.

La Conferenza di Dublino

A Dublino, in occasione del quarto Congresso Mondiale dell'IFPMM, il Capo di Stato ricevette il Presidente e il Comitato Esecutivo della Federazione. Fu la prima volta nella storia della Federazione e questo particolare trattamento, fu da molti interpretato come il segno di una Federazione matura e capace di dare un contributo fattivo allo sviluppo armonico del commercio internazionale.

Nella riunione del Consiglio che precedette il Congresso, emersero chiaramente i motivi che avevano rafforzato la statura della Federazione. Tra le sue pubblicazioni infatti, figuravano non solo quelle presentate al Consiglio di Londra, ma anche una nuova edizione dei programmi di addestramento e formazione, un supplemento alla Bibliografia del 1982, un manuale sulla governance della Federazione, vari opuscoli sul tema 'How to Buy' e l'impegno dell'associazione britannica a predisporre e pubblicare un nuovo glossario, in più lingue, sulla terminologia del procurement e del materials management.

Dopo lunghe discussioni e la rimozione della clausola di obbligatorietà applicativa, si approvò il codice etico della Federazione. Attualmente la sua conformità applicativa è un prerequisito indispensabile per l'adesione all'IFPSM. Nel corso del Consiglio fu anche approvata la promozione di seminari di alto livello sotto l'egida dell'International Management Institute[11]. La decisione più significativa riguardò però la disponibilità di nuovi fondi per il perseguimento degli obiettivi professionali della Federazione. Il past President Hans Ovelgönne mise infatti a disposizione della Federazione un fondo per la ricerca avanzata nel settore. Un gesto tipico della sua natura generosa e lungimirante. La donazione da parte di tre aziende svizzere per lo sviluppo di nuove associazioni, dimostrò altresì la sensibilità di alcuni delegati nei confronti dei colleghi di paesi che non disponevano di alcuna associazione di supporto e riferimento.

Il Congresso mondiale di Dublino fu caratterizzato da due presentazioni magistrali. Una sul tema: '*Avere successo negli anni '80*', durante la quale il Direttore Generale del GATT[12] parlò della necessità per le vecchie economie industriali di affrontare la sfida della commercializzazione delle nuove tecnologie.

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[11] Joint venture tra IFPMM e Camera Internazionale di Commercio di Parigi per la preparazione ed erogazione di seminari internazionali per manager.

[12] General Agreement on Tariff and Trade (Accordo Generale sulle Tariffe Doganali e sul Commercio), sostituito dal 1° Gennaio 1995 dall'Organizzazione Mondiale del Commercio o World Trade Organisation (WTO).

The Federation had always relied on the financial income associated with the use of its name and logo for congresses, conferences and seminars. Other sources of founding could also be considered, but the risk, implications and contraindications need to be carefully assessed.

The Dublin Conference

In Dublin, on the occasion of the fourth IFPMM World Congress, the Head of State received the President and the Executive Committee of the Federation. It was the first time in the history of the Federation and this special treatment was interpreted by many as the sign of a mature Federation capable of making an effective contribution to the harmonious development of the international trade.

In the meeting of the Council that preceded the Congress, the reasons that had strengthened the stature of the Federation clearly emerged. In fact, his publications included not only those presented to the London Council, but also new edition of the training and education programmes, a supplement to the 1982 Bibliography, a handbook on the governance of the Federation, various brochures on the theme 'How to Buy', and the commitment of the British association to prepare and publish a new glossary, in several languages, on the terminology of procurement and materials management.

After long discussions and the removal of the clause regarding its mandatory application, the Federation's code of ethics was approved. Currently its compliant application is a basic prerequisite for joining the IFPSM. During the Council, the promotion of high-level seminars under the aegis of the International Management Institute[10] was also approved. The most significant decision however, concerned the availability of new funds for the pursuit of the professional objectives of the Federation. In fact, Past President Hans Ovelgönne made a fund available for advanced research in the sector. A typical gesture of his generous and forward-looking nature. The donation by three Swiss corporations for the development of new associations, also demonstrated the sensitivity of some delegates towards colleagues from countries that did not have any support and reference association.

The World Congress in Dublin was marked by two master speeches. One on the theme: *'Be successful in the eighties*' during which Arthur Dunkel, the Director General of GATT[11] spoke about the need for the older industrial economies to face the challenge of commercializing new technologies.

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[10] Joint venture between IFPMM and the Paris International Chamber of Commerce for the preparation and delivery of international seminars for managers.

[11] General Agreement on Tariff and Trade, replaced on January 1st 1995 by the World Trade Organisation (WTO).

La seconda, fu fatta dal Professor Robert J. Ballon e riguardò il tema: '*Le tecnologie come mezzo di prosperità e ricchezza aziendale nei paesi evoluti*'.

Al termine del Congresso, il discorso di commiato del Presidente uscente Pedersen ricevette l'ovazione che giustamente meritava. Durante il suo mandato infatti le attività della Federazione ricevettero un nuovo impulso e una significativa accelerazione. Molto di ciò che era stato pianificato nei primi anni della Federazione era stato portato a termine e fu altresì migliorato il sistema di governance del Comitato Esecutivo. La sua presidenza sarà ricordata a lungo, anche per la preparazione e diffusione di numerosi scritti sul Procurement e Materials Management.

La seconda decade[13]

Nel 1983 l'argentino Victor F. Diego prese il posto di John Pedersen e il suo mandato continuò fino alla fine del 1985. Egli sarà ricordato per le sue capacità diplomatiche e negoziali fuori dal comune, ma anche per aver istituito le Conferenze regionali. Durante la sua presidenza fu erogato il primo seminario di un percorso formativo di alto livello, un'iniziativa non alla portata della maggior parte delle associazioni, furono messe in circolazione nuove pubblicazioni e furono riviste le modalità di interazione con le altre organizzazioni internazionali.

Nel 1986 iniziò il suo mandato presidenziale Madhav L. Capoor. Era la prima volta di un Presidente della regione Asia-Pacifico e in modo specifico di un autorevole personaggio dell'India. In quel periodo il ruolo di Segretario Generale della federazione fu ricoperto da Albert Röosly, succeduto alla danese Gudde Olsbro e gli uffici della Federazione furono collocati nella sede dell'associazione svizzera SVME[14].

La seconda metà degli anni 80 fu caratterizzata da una grande trasformazione della funzione acquisti. Eravamo infatti entrati nell'era della globalizzazione e buona parte dei manager del procurement dovette cambiare strategie e politiche d'acquisto e iniziare a cimentarsi in contesti con lingua, cultura e best practices diverse. L'area economica dell'Asia-Pacifico era diventata un attore primario del commercio mondiale e alcuni paesi, conosciuti come le 'Tiger Countries', stavano replicando il successo già avuto dal Giappone, realizzando tassi di crescita annuale a due cifre. L'aver nominato un Presidente della Federazione proveniente da questo nuovo scacchiere, fu visto da molti come mossa lungimirante del Consiglio.

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13 La narrativa del secondo decennio della Federazione è molto più sintetica e scarna rispetto a quella della prima decade. Essa rispecchia lo scritto lasciatoci dal Segretario Generale Mike Taylor che avendo esercitato il suo ruolo fino al 1981, non ha avuto modo di vivere di prima persona i vari eventi che l'hanno caratterizzata.

14 Oggi Procure-CH.

The second was made by Professor Robert J. Ballon and concerned the theme: '*Technologies as a means of prosperity and corporate wealth in developed countries*'.

At the end of the Congress the accomplishment of President Pedersen's term of office received the ovation he so richly deserved. In Fact, during his term the activities of the Federation received a new impetus and a significant acceleration. Much of what had been planned in the early years of the Federation had been accomplished and the governance system of the Executive Committee was also improved. His presidency will long be remembered also for the preparation and dissemination of numerous writings on procurement and materials management.

The Second decade[12]

In 1983 the Argentine Victor F. Diego took over from John Pedersen and his mandate continued until the end of 1985. He will be remembered for his extraordinary diplomatic and negotiation skills, but also for having set up the regional conferences. During his presidency the first seminar of a high-level training course was provided, an initiative beyond the reach of most associations. New publications had circulated and the way of interacting of with other international organisations had been reviewed.

In 1986 Madhav L. Capoor began his presidential term. It was the first time for a President of the Asia-Pacific Region, and specifically for an outstanding executive from India. At that time the role of Secretary General was covered by Albert Röosly, who succeeded the Danish Gudde Olsbro, and the offices of the Federation were located in the headquarters of the Swiss association SVME[13].

The second half of the '80s had been characterized by a major transformation of the purchasing function. In fact, we entered the era of globalisation and a large part of the purchasers had to change their strategies and policies and to start fighting in environments with different language, culture and best practices. The Asia-Pacific economic area had become a major player in the world trade and some countries, known as the 'Tiger Countries', were replicating the success already achieved by Japan, with double-digit annual growth rate. Having appointed a President of the Federation from this new chessboard was seen by many as a forward-looking move by the Council.

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12 The narration of the second decade of the Federation is much more synthetic and skinnier than that of the first decade of the Federation. It reflects the writing left by the Secretary General Mike Taylor, who, having exercised his role until 1981, did not have the opportunity to experience firsthand the various events that characterized it.

13 Today Procure-CH.

Nel 1985 il Congresso Mondiale dell'IFPMM venne organizzato a Vancouver, Canada, mentre quello del 1987 ebbe luogo a Rio de Janeiro, Brasile alla presenza di ben settecento partecipanti. Il keynote speaker per eccellenza fu l'ex Segretario di Stato americano Henry Kissinger e il comitato esecutivo della Federazione, unitamente al Board dell'ABAM – l'associazione locale - ebbero l'onore di partecipare ad un banchetto in onore dell'illustre ospite. Dopo qualche mese, con grande rammarico della Federazione, ABAM chiudeva i battenti.

In 1985 the IFPMM World Congress was organized by PMAC in Vancouver, Canada, while in 1987 it was held by ABAM in Rio de Janeiro, Brazil. An impressive seven hundred participants attending the event, in an another just developing area of the globe. The keynote speaker was the former US Secretary of State, Henry Kissinger, and the Executive Committee of the Federation together with the Board of ABAM, had the honor to attend a banquet with the illustrious guest. To the regret of the Federation, ABAM disappeared just after this congress.

Il Presidente dell'IFPMM Hugo Salvisberg, accompagnato dal Segretario Generale della Federazione Albert Röosly, consegna a Henry Kissinger un riconoscimento a memoria del suo intervento al Congresso Mondiale di Rio de Janeiro

The President of IFPMM Hugo Salvisberg, accompanied by the Secretary General of the Federation Albert Röosly presents Henry Kissinger with a tribute in memory of his speech at the World Congress in Rio de Janeiro.

Nel biennio 1988-1989 il Presidente della Federazione fu lo svizzero Ugo Salvisberg. Personaggio di grande autorevolezza e impegno, che gestì la Federazione con dedizione, prestando molta attenzione anche ai rapporti con le altre organizzazioni internazionali. Al termine del suo mandato, lasciò uno scritto di commiato e ringraziamento, comprensivo delle principali decisioni e attività portate a termine. Tra le stesse è opportuno annoverare:

- L'adozione del franco svizzero come valuta ufficiale della Federazione (il dollaro americano aveva subito inattese e sensibili svalutazioni).
- La costituzione di un fondo di riserva il cui ammontare copriva di fatto il costo annuale della Federazione.
- la fondazione dell'associazione spagnola (AERCE) e di quella sudafricana (IPSA) grazie anche al supporto delle associazioni svizzera e argentina.
- l'adozione da parte della Federazione dell'ISO 9000.
- L'assegnazione della Gardner-Thémoin alla Fondazione Europea per la Gestione della Qualità.
- La cessazione dell'attività dell'International Management Institute causa il mancato gradimento dell'iniziativa da parte dell'IPS (oggi CIPS) e NAPM.

In the period 1988-1989 the President of the Federation has been Hugo Salvisberg from Switzerland. Character of great authority and commitment who managed the Federation with dedication and paid close attention to the relations with other international organisations. At the end of his mandate, he has been keen enough to provide the following flashes about his presidency. Among them it is worth mentioning:

- The adoption of the Swiss Franc as the official currency of the Federation (the US dollar had undergone an unexpected and significant devaluation).
- The establishment of a reserve fund whose amount covered the annual cost of the Federation.
- The foundation of the Spanish (AERCE) and South African (IPSA) associations thanks also to the support of the Swiss and Argentine associations.
- The adoption by the Federation of the ISO 9000.
- The assignment of the Garner-Thémoin to the European Foundation for Quality Management.
- The closure of the International Management Institute due to the disapproval of the initiative by IPS (today CIPS) and NAPM.

La prima metà degli anni ’90 ha visto la presidenza di tre grandi personalità:

Ken Snooks	IPS	Great Britain	1990-1991
Ashok Sharma	IIMM	India	1992-1993
Klaus Bapp	BME	Germany	1994-1995

Ken Snooks assunse la presidenza immediatamente dopo l’uscita dalla Federazione dell’associazione americana NAPM e della canadese PMAC. I motivi dell’abbandono furono diversi, ma soprattutto ascrivibili a incomprensioni tra alcuni membri del Comitato Esecutivo della Federazione ed i delegati delle due associazioni. Tra i vari meriti di Ken, quello più significativo fu quello di aver posto le basi per il rientro sia di NAPM che di PMAC.

Ashok Sharma portò a compimento il rientro dell’associazione americana NAPM nella Federazione e fu il protagonista indiscusso, in termini di entusiasmo e dedizione, dell’ottavo Congresso mondiale di Bombay nel 1993. Un grande evento con circa 800 partecipanti nel colorato, ospitale e pittoresco contesto indiano. Il Governatore del Maharashtra, P.C. Alexander organizzò nella sua residenza un ricevimento per i membri del Comitato Esecutivo della Federazione. Ma questo fu solo uno dei tanti momenti salienti di questo grande evento. Ashok verrà ricordato come il promotore del miglioramento dei rapporti tra i vari delegati della Federazione e per la spinta data alla collaborazione tra tutte le sue associazioni.

Klaus Bapp guidò il cammino della Federazione nel biennio 1994-1995. Tra le varie iniziative, gestite con pazienza e determinazione, va ricordata la promozione e diffusione del ‘Lean Management’ negli approvvigionamenti. Manager preparato e propositivo, rese applicativo il primo business plan della federazione sviluppato dall’australiano Alan Davison. Promosse altresì la stipula di un contratto editoriale con una società inglese, aumentando tra l’altro i ricavi della Federazione. Nello spazio di qualche anno le riviste IFPMM European Purchasing Journal e Asia Pacific IFPMM Purchasing Journal, diventarono le pubblicazioni ufficiali della Federazione, contribuendo in modo sostanziale a rimpinguare i suoi ricavi.

William A. Bales sostituì Klaus Bapp, diventando Presidente dell’IFPMM nel il biennio 1996-1997.

The first half of the ‘90s saw the presidency of three great personalities:

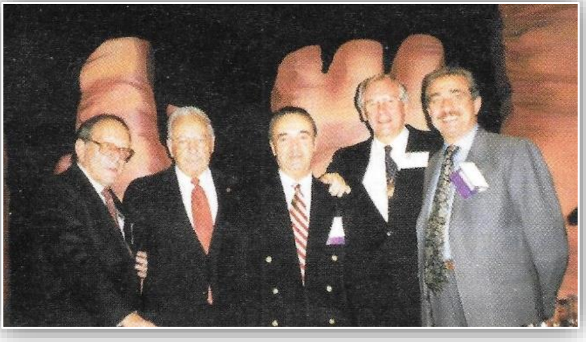
Ken Snooks	IPS	Great Britain	1990-1991
Ashok Sharma	IIMM	India	1992-1993
Klaus Bapp	BME	Germany	1994-1995

Ken Snooks took over the presidency immediately after the American association NAPM and the Canadian PMAC left the Federation. The reasons for their abandonment were various, but above all attributable to misunderstandings between some members of the Executive Committee of the Federation and the delegates of the two associations. Among Ken’s various merits, the most significant was to have laid the foundations for the return of both NAPM and PMAC.

Ashok Sharma finalized the return of NAPM into the Federation and has been the undisputed protagonist, in terms of enthusiasm and dedication, of the eight World Congress in Bombay in 1993. A great event with about 800 participants in the colorful, hospitable and picturesque environment of India. The Governor of Maharashtra, Mr. P.C. Alexander organized a reception for the members of the Executive Committee at his residence. But this was only one of the many highlights of this great event. Ashok will be remembered as the promoter of the improvement of the relations between the various delegates of the Federation and for the impetus given to the collaboration among all member associations.

Klaus Bapp led the Federation’s path in 1994 and 1995 and introduced the lean management concept in many associations. He was determined and very proactive. Among the various initiatives, he progressively implemented the first business plan developed by a team chaired by Alan Davison from Australia and promoted the stipulation of a publishing contract with an English company, increasing among the other advantages, the Federation’s revenue. In the space of a few years, the IFPMM European Purchasing Journal and the Asia-Pacific IFPMM Purchasing Journal became the official publications of the Federation, contributing substantially to its revenues.

William A. Bales replaced Klaus Bapp, becoming the IFPMM President for 1996 and 1997.



10° Congresso mondiale IFPMM a Phoenix (USA) 12-14 novembre 1997

da sinistra a destra:

Giuliano Marcenaro, il Presidente uscente IFPMM William A. Bales, Giovanni Atti nuovo Tesoriere IFPMM, il nuovo Presidente IFPMM Stuart Humby, Domenico Arcidiacono, ADACI.

10th World Congress IFPMM in Phoenix (USA) November, 12-14 1997

from left to right:

Giuliano Marcenaro, ADACI, the IFPMM outgoing President William A. Bales, Giovanni Atti IFPMM new Treasurer, The IFPMM new President Stuart Humby, Domenico Arcidiacono, ADACI.

A chiusura di questo scritto sull'origine e sviluppo dell'IFPSM, riportiamo parte del rapporto di fine mandato presentato da William A. Bales, dal titolo: '*IFPMM, i miei anni gioiosi*'.

«Le esperienze e per le situazioni vissute in questi anni mi hanno fatto capire quante persone degne di attenzione e di stima ci siano attorno a noi, e questo ho avuto modo di sperimentarlo molte volte.

Il mio mandato come Vice Presidente e Presidente è stato davvero eccezionale.

Molto interessante e istruttivo è stato anche conoscere i vari punti di vista esprimibili su uno stesso argomento, in relazione alle diversità di cultura, istruzione e situazione economica dei nostri interlocutori. C'è sempre la possibilità che ciò che è considerato 'buono' per qualcuno, non sia 'buono' o sia meno accettabile per altri.
Tutti abbiamo bisogno di ascoltare di più e parlare di meno.

Ammetto di non aver sempre seguito questo suggerimento. Possiamo sempre imparare dagli altri, ma è necessario tenere occhi e orecchie sempre ben aperti.

Lavorare con Ashok Sharma, Klaus Bapp e Stuart Humby è stato molto istruttivo. Personalità diverse, ma con un obiettivo comune: la crescita e sviluppo della nostra Federazione.
A ciascuno di essi e a tutti quelli che li hanno preceduti va la nostra stima per la loro dedizione e il loro impegno.

Spesso frainteso, ma veritiero è il principio in base al quale possiamo fare di più insieme che da soli.
Facile da dire, ma difficile da mettere in pratica, perché spesso i problemi del day.by-day favoriscono l'individualismo. L'IFPMM, parimenti ad ogni altra organizzazione internazionale, continuerà a crescere nella misura in cui saprà ricevere, ricercare e distribuire informazioni ad elevato valore aggiunto, a supporto delle professioni che rappresenta.
La Federazione non è un'organizzazione perfetta, perché noi non lo siamo. Nessuno ha sempre ragione, ma ognuno deve fare del suo meglio in ogni specifica situazione.

Faccio i migliori auguri alla Federazione e a tutte le associazioni che ne fanno parte.
Siete tutti la risposta e la testimonianza della sua continua crescita.
Mantenete sempre un atteggiamento positivo, puntando su ciò che ci tiene uniti.
Non dobbiamo essere d'accordo su tutto e dobbiamo tenere presente che il nostro obiettivo è l'avanzamento della professione.

Un caro saluto a tutti.»

William A. Bales

Certified Purchasing Manager

At the end of this writing on the origin and development of the IFPSM, we reproduce hereunder part of the end-of-term report submitted by William A. Bales, titled: '*IFPMM my joyous years*'.

«Thanks to the experiences and situations faced in these years, I have realized how many great people worthy of attention and esteem there are around us, and I have experienced this many times.

My terms on the Executive Committee as Senior Vice President and President were truly great.

It has been very interesting and instructive to hear different interpretation of a subject as judged by different cultures, education and economic situation of our interlocutors. There is always a chance that what is good for one is not good or at least attainable, for others.
We all need to listen more and talk less.

I do admit that I have not always practiced that habit well. We can always learn from others, but we need to keep our eyes and ears open at all times.

Working with Ashok Sharma, Klaus Bapp and Stuart Humby was a beneficial experience as their personalities were different but they all had one major goal: the advancement of our Federation.
Each of these gentlemen and those that preceded them are due our respect because their dedication and time expended for all us.

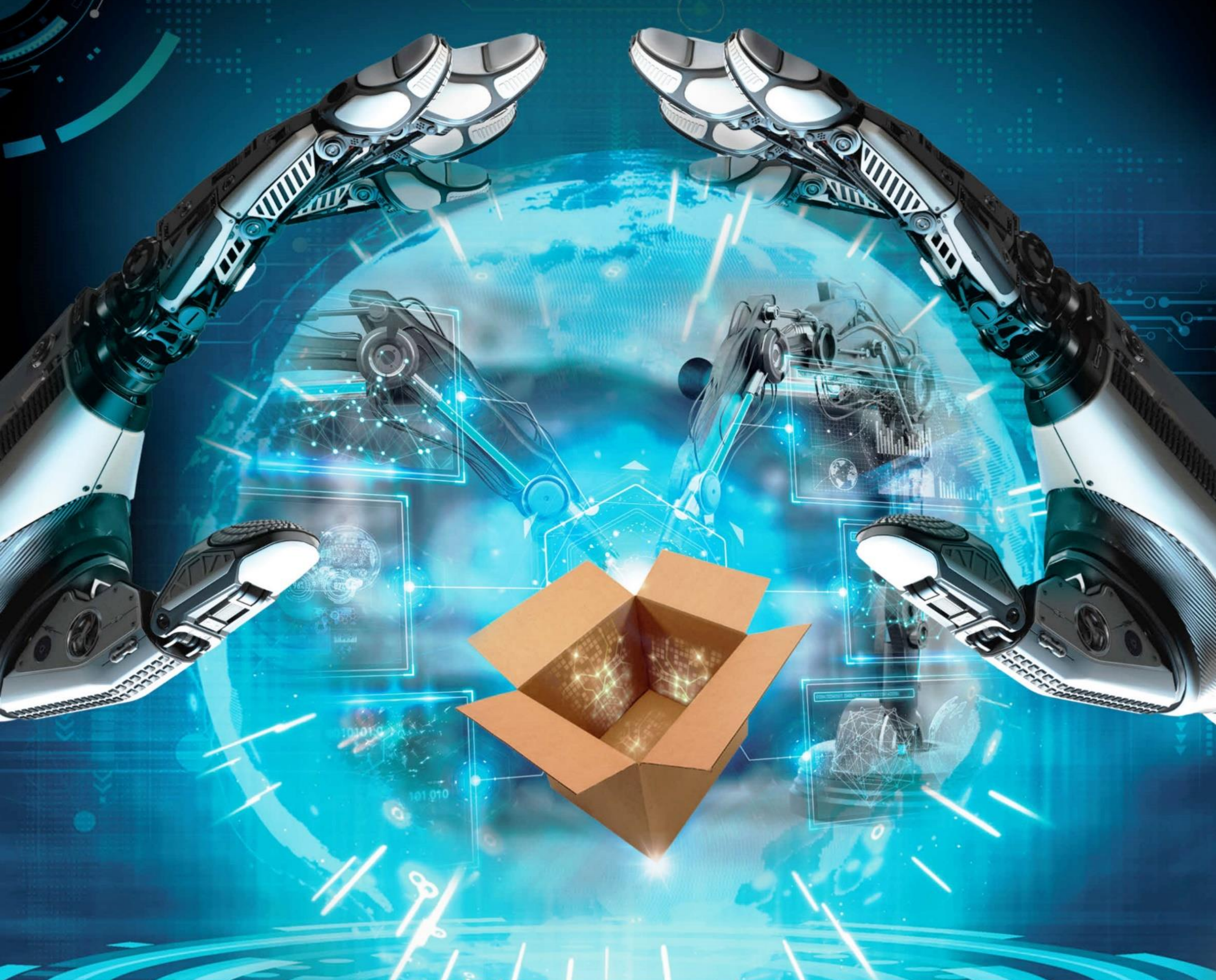
Often misunderstood but true is the principle that we can accomplish more together than alone.
Easy to say but difficult to put in practice, because the day-by-day problems often favour the individualism.
The IFPMM, like any other international organisation, will continue to grow to the extent that it will be able to receive, research and distribute information and knowledge with high added value, in support of the professions it represents.
The Federation is not perfect, because we are not. No one is always right, but everyone has to do their best in each specific situation.

My best wishes to the Federation and to all its associations.
You are the answer and testimony of its continuous growth.
Always maintain a positive attitude, focusing on what keep us together.
We do not have to agree on everything and we must keep in mind that our goal is the advancement of the profession.

Sincerely.»

Wlliam A. Bales

Certified Purchasing Manager



Giovanni Atti
ADACI Past President
IFPSM Board Member

Venice 1977

Florence 2023

Summit di Venezia e Firenze e relativi scenari economici

Introduzione

Dopo 46 anni il summit della federazione mondiale del procurement e supply management torna in Italia. Venezia 1977 e Firenze 2023, due eventi di grande rilievo in momenti storici diversi, caratterizzati entrambi da scenari economici critici - carenza di materie prime - e da alcune sorprendenti analogie. Leggendo infatti i commenti e le conclusioni del convegno, scritti nel lontano 1977, non si possono non notare anticipazioni lungimiranti, non diverse da quelle oggi fatte da molti economisti.
Oggi come allora, la procurement community internazionale si riunisce per un confronto aperto di opinioni e scambio di best practice. Relatori provenienti da vari paesi si cimenteranno sui temi caldi del procurement, dibattendo in particolare il tema di base del summit: '*Gli acquisti come promotore di innovazione e valore aggiunto e, al contempo, come forza di contrasto all'inflazione, carenza di materiali e instabilità geopolitica*'.

I contenuti del convegno sono stati scelti da un team internazionale, mentre l'organizzazione dell'evento è gestita da ADACI, che ha profuso ogni sforzo per assicurare al summit il dovuto successo. Su richiesta del Presidente della Federazione, Chris Oanda, è stata aggiunta una sessione dedicata al public procurement, in cui esperti della Pubblica Amministrazione di vari paesi dibatteranno tematiche di rilievo quali:

- Principi fondanti del Public Procurement.
- Come assicurare alle PMI una maggior quota della spesa pubblica.
- Come gestire l'innovazione nel Public Procurement.
- Come suddividere la spesa a livello locale, regionale e nazionale per coinvolgere le imprese dell'intero paese.
- Stazioni appaltanti: da entità amministrative a centri di competenza per specifiche categorie di prodotti e servizi.

Venice and Florence summits and related economic scenarios

Introduction

After 46 years, the summit of the International Federation of Purchasing and Supply Management returns to Italy. Venice 1977 and Florence 2023, two major events in different historical moments, both characterized by critical economic scenarios – raw materials shortages - and some surprising similarities. In fact, reading the comments and conclusions of the conference, written way back in 1977, one can notice long-term anticipations and forecasts similar to those envisaged by many economists.
Today as then, the international procurement community meets for open discussions, benchmark of opinions and exchange of best practices. Outstanding speakers from various countries will tackle the hot topics of procurement, and will dig on the basic theme of the summit: '*Procurement to lead innovation and value capture, while coping with inflation, shortages and geopolitical instability.*'

The contents of the summit have been defined by an international team, and the organization of the event has been managed by ADACI, which put in place every effort to ensure the due success of the event. At the request of the President of the Federation, Chris Oanda, a session dedicated to the public procurement has been added. During the same, public administration experts from various countries will discuss important issues such as:

- Founding principles of public procurement.
- How to ensure a greater share of public spending to small enterprises.
- How to manage innovation in public procurement;.
- Spending aggregation at local, regional and national level to involve vendors located throughout the entire country.
- Contracting authorities: from administrative bodies to competence centres focused on specific categories of goods and services.

Nell'articolo precedente: *'Origine e Sviluppo dell'International Federation of Purchasing and Supply Management (IFPSM)',* è stato presentato un quadro conoscitivo della Federazione. In questa sede, ci limitiamo ad elencare il sito e le date di tutti i congressi mondiali organizzati dall'IFPSM.

In the previous article: *'Origin and Development of the International Federation of Purchasing and Supply Management (IFPSM)',* a cognitive picture of the federation has been traced. Here, we simply list the sites and the dates of all the world summits organized by IFPSM.

Anno	*Città*	*Paese*	*Anno*	*Città*	*Paese*
1977	*Venice*	*Italy*	*2003*	*Lucerne*	*Switzerland*
1979	*Mexico City*	*Mexico*	*2005*	*Beijing*	*China*
1981	*Stockholm*	*Sweden*	*2007*	*Bath*	*United Kingdom*
1983	*Dublin*	*Ireland*	*2009*	*Las Vegas*	*USA*
1985	*Vancouver*	*Canada*	*2011*	*Stockholm*	*Sweden*
1987	*Rio De Janeiro*	*Brazil*	*2013*	*Bangkok*	*Thailand*
1989	*The Hague*	*Netherlands*	*2015*	*Barcelona*	*Spain*
1993	*Mumbai*	*India*	*2017*	*Taipei*	*Taiwan*
1995	*Vienna/Budapest*	*Austria/Hungary*	*2018*	*Helsinki*	*Finland*
1997	*Phoenix*	*USA*	*2019*	*Mombasa*	*Kenya*
1999	*Sidney*	*Australia*	*2022*	*Bali*	*Indonesia*
2001	*Cape Town*	*South Africa*	*2023*	*Florence*	*Italy*
			2024	*Cancun*	*Mexico*

Summit di Venezia del 1977, scenario economico di riferimento e conclusioni

Tratto dalla pubblicazione ADACI '1968-2008, quarant'anni di vita associativa' - a cura di Giuliano Marcenaro e Michele Anzivino

Il primo congresso mondiale degli approvvigionamenti – Venezia, 20 Aprile 1977 – ha avuto luogo in un periodo economico abbastanza critico. Infatti, dopo venticinque anni di sviluppo senza precedenti, l'ultimo quarto di secolo si caratterizzava all'insegna dell'incertezza. Forti perplessità riguardavano, tra l'altro, la disponibilità delle materie prime necessarie a sostenere il crescente sviluppo. I segnali lanciati dal Club di Roma con il rapporto sul non lontano esaurimento delle risorse non rinnovabili, preoccupava i compratori di tutto il mondo e le associazioni di categoria, cercarono di indicare agli operatori del procurement come superare le difficoltà che si profilavano all'orizzonte. Eravamo alla vigilia della grande crisi globale o recessione del 1980-1982, la maggiore dalla seconda guerra mondiale, seguita alla crisi petrolifera del 1979 originata dalla rivoluzione iraniana.

Questo è lo scenario economico in cui si è svolto il primo congresso mondiale degli approvvigionamenti, affidato alla giovane associazione italiana, che grazie alla tenacia del suo delegato in ambito IFPMM[1], Giorgio Gallo, era riuscita a strapparlo all'associazione americana NAPM[2].

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[1] Fino al 2005 l'IFPSM era denominata IFPMM: International Federation of Purchasing and Materials Management.

[2] National Association of Purchasing Management, oggi ISM: Institute for Supply Management.

Venice Summit of 1977, relevant economic scenario and conclusions

Ref. ADACI Publication: '1968-2008, forty years of association life' – by Giuliano Marcenaro and Michele Anzivino

The first world procurement congress – Venice, 20 April 1977 - took place in a fairly critical economic period.

Indeed, after twenty-five years of unprecedent development, the last quarter of the century was characterized by uncertainty. Strong perplexities concerned, among other things, the availability of the raw materials necessary to support the growing development. The signals launched by the Club of Rome with the report on the imminent depletion or unavailability of non-renewable resources, worried buyers from all over the world and most procurement associations who tried to indicate their members the most appropriate ways to overcome such difficulties.

We were on the eve of the great global crisis or recession of 1980-1982, the largest since World War II, which followed the 1979 oil crisis originated from the Iranian revolution.

This is the economic scenario in which the first world procurement congress took place.

It was assigned to the young Italian association, which thanks to the tenacity of its IFPMM[1] delegate, Giorgio Gallo, was preferred over the American NAPM[2].

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[1] Until 2005 IFPSM was called IFPMM: International Federation of Purchasing and Materials Management.

[2] National Association of Purchasing Management, actually ISM: Institute for Supply Management.

I temi dibattuti nel convegno hanno spaziato dalle difficoltà di reperimento delle materie prime, alla necessità di assumere urgenti misure per assicurare la conservazione delle risorse e dell'energia, garantendo al contempo, lo sviluppo professionale della funzione approvvigionamenti. Se questa sintesi non fosse estrapolata dalla rivista ADACI dell'epoca, si potrebbe pensare che stiamo parlando del periodo post-pandemico, degli attuali obiettivi di ESG e del reengineering della funzione.

Le soluzioni proposte dai relatori nel 1977, per ridurre le conseguenze della situazione contingente, hanno spaziato dallo sviluppo di programmi tesi a contenere la crescita demografica, al rallentamento della crescita dei consumi e alla distribuzione più razionale delle risorse. Si è anche sottolineato che attraverso la normalizzazione e standardizzazione, la flessibilizzazione delle specifiche tecniche, l'eliminazione degli sprechi e il recupero degli scarti, sarebbe stato possibile ottimizzare l'utilizzo delle risorse naturali e aumentare la produttività delle imprese. Fu anche evidenziato che la continuità dei flussi di approvvigionamento sarebbe stata penalizzata dalle scelte politiche di alcuni paesi e dalle concentrazioni produttive di determinate materie prime.

Venne altresì sottolineata la criticità dei trasporti, la necessità di migliorare la scorrevolezza dei flussi monetari, nonché i rapporti finanziari tra i vari paesi.

Un futuro che avrebbe portato gli approvvigionamenti in una posizione ancora più critica e prestigiosa, dovendo essi accompagnare alla regolarità dei flussi produttivi, una gestione dei materiali che non pregiudicasse le capacità dell'impresa di soddisfare il proprio mercato. Il procurement avrebbe quindi ampliato le proprie competenze trasformandosi in 'Materials Management', contribuendo così ad assicurare all'impresa i margini di profitto necessari per promuovere ricerca e sviluppo.

Il Summit di Venezia è stato un grande successo con numeri, per quei tempi, indubbiamente sbalorditivi: 481 partecipanti, di cui 197 italiani, in rappresentanza di 29 paesi e 172 accompagnatori.

Si trattava del primo congresso mondiale dopo l'unificazione delle due federazioni: the European Federation of Purchasing (EFP) e l'international Federation of Purchasing (IFP). Una novità assoluta. I soci delle due federazioni, che per oltre dieci anni erano state rivali, si incontravano per la prima volta. Il mondo della consulenza non era ancora entrato nel procurement, non c'erano Internet e i social media e il ritrovarsi assieme scambiando opinioni e best practices, assicurava valore aggiunto, rafforzava il ruolo della funzione e dava origine alla comunità internazionale dei compratori.

L'impegno di ADACI è stato notevole, ma il successo della manifestazione ha ripagato ampiamente ogni sforzo, come attestano i numeri e soprattutto la soddisfazione espressa da tutte le delegazioni presenti.

The themes debated in the conference ranged from the difficulties in finding raw materials, to the need to take urgent measures to assure the conservation or resources and energy, granting, at the same time, the professional development of procurement. Were this summary not taken from the ADACI journal of that time, one might think we are talking about the post pandemic period, current EGS goals and the reengineering of procurement.

The solutions proposed by the speakers in 1977, to reduce the consequences of the contingent situation, ranged from the development of programmes aimed at containing the demographic growth, to slowing down the rate of consumptions and to the better distribution of resources. It was also underlined that through the normalization and standardization of the basic technical solutions, the flexibility of the specification, the elimination of waste and the recycling of scraps, it would have been possible to optimize the use of natural resources and increase the productivity of the companies. It was also highlighted that the continuity of supplies would have been penalized by the political choices of some countries and by the concentrations of the production of certain raw materials.

The criticalities of transports, the need to speed up the monetary flows, as well as the financial relations between the various countries were also underlined.

A future that would have brought procurement to an even more critical and prestigious position, since it was expected to ensure the regularity of production flows without jeopardizing the company's ability to meet the market demand. Procurement would therefore have expanded it skills and competences by transforming itself into 'Materials Management', helping to ensure the company's profit margins necessary to promote research and development.

The Summit of Venice was a great success also in terms of people present: 481 participants, 197 of whom were Italians, representing 27 countries and 172 accompanying persons.

It was the first world congress after the unification of the two federations: the European Federation of Purchasing (EFP) and the International Federation of Purchasing (IFP). An absolute novelty. The members of the two federations, which had been rivals for over ten years, were meeting for the first time, The world of consultancy had not yet entered the procurement, there were no Internet and social media, and meeting together, exchanging opinions and best practices ensured added value, strengthened to role of the function and gave rise to the international community of buyers.

ADACI commitment was remarkable, but the success of the event amply repaid every effort as attested by the above numbers and the satisfaction expressed by all the delegations attending the summit.

Lo splendore della Fondazione Cini, la magia del concerto dei Solisti Veneti nella chiesa di San Giorgio e l'incanto di Venezia, hanno fatto da cornice ad un evento che è stato da tutti ricordato per molti anni.
Questo l'elenco delle delegazioni presenti a Venezia:

The splendor of the Cini Foundation, the magic of the Solisti Veneti concert in the church of San Giorgio and the enchantment of Venice were the setting for an event that was remembered by everybody for many years.
Here is the list of Delegations present in Venice:

Argentina	*France APASP (Government Procurement)*	*Israel*	*Philippines*
Australia	*France CDAF (29 Delegates)*	*Italy*	*Portugal*
Austria	*Germany (42 Delegates)*	*Japan*	*Singapore*
Belgium	*Great Britain (37 Delegates)*	*Mexico*	*South Africa*
Canada	*Hong Kong*	*Netherlands*	*Sweden*
Denmark	*India (22 Delegates)*	*New Zeland*	*Switzerland*
Finland (19 Delegates)	*Ireland*	*Norway*	*USA NAPM (22 Delegates)*
			USA NIGP (Government Procurement)

Photo on the left: Presidency Table of the 1st IFPMM World Congress in Venice

From the left:
Aldo Ferrari, Councilor of the Municipality of Venice
Ferruccio Lucchetti, ADACI President
Hans Ovelgonne, IFPMM President
Michael Taylor, IFPMM General Secretary
François Trappeniers, EEC Representative

Photo below: Part of the Congress participants

Summit di Firenze del 2023

Scenario economico internazionale

Tratto in parte dalle Considerazioni finali del Governatore della Banca d'Italia nella relazione annuale del 2023

Anche il Summit di Firenze avrà luogo in uno scenario economico complesso, caratterizzato da inflazione elevata e più resiliente del previsto, dal decoupling USA-Cina, dalla scarsità di materie prime e prezzi elevati, dalla revisione delle politiche di globalizzazione e da politiche di autonomia nazionale per le risorse strategiche. Ora come nel 1977, il problema della limitata disponibilità dei materiali costituisce uno dei temi caldi del procurement, tema dibattuto anche nel corso del terzo summit di Stoccolma del 1981, nel corso del quale Peter K. Pollak, Senior Economist della Banca Mondiale di Washington, aveva trattato il tema: '*Disponibilità delle materie prime negli anni '80 e proiezione prospettica dei loro prezzi*'.

Mario Draghi, nel suo discorso al MIT del 7 giugno u.s., ha affermato che «*la guerra in Ucraina, il ritorno dell'inflazione e le tensioni con la Cina hanno spostato silenziosamente la geopolitica globale dalla competizione al conflitto, con conseguenze durature che potrebbero manifestarsi in un minor tasso di crescita e in un aumento dei disavanzi di bilancio e dei tassi di interesse*». «*Nel vecchio continente*», ha detto Draghi, «*stiamo assistendo ad una lotta tra aziende e lavoratori su chi dovrebbe sopportare il costo dell'inflazione. Le imprese, per ora lo hanno messo sulle spalle dei consumatori, mantenendo o addirittura aumentando i loro profitti. Di conseguenza i salari reali hanno perso potere d'acquisto e, alla fine del 2022, erano inferiori del 4% rispetto ai livelli pre-pandemia*».

L'invasione dell'Ucraina da parte della Russia continua ad avere pesanti ripercussioni sull'economia mondiale e a mettere in discussione l'integrazione economica e finanziaria internazionale e l'assetto multilaterale emerso dopo la fine della Guerra fredda.

Summit of Florence 2023

International economic scenario

Ref. Final considerations of the Governor of the Bank of Italy, 2023 Annual Report

The Summit of Florence will also take place in a complex economic scenario, characterized by high inflation - more resilient than expected – US-China decoupling, shortage of raw materials and high prices, review of globalization policies and EU national autonomy for strategic resources. Now as in 1977, the problem of the limited availability of raw materials constitutes one of the hot topics of procurement, a problem also debated during the third Stockholm summit in 1981, during which Peter K. Pollak, senior economist of the World Bank in Washington, dealt with the theme: '*Availability of raw materials in the '80s and prospective projection of their prices*'.

Mario Draghi, in his speech at MIT on June 7th, stated that: «*the war in Ukraine, the return of the inflation and tensions with China have silently shifted global geopolitics from competition to conflict, with lasting consequences that could reduce the rate of growth, increase the budget deficits and bring higher interest rates*». «*In the old continent*» Draghi said, «*we are witnessing a confrontation between companies and workers over who should bear the cost of inflation. Businesses, for now, have put it on the shoulders of consumers, maintaining or even increasing their profits. As a result, real wages have lost purchasing power and, at the end of 2022, were 4% lower than the pre-pandemic levels*».

Russia invasion of the Ukraine continues to have serious repercussions on the world economy and to put questions to the international economic and financial integration and to the multilateral arrangement that emerged after the end of the Cold War.

Il ritorno a una situazione di tensioni e divisioni tra blocchi contrapposti di paesi, rappresenta un pericolo concreto per uno sviluppo sostenibile e bilanciato di tutte le economie.

Nel 2022 la crescita dell'economia mondiale è rimasta al di sotto del 3,5%, un punto percentuale in meno di quanto ci si attendeva alla vigilia dello scoppio del conflitto; quest'anno, secondo il Fondo monetario non raggiungerebbe il 3%. L'inflazione ha sfiorato il 9% a livello globale e nei paesi avanzati ha superato in media il 7%, il valore più elevato da quarant'anni. In alcune economie, in particolare negli Stati Uniti, l'accelerazione dei prezzi è stata sospinta in larga misura dall'impetuoso recupero dei consumi avviato nel 2021, mentre l'offerta era ancora frenata dalle restrizioni imposte dalla pandemia e dagli impedimenti allo scambio internazionale di materie prime e prodotti intermedi che ne erano conseguiti.

In Europa, invece, l'inflazione ha trovato alimento soprattutto nei rincari dell'energia, specie quelli del gas naturale, le cui quotazioni hanno raggiunto valori senza precedenti.

Le previsioni di crescita dell'economia mondiale nei prossimi mesi restano incerte. Pesa il persistere del conflitto in Ucraina; vi sono dubbi circa l'intensità della ripresa dell'economia cinese. Con la discesa dei prezzi dell'energia, l'inflazione oggi è in flessione, in Europa come negli Stati Uniti. Le conseguenze delle tensioni internazionali, e dell'indebolimento della crescita e dell'irrigidimento delle condizioni finanziarie si fanno sentire con particolare intensità nelle economie emergenti e in via di sviluppo. Aumenta la vulnerabilità delle finanze pubbliche, già gravate dall'incremento del debito registrato a seguito della pandemia.

Oggi circa un quarto dei paesi emergenti è considerato ad alto rischio dall'FMI: i differenziali di rendimento dei relativi titoli pubblici si avvicinano ormai a quelli degli emittenti in stato di insolvenza.

L'emergere di fratture nelle relazioni internazionali può avere effetti duraturi, influenzando le strategie aziendali di lungo periodo, incluse quelle di localizzazione delle produzioni.

Dall'invasione dell'Ucraina, le indagini presso le imprese, non solo italiane, mostrano che è in atto una tendenza, per ora moderata, alla regionalizzazione e alla diversificazione delle catene di fornitura. Almeno in Italia, la tendenza si accentua tra le aziende più esposte verso la Cina.

Proteggere e diversificare i flussi di approvvigionamento delle materie prime e dei beni intermedi essenziali è un obiettivo legittimo anche per le politiche pubbliche, ma comporta costi e tempi di aggiustamento non trascurabili; incontra un limite nella distribuzione geografica delle risorse primarie e, almeno nel breve termine, nell'alto livello di specializzazione di alcune produzioni.

The return to a situation of tensions and divisions between opposing blocks of countries represents a real danger for the sustainable and balanced development of all the economies.

In 2022, the world economic growth remained below 3.5%, one percentage point less than expected on the eve of the beginning of the conflict. This year, according to the Monetary fund, it would not reach 3%. Inflation has touched 9% globally and in the advanced countries it has exceeded 7% on average, the highest value for forty years. In some economies, notably in the United States, the acceleration in prices was driven to a large extent by the recovery in consumption that started in 2021, while supply was still held back by the restrictions imposed by the pandemic and by the shortage of raw materials.

In Europe, on the other end, inflation was fueled above all by increases in energy prices, especially those of natural gas, whose prices have reached unprecedented values.

Growth forecasts for the world economy in the coming months remain uncertain. The persistence of the conflict in Ukraine weighs heavily, in addition, there are doubts about the strength of the recovery of the Chinese economy. With energy prices falling, inflation is now declining in Europe as in the United States. The consequences of the international tensions, the weakening growth and the tightening of the financial conditions are being felt with particular intensity in emerging and developing economies. The vulnerability of public finances, already burdened by the increase in debt, is increasing.

Today about a quarter of emerging countries are considered high risk by the IMF: the yield spreads of the related public bonds are now approaching those of insolvent issuers.

The emergence of fractures in international relations can have lasting effects, influencing long-term corporate strategies, including those of localization of production.

Since the invasion in Ukraine, surveys of companies, not only Italian ones, show that there is an ongoing trend, for now moderate, towards regionalization and diversification of supply chains. At least in Italy, the trend is accentuated among the companies most exposed to China.

Protecting and diversifying the supply flows of raw materials and essential intermediate goods is also a legitimate objective for public policies, but it involves non negligible costs and adjustment times, meets a limit in the geographical distribution of primary resources and, at least in the short term, in the high level of specialization of some products.

La sicurezza nazionale può essere tutelata evitando politiche protezionistiche generalizzate, che rafforzerebbero la tendenza all'aumento delle barriere agli scambi commerciali e agli investimenti diretti esteri emersa nell'ultimo quinquennio. Un ricorso indiscriminato a sussidi e restrizioni nel commercio internazionale volto a influenzare la localizzazione delle imprese, oltre a introdurre distorsioni nella concorrenza, rischierebbe di produrre nuove tensioni, anche nei rapporti tra paesi affini per valori, istituti e politiche. In alcuni casi misure protezionistiche potrebbero persino rivelarsi controproducenti rispetto all'obiettivo di accrescere la differenziazione geografica degli approvvigionamenti.

Negli ultimi trent'anni l'apertura dei mercati ha fornito un contributo fondamentale al benessere, non solo economico, di un'ampia parte della popolazione mondiale.

Il numero di persone in condizioni di povertà estrema è sceso da quasi due miliardi a meno di 700 milioni; l'incidenza della popolazione in condizione di malnutrizione si è ridotta nei paesi in via di sviluppo da oltre il 25 a meno del 15 per cento.

Vi si è accompagnato un forte incremento dell'alfabetizzazione e la speranza di vita si è allungata in media di più di 10 anni. I miglioramenti sono stati specialmente evidenti per le economie che in questo periodo si sono pienamente integrate nel commercio internazionale e nelle catene globali del valore.

Sul piano esterno, è dunque necessario preservare il funzionamento delle istituzioni multilaterali e ridare forza alla cooperazione internazionale. Ma occorre, sul piano interno, perseguire misure economiche effettivamente in grado di migliorare il benessere di tutti i cittadini, accompagnandole con una efficace comunicazione di strumenti e obiettivi.

Il Summit

Il summit di Firenze non è più una novità assoluta come lo fu nel 1977. Siamo infatti alla sua ventiquattresima edizione e viviamo in un periodo in cui Internet e social media offrono informazioni su ogni attività e professione. Ciò nonostante, questi convegni continuano ad assicurare un elevato valore aggiunto e impareggiabili opportunità di confronto. Le conoscenze e le competenze in ambito Procurement e Supply Management aumentano infatti di anno in anno, ed essere informati anche sui trend geopolitici e sull'evoluzione dei mercati è oggi indispensabile. È altresì utile sapere come colleghi di altri paesi gestiscono le nostre stesse problematiche. Tutto questo avverrà nelle diverse sessioni del convegno di Firenze che per due giorni diventerà l'agorà ideale ed esclusiva per lo scambio di conoscenze e best practices tra operatori della domanda di mercato pubblica e privata, sia in tema di procurement che di organizzazione e gestione delle filiere produttive.

National security can be protected by avoiding generalized protectionist policies, which would reinforce the trend of increasing barriers to trade and foreign direct investment that has emerged over the last five years.

Indiscriminate recourse to subsidies and restrictions on international trade aimed at influencing the location of business, as well as introducing distortions in competition, would risk producing new tensions, even in relations between countries with similar value, institutions and policies. In some cases, protectionist measures may even prove counterproductive to the objective of increasing the diversity of supplies.

In the last thirty years, the opening of markets has made a fundamental contribution to the well-being, not only economic, of a large part of the world's population.

The number of people in extreme poverty has fallen from almost two billion to less than 770 million, the incidence of the population in condition of malnutrition has decreased in developing countries from over 25 to less than 15 percent.

This has been accompanied by a sharp increase in literacy and life expectancy has increased on average by more than 10 years. The improvements have been especially evident for economies that have become fully integrated into international trade and global-value chains during this period.

On the external level, it is therefore necessary to preserve the functioning of multilateral institutions and restore strength to international cooperation. But it is necessary, internally, to pursue economic measures effectively capable of improving the well-being of citizens, accompanying them with an effective communication of tools and objectives.

The Summit

The summit of Florence is no longer an absolute novelty as it was in 1977. We are in fact at its twenty-fourth edition and we live in a period in which the Internet and social media offer information on every activity and profession. Nonetheless, these conferences continue to ensure a high added value and unparallel opportunities for discussion. In fact, knowledge and competences in the procurement and supply management fields increase every year, and being informed on geopolitical trends and market evolution is essential today. It is also useful to know how colleagues from other countries handle our own issues. All this will take place in the various sessions of the conference in Florence, which for two days will become the ideal and exclusive 'agora' for the exchange of knowledge and best practices between public and private buyers, both in terms of procurement and supply chains management.

Ancora una volta si confronteranno diverse culture e modelli di business: quelli americani, europei, cinesi e giapponesi. Realtà diverse che nessuno pretende di modificare o emulare, la cui conoscenza è però di fondamentale importanza per sapersi muovere su mercati tanto diversi. La presenza di colleghi africani sarà significativa, sono infatti attesi una cinquantina di delegati guidati dal presidente della Federazione Mondiale, il keniota Chris Oanda, un manager di grande valore, insignito della medaglia presidenziale per il suo contributo allo sviluppo delle filiere produttive africane. Per ora, forse, il loro modus operandi non fa ancora tendenza, ma conoscere persone che operano in posizioni chiave in paesi ricchi di materie prime, può sempre essere utile e interessante. Non di meno è interessante allacciare rapporti personali con colleghi di imprese dell'area Asia-Pacifico.

Come accennato più sopra. il tema di base del Summit sarà: **'Procurement to lead innovation and value capture, while coping with inflation, shortages and geopolitical instability.'** Non si tratta di uno slogan promozionale o di un insieme di prerogative ad appannaggio delle grandi aziende, ma degli obiettivi che ogni compratore dovrebbe perseguire in modo coerente col proprio settore, organizzazione e prodotti e servizi immessi sul mercato. Acquistare oggi non significa solo portare a casa ciò che viene richiesto, battendo inflazione e assicurando 'savings', ma essere promotori di innovazione e sostenibilità sia al proprio interno che nelle filiere produttive, avvalendosi del contributo alla ricerca e sviluppo offerto dai fornitori primari e, ove opportuno, del supporto dell'intelligenza artificiale. Significa essere propositivi e fare propria la cultura del miglioramento continuo a partire dal contributo dato in fase di definizione della specifica tecnica dei beni e servizi acquistati, significa adottare politiche di gestione dei talenti, contribuire alla transizione 'net-zero', seguire le dinamiche e i vincoli di mercato e prestare attenzione al contesto geopolitico.

Nelle varie sessioni del summit saranno trattati e dibattuti i temi più sotto elencati. A parere di un team qualificato di esperti internazionali, essi comprendono la maggior parte dei temi caldi del procurement nell'attuale contesto economico.

- L'impatto dell'attuale sistema economico e geopolitico sulle filiere di fornitura globali e sul commercio internazionale.
- Quadro geopolitico mondiale e rischio di recessione.
- Impatto del decoupling USA-Cina sulla produzione e sul commercio internazionale.
- Commercio internazionale e autonomia strategica aperta dell'Unione Europea.
- Quadro macroeconomico e stato del procurement e supply management nel Far East asiatico.

Once again different mentalities and business models will confront each other: the American, the European, the Chinese and the Japanese ones. Different realities that no one intends to modify or emulate, the knowledge of which is however of fundamental importance to learn how to move in such different markets. The presence of African colleagues will be significant, in fact about fifty colleagues are expected. They will be led by the President of IFPSM, the Kenyan Chris Oanda, a manager of great value awarded by the President of Kenya Medal for his contribution to the development of the African production chains. For now, perhaps, their modus operandi is not yet trendy, but getting to know people who work in key positions in countries rich in raw materials can always be useful and interesting. Nonetheless, it is interesting to establish personal relationships with colleagues from companies in the Asia-Pacific area.

As mentioned above, the basic theme of the summit will be: **'Procurement to lead innovation and value capture, while coping with inflation, shortages and geopolitical instability'**. It is not a promotional slogan or a set of prerogatives reserved for large companies, but the policy each buyer should pursue in a manner consistent with its sector, organisation and finished products or services sold. Buying today does not only mean bringing home what required, beating inflation and ensuring savings, but being promoter of innovation and sustainability, internally and within the supply chains, profiting of the research and development contribution of key suppliers and of the support of artificial intelligence, where appropriate. It means to be proactive and to embrace the culture of continuous improvement, starting from the contribution given to the definition of the technical specification of the goods and services to be bought. It means adopting careful talent management policies, contributing to the net-zero transition, following market dynamics and constraints and paying attention to the geopolitical environment.

The topics listed below will be dealt with and debated in the various sessions of the summit. In the opinion of a qualified team of international experts, they include most of the themes of procurement in the current economic environment.

- Impact of the current economic and geopolitical system on global supply chains and on international trade.
- World geopolitical framework and risk of recession.
- Impact of USA-China decoupling on international production and trade.
- International trade and open strategic autonomy of the EU.
- Macroeconomic framework and state of procurement in Far East Asia.

- Brainstorming sul contributo dei fornitori all'innovazione e sulla rilevanza del talent management nell'assicurare la competitività dell'impresa.
- Strategie di supply management per eccellere nel settore medicale.
- Strategie di procurement e matrice di Kraljic.
- Sostenibilità nel procurement per un domani migliore.
- Quadro del Sistema economico e stato del procurement nei principali paesi africani.
- Digitalizzazione del procurement nell'America Latina.
- Come gestire la 'tempesta' che impatta le nostre filiere produttive, assicurando resilienza e innovazione.
- Previsione dei prezzi futuri delle materie prime e gestione dei rischi in situazioni di elevata volatilità dei prezzi.
- Reengineering delle supply chain per favorire il reshoring e l'integrazione orizzontale.
- Tenacità, talent e resilienza come basi del successo.
- Valore aggiunto, costi e limiti dell'intelligenza artificiale nel procurement.
- La gestione dei rischi di procurement nell'attuale scenario economico.
- Tavola rotonda sul tema: 'Gli ingredienti del successo'.
- Tavola rotonda sul tema: 'Ruoli, competenze e organizzazione per aumentare l'efficienza del public procurement'.
- Rendere sostenibile la sostenibilità.
- Il valore aggiunto delle tecnologie nel procurement.
- Il valore aggiunto dell'intelligenza artificiale nel procurement.
- Il valore aggiunto del procurement: da 'ordinificio' a promotore di partnership strategiche e innovative.
- Strategie di business e innovazione.
- Digitalizzazione degli appalti e rafforzamento del mercato elettronico governativo.

Nel 1977 lo splendore di Venezia faceva da cornice al summit. Quest'anno lo stesso ruolo spetta a Firenze, la patria del rinascimento italiano. Il Grand Opening del convegno avverrà infatti nel Salone dei 500 di Palazzo Vecchio, mentre le cene ufficiali avranno luogo a Palazzo Borghese, una residenza di stile neoclassico ricca di dipinti, affreschi, bassorilievi, colonne e statue di pregio.

- Brainstorming on the contribution of suppliers to innovation and on the relevance of talent management in ensuring the competitiveness of the company.
- Supply management strategies to excel in the medical sector.
- Procurement strategies and Kraljic Matrix.
- Sustainability of procurement for a better tomorrow.
- Overview of the economic system and state of procurement in the main African countries.
- Digitalization of procurement in Latin America.
- How to manage the 'storm' impacting our supply chains, ensuring resilience and innovation.
- Forecasting future commodity prices and managing risks in situation of high price volatility.
- Reengineering of supply chains to facilitate reshoring and horizontal integration.
- Tenacity, talent and resilience as the prerequisites for success.
- Added value, costs and limitations of the artificial intelligence in procurement.
- Procurement risks management in the current economic scenario.
- Round table on the theme: 'The ingredients of the success'.
- Round table on the theme: 'Roles, risks and organization to increase the efficiency of public procurement'.
- Making sustainability sustainable.
- The added value of technologies in procurement.
- The added value of procurement: from 'order producer' to promoter of strategic and innovative partnerships.
- Business strategies and innovation.
- Digitalization of procurement and strengthening of the government electronic market.

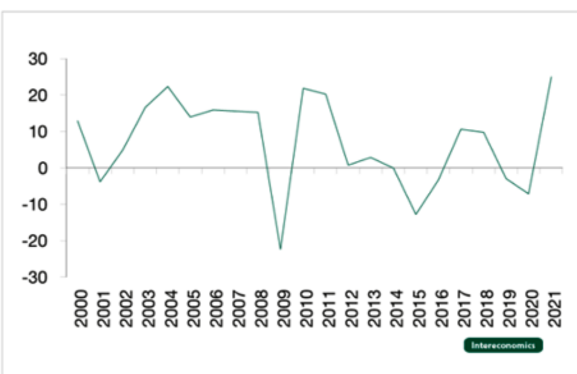
In 1977 the splendor of Venice was the setting for the summit. This year the same role belongs to Florence, the homeland of the Italian Renaissance. The Grand Opening of the summit will in fact take place in the Hall of Five Hundreds in Palazzo Vecchio, while the official dinners will take place in Palazzo Borghese, a neoclassical-stile residence full of paintings, frescoes, bas-reliefs, columns and valuable statues.

Slowbalisation, National Security and Critical Raw Materials

Globalisation and deglobalisation

The discontinuity of trade flows and the shortage of raw materials and non-renewable resources are periodically recurrent, and have been one of the main topics debated in three world summits: Venice 1977, Stockholm 1981 and Dublin 1983. At that time the economic scenario was completely different, WTO and globalisation still had to come and trade was less impacted by geopolitics. Globalisation, the major economic shift of the 21st century, has focused the attention of policy makers, academic and business world and, together with some problems, it brought indisputable benefits such as a higher economic growth, lower import prices, technology spillovers, productivity gains from the international division of labour, reduction of poverty, and, in some cases, lower inflation[1]. Europe in particular benefited from its consolidation. In fact, trade, as a share of GDP[2], rose from 31% to 54% between 1999 and 2019, whereas in the United States it rose from just 23% to 26%.

Figure 1
Global trade value
in %, year-on-year



Two main factors, in recent years, have highlighted the vulnerabilities of this model.

First, the efficiency gains of this decentrated production structure have demonstrated to be prone to risks. In fact, as global supply chains have become progressively leaner and more efficient through just-in-time production, they have also become extremely vulnerable to disruptions.

Second, it has become clear how much global production relies on critical raw materials sourced from just a few countries. An arrangement that can quickly become a vulnerability when geopolitics change and countries with different strategic goals emerge as more risky trading partners. The European Commission has found that 34 products used in the EU are extremely exposed to supply chain disruptions given their low potential for diversification and substitution[3]. And this vulnerability has become more evident as a result of the Russia-Ukraine war. The euro area is highly dependent on Russia for, among other raw materials, cobalt and vanadium, the key inputs for the 3D printing, drone and robotics industries, and Ukraine accounts for around one-fifth of Europe's supply of wire harnesses for cars. The war has already forced wiring plants to shut down, causing some European car manufacturers to halt production[4].

These two factors have underlined that globalisation largely relied on a scenario of relative economic and geopolitical stability. Unfortunately, economies are subject to shocks and disruptions especially where excessive dependencies on a few suppliers or countries exist. Several countries are now trying to overcome these vulnerabilities, and the answer is not to withdraw within their borders and erect trade barriers. History shows that retreating from global trade comes with substantial costs. Today, rising geopolitical tensions are changing the global economy, and shifting alliances are creating a new global map of economic relations. It is still too early to talk about slowbalisation or deglobalisation, but we have assisted to three distinct shifts in global trade[5]: **from dependency to diversification, from efficiency to security, and from globalisation to regionalisation**. First shift. Having learnt the lessons of the pandemic, firms are diversifying suppliers and stockpiling essential goods. But this does not mean they seek to deglobalise or reshore production. By late 2021 almost half of companies had diversified their supplier base, in contrast to just 5% that had implemented reshoring measures[6]. At the same time, companies moved away from "just-in-time" models towards a "just-in-case" approach[7]. Diversification is likely to have limits, and this brings to the second shift, from efficiency to security. Recently we have seen a shift towards new industrial policies, mainly led by China and the United States, in which geopolitical decisions have been introduced into strategic supply chains at the expense of efficiency. The US administration has explicitly identified "friend-shoring" as a policy goal in its recent supply chain strategy[8].

For strategic industries such as semiconductors or pharmaceuticals, the limited reshoring of supply chains will probably change as a deliberate result of public policy.

For energy and critical raw materials[9], increasing security will require a different strategy as these resources are distributed unevenly around the world, and cannot be substituted with domestic alternatives. Regions will increasingly have to source their critical inputs from a smaller pool of potential suppliers that are deemed reliable and in line with their strategic interests. And they will need to do so in the context of the green transition that is making certain raw materials like copper, cobalt and nickel, increasingly more important than others[10]. The price of increased security could be considered as the cost to mitigate the risk of disruption. In any case the transitional costs related to a large-scale reorientation of supply will be significant. For example, establishing fully domestic semiconductor manufacturing supply chains within the United States could cost up to USD 1 trillion[11]. In this context, the best option is still to defend the rules-based multilateral trading system that powered the rise of global trade. But regionalisation allows countries to recreate some of the benefits of globalisation on a smaller scale and to limit these costs.

After decades of increasing globalisation, from trade to technology, and to movement of people and investment, we are facing a trend of slower globalisation (slowbalisation) which some have called deglobalisation[12]. Deglobalisation and decoupling concepts relate to decreasing levels of economic interdependence. Slowbalisation, characterised by decelerating trade and investment, and some form of reshoring, started in 2008 with the financial crisis. This trend seems to have accelerated due to the tensions between opposing blocks of countries, and apparently is focused on the technological decoupling[13]. The transfer of technology has become increasingly restricted as global technology competition intensifies through export controls on advanced technology products.

Multinationals are responsible for about 30 percent of trade. They're responsible for 60 percent of exports and 82 percent of exports of knowledge-intensive goods. 60 million people in regions outside North America serve North American demand, and in Europe the corresponding number is 50 million[3].

This has become apparent with the US ban on sourcing semiconductors from Huawei, which affects not only American producers but also Taiwanese producers, among others. Another block in the US-China technology decoupling is 5G technology. Since the US banned Huawei from providing 5G platforms in the US, other countries have followed, including the United Kingdom. The consequences of this move are still to be fully evaluated, but it looks like the world will end up with two different 5G ecosystems[14].

These shifts have implications for Europe, which is expected to respond accordingly to support its industry in this increasingly uncertain global terrain. But this does not mean restricting open trade. All countries should work towards making trade safer in these unpredictable times, while also leveraging regional strength. The trend towards slowbalisation is less evident for finance, with the exception of foreign direct investment, though increasing attempts to decouple particular types of financial flows from the US into China are emerging, including delisting Chinese companies from US stock exchanges and the imposition of sanctions for transactions with certain Chinese companies[15].

Deglobalisation does not equate to economic decoupling, which refers to two specific economies reducing their economic linkages and, thus, their interdependence. All in all, it is perhaps too early to talk about deglobalisation but that seems to be the current trend.

National security and partial autonomy for essential supplies can also be achieved by avoiding generalised protectionist policies, which would increase barriers to trade and foreign direct investment. Indiscriminate recourse to subsidies and restrictions on international trade aimed at influencing the location of business, as well as introducing distortions in competition, could produce new tensions, even between countries with similar policies. In some cases, protectionist measures may even prove counterproductive to the objective of increasing the diversity of supplies[16].

Except for strategic products and advanced technology, the trend in value of import-export doesn't offer systematic evidence of deglobalisation, but confirms that globalisation is continuing at a slower pace. Those who look positively towards deglobalisation, should consider that global flows are necessary to comply with net-zero transition programme.

In fact, to make it attainable, we have to ensure that energy-generating technologies and the critical raw materials necessary for their applications – nickel and lithium - can flow across the world[17]. Net-zero transition also imply a large use of solar panels and, once again, the materials required for their realization exist only in a few countries.

Diversification in this case could means to find alternative minerals, but on average, the timeline from discovering a mineral to being able to produce it at scale is well in excess of 15 years[18]. The final crucial element with respect to net-zero is cross-border capital flow. It's really important that developing countries are able to finance shifts in the way energy is produced and consumed in their countries

Decoupling

The current world economic system is highly dependent on various types of flows and, as it happened in the past, they will continue to be reconfigured. It possible that groups of countries will become more strongly interconnected among themselves and less strongly connected with others. But the question becomes[19]: 'are we witnessing a substantial or effective decoupling or just a shift in degree? Except for a few strategic products and technologies, most experts think we are moving toward the shift in degree rather than a radical change or decoupling[20]. The chips competition confirms that, for some products, we are witnessing a Sino-American decoupling, a clear strategy to achieve the technological supremacy. Decoupling and deglobalisation mean that geography and some forms of protectionism are back. It is superfluous to point out that these shifts further reduce the authority of the World Trade Organisation and its ability to settle international disputes. Deglobalisation is unlikely to be a "big bang" but more a limited set of targeted measures by individual countries to protect domestic sectors. Technology and the spread of knowledge across borders is a key area that states will likely continue to target.

According to Oxford Economics[21], to examine the impact that deglobalisation could have on the global economy, we should consider two scenarios:

- A narrow decoupling scenario where the West imposes heavy restrictions on the transfer of technology and knowledge to Russia and some limited restrictions on China.
- A broader decoupling scenario where, as a result of rising political tensions and uncertainty among private companies, the West limits access to technology for China, Russia, and their allies.

Given how quickly tensions between the West and China have escalated in the past five years, a broader decoupling could represent a likely possibility. It could also practically occur if firms, encouraged by the political climate, think it will be too risky to continue to expand outside the West[22].

Critical and Strategic Raw Materials

Introduction

Since 2020, according to an OECD report dated April 2023, we have experienced a growing number of export restrictions on Critical Raw Materials (CRMs) which have led to the reduction of global trade, undermining the global efforts for the green energy transition. Import-export control and restrictions on materials, goods and technology date back 1960 on average. Each country has classified exports into commercial goods, technologically advanced goods, goods capable of both civil and military use (dual-use) and military goods.

They have also classified the import countries in: 'white', 'grey' and 'black'. Subject to prior authorization in case of re-export, white countries are usually granted an export license for all type of goods and technologies. The export license to grey countries is often limited to commercial items, and it is managed on a case-by-case basis, while licenses to 'black' countries are limited to specific categories of commercial goods.

The European Critical Raw Materials Act[23], define CRMs as materials of high economic importance for the country, with a high risk of supply disruption, due to their concentration of sources and lack of good, affordable substitutes.

To a different extent, they are crucial to most economies, starting from USA and Europe and much less for China. Many of them are vital for environmental sustainability goals, national security and economic prosperity. These included lithium, nickel, cobalt, copper, and certain rare earth elements which are needed to manufacture lithium-ion batteries, motors of electric vehicles and windmills, as well as many other applications[24].

Governments and business leaders have set ambitious goals to mitigate the effects of global climate change, and the possibility to achieve them involve technological responses that depend heavily on critical minerals. Consequently, the demand for minerals like lithium, nickel, and rare earth will increase exponentially. The geographical concentration of these CRMs represents a clear disadvantage for many countries. Rare earth elements (REEs), for example, are abundant throughout the earth's crust, but are only sufficiently concentrated, to be mined and processed economically, in certain locations.

China is one of such locations, possessing one of the largest known REE reserves in the world. Not only does China mine the most REEs, but the majority of REE separation and processing also occurs in its sites, where they are located, extracted, and processed. The United States, European Union, and China compete for resources, intellectual property, and talent in the mining sector, but the playing fields, especially in some African countries, have different ESG standards. China has implemented its own strategic vision for critical minerals by pouring billions of dollars into production assets[25].

CRM supply chains are global, complex, and fragile, and this makes them vulnerable to a wide range of risks, including those linked to geopolitical tensions. The unhindered and sustainable access to CRMs at predictable prices, is a matter of concern for all global players.

The complex intersection of geopolitical dynamics, industrial demands, and environmental considerations makes their management an important undertaking.

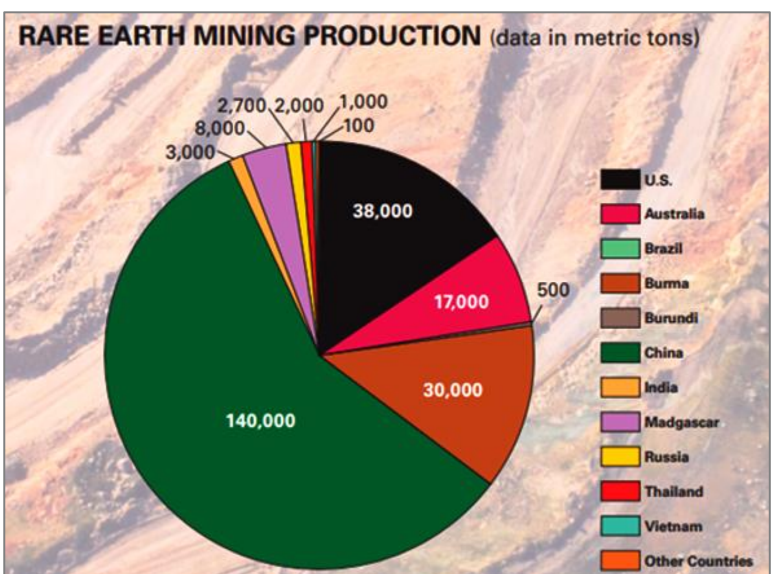
Table A: Major global supplier countries of CRMs – individual materials

	Material	Stage *	Main global supplier	Share		Material	Stage *	Main global supplier	Share
1	aluminium	E	Australia	28%	27	magnesium	P	China	91%
2	antimony	E	China	56%	28	manganese	E	S. Africa	29%
3	arsenic	P	China	44%	29	natural graphite	E	China	67%
4	baryte	E	China	32%	30	neodymium	P	China	85%
5	beryllium	E	USA	67%	31	niobium	P	Brazil	92%
6	bismuth	P	China	70%	32	nickel	P	China	33%
7	boron	E	Türkiye	48%	33	palladium	P	Russia	40%
8	cerium	P	China	85%	34	phosphate rock	E	China	48%
9	cobalt	E	DRC	63%	35	phosphorus	P	China	79%
10	coking coal	E	China	53%	36	platinum	P	S. Africa	71%
11	copper	E	Chile	28%	37	praseodymium	P	China	85%
12	dysprosium	P	China	100%	38	rhodium	P	S. Africa	81%
13	erbium	P	China	100%	39	ruthenium	P	S. Africa	94%
14	europium	P	China	100%	40	samarium	P	China	85%
15	feldspar	E	Türkiye	32%	41	scandium	P	China	67%
16	fluorspar	E	China	56%	42	silicon metal	P	China	76%
17	gadolinium	P	China	100%	43	strontium	E	Iran	37%
18	gallium	P	China	94%	44	tantalum	E	DRC	35%
19	germanium	P	China	83%	45	terbium	P	China	100%
20	hafnium	P	France	49%	46	thulium	P	China	100%
21	helium	P	USA	56%	47	titanium metal	P	China	43%
22	holmium	P	China	100%	48	tungsten	P	China	86%
23	iridium	P	S. Africa	93%	49	vanadium	E	China	62%
24	lanthanum	P	China	85%	50	ytterbium	P	China	100%
25	lithium	P	China	56%	51	yttrium	P	China	100%
26	lutetium	P	China	100%					

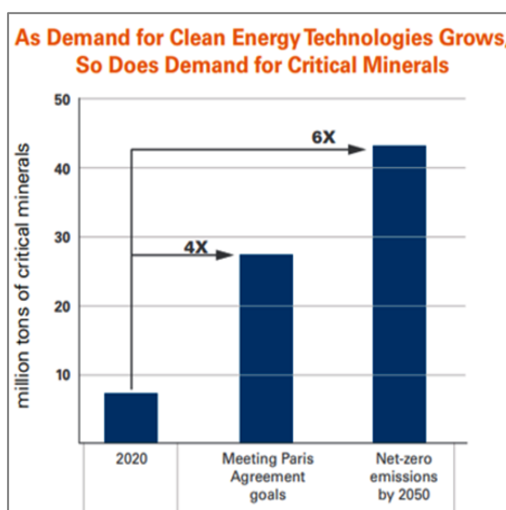
Grouped materials	Stage	Main global supplier	Share
HREEs	P	China	100%
LREEs	P	China	85%
PGMs[6] (iridium, platinum, rhodium, ruthenium)	P	South Africa	75%
PGMs (palladium)	P	Russia	40%

Legend	
Stage	E = Extraction stage P = Processing stage
HREEs	Dysprosium, erbium, europium, gadolinium, holmium, lutetium, terbium, thulium, ytterbium, yttrium
LREEs	Cerium, lanthanum, neodymium, praseodymium and samarium
PGMs	Iridium, palladium, platinum, rhodium, ruthenium

[6] Calculating the average for the largest global supplier for all the PGMs is not possible because the major producing country is not the same for each of the five PGMs.



Wilson Center Report[13]



EU policies and plans on CRMs

The EU's ambition to become a climate-neutral economy by 2050, and its ability to sustain the green and digital transition, heavily depend on reliable and continuous access to CRMs. As it divests from fossil fuels and turns to clean energy systems which necessitate more minerals, its demand for base metals, battery materials, rare earths and other substances will increase exponentially (see table below). To address this challenge, the European Commission has created a list of critical raw materials (CRMs), which combines their importance to its economy with the risk associated with their supply. CRMs are essential for[26]:

- modern technology - technological progress and quality of life rely on access to a growing number of raw materials. For example, a smartphone might contain up to 50 different kinds of metals, all of which contribute to its small size, light weight and functionality;
- the green transition - that implies local production of batteries, solar panels, permanent magnets, and other clean tech. Abundant access to a range of raw materials will be needed to address the corresponding demand, especially of lithium and cobalt.

The first EU list of 14 CRMs was published in 2011, the second of 20 CRMs is dated 2014, the third of 27 CRMs was published in 2017, and the last of 30 CRMs is dated 2020. In March 2023, the European Commission put forward the European Critical Raw Materials Act, which aims to:

- improve the functioning of the single market by establishing a framework that ensure the EU's access to CRMs;
- strengthen the different stages of the strategic raw materials (SRMs) value chain. The EU extraction capacity should cover at least 10 % of its annual consumption, the processing capacity at least 40 % of such consumption and the recycling capacity should cover not less than 15 % of EU annual consumption;
- increase and diversify the EU's critical raw materials supply (by 2030, no third country would provide more than 65% of the EU's annual consumption of each SRM);
- strengthen CRMs monitoring and circularity, including recycling. Regarding circularity, each member state should adopt a national programme containing measures to increase the collection of waste with high CRMs recovery potential and ensure its introduction into the appropriate recycling system, increase the re-use of products and components with high CRMs recovery potential and increase the use of secondary CRMs in manufacturing;
- support research and innovation on resource efficiency and on the development of substitutes.

The proposal represents the first EU Act regulating CRMs and is subject to the approval of the European Parliament. Out of the 34 critical raw materials identified, 16 have been defined **strategic raw materials** (SRMs) as they have complex production requirements, an exponentially growing demand and a high risk of supply.

2023 List of EU critical raw materials [13] 34 CRMs			
Antimony	Copper	**Lithium b.g.**	**Phosphorus**
Arsenic	Feldspar	**Magnesium metal**	Scandium
Baryte	Fluorspar	**Manganese b.g.**	**Silicon metal**
Bauxite	**Gallium**	**Natural Graphite b.g.**	Strontium
Beryllium	**Germanium**	**Nickel b.g**	Tantalum
Bismuth	Hafnium	Niobium	**Titanium metal**
Boron Metallurgic Grade	Helium	Phosphate rock	Tungsten
Cobalt	Heavy rear earth elements*	Phosphorus	Vanadium
Coking Coal	Light rear earth elements*	**Platinum group metals**	

SRMs are in bold, new CRMs not in 2020 list in light blue

Note: b.g. stands for battery grade, * rear earth elements for magnets (neodymium, praseodymium, terbium, dysprosium, gadolinium, samarium and cerium) are SRMs.

Source: EPRS

The EU is highly vulnerable along the supply chains of CRMs, in particular in the first step: mining raw materials. EU share in global production doesn't exceed 7%. Its vulnerability tends to diminish in the last step of the supply chain: manufacturing and assembly. For these two steps the EU share in global production is, on average, 28%. Six technologies or processes: batteries, solar photovoltaics, data storage and servers, smartphones, tablets and laptops, and drones, show vulnerability along the whole supply chain.

EU Material demand forecast examples - High demand scenario		
CRM	2030 compared with 2020	2050 compared with 2020
Lithium	X 12	X 21
Graphite	X 14	X 26
Cobalt	X 6	X 5
Nickel	X 10	X 16
Dysprosium	X 6	X 7
Terbium	X 4	X 5
Neodymium	X 5	X 6
Praseodymium	X 4	X 4
Platinum	X 30	X 200
Silicon metal	X 2	X 1
Copper	X 6	X 10
Aluminium	X 4	X 6

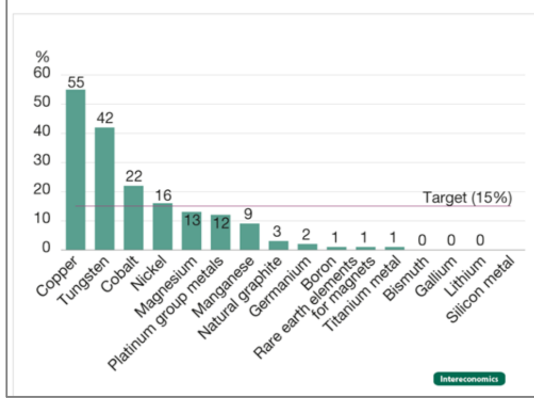
Source: European Commission Joint Research Centre 2023

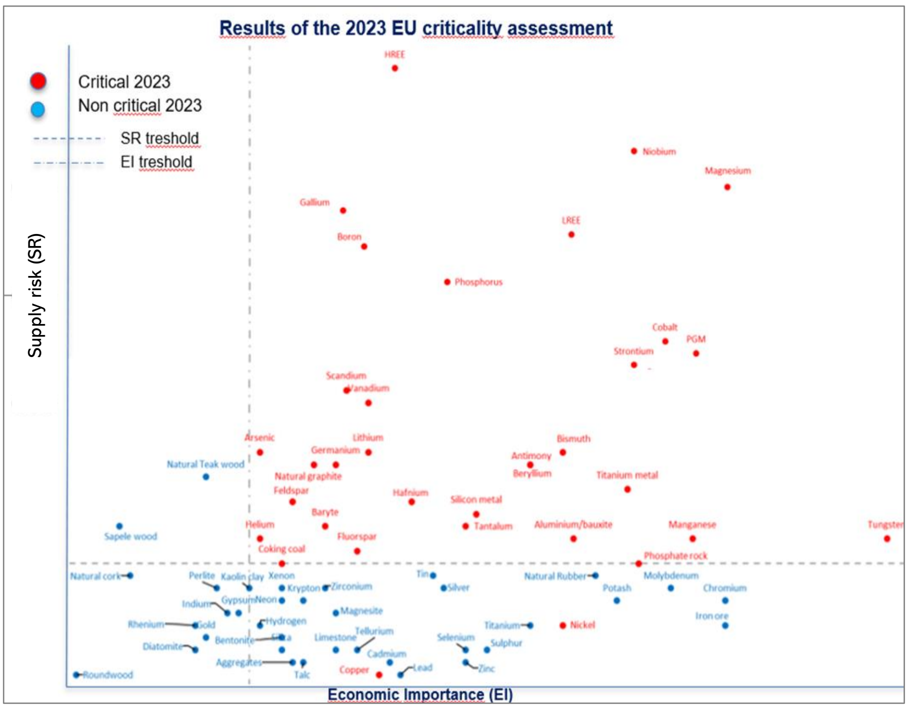
The EU assessment screened 70 candidate raw materials, comprising 67 individual materials and three materials groups: ten heavy (HREEs) and five light (LREEs) rare earth elements, and five platinum group metals (PGMs). Four new materials were assessed: neon, krypton, xenon and roundwood. Aluminium and bauxite have been merged for consistency reasons. Copper and nickel do not meet the CRM thresholds but are included on the CRM list as strategic raw materials.

The assessment of the EU Commission has been focused on the following parameters:

- **Economic importance** in terms of end-use applications and value added for the relevant manufacturing sector, corrected by the substitution index (SIEI).
- **Supply risk** disruption, based on the concentration of primary supply sources/countries, and the stability of their trade policies.

Current end-of-life recycling input rates for strategic raw materials and Critical Raw Materials Act target





On June 26, 2023 France, Italy and Germany have agreed on closer cooperation on the extraction, processing and recycling of critical raw materials needed for energy transition[27].

The shift to electric cars is crucial for cutting transport emissions.

But the skyrocketing demand for e-cars has triggered growing concerns about their batteries' environmental and human costs.

Their production is energy-intensive and involves a great variety of raw materials that can cause significant environmental and social damages when mined.

This is why the entire production chain require close monitoring and management.

Since car batteries pose further environmental threats at the end of their lifespan, scaling up reuse and recycling will also be key to making the shift to low-emission mobility truly sustainable[28].

Faced with an expected massive increase in demand and high import dependency, the EU future supply of CRMs is exposed to risks.

USA policies and plans on critical minerals and materials

Raw materials are crucial also to US economy. Rapidly increasing demand, under-developed national resources, and intense international competition, place the U.S. at a disadvantage compared to China in securing access to the metals and Rare Earth Elements that are vital for the energy transition. The Wilson Center Report[29] identified three main vulnerabilities in the US supply chain. First, they must face their ever-rising demand while constrained by chronic underinvestment in mining and processing. Second, they must compete on a global basis against China and the European Union for access to critical minerals and must address both the extractive and processing activities. China's dominant position in the supply chain stems not only from its ownership and control of critical minerals mines, but also from its processing facilities. Third, United States and other western countries must adhere to stringent compliance measures in the areas of environment, society and transparency regulations, regardless of whether they are operating domestically or internationally. Legislative restrictions on U.S. mining place them at a competitive disadvantage compared to Chinese competitors and provide a strong disincentive for developing domestic resources. Global demand for critical minerals is set to increase by 400-600 percent over the next several decades, and, for minerals such as lithium and graphite used in electric vehicle batteries, demand could increase by 4,000 percent. President Biden has announced major investments in domestic production of key critical minerals and materials to meet the following strategic goals[30]:

- foster scientific innovation and develop technologies that will ensure secure critical mineral and material supply chains independent of resources and processing from foreign sources.
- Support private sector adoption and capacity for sustainable domestic critical mineral and material supply chains.
- Build the long-term minerals and materials innovation ecosystem—fostering new capabilities to mitigate future critical mineral and material supply chain challenges.
- Coordinate with international partners and allies to diversify global supply chains and ensure the adoption of best practices for sustainable mining and processing.

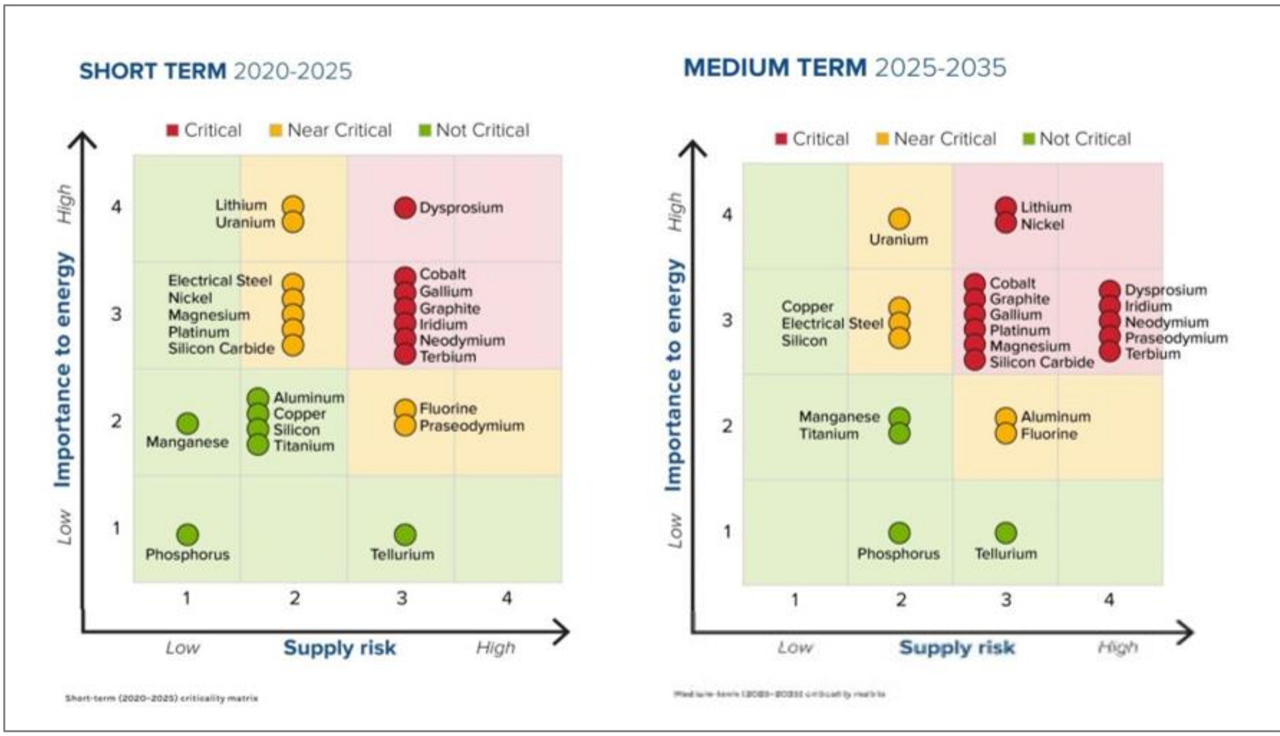
USA list of Critical minerals

As per the Energy Act of 2020, the critical minerals list is revised every three years by the US Geological Survey. The most recent list is that of 2022 and comprises 50 metals and minerals. Fuel minerals are excluded from this list[31].

Aluminum	used in almost all sectors of the economy
Antomony	used in lead-acid batteries and flame retardants
Arsenic	used in semi-conductors
Barite	used in hydrocarbon production
Beryllium	used as an alloying agent in aerospace and defense industries
Bismuth	used in medical and atomic research
Cerium	used in catalytic converters, ceramics, glass, metallurgy, and polishing compounds
Cesium	used in research and development
Chromium	used primarily in stainless steel and other alloys
Cobalt	used in rechargeable batteries and superalloys
Dysprosium	used in permanent magnets, data storage devices, and lasers
Erbium	used in fiber optics, optical amplifiers, lasers, and glass colorants
Europium	used in phosphors and nuclear control rods
Fluorspar	used to manufacture of aluminum, cement, steel, gasoline, and fluorine chemicals
Gadolinium	used in medical imaging, permanent magnets, and steelmaking
Gallium	used for integrated circuits and optical devices like LEDs
Germanium	used for fiber optics and night vision applications
Graphite	used for lubricants, batteries, and fuel cellsused for lubricants, batteries, and fuel cells
Hafnium	used for nuclear control rods, alloys, and high-temperature ceramics
Holmium	used in permanent magnets, nuclear control rods, and lasers
Indium	used in liquid crystal display screens
Iridium	used as coating of anodes for electrochemical processes and as a chemical catalyst
Lanthanum	used to produce catalysts, ceramics, polishing compounds, metallurgy, batteries
Lithium	used for rechargeable batteries
Lutetium	used in scintillators for medical imaging, electronics, and some cancer therapies
Magnesium	used as an alloy and for reducing metals
Manganese	used in steelmaking and batteries
Neodymium	used in permanent magnets, rubber catalysts, and in medical and industrial lasers
Nickel	used to make stainless steel, superalloys, and rechargeable batteries
Niobium	used mostly in steel and superalloys
Palladium	used in catalytic converters and as a catalyst agent
Platinum	used in catalytic converters
Praseodymium	used in permanent magnets, batteries, aerospace alloys, ceramics, colorants
Rhodium	used in catalytic converters, electrical components, and as a catalyst
Rubidium	used for research and development in electronics
Ruthenium	used as catalysts, as well as electrical contacts and chip resistors in computers
Samarium	used in permanent magnets, in nuclear reactors, and in cancer treatments
Scandium	used for alloys, ceramics, and fuel cells
Tantalum	used in electronic components, mostly capacitors and in superalloys
Tellurium	used in solar cells, thermoelectric devices, and as alloying additive
Terbium	used in permanent magnets, fiber optics, lasers, and solid-state devices
Thulium	used in various metal alloys and in lasers
Tin	used as protective coatings and alloys for steel
Titanium	used as a white pigment or metal alloys
Tungsten	primarily used to make wear-resistant metals
Vanadium	primarily used as alloying agent for iron and steel
Ytterbium	used for catalysts, scintillometers, lasers, and metallurgy
Yttrium	used for ceramic, catalysts, lasers, metallurgy, and phosphors
Zinc	primarily used in metallurgy to produce galvanized steel
Zirconium	used in the high-temperature ceramics and corrosion-resistant alloys

The bolded items were newly added in 2022. Modifications from the previous list include:

- Helium, Potash, Rhenium, Strontium, and Uranium have been removed from the list. Uranium is classified as a fuel mineral.
- Metals belonging to the rare earth elements group (Cerium, Gadolinium, Lanthanum, Neodymium, Praseodymium and Samarium) were previously listed together as one group.



The Mineral Commodity Summary 2022 published by USGS, shows that US are 100% import dependent for 17 minerals, and over 50% reliant for another 30 minerals.

The value of non-fuel minerals produced locally in 2021 was $90.4 billion, with domestically processed mineral materials worth $820 billion.

In turn, these materials were used by downstream industries to contribute roughly $3.32 trillion to the U.S. economy.

Across the U.S., production of 14 commodities including copper, gold, zinc, palladium and molybdenum were valued at over a billion dollars each. Arizona, Nevada, Minnesota and Utah each produced more than $2 billion worth of nonfuel minerals.

The International Energy Agency (IEA) expects the demand for some key minerals, such as lithium, to grow more than 40 times in the next two decades as nation's work to decarbonize their economies. America is currently poorly prepared to face the challenge of securing its critical minerals supply chain[32].

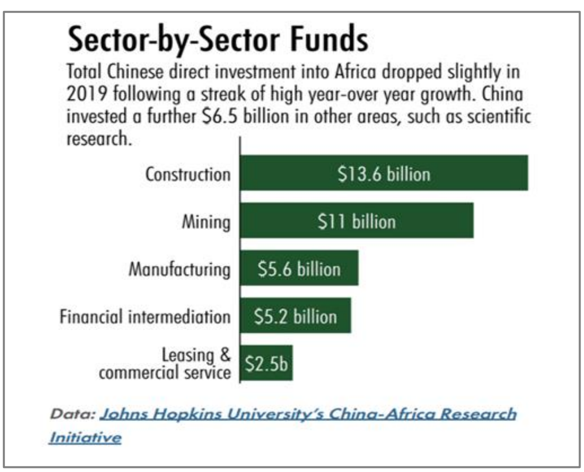
China has already moved a long way ahead of the U.S., and this will compromise America's attempts to compete internationally, while also meeting climate change goals.

To overcome this poor preparation, the U.S. government must work with business and overseas allies to build its own capacity in both mining and processing, and to collaborate in resource development in friendly countries.

China policy and plans on CRMs

The term "strategic minerals" appeared for the first time in the People's Daily – the official newspaper of the Chinese Communist Party (CCP)[33], in 1952. Over the last twenty years, China has established its supremacy in mineral raw materials, especially in industrial metals, and with reference to the mining and processing of critical raw materials, it actually holds a quasi-monopoly. The EU, for instance, is currently importing 93% of its magnesium and 86% of its rare earth metals from China. China is even dominant when it comes to processing of many these raw materials, even if it isn't mining them. While, for example, only around 9% of the world's lithium is mined in China, approximately 60% is refined there.

As part of Beijing's Belt and Road Initiative (BRI)[34], Chinese state-owned enterprises are increasingly investing in the global mining of raw materials, also with the aim of meeting China's own domestic demand[35]. In addition, Beijing has concluded strategic agreements with other governments that facilitate Chinese state-owned companies' access to raw materials, and at the same time, raw materials projects are promoted with loans from Chinese banks. China has become a central player at all stages of the mineral supply chain, particularly in smelting and refining. The country controls almost half of the world's refinery production. Chinese actors now link raw material extraction sites – often located in the so-called Global South – with countries where industrial processing takes place. By comparison, smelting and refining hardly take place in the EU anymore, resulting in its dependence on China. According to Oliver Noyan[36], China is strategically better prepared than USA for the green transition and has an edge of around 15 years in the mining and processing of critical raw materials necessary to fuel the net-zero industry.



In November 2016, China has established[37] its first official policy and catalogue of "24 strategic minerals" which aims to "strengthen guidance and differentiated management of resource allocation, financial investments, major projects, and mining land utilization". Mineral categories are applied in important planning documents, and different sub-categories of "strategic minerals" are subject to different policies and regulations. For example, China's National Mineral Resources Plan (2016–2020) limits the annual production of two raw materials that Chinese experts have labeled "advantageous" – REE and tungsten – raw materials for which China dominates global supply chains, and both of which are considered "critical" and "strategic". They assign different degrees of "strategic-ness" to minerals, thereby contributing to prioritizes some minerals over others. Several parameters[38] have been used by Chinese experts to define "strategic minerals". The most frequently applied are 1) importance for economic development/security, 2) importance for national defense and 3) supply risk, 4) substitutability, and 5) minerals deemed important for developing China's Strategic Emerging Industries.

European-Chinese raw material supply chains in 2030

The three hypothetical scenarios hereinafter described represent the outcomes of a two-day workshop[38] on the future of European-Chinese raw materials supply chains that incorporated perspectives of German stakeholders from administration, business, and academia .

Scenario 1 - The status quo is consolidated. Under this scenario, the 21st National Congress of the Communist Party of China (CPC) in October 2027 reconfirms the "dual circulation" policy, i.e., the strengthening and promotion of the domestic market paired with a complementary foreign trade policy. In the relationships between Europe and China limited trust and uncertainty continue to prevail. China will remain the EU's second largest trading partner (after the United States), but the points of conflict between the two will stay. Within this context, the EU will maintain economic relations with China in key areas such as raw materials trade. To reduce its dependency on China, and to implement its Critical Raw Materials Act, the EU will invest large sums in the European mining and processing sector. Consequently, in 2030, important raw materials like lithium and rare earths will be partially mined in Europe, while an increasing quantity of raw materials will be recycled. Even so, Europe will continue to be dependent on supplies from China. Mineral raw materials from China are expensive and their price will continue to be volatile. In order to cover its domestic needs, and to cope with its own climate targets, the Chinese administration will continue to impose export restrictions. This will lead new shortage of certain raw materials on the international market.

Scenario 2 - Sustainability and security of supply are achieved through cooperation. The "dual circulation" policy which sees foreign trade as complementary or secondary to the satisfaction of the domestic demand, is replaced by a new strategy "Reopen China" – with the aim of reopening a new era of cooperation with Europe and the Asian neighbourhood. This change will encourage European decision-makers to actively re-engage Beijing and Chinese industries. Trade in raw materials between the EU and China will be consolidated through a comprehensive trade agreement and the main phases of the European CRMs supply chains will continue to be located in China, with lower risks. Limited uncertainty will characterize the commodity markets; prices will remain high but stable.

Scenario 3 - Decoupling of Chinese politics and economics. Beijing increases its trade restrictions and put an export ban on rare earths. EU will fear for the security of its CRMs supply chain and will strengthen raw material partnerships with Australia, Canada, and a few countries in Latin America and Africa. At the same time, it will continue its mining and raw materials processing operations in member states. Massive financial resources will be made available to diversify supply chains. The overall unstable situation will generate volatile and persistently high commodity prices worldwide. Due to a lack of necessary raw materials, the EU's energy transition will stagnate.

Conclusion

We are not in a position to evaluate which of the above scenarios is most probable, even if the third one seems very unlikely. Regardless of their validity, they remind us that supply chain managers have to consider a wide range of factors, starting from the geopolitical trends. We think that the competition for the technological supremacy will lead to a partial decoupling of the two leading economic blocks, at least for the strategic CRMs. On one hand this means to exploit alternative technical solutions and on the other, to diversify sources and increasing inventories.

This study has summarized and integrated various concepts expressed in the following writings.

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The cornerstones of leading companies: talents + narrow and generative AI in a modern organisational structure

Introduction

The world is continuously evolving, technology is advancing, consumer and customer expectations are growing, and innovations that were viewed as cutting-edge a decade ago are now considered commonplace. Business leaders are currently addressing not only economic volatility, geopolitical instability, inflation, materials shortages, high competitiveness, advance automation and transition to 'net-zero', with all the relevant risks, but also a range of organisational shifts that have significant implications on structures, processes, and people, including the right balance between in person and remote working models and the reshape of the mix of occupations generated by automation and AI[1].

In addition, organisations should be more resilient or well prepared to anticipate and react to external shocks. To cope with this scenario or next-normal, companies need clear strategies, a flat and efficient organisation, talents and a growing integration between people and technology. Talents and middle managers are the key to drive sustainable value creation in every organization.

This article summarizes the study made by ADACI R&D committee on the evolution of the workplace, talent management and process automation supported by AI. Three subjects or three articles in one, to underline the interdependence of the cornerstones of successful companies.

1. The firm of the future[2]

While there is no standard blueprint for success, we should analyse the best practices of the cutting-edge companies who are adapting to recent economic and operational disruptions to create a new path for the modern successful organisation. The fundamental goals of strategy will not change[3], but how companies win will change significantly. New execution models will emerge. The future will be about how companies deliver better and faster to customers in a high turbulent environment.

Most senior executives think their organisations are too slow, too siloed and too constrained in complex and bureaucratic structures, in other terms, tailored for a world that is disappearing.

Companies need to set a direction to develop a clear perspective consistent with their business environment. It could be a question of fine-tuning to flatten structures and to better clarify roles and responsibilities, or it could be a more radical transformation. To address all necessary organisational shifts, and to combine technologies, people and performances, an integrated approach is unquestionably required.

Imperatives of successful businesses:[4]

- **Economic and geopolitical perspective and risks.**

Geopolitical instability is one of the disruptions that could lead to downturn in economy, price volatility and materials shortages. Managers should base their long-term strategies on suitable scenario analyses. Geopolitical risk[5] can refer to political, economic or military factors and occurs when there is an obstacle to the normal relationships between countries or regions. One way of measuring it is the Geopolitical Risk Index (GPR), created by economists from the Federal Reserve.

With reference to next-decade economic scenarios nobody can ignore, for example:

a. the ambitious decarbonisation[6] journey toward a net-zero emissions in which we are engaged. The metal and mineral industries have to reshape their supply chains to provide critical materials for the energy transition.
b. the significant increase, in next decade, of Chinese and Indian GDP, currently equal to 18% and 7.2% of total GDP. Consequently, big corporations should consider collaborations with both countries.

Globalisation is not over, it is simply remodeling itself. Ours is an interdependent world, connected by global flows of goods, service, technology, capital, people and ideas. The rising tensions between the United States and China generated some speculation on the deglobalization of the world production and trade. As no region is self-sufficient, the world will remain deeply interconnected. The challenge therefore is to take advantage of the benefits of interconnection, while managing the risks and reducing excessive dependencies.

- **Long-term products, services and markets strategies.**

Moving from the above economic and geopolitical perspective, future-ready companies have to define, in strict collaboration with their partners, the products and services of the future, their should-cost, the location of their supply chains, and the markets they intend to penetrate. Technology and innovation should drive their product development process.

- **Flat, flexible, more integrated, human oriented, and unbureaucratic structures** to make organisations, faster, and better equipped at unlocking value.

Flat organisation means a model with relatively few levels of middle management between executives and frontline employees. The target is not to eradicate hierarchy but making it less important, less formal and more flexible.

For some specific projects, the way multifunctional teams operate could transcends the formal competences of the functions involved. Operating models need to be fast and frictionless to foster agility and simplicity. They have to enable a network of empowered and dynamic teams. Firms have to operate as interconnected systems that constantly seek to experiment, learn, grow and change as necessary. Flat structures are not suitable for all types of organisations, and usually ensure:

- better communication and relationships between different roles;
- faster decision making and greater ability to cope with change;
- more autonomy and greater satisfaction of team members;
- lower operational costs.

Their incorrectly use, however, could generate roles or jobs confusion, and reduce accountability.

- **Leadership, Talent Management and Hybrid Workforce: the three interdependent imperatives of successful businesses.**

Leaders provide direction and vision, motivate and inspire others to achieve the organisation's goals, and promote communication and collaboration among team members.

Top-performing middle managers create strong relationships that enhance team performance and drive effective operations .

To compete in the current complex and turbulent environment companies need talents. The problem is matching talents to the high-value roles. McKinsey research[7] shows that, in many organisations, between 20 and 30 percent of critical roles aren't filled by the most appropriate people.

Hybrid work is here to stay, but organizations should provide adequate support for the work done remotely.

- **Interconnected ecosystem**

Successful companies must be integrated upstream and downstream and must have data-rich tech platforms. As value is created through networks where partners share know-how, data, code, and skills, they should view such partners as extensions of themselves and take data seriously. For them, data isn't simply about reporting but what is happening in the business and especially in the creation of future products. Today, firms are defined by the assets they own and control. In the future, firms will be defined by the ecosystems - the assets and the partnerships - that they control. They are expected to raise their interconnectivity speed, to foster free moving information and to reduce existing hierarchies.

- **Establishment of an organisational and performance culture**

The future of successful business is built on culture and people. Organisational culture is the set of open values, beliefs, attitudes, systems, and rules that outline and influence employee behavior within an organisation. It collectively describes 'how we run the business'. Performance culture instead means emphasis on continuous learning and improvement, strong employee commitment; timely feedback and accountability for results. The culture reflects how employees, customers, vendors, and stakeholders experience the organisation and its brand. Paying attention to culture and people brings value to organisations. Culture is not just a slogan painted on the walls. It is created through consistent and authentic behaviors that foster superior performance.

- **Innovation, technology and AI as the foundation for growth**

Innovation ensures the company's competitive edge and technology improves operational agility and reduce product life cycles. Innovation is all about culture and right mindset.

When combined with AI, they further boost company's operations. Companies are already using AI to automate their operations, to design and manufacture sustainable and high-quality products, to drastically improve ways of working, and to make faster, data-driven structural changes.

McKinsey[8] said: "*When we try to separate top economic performers from less successful companies, we see that the top performers say that software they have created is at the center of differentiating themselves from the competition*".

The data-driven culture – the backbone of Artificial Intelligence - fosters continuous performance improvement and opens the doors to new applications that aren't widely known or available today. Data is the business.

Now is the time for procurement to lead value capture, but many procurement organizations do not devote enough time and resources to effectively pursue operational improvements and strategic priorities.

- **Increased speed, and lower direct, indirect and transaction costs**

As more countries enter in the manufacturing and trade arena, competition will increase and enterprises are expected to reduce their costs and increase their productivity recurring to automation, agile, lean and AI applications.

- **Strengthening resilience**

Resilience is the ability to deal with adversity, to resist to shock, and to adapt fast. It is not an option, and organisations have to systematically prepare and manage customized Organisational Resilience Processes. To tackle institutional resilience, leaders should ask themselves the following questions:

- how well is the company prepared to respond to disruptions and apply all available resilience levers?
- Have we defined the right scenarios and do we use analytical tool kits to anticipate the next storm?
- Are we investing in an agile organisation to build resilience muscles for the long term?

- **Sustainability**

The world is not decarbonizing quickly enough to meet net-zero ambitions. Demand is beginning to surge for zero-carbon technologies, materials, and services. Sustainability is a critical business imperative, and companies have to move further and faster. It is becoming a hot topic also for supply management organisations that seek to enhance their environmental, social and governance (ESG) measures.

- **Accelerate learning and qualification programmes**

Organisations should create development pathways so employees could increase their knowledge and competences, see themselves on a journey and feel confident that there is a role for them. High-performing companies promote a mindset of continuous learning and qualification programmes to strengthen the potential of their employees, allowing them to cope with the increasing challenges, risks and uncertainties of current environment. Continuous learning also enables people to adapt themselves to meet shifting needs.

2. Talent and talent Management

To successfully perform high value-added roles, such as procurement and supply management, companies need 'talents' or high potential people looking towards the future. Professionals with all the necessary soft skills and competences, capable to turn an organization's vision and strategic goals into reality, and to apply enabling technologies and AI. According to Mckinsey[9] only 5% of buyers have these capabilities.

Consequently, businesses need to upskill or reskill their employees or to hire data-enabled talents, or people with high potential who can acquire the missing competences. Unfortunately, labour market is facing the 'worst-ever' talent shortage both in the private and public sectors.

Talent definition in academic literature and in business

The term talent[10] originates from the Latin term 'talentum' which, in turn, originated from the Greek word tálanton [τάλαντον], which means "balance, weight, sum of money". In Ancient Greece, one talent was the equivalent of 25.86 kg., ultimately, a 'talent' became a coin. According to most academics, talent is a natural or innate ability or aptitude in some peculiar field or activity, which manifests itself without making any special efforts. Talent comes naturally while skill or competence is something developed through learning and practice. A person with talent for a profession can learn to execute that profession far more easily. Talent is commonly understood as above-average ability for a specific function or range or functions. Rather than corresponding to 'normal' ability, talent is considered a special ability that makes the people who possess, and use it above their peers in a specific area. Talent is an ability or aptitude we are born with, which lead to a satisfactory performance both in learning and in the execution of skills. For example, the talent to negotiate, invent or communicate. There is a difference between possessing a skill and having the talent to perform that skill. A person with talent for a profession can learn to execute that profession far more easily.

Difference between talent and skill		
Base for comparison	**Talent**	**Skill***
Meaning	Natural ability of a person to do something	Capability to execute a particular task
What is it?	It is a natural or innate aptitude	It is something you develop
Possessed by	A few people: 5%÷7% of workforce	Anyone can possess through learning
Requires	Recognition	Development

* Skill refers to an ability or an expertise in performing a task, while competence refers to the ability to perform tasks efficiently and autonomously.

For today's complex, uncertain and technologically driven environment, companies need digital native operators with some innate ability in a specific field, accompanied by multidisciplinary knowledge and adequate skills. It is evident that the traditional academic concept of talent differs from that intended by companies. Talent in the work arena means a virtual or digital native with a natural aptitude in a specific field, supplemented by a wide set of applied knowledge and soft skills[11]. Competence is the total sum of talent with a skill. This association leads to superior results than those obtained by people who have only the talent or skill separately.

Empowered talents represent the human capital of organisations and ensure more consistent earnings and greater resilience during crisis. A robust, qualified, and motivated workforce is critical to drive complex situations and initiatives that affect enterprises, and society, in the public sector.

Most executive[12] recognize the competitive advantage of the human capital, but HR talent management process is still designed for traditional ways of getting work done, and organisations made by lines and boxes, with limited empowerment of people, prevent the maximization of added value. Organisations should become more fluid, capable of sensing and seizing new opportunities and adapting to a constantly changing environment. To do this they must have talents and a talent management strategy.

Understanding the societal shift [13-14]

Behaviors, needs and objectives of people of different generations are often quite divergent. To reduce the attrition rate[15] and to boost efficiency, managers have to understand their specific peculiarities and treat them in customized ways.

Academics and HR experts classify people into five generations:

- the silent generation (born 1928-1945)
- the baby boomers (born 1946-1964)
- Generation X (born 1965-1979)
- Generation Y or millennials (born 1981-1995)
- Generation Z or post millennials (born 1996-2012).

Both Millennials and post-Millennials are digital native or persons grown up in the information age. Also called 'Virtual Natives' they live of digital information and social media and are expression of the 'followership style[16]' that is the capacity or willingness to follow a leader. Millennials are considered more progressive, creative and far-thinking than earlier generations. They are open to change and adaptive, but they also seem to possess an extraordinary passion for learning new things. This generation exhibits deep curiosity about the world and displays the desire to further develop skills and knowledge that can help them within their professional life. Millennials have high expectations of their workplace. They believe in themselves and expect to achieve great things. More significantly, they also expect high rewards for their efforts. They like to feel in control of their work and find hierarchies frustrating, preferring flatter structures. Millennials want creative and challenging work. Simply having a secure job is not enough. Probably they think that long-term job security is a concept of the past. Career security is more important.

Post-millennials

So far there is little statistical evidence of how post-millennials act in the workplace. They have an intuitive knowledge of technology and an 'always-on' attitude to social media. They have a strong individualistic track, and a belief in social causes. They care personal growth, community involvement, and have a preference towards a dedicated, trusted, and understanding leader. They are very informed because they do a lot of research and weigh their options before buying any goods or services. They have grown up with messages about global climate change that gives them a more acute concern for the environment. Their access to the internet from school age seems to have given them a more open-minded attitude. Their desire to balance work and life will be further enabled by technology. A significant number of post-millennials are looking for an independent job, confirming a substantial transformation in the industrial landscape, from the mid-2030s to the mid-2050s.

Generation X

Sandwiched between Baby Boomers and Millennials is often considered the forgotten generation.

Born roughly in the years 1965–1980, Gen X witnessed some of the world's greatest historical moments. The fall of the Berlin Wall, space exploration, the birth of the first personal home computer, and the development of the Internet. Gen X is the generation who watched their parents work incredibly hard and long, often remaining loyal to one company. This motivates Gen Xs to seek a healthy compromise, satisfying their financial, family and personal needs. Gen Xs currently fall into the age range of roughly 40 to mid-50s and are entering either the 'opportunity decade' or a mid-life crisis. According to DDI's Global Leadership Forecast, Gen X holds over 50% of all leadership roles. The 2020 Consumer Expenditure Survey conducted by the Bureau of Labor Statistics reveals that Gen X members earn more money than any other generation. CNBC reports that Generation X, not Millennials, is the one leading digital transformation in the workplace.

Talent Management[17-18]

As anticipated, companies must have a talent management strategy or an effective organisation of their human capital, intended as the cumulative knowledge, skills, attributes, and experience of their workforce.

Talent management can be defined as a comprehensive and systematic process that includes attracting, identifying, selecting, developing, and assessing talented employees, allowing them to achieve their highest potential. Talent management includes talent development that is the organizational process of positioning employees for career advancement in a way that aligns with the company's mission. This includes identifying workers' aptitude and goals and helping them develop the knowledge and skills they need to achieve such goals and fill the needs of the company. Talent development activities can range from mentoring and coaching to formal training, leadership development, succession planning, on-the-job learning and more.

Talent management involves a process of identifying talent gaps and vacant positions, sourcing and attracting top-notch employees, increasing their knowledge and skills through training, teaching them how to improve their performance, and promoting a positive work environment. When properly handled, it makes employees feel more empowered. When you source them, talents interview you, not the other way around. It is important to understand what they really care about. Money is important, but top candidates also care about working with new technologies, building up their skills, being part of a culture that values technology, and doing a meaningful and interesting work. Companies can achieve best results not only through hiring and developing talented people but also by creating the right conditions to unleash their potential.

For job candidates, career prospects and future opportunities are an important part of evaluating a potential employer.

Having a talent development program in place can attract well-qualified people. Unfortunately, some companies are only driven by financial results and focusing on people development is not in their DNA. As indicated in the figure below, talent management process[19] means: talent strategy & planning, sourcing & recruiting, performance management, learning & development, succession planning, leadership development and compensation.

1. Talent Strategy & Planning: definition of the workforce plan and hiring targets for the year.
2. Sourcing & Recruiting: search, assessment, evaluation, and hiring of candidates.
3. Performance Management: definition of tasks to measure with the relevant metrics.
4. Training and Performance Support: preparation and delivery of learning and development plans.
5. Succession Planning: as organisations evolve and change, there is a continuous need to move people into new positions. Succession planning enables managers to identify the right candidates for a position.
6. Leadership development: to enhance employees' ability to perform in a leadership role.
7. Compensation and Benefits: organisations try to tie the compensation plan to performance management so that compensation and benefits align with business goals and business execution.

Productive workplace should become a magnet and an incubator for talent. Companies that invest in human capital achieve more consistent and resilient financial performance than their peers.

What is Talent Management? By Joshbershin January 26, 2020

Blueprint to transform the organisational capital to outperform in a time of economic uncertainty and talent shortages, to achieve greater consistency and resilience and to lower talent attrition rate

Companywide policies

- Clear mission and strategic plan
- Flat structure, limited bureaucracy or micromanaging
- Guiding principles, working norms, and support systems
- Clear roles, people in right places, and clearly communicated paths toward future opportunities
- Mobility (not only promotions; lateral moves enable people to recharge and expand their skills)
- Open, transparent, motivating, engaging, and people respectful workplace
- People and performance-driven approach and reward-based performance management (benefits aligned with employee's priorities)
- Technology, data, communication platforms and integration between people and technology
- Information and knowledge sharing
- Competitive and inclusive work environment creating the sense of belonging
- Talent growth and development
- Culture of entrepreneurship, innovation and collaboration
- Continuous training

Leadership behaviour

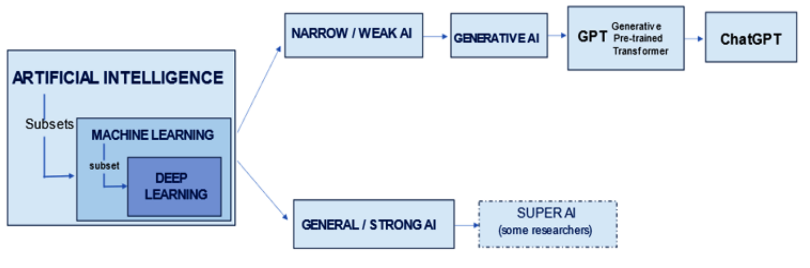
- Employee involvement (as its opinion matters) also in setting company direction
- Public recognition of jobs well done and face-to-face communications when things are not working
- Deep analysis on areas of employee discontent
- Consultative and challenging leadership with much deeper empathy
- Autonomy and empowerment
- Bottom-up innovation and collaboration
- Track and Measure Performance (give feedback and reviews)

Talent Development

- Upskilling (starting from applied digital culture) and reskilling
- Coaching,
- Mentoring
- Job rotation,
- involvement in presentations, problem-solving meetings, emergencies, replacing absent staff
- participation in workshops, project groups or special projects.

3. Narrow and Generative AI

Types and subsets of artificial intelligence



1956: birth of AI at Dartmouth Summer Research Project of Artificial Intelligence

Over the past decade, artificial intelligence, machine learning and deep learning have entered into our daily lives and in medium-large enterprises. Recently we heard a lot about generative AI and specifically about ChatGPT.

As AI, in its various forms, will shape the future of the world, it's useful to have an overview of this revolutionary technology, its features and subsets.

Artificial intelligence (AI)

Artificial intelligence (AI) can be defined as the development of software and hardware systems that can copy intelligent human behaviour such as making predictions, learning, reasoning, understanding languages, sounds and patterns, and are capable of autonomously pursuing defined goals and to make decisions usually entrusted to people. AI is the simulation of human intelligence processes by computer systems.

Using computer science, robust datasets, and machine learning algorithms, AI enables complex problem-solving by analyzing large amounts of data, identifying patterns, and making predictions. One of the key benefits of AI is its ability to provide accurate data in a fraction of the time it would take humans to process the same amount of information. Another benefit of AI-driven data analysis is its ability to identify and flag errors and inconsistencies. Machines cannot think, they can simply imitate human thinking. AI and machine learning is about statistical, not functional relationships. Statistical relationships work with random and randomly determined variables. Specifically, AI will get some things right and some things wrong.

The question is how "accurate" is AI in making predictions? The accuracy of a specific intelligence system directly relates to data, training time, efforts, and computing power needed and is a critical part of business cases[20]. Accuracy, understood as the proportion of the total number of predictions that are correct, can vary from 80% and 90%, it hardly reaches higher levels. The problem is to evaluate the level of accuracy of human decisions. A study by Accenture found that AI-enabled chatbots have a 90% accuracy rate in answering customer queries. Given the speed of execution, accuracy levels of 80%÷85% can be considered acceptable in many cases.
AI can be further subdivided into various subfield such as robotics, natural languages processing, computer vision, expert systems and more. There are numerous examples of AI applications across industries: credit risk assessment, image and speech recognition, natural language processing, personalized recommendations (marketing and e-commerce sites), predictive maintenance, medical diagnosis, autonomous vehicles, virtual personal assistants like Siri or Alexa, fraud detection and more.

Machine learning[21] (ML)

Subfield of AI, is the process which allows the system (computer) to learn on its own through experience and improve accordingly without being explicitly programmed. It uses statistical methods and makes observations on data to identify the possible patterns and subsequently to makes decisions based on patterns observed. The main limitation of machine learning is the need for human intervention in case of mistakes or when it is necessary to define the direction in which to move. Although these programs are effective in identifying correlations, they are much less effective in identifying causation. Thus, human involvement is necessary in directing these programs to the 'right' solution. Example of ML applications include: virtual personal assistant like Siri, Alexa, Google etc., email Spam and Malware filtering. ML algorithms can be classified as supervised, unsupervised or reinforcement learning.

Deep learning (DL)

Subset of machine learning which uses an artificial neural network (similar to the neurons working on our brain) to analyse data and to provide output accordingly. It mimics human brain-like behaviour, reaching accurate conclusions without human intervention. DL learning algorithms typically utilize 3 or more layers in an artificial neural network and need larger set of data when compared to ML. DL algorithms focus on information processing patterns just like our brain does and classify the information accordingly. It achieves the highest level of accuracy when it is trained with large amount of data. Example of DL applications include: sentiment-based news aggregation, image analysis and caption generation, speech recognition, etc.

Machine Learning Vs. Deep Learning

Singapore Computer Society	Machine Learning	Deep Learning
Approach	Requires structured data	Doesn't require structured data but big data or data lake frequently updated
Human intervention	Requires human intervention for mistakes	Doesn't require human intervention for mistakes (capable of learning from its errors)
Hardware	Doesn't require high computing power, can function on CPUs (Central Processing Units)	It requires high computing power and GPU (Graphics Processing Units)
Time	Takes seconds to hours	Takes weeks
Use	Forecasting, predicting and other simple applications	More complex applications like autonomous vehicles

Artificial Narrow Intelligence

Also known as weak AI, is a system or machine capable of performing single tasks but it is incapable of carrying out tasks outside of its designed function and capacity. The AI machines or programs that we currently use like Google translate, email spam filters and facial recognition software, are examples of narrow/weak artificial intelligence.

Artificial General Intelligence (AGI)

or strong AI, refers to a more advanced machine with all the capabilities of a human, including his emotional intellect and creativity. However, replicating the human intellect, emotions and ability to react in unknown situations is a complex task that has yet to be achieved. AGI aims to match or even surpass human intelligence in virtually any cognitive task, making it a more advanced and versatile form of AI (Escott).

Narrow AI systems, like ChatGPT, excel at specific tasks but lack a deep understanding of content and context. They can generate responses through probabilistic but cannot reason about words in the way humans do. AGI, on the other hand, would possess the ability to understand, analyze, and reason about a wide range of problems, demonstrating a level of intelligence akin to human beings.

Another key difference between Narrow AI and AGI is their capacity for transfer learning and adaptability.

Narrow AI systems are highly specialized in specific domains, such as language processing or image recognition, but struggle to apply their knowledge and skills to other areas.

AGI would be capable of learning from one domain and seamlessly applying that knowledge to various tasks and domains, demonstrating true adaptability and versatility[22].

Creativity and emotions are also important differentiators of the two.

While Narrow AI systems can generate creative outputs based on patterns learned during training, they lack genuine originality and emotional experiences.

In contrast, AGI would be capable of original thought, innovation, emotions, and to solve problems that require empathy and creativity.

Generative AI[23]

Language model that can create original content in response to a user prompt or query, including text, imagery, audio and synthetic data.

The recent buzz around generative AI has been driven by the simplicity of the new user interface for creating good-quality text, graphics and videos in a matter of seconds.

The technology, is not brand-new. Generative AI was introduced in the 1960s in chatbots. But it was not until 2014, with the introduction of Generative Adversarial Networks, or GANs - a type of machine learning algorithm - that generative AI could create convincingly authentic images, videos and audio of real people.

ChatGPT is an AI chatbot that uses natural language to generate humanlike conversational dialogue. It can respond to questions and compose various written content, including articles, social media posts, essays, code and emails.

ChatGPT is a form of generative AI that lets users enter prompts or queries to receive humanlike images, text or videos that are created by AI. It relies on pre-existing knowledge and does not have real-time access to the internet. Its responses are based on training data and do not reflect current events or developments. It only uses the knowledge that it learned from its training data, consisting of millions of online conversations from various domains.

Therefore, it may not be able to respond to questions that require up-to-date or specific information, such as current events, facts, or personal details[24].

It's important to note that ChatGPT's responses are based on patterns and information learned during training, and it may not always produce accurate or factually correct answers[25].

This software generates quick responses while ensuring higher levels of accuracy compared with other tools available on the market today.

This makes it usable for tasks such as customer service administration, answering FAQs, and managing simple technical problems within organisations.

The GPT stands for "Generative Pre-trained Transformer," which refers to how ChatGPT processes requests and formulates responses.

It is trained with reinforcement learning through human feedback and reward models that rank the best responses.

Generative AI, Chat GPT and their applications in business

Enabling technologies and artificial intelligence are changing our lives and all types of organisations.

Narrow AI already entered many medium-large enterprises, but with the launch of ChatGPT, the attention towards artificial intelligence applications has increased.

Moving from the basic AI and bearing in mind that we are dealing with a new application subject to further developments, and characterized by an unknown degree of accuracy, we have tried to evaluate its possible benefits within industrial enterprises.

Since data available, especially on results achieved, are limited, we have tried to assess its added value through the analysis of its possible applications.

We read that Generative AI and other foundation models[26] are changing the general AI scenario, taking enabling technology to a new level, reducing application development time, and bringing powerful capabilities to non-technical users.

To have an idea of the potential of generative AI, Michael Chui[27] asked ChatGPT to write the opening paragraph of an article about how transformative generative AI will be challenging for the business.

> ChatGPT's response:
>
> *"The rise of generative AI has the potential to be a major game-changer for businesses. This technology, which allows for the creation of original content by learning from existing data, has the power to revolutionize industries and transform the way companies operate. By enabling the automation of many tasks that were previously done by humans, generative AI has the potential to increase efficiency and productivity, reduce costs, and open up new opportunities for growth. As such, businesses that are able to effectively leverage the technology are likely to gain a significant competitive advantage."*

We appreciate the response of ChatGPT, but taking into account its unknown degree of accuracy, we have doubts about its ability to automate process whenever certainty, instead of limited accuracy, is needed. In our opinion it can be used to accelerate the execution of some activities or processes, which cannot be improved with narrow AI, but, in many cases, it implies the human supervision.

As anticipated, ChatGPT[28] can be used for conversations, to prepare code computer programmes, compose music, create articles, describe complex topics more simply and for other uses.

But it also has some limitations, and specifically:

- It does not fully understand the complexity of human language.
- Lacks of knowledge for data and events after 2021.
  We have asked ChatGPT to summarize the agreement reached on June 2023 by France, Germany and Italy to strengthen cooperation on critical raw materials supply. Its answer has been: '*I don't know events or facts happened beyond September 2021'*.
  This limitation prevents its use in many cases.
- Lacks of accuracy.
- It summarizes but does not cite sources.
  ChatGPT may provide several statistics but no real commentary on what these statistics mean or how they relate to the topic.
- It may focus on the wrong part of a question and not be able to shift.

Generative AI applications such as ChatGPT, GitHub Copilot, and Stable Diffusion have captured the interest of people. Almost anyone in fact can use them to communicate and create. With generative AI, computers can now exhibit creativity. But we have to distinguish between personal and corporate application, as for the latter the certainty of the output is often crucial[29].

Recent generative AI systems have emerged from foundation models, deep-learning models trained on massive, broad, unstructured data sets (such as text and images) that cover many topics. In this way, these capabilities are accessible to all, including developers who lack specialized machine learning skills and, in some cases, people with no technical background.

Generative AI's can help employees to retrieve stored internal knowledge by formulating queries in the same way they might ask a human, and engage in continuing dialogue. This enables people to rapidly make better-informed decisions. In 2022, the McKinsey Global Institute (MGI) estimated that knowledge workers spend about a fifth of their time searching for and gathering information. Purchasing and sales manager could gather market trends and suppliers/customers information from unstructured data source (social media, news, research, product information and supplier/customer feedback) and draft effective communications or reports[30].

Deep learning has powered many of the recent advances in AI, but the foundation models powering generative AI applications are a step ahead. Unlike previous deep learning models, they can process extremely large and varied sets of unstructured data and perform more than one task.

Simultaneously Foundation models enable new capabilities across a broad range of modalities, including images, video, audio, and computer code. Generative AI promises to make 2023 a very promising year.

But as per every new technology, users must proceed with caution, as it could presents many practical challenges and risks.

According to McKinsey[31]:

- generative AI's impact on productivity could add trillions of dollars in value to the global economy across the 63 use cases they have analysed;
- about 75% of such value will be made in four areas: customer operations, marketing and sales, software engineering, and R&D;
- generative AI will have a significant impact across all industry sectors. Banking, high tech, and life sciences are among the industries that could see the biggest impact;
- generative AI can increase the capabilities of workers by further automating some of their activities (thanks to its improved ability to understand natural language);
- generative AI continues to develop and mature, and has the potential to open new frontiers in creativity and innovation;
- the era of generative AI is just beginning and early pilots are promising. But the full achievement of its benefits will take time. This includes managing the relevant risks and determining what new skills and capabilities the workforce will need.

Talking about benefits brought to business by technology, many authors tend to exaggerate, refraining sometimes to mention the relevant risks and the prerequisite of a generalized digital culture.

Analyzing the McKinsey tables of the following page, referred to the '*possible generating AI use cases across the business*' and to the '*The most commonly reported uses of generative AI[32],'* we cannot expect conspicuous benefits from the applications of this technology, especially if we consider that most tasks listed in the same could be obtained with traditional automation and narrow AI.

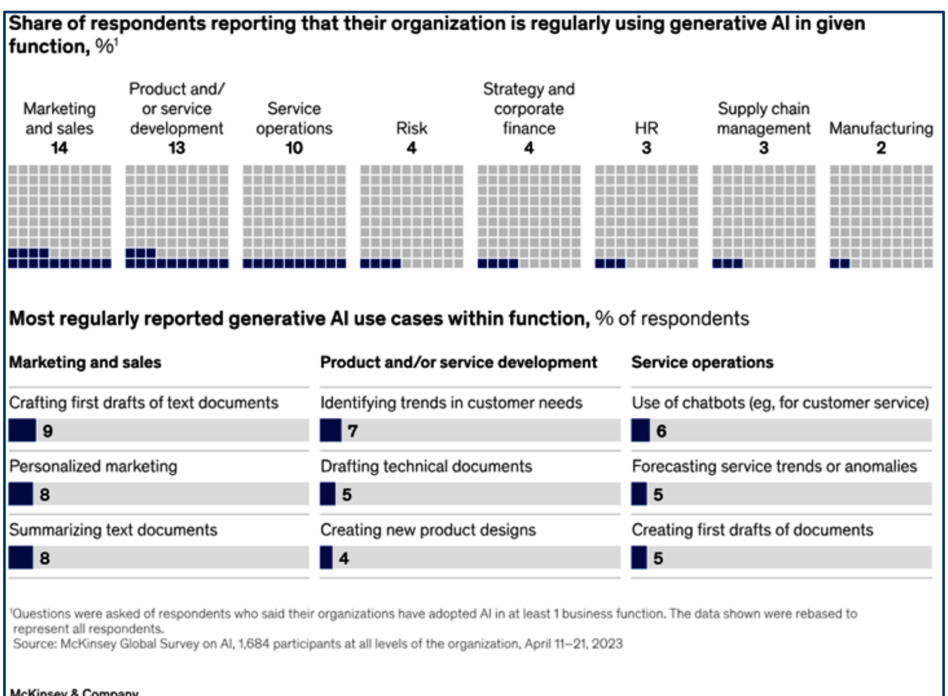
In our opinion, the main added value of generative AI lies in the use of the natural language, the easy interface, and the possibility to use an expanded range of destructured data.

There are many possible generating AI use cases across the business[33]

Examples use case[a] *(not exaustive)*

Marketing and sales	Operations	IT / engineering	Risks and Legal	HR	Utility / employee optimization
Write marketing and sales messages *(text, images, videos eg. social media or technical sales content)*	**Create / improve customer support chatbot** to manages issues about products	**Write codes & documentation** to accelerate developments *(eg. convert Java-Script expressions into Phyton)*	**Draft & review legal documents** including contracts and patent applications	**Support in creating interview questions** for candidate assessment targeted to function, company policy and industry	**Optimize communication** of employees *(eg. automate email responses, text translation, change tone or wording of text)*
Create product user guide	**Identify production anomalies and defects** from images to provide rational for decisions	**Automatically generate or auto-complete data tables** while providing contextual information	**Summarize and highlight changes** in large regulatory documents	**Automate first-line interaction** with employees, Q&A, advise on employment conditions, law, regulations	**Create business presentations** based on text prompts including visualizations form text
Analyse customer feedback by summarizing important themes	**Streamline customer service** by automating processes	**Generate synthetic data** to improve ML models	**Answer questions** from large amounts of legal documents		**Synthetize a summary** from text or online video meetings
Improve sales force flagging risks, recommending next interaction	**Identify clauses of interest such** penalties, technical milestones, deliverables				**Enable search & question answering** on company private knowledge and data
Create or improve sales support chatbot to help potential customers, including technical product understanding					**Automated accounting** by sorting and extracting documents, using automated email openers and intelligent documentation recognition

a. As Generative AI is in the early stages of maturity, organisations should consider use cases and their implications carefully and determine the appropriate level of human supervision and control.
b. Partial reproduction of McKinsey table.



The most commonly reported use of generative AI tools are in marketing and sales, product and service development, and service operations.

According to McKinsey[34] the most-cited risks of generative AI adoption are: inaccuracy, cyber security and patent infringements. In any case its use ensures benefits which vary from company to company and sector considered. In the information field, where certain levels on inaccuracy can be admitted, it could bring significant advantages in terms of reduction of operating times and completeness of content.

Initial steps for executives[35]

In companies considering generative AI, the management should appoint a cross-functional team, inclusive of data and legal experts, and functional business leaders, to carefully:

- analyze where the technology might aid or disrupt the company and/or its value chain;
- define the relevant company strategy; (e.g., do we wait and see how the technology evolves, investing in pilots, or do we launch projects in some areas?)
- define the criteria to select the use cases to follow, given the limitations of current models;
- define the legal and technical standards to adopt in order to maintain trust with most stakeholders.

Meanwhile, it's essential to favour and promote innovation culture and practices across the organisation.

The innovations that generative AI could bring to businesses are challenging, but executives should also consider the risks that exists at this early stage of the technology's development.

Taking into account McKinsey suggestions: '*to appoint a cross-functional team, inclusive of data scientist, legal expert, and functional business leaders*' it is clear that we are talking about technological applications for medium-large companies, even if the use of the natural language and of data from external sources, increases the chances of penetration even in SMEs.

Conclusions

This study was meant to analyse the three interdependent cornerstones of the successful company of the future.

Three different chapters, the first focused on the optimal organisational structure of the company, the second on the best way to growth and retain talents, and the last dedicated to the advance technologies, seen as a mandatory factor to support and integrate people, activities and processes.

To ensure competitive advantages companies need talents, empowered talents can maximize their added value if working in a challenging workplace supported by advanced technologies, and technologies can be exploited if managed by talents in modern workplaces, where workforce share a digital and performance culture.

Artificial intelligence can be best exploited in medium-large companies where data – many, clean and frequently updated – are available, but process automation can be achieved also by SMEs that don't have and manage large amount of data.

The same goes for generative AI applications.

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Marina Lindič
President of Slovenian Purchasing Association
Past president of IFPSM

The Future of Procurement
or *what we must do now to secure competitive advantage for our companies?*

The world is changing – that's old news. Covid 19 pandemic, political uncertainty - war in Ukraine, tensions between US and China, volatility, climate changes, shifts in the territories where the wealth or the willing workforce of the future reside and unprecedented levels of migration of people will continue. Today, these changes are well understood, they exist within organizational consciousness and figure in the determination of good sourcing approaches. We don't know what the future holds, we can be certain that things will be ever changing.

The health and economic crisis triggered by Covid-19 has turned purchasing in business on its head. After being at the eye of the storm, it sees its priorities evolving over the short and medium term. The business leaders met to discuss the positioning and responsibilities of the procurement department within their organisation, as it faces the challenges of tomorrow.

The shock that we have gone through has further enhanced the central role of procurement. They had a threefold mission:

- to guarantee the stocks of essential personal protective equipment for employees,
- to ensure that production continued to operate smoothly,
- and to identify the risks associated with supplies.

Today, it should capitalise on its success to firmly establish its strategic position. The purchasing departments are still mobilised, with two priorities on the agenda:

• Cost Reduction

The organisations must be prepared for a phase of instability. To ensure the survival of their business, purchasing departments will have to reduce their costs. It is no longer a question of pressuring suppliers to lower price, but rather of working hand in hand with them, to improve productivity, vital for all the stakeholders. This involves optimising and digitising processes, improving efficiency, reducing waste, receiving products "just in time", etc.

• Securing Supply Chains

Because our supply chains are all interconnected, Covid-19 has highlighted new risks. This has become essential to accelerate and improve risk management programs, from the start of the supplier process and throughout their lifecycle. Attention - 60% of cyberattacks now target the supply chain, underlining how essential it is to ensure its robustness.

Economic Performance vs CSR?

As a subject for several years, Corporate Social Responsibility had to be addressed by managers. Corporate purchasing would seem to be faced with a conflict of interest between ensuring a sound economic performance and meeting their social and environmental responsibilities. Procurement is facing one of the toughest market environments of their careers. It needs to take a leading role in protecting enterprise margin and growth, invest in proven technology and process automation.

We need to **rethink of current economic models**; to use renewable raw materials to recycle materials to any degree. Purchasing will play a key role in the transformation of this model. Many solutions available to buyers are: the integration of responsible and sustainable criteria in sourcing, but also, and above all, all the principles of the <u>circular economy</u> and <u>sustainable consumption</u>: the functional service economy, extending the working life of products, recycling, etc.

During the health crisis, Europe recorded a 7% reduction in its greenhouse gas emissions. To achieve the objectives of the Paris Agreement on the climate and to limit the rise in global temperature to 1.5 degrees Celsius, *the United Nations estimate that "global greenhouse gas emissions must be reduced by 7.6% year on year over the next decade, if the world wants to repair the damage done*".

Buyers must learn how to purchase differently and integrate new data to take part in the transformation of companies.

2030 seems like an age away, yet it is just around the corner. Procurement has the potential to undergo a dramatic transformation.

This will not be automatic. It will require a different set of skills, a new type of agility and a new mindset regarding what procurement is and how it operates. Data will be central to driving everything we do. Procurement has the potential to create competitive advantage.

Purchasing departments will be working hard to strengthen the resilience and competitiveness of their company, to enable them to face the profound changes and continual disruptions that they will face over the next decade. Purchasing will need to focus on major tasks:

I. Market - intelligence

Procurement will need the ability to navigate through the changing landscape with a new agility, responding in as close to real time as possible and adapting fast to stay ahead. Access to new and vast sources of data will be key.

The process of gathering supplier, market, and external environmental information to develop a good sourcing strategy will be replaced with new data-driven approaches that enable us to identify the optimum sourcing approach. Different and enormous sets of data and information sources get combined in real time to inform and shape sourcing decisions. Procurement teams will be part of the conversations about trend information and potential supply base impacts to create a new agility.

II. Supersized suppliers and networks of talent

The suppliers of the future are and will be very different to those we know today, driven by geographical shifts in where wealth and power reside as well as the use of technology, and in particular the use of data; there will be greater polarization in terms of size.

We are witnessing the dawn of the 'network of talent.' A shift away from being 'housed' in one entity, having people based in one or more physical locations, is under way. Changes in organizational thinking and modern technology mean that both our organization and our future suppliers are likely to be more like connected global networks, made up of agile individuals and groups, together with key nodes where physical goods get produced or services get performed, all working together as one. It also enables companies to tap into and embrace the talent potential from the small or individual providers or simply the brilliant mind of a data specialist working out of his or her bedroom in Koper. Realizing future innovation from the supply base will demand new procurement approaches to drive a new type of strategic collaborative relationship. New digital/data-driven approaches will help to monitor performance and limit data exposure – never letting any single entity access all the individual elements.

We are witnessing supersize companies that amass incredible wealth, size and, crucially, power by how they position themselves. More giants will emerge and whilst it is easy to understand how these gain their power and position through brand and creating dependency, the giants of the future will also secure their position by controlling routes to and from marketplaces and knowing how to use data to their advantage.

III. The long live RFP!

Automation of routine, generic, non-differentiated and non-complex spend will be here and much of the 'buying' will simply take care of itself with the full support and engagement of the wider business. The best possible deal available from the widest possible marketplace is presented, together with rankings and ratings to help make a good choice. A new sourcing world where the virtual marketplace will do the work for us.

The new role of procurement will be to tailor these new external platforms to our needs and manage how they serve our business to ensure as much spend as possible is generic, undifferentiated and can be pushed to these platforms.

We will manage one interface rather than lots of individual contracts. Integration with new cloud-based procurement and invoicing platforms using blockchain or distributed ledger to transform supplier payments will automate much of the P2P cycle, with full automation possible as we learn to combine customer demand and market condition data to what we buy and when.

IV. A new digital age?

Companies that have undertaken or are undertaking their digital transformation will have a competitive advantage. To take full advantage of the new technology, purchasing departments will have to intervene proactively to develop their own internal digital strategy.

Computers will take over administrative and manual tasks, which will allow purchasing to focus on tasks with higher added value, with the focus on building relationships with internal customers and partners.

No need to mention artificial intelligence (AI), robotics, big data, internet of things, machine learning. The future is about how emerging technologies converge and access to big amounts of good data from multiple sources; processed, combined, and analysed in highly creative ways to create unique new insights that drive tailored procurement interventions across the supply base – all in real time.

According to "Deloitte Global CPO Survey 2021", digital transformation is now one of the top three priorities for CPOs. Their priority is to improve their operational efficiency, and the second is to reduce costs.

Advanced analyses, collaborative networks, and RPA (Robotic Process Automation) are among the new technologies most frequently deployed in purchasing departments. The "best-in-class" organisations - the most efficient and most agile, focused on AI as well as predictive analyses (PA). AI is perceived as one of the most difficult to implement, but also the one that could have the greatest impact on the purchasing process.

We can predict demand using AI and PA on combined data about customer behaviour, world, and local events, political, sociological, economic, technological, weather; we can understand about entire supply chains and raw materials. Combine all of this and we can create very agile and dynamical supply chains, recognizing the best price in the market, mitigate risks, and know everything there is to know about a supplier. We will remove the uncertainties, transform our negotiation strength with our strategic suppliers and make sustainability and traceability where needed.

Data and analytics are one of the main levers that will allow purchasing to develop its strategic vision and become more influential within the organisation.

V. Architects, algorithms and agile

Procurement and supply chain will create a single strategic function and its contribution will be a strategic one led by a new generation that determine and optimize how value flows into and through the organization to bring the greatest competitive advantage. Procurement will be part of business-wide effort enabled through data and digital tools that bring cross-company visibility and collaboration.

The future excellence will depend upon procurement's ability to strategically determine new ways to access, analyse and combine big data from various sources and shape procurement interventions. We will need a new generation of talented individuals with the skills to make data a key value enabler.

The buyers of tomorrow are to be either incredibly talented mathematicians, digital experts, pioneers of AI, experts in cryptography and data security or strategic thinkers who understand and can connect with the entire organization. They will need to be agile, unfazed by change and highly ethical – and many of them will need to be creative innovators. Attracting the right future talent for procurement will be mission critical.

VI. Focus More on Internal Customers and Partner-Oriented

Questioning internal customers about their needs and their day-to-day frustrations, to offer better, simpler solutions, and more efficient user experience, will become the new standard. Procurement must establish its position as a business partner by controlling expenses, influencing purchasing behaviour using tangible information, as well as taking long-term decisions that will benefit their internal customers and the company.

Purchasing should create a new operating model to strengthen their relationships with suppliers, optimising their performance, while promoting innovation and mitigating risks. Data and analytics play a key role in measuring performance, identifying opportunities, and bringing risks under control.

VII. Team preparation

Buyer will have to acquire new skills, particularly digital ones, and improve its emotional and relational intelligence, which is its main strength. We must adopt a strategy of continuous learning and demonstrate the agility. A combination of technical knowledge and soft skills will become the main strength of the purchaser of tomorrow, along with agility and resilience.

To help their business remain competitive, purchasing will have to rely on innovative digital platforms serving internal customers to create more value for stakeholders.

Digital as well as certain "soft skills", such as the ability to adapt to change and flexibility will be searched. The purchasing function needs to stay well informed and undergoes continuous training, focused on technical skills: strategic sourcing, category management, negotiation, etc.

The best strategies for developing talent are still individual coaching, mentoring, and feedback sessions. The best CPOs are relying on programs for young talent or master's degree programs.

Some functions of the purchasing process can be automated, but other tasks are more dependent on human relationships, critical thinking, or creativity, and cannot be done by a machine.

The latest generation of technologies could replace certain "soft skills", such as communication, problem-solving, leadership, or negotiation. Although robots can now engage in meaningful conversations and are developing facial expression recognition systems, purchasers are still hesitant to give them tasks beyond what they would consider to be "routine communication tasks". The writing a sensitively worded email is beyond the reach of technology, which is not yet capable of showing empathy! Certain skills remain linked to human beings, such as building relationships, influencing, creativity, and innovation.

Understanding the needs of internal customers means knowing how to ask the right questions, analyse the answers, read between the lines, and verify information in the field. It is a task which requires both technical skill (knowledge of markets and product expertise) as well as sensitivity (empathy, active listening, patience, etc.).

Procurement will focus on optimising the total cost of ownership, increasing collaboration with suppliers, improving risk management, and contributing to the Corporate Social Responsibility strategy.

Far from replacing human beings, technology opens new possibilities for buyers, relying on their cognitive and people skills.

Dr Peter Kraljič receives from Marina Lindič the Certificate of Honorary Member of ZNS

About Purchasing Association of Slovenia (ZNS)

ZNS celebrates its 20th anniversary this year! Over the past twenty years, we have developed into a mature association, recognised as the foremost authority in the field of purchasing and supply chain procurement in Slovenia and renowned abroad.

We are extremely proud of our compatriot Dr Peter Kraljič, who is also an Honorary Member of ZNS.

ZNS has over 370 members who meet and network at our events:

- In first and fourth quarter of each year, we organise seminars on topical purchasing issues.
- In May, we organise a two-day Regional Purchasing Conference, bringing together purchasing managers, purchasers, and lecturers from the regions: Slovenia, Croatia, Serbia, Italy, Austria. Eminent national and international speakers from whole Europe, which present to participants the latest trends in purchasing and best practices from the region.
- At the beginning of October each year, we organise a Purchasing Summit, where analysts and practitioners present price trends and forecasts for the year ahead, which purchasers use to help them develop their plans for the year ahead.
- In between, we organise workshops and practical training sessions and webinars to present topical issues that help buyers in their daily work.

Our activities are strongly supporting our Vision:

"Purchasing Association of Slovenia aims to professionalize the procurement function, bring procurement, and supply management professionals into the board of every organization in Slovenia. As it grows, Purchasing Association of Slovenia will be the number one source of supply management information and knowledge that will address supply management-related issues."

Marina Lindič

Novel Tjahyadi
IAPI

How to Empower Procurement through Innovation

Organizations have traditionally seen procurement as a mere back-end and supporting function, with its primary mandate being acquiring goods and services from external suppliers to meet the needs of an organization at the best possible price. It involves everything from sourcing suppliers, negotiating contracts, and managing relationships with suppliers.

However, in today's fast-paced business world, the role of procurement has evolved significantly over the years. It has started to be considered as a critical function that plays a crucial role, shifting from being a cost center to a strategic function that can drive business growth and competitiveness.

One of the driving forces behind this evolution is innovation. With the advent of new technologies and changing business models, innovation in procurement has become a key focus for many organizations looking to gain a competitive edge by making procurement more efficient, cost-effective, and streamlined.

This article will explore the importance of innovation in procurement and how it can transform the function.

What is Innovation

Innovation has become a buzzword in the business setting, yet through overuse, misuse, and hype, and innovation has essentially lost its true meaning.

So, what is innovation?

Innovation is a multidisciplinary process of creating a new thing in a new way for viable business values.

In an organization, managing innovation is a rather complex activity. It requires discipline in orchestrating an end-to-end systematic process, from identifying problems or opportunities that matter for the organization to navigating through them to create and deliver new solutions that bring new business values to the organization.

Essentially, innovation can be applied to all aspects of a business. Procurement is not an exception. Innovation in procurement can revolutionize how organizations operate, streamline procurement processes and create value for the organization.

Why Innovation in Procurement is Necessary

Traditionally, procurement has been viewed as a transactional function whose primary goal is cost efficiency. Procurement teams focused more on finding reliable suppliers, negotiating the best deals, and managing contracts. However, with the changing business environment, procurement is evolving beyond its traditional role. Innovation is becoming necessary, as procurement teams are now required to be more strategic, agile, and innovative.

Procurement teams can no longer rely on cost savings alone to create value; they must identify new ways to create value for the business.

Innovation in procurement refers to adopting new processes, technologies, and approaches to procurement that drive value for the business. It is about looking beyond traditional procurement methods and embracing new ways of working that can help organizations to reduce costs, improve efficiency, and gain a competitive edge. The goal of innovation in procurement is to create a more strategic and collaborative procurement function that supports business growth.

Innovation in procurement is necessary for several reasons:

Competitive Advantage - By adopting emerging technologies and processes, organizations can gain a competitive edge over their rivals, enabling them to deliver products and services faster and at a lower cost.

Cost Savings - Innovation in procurement can help to reduce costs by streamlining processes, improving supplier relationships and optimizing the supply chain.

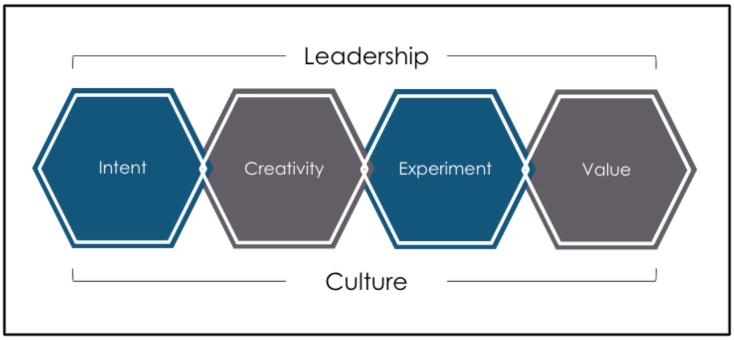
Improved Efficiency - By adopting new technologies, such as Artificial Intelligence (AI), and processes, procurement professionals can work more efficiently, resulting in faster procurement cycles and better supplier relationships.

Better Risk Management - By identifying and managing risks in the supply chain, companies can reduce the impact of disruptions and minimize the risk of supply chain failures.

Enhanced Supplier Relationships - By using new technologies to improve supplier relationships, companies can build stronger partnerships with their suppliers, resulting in better pricing and improved product quality.

Improved Customer Satisfaction - By improving supply chain management, companies can deliver products and services faster and at a lower cost, resulting in improved customer satisfaction.

Novel's Innovation Framework™



How to Adopt Innovation in Procurement

To embrace innovation in procurement, procurement teams should adopt a strategic approach using the four stages in the following Innovation Framework.

Intent - Before you can innovate, you need to have a clear understanding of the reason why you want to innovate. The intent could be driven by various motivations, such as market trends, competitor landscape, customer behavior, macroeconomic situations, or foresight, which will, in turn, be translated into a valid problem or opportunity statement. Procurement innovation intent should be aligned with the strategic goals of the organization.

Creativity - The funnel of innovative ideas, which can come from within or outside the organization, should occur here. While we should encourage many ideas initially, the organization must define clear evaluation criteria for idea filtration. Eventually, the potential ideas should be thoroughly evaluated and qualified by developing a business case to hypothesize the viability of the ideas.

Experiment - The hypothesis from the business case will be validated through a series of iterative experiments. Agility is the name of the game here, during which the experiments must be conducted fast and lean, engaging and collaborating with potential users, including suppliers, from the get-go. In this stage, procurement teams can adopt emerging technologies to accelerate innovation.

Value Creation - Referring to our innovation definition earlier, it is crucial for procurement teams to identify not only the intent but also the output of their innovation, which is the business metrics. Innovation must consistently deliver measurable business values - monetary or non-monetary - to the organization, such as top line, bottom line, better supplier performance, improved customer satisfaction, or net zero emissions.

Lastly, the journey of the four stages in the Innovation Framework above can only be successful if your procurement teams receive full support from the leadership team. A study by the Harvard Business Review discovered that when leaders foster a culture of innovation, it can increase employee productivity by up to 38%.

Employees feel more motivated to develop innovative solutions when leaders support and encourage new ideas and risk-taking culture. The support from the leaders must also be reflected in their willingness to invest in the innovation initiatives and capabilities based on the organization's intent and strategic priorities.

Innovation in Procurement: Key Trends

Innovation in procurement can take many forms, from using advanced analytics and AI to optimize procurement processes to the adoption of new sourcing models, such as agile sourcing, which enables organizations to be more responsive to changing market conditions.

The role of innovation in procurement is to drive value creation across the entire procurement process, from sourcing to contract management to supplier relationship management.

Several key trends are driving innovation in procurement, including:

Automation - Automation revolutionizes procurement by enabling companies to streamline processes, reduce costs and improve efficiency. Robotic Process Automation (RPA) can automate repetitive tasks such as data entry, freeing procurement professionals to focus on more strategic activities.

AI and Machine Learning (ML) - AI and ML are becoming increasingly popular in procurement. These technologies can automate procurement tasks, from spend analysis and contract management to supplier selection and negotiation. They can also help identify potential risks in the supply chain, provide insights into new cost-saving opportunities, and forecast future demand.

Blockchain - Blockchain is a distributed ledger technology that can be used to create secure and transparent supply chain networks. Using blockchain, companies can track the movement of goods and services across the supply chain, reducing the risk of fraud and improving visibility.

IoT - The Internet of Things (IoT) is a network of connected devices that can be used to track and monitor supply chain activities. IoT sensors help monitor the condition of goods in transit, enabling companies to identify potential issues and take corrective action.

Cloud Computing - Cloud computing is changing the way procurement is managed. It allows for more efficient collaboration and communication between teams and suppliers, enabling faster and more accurate decision-making. It also promotes greater transparency and accountability, as all stakeholders can access and share information in real time.

Conclusion

Procurement innovation can drive transformative change and create value for the business. In the digital era, procurement innovation will become more critical, and procurement teams must keep up with technological advances to remain competitive. Procurement teams must adopt a strategic approach to innovation, leveraging data analytics, fostering a culture of innovation, and collaborating with suppliers. By doing so, they will be better equipped to provide quality products, faster delivery times, better collaboration with suppliers, and increased customer satisfaction, which can help drive financial performance and enhance operational efficiency.

About the Author

Novel Tjahyadi is a member of Indonesia Procurement Professionals Association (IAPI).
He is an accomplished and award-winning Innovation Strategist with over 25 years of remarkable achievements and strategy executions within private and public sectors, having held various senior leadership roles in multinational companies, including Gojek, Accenture, and Schlumberger. He was previously the Head of Innovation for Dubai Silicon Oasis Authority.
An entrepreneur by heart, Novel co-founded two Dubai-based companies, IntiHub (Innovation Consulting) and Gulfware (Technology Solutions).
With deep industry experience, he is among students' favorites as the adjunct faculty at Heriot-Watt University (HWU) Dubai campus. Novel is a keen startup mentor and keynote speaker.

The buyer of the future

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The role and responsibilities that will be attributed to and assumed by the buyer of the future is the main question tackled by the professional body procure.ch. Alongside local conditions, international requirements and expectations on purchasing managers must be taken into consideration.

This may seem a simple and logical conclusion at first glance but, in light of the considerable differences in cultural and economic perspectives between the East and the West, it is not as evident as it might appear. This is therefore not a definitive European review of the activities and responsibilities of purchasers focusing on Switzerland as an example.

The purchasers of the future will need to retain and understand current requirements in terms of master data, connections, innovation and supplier relationship management.

However, the following issues, whose characteristics are still entirely open to discussion and modification, will also need to be borne in mind:

- The agility of their own organisation with regard to information, risk and sustainability.
- Catalysts for digitisation in terms of processes and costs.
- Strategic integration along the entire value chain.

Conventional aspects such as price, availability, digitisation, risk management and sustainability will continue to apply, but will be replaced by complex structures in terms of understanding the entire processes both within and outside one's own firm (including the supply chain).

The distinction between operative and strategic purchasing and the recommendation to treat both of these as two sides of the same coin are still valid, but is becoming ever-increasingly blurred, in terms of the strain placed on operative purchasing (whether physically as people or regarding content, as a result of the massive quantities of data that can feasibly be processed and exchanged automatically), and a holistic consideration of the agility of the purchasing organisation or the enterprise as a whole.

The strategic relevance of incorporating purchasing into strategic thinking is indispensable.

The rifts and ramifications of the pandemic years, followed by political uncertainty in Europe and across the world, have led to a strong need for adaptability.

A new type of relationship dynamic when dealing with suppliers and service providers is now called for.

A return to the approach to USPs adopted at the end of the previous century also appears to be appropriate.

Questions like '*Which procurement activities can I and do I want to take on within my own organisation?*' are becoming increasingly significant.

Conversely, it is precisely these decisions that will dictate the 'significance' and the 'relevance' of purchasing in one's own firm.

If all major decisions and/or management activities are outsourced or delegated to third parties, the importance of purchasing will sink considerably.

Conversely, complex situations that fall outside the company's core skill set can be delegated to third parties in order to resolve them more effectively.

The question in every case will be to determine the company's own needs in terms of autonomy versus dependence.

Given the international developments, this is joined by a significant rise in demands from corporate and economic standards and requirements, which make dynamic and continually evolving risk management essential.

José Ramón Toledo
miembro del equipo docente de AERCE

Innovación en Compras

Vivimos en un entorno con un complejo contexto que impacta y trae impredecibles consecuencias tanto a nivel personal como empresarial, donde las decisiones que tomemos estarán condicionadas por una serie de factores que escapan de nuestro control. El escenario VUCA (Volátil, Incierto, Complejo y Ambiguo) con el que llevamos cuatro décadas ha evolucionado a lo que ya algunos autores califican como BANI (Frágil, Ansioso, No lineal e Incomprensible). El efecto de la volatilidad en un mundo interconectado crea un efecto dominó global, que lo hace frágil.

La incertidumbre genera inseguridad y al ser constante aparece la ansiedad, lo que crea desesperación y decisiones incorrectas. La complejidad de antes, tenía una causa y se podía afrontar de forma preventiva, hoy en día es impredecible, es no lineal. Además, lo que antes era ambiguo pero tenía lógica nos parece hoy incomprensible. Algunos ejemplos los encontramos en el recrudecimiento de la pobreza mundial, subida de tipos de interés, escasez y precio de alimentos, problemas de transporte y logística y ciberataques, son origen y/o consecuencia de este marco.

Las tensiones sociales, económicas y geopolíticas, con una guerra en Europa en el S. XXI, la escasez de materias primas, los precios de la energía, el miedo a nuevas pandemias, los efectos del cambio climático del que surgen políticas de ESG y sostenibilidad que impactan en los costes, crean un nuevo paradigma de trabajo que se completa con la escasez de mano de obra cualificada, el "ruido" que provoca en la sociedad las "fake news" en redes sociales o campañas de medios de comunicación politizados y la inmediatez con lo que se piden las cosas, para generar la tormenta perfecta.

No obstante y a pesar de estos desafíos en mundo sigue progresando y hemos recuperado el optimismo gracias tanto a iniciativas públicas como privadas que apuestan por la innovación para dar respuesta a los procesos críticos afectados. Innovación para crear vacunas, energía verde, ciberseguridad, optimizar cultivos y nuevas tecnologías entre otros que nos llevan a las puertas de la Industria 5.0 que se caracteriza por una colaboración Hombre-Máquina.

Enfoque de Innovación en Compras.

Por tanto, la innovación es un componente clave en el plan estratégico de las empresas para desarrollarse, posicionarse y consolidarse en un el mercado cada vez más competitivo, flexible y sujeto a ese entorno BANI donde lo único constante es el Cambio. Este cambio, para ser válido, tiene que aportar valor y la innovación es un componente clave en el numerador de la ecuación. Desde compras, todo el equipo con su líder a la cabeza tiene que estar subido al tren sin parada de la innovación, es más, conducirlo y liderarlo cuando sea necesario para subir un peldaño más en la escalera cuyo destino y fin es la excelencia.

La evolución es continua, los cambios son rápidos y con una frecuencia que lo que es hoy válido, mañana puede no serlo. Aquellos productos o servicios que están a la vanguardia en poco tiempo son sustituidos por otros que ofrecen más valor al cliente. El papel de Compras aquí es vital para atraer e incorporar toda la innovación del mercado proveedor y anticiparnos a los competidores, crear el factor diferenciador y llevar la iniciativa y ritmo.

Al hablar de innovación en Compras, no limitemos el tópico a la parte de nuevas tecnologías, sino en 3 pilares en los que respaldar nuestra estrategia y actuación gestionando la innovación a nivel de equipos de trabajo, cliente interno y proveedores.

Preparando al equipo de compras para afrontar estos retos, promoviendo el aprendizaje y formación continua y con hincapié en competencias "soft". Introduciendo innovación en la gestión de equipos, con nuevos modelos que fomenten la inteligencia emocional y el liderazgo no jerárquico. Se recomienda la adopción de los principios "Agile" y el impulso para captar ideas con una apuesta por la acción y metodologías creativas como "Design Thinking".

Relación colaborativa con los proveedores, vigilando no limitar el enfoque de compras en conceptos básicos de la gestión y relación de proveedores. La captura de innovación es una parte del modelo de relación y gestión de proveedores y también del modelo de desarrollo de proveedores, en ambos casos se busca la innovación como complemento de forma equilibrada.

La mayoría de los proveedores estarán encantados de participar en cualquier programa de captura de innovación, enmarcado en un modelo win-win, por lo que el reto aquí de compras es "engancharles" presentado el modelo de innovación como una forma atractiva de mejorar el valor que ambos podemos dar si actuamos de forma conjunta, proporcionando una ventaja competitiva.

"Es probable que los proveedores clave tengan grandes ideas, solo necesitan el foro adecuado y el interlocutor es Compras."

Buscando el compromiso del cliente interno, todo un reto sin el cual Compras por sí sola no puede impulsar la innovación. Tiene que haber un alineamiento de las partes interesadas para estar abiertos a nuevos enfoques e ideas, así como a elegir los proveedores adecuados para cada servicio o producto.

Compras tiene que conocer, qué tipo de ideas serían compatibles con nuestro negocio y necesidades del cliente final y para ello tiene que ponerse en el papel de vendedor y conocer y comprender los drivers que estimulan el deseo de los clientes finales y que son clave en la estrategia comercial.

"Es una situación idónea para que compras presente su valor y su perspectiva de contribución a las ventas o beneficio empresarial y satisfacción del cliente."

Los recursos necesitan de gestores de equipos con un modelo renovado que retenga el talento y motive a las personas a continuar con la mejora continua.

Es otro reto interno para los líderes de Compras donde el primer paso sería incluir la innovación como un punto estratégico y prioritario en el plan estratégico de compras.

Por último, fuera de los tres pilares pero como perfecto complemento, hay que considerar el **Networking** que hacemos con otros compañeros de trabajo o de profesión, atender a ferias, congresos y leer publicaciones donde podemos conocer las mejores prácticas de innovación de otras empresas. Tener una visión de lo que hacen los demás nos dará más fuentes de datos para completar nuestro análisis y establecer los puntos de acción.

"En área de Compras, tenemos que crear el ambiente y el entorno propicio que impulse generar e implementar enfoques innovadores."

Para ser exitoso no tienes que hacer cosas extraordinarias. Haz cosas ordinarias, extraordinariamente bien." – Anónimo

Hervé Legenvre
Research Director
EIPM

Decarbonisation, Digitalisation, and De-globalisation: a call for systemic innovation

Introduction

Over the past decade, the role of procurement has continued to evolve; from an innovation standpoint, it moved from enabling product development, to becoming a key driver of innovation within organisations. Innovation in procurement is not limited to developing products with existing suppliers. It involves leveraging capabilities from both existing and new suppliers and partners to solve current and future business problems. While procurement teams have made progress in this area, new challenges such as decarbonisation, the digitalisation of industries, and de-globalisation require they further develop their innovation capabilities. In this article, I revisit a publication I co-authored with Jury Gualandris[1] seven years ago and I describe three key innovation capabilities of procurement we identified at the time. I then explore the three Ds: Decarbonation, Digitalisation, and De-globalisation before describing how they are changing the procurement innovation landscape. These trends require systemic innovation capabilities, which I address by suggesting a few recommendations that professionals can use to understand and contribute to deliver system-level changes.

Procurement and innovation: the last 10 years

In the last decade, procurement teams have developed their ability to enable innovation by better identifying, accessing, and leveraging innovation opportunities coming from outside. In this section I revisit an article published in Business Horizons that I co-authored with Jury Gualandris seven years ago; I describe in the next sections the three key innovation capabilities of procurement we identified at the time, and I reflect on the progress of the procurement profession. This article was titled "*Innovation sourcing excellence: three purchasing capabilities for success*".

This was the result of an assessment of the innovation capabilities of 95 procurement teams and the documentation of numerous concrete case studies. While the description of the capabilities is grounded in the research conducted at that time, my take in the present article on how companies have progressed is based on evidence collected as part of the teaching I have conducted, on my experience as assessor for the EIPM Peter Kraljic Award, and on more recent research initiatives I have undertaken.

Accessing unmet needs

The first of the three capabilities we identified seven years ago is the ability of procurement teams to access unmet needs. Our research highlighted the extent to which innovation from a procurement standpoint requires exploring, understanding, and gathering unmet needs by working closely with R&D, marketing, operations, and clients. Instead of waiting for well-defined specifications, procurement teams need to understand the existing and future problems and challenges of stakeholders, and of clients, in order to look for relevant solutions outside the company.

On this capability, over the past seven years, I have seen more and more procurement professionals describing user and stakeholder pain points prior to a project; I have also seen more buyers use high-level problem statements or requirements to consult suppliers before refining their needs. We also have more procurement teams who actively manage their stakeholder relationship beyond specific procurement projects to understand future projects, requirements and challenges.

Today, we still need to further anticipate major changes, which will require a closer relationship with key stakeholders. Deepening the relationships with key stakeholders is a never-ending necessity. Procurement needs to move from operating a process to becoming a knowledge hub where stakeholders come to gain information about short- and mid-term opportunities. We should manage stakeholders as a community that we feed with new knowledge and new perspectives. We also need to develop more scenarios with our stakeholders to shade light on possible futures.

Exploring external opportunities

The second of the three capabilities we identified seven years ago is the ability to explore external opportunities. To deliver innovation, procurement teams need to broaden their search for innovative solutions by exploring opportunities beyond first-tier suppliers.

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[1] Hervé Legenvre, Jury Gualandris (2018) - *Innovation sourcing excellence: Three purchasing capabilities for success* - Business Horizons, Volume 61, Issue 1,

We highlighted the importance of adopting an ecosystem perspective to investigate how complementary capabilities coming from different horizons can be assembled to innovate. We also suggested that the best performing teams on innovation needed to strengthen their business intelligence capabilities and engage effectively with outsiders and new players who might lack experience in specific industries.

On this capability, over the past seven years, we have seen some progress. 10 years ago, most buyers were concerned when the word startup was mentioned. They were quick to say, "too fragile!", "risks of dependency". Today, ironically, I sometimes need to remind buyers that they should check first if existing suppliers have the capabilities of the startups they want to contract with. Furthermore, I have witnessed more and deeper interactions with lower-tier suppliers. This was certainly a response to the recent wave of supply risks we have experienced. However, many buyers still have difficulties to look beyond narrow market corridors and we still tend to keep people "busy" with short-term projects. The organisational setup by segments, the lack of time and the lack of anticipation certainly hinders this capability. Also, access to market intelligence and the ability to set aside resources to scan opportunities across segments is still lacking. Procurement needs to invest more in the capabilities needed to prepare for tomorrow.

Involving suppliers in innovation projects

The third of the three capabilities identified seven years ago is the ability to involve suppliers in innovation projects. Collaborative innovation projects with suppliers are initiated, thanks to an emerging fit between specific unmet needs and external innovative opportunities. This calls for a diversity of approaches, for instance agile projects can help bring novelty quickly, while longer-term exploratory approaches and collaborations can pave the way to more systemic changes.

On this capability, over the past seven years, I have witnessed many procurement teams who involve suppliers in innovation projects that address risks, cost reduction, product development and incremental innovation. More innovation workshops are now organised, and more meetings include exchange on innovation opportunities.

What is needed is more profound changes and impact, such as breakthrough technological changes, systematic growth delivery, and business model innovations. To do this we need more projects that create collaborations amongst suppliers and other actors coming from a broader ecosystem.

The Three D: Decarbonisation, Digitalisation, and De-globalisation

Global value chains are undergoing transformation, driven by factors including Decarbonisation, Digitalisation, and De-globalisation, collectively referred to as the 3D. These forces are expected to have profound impacts on the evolution of supply chains.

Decarbonisation refers to the shift towards a low-carbon economy, driven by climate-change concerns. This will require a transition to renewable energy sources and the reduction of greenhouse-gas emissions. As a result, supply chains will have to adapt to new regulations and policies aimed at reducing carbon emissions. This could include changes in transportation modes, production processes, and sourcing of energy and raw materials. This will create a lot of uncertainty. In some industries, it will be challenging to anticipate the low carbon solutions that will be tomorrow's winners. While lithium is currently the material of choice for batteries, alternatives could emerge, companies are developing solid-state batteries or using other materials such as sodium or zinc. Betting on the right technology at the right time will be difficult, switching over time will be expensive. The magnitude of the change ahead of us will generate risks of scarcity on the resource side and high volatility on the price side. While challenges in terms of access to some raw materials such as lithium are extensively discussed, we will also lack workforces. A 2022 EU report suggested that waste prevention and management in the EU could create more than 400,000 new jobs. The construction sector could also create 400,000 jobs as more energy-efficient buildings and infrastructure are needed. The most significant impacts will be in sectors with a high share of emissions such as energy, transport, agriculture, or construction. Availability of skills and resources need to be considered as a strategic concern and a priority not only for company themselves but also for their complete value chain.

Digitalisation is transforming the business landscape, with companies increasingly adopting digital technologies to improve their products and operations. This includes the use of advanced technologies such as artificial intelligence, the Internet of Things (IoT), blockchain, 5G, and more. We also witness more and more data sharing infrastructure and initiatives. These technologies enable companies to collect and analyse vast amounts of data, automate processes, augment human decision-making power and create new business models. However, with multiple solutions competing in this technological field, it can be difficult to identify the best partners on the market to integrate different software, hardware, and communication technologies together. Standardisation and interoperability are essential in this context, as they ensure that different technologies can work seamlessly together. To address these challenges, companies need to collaborate with technology partners and suppliers, and need to form and join innovation ecosystems that develop digital solutions. The adoption of these technologies will require significant investment and a skilled workforce, which could create challenges for smaller businesses.

Finally, De-globalisation refers to the trend towards localising production and reducing global trade. This is driven by factors such as rising nationalism and protectionist policies, as well as the impact of the Covid-19 pandemic. This trend could lead to a more fragmented global supply chain, with businesses having to navigate varying regulations and trade barriers across different regions. One challenge is to understand the industry-level changes that are needed.

While we might focus on reshoring a specific activity, we will quickly realise that we still depend on supply and complementary products coming from different parts of the world. While with some efforts and investment in solar-panel production could be relocated in different countries, we would still experience dependencies on raw materials, or we would realise that inverters - a necessary complement to solar panels - are also produced in Asia. Complexity and interdependence make any re-localisation very hard.

The impact of Digitalisation and De-globalisation on Innovation

The 3D, Decarbonisation, Digitalisation, and De-globalisation call for a more systemic approach to innovation, Systemic innovation refers to a type of innovation that goes beyond product or process improvements and instead seeks to address broader socio-technical systems. While product or process innovations may bring improvements to specific aspects of a system, systemic innovation aims to create more fundamental changes that affect multiple components of the system.

What systemic innovation entails

One important aspect of systemic innovation is the recognition that socio-technical systems are complex and interconnected, and that changes in one area can have ripple effects throughout the system.

For example, if a new technology is introduced, it may require changes in regulations, user practices, and supply chains to be fully integrated into the system. Another key idea behind systemic innovation is the concept of co-evolution. This means that innovations are not developed in isolation, but rather emerge through interactions between different actors and artefacts within the system. This includes not only the technology itself, but also the regulations, user practices, markets, infrastructure, maintenance, and supply chains that support it.

To achieve systemic innovation, it is therefore necessary to engage with a range of internal and external stakeholders and consider the broader context in which the innovation will be implemented. This may involve collaboration with suppliers, clients but also government agencies, researchers, and community organisations, among others. It may also require a shift in mindset from a focus on individual products or processes to a more holistic view of the system.

An example of a systemic approach to innovation

To give a concrete example of a more systemic approach to innovation, I would like to take the example of Sogrape, a family-owned wine company with a strong international presence and the leading wine producer in Portugal, which was honoured as one of the winners of the 2022 EIPM Peter Kraljic Prize. The purchasing director was looking to improve the environmental performance of her company, which led her to discuss with a supplier of glass bottles. Her goal was to improve environmental performance without incurring additional costs. Instead of just consulting the market, she engaged with the glass bottle supplier and realised they were facing a difficult trade-off. In Portugal, recycled glass must be imported because it is not readily available locally, and it is expensive to bring it from abroad. Instead of choosing between cost and environmental performance, the purchasing director adopted a system-level perspective and started to investigate how to increase the share of recycled glass in Portugal.

Over time, this led to the creation of an organisation, Vidro+, an initiative that aims to increase the glass-recycling rate in Portugal, by bringing together stakeholders across the glass-packaging value chain. This includes government entities, universities, research centres, associations, and NGOs. The Vidro+ Platform seeks to create a commitment among the different players in the value chain to promote glass recycling, achieve recycling targets, lower the carbon footprint, promote effective communication, and encourage collaborative solutions. By working together, Vidro+ hopes to create a more sustainable and efficient value chain for the glass packaging industry in Portugal.

Systemic innovation: a new challenge for procurement

Procurement can play a crucial role in driving systemic innovation within an organisation. By anticipating future changes and exploring new options, procurement professionals can contribute to breakthrough changes and help their companies face the 3D mentioned above. To promote systemic innovation, procurement professionals must look beyond narrow markets and scan opportunities across segments and along complete value chains. This involves considering both the supply and client side of the business and identifying opportunities for collaboration and innovation.

Educating buyers for systemic innovation

To actively contribute to systemic innovation, procurement teams must embrace the concept of educating buyers as a collaborative effort known as collective intelligence. Collective intelligence refers to the ability of a group of individuals to tackle problems, make decisions, or accomplish tasks by drawing upon the knowledge, skills, and diverse perspectives of various internal and external stakeholders.

To foster collective intelligence, it is essential to create an educational program where buyers are mentored and coached as they spearhead innovation projects. Throughout this process, they are consistently encouraged to engage stakeholders and potential suppliers, utilizing their collective knowledge to explore new opportunities. This inclusive approach harnesses the combined intellect of multiple individuals, surpassing the capabilities of a single person. By promoting collaboration and interaction within these projects, the outcomes become more innovative, effective, and relevant compared to individual decision-making. Coach and mentors play a key role in such project by encouraging them to dare, persevere and think beyond the obvious.

Implementing this new approach to education cultivates innovation and creativity by actively involving diverse actors. It also strengthens the cohesion among different stakeholders who share common interests.

By taking a proactive approach, procurement professionals can anticipate changes in the market and explore new options that align with their company's strategic objectives. To drive breakthrough changes, procurement professionals must be willing to take risks and challenge the status quo. This may involve exploring unconventional solutions or partnering with innovative companies to develop new business models and initiatives.

Mapping a system and scanning for opportunities

To adopt a system logic, buyers need to adopt a 360° perspective, they need to consider the complete ecosystem of complementary capabilities that can transform an established industry into something different. This ecosystem perspective includes for a focal component, the supply side, the complement side and the user perspectives. Buyers together with internal and external partners can then list all trends and challenges that can affect the evolution of the emerging industrial system. Figure 1 illustrates how such a 360° map can be created for an Electric Vehicle (EV) battery.

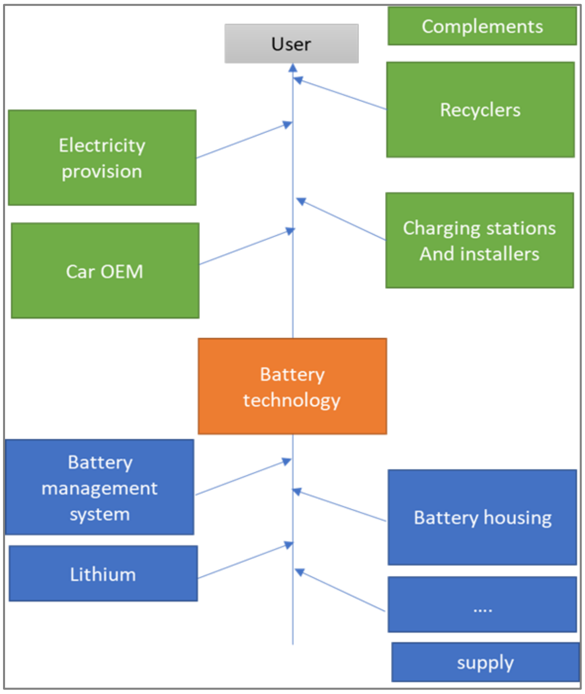

Figure 1 - A 360 view of the EV battery ecosystem

Such a map is a good starting point to list challenges across the industry. Here we highlight five challenges that touch on different parts of the ecosystem map.

Challenge 1: Charging an EV battery takes time; this can be inconvenient for drivers who need to travel long distances or who don't have access to sufficient charging infrastructures. Here it is important to consider that reduction in charging time depends on both the battery and the charger.

Challenge 2: To enable the widespread adoption of EVs, a robust and reliable charging infrastructure needs to be in place.

While it can be tempting for frontrunners to maintain their infrastructure proprietary, it can also be an advantage to establish a shared charging infrastructure that supports all electrical vehicles. In addition, the development of a shared digital solution can help inform users about where they can charge their vehicle, and the time required to do so.

Challenge 3: Establishing a network infrastructure requires a mix of capabilities. It requires installers with the right skillset - an ability to maintain the charging infrastructure, green energy available everywhere where vehicles are charged.

Challenge 4: EV batteries contain valuable materials that can be recycled, but there are still challenges related to the cost and logistics of recycling. For instance, to recycle battery materials, it is important to have relevant information accessible at the end of life of a battery. The availability of recycling capabilities can positively impact the availability of raw materials and reduce pressure on the supply side.

Challenge 5: The production of EV batteries requires a reliable and sustainable supply chain for critical materials such as lithium and cobalt. Car manufacturers are currently trying to secure access to these raw materials by taking long-term commitments and equity in mines. Companies are also exploring alternatives in terms of materials, such as solid-state batteries which can, for instance, reduce risks of fire, lower battery costs, increase range and reduce charging time.

By having a broad understanding of the EV battery ecosystem, it becomes possible to support or initiate system-level changes to help scale the overall EV solutions. Companies can decide where they should compete and where they should collaborate to maximise the growth of EV system adoption while preserving their ability to capture profit. This can include collaborations on shared infrastructure, on digital systems that inform users; on the training of installers and workers who support the recycling of batteries, on the development of new battery technologies or on the development of a digital passport with end of life.

Implication for procurement innovation capabilities

We can now revisit the three capabilities and discuss how the need for more systemic innovation will drive the development of procurement innovation capabilities.

Accessing unmet needs

In the future Procurement needs to actively act as a knowledge hub where stakeholders have access to insight and information. By staying up to date on the latest trends and technologies, procurement can provide valuable insight and advice to other departments within the organisation. This can help foster a culture of innovation and encourage the development of new ideas and approaches. Procurement can also contribute to innovation by anticipating long-term systemic changes. This involves looking beyond short-term goals and considering how the organisation can adapt to changing environments. By anticipating these changes, procurement can help identify new opportunities for innovation and ensure that the organisation is well-positioned to succeed over the long term.

This can result in the development of scenarios that help understand what future supply chains and ecosystems could look like.

Table 1 - Accessing unmet needs

Understanding the existing and future challenges of stakeholders, clients but also the likely evolutions of the industry we work in and with	What are the best procurement organisations doing today?	• They identify pain points and unmet needs of users, stakeholders and clients as part of the definition of needs. • They actively manage stakeholder relationship beyond specific procurement projects. • They use high-level problem statements or requirements to consult suppliers.
	What should procurement organisations do in the future?	• They act as a knowledge hub where stakeholders come for insights. • They anticipate the long-term systemic changes. • They develop scenarios with stakeholders to describe future supply chains and ecosystems

Exploring external opportunities

Here Procurement can further play a key role in exploring external opportunities by adopting a broader and deeper approach to market intelligence, developing more systemic views of industries with internal and external partners, and dedicating resources to scanning longer-term opportunities. Procurement can adopt a more comprehensive approach to market intelligence by gathering and analysing data from a wider range of sources, by joining industry groups and knowledge-sharing exchanges. Procurement can also develop more systemic views of industries to identify new opportunities for innovation and help drive systemic change. This requires working with internal and external stakeholders to shape a common understanding of where to find collaboration opportunities. Finally, procurement should dedicate resources to scanning longer-term opportunities and preparing for broader change.

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By dedicating resources to scanning longer-term opportunities, procurement can better position the company in the race for advantages.

Table 2 - Exploring external opportunities

Broadening the search for innovative solutions by exploring opportunities beyond their first-tier suppliers	What are the best procurement organisations doing today?	• They work effectively with startups. • They develop deeper interactions with lower-tier suppliers.
	What should procurement organisations do in the future?	• They adopt a broader and deeper approach to market intelligence. • They develop more systemic views of industries together with internal and external partners. • They dedicate resources to scanning opportunities and preparing broader changes.

Involving suppliers in innovation projects

Here Procurement can play a key role in exploring external opportunities orchestrating more impactful innovation projects. We need more projects that create collaborations amongst suppliers, and between suppliers and other actors. Radical changes associated with Decarbonisation, Digitalisation, and De-globalisation require bringing distant capabilities together. This should help deliver projects that create more profound changes, that drive growth and stimulate business model innovations.

Table 3 - Involving suppliers in innovation projects

Delivering impact and result out of innovation.	What are the best procurement organisations doing today?	• They organise innovation workshops with suppliers. • They address risks, cost-reduction opportunities. • They address product development and incremental innovation.
	What should procurement organisations do in the future?	• They enable collaborative innovation between diverse companies. • They deliver more breakthrough changes.

Conclusion

The 3D, Decarbonisation, Digitalisation, and De-globalisation, call for a more systemic approach to innovation on the Procurement side. We need to go beyond simple product or process improvements to address broader changes. This is an opportunity and a challenge for procurement teams. It will require changes in terms of organisation, in terms of skills, and in terms of the procurement ability to anticipate future changes.


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Giampiero Volpi
Strategic Business Analyst

Procurement: from Digital Transformation to Generative Artificial Intelligence

Introduction

In today's digital landscape, business organizations are utilizing modern technologies to enhance their operations. An area that is experiencing a significant digital transformation is corporate procurement. Companies are exploring the potential of Artificial Intelligence (AI) to automate purchasing processes in certain contexts, with even the perspective of the new frontier of "autonomous procurement".

This paper will explore the intersection of procurement, digital transformation, Artificial Intelligence and Generative Artificial Intelligence (GAI), and examine the benefits and impacts of the advancement of this technology.

The Landscape of Procurement

In recent years, procurement operations have become more independent within companies' organizational structures, with an autonomous organization, transitioning from being a part of commercial departments. In the past, they were seen as mere administrative support for the decisions of other business functions, relying heavily on paper and office tools for their operations. However, with the advent of digital technology, paper documents are being replaced by digital ones. Consequently, specific computer applications like order management and Electronic Data Interchange (EDI) have emerged.

The financial crisis in the first decade of the century put pressure on the companies' business models, bringing out the need to manage procurement costs more effectively. As a result, the procurement function underwent significant changes, with a greater emphasis on specialized skills required for professional procurement management, such as category management, tender management, supplier management and contract management. Procurement evolved into a more strategic role, seen as a valuable business partner capable of driving innovation and growth. This led to the creation of the Chief Procurement Officer (CPO) position, allowing procurement managers to participate in important decision-making processes and play a key role in defining business and delivery models.

During the 2010s, there was a strong push towards digital transformation for a faster social and economic development of the country.

This was supported by incentive programs, such as Italy's Industry 4.0, which led to the development of powerful digital tools like e-procurement platforms. These platforms standardized and automated many activities, such as supplier management, contract negotiation, and order cycle management. This increased transparency and competitiveness in the procurement process.

While procurement functions grew more digitally mature, the process is still incomplete, particularly for small and medium-sized enterprises (SMEs). They face budget, resource, and skills constraints, but recognize the need for modern tools to meet the challenges of the Digital Economy.

We are currently living in the age of Artificial Intelligence.

In the procurement area there is a large amount of data available that is considered a valuable resource. Unfortunately, it can be challenging to analyze and make the most of this data. Thankfully, Artificial Intelligence can quickly and efficiently process this data, enhancing and expanding the capabilities of e-procurement platforms. This technology enables buyers to make more informed and impactful decisions based on data analysis.

Although Artificial Intelligence is still in its early stages of adoption, it must grow alongside the ongoing process of digital transformation.

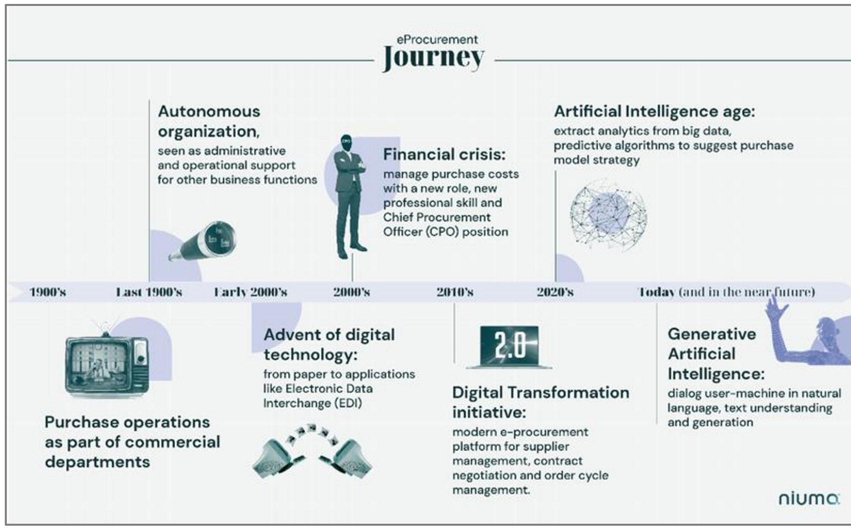
Despite these limitations, Generative Artificial Intelligence (GAI) is emerging as a new generation with even greater potential and with the envision on "autonomous procurement" in well-structured purchase procedures, where, for instance, parameters such as pricing, quantities, and deliveries are subject to predefined constraints.

This means that a significant portion of negotiation operations could become highly automated and potentially "autonomous". Furthermore, we can reasonably expect a powerful tool that rapidly provides highly accurate suggestions while leaving the final decision-making responsibility to the buyer.

Challenges in Procurement

Technology emerges as a decisive enabling factor in the evolution of procurement. It is interesting, in this world, to explore its impact on some main challenges crucial to the success of a company.

Business Partner:
the procurement function must promote product innovation by importing from supply markets new solutions that can bring competitive value. It should facilitate business processes by implementing purchasing strategies based on a collaborative relationship that optimizes value along the supply chain.



Partner in Sustainability Transition:
the procurement function must ensure the compliance of the supply ecosystem with ESG (Environment, Social, Governance) parameters, set by the company as indicators of sustainable and responsible investment.

Risk Management Partner:
against potential supply chain disruptions, the procurement function must create a robust vulnerability mapping to counter market volatility and protect business resilience.

Artificial Intelligence appears as a tool to tackle these challenges, as it can leverage two new factors: the growing volume of data and the increasing digital maturity. CPOs are considering the possibility of integrating Artificial Intelligence technology into their procurement systems, acknowledging the difficulties caused by significant cultural and organizational changes. They must use their leadership to convey the vision, define a structured path with visible milestones and measurable targets, and provide adequate training opportunities to develop the necessary attitudinal, relational, and technical skills.

The Value of Artificial Intelligence

Artificial Intelligence in procurement acts as a machine that enables a new "data-driven" approach, capable of working with heterogeneous data, both structured and unstructured, from several sources, extracting valuable information for buyers to facilitate goals achievement.

Algorithms for analyzing, classifying, and labeling can provide valuable insights for statistics, profiling, purchasing processes and risk assessment. Natural Language Processing (NLP) can extract information from unorganized documents and data. Machine Learning (ML) can create models that help define successful purchasing strategies and allocate orders to suitable suppliers. Intelligent Process Automation (IPA) can perform complex repetitive tasks and continuously monitor processes to detect weaknesses and send alerts. These Artificial Intelligence technologies can help buyers navigate uncertain contexts and handle complicated tasks more efficiently than humans on their own.

In times of complex situations, like pandemics, geopolitical instability, and climate changes, cost containment due to the current process of inflation, has become a high priority, creating conflicts with resilience and sustainability challenges. Artificial Intelligence (AI) has proven to be a valuable tool in handling conflicts in purchase decisions. For instance, when implementing an eco-sustainable transformation process, economic constraints due to price surges may arise. However, a knowledge framework of consequences derived from data gathered from various sources can help make the most beneficial decision for the company. An other example: increasing warehouse stocks against supply chain disruption risks may become more expensive and severely impact financial parameters. With Artificial Intelligence methods, an accurate vulnerability mapping of the company can be realized, allowing for an effective comparison of risk probabilities and potential impacts on the supply chain with the company's budgetary constraints.

Daily supplier award processes in tenders, can lead to conflicts. For instance, an option suggested by Artificial Intelligence is to aggregate high purchase volumes from a select few suppliers based on competitive offers. This strategy can help contain cost increases due to inflation, and secure more favorable payment terms. However, it can also create a risk of relying on a “single supplier” in an uncertain context. But at the same time, Artificial Intelligence can also deliver a dashboard with information on involved suppliers, including ESG parameters, financial stability, operational performance rating, and geographical locations.

This information can help the buyer make more effective decisions by balancing the weight, advantages, and issues of various factors.

The processing of diverse data and making it easily accessible to buyers can only be accomplished through the use of Artificial Intelligence technology.

The Revolution of Generative Artificial Intelligence

We are now in a new era of technology, specifically Generative Artificial Intelligence. This type of Artificial Intelligence is capable of producing different forms of content such as text, images, audio, and synthetic data. In this particular case, we will focus on the aspect of textual content and how it relates to the procurement sector. Specifically, we will examine ChatGPT (Chat Generative Pretrained Transformer), as an example of innovative chatbot prototype based on the Large Language Model (LLM) technology. This chatbot is designed to interact with users in human language and provide answers to their questions.

ChatGPT is similar to a search engine, but it processes concepts and topics of interest described in natural language instead of just using keywords. It's easy for users to navigate and its ability to engage in constructive dialogue with humans has made it quite popular. ChatGPT has been perceived as an intelligent agent capable of learning tasks that were previously only possible for humans to perform.

From a technological standpoint, ChatGPT is a significant advancement in the ongoing pursuit of innovation. It's a machine learning tool that uses Natural Language Processing (NLP) algorithms to understand and generate text. It can be used to enable machines to interact with users by responding in natural language.

Generative Artificial Intelligence and ChatGPT in Procurement

The use of Generative Artificial Intelligence and ChatGPT has shown great effectiveness in various types of applications.

Text transformation, inference, synthesis, and generative activities are some of the effective applications of Generative Artificial Intelligence and ChatGPT. One of the most common use of these technologies is text translation into different languages, spell-checking, and grammar correction. They can also convert text formats. ChatGPT can interpret the meaning of a text to some extent, which is useful for inference. The ability to understand the meaning of a text is the foundation for synthesis, which can be used to create alert systems or event signaling. As an LLM, ChatGPT can generate text creatively and autonomously based on initial prompts, such as articles, essays, social media posts, and emails. One of the most common uses is as a brainstorming partner, providing ideas and suggestions.

Here are several examples of how Generative Artificial Intelligence and ChatGPT can be advantageous in procurement situations.

With ***Textual Data Analysis***, ChatGPT can unearth information that may not be readily available through traditional keyword-based searches. It has the ability to analyze vast amounts of unstructured textual data, label documents for correct archiving, and offer automatic document recognition.

For ***Governance Management***, analyzing textual data and providing easy-to-access information are crucial in supporting organizational governance management. This includes identifying non-compliant areas, ensuring ethical practices, maintaining legal compliance, and promoting transparency.

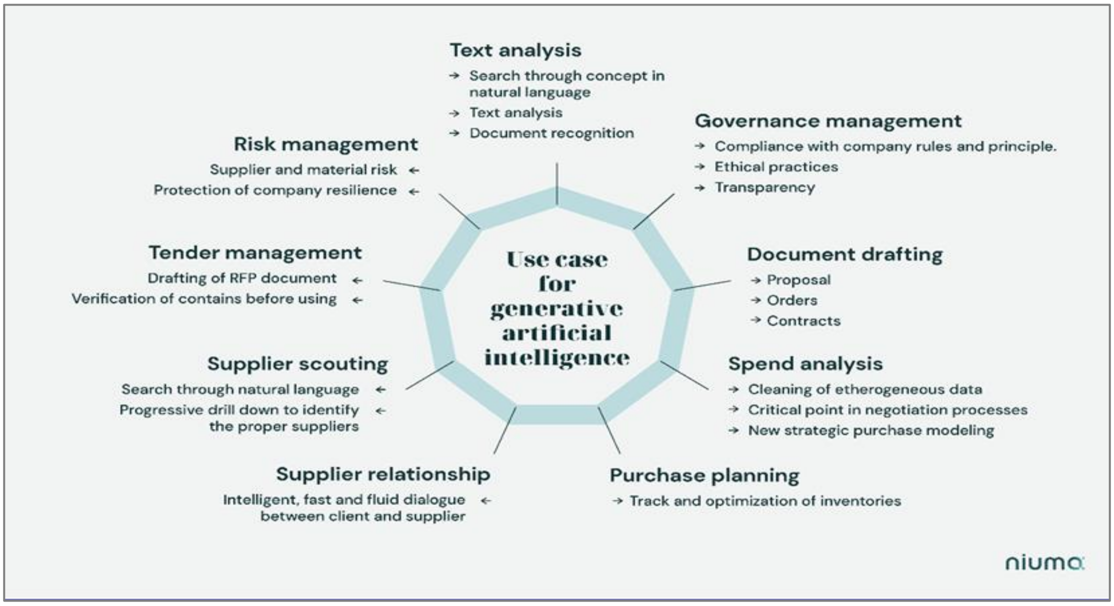
ChatGPT can also create suitable drafts for Requests for Proposal (RFPs), orders, contracts, and other documents, making it a valuable tool for ***Document Drafting.***

As a helpful and reliable assistant, ChatGPT can assist buyers with various tasks related to procurement. For instance, Artificial Intelligence and ChatGPT technology is employed to ***Analyze Spending Data*** and categorize them based on a predefined merchandise taxonomy, which can help buyer identify cost-saving opportunities and market trends. Additionally, it can use predictive analysis to simulate different scenarios and enable buyers to evaluate the most effective negotiation tactics.

Furthermore, Artificial Intelligence and ChatGPT technology can also help buyers ***Manage Supply Risks*** by analyzing data and documents from multiple sources to evaluate suppliers based on their performance, financial stability, compliance, and to evaluate relevance, price trends, and market availability of purchased items. This enables buyers to make informed decisions and mitigate potential risks.

Artificial Intelligence and ChatGPT technology can offer ***Purchasing Planning***, utilizing predictive models and market monitoring to manage inventory levels throughout the supply chain network. This includes assessing the risks of stock depletion based on consumption rate scenarios, optimizing inventory levels to minimize disruptions, and ensuring a consistent flow of materials.

In terms of ***Supplier Relationship Management***, Artificial Intelligence and ChatGPT technology can help Purchasing teams communicate more effectively with suppliers. This includes drafting emails for notifications and requests, clarifying requirements, automatically generating accurate purchase orders based on predefined templates, maintaining a positive relationship with suppliers, and expediting the procurement process, resulting in benefits for both buyers and suppliers.



As a virtual assistant, Artificial Intelligence and ChatGPT technology is also able to assist in ***Supplier Scouting*** operations. Through a natural language dialogue, the buyer can request a list of suitable suppliers to meet the company's needs. The buyer and the technology system can interact to clarify product specifications and supplier reliability, resulting in a list of companies with high potential for accreditation.

Additionally, Artificial Intelligence and ChatGPT technology can assist with ***Tender Management***, which involves careful verification of responses to avoid inaccuracies. The buyer can request a formal document proposal for a request for quotation, including purchase objectives, bid requirements, evaluation criteria, and contractual protection clauses, through a dialogue aimed at perfecting the document.

How to Properly Utilize Generative Artificial Intelligence

To effectively use new technologies, it's important to be responsible and avoid incorrect outcomes or violations. It's crucial to learn how to communicate and ***ask questions properly***. ChatGPT doesn't provide references and can't verify the accuracy of the information it generates. Incorrect information may seem plausible and be hard to distinguish from correct information. Pay special attention to generating "false positives" and "false negatives," which can be crucial in decision-making. Before using ChatGPT's output to make decisions, manage the risk of errors in the content, especially for unfamiliar topics or unclear questions. Treat the output as useful hypotheses to verify, because they can pose risks if not correctly verified.

It is essential to establish guidelines for the responsible use of technology to prevent the misuse of its direct output in certain applications without ***proper verification***. We must consider the confidentiality and copyright of collected information, barriers in accessing various sites, and proper management of authorization procedures.

Knowing when to use Artificial Intelligence for optimal results and when to be careful with machine learning systems is crucial. For simple and clearly defined issues with good quality data, that can be easily implemented, a traditional rule-based method is often preferred. However, for more complex tasks such as interpreting text, discovering hidden correlations in data, and predicting market behavior or customer patterns, Artificial Intelligence is the ideal solution compared to traditional algorithms, which can be too complicated.

Conclusions

This technology can be utilized in various aspects of the economy with the right approach and goals. Small and medium-sized enterprises (SMEs) can benefit greatly from it, particularly in tasks such as examining documents, searching for new suppliers, and creating and handling requests for quotes. It can function as a helpful virtual assistant that can answer questions in plain language and engage in extensive conversations until the desired outcomes are achieved.

Large companies have a wide range of applications for Generative Artificial Intelligence, including "autonomous procurement". This objective involves automating negotiations with suppliers; this solution can be decisive for companies that have tens of thousands of suppliers. Retail giant Walmart Inc. is currently experimenting with a chatbot developed by Pactum AI Inc., created to help with this task. The chatbot is designed to negotiate with suppliers based on clear clauses on prices and quantities. Walmart communicates its budgets and needs to the software, which then handles the negotiations automatically.

Fabrizio Albino Russo
Division Director
Supply Chain-BW
Chairman ADACI R&D Committee

Isaac Asimov's Supply Chain

From the end of 2019 onwards, I would say that a lot of things have happened and we are certainly not here to talk about everything that we already know very well, as we have experienced it on our skin. However, it makes sense to carry on a reflection, free from conditioning and free from fashions and preconceptions, concerning what all this has really meant for the Supply Chain and the world of procurement.
Specifically, I will not dwell on specific shortages of raw materials and components that all professionals in the sector are facing and with which they will continue to struggle, according to some far from pessimistic forecasts, for a long time to come. Unfortunately this is such an evident state of affairs that it would be almost sickening to talk about it.
What I would like to focus on in this article is the following question: *"What all that has meant and could mean, from an operational point of view, for the future of the Supply Chain"?*
While answering the first part of the question requires a rather deep look backwards, regarding the future it would really be necessary to have a crystal ball, but this does not exempt us from identifying some trends that are emerging especially in the last period....but attention ... let's talk about operating trends ... this time we leave the strategy to the "gurus".
Having said that, it is a widespread opinion, shared by me, that when one reaches an extreme point of difficulty, when it is necessary to understand where, but also how to move forward, it is necessary to take a careful note about the situation and, above all, to look back. Looking back to see what worked and what didn't work, but also looking back to understand where we started and how we proceeded, both to draw and get lessons and models, but also to avoid repeating the same mistakes. In short words, we have to look back to move forward, but not to judge in hindsight. After all, Sir Winston Churchill also said that *"If the present tries to judge the past, it will lose the future"*.
Let us therefore look to the past as James Thurber (1894-1961) who, American journalist, cartoonist and writer much less known than Churchill, claimed in turn that *"You shouldn't look at the past with anger or at the future with anxiety, but look around carefully."*
Here's the thing....looking around carefully I see, frankly speaking, that everyone says everything and the opposite of everything, as Pandemics, Wars, etc....they simply blew up schemes and models that they believed to be consolidated.
And do you know what the beauty is?
That these schemes and models were indeed established and worked reasonably well for a time, creating the illusion of false security and unrealistic determinism.
But then what happened to those schemes and patterns?
Simply, using a terminology dear to financials, they have not withstood the "stress tests" they have had to face in recent years. Hence the need to look further back without getting stuck in asking what has or hasn't worked in the most widely used schemes and models, but wondering what these models were really for. A question that may seem off topic, but which in reality is anything but far-fetched, as in principle it arises from a rigorous approach to the theory of error.
In fact, the Nobel Prize for Economics Daniel Kahneman (in good company, by the way....), argues that the error also has noise among its causes.
By noise we mean, in extreme synthesis, any disturbance, regular or not, which is superimposed on the value of a variable. Noise increasingly studied and whose theory we will not go into here for obvious reasons, but which leads to inevitable bias of evaluation and decision-making processes, no matter what they are.
Well, when the noise is such that the evaluation of the event in itself is not significant, as it is subject to a high level of error precisely because of the noise, then attention must be shifted to the process used to construct the evaluation (or judgement) of the event and to set up the rules of the game.
And I'd say it's easy to agree that in our complex business systems, lately, we've experienced a lot of noise in a really unexpected and unpredictable order of magnitude. And here psychodrama is born or, at least, a painful acknowledgment.
In the Supply Chain field, the Lean philosophy and the methodologies looking to minimize redundancies, waste, etc ... by making the systems "stretched" and essential, have certainly achieved their intrinsic purposes: namely those of making the systems "stretched" and essential, so as not to be redundant, maximizing their effectiveness and efficiency. Weird to say, but in this way we have come very close to a kind of self-referentiality.
But under what conditions, or assumptions?
Certainly not those to consider a business continuity in critical conditions, let alone in conditions as exaggerated as today. And why?

Most will be able to say that this is not the area of process optimization (understood in the broadest sense of the term), but more of Risk Analysis & Management, which in turn must integrate with all company best practices.

Well, precisely because the company must be seen as a system, in unsuspecting times these aspects had already been addressed in various areas, identifying the following among the main factors of vulnerability and contradiction with respect to the extreme efficiency of the Supply Chain:

1. Globalization and/or delocalization.
2. Decrease (concentration) of production sites.
3. Tendency to centralize distribution.
4. Outsourcing trend.
5. Reduction of the supplier base.
6. Extreme reduction of inventories in favor of "stretched" flows of materials.

In summary, already on 2018 (but even before), in the book concerning *"The fourth industrial revolution: towards the digital supply chain",* published by Franco Angeli for ADACI, on the occasion of the 50th anniversary of ADACI, there was the development of the concepts inherent to the fact that the more efficient the Supply Chain is, the less resilient it is or, if you prefer, the more vulnerable it is.

But then what is the essence of the existence of the Supply Chain? What is its basic purpose?

It is necessary to go back to the roots of the existence of this business process, focusing on its original purpose, I dare say, somewhat pompously, "primordial": "procure the factors necessary for the production of the good or service concerned in order to be able to serve one's own customer".

The purpose of the process which therefore cannot be separated from guaranteeing business continuity, as it is an integral part of it. And here is the direct link with what is commonly called Risk management. Obviously, in this context, the term "procure" should not be understood in a tight sense, but extended to everything that contributes to "procurement", including planning, sourcing, materials management, etc.

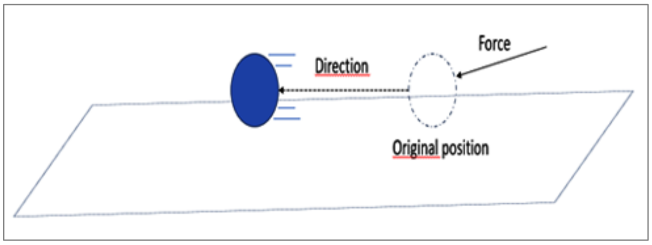
Provocatively, I believe that it can be argued that, without adequate risk management, in a certain sense, the sense and the "primordial" purpose of the process that must procure and guarantee the production factors is betrayed. And here the above list of vulnerabilities is revealed in all its contradictions and actuality! So what are the "lessons learned" of this last unfortunate period, for those who want to learn them without prejudice? Well…. "the king is naked"…. In other words, nothing will be the same again, because it has been simply seen that, before, our supply chains were not resilient enough.

This reflection, which might seem dictated by emotion and contingency, actually has quite deep roots in systems theory. Substantially an open system, i.e. subject to external agents (events and interferences), can be in a state of stable equilibrium, damped equilibrium or dynamic equilibrium, the latter also called a state of metastable equilibrium.

The situation of stable equilibrium is easily represented by a plan surface with a sphere above it. The sphere is stationary, at rest, until an external event, such as a force, pushes it in a certain direction. Once the push is exhausted (for the sake of simplicity, let's leave out all the reasoning related to the effects of friction, etc…..), the sphere will stop in its new position.

To make it return to its starting point you will apply an equal and opposite force in the opposite direction *(Picture 1).*

Pic. 1- Stable (Static) Equilibrium



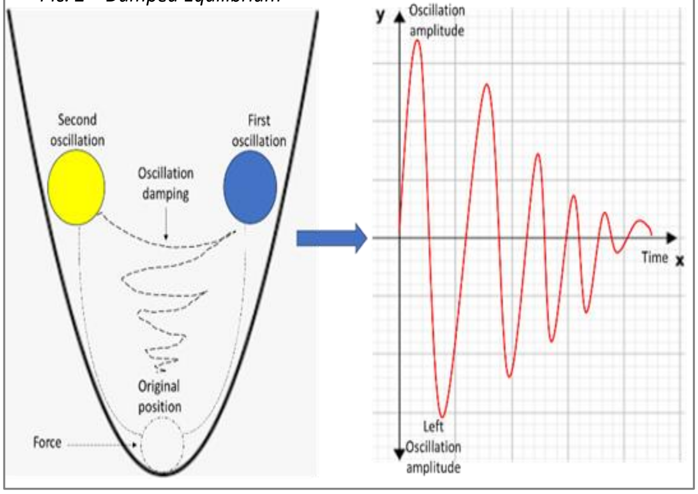
The case of damped equilibrium can be exemplified as a concave surface, with the same sphere inside as before.

The sphere is in stable equilibrium until an external agent creates an event, for example by applying a force in a certain direction, causing the sphere to move in that direction proportionally to the applied force.

In this case, however, the surface is concave and at a certain point all the kinetic energy will have been transformed into potential energy causing the force of gravity to make the sphere go back down (back) which, at a certain point, will find the starting point, but generating again and conserving kinetic energy to make another cycle of motion, but this time in the opposite direction, until, due to the principle of perpetual motion, there will be no more residual energy and, cycle after cycle, oscillation after swing, the ball will stop at the starting point.

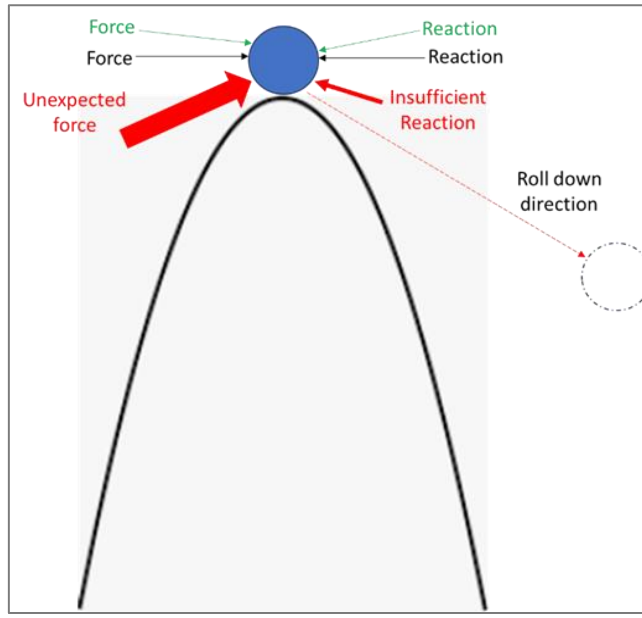
It should be noted that the frequency of the oscillations around the starting point is inversely proportional to the amplitude of the oscillations *(Picture 2).*

Pic. 2 – Dumped Equilibrium

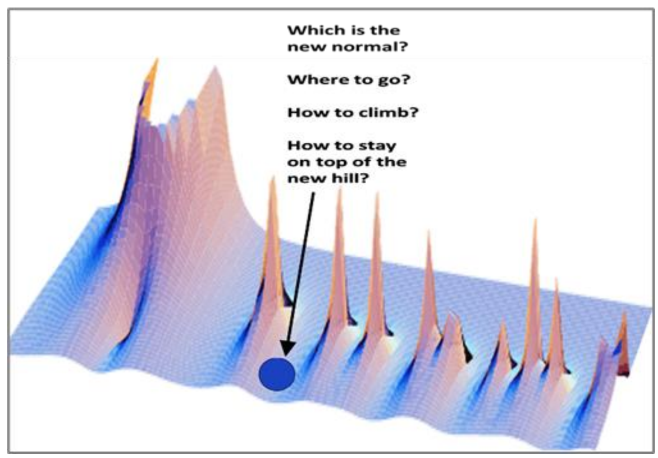


As regards to the state of dynamic equilibrium, or metastable, if you prefer, the question becomes more complex since the sphere, this time, is on the top of a convex surface, in practice a small hill, so narrow that the sphere itself is unable to remain on its position. It takes continuous contributions in one direction and then timely contributions in the opposite direction to allow it to remain balanced on the top of the hill.
If you want, it is a bit like when you are balancing on a thin rope or on a curb, you need a continuous balancing and counterbalancing to maintain a state of equilibrium, precisely, dynamic.
So in this case we can also be ready and predict where the next force, or stimulus will come from, in order to counterbalance it and keep the balance.....but in the case of an unforeseen event (stimulus), that could be relative to its intensity, its duration, its direction, or about when it will arrive: what happens?
It is necessary to be agile in order not to fall under, so it's necessary to adapt quickly, therefore the keywords are reactivity and adaptability.....but be careful!
When the stimulus ends, it is necessary to be as agile as to be able to stop the counterbalancing, in order to avoid ending up this time due to our countermeasures, and then restart the game of balancing and counterbalancing as before the occurrence of the extraordinary and/or unforeseen event. But what if you are unable to react correctly and/or promptly and end up downhill? Well....this is what happened with Covid and it is what happened due to previous extreme events (natural disasters, wars, etc....). In this case we must not make the very serious mistake of thinking that everything will go back to the way it was before.
No!
Everything cannot go back to the way it was before, systems theory itself says so.
On the contrary, the sphere pushed down from the hill will find itself on a surface with other hills in front of it and you will have to decide which one to climb, knowing that you cannot go back to the previous one, whose references have been lost: here is the new normality! *(Picture 3 & Picture 4)*
We are not in a damped equilibrium system, therefore over time the system will not stabilize and return to the way it was before, i.e. to the starting point, but it will be stable again, but different!
From all this therefore derives the need to rethink the Supply Chains from an efficiency point of view because, a tight efficiency, simply is not useful for the "primordial" purpose of the process mentioned above, nor functional to what is called the new normal ...the new hill we have climbed or we are about to climb.
Surely this concept may seem trivial but, in fact, we have seen how in practice it has been disregarded, or rather, it has been lost sight of. After all, creating alternatives costs money; having multiple sources on which to divide the same requirement to be supplied costs money and we could continue this list for a long time.....in a nutshell: redundancy costs money.

Pic. 3 - Dynamic or Metastable Equilibrium



Pic. 4 - New Equilibrium Area



At the end, it is quite clear that, regardless of formal proclamations and declarations of intent, in practice it is very difficult to get the company to pay the business continuity insurance premium. Because we are talking about this; metaphorically, but not too much!
Surely anyone fearing an accident evaluates whether to insure or not himself and decides whether it is worth paying the insurance premium based on the damage he could suffer. And just as certainly anyone is careful not to wish the unfortunate event to occur so as to be able to collect the insurance, thus amortising the cost of the premium and being happy with the fact that the insurance served a purpose without being just a cost (except exceptional cases which are generally called scams).
Now, returning to the Supply Chain in the tight sense and wanting to codify the concepts expressed so far a little more rigorously, it is useful and even if we want a little bit of fun to make a transposition, calling Isaac Asimov into question.

Isaac Asimov (1920 - 1992) was an enormously successful Russian naturalized American writer, biochemist and scientific popularizer and he's considered one of the leading science fiction authors and one of the fathers of this literary genre. In addition to having published more than 500 books including novels, popular science treatises and science fiction stories, he was also the creator of the three laws of robotics, which have become a fundamental reference for the development of artificial intelligence.

Specifically, Asimov's three laws state the following:

1) A robot cannot harm a human being nor can it allow a human being to receive harm due to its lack of intervention.
2) A robot must obey the orders given by humans, provided that such orders do not go against the First Law.
3) A robot must protect its own existence, provided that the safeguarding of it does not conflict with the First or the Second Law.

Now let's try to transpose these laws in the context of business continuity and Supply Chain and here's what we get:

1) The Supply Chain cannot damage business continuity nor can it allow business continuity to be damaged due to its lack of intervention.
2) The Supply Chain must follow the directives given by the management, provided that these directives do not go against the First Law.
3) The Supply Chain must protect its own existence, provided that its safeguarding does not conflict with the First or Second Law.

As it is possible to see, the result is not so obvious or trivial but, above all, it highlights how much it has been disregarded in recent years precisely because of the search for absolute efficiency, in the false illusion that extreme events would not have happened anyway. False illusion that irrevocably leads to the typical misplaced question of:

"What are we going to do or should we do **if** something happens" instead of asking "What are we going to do or should we do **when** something happens".

It is good to remember, if needed, that the statistic is subject to error therefore, a low probability of risk activation does not justify not taking charge of the risk, even more so in the event of a significant impact, but absolutely not only! In fact, we have seen Supply Chain disruptions due to a lack of Pareto class C components and materials.

And here, returning to the roots inherent in the purpose of the Supply Chain, the much mentioned, less applied and still less intimately understood Kraljic's matrix, forcefully returns to the Supply Chain basics, especially in its simplified version declined through the variables of Relevance and Availability.

Specifically, the Availability variable, used as a proxy for Complexity, is extremely useful precisely for defining how redundant and therefore resilient our supply sources are.

Let us briefly recall that a proxy variable is a variable used to estimate the magnitude of another variable. For example, if we wanted to know how many "de facto" cohabiting couples were formed in a given period, we could estimate this quantity by measuring how many new electricity supply contracts were signed in the same period, eliminating those relating to subjects with a VAT number and therefore to professional and business use. You will not have an exact measure, but it will certainly be tendential and significant.

We also recall that "Relevance" means everything that, being purchased, has a strong impact on the income statement, as it is a high spender or strongly characterizes the finished product in which it will be integrated, to the point of affecting sales if it is not purchased, or both .

On the other hand, "Availability" means how many supply alternatives are available, but be careful: supply alternatives ready to be used in the company, therefore having certified, qualified, approved suppliers, homologated alternative materials, etc… *(Picture 5)*

It is therefore necessary to take note that, living dangerously, having self-induced monopolies as suppliers determined by one's own company for its own technical preferences, performance or for historical reasons, or worse still real monopolies or oligopolies, means mortgaging the future of one's business.

Pic. 5 Simplified Kraljic Matrix	HIGH AVAILABILITY	LOW AVAILABILITY
HIGH RELEVANCE	LEVERAGE SOURCING	STRATEGIC SOURCING
LOW RELEVANCE	NOT CRITICAL SOURCING	«BOTTLENECK» SOURCING

Of course finding alternative suppliers is expensive and even worse finding alternative materials in case of low availability of the main ones being examined. It is also necessary to be realistic as the alternatives could probably be more expensive and less performing (worse quality, worse on-time delivery, far procurement sites, etc.…) but, as already mentioned before, it must be noted that these are a kind of "insurance" costs (driven by the consequence of the decisions) and that very often the alternative can be a spare wheel that is not perfectly equivalent to the main one…..but then what the alternative is? Better to "stop the car with the flat tire" and get stuck, do we?

Continuing with the metaphor of the car's "spare wheel" we can say that having the "usual" spare small wheel supplied is expensive and if used, it can only be done at a limited speed, but at least it allows you to continue the journey in a regime of reasonable safety, provided you comply with the limitations of the vehicle. Of course, for the purists of perfection and efficiency at all costs, what has been said may seem heretical and maybe it was…… before the new normality. Now things have changed and following the latest events it has clearly been seen that whoever stops is lost. However, if we go back to the roots that constitute the primary or, better still, "primordial" objective of the Supply Chain, which consists in guaranteeing business continuity, what has been said so far will certainly be less abstruse.

It’s perfectly understandable that we aren’t comfortable in this new context and that’s not encouraging at all, but it does encourage us to make sure we avoid creating wonderful Supply Chains like crystal pipes, ready to shatter as soon as stresses pass a certain threshold level, in a world that, apparently, it finds itself having the maximum unpredictability and variability precisely in the *threshold levels* definition.

Again the “*threshold level*” definition issue could sounds weird or, at least, not common, but it’s a normal consequence of the theory of complexity……it’s a question to wear the “right glasses” and to adopt the right perspective for the new context we are facing now.

Theory of complexity is straight connected with theory of systems and is studying complex systems, i.e. adaptive and open systems, which are formed by numerous elements which interact with each other in a non-linear way and which constitute a single, organized and dynamic entity, capable of evolving and adapting to the environment.

These kind of systems have the characteristic to maintain long periods of relative stability, in which the perturbations and fluctuations of the system are absorbed in one way or another. These systems therefore have the ability to keep their environment and the most important variables for their existence relatively constant, absorbing perturbations without undergoing damage or significant changes.

This is the principle of *homeostasis*.

And, as already mentioned, it is precisely in this period of illusory stability, however long it may be, that the big misunderstanding of having a perfectly adapted system capable of managing disruptions arises. In fact, homeostasis is neither eternal nor unassailable.

Therefore, sooner or later, for which it is reiterated that it is not a question of "**if**", but of "**when**", the system, as it evolves, reaches and exceeds a critical level, the threshold level, in which homeostasis is not more effective or in any case no longer effective enough to counterbalance the disruptive events, losing the ability to self-stabilise.

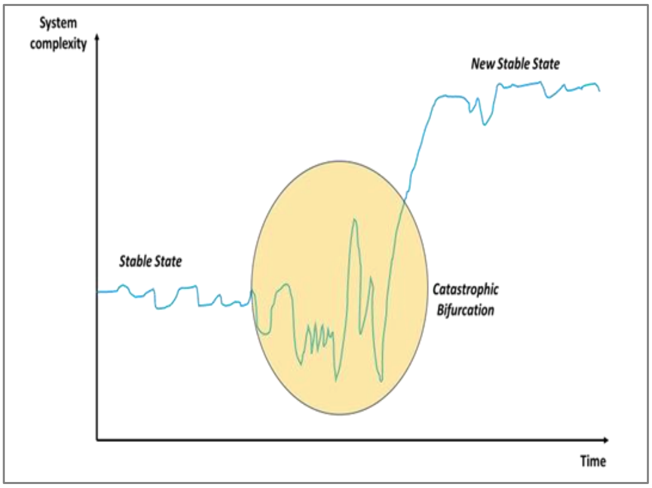
At any way this is nothing new “under the sun”, because we have to be aware that, in any systems, critical threshold levels can be exceeded for two main reasons: **a spontaneous evolution of the system** or **an external disturb/event/stimulus too great to be managed with the current system’s configuration**, or both.

Consequently it shouldn't be surprising if in certain situations the stability of the system can suddenly collapse and turn into extreme insability…..indeed…..the increase in the complexity of a system is generally accompanied by a growing sensitivity towards internal and external perturbations. Thus, at a certain moment of its development, the system encounters a critical instability, in which the fluctuations are no longer neutralized, nor can they be neutralized. The theory of complexity has baptized this phase, *catastrophic bifurcation*, as it represents to all intents and purposes a point of no return. Point of no return represented by the threshold level from which, following the forking, the random aspects of the system become predominant over the deterministic aspects.

In short words, the future of the system in the specific context is determined by chance and has consequently become theoretically unpredictable *(Picture 6).*

The difficulty in predicting what the future evolution of the system will be is not inherent only in the chaotic dynamics which would require insights related to the chaos theory which in this context it is not possible to go into depth, but also in the fact that complex systems, in a dynamic context, are mutable by nature, as already highlighted in the previous pictures 3 and 4.

Pic. 6 – Complex systems development path



So what will be the new stable state that the system will adapt to? In technical jargon, what will be the new "*attractor*"?

Unfortunately, due to the high non-linearity related to the innumerable factors that contribute to determining the behavior of the system, it is not possible to predict “a priori” which will be the right *attractor*, but there's more. The more complex and far from equilibrium a system is, the more possible stable states it will have available during a *catastrophic bifurcation*. It makes sense to state that after the *catastrophic bifurcation* the system will tend to be even more complex, its organization will be more orderly, effective and dynamic, but not necessarily more efficient. The system will therefore end up with an improved management in at least one of the three fundamental factors that according to the theory of systems allow its existence:

1) Information processing.
2) Energy management.
3) Materials management.

But we have to pay attention about the fact that increase of complexity doesn’t mean increase of elaboration.

Many studies, among which those of Ervin Laszlo (Budapest, June 12, 1932 he is a Hungarian philosopher and pianist, considered the founder of systems theory) play a fundamental role, have shown that in the stable state reached following a *catastrophic bifurcation*, the bonds that bind the various elements of the system together are generally weaker.

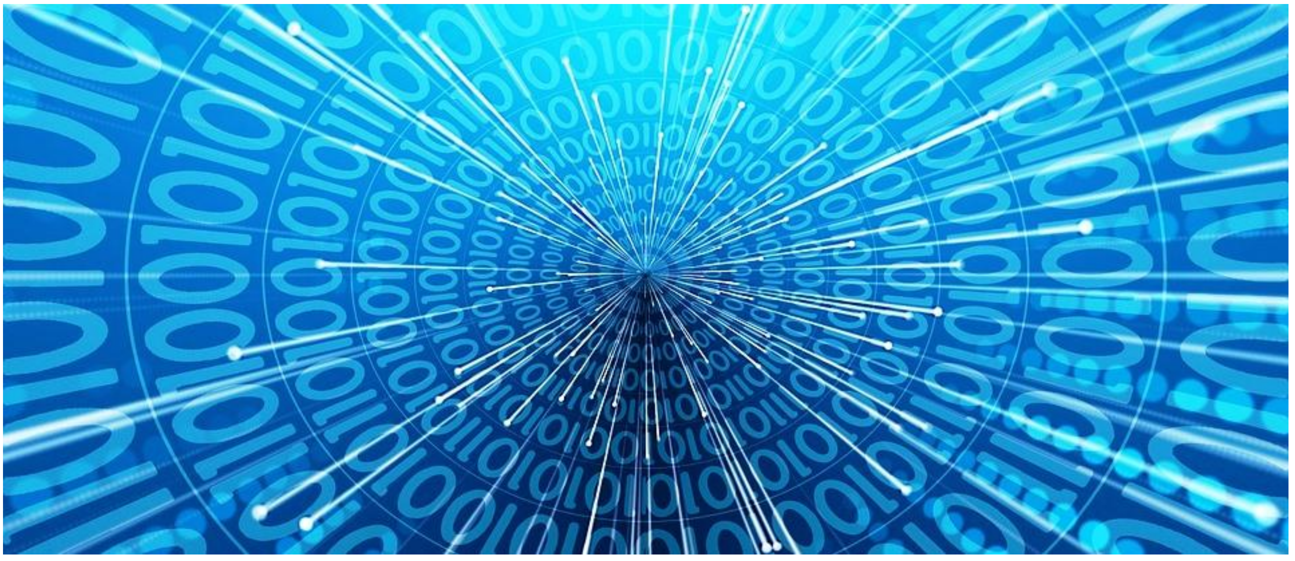
In other words, the elements of the new system can interact more flexibly and smartly with each other compared to what happened in the previous system. It's really astonishing how practical are the implications of these statements.

Let's think about the rigidity of having a relationship of strong dependence on a single supplier, a so-called self-induced monopoly, since for historical reasons, of technical preferences, of performances now consolidated by mutual knowledge and of economies of scale, there appears to be no willingness to go out of the strategic purchases quadrant of Kraljic's matrix. What has been asserted so far tells us that, if due to any event that exceeds the *threshold level*, the wonderful and historical single supplier creates a disruption, perhaps involuntary, for example caused by the direct and indirect effects of Covid, here is that, in case of survival of the system to the disruption in question, the new stable state can only be a situation of high availability, in the area of leverage sourcing and it is equally clear that, perhaps, those alternatives will not be exactly as wonderful and cheaper as the original supplier, but these less rigid supply ties (relationships) will be the ones that will make the new Supply Chain more resilient, granting the business continuity!

To those who could legitimately object that it is not obvious that transpositions can be made between systems of radically different contexts, always Laszlo demonstrated that the evolutionary rules that determine the change of a complex system have universal validity, i.e. they are valid for complex systems of a completely different nature.

In support of this, it certainly makes sense to also mention the studies of Clinton Richard Dawkins (Nairobi, March 26, 1941, he is a British ethologist, biologist, science popularizer, essayist and activist, considered one of the greatest exponents of the contemporary era of evolutionism) who demonstrated how culture and ideas behave and evolve in society like genes in the biological realm. The same can be said for computer programs which, if placed in the right conditions, can evolve following precisely the evolutionary rules mentioned.

By forcibly concluding a speech that I consider only sketchy for obvious reasons of space, I certainly consider necessary to deepen it because, today as today, the truth is that we still have no idea of how much the new resilient Supply Chains will cost us; but we all have the feeling that, instability from unpredictable events, will continue to be with us for long time, exactly as it always was in the human being history, so we have to be strongly focused on setting the rules of the system, in order to play the right game at the right time, and don't forget the basic purpose of business continuity.



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Negli ultimi 3 anni, poche funzioni aziendali hanno subito una pressione sistemica paragonabile alle funzioni di procurement e di supply chain.

La maggior parte degli operatori economici fa fatica a rispondere a questi sconvolgimenti a causa di modelli operativi consolidati che dipendono in gran parte da attività e processi manuali, difficili da modificare e strettamente vincolati a sistemi e tecnologie consolidate da anni che è difficile far evolvere.

ServiceNow, piattaforma di riferimento per la digitalizzazione dei processi di business, andando incontro alle esigenze dei propri clienti, ha introdotto una serie di soluzioni, denominate "**ServiceNow Finance and Supply Chain Workflows**", per colmare il gap tecnologico presente e fornire strumenti moderni e flessibili a supporto della transizione digitale di queste aree funzionali.

Maggiore controllo e visibilità

La principale area di interesse nei workflow di procurement e della supply chain è il source-to-pay. Ogni azienda cerca di ridurre i costi delle proprie operazioni commerciali, e l'approvvigionamento indiretto è una delle maggiori leve per farlo.

ServiceNow permette di automatizzare i processi e le attività dei team interni ed esterni coinvolti nei processi di approvvigionamento e nella gestione operativa di tutte le attività relative (e.g. sourcing, negoziazione, contrattualistica, fatturazione).

La soluzione ServiceNow offre ai team il controllo, la visibilità e l'orchestrazione di cui hanno bisogno per gestire con più efficienza le richieste di procurement ed approvvigionamento utilizzando le risorse esistenti. Inoltre, consente alle organizzazioni di raggiungere costantemente i propri obiettivi di procurement, come l'approvvigionamento da fornitori più sostenibili, la riduzione al minimo dei rischi e la riduzione della spesa totale.

3 Risultati chiave

Le soluzioni "**ServiceNow Finance and Supply Chain Workflows**" consentono di raggiungere:

1. **Unificazione:** molte aziende faticano a gestire scenari diversificati e tentacolari con processi di procurement che si estendono su più sistemi. Ciò rende complicata la collaborazione tra i vari attori coinvolti e può portare a decisioni e risultati non ottimali. ServiceNow permette di unificare la collaborazione tra le persone, i processi, i dati e le tecnologie dell'intera organizzazione in un'unica esperienza di ingaggio e di governance.
2. **Semplificazione:** i dipendenti passano spesso da un sistema all'altro nel tentativo di portare a termine il proprio lavoro, e tale frammentazione aumenta il sovraccarico amministrativo richiesto per completare un'attività, favorendo soluzioni alternative fuori processo e fuori standard. ServiceNow aiuta a semplificare il modo in cui il lavoro viene svolto, strutturandolo all'interno di workflow standardizzabili, dove strumenti low-code sono a supporto della semplificazione e digitalizzazione delle attività quotidiane.
3. **Accelerazione:** molte organizzazioni continuano a fare affidamento sui processi che hanno implementato un decennio o più fa, anche se il loro business cambia o vengono aggiunti nuovi sistemi e sorgenti dati. I dipendenti sono costretti a muoversi tra più schermate, compilare ed elaborare manualmente ogni transazione di procurement. ServiceNow mette a disposizione strumenti di automazione e di intelligenza artificiale (e.g. generative AI e RPA) eliminando le attività superflue e di routine, consentendo quindi ai dipendenti di concentrarsi su attività di maggior valore.

Grazie e ServiceNow è possibile adottare, all'interno delle funzioni di Procurement e Supply Chain, un modello a piattaforma, offrendo l'agilità necessaria ad orchestrare ed unificare processi frammentati, abilitando un percorso di automazione e digitalizzazione che consenta la semplificazione delle operations, in modo tale da ottenere un vantaggio competitivo in un mondo sempre più complesso ed in continua trasformazione.

Gil Zefoni
General Manager at the Organization of Purchasing and Logistics Managers in Israel (IPLMA)

The effect of the coronavirus and other epidemics on the chain in Israel and around the world – supply chain management during a crisis

In 2020, when the world was sure that science and medicine could not be challenged at their peak, the covid-19 pandemic entered our lives. The pandemic has changed and greatly affected businesses and the global supply chain.

Covid-19 has changed consumer behavior, created new trading arrangements, and urged procurement managers to deal with supply challenges and the shutdown of lockdowns, flight restrictions, closure of production lines, global shortages of raw materials, and the fall of stock exchanges and international markets.

During the process and especially after vaccination entered our lives, a new urgency was created to fill the pandemic's gaps, minimize risk, build resilience, and connect more deeply with customers.

Connect and evaluate their offerings, processes, systems, channels, and partners.

Supply chains are at the forefront of the effort.

The regular supply of products and raw materials is the pillar of the entire productive body.

The quality and scope will determine most of all the resilience, performance, and level of functioning of a company in routine and emergencies.

If in the past we looked at operations personnel as supporters, then the COVID-19 pandemic has led the supply chain to be at the forefront of the effort.

Supply chain workers have become the spearhead of enterprises and organizations both from a business and managerial point of view.

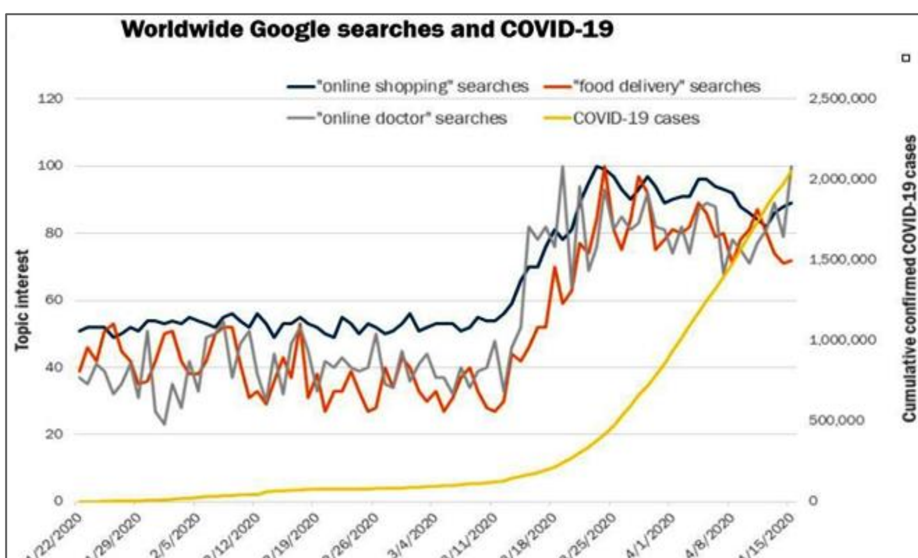
Goals:

- **Analysis of the leading causes of the impact of the coronavirus/crisis on the supply chain.**
- **Identifying the weak points to prevent and streamline crisis management for business continuity.**
- **Recommendations for implementation**.

Critical trends in the direct impact of covid-19

1. The strengthening of e-commerce

The need to remain confined to homes, unable to go out and make purchases as was customary before the pandemic, led to the acceleration and strengthening of e-commerce in companies. Many companies have realized that to survive and even increase sales volume, a rapid transition to online digital platforms for selling and buying narrow mo's must be made. Covid-19 has forced companies to create new and innovative solutions for shipping, buying, and selling. The new solutions have given consumers more choices on how to get their products.



2. **Strengthening the use of3D printers to ease the workload**

The COVID-19 pandemic has forced creative solutions in moments of crisis during an immediate shortage of parts and components.
The pandemic has given a glimpse of how 3D printing can be used temporarily to ease the load on supply chains during ups and downs in demand as it was with medical equipment.

3. **The strengthening of automation and artificial intelligence**

In light of the increased load on online systems and the uncertainty due to the frequent and unexpected changes, there was an accelerated process for the implementation of artificial intelligence and machine learning for the purpose of continued and accelerated prediction analysis, with wide-ranging end-to-end impacts.

4. **Understanding the importance of quality cybersecurity**

Due to the transition to e-commerce and the increased dependence on internet systems, many companies and organizations are more vulnerable to cyber vulnerability and fraudulent attacks.
Companies have realized that they must invest considerable resources in strengthening their cyber defense systems as a central value that maintains business and logistical continuity.
The companies realized that damage caused by cybersecurity failures could lead to many financial losses and damage to Montaigne and customer reliability.
In addition, businesses have realized the importance of using AI, blockchain, and IoT to strengthen trade capabilities and at the same time secure.

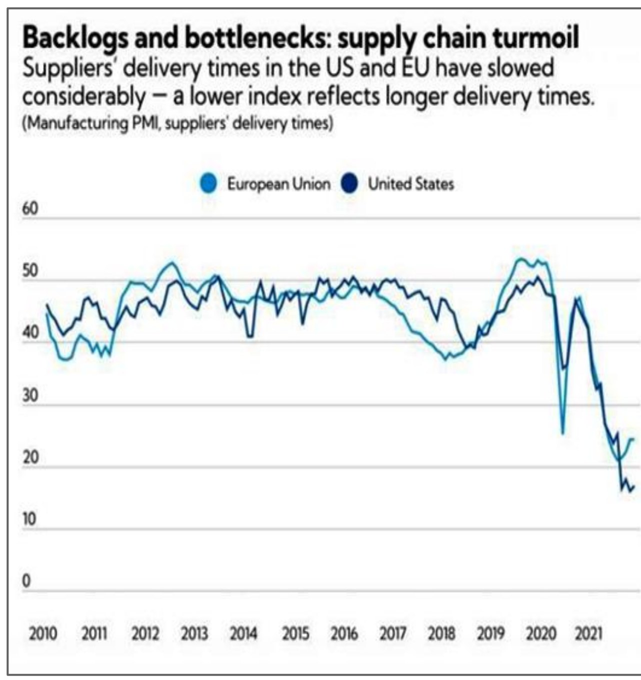
Photo by Miguel Á. Padriñán

5. **Increasing the use of IoT systems in the production and supply chain**

The Internet of Things (IoT) continues to revolutionize supply chains by increasing real-time visibility and tracking for both raw materials and end products.
This makes networks more responsive and competitive.
Cheap and reliable sensors, which provide large amounts of data, are essential for the large-scale implementation of IoT systems.

6. **Harm and impact on production capacity**

Following the various government directives, many companies in Israel and around the world were forced to close their production lines.
Undelivered order backlog lapels created bottlenecks in production systems and thus had an impact.

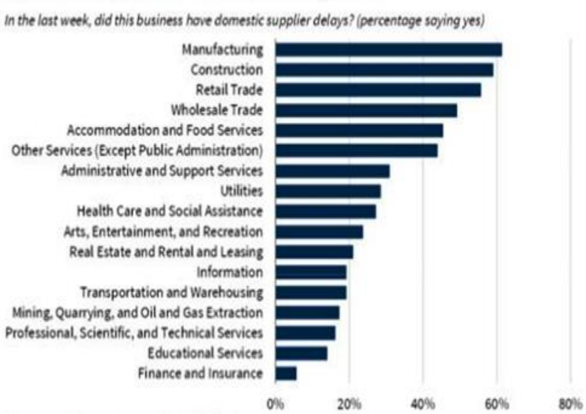


Significant on the availability of parts and materials for supply on the one hand and delay in the supply and availability of finished products on the other.
With so many shipments and fewer ships ready to load, there have been significant delays at ports around the world.
Even nowadays, there is a very significant difficulty in transporting and transporting products around the world. The delivery lines have become significantly more expensive, and many companies are thinking of a significant margin of safety at the delivery time in order not to lag behind in the contractual delivery dates with customers.

Figure 1. Businesses Have Little Inventory to Sell

Sources: U.S. Census Bureau; CEA Calculations

Figure 2. Supply-Chain Disruptions By Sector



Recommendations for the company's CEO

1. Gather data to generate forecast and inventory levels

The pandemic created great difficulty in managing inventory levels, for some products there was a sharp jump in demand, and they were snatched from the shelves. Manufacturers do not know how demand will behave and, accordingly, how much to produce.

The supply chain behaves according to the whip phenomenon – which is characterized by increasing fluctuations in inventory as a response to changes in customer demand as they move along the supply chain. Inventory oscillates in larger and larger "waves" in response to customer demand.

Each supplier takes a margin of safety and time to be on the safe side, and thus a wave is created on a wave.

The usual demand patterns are erroneous, which leads to the inability to produce a demand forecast that will instruct manufacturers on how much to produce.

So without accurate sea data, the replenishment policy of the plants may be incorrect and result in production in higher quantities than necessary.

The instability will lead to the fact that in some industries there will be a transition to inventory management using the Just In Case method that will hold larger inventories closer to their reach.

This is instead of the prevailing Just in Time approach. In general, there has been a trend in recent years to hold domestic inventory.

2. Create transparency

The crisis has shown that manufacturers and companies selling finished products are unfamiliar with their entire supply chain. The companies are familiar with the production and delivery schedules of suppliers who are in direct contact with their manufacturer, but they usually do not have much knowledge of suppliers and subcontractors further down the chain as an example of vehicle manufacturing companies that have announced a decrease in production output for cars in light of a considerable shortage of chips.

Manufacturers should map their entire supply chain optimally to understand and prepare for crises. Manufacturers incorporate in their agreements with suppliers indices and tools for dealing with crises. Creating transparency will strengthen the relationship with suppliers, and you will be able to minimize the risks in the next crisis.

3. The impact of manpower shortages and a recommendation to switch to automation and robotics

Another effect of the crisis is, of course, on the personnel situation. Taking employees on unpaid leave and the Ministry of Health's guidelines for maintaining distance have reduced the number of workers throughout the economy, as well as in factories and production lines, and are causing a significant reduction in productivity. Enterprises that previously worked only one shift have switched to two or three. Tasks that can be performed remotely are done from home. In logistics centers and distribution centers of retail chains, the challenge is even greater.

The sharp increase in demand for deliveries has created a lot of congestion in logistics centers, where the shortage of workers causes a delay in delivery times of a week or more.

The clear recommendation for Ain is the attempt to minimize as much as possible the dependence on workers and manpower and the transition to automation and robotics. Implementing machines or mechanized automation reduces dependence on manpower and enables operational flexibility as much as possible and reduces the damage caused by manpower shortages due to a crisis or a decision by a Force Majeure.

4. Examining the possibility of returning production in Israel from the East

Production capacity in large part of the industrial sectors in Israel and around the world has been negatively impacted both by a decline in demand and by a reduction in workers, shortages of raw materials, components, and sub-complexes. Another trend that will accelerate is the trend of digitization and the assimilation of advanced manufacturing technologies. This trend is also true for the industry in Israel. In the Israeli industry, a trend of encouragement has begun through special grants, starting with the transfer of production lines from abroad to Israel, through expanding the criteria of an advanced production grant track for medium-sized companies up to NIS 400 million throughout the country, and encouraging employment of workers.

The recommendation, in this case, is to examine whether the transfer of a production line from abroad to Israel is likely to contribute the required contribution and savings, and on the other hand, to examine whether the expected delays and the consequences of production in the East versus production in Israel are still tolerable in the face of the return of production lines in Israel.

5. Consolidation of shipments following the increase in transport prices

In the field of global ocean freight, the shutdown of most economic activity in China at the beginning of the year had a dramatic impact.

China accounts for about 40% of the world's total maritime activity, mainly in terms of exports of raw materials and imports of energy products. The shutdown of economic activity led to a sharp decline in the transport cost index, and accordingly to the cancellation of cruises by shipping companies, mainly from Chinese ports. At the beginning of March 2021, a gradual return to routine began at China's seaports, with the encouragement of the government.

The ports of Haifa and Ashdod are open and functioning, but the waiting times are long. Refrigeration results from the need to transport medicines and other medical products from China around the world that require refrigeration (at the expense of refrigeration-controlled raw materials and products).The unexpected changes in the cancellations and returns of direct air routes between Israel and China and Hong Kong, and between Israel and major European countries, have led to a significant reduction in the availability of transportation services, an increase in demand for cargo flights, and accordingly an increase in air freight prices.

In the field of land transport, there is a noticeable increase in truck transportation and a reduction in the transport bin due to an imbalance in back-and-forth transport.

Long transport lines within countries or between countries, for example in Europe or the United States, transport goods back and forth.

The current crisis is liable to upset this balance by the fact that there are no returns of products and some factories are closed.

In this case, we recommend ZIM to the purchasing manager to conduct an in-depth examination of his future shipments and try to consolidate (subject to his forecasts and demand for production) several shipments into one uniform shipment.

The shipping and aviation companies prefer to price large transports (in terms of profit) than small transports that require them to adjust and consolidate.

A purchasing manager who will act in accordance with the forecast (As much as possible) and combining several types of transport into one transport may reduce the damage in delaying shipments and even reduce the financial expense.

6. Managing duplicate warehouses

Before the covid-19 era, the lean inventory culture was the right and logical way, and many organizations implemented it.

The current crisis has brought with it the need to change the direction of thinking and adopt a different strategy, one that will strengthen the management mechanisms, create a more stable and resilient system, and make it possible to deal with uncertainty in a variety of scenarios.

In light of the changing reality, there is a need for double inventory management in several warehouses.

Practical recommendations for implementation:

- Regularly monitor new suppliers, new materials, and more.
- Insure yourself against loss of revenue due to supply chain disruptions.
- Work together with your regular suppliers to develop additional sources of supply.
- Strengthen the management of your shipping providers, and see if you're working with those who are best for crisis management (rather than routine).
- Manage your shipping budget – it will be significantly larger than we're used to. Weigh in each shipment the price against the availability/risk – prices and availability will vary from week to week.

Special Thanks to: Mr. Roy Raphael - Mrs. Shimrit Gavriel - Mrs. Anat Hariv - Mr. Haim Gatenio

Unite

L'importanza di includere gli acquisti indiretti nella propria strategia di procurement

www.unite.eu

Le aziende che riescono a controllare, ottimizzare e standardizzare il proprio processo di acquisto ottengono un risparmio compreso tra il 10 e il 25% dei costi, riporta un recente articolo di McKinsey.
Di conseguenza, adottare una valida strategia di procurement permette di ottenere un rilevante vantaggio competitivo, soprattutto al giorno d'oggi, dove i responsabili acquisiti sono chiamati ad affrontare il cosiddetto contesto VUCA (Volatility, Uncertainty, Complexity and Ambiguity), il quale rende il controllo dei costi correlati al procurement e ai processi di acquisto un passaggio vitale per le imprese.
Tuttavia, questa strategia spesso non include la spesa per materiali indiretti anche se, come citato dall'articolo di McKinsey, nell'ultimo decennio, è stato registrato un aumento medio annuo dei costi per gli acquisti indiretti pari al 7%.
Allora perché ancora oggi viene poco considerata la spesa per gli indiretti? Una domanda questa a cui, come Unite, abbiamo cercato di rispondere in questo articolo, anche in vista del prossimo IFPSM World Summit al quale parteciperemo come Gold Sponsor.

Acquisti diretti, indiretti e tail spend: quali sono le differenze?

Gli acquisti indiretti riguardano l'insieme di materiali e servizi necessari alla gestione quotidiana dell'azienda, ad esempio: la cancelleria, i veicoli del parco macchine, l'arredamento degli uffici ed eventuali servizi forniti da terzi.
Al contrario, gli acquisti diretti sono strettamente associati al processo produttivo interno.
La composizione dei costi totali è regolata dal principio di Pareto: la supply chain (acquisti diretti) copre l´80% della spesa a fronte del 20% dei volumi d'acquisto, al contrario la tail spend (acquisti indiretti, anche detti articoli di classe C) occupa il 20% del volume della spesa, ma l´80% dei costi di processo.
Nella maggior parte dei casi, il processo d'acquisto della tail spend non viene gestito dai CPO, bensì dalle varie divisioni aziendali. Questa tendenza, definita maverick buying, permette al singolo dipendente di spendere in assenza di una forma di controllo e gestione strategica.
La mancanza di una struttura che ottimizzi e standardizzi le procedure di acquisto, comporta un costo delle risorse impiegate che supera facilmente quello della spesa facendo venire meno il ritorno sull'investimento con un conseguente aumento esponenziale dei costi.

La sfida: gestire la tail spend e controllare il maverick buying

La correlazione tra acquisti indiretti e maverick buying viene spesso ritenuta inevitabile e la sua gestione complessa o poco conveniente.

Ciononostante, un approccio disorganizzato espone l'azienda a una serie di criticità come: l'incompatibilità (reputazionale, etica e finanziaria) con i fornitori, la mancata trasparenza nel processo decisionale, un aumento della spesa e l'impossibilità di una precisa analisi gestionale.

Per questo è sempre più importante che le aziende si affidino a soluzioni innovative e flessibili che le traghettino nel prossimo futuro del procurement.

Noi di Unite siamo una piattaforma di e-procurement con un marketplace B2B integrato e oltre 6 milioni di articoli. Grazie al nostro modello di business scalabile, ci proponiamo di facilitare il reperimento di materiali indiretti e semplificare la relazione con i fornitori, siano essi partner strategici di lunga data o nuovi supplier da scoprire sulla piattaforma.
L'azienda nasce nel 2000 come Mercateo e lo scorso anno ha concluso con successo il processo di rebranding in Unite.
Con oltre 20 anni di servizi B2B alle spalle, offriamo un'esperienza di acquisto personalizzata fruibile sia dalle PMI che vogliono digitalizzarsi per una più efficiente gestione degli acquisti, sia da aziende più strutturate con la possibilità di integrarsi in punch-out agli ERP più utilizzati.
Digitalizzarsi per una migliore gestione delle proprie spese indirette è un'esigenza sempre più impellente per gli uffici acquisti, alla quale noi di Unite rispondiamo attraverso le nostre soluzioni, coprendo la domanda di qualsiasi articolo con un basso volume di ordine, non strategico, ma la cui domanda spesso si traduce in operazioni complesse e time-consuming che portano a costi medi di gestione superiori ai 115€ per ordine.

Benefici e vantaggi competitivi

Le aziende che scelgono una gestione strategica della tail spend attraverso piattaforme di e-procurement ottengono numerosi vantaggi che si traducono in un notevole risparmio a livello di costi.
La semplicità di utilizzo è fondamentale, per questo tutte le soluzioni di Unite si trovano su un'unica piattaforma e sono facilmente attivabili con un click.
La trasparenza dei dati e la sostenibilità sono fra i nostri valori cardine, per cui, partendo dalla prequalifica dei fornitori che integra aspetti di sostenibilità, vi è una costante crescente attenzione ai prodotti green.
La piattaforma offre anche un servizio di ricerca dinamico delle condizioni più adatte a soddisfare le proprie esigenze e fornisce dati a supporto di decisioni di acquisto informate da parte dei clienti, aiutandoli così nel raggiungimento dei propri obiettivi di sostenibilità.
Inoltre, è possibile l'utilizzo multiutente che, attraverso diversi livelli di autorizzazione, permette di mantenere il controllo sulla spesa e di disporre di maggior tempo per attività ad alto valore aggiunto, riposizionando la funzione procurement a un livello più strategico.

Conclusioni

L'ottimizzazione della tail spend implica un insieme di benefici per le aziende che decidono di adottarla come:

- la riduzione dei costi (fino al 42% del percorso purchase-to-pay, come dimostrato da un articolo del Boston Consulting Group),
- l'efficientamento delle risorse impiegate,
- un aumento della capacità di adattamento alle variabili del mercato.

Infine, sviluppare una strategia di procurement e avvalersi di strumenti come le piattaforme di e-procurement, permette di rafforzare la posizione dalla funzione acquisti in qualità di dipartimento chiave per l'azienda.


Jan Roddeman
Portfolio Manager
Nevi

René van den Hoven
Relationship Manager
Nevi

How to build a resilient supply chain

Industrial companies and the rapidly changing world: how are they adapting?

What effect does the uncertainty that organizations today to a large extent face have on industrial companies? Nevi's knowledge and portfolio manager Jan Roddeman and relationship manager René van den Hoven spoke to ten purchasing-related professionals at industrial manufacturing companies.

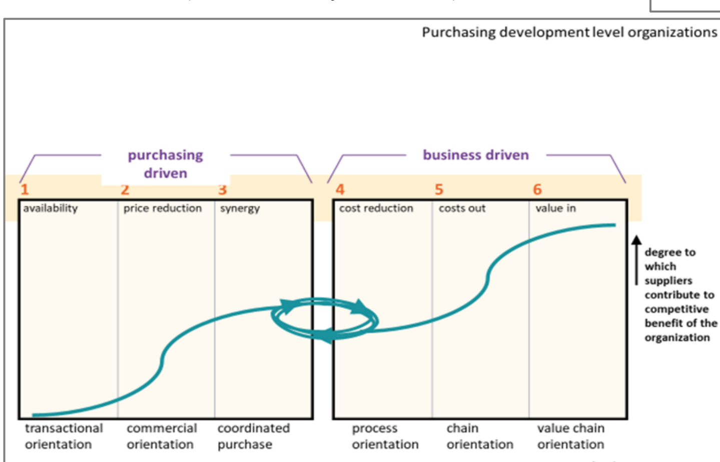
We spoke to a procurement director from the high-tech manufacturing industry, a director from the food industry and a global procurement director from construction and infrastructure, among others. With an average of 75 percent of the turnover, the purchasing share in those organizations can be considered high; disruption in the supply chain has a major impact.

Profile and features

The organizations where the purchasing managers are interviewed purchase the following product-related categories: raw materials, semi-finished products, components, services and investment or capital goods.

These organizations have a large supplier base of thousands of suppliers where the 80/20 and sometimes the 90/10 percent rule applies. Purchases are made worldwide, with a focus on the EU (with the exception of raw materials, which often have a global market).

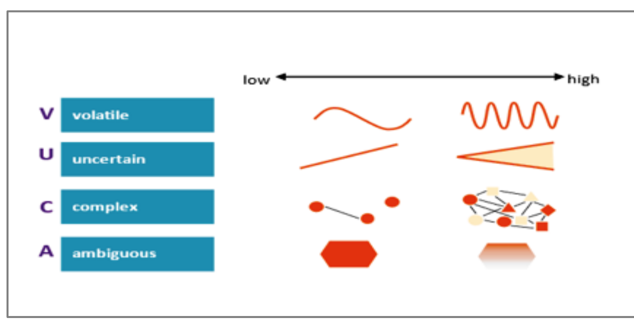
Purchasing development level organizations (source: Rozemeijer et al, 1998)



The purchasing development level of the organizations is four or higher, most of which are characterized by a chain orientation (see image 'Organizations purchasing development level').

VUCA

In the conversations, the increasingly prominent effects of a VUCA world (Volatile, Uncertain, Complex and Ambiguous) came to the forefront. The rapidly changing environment in which we find ourselves as individuals and organizations makes a strong appeal to our adaptability. Due to COVID-19, the Suez Canal blockade, Brexit, the war in Ukraine and the energy crisis, companies have become (more than in the past) aware that resilience is essential for survival, for the realization of goals, and in the actions of the purchasing and supply management function.



(After an illustration by TSM Business School / Jeroen Kraaijenbrink)

The four VUCA terms are often interrelated. If an industry is more complex and more volatile, it is more difficult to predict the development of that industry; and there is more uncertainty.

The four VUCA terms represent different aspects that make our environment more difficult to understand and manage; this is visualized in the figure above.

The relevant environment can be the world, a national economy, a market, an industry or a sector.

Category management, risk management and scenario planning

It became clear in the interviews that most organizations already pay specific attention to scenario planning and/or risk management in their category management in order to deal with the increased uncertainty. The interviewees indicated that scenarios are now being worked out for the effects of changing import duties due to geopolitical changes and for the medium to long-term consequences of climate change and resource scarcity. VUCA created a sense of urgency. And initiatives to better prepare for possible changing circumstances. A CPO commented: "Our bottlenecks have moved from internal to the supply chain. The importance of timely information and the ability to properly manage the internal and external chain has increased considerably."

Sourcing strategies

In general, it became clear that more awareness has recently arisen within boardrooms about the dependence on the supply chain. Despite the high purchasing ratio, this was not self-evident. Supply problems due to scarcity gave purchasing the opportunity to "tell the story and start the conversation", as several purchasing directors emphasized. In particular about the way in which the supply can be secured, under which conditions, and what lessons can be learned for the future. For example, with regard to the sourcing strategies and Supplier Relationship Management.

Glocalization

In these organizations, globalization is replaced by conscious glocalization (a contraction of globalization and localization) and included in category management and associated sourcing. This was concisely expressed by one of the purchasing directors interviewed: "Purchasing can distinguish itself by making the right planning and choices. And to constantly include the business in what is and what is not possible in various purchasing markets and with suppliers."

Integral and market-oriented focus

The discussions also revealed that the role of Supply Chain Management in most organizations is changing from efficient production to an integrated and market-oriented focus. To realize this change, people with different profiles have been recruited in purchasing and supply management: employees who can analyze complex chain data. Sustainability is also playing an increasingly important role. As part of the category and sourcing strategy.

Organizational development level

The interviewees indicated that a high level of development of the organization as a whole is important to be able to absorb and/or turn around major disruptions. They characterized a high level of organizational development as: integral problem solving, direct lines with internal and external stakeholders, and up-to-date information about chains and production processes. For example, by converting supply risks into scenarios and translating these into business impact (EBITA). Risk management and scenario planning are therefore not limited to purchasing but are necessary organizational competencies. Mapping supply risks was deepened with a calculation of the TCO effects of risk mitigation. Organizations are in transition. Several purchasing-related professionals indicated that purchasing is now more involved in developments and strategic choices due to the experience gained. Most interviewees think this is permanent.

Good supplier relations

The number of times interviewees noted that good supplier relationships bear fruit is striking. Solutions are sought on the basis of mutual dependence. Risks are shared more than in the past with strategic suppliers and on the basis of long-term contracts. Several organizations indicate that mutual dependence leads to cooperation. A structural focus on cooperation and relational contracts is expected here. However, one must guard against traditional 'fighting behavior' as a primary impulse. "In order not to fall into this trap, a purchasing network, source data from purchasing markets and consistent reporting to directors and management are very important".

Additional Factors

After the discussions with the managers, we can conclude that being able to deal with the effects of a VUCA world is strongly linked to the level of development of an organization as a whole and of the purchasing function. The interviews also give us an idea of which additional factors also play an important role:

- Information is essential. Multifunctional problem solving facilitated by relevant up-to-date information about supply chains and own production processes. This information makes it possible to gear the business planning integrally to the possibilities of the chain.
- Ability to concretely translate supply risks into different scenarios and then into business impact (EBITA).
- Scenario planning as an integral organizational competence.
- Being able to adjust the own production mix in a timely manner.
- Shift focus from internal to control of the entire supply chain using end-to-end visibility: from product design, raw material procurement, planning, production, and the final delivery of the end product to the customer.

These factors touch many levels and functions in an organization. And they require a change in purchasing and supply management: from efficient production to an integral and market-oriented focus. Making an organization VUCA mature is challenging, but extremely rewarding!

Maria Tiilikainen
Event Manager at LOGY

Demand forecasting drives the supply chain

Supply chain management and optimization are competitive factors where almost every company has room for improvement. For ten years, Finnish company Relex Solutions has been developing a system that has enabled many large international companies to make their supply chain more efficient.

Demand forecasting drives supply chain management and optimization.
Based on that, the need for resources at different stages of the supply chain, among other things, is calculated, and the flow of goods is optimized so that the right amount of the right goods are in the right place at the right time.

"The demand forecasting is translated into decisions in our system. If a certain availability of goods is necessary, it is possible to calculate the level of safety stock needed to achieve this. At the same time, uncertainty factors, delivery times and batch sizes, i.e., all factors that have an impact on availability are taken into consideration," says Johanna Småros, co-founder and marketing director at Relex.

Based on the calculation, the system generates an operational model that tells you, among other things, at which point the goods need to be ordered so to satisfy the demand forecast. The system provides an overview of what the demand forecasting means for the movement of goods at different stages of the supply chain. It also enables the automation of orders and the forecasting of storage capacity and labor requirements for order picking.

Real-time view adapts to changes

In the real world, not everything goes according to plans and forecasts. So the system can see in real time what a change in demand forecasting means in different parts of the supply chain. For example, there may not be enough goods in the central warehouse to meet the needs of the stores. For example, the system chooses to distribute goods in such a way that either all stores have the same level of availability, or that the needs of stores with smaller, more limited selection are met first.

"If the problem is such that the system cannot solve it, it sends the information to the designer and asks them to make decisions."

Customizable cloud service

All Relex customers use the same cloud-based, Software as a Service (SaaS) system. For each company, the functionality corresponding to its needs is tailored on top of the system. Each company has access only to its own data. Within companies, user groups often have different views of the system: some users have only viewing rights, designers edit forecasts or order proposals, and administrators can edit the system's control logic.

"The customer can change the configuration of the system, either by themselves or with the support of our consultants, for example by prioritizing the availability at the online shop or the stores."

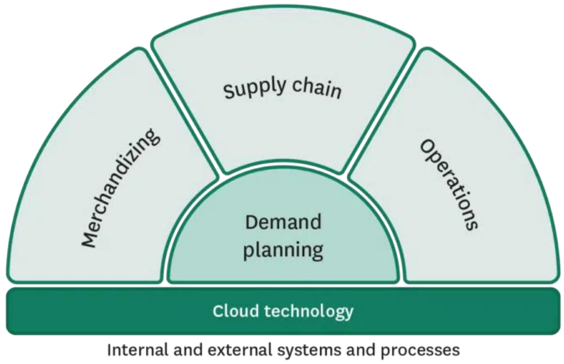
The system adapts to business needs

As procurement processes in companies are constantly evolving, the system that supports procurement optimization adapts to the changes. The quality of the data in the system needs to be improved, and the configuration of the system needs to be adjusted to meet the business needs. This will increase and diversify the system's benefits.

One example of this change is the increase of the business share of e-commerce. Then the whole supply chain will have to be able to adapt to the new demand.

"The customer knows best the changes in their business needs, such as the need to improve a key performance indicator. We can help by changing the system settings to achieve these targets," says Småros.

Product availability, stock levels, handling costs, transport utilization, and waste costs emerge as the main issues to be addressed, when Småros discusses the targets with customer companies. Customers' starting point varies - if availability is already very good at the starting point, it is usually possible to speed up the stock turnover or, on the contrary, if availability is low, it can be adjusted without increasing the stock proportionally.



Unique technology

The technical uniqueness of Relex system is based on its in-memory computing and a database developed by the company itself, optimized for this purpose, the use of machine learning artificial intelligence, and the flexibility of the system. In-memory computing is needed when a large amount of data needs to be quickly analyzed from different perspectives.

"When we started developing the system over fifteen years ago as a cloud service, it was still new. Our forerunner customers understood the benefits of the system. As these services slowly became mainstream, we already had a good track record in developing the system with our customers, evidence of results, and we were ahead of our competitors."

Relex has been developing machine learning for ten years.

"We have built a prediction engine based on machine learning. It can retrieve the parameters from the data that influence the forecast model for a given product. The weather forecast affects the forecast for one product and the day of the week for another. The fact that a product is the cheapest in its category can also affect sales. Machine learning is constantly sniffing the data to see which factors are influencing demand and which are not," says Småros.

As the system was originally designed in Finland to be suitable for several industries, the customization of the service became a competitive advantage also in international markets.

Relex's system works in cooperation with the other information systems of the company. Cooperation between resource planning system and inventory management system takes place on a daily basis. From those, information on product sales, stock balances and packaging sizes, among other things, is retrieved. Integrations are also made with campaign management, e-commerce and customer management systems.

COMMENT ARTICLE

Three researchers and a €5 billion business.

Relex's story begins in the logistics research group at the Helsinki University of Technology, where Johanna Småros, Mikko Kärkkäinen and Michael Falck studied the problem of automated replenishment in stores. Forerunners had realized how to automate replenishment ordering for long-life products, but not for fresh produce, promotional products, and seasonal products.

When Småros and Kärkkäinen finished their dissertation, they decided to start a company based on their research.

In 2021, the company had a turnover of €130 million and made a profit of €10 million. Out of the 1300 employees, more than 400 work in product development.

In February 2022, the company received a record €500 million financing at a valuation of €5 billion. The investment round was led by Blackstone, the world's largest investment firm. A valuation of five billion would mean that Relex would be worth the same as Valmet, Orion and SSAB.

Johanna Småros
Co-Founder

Mikko Kärkkäinen
Co-founder & Group Chief Executive Officer

Michael Falck
Co-founder

Giacinto Carullo
Chief Procurement &
Supply Chain Officer
Leonardo S.p.A

Paolo Rostirolla
Vice President Supplier
Sustainability & Development
Leonardo S.p.A.

Leonardo,
leader in the Aerospace, Defence and Security sector

Leonardo - a company listed on the Italian Stock Exchange (Euronext Group), with an annual revenues in 2022 of 14.7 billion euros, 105 sites with more than 51,000 employees, with establishments in Europe (Italy and Poland) the USA, the UK, Israel and a worldwide market presence with 150 countries in the Leonardo's commercial network - is the **leading Italian industrial company and one of the major companies in the world in the sector of strategic technologies for the Aerospace, Defence and Security (AD&S) industry**.

With its exports accounting for more than 80% of its revenue, Leonardo has a strategic role in the industrial development of the countries in which it operates with a ***network of over 10,000 suppliers*** - more than 4,000 of them in Italy - with a total value of orders of 9.5 billion euros (more than 4.5 billion in Italy).

Leonardo has been a leader in industrial and technological development in Italy for over 70 years, and is an active player in a network of international alliances and collaborations in all the sectors in which it operates, with a leading role in strategic programmes and major initiatives in the defence sector (GCAP, Eurofighter, the F-35 aircraft, the NH90 helicopter, the NATO AGS ground surveillance system, the Fremm frigate, and Eurodrone), in aviation (CleanSky and SESAR air traffic control) and space projects (Galileo, Copernicus, COSMO-SkyMed, ExoMars and Artemis).

There are many areas in which Leonardo has technological leadership, recognised throughout the world.

Leonardo's **helicopters** are an outstanding product of the Italian engineering tradition: over 4,300 of its helicopters are in use in 130 countries and 156 of its flight simulators and training devices for pilots, technicians and maintenance staff. With its world leadership in civilian helicopters and a leading presence in military helicopters, Leonardo produces a complete range of helicopters, from the 1.8 tonne single-engine to the 16 tonne triple-engine helicopter, for use by government services, the police and in offshore operations, for search and rescue missions, defence and commercial transport.

The star model of the intermediate range of helicopters is the AW139 multi-role helicopter *(see image below)*, a best seller for 20 years thanks to over 1,200 helicopters sold in more than 70 countries around the world and 3 million flying hours in service.

In addition to its helicopters, with more than 100 years of industrial heritage in the aeronautics sector, Leonardo produced over 30,000 **aircraft** to today, making it one of the leading companies in the world in military and civil aviation and a strategic industrial partner in the design and construction of aircraft for the global market players.

Leonardo offers aviation services and operational systems from basic training to the most complex defence and peacekeeping operations, from tactical transport to humanitarian missions, from command and control to intelligence, surveillance and reconnaissance.

As well as some of the most advanced aircraft in the world for the training of military pilots, Leonardo also produces the M-345 and M-346 trainer aircrafts *(see image above)*, as well as jet aircraft with advanced avionics systems, which include the most modern human-machine interfaces.

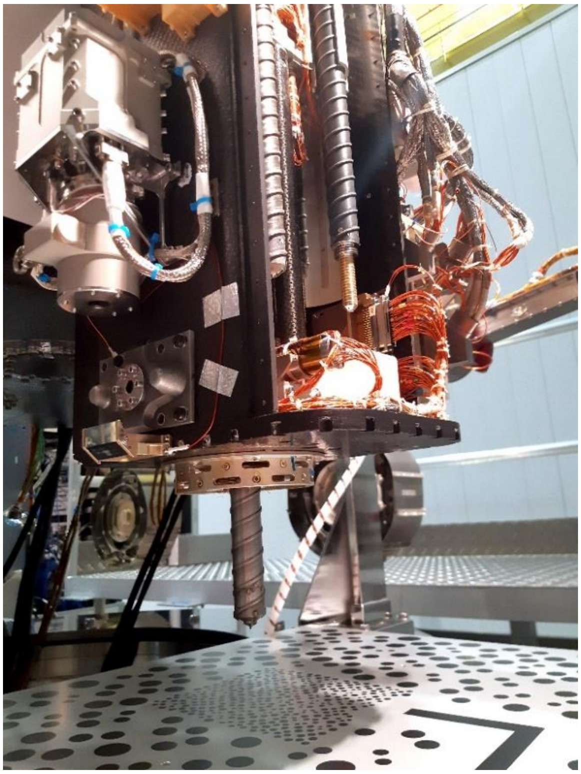
Leonardo's operations in **electronics** include the design, development and production of complex integrated systems, subsystems, equipment and components for applications in land transport and in the naval, air, space and cyber sectors. In the cyber sector, Leonardo designs, develops and produces integrated **systems and solutions for physical and IT security**, IT development and secure communications.

Leonardo's continuous commitment to innovation has enabled it to supply 1000 air defence radars and surveillance radars *(see image below)* to 58 countries, air traffic control and management systems (ATC / ATM) now in operation in over 200 airports worldwide as well as maritime vessel traffic management systems (VTMS) now in use in 43 major ports. In the field of IT security, 7,000 networks and 100,000 users in 130 countries make use of Leonardo's services, with more than 115,000 security events monitored every second by Leonardo's Security Operation Centre (SOC) and its professional communications systems, used for security operations in over 50 countries.

In the field of **space** technology, Leonardo designs and manufactures robotic systems and equipment for very important space programmes. For the ExoMars 2020 mission, Leonardo carried out the treatment of the lenses and mirrors of the miniaturised spectrometer integrated in the special drill to be used to look for traces of life in the subsoil of Mars *(see image below)*.

Leonardo also manufactured the only operational hyperspectral instrument in orbit aboard the PRISMA satellite of the Italian Space Agency, able to carry out a chemical and physical analysis of the elements observed on Earth.

All the first-generation satellites of the Galileo programme - the main satellite navigation system used worldwide - are equipped with a hydrogen atomic clock called a PHM (Passive Hydrogen Maser) made by Leonardo, considered the most accurate clock in use today thanks to a deviation of just one second every 3 million years.



Leonardo's supply chain is made up of 10,000 companies around the world, which contribute on a daily basis to the competitiveness of the business, ensuring compliance with quality and safety requirements in the supplies and actively collaborating in the management of contracts and open innovation processes. It is a supply chain that includes both international players in the sector of Aerospace, Defence and Security, which supply highly complex systems and subsystems integrated into Leonardo platforms and many small and medium-sized enterprises (SMEs), the technological specialisation of which contributes to the creation and success of our products.

The relationship with the suppliers is managed by a professional family of over 1,700 Procurement & Supply Chain professionals worldwide, committed to create an high quality, innovative, integrated, resilient and sustainable supply chain.

This objective relies on four key pillars within which projects, initiatives and concrete tools are developed to support our Group's growth, building a sustainable partnership with the excellences in the supply chain, while optimising costs and creating value, in compliance with Leonardo's security and compliance standards.

An essential prerequisite to achieve the growth envisaged in the Leonardo Strategic Plan is the excellence of the supply chain, which must be able not only to ensure adequate operational performance, but also to be able to cope with the new complexity posed by the market, which require financial strength, capabilities and agility.

4 Pillars of Leonardo's procurement and supply chain strategy			
Sustainable growth	Efficiency and value creation	Delivery / Excellence of processes	Security & Compliance

With this in mind, five years ago Leonardo launched its supplier development programme named LEAP (Leonardo Empowering Advanced Partnership) with the aim of accelerating and supporting the growth of SMEs in the AD&S supply chain, making them more financially strong, able to invest and work on higher value-added projects and ready to compete on an international scale.

LEAP has marked a paradigm shift in relations with suppliers, moving beyond a supplier management model based merely on commercial relationships and cost reduction, with a view to establishing an effective industrial collaboration, a medium- to long-term partnerships, capable of fostering investment and accompanying the growth of the supply chain's excellences in terms of both service quality and size.

A unique supplier assessment and development model has been implemented to monitor (a) performance, in terms of quality, punctuality and costs, (b) capabilities: technical, operational and asset availability, (c) sustainability, in terms of managerial and innovation skills, compliance with ESG principles and risk management practices. A model to work on the current and future competitiveness of the supply chain.

Over 800 key suppliers have been assessed since 2021 with 200 KPIs, identifying the strengths and areas for improvement of the supply chain on topics such as innovation capabilities, STEM and managerial skills, cyber security, circularity and environmental impacts.

Based on the results of the assessment, to «steer» and «accelerate» the growth of SMEs, Leonardo defined and promoted the "Sustainable Supply Chain Manifesto", which addresses three main topics, strongly in line with the development guidelines of Italy and EU: "Digital Transformation", "Cyber Security", “People & Planet”, divided into 18 concrete projects, with progressive and measurable milestones, to support and accelerate the transformation of Leonardo's supply chain as an “integrated ecosystem”.

An improvement plan has been defined for each supplier, which can leverage the «development toolkit» activated by Leonardo, also in collaboration with external stakeholders, focused on «capability building», «innovation» and «supply chain financing».
Companies can participate in one or all of the initiatives, based on the role they play in the supply chain and the maturity achieved.

In 2021, the programme incorporated innovation and sustainability objectives into the supply chain development plan, raising the supply chain's ambitions toward digital transformation, cyber security and green transition.

Thus LEAP – Partnership for Sustainability was born.

To make some concrete examples, we could mention:

- More than 500 suppliers involved in a free training plan on ESG topics in 2022, to help them to develop their own sustainability plan and non financial reporting (training in progress).
- 67 key suppliers, with a turnover of 1.3 billion euros and a total of 7,500 employees, have participated in the Elite-Leonardo Lounge program, a development path aimed at entrepreneurs and top managers of companies to accelerate their growth, facilitating access to capital, network and key skills to define a robust business plan for their companies.
- 50 key suppliers accompanied to digital transformation and cyber security with the support of DIH-Confindustria.
- More than 900 key suppliers’ employees participated in the LEAP Technical/managerial training for a total of more than 22,000 hours of training.
- Over 50 M&A/extraordinary operations have been registered among the players in the supply chain; 70% of the transactions involved companies participating in the Elite-Leonardo Lounge, with 2 suppliers recently listed on the Italian Stock Exchange.

In 2022 we run the second sustainability assessment campaign which allowed us to measure the improvement within the supply chain, after 18 months of activities since the first assessment performed in the 2021:

- +13% the suppliers with a good Sustainability Rating compared to 2021 (from 7% to 20%).
- - 12% the supplier with a low Sustainability rating (from 36% to 24%).
- -20% the ESG Risks (Red Flag) even if the number of assessed suppliers increased of 20% (from 500 to 600).

A study conducted by a pool of Italian Universities, showing that the companies involved in the LEAP program have recorded higher growth than those suppliers with similar characteristics and not involved in the program, with a double-digit growth differential on turnover, margins and intangible assets, showing a propensity for innovation and for opening company management to external managers.

Leonardo's initiatives in support of the supply chain are competitive levers to ensure the country's technological sovereignty and to generate wealth in the local communities.

Claudio Bruggi
Procurement Specialist
ADACI

Discovering the Green Supply Chain: a holistic approach for the Procurement of the future, without neglecting the role of SMEs

Introduction

In today's era of an increasingly complex and changing global environment, the challenges in the procurement and supply chain sector call for an innovative and disruptive approach (moving away from the *'we have always done it this way'* paradigm). While topics such as risk management, sustainability, artificial intelligence and digitisation have gained significant attention in recent years, there is still a huge opportunity to explore new horizons and develop cutting-edge strategies for the future of procurement and supply chain.

In this article, I will try to illustrate the concept of a **'Sustainable Supply Chain'** - through a holistic approach that integrates the principles of the circular economy, risk management and the new European regulation being approved, the **Corporate Sustainability Due Diligence Directive** (CSDD).

I will also explore the geopolitical factors influencing the market and provide some practical examples to illustrate how manufacturing companies (with a focus on B2B SMEs) can adopt this new vision for a sustainable future.

In this brief discussion I will be helped by some famous phrases and aphorisms.

The fundamentals of the circular economy in the supply chain

Nothing is created, nothing is destroyed, everything is transformed (Lavoisier).

Already the philosopher Heraclitus, who lived 2500 years ago, had coined the famous phrase *'panta rei'* (*everything flows*); meaning precisely that nothing is immutable, but everything changes!

This principle underlies the circular economy, which represents a paradigm shift away from the traditional linear model of production and consumption. The circular economy aims to reduce waste, rethink the life cycle of products and promote the reuse, recycling and recovery of resources (the 3Rs).

In procurement and supply chain, the circular economy translates into holistic and sustainable resource management, which aims to create value for all parties involved (stakeholders).

The impact of the Corporate Sustainability Due Diligence Directive (CSDD)

The CSDD, a European law (2022/0051) in the process of being passed, is of crucial importance for the future of procurement and the supply chain. This directive requires companies to actively monitor and assess the social and environmental impacts of their activities and to take corrective action. With the introduction of this legislation, the procurement approach will necessarily have to evolve to meet the required standards and demonstrate compliance with sustainability rules.

Risk Management in the Green Supply Chain

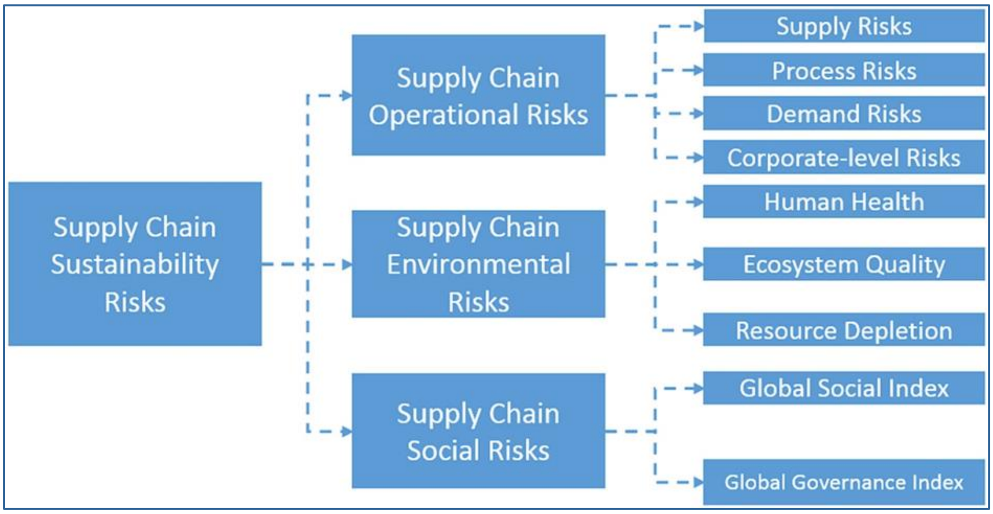
As the Roman thinker Seneca argued, "*It is not because things are difficult that we do not dare, it is because we do not dare that they are difficult*."

Risk management plays a fundamental role in the supply chain and becomes even more crucial in the context of the Ecosustainable Supply Chain.

Companies must identify and mitigate risks related to environmental sustainability, supply chain disruptions and social impacts. Using tools such as life cycle analysis, climate risk assessment and supply chain mapping, companies can identify vulnerabilities and take preventive measures to ensure a resilient and sustainable supply chain.

A recent example of good risk management practice in the eco-sustainable supply chain is Unilever.

In 2022, Unilever introduced a new responsible sourcing policy for forest products, which aims to eliminate deforestation from its supply chains by 2023. Unilever has partnered with non-governmental organisations and suppliers to ensure that wood and ingredients derived from it are produced sustainably and do not contribute to deforestation. This initiative demonstrates Unilever's commitment to mitigating environmental risks within its supply chain.



Source: Supply Chain Risk and Sustainability Assessment - Journal of Cleaner Production (2019)

Geopolitics and the Challenges of the Green Supply Chain

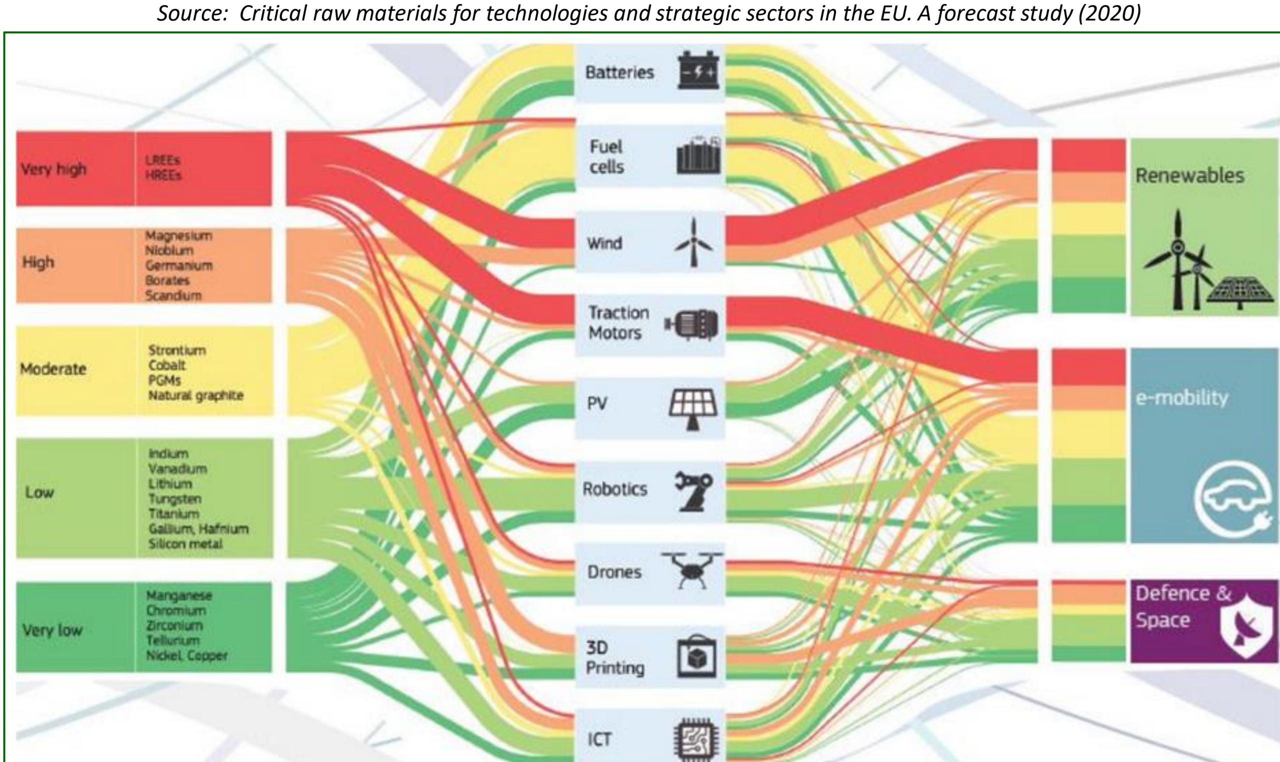
Geopolitics plays an increasingly critical role in the supply chain, with growing tensions, conflicts over resources and critical raw materials. Companies need to carefully consider these geopolitical factors in their decision-making and diversify supply sources to mitigate risks. A significant case of geopolitical challenges in the supply chain is the war in Ukraine. This conflict has created instability in the region and impacted global supply chains, especially for B2B manufacturing companies, but also for products in the food supply chain (e.g. the potential blockage of the Black Sea grain deal).

As the German philosopher Immanuel Kant stated, *'Peace, yes, but not at the cost of freedom'*. To meet this challenge, companies need to adopt supply diversification and risk mitigation strategies to manage the impacts of geopolitical tensions.

The scarcity of resources and raw materials

In the challenge for a sustainable supply chain, one of the key factors companies face is the scarcity of resources and raw materials. Increasing global demand, geopolitical tensions and environmental problems are putting a strain on the availability of critical resources.

Source: Critical raw materials for technologies and strategic sectors in the EU. A forecast study (2020)



The growing demand and scarcity of resources

As the world population increases and the economy develops, the demand for resources and raw materials is growing rapidly. Key sectors such as energy, water, metals and rare earths are increasingly in demand. However, many of these resources are finite or have limited availability, which can lead to higher prices and greater uncertainty in the supply chain.

As the Greek philosopher Plato stated, "*Necessity is the mother of invention.*" Companies must meet this challenge with an innovative and sustainable approach.

Environmental and social impacts

The scarcity of resources and raw materials is often correlated with significant environmental and social impacts. For example, the extraction of natural resources can lead to deforestation, habitat destruction and pollution of water resources. Moreover, conflicts over resources can trigger geopolitical tensions and instability. It is crucial that companies recognise and address the negative impacts of resource sourcing and adopt strategies to mitigate them.

Strategies to mitigate risks and promote sustainability

To address resource and raw material scarcity, companies can adopt several strategies:

1. Diversification of supply sources: Companies should look for alternatives to traditional supply sources and consider using renewable resources or substituting materials with more sustainable options. For example, using recycled materials or switching to environmentally friendly production processes can help reduce dependence on limited resources.
2. Innovation and research: Investing in research and development to find sustainable alternatives to exhaustible resources can be a key strategy. Companies can promote technological innovation to optimise resource use, adopt more efficient production processes and develop new sustainable materials.
3. Collaboration and transparency in the supply chain: Collaboration with suppliers, partners and other stakeholders is essential to address the challenge of resource scarcity. Companies can promote transparency in the supply chain, collaborate to share knowledge and resources and promote sustainable practices throughout the chain.
4. Energy efficiency and waste reduction: Reducing resource use and improving energy efficiency can help mitigate the risks of resource scarcity. Companies can take measures to optimise energy use, reduce material waste and implement recycling and recovery practices.

One example is the technology company Apple.

Apple is committed to reducing the use of scarce resources and promoting a more sustainable supply chain. The company has implemented an electronics recycling programme, allowing customers to return Apple products for recycling and material recovery. Apple has also adopted a circular design approach, seeking to use recycled and recyclable materials in its products. These initiatives demonstrate how a company can address the challenge of resource scarcity through innovation and supply chain collaboration.

Promoting the Sustainable Supply Chain in SMEs: Challenges and Opportunities

Small and medium-sized enterprises (SMEs) are a vital part of the economy, but often find themselves with limited resources when it comes to tackling the challenges of green supply chains. While much attention has been paid to large companies and their sustainability initiatives, it is crucial to recognise that SMEs can also play a significant role in promoting sustainability in the supply chain.

SMEs often face these global challenges with often limited financial and human resources compared to large companies. This can make it difficult for them to dedicate time, budget and personnel to managing sustainability in the supply chain. In addition, SMEs may have difficult access to the resources and advanced technologies needed to monitor and manage the environmental and social impact of their supply chain. However, despite these challenges, SMEs can adopt a strategic and focused approach to promote sustainability in their supply chain.

Despite limited resources, SMEs can exploit several opportunities to promote an environmentally sustainable supply chain. One key strategy is to collaborate with suppliers and partners that share the same sustainability values. SMEs can select suppliers that adopt sustainable practices and promote an open and transparent dialogue with them. This collaboration can lead to synergies and shared initiatives to reduce the environmental and social impact of the supply chain.

An example of collaboration between SMEs is the creation of consortia of B2B manufacturing companies operating in a specific sector or industrial cluster (e.g. in the sustainable clothing sector). These SMEs can form a strategic alliance to share resources, knowledge and sustainable practices. Together, they can develop a supply chain traceability system (blockchain or other technologies), identifying responsible suppliers and closely monitoring the environmental impact of the materials used. This collaboration can enable SMEs to share the costs and resources needed to implement sustainable practices in the supply chain, as well as develop best practices.

SMEs can adopt several strategies to promote sustainability in the supply chain. First, it is important to conduct a risk and opportunity assessment to identify key areas where improvement efforts should be concentrated. Next, they can focus on specific improvement initiatives, such as transport optimisation, material recycling or energy efficiency. SMEs can also consider participating in certification programmes or joining sectoral initiatives to demonstrate and make visible their commitment to sustainability.

SMEs can also benefit from the support of governmental and non-governmental organisations that offer consultancy programmes, subsidised financing and training services to promote sustainability in the supply chain. These flexible resources can help SMEs overcome challenges and implement sustainable initiatives with a limited budget. In addition, they can participate in networks and platforms to exchange best practices, allowing them to learn from others and access shared resources.

Examples and case histories of an approach for an Ecosustainable Supply Chain

To illustrate the practical application of the Ecosustainable Supply Chain concept, let us consider a B2B manufacturing company in the textile sector. The company could adopt a holistic approach that integrates material circularity, energy recovery and supplier involvement in the sustainability process. For example, it could implement a textile fibre recycling system, create an energy efficiency programme and collaborate with suppliers to promote sustainable practices along the supply chain (focus on processes such as dyeing and finishing that are particularly critical).

A recent example of adopting sustainable practices in the supply chain is the fashion company H&M.

The Swedish H&M introduced the **'Innovative Circular Business Models**' programme in 2023, with the aim of reducing the environmental impact of its products and operations. The company launched a clothing rental service, allowing customers to rent clothes instead of buying them, thus reducing the production of new clothes and promoting resource sharing. H&M has also developed a system for recovering and recycling used clothing, turning it into new products or materials. These initiatives demonstrate H&M's commitment to an environmentally sustainable and circular supply chain.

Conclusions

The Ecosustainable Supply Chain represents an advanced vision of procurement and supply chain that integrates circular economy principles, risk management, CSDD and takes into account geopolitical factors. This holistic approach enables companies to meet future challenges by improving environmental sustainability, supply chain resilience and operations effectiveness.

While the future of procurement and supply chain looks like a road full of opportunities and challenges, the adoption of the Ecosustainable Supply Chain can lead to a positive transformation for B2B manufacturing companies.

As the French philosopher Voltaire said, *'The best is the enemy of the good'*. Sometimes the search for the 'best' solution can inhibit the achievement of concrete results in the short term. By integrating innovation, social responsibility and risk management, companies can thrive in an increasingly complex international environment, contributing to sustainable development and creating value for all parties involved.

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12. Seneca, "*Letters to Lucilius*"
13. Aristotle, "*Politics*"
14. Plato, "*Dialogues*"
15. Unilever, "*SAP, Unilever pilot blockchain technology to support deforestation-free palm oil*" (2022)
16. Apple, "*Environmental Responsibility Report*" (2022)

Andrzej Zawistowski
Member of the Board
at PSML

The end of Globalization or its simple Reshaping?

Let's start from considering what are the key factors that generated the adequate environment for going global with our businesses.
I find two such main developments.
One is of course INTERNET.
From letters, phone, telex and fax, we now got the tool, allowing us to communicate world-wide with our business partners almost in real time.
(I remember times when my RFQ went by post and it took several days till I got the offer).

But I would like to concentrate on the second one.

FAST GROWTH OF SEA FREIGHT:

- Implementation of containers and development of sea shipments with many ocean freight carriers and huge vessels, considerably reduced transport costs. Containers made it possible to ship small volumes in secure conditions.
- Regular routings with reliable time-tables allowed predictable planning of our see shipments.
- Modern port infrastructure made quick loading/unloading possible, thus shortening shipping times.

BENEFITS OF GLOBALISATION:

- Sales expansion to new markets world-wide; we could reach new customers in far locations with acceptable delivery times.
- Possibility to buy raw materials & components from new far-away suppliers with lower costs.
- Transfer of production to Low Costs Countries.
- Change from Vertical (product manufactured in one location) to Horizontal Manufacturing (factories more as assembly plants, relying on external suppliers of individual components).

But it also created new RISKS:

- Longer supply chains with much more links and possibilities for disruption.
- Decoupling of production processes: e.g. car engine not produced any more in one place, but its individual elements in different countries.
- Outsourcing of Logistics processes - longer communication channels in case of disruption.

Having in mind the above, we generally assumed in our supply planning, that:

- Raw materials are usually available at considerably low prices.
- Transportation Times predictable and reliable - small deviations.
- Transportation costs stable with low share in total cost of our product.
- Lower inventories possible - „just in time".
- Single supplier (volume consolidation), as key sourcing strategy to further reduce prices.

THUS ON THE IN-BOUND SIDE WE FOCUSED
ON LOWERING COSTS OF OUR COMPONENTS,
NOT CONSIDERING MUCH THE RISKS
OF EXTENDED SUPPLY CHAINS MENTIONED ABOVE.

When taking our sourcing decisions to go global to far locations, we considered mainly short-term benefits of lower prices. Long term risks were not in most cases included in those analysis.
Moreover, we did not plan and implement any back-up solutions, in case of disruption of the main one.
Thus our supply models and routes were quite vulnerable when something went wrong.

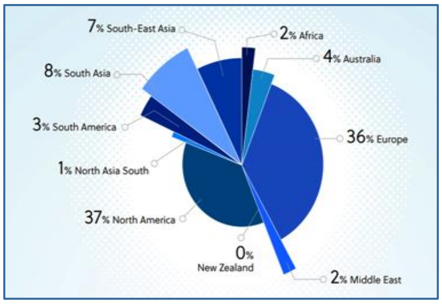
Example – one of the leaders from the automotive industry, by pressing its suppliers of electrical cables for further cost/price reduction, forced them to move the production from Hungary, Romania and Poland to West Ukraine. It happened AFTER 2014, when Ukraine had been considered as "at war". After Russian invasion on 24th February 2022, supplies stopped and the car factory had been closed for several days.

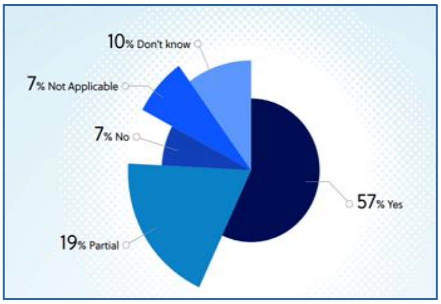
How much they saved with lower costs in Ukraine vs losses from factory closing? They did not include these potential losses in their initial calculation.
Why did it happen? Because in most companies there was no clear responsibility for supply chain/vendor risk management.
Market survey carried on by BEROE (Procurement Business Intelligence Platform) in March 2020 shows it more clearly.

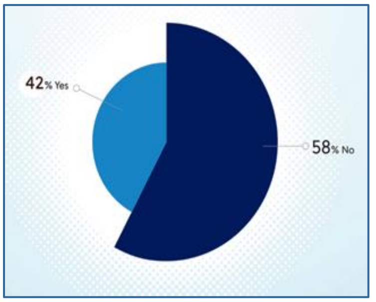
BEROE
Advantage Procurement

BEROE POLL ON SUPPLY RISK MANAGEMENT - MARCH 2020 - 450 COMPANIES

https://www.beroeinc.com/blog/beroe-live-survey-global-bcp-coronavirus/







Have you identified the raw materials and services that are essential for the production and delivery of your company's products/services?

As we can see, just before pandemic of Covid-19, only 57% out of 450 senior SC/Procurement managers identified ALL critical components & services, that could stop the business in case of lack of supplies. This step is critical – we can't manage the supply risks for all components/services we are buying. We have to focus on the critical ones. The third picture shows even worse situation. Only 58% of participants, requested and discussed with their CRITICAL suppliers their Business Continuity Plans.

Did your critical suppliers share their Business Continuity Plan (BCP) with you?

Now let's have a look on the current situation in the supply pattern of key raw materials, after several years of globalisation and offshoring.

Today, after moving the production facilities out of Europe and United States, in many areas the supply is concentrated in one country or region and competition is significantly reduced. I case of EU, the availability of some of critical raw materials and sub-components looks like below:

- 90% of PV modules installed in EU are imported from China/Asia.
- 97% Lithium from China; by 2030 EU will use 12 times more than today.
- 98% of rear earths supply comes from China - for car batteries and energy storage.
- 93% dependence of UE on China for magnesium - key for production of aluminium products.
- 45% of laptops is from China (70% world-wide).

DEVELOPMENT OF SUPPLY CHAINS FOR MICRO CHIPS

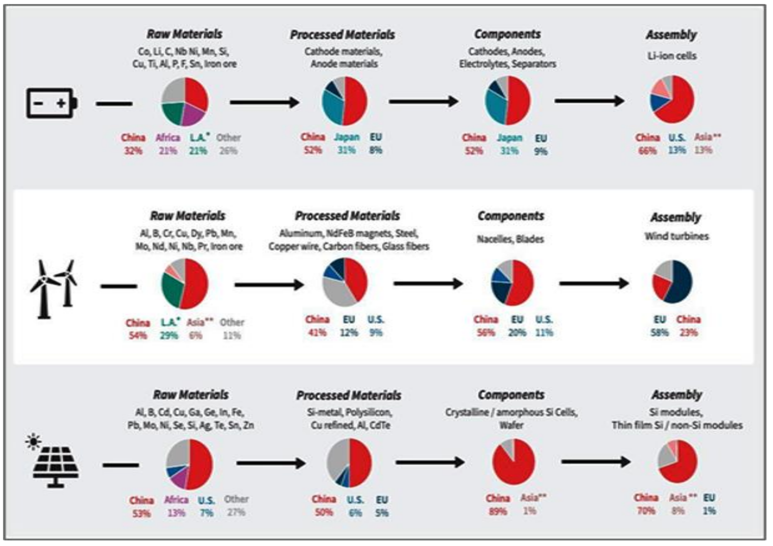
YEAR 1990

- USA and Europe consumed 55% of global demand
- USA 37% of global production
- Europe 44% of global production

YEAR 2022

- USA and Europe consumed 65% of global demand
- USA only 12 % of global production
- Europe only 9 % of global production
- ASIA 79 % of global production (Taiwan, South Korea, China)

We are consuming more chips in EU and US, building new factories of finished product at home (cars, electronics, hope appliances, etc.), but we allowed/moved the production of key components to far locations in Asia.



We are fully dependent on few companies in this area of geo-political instability. WHAT WE SHOULD LEARN FROM THIS NEW VUCA WORLD

- Sourcing decisions, taken by procurement, have an important impact on risks levels in our supply chains.
- When selecting source of supply, we may increase or decrease risks' probability.
- Therefore we have to include risks' analysis, when taking above decisions.

RESILIENCE & CONTINUITY OF OUR BUSINESS MUST BE NOW THE KEY RESPONSIBILITY OF PROCUREMENT (and not cost cutting)

RECOMMENDED SUPPLY CHAIN RISK MANAGEMENTKEY STEPS

- Define procurement categories (products and services) CRITICAL for BUSINESS CONTINUITY of our company, from the point of view of their current supply risks.
- Decide on sourcing strategy for these critical categories: *Single, Double or Multi Sourcing*.
- Do not stop on analyzing the supply risks for our direct vendors (Tier-1) only - discussing their Business Continuity Plans.
- Security of supply from their sub-suppliers should be also verified (Tier-2).

Below is a good example from 2014, why we should do it at least on Tier-2 level.

LET'S CHECK WHAT ARE THE POTENTIAL WAR RISKS
FOR TIER-1 and TIER-2
VENDORS IN RUSSIA & UKRAINE

Business threat for top 100 global companies form Fortune 500 list.

First Level Supplier(Tier-1)

Number of identified DIRECT suppliers:

- From RUSSIA - 100+
- From UKRAINE - 10+

Second Level Suppliers (Tier-2)

Number of identified sub-suppliers:

- From RUSSIA - 850+
- From UKRAINE - 100+

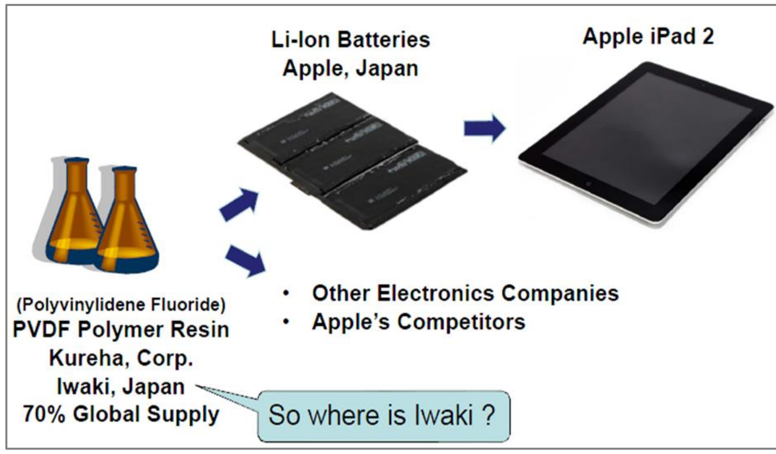
The last step is to mitigate these S.C. risks by developing and IMPLEMENTING back-up solutions.

And this requirement is not new. During last decades we had few major disruptions, but on regional/local level.

In 2010 e.g. the eruption of Eyjafjallajökull volcano in Island. It stopped almost totally airfreight in Europe for couple of days.

The trucking rates between UK and mainland jumped almost ten times.

Some factories of electronic appliances had to be stopped.



Most buyers did not have any negotiated and proved back-up solutions for road transport.

Do we have it now??

We do not need another eruption to stop planes and disrupt our supply chains.

Strikes of pilots or flight controllers may bring the same and are more probable.

March 2021 - Evergreen vessel was blocking the Suez Canal for almost one week with 422 ships waiting at the entrance to the canal.

Do we have alternative routes (negotiated and checked like e.g. New Silk Route by rail?), when it occur again? Doubtfully.

Recently we can hear warnings that the Panama Canal may be closed, because of low water levels.

Are we working on developing the alternatives?

Such unexpected developments will happen from time to time in the VUCA world.

We should be ready for them.

Do we have in procurement time and competences plus mind-set to change our focus (and KPIs) from cost savings to long term business resilience?

Some of the most matured companies realised, that it is not feasible without major organisational changes in the procurement function.

Up till now in procurement process we differentiated two major responsibility areas:

- Sourcing (strategic) and
- Purchasing (tactical – P2P).

Working on risk analyses and building category strategies should be executed within Sourcing function.

But this function mostly does not have enough time and knowledge/experience to do it.

Therefore several matured companies decided to exclude Category Management responsibility from Sourcing, as the third area.

Now category managers have to focus on

- macro and micro economics trends for their category;
- define strategies, taking into account also supply risks on Tier-1 and Tier-2 level for critical supplies ;
- search for new innovative solutions and suppliers.

They share the results/strategies with Sourcing, who manage the process of selecting suppliers/extending existing contacts, according to these recommendations.

One example

Category manager for ocean freight has to analyse the rates' trends and recommend to sourcing when to commit and for how long. In August 2022 the 40' rates from China to Europe had been around 20'000 $.

When at the end 22/beg 23 they were around 4'000 $, many of us fixed them at this level for at least few months. We did not have time and knowledge to analyse the trend for the next consecutive months.

Today the rates are around 1'000 $.

WHAT IS GOING TO HAPPEN
WITH GLOBAL TRADE?
DO WE MOVE BACK TO
REGIONAL/LOCAL RELATIONS?

Of course not. Globalisation will stay with us for long time, but NOT as a SINGLE solution and for ALL products.

We will not, for example, easily move magnesium refining back to Europe, because of the climate impact and high energy consumption for this process. Same with aluminium production.

For some products we will develop alternative regional/local suppliers as a back-up to the global ones.

On the country level, there are (and will be) new regulation, having important impact on our future supply routes.

On August 9, 2022 President Joe Biden signed the Chips and Science Act, which provides roughly $280 billion in new funding to boost domestic research and manufacturing of semiconductors in the United States.

In April this year similar support was announced by European Commission - 43 billion € in European Chips Act. The objective is to double the EU share in world's chip production from 10% today to 20% by 2030.

We already see the first results of this new strategies:

- The EU supported the Dutch company STMicroelectronics for the construction of a Silicon Carbide wafer plant in Catania with €293 million - to be completed in 2026.
- As of March 2023, Infineon, Germany's largest chip manufacturer, plans to add two plants in Dresden for €5 billion with a subsidy of €1 billion.
- Intel announced 80 billion € investment plans in EU over the next ten years in Germany, Ireland, Spain and Poland.

Having in mind the recent supply chain disruptions and almost complete dependence on import of key components, European Commission identified, for the first time, 16 raw materials as strategic – as per new regulations, by 2030, for each of them, we should not buy from one supplier more that 65% of its total EU yearly consumption.

EU together with individual country members will review also several mining projects, not implemented yet because of environmental impact:

- Lithium deposits in Portugal, Czech Republic or Germany.
- Rear earths in Kiruna Sweden.
- Magnesium, cobalt, neodymium in suboceanic deposits in Norway.

Recycling will also play an important role in reducing the above dependence, thus impacting current supply chains:

- By 2030 in EU minimum 15% of yearly consumption of these strategic raw materials must come from recycling.
- By 2027 50% of lithium must be recuperated from used electric batteries, increasing to 80% by 2031.

Some of the global companies are also reviewing their strategies and adapting them to VUCA challenges:

- Saint-Gobain changed its manufacturing strategy.
  - Before they have big global factories for one product line each (glass, insulation materials or gypsum board) delivering from it to world-wide customers.
  - They are moving to regional multi-product plants, supplying regional/local clients.
  - Now they can adjust specifications to local requirements and shorten their supply chains, buying from closely located vendors.
- Alfred Kärcher SE & Co. KG changed their supply strategy:
  - 75% of components must be sourced from regional vendors.
  - For critical components, supplier's production facilities must be located up-to maximum 1'000 km.

New ESG regulations will also impact our supply chains.

- On the company level, when the carbon footprint in its total supply chain is measured, only around 8-10% of CO_2 is generated internally within the company. Over 50% comes from outside suppliers. If the company wants to reduce its total CO_2, its current vendors' network must be reconsider from the point of their emission of carbon dioxide. If any supplier can-not reduce it , the company might have to select another one, meeting its expectations on CO_2.
- On May 16th, 2023 EU published a new regulation on CBAM - Carbon Border Adjustment Mechanism. Initially it will cover imports from outside of EU of cement, iron and steel, aluminium, fertilisers, electricity and hydrogen. From 1st October 2023 Importers will have to register with their national authorities and then report on quarterly basis, the direct and indirect CO_2 emission levels for imported quantities. By end 2025 without any financial impact yet.

All of these developments will change significantly the international business.

Globalisation and extended supply chains will remain with us, but our decisions on vendors' selection, will focus (I hope) on resilience and business continuity (a must for critical components), with cost reduction as a second priority.

We are moving from "GLOBAL" to "GLOCAL".

Michela Guida

Federico Caniato

Hi ChatGPT, what can you do for my purchasing department?

Artificial intelligence is so accessible and easy to use today that it is no longer perceived as "artificial" but as "augmented" intelligence, intended as a fast support for small and large decisions. The launch of ChatGPT, and Generative AI in general, has been a real revolution leading to new ways of decision-making in business and in particular in the procurement department. AI can support procurement to pursue cost-saving opportunities and increase the firm's competitive advantage through wise procurement choices.

So, what can AI and GenAI do for the CPO and the purchasing team?

Supply market intelligence. Supplier scouting and supply market intelligence have always been burdensome activities, highly time consuming for information retrieval and analysis. GenAI can be a great support in conducting supply market investigations, especially at the whole industry level. Triggered by an appropriate query, GenAI can compare side-by-side options for a specific purchasing category, considering various factors such as price, technical features, and customer reviews. In this way, the supplier search time is accelerated, speeding up the selection of the supply options that best meet internal needs. The initial screening conducted by the generative AI is only the input for other activities undertaken by the purchasing function, such as the initial supplier engagement and the request for additional information. However, GenAI stands in supply market intelligence as a support agent for data-intensive and automated supplier search activities, which for the human agent would be heavy and would lead to different results, risking getting stuck in biases related to previous relationships with well-known suppliers. The prompt given to the AI is critical in determining the quality and fit of the query to the buyer's needs.

Supplier evaluation. The same information retrieved to find the supplier can be used to evaluate it. AI-specific solutions crawl the web to return to the buyer information taken from company profiles, financial reports, and online reviews. GenAI can process a parametric evaluation of potential suppliers based on the information available, either by receiving a suggestion on the metrics to implement or by providing input of specific information to evaluate suppliers according to the criteria already in place in the purchasing department. GenAI can return supplier evaluation grids that can then be refined by the human user and by GenAI itself if guided by the buyer with ad hoc queries.

Many GenAI softwares can also be fed Excel sheets, and the buyer can ask it to perform specific analyses to evaluate a set of suppliers and compare them. Here another dilemma arises: are you willing to give to a GenAI the data about your suppliers, whether strategic or spot? GenAI also learns from the data we provide as input. With whom could it share our supplier data?

Cost analysis. AI is a valuable ally for savings. AI applied to spend data makes it possible to identify saving opportunities by tracking the supplier's cost structure, price fluctuations, cyclicality, and possible promotions and discounts. These elements could be crucial insights to set up negotiations with suppliers. In some cases, AI goes as far as to elaborate should-cost analyses on the purchased component. There's value, and there's price. Closing the gap between the two to determine the total cost of ownership is the challenge every organization faces. AI can be a valuable aid in identifying the cost of production and delivery for the supplier and whether the supplier's proposed selling price is fair or not. This way, the buyer has useful information to understand how much to squeeze the supplier on price reduction. Furthermore, GenAI can create proper drafts of spend analyses of input data, aggregating and classifying spend data according to UNSPC taxonomy to allocate purchasing categories in the category tree. It can also cleanse and analyze spending data.

Supplier relationship management. GenAI can be the intelligent arm for optimal supplier relationship management. GenAI is very powerful for creating formal email drafts to engage a supplier or maintaining the relationship with partners, even setting the tone for subsequent negotiations, or providing additional information on technical specifications.

These features speed up the exchange of information, which is sometimes difficult to find and formalize effectively in emails. The benefit is all in terms of efficiency for buyers and suppliers.

In this way, the tool works as a writing editor. It relies on external data retrieved from the web, emulating a certain writing style or tone of the conversation with the supplier.

In addition, internal data is also taken from the actual relationship with the supplier to personalize the communication.

GenAI could also help to maintain and centralize the database of suppliers, with their contact details and insights on previous transactions. GenAI could work as an archivist of the communication history between buyers and the plethora of suppliers with whom it is tough to engage and sustain effective communications.

Contract management. When dealing with supply contracts, ambiguities and omissions are just around the corner. The large language model underlying many AI solutions applied to business today – including ChatGPT – supports the design and review of contracts to mitigate these shortcomings. For example, GenAI can make suggestions on technical and legal language so that the contract is drafted effectively and transparently.

Intelligent reading of these documents via semantic engines guides navigating changes and amendments to the contract, identifying any practical implications for the buyer in managing transactions and conflicts with suppliers.

AI solutions can support tracking contract deadlines, e.g., by triggering a series of notifications for the main owner of the agreement, along with recommendations or insights into current market trends, to better draft the next contract.

The applications of AI and GenAI for procurement are many and lead to very beneficial developments for the activities and results of the procurement function. The accessibility and affordability of GenAI strongly drive this development.

But what are the risks of using GenAI tools like ChatGPT?

A major challenge is to preserve the firm's sensitive data security. Many companies have experienced the first downsides of GenAI systems that are easily and cheaply accessible to everyone. Confidential data such as notes from confidential meetings or other information used to query AI systems have been recorded in a public information domain and accessible to other people and companies. The data entered into GenAI is part of the data lake in which the system trains, so this information can then be shared with others in the future, including business partners, competitors, and hackers.

For this reason, many companies have blocked access to ChatGPT by all employees through specific firewalls. Intentionally or not, we risk to share data with GenAI and with all its users.

In addition, by forwarding specific requests to GenAI, we sometimes also input data that we buy from external info providers.

For example, by asking GenAI to process input data we provide to create a benchmarking among providers based on their ESG scores, we give the chatbot data purchased from an external rating company. In doing so, we are violating contractual agreements with the information provider. We may run into legal disputes initiated by the info provider because the data we purchase only serves for internal analysis.

GenAI fails. It may fail right from the start, incorrectly answering the user's first query. Very often, GenAI fails by digging deep into a topic. GenAI's first answer is often vague and not precise, although not wrong. By asking the chatbot for further details, the chatbot is in trouble and replies inaccurately, sometimes even wrongly.

Unlike other AI assistants, ChatGPT is not based on web crawling to search for and locate the answers. Instead, it assembles a sentence word by word, selecting the most likely token that should come next based on its training. So, ChatGPT reaches an answer by making a series of guesses, which is part of why it can provide wrong answers as if they were completely true.

The other big challenge lies in the easy and inexpensive access to GenAI.

GenAI is a generalist chatbot. To create successful solutions for specific areas of the business, such as procurement, strong customization or project-based solutions modeled on the firm's needs are required. To date, it seems that companies are sailing by sight to understand the real value of GenAI solutions, engaging the "fail fast" mentality. However, a trial-and-error approach could be detrimental when it comes to an enterprise's IT structure and procurement management, as it diverts internal resources (human and financial) to unstructured and unfruitful experimentation activities. Businesses alone cannot produce solutions that fit with their environment and their procurement management.

AI, and specifically GenAI, are huge opportunities for the procurement department to improve efficiency in repetitive tasks and support strategy and decision-making, still in the hands of human buyers. However, big challenges remain real use cases, financial and legislative issues, and the pace of AI evolution. Forward-thinking purchasers are already using GenAI, often in exploratory and unstructured ways. A more cautious and conscious exploration is needed instead to avoid the risks associated with these new technologies.

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Enzo Gelati

IIT Purchasing Director

Connecting people and processes: a new dimension of the relationship

First of all, let me offer a brief overview of the environment in which people and processes are involved in reaching our goals: The Italian Institute of Technology (IIT) is a foundation mainly financed by the State to conduct scientific research in the public interest for the purpose of technological development.

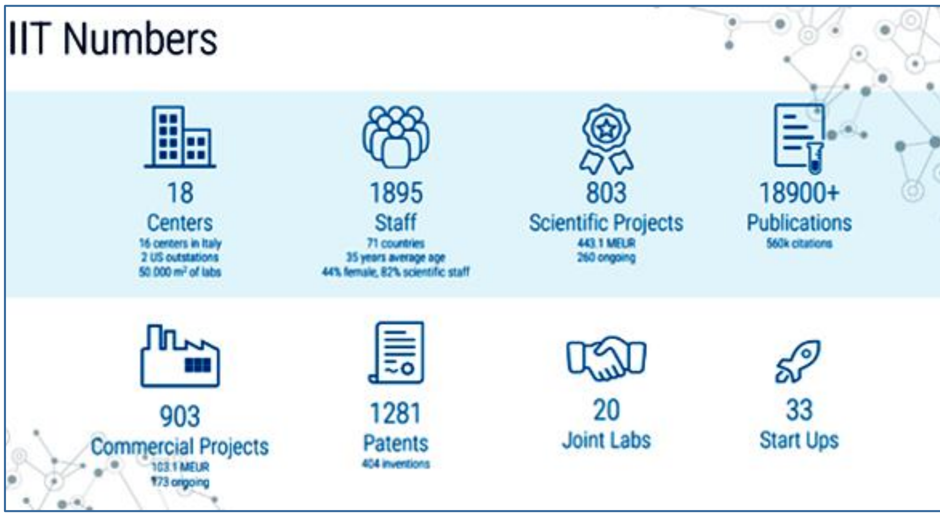
IIT operates under the supervision of the Ministry of Economy and Finance and the Ministry of Education, University, and Research .

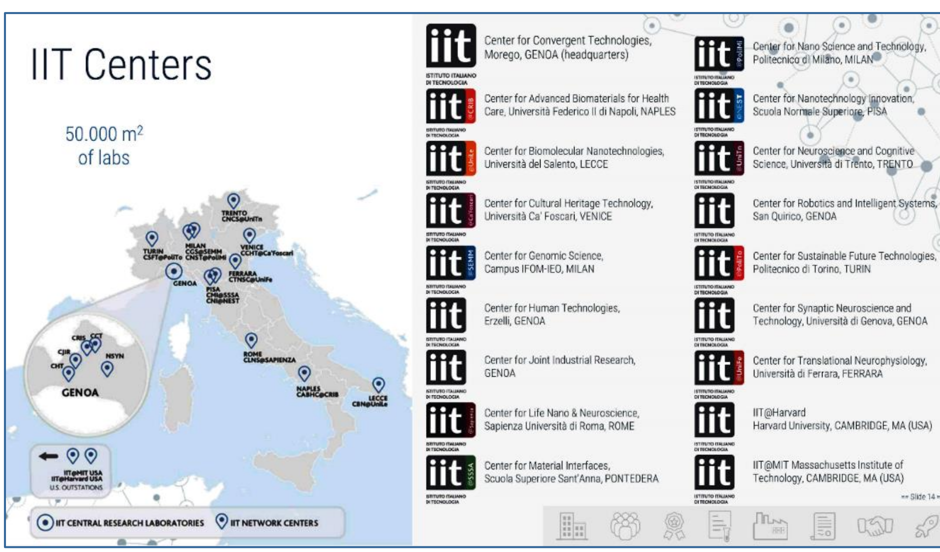
Our mission is to promote excellence in basic and applied research and to foster the development of the national economy.

Construction and refurbishing of IIT's laboratories began in 2006 and was completed in 2009.

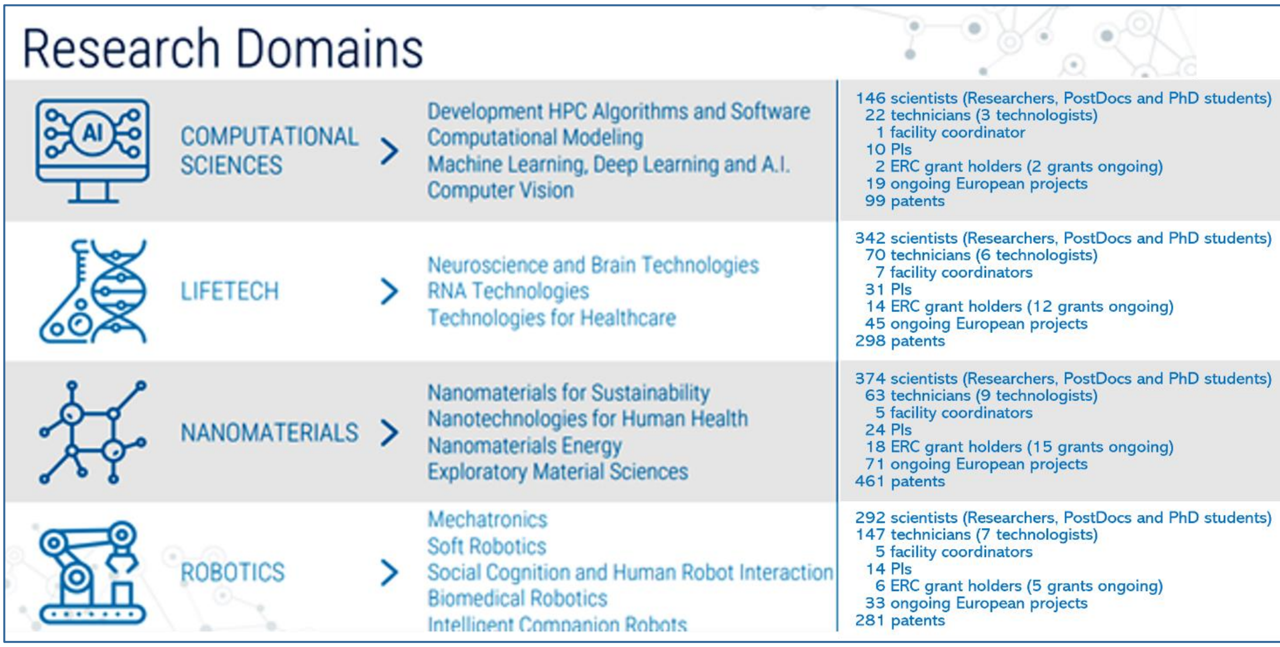
Facts and figures

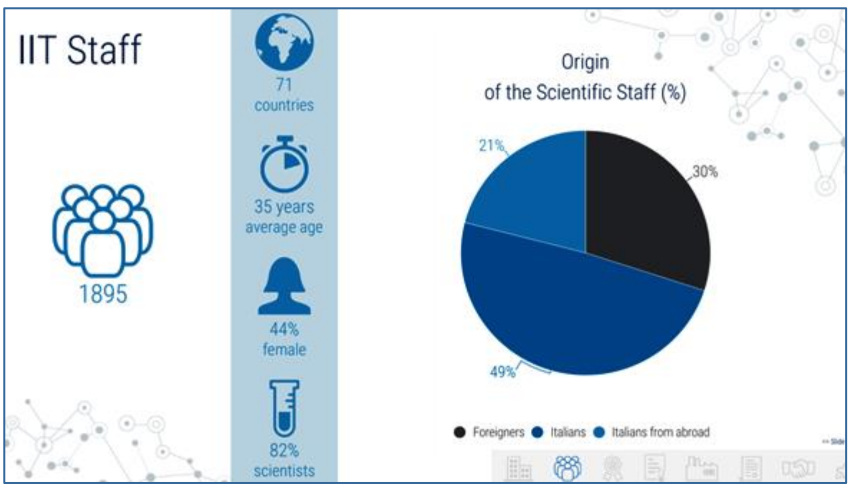
In terms of Purchasing these are our endogen main complexity factor, the number of different projects, domains, country of origin of our colleagues Scientists and geographical distribution of our Centers.





From a Purchasing perspective, the above scenario is pretty complex and offers a number of challenges in order to satisfy our internal Customer expectations, the main one being speed, possibly with no involvement whatsoever in anything close to “bureaucracy”.





Needless to say, that, in addition to the endogenous variables shown above, we have also few exogenous ones; first of all, the fact that we have to strictly adhere to the EU and Italian Law ruling purchases made using public funding and secondly an environment made of very specialized Suppliers from many different nationalities, cultures and related applicable laws and policies.

Last but not least, in the last years, all of our processes have been affected by the global Covid pandemic and the more recent Russian-Ukrainian crisis, and it looks like these events may be frequent in the future.

Even technology, which is everywhere, and it is helping us with a vast number of issues, may become an additional factor of complexity if we have access to more technology than we require and know how to handle.

I like to see Purchasing as the “gear box” connecting two environments working at very different speeds, rules and objectives that otherwise would almost be incompatible; this is a crucial task that needs to be accomplished not just with technical competencies but also with a good capability to manage friction and stress naturally present on the border between these two worlds.

So, I questioned myself: how can we manage our processes in such a scenario, reaching all our objectives and supporting research in the best possible way?

I did not find a single or, even worse, a universal answer but this is what I thought and am trying to do.

The environment is continuously changing, so is technology. Investing in technical skills nowadays is probably not enough, both for the old generation and for the new ones; the first may not be able to get it before it changes again, the second...well, they just do not need traditional technical training to use new technology.

So, we chose to invest in people more globally: first of all, with substantial training in soft skills (either on the job or in classroom) but also by modifying our organization and re-designing process including people in the equation. Yes, we are talking about taking into consideration people involved in processes to better design the process itself.

It may sound odd, but I believe it works.

Organizational charts and procedures are nice but what about if they do not work in that environment?

What about if you do not have or do not want to invest money in controlling structures?

In IIT in particular, where, in order to dedicate as much funding as possible to our core business, Science, we decided to design a flat and lean support structure.

Therefore, the following step was to map our human resources to better understand not just the typical technical skills and possible training needs, but in particular, the personal skills and characteristics that determines the identity of a team, its strength and potential.

The results were very interesting (even if not surprising); the values and approaches of the team were aligned to the ones we believe should be driving our organization, we therefore concentrated our attention more on any potential difference between our behaviors and the ones of our internal customers: scientists.

The first one we noticed was the potential cultural gaps; the entire population in Purchasing Dept. is Italian, our colleagues origin is from 71 different countries.

This difference has an impact not just on language barriers, that we try to reduce with languages course, but it has much more to do with different approaches to processes, procedures, and general sensitivity with regards to issues such as transparency and corruption which may vary substantially from country to country.

As Italy has historically had to manage a number of critical events regarding corruption, in particular in the Public Works sector, the laws were very much modified on the basis of those events which were not related in any way to scientific processes and therefore, by definition, the rules we have now to follow did not take into consideration any of the needs of our environment.

In order to reduce the effect of this first gap what we do is pretty simple: we work together, we talk each other, we explain the needs in terms of compliance and we listen and take into consideration the ones in terms of time to market and quality: we determine a common ground and objective and we are all focused on reaching them rather than discussing about who is right and who is wrong, what is more important.

The procedures are very few and written in a simple a clear language with the goal to explain what should be the most effective behavior in that particular process, rather than obtaining just a collection of laws, rules and terms well understood mainly by the author, the last to need it, and not by the receiving party, the first that should understand it.

A second, not less important, differentiating factor is age: our colleagues scientists age is much lower than ours; they have an increasing number of Gen Z representatives while almost all of us in Purchasing Dept. are either Gen X or Y.

In addition to that, due to the peculiarities of the scientific environment, the scientific staff will probably remain always younger, and the turnover will be higher as science environment requires to frequently move into a different lab, research center, nation.

So, we wondered which may be, if any, the characteristics of the different generations we should take into account.

There are a number of different studies in literature about the main differences between the various generations and, depending on the objective of the study, they concentrate more on approaches to personal life: politics, travels, environmental issues, consumption; our attention was more focused into taking care of potential different behaviors. Obviously, it is impossible, and unfair, to generalize and we need to appreciate individuals as such, said that, we gained some interesting indicators that may drive some evaluations and modifications in terms of processes and communication skills.

Herein below a focus on some characteristics found in literature of the main generation involved:

Gen X [1960-79]	***Gen Y [1980-94]***	***Gen Z [1995-2010]***
Materialistic	Global	Individual Identity
Competitive	Doubtful	Inclusive
Maverick	Self-oriented	Communicator /Pragmatic

What I found interesting is that the new generation has an individual identity, is inclusive and pragmatic, in comparison to the previous ones more focused on themselves, materialistic and competitive.

Therefore procedures and organizations may be more effective if we take also the above into consideration; the probability that a procedure is effectively followed should be higher if the communicate it in a different way (e.g. not just a 150 pages paper procedure), better with meetings, videos and anything giving the feeling that it is tailored to reach that particular colleague. As much as possible, drafts should be shared and feedback taken into account, even the impossible ones; it is at least always possible to explain why a suggestion cannot be included in a process. Last but not least, a procedure, hopefully not just for Gen Z colleagues, should be pragmatic, related to reality, focused on a clear and well-defined objective and not self-referential.

This last point is very important in particular for the afore-mentioned approach to “bureaucracy”: any procedure perceived as self-referential and/or not useful is going to be ignored and a simpler and quicker way to do things will be followed as a custom process and non-conformities with procedures will be detected only subsequently.

Last but not least, the organization structure.

What we described in the preamble is a very complex new world, probably something we will be used to, sooner or later. We can be suffering passively the new challenges that we will encounter, and we could not predict, or try to be prepared.

I strongly believe in the power of people and teams, and I am sure that by investing in them we will be able to better manage such new challenges.

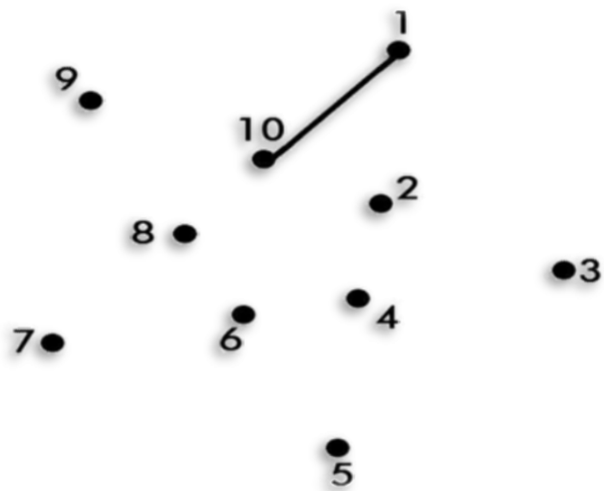
Complex organizations based on strong hierarchies have time-consuming decision processes that are not compatible anymore with surrounding scenario, this is why we have a flat organization and we invest in giving to our team members soft skills, a clear scope of action, autonomy and support.

The anxiety of controlling everything and the micro-management is in contrast with the new approach required; even if it is difficult to get out of what is traditionally our comfort-zone, innovation should start from us; if we are unable to change ourselves, we will be unable to change anything: processes, procedures, teams.

Conclusion

In the old game I use to play when I was a kid, connecting the dots, the question was simply “connect the dots and see what appears”.

We may continue the game in the same way and expect people to draw ten segments to reply, “a star”. We may better rephrase the question and obtain the same result with five segments drawn or, we can ask directly “see what it is in the picture” and not be surprised when somebody replies “a star” without drawing a single segment.



Liu Weihua
Tianjin University

Platform Opening and Cooperation: a Literature Review and Research Agenda

With the development of the mobile Internet, the platform has a significant impact on the economy.
PwC reports that various platforms will generate $335 billion in revenue worldwide by 2025.
Following European Commission, the online platform can be defined as a digital marketplace that enables buyers and sellers to effectively search, match and trade through various Internet connected digital communication devices.
Examples include e-commerce platforms (e.g., Amazon, Alibaba), ride-sharing platforms (e.g., Uber, Didi) and so on.
By providing interactive media, the platform not only creates value for different users, but also obtains benefits.

In practice, many platforms have recently implemented opening and cooperation strategies, which injects new impetus into the development of the platform.
For instance, in the e-commerce market, JD.com displays product sales links on Tiktok to expand the potential market. Thus, users in Tiktok can directly enter the JD.com's applet embedded in Tiktok to purchase.
Similar cooperation also appears in the ride-sharing platform. In 2014, Uber was already compatible with the local taxi platform in Seattle. In this case, passengers can select multiple options (UberX, UberXL, Black Car, SUV, and For Hire) directly from the Uber app. In 2019, Didi allowed rivals such as Dongfeng and Ruqi to access its own platform.

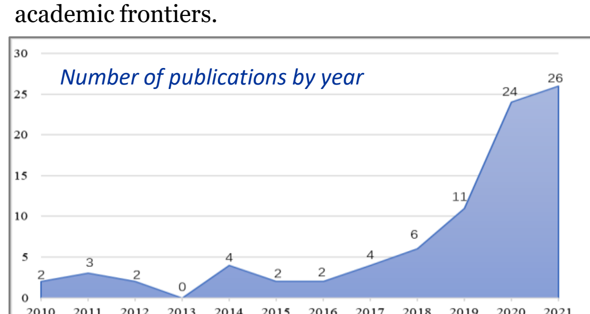
In academia, massive studies focus on operations in the monopoly platform and competitive platform. Nowadays, platform opening and cooperation have aroused the interest of more scholars.
Some studies point out the importance of platform opening and cooperation. Van Alstyne et al. (2016) argue that platforms often fail because they do not optimize openness: "*If platforms are too closed, keeping potentially desirable participants out, network effects stall; if they're too open, there can be other value-destroying effects, such as poor quality contributions or misbehavior of some participants that causes others to defect*".

Cooperation between the platform and other business entities can achieve a win-win situation.
To this end, scholars' attention to platform opening and cooperation has led to a series of academic research, including platform compatibility, channel integration in e-commerce market, the impact of platform opening, and so on. In summary, scholars have reached a consensus on the importance of platform opening and cooperation research; however, scholars in various fields emphasize different concerns. Therefore, it is very complicated to integrate different research fields' insights on platform opening and cooperation. It provides a great opportunity to enhance our understanding of this platform operation trend, and helps scholars clarify research gaps and focus on more valuable research fields.
Based on the understanding of research topics, we also emphasize several key areas for future research and make detailed suggestions for different research areas.
To the best of our knowledge, this is the first literature review on platform cooperation and opening.

We follow the general method of reviewing the literature:

1) Planning the review.
2) Conducting the review.
3) Reporting and disseminating.

On this basis, this study searches Web of Science (WOS) database for relevant literature published between 2010 and 2021, and selects 86 papers for this review. After conducting a literature review, we aim to identify research gaps on this topic and propose some potential research agendas based on practical and academic frontiers.



For the scientific category literature, we review the full text of each article and record the motivation, problem, contribution, audience, timing, location, and methods of the papers. On this basis, we identify three main research themes: the strategic choice of platform opening and cooperation (i.e., before opening, 41 papers), the construction of an open platform (i.e., during opening, 23 papers), and the impact of platform opening and cooperation (i.e., after opening, 22 papers).
To be specific, the first and most important theme is the strategic choice of platform opening and cooperation, and nearly half of the studies have been developed around it. Researchers mainly focus on two types of platforms:

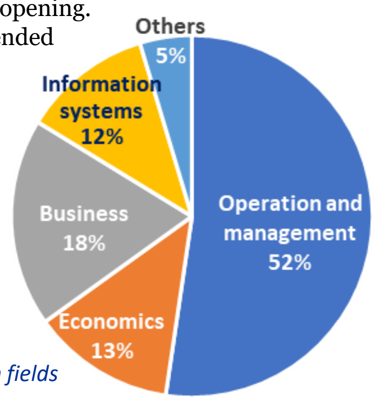
- e-commerce platforms represented by Amazon.com, Tmall.com, and JD.com, and
- two-sided (matching) platforms represented by Uber, Didi, and Airbnb.

In addition, a few studies analyze sharing platforms (Ren, 2020), luxury fashion rental platforms (Feng, 2020), etc.

Second, regarding the construction of an open platform, some scholars concern the capabilities that the open platform should have, including driving factors and operating modes; the remaining scholars pay attention to how the platform should work with other members to achieve value co-creation through collaborative opening.

Finally, the impact of platform opening and cooperation has also been systematically investigated. Specifically, platform opening and cooperation will not only change the decision-making and performance of stakeholders, but also affect non-economic indicators, such as innovation and customer satisfaction.
With the continuous development of the platform economy, there are still several research directions that need to be enriched in the field of platform opening and cooperation, which may generate valuable research findings.
First, current research mainly focuses on several types of platforms whose features are easily captured, such as e-commerce and ride-hailing platforms. The operational challenges of some niche platforms, such as payment platforms (PayPal, Alipay), recruitment platforms (Kelly Services, Indeed), medical platforms (ZocDoc, One Medical, Doctor On Demand), have not been thoroughly explored.
In addition, the researchers' vision is limited to the current Internet giants, and has not been extended to other industrial backgrounds.
For example, in the manufacturing industry, Haier's open platform COSMO-Plat plays an important role in promoting cooperation among supply chain members, which is worthy of in-depth analysis.
Finally, the current research methods are limited, and a variety of methods should be used to solve research problems.
In terms of the case study, few researchers use the longitudinal case study to reveal the driving mechanism of some empirical results, such as identifying the evolution path of the platform's value co-creation.
In terms of empirical analysis, scholars can collect data samples from multiple countries to distinguish their platform opening and cooperation mechanisms.

We also try to propose four research agendas for platform opening and cooperation.
First, strengthen basic research on platform opening and cooperation, including the conceptualization of platform opening and cooperation, the design of open indicators, and analysis of typical structures of platform cooperation.
Second, future scholars can deeply explore the dynamic evolution of platform opening and cooperation modes. The operating mechanism of the platform ecosystem and the cooperation between cross-type platforms are also potential research opportunities.
Third, the potential crisis and impact of platform opening deserve in-depth analysis. It is suggested that future scholars take the time dimension into consideration to better analyze the performance of platform opening. We also encourage exploring the dark side of platform opening.
Finally, it is recommended that future scholars strengthen their research on the governance of open platforms.



Distribution of research fields

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Ida D'Amora
Head of Procurement
SACE

Procurement challenges, between digital transition and sustainability *SACE's experience*

SACE is the Italian insurance-financial group, directly controlled by the Ministry of the Economy and Finance, specialised in supporting enterprises with solutions to improve competitiveness and sustainable growth.

With a portfolio of insured transactions and guaranteed investments amounting to 164 billion euro, the Group serves over 37 thousand companies, almost all of them SMEs, supporting their growth in Italy, where it is present with 14 offices, and in about 200 foreign markets, with 9 international offices located in strategic areas with a high potential for Made in Italy.

For forty-five years SACE has been synonymous with support for exports and international expansion.

The insurance-financial products and services of the SACE Group, digitised and available on the sace.it portal, support enterprises throughout their journey in foreign markets: from early stage advisory, when it is fundamental to know and assess their counterparties, to export credit insurance and investment protection services for managing risks; from the guarantees needed to bid for tenders and contracts and financial services to access funding, through factoring and last-resort measures such as debt collection services.

In addition to this are the many support initiatives, including business matching, the training courses of the SACE Education hub and the Research Department publications made available to enterprises to help them set up a structured and informed international strategy.

Over the past three years, the SACE Group's role in supporting enterprises has expanded strongly, extending also to the domestic market.

On the one hand, it guarantees the funding needed to deal with emergency situations: previously the pandemic, with Garanzia Italia, then the soaring energy prices and, currently, the impact of the Russian-Ukrainian crisis, with Garanzia SupportItalia.

On the other hand, it supports investments to strengthen the competitiveness of enterprises and the country: from strategic infrastructure, to innovation, to energy transition projects related to the Italian Green New Deal.

This is a major change in SACE's mission, reflected not only at the operational level, but also in terms of culture and vision, given the strategic and unique role of the Group in the Italian market, at the crossroads of three fundamental players in the country: the companies it serves, the institutions it represents and the financial sector, which works in partnership and complementarity with SACE.

This change also implies the evolution of the business model. Sustainability is placed at the core of SACE's corporate strategy, along with a real paradigm shift in which financial decisions lead to social and environmental impacts. In turn, these social and environmental impacts will have financial consequences.

All of this is presented in practical terms in the INSIEME 2025 Business Plan, a three-year journey that represents a new path that the Group is creating for and with companies.

The INSIEME 2025 Business Plan relies on four guiding themes:

- sustainability first and foremost, at the heart of the strategy;
- technological innovation, focusing on cutting-edge technologies such as AI and Blockchain;
- listening to enterprises and all stakeholders and facilitating their involvement in a digital ecosystem;

and, finally,

- the commitment of all the people in the Group to SACE's new mission and the development of an ego-less leadership style at the service of the community.

These pillars of the Business Plan are incorporated across all functions of the SACE Group, precisely because it is a change that must involve all company processes and the definition of the strategy.

Thus, the Procurement function is also fully involved in this process of change, which becomes even more important in the light of the new Public Procurement Code, effective as of 1 July 2023, whose main objective is the definition of a simple and dynamic regulatory framework, aimed at ensuring the implementation of the NRRP and improving the competitiveness of the country.

Among the main changes introduced by the Code is a strong push for digitisation both externally, through the creation of a 'National Digital Procurement Ecosystem', and internally within the Contracting Authorities, with the digitisation of the entire 'life cycle' of the contracts.

SACE has therefore launched, also in line with its Business Plan, an important project for the gradual digitisation of internal processes, aimed at increasing the quality of managed data and its protection, promoting timely delivery while maintaining high levels of control and service quality and reducing operational risk and the risk associated with the management of reputational risk.

Moreover, the Procurement function of SACE is pursuing its ambition to become a key ESG enabler to accelerate the ESG transition of Italian companies by focusing on sustainable procurement and encouraging direct and indirect suppliers to adopt sustainable practices.

To this end, SACE is defining a new procurement policy that incorporates ESG criteria, including the gradual definition of certain standards that must be met by its suppliers.

In order to facilitate this transition, the SACE Group is also working on a training plan to support suppliers in their transition and sustainable growth.

The Procurement function, reporting directly to SACE's CFO and Sustainability Officer – functions that have merged in accordance with the Group's ongoing evolution – is composed of 14 people dedicated to European Tenders and Invitations to Tender and to Direct Award Contracts.

This function manages the procurement processes for goods, services and works, as well as managing intercompany contracts between SACE and other Group companies.

Its activities also include market analyses, in order to optimise the supply of goods, services and works and to define the best purchasing strategies, as well as the drafting of the overall annual plan of competitive procedures and their monitoring, with the aim of ensuring the identification of alternatives and of the best purchasing solutions, in addition to the administrative management of Purchase Orders and the related invoicing flow.

The Procurement function also uses a highly innovative and constantly evolving e-procurement platform to define the criteria for selecting and accrediting suppliers for the Company and the Group, to monitor the level of service received, and to carry out analyses for their registration and qualification, ensuring adequate diversification by sector and size. To maximise the relationship between overall cost, quality of the good/service and procurement time, the function also manages the negotiation process with suppliers. Lastly, it also monitors the relevant regulations, providing specialist support and ensuring that the Group's activities are compliant with them.

In view of SACE's mission to support the country's competitiveness and sustainable growth, the Procurement function plays a key role not only inside but also outside the Group. Indeed, it can provide a powerful stimulus to its suppliers and stakeholders, encouraging them to continuously improve to achieve high ESG standards, helping them in the dual digital and sustainable transition that all Italian companies face.

Ida D'Amora, Head of Procurement SACE. She began her career at SACE in 1999, holding position of increasing responsibility until she became Head of the Planning and Control function. In 2017 she was appointed CFO of SIMEST, coordinating the activities of Accounting and Budget, Treasury and Finance, Planning and Control, Procurement. In 2022 she returned to SACE (following the change of governance in the Cdp Group) in the role of Head of Procurement of SACE.



Anna Freschi *Pierdanilo Melandro* *Francesco Cavazzana*

Da attenzione alla procedura a focus sul risultato: il cambio di passo del public procurement in Italia

A marzo 2023, nell'ambito delle riforme necessarie per l'attuazione del PNRR, è stato pubblicato il nuovo Codice dei contratti pubblici (Decreto legislativo 31 marzo 2023, n. 36).

Il nuovo codice è stato emanato sulla base delle medesime Direttive europee del 2014 che erano già state recepite in Italia con il D.Lgs.50/2016. Dato che non è possibile derogare a quanto previsto nelle direttive, che regolano in modo piuttosto preciso le procedure di appalto, perché c'era bisogno di un nuovo codice?

E' stato effettivamente possibile modificare la legge in modo da rendere più veloci ed efficaci le procedure di appalto pubblico?

Al di là di annunci e proclami sensazionalistici, le norme specifiche che regolano le procedure di gara sono essenzialmente immutate e non poteva essere altrimenti, dato che ricalcano le direttive europee.

Il nuovo Codice ha sistematizzato e riportato in una sola norma molte modifiche ed integrazioni al vecchio codice che si erano succedute negli anni con linee guida ANAC, decreti ministeriali, decreti legge emergenziali nel periodo del COVID e perfino sentenze del Consiglio di Stato.

L'opera di organizzazione e sintesi è senz'altro utile per una più agevole comprensione della normativa vigente in materia di appalti, ma per gli addetti ai lavori il quadro normativo, per quanto complesso e frammentato, era ormai ben conosciuto.

Il nuovo codice ha sicuramente introdotto alcune modifiche normative importanti, che hanno anche dato adito a discussioni e polemiche, in particolare in merito ai limiti al subappalto, ma anche questi sono aspetti tutto sommato di dettaglio, per quanto rilevanti.

Eppure, il nuovo codice è rivoluzionario.

È rivoluzionario perché è ispirato ad esigenze diverse da quelle che hanno ispirato i codici precedenti e perché si fonda su processi di procurement digitalizzato, il cui utilizzo (per quanto non ancora pienamente maturo) è dato per assodato in tutte le pubbliche amministrazioni.

Le prime parole del nuovo Codice sono: le stazioni appaltanti e gli enti concedenti perseguono il risultato dell'affidamento del contratto e della sua esecuzione con la massima tempestività e il migliore rapporto possibile tra qualità e prezzo, nel rispetto dei principi di legalità, trasparenza e concorrenza.

Viene così definito il principio del risultato.

Si tratta di un principio nuovo, almeno nel nome, ma non si può ridurre a questo la portata innovativa del Codice e forse, di per sé, non è neppure così innovativo (l'art.97 della Costituzione dice più o meno la stessa cosa, seppur con il linguaggio del 1947).

La vera novità è nel fatto che il codice si apra con parole tipiche del project management, con la gestione di tempi, costi e risultati.

Questa diversa lettura delle medesime direttive europee segna il cambio di passo. L'attenzione è posta su tempi, costi e risultati, nel rispetto dei principi di legalità, trasparenza e concorrenza, non il contrario.

Il nuovo codice non è un liberi tutti rispetto ai principi di legalità, tutt'altro, però chiarisce che legalità, trasparenza e prevenzione della corruzione non sono il fine ultimo del Codice e degli appalti pubblici. Sono condizioni necessarie, sperabilmente da dare per scontate e assorbite nel DNA delle pubbliche amministrazioni, comunque un obbligo che rimane, ma non il fine ultimo. Lo scopo è realizzare le opere, erogare i servizi.

Il principio del risultato costituisce criterio prioritario per l'esercizio del potere discrezionale e per l'individuazione della regola del caso concreto, anche queste parole tratte dal primo articolo del codice.

Quindi nelle decisioni che il RUP, il dirigente o il funzionario devono quotidianamente prendere il criterio prioritario non deve (più?) essere il rispetto formalistico della norma, ma il risultato. Questo cambiamento di prospettiva è però più rivoluzionario per l'organizzazione e la cultura delle amministrazioni di quanto non lo sia per la norma stessa.

Sposta l'attenzione sulla necessità di motivare ex ante le ragioni "vere" delle scelte: non solo l'elenco delle norme che rendono legittima (cioè non illegittima) una certa scelta, ma le considerazioni progettuali, economiche, tecniche, strategiche che portano a prendere una scelta piuttosto che un'altra (altrettanto legittima) per la realizzazione del fine ultimo, il risultato, la migliore realizzazione dell'opera o l'erogazione migliore del servizio.

La vera novità del codice non è nel togliere regole di legge (ne toglie pochissime), ma nello smantellare le regole, scritte o meno, che le singole amministrazioni, se non addirittura i singoli funzionari, si erano dati da soli per garantire un rispetto formalistico della norma.

Chi si occupa di acquisti pubblici spesso sente i richiedenti di un bene o servizio, oppure i RUP, spiegare a voce in modo perfettamente logico e chiaro i motivi per cui vorrebbero un certo affidamento diretto, o prendere una certa decisione riguardo ad un contratto pubblico, ma se si chiede di scrivere queste motivazioni agli stessi funzionari si ricevono solo riferimenti normativi e motivazioni del tutto generiche.

Nella cultura delle amministrazioni pubbliche è profondamente radicato il rispetto della norma, ma non quello che nel linguaggio del Project Management e della qualità si chiama accountability.

Secondo Wikipedia, con il termine accountability o rendicontabilità ci si riferisce al processo con cui (a livello sociale, politico, aziendale, contabile o comunque collettivo) si è chiamati a rendere conto delle conseguenze delle proprie azioni.

Si tratta della traduzione inglese del concetto continentale di responsabilità, ma con una sottolineatura più marcata della pubblicità o quanto meno della tracciabilità del processo, che deve operare oltre la sanzione morale dell'imperativo etico individuale.

Quindi, il RUP è chiamato a prendere decisioni motivando in modo tracciato perché sono le decisioni migliori per raggiungere il risultato, nel rispetto della legalità. Non basta più il rispetto formale della norma (di contro non è più necessario complicare regole e procedure per essere sicuri di rispettare formalmente la norma).

E' un modo di lavorare sicuramente più stimolante ed interessante, con potenziali grandi benefici per la collettività, ma richiede competenze nuove ed aggiuntive, non sostitutive, rispetto a quelle tecniche e giuridiche.

In linea con questo cambio di paradigma, il RUP non si chiama più responsabile unico del procedimento, ma responsabile unico del progetto.

Rimane la U di unico, e questo è significativo. La responsabilità del risultato è garantita da una persona fisica.

La P però diventa progetto, non più procedimento.

Finalmente si supera l'equivoco di considerare l'appalto pubblico un procedimento diviso in tanti sub procedimenti, cosa peraltro impossibile da tenere insieme anche con il vecchio codice.

Il procedimento di gara può essere definito un unico procedimento (già estremamente complesso), ma già da almeno un decennio sappiamo che il RUP non deve occuparsi solo, né principalmente, del procedimento di gara.

Finalmente quel complesso di attività che partono con la programmazione, proseguono con la progettazione, affidamento ed infine esecuzione del contratto sono definite con il nome più aderente alla realtà di progetto, non procedimento.

Oltre a questa correzione grammaticale, viene anche definitivamente sancito che il RUP è in primo luogo un Project Manager.

Anche questa di per sé non è una novità, già la Linea guida ANAC n.3 prevedeva competenze di Project Management per i RUP di procedure complesse, ma ora è definitivamente sancito che il ruolo e le competenze del RUP coincidono con quelle del Project Manager.

Il rinnovato ruolo del RUP si inserisce nella più ampia strategia professionalizzante delle stazioni appaltanti pubbliche che si fonda sulla qualificazione e la formazione degli enti che applicano il Codice degli appalti e del loro personale. In base al nuovo Codice, dal 1° luglio bisogna essere qualificati per poter effettuare affidamenti di contratti di lavori di importo superiore a 500mila euro, e di servizi e forniture d'importo superiore alle soglie previste per gli affidamenti diretti, mentre non è necessaria la qualificazione per effettuare ordini sugli acquisti messi a disposizione delle centrali di committenza e dei soggetti aggregatori.

Tranne alcuni grandi soggetti iscritti di diritto (Consip, Invitalia, Soggetti aggregatori regionali, etc.), tutte le altre stazioni appaltanti per poter approvvigionarsi, sono tenute a sottomettere la propria domanda di qualificazione sul sito di Anac. Per quanto attiene la formazione, per la prima volta il Codice prescrive alle stazioni appaltanti di assicurare la formazione del personale addetto alla gestione dei contratti, garantendone il costante aggiornamento attraverso l'adozione di un piano di formazione annuale.

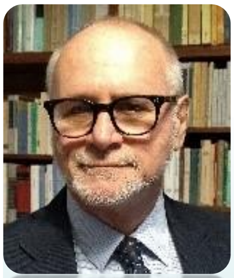
Francesco Cavazzana è Head of Supplies & Facility Management Division presso il Politecnico di Milano.

Pierdanilo Melandro è avvocato specializzato in contratti pubblici e attualmente ricopre l'incarico di Dirigente della Centrale di committenza della Regione Marche. Partecipa a numerosi gruppo di lavoro presso le Istituzioni competenti (Ministeri, ANAC, Commissione UE etc.) ed è membro dell'Unità Operativa di Coordinamento che assevera i pareri rilasciati dal Servizio Contratti Pubblici del MIT. È docente presso il Master in Procurement Management dell'Università di Tor Vergata dal 2016.

Anna Freschi è Responsabile Contratti Acquisti Servizi presso Autostrade per l'Italia e Consigliere nazionale ADACI.

The training in the procurement area

Recent evolution and a hypothesis of the future development



Alessio Paša
ADACI Formanagement Commercial Director

The author

Alessio Paša, 68, is the commercial director of ADACI Formanagement, the ADACI company that operates on the procurement training and consultancy market. He has also been an instructor in numerous thematic areas for a very long time, has written some books on specialized topics such as the supplier register and the purchase tender and numerous articles on topics relating to cost analysis (Breakdown, Should Cost, TCO, Value Analysis).

Abstract

A detailed examination of the features that characterize procurement area training today with a specific insight into the new training topics, the methods and duration of delivery and the training personalization and specialization that the profiles of the Category Manager and Buyer require today. In closing, the prediction that, on the basis of ADACI's deep experience in training practice, the author believes the sector will know in the near future.

Index

1. Training in the procurement area
The current state

If we wanted to find a summary of the state of procurement training today, we could say that it is:

- → very specialized in roles and assignments;
- → very personalized on the activity carried out by the company in which the participant works;
- → suitable for the transmission of legal and regulatory compliance that impact on the procurement work;
- → extended to emerging issues such as procurement risk management and sustainable procurement;
- → Internationalization;
- → articulated in a balanced mix of "*in presence*" and "*on-line*" sessions;
- → based on the transmission of only the essential theoretical elements to carry out very intense and highly involving exercises;
- → and, finally, that it has the least possible impact on the work of the resource and therefore that the delivery has to be of short, if not very short, duration.

There are many reasons why this is the current snapshot of procurement training

1.1 Absolute relevance of the procurement department in the company

The procurement function within companies has become relevant, indeed, it is allowed to say that it is extremely relevant. The "buy" and "outsourcing" policies, that have been common practice since thirty years ago, in recent years, have known a considerable extension. Today the company outsources production phases and service activities which in past times were jealously kept in-house and carried out by direct employees. The very widespread fear was that of avoiding external knowledge of production and service practices that could have benefited competitors and the concern was that of not finding on the market suppliers suitable for one's particular needs and that therefore the generalized outsourcing it would have led to a general debasement of the qualitative level of company output on the market. Today, because many different reasons mainly because the competitiveness of the company moved from the product/service to the "metaproduct", this concern disappeared and therefore "buy" and "outsourcing" have been increased. The relevance of the procurement function therefore has grown, and continues to grow, as the share of purchases is increasingly large on the total business costs.

The years of Covid-19, during which there were large-scale phenomena of shortages of some raw materials and components manufactured with these raw materials, also made it clear to top management how strategic the role of procurement was.

In fact, it was not infrequent, in the three-year period 2020-22, to see general managers, CFOs and CEOs go and beg procurement to implement every possible tool to be able to find the quantity of raw materials, semi-finished products and components necessary for production to satisfy the client market. Among the consequences of this acknowledgment by the top management has led to greater attention towards the training of resources in the procurement function since, it has been reasoned, if, as it seems, procurement is so important for existence itself of the company it is mandatory that the employees who work there have the possibility to be trained in the best and deep possible way.

1.2 Proliferation of specialized roles within the procurement function

Once upon a time there was a "buyer", i.e. that resource who was in a position to apply knowledge and tools of a transversal nature (i.e. identical and independent of the production and business context) to purchase the goods and services requested by the stakeholders. The primary objective of the buyer was that of an economic nature and the negotiation phase was substantially reduced to the negotiation of the price and the terms of payment. In the time in which the buyer existed, the purchasing process was extremely simplified, the supplier qualification procedures did not exist or, if they existed, were of a primitive nature, the contracts were reduced to the essential clauses, the assessment and mitigation of the supply risk did not were activities considered useful, the sustainability of the supply chain was still an unknown concept and the relationship with the stakeholder was unbalanced, because the stakeholder was the "internal customer" that was in a position to ask the procurement dept, the "internal supplier" to buy the required products and services. At that time, training was based on the transmission of basic knowledge elements, which was sufficient to improve process flows and allow the resource to apply the simplest negotiating tools. It was not uncommon, in the 80s and 90s, to come across seniors who had never attended a course on procurement.

Today, the year 2023, the panorama has radically changed, the old "transversal" buyer no longer exists, but, at first, does exist the "Category Manager", who exclusively manages a commodity, a component, a semi-finished product, a process, a service, a plant engineering activity.

In larger companies, the "Category Manager" can play a global role, with overall responsibility for a large number of business units and plants located anywhere on the planet. The "Category Manager" needs specific training, of a technical nature to fully understand the characteristics of what is being called upon to purchase, of a contractual area, to enter into agreements that protect the customer from supply damages, cost analysis and advanced negotiation, even multicultural, if the purchasing market is supranational.

The “Buyer" does continue to exist, it is a generic, multi-purpose, profile, the one capable of managing any kind of purchase, the “Buyer” works in the procurement structures of smaller companies, at the plants, in the production clusters, in the business units. Inside the current procurement functions there are furthermore specific professional figures, those who supervise scouting, supplier qualification and vendor rating, those who deal with contractual formats, those who manage supply risks and those who deal with sustainability.

Training must therefore perform new tasks, must train the "Category Managers" according to the purchasing matter they manage and in accordance with the specific nature of the company's activity, and must train the multi-purpose "buyers" in such a way as to allow them to interface in collaborative way with the "Category Managers", and must train the professional figures who support vendor management, contracts, procurement risk management, sustainability, KPI dashboards. The structure of the training activity is therefore organized on several levels, transmission of identical knowledge for all the procurement resources of a company (to create common practices and vocabulary), supply of specialized tools for groups of professional figures and even for each individual figure. It is always a question of identifying a balance between what is common and what is individual and of making sure that the final result is organic and harmonious and that it always creates team spirit and the ability to move collegially towards common goals.

Finally, furthermore, a new way of relating to stakeholders must be communicated to all resources, based on collaboration and sharing and which avoids the trap of the internal customer-internal supplier relationship since today the company needs multifunctionality and collaboration across the various institutions.

1.3 Legal and Regulatory Compliance

The juridical-legal and regulatory framework that insists on the world of procurement is increasingly vast, articulated and complex. There is a set of mandatory laws and regulations to which the customer and the supplier are subject and which must be known in detail. Think of the thematic area of contracts, where there are, in the world, mandatory rules established by individual countries or by the most widespread international conventions and think of the set of both national and international technical and procedural standards, which for each sector of activity are mandatory nature (food, pharmaceutical, aeronautical, military, railway, etc.). Over time, the amount of mandatory laws, regulations and standards has grown, think for example of what is happening in the field of sustainability, where elements that were previously only voluntary have gradually become mandatory.

In this sector, procurement training must, with great attention, identify what, according to one's level of responsibility and one's specific task, must be known to the single resource and what must be known to all the resources of the function. Furthermore, training will have the difficult task of making resources understand the evolutionary logic of legislative and regulatory systems to allow the company procurement functions to anticipate evolutions and changes and therefore to modify the procedural and contractual approaches to suppliers in time.

1.4 The new training subjects

Today the roles of the "Category Manager" and of the "Buyer" require in-depth knowledge of new contents, which decisively characterize the procurement resources’ activity. The list is long, and both those who organize in-company training and the companies and bodies that provide training services must consider its relevance and impact:

a) Analysis and planning of needs
b) Stakeholder mapping
c) Early involvement relationship with stakeholders
d) Diversity, Equity and Inclusion
e) Value analysis
f) Breakdown of prices
g) Total cost of ownership
h) Should cost
i) Analysis of the purchasing market conjuncture
j) Country analysis
k) International contracts
l) Multicultural negotiation
m) Preventive evaluation and qualification
n) Vendor Rating
o) Supplier Relationship Management
p) Supplier Satisfaction
q) Sustainability of the supply chain
r) Procurement Risk Management
s) E-procurement and AI
t) KPI for measuring the performance of the procurement function

1.5 Internationalization

Inside companies of all sizes and belonging to all sectors of economic activity procurement is usually buying abroad, inside and outside the European Union, in well-known and regulated markets, such as China, and in new markets, where the pitfall of supply chain disruption is lurking. The procurement resource today needs training that takes into account the objective difficulties inherent in scouting. in the qualification of new suppliers and in verifying the reliability of the supply source in purchasing markets where the information and data available are scarce and often not certain.

The “Category Manager” must learn the art of negotiation in different cultural contexts, and must be able to apply the reference communication techniques to the video-conferencing medium, as with many suppliers located in very distant regions of the globe, the frequency with which it is possible organizing "physical" meetings is very low.

Here training is called to a very important task, because transmitting the multicultural approach is complex, difficult and requires a lot of time, time that procurement resources almost constantly do not have available. Furthermore, from a TCO perspective, the “Category Manager” must be aware, if not even accurately informed, of the critical issues associated with international transport, import documentation, the Incoterms® and the transfer of transport risks as well as with the issues of a customs nature and, finally, it will be essential to have a detailed knowledge of international contracts (the different legal systems, the different applicative value that the main clauses of a contract have in each system, the most common methods for managing non-compliance). As is evident, the international context requires training to make an effort to transmit content that allows the “Category Manager” to move in the purchasing markets with competence and agility.

1.6 “On-line” or “in presence”?

For training, the three-year period 2020-2022 of the Covid-19 pandemic had a disruptive effect, required to use only “on-line” systems both training professionals and users were forced to learn about the training system away from the presence. It is significant to note that, before the years of Covid, “on-line” training was used above all in support of “in presence” training, which in any case remained the central and irreplaceable moment of training courses. At the same time, it is important to underline how asynchronous training products, therefore all forms of teaching that can be used at different times from the delivery (recordings of lessons, speeches or testimonials, packaged "pills", etc.), although largely pre-existing before the Covid years, have had a further boost and have become extremely widespread.

After the Covid period, and therefore after the moment in which the providers of training services and their users forcibly got to know “on-line” and asynchronous systems in depth, we asked ourselves, and we still wonder, what is the right balance between the "old" classroom training and the "new" virtual training. The "physical" training allows the creation of a strong bond between the teacher and the learners, the interaction is facilitated, especially in the case of collective exercises.

The "virtual" training instead allows a less engaging use, during the teaching phases the learner can listen to the lesson while carrying out other work tasks and when interactions or exercises are in progress the virtual medium "protects" him from complete involvement, in fact keep in mind that the virtual allows very rarefied non-verbal communication and therefore the involvement is predominantly on verbal and para-verbal communication. It should also be considered that virtual training makes it possible to create, at low cost, classrooms made up of learners located in different places, even extremely distant from each other.

On the basis of these considerations, insiders have reached the awareness that the "physical" classroom and the virtual systems are both decisive for the construction of complete training courses. This assumption is verified in the practice of all the companies and bodies that offer training of a managerial nature on the market, i.e. for which the use of material tools and equipment is not essential, the training offer is always made up of "physical" proposals and/or "on-line" with the aid of asynchronous supports, the choice of subjects to be treated with one or the other means depends on the nature of the subject itself. In the procurement area, many specialist teachings, for example those in the area of cost analysis, vendor management and contracts, are very usable “on-line” as the teacher-learner dialectic requires a technical and not markedly emotional interaction while the negotiation area courses, where personal involvement is required, have, in the traditional classroom, the possibility of achieving results superior to those obtainable through “on-line” systems (although videoconferencing systems that allow the creation of a multiplicity of virtual classrooms in which participants work in separate groups allow for highly accurate negotiation exercises).

The recipe therefore appears simple, to create training courses dedicated to the single company in which, according to the characteristics of the users, the agreed objectives, the duration of the course and the subjects covered, "physical" moments, “on-line” moments and “asynchronous” supports find the best balance. Similarly, the inter-company proposal, therefore the "Catalogue" that the company or training institution offers on the market or the internal "Catalogue" that a company Academy presents to employees will make use of the various systems always in accordance with the nature of the subject, the duration and the expected target.

1.7 No waste of time in theory teaching. Implementation of numerous exercises

It is good to consider a very important preliminary aspect, i.e. the observation of the fact that the resources who operate in the procurement functions today have an extremely higher level of education and specialized preparation than in the past. In the 70s and 80s of the last century a lesson on the subject of TCO would have represented an extraordinary event, the subject was unknown and the buyer was not at all used to thinking in terms of total cost, the classroom, curious and astonished, would have religiously followed the lesson without, perhaps, ever daring to interrupt the teacher.

Today the majority of the typical elements of the procurement discipline are known, or in any case known to all those who deal with the purchase of goods and services in an organized way.

The school culture and the corporate culture, together with the very nature of the activities carried out by the resources towards the purchasing market, have meant that the basic knowledge is much more evolved than in the past and that anyone working in procurement has documented information about this which means needs analysis, early involvement with internal stakeholders, vendor management, cost analysis, e-procurement and, therefore, the same lesson on TCO held today would be delivered to a classroom already aware of the key features of the subject which, unlike their colleagues of fifty years ago, they would not follow the lesson dumbfounded but would ask for interaction, concrete application of the concepts presented, personalization of the concepts according to the type of good or service they themselves deal with. It is from this hiatus that the need for exercises arises, the concepts are no longer sufficient, since, even if in an embryonic form, they are already known, but concrete application is needed.

So the lesson on procurement topics, whether held in the classroom or via an e-learning platform, must contain very well-designed and many well-executed moments of exercise, for example by building particular "Cases" commensurate with the user and the training objectives. Along the same lines, it is good to insert partial test, which, with very specific sets of questions, verify the knowledge transmitted for each topic covered and it is essential to close the course with a broad and complex test, which represents, for the learners, a decisive moment of closure of the learning circuit.

The most advanced evolution of procurement training offers course projects where the start is not of a theoretical nature but, on the contrary, practical. The dynamics are reversed, first the case, first the exercise and, later, on the basis of the analysis of the outputs, the deductive construction of considerations of a theoretical nature. The fact that there is a consolidated demand for this form of provision on the market is further proof of how the operational component of procurement training is now dominant.

1.8 Short and very intense training sessions

The procurement functions are characterized by very tight work rhythms, the staff is always reduced to a minimum and therefore the space for training activities is modest, moreover, also due to the very onerous commitments that characterize each level of responsibility, the concentration the resource he can dedicate during the training moment has a limited duration.

These are the reasons why the company require short and very intense training sessions which are able, in the short time in which the resource manages to detach from professional commitments and devote his/her concentration to training, to transmit very precise and very important content for the activity performed by the resource. It is therefore no longer possible to think of nailing down an entire classroom for a complete week, or even for two consecutive days, at most one day, better half a day and, if possible, even just two hours. The HR functions of companies have precise feedback on this situation and try to combine, sometimes with great difficulty, the time available by resources, the time space for concentration with the need to obtain certain and tangible training results. However, the current reality is this one, a widespread need for synthesis to which companies and institutions that provide training must find adequate answers.

2. Evolution and the future

If the situation described in the previous paragraph is the current situation, it is legitimate to ask what the evolution of the procurement area training sector will be in the near future. This awareness is crucial, for procurement management, for HR departments and for companies and supplying bodies, in order to establish already now the guidelines of the training that will be used to prepare well in advance the programs, the control instruments of learning and, above all, to select and prepare the teachers who will be employed since, as with any other activity subject to evolution, the human resources component is the most critical and therefore only with an adequate teaching staff will it be possible to face the challenges that are emerging.

First, it is believed that the evolutionary drivers that have been highlighted in the previous chapter will be confirmed. In detail:

2.1 Specialization and clustering of training according to roles and tasks.

It is inevitable that this trend will undergo a further push over time, as the diversity of the work carried out by individual resources will grow and it will be essential to provide specialized training, even at an individual level. It is also probable that further professional skills will emerge, which are still unknown today, as a result of the concurrence of internationalization processes, the further growth of the function's relevance, the specificity of each company's business and the need for continuous adaptation to very diversified supply markets.

2.2 Legal and Regulatory Compliance.

It is foreseeable that national laws and international regulations will become increasingly stringent, certainly in the areas of sustainability, risk, diversity/inclusion, social responsibility and human rights and therefore training will be obliged not only to represent these innovations to procurement resources but to anticipate them in order to face the different impact that they will have on the purchasing processes with the most appropriate actions. The same is expected to happen with regard to the set of regulations, which will be populated by new and diversified standards, both general and by sector of activity.

2.3 New topics.

The list referred to in item 1.4 will get longer, certainly destined to get longer. Specialization niches are envisaged above all in the soft-skills area to train and continuously update procurement resources in the management of relations with the supplier pool and in the sharing of objectives and procedures with the network of internal stakeholders. The relationship with suppliers will become one of the key moments in the activity of a procurement function as the increase in single or dominant suppliers will give rise to the need to manage relationships with prudence and foresight and, likewise, it will become strategic to create collaborative situations with the stakeholders also, for example, between procurement and marketing&sales dept., in order to be able to transmit to the entire company the common methods and objectives necessary for excellent procurement performance. Further areas of specialization will be those of a legal nature, where it is foreseeable that companies will seek an increasingly accurate and performing contractual tools in order to reduce risks and damages.

2.4 Internationalization

Even if recently, worldwide, we are witnessing a phenomenon of relative autarky (brake on relocation, barriers to trade between states, etc.) the definitive affirmation of the integral globalization model is historically inevitable, which will impact on the contents to be transmitted to procurement resources.

2.5 "In presence" and "“on-line”" training, duration of sessions and exercises.

Trends today are not explicit, but it is believed that the coincidence between the need to reduce the duration of sessions, the possibility of connecting many people located in different places at the same time (a phenomenon that the globalization of companies will make even more widespread) and minors costs will increase the demand for “on-line” training. It is believed that the space left to asynchronous training will be constant since, for many subjects, it can only represent a preliminary preparation support or a tool for the transmission of extremely specialized contents and cannot, in any case, replace the training of classroom (whether “in presence” or “on-line”).

In this perspective, HR departments are advised to work well in advance to create the right conditions for a significant development of this modality.
Expanding “on-line” learning will require a resolute commitment from businesses and providers to design exercises that make “on-line” learning more engaging. The phenomenon of the "passive listener", i.e. the participant who listens while carrying out other tasks must be fought because, if training will become largely “on-line” only, it will have to possess the characteristics of a catalyst of interest such as to involve the classrooms as until now only happens with face-to-face training.

3. The teachers

It is obvious that, both in the current situation and in the one that is believed to be defined in the near future, the epicenter of the training processes becomes the human factor of the transmission of contents, teacher, therefore. Naturally, the importance of the commitment of the procurement departments in identifying the topics and training objectives should not be underestimated, nor that of the HR departments in the profiling of teaching and in the creation of projects, nor that of companies and training institutions in the planning of detail, in the configuration of the teaching models and in the preparation of distance teaching tools, but it is clear that the final link in the process, the teacher, will have to become the final "bearer" of all the innovation that has already been installed and that in the near future it will become explosive.
The teacher will have to possess the skills, often many different skills, as in order to satisfy a multifaceted and multispecialized need he will be forced to navigate, during the same session, between different subjects which, although possibly connected to each other, will have to be addressed individually. The teacher will have to learn the art of involving “on-line” audiences, using all the teaching tools available (partial tests, play-roles, individual and group exercises) in order to involve each participant avoiding situations of "just listening ". The teacher must know the English language, both to be able to deliver to multinational audiences and to know the international vocabulary of the sector. The teacher must be continuously informed on the evolution of the legislative and regulatory system that impacts on procurement processes. The teacher must, especially for “on-line” activities, learn how to personalize the lesson individually, or become capable of managing a group of participants both by creating common situations and by focusing in detail on the need, or particular weakness, of the individual.
The teacher will therefore be trained and monitored with great care. It is certain that the final result of the training processes will largely depend on how well-performing the teaching staff is and capable of continuous improvement.

Klaus Schwab
con Peter Vanham

Il capitalismo degli stakeholder
Un modello economico
che mette al centro
il progresso,
le persone e il pianeta

FrancoAngeli
pp. 300 (€ 27)

Problemi importanti continuano ad affliggere l'economia mondiale. La disparità di reddito è aumentata costantemente negli ultimi decenni, mentre la crescita della produttività e dei salari ha subito un rallentamento e i Paesi rimangono gravati da alti livelli di debito. Il potere di mercato delle più grandi aziende del mondo ha raggiunto livelli senza precedenti, sollevando interrogativi sulla diffusione dell'innovazione e sui guadagni in termini di produttività. Infine, lo sfruttamento delle risorse naturali sta danneggiando l'ambiente, generando effetti negativi reali su miliardi di persone.

Mentre infuria il dibattito sulle cause di questi problemi, Klaus Schwab, fondatore del World Economic Forum, sostiene in modo persuasivo che i sistemi attuali non riescono a dare risposte ai molti problemi che dobbiamo affrontare. Con il suo collaboratore Peter Vanham, dimostra che per risolvere queste sfide è necessaria una risposta ampia, che coinvolga governi, imprese e singoli cittadini. Una risposta orientata a creare un'economia globale più inclusiva, sostenibile e resiliente.

Nel libro, Schwab e Vanham discutono la necessità di un nuovo contratto sociale che porti a una responsabilità condivisa tra più soggetti. Per raggiungere questo obiettivo individuano alcune politiche che aziende e governi, ONG e società civile, Paesi emergenti ed economie consolidate possono mettere in pratica concretamente, suggerendo come un approccio basato sulla centralità degli stakeholder (ossia tutte le parti coinvolte nelle scelte fatte da imprese e governi), anziché sul dogma della priorità degli shareholder (ossia gli azionisti) potrebbe consentire di ottenere risultati migliori in termini di distribuzione della ricchezza e produttività, di ricadute economiche e sociali delle nuove tecnologie e di lotta ai cambiamenti climatici.

Klaus Schwab è il fondatore e il Presidente esecutivo del World Economic Forum, organizzazione internazionale per la cooperazione tra pubblico e privato, nota soprattutto per il suo incontro annuale a Davos, in Svizzera.
Ha introdotto per la prima volta il concetto di "stakeholder" nel suo libro del 1971 Modern Enterprise Management in Mechanical Engineering e da allora è stato un sostenitore di un modello di capitalismo fondato proprio sulla centralità degli stakeholder.
Tra le sue numerose pubblicazioni, ricordiamo *La quarta rivoluzione industriale* (FrancoAngeli, 2016), *Governare la quarta rivoluzione industriale* (FrancoAngeli, 2018) e (con Thierry Malleret) *La grande narrazione* (FrancoAngeli, 2022).

Peter Vanham è executive editor di Fortune.
È stato responsabile delle comunicazioni del Presidente del World Economic Forum.
È l'autore di *Before I Was CEO* (Wiley, 2016).

«Klaus Schwab ha incoraggiato per decenni i suoi lettori a tenere gli occhi puntati sul futuro, perché quando fissiamo lo sguardo all'orizzonte la nostra mente può comprendere meglio gli ostacoli e le opportunità che ci si presenteranno. In questo libro, Schwab ci invita a volgere lo sguardo lateralmente, ai molti soggetti del settore pubblico e privato che, attraverso partnership e collaborazioni, possono rendere il futuro più luminoso, inclusivo e sostenibile».
***Satya Nadella**, CEO di Microsoft*

«*Il capitalismo degli stakeholder* spiega con competenza perché le due maledizioni gemelle del cambiamento climatico e del collasso della biodiversità sono oggi così diffuse e cosa ci impedisce di realizzare un'economia globale più sostenibile ed equa. Concentrandosi sui valori, Klaus Schwab riconosce che testa (intelletto, razionalità) e cuore (amore, rispetto, comprensione) devono lavorare in armonia per il benessere delle generazioni future e della nostra casa, il pianeta Terra».
***Jane Goodall**, fondatrice del Jane Goodall Institute e Messaggero di Pace delle Nazioni Unite*

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