

# **Procurement Pathfinder 2024**

### **A Trend Outlook**

Whitepaper by The Procurement Initiative

In association with





procurementinitiative.org

#### **PREFACE**



#### **Foreword**

Procurement is in a constant state of flux, and at the cusp of the next decade, it has never been more critical to understand and capitalize on the trends reshaping global supply chains. In a world constantly on the verge of the next big leap, recognizing trends is something like a map to the stars – it's not only fascinating but also essential for navigation.

In business terms, thinking strategically requires us to constantly re-evaluate our projections to harness the winds of change effectively. Acknowledging the trend as a friend makes the impact of Procurement go far beyond transactional interactions; it can drive sustainable competitive advantage and innovation.

The "Procurement Pathfinder 2024" embarks on this important quest, navigating the currents of today and the tidal forces that will shape the future. As a result of our collaboration between H&Z Management Consulting and the Institute for Supply Chain Management at the University of St. Gallen, this whitepaper provides a snapshot of 100+ Procurement experts' insights and offers a comprehensive forecast for the future of Procurement. By analyzing the results of the Procurement Pathfinder 2024 survey, we aim to examine the key trends that will redefine Procurement in the next decade.

Tackling the trends ahead is vital. Yet, Procurement is not on its own. Just as Procurement has evolved from a peripheral function to a strategic cornerstone, it must collaborate with internal and external stakeholders to embrace and implement trends. The challenges and opportunities that lie ahead cannot be met through isolated efforts but only through the confluence of expertise and a shared vision. As Procurement continues to assert its role as an orchestrator within the organization, engaging in dialogue, research, and collaborative initiatives that drive value beyond the bottom line is imperative.

This whitepaper serves as a compass – a guide to help Procurement professionals navigate the complexities of a changing global economy. With the first (of many upcoming) edition(s) of our Procurement Pathfinder, we invite you to shape the future of Procurement. Let's embark on this journey with the determination to embrace the trends of the coming decade, anticipate the challenges, and seize the opportunities to create a resilient and value-driven future for Procurement.

Best,



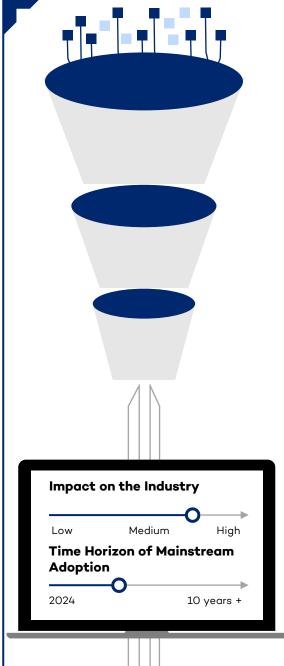
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# RESEARCH APPROACH – A FOUR-STAGE PROCESS TO THE PROCUREMENT PATHFINDER





#### 1. Trend-Screening: Megatrends

As a basis for the Procurement Pathfinder, we conducted a top-down meta-study of existing trend reports. This first trend screening resulted in the following overarching megatrends:

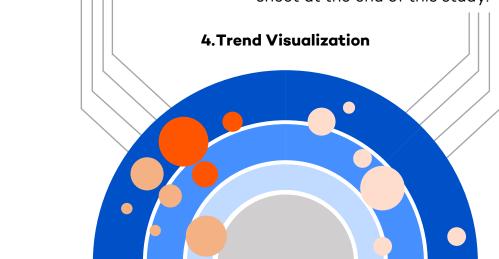
- Technology & Automation
- Talent Management
- Risk & Resilience
- Political influence
- Environmental influence

#### 2. Trend-Screening: Macro- and microtrends

In a second step, we collected primary data through a web-based survey with 88 Procurement professionals. Respondents were asked to identify three microtrends within each megatrend. As in any openended questionnaire, we grouped the responses, so they fall into recognizable categories. It resulted in 41 microtrends that were assigned to 20 macrotrends within the 5 overarching megatrends.

#### 3. Evaluation of microtrends

In a third step, we ran a web-based survey with 71 Procurement professionals to assess the time horizon of adoption and the impact of each microtrend. Moreover, respondents were asked to give insights into drivers, use cases and response strategies of the trends. Each trend is visualized in the Pathfinder and described through a comprehensive canvas sheet at the end of this study.



# GETTING STARTED: MEGA-, MACRO- AND MICROTRENDS



#### **Introduction to the Procurement Pathfinder 2024**

Based on our four-stage research process, the Procurement Initiative Pathfinder contains a total of 41 microtrends that will impact Procurement within the next ten years. These trends are assigned to 20 macrotrends and 5 megatrends.

5 Megatrends				
Environment	Politics	Risk & Resilience  20 Macrotrends	Talent Management	Technology & Automation
<ul> <li>Resource Efficiency</li> <li>Circular Economy</li> <li>CO2 Tracking &amp; Management</li> </ul>	■Regulation ■Geopolitics	<ul> <li>Diversification &amp; Localization</li> <li>Crisis         Resilience</li> <li>Supplier Risk         Management &amp;         Visibility</li> <li>Sourcing         Agility</li> <li>Procurement         As-a-service</li> <li>Inflation</li> </ul>	■Talent Shortage & Adaptive Employment Strategies ■Innovative Coaching & Talent Impact ■New Work Trends	<ul> <li>AI &amp; ML</li> <li>Blockchain &amp; Digital Identity</li> <li>Virtual World Integration</li> <li>Advanced Technologies</li> <li>Smart Logistics</li> <li>Process Standard. &amp; Automation</li> </ul>
41 Microtrends				
■Carbon Accounting ■	■Public Incentives ■	Supply Chain Diversification	■On-Demand Learning ■	■P2P Automation ■

On the following page, we explain the structure of the Procurement Pathfinder and visualize the 20 macrotrends based on the assessment of their impact and the time of mainstream adoption. Each macro trend is color-coded according to the megatrends (see the colored boxes on to the right).

Each macrotrend is composed of at least one microtrend. At the end of the study, each microtrend is presented in a canvas sheet that outlines the macrotrend in detail, including its drivers, use cases, and implications. You can click on any trend illustrated in the Procurement Pathfinder to directly access the canvas sheet.

#### NAVIGATING THE RADAR



The Procurement Pathfinder by the Procurement Initiative illustrates 5 megatrends that will shape the future of Procurement. Based on primary and secondary sources, we created our trend radar, visualizing and assessing the 20 most significant macrotrends according to their impact on Procurement and mainstream adoption.

#### **Assessment of Macrotrends**



Firstly, you'll find all 20 macrotrends and their assessment regarding impact potential and time horizon in the Trendradar. The dark orange dot represents status quo Procurement. The macrotrends were allocated according to the following color coding: Dark blue dots refer to trends in the Environment, blue dots indicate the allocation to Political Influences, orange bubbles show an allocation to Risk and Resilience, light blue dots refer to Talent Management and, lastly, pink bubbles display that a macrotrend is situated in the field of Technological Developments and Automation.

#### **Time Horizon till Mainstream Adaptation**



Secondly, we added two different time classifications. The first category includes trends that we expect to substantiate within the **next five years**, you'll find these closer to the middle of the radar. These trends require Procurement teams to take fast action to not lose the competitive edge to their competition.

The second category includes trends that will realize in **five to ten years**. Predictive organizations must set the basis to implement developments and mitigate challenges in order to stay competitive in the long-term.

#### **Level of Disruptive Impact on Procurement**



Thirdly, the Procurement Pathfinder allows insights in to the level of impact. If a trend is categorized as **low impact**, it won't change the landscape. Yet, it is crucial that every organization monitors them. Trends evaluated as **medium impactful** have the potential to change the competitive landscape, resulting in companies loosing or gaining a competitive edge. Lastly, if a trend has a **high impact**, it has either profound impact as of today or can shape the entire future of Procurement.

RELEVANT IN 5-10 YEARS Blackchain Virtual World Integration Mid Impact As-a-service **Procurement** RELEVANT IN 1-5 YEARS O Environment **Efficiency** Resource AI & ML Automation **New Work** Talent ManagementPolitics Visibility Supplier High Impact Click on a trend to directly access its canvas sheet Regulation Crisis Mgt. Geopolitics Innovative Coaching Diversification Inflation Mgt. C02 RELEVANT IN 1-5 YEARS Shortage Circularity Talent 🔵 Technology & Automation 🌔 Risk & Resilience Sourcing Agility Smart Løgistics 200 CHILDIA ROCUREMEN **Technologies** Advance RELEVANT IN 5-10 YEARS ow Impact 

Low Impact

# IS THE TREND YOUR FRIEND? POTENTIAL WAYS FORWARD



The Procurement Pathfinder provides a systematic overview of the most significant trends in Procurement based on five megatrends, which in turn comprise 41 specific microtrends. Overall, companies should focus on three archetypical strategies when tackling the trends ahead: Respond, Prepare, and Monitor.

#### Respond

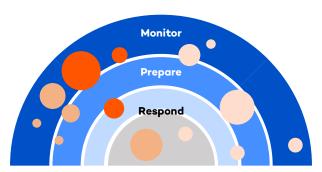
participants are in motion term include Management, Geopolitics, Circularity, and New Work.

#### **Prepare**

Trends already have a Trends have at least a Trends are expected to strong impact as of today medium impact on the have market industry in the medium influence on procurement and or actively responding to should prepare for them. but them. Trends in this area Trends in this area include important in the long run. Inflation AI & Machine Learning, Trends in this area include Automation.

#### **Monitor**

companies in the foreseeable future could become and Blockchain and Virtual World Integration.



#### General Observations from the Procurement Pathfinder

Of the 20 macrotrends, 13 are already assigned to the "Respond" category. As such, a multitude of trends are already transforming the Procurement landscape today. Procurement teams should therefore prioritize, but not lose sight of the trends that are emerging on the horizon. To do so, we established 3 guidelines that allow Procurement teams to respond to, prepare for and monitor trend developments.



Consider the bias: Procurement trends are evolving at varying pace and impact. Trends categorized under Talent Management are observed to have an accelerated impact. Conversely, trends within Technology and Environmental influence may unfold over a longer horizon but require proactive engagement to mitigate risks and capitalize on opportunities.



Prioritize well: Given the multitude of trends and the limited resources at the disposal, Procurement functions must develop the capability to discern which trends will have the most immediate and significant impact. This involves a continuous process of scanning, assessing, and prioritizing trends based on their relevance and impact against their firm-specific background.



Think holistic: The complexity and interconnectivity of the identified trends underscore the need for Procurement functions to maintain a holistic picture. Technology is good but requires the necessary knowledge and decision-rights within organizations. Consequently, each trend must be embedded and aligned within the underlying operating model.

# INDUSTRY-SPECIFIC INSIGHTS – AUTOMOTIVE AND MEDTECH



Not all trends are equally important for all companies. In some cases, their relevance heavily depends on the industry and other contextual factors such as the business model. To demonstrate the effects of industry-specificity, we examine four examples: Automotive, MedTech, Financial Services and MEM industry. Each of these industries, representing a significant portion of our trend radar respondents, exhibits unique characteristics that influence the relevance and impact of Procurement trends. The objective here is to pinpoint distinctive trends within these industries, providing a nuanced understanding of how Procurement strategies and practices need to adapt in response to industry-specific dynamics.

#### **Automotive Industry:**

The Automotive industry currently faces transformational challenges. More severe competition in the field of electric vehicles (EVs), especially from China, supply chain disruptions, and environmental concerns place enormous cost pressure on established, primarily European, players. Based on our survey panel, we identified three particularly relevant trends to help Procurement teams prioritize and create value in the automotive industry.



**Regional Sourcing:** Crisis such as COVID have revealed the fragility of OEM supply chains, especially regarding semiconductors, in the past. Regional sourcing helps preventing or moderating the effect of these issues



**Strategic Sourcing for Circularity:** Ambitious CO2 targets and the possibility of reducing dependence on virgin material will lead to an increase in the importance of circularity in the Procurement process



**Carbon Accounting:** Extensive regulations require the automotive industry to address emissions from all scopes. Participating in networks such as Catena-X can be a first step toward achieving full visibility

#### MedTech Industry:

In the MedTech industry, Risk and Resilience and Talent Management are the trend categories of foremost importance. The global health crisis underscored the critical need for robust supply chains capable of withstanding unprecedented disruptions. As such, MedTech Procurement functions should focus on enhancing supply chain resilience through diversification and stringent risk management practices. Additionally, the rapid pace of technological advancements in healthcare demands specialized talent capable of navigating the complexities of modern MedTech Procurement. Investing in talent development and leveraging expertise in cuttingedge technologies and regulatory compliance are pivotal.



**Talent Attraction:** Major MedTech players struggled with product availability since their suppliers could not staff their lines, therefore, a profound talent attraction strategy is needed to secure the industry



**Supply Chain Diversification:** Due to the product complexity, it is difficult but crucial to source input factors from various regions and suppliers



**Supply Chain Resilience Audits:** Based on the critical nature of the industry, conducting resilience audits is a necessity to ensure business continuity

# INDUSTRY-SPECIFIC INSIGHTS - FINANCIAL SERVICES AND MEM



#### Financial Services Industry:

Financial services companies are present in every aspect of life and business activity, either by providing financing solutions or insurance coverage. These companies also face enormous pressure from various trends. Navigating in strictly regulated environments is a well-known setting for financial services. However, technological advancements offer unprecedented opportunities to improve their business activities and models. While their direct environmental impact is rather small, especially compared to manufacturing companies, indirect levers are incredibly significant. For instance, by using carbon metrics or disruption prediction when deciding on issuing a loan or providing insurance coverage.



**Digital Supply Chain Twins:** Supply Chain Twins enable financial services companies to reliably predict Procurement disruptions and associated costs and then decide on the applicability and terms of their products



**Cybersecurity:** Insurance companies are very sensitive in the field of cybersecurity. More regular and severe attacks that hinder Procurement can cause damages worth billions, which need to be covered by insurances



**Hedging:** When Procurement departments try to hedge their risks through financial products, they need to do so through their bank. Therefore, banks are assigned a crucial role in mitigating Procurement risks

#### Machinery, Electrical and Metal (MEM) Industry:

MEM companies face great challenges that have to potential to disrupt the entire industry. Procurement teams must consider a variety of aspects in their daily work, including sustainable sourcing, energy and supply chain security, but also talent attraction issues. Since today's labor market is very favorable for the employee side, competing for top talents in Procurement is a very difficult task due to the wide availability of job possibilities. Moreover, past years have shown the fragility of the industry's supply chain and increased the demand for sustainable practices.



**Sustainable Energy Sourcing:** Energy-intensive processes, as the ones in MEM, are connected to emissions. Procurement teams must ensure sustainable energy sourcing to meet their CO2 reduction targets



**Supply Chain Resilience Audits:** Energy outages and supply chain disruptions have been major issues for Procurement in MEM in the past. Conducting in-depth audits help to mitigate these risks due to high visibility



**Talent Attraction:** Many young and talented professionals do not consider Procurement as their most attractive career path: Therefore, establishing attractive packages to attract high potentials is crucial

# USING THE PROCUREMENT PATHFINDER: A PRACTICAL WORKSHOP FRAMEWORK



#### Practitioner's guide

To enable Procurement functions to systematically assess the relevance and impact of Procurement trends, we propose a concise workshop format to help practitioners tailor the results of this study to their idiosyncratic environment. Our workshop format aims to equip Procurement organizations with the insights and tools necessary to proactively adapt to the main trends affecting Procurement.

#### Workshop design

#### Prepare a workshop



Identifying and managing Procurement trends requires the viewpoints of different seniority levels in Procurement. Challenges and problems are often hidden from senior management while professionals lack the strategic thinking of opportunities on the horizon. Therefore, we recommend that workshop participants should include a team representation from multiple levels (from CPO to operational buyer).

#### Make use of our Procurement Pathfinder and canvas sheets



Begin with a comprehensive overview of the five overarching megatrends – Environment, Politics, Risk & Resilience, Talent Management, and Technology. In addition, we recommend workshop participants to study each microtrend canvas sheet before the workshop to gain a foundational understanding.

#### Evaluate each macrotrend based on a 2x2 matrix



During the workshop, we recommend using a 2x2 matrix to assess each macrotrend in terms of its impact on the organization and the relevant time horizon. Discussions can be structured in divided groups or one big group. We recommend this framework to start a critical discussion on how each trend could influence the strategic direction and operational processes of the Procurement organization.

#### **Discuss in plenary**



Conclude the workshop with a plenary session where each group presents their findings. This facilitates knowledge sharing of ideas, as we believe that physical interaction and communication between workshop participants are at the heart of any workshop ideation.

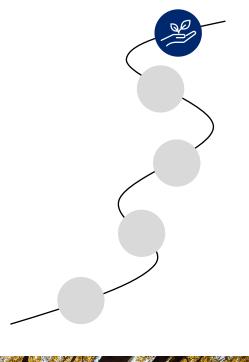
#### Create an action plan



Every workshop should deliver actionable results. Therefore, we recommend highlighting the actual outcomes of your workshop and recording them in a concise and digestible form. Summarizing and writing down your results will sharpen understanding and facilitate communication of next steps. We recommend clustering the trends into the three response strategies: Respond, Prepare, and Monitor. Remember not to carve your action plan in stone as Procurement trends, impact and time horizons are rapidly changing and should be revisited regularly.

# Environment

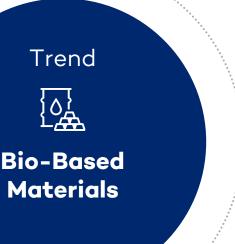
Sustainability is the "new normal" as Procurement can play a leading role in reducing their companies supply chain footprint and moving towards a circular business model. Environmental trends are driven by the threat of resource scarcity. As natural resources such as water, oil, and rare earths become scarcer, the likelihood of disruptions increases. At the same time, climate change will accelerate the risk of natural disasters such as hurricanes or volcanic eruptions. With most greenhouse gases stemming from Scope-3 emissions in the n-tier, companies must develop a strategy to keep supply chains robust in the face of environmental concerns. In the following chapter, we identified three refined Environmental trends that are analyzed in detail: Efficiency, Circularity, Management





# THE NEW IMPERATIVE FOR PROCUREMENT LEADERS: EMBRACING THE ENVIRONMENTAL, SOCIAL, AND GOVERNANCE AGENDA







## **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Bio-based materials are used as more sustainable and renewable materials in manufacturing processes to replace earlier, conventional synthetic manufacturing inputs
- •Impact: The adoption of bio-based materials is enhancing the sustainability of manufacturing processes but also requires a detailed analysis of their feasibility for existing processes and finished goods in general



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Stringent Environmental Regulations: Legal frameworks (e.g., European Green Deal) require the use of sustainable, biobased materials
- Circular Economy and Waste Reduction Goals: Growing emphasis on circular economy aims to reduce waste and promote resource efficiency through a shift towards biodegradability and compostability in materials
- Technological Breakthroughs in Bio-Material Production: Advances in biotechnology enable the creation of biobased materials with enhanced properties, such as increased strength, flexibility, and durability



# □ □ Use Cases

How to apply this trend?

- Chemical Raw Materials: Replacing conventional HMDA by a plant-based version Example: Covestro and Genomatica announced that they reached a breakthrough in sustainable HMDA, an ingredient of nylon, that they plan to source and market on commercial full-scale in the future
- Sustainable Leather Alternative: Partnership between Hermès and MycoWorks Example: MycoWorks, producing leather alternatives using mycelium, collaborates with Hermès to manufacture more sustainable handbags to address more sustainabilityoriented customers as well



# **Procurement Relevance & Response Strategies**

- •Market Study: Following assessments in which products bio-based materials can be used, Procurement teams should conduct a market research to identify suitable suppliers
- •Carbon and Cost-based Assessment: Procurement teams must assess the impact of biobased materials on their carbon footprint to identify use cases that are environmentally beneficial without reducing the bottom-line margin

# THE NEW IMPERATIVE FOR PROCUREMENT LEADERS: EMBRACING THE ENVIRONMENTAL, SOCIAL, AND GOVERNANCE AGENDA







**Sustainable Energy** Solutions



### **Trend Definition**

What is the essence of this trend? What is its impact?

- **■Essence:** Alternative Energy Solutions involve energy sources and infrastructure that are connected to less carbon emissions compared to established fossilfuel based solutions
- •Impact: Companies must change their energy sourcing and infrastructure in accordance with emission limits, thereby reducing the carbon footprint but also facing potential supply challenges due to availability of renewable sources



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Energy Availability Risks: The volatility of Sustainable Aviation Fuel (SAF) in the fossil fuel prices and availability due to political tensions pose a substantial risk to energy security and require diversification
- Regulatory Compliance: Governments around the world expect companies to lower emissions in order to mitigate the risks connected to the climate change
- Long-term Cost Limitation: Since certain taxes are likely to be tied to carbon emissions, a continuous reliance on fossil fuel will be connected to economic disadvantages in the future



# □ □ Use Cases

How to apply this trend?

- **Aviation Industry:** Slowly replacing fossil fuel Example: Lufthansa and SWISS partnered with Swiss-based Synhelion to supply them with SAF which requires Procurement teams to negotiate with new players and control the use of SAF since it is still much more expensive compared to fossil fuels
- Factory Design: Thinking sustainable energy sources from scratch Example: In its Sindelfingen-based Factory 56

but also elsewhere, Mercedes uses energy generated from solar panels on the roof which it stores in a stationary energy bank, requiring Procurement teams to rethink the entire energy sourcing



# **Procurement Relevance & Response Strategies**

- Procure Renewable Energy: Sourcing renewable energy will be of growing importance in the future, either through external partners or own installations, both will require massive shifts in day-to-day tasks of Procurement teams compared to the status quo
- Ensure Energy Supply: Since renewables also fluctuate in availability, Procurement teams should sign flexible contracts with suppliers of more reliable energy sources

# THE NEW IMPERATIVE FOR PROCUREMENT LEADERS: EMBRACING THE ENVIRONMENTAL, SOCIAL, AND GOVERNANCE AGENDA







Strategic Sourcing for Circularity



### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Strategic sourcing for circularity aligns Procurement activities with the principles of circular economy by considering multiple lifecycles of a product in sourcing processes
- •Impact: Circular sourcing decreases carbon emissions and waste, moreover, it increases the availability since the dependence on goods imported from suppliers around the globe is reduced while requiring higher efforts in the Procurement process



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Ecological Consciousness: Increased stakeholder awareness drives a shift towards sustainable practices, requiring businesses to align with eco-friendly Procurement and lifecycles
- •Regulatory Pressure: Government regulations require producers to take responsibility for products going beyond the use phase, moreover, minimum shares of recycled content used in production are introduced by the authorities
- Cost Efficiency and Resilience: Circular strategies reduce material footprint, driving long-term cost advantages through reduced emissions and lower demand for virgin material



### **Use Cases**

How to apply this trend?

- \*Subscription-based Product Usage: Regularly swap old products with new ones Example: On has developed its Cyclon program, here, customers subscribe to the program and can obtain new shoes every six months in exchange for their old ones which are recycled and commercialized again, requiring Procurement to only buy the material of shoes lost in the cycle
- Circularity in the Tech Industry: Sourcing used aluminum

Example: Apple sources 59% of its aluminum from recycled materials, some products even contain 100% of recycled material, that requires Procurement departments to ensure phasing-out contracts with virgin material suppliers



# **Procurement Relevance & Response Strategies**

- •Circular Design Collaboration: Work with product design and engineering teams to ensure that circularity principles are integrated into product design
- Flexible Contracting and Supply Chain Partners: Procurement teams must have emergency contracts in place in case they fail to ensure sufficient supply from circular sources, moreover, suppliers and partners must ensure certain degrees of circularity

# THE NEW IMPERATIVE FOR PROCUREMENT LEADERS: EMBRACING THE ENVIRONMENTAL, SOCIAL, AND GOVERNANCE AGENDA



#### **Trend**



Circular Procurement Partnerships



## **Trend Definition**

What is the essence of this trend? What is its impact?

- Essence: Circular Procurement
  Partnerships embody collaborative efforts
  between multiple companies along the
  supply chain to implement circular
  economy strategies
- •Impact: These partnerships drive circular practices, transforming traditional Procurement into a strategic function, ensuring sustainability and circularity across the entire supply chain and fostering knowledge exchange between businesses



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Sustainability Imperative: Businesses respond to a heightened sustainability focus, recognizing the necessity of ecofriendly practices in their activities and processes
- Regulatory Pressures: Upcoming regulations require businesses to reduce their carbon footprint and embody a certain share of recycled content in their manufacturing operations
- •Innovation in Technology: Technological advancements, for instance in manufacturing technology or connectivity, enable businesses to closely work together along the entire supply chain



### **Use Cases**

How to apply this trend?

- Packaging Transformation: Establish a circular network
- Example: Terracycle's Loop alliance, featuring industry leaders like Coca-Cola, fosters circular practices by collecting packaging, cleaning, and returning it to manufacturing companies to refill, enabling Procurement teams across the entire supply chain to benefit from circular packaging
- Automotive Network: Collaboration of players from every step of the supply chain *Example*: Catena-X is an automotive network that fosters circularity through information exchange. This enables Procurement teams, for instance, to receive information on the battery they procure



# **Procurement Relevance & Response Strategies**

- •Supplier Collaboration Programs: Procurement teams should initiate programs with suppliers on circular initiatives, like material take-back schemes or joint development of recyclable products
- •Supplier Audits for Circularity: Conduct regular audits of suppliers to ensure compliance with circular economy principles and practices

# THE NEW IMPERATIVE FOR PROCUREMENT LEADERS: EMBRACING THE ENVIRONMENTAL, SOCIAL, AND GOVERNANCE AGENDA







Carbon Accounting



## **Trend Definition**

What is the essence of this trend? What is its impact?

- Essence: Carbon Accounting, or "greenhouse gas accounting", systematically quantifies scope 1, 2, and 3 CO2 emissions to cover the entire value
- •Impact: Carbon Accounting allows companies to reach a high level of transparency regarding their emissions and enables them to identify areas and levers they need to tackle in order to reduce their emissions



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Stakeholder Expectations: Various stakeholders insist on transparency and sustainability regarding the emissions caused along the entire supply chain
- Decarbonization Targets: Regulations aim at all scopes of emissions, therefore companies must ensure a profound knowledge regarding their emissions and levers they need to pull to reach these targets
- Connectivity: Modern technologies enable companies to closely track their emissions caused and the ones already included in a product. This information can then be passed on to the next player in the supply chain



# □ □ Use Cases

How to apply this trend?

- •Software Enablement: One-stop-shop for transparency in emissions of all scopes Example: The IBM Envizi ESG Suite enables companies to automatically collect, consolidate and analyze CO2 data, thereby providing Procurement departments with full transparency regarding the emissions imported through procured goods and services
- Tailored Sustainability Strategy: Clear targets for suppliers

Example: Transparent insights allow Procurement departments to set clear emission goals to its suppliers to reduce scope 3 emissions since they often account for more than 70% of the business' carbon emissions



# **Procurement Relevance & Response Strategies**

- Procurement at the Core of Carbon Accounting: Procurement departments often have the biggest lever regarding reducing carbon emissions, therefore they must be at the center of information exchange regarding all emission-related information
- •Supplier Emission Reporting: Procurement departments should require suppliers to report detailed information on the emissions contained in the product

# THE NEW IMPERATIVE FOR PROCUREMENT LEADERS: EMBRACING THE ENVIRONMENTAL, SOCIAL, AND GOVERNANCE AGENDA







**Management Incentives** 



# **Trend Definition**

What is the essence of this trend? What is its impact?

- ■Essence: CO2 Management Incentives link parts of the manager's compensation package to the achievement of predefined sustainability goals to foster sustainable practices led by managers across all levels
- •Impact: CO2 Management Incentives foster an environmentally responsible management style and align company and environmental goals, ensuring leadership accountability for measurable climate



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Talent Attraction: As the workforce becomes more environmentally conscious, organizations use CO2 incentives to attract top talent seeking purpose-driven workplaces, aligning individual values with corporate goals
- Connection of Purpose and Compensation: Coupling executive pay to Pharmaceutical Industry: Measuring leaders short-term goals, mostly financial, incentivizes potentially environmentally damaging behavior to optimize shortterm profits
- Environmental Accountability: Global climate awareness and regulations require executives to lead by example regarding environmental efforts



### **Use Cases**

How to apply this trend?

#### Supplier-enabled Emission Reduction:

Supplier engagement enabled buyer to reduce emissions

Example: Danone linked 20% its CEO's compensation to sustainability targets, these were reached mainly through a reduction in emissions in Procurement

by ESG fulfilment

Example: Pfizer included ESG metrics in the compensation package of more than 30'000 of its leaders, therefore putting more pressure on Procurement departments to stay compliant with ESG regulations and targets

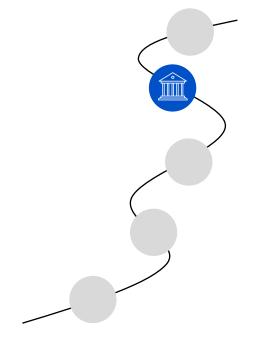


# **Procurement Relevance & Response Strategies**

- Transparent Reporting: Procurement teams must gather enough information on the emissions contained in the sourced products to report them to the finance and HR departments to determine the final manager's compensation
- Incentives for Low-Carbon Suppliers: Develop incentive programs for suppliers who demonstrate strong carbon management practices or use low-carbon processes

# **Politics**

National political regulations and geopolitical trends have a profound impact on the Procurement landscape. New regulatory frameworks necessitate a change in Procurement activities to ensure compliance while maintaining operational efficacy. In addition, trends such as protectionism, import tariffs or subsidies for local production, will increase the influence of politics on global trade and supply chains. In this context, supranationalism and increasing regionalization driven by trade agreements (e.g., EU, USMCA, RCEP) are expected to boost the substitution of global suppliers with local suppliers. In the following chapter, we identified two refined Political trends that are analyzed in detail: Regulation and Geopolitics





# THE POLITICAL WINDS OF CHANGE: HOW LEADERS CAN HARNESS THE POWER OF REGULATION TO DRIVE SUCCESS







**ESG** Regulation **Standards** 



# **Trend Definition**

What is the essence of this trend? What is its impact?

- •Essence: ESG Regulation Standards refer to the increasing legal requirements for companies to report and adhere to environmental, social, and governance criteria
- •Impact: The implementation of ESG regulation standards impacts companies by requiring them to investigate the compliance of each practice, process, and product with the criteria, also beyond their own boundaries along the entire supply



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Governance and Regulatory Compliance: Resulting from various trends and threats, such as climate change, politicians require high levels of ESG compliance from companies to mitigate the risks and drive fair social development
- Stakeholder Expectations: Stakeholder pressure, including from shareholders, customers, and non-governmental organizations, demands transparency and responsibility in corporates. Failing to meet these expectations might result in bad PR and ultimately in severe damage to the business itself



# □ □ Use Cases

How to apply this trend?

 German Act on Corporate Due Diligence in **Supply Chains:** Ensuring compliance with human rights law

Example: The law requires companies with key operations in Germany to develop a risk management system for identifying and mitigating risks of ESG violations along their entire sourcing process

 EU Corporate Sustainability Due Diligence **Directive:** Regulatory focus on sustainable and responsible behavior

Example: EU ambassadors confirmed that they agreed on the long-discussed directive, forcing companies to ensure compliance with human rights and environmental standards along the supply chain



# **Procurement Relevance & Response Strategies**

- •Organizational Structure: ESG compliance must be ensured across the entire organization, e.g., by installing responsible managers for sustainable sourcing
- •Sourcing and Awarding: ESG criteria must be integrated into Request for Proposals (RFPs) and scoring systems for supplier selection, for instance assessing suppliers' carbon footprints, labor practices, and governance structures

# THE POLITICAL WINDS OF CHANGE: HOW LEADERS CAN HARNESS THE POWER OF REGULATION TO DRIVE SUCCESS







Regulation



## **Trend Definition**

What is the essence of this trend? What is its impact?

- **■Essence:** CO2 Regulation represents the increasing integration of legal policies aimed at controlling and reducing carbon dioxide emissions through tools such as emission trading systems, carbon taxes, and emission reduction targets
- •Impact: CO2 regulations increase prices for carbon-heavy products and reward companies that reduce their carbon footprint which can lead to competitive advantages



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Global Climate Change Initiatives: The worldwide urgency to become carbon neutral drives regulatory bodies to implement strict CO2 regulations, leading to reduction goals set by initiatives like the Paris Agreement
- ■Impact of the Climate Change: An increased number and worse impacts of natural disasters caused by climate change highlight the importance of measures to tackle the development and increase awareness



# □ □ Use Cases

How to apply this trend?

- **EU Emissions Trading System (ETS):** Require companies to buy CO2 certificates Example: The EU-ETS allows companies to cause carbon emissions up to the extent they own certificates for, these certificates can be sold and bought on a specific market
- EU Carbon Border Adjustment Mechanism (CBAM): Pay for emissions in imported goods Example: CBAM will impose higher CO2 charges on goods that contain more carbon emissions, aiming at incentivizing cleaner production in supplier countries that benefit the Procurement prices of EU-based companies



# **Procurement Relevance & Response Strategies**

- Carbon Transparency: Constantly track the emissions that suppliers include in their goods to enable a better negotiation position and create transparency regarding the own Procurement activities
- Contractual Emission Targets: Contracts with suppliers may include clauses that specify emission reduction targets and penalties for non-compliance

# THE POLITICAL WINDS OF CHANGE: HOW PROCUREMENT LEADERS CAN HARNESS THE POWER OF GEOPOLITICS TO DRIVE SUCCESS







**Public Incentives** 



### **Trend Definition**

What is the essence of this trend? What is its impact?

- •Essence: Public incentives, such as subsidies, tax reductions, and tax credits. are governmental policies aimed at stimulating economic growth, protecting domestic industries and tackling Climate Change
- •Impact: Public incentives can disrupt entire businesses and require fast adjustments to processes since economic circumstances and dynamics may shift in favor of different locations and habits



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Geopolitical Dynamics: Rising tensions in geopolitics lead to governments incentivizing companies to relocate their activities to their home soil to prevent the loss of IP and ensure direct access to crucial industries and input factors
- Economic Growth Goals: Governments implement incentives to achieve economic objectives and to make their country attractive for FDIs
- Targeted Investments: Investments in certain technologies, e.g., carbon emission reducing technologies, can be made financially viable through governmental incentives to keep the company globally competitive



# □ □ Use Cases

How to apply this trend?

Renewable Energy & Clean Production:

Incentivizing sustainable business practices Example: Incentive programs such as the Green Deal (EU) or the Inflation Reduction Act (USA) aim at incentivizing investments and deployments of green technologies and fleets, opening opportunities for Procurement departments to better control costs through more sustainable sourcing

•New Technologies: Foster clean investments Example: Linde invests USD 1.8bn to build a blue hydrogen plant in Texas using of the 45Q credit, a tax credit that is part of the US Inflation Reduction Act, resulting in changed Procurement requirements for their planned additional US facility



# **Procurement Relevance & Response Strategies**

- •Incentive Evaluation in Sourcing: Incentives may change business cases in favor of other locations, resulting in the need for a fast adjustment of sourcing processes to maximize the benefit from these incentives
- Supplier Development: Work with suppliers to help them understand and meet the requirements of public incentives, ensuring mutual benefits

# THE POLITICAL WINDS OF CHANGE: HOW PROCUREMENT LEADERS CAN HARNESS THE POWER OF GEOPOLITICS TO DRIVE SUCCESS







### **Trend Definition**

What is the essence of this trend? What is its impact?

- •Essence: Regionalization implies that companies shift away from a fully global sourcing approach to one that relies on regional and local production, often driven by a political desire to become less dependent on other regions
- •Impact: Regionalization requires a new configuration of supply chains and Procurement processes since the current ones are mostly aligned with global activities



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Reduction of Labor Dependency:
- Advancements in technologies reduce the dependence on manual labor due to a high: degree of automation, enabling companies to shift their activities to countries with high labor prices
- **Environmental Effects:** The introduction of carbon emission prices and trading require companies to strictly reduce their footprint which can also be achieved through shorter transport distances
- •Political Initiatives: Initiatives like the Atlantic Council foster ally-shoring, in response to current and future geopolitical tensions, to increase supply chain resilience



# □ □ Use Cases

How to apply this trend?

- Supply Chain Restructuring under USMCA:
  - Minimum level of locally sourced parts Example: In response to the USMCA (US-Mexico-Canada Agreement), automotive OEMs like Ford and General Motors restructure their Procurement activities to meet the requirements of at least 75% of the parts used originating in the US, Canada or Mexico
- Globalizing and Localizing: Importing while regionalizing other parts of the production Example: Siemens Energy's Procurement department needs to handle regional sourcing of certain finished goods and services as part of the companies' regionalization strategy as well as global imports of raw materials and other inputs



# **Procurement Relevance & Response Strategies**

- •Incorporation of Regionalization in Sourcing Activities: Procurement departments must evaluate on a case-by-case basis whether global or regional sourcing is preferable based on resilience, cost, and emission considerations
- •Investment in Regional Capabilities: Invest in building capabilities and partnerships in new regional hubs, which could involve new facilities or collaborating with local firms

# THE POLITICAL WINDS OF CHANGE: HOW PROCUREMENT LEADERS CAN HARNESS THE POWER OF GEOPOLITICS TO DRIVE SUCCESS







**Tariff and** Sanction **Actions** 



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- •Essence: Tariff and sanctions are introduced to prevent the respective entity (company or country) to enter business in the own country or to import goods there
- •Impact: Tariffs and sanctions require companies to change their supply chain activities and change the competitive landscape by creating vacuums that need to be filled by the remaining or new players



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •National Security Concerns: The protection of domestic industries and IP is gaining prominence, even accelerated by escalating geopolitical tensions and the resulting need for self-reliance in critical sectors
- Surge in Populism and Nationalism: The upswing in political movements advocating protectionist measures is accompanied by a commitment to safeguard domestic jobs and industries
- Unfair Trade Practices: Growing perceptions of uneven trade balances and competitive disadvantages based on political interventions in markets are driving tariffs



# □ □ Use Cases

How to apply this trend?

•Business Disruptions: Lack of alternative suppliers

Example: German mobile network providers highlighted that the planned ban of Huawei equipment on the market would lead to severe troubles since there are not sufficient alternative suppliers, moreover, they cannot ensure sufficient own Procurement and construction capacities

Strategic Shifts: Shift countries supplying inputs

Example: Following the US' tariffs imposed on the import of Chinese goods, Walmart massively increased its imports from India which is not affected by any tariffs and reduced the imports from China, requiring Procurement to find new suppliers

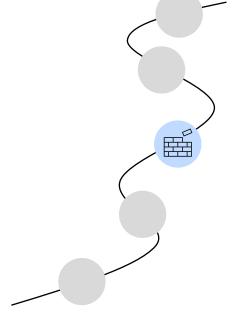


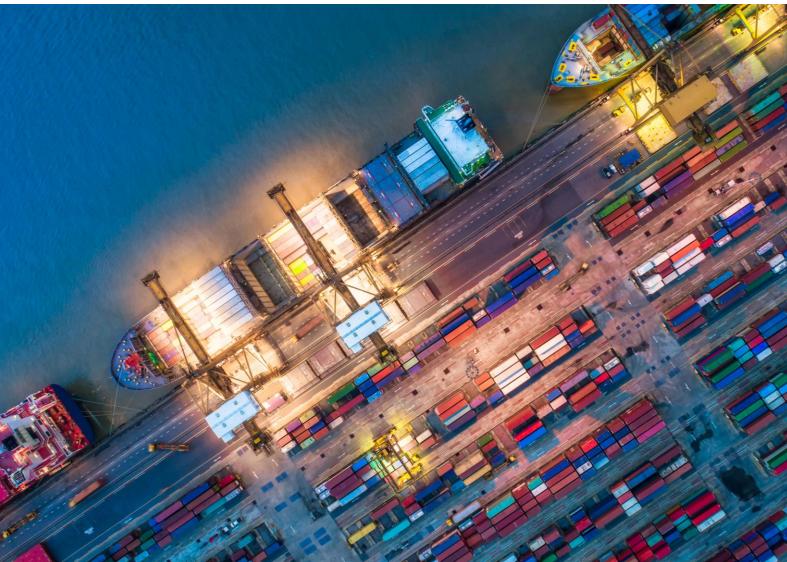
# Procurement Relevance & Response Strategies

- •Supplier Base Diversification: Prioritize the diversification of suppliers to minimize the vulnerability to tariff-affected regions as well as to enhance overall resilience
- •Cut-off Costly Suppliers: Analyze current suppliers and the effect of tariffs on them might lead to the decision to end the relationship, as importing their goods is no longer economically viable

# Risk & Resilience

In an era defined by global volatility and uncertainty, managing risks and building resilience has never been more critical. Procurement today is constantly geopolitical shifts, supply chain reshaped by disruptions, natural disasters, and unforeseen global crises (e.g., Middle-East conflict, Russian-Ukrainian War). Organizations must not only anticipate these risks but also develop robust strategies to withstand and recover from them. In the following chapter, we identified four refined Risk Management & Resilience trends that are analyzed in detail: Diversification & Supplier Resilience, Localization, Crisis Risk Management & Visibility. Sourcing Agility, Procurement-As-a-service, and Inflation Management.





# NAVIGATING UNCERTAINTY: BUILDING RESILIENCE FOR AN UNPREDICTABLE WORLD



**Trend** 



Regional Sourcing Strategies



# **Trend Definition**

What is the essence of this trend? What is its impact?

- Essence: Regional sourcing strategies, for instance reshoring, nearshoring, and allyshoring, are Procurement practices focused on purchasing goods and services from geographically, economically or politically closer suppliers
- •Impact: These strategies offer benefits like reduced dependency on distant suppliers, therefore reducing the risk of disruptions and enabling shorter lead times, enhanced visibility, lower environmental impact, and streamlined communication



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Increasing Supply Chain Disruptions: Recent global events, such as the COVID-19 pandemic and trade wars, have led to severe supply chain uncertainty and disruptions
- •Shift in Global Trade Policies: The rise in protectionist policies and tariffs, especially in key markets like the United States and European Union, casts doubt on the continuation of globalization at the known speed
- Easier Transportation: Short transport routes not only benefit time-to-market and proximity to customers but also reduce carbon emissions caused by the transportation of goods



### **Use Cases**

How to apply this trend?

- Reshoring: Manufacturing in the company's home country
  - Example: Intel currently builds a \$20 billion manufacturing plant in Ohio, reshoring the production of chips following the CHIPS Act
- •Nearshoring: Moving production closer to the head quarter

Example: Boeing outsourced its wiring production to Safran, operating several plants in Mexico, to benefit from reduced Procurement costs and lead times

•Ally Shoring: Production in allied countries Example: Apple relocated parts of its iPhone production from China to India to lower the risks of supply chain disruptions following geopolitical tensions



# **Procurement Relevance & Response Strategies**

- •Constant Risk Assessment: Regularly reassess supply chain risks to identify potential vulnerabilities and implement measures to mitigate them
- Reconfigure Supplier Network: Establish new Procurement networks around the newly opened plants to stay competitive through cost and speed optimization

# **NAVIGATING UNCERTAINTY: BUILDING** RESILIENCE FOR AN UNPREDICTABLE WORLD



**Trend** 



**Supply Chain Diversification** 



# **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Supply chain diversification focuses on expanding sourcing across different companies (multisourcing) and regions (multishoring)
- •Impact: Diversification hedges the risk of outages and increases sourcing security, adaptability, and agility compared to traditional single sourcing



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Disruptive Events: The pandemic, Russia's China Plus One/N Strategy: Companies invasion of Ukraine, and the US-China trade conflict all posed serious risks to many companies since they sourced their material, goods, and energy from a very limited number of suppliers and regions
- Feasible Efforts: Newly integrated suppliers will serve the same hubs as existing ones do, therefore the costs of increasing resilience present a positive business case
- Technological Advancements: New technologies, for instance in the field of automation, enable additional costcompetitive manufacturing in countries that normally have high labor costs



# □ □ Use Cases

How to apply this trend?

- extend their China operations with activities in other countries
- Example: Nike shifted a significant share of its Sneaker production from China to Taiwan and Indonesia to reduce the risk of Procurement disruption with China now being only the third largest manufacturer
- •Multishoring: Expanding sourcing regions for critical inputs

Example: TSMC expanded its production locations from Taiwan to the US and plans to do so in Germany as well to mitigate the risks of having only one sourcing country which is constantly threatened by China



# **Procurement Relevance & Response Strategies**

- •Strategic Partnership and Upstream Value Chain Redesign: Procurement sources should transition to a core strategic element in order to ensure resilience and business continuity
- •Robust Diversification and Strategic Resilience: Reassess sources for every input and extend Procurement activities for inputs with little risk mitigation

# NAVIGATING UNCERTAINTY: BUILDING RESILIENCE FOR AN UNPREDICTABLE WORLD



#### **Trend**



# Business Continuity and Crisis Response Planning



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- •Essence: Business Continuity Planning (BCP) is a strategic approach to proactively identify, assess, and manage both internal (e.g., network outages) and external risks (e.g., wars) to operations while crisis response planning (CRP) aims at ad-hoc measure in threatening situations
- Impact: BCP and CRP help to prepare for and quickly react to disruptions, maintaining operational continuity and minimizing financial losses and risks



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Surviving: Continuing business also following a disaster can be material for companies since they keep their reputation and their ability to serve customers in challenging times
- •Global Supply Chain Disruptions:

Complex global supply chains increase the vulnerability towards disruptions which indeed occurred more often in the past and are possible to occur in the future as well

 Cybersecurity Risks: Advancements in technology have led to increased cyber threats, such as ransomware attacks and data breaches, that have high impacts on organization due to the digitalization



#### **Use Cases**

How to apply this trend?

- Crisis following Media Reports: Quickly respond to negative reports regarding Procurement practices

  Example: Following accusations of child labor in its Procurement, Apple took immediate action with its suppliers but also industry peers to tackle systematic problems with violations of codes of conduct
- •Cope with diverse Crisis Situations: Ensure operation abilities through BCP Example: Johnson & Johnson's management developed a very resilient BCP that helped them to navigate through several severe crisis, for instance by including external suppliers in their preparedness plan



# **Procurement Relevance & Response Strategies**

- •Prevention of Sourcing Outages: Prevent drastic outages by sourcing the inputs from multiple suppliers and risks to mitigate the risks of outages at the end of one supplier
- **Establish Task Forces:** Task forces consisting of Procurement team members and other vital functions, such as finance or logistics, can help make the needed fast adjustments to Procurement processes

# NAVIGATING UNCERTAINTY: BUILDING RESILIENCE FOR AN UNPREDICTABLE WORLD



**Trend** 



**Supply Chain** N-tier Visibility



# **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Supply chain n-tier visibility refers to an organization's ability to monitor suppliers at every level of its supply chain to gain full understanding
- •Impact: Visibility allows for deeper insights into supply chain dynamics, facilitating risk mitigation to minimize disruptions, and regulatory compliance through the prevention of unlawful behavior



#### Trend Drivers

Why is this trend emerging now? What's changing?

- **Tiers:** Disruptions often originate in lower tiers that are not directly managed by the company but still affect the entire value chain
- Sustainability and Regulations: While there is a general shift towards a higher importance of sustainability, authorities also demand clear insights into emissions contained in a product which requires the company's ability to access this information
- Consumer and Stakeholder Demand for **Transparency:** Customers and stakeholders increasingly expect ethical and transparent supply chain practices



# □ □ Use Cases

How to apply this trend?

- Complexity and Error-proneness in Lower Al-Powered Risk Management: Analyzing supplier risks in real-time based on Al Example: Prewave, an Al-powered early warning system, maps n-tier supplier ecosystems and analyses supplier-related news and real-time data, to develop contingency plans in case of potential disruptions
  - Automated N-Tier Supplier Communication: Directly inform all suppliers of production plans

Example: AWS announced the introduction of AWS Supply Chain N-Tier Visibility which helps customers to directly share new production plans with their suppliers and to monitor the status of these across the different supply tiers



# Procurement Relevance & Response Strategies

- Detailed Supplier Mapping: Detailed mapping of current supplier landscape before starting to design and implement visibility systems which foster transparency
- Collaborative Transparency Initiatives: Start with fostering deeper collaboration with key suppliers to encourage transparency and data sharing across all tiers to improve overall supply chain resilience

# NAVIGATING UNCERTAINTY: BUILDING RESILIENCE FOR AN UNPREDICTABLE WORLD



**Trend** 



Supply Chain Resilience Audits



### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Supply chain resilience audits evaluate supply chain processes, operations, and partners to identify vulnerabilities (e.g., supplier redundancy, geopolitical risks, financial stability)
- •Impact: These audits increase supply chain transparency and enhance risk preparedness and operational efficiency while strengthening supplier relationships and creating a more resilient, adaptable supply chain ecosystem



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Financial Risks and Operational
  Efficiency: Recognition of disruption risks
  and the resulting financial implications
  push companies to conduct resilience
  audits to maintain operational efficiency
  and financial stability
- •Supplier Diversification: While this trend is beneficial for resilience in general, it also increases the need for more extensive supply chain audits due to the decentralization of suppliers
- Compliance with Evolving Global Standards: New regulations and standards around the world emphasizing supply chain resilience and sustainability (e.g., LkSG)



#### **Use Cases**

How to apply this trend?

- •Visibility Vanguard: Assess the potential impact of a disruption 
  Example: Resilience-fostering software such as "Resilinc" offers a cloud-based audit platform to increase transparency in 
  Procurement and to quickly assess the total impact of an event which enables the 
  Procurement team to quickly address these potential problems
- Robust Risk Radar: Comprehensive risk overview

Example: MetricStream provides a risk management platform tailored to supply chains. It offers audit management tools to prevent risks that can lead to Procurement disruptions, allowing valuable insights for Procurement teams of every organization



# **Procurement Relevance & Response Strategies**

- •Fast Adoption and "Just-in-case approach": Conducting a Procurement risk audit in the near future and building scenarios and risk mitigation strategies based on the outcome will be crucial for the organization
- Critical Inputs: Companies should identify their critical inputs and assess how they are secured in case of a disruption and whether adjustments are necessary

# NAVIGATING UNCERTAINTY: BUILDING RESILIENCE FOR AN UNPREDICTABLE WORLD



**Trend** 



Risk-Shared Partnerships



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Risk-Shared Partnerships (RSPs) describe a collaborative arrangement between buyers and suppliers to outsource certain tasks and share connected risks, for instance the design of a specific part of the finished product
- •Impact: Buyer can focus on their core competencies since they can outsource certain activities while suppliers are able to benefit from newly rising market opportunities in exchange for a level of risk



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Synergy of Innovation and Cost Management: RSPs are not just about mitigating risks; they are also breeding grounds for innovation, leading to costeffective practices and processes that benefit all involved
- •Trend of Global Specialization: A trend shows the rise of global specialists, meaning that companies focus on a rather narrow set of activities and products which they market globally
- Complexity and Interdependency in Modern Supply Chains: The high level of complexity in today's supply chains require means to ensure stability and reduce vulnerability



# **Use Cases**

How to apply this trend?

Partnership Agreement for Project
 Development: Partial contribution of project

Example: ASML partnered with five main partners to realize its TWINSCAN project, costing approx. EUR 1bn and requiring its Procurement team to directly communicate with their partners, ensuring complete and ontime delivery of goods

•Collaboration on Innovation: Competitors join forces to develop innovative technology Example: BMW and Toyota partnered to develop hydrogen fuel cells, sharing financial risks and requiring their Procurement department to constantly align their tasks



# **Procurement Relevance & Response Strategies**

- Create Interfaces: RSPs require a frequent and detailed exchange of information between supplier and Procurement team, therefore, IT systems must enable interfaces that connect multiple entities
- •Close Cooperation: To maximize the benefits of RSPs, Procurement teams and suppliers should closely work together to identify opportunities and risks

# NAVIGATING UNCERTAINTY: BUILDING RESILIENCE FOR AN UNPREDICTABLE WORLD



**Trend** 



# **Flexible** Contracting



#### Trend Definition

What is the essence of this trend? What is its impact?

- •Essence: Flexible contracting emphasizes an adaptable buyer-supplier agreement which can be dynamically tailored to the current supply chain needs and requirements
- •Impact: These contracts are essential to foster adaptability and resilience along the supply chain to mitigate the risks of the dynamic environment



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Awareness of Major Disruptions:
- Especially during Covid, companies witnessed a strong increase in demand while others saw a steep decrease, resulting in the contracts not being able to cater the buyers needs
- Equitable Partnership: Since the outcome is decisive for the fulfilment of a contract. both parties need an incentive to collaborate in order to reach the goal in the most efficient way
- •Shared Risk for Stability: Supply chain complexity demands shared-risk strategies that incorporate stability, effectively addressing vulnerabilities within this intricate network



# □<□ Use Cases</p>

How to apply this trend?

- •Flexibility as Part of the Contract: Evaluating suppliers based on flexibility Example: Micron Technology, a US company, evaluates its suppliers also based on their flexibility, thereby aiming at providing Procurement teams with a high degree of adaptability
- •Flexible Contracts as Part of the BCP: Have production plans for unforeseen events Example: Johnson & Johnson included production plans for sudden events in their business continuity planning and ensured that their supply network was able to fulfil the changing demands in case an event occurred



# **Procurement Relevance & Response Strategies**

- •Adapt Contract and Monitoring Structure: Implement dynamic contract terms to adjust quantities and pricing based on market fluctuations and disruptive events that need to be constantly monitored and predicted
- Supplier Identification: Identify suppliers that are capable of quickly adapting to new scenarios

# ECONOMIC AGILITY: ADAPTING TO THE DIGITAL ERA AND INFLATION CHALLENGES



#### **Trend**



Procurement as a Service



### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Procurement as a Service (PaaS) describes a shift in Procurement management, where businesses outsource parts of or the entire Procurement to specialized service providers, for instance supplier sourcing and contract management
- •Impact: PaaS helps companies to overcome knowledge gaps or to focus their capacity on procuring specialized goods while more general sourcing activities are outsourced to the PaaS provider



#### Trend Drivers

Why is this trend emerging now? What's changing?

- As-a-Service Trend: As-a-service solutions become more popular across multiple industries and functions due to increased levels of complexity and uncertainty
- •Focus on Core Competencies: Businesses are increasingly focusing on their core competencies, choosing to outsource non-core functions which is in line with a global trend of specialization
- Increased Need for Agility: The dynamic nature of modern markets requires businesses to be agile and to quickly respond to changing environments



#### **Use Cases**

How to apply this trend?

Transferring the entire Procurement Process:
 Outsourcing direct and indirect Procurement

Example: In order to save costs, Unilever partnered up with Accenture and outsourced its direct and indirect Procurement, the service firm also implemented changes to streamline Procurement activities



# **Procurement Relevance & Response Strategies**

- **Feasibility Assessment:** Assess which parts of the Procurement can be cost-efficiently done by a service provider and which ones need to stay in-house. Moreover, identify categories that are especially exposed to supply shortages to set up measures
- •Service Provider Selection: Following the need assessment, Procurement departments should get into contact with PaaS providers to find scalable and reliable solutions

# ECONOMIC AGILITY: ADAPTING TO THE DIGITAL ERA AND INFLATION CHALLENGES



**Trend** 



Hedging



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Hedging is a financial strategy used to mitigate risks associated with price or currency fluctuations in international trade through financial instruments
- •Impact: While hedging does not eliminate risks, it effectively transfers them, providing a layer of security against market volatility. It helps businesses manage costs more predictably and maintain profitability, even in an unstable economic environment



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Increasing Currency Volatility:
- Fluctuations in currency exchange rates have become more frequent and unpredictable due to political and economic developments that lead to higher uncertainty in certain regions
- Inflationary Pressures: Inflation can unpredictably affect the cost of goods, making hedging important for cost management and profit stability
- Global Economic Uncertainty:

Uncertainties, such as those caused by trade wars, pandemics, and political tensions, increase the risks of financial losses associated with a globalized business model



#### **Use Cases**

How to apply this trend?

- Currency Hedging: Denominating revenues in three currencies
- Example: Airbus denominates most of its revenues in USD, mostly through natural hedging, followed by EUR and GBP to minimize the impact of the USD's volatility on their EBIT
- Ensuring Currency Stability: Twofold hedging strategy

Example: To ensure a certain stability in Procurement prices, BMW spend money in the currency of their respective revenue, and they set up regional treasury centers



# **Procurement Relevance & Response Strategies**

- •Risks and Strategy: After identifying and prioritizing Procurement risks, it is important to determine the appropriate strategy, for instance forward, future, and options contracts
- Partner, Monitoring, and Adjust: Choosing a Procurement-experienced partner is equally as important as monitoring and adjusting the hedging contract

# ECONOMIC AGILITY: ADAPTING TO THE DIGITAL ERA AND INFLATION CHALLENGES



#### **Trend**



Working **Capital Management** 



# **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Working Capital Management (WCM) strategically balances a company's current assets and liabilities to optimize the cash flow
- •Impact: Optimized WCM helps companies to respond more quickly and efficiently to price increases and helps them to pay their bills on-time as well as to finance loans through their suppliers



#### Trend Drivers

Why is this trend emerging now? What's changing?

- **Economic Preparedness:** Companies proactively fortify financial resilience with WCM amid economic uncertainty, ensuring optimal cash flow to weather downturns
- •Interest-free Short-term Loans: Optimal working capital management enables companies to use their accounts payable as interest-free short-term loan which decreases their cost of capital
- Technology Advancements: Digital technologies offers new opportunities to optimizing WCM, tool such as process mining can help streamlining Net Working Capital (NWC), enhancing their ability to adapt to new market dynamics



# □ □ Use Cases

How to apply this trend?

- •Financial Agreements: Supply chain financing and longer payment terms Example: P&G announced longer payment terms to their suppliers to improve their working capital, moreover, they offer supply chain financing where they pay their invoices after 15 days, most likely connected to a discount, helping them to increase NWC and decrease Procurement costs
- Cash Flow Strategy: Collect early-pay late to finance the business by suppliers Example: Apple is known for superior cash flow and Supply Chain Management by having short DSO and DIO and long DPO which enables Procurement teams a better cash base to flexibly source products

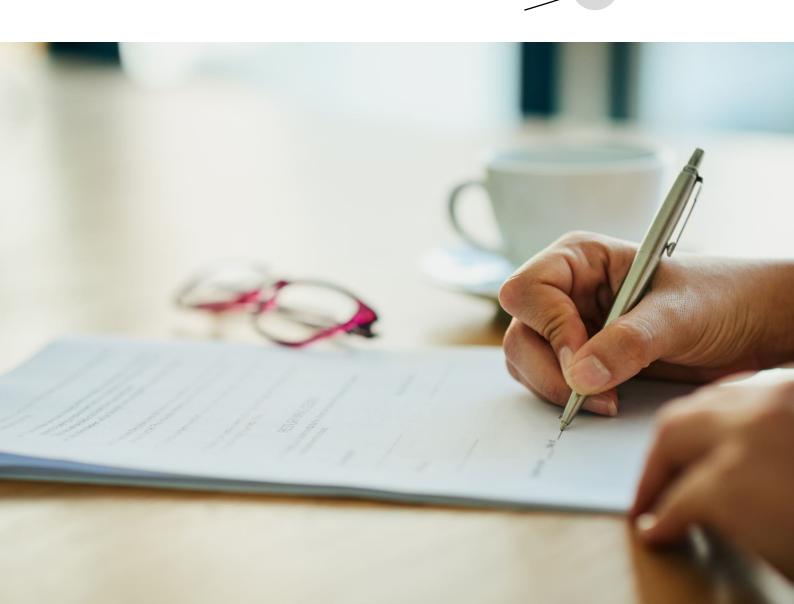


# **Procurement Relevance & Response Strategies**

- •Supply Chain Finance: Offer loans to suppliers to enable them to invest in their capacity and to benefit from the strong credit rating of the buyer since they take the loan
- •Negotiate Payment Terms: Procurement should extend their payment terms to improve WC and only pay earlier than negotiated in exchange for discounts

# Talent Management

As Procurement functions become more complex and strategic, the need for a highly skilled and adaptable workforce is undeniable. Organizations seek to attract, develop, and retain the skilled professionals they need to succeed in a rapidly changing environment. The future of Procurement will be characterized by even greater complexity, uncertainty, and competition, making it essential for Procurement teams to have the talent and skills necessary to navigate these challenges. In the following chapter, we identified three refined Talent Management trends that are analyzed in detail: Talent Shortage & Adaptive Employment Strategies, Innovative Coaching & Talent Impact, and New Work Trends.



# WAR FOR TALENTS: RETAIN SKILLED WORKFORCE IN PROCUREMENT INDUSTRY



**Trend** 



Extended Procurement Education



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- Essence: Extended Procurement training involves Procurement trainings within and outside the organization as well as the extension of scope of these trainings
- •Impact: The training fosters a culture of cost-consciousness, supplier-buyer management, and environmental responsibility, leading to enhanced organization's competitiveness, efficiency, compliance, and resilience against workforce shortages



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Expanding Role of Procurement in Strategic Decision-Making: As Procurement increasingly influences strategic decisions, there's a growing need for all employees and partners to understand its impact on the broader business objectives, like sustainability goals and risk management
- Interdepartmental Dependency in Procurement Decisions: Modern Procurement involves multiple departments (e.g., IT, HR, Marketing), requiring staff in these areas to have a basic understanding of Procurement to make informed decisions that align with Procurement strategies and goals



#### **Use Cases**

How to apply this trend?

Integration of Sustainability in Trainings:

Increasing sustainability knowledge through trainings

Example: Volvo Cars offers trainings for its Procurement employees to sensitize them for sustainability matters in the Procurement process due to the high complexity of automotive industry

 Trainings across the Value Chain: Educate suppliers to maximize efficiency and improve sustainability

Example: Volkswagen also includes their suppliers in trainings, aiming at an increased sustainability awareness, transparency, and efficiency in Procurement processes



# **Procurement Relevance & Response Strategies**

- Targeted Training Modules: Develop tailored training modules for different departments and partners to emphasize and develop their importance in Procurement processes
- •Integration with Role-Specific Goals: Align training objectives with the specific goals and KPIs of various roles aiming at Procurement efficiency and compliance improvements







#### Freelance Economy



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** The Freelance Economy in Procurement is characterized by hiring freelancers instead of permanent employees, for instance by using "Expert to Rent" matchmaking platforms
- •Impact: This trend addresses skill shortages and reduces costs related to personnel, office space, and facilities. It also offers the possibility to flexibly staff projects according to their scope and intensity



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Globalization of Talent Pool: The digital era and increase globalization broadened the access to a global pool of freelance talent, allowing but also requiring Procurement departments to tap into a diverse range of skills and experiences
- •Advancements in Remote Collaboration Tools: The advancement of digital collaboration and project management tools makes it easier to integrate freelancers into existing workflows, regardless of their location
- Increased Demand for Specialized Skills:
   Complex Procurement projects often require specialized skills that are not always available in-house



#### **Use Cases**

How to apply this trend?

- Freelance Platforms: Flexible staffing of Procurement projects

  Example: Upwork is a freelance marketplace that connects businesses with freelancers for a variety of services, including Procurement to help them with tasks such as sourcing suppliers, negotiating contracts, and managing supplier relationships
- •Flexible Project Support: Hire freelancers for projects that required urgent staffing or knowledge

Example: Bosch LegendsLab allows freelancers to register and be provided with suitable projects, also from the Procurement field, to efficiently support Bosch with its activities



#### **Procurement Relevance & Response Strategies**

- •Develop a Freelancer Integration System: Implement systems specifically designed for onboarding, managing, and offboarding freelancers to streamline their integration
- •Create Dynamic Project Allocation Models: Adapt project allocation models to dynamically include freelancers, ensuring optimal utilization of both permanent and freelance resources based on project needs and complexity



#### **Trend**



#### **Experienced Employee** Retention



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Core element of these programs in the retention of seasoned employees, including older employees, to address talent shortages
- •Impact: It ensures continuity of business expertise, preserves critical expertise, and adapts business practices to cater more complex needs of employees



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Demographic Shifts: Since seasoned leaders, especially "Baby Boomers" slowly approach their retirement age, companies face a significant loss of invaluable 'tribal knowledge'
- Onboarding: New employees benefit massively from the knowledge of more experienced colleagues which helps them to quickly navigate in the unknown environment
- Changing Working Preferences: Many senior professionals seek flexible work arrangements, such as part-time roles or advisory allowing them to contribute without the demands of a full-time job



#### □ □ Use Cases

How to apply this trend?

 Keep Employees Onboard when Introducing **New Technology:** Introducing technology to maintain employees

Example: DHL Supply Chain observed that the introduction of systematic data usage or smart operations, which also boost productivity, increased the employees' satisfaction and retention since they enjoy the environment they're working in as DHL found out through their systematic monitoring



#### **Procurement Relevance & Response Strategies**

- Integrate Flexibility in Workforce Management: Develop hybrid and part-time work models tailored to senior professionals, balancing remote and on-site work
- Establish Mentorship and Knowledge Transfer Programs: Create structured mentorship programs where senior Procurement professionals' mentor young colleagues to transfer their knowledge to the next generation of leaders



#### Trend



#### **On-demand** Learning **Platforms**



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **■Essence:** On-demand learning platforms provide tailored, pace-adjustable training for professionals focusing on a variety of topics relevant for the daily and future course of business
- •Impact: Such platforms contribute to the development of a more agile and competitive organization, keeping it abreast of current practices and innovations in its field



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Digital Transformation: The shift towards Procurement Learning Platform: Procurement digital processes necessitates new skills that extend the current base in order to tackle the challenges of the future, especially in the field of technology such as AI or blockchain
- Sustainability and Ethical Practices: Growing focus on sustainable and ethical practices requires updated and flexible on demand training options in these areas
- •Rise of Personalized Learning: Due to the complexity of today's environment, personalized learning is of increasing importance, further fostered through the rise of individual learning platforms



#### □ □ Use Cases

How to apply this trend?

- focused e-learning for professionals Example: Skill Dynamics offers supply chain and Procurement-focused courses to professionals across industries, employing a 3D-Gamification learning platform for an engaging educational experience and attracting customers such as ABB or Siemens
- •Enhancing Partner Development: Offer trainings beyond the own company's boundaries

Example: Global leaders such as Apple or Toyota offer trainings based on their wide knowledge to suppliers in order to increase performance and ESG compliance



#### **Procurement Relevance & Response Strategies**

- Integration with Procurement Tools: Embed learning modules directly into Procurement software tools for immediate application of new skills and concepts
- Regular Skills Audits and Adaptive Learning: Conduct regular skills audits to identify emerging needs, adapt content accordingly, and allow certain share of working time to be contributed towards trainings to benefit from the latest Procurement developments



#### **Trend**



## Digital Capability Development



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Digital capability development is the process of equipping professionals with the skills and knowledge they need to use technologies such as AI, Blockchain, loT, and RPA
- •Impact: Professionals who possess skills in these areas will be able to most efficiently use these technologies and thereby optimize the organization's benefit through high levels of productivity and innovativeness



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Need for Advanced Data Analysis Skills: As processes become increasingly datadriven, there's a growing demand for skills in advanced data analysis as well as a basic understanding of data-driven decision-making
- •Reduction of manual processes and labor: Companies aim to rely as little as possible on manual interferences in their processes, therefore all employees must be equipped with basic digital capabilities
- Adaptation to Blockchain Technology: As blockchain is on the rise, employees should have a basic understanding of chances and risks of the technology



#### **Use Cases**

How to apply this trend?

- Digital Procurement Transformation:
- Combining technological innovation with employee training

Example: Unilever has embarked on a digital Procurement transformation journey along their supply chains, investing heavily in developing the digital capabilities, a major element of the success is the employee's education in the field of new technologies

•Data Capabilities for an Entire Digital Transformation: Training employees during the company's transformation Example: Coca Cola rolled out a digital training program to enable employees to cope with transformational challenges, affecting the Procurement due to the generated data in the department



#### **Procurement Relevance & Response Strategies**

- •Collaborate with Technology Experts: Invest in and allow for expert-based training sessions on the optimal handling of digital tools in Procurement departments
- **Establish Continuous Learning Culture:** Foster a culture of continuous learning and development within Procurement departments by highlighting benefits of strong digital capabilities



#### **Trend**



#### **Talent Attraction**



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Attracting and retaining highly talented young professionals in Procurement becomes very challenging for companies
- •Impact: A lack of qualified applicants and employees will ultimately result in a drastically decreased performance of Procurement teams which could negatively impact the entire organization depending on the relevance and maturity of procurement within the organization



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Workforce Demographic Changes: Due to University Partnerships: Increase presence in a drastic labor shortage across every industry, young talents have a wider range of opportunities to choose from regarding their first full-time employment which also leads to a steep increase in demands towards their future employer
- •Globalization of the Talent Pool: Remote work allows companies to tap into a global talent pool, accessing skills and expertise that may not be available locally, on the other hand, it might negatively affect roles that require a high level of human interaction, for instance supplier negotiations



#### □ □ Use Cases

How to apply this trend?

academic institutions

Example: Partnering with leading universities in the field of supply chain and Procurement helps companies to get direct access to talented and motivated students and therefore create an early personal connection

Development Programs: Employees can be redirected towards Procurement Example: Johnson & Johnson created their Procurement Leadership Development Program that combines Procurement knowledge business leadership skills and is open to MBA graduates directly after graduation

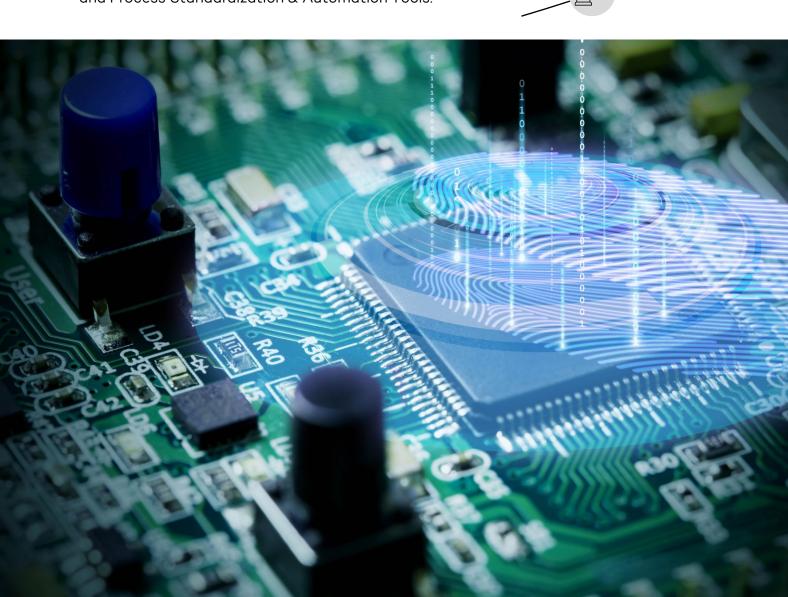


#### **Procurement Relevance & Response Strategies**

- •Adopt Latest Technologies: While personal contact will still play a large role in the future, the adoption of technologies, such as VR, can fulfil the requirements of suppliers and young professionals
- Talent Pipeline and Career Path: Develop retention programs after first contact (e.g., after an internship) and clearly illustrate a potential career path at the organization

# Technology & Automation

Technological trends are revolutionizing source-tocontract and procure-to-pay Procurement processes. From integrating Best of Suite (e.g., SAP Ariba) to deploying Best of Breed software solutions using latest technology (e.g., robotics and artificial intelligence), organizations are striving for greater and efficiency, cost-effectiveness, Understanding and leveraging these technological advancements is essential for staying competitive in Procurement. In the following chapter, we identified six refined Technology and Automation trends that are analyzed in detail: Al & Machine Learning, Blockchain & Digital Identity, Virtual World Integration, Advanced Technologies, Smart Logistics, and Process Standardization & Automation Tools.





**Trend** 



Al-Driven
Demand
Forecasting



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- ■Essence: Based on Machine Learning (ML) models, AI-Driven Demand Forecasting fosters the quality and accuracy of demand forecasts by combining historical data with predictive analytics, originating from internal and external sources, such as weather or market conditions
- •Impact: Al enables a more precise and constantly updated demand forecast by uncovering complex data patterns compared to traditional approaches such as trend projection



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Data Availability: E-commerce transactions, IoT in manufacturing, and market reports provide more data on customer behavior, product demand cycles, and supply chain dynamics
- Technological Advancements: ML algorithms enable companies to analyze a bigger amount of data and to obtain high-quality insights
- •Market Dynamics: Macro and market developments, for instance new regulations or supply chain shocks, require real-time adaptions of forecasts to these scenarios which traditional methods can hardly deliver



#### **Use Cases**

How to apply this trend?

#### Inventory Management through AI Forecasting of Consumer Demands:

Centralized data storage and utilization to optimize Procurement activities Example: Walmart's "Data Cafe" enables the retailer to keep an optimal level of inventory and to reduce the need for last-minute adjustments to their Procurement

•AI-driven Direct Material Sourcing: Direct impact on material Procurement activities Example: Suite solutions such as GEP use AI engines to collect and cleanse data from different sources such as invoices and classify spend. With AI learning sourcing patterns, companies can save time in identifying and selecting suppliers



#### **Procurement Relevance & Response Strategies**

- Data Foundation: Consolidated data hub to access different kind of data utilizing artificial intelligence and machine learning algorithms
- Integration and Connection: Directly integrate predictive analytics to automate processes based on AI forecasts and connect the systems with the suppliers. This enables the integration of AI-driven insights in negotiations, for instance to reach dynamic pricing



#### **Trend**



## Digitalized Vendor Collaboration & Management



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- Essence: Digitized Vendor Management is a platform-based approach between suppliers and buyers focused on digitizing inventory management, order fulfillment, and data sharing with the goal of improving vendor relationships
- •Impact: It provides possibilities to easily onboard vendors, to increase contract and documentation automation and to reduce the risks of supply chain disruptions due to a high level of transparency and visibility



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Third Party Data: Traditional vendor management is not able to consistently assess the entirety of all information, especially the ones originating from third parties, that needs to be processed, resulting in an increased risk of disruptions and compliance issues
- Increased Complexity: Due to vast diversification of supply chains and the resulting complexity, vendor management systems require a high level of standardization and centralization
   Increased Complexity: Due to vast inventory
   Enhanced Data Sharing for Forecasting: Improved demand planning with shared supplier-buyer data
- •Competitive Pressure: Due to rapid technological advances and industry players integrating these, companies that are reluctant to adapt will face a significant competitive disadvantage



#### **Use Cases**

How to apply this trend?

- •Automated Inventory Management: Enables automated replenishment orders based on supplier inventory data 
  Example: P&G utilizes Walmart's real-time sales data to efficiently manage its product inventory in Walmart's warehouses, optimizing stock levels and ensuring in-time delivery to minimize the risk of stockouts or excess inventory
- •Enhanced Data Sharing for Forecasting:
  Improved demand planning with shared supplier-buyer data
  Example: Cisco Systems partners with its component suppliers based on Oracle and ERP to share demand forecasts with its suppliers, who in turn adjust their production, resulting in reduced time-to-market and order cycle times

#### ASON,

#### **Procurement Relevance & Response Strategies**

- •Process Adaptation: Implement supply chain solutions (e.g., JAGGAER, iValua, or SAP) linked to supplier data, ensuring real-time adjustments to Procurement needs
- •Strategic Supplier Collaborations: Prioritize partnerships with digitally connectable suppliers to fully leverage benefits of digitized vendor management, aligning Procurement strategies with integrated software solutions



#### **Trend**



#### Marketplace Matchmaking



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** The most suitable buyer-supplier matches are identified by AI algorithms (e.g., JAGGAER) analyzing large data sets, such as product specifications, supplier capabilities, and demand trends, to provide both parties with deeper insights into one another
- ■Impact: Al-based Marketplace
  Matchmaking automates Procurement
  processes and enables more efficient and
  agile responses to market fluctuations,
  trends, and constraints



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Advanced AI: AI capabilities efficiently interpret large data sets, including supplier performance metrics, pricing histories, and logistical capabilities which allows the platform to identify the best buyer-supplier match
- •Increase Importance of Resilience:

Following several supply chain disruption, for instance through the pandemic or Russia's invasion of Ukraine, buyers are more sensitive towards their supply chain resilience

•Localizing Procurement: Companies diversify their suppliers according to their manufacturing location, e.g., two different suppliers provide materials for the Asian and European facilities



#### **Use Cases**

How to apply this trend?

- \*Strategic Sourcing Optimization: Al-based algorithms enable various scenario simulations to find the optimal supplier Example: Archlet integrates Al into its strategic sourcing platform to provide usercentric RFx processes, bid-analytics, and scenario simulation, fostering efficiency and savings in Procurement through aiding supplier evaluations and negotiations
- •Al-driven Procurement Process Design:
  Identify suppliers and moderate the process
  Example: JAGGAER uses artificial intelligence
  to identify the most suitable suppliers but
  also to guide the buyer through the entire
  sourcing process by providing tailored
  recommendations on the next steps



#### **Procurement Relevance & Response Strategies**

- **Setup and Monitoring:** Develop a core team focused on integrating AI marketplace matchmaking insights and virtual simulations into Procurement supplier strategies and systematically track savings and efficiency gains through the implementation
- **Pilot Projects:** Test and implement AI tools (e.g., Archlet, Keelvar) for real-time market analysis and supplier identification to optimize Procurement



#### **Trend**



Procure-to-Pay Digitalization



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- Essence: Procure-to-Pay (P2P) digitization represents the automatization and optimization of E2E purchasing activities, from the identification of the need for a product/service to invoice settlement through tools such as JAGGAER
- •Impact: P2P digitization boosts efficiency by up to 25%, enhances accuracy and transparency within the process, reduces risks of product authenticity issues, and improves tracking of supplies



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Operational Efficiency: Organizations seek digitized Procurement to automate routine tasks, reduce Procurement cycle times, and minimize human errors
- Rise of Digital Platforms: Accessibility, importance and effectiveness of digital platforms have grown the concept into a crucial element of today's Procurement environment
- •Increased Need for Transparency and Traceability Demand: Global Supply Chain challenges and regulatory pressures underline the need for data transparency and compliance in Procurement processes to avoid disruptions and legal consequences



#### **Use Cases**

How to apply this trend?

- •Cloud-Based Order Solutions: Implementing cloud-based order management systems like JAGGAER, SAP Ariba, or Coupa Example: Most companies, for instance NORMA Group, are able to drastically reduce their Procurement cycle times, enhance supplier communication, and cut costs through the application of suite solutions
- Blockchain Integrated P2P: Promote verifiable visibility, security as well as traceability of products and eliminate the need for third-party verification from transactions

Example: Walmart Canada used blockchain to automate freight invoicing, reducing disputes from over 70% to under 1% and accelerating carrier payments



#### **Procurement Relevance & Response Strategies**

- Setting the Basis: Integrate P2P systems to enhance data flow as a basis for further AI
  investments, analysis, and insights and to fully automate invoice processing as well as
  payments
- Category Management-driven Buying Channels: Based on discounts that should be achieved, the category manager defines the buying channel, supplier, and catalog view



#### **Trend**



#### Smart Contracts



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- •Essence: Blockchain-based smart contracts automatically execute tasks (e.g., customs clearance and payment) after predefined conditions have been met, thus minimizing the need for manual intervention and drastically reducing process times
- ■Impact: Besides increasing efficiency and decreasing operating costs; smart contracts foster data transparency and visibility through reports that can be created by Al based on transaction data



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Global Supply Chain Complexities:
  Growing need for reliable, efficient, and transparent processes in globalized supply chains that securely manage the increased complexity
- •Regulatory Compliance Pressure: Stricter regulations and compliance requirements in international trade necessitate more transparent and auditable processes that can be accessed in a secure manner
- Cost Pressure: Companies face serious cost pressure to remain globally competitive, hence, cutting costs for services and intermediaries is an important lever for a company



#### **Use Cases**

How to apply this trend?

- •Secure Supply Chain Transactions: Enable Procurement and product insights Example: Home Depot, in collaboration with IBM Blockchain, established smart contracts to automatically verify transactions, detect anomalies and have real-time access into records of shipments and receipts
- Supply Chain Transparency Enhancement:
  Access product information and automate supplier payments
  Example: Unilever, in partnership with
  Provenance, uses blockchain smart contracts for transparent tea Supply Chain
  Management, facilitating product tracking
- Management, facilitating product tracking and automating supplier payments, enabling insights into the tea's origin and quality



#### **Procurement Relevance & Response Strategies**

- •Strategic Rollout: Develop a phased plan rollout to integrate smart contracts, firstly with low-risk Procurement categories to monitor performance, scalability and efficiency gains, followed by systematically monitoring the progress
- •Supplier Onboarding: Ensure supplier onboarding by incorporating smart contract protocols within digital contract management systems



#### **Trend**



#### Cybersecurity



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Establishing a high level of cybersecurity in virtual supply chain environments is essential for protecting sensitive data, digital assets, and IoT devices against cyber threats
- \*Impact: High levels of cybersecurity reduce the risk of supply chain disruptions and legal trouble following data leaks, and facilitate an interaction between virtual and real-world environments, for instance that digital inventory tracking connects to the physical movement of goods



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Rapid Digital Transformation: Due to the rising importance of digital technologies, companies are more prone to cyber attacks since customer, supplier and internal data is centrally collected, for instance in data lakes, and stored, e.g., in cloud solutions
- \*Advancing Cyber Threats: Cyber attacks showed an increase in amount and severity. Production lines had to be shut down in the past due to major cyber attacks on suppliers as can be seen in the case of Kojima-Toyota. It became obvious that those attacks not only pose legal risks through the loss of data but also directly impact Procurement and production operations



#### **Use Cases**

How to apply this trend?

- •Preventing Back-door Cyber Attacks: Value chain partners of big players present serious risks for cyber attacks
  Example: Al can serve as a safeguard, greatly reducing the costs and complexities of defending against these threats. A possible tool in this context is IBM's Security QRadar SIEM
- Digital Asset Protection: Software including strong encryption, network security, and realtime monitoring, is crucial for protecting IoT devices

Example: General Motors uses AT&T's 5G and Microsoft Azure Sphere for layered IoT device security besides its cybersecurity protocols to safeguard its Procurement and manufacturing IoT networks



#### **Procurement Relevance & Response Strategies**

- •Regular Cybersecurity Assessments: Develop cybersecurity strategies across the supply chain and conduct periodic security audits to identify as well as mitigate vulnerabilities
- **Educating Employees:** Since humans are potential entry points for hackers, companies must sensitize their employees towards cyber attacks and social engineering



#### **Trend**



## Digital Twins for Supply Chain



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- ■Essence: Digital supply chain twins and the enterprise metaverse are digital representatives of their real-life counterparts that allow scenario analysis, predictive maintenance, and stress testing
- •Impact: Digital twins enable companies to optimize their supply chains activities by identifying bottlenecks, enhancing efficiency and predictability, stresstesting and creating transparency regarding the impact of changes and events along the supply chain



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Improved Data Foundation: Rapid growth in IoT, AI, and cloud computing enables more sophisticated digital replication of physical supply chains and the thorough simulation of various events to make early adjustments due to an improved data collection and availability
- Need for Resilience: Increasing global supply chain disruptions necessitate more robust predictive and responsive solutions
- •Demand for Efficiency: Pressure to reduce costs and downtime while improving productivity as well as an increasing awareness for sustainability drive the adoption of advanced digital solutions



#### **Use Cases**

How to apply this trend?

- \*Stress Testing in Logistics: Supply chain twins are used for dynamic simulation and stress testing, enabling proactive management of potential disruptions Example: DHL's usage of digital twins helps in the management of container fleets, monitoring shipments, and logistics systems
- •Alternative Materials: Simulation of CO2 emissions caused by different materials *Example*: Microsoft used digital twins to simulate how replacing wood by alternative materials in sourcing of their pallets can reduce carbon emissions



#### **Procurement Relevance & Response Strategies**

- **Laying the Foundation:** Start collecting data, introduce simulation software and conduct simulations, for instance using JAGGAER or ivoflow, to enable a profound preparation for extreme events through the identification of bottlenecks
- Predicting Disruptions: Using results of digital twin analysis can help mitigating risks of supply outages



#### **Trend**



#### Virtual **Marketplaces**



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Virtual marketplaces allow buyers to access the suppliers' facilities remotely through technologies such as Augmented Reality (AR) and graph databases
- Impact: Reshaping Procurement by introducing a digital experience, enhancing decision-making efficiency, and fostering a more integrated and transparent supply chain ecosystem with multiple tiers



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Ease Complexity: Through the deployment of virtual marketplaces and VR, companies can create digital interactive environments with their suppliers
- Sustainability Concerns: Following an increasing awareness of sustainability, businesses seek ways to reduce their carbon footprint
- Technological Innovation and Accessibility: Rapid development and accessibility of AR and VR make the creation and adoption of virtual marketplaces more feasible and costeffective for businesses of all sizes



#### □ □ Use Cases

How to apply this trend?

- Virtual Procurement Collaboration: Facilitate flexible and more effective supplier meetings Example: Hololight's software application for enhanced supplier meetings and decisionmaking. Importing 3D CAD data directly, procurement teams collaborate in XR environments, merging real product parts with virtual models, to allow detailed reviews and efficient collaboration
- Virtual Reality in Showcasing: Enriching decision basis in Procurement Example: IKEA has pioneered the use of virtual reality in showcasing their products. In the future, the concept can be transferred to supplier showcasing at production facilities or meetings in order to improve decisionmaking for Procurement departments



#### **Procurement Relevance & Response Strategies**

- Testing the Ground: To test a potential deployment in the long-term, Procurement teams can try integrating virtual marketplace technologies into their ERP and SCM systems to assess the impact on decision-making and virtual collaboration
- Redefining Supplier Relationship Management for a virtual world: Procurement needs to establish new protocols for audits, negotiations, and quality checks



#### **Trend**



Next-Gen Wireless & 5G-IoT



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Next-generation wireless technologies (e.g., Low-power wide-area networks (LPWAN), 5G for IoT) help dealing with the increasing number of connected devices incorporated in a firm's supply chain activities
- Impact: Next-Gen wireless technologies enable real-time tracking of Procurementrelevant data from various sources, fast communication and data-driven decisionmaking



#### Trend Drivers

Why is this trend emerging now? What's changing?

#### Real-Time Data Management:

Advancements in 5G for IoT revolutionize supply chains by enabling high-speed data transfer and allow companies to implement high levels of connectivity and newest technologies

#### Enhanced Supply Chain Resilience:

Following the pandemic and geopolitical tensions, there's a heightened focus on resilient supply chains which led to many companies rethinking their current model, also further intensified by governments offering huge incentive packages for localizing crucial production sites



#### **Use Cases**

How to apply this trend?

•Global Coverage of Supply Chains: Universal traceability of supply

Example: Global Area Networks (GANs), for instance Starlink, enable end-to-end visibility along the value chain, for instance to keep track of the status of deliveries in remote areas

 Inventory Management: Leverage increased network speed to optimize operations management

Example: Walmart utilizes 5G and IoT for realtime inventory tracking. This enables them to monitor stock levels accurately across their global stores and helps the Procurement teams by increasing transparency



#### **Procurement Relevance & Response Strategies**

- Streamline Procurement with Real-Time Data Integration: Selective incorporation of 5GloT data streams into the Procurement software for instant availability of inventory levels and supply lead times enables more efficient ordering and stock management
- **Efficient Supplier Communication:** Faster data transmission eases the communication between buyer and supplier, leading to an increase in efficiency and a reduction of costs



**Trend** 



**Smart Labels** 



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- ■Essence: Smart Labels represent a technological leap in labelling, integrating RFID, NFC, TTIs, and QR codes to provide digital tracking, monitoring, and data collection for products and assets
- •Impact: Smart Labels improve supply chains by offering solutions for enhanced visibility, security and quality control (like monitoring food freshness) as well as a reduced reliance on physical labels, decreased costs and a positive environmental impact



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Need for Enhanced Traceability: The increasing complexity of global supply chains, fostered by global trade and diversified supplier networks, requires better possibilities to track the supply. Increasing traceability fosters a timely delivery, reduced risks, and a higher level of transparency in the Procurement process
- Digital Transformation in Supply Chains: In an environment characterized by complexity and disruptions, digital technologies help reducing uncertainty for the buyer regarding quality, availability and delivery of the products as well as decision-making



#### **Use Cases**

How to apply this trend?

- •Smart Containers: Reducing product failures through shipment tracking

  Example: Maersk employs smart containers to provide real-time insights into the temperature, humidity, and location of sensitive cargo like pharmaceuticals and perishables to prevent spoilage, reduce insurance claims, and enhance customer trust
- •RFID Inventory Tracking: Track items to optimize Procurement processes Example: Walmart uses RFID technology to allow an automated inventory management, significant improvements of inventory accuracy, a reduction of instances of items being out of stock, and streamlining replenishment processes



#### **Procurement Relevance & Response Strategies**

- •Refined Quality Control Processes: Verify product authenticity by incorporating smart label data to prevent counterfeit products from entering the supply chain
- •Integration of Smart Label Data: Procurement systems should be tailored to utilize data from smart labels for targeted inventory management such as quick Procurement responses to automate stock level updates



#### **Trend**



## Edge Computing



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Edge Computing reduces the data transfer to central data centers by decentralizing data processing capabilities closer to the data sources
- •Impact: Edge computing improves processing speed and IoT connectivity and is particularly useful when fast data processing is needed, for instance to analyze process data in real-time to identify efficiency gains



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Technological Advancements: Fast improvements in computing, storing, and networking as well as mobile computing and the IoT nowadays challenge legacy data processing capabilities
- •Bandwidth, Costs, and Stability: Edge
  Computing reduces the strain on
  bandwidth, lowers the costs associated
  with data transmission and reduced the
  dependence on centralized networks
  which is particularly beneficial for supply
  chains since vast amounts of data need
  to be processed cost-effectively



#### **Use Cases**

How to apply this trend?

- •Shipment Tracking: Keeping track of sensitive and high-quality shipments Example: Edge Computing enables companies to process data also in dark zones as well as a high level of IT ownership. Hereby, they can ensure a constant tracking of their shipments, the delivery's quality and a reduced exposure to cyberattacks which is connected to higher security is Procurement
- Smart Warehousing: Monitoring inventory levels at all times

Example: It is possible to efficiently manage volume fluctuations with direct impact on Procurement activities to maintain the desired inventory levels



#### **Procurement Relevance & Response Strategies**

- **Enhancing Supply Chain Transparency:** Use Edge Computing to gain real-time visibility into the supply chain to enable more accurate and timely Procurement decisions
- Boosting Security in Data Handling: Implement Edge Computing when processing highly sensitive Procurement data to leverage the data security benefits



#### **Trend**



#### Smart **Delivery**



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Smart delivery integrates advanced technologies to automate and optimize the delivery process in supply chains, for instance by using real-time tracking, new mobility solutions, and (E2E) connectivity
- •Impact: The trend leads to improved operational and resource efficiency, cost reduction, enhanced transparency, and environmental benefits in operations



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Environmental Sustainability Pressures: Increasing awareness of climate change and environmental impact demand green logistics solutions to reduce the carbon footprint of supply chain operations
- Technological Advancements: Rapid technological development such as the Internet of Things (IoT), artificial intelligence (AI), autonomous vehicles, and advanced analytics tools enable smarter, more efficient delivery systems, capable of real-time tracking, predictive logistics, and automation
- **Legacy Systems:** Due to an increase in volume and speed, many legacy systems are at the edge of their capacity



#### □ □ Use Cases

How to apply this trend?

- Minimization of Procurement Duration: Smart logistics enable a drastic reduction of delivery
- Example: Senpex uses elements of Smart Delivery, for instance route optimization or analytics as well as APIs with partners, to achieve a same-day-delivery which leads to flexible Procurement possibilities
- Supply Chain Control Software: Increase transparency along the value chain and within Procurement

Example: SAP Ariba offers control tower software that enhances visibility into freight and logistics, optimizing Supply Chain Management and flow of goods



#### Procurement Relevance & Response Strategies

- Use APIs at Logistics Partners: Having interfaces with logistics partners eases the communication and alignment between buyer and supplier to optimize Procurement
- •Establish Teams for Smart Delivery: Taking Canada Post or PostNL as examples, Procurement departments should dedicate a certain amount of their capacities towards building Smart Delivery capabilities to gradually replace legacy systems



#### **Trend**



Integrated
Cloud Logistics
Platforms



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- Essence: Integrated Cloud Logistics platforms represent a fusion of logistics operations and cloud technologies to connect various logistics functions from order processing to delivery tracking within a unified cloud-based platform
- •Impact: The integration simplifies logistics processes and offers real-time insights into various aspects of the supply chain and provides the chance to apply predictive analytics and efficiency gains in resource allocation



#### Trend Drivers

Why is this trend emerging now? What's changing?

- Rapid Advancements in Cloud
   Computing: Continuous technological advancements in cloud computing have made it possible to efficiently handle complex logistics operations, enabling robust data storage, enhanced computing power, and better scalability
- Increased Possibilities in Real-Time Data and Analytics: In the digital age, the importance of real-time data for decision-making in Procurement is unprecedently high and enabled through data source at multiple stages of the supply chain



#### **Use Cases**

How to apply this trend?

- •Digitized E2E Logistics Platform: Integrate information from order placement to delivery Example: Cleo Integration Cloud connects the firm's existing ERP systems with API-enabled third-party services, enabling constantly updated and integrated Procurement options
- •Logistics API: Integrate shipment information into the own business Example: DHL offers third parties the opportunity to integrate its solutions and therefore keep track of all shipments, allowing for a better plannability in Procurement departments



#### **Procurement Relevance & Response Strategies**

- **API Integration:** Procurement departments can enhance their connectivity with partners and streamline sourcing and contract management by implementing and utilizing APIs. This approach promotes greater transparency and planning efficiency
- **Data-Driven Decision-Making:** Use Cloud Logistics platforms for real-time data analysis to improve demand and Procurement forecasting as well as cost-performance



#### **Trend**



Data-led
Supplier
Evaluation



#### **Trend Definition**

What is the essence of this trend? What is its impact?

- **Essence:** Data-led supplier evaluation in Procurement collects and analyzes quantitative and qualitative data on supplier performance, reliability, costeffectiveness, pricing, delivery times, and quality
- •Impact: More traditional Procurement methods are replaced by introducing a more objective, data-driven approach that leads to more efficient supplier and Procurement management, improve decision precision, and cost optimization



#### Trend Drivers

Why is this trend emerging now? What's changing?

- •Big Data in Procurement: The growth of big data across industries has provided Procurement departments with unprecedented access to detailed supplier information, including both traditional (costs, delivery times) and new (economic and political risks, markets trends) dimensions
- •Heightened Need for Supplier Resilience, Flexibility, and Compliance: The COVID-19 pandemic and subsequent supply chain disruptions have shown the importance of supplier resilience, necessitating the need for suppliers that can adapt swiftly to changing market conditions



#### **Use Cases**

How to apply this trend?

•Real-Time Performance Monitoring: Easy monitoring and steering of suppliers Example: JAGGAER enables Procurement departments to automatically track databased delivery timelines, quality of products, and overall supplier reliability and compliance, facilitating better-informed sourcing decisions



#### **Procurement Relevance & Response Strategies**

- **Define and Implement Evaluation Criteria:** Define traditional and new criteria to evaluate the fit of suppliers and then implement these in the Procurement system
- Proactive Risk Management: Build a risk management framework that integrates data analytics to identify and mitigate supplier-related risks proactively. Develop compliance monitoring systems to ensure suppliers adhere to regulatory standards

#### ABOUT THE PROCUREMENT INITIATIVE



The Procurement Initiative is a modern think tank and a platform for people who want to shape the future of Procurement. We live in a world where uncertainty and crises are the new normal. And that is exactly why we believe in a new purpose of Procurement: to take full responsibility for creating and orchestrating global Supply Chains that positively impact the needs for viable and sustainable businesses, a prosperous society, and a healthy planet alike.



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