FUTURE OF SUPPLY CHAIN

What prospects for Italy and Germany?

Milan, 16th June 2022

KPMG for AHK Deutsch-Italienische Handelskammer Camera di Commercio Italo-Germanica

The current context at a glance

- RUSSIA-UKRAINE WAR
- COVID-19 PANDEMIC
- ESG REGULATORY EVOLUTION

SUPPLY CHAIN DISRUPTION

Energy Cost impact
- Energy dependency
- Renewable sources
- Energy mix

Raw Material Shortage
- Semiconductor shortage
- Grain shortage
- Multiple factory shutdowns

Logistic Disruption
- Suez-Canal blockage
- Container shortage
- Brexit

Labour Shortages
- Skills concentration
- Immigration restrictions
- Voluntary layoffs

Environmental Sustainability
- Circular Economy
- ESG
- Financing

The impact of natural gas & oil dependency on Energy "price war"

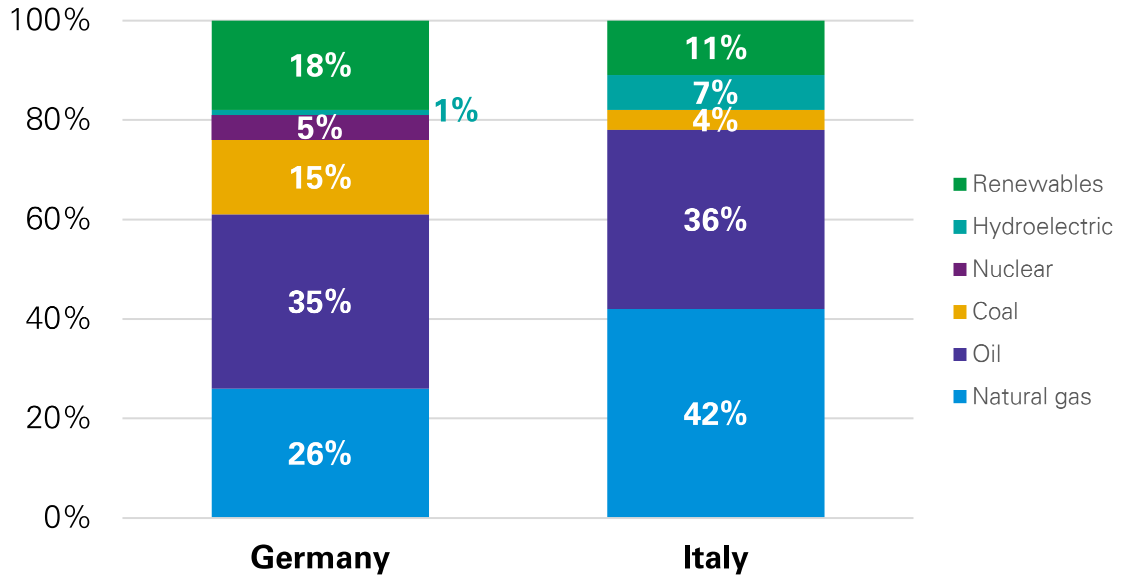
Source: ISPI & Eurostat, 2022

+300%

Energy price increment for MWh in the last 2 years

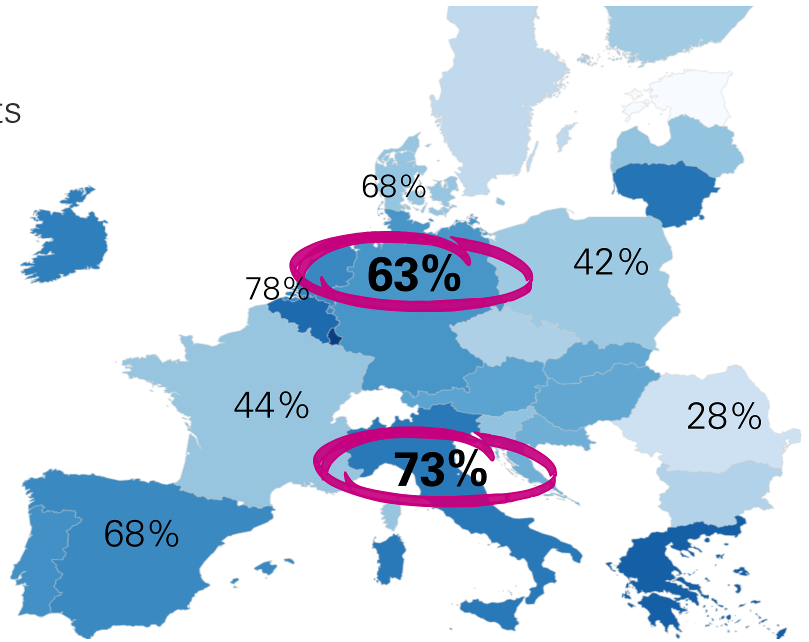
EU imports more than 40% of natural gas and oil from Russia

Energy Source mix



Import of Energy

Share of total energy needs met by imports

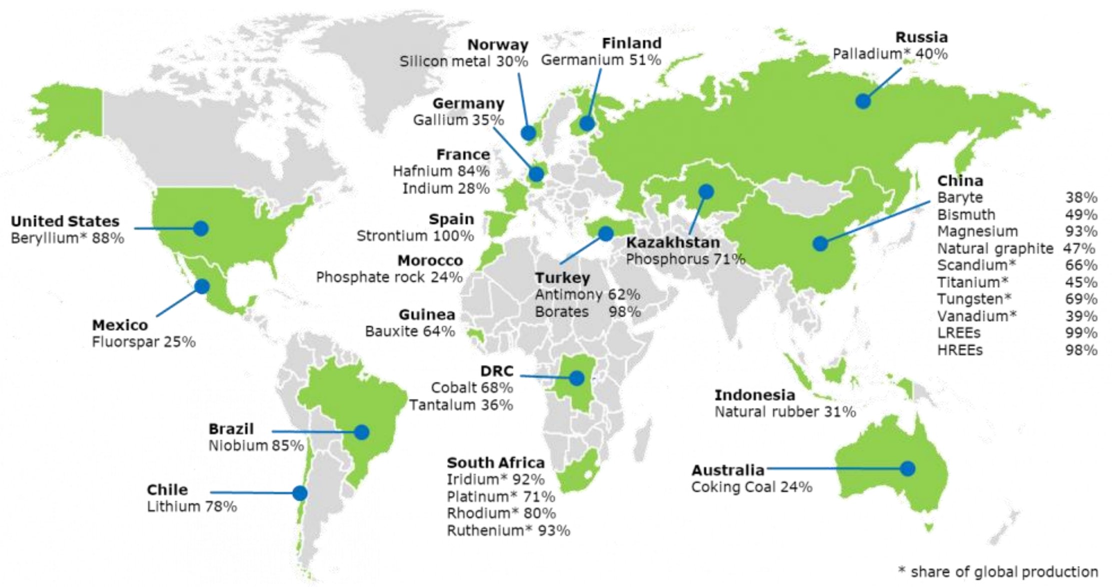


Only the 20% of energy mix rely on "green energy"

Italy and Germany highlight one of the highest energy dependence rate

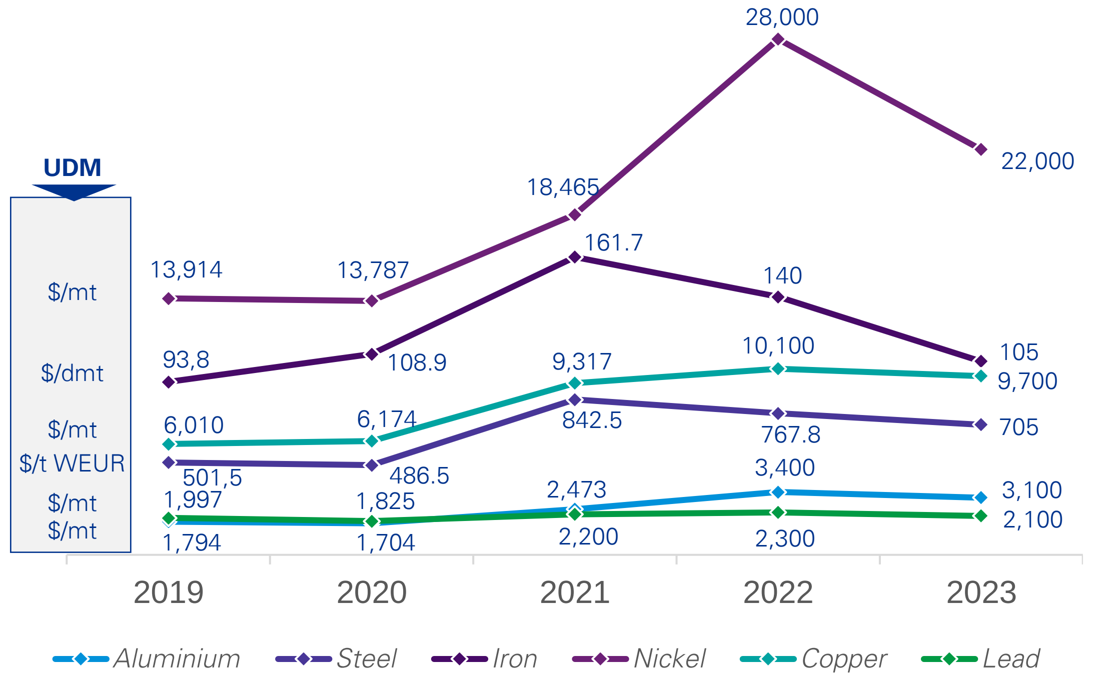
Materials shortage put economic recovery under pressure

Countries share of global Critical Raw Material supply



Source: Study on the EU's list of Critical Raw Materials (2020)

Metal unit price Trend



Raw materials concentrated in countries outside Europe, mainly in Asia

Heavy impact of Russia-Ukraine war on **35 critical materials** (30% of Global need of Platinum / palladium, 13% titanium, 11% Nickel)

29% of total grain exports are controlled by **Russia and Ukraine**

Ukraine parts shortages put **15%** of **European automotive production at risk**

Logistic disruption: no-normal is the new normal

"Shipping groups prepare for more 'black swan' event after Suez Blockage"

- Financial times 07/04/2021 -

9 b$ of goods blocked

350 ships in «queue» in six days

"Global Supply Chains' crisis is much bigger than pandemic; the transformation they're undergoing is the cure"

- Forbes 30/09/2021 -

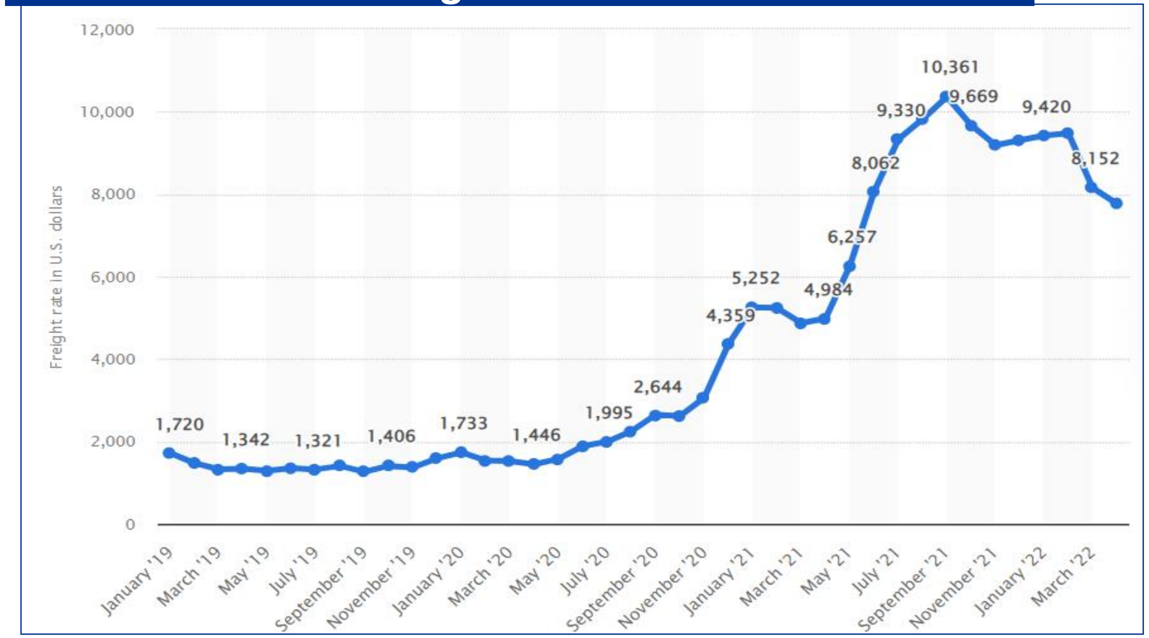
"Shangai lockdown exposes global supply chain strains"

- Financial Times 15/05/2022-

"European Logistics: From one crisis to the next"

- Logistics management 31/05/2022-

Global container freight rate index



Source: Drewry Supply Chain Advisors

+700%
Ocean freight Cost Increment
in the last 2,5 years

+200%
Delivery Time increment

Monopoly of maritime operators

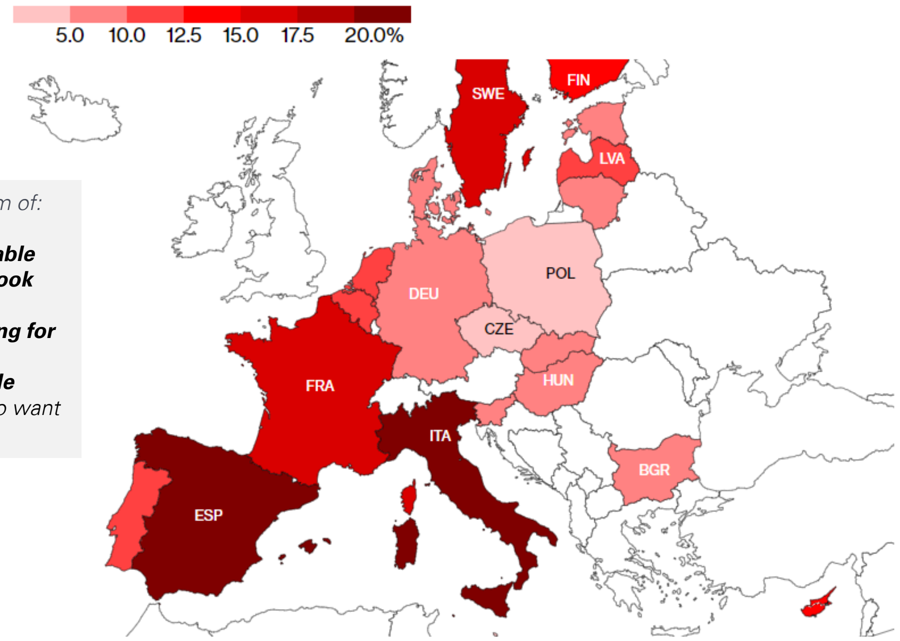
Poor investment in containers production

Port flows management with low capacity

Not balanced flows (saturation round-trip routes)

Labour shortage: a problem of mindset & skills

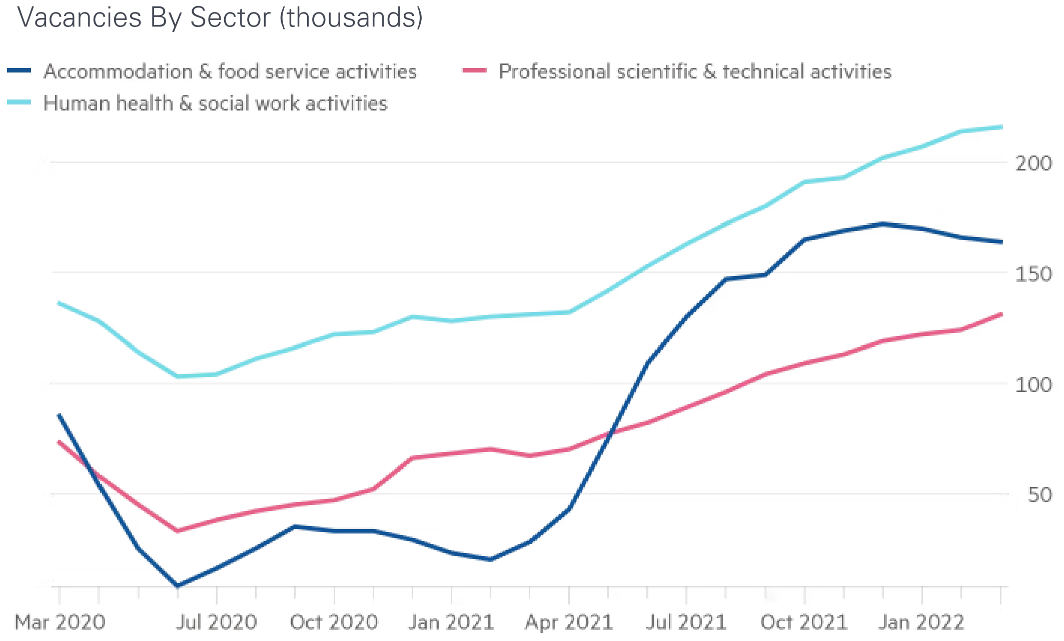
Labour slack*



*Labour Slack is the sum of:
- *job-seekers*
- *people who are* ***available to work but do not look for work***
- *people who are* ***looking for work but are not immediately available***
- *part-time workers who want to work more.*

Source: Eurostat

Demand for skills (professional, technical, scientific)



Source: Financial Times

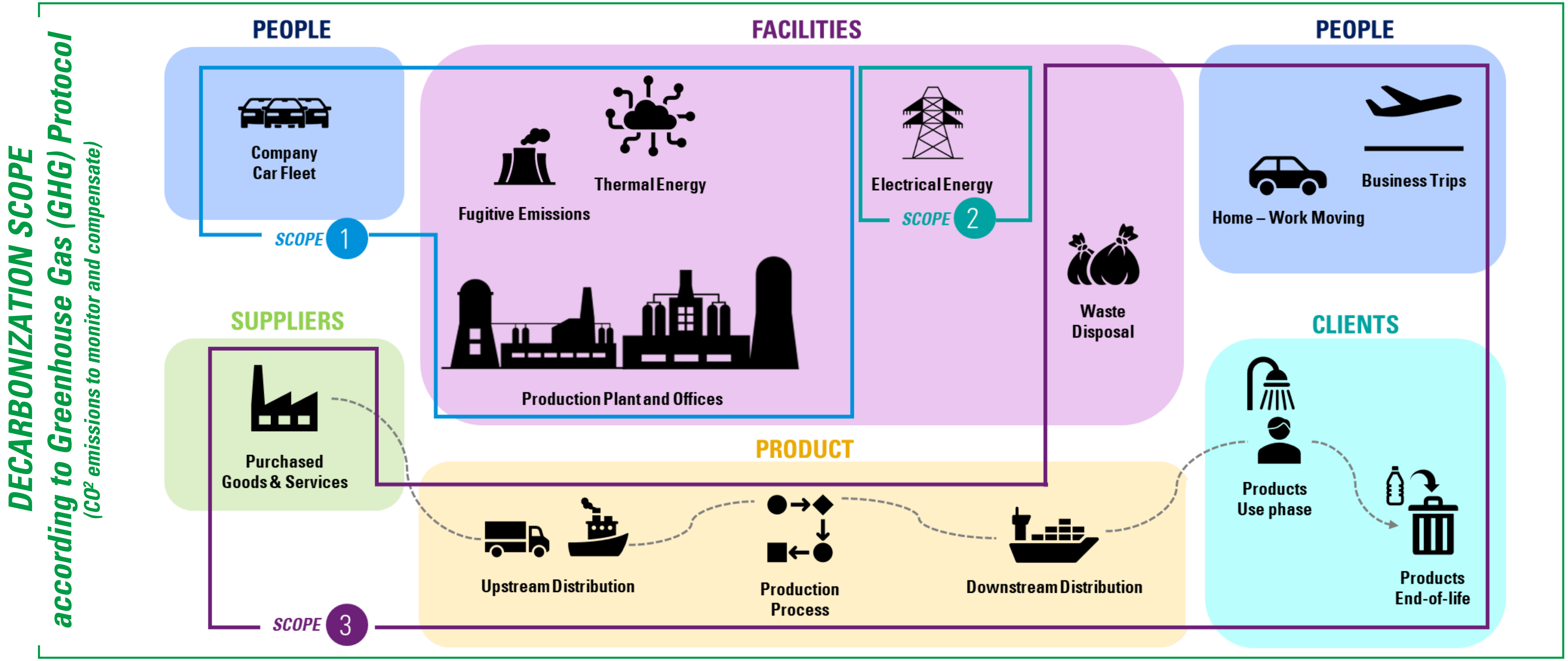
-30,6%
Inbound migration flows vs Italy in 2020 due to the pandemic

20%
Labour slack in Spain and Italy, the worst EU performance

Italy is held back by 2.6 mln people who have given up on work

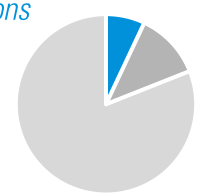
200 b€ EU
Recovery Fund to deploy skills-focused programs in Italy

Sustainability Transformation: it's time to act!



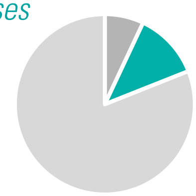
Source: KPMG «Net-Zero Commitments» 2021

1 SCOPE
Direct emissions



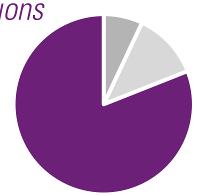
7%

2 SCOPE
Energy Purchases



12%

3 SCOPE
All indirect emissions



81%, of which purchased good & services represent 40%

The panel of firms involved in the survey

BY SECTOR

Machinery	21%
IT & Tech	11%
Trade	10%
Automotive	8%
Construction	7%
Transport & Logistics	7%
Chemical	6%
Consultancy	6%
Economics	5%
Banking & Insurance	5%
Lifescience	4%
Culture	3%
Food & Beverage	3%
Industrial Manufacturing	2%
Energy	1%
Security & Defense	1%

BY NATIONALITY

91% | 9%

125 Companies

75%
Companies active on international markets

Italy	Germany	Nearshore	Offshore
44%	20%	22%	15%

BY SIZE

Small companies
(1-250 employees)
22%

Medium companies
(250-1.000 employees)
66%

Large companies
(>1.000 employees)
12%

SURVEY TOPICS

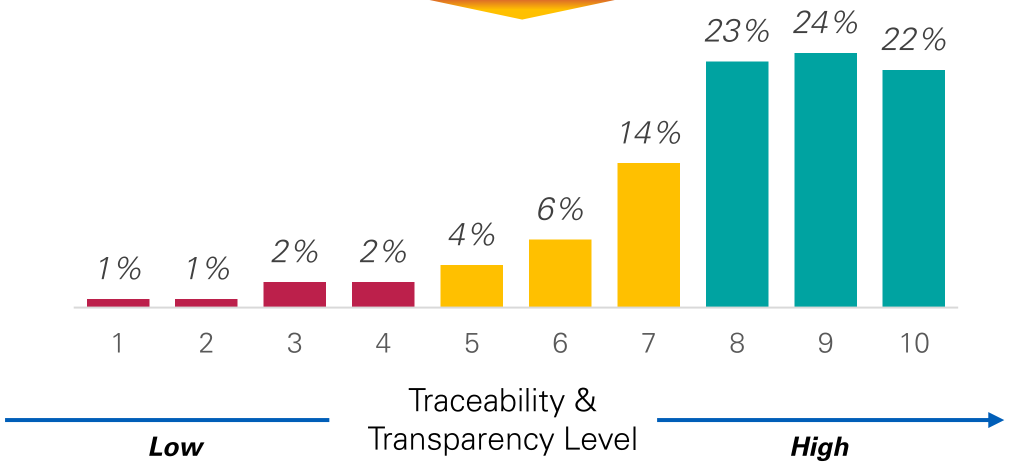
1. SUPPLY CHAIN MANAGEMENT
2. SUSTAINABILITY ROLE IN NEW SUPPLY CHAIN
3. CHANGES IN SUPPLY CHAIN & PARTNERSHIP IT-DE EVOLUTION
4. ENERGY SUPPLY

1. Supply Chain Management:

Data availability not fully exploited

31%
Companies

require **improvements in data transparency along the value chain and in tracking data**

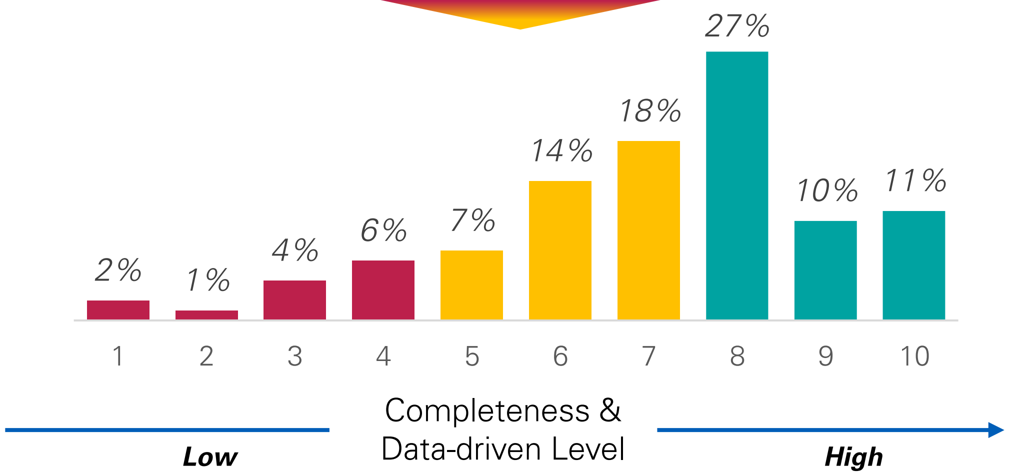


MOST CRITICAL INDUSTRIES

Energy **Economics** **Culture**

52%
Companies

do **not** have an **optimal risk management system**



MOST CRITICAL INDUSTRIES

Economics **Culture** **Construction** **Machinery**

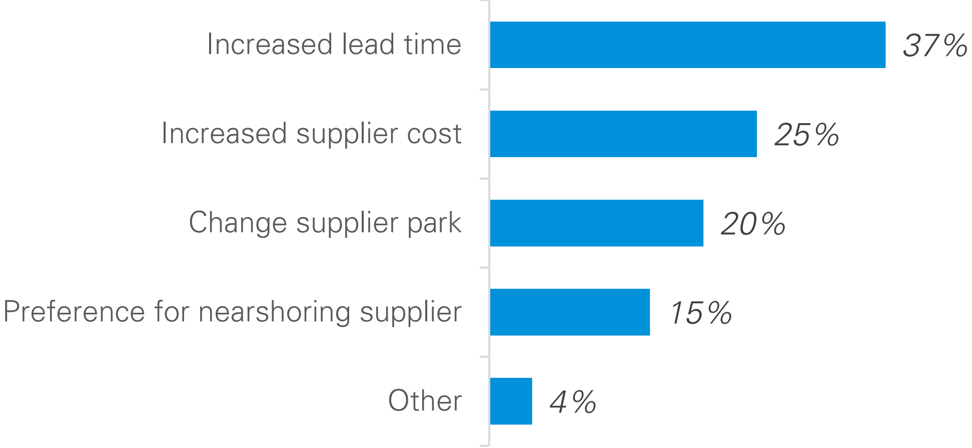
2. Sustainability role in Supply Chain:

An hot topic still to be addressed

66%
Companies

refer that **climate change and policy will impact on Supply Chain**

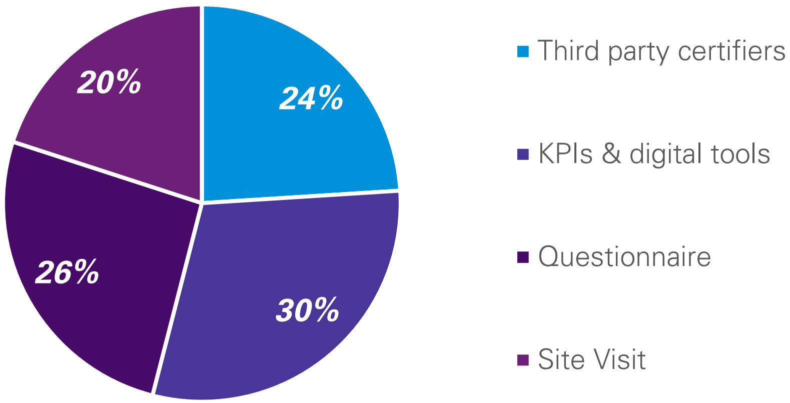
AREA OF IMPACT



42%
Companies

declare **sustainability** represents a **key driver in supplier selection**

WAYS TO MONITOR SUSTAINABILITY IN THE SUPPLIER PARK



TOP STRATEGIES FOR CO2 REDUCTION

25%
Efficiency measures

23%
Increase usage of renewable energy

14%
Partnership with suppliers

10%
Circular Economy

3. Supply Chain readiness to change:

Getting closer despite costs

74%
Companies

declare **Supply Chain and actors involved** are **not suitable** **to face emerging challenges**

MAIN THREAT FOR COMPANIES

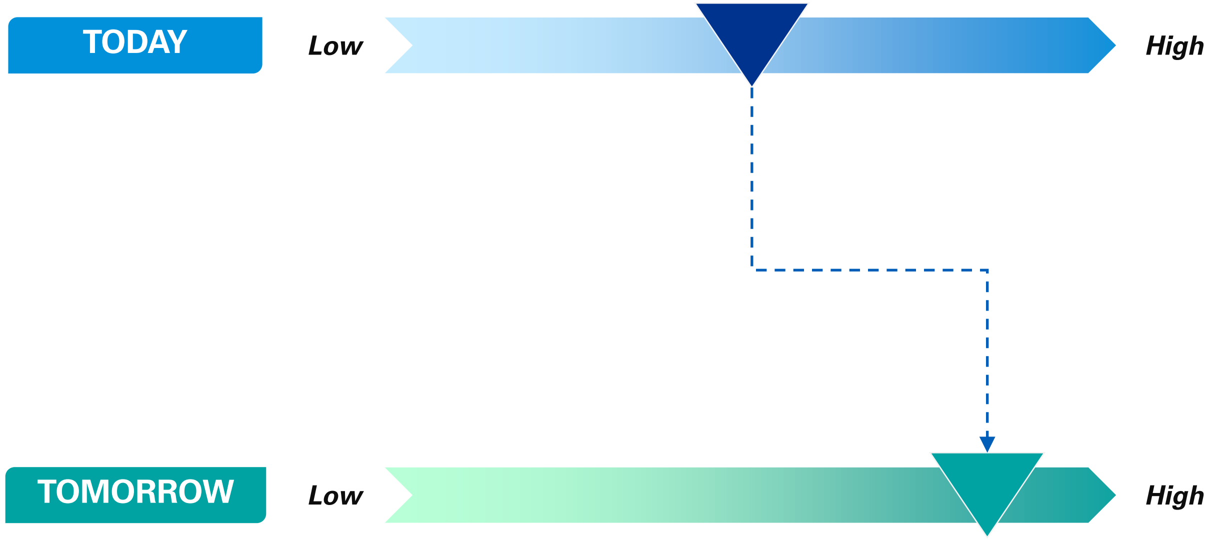
63%
Increased costs
(materials, WIP, energy)

15%
Raw Materials deficiency

13%
Missing supplier delivery

8%
Transportation & Logistics issues

Nearshoring impact on Supply Chain



3. Commercial partnership evolution:

Willingness to switch but inertia to give up traditional models

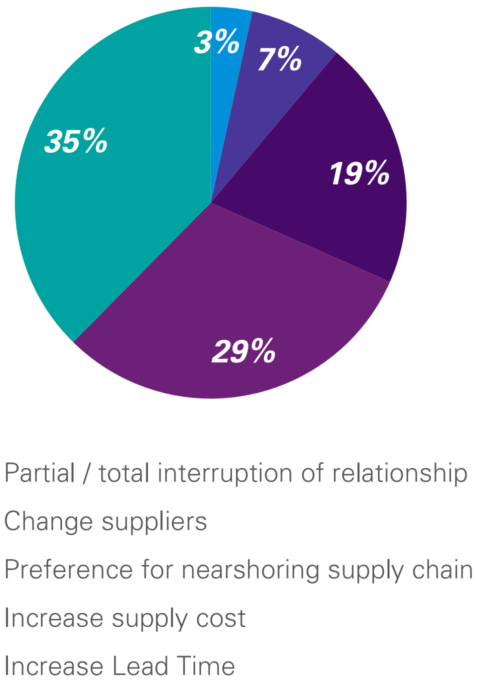
ITALY-GERMANY PARTNERSHIP

70%
Companies

are planning to develop new partnership with German firms (also suppliers) in the future

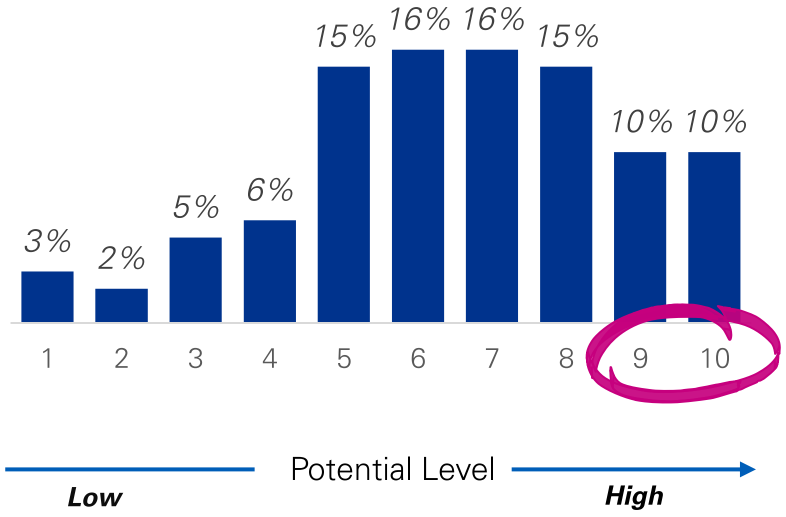
RELATIONSHIP WITH CHINA

War impact type on commercial relationship with China



ITALY POTENTIAL

Only the 20% of companies believe on Italy's high potential



4. Energy Supply:
Still barriers to access green sources

COMPANIES

SUPPLIERS

92%
Companies

kept production level despite of war impact on energy availability

47%
Companies

Don't have any local access to renewable energy sources (Green electricity/ Gas)

15%
Suppliers

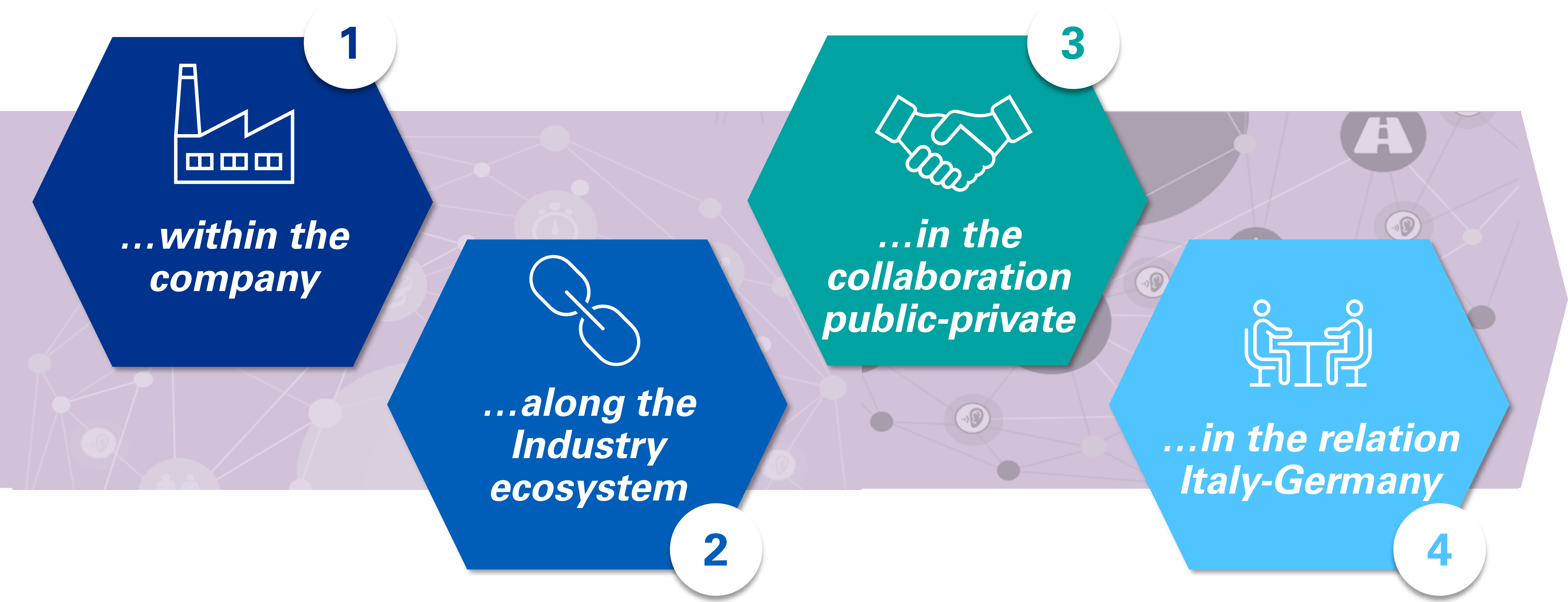
with **high adoption of renewable energy in its processes**

Lifescience	Energy	Chemical

MOST CRITICAL

“The traditional supply chain model, suitable in stable contexts, no longer work to manage emerging trends. In order to overcome supply chain disruptions, companies should adopt strategies to strengthen the resilience of the whole supply chain…”

...but how to embrace the change?



1. Start from an advanced Supply Chain for the company…

FROM	***TO***
Manual activities and low data availability	**Automation and digitalization**
Manufacturing Offshoring	**Nearshoring/Reshoring & plant reconfiguration**
"Just-in-time supply chain"	**"Just-in-case supply chain"**
Reactive supply chain with tactical approach (short / mid term)	**Strategic sourcing on critical supply** (long term strategy)
Polarized supply chain by product and single sourcing	**Diversification of product sourcing**
Vertical / silos planning	**Integrated planning & logistics**
Product-centric offering portfolio	**Integrated Product & Service Innovation**
Traditional channels served by operating model	**Multi / Omni - channel management**

2. Support the evolution of industrial districts & ecosystems...

SUPPLY CHAIN EQUITY

Innovation

1 Innovation Lab

Skill Progress

2 Specialized Academy

Sustainability

3 Supply Chain ESG certification and standards

SUPPLY CHAIN INTERCONNECTION

Efficiency

4 Procurement & logistics platform

Enabling connections

5 Digital interconnection processes

Attractivity

6 International supply chain desk

SUSTAINABLE GROWTH

Growth

7 M&A & "Strategic investment" facilitation pack

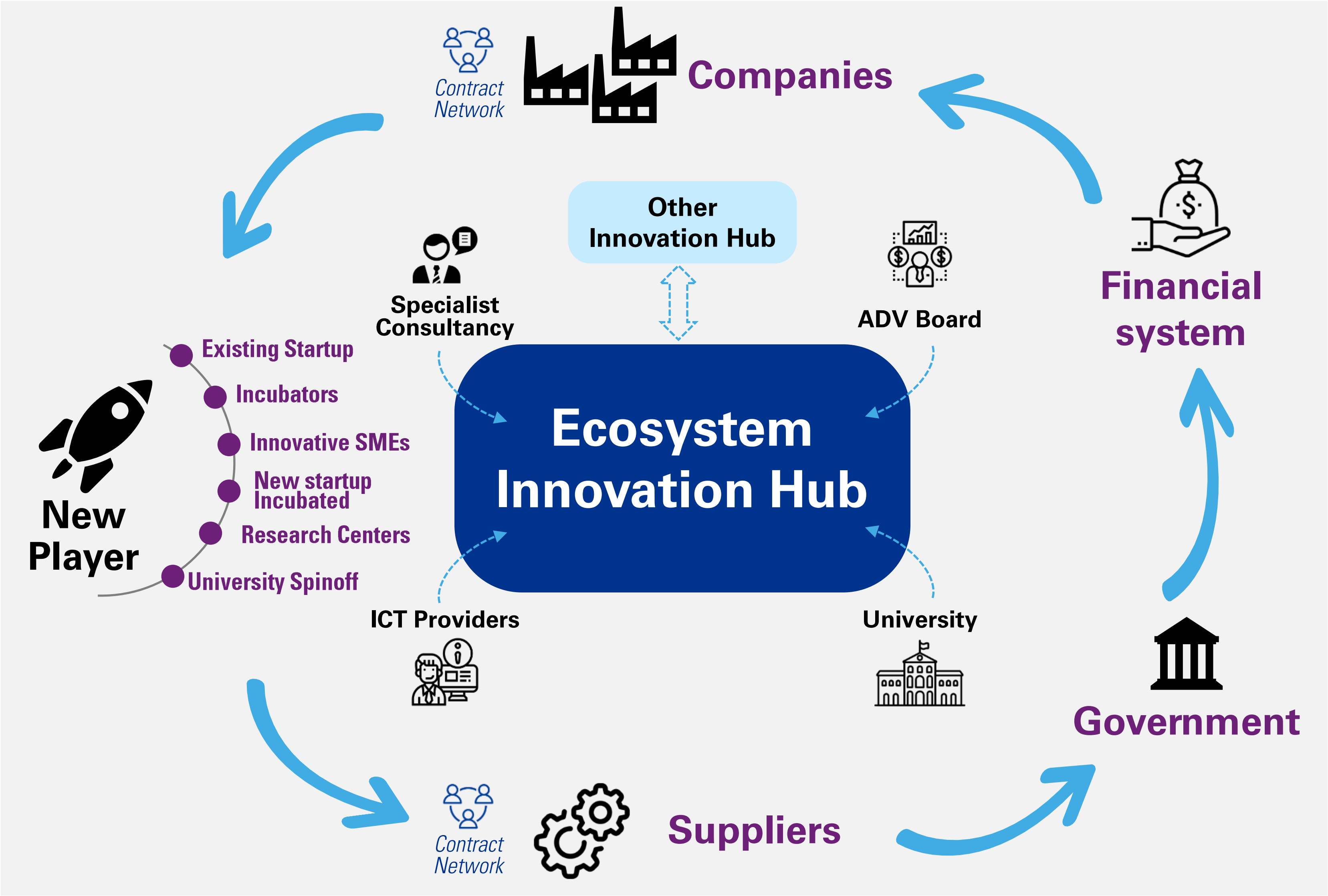
Financing

8 Dedicated Funding Room

Support

9 Supply chain databases, specialist and common services

3. Enhance the collaboration between Private & Public...



SUPPLY CHAIN HYPERSPECIALIZATION

NETWORK CONTRACT DEVELOPMENT

RESEARCH CENTERS / INNOVATION HUB DEVELOPMENT

SUPPLY CHAIN TRACEABILITY

STRATEGIC AND DISCIPLINARY SKILLS DEVELOPMENT

FLEXIBLE MANPOWER BOOSTING

CIRCULAR ECONOMY

ENERGY AUTONOMY

4. Strengthen the relationship Italy-Germany

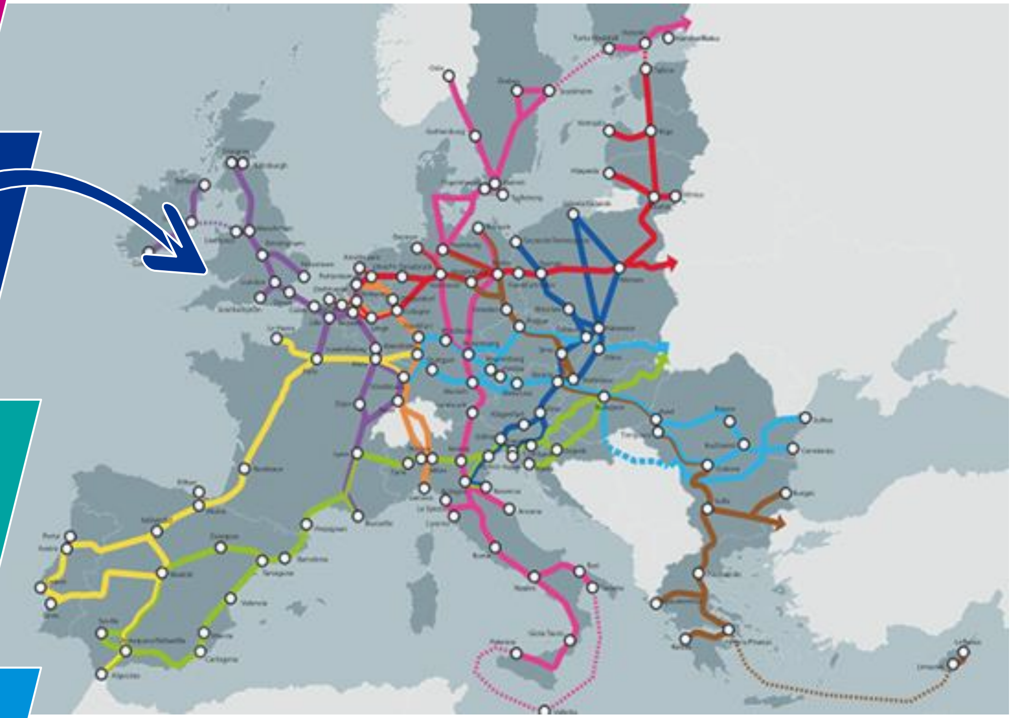
Facilitate Supply Chain platform projects
to enhance product export

Strengthen logistics infrastructures by creating fast corridors
(port, railways, airport, freight village)

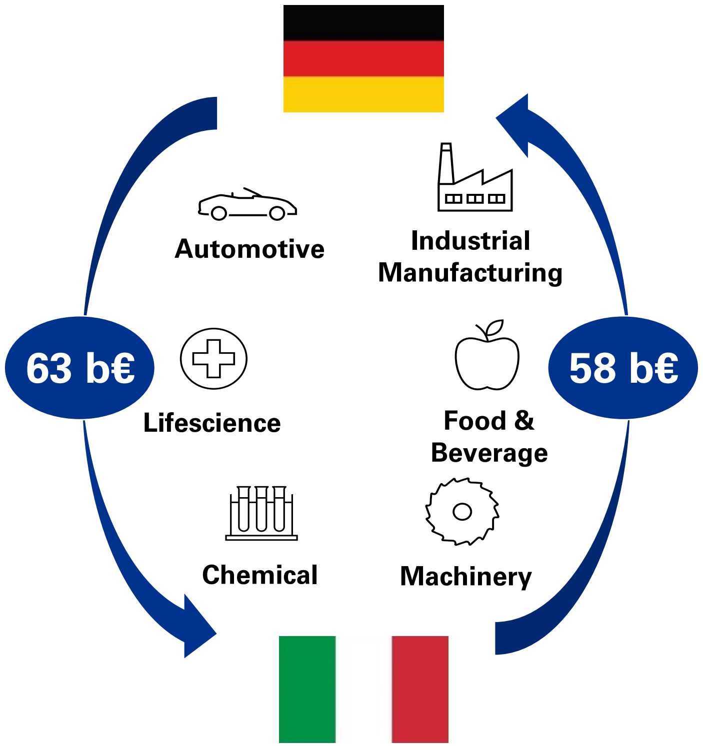
Define specialized Centers of Excellence to develop innovative methodologies & skilled resources

Promote exchange program
to develop know-how

EUROPEAN TEN-T CORRIDORS



KEY INDUSTRIES INVOLVED IN ITALY-GERMANY TRADE…



…FOR SETTING ITALY-GERMANY COLLABORATIVE MODEL

From insights to new opportunities...

Avoid closed ecosystem

European Strategic Sourcing on critical supplies

Infrastructure financing

Cost reduction vs innovative products & services

Research Centers / Innovation Hub development

Energy autonomy

Venture capital for innovative Start-up

EUROPEAN STRATEGIC AUTONOMY

from China and United States

+

NEW MODEL OF SUSTAINABLE DEVELOPMENT

driven by innovation and circularity

Industry specialization

Strategic and disciplinary skills development

End-to-End traceability along network

Flexible manpower boosting in the ecosystem

Circular Economy

Exploiting of green energy

Logistic platform by industry

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