The evaluation and monitoring of ESG Sustainability in industrial Supply Chains

Webinar, September 17th 2021

ESG Sustainability is a value becoming universally recognized

ESG Sustainability **requirements by Lenders and End-Users**

- **Not something new** for the Plant Engineering industries (Local Content, certifications, …)

- A **must-do** with the **potential** to become the **new "quality system"** (30 years later)

- Above all, a **mean** for further:

A COMPLIANCE   **B** COMPETITIVENESS   **C** BUSINESS GROWTH
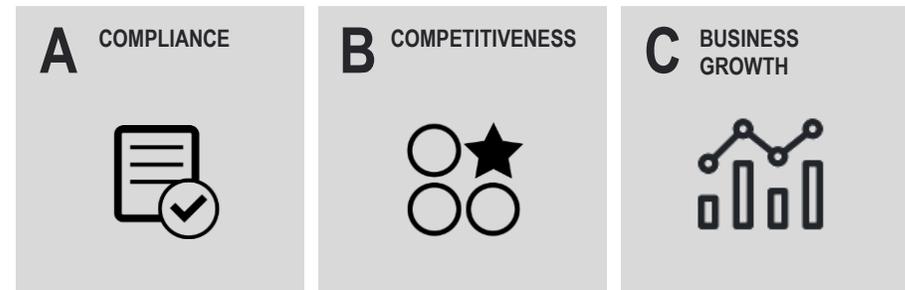
Our journey to Supply Chain ESG Sustainability

Creation of ANIMP's open and industry-wide workgroup

ANIMP
ASSOCIAZIONE NAZIONALE DI
IMPIANTISTICA INDUSTRIALE

Jul 2019

1st release of industry Guideline

Feb 2020

Mar 2020

Guideline deploy on SupplHi and invites to Vendors

Calibration of industry Guideline based on the analysis of 1.000 Vendors, globally

Mar 2021

ESG improvements to the Supply Chain

Ott 2021

Establishment of Steering Committee and launch of industry-wide open program

You are as ESG Sustainable as the last of your critical supplier is.

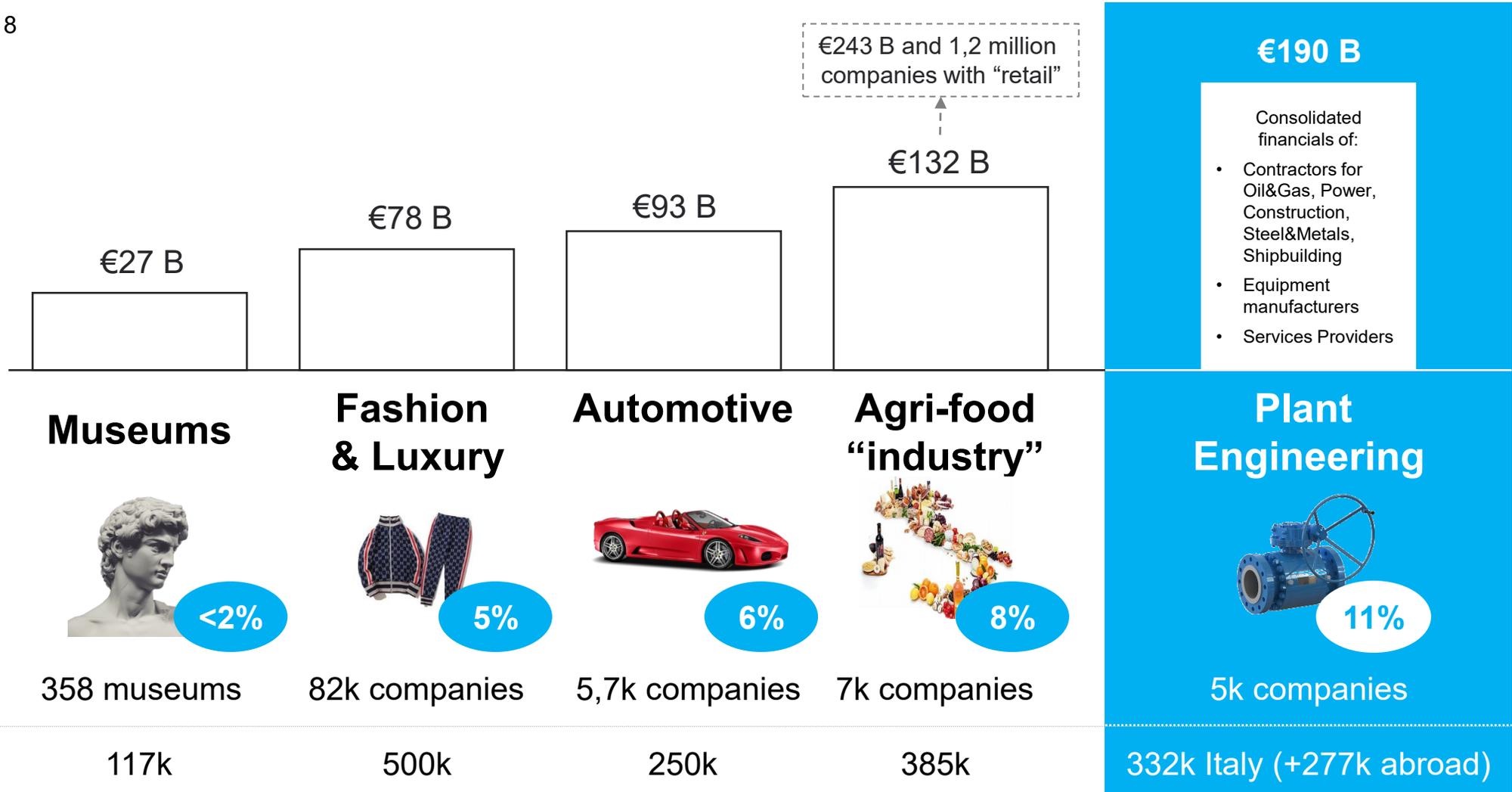| Companies' Revenues in B2B		
Purchases (>50%)	Other costs	Margin

Lack of a Guideline for ESG Supply Chain metrics in our industry

- **Assessment of ESG Sustainability** in Plant Engineering industries is required by Clients and it is a **pass-through in a supply chain** that:

  o can represent **up to 80%** of an organization's revenues

  o is truly **global**

  o is mainly characterized by **SMEs**

  o has peculiarities by **category of supply**

- Several international standards are present, but **lack of a Guideline on metrics to assess ESG performance for Vendors in Plant Engineering.**
  In addition, risk of over-complexity stimulated by larger data providers
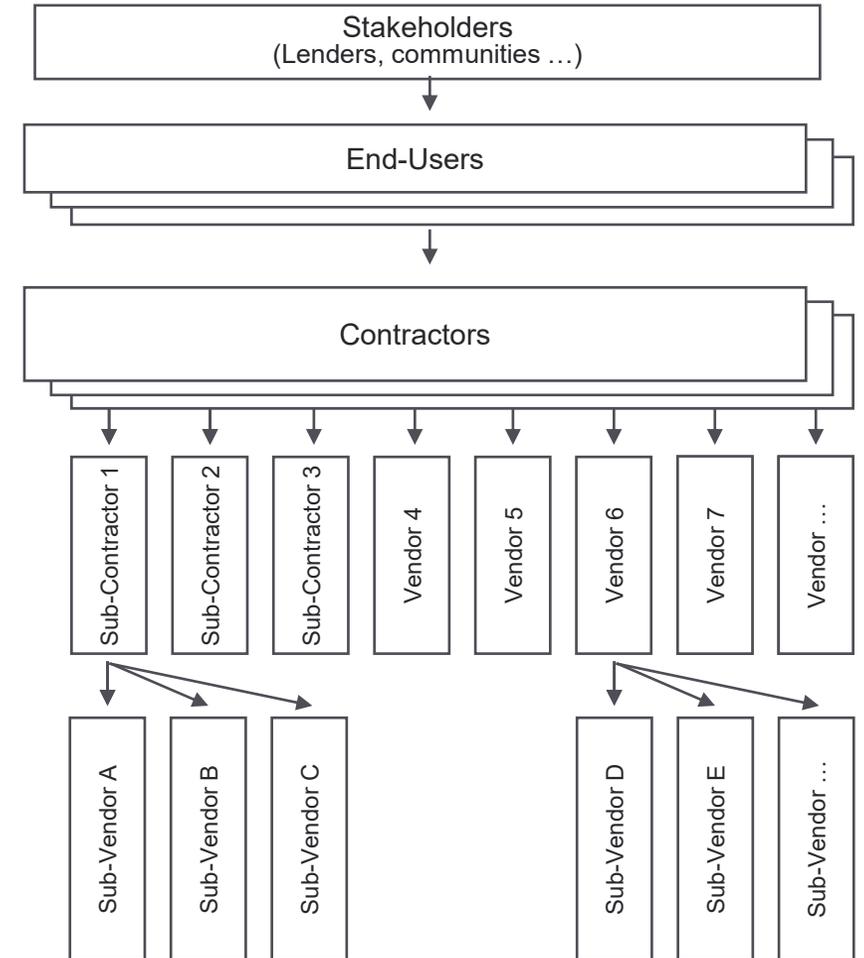
Plant Engineering is a leading value chain for what Italy is famous for

Value of Production, 2018

€243 B and 1,2 million companies with "retail"

€190 B

Consolidated financials of:
- Contractors for Oil&Gas, Power, Construction, Steel&Metals, Shipbuilding
- Equipment manufacturers
- Services Providers

	Museums	Fashion & Luxury	Automotive	Agri-food "industry"	Plant Engineering
Value of Production	€27 B	€78 B	€93 B	€132 B	€190 B
Incidence on total GDP	<2%	5%	6%	8%	11%
	358 museums	82k companies	5,7k companies	7k companies	5k companies
# employees	117k	500k	250k	385k	332k Italy (+277k abroad)

Source: analysis by Cribis D&B and SupplHi on Cribis D&B, BCG, Quattroruote, AlixPartners and ICE public data
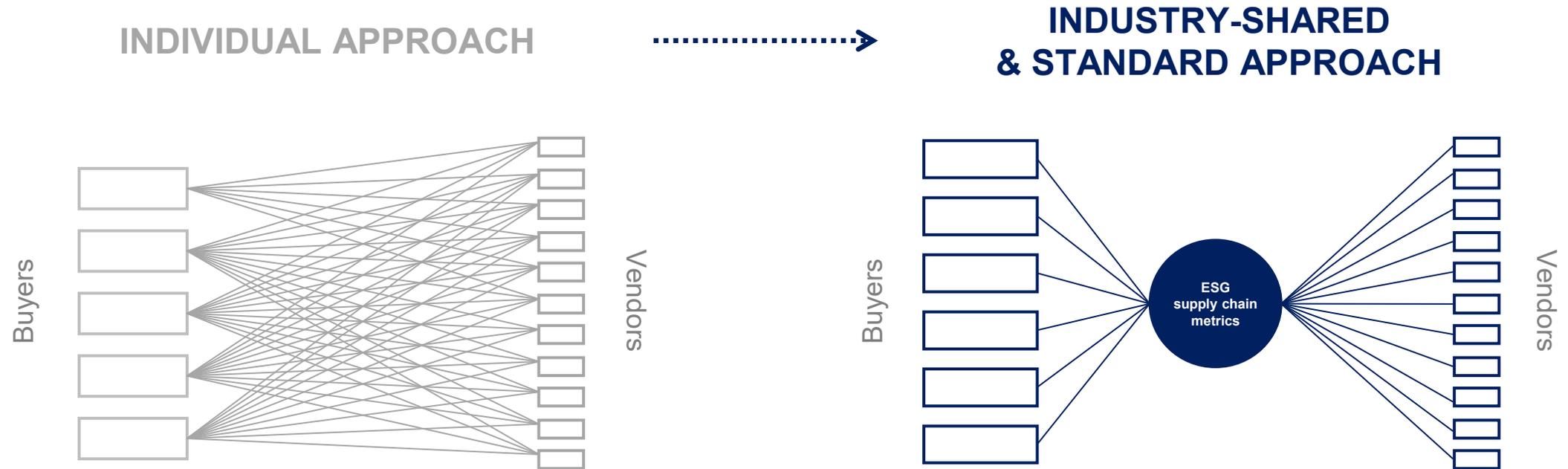
If you can't measure it, you can't improve it.

Sir William Thomson

Inventor of the Kelvin international system of absolute temperature

Proposed approach on ESG Supply Chain metrics

INDIVIDUAL APPROACH ⋯⋯⋯⋯▶ **INDUSTRY-SHARED & STANDARD APPROACH**

- **Costly for all actors**
- **Complex Compliance**
- **Perceived as further burden by the industry**

- **Cost savings (up to 80%)**
- **Standard, with possibility of customization**
- **Providing guidance to SMEs for ESG growth**

INDUSTRY-SHARED and INDEPENDENT approach

Customers that co-designed the ESG solution with SupplHi are international and global players in industrial B2B
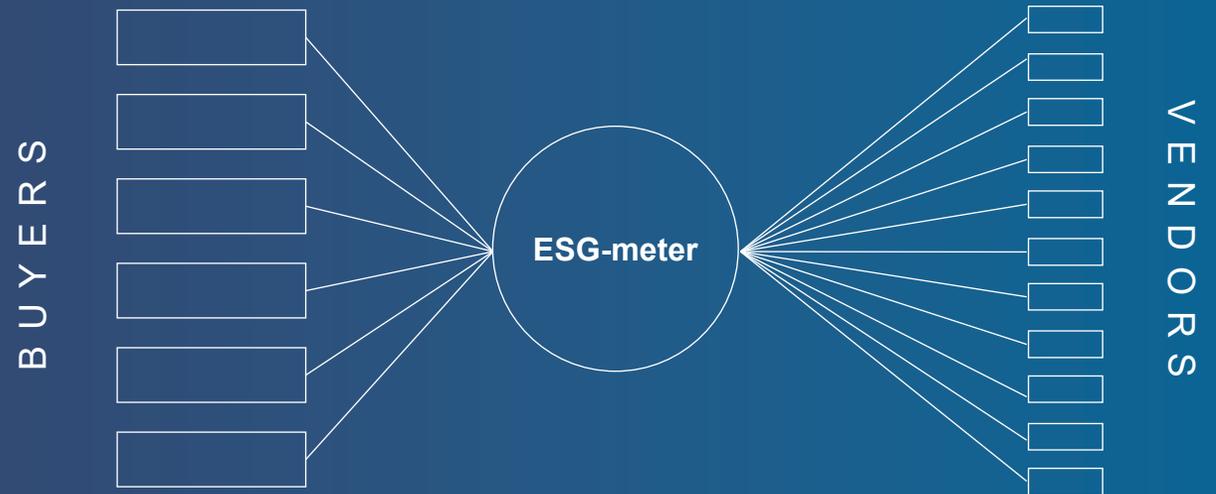
Bonatti

FINCANTIERI

Maire Tecnimont

ROSETTI MARINO

sace simest
gruppo cdp

SAIPEM

TECHINT
Engineering & Construction

Tenaris

T.EN TECHNIP ENERGIES

wood.

Partners

ANIMP
ASSOCIAZIONE NAZIONALE DI
IMPIANTISTICA INDUSTRIALE

IPMA
ITALY international project management association

OPEN INNOVATION
FOR A TRULY INDEPENDENT SUPPLY CHAIN ESG MODEL

BUYERS

ESG-meter

VENDORS

✓ **Independent & Transparent**

✓ Industry-shared **Guideline, specific for industrial B2B** and based on **international best practices**

✓ **Free-of-charge for Vendors**

✓ **Fully digital, simple** and **easy-to-use**, with possibility to **integrate it into Vendor Management and Risk Management processes**

The standard guideline is built on the world's most trusted ESG frameworks declined on industrial B2B needs

10 principles behind the Vendor ESG model

Mapping of **Sustainability needs of End-Users** and Stakeholders (e.g. lenders)

Benchmarking of 32 existing practices on Sustainability-related information requested in Plant Engineering

Analysis of the **existing Standards, Norms & Programs**

… and many more

1   **Standard** and **focused** on the **B2B industrial equipment and services**

2   Valid at **global level**

3   **Pragmatic** and **easy-to-use**, limiting the burden for all actors of the value chain

4   **Comprehensive** and - based on **multiple templates** - valid for all types of supplies

5   Linked - as much as possible - to the **existing standards**, **norms and programs** available on the market

6   **Easy to compare with ESG Scores** to drive improvements of Vendors' Sustainability

7   Guideline **constantly updated** to cope with the newly introduced practices, requirements and standards

8   **Open and free-of-charge to any type of Vendor** and accessible also to smaller Buyer organizations

9   **Focused at production location level**, with the possibility to evaluate the Sustainability of Sub-Vendors

10   **Shareable with the banking system** to support funding for investments on Sustainable improvement actions

Supply Chain ESG model's data structure

SUPPLY CHAIN ESG MODEL

Presence of multiple Templates to better reflect the macro-types of supplies (linked to the Categorization of each Buyer organization)

TESG_A
Critical Equipment

TESG_B
Not/Critical Equipment

TESG_C
Construction Services

TESG_D
Fabrication at Yards

TESG_E
Logistics Services
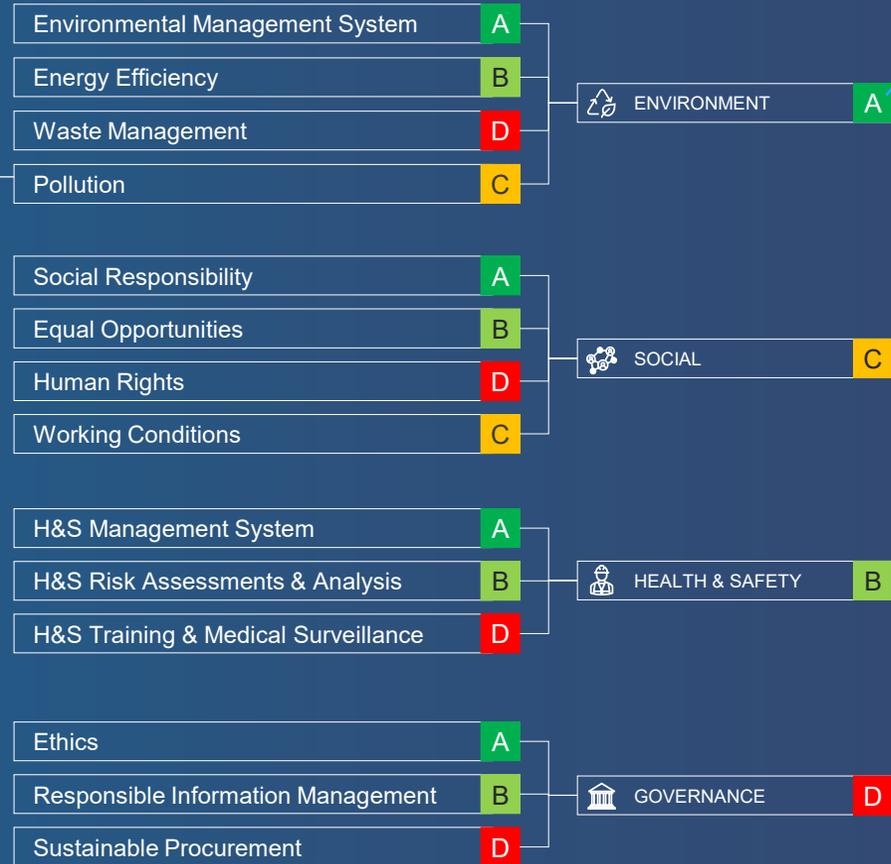
TESG_F
Other Services

Level 4

~120 data fields associated to 3 types of weights

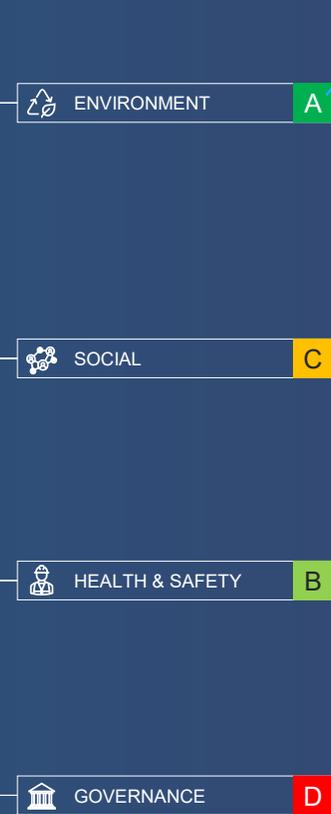|	Answer score	Weight
Has the company been convicted of violations related to Environmental practices and damages?	3	3
Presence of activities to reduce the impact of noise & vibration, odours and pollution	3	2
Company's reporting of GHG emissions	1	3
Availability of a MET (Materials, Energy, and Toxicity) Matrix of raw materials and auxiliaries at production plants	2	1
Presence of an Environmental Product Declaration (EPD)	3	2

Next page example

...

Level 3

14 Sub-Areas

Environmental Management System	A
Energy Efficiency	B
Waste Management	D
Pollution	C

Social Responsibility	A
Equal Opportunities	B
Human Rights	D
Working Conditions	C

H&S Management System	A
H&S Risk Assessments & Analysis	B
H&S Training & Medical Surveillance	D

Ethics	A
Responsible Information Management	B
Sustainable Procurement	D

Level 2

4 Areas

ENVIRONMENT	A
SOCIAL	C
HEALTH & SAFETY	B
GOVERNANCE	D

Level 1

Score are calculated as the weighted average of the answers of the Sub-Area and Area

Score	Range
A	81%-100%
B	61%-80%
C	41%-60%
D	21% - 40%
E	0%-20%

SUSTAINABILITY

Vendor ESG Questionnaires data structure

Level 4

Presence of different types of questions addressed to the Vendor:
- Declaration
- Selection (to increase comparability)
- Certification / Policy / Program
- Reporting (at the moment not considered for the score, e.g. tons of waste managed by type)

Vendors are constantly notified by the SupplHi platform to keep their Sustainability information constantly updated through the expediting to Vendors of the expiring information

The information requested to Vendors is based on the categories of supply of the Vendor. Each category of supply of the individual Buyer organization is linked to the SupplHi Standard Categorization, and each category of supply of the SupplHi Standard Categorization is linked to one of the six different Standard Template for Vendor Sustainability, as per the below example

Each question – in the specific template – is associated to a weight from 1 to 3.

Each question is linked to the UN Sustainability Development Goals (SDG)

Guideline question ID	12
Question type	Selection
Question expiry	none
Area	Environment
Sub-Area	Pollution

Presence of an Environmental Product Declaration (EPD)

0	The company does not follow a procedure to analyse or assess the environmental impact of its products through their life cycle
1	The company has a procedure to assess the environmental impacts of its products without issuing an EPD
2	The company has implemented a procedure to assess the environmental impacts of its products and issues certified EPD specific for a product and at a production site
3	The company has implemented a procedure to assess the environmental impacts of its products and issues certified EPD specific for a product that covers all its main production sites

Template		Weight
TESG_A	Critical Equipment	2
TESG_B	Non-Critical Equipment	1
TESG_C	Construction services	not present
TESG_D	Fabrication at Yards	not present
TESG_E	Logistics Services	not present
TESG_F	Other Services	not present

SUSTAINABLE DEVELOPMENT GOALS

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION

Vendor ESG Questionnaires quickly reached critical mass

100% DIGITAL PROCESS

Industry shared platform

Free-of-charge registration by any Vendor

ESG Questionnaire based on ANIMP Guideline (~100 questions)

Quality Assurance of information from Vendors by SupplHi

Cumulated number of **completed ESG Questionnaires** by international Vendors on SupplHi platform
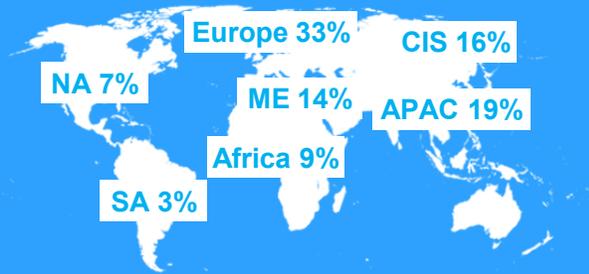

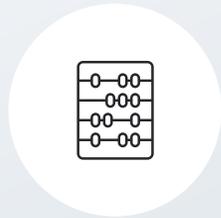The analysis covers the results from the Questionnaires received

Templates' coverage:

Critical Equipment	59%
Construction Services	12%
Fabrication at Yards	3%
Logistics Services	5%
Other Services	20%

Geographical coverage across 58 Countries:

Europe 33% CIS 16%
NA 7% ME 14% APAC 19%
Africa 9%
SA 3%

Calibration of the ESG Assessment model

1st ELABORATION

of results according to ESG questions and weights initially defined in the Guideline
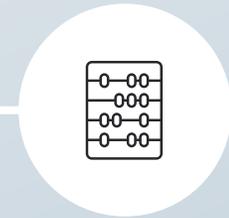
ANALYSIS

of the distribution of the initial results, by question and template
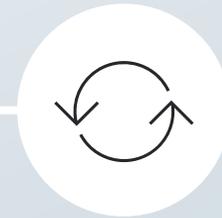
CALIBRATION

of questions and weights of the model to better reflect the status of the supply chain

UPDATE

of the Score based on fine tuned weights and questions, and discussion with workgroup
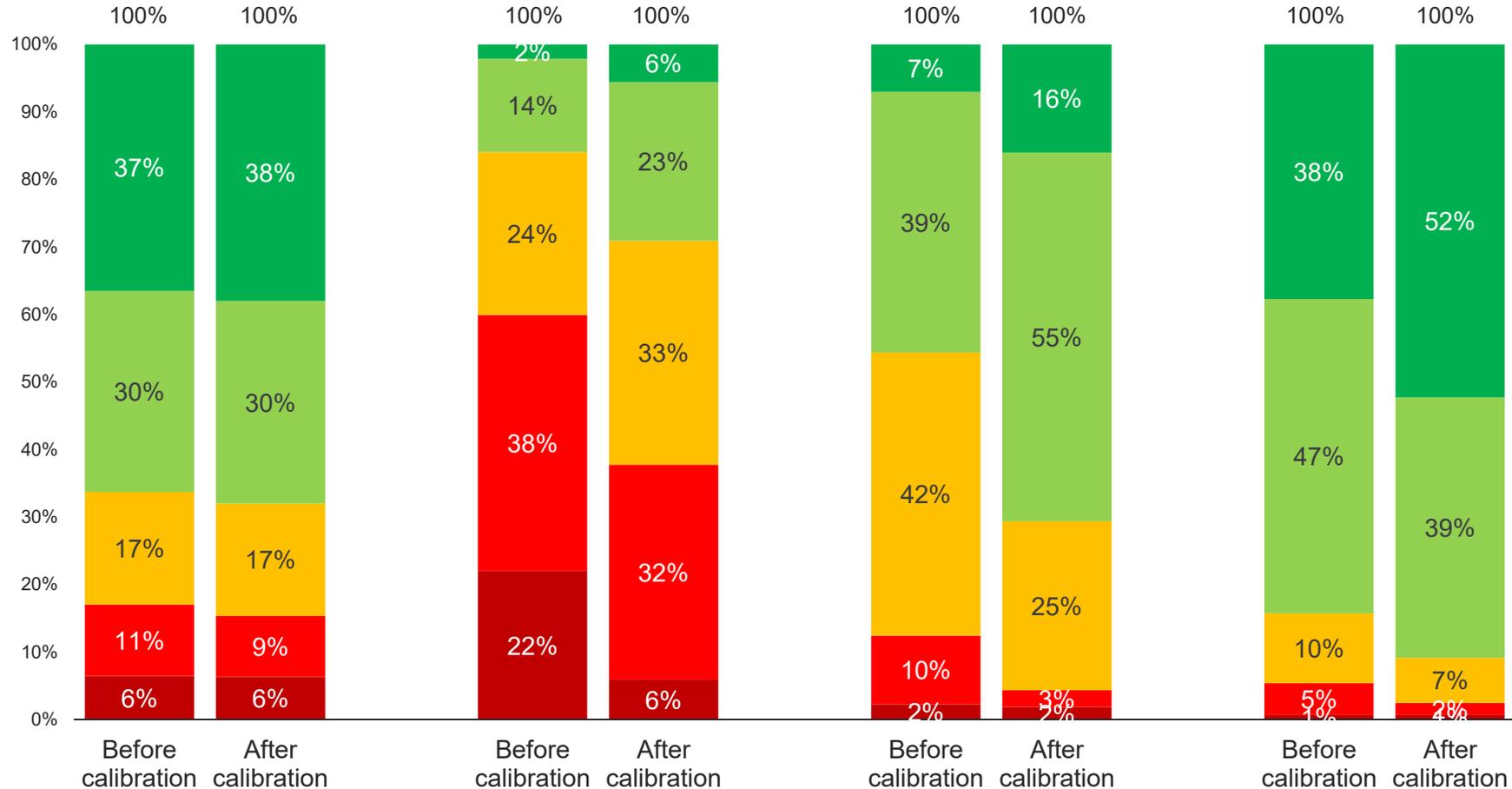
Scores by ESG Areas

HEALTH & SAFETY

	Before calibration	After calibration
	100%	100%
A	37%	38%
B	30%	30%
C	17%	17%
D	11%	9%
E	6%	6%

ENVIRONMENT

	Before calibration	After calibration
	100%	100%
A	2%	6%
B	14%	23%
C	24%	33%
D	38%	32%
E	22%	6%

SOCIAL

	Before calibration	After calibration
	100%	100%
A	7%	16%
B	39%	55%
C	42%	25%
D	10%	3%
E	2%	2%

GOVERNANCE

	Before calibration	After calibration
	100%	100%
A	38%	52%
B	47%	39%
C	10%	7%
D	5%	2%
E	1%	

HIGHLIGHTS

Health & Safety is reflecting a high focus on associated risks with 85% of vendors with a score of C and Higher

Environment - with more tan 1/3 of scores below letter C - presenting the biggest area of improvement required in the supply chain

Within **Social,** Working Conditions presents a lever to the total score of this area

Governance presenting highest scores, with potential for more intense Guideline requirements
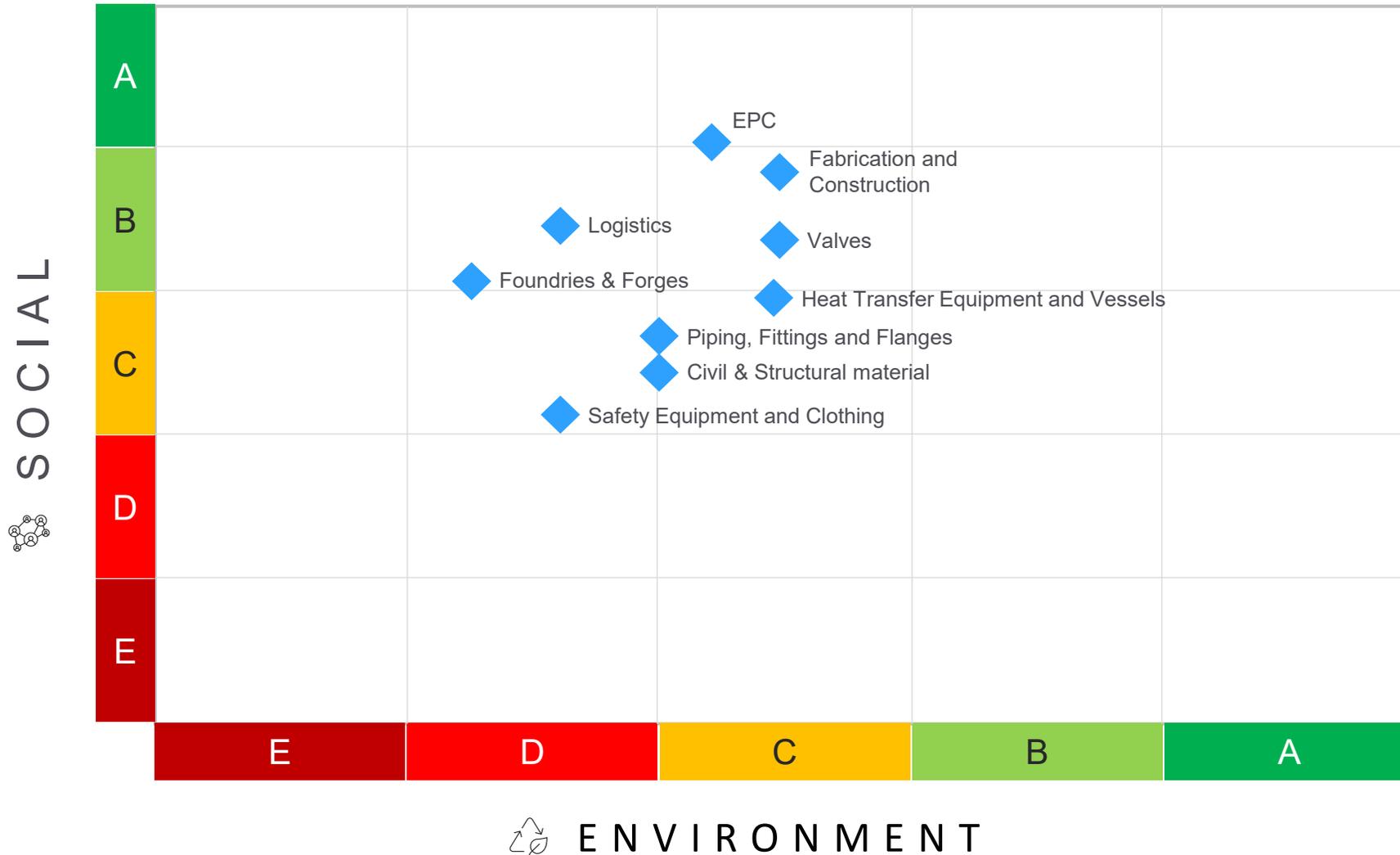
Scores by ESG Sub-Areas

HEALTH & SAFETY

Sub-Area	A	B	C	D	E
H&S Risk Assessments & Analysis	55%	18%	14%	6%	8%
H&S Management System	42%	15%	11%	8%	25%
H&S Training & Medical Surv.	50%	33%	8%	5%	4%

ENVIRONMENT

Sub-Area	A	B	C	D	E
Environmental Mgmt System	21%	9%	19%	4%	47%
Energy Efficiency	9%	23%	50%	8%	10%
Waste Management	15%	18%	26%	22%	20%
Pollution	19%	68%	10%	0%	3%

SOCIAL

Sub-Area	A	B	C	D	E
Working Conditions	71%	25%	1%		
Social Responsibility	1%		8%	13%	78%
Equal Opportunities	36%	28%	15%	12%	9%
Human Rights	10%	3%	75%	8%	5%

GOVERNANCE

Sub-Area	A	B	C	D	E
Ethics	98%			0%	1%
Responsible Information Mgmt	95%	3%	1%	0%	
Sustainable Procurement	28%	22%	19%	18%	14%

HIGHLIGHTS

Health & Safety requires more focus around its **Management System** and the Training

In **Environment**, **Pollution** showed the highest scores whereas **Environmental Management System** has more than 50% of scores with a score of D and E

Social Responsibility is the subarea with the lowest scores in **Social** and among all subareas. Whereas **Working Conditions** is lever of the Social Pillar

Sustainable procurement does not reflect the high scores of other **Governance**'s subareas with 1/3 of scores less than C

Scores by category of supply

SOCIAL (vertical axis, scale A–E top to bottom)

ENVIRONMENT (horizontal axis, scale E–D–C–B–A left to right)

Data points plotted:
- EPC
- Fabrication and Construction
- Logistics
- Valves
- Foundries & Forges
- Heat Transfer Equipment and Vessels
- Piping, Fittings and Flanges
- Civil & Structural material
- Safety Equipment and Clothing

HIGHLIGHTS

Service providers have scored higher than **Manufacturers** in terms of **Social** Sustainability.

EPC Services have scored the highest under **Social** Sustainability being the only category with an A score scale

In **Environmental** Sustainability, Critical Equipment such as **Heat Transfer Equipment and Vessels** have scored higher than **Safety Equipment and Clothing**

The highest score for **Environmental sustainability** was a C scale shared by 3 categories of supply whereas the lowest was occupied by **Foundries and Forges** scoring **D**

Focus on ~550 Italian Vendors

SOCIAL (vertical axis: A, B, C, D, E)

ENVIRONMENT (horizontal axis: E, D, C, B, A)

EU Green Deal and Next Generation EU?

21%   17%   16%

20%   10%
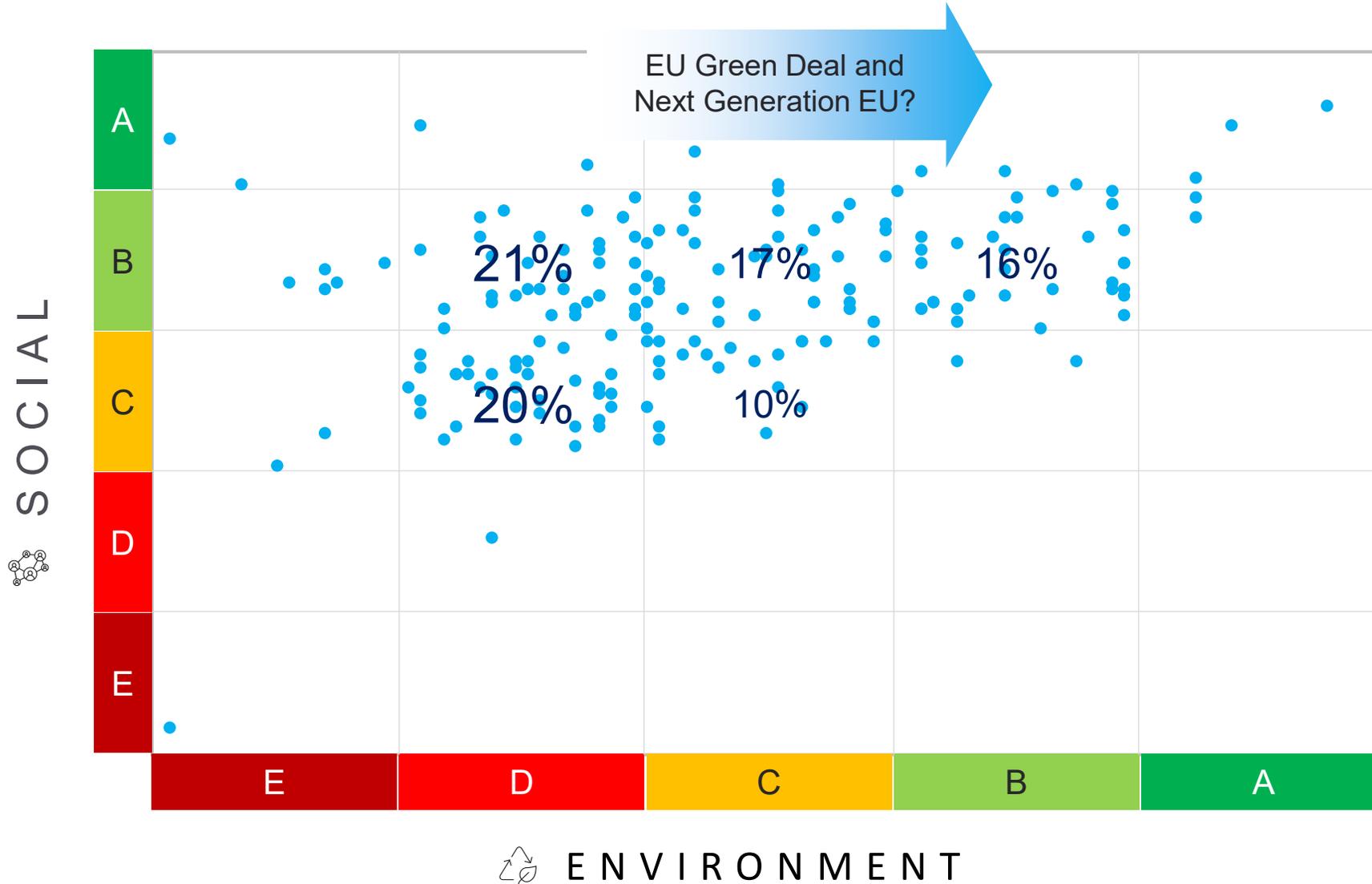
HIGHLIGHTS

More than 43% of Italian Vendors have scored C and Higher in terms of **Environmental** Sustainability

While in **Social** Sustainability, more than 84% of the Italian respondents have scored C and Higher with more than 54% are in the A & B score scale

Only 20% have been evaluated with a B or Higher in both pillars (Social and Environmental sustainability)

Typical ESG Certifications & reporting practices

ESG-related

Certification	Not Present	Present
ISO 45001 or OHSAS 18001 Occupational Health and Safety Certification	54%	46% — 100%
ISO 14001 Environmental Management System Certification	75%	25% — 100%
Scope 1 GHG emissions	66%	34% — 100%
Scope 2 GHG emissions	83%	17% — 100%
Scope 3 GHG emissions	90%	10% — 100%
ISO 26000 Social Responsibility Guideline	95%	5% — 100%
ISO 37001 Anti-bribery Management System Certification	94%	6% — 100%
Environmental Product Declaration (EDP)	98%	2% — 100%
SA 8000 Social Accountability Certification	99%	1% — 100%

Non ESG-related

Certification	Not Present	Present
ISO 9001 Quality Management system	24%	76% — 100%
ISO 27001 Information Security Management	97%	3% — 100%

0%   20%   40%   60%   80%   100%

Legenda — Not Present — Present

TOP5 industry-wide ESG gaps and priorities

Stimulate **CO2 measurement by Vendors** (Scope 3 of Buyers)

Increase adoption of **Health & Safety Management System**

Increase **Waste Management** and stimulate **Circular Economy**

Sustainable Procurement across the entire supply chain

Stimulate further **Health & Safety Training**

4.000+ Vendor's ESG Improvement Initiatives collected

Initiative to reduce the impact of **noise & vibration, odors and pollution**

Sound Level Checks	Reduction of Fumes from Welding
Noise Suppressing Panels	New Wastewater Treatment
External Noise Evaluation	Inhouse Air Pollution Tests
DPI for Personnel	…

Technologies and programs to **reduce Environmental impact**

Air Suction Filters	Recycling of Waste
Dust's Removal System	Tree planting activities
Garbage Sorting	Environmental Awareness Campaign
Waste Gas Treatment	…

Implementation of a dedicated **Corporate Social Responsibility activity**

Update to Code of Conduct	Job related stress
HSSE Training	Participation in STEM events
Modern Slavery & Human Trafficking	Certification B Corp
…	…

Communication of Guidance to Vendor's growth on ESG

Vendor Sample LTD (United Kingdom)

ENVIRONMENTAL

category average | **C**

SOCIAL

category average | **A**

GOVERNANCE

category average | **D**

Suggested Improvement Action

(!) IA_00124
Achieve ISO 14001 Certification
82% of your competitors have obtained it.

(!) IA_00125
Increase renewable energy consumption
Your current level (4%) is much lower than the average of your competitors (11%).

(!) IA_00126
Increase Scrap Waste Management
Your competitors save up to 35% of their waste through a dedicated procedure and system.

Suggested Improvement Action

(!) IA_00127
Increase the percentage of women in managerial positions
Companies with a higher % of women in management roles are most likely to generate higher returns.

(!) IA_00128
Achieve SA 8000 Certification
Companies with SA 8000 Certification have a 20% higher score on their social sustainability assessment.

Suggested Improvement Action

(!) IA_00129
Assign a Sustainability Manager
64% of medium-sized organizations in your industry have a dedicated Head of Sustainability

(!) IA_00130
Preform an ESG Sustainability assessment for your supply base
Join the Top 20% rated companies in your industry by adopting an ESG sustainability program to your vendors.

(!) IA_00131
Issue a periodical Sustainability Report
Issue a yearly Sustainably report illustrating your company's sustainability performance and taken initiatives to become a pioneer in your industry.

Why Supply Chain GHG inventory matters now

Carbon Emissions and the fight against **Climate Change** are a global imperative embraced by all main organizations

Buyers are becoming **responsible for the CO2 emissions of their suppliers** (e.g. Shell's court order, May 2021)

Industrial B2B is characterized by **SMEs** and only **2% of them report their CO2 emissions** and have a **reduction target** in place

In industrial B2B, **purchased goods and services** account for the highest proportion of Scope 3 emissions

In the initial years of Scope 3 estimations, **Buyers used data of relatively low quality due to limited availability**

Buyers need to boldly stimulate and carefully monitor **suppliers and sub-suppliers to develop GHG inventories** and to set challenging **reduction targets**

Buyers are becoming responsible for the CO2 emissions of their Suppliers

Shell: Netherlands court orders oil giant to cut emissions

🕐 26 May 2021

A court in the Netherlands has ruled in a landmark case that the oil giant Shell must reduce its emissions.

By 2030, Shell must cut its CO2 emissions by 45% compared to 2019 levels, the civil court ruled.

The Shell group is responsible for its own CO2 emissions and those of its suppliers, the verdict said.

It is the first time a company has been legally obliged to align its policies with the Paris climate accords, says Friends of the Earth (FoE).

BBC NEWS

On May 26, 2021, the Hague District Court issued a ruling ordering Shell, to ensure that the aggregate annual volume of all CO2 emissions of the Shell group, **its suppliers**, and customers is reduced by at least net 45% by the end of 2030, relative to 2019 levels.

Shell is responsible for its own CO2 emissions and those of its suppliers, the verdict said.

This is the first ruling in the Netherlands in which a non-State entity is ordered to reduce CO2 emissions. This ruling can potentially pave the way for further climate change litigation against non-State emitters of CO2 in and outside of the Netherlands.

Evolve your Scope 3 Carbon inventories, now

FROM

In their initial years of scope 3 data collection, companies used data of relatively low quality due to limited availability.
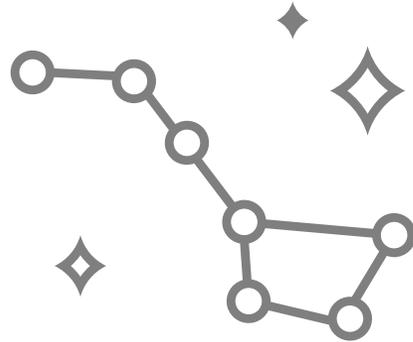
Broad sector averages do not represent nuances of unique processes and products, especially for the fragmented supplier base in industrial B2B

Secondary data *cannot target reductions and demonstrate results of reduction efforts*

TO

Buyers are now seeking to improve the data quality of the inventory, prioritizing supplies that have relatively low high emissions and relatively low data quality.
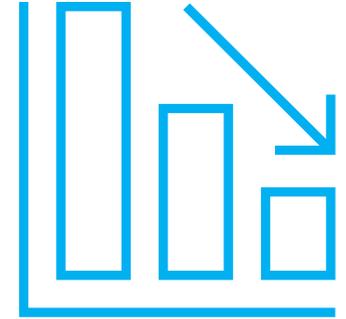
Primary data through "supplier-specific method" (collecting - when possible - at product-level **cradle-to-gate GHG inventory** data) or **"hybrid method"** must now be **stimulated across the entire supply chain**

If Vendors can't ***measure*** *it, they can't* ***improve*** *it.*

In industrial B2B, CO2 measurement and reduction is a Supply Chain-wide effort

Illustrative scheme of Scopes and emissions in industrial B2B supply chains:
Scope 3 emissions depend on the previous several layers of the supply chain

1	Energy infrastructure operator	1 2 **3**	🇧🇪
10	Contractors	1 2 **3**	🇩🇪
3.000	Equipment manufacturer (e.g. Piping) and Service Provides	1 2 **3**	🇮🇹
500	Sub-Suppliers (e.g. Foundry / Forge / Steel maker, ...)	1 2 **3**	🇹🇷
50	Raw materials extraction	1 2 3	🇧🇷
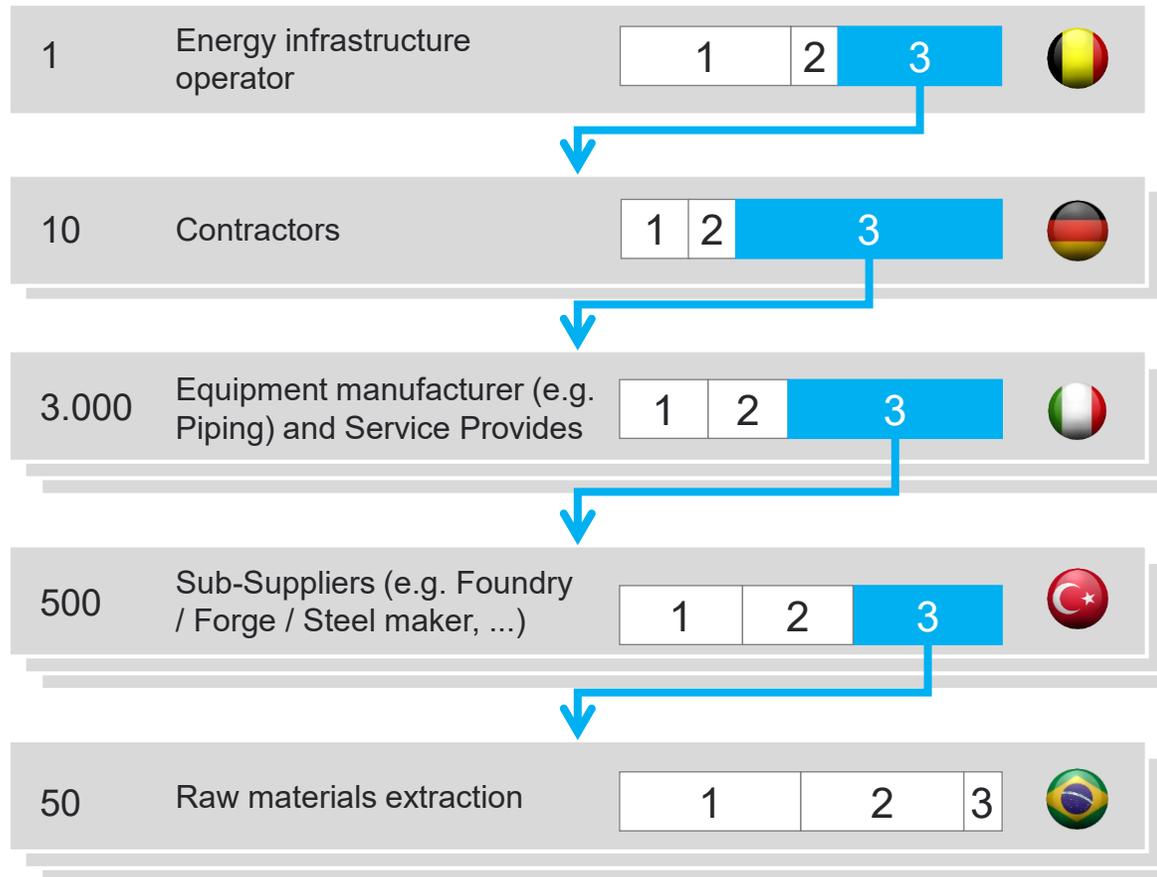
Complex Supply Chain, requiring an ad-hoc tools:

Multi-layered

Fragmented supplies

Mainly SMEs

Global

Not always visible

Buyer's challenges on CO2 emissions in industrial B2B

CAPTURE THE REALITY

How do I collect **trusted Primary data** (including realistic reduction targets) on CO2 **beyond the top 10% of Suppliers**?

CASCADE GHG AWARENESS

How do I encourage a **fast and solid adoption** of CO2 metrics in a **fragmented** supply chain made of **SMEs** and **several layers**?

TRACK PROGRESS

How do I **monitor and collaborate on CO2 reduction targets** and Performance Improvement across the years with my Suppliers and Sub-Suppliers?

Buyers need to quickly scale the CO2 measurement & monitoring on large and fragmented global supply chains through a smart and collaborative digital solution for Supplier Engagement

Quantifying Vendor's carbon emissions

Vendor is already present or invited to register **free-of-charge** to the **industry-shared SupplHi platform**

If present, Vendor – through a standard Questionnaire - is asked to **provide the CO2 emissions** (Scope 1, 2 and 3) and related **targets** according to a baseline year

If data is missing, *Carbon Tracker* **estimates such values based on the relevant inputs uploaded by Vendor**:
• boundary details
• reporting period
• meter readings
• purchase data
• utility bills

Information goes online only after **SupplHi's quality assurance. Constant data quality assessment**, also through **comparisons** across vendors in similar categories of supply and geographies

2 Setting Vendor Carbon footprint commitments

Through *Carbon Tracker,* the Vendor:

- obtains an **automatic quantification of its CO2 emissions** (Scope 1, 2 and 3)

- defines reduction targets (to 2025, 2030, ...) based on the **Science Based Targets (SBT)**

- defines **initiatives** to reach Targets (based on the Standard Databank of CO2 reduction initiatives managed by SupplHi)

Possibility of Vendor's **CO2 validation by TIC co. or specialized consultants**.

Customers on SupplHi **visualize the current emissions and reduction Targets** (2025, 2030, 2040, ...) for a specific Vendor.

ILLUSTRATIVE

Vendors are requested to monitor coverage and performance over time.

Vendor's CO2 reduction targets on platform are made of:

- **Improvement Actions** (e.g. new industrial filters, employees mobilities, sustainable procurement, ...)

- **Action plan**

- **Governance** to achieve realization of actions

Endorsement of **Science Based Targets** initiative

Actions are **monitored** at Vendor level and **commented** on their progress by the Vendor

Benefits for Vendors

I — **Satisfy a requirement** by **Clients** and by the **industry**, as a whole

II — Increase the **reputation** of your Company, also to **attract more talents**

III — Produce a **Non-Financial Reporting** increasingly relevant for Banking system

IV — Know **where to improve** their ESG Sustainability performance

V — **Differentiate** from competition and **better position** towards your Clients

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