



€ERP Policy Training Workshop

The journey to the Environmentally Responsible Procurement Policy

Enrico Cennini / IPT-PI-SE



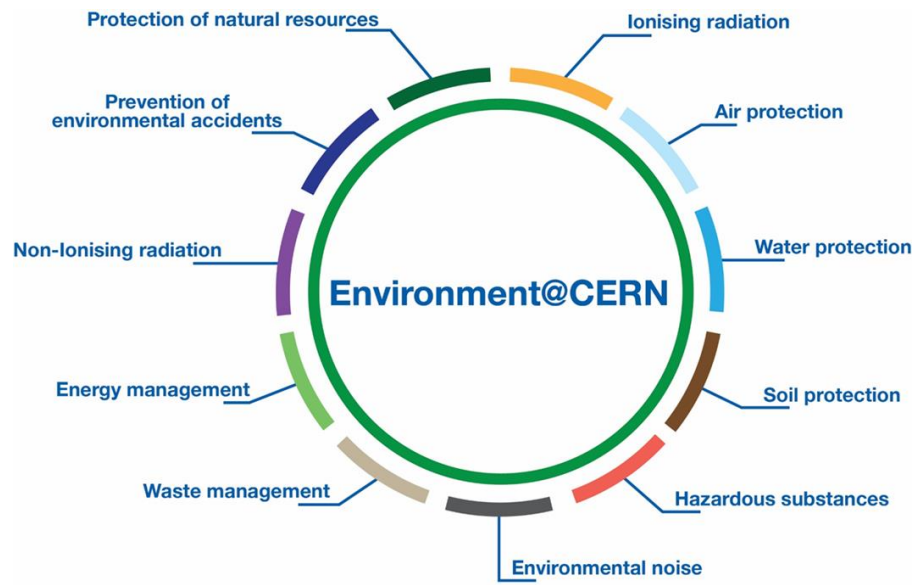
The journey to the **Environmentally Responsible Procurement Policy**

Creation of **CERN Environment Protection Steering Board (CEPS)**

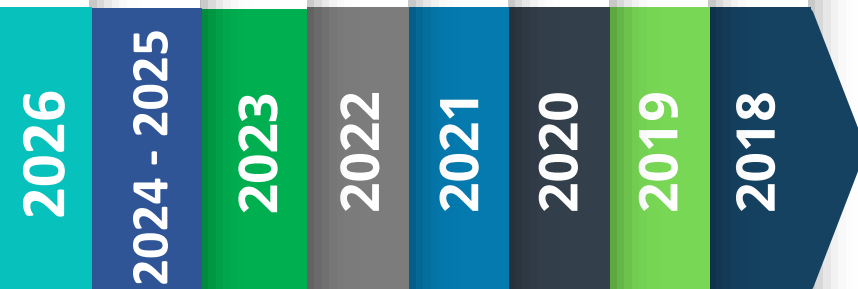
- *Aim: Identification, prioritization of environmental objectives within the Organization.*
- *Presentation to CERN top management for decision.*
- *Budget allocation by the DG for the approved environmental objectives (11 in 2017).*

Drafting of a **CERN Internal Environmental Report**

- *Internal document describing the status of environmental protection at CERN.*
- *Baseline for the definition of CERN’s environmental objectives.*
- *Very first draft of future CERN external environmental reports.*



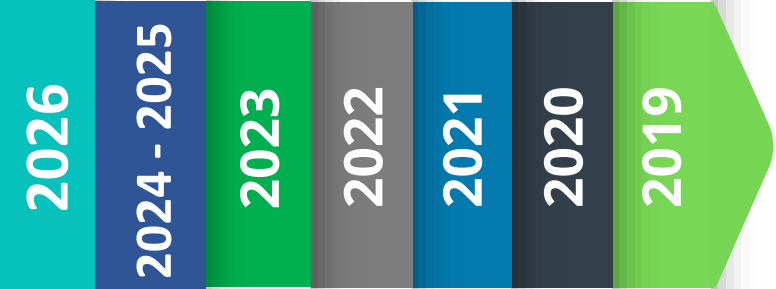
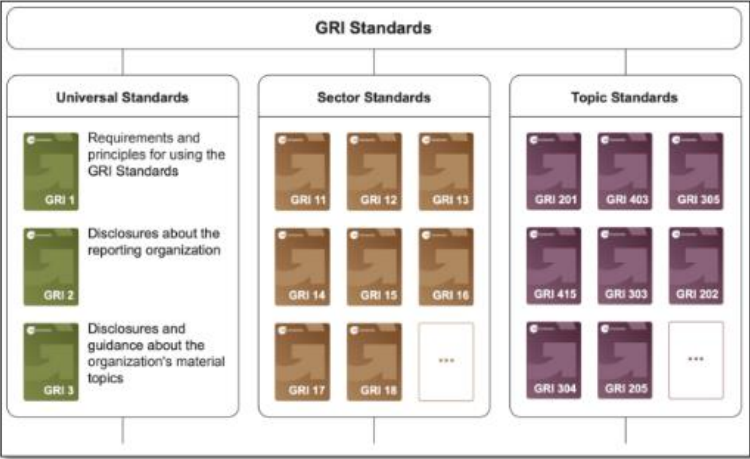
Elaboration of Projects/action plans for 11 CERN environmental objectives



Environmental Objective:	Increasing modal share of less polluting means of transport	
Air Protection-Mobility	Priority 2	Date: 26.07.2016
Initial ranking*	Priority 2	Date: 08.11.2019
CEPS ranking	Priority 2	Date: 08.11.2019
Target	Remaining below 58% of individual car commuting by 2025	
Present situation:		
<p>SMB is developing an enterprise mobility plan (EMP) as announced during the public Conference on Mobility at CERN held on 20th September 2019. The EMP will integrate the mobility objectives defined in the CERN Masterplan 2030. The 2018 mobility survey, sent to staff and users with an overall rate of return of 43% (but 75% for CERN staff), revealed a larger modal for individual cars, the largest being from commuters coming from France, mainly due to the reduced public transport offer in France. The main reasons selected by individual car users were the increased flexibility and rapidity to commute. Today, nine mobility domains are under study to improve the situation in terms of social, economic and environmental impact.</p> <p>The SMB Department will present by the end of the year 2019 the detailed measures of the enterprise mobility plan to the Enlarged Directorate. Following the decisions, the actions related to the target set about commuting will be confirmed and other targets may be defined.</p>		
Mitigation actions already carried out:		
<p>SMB → Improvement on road safety, increase of CERN shuttle offer, optimization of the CERN car sharing services and CERN bike fleet. Exchanges with authorities to increase public transport offer.</p>		
Regulatory framework, environmental or other relevant policy/strategy		
<p>EU: European strategy: Strategy for low-emission mobility (20/07/2016).</p> <p>CH: Stratégie de l'Office fédéral du développement territorial (ARE), La stratégie de l'ARE 2018 (5.4 Objectif stratégique D, Veiller à la mise en œuvre de l'Agenda 2030 pour le développement durable par la Suisse).</p> <p>F: Loi N° 2015-992 du 17 août 2015 relative à la transition énergétique pour la croissance verte.</p>		
Prerequisites to attain target	Finalization of the mobility proposal by SMB and decisions of the Enlarged Directorate	
Actions		
1 Mobility measures to be launched once approved by the ED		
Budget:	Action owners:	Timeframe:
n/a	SMB	2019
CEPS board recommendation		
The CEPS board recommends to implement measures to reduce the ratio of individual cars commuting and to reduce the GHG emissions of CERN vehicles fleet.		
Key Performance Indicator		
<p>Modal share for commuting trip (all personnel)</p> <p>... by country of residence</p> <p>Switzerland: Motorized individual transport (40%), Car (individual) (15%), Car sharing (2%), Moto/scooter (2%), Public transport (7%), CERN Navette (2%), Bicycle (2%), Walking (2%), Mixed transport (car public transport) (2%).</p> <p>France: Motorized individual transport (50%), Car (individual) (15%), Car sharing (2%), Moto/scooter (2%), Public transport (7%), CERN Navette (2%), Bicycle (2%), Walking (2%), Mixed transport (car public transport) (2%).</p>		

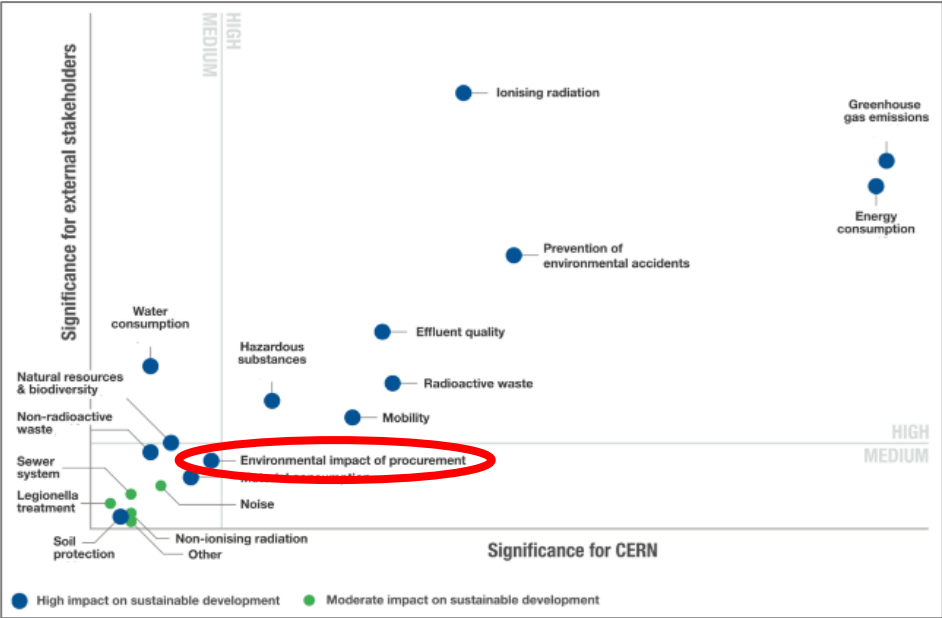
CERN Council approval for public-facing CERN Environmental Reports

Reporting framework



Elaboration of the 1st Materiality analysis according to GRI Standard

- Investigation with key internal/external stakeholder on CERN environmental priorities.
- Definition of priority topics to cover in the report.

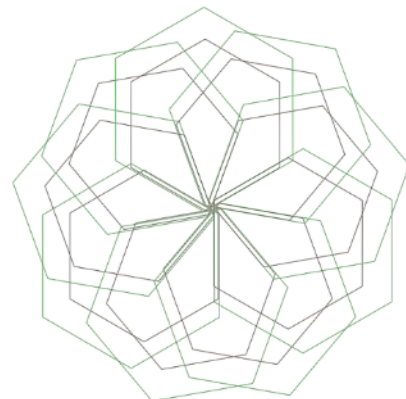




Publication of the 1st CERN Environmental Report

The first report (2017-2018)

Establishing reporting frameworks and setting concrete goals



Courtesy: Ebba Jakobsson – HSE Unit

Topics

- Energy consumption
- Greenhouse gas emissions
- Mobility
- Ionising radiation
- Noise
- Waste (radioactive and conventional)
- Water consumption
- Effluent quality
- Biodiversity
- Hazardous substances
- Prevention of environmental accidents

Context: accelerator operation years



+
Knowledge and
technology for the
environment

?



Launch of the CERN Environmentally Responsible Procurement Policy Project (€ERP³)

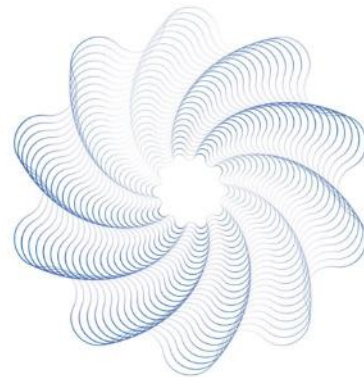
- Definition of the scope of a feasibility study on sustainable procurement.
- Definition of the objectives & modalities of implementation.



Publication of the 2nd CERN Environmental Report

The second report (2019-2020)

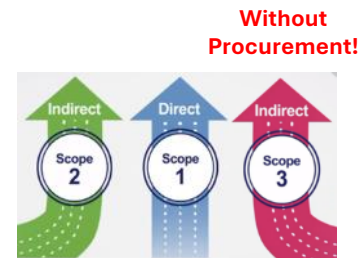
Turning words into action



Courtesy: E. Jakobsson – HSE Unit

New topics

- Scope 3 emissions
 - Commuting
 - Business travel
 - Catering
 - Waste management
 - Water treatment
- Helium

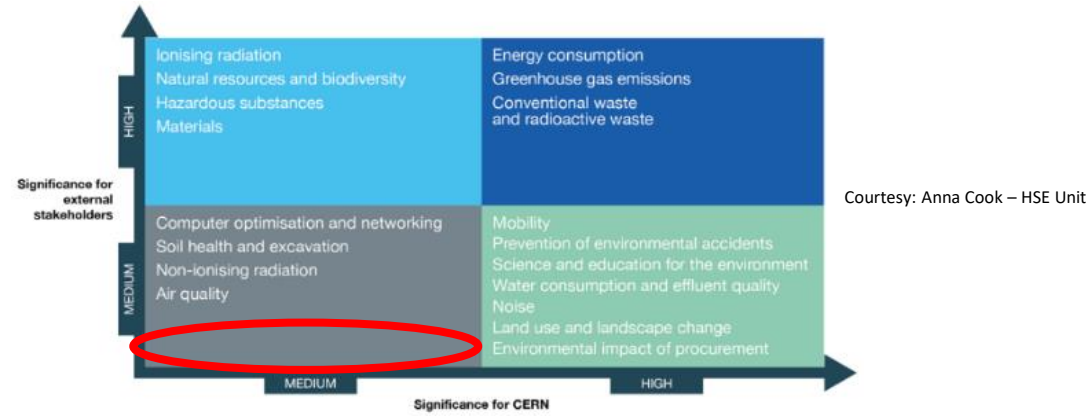


Context: accelerator complex shutdown

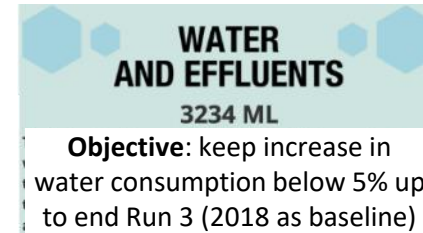
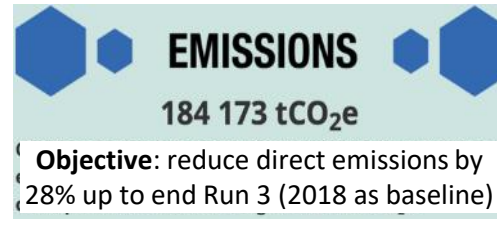
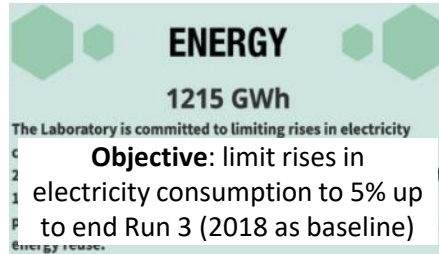


Elaboration of the 2nd Materiality analysis according to GRI Standard

- Investigation with key internal/external stakeholder on CERN environmental priorities.
- Definition of priority topics to cover in the 3^d report.



Update of CERN Environment Priority Objectives



...

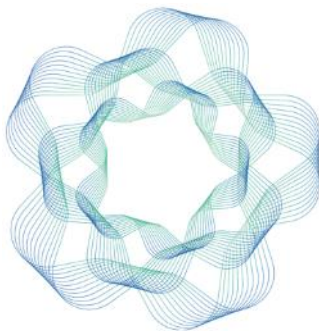
CERN's Energy Policy

- Keep the energy required for its activities to a minimum.
- Improve energy efficiency.
- Recover waste energy.



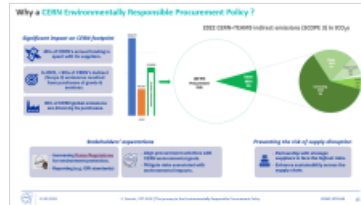
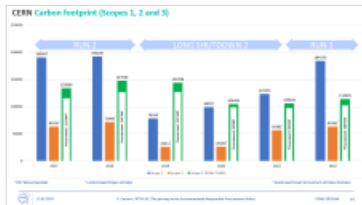
Publication of the 3^d CERN Environmental Report

Challenge of overlap of long shutdown and Run 3



New topic:

- Updated GRI Standard
- Scope 3 including Procurement
- Environmental impact of Procurement



2026
2024 - 2025
2023

Approval of the CERN Environmentally Responsible Procurement Policy

- To embed environmental responsibility, where appropriate, throughout all phases of the procurement process.
- To commit to achieving sustainable results internally and throughout CERN supply chains.
- Networking, benchmarking, learning sustainable procurement best practices.



Chartered Institute of Procurement & Supply



The Sustainable Procurement Pledge



The Scope 3 Peer Group

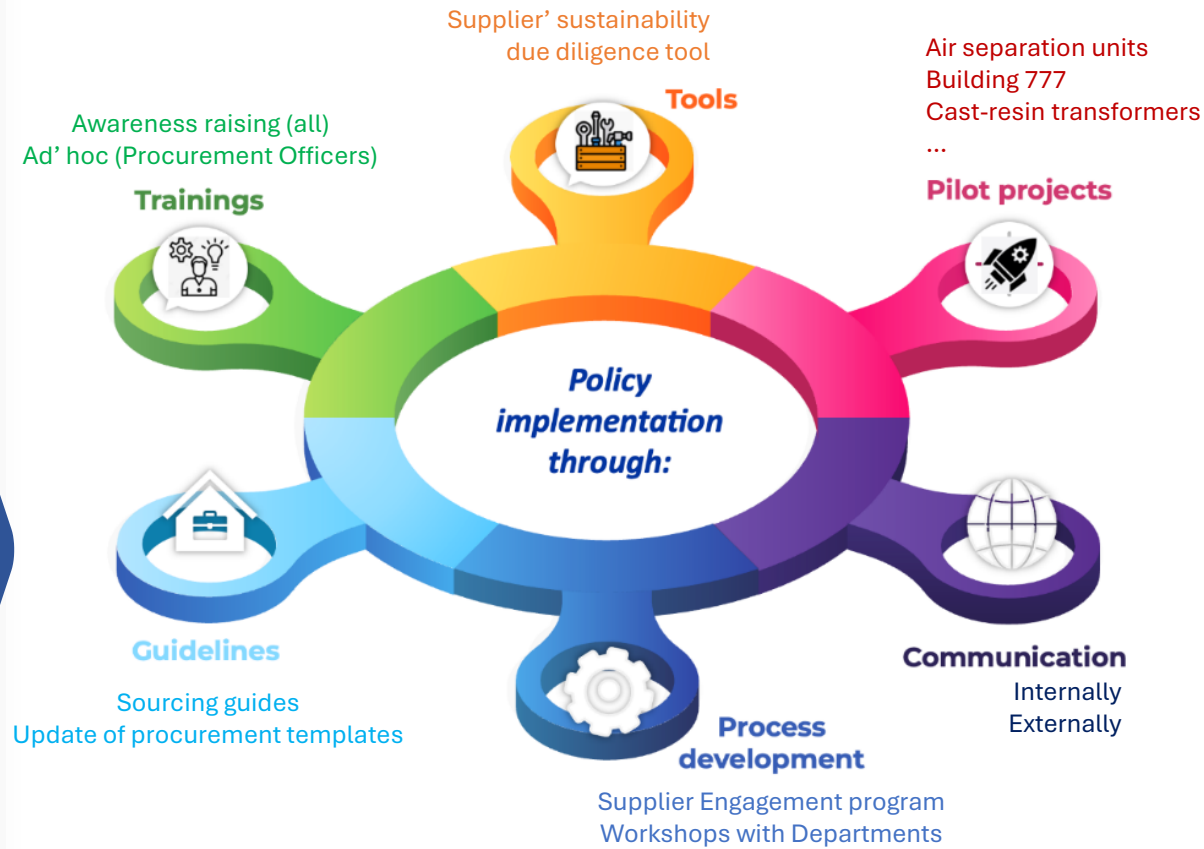
2022
2021
2020
2019
2018
2017

CERN is ISO 50001 certified

- More efficient energy use through the development of an Energy Management System.
- Energy performance reduces environmental impact by contributing to lower greenhouse gas emissions.

Implementing the CERN Environmentally Responsible Procurement Policy

2026
2024 - 2025
Kick off phase



End 2025
Review

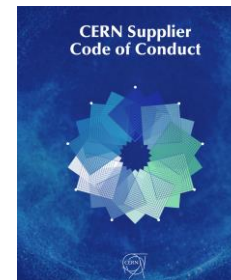


Lessons learnt
Feedback
Proposals
Objectives Setting

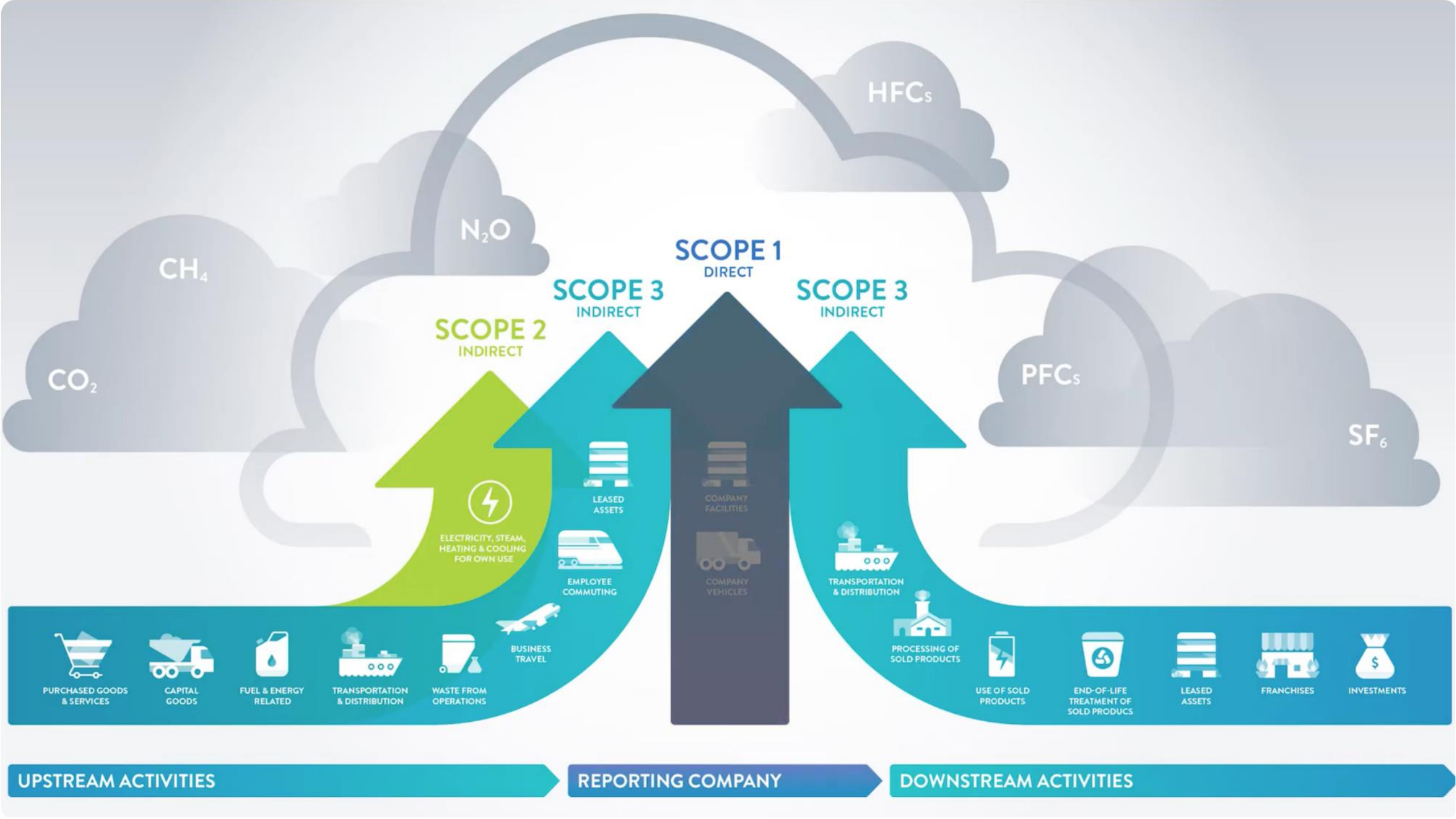


... aligned with CERN Environmental priority objectives

... and the CERN Supplier Code of Conduct







UPSTREAM ACTIVITIES

REPORTING COMPANY

DOWNSTREAM ACTIVITIES

Aim and outcome of Sustainable Procurement



Social

Economical

Environment

A
I
M

- Check supply chains wrt socially responsible and ethical behaviour.
- Develop social value in supply chains.

Socially Responsible Procurement

- Reduce operating and maintenance costs.
- Avoid procurement beyond real needs.
- Develop co-innovation with strategic suppliers.

Economically Responsible Procurement

- Adopt environmentally preferable goods and services.
- Avoid/minimize damage to the environment.

Environmentally Responsible Procurement

O
U
T
C
O
M
E

- ✓ Fair employment practices.
- ✓ Fair trade and ethical sourcing practices.
- ✓ Promoting workforce health/safety/wellbeing.
- ✓ Diversity and equality in the supplier market.
- ✓ ...

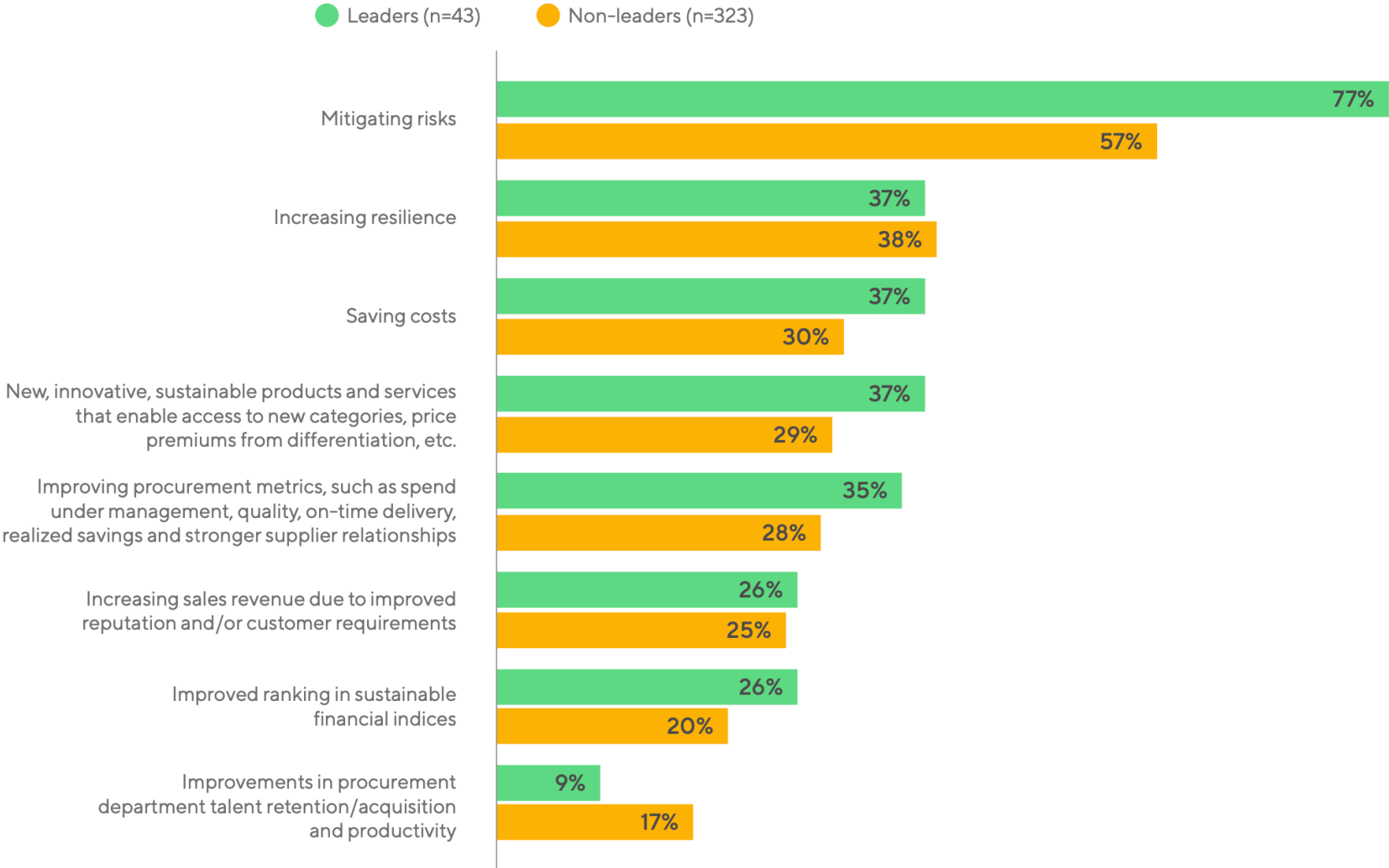
- ✓ Total Cost of Ownership (TCO) approach.
- ✓ Efficient supply chains.
- ✓ Adoption of green technologies.
- ✓ Create markets from recycling.
- ✓ Favour open competition.
- ✓ Reinforce resilience.
- ✓ ...

- ✓ Reduced use of energy (efficiency, renewable).
- ✓ Improved air quality (CO2 emissions reduction).
- ✓ Reduced use of water (savings, efficiency).
- ✓ Improved water/soil quality (pollution prevention).
- ✓ Reduced needs of raw materials/natural resources.
- ✓ Reduced waste and by-products.
- ✓ ...

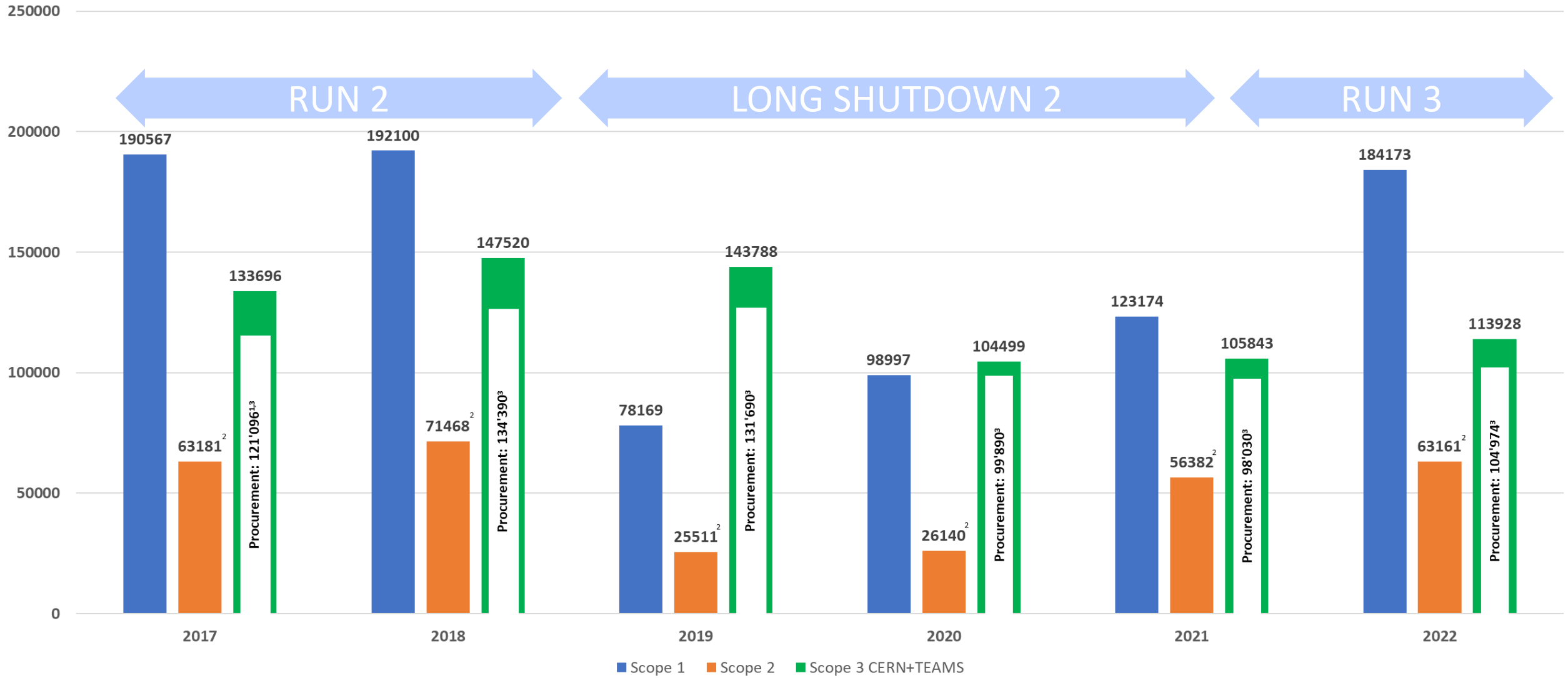
Benefits of Sustainable Procurement

“Sustainable Procurement Barometer 2024,” EcoVadis and Accenture, February 2024. Based on data collected from nearly 600 buyers and more than 1,000 suppliers, worldwide.

What benefits has your organization derived from its sustainable procurement program? (n=366)



CERN Carbon footprint (Scopes 1, 2 and 3)



¹ 2017 data extrapolated

² Location-based Scope2 estimates

³ Spend-based Scope3 procurement estimates (Exiobase)

Why a CERN Environmentally Responsible Procurement Policy ?

Significant impact on CERN footprint



40% of CERN's annual funding is spent with its suppliers.

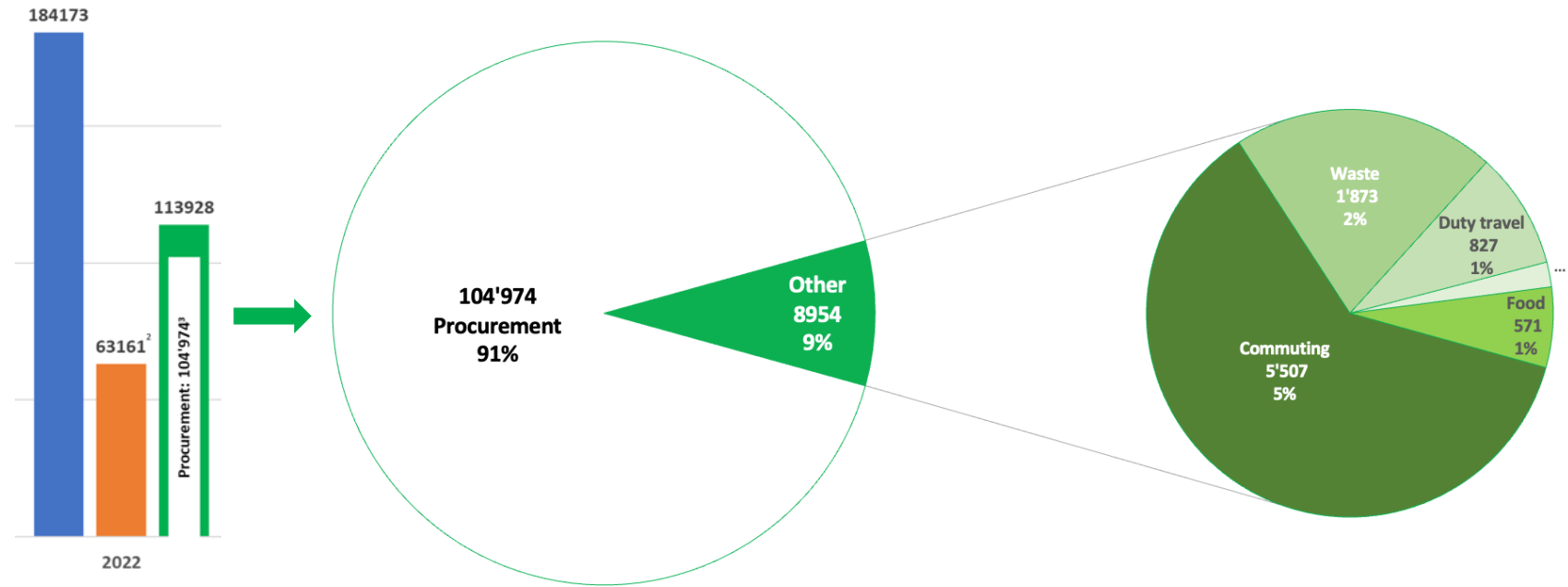


In 2022, > 90% of CERN's indirect (Scope 3) emissions resulted from purchases of goods & services.



35% of CERN global emissions are driven by its purchases.

2022 CERN+TEAMS indirect emissions (SCOPE 3) in tCO₂e



Stakeholders' expectations



- Increasing **Rules/Regulations** for environment protection.
- Reporting (e.g. GRI standards)

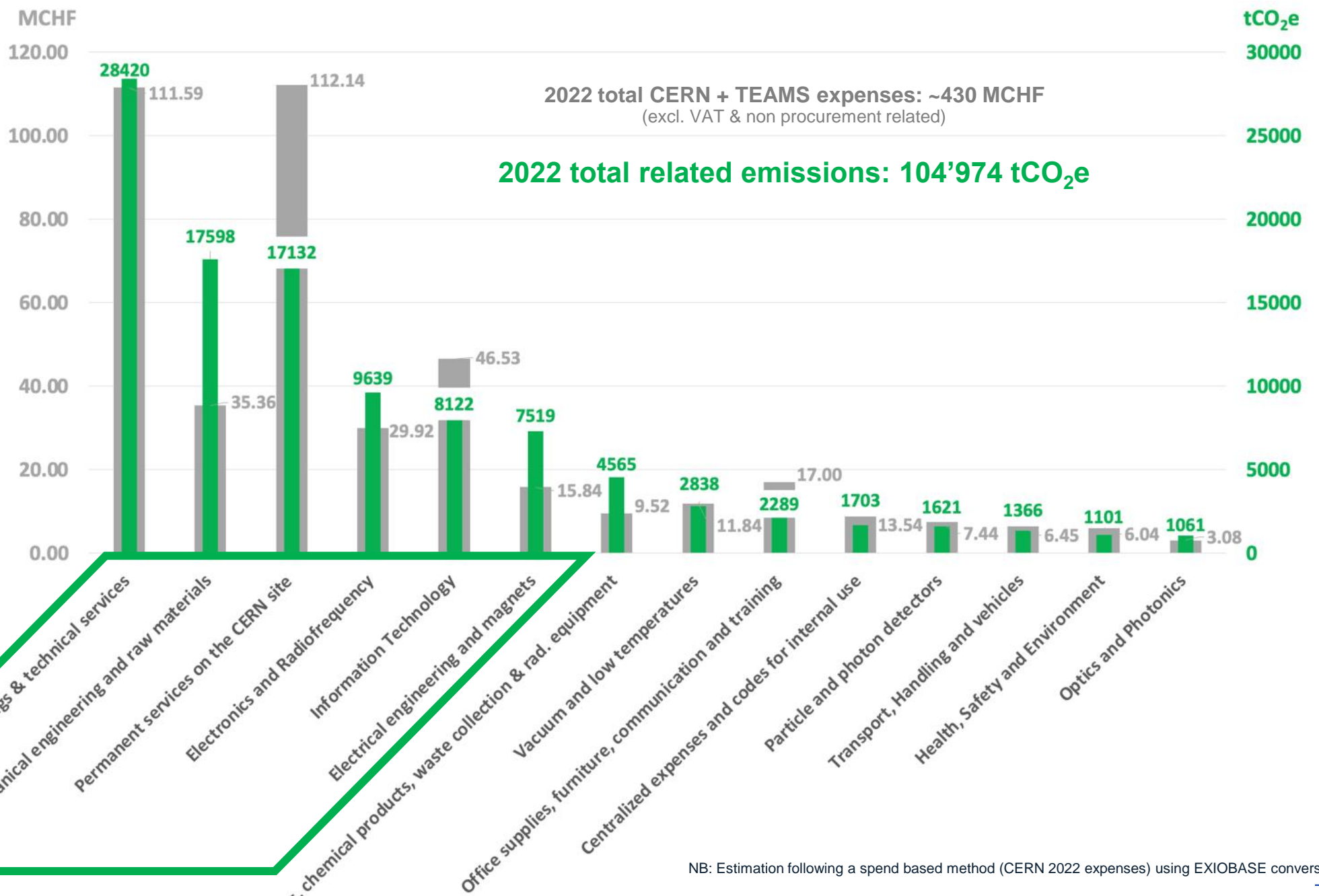


- Align procurement activities with CERN environmental goals.
- Mitigate risks associated with environmental impacts.

Preventing the risk of supply disruption



- Partnership with strategic suppliers to face the highest risks.
- Enhance sustainability across the supply chain.



NB: Estimation following a spend based method (CERN 2022 expenses) using EXIOBASE conversion factors.

Location-based vs. Market-based Scope 2 estimation

These are two different methods of calculating carbon emissions associated with electricity consumption.

Location-based Scope 2 estimates are based on the average emissions intensity of the electricity grid in a particular location.

- It considers the emissions from all electricity sources in that location, regardless of the contractual agreements or specific electricity purchases made by the consumer.
- This method assumes that consumers are using the average mix of electricity sources in their region.
- Location-based estimates may not accurately reflect the emissions impact of consumers who have made efforts to support renewable energy.

Market-based Scope 2 estimates consider the specific contractual agreements and electricity purchases made by the consumer.

- It considers the emissions associated with specific renewable energy certificates (RECs) or power purchase agreements (PPAs) that the consumer has invested in.
- This method allows consumers to track the emissions associated with their own electricity choices and helps support the development of renewable energy projects.
- Market-based estimates are more conservative because they provide a more accurate reflection of the emissions impact of individual consumers.

In summary:

- **Location-based estimates provide a general overview of the emissions intensity of the electricity grid in a specific location, while market-based estimates reflect the specific choices and investments of the consumer.**
- **Market-based estimates can give consumers more accurate information about their own emissions impact and allow them to support renewable energy projects directly.**