



CERN Environmentally Responsible Procurement Policy Project (CERP3)

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www.wspd.earth

EDMS 2858208

CERP3 Project Deliverables - Status

Original Deliverables

D1: Propose a draft CERN environmentally responsible procurement policy and its strategic positioning - (Q1-2022).



D2: Identify and propose detailed mitigation and optimization objectives for CERN's Scope 3 Procurement Emissions - (Q2/Q3-2022).



2022 Add. Deliverables

D3a: 2021-2022 CERN Scope 3 Procurement emissions evaluation - (Q4-2022).



D3b: Scope 3 Supplier Engagement Programme - (Q1-2023).



D4a: Selection and onboarding of Supplier Sustainability Rating Platform - (Q1/Q2-2022).



2023 New Deliverables

D3c: 2017 to 2020 CERN Scope 3 emissions evaluation - (April 2023).

D5a: Environmentally Responsible Procurement Training & Collaboration - (Q2/Q3-2023).

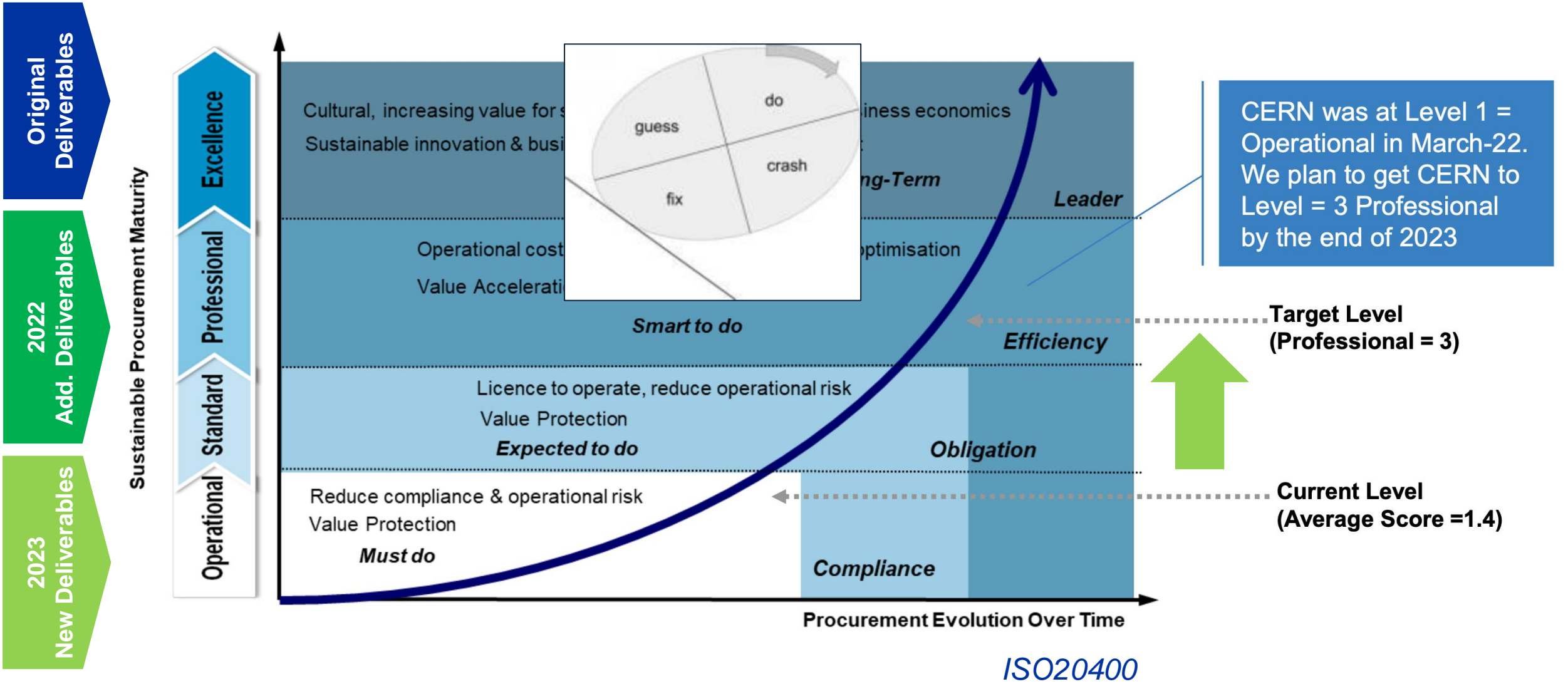
D5b: Environmentally Responsible Procurement Objectives & KPIs Development - (Q2/Q3-2023).

D5c: Environmentally Responsible Procurement Accountability Development - (Q2/Q3-2023).

D6: Pilot Projects - (Q2/Q3-2023).

30.09.2023 - End of the CERP3 Project!

CERP3 Strategic Objective



D1 - CERN environmentally responsible procurement policy

15.02.2023 - CERN/IPT - EDMS 2672273



Draft Policy sent for comment to CERN Department Heads

Many thanks to the contributing ILOs and ILO chairperson Jan Visser for the comments and suggestions!

CERN Environmentally Responsible Procurement Policy

The objective of the CERN Environmentally Responsible Procurement Policy is to achieve a positive environmental impact throughout the lifecycle of the goods or services that are purchased by the Organization.

CERN shall define and implement its Environmentally Responsible Procurement Policy by embedding environmental considerations as standard in its procurement activities.

This Policy is aligned, and designed to work in conjunction, with the CERN Procurement Rules. It constitutes an integral part of CERN's endeavour to achieve identified objectives in relation to the environment and sustainability.

This Policy commits CERN to environmentally responsible procurement and to achieving sustainable results both internally and throughout its supply chains.

The Organization undertakes to:

- integrate environmentally responsible procurement practices into current and future supply chains;
- measure the impact of environmentally responsible procurement;
- communicate with, and give guidance to, the CERN community on implementing, monitoring and reporting on environmentally responsible procurement;
- demonstrate and share, where appropriate, best practice for environmentally responsible procurement with its Member States and other organisations, particularly other research laboratories.

CERN will embed environmental responsibility where appropriate throughout all phases of the procurement process, including at the design phase. Careful and reasoned attention will be given to the need for the procurement, the specificities of the goods or services being procured, the choice of the supplier, the terms of procurement and the principle of continuous improvement.

The Director-General assigns responsibility for the implementation of the Environmentally Responsible Procurement Policy to the following parties:

Parties	Responsibilities
Director for Finance and Human Resources	Supports the effective implementation of this Policy and ensures that its strategic context is appropriate and meets CERN's needs.
Head of Industry, Procurement and Knowledge Transfer (IPT)	Ensures that CERN complies with the Policy and that the appropriate management/reporting systems are in place and working effectively, including training, awareness raising and communication.
Enlarged Directorate (ED) members	Steer the implementation of the Policy and report any corrective action required to further the Policy.
Head of procurement, procurement section leaders, procurement officers,	<ul style="list-style-type: none">• Liaise with technical officers to embed adherence to good practices and to ensure compliance with the Policy.• Foster collaboration between ILOs and procurement officers to identify and develop environmentally responsible suppliers for CERN.• Conduct procurement activities in accordance with the aims of the Policy.• Seek opportunities to include the evaluation of environmental impact in procurement.
Department heads	<ul style="list-style-type: none">• Ensure and report on the implementation of the Policy in their respective departments.
Technical officers	<ul style="list-style-type: none">• Follow this Policy by including environmentally responsible criteria, where appropriate, when drafting technical specifications for new procurements.• Manage daily and periodic supplier engagement, including environmental responsibility objectives with input from procurement officers.
CERN community	<ul style="list-style-type: none">• Follow this Policy by actively contributing to its implementation and complying with the associated procedures.

Other supply chain stakeholders are expected to follow this Policy as appropriate to specific contractual agreements in the course of delivering goods and services to CERN, and to actively collaborate with CERN through partnerships to develop more environmentally responsible goods and services.



D2 - Identify detailed mitigation/optimization objectives for CERN's Scope 3 Procurement Emissions

- Optimization objectives for CERN's Scope 3 Procurement Emissions identified.
- Detailed mitigation solutions established.
- 50 Procurement and Technical Officers interviewed to challenge the above solutions.
- In parallel, key CERN suppliers' CO2 emissions information collected using the Responsibly rating platform.

⇒ Decarbonization Strategies **established** and ready to be **presented** at the CEPS board.

⇒ **Actions prioritised** within Procurement Families based on current tenders/contracts and on potential impact.

Decarbonisation Lever	Action	Priority
UPS Demand Management	<ul style="list-style-type: none"> • Support Vincent Chareyre to carry out his study and create a policy to remove unnecessary UPS systems 	Short Term
DC Current to Pulse Magnet Conversion	<ul style="list-style-type: none"> • Re-visit the study from Philip Schwarz from a commercial energy saving and environmental perspective 	Medium Term
Recycled Materials	<ul style="list-style-type: none"> • Begin including questions relating to recycled materials in Market Surveys • Consider feasibility, pricing differences and potential CO2 reduction through the use of recycled materials • Include this provision more widely in tender documentation if it does not significantly reduce the competitiveness of bids or balanced industrial return for CERN member states 	Medium Term
Circular Packaging	<ul style="list-style-type: none"> • Engage with suppliers to understand where spools are manufactured and loaded with wire and any limitations to returning the spools for re-wiring • Engage with Technical Officer Daniel Ricci from Optics and Photonics to understand how they do this with fibre optic cables 	Short Term
Green Transport	<ul style="list-style-type: none"> • Begin including questions relating to less carbon-intensive transport options in Market Surveys • Include this as a requirement in tenders if it does not significantly reduce the competitiveness of bids or balanced industrial return for CERN member states 	Medium Term

Ex.:

Prioritisation Key: *Short Term: Actions that can be applied immediately to a forthcoming tender or current contract identified by Procurement and Technical Officers*
Medium Term: Actions that can be applied to future forthcoming tenders without a need to change any of the CERN procurement rules
Long Term: Actions that require some requests to change the CERN procurement rules

D3a - Evaluation of CERN's Scope 3 procurement emissions for the 2021-22

- Estimation deriving from a «spend-based assessment» of CERN 2021-2022 expenses.
- Emissions conversion factors from EXIOBASE3 Environmentally extended multi-regional input-output (EEMRIO) table.



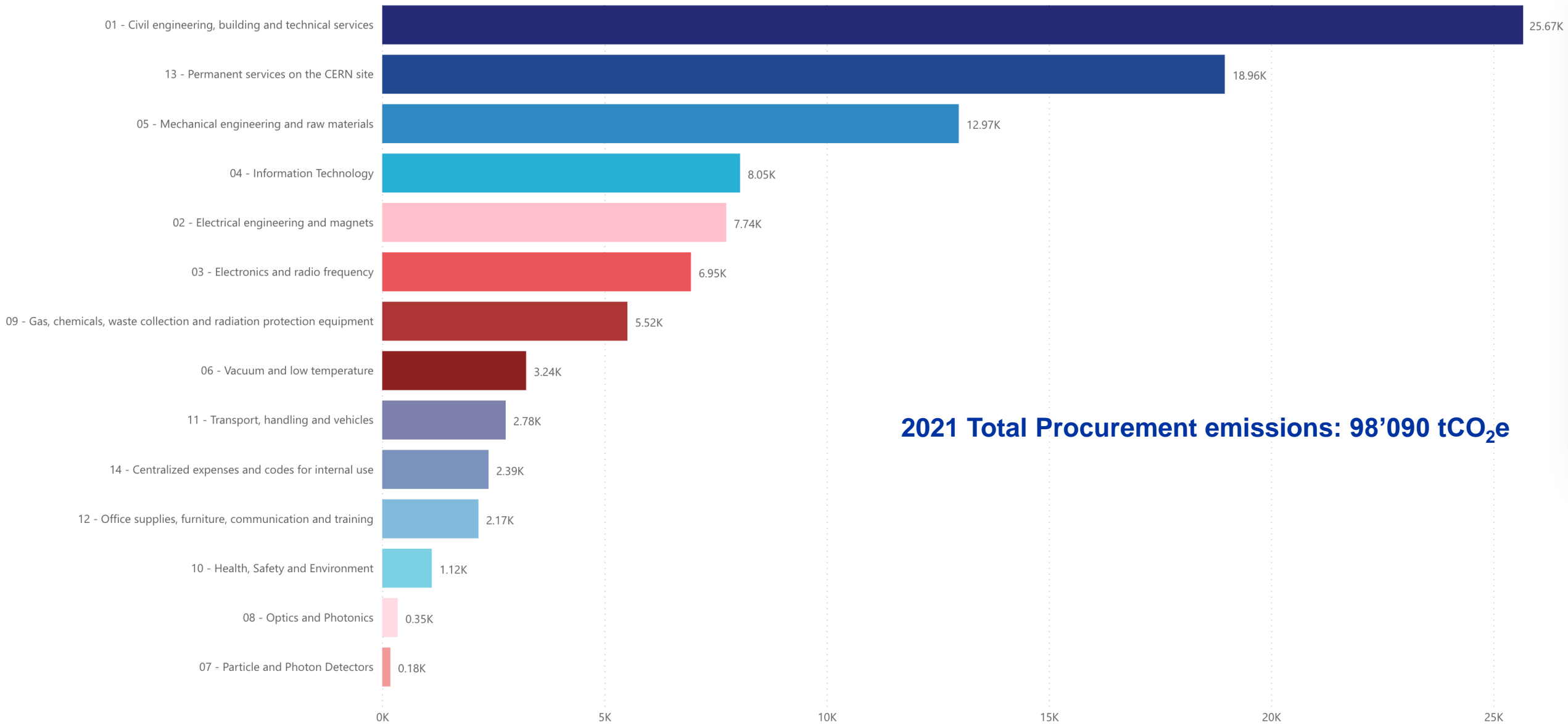
It is reminded that “spend-based assessments” and use of EEMRIO tables remain models and their results deserve careful interpretation!



CERN		EQUIP ^{ISE}	
Time Period	Total Spend (Ex.VAT) [CHF]	Total Emissions (tCO2e)	
Jan-Dec 2021	371.23M	98.09K	

TEAMS		EQUIP ^{ISE}	
Time Period	Total Spend (Ex.VAT) [CHF]	Total Emissions (tCO2e)	
Jan-Dec 2021	46.00M	13.80K	

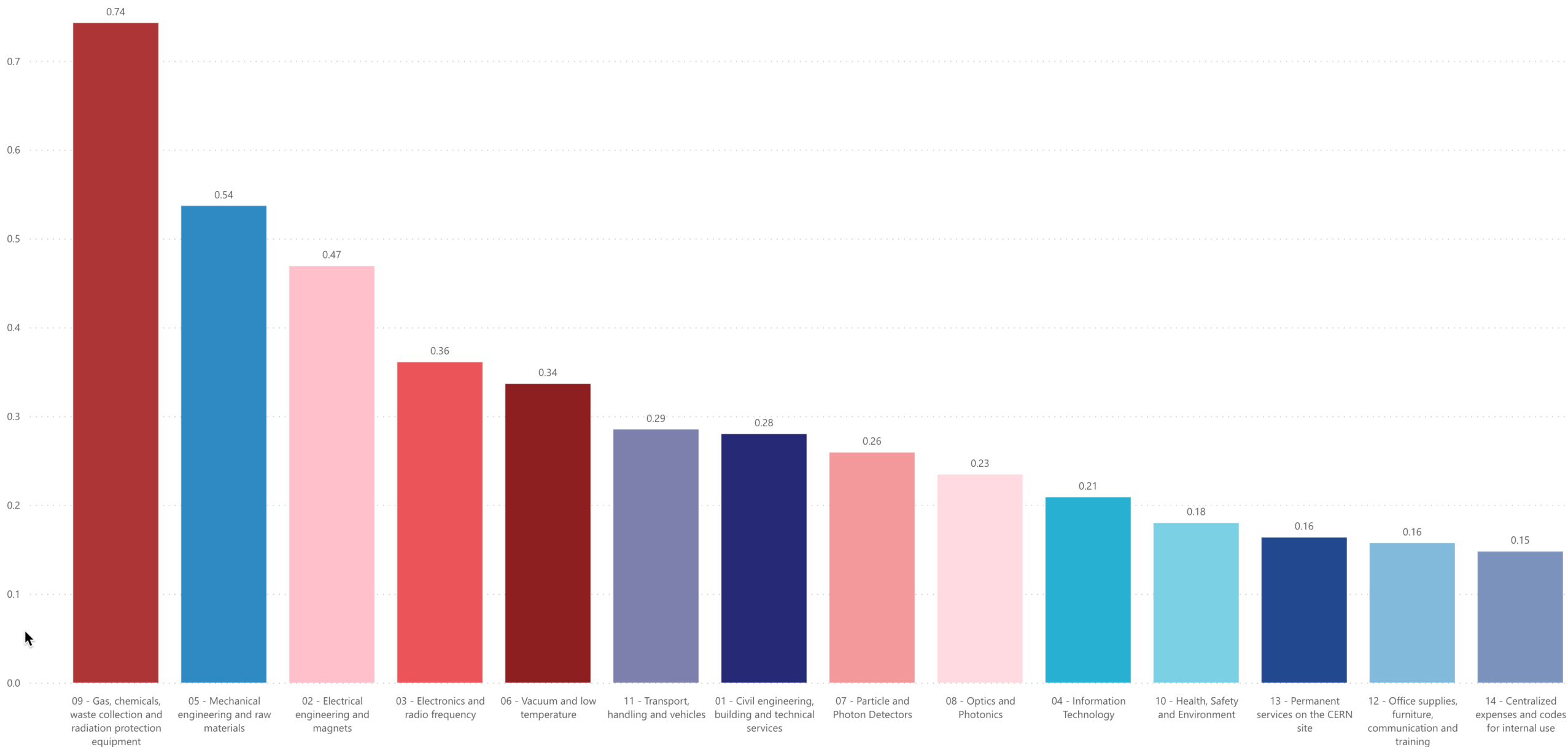
D3a - 2021 CERN EMISSIONS PER PROCUREMENT FAMILY IN tCO₂e



Source: L. Abbott (Equipoise Earth Ltd.) - EEMRIO table: EXIOBASE3



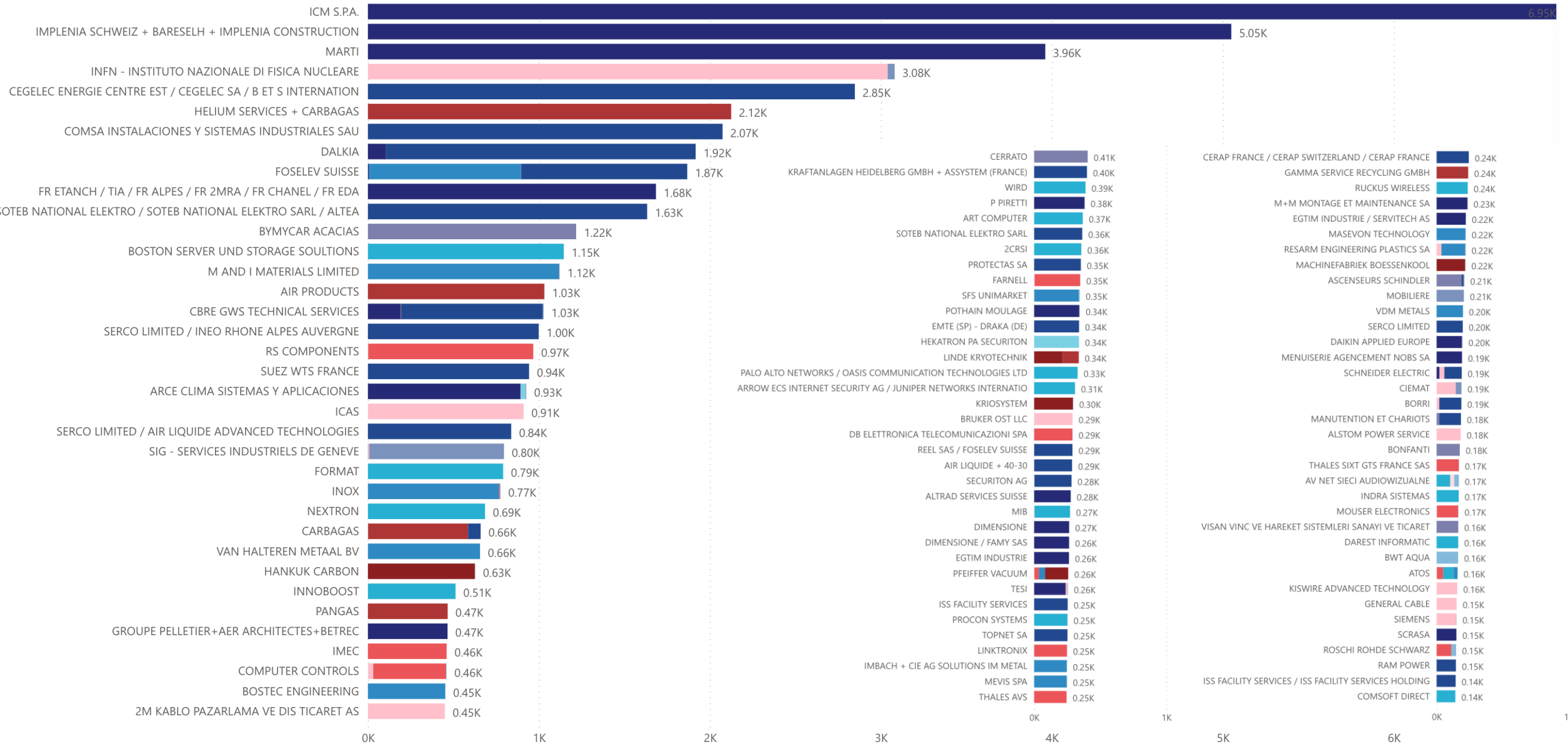
D3a - 2021 CERN CARBON INTENSITY PER PROCUREMENT FAMILY AND PROCUREMENT CODE IN tCO₂e/CHF



Source: L. Abbott (Equipoise Earth Ltd.) - EEMRIO table: EXIOBASE3



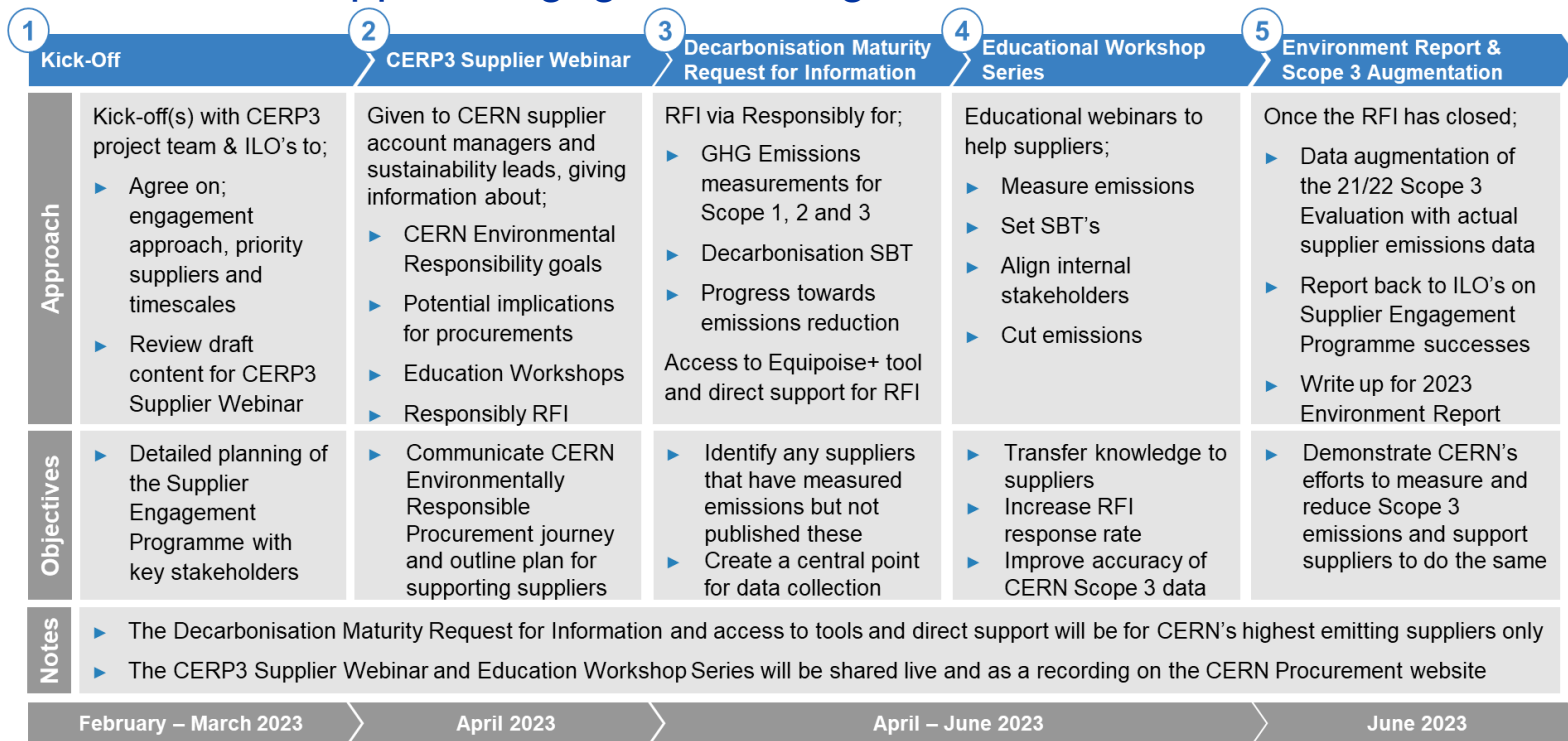
D3b - Supplier Engagement Programme : Main 2021 CO₂ emitters



Source: L. Abbott (Equipoise Earth Ltd.) - EEMRIO table: EXIOBASE3

D3b - Supplier Engagement Programme (cont)

➤ Kick-off D3b Supplier Engagement Programme with ILO's and CERP3 Project Team



*Finalizing list of suppliers
Seeking ILOs help!*

Supplier Country	Supplier Name	Top Procurement Family	Top Procurement Code Description	CERN Account Manager Point of Contact Name	CERN Account Manager Point of Contact Email	ILO Comment
Austria	ALLEGA	05 - Mechanical engineering and raw materials	Metallic plates, sheets and strip			
Austria	HAUSELMANN - METAL AG	05 - Mechanical engineering and raw materials	Metallic plates, sheets and strip			
Austria	MARTI	01 - Civil engineering, building and technical services	Underground work			
Austria	RUAG SPACE	06 - Vacuum and low temperature	Multi-layer insulation (superinsulation)			

D4a - Responsibly Supplier' Sustainability Rating Platform

responsibly

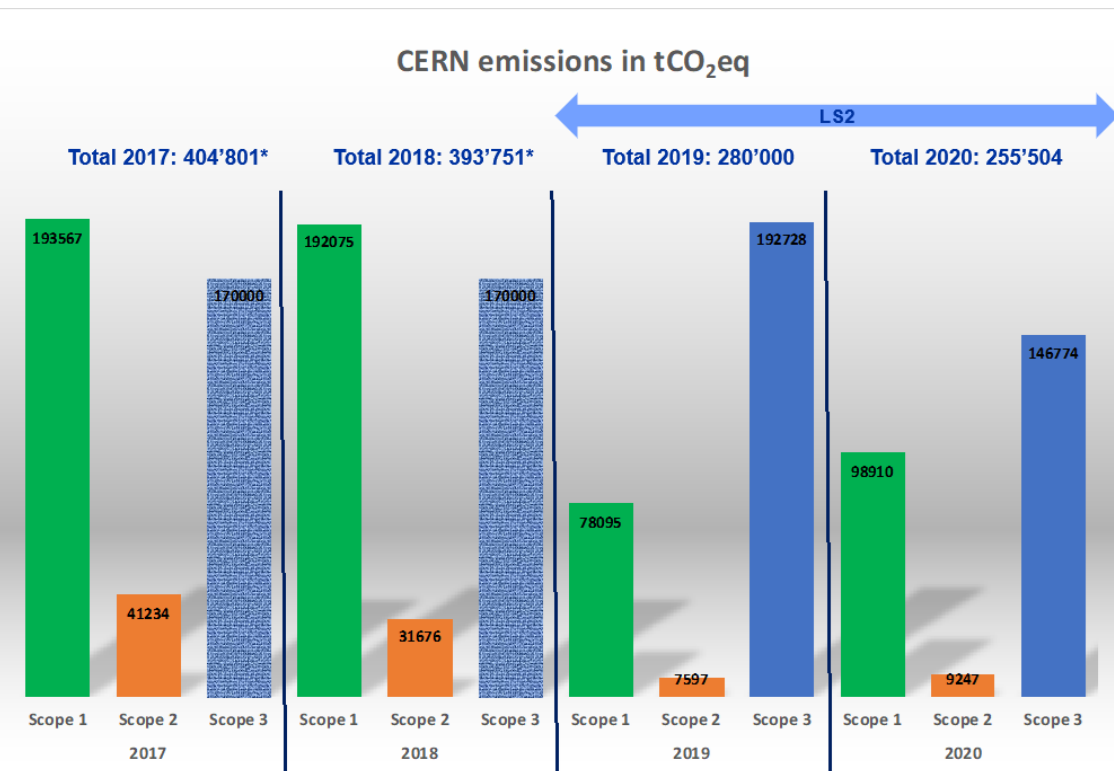
Search suppliers 3 E

<https://app.responsibly.tech/scorecards> + Create

Scorecards
Sustainability assessment of a group of your suppliers across environmental, social, and supply chain management issues.

SCORECARD	SUPPLIERS	ITEMS	DATA COVERAGE	PERFORMANCE
General scorecard	512	7	12%	1/5
Civil engineering, building and technical services	67	7	10%	1/5
Electrical engineering and magnets	34	7	26%	1/5
Electronics and radio frequency	49	7	15%	1/5
Gases, chemicals, waste collection and radiation equipment	7	7	27%	1/5
Health, safety and environment	9	7	13%	1/5
Information technology	63	7	24%	1/5
Mechanical engineering and raw materials	47	7	9%	1/5
Office supply, furniture, communication and training	5	7	0%	N/A

D3c - 2017 to 2020 CERN Procurement emissions evaluation - (April 2023)



Time Period	Total Spend CHF	EF Database	Total tCO ₂ e	Total kgCO ₂ e	kgCO ₂ e/CHF
Jan-Dec 2019	452,000,000	Ecoinvent	178,000	178,000,000	0.394
Jan-Dec 2021	371,226,230	EXIOBASE	98,086	98,086,014	0.264
Jan-Nov 2022	310,760,020	EXIOBASE	93,796	93,795,979	0.302

“Assessing a carbon footprint using EXIOBASE compared to Ecoinvent yields large differences.”
 “Despite being a positive match for some sectors, more than half of the product footprints calculated differed by a factor of 2 with carbon footprints calculated from Ecoinvent being higher in more than 50% of cases.”
Steubing et al. (2022)

=> Revised 2017 to 2020 CERN Scope 3 emissions evaluation using EXIOBASE.



D5a - Environmentally Responsible Procurement Training & Collaboration (Q1/Q2-2023)

Procurement & Technical Officer training.

- Objective: To build their environmentally responsible procurement knowledge with access to resources and training.

What is Sustainability? - Why are these Sustainability topics important? - What are CERN's Sustainability Objectives? - What is Sustainable Procurement?
How can Sustainable Procurement be used to achieve CERN's Objectives?

What is CERN doing on Sustainable Procurement through CERP3? What are Greenhouse Gas Emissions? -What is Scope 1, 2 and 3? - What are science-based targets?

What is Procurement's role in decarbonization? - What are CERN's Scope 3 Procurement emissions? What is the CERP3 Project doing to address the emissions?

What is the Circular Economy? - How can we embed Circular Economy Principles into Design?

What are some examples of Environmentally Responsible Design? Introduction to Responsibly - Applications for Supplier Sustainability Information –
When to use Responsibly in the Procurement Process?

How do we embed sustainability when we assess business needs for procurement, initially explore the market, write specifications?
How have CERN's Procurement documents been updated to support this.

How do we embed sustainability when we onboard suppliers, manage supplier relationships, monitor supplier performance?
How have CERN's Procurement documents been updated to support this.

Continuous Improvement through cross-laboratory collaboration.

- Objective: Identify and engage Environmentally Responsible Procurement champions within the Organisation and individuals in cross-industry working groups.

D5b - Environmentally Responsible Procurement Objectives & KPIs Development (Q1/Q2-2023)

Set SMART Objectives.

- Objective: Set Specific, Measurable, Attainable, Relevant and Timebound (SMART) objectives for the most material Environmental issues in spend areas that have the greatest environmental impact.

Define KPIs.

- Objective: Define KPIs for all material environmental issues and incorporate these into contracts for all key categories and suppliers. KPI data should be collected and analysed regularly to monitor supplier sustainability performance.

- % of spend on IT Hardware with Energy Star Eco-Label
- % of construction suppliers with Environmental Management Systems Certification
- % of Mechanical engineering suppliers with Conflict Materials Policies
- % of Procurement/Technical Officers trained/made aware.
- % of Tenders incl. lowest bid criteria.
- % of suppliers audited on their sustainability practices
- % of suppliers engaged on sustainability action plans.
- % of Tender with specifications including sustainability criteria.
- % of purchases made outside the purchasing process
- % of purchases with mandatory sustainable criteria(s)
- % of Tenders incl. sustainable spec. and/or criteria(s)
- % of Tender incl. the Total Cost of Ownership criteria
- % of renewable energy.
- % of repurposed material.
- Average supplier payment time
- Number of ongoing disputes with suppliers
- kWh/person.



D5c - Environmentally Responsible Procurement Accountability Development (Q2-2023)

Accountabilities (RACI).

- Objective: Clarify accountabilities for Environmentally Responsible procurement at CERN.

Individual Responsibility.

- Objective: Include clearly defined Environmentally Responsible Procurement elements in job descriptions, objectives and personal development plans for the procurement function.

Performance Review.

- Objective: Regularly review environmentally responsible procurement performance with the Environment and Procurement teams.

D6 – Pilot projects (by September 2023)

Pilot projects.

- Objective: Quick wins through pilot projects.

THANK YOU FOR YOUR ATTENTION!



QUESTIONS?

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