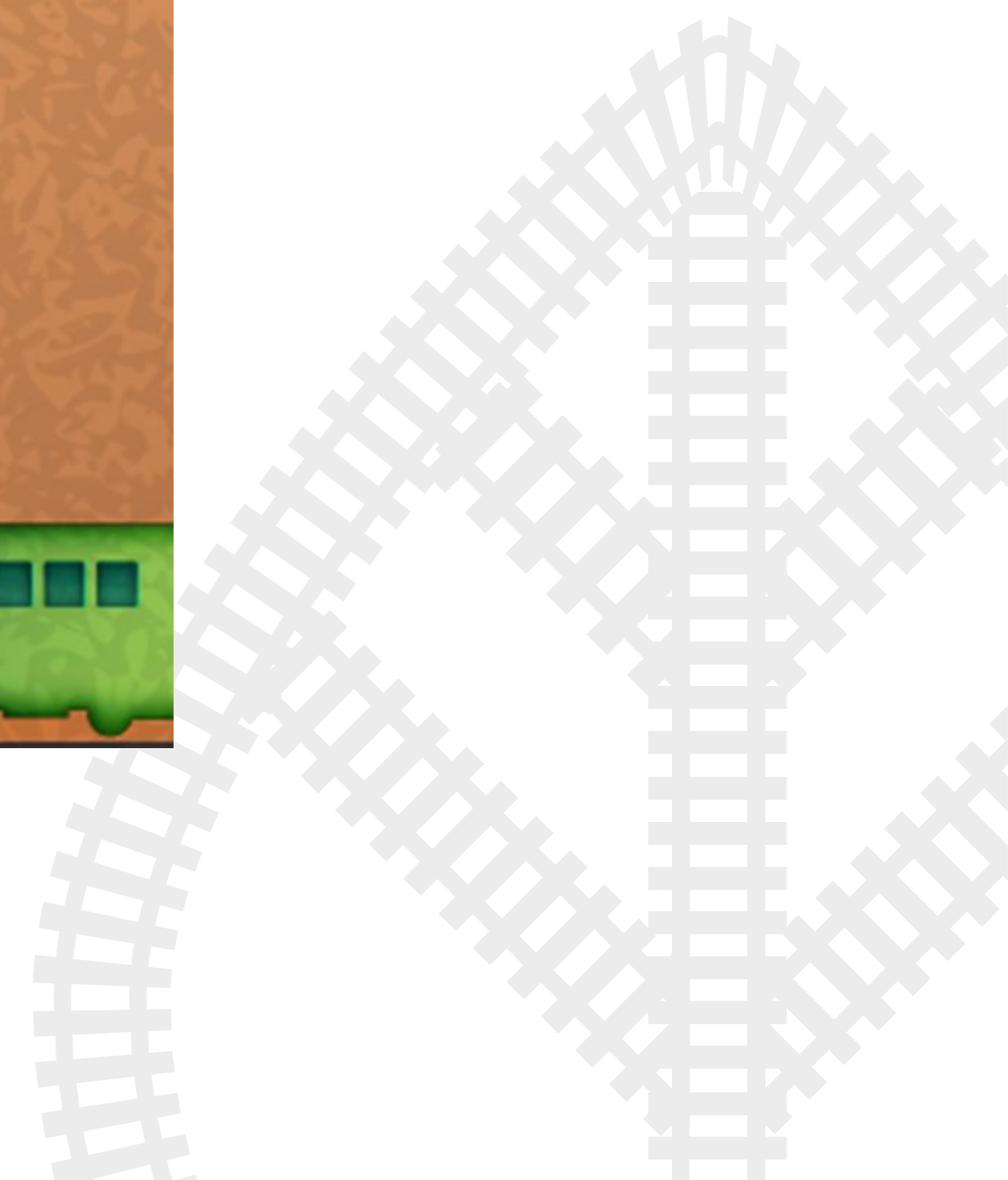


Driving a Sustainable Future with Rail

2025 edition of **SUSTAINABILITY ACTION WEEK** #uicsustainabilityactionweek



SUSTAINABILITY
Action Week

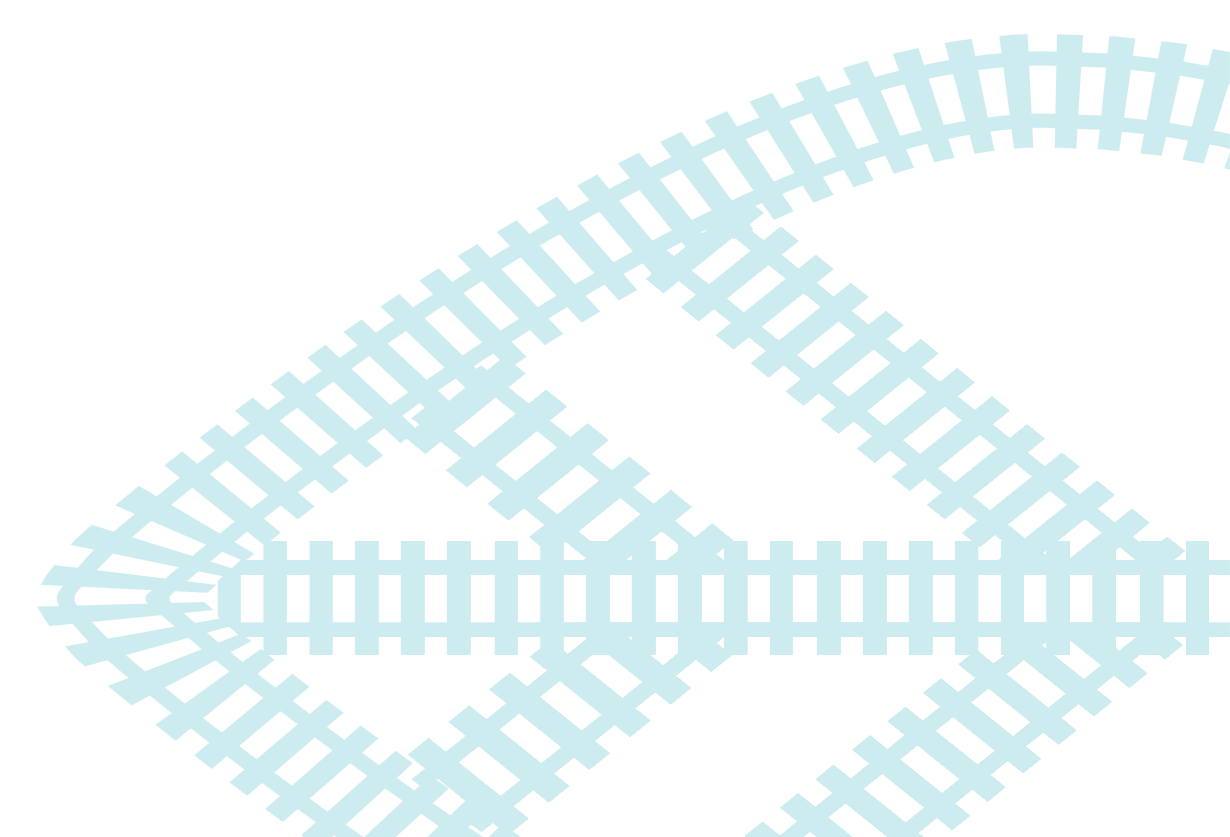




ZERO WASTE RAILWAYS VI

The Power of Procurement to Achieve Sustainable and Circular railways

12 March 2025



Welcome and introduction



Katy Beardsworth

CE Sector Chair
Circular Economy
Strategy Manager

Network Rail



**Ilse de Vos-van
Eekeren**

CE Sector co-Chair,
Circular business
Manager

NS



Isabelle De Keyzer

Senior Advisor,
Sustainability

UIC

Workshop timeline – Morning session

Procurement Best Practices and Data Flows for Sustainable Rolling Stock and Railway Material

9:00

Introduction and opening remarks - Challenges in circular procurement

- Welcome - Isabelle De Keyzer, CE Sector Coordinator, Senior Advisor UIC
- Opening Katy Beardsworth, CE Sector Chair and Circular Economy Strategy Manager, Network Rail
- Ilse de Vos-van Eekeren, CE Sector Co-Chair, Circular Business Manager, NS (Dutch Railways)

9:20

Session 1: Sustainable rolling stock procurement towards sustainable and circular railways

- The importance of standard setting for sustainable rolling stock procurement: Christa Gjaltema, Consultant RICARDO

9:40

Circularity in procurement: Best practice session

- Success stories from the ERPC Sustainable Procurement Group - Chair Ines Sturm, ÖBB
- Tools for embedding circularity in procurement: Prorail case study with ECI - Quinty Soede & Jan Zandbergen, ProRail
- Refurbished electronic equipment and DEKRA labelling – Coline Mellin, ALSTOM + RCUBE

10:25

Coffee break

10:40

Panel discussion: What does the supply industry need from the railway operating community?

Moderator: Ilse de Vos, Co-Chair CE Sector, Circular Business Manager, NS

Panellists:

- Lena Kriesel, RTR
- Davide Bonaffini, Hitachi Rail
- Rose Stephani, Railsponsible

11:25

Breakout table discussions

Discussion on the challenges of circularity in procurement - with Flatland: visual record summary outcomes for each table

12:00

Wrap up - Table hosts share notes

12:15

Closure and visual summaries

12:30

Lunch break

Workshop timeline – Afternoon session

<p>13:30</p>	<p>Session 2 – Ecodesign Forum & Digital Product Passport (DPP) within Ecodesign for Sustainable Products Regulation (ESPR) Speaker C. Schalch, SBB An introduction</p>
<p>13:45</p>	<p>Digital product passports (DPP) - An update Speaker: Dominic Hurni, SBB</p> <ul style="list-style-type: none"> • Basics of DPP • Update of project DPP rail of Swiss Federal Railways. • Potential benefits and challenges for railway companies
<p>14:05</p>	<p>The Eco Design Forum Speaker: Ethem Pekin, CER</p> <ul style="list-style-type: none"> • Purpose and function of the Ecodesign Forum set up by the European Commission, • Potential benefits and challenges for railway companies.
<p>14:25</p>	<p>Workshop – Community:</p> <ul style="list-style-type: none"> • Your input to representatives • Registry for Ecodesign Forum Meetings
<p>14:45</p>	<p>Next steps and wrap-up</p>
<p>14:55</p>	<p>Closing remarks (host tbc)</p>
<p>15:00</p>	<p>Coffee Break – and join Sustainability Reporting Plenary in 203 (same room)</p>



Katy Beardsworth

CE Sector Chair

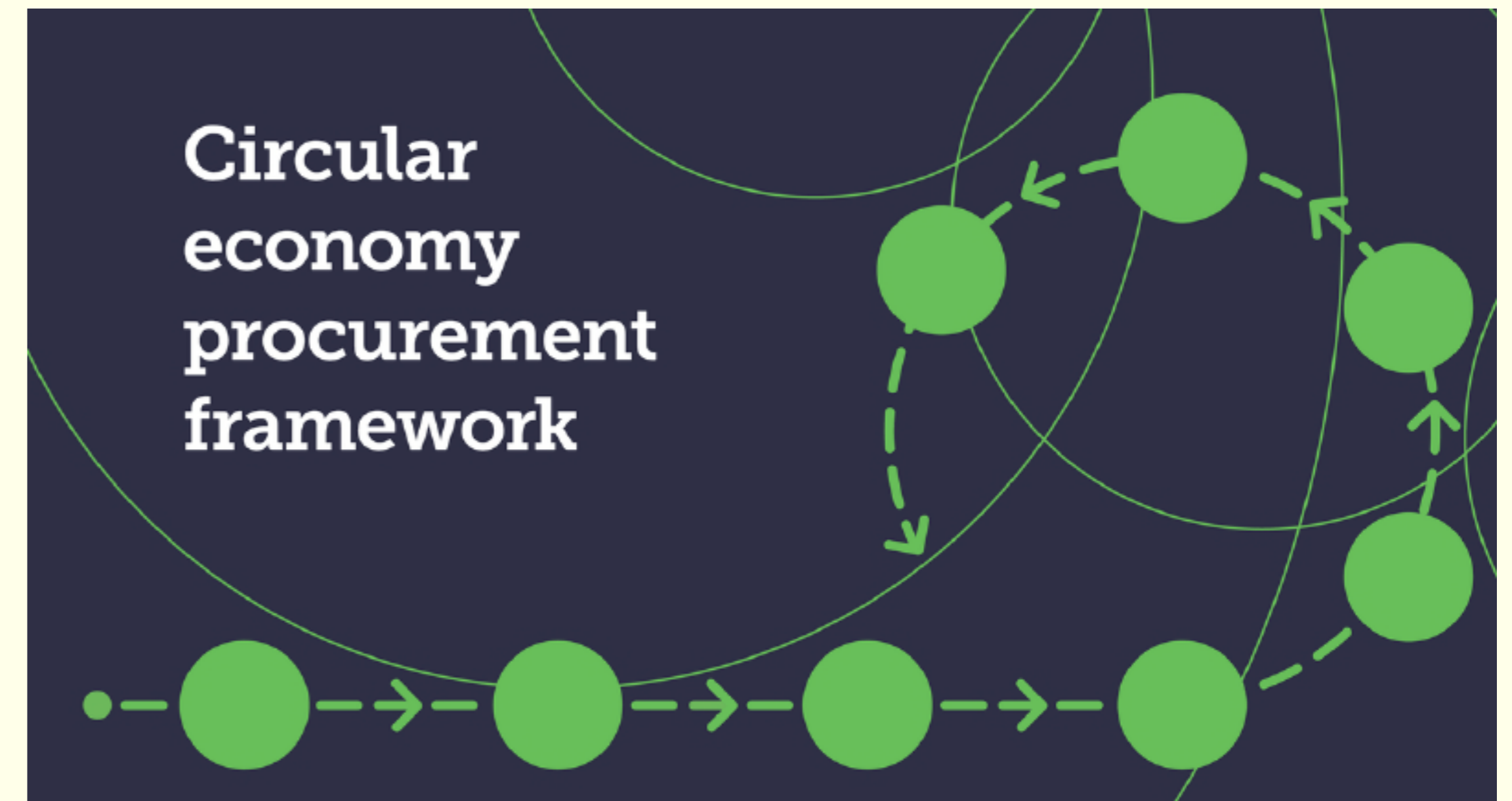
Circular Economy
Strategy Manager,
Technical Authority
Network Rail



What is circular procurement

Areas to consider:

- Do we need to buy it? Do we need that much of it?
- What materials are we specifying – new / used, virgin / recycled etc
- Take back schemes
- Product as a service
- Closed loop recycling
- End of life options considered at beginning
- Allowing innovations
- Whole life cost
- Data requested



Useful link: Circular economy procurement: a framework for businesses

<https://www.ellenmacarthurfoundation.org/circular-economy-procurement-framework>

Current circular procurement workstreams at Network Rail

- Ballast reuse
- Embedding circularity in rail tender
 - ▶ Closed loop recycling?
- Composite sleeper tender
 - ▶ Wider sleeper research
- Steel category strategy
- Waste management category strategy





Ilse de Vos van Eekeren

CE Sector Chair

Circular Business Manager
Dutch Railways (NS)

Socially Responsible Procurement Policy NS

"Working together with our supply chain towards sustainable mobility"



Fossil-free



Circular



Green

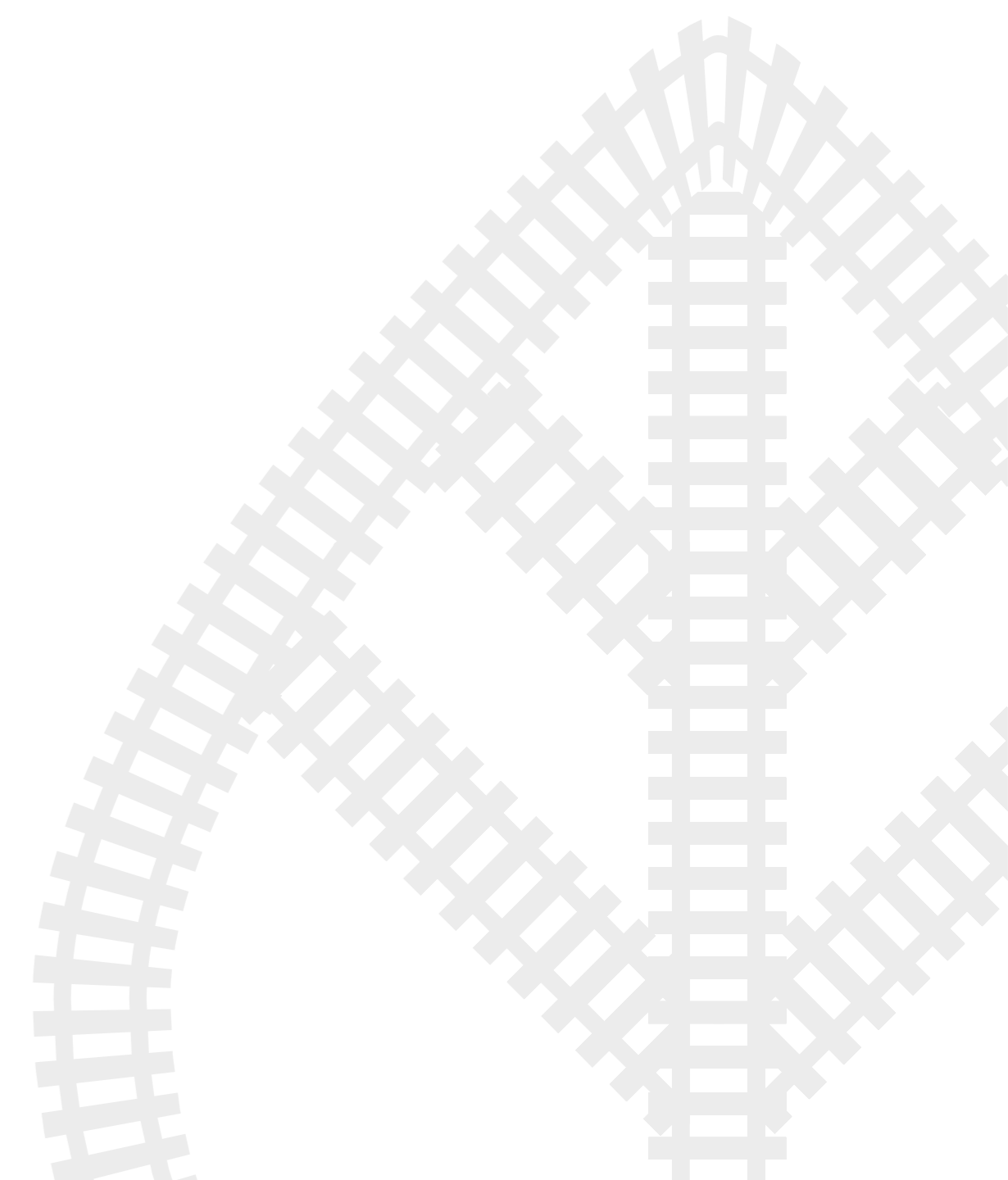
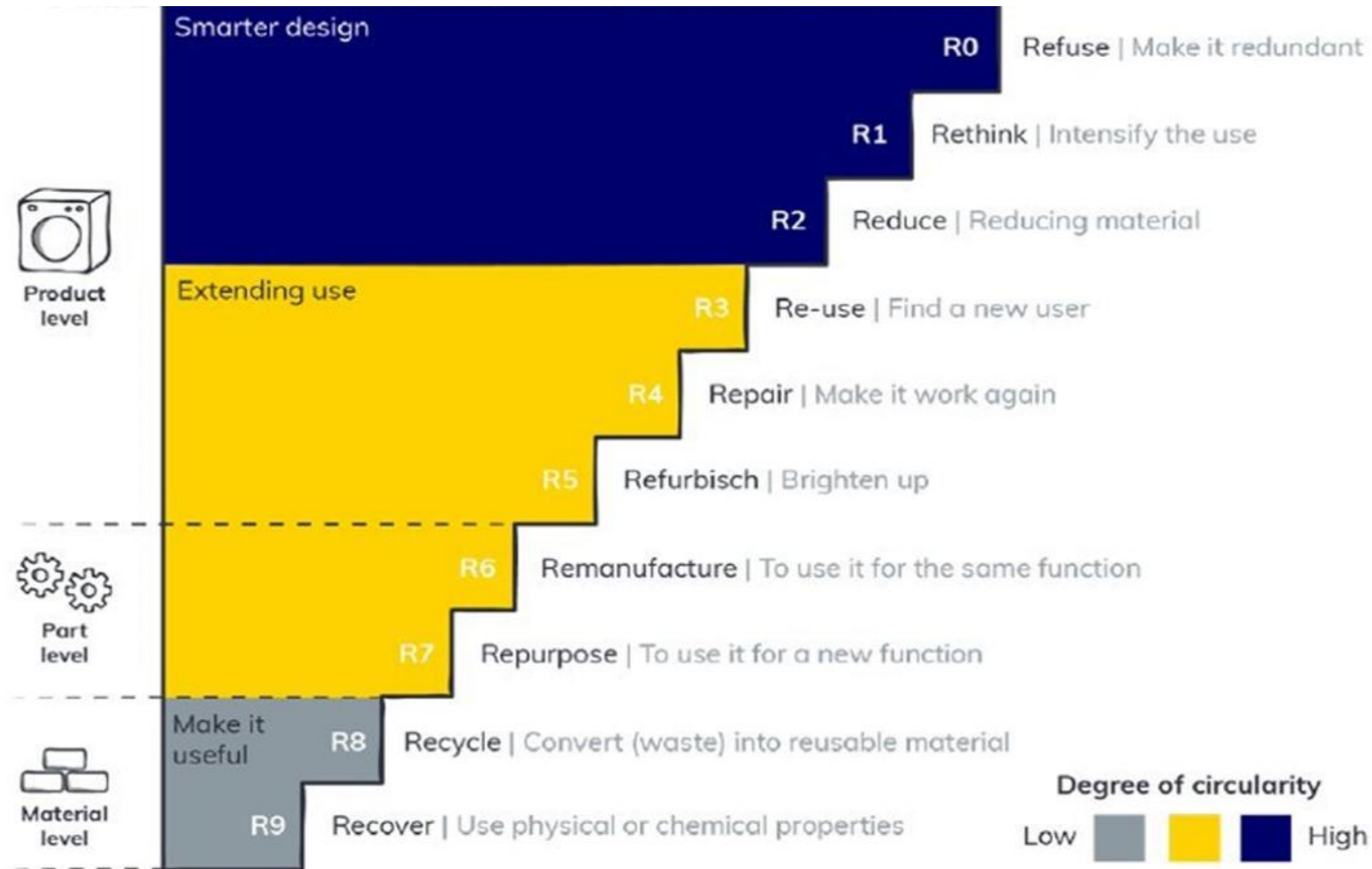


Social Return



Chain responsibility

CIRCULAR STRATEGIES





Repurpose

A yellow and blue high-speed train is shown in a large industrial workshop. The train is positioned on a yellow and black striped track. The workshop has a high ceiling with a complex steel structure and various equipment. The train is the central focus of the image.

86%

Refurbish

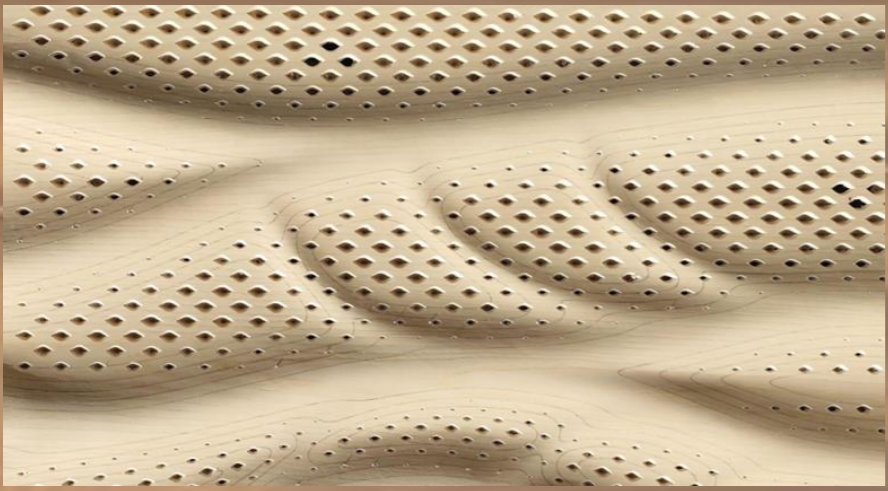
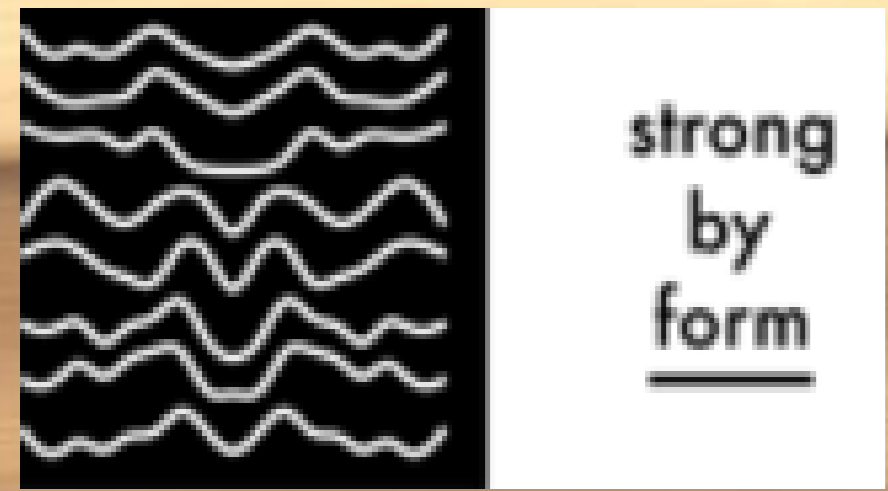
A technician wearing safety glasses and a blue shirt is working on a large industrial motor in a factory. The motor is mounted on a metal frame with yellow safety railings. The background shows a complex industrial environment with blue overhead cranes, pipes, and various machinery. The scene is brightly lit, suggesting an indoor industrial facility.

170%

Repair



Re-use



**Reduce
Rethink**




Reduce






Refuse



EuroSpec



Specification on circularity for rolling stock

SNCF  DB  ÖBB  SBB CFF FFS

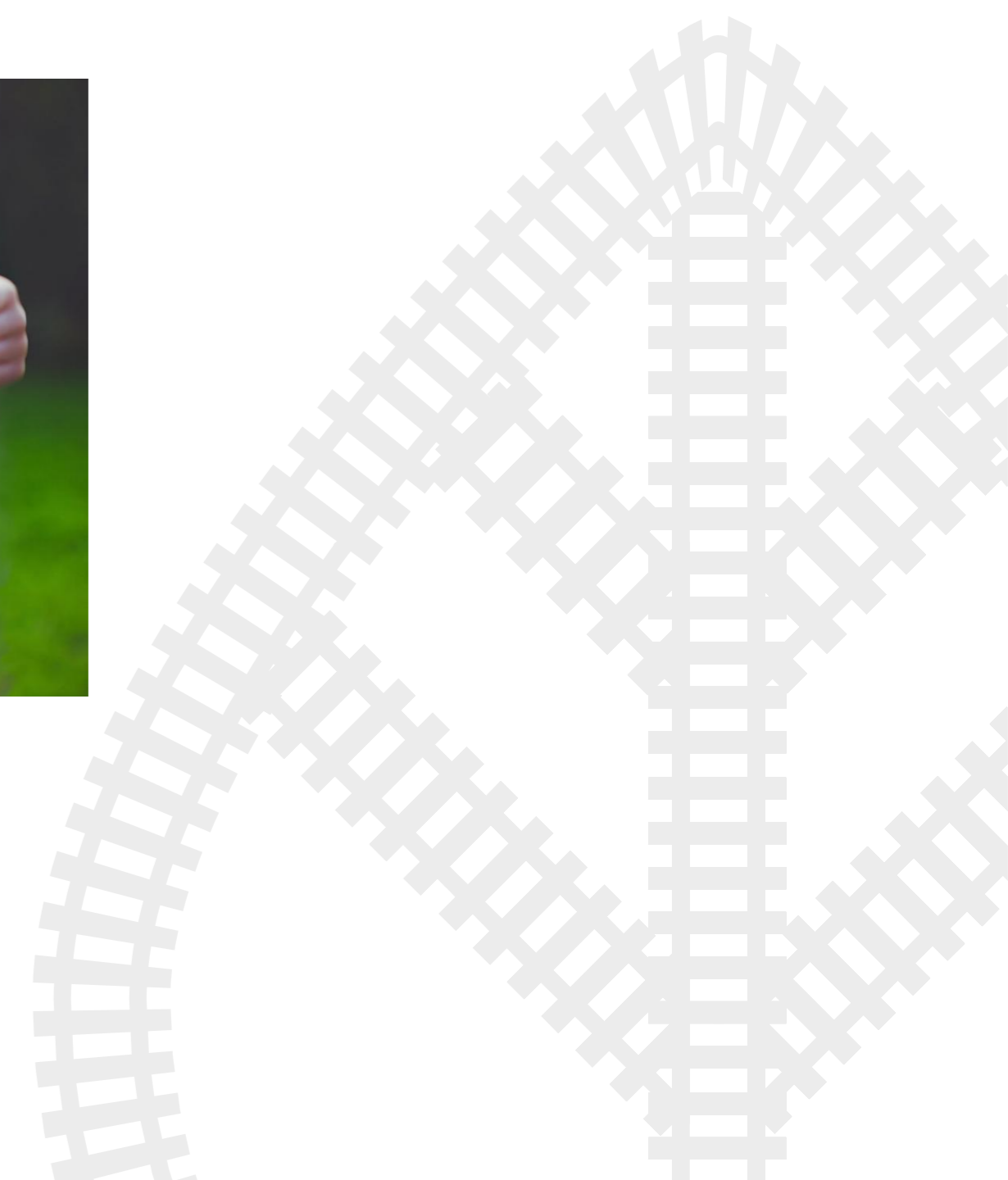
The central graphic features a white background with a blue and yellow vertical bar on the right. It contains the 'EuroSpec' logo at the top, a photograph of a worker in a white hard hat operating machinery on a train in a factory, and the text 'Specification on circularity for rolling stock'. At the bottom, there are logos for SNCF, TGV, DB, ÖBB, and SBB CFF FFS.

Smarter (Circular) Design

Circular & Sustainable Procurement in Rail

"To remain the most sustainable mode of transport"

- ✓ Economical
- ✓ Challenging
- ✓ Proud
- ✓ Fun



Sustainable rolling stock procurement towards sustainable and circular railways

**Importance of standard setting for sustainable rolling
stock procurement**





IRS 30345 - Environmental specifications for new rolling stock

Update of UIC Leaflet 345



INTERNATIONAL UNION
OF RAILWAYS



SUSTAINABILITY
Action Week

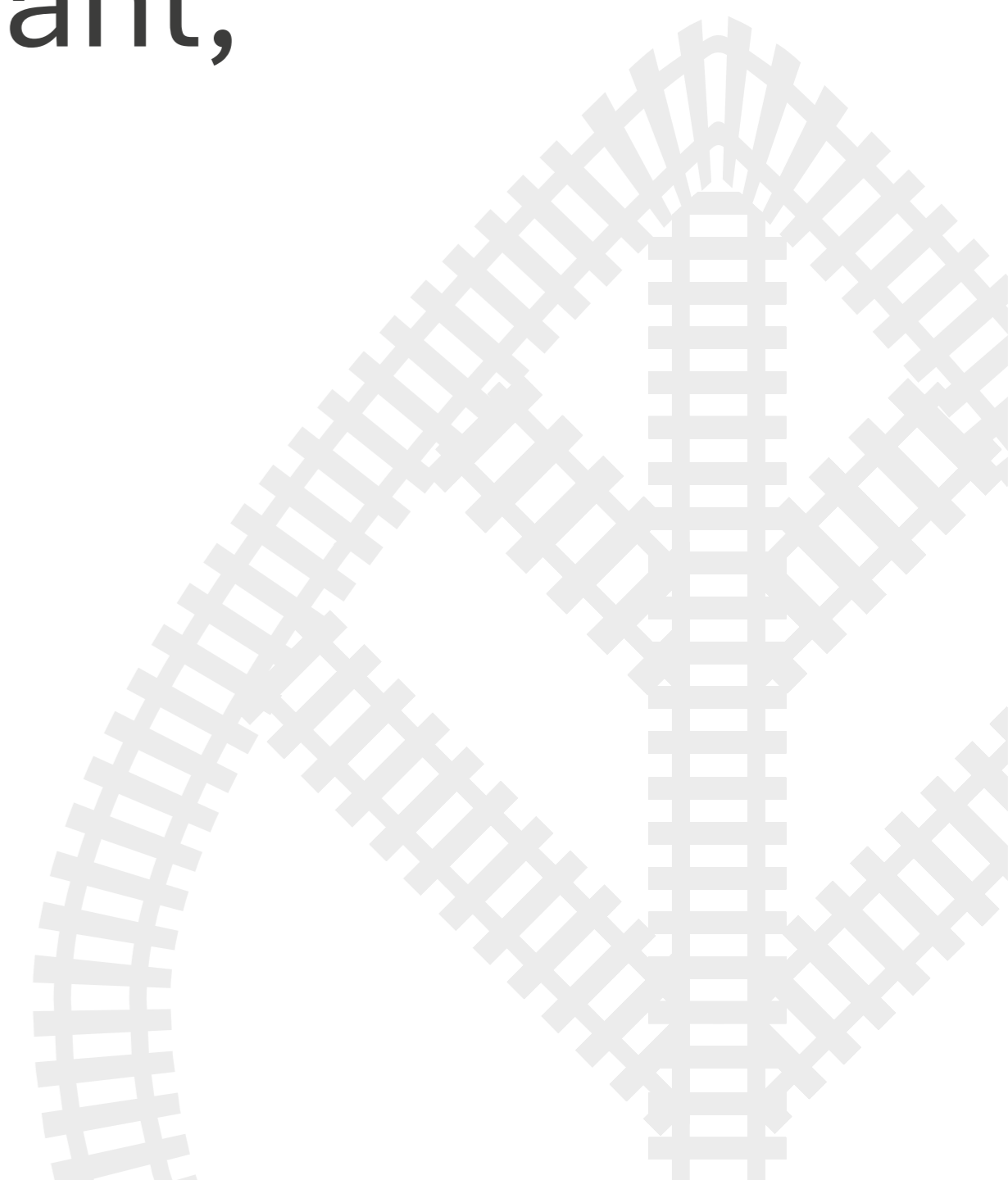
Christa Gjaltema
12 March 2025

Sustainability Action Week



Christa Gjaltema

Consultant,
Ricardo





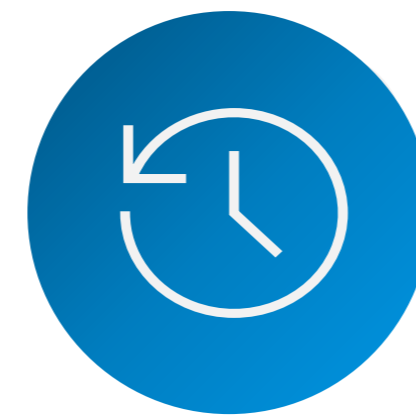
- Introduction Ricardo
- From UIC Leaflet 345 to IRS 30345
- 3 main challenges



INTRODUCING RICARDO

A GLOBAL STRATEGIC, ENVIRONMENTAL AND ENGINEERING CONSULTING COMPANY

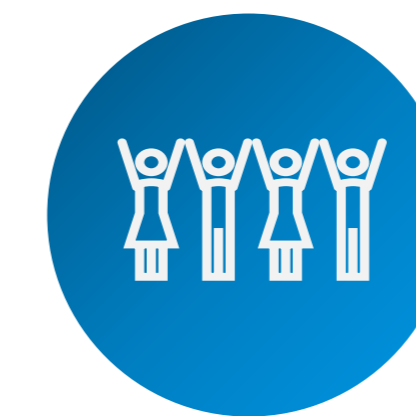
Our teams of consultants, environmental specialists, engineers and scientists support customers in solving the most complex and dynamic challenges to help achieve a safe and sustainable world.



Deep heritage of
105
years of
innovation



We are located in
23
countries
worldwide



We have over
3000
colleagues
worldwide



We have over
2500
live
projects



SUSTAINABILITY
Action Week

MULTI-SECTOR EXPERTISE

AUTOMOTIVE

- Passenger
- Commercial
- High-performance
- Off-highway
- Motorsports
- Motorcycles

RAIL & TRANSIT

- Metro
- Light rail
- High-speed
- Conventional
- Freight
- Monorail

AEROSPACE

- Aviation
- Airports

MARITIME

- Ports
- Marine

ENERGY, UTILITIES & WASTE

- Clean & renewable energy
- Energy storage
- Energy infrastructure
- Water utilities
- Waste & resource management

GOVERNMENT & PUBLIC SECTOR

- Central government
- Cities & regional government
- International development

FINANCE & PROFESSIONAL SERVICES

- Banking & capital markets
- Wealth & asset management
- Professional consultancies
- Infrastructure services

INDUSTRIAL & MANUFACTURING

- Mining & resources
- Chemical manufacturing
- Product & retail

A GLOBAL PRESENCE



FROM UIC LEAFLET 345 TO IRS 30345

Environmental specifications for new rolling stock

FROM UIC LEAFLET 345 TO IRS 30345

Environmental specifications for new rolling stock

UIC leaflet 345
(2006)

Update

UIC IRS 30345
(2026)

Needs to be:

- Easy to read
- Align with (new) sustainability regulations
- Widely adaptable
- Easy to implement in procurement processes
- Include long term specifications

FOCUS AREA'S UIC LEAFLET 345

Energy efficiency

Noise

Diesel Exhaust
Emissions

Materials/
Recycling/Waste



EXAMPLE OLD UIC 345 LEAFLET (AIR QUALITY)

Diesel Exhaust Emissions

3.4.4 - Diesel exhaust emissions

Exhaust emissions from diesel engines constitute a key rolling stock-related environmental aspect of high public interest, on account of health concerns primarily.

Definition of environmental specification	
Exhaust emissions for NOx, CO, HC and PM	
Environmental performance indicator	
Emission in g/kWh for standardised load factors (load cycles)	
Target value	
As defined by <i>EU directive 97/68/EC</i> amended by <i>EU directive 2004/26/EC</i> and their equivalent in national laws ^a	
Long-term goal	
Stage III B values (only achievable by exhaust gas after-treatment - feasibility subject to technical review of the directive before 31 December 2007)	
Application:	Diesel multiple units and locomotives
Type of specification:	Mandatory Environmental performance mainly preconditioned by design
Degree of quantification:	Target specification



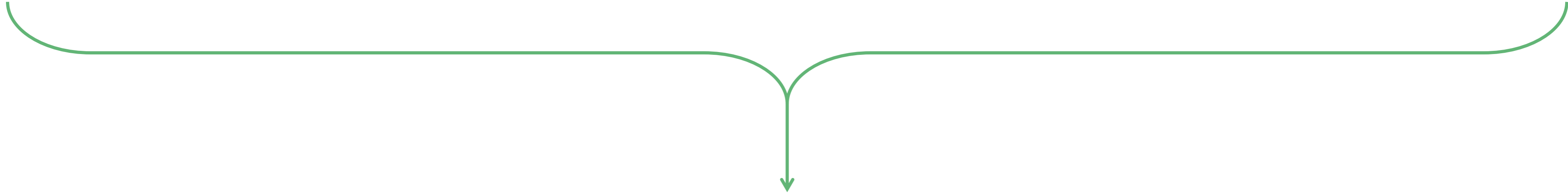
FOCUS AREA'S IRS 30345

Energy efficiency

Noise

Diesel Exhaust Emissions

Materials/Recycling/Waste



Energy efficiency & CO₂-emissions

Noise and Vibrations

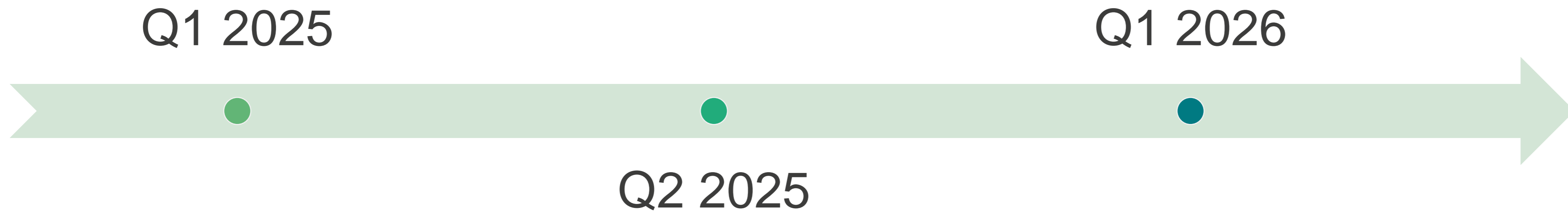
Air Quality

Material use and circularity

Other



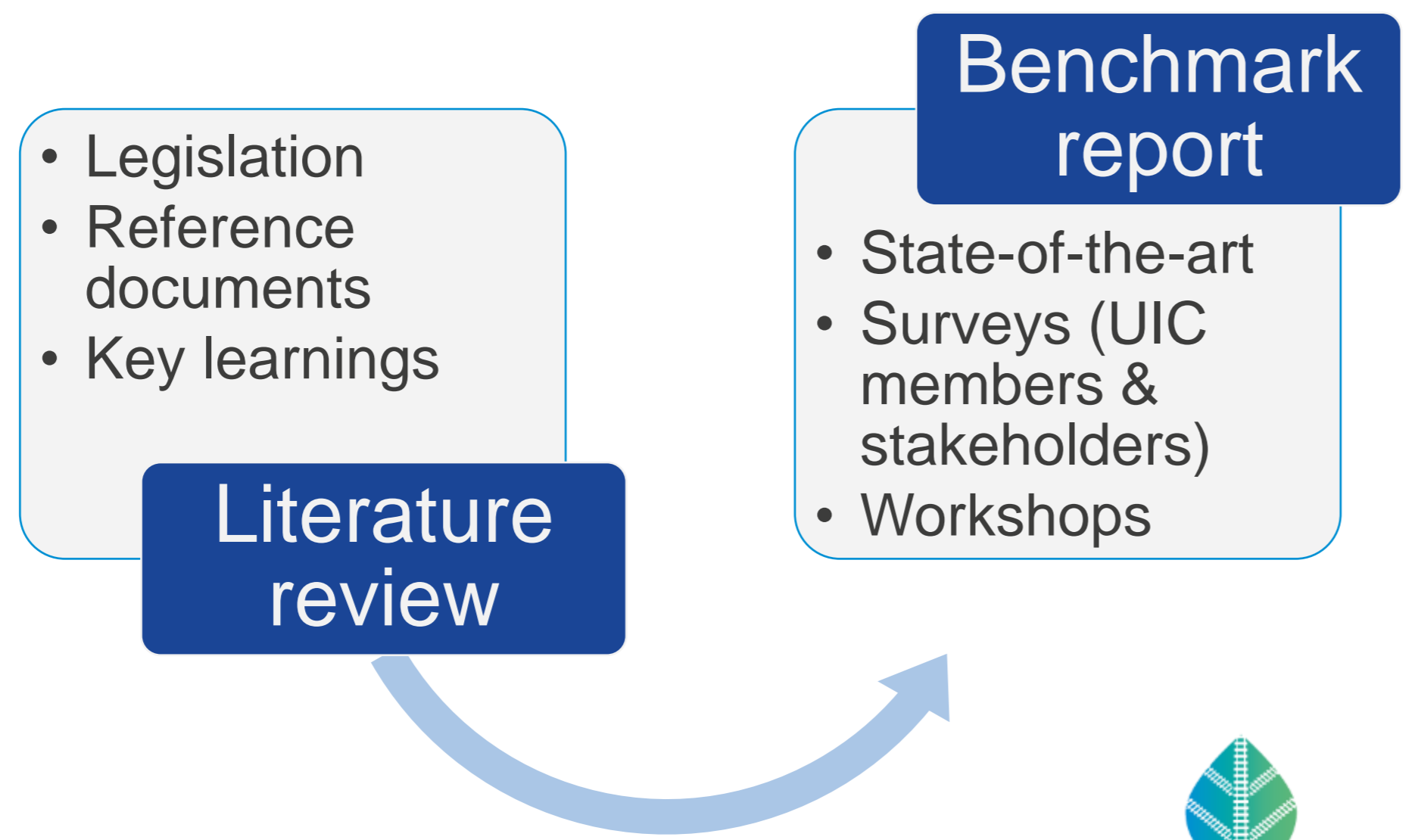
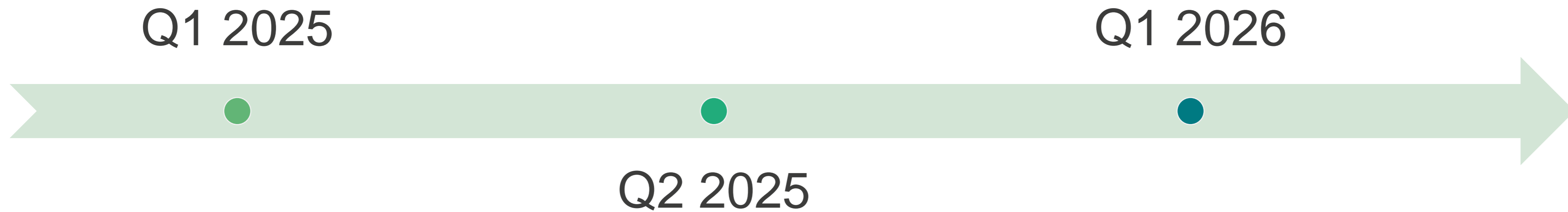
PROJECT STEPS & DELIVERABLES



- Legislation
- Reference documents
- Key learnings

Literature review

PROJECT STEPS & DELIVERABLES



BENCHMARK STUDY - SURVEY

Example (draft) questions:

Environmental Indicators

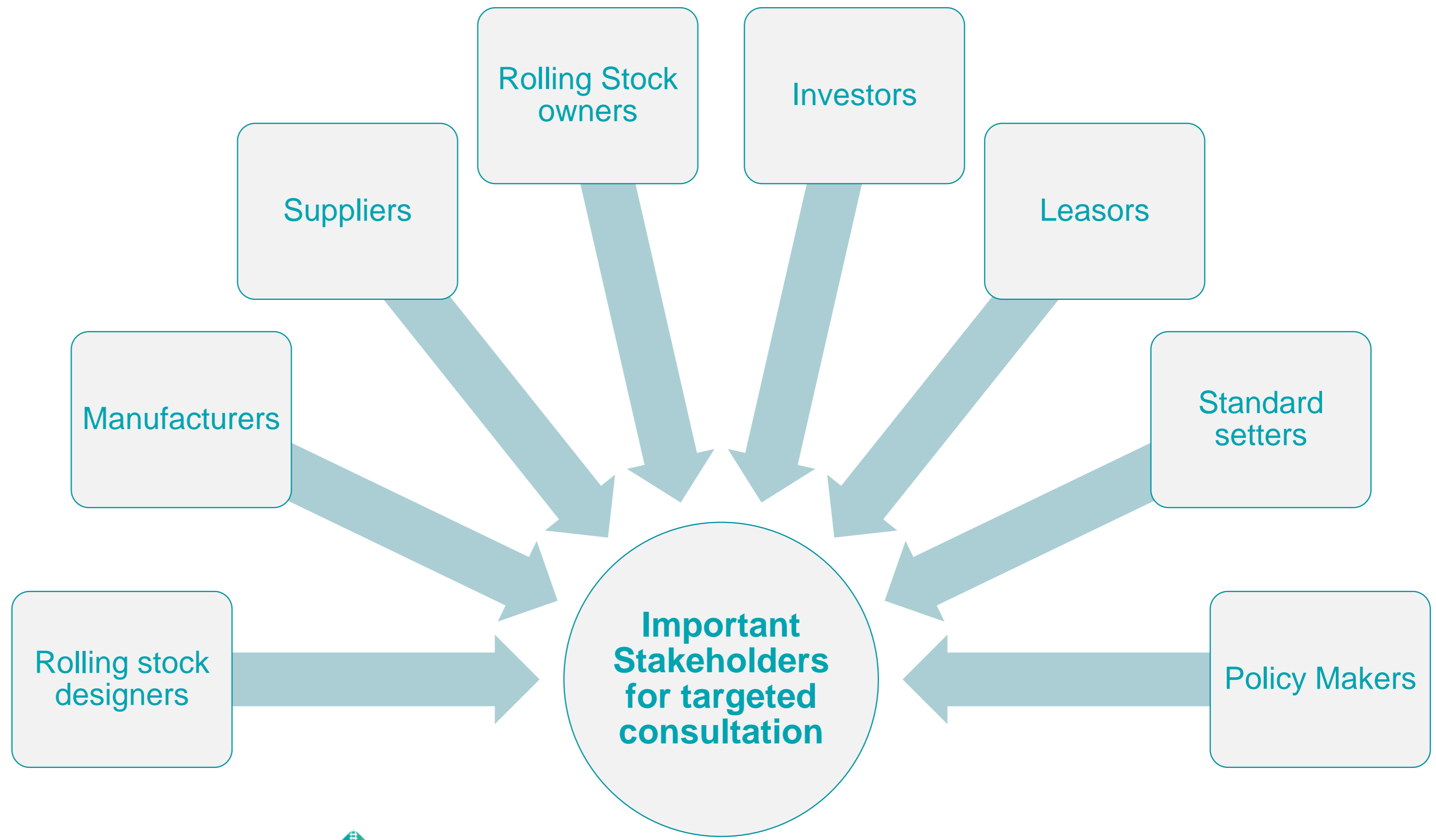
- Can/which additional indicators improve sustainability evaluation?

Applicable Legislation

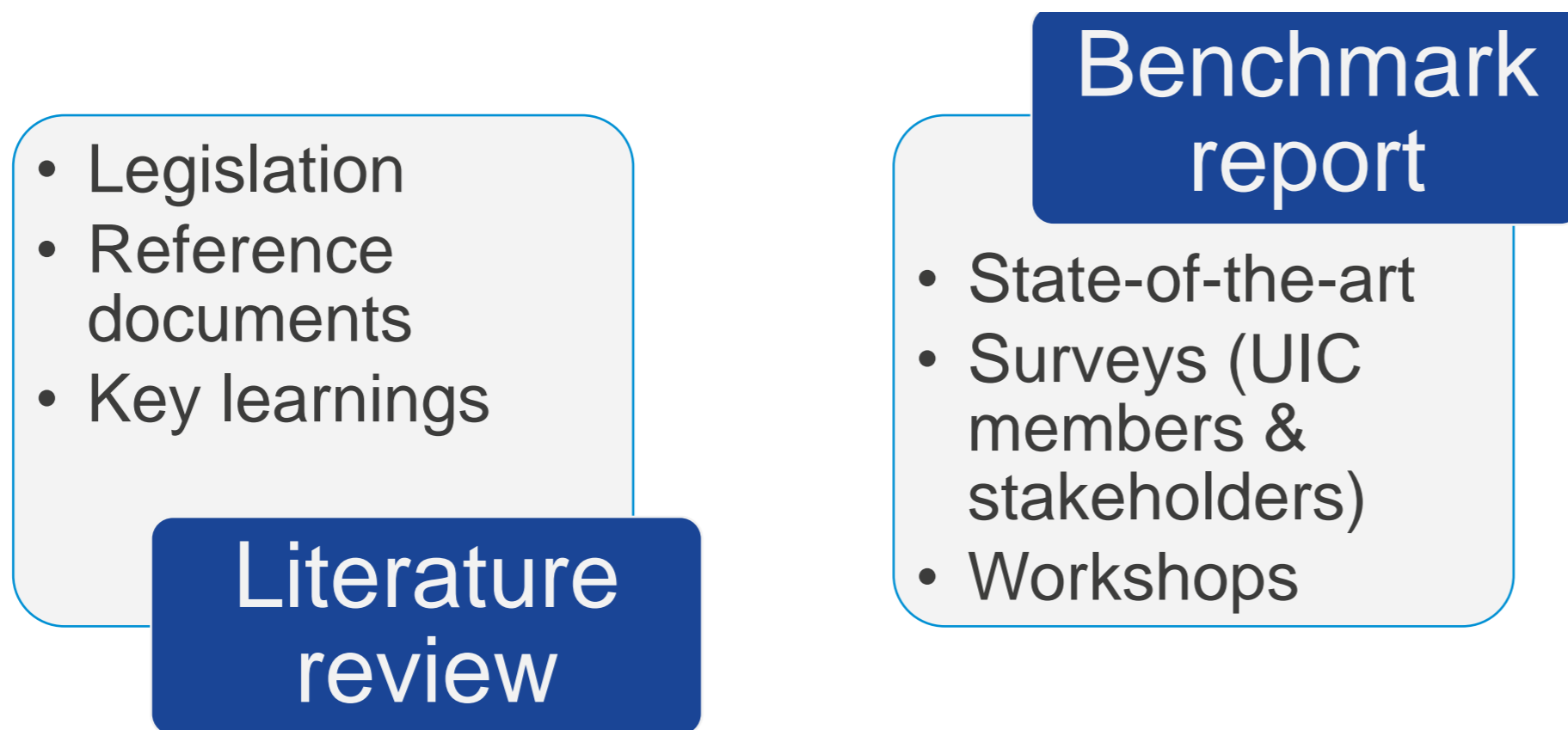
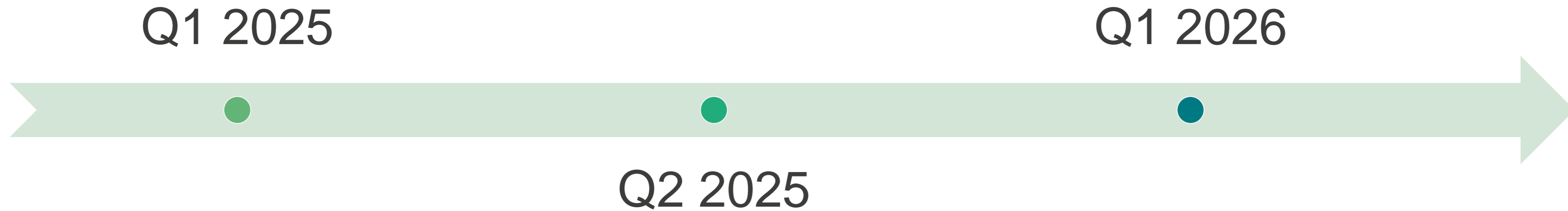
- How might upcoming regulations influence train procurement?

Award Criteria

- How do you make use of award criteria to prioritize sustainability compared to costs?



PROJECT STEPS & DELIVERABLES



THREE MAIN CHALLENGES

**Exploring
Sustainability
award criteria in
procurement
process**

Investigate various strategies to enhance circularity and sustainability in procurement processes.

**Incorporating
CSRD into
specifications**

Are you already integrating the Corporate Sustainability Reporting Directive (CSRD) into your specifications?

**Environmental
Indicators and
Long-Term
Roadmap**

Which environmental indicators do you currently use?



THE SUSTAINABILITY TRAIN ↓



CIRCULARITY IN PROCUREMENT

Best Practice Session

SPEAKERS



Ines Sturm

Chair ERPC Sustainable Procurement
Head of Sustainable Procurement

ÖBB



Quinty Soede

Process Lead
Circularity

ProRail



Jan Zandbergen

Sustainability
monitoring expert

ProRail



Coline Mellin

Engineer
circular economy of
railway electronic
products

**ALSTOM
GROUP**



Benoît Varin

Entrepreneur &
Co-founder

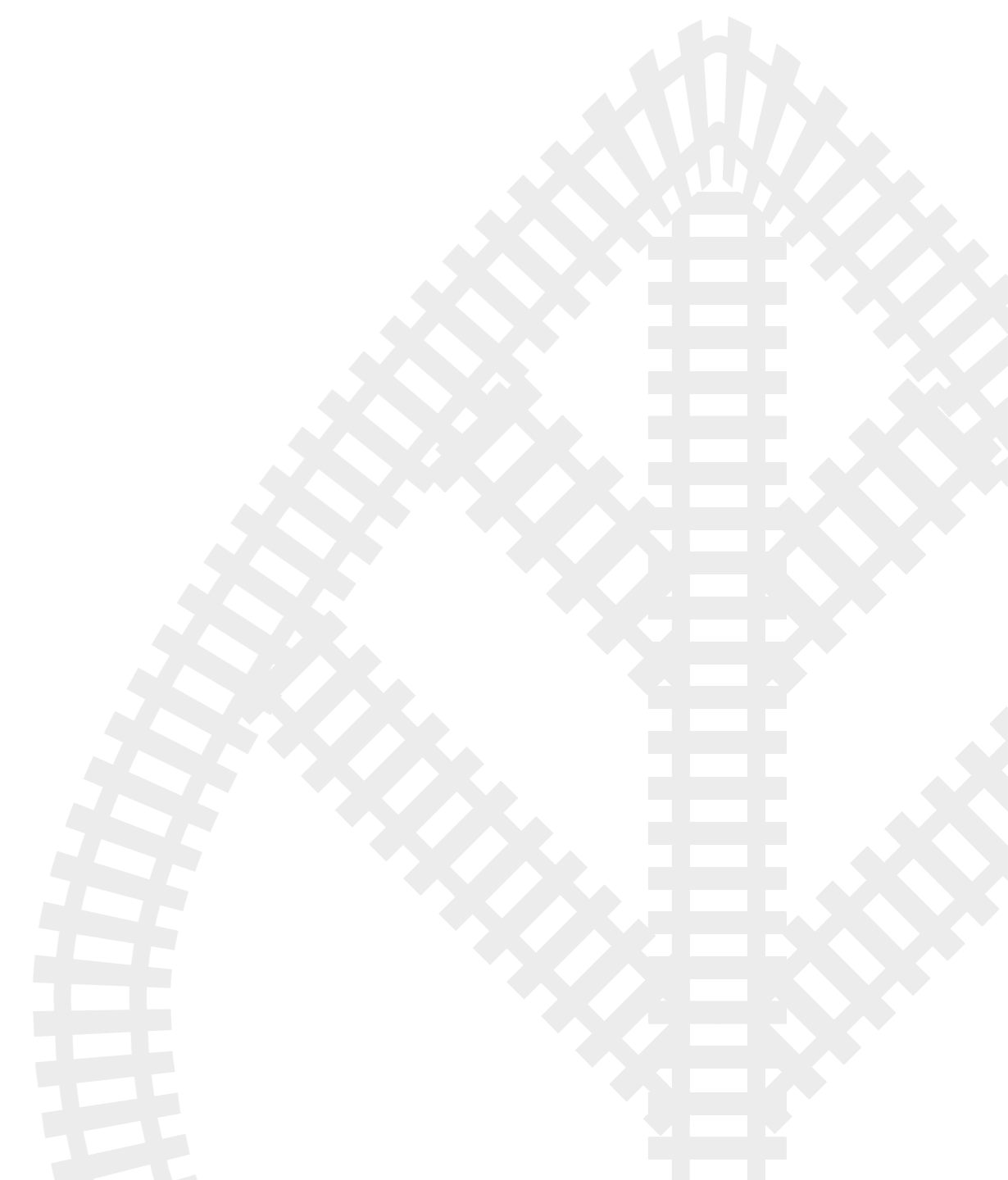
**RECOMMERCE
RCUBE**



Ines Sturm

Chair ERPC Sustainable
Procurement Group,
Head of Sustainable
Procurement

ÖBB



Good Practice Examples from the ERPC Sustainable Procurement Group

Ines Maria Sturm

Chair ERPC Sustainable Procurement Working Group
Program Lead Sustainable Procurement
Austrian Federal Railway

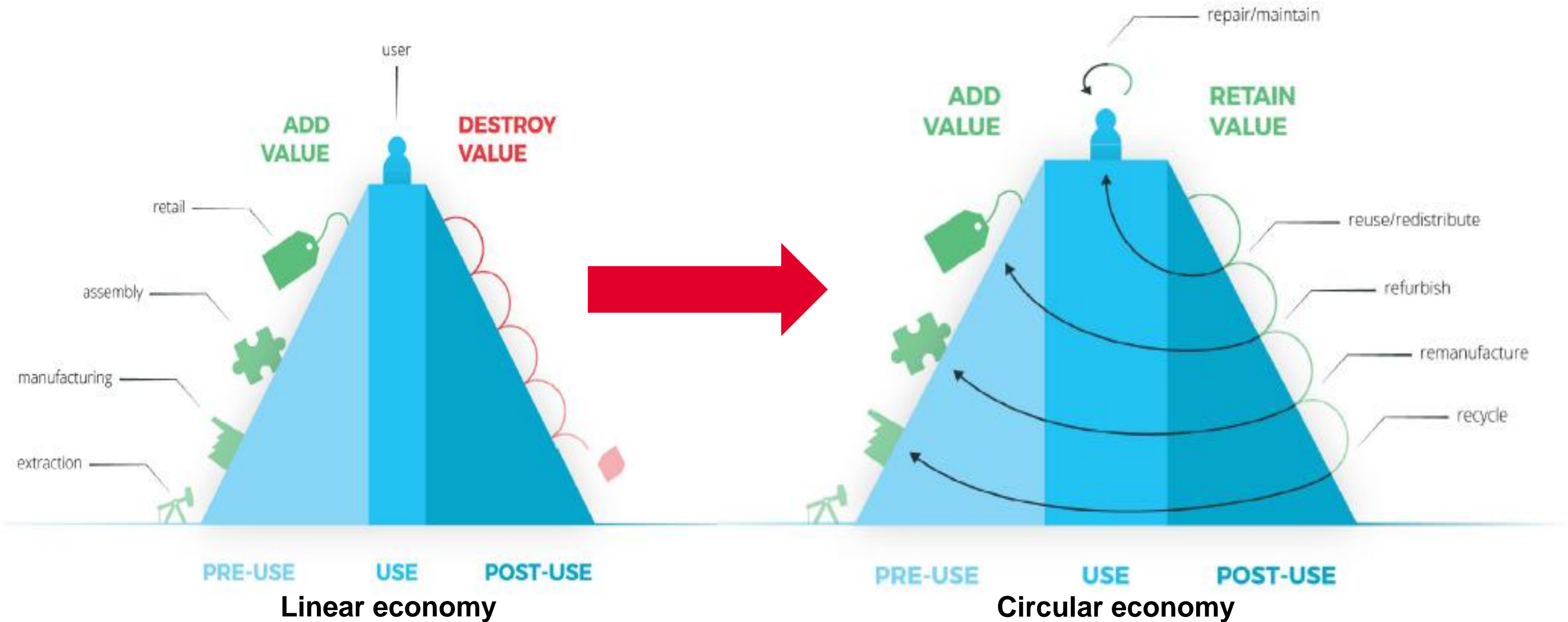
March 2025

Circular Procurement is

...the process by which public authorities purchase works, goods or services that seek to contribute to closed energy and material loops within supply chains, whilst minimising, and in the best case avoiding, negative environmental impacts and waste creation across their whole life-cycle.

European Commission 2017, PUBLIC PROCUREMENT FOR A CIRCULAR ECONOMY

The value hill



Circular Procurement at ÖBB – A Framework

Strategies	Description	ÖBB Circular Procurement Techniques
Refuse	Make products redundant by abandoning its function or by offering the same function with a radically different, much more sustainable product	Identify existing products or solutions already available in the organisation, which can serve the needed purpose.
Rethink	Make product use more intense (e.g. by sharing product) or use an innovative product which is more sustainable	<ul style="list-style-type: none"> • Trendscouting and Market Research • Public Procurement Promoting Innovation • Use functional requirement specifications
Reduce	Increase efficiency in manufacturing or use by consuming fewer natural resources and materials	Include tender criteria referring to efficiency, for example Total Cost of Ownership (TCO) or energy consumption
Reuse	Use products for longer by handing it on to someone else	<ul style="list-style-type: none"> • Include tender criteria referring to the durability of a product to increase the lifespan e.g. extended warranty • Make sure the product is easy to clean and maintain
Repair	Repair defective products so they can be used with their original function	<ul style="list-style-type: none"> • Include repairability as a tender criteria or in requirement specifications • Set up a service contract
Refurbish	Restore old products and bring them up to date so they are comparable to new ones	<ul style="list-style-type: none"> • Buy a refurbished product • Set up a contract for the refurbishment of the product • Make sure products can be refurbished by design



The 10R Framework of circular economy

Strategies	Description	ÖBB Circular Procurement Techniques
Refurbish	Restore old products and bring them up to date so they are comparable to new ones	<ul style="list-style-type: none"> • Buy a refurbished product • Set up a contract for the refurbishment of the product • Make sure products can be refurbished by design
Remanufacture	Use parts of discarded products in new products with the same function	<ul style="list-style-type: none"> • Include already existing resources like components in the tender, which shall be used to fulfill the contract • Ask for separability of components or a modular design as a basis for remanufacturing in the future
Repurpose	Use discarded products or its parts in a new product with a different function	<ul style="list-style-type: none"> • Include already existing resources like components in the tender, which served a different function in the past but can be used in a new way • Ask for a concept on how the components can be repurposed in the future • Ask for separability of components or a modular design
Recycle	Process materials to obtain the same (high grade = upcycling) or lower (low grade = downcycling) value	<ul style="list-style-type: none"> • Include recycled materials into the requirement specifications • Ask for a specific recycling rate in a process or a service • Make sure, the product can be recycled
Recover	Incineration of materials with energy recovery	<ul style="list-style-type: none"> • Low residue, chemical-free



ERPC Sustainable Procurement Working Group

- Exchange on Circular Procurement of Concrete and Steel
- Security and technical requirements
- Concrete:
 - Refuse
 - Repair
 - Reuse
 - Recycle
- Steel:
 - Refurbish in house
 - Recycling: Percentage of scrap metal



Thank you for your attention



Ines Sturm
Head of Sustainable Procurement
ÖBB-Holding AG
1100 Wien, Am Hauptbahnhof 2
ines.sturm@oebb.at



Quinty Soede
Process Lead Circularity



Jan Zandbergen
Sustainability monitoring expert

Tools for embedding circularity in Procurement

Agenda

1 What is ECI

2 How do we include ECI in our procurement

3 Examples of projects (with reuse)

WHAT IS ECI?

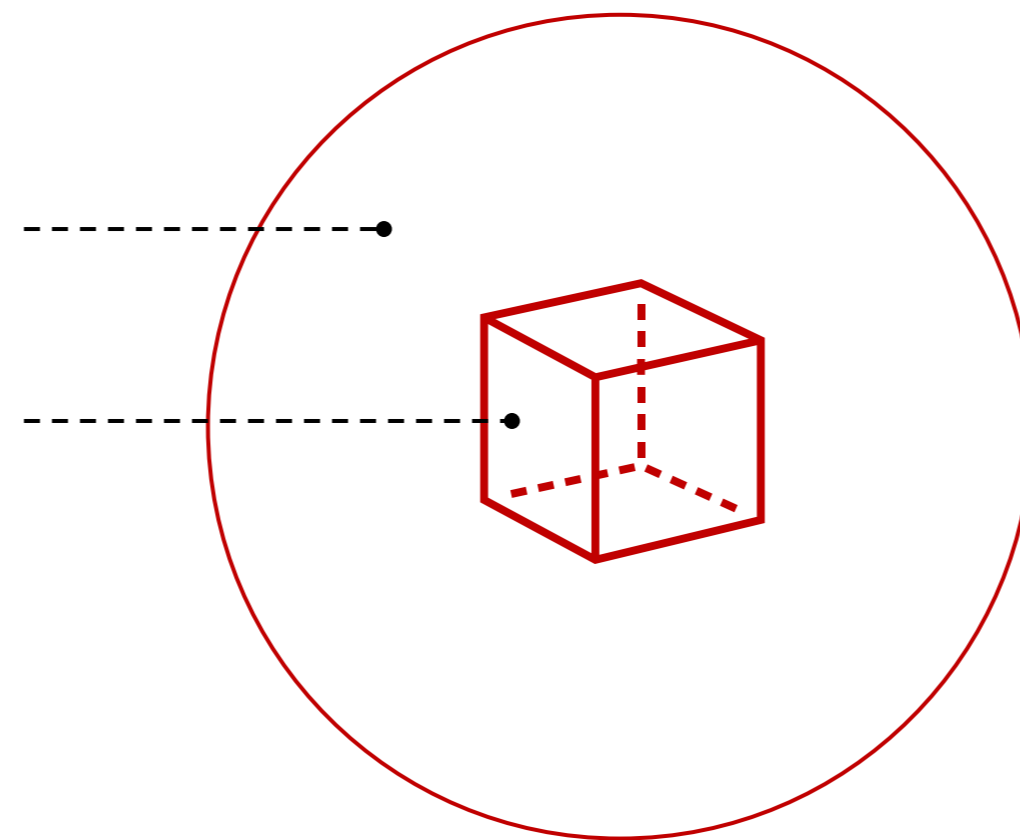
MKI=Milieu Kosten Indicator

ECI

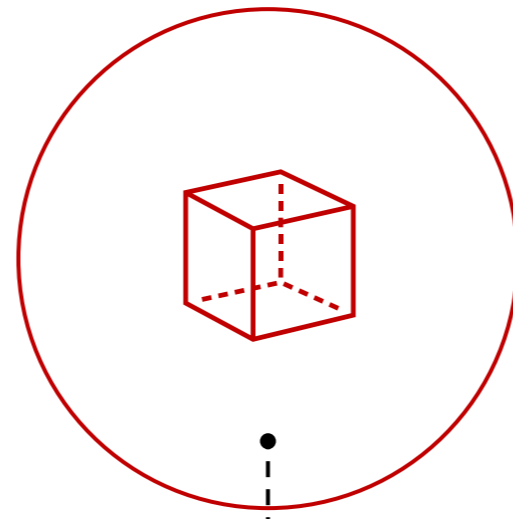
ENVIRONMENTAL COST INDICATOR

ENVIRONMENTAL IMPACT

PRODUCT / PROJECT



Shadowprice of the environmental impact of a project or product expressed in €



ENVIRONMENTAL IMPACT

Life Cycle Assessment (LCA)

RAW MATERIAL
EXTRACTION

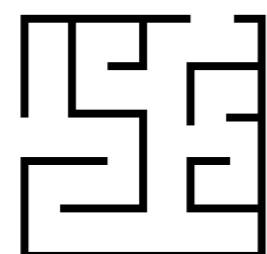
MANUFACTURING
& PROCESSING

TRANSPORTATION

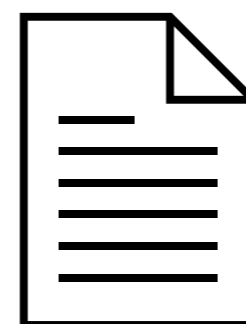
USAGE
& RETAIL

END-OF-LIFE

LIFE CYCLE



Large set of
emissions



Translated to
impact categories



IMPACT CATEGORIES

IMPACT CATEGORIES

UNITS

- 1. Global warming
- 2. Ozone depletion
- 3. Acidificatoin of soil and water
- 4. Eutrophication
- 5. Depletion of abiotic resources – elements
- 6. Depletion of abiotic resources – fossil fuels
- 7. Human toxicity
- 8. Freshwater ecotoxicity
- 9. Marine water ecotoxicity
- 10. Terrestrial ecotoxicity
- 11. Photochemical oxidant creation (smog)

- Kg CO₂-eq
- Kg CFC-11-eq
- Kg SO₂-eq
- Kg PO₄³⁻-eq
- Kg SB-eq
- Kg SB-eq
- Kg 1,4 DB-eq
- Kg 1,4 DB-eq
- Kg 1,4 DB-eq
- Kg 1,4 DB-eq
- Kg C₂H₄

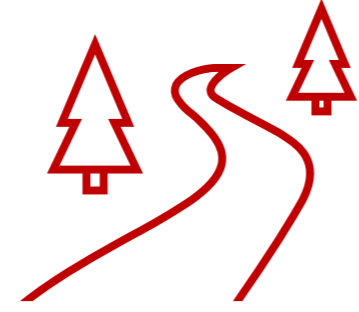


CO₂-equivalent



IMPACT CATEGORIES

IMPACT CATEGORIES	UNITS	SHADOWPRICE	
1. Global warming	Kg CO ₂ -eq	0,05€	} Base for ECI
2. Ozone depletion	Kg CFC-11-eq	30,00€	
3. Acidificatoin of soil and water	Kg SO ₂ -eq	4,00€	
4. Eutrophication	Kg PO ₄ ³ -eq	9,00€	
5. Depletion of abiotic resources – elements	Kg SB-eq	0,16€	
6. Depletion of abiotic resources – fossil fuels	Kg SB-eq	0,16€	
7. Human toxicity	Kg 1,4 DB-eq	0,09€	
8. Freshwater ecotoxicity	Kg 1,4 DB-eq	0,03€	
9. Marine water ecotoxicity	Kg 1,4 DB-eq	0,0001€	
10. Terrestrial ecotoxicity	Kg 1,4 DB-eq	0,6€	
11. Photochemical oxidant creation (smog)	Kg C ₂ H ₄	2,0€	



NS90 Sleeper

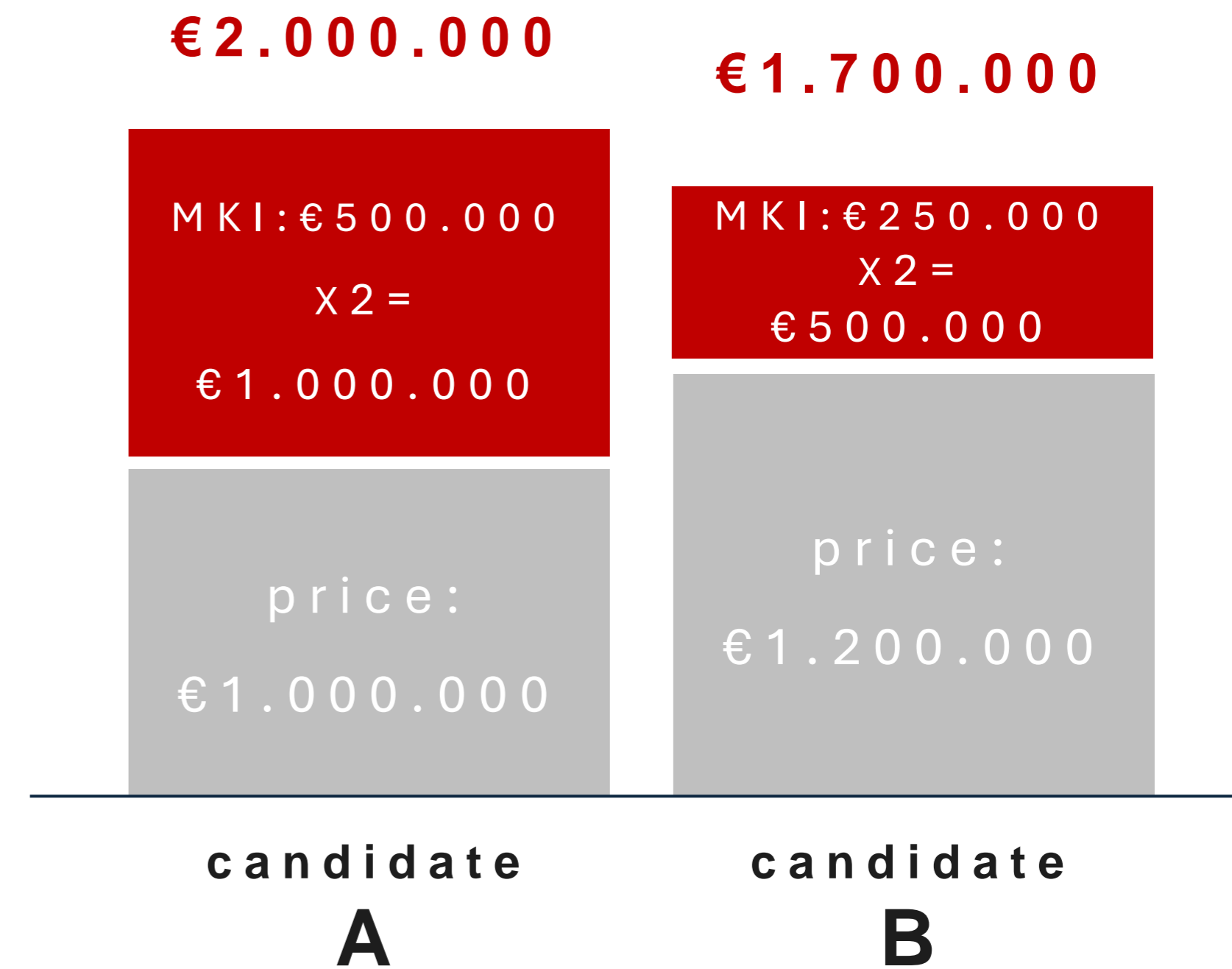
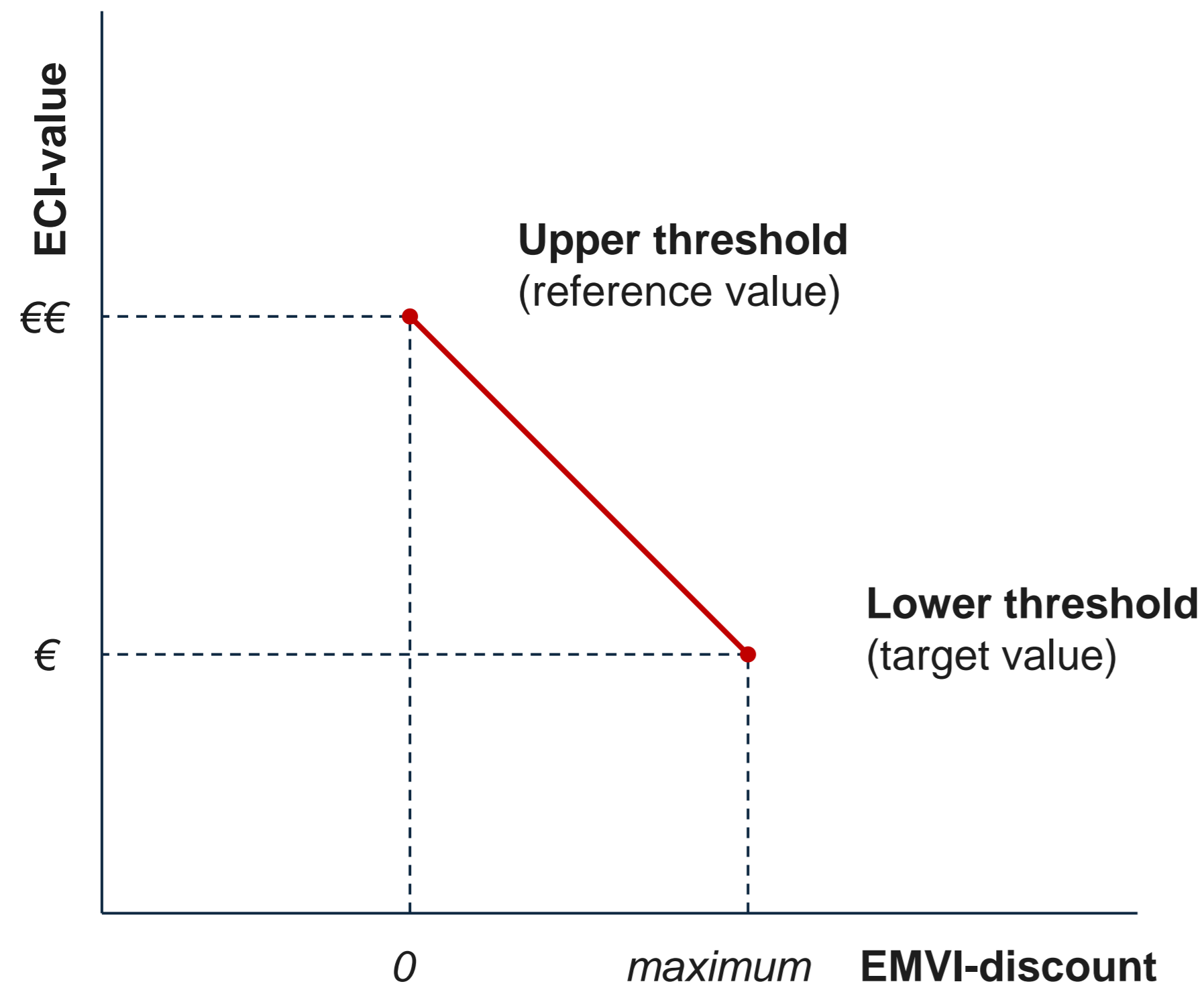
Example

IMPACT CATEGORIEËN	HOEVEELHEID	Prijs (€)	
1. Global warming (CO ₂ -eq)	77,90000	0,05	
2. Ozone depletion (CFC-11-eq)	0,000008	30,00	
3. Acidification of soil and water (SO ₂ -eq)	0,404	4,00	
4. Eutrophication (PO ₄ ³⁻ -eq)	0,137	9,00	
5. Depletion of abiotic resources – elements (SB-eq)	0,00129	0,16	
6. Depletion of abiotic resources – fossil fuels (SB-eq)	0,584	0,16	×
7. Human toxicity (1,4 DB-eq)	44,8	0,09	
8. Freshwater ecotoxicity (1,4 DB-eq)	1,6	0,03	
9. Marine water ecotoxicity (1,4 DB-eq)	3470	0,0001	
10. Terrestrial ecotoxicity (1,4 DB-eq)	3,63	0,6	
11. Photochemical oxidant creation (smog) (C ₂ H ₄)	0,0729	2,0	

ECI
11,95

ECI in tender phase

ProRail



How do we include ECI in our procurement

Award criteria

Only focus on module A (Production, transportation, installation)

(Fully) reused products have an ECI of 0

Recycled or partly reused products have large reductions in ECI value

In practice

- Discount of 6,67 per ECI
- Used in over 188 projects
- Decisive in 6 projects, last year
- Cost per ton CO₂ reduction: 30,-

Asset	Discount (EUROS)	Unit
Sleeper NS90		30 p
Sleeper 14001/2		73 p
Rail		106 m

Example project	ECI	Costs
Reduction	80.000	500.000
Reduction %	-57%	-8%



Coline Mellin

Engineer
Circular economy of railway electronic
products
Alstom Group



Benoît Varin

Entrepreneur & Co-founder
Recommerce & RCUBE



Circular Economy – a concrete example on Alstom Electronics products

Coline MELLIN

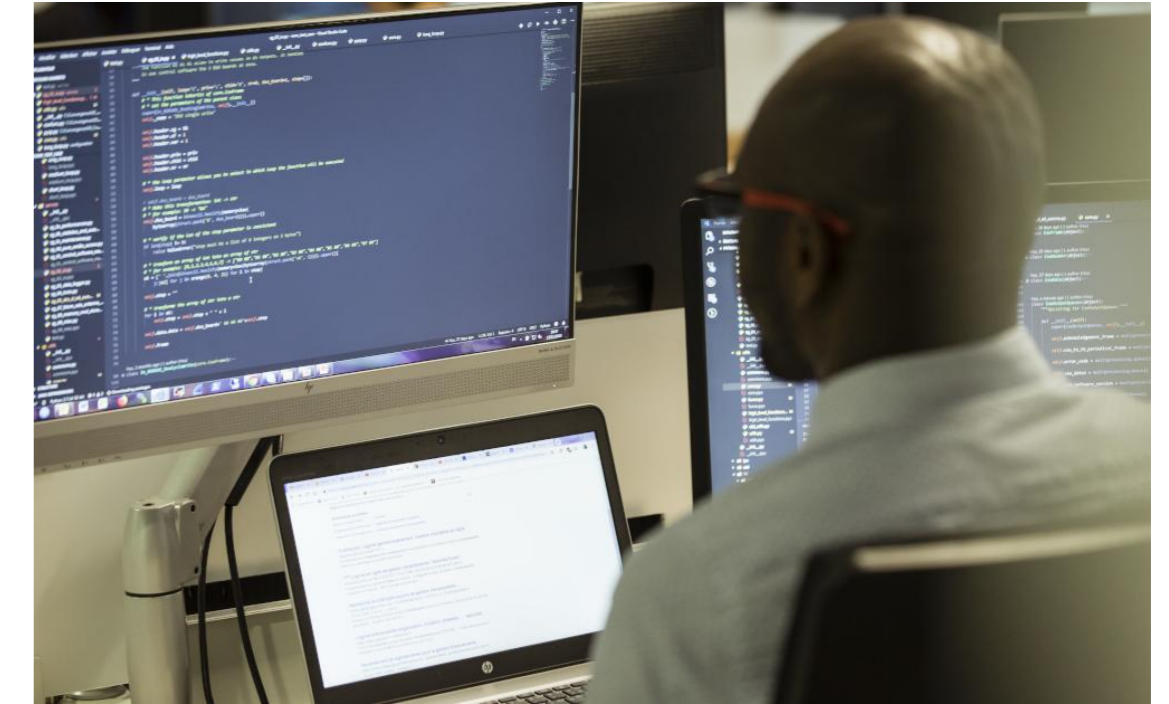
Circular Economy Eng. at Alstom

03.12.25

Alstom Villeurbanne presentation

• 4 main activities

- Development of electronic products and systems
- Industrialization & production
- Services, spare parts & repairs
- Project management





Circular Economy at Alstom Villeurbanne

Introduction



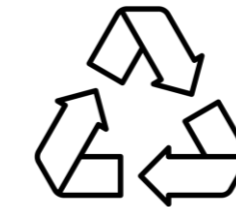
Recovering

Overstocks, dismantled projects, modernization, consignment overstocks... in & out of Alstom



Refurbishing

Cleaning, testing, repairing, upgrading, applying preventive maintenance operations



Reusing

1. *Selling of refurbished spare parts*
2. *Using of subassemblies to build up a security stock in repair flow*

Concerned parts:

DA Villeurbanne – Rolling stock & Signaling



Boards



Equipment

- What are the benefits ? → Customer satisfaction

Can provide relevant alternative on specific reference with positive impact on :

Obsolescence

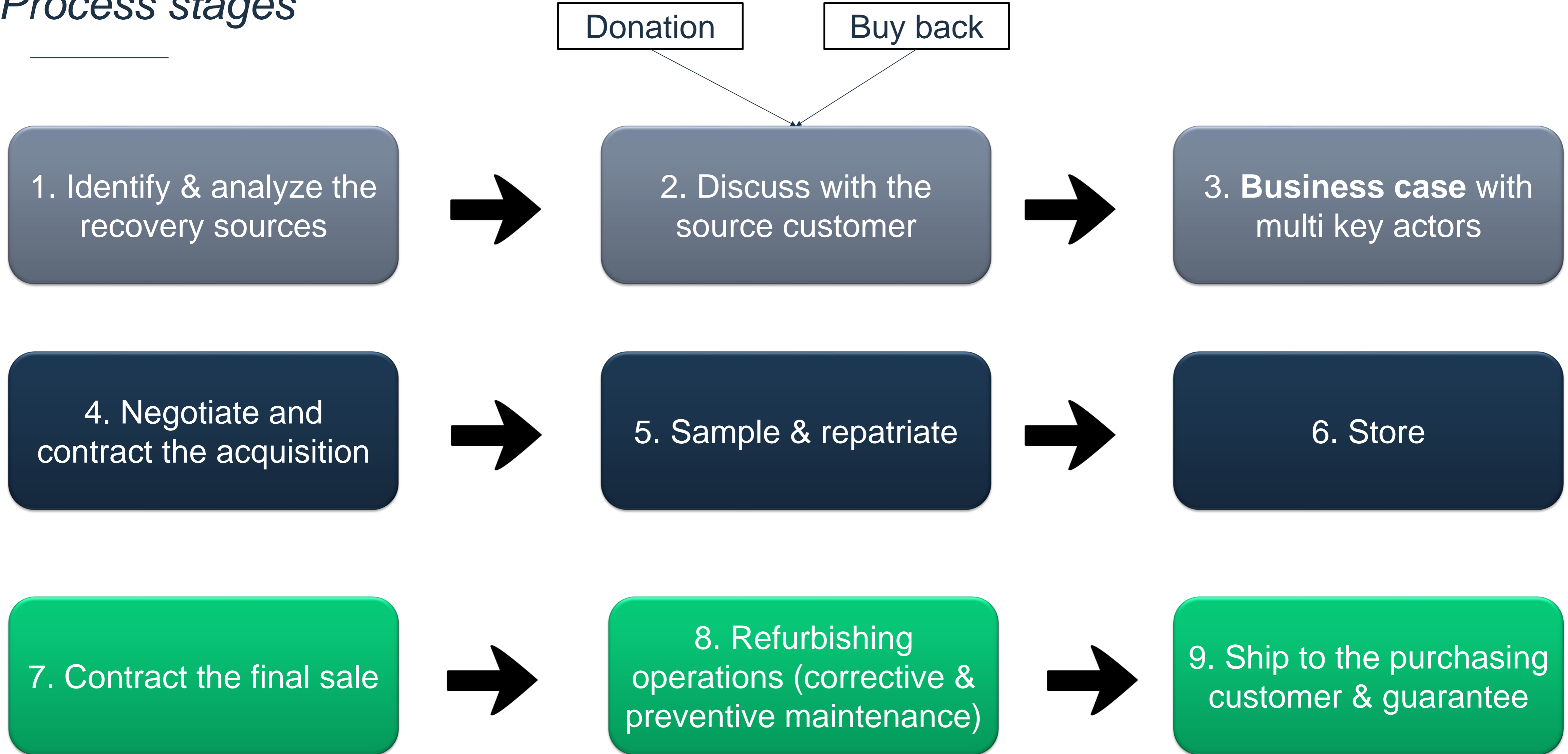
Lead time

Costs

A way to contribute to global effort of waste reduction + to contribute to sustainable purchase policy of our customers / CSR strategy

Circular Economy at Alstom Villeurbanne

Process stages



Circular Economy at Alstom Villeurbanne

Enablers, figures & current situation

Development enabled thanks to:

Our products lifespan

Our installed base knowledge

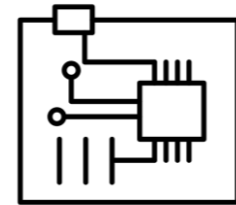
Our position in Services organization

Our technical expertise on our repairs / retrofit activities

Some figures :



Activity started end 2021



+7500 parts in stock



+75 offers sent



1,2M€ sales



More than 1 ton of WEEE* avoided

• They trust us



+ many internal customers

Still a new (but promising!) activity. How can we go further to reassure our customers



RCUBE presentation and RECQ label

Benoit VARIN
President of RCUBE &
Co-founder of Recommerce Group
03.12.25

RCube: The Reuse and Repair Federation

RCUBE is the professional Fédération of Reuse and Repair in order **to reduce waste** and **extend life span** of products and materials.

The association remains a leading **forum for consultation** in France and Europe.

Goals:

- **Supporting innovation** to extend life span
- Strengthening stakeholders through **exchange of good practices**
- **Develop the Reuse Sector**

Represent: 10 000 jobs & 2 milliards €

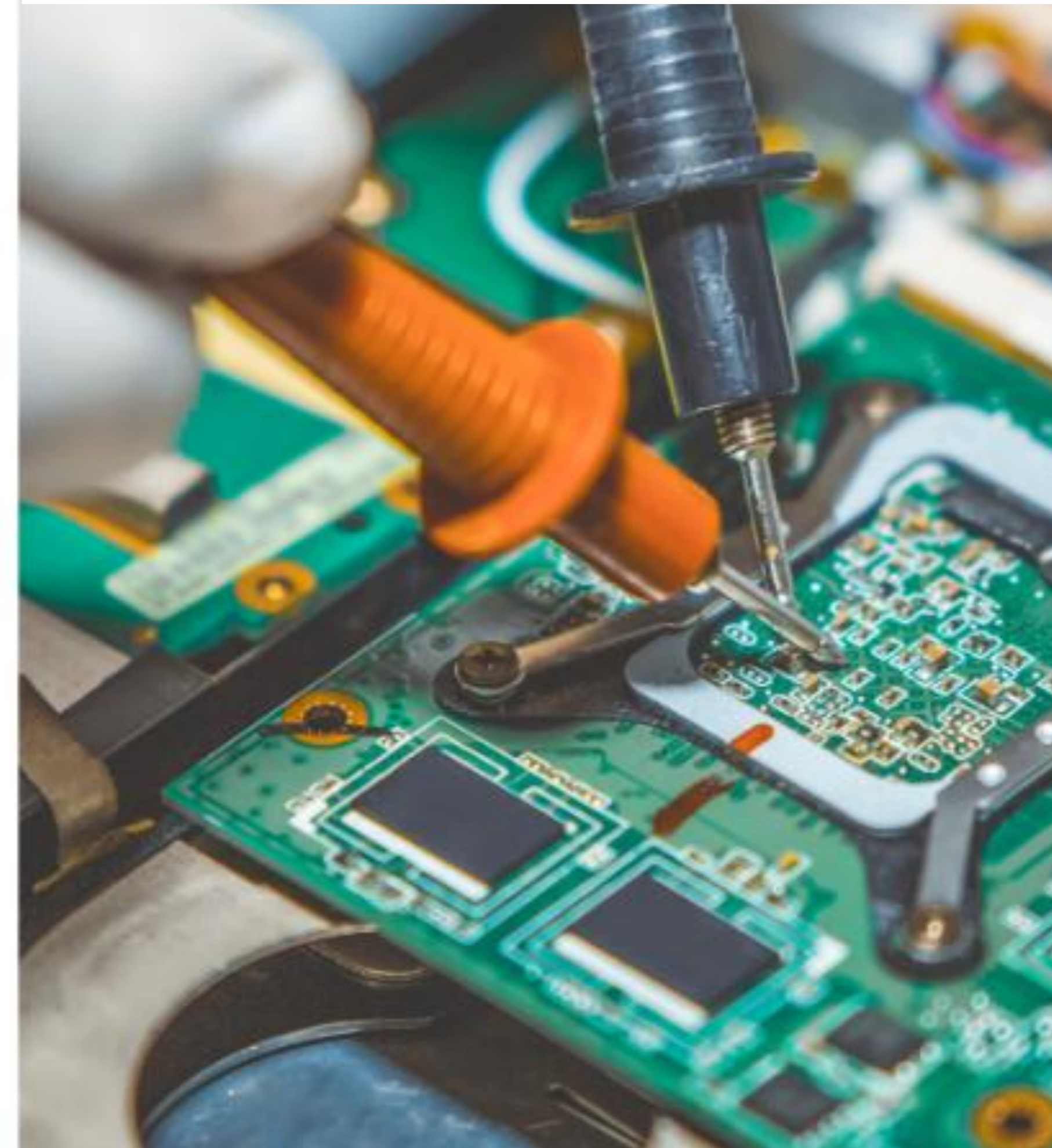
- + 400 members
- Memberships: Retailers, start-up, scientists, industrials, NGO...
- Local office in different cities

Expert:

- **Extend the Lifespan** of Equipment and Resources
- **Multi-products:** furniture, tires, construction, electronics, packaging, toys,...
- **Multi-services:** prevention, rental, software services, collection/purchase, sorting, reconditioning, repair, resale, ...



RCUBE
Fédération du Réemploi & de la Réparation



THE CHALLENGES OF THE CIRCULAR ECONOMY

DRIVER 1

The responsible consumer

- **53% of French people** say they are ready to buy a refurbished smartphone.
- **67% of Europeans** buy responsible and greener according to the European Commission
- Protecting the environment is the **second most important reason for choosing second-hand goods**

(Kantar Barometer).



DRIVER 2

Regulations: Framing and organising

A growing awareness on the part of politicians and company employees, leading to **changes in European and French regulations in favour of a more circular economy:**

- Prohibition on destroying unsold stock, 3R,
- Combating waste, reparability index,
- Introduction of new EPRs: toys, DIY, gardening, sport, DDS, etc.
- Definition of refurbishment...

DRIVER 3

A business model to build and structure, and sectors to industrialise

- The crisis is accelerating demand for refurbished products (war, scarcity, shortages, etc.).
- Retailers are using trade-in tools to **boost their customers' purchasing power.**
- **Strong competition** and the risk of new constraints (fees, controls, etc.) ...

DRIVER 4

A profitable market

- Market **worth** over **€50 billion** in Europe and €100 billion worldwide
- **Growth in** the second-hand market of over 40% a year

RecQ Label: a control to secure quality



A LABEL DELIVRED BY RCUBE AND VERIFIED BY DEKRA

Delivred by rcube.org



The RECQ label issued by RCube and verified by DEKRA CERTIFICATION is the 1st European label for refurbished second-hand products, guaranteeing their quality. The RECQ label, **REConditionnement de Qualité, is a European certification mark registered under n°018442159 in EUIPO**. Inspired by the Agriculture Biologique (AB) label, the RecQ label recognizes products and players that respect good practices, particularly in terms of testing, data deletion and repair..



Circular Economy at Alstom Villeurbanne

RecQ Label

- Why we think this label is valuable ?

Improve our current process (continuous improvement)

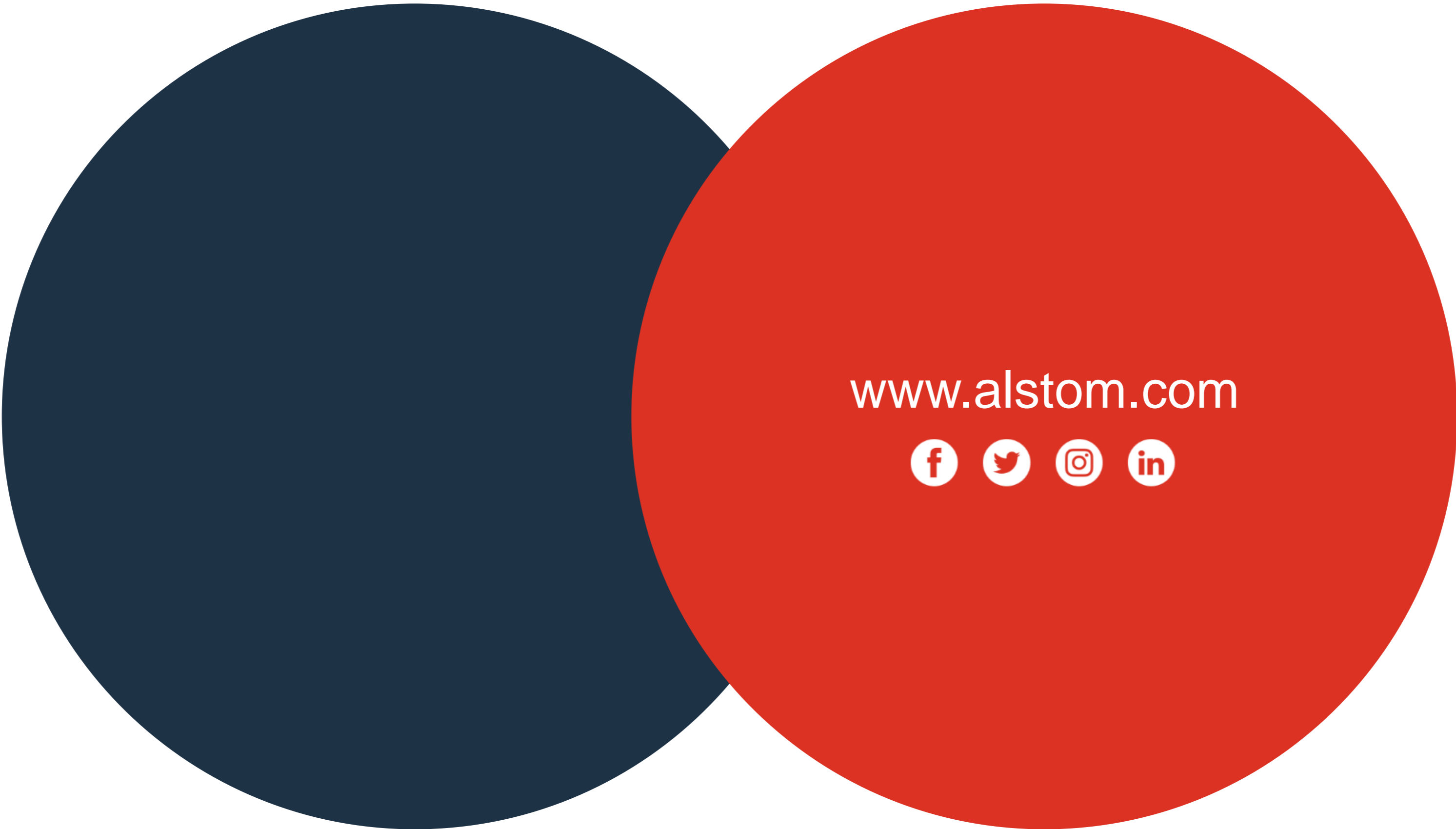
Align with our own CSR strategy

Anticipate regulatory compliance

Develop the 2nd hand business (creation of value)

Reassuring the buyer of the quality of the approach

- Where we are at ?
 - Auto-diagnosis
 - Establishment of an action plan
 - Onboarding of key internal stakeholders
 - Specific work session with key internal stakeholders to achieve compliance with the label on each criteria**
 - Mock audit
 - Last improvements
 - Final audit with DEKRA → planned end 2025/begin. 2026



ALSTOM
• mobility by nature •

Break time



Until 11:00

PANEL DISCUSSION

What does the Supply industry need to achieve circular and sustainable railways?

Panellists



Ilse de Vos-van Eekeren

CE Sector co-Chair
Environmental
Strategy Manager, NS

MODERATOR



Rose Stephani

Project lead,
Facilitation of
Railsponsible

H&Z GmbH



Lena Kriesel

Project Co-Lead
Round Table Rolling
Stock

**HORVATH &
PARTNERS**



Davide Bonaffini

Head of Eco Design &
Circular Economy
Transition

HITACHI RAIL

BREAK OUT SESSION



BREAK OUT SESSION

4 tables of 12 people max.

35 mins break out discussions – FlatLand illustrators will make visual recording of the session

15 mins Wrapup: table hosts share notes

15 mins Visual summaries and closure

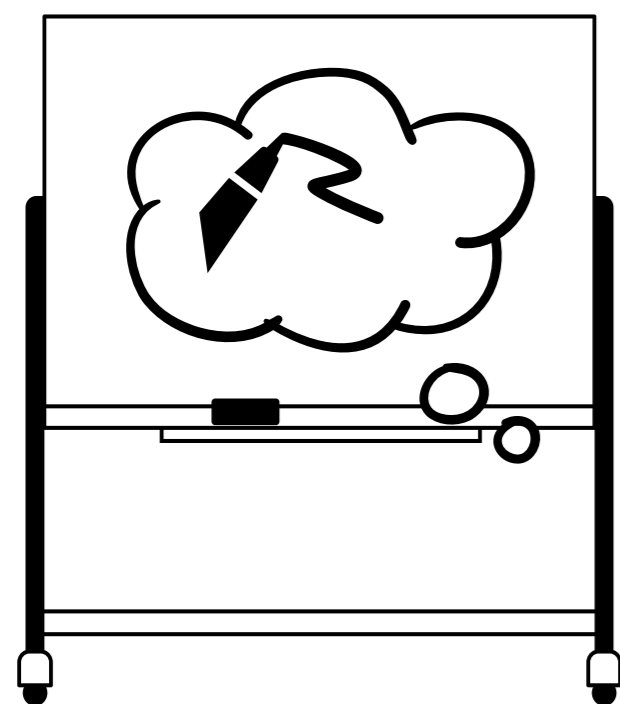


Table 1 - Challenge 1

Exploring Sustainability award criteria in Procurement process

Host Lena Kriesel

Table 2 - Challenge 2

Incorporating CSRD into Specifications

Host: Ilse de Vos-van Eekeren

Table 3 - Challenge 3

Environmental Indicators and Long-Term Roadmap

Host: Christa Gjaltema, RICARDO

Table 4 -

Choosing Functional or Technical Specifications for more sustainable materials

Hosts: Thomas Kortekaas, Eric Mackay

IRS 30345 -

MAIN CHALLENGES

Are you already integrating the Corporate Sustainability Reporting Directive (CSRD) into your specifications? What are your plans for incorporating it in the future?



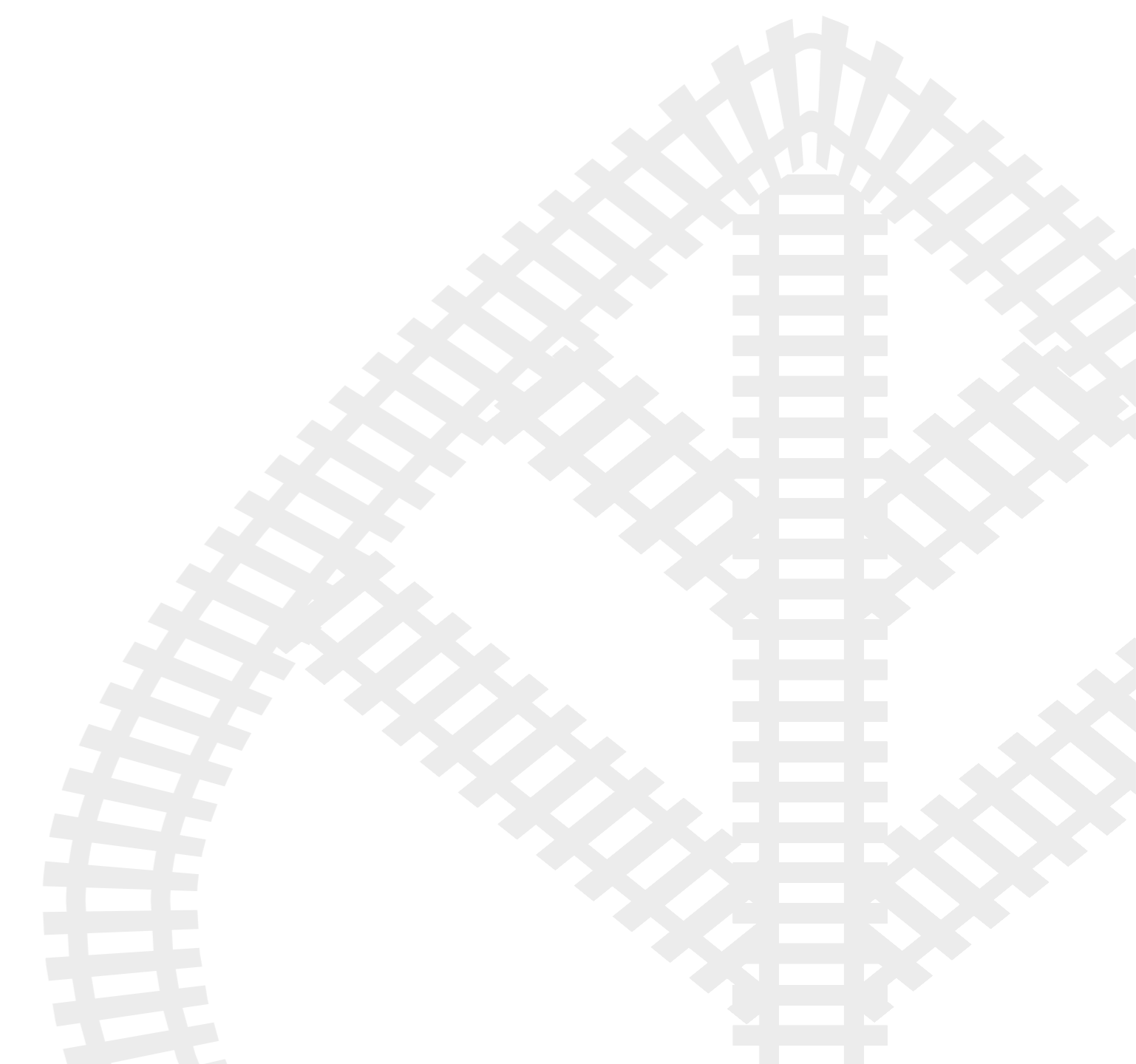
CHALLENGE 1
Exploring Sustainability award criteria in Procurement process

Investigate various strategies to enhance circularity and sustainability in procurement processes. What are the benefits and challenges of different methods?

CHALLENGE 2
Incorporating CSRD into Specifications

CHALLENGE 3
Environmental Indicators and Long-Term Roadmap

Which environmental indicators do you currently use? Have you thought about a roadmap for upcoming procurement processes?



Lunch break



Until 13:30



Ecodesign Forum & Digital Product Passport within ESPR

Dominic Hurni, Ethem Pekin & Cornelia Schalch
12.03.2025

SPEAKERS



Cornelia Schalch

Sustainability project lead

SBB



Dominic Hurni

Expert for Digital Product
Passport

SBB



Ethem Pekin

Head of Economic Policy
and Sustainability

CER

Agenda

- Introduction
- Digital Product Passport Rail update
- The Eco Design Forum
- Collaboration - Workshop



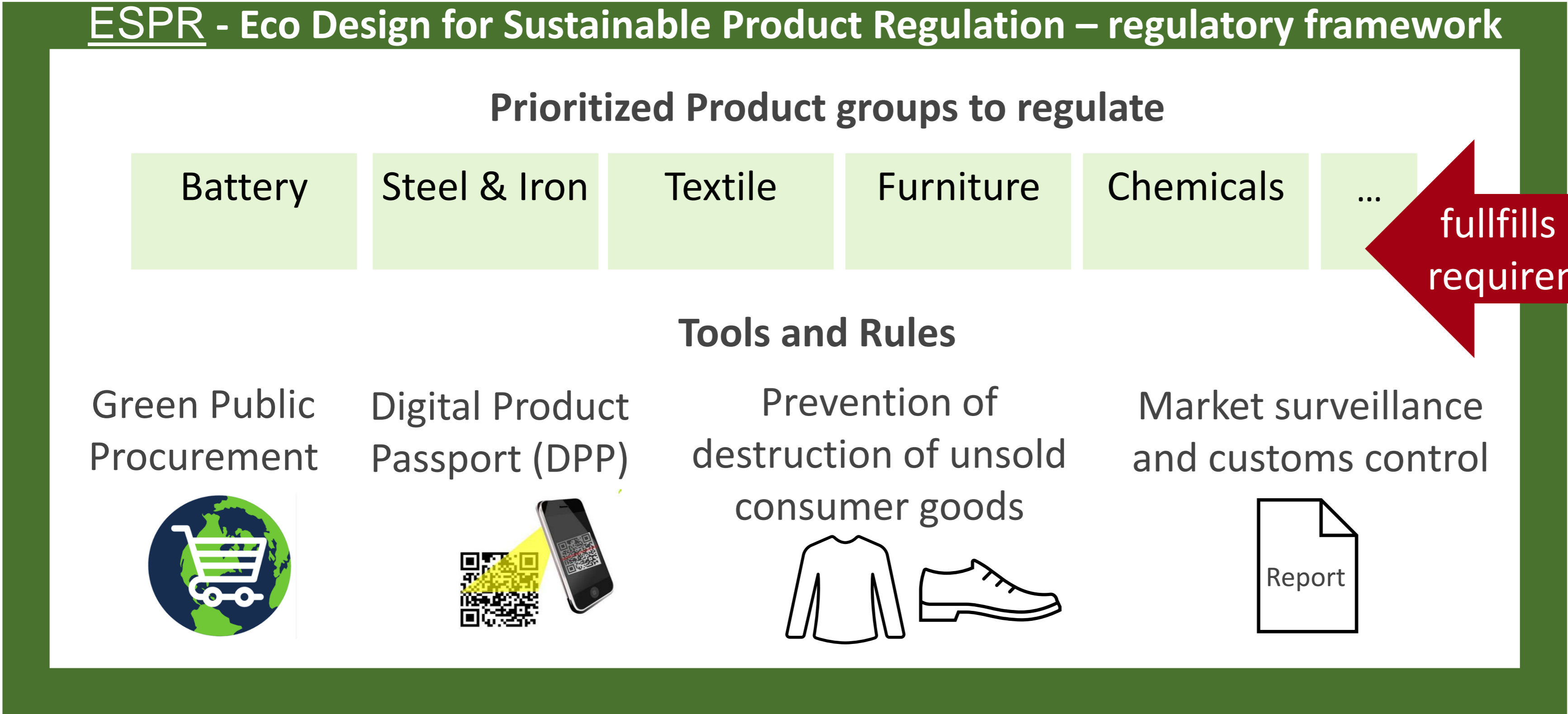
Introduction

Cornelia Schalch
SBB - Swiss Federal Railways

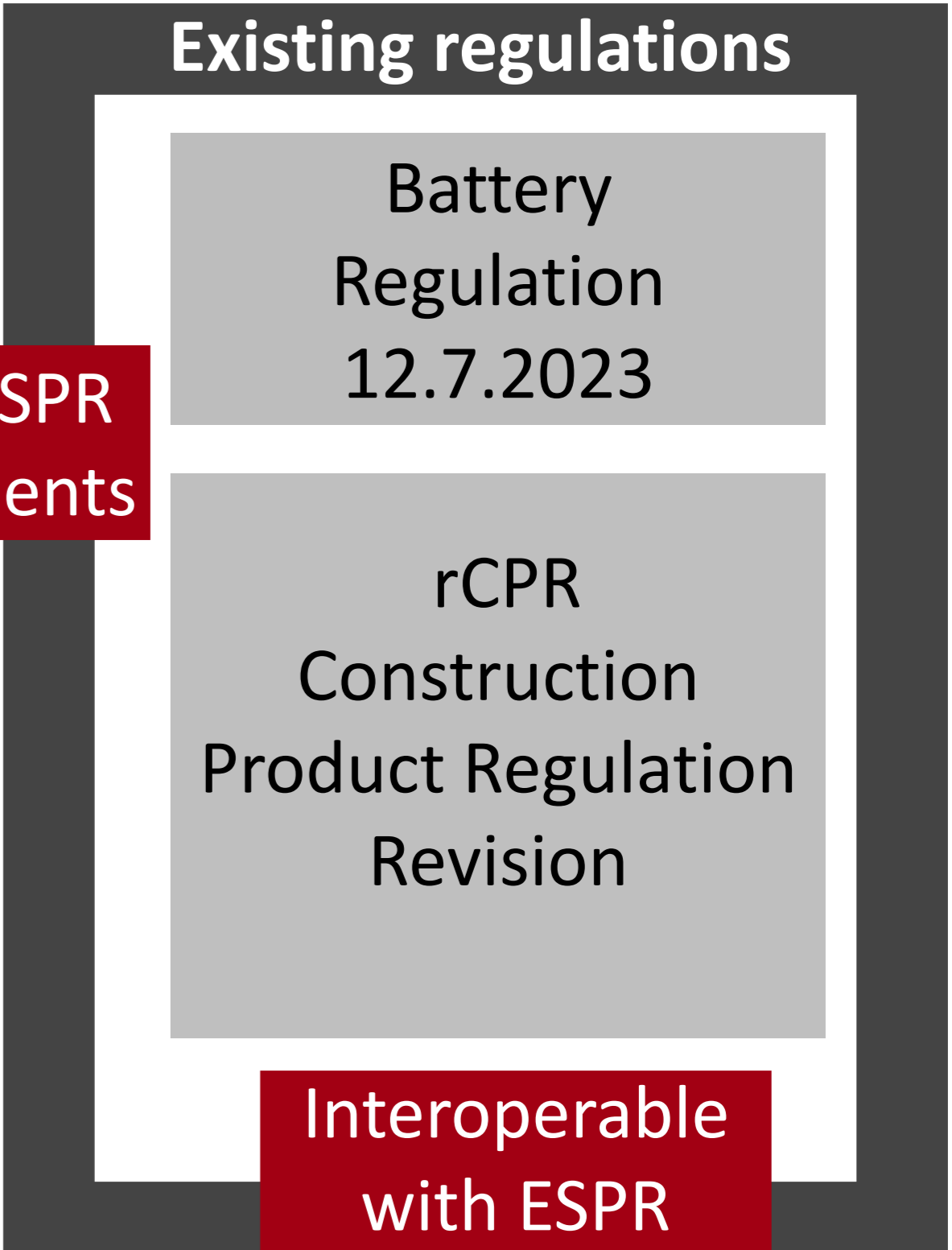


Introduction

The European Green Deal
Striving to be the first climate-neutral continent



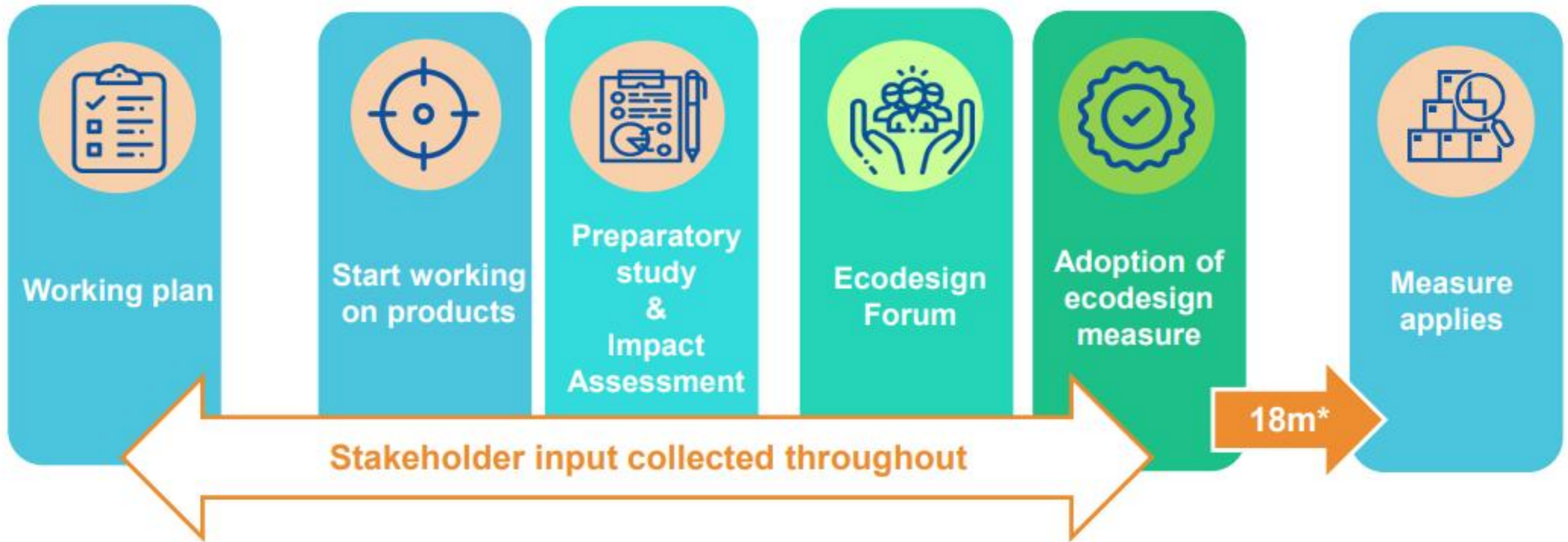
fulfills ESPR requirements



Interoperable with ESPR DPP System

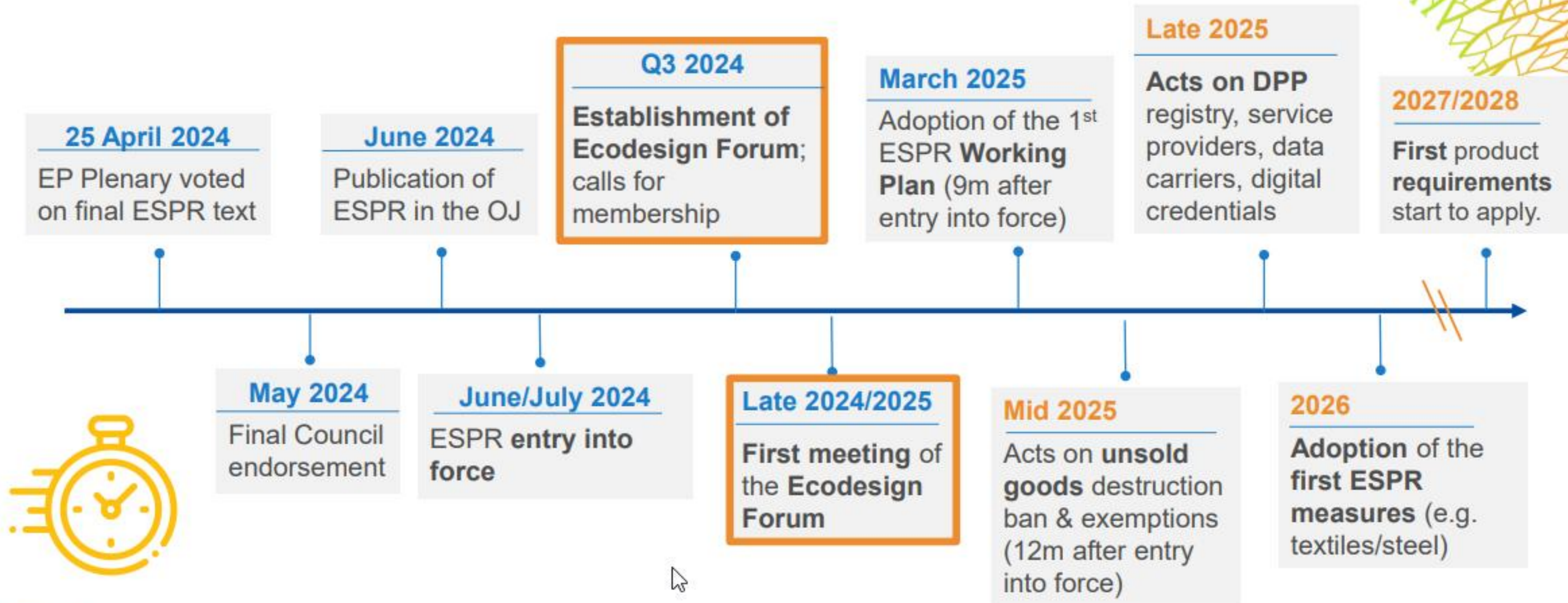
ESPR : DPP System, EU Registry, EU Discovery Service, EU Backup System

Setting product requirements under ESPR



*Not earlier than 18m, shorter periods possible in duly justified cases, staggered application of specific requirements possible

ESPR: tentative timeline & milestones



A close-up photograph of a hand holding a red reusable coffee cup with a matching lid. The cup is resting on a grey tray table, likely inside a train. The background is slightly blurred, showing the interior of the train and a window. The text "Thank you, merci, danke, & grazie." is overlaid in white, centered on the image.

Thank you, merci,
danke, & grazie.

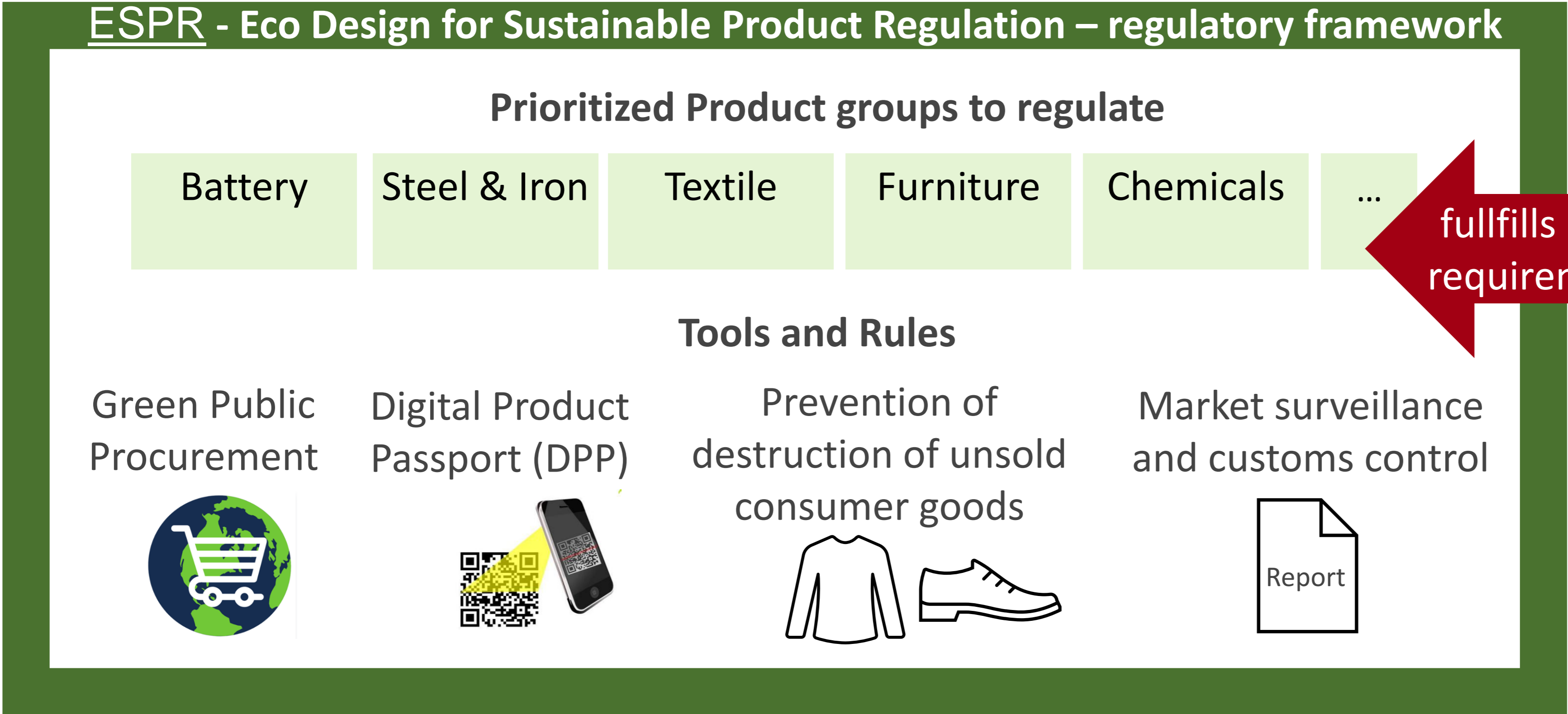


Digital Product Passport DPP Rail - Update

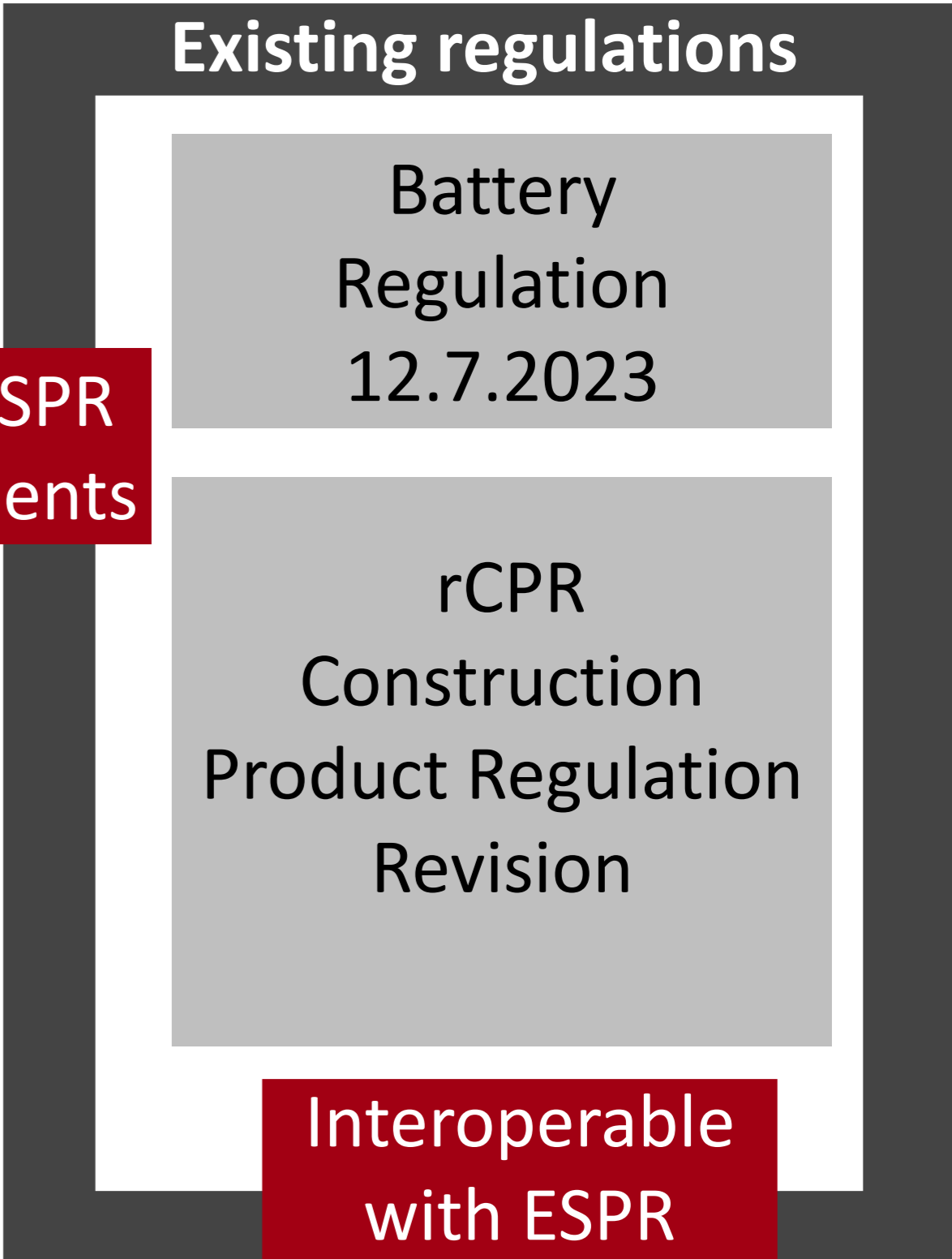
Dominic Hurni
SBB - Swiss Federal Railways

Introduction

The European Green Deal
Striving to be the first climate-neutral continent



fulfills ESPR requirements



Interoperable with ESPR DPP System

ESPR : DPP System, EU Registry, EU Discovery Service, EU Backup System

DPP System vs DPP data



Source: [DIGITAL PRODUCT PASSPORT “Walk & Talk” Webinar | StandICT.eu 2026](#)

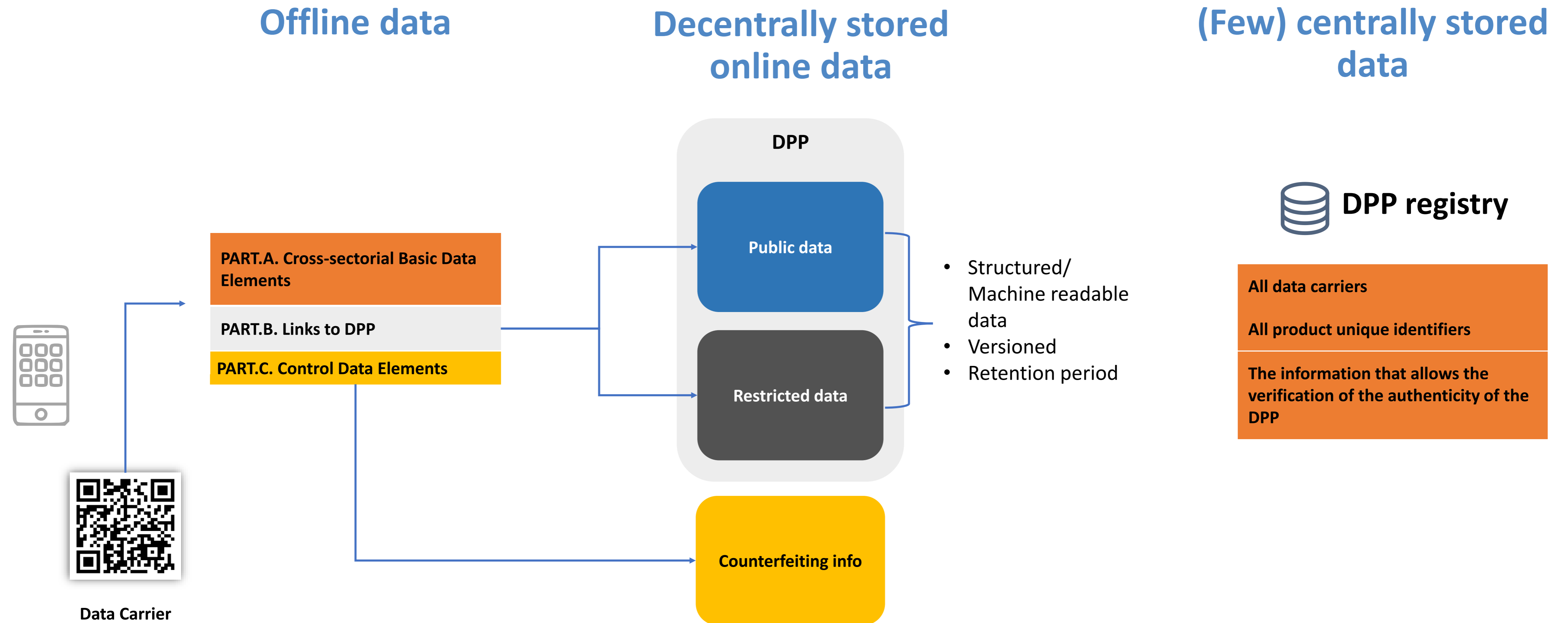


Which ICT standards, protocols and services are required for trustworthy and automated data exchange?

What information about product shall be exchanged?

Which harmonised product standards need to be applied or developed?

DPP basic Data Architecture



A first idea about Digital Product Passport of wheelset bearings...

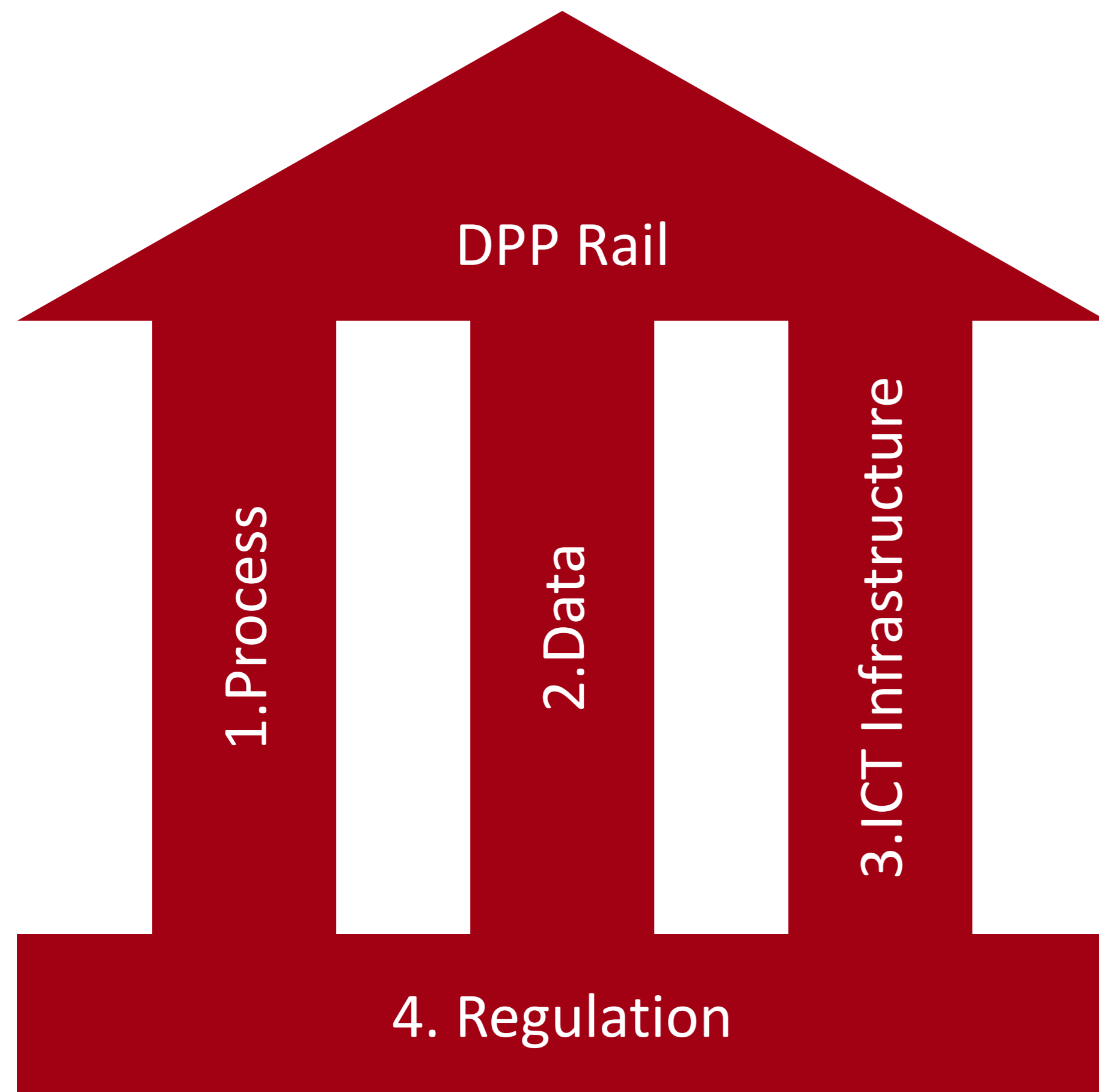


Scan for Demo

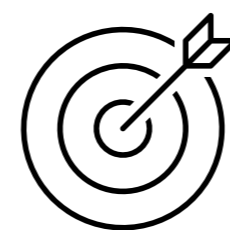


...but not there yet. Why: See slide with requirements

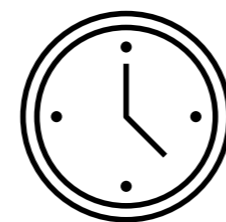
Exploration Project DPP – Digital Product Passport Rail



Challenge: Intransparency of product data across value chain. Trustworthiness and availability of (self declared) sustainability data



Objective: Proof of concept of automatized, verifiable data exchange across companies along the rail life cycle.

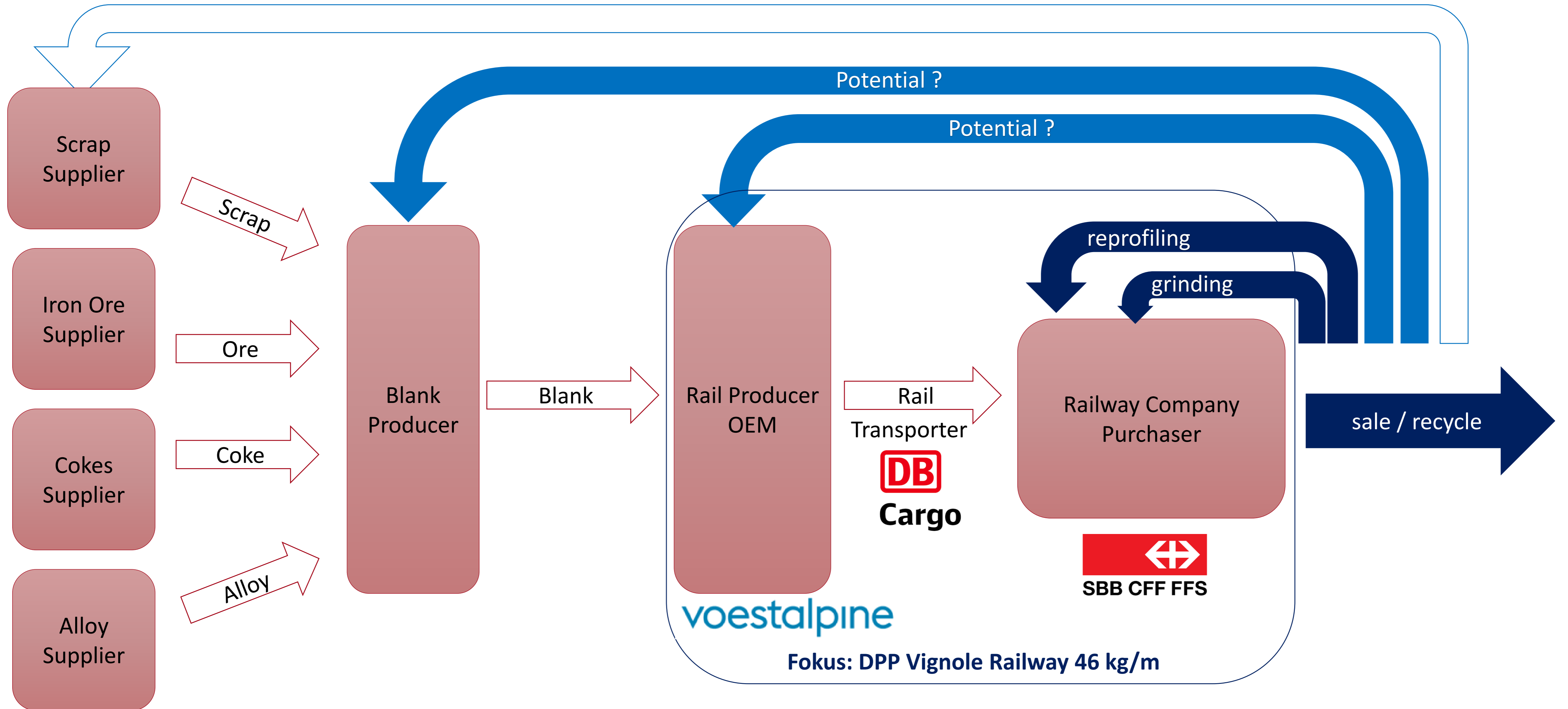


until June 2027



Contact Person:
dominic.hurni@sbb.ch

DPP Rail: Process



Challenge - Business Requirements Railways

- Decentralised data ownership and discrimination free accessibility
 - Every actors keeps its data in supply chain and grants access to legitimated actors.
 - Public DPP Services: Directory / Registry / Back-up system in case of bankruptcy.
- Harmonised standards
 - Product standard template library / directory (e.g. bsDD)
 - Machine readable standard (e.g. BIM)
 - Business standards for decleration of product conformity to reach CE marking
- Data exchange
 - Automated and verifiable data exchange into ERP System for reporting and decision making.
 - Secure and trustworthy: ID actors, ID Product, ID place
 - Technical standards for interoperability and security.
 - Capable to issue, hold and verify a Digital Product Passport.

Exploration with



Implementing the Ecodesign for Sustainable Products Regulation - European Commission

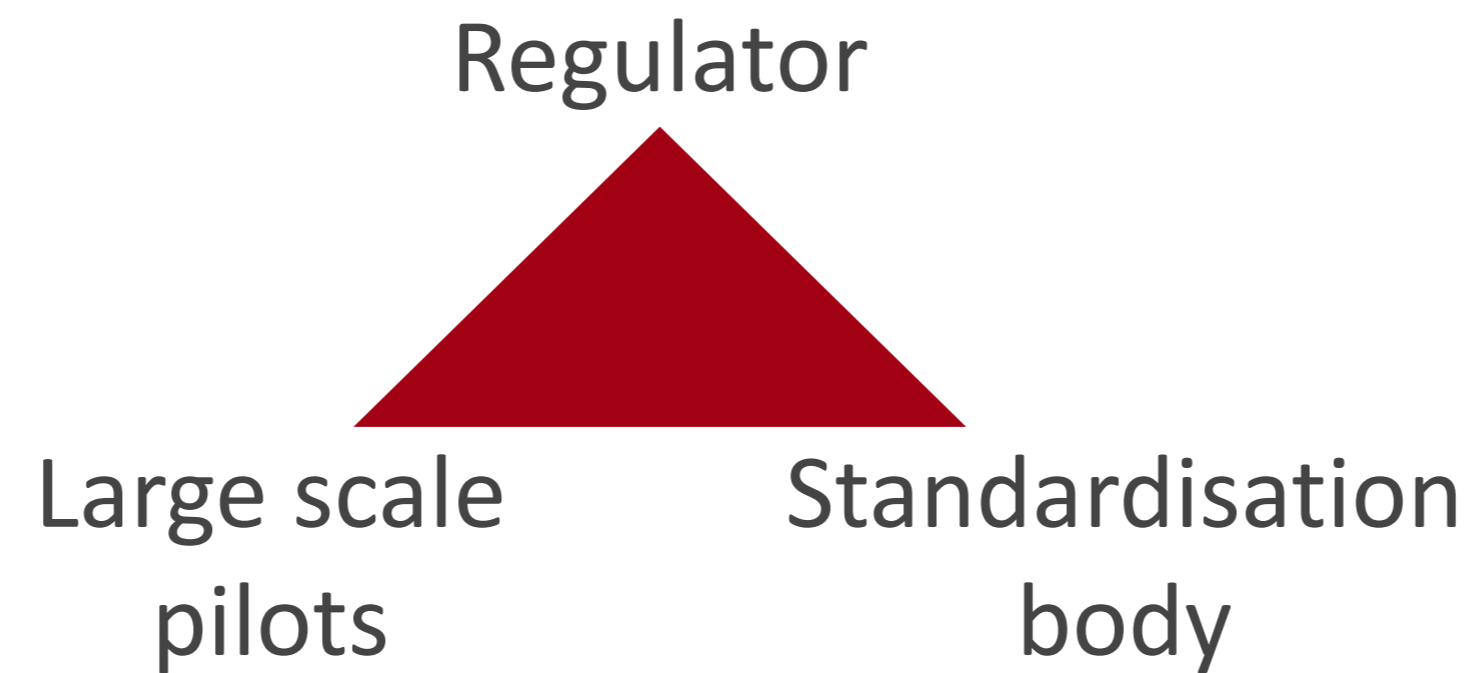


WE BUILD Consortium

WE BUILD Consortium



PC2 COB – Cirpass2



CENELEC - CEN/CLC/JTC 24

Benefits for rails

- Verifiable data to determine ownership and reliability
- Automated data exchange to increase data quality and reduce process costs.
- Data transparency as base for reporting & decision making and circular economy.

Data is key and DPP the tool.

A close-up photograph of a hand holding a red reusable coffee cup with a matching lid. The cup is placed on a grey tray table, likely inside a train. The background is slightly blurred, showing the interior of the train and a window. The text 'Thank you, merci, danke, & grazie.' is overlaid in white, centered on the image.

Thank you, merci,
danke, & grazie.



Ecodesign Forum

Ethem Pekin

CER - Community of European Railway and Infrastructure Companies

Ecodesign Forum

1. OBLIGATIONS on the Commission

Articles 5, 19, 20; Recital 52

- Establish an Ecodesign Forum in the form of a Commission expert group, with the aim of ensuring *'proper consultation of all interested parties'*.

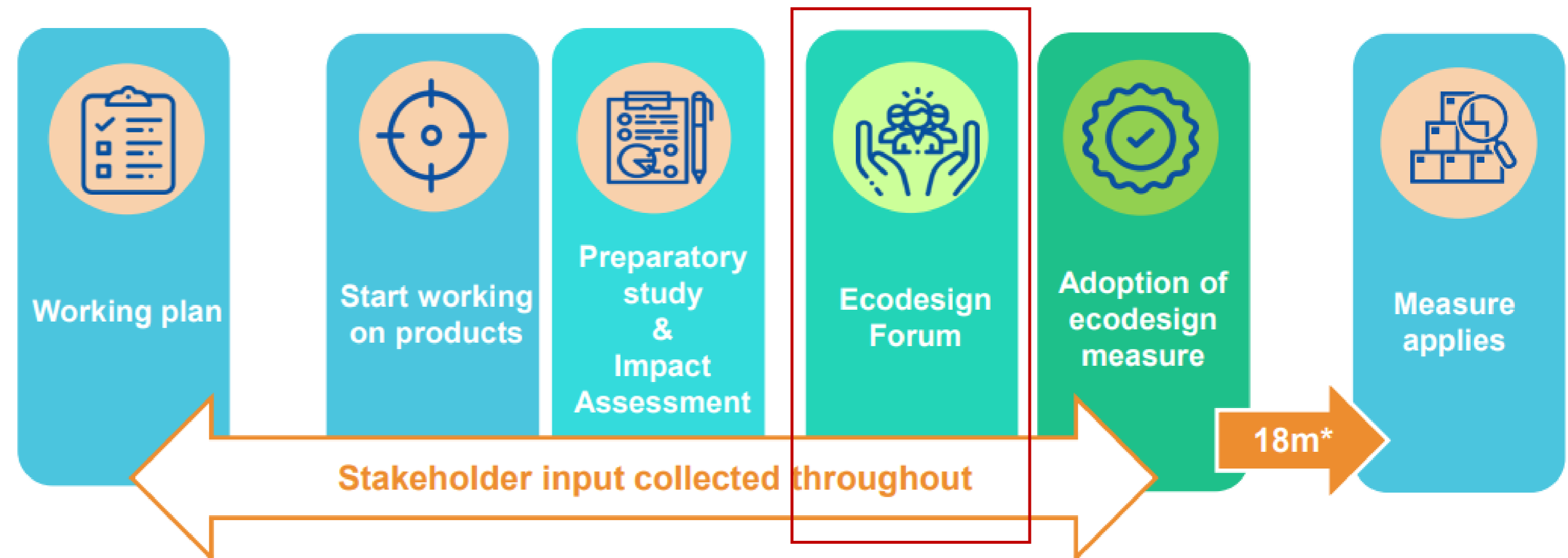
3. ROLE of the Ecodesign Forum

Article 19

The Ecodesign Forum shall contribute in particular to:

- preparing **ecodesign requirements**;
- preparing **working plans**;
- examining the effectiveness of the established **market surveillance** mechanisms
- assessing **self-regulation** measures
- assessing prohibition of the **destruction** of unsold consumer products additional to those listed in Annex VII

Product requirement setting process ESPR



*Not earlier than 18m, shorter periods possible in duly justified cases, staggered application of specific requirements possible

ESPR Webinar, 22.05.24 (europa.eu)

Ecodesign Forum

How would it work?

1. Maintain an open public call for membership applications (with possible ‘rounds of selection’ depending on the products/ horizontal requirements covered by the subsequent Working plans);
2. Design membership criteria to ensure, as far as possible, “a high level of expertise, a geographical balance, as well as a balanced representation of relevant know how and areas of interest” (C(2016) 3301 final);
3. 5 years renewable;
4. Hybrid meetings as default

Group of experts on Ecodesign for Sustainable Products and Energy Labelling ('the Ecodesign Forum') (E03969)



ACTIVE

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Details

Additional Information

Meetings

Subgroups

Members

Statistics

Abbreviation

Ecodesign Forum

Policy Area

- ▶ Energy
- ▶ Enterprise
- ▶ Environment
- ▶ Internal Market

Lead DG

- ▶ ENER - DG Energy
- ▶ ENV - DG Environment
- ▶ GROW - DG Internal Market, Industry, Entrepreneurship and SMEs

Associated DG

-

Type

- ▶ Formal
- ▶ Permanent

Scope

- ▶ Broad

Mission

To assist the Commission in the conduct of its activities under Regulation (EU) 2024/1781 and Regulation (EU) 2017/1369

Task

- ▶ Assist the Commission in relation to the implementation of existing Union legislation, programmes and policies

Ecodesign Forum already kicked-off

1. First meeting was held on 19th February
2. As of today, 100 members, including suppliers in transport
i.e. UNIFE, ACEA, ACEM
3. While service or infrastructure companies are not members,
CER intends to join the Forum with the support of technical
network of UIC

Ecodseign Forum

What are the benefits for rails

- First hand information of product group regulation
 - Change to influence product group regulation
 - Change to define industry standard
- ⇒ Without harmonized standard there is no comparison and therefore no informed decision possible.

Ecodesign Forum – ESPR workplan

Example – steel sector

A. Additional elements on the new products proposed to be included in the first ESPR working plan

STEEL

Analysis: Steel is clearly identified as a priority for action under the JRC report, where it ranked highest due to its negative environmental impacts on climate change, energy consumption, water, air as well as to its high improvement potential in most of these categories. The EU market for steel is large, amounting to 152 billion EUR in 2023. Regulating steel under ESPR could therefore have significant positive impacts on the way steel products are produced and marketed in the EU, thus levelling the playing field on the EU internal market by establishing harmonised sustainability criteria. As a secondary effect, it could improve the EU's resilience, since this sector is highly relevant for the EU's strategic autonomy. Establishing sustainability criteria on steel products would also provide a regulatory incentive to encourage the uptake of new clean steel making technologies. Measures under ESPR are expected to complement existing environmental measures on steel products (such as CBAM), as well as climate measures on steel production (e.g. the ETS) by addressing the remaining environmental aspects and creating further market pulls on the demand side e.g. by product labelling and, potentially, green public procurement.

A close-up photograph of a hand holding a red reusable coffee cup with a matching lid. The cup is placed on a grey tray table inside a train carriage. The background shows the interior of the train, including window blinds and a person's profile in the foreground. The text "Thank you, merci, danke, & grazie." is overlaid in white on the image.

Thank you, merci,
danke, & grazie.



Collaboration Ecodesign Forum — Railway Company

Ethem Pekin & Dominic Hurni

Representative of railway industry in Ecodesign Forum

Representative

Deliveries:

- represents railway industry point of view within Ecodesign Forum.
- feedbacks working group results regarding railway industry relevant product groups.
- shares results, insights, experiences and processes of Ecodesign Forum with railway community.

Deeds and needs:

- knows strategy & programmes and projects & initiatives from railway industry regarding specific product group.
- knows challenges and needs of railway industry regarding specific product group.
- Benefits for railway industry

Expectations:

- knows and shares expectations within collaboration of railways – Ecodesign Forum communication.

Workshop: Representative in Ecodesign Forum

Top Product Groups in working plan

INTERMEDIATE PRODUCTS

- Iron and Steel
- Aluminum

FINAL PRODUCTS

- Textiles (in part. garments & footwear)
- Furniture, including mattresses
- Tyres
- Detergents
- Paints
- Lubricants
- Chemicals
- Energy related products
- Information & communication technology products and other electronics

Timetable

Collection (10 Min)

Clustering & Questions (10 Min)

Your input for representatives

A) Strategy & Programs

A) Topic

Product Group,
Autor Company

B) Initiatives & Projects

B) DPP Rail

Steel,
dominic.Hurni@sbb.ch,
SBB

C) Challenges / Needs of railways

D) Benefits & Opportunities

Timetable
Collection (10 Min)
Clustering &
Questions (10 Min)

Group3: Input for Representative in Ecodesign Forum

A) Topic
Product Group,
Autor, Company

B) Topic
Product Group,
Autor, Company

C) Topic
Product Group,
Autor, Company

D) Topic
Product Group,
Autor, Company

A) Strategy &
Programs

B) Initiatives &
Projects

C) Challenges / Needs
of railways

D) Benefits &
Oppertunities

Stay informed about ongoing work in Ecodesign Forum and Digital .

Register for Ecodesign Forum
Debriefing Meetings.



A close-up photograph of a hand holding a red reusable coffee cup with a matching lid. The cup is placed on a silver metal tray table, likely on a train. The background is slightly blurred, showing the interior of a train carriage. The text "Thank you, merci, danke, & grazie." is overlaid in white, sans-serif font across the center of the image.

Thank you, merci,
danke, & grazie.



INTERNATIONAL UNION
OF RAILWAYS

Media to be made available on the event page

Thank you for your attention



Isabelle De Keyzer
Circular Economy
dekeyzer@uic.org

Credits:

Workshop funded and proposed by the:

UIC Circular Economy Sector

Co-organised by UIC & the CE Sector members

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shop.uic.org



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JOINING US**

SHARE THOUGHTS ON THE SOCIALS
WITH
#UICSUSTAINABILITYACTIONWEEK

TAG US WITH **@UICRAIL**

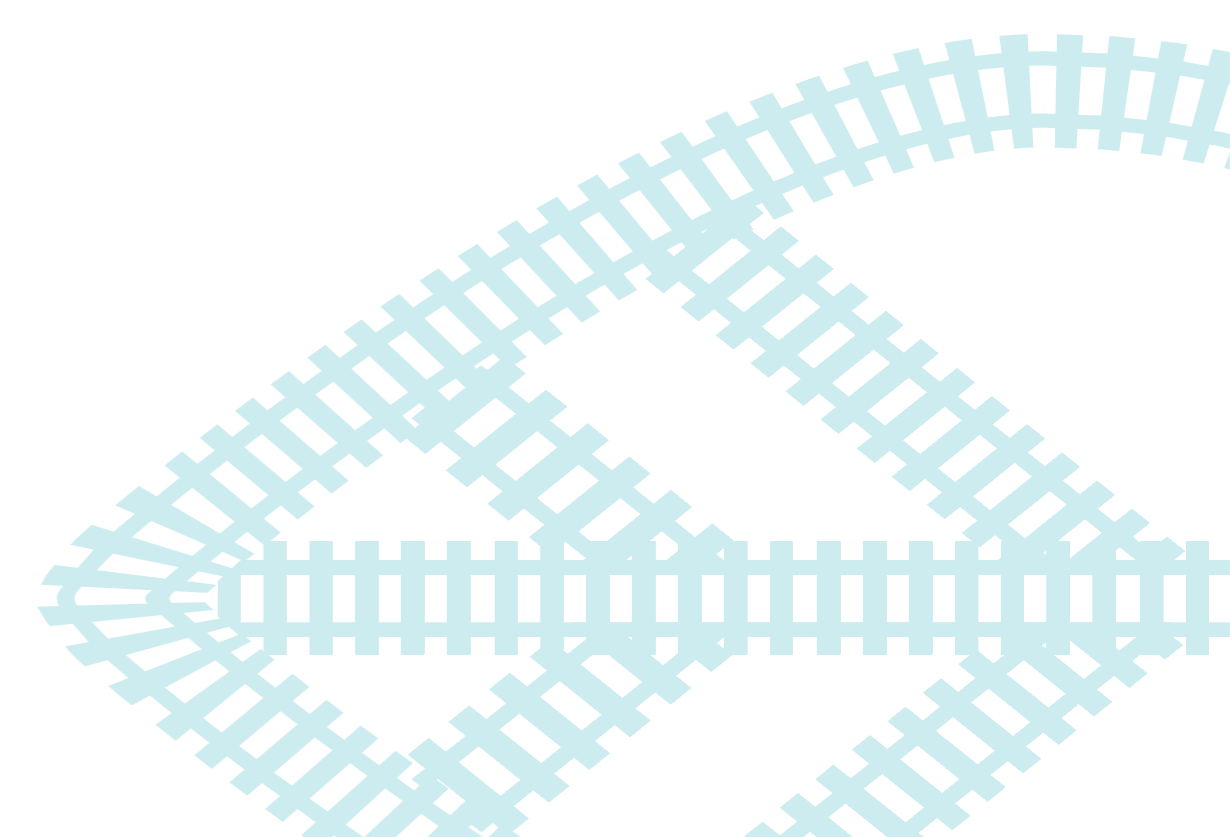
What's Next?

Join us for

➤ **Sustainability Reporting in room
203 from 15:30**



SUSTAINABILITY
Action Week



Break time



Until 15:30