

Open session; Exporing sustainability for Electrical Vehicle Chargers**

**Let's call it EVC from now on



**Starting at 9.30
- Welcome!**



ProCirc



Why Circular Procurement?

Circular Procurement considers the whole life-cycle of goods and services, in order to avoid negative environmental impacts and waste creation, and achieve an overall reduction in the amount of energy and materials consumed.

Including circular principles in procurement helps procurers take a more holistic approach to sustainability and accelerate the transition of supply chains to a more circular economy.



How ProCirc contributes

ProCirc is set up to experiment, implement and learn about circular procurement. We do this by:



Initiating and supporting more than 30 circular procurement pilots.
Each pilot aims to reduce the use of 20-25% raw materials, waste and CO₂ emissions.



Organising a Transnational Procurer-to-Procurer Learning and Action Programme
Circular Procurement expert task forces, Transnational and cross-industry Communities of Practice.



Developing a Circular Procurement Framework
Consisting of Minimum Circular Requirements, Transnational Implementation Roadmaps, a Circular Procurement Toolbox and policy recommendations.

Partners

- Rijkswaterstaat (NL)
- Public Waste Agency Flanders (BE)
- Business in the Community (UK)
- Zero Waste Scotland (UK)
- Network for Sustainability Business Development Northern Denmark (DK)
- Kamp C (BE)
- Agency for Public and Financial Management (NO)
- Kolding municipality (DK)
- ACR+ (BE)
- CLEAN (DK)
- City of Malmö (SE)



Get in touch

✉ procirc@rws.nl

🌐 <https://northsearegion.eu/procirc>

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“ProCirc is set up to experiment, implement and learn about circular procurement.”

2023-02-03



Today's agenda

Check in – What made you join today's workshop?

EVC's and what we want to achieve

B-post – *our experiences and lessons learnt*

Powerstation – *exploring the inside of an EVC*

Discussion – Circular potential for EVC

What's next

03/02/2023





Practicalities

Keep camera on during check in

Please turn camera and mic off during presentations

Questions are welcome in the chat, or by raising your hand, by the end of the presentations



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Check in – via the chat

Name, role (procurement officer, sustainability coordinator etc) and organisation

What made you join today's workshop?

How are you feeling today?



(Other moods than those illustrated, will also be tolerated)

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EVC JSD Elevator Pitch

- **The growing market of electric vehicle chargers (EVCs)** has led to increasing environmental impacts that are likely to be overlooked, due to its green aura.
- **With procurement as a tool**, we aim at to establishing circular development in the EV Charger industry.
- **Together with our Joint Statement of Demand (JSD) partners**, find common ground on feasible ambitions and requirements to demand when procuring.

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EVC Market

EU was the second largest EV-charger market in 2021

EV chargers estimates:

- **1.3 million public charging points** in Europe by 2025
- **2.9 million** by 2030

→ that would require an investment averaging *1.8 billion euros* (around 3% of EU's annual budget for roads and infrastructures).

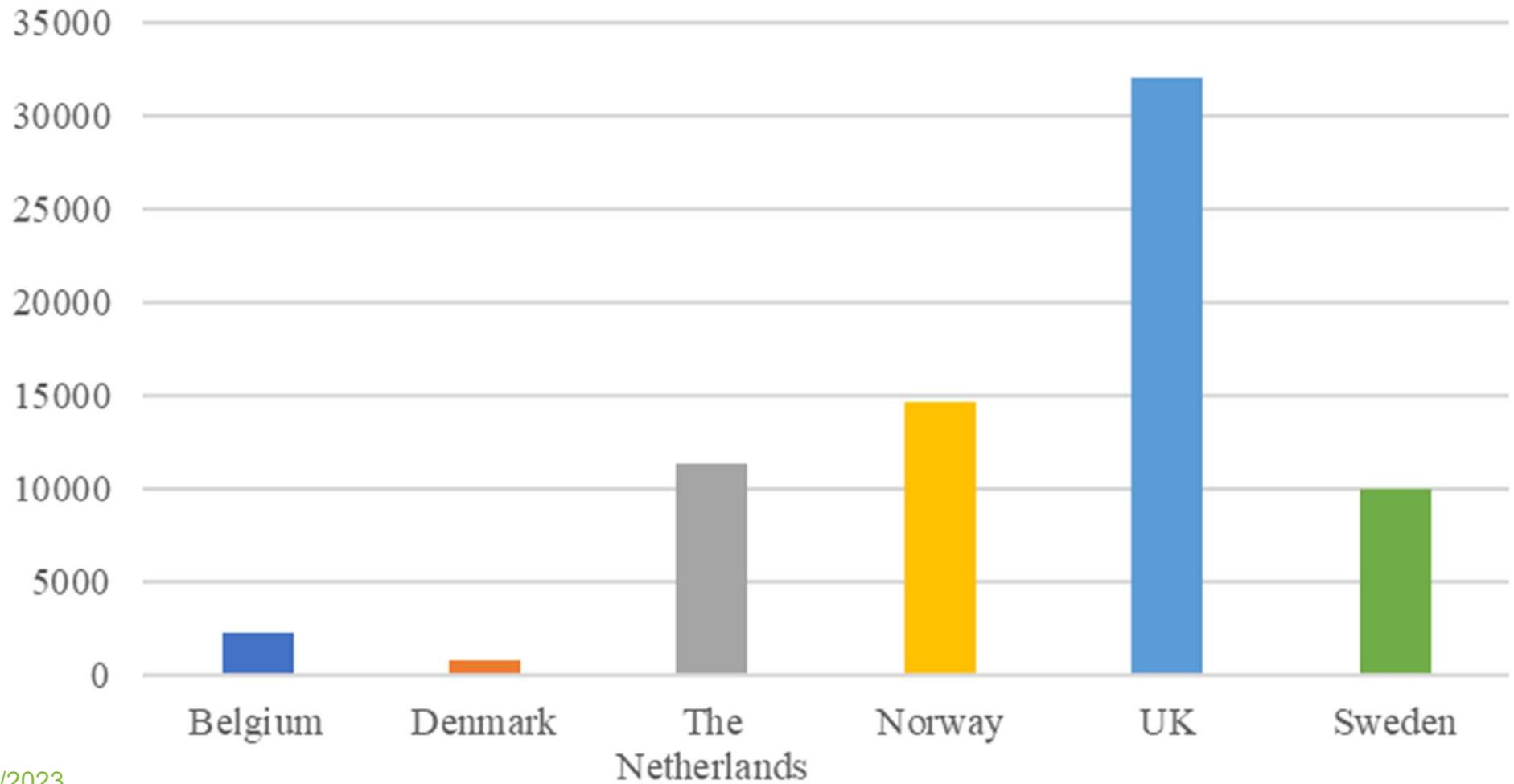
Forecasts:

While more ICE cars are still sold compared to EVs, the ratio is expected to shift very soon everywhere:

- By 2025, it is expected 1 in 5 new cars sold to be electric (worldwide).
- By 2030, it is expected 2 in 5 new cars sold to be electric (worldwide).



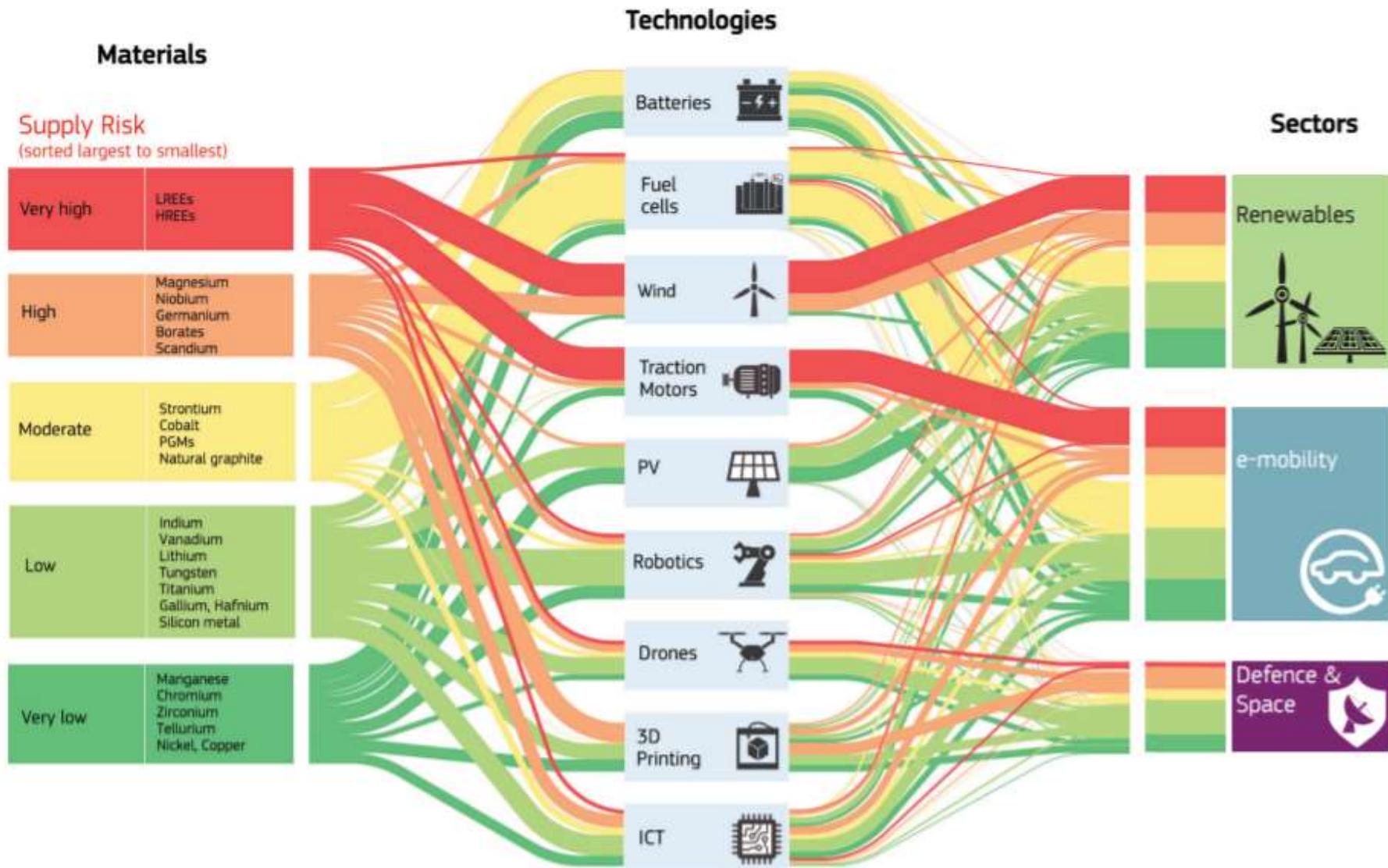
Number of stations



2/3/2023



University of Malmo

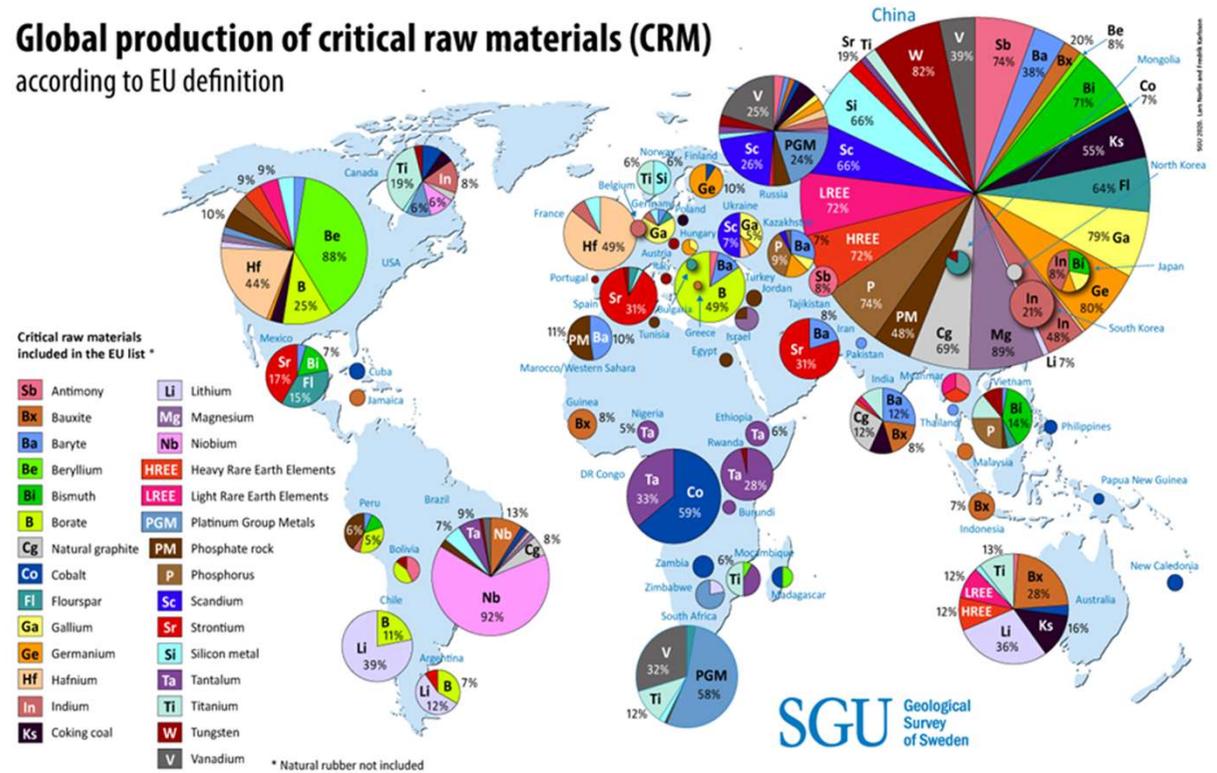


Source: "European Commission, Critical materials for strategic technologies and sectors in the EU - a foresight study, 2020"

2/3/2023

Critical raw materials

Global production of critical raw materials (CRM) according to EU definition





EVC: Technical Aspects

How do they work?

- The **power electronics assembly** supplies the power to the EV's onboard battery charger
- The **charge controller** oversees basic charge functions (like turning a charger on/off), the metering of power usage and the storing of key bits of real-time and event data.
- **The network controller** enables the station to communicate with its network and controls user access to a charging station
- The **charge station cable** and **connector plug** provide the conduit for a charge to be delivered

Table 1: EV Chargers Types

Types	Power	Voltage	Charging time	Connector used
<i>Level 1</i>	1.3-2.4 kW	120V	6-12 hours	J1772 go-to connector
<i>Level 2</i>	3-19 kW	240V	1-6 h	J1772 with two extra pins CHAdeMO
<i>Level 3</i>	150kW	480V	1 h	Tesla superchargers

Bild 11

HE0

Denna slide ska ryka, visst?

Henrik Engblad; 2023-01-30T12:43:09.170



EVC Market

Challenges:

- Building enough charging stations in the right places (range anxiety)
- Public chargers more accessible
- Having a unified system of plugs
- High installation costs of EV chargers
- Sustainability





A JSD is intended to:

- Set ambition for the future purchasing within the product category
- Provide procurers with a tested set of circular asks for a product category which they can adopt in tenders
- Showcase to suppliers the shared high-ambition circular asks of a committed group of buyers
- Drive supplier innovation and bring new products and services to market through a commitment from buyers to adopt the ambitions in their future tenders

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Joint Statement of Demand – Circular and fair smartphones

Joint Statement of Demand - Circular, Fair Smartphones -

As public buyers, we are committed to leveraging procurement as a tool to create change. We aim to transition towards circular Information and Communication Technology (ICT) whilst improving the conditions of workers across the entire value chain. Achieving this ambitious goal, however, requires a multi-actor approach for implementation. Change can only happen through collaboration. We are dedicated to strengthening cooperation between us public buyers, resellers and suppliers as well as relevant partner organisations.

As a response to the urgent task at hand - ensuring fair and safe conditions for workers, we believe that there is power in setting-up actionable ambitions that can be achieved in the foreseeable future. We also acknowledge that existing or already planned framework agreements might impact the timeline of achieving these ambitions. As a major consumer of smartphones, we as a group of cities and regions declare the following ambitions:

By 2025

We are tendering with harmonized criteria and clauses that push for fair and safe working conditions and environmental sustainability across the entire supply chain including raw materials extraction, manufacturing and delivery stages as well as at repairing, reuse, recycling and disposal stages of smartphones and its components.



We work with resellers and suppliers on the actionable increase of transparency of the supply chain and end-of-life, including locations and conditions of production. This will be possible also in hardware-as-service agreements.



We can apply certification and worker-driven monitoring to contribute to circularity, environmental and social responsibility supported by regular dialogue for continuous improvement.



We are able to extend the lifespan of purchased smartphones, including its use-phase, by for example extended service agreements that cover quick and easy repairs or replacement of components, longer warranties, improved battery efficiency performance, durable and modular design, increased timespan for operating systems.



We can opt-out of buying accessories such as new headphones or chargers alongside a smartphone.



We are able to procure 2nd-life devices, which meet all of our needs, in terms of quantity, quality, and security.



We aim to establish processes, internally and in collaboration with suppliers and resellers, to collect 100% of smartphones at the end of life with a view to find a second-life, reuse or remanufacture all smartphones where possible. The remaining smartphones should be recycled, critical raw materials should be safeguarded and as much materials as possible should be reused and recycled for new devices.



Our contract management includes capacity to follow-up through a feedback loop that informs us about what happened to components after the end of life or to products for their 2nd life.



We procure with a focus on human rights due-diligence in the contract management phase.

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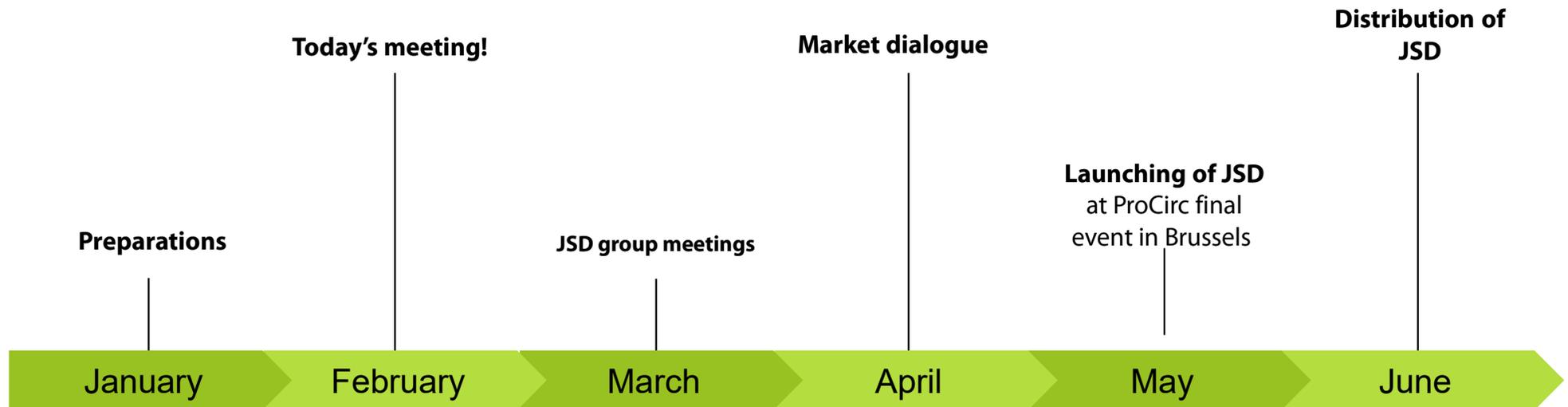
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- We can opt-out of buying accessories such as new headphones or chargers alongside a smartphone.
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- Circular, Fair Smartphones JSD from 2019





Landmarks during spring



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B-Post

Electrification and charging infrastructure at bpost

Presentation by

Els Renders, Program Manager Sustainability

Wietse Nauwelaerts, Category Expert Technical Procurement

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Powerstation

EVs Love it

Presentation by

Senne Potters, sales manager

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Time for discussions!

3 groups

Presentations round

Jamboard

Inspired by the presentations, looking at the circular ambition chart and based on your own organizations perspective

And what **possibilities** do you see?

What are the **challenges**?

Internal challenges, lack of knowledge, market?

How do we get more people involved?

2023-02-03



A  Reduce total amount of materials	B  Reduce amount of virgin inputs	C  Extend the useful life	D  Maximise the reusability of a product or component	E  Maximise the reusability or recyclability of materials
A 1 Internal sharing	B 1 Understanding the share of recycled, biobased and virgin materials present	C 1 Extending guarantees	D 1 Design for Disassembly	E 1 Design for recycling
A 2 Renting or peer to peer sharing	B 2 Increasing the amount of recycled content	C 2 Contractual arrangements for maintenance and repair	D 2 Modular design	E 2 Understanding materials
A 3 Reuse, refurbishing or upgrading	B 3 Increasing the amount of biobased content	C 3 Upgradable products	D 3 Standardised design	E 3 Contractual arrangements for take back and recycling
A 4 Minimal use of materials in design		C 4 Design for longevity	D 4 Understanding the internal composition and connections	E 4 Reducing or banning toxicity
A 5 Less waste		C 5 Repairability and maintainability	D 5 Contractual arrangements for take back and reuse	E 5 Biologically degradable / compostable
		C 6 Modular/change oriented design	D 6 Stimulate circular business models	E 6 Stimulate circular business models
		C 7 Contractual incentives for extension of useful life		
		C 8 Supplier guidance for use optimization		

GOALS AND STRATEGIES FOR CIRCULAR PURCHASERS





How can your organisation benefit from joining the JSD?

- Learn together with others
- A possibility to join forces
- Internal support
- Learn from experts
- Develop the market in a sustainable direction
- Adopting new or upcoming EU regulation (like binding 2030 targets for material use)

What you will be committing to

- Participate during around 4 meetings
- Join our market dialogue event
- Work towards the goal of having your organisation sign the JSD

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Next steps...

- Are you up for joining the JSD process?! Please let us know!
- Next meeting 22 feb 13.30-15.00
 - More inspiration
 - Focus on discussions, potential for circular EVC and starting the JSD process.
- More info is coming via mail. More than welcome to spread the word!

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Save the date: Final events

Circular procurement – No time to waste!

Join our final events to learn more about our circular procurement journey, be inspired to take action, and liaise with others:

- **April 18th, 2023:** online conference aimed at procurers with talks on ProCirc's key lessons learned, developed tools and guides, and lots of interaction.
- **May 11th, 2023:** live conference in the premises of the European Committee of the Regions, Brussels, kindly hosted by Dutch committee member Tjisse Stelpstra. This conference targets stakeholders in ProCirc, procurement experts, (sustainability) managers from procuring organisations, policy and decision makers, investors, and research institutes active in the area of circular procurement.

03/02/2023



Thank you for your engagement today!

If you want to join our process, or have any questions regarding today's presentation. Please contact:

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