



re-sourcing

Webinar & Networking Event

Digital Product Passports data silos or data spaces?

May 24th 2023, 3 30 pm



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 869276

Keynote speakers



André Martinuzzi
Founder and head of
the Institute for
Managing
Sustainability



Inga Petersen
Executive Director
at the Global
Battery Alliance
(GBA)



Mark Hoff
European Head of
ESG and Finance
Sector Lead at SLR
Consulting



André Martinuzzi
Founder and head of
the Institute for
Managing
Sustainability

Digital Solutions for Responsible Sourcing

- ✓ What are the main supply chain challenges?
- ✓ What are the potential solutions for the diversity of regulations and standards?
- ✓ What you can do as a company or stakeholder?



re-sourcing

Digital Solutions for Responsible Sourcing

‘The silver bullet’, a variety of tools or even more problems?

a.Prof. Dr. André Martinuzzi,
Head of the Institute for Managing Sustainability



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 869276

1. A Horizon2020-funded Multi-Stakeholder Platform to advance Responsible Sourcing of raw materials along and across global mineral value chains.
2. Promotes strategic agenda setting and coherent application of practices for Responsible Sourcing.
3. Addressing the ICT sector, Mobility and Renewable Energy
4. 4 Conferences, 3 Global Advocacy Fora, 3 Flagship Labs, 3 Roadmap Workshops
5. State-of-Play Reports, Roadmaps, Good Practice Guidelines, Online Platform



A Global Stakeholder Platform for Responsible Sourcing in Mineral Value Chains

Challenge

Create the necessary framework conditions for responsible sourcing in the EU and globally



re-sourcing

Solutions for

Our contribution to Responsible Sourcing:

- Creating a global network
- Designing sectoral road maps
- Providing best practice cases
- Forming a common understanding



Policy makers



Civil society



Businesses

FOCUS

3 EU key industry sectors



Renewable energy



Mobility



Electrical and electronic equipment

Your involvement:

- 9 workshops sharing best practices & global exchanges
- 4 conferences promoting peer learning & networking
- Online platform for knowledge sharing & best practice cases

Objectives



Supportive EU policy frameworks



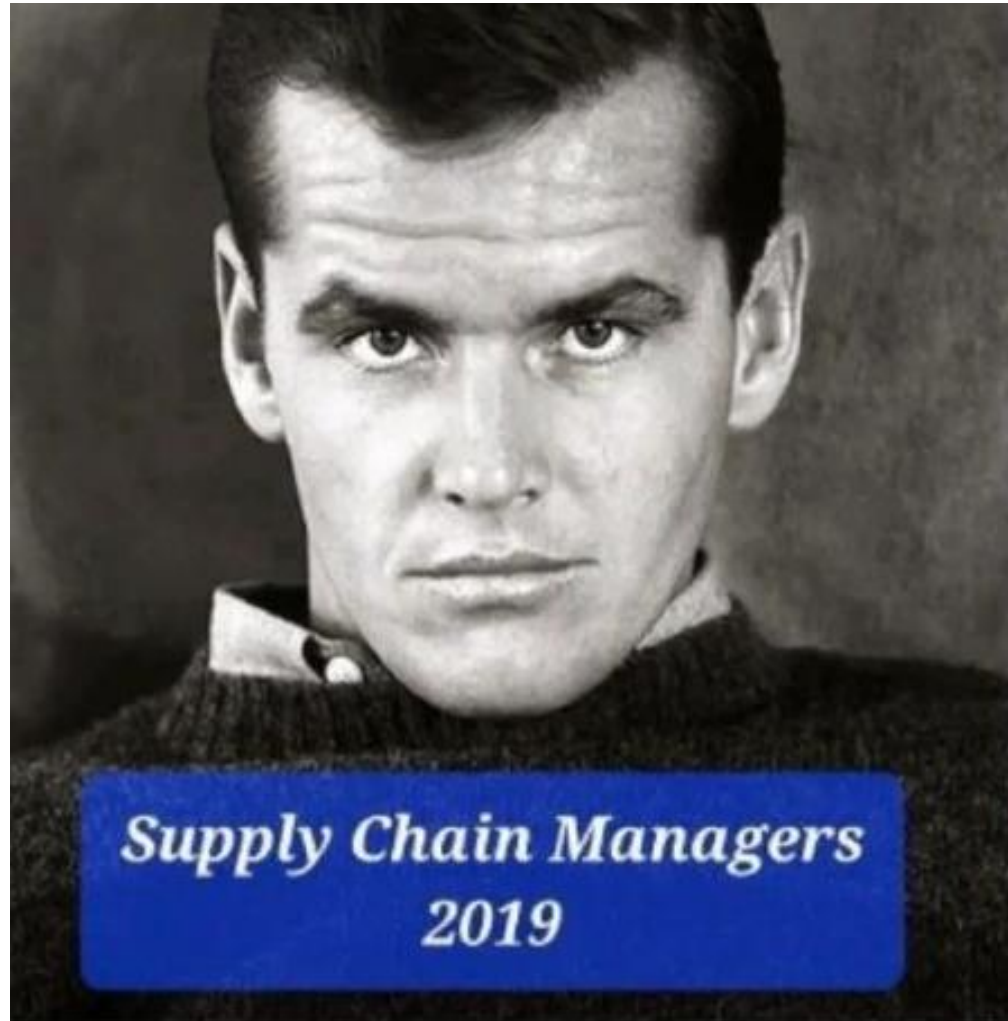
Globally connected responsible sourcing community

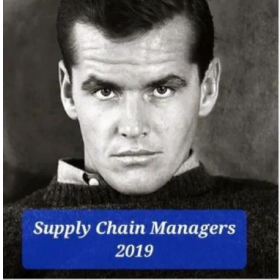


Scaling up of best practices

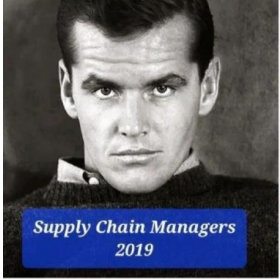


A common definition

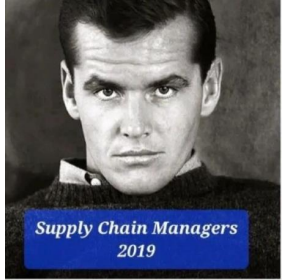


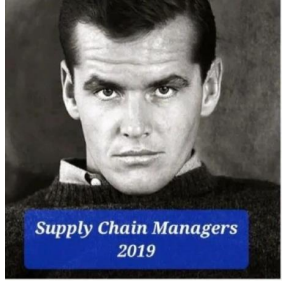


Supply Chain Crisis (2021)



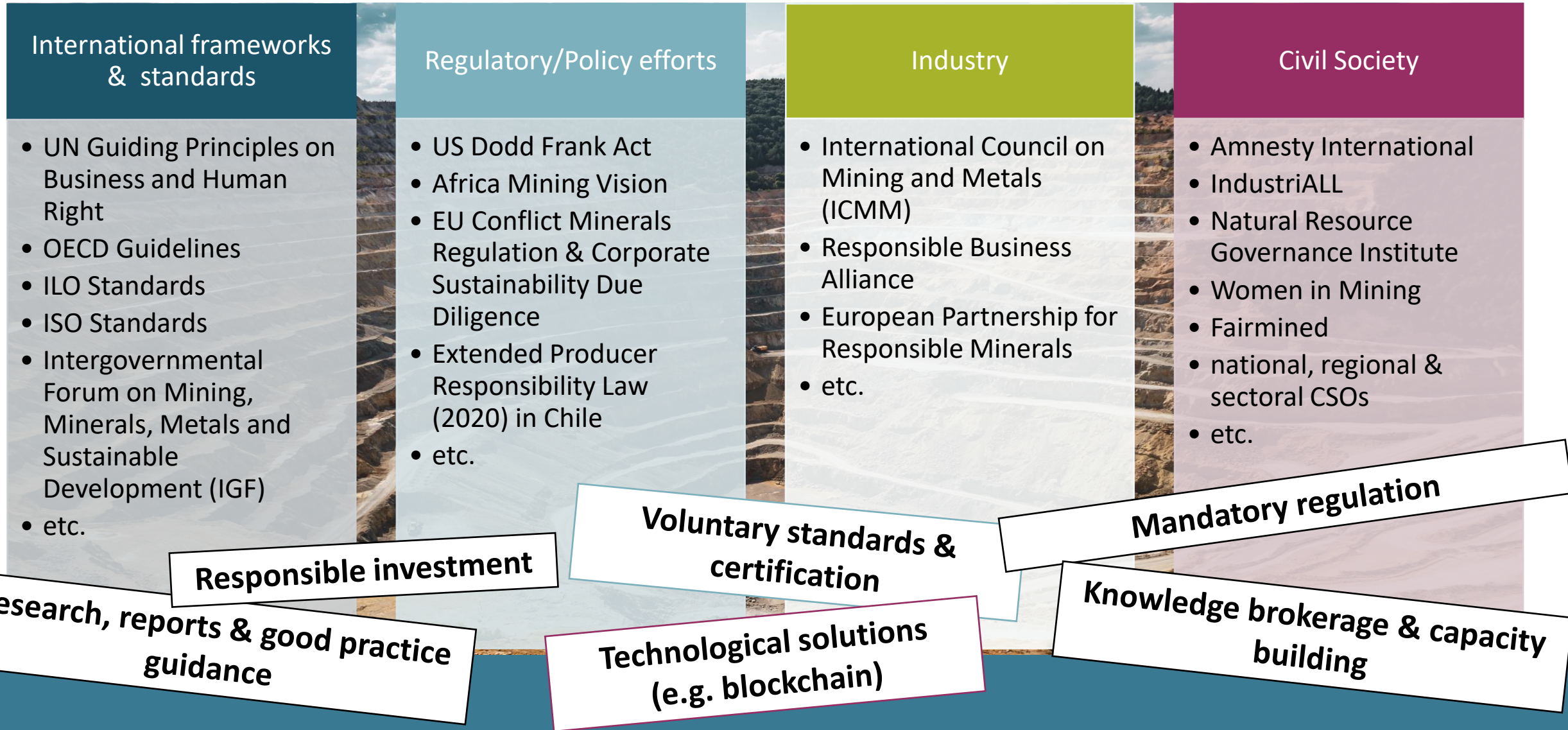
Supply Chain Disasters (2022)



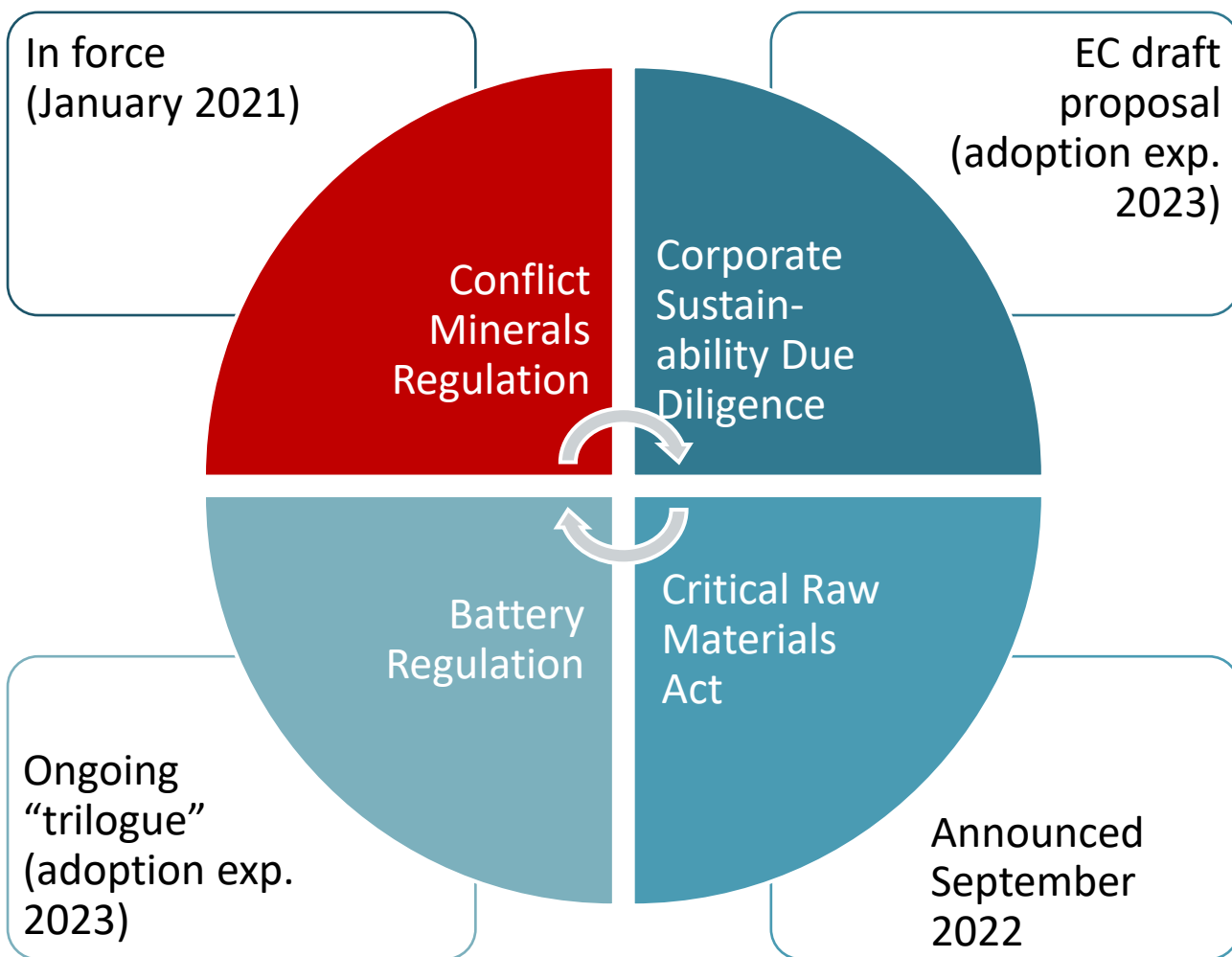


- Global **supply chain complexity** (number of suppliers and tiers, geography, transformation of raw materials across supply chain stages)
- **Knowledge asymmetries** about supply chain information in order to maintain competitive advantages lead to high and unequal costs, protectionism and distrust
- Market competition without a level-playing field for responsible sourcing (global, regional, national) lead to **competitive disadvantages for front-runners**
- **Lack of vertical and horizontal collaboration** across supply chain actors and industry sectors runs the risk of (non-)technological lock-ins
- **Fragmentation** of initiatives (standards, regulations, technological solutions) and limited data reliability runs the risk of incorrect data due to fraud or error.

Fragmentation of initiatives

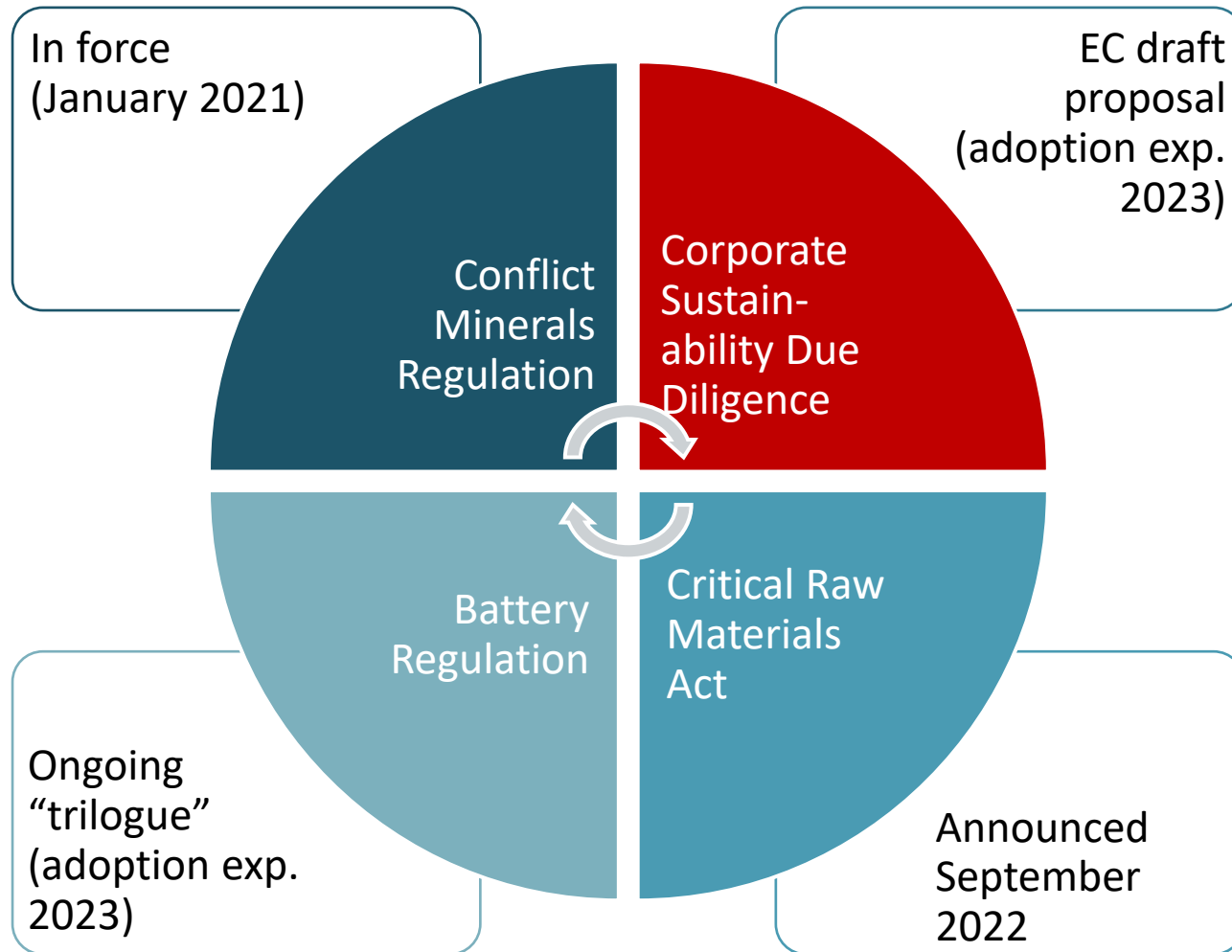


EU regulatory frameworks



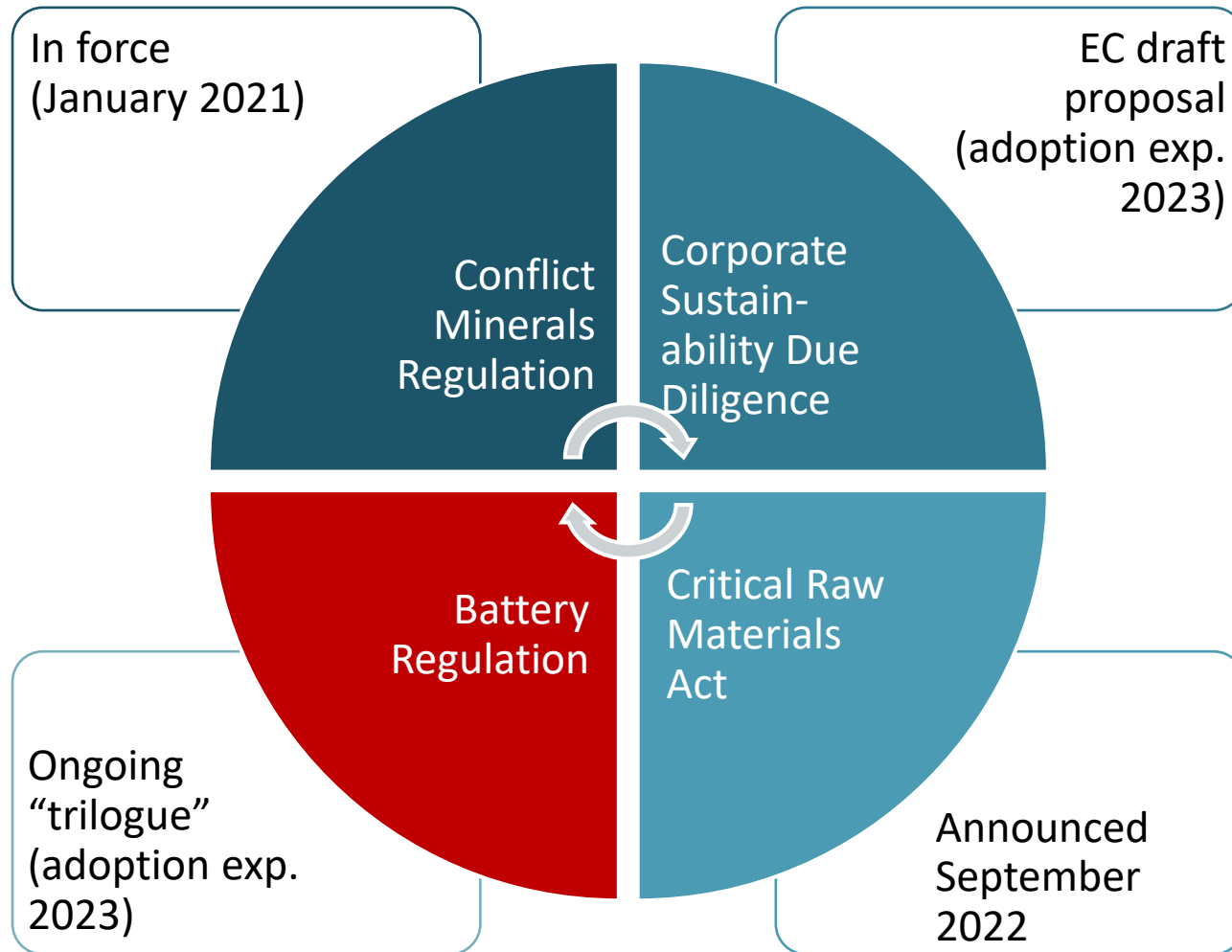
- Follows OECD Due Diligence Guidance
- Focus: 3TGs, CAHRAs
- Affected companies:
 - Directly: EU importers (est. 600-1000)
 - Indirectly: Smelters & refiners (est. 500)
- **Starting 1st review process (EC tender "Study to Review the Functioning and Effectiveness", awarded Sept 2022)**
- **Framework Contract for the Recognition of Equivalence of Supply Chain Due Diligence Schemes (November 2022)**

EU regulatory frameworks



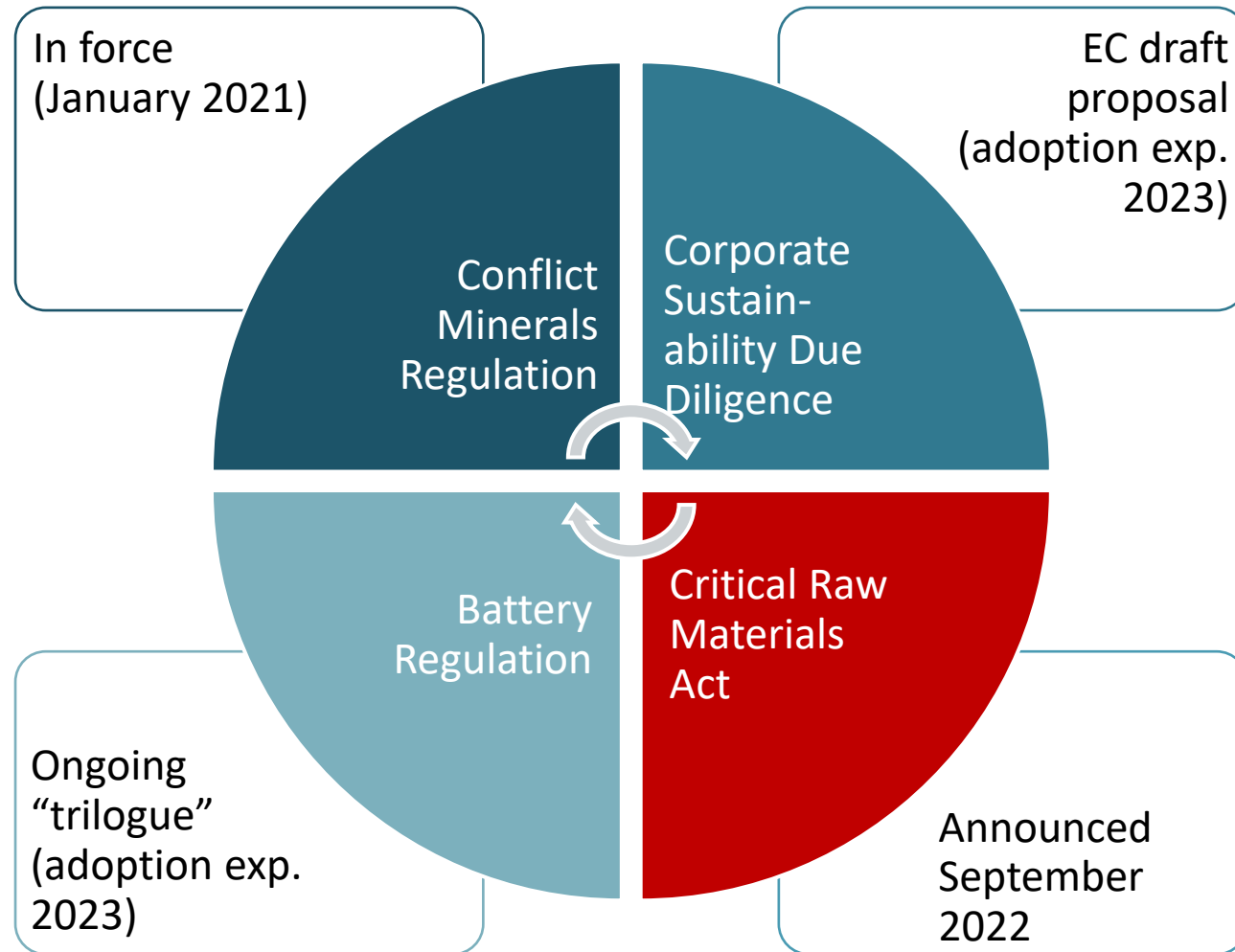
- Focus: OECD high-impact sectors
- Affected companies:
 - ~12.000+ EU LLCs (based on revenue and employees)
 - ~4.000 non-EU LLCs (based on revenue in EU)
- Major aspects:
 - DD strategies and processes to identify, prevent/mitigate risks and end negative impact (social/environmental)
 - Enforcement & sanctioning by national bodies
 - Continuous monitoring and revision

EU regulatory frameworks



- Sustainable EV battery industry in EU (carbon and raw material footprint, waste management)
- Resilience: less dependence on non-EU raw materials supply and battery manufacturing
- Focus cobalt, lithium, nickel, graphite
- Carbon footprint, minimum recycled content, performance and durability criteria, safety and labelling for marketing and putting into service of batteries, requirements for end-of-life management
- **Due-diligence obligations for economic operators regarding the sourcing of raw materials**

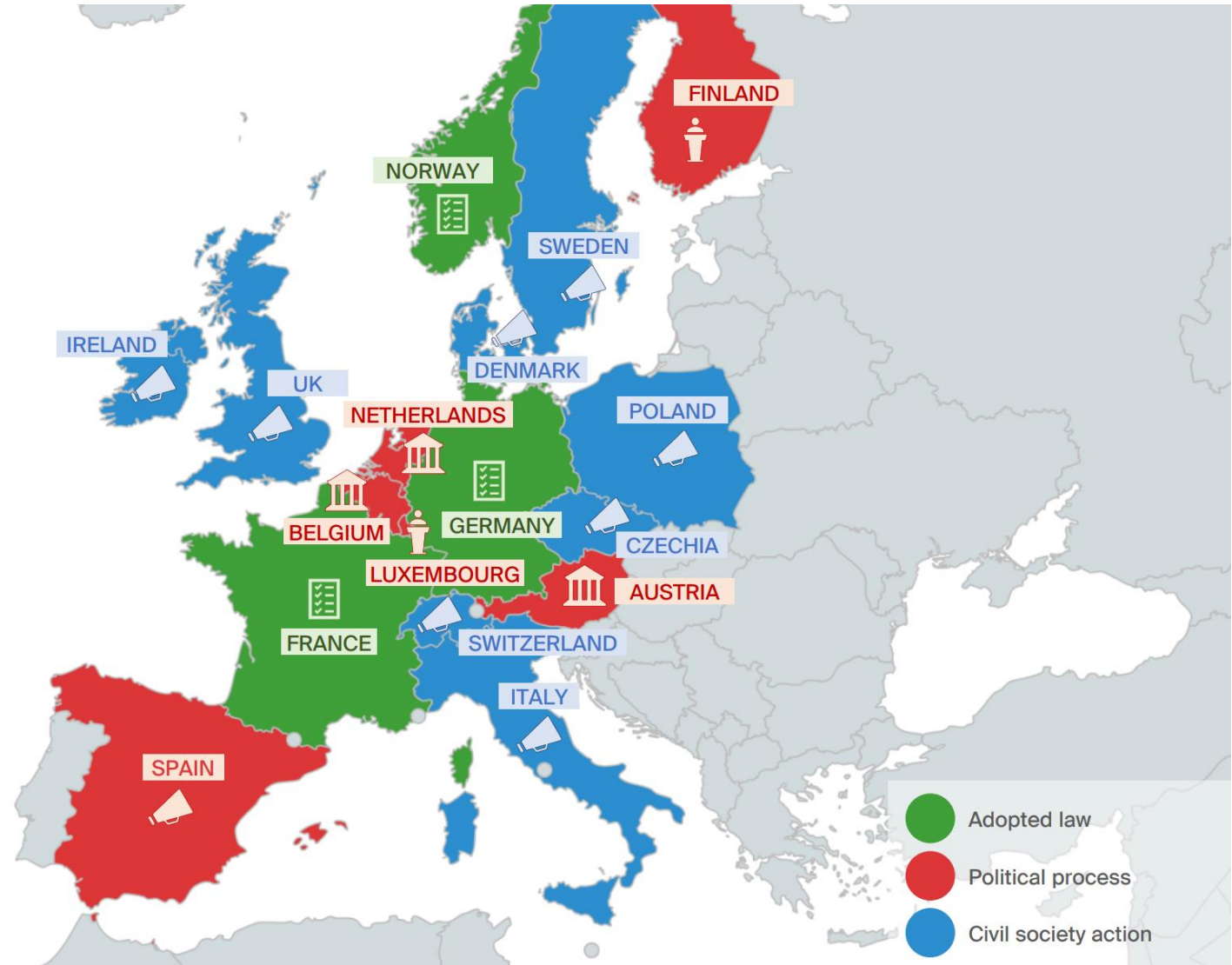
EU regulatory frameworks



- Precursor: Critical Raw Materials Action Plan (2020); point 10: responsible sourcing
- 4th EU List of Critical Raw Materials (2020, includes 30 CRMs)
- CRM Foresight Study (2020): 10 focus technologies/sectors incl. supply chain analysis (ICT one sector)
- European Raw Materials Alliance (ERMA) (part of the CRM Action Plan)
- EU principles for sustainable raw materials (not directly related to the CRM Act, but will probably have an impact on the Act)

National regulatory frameworks

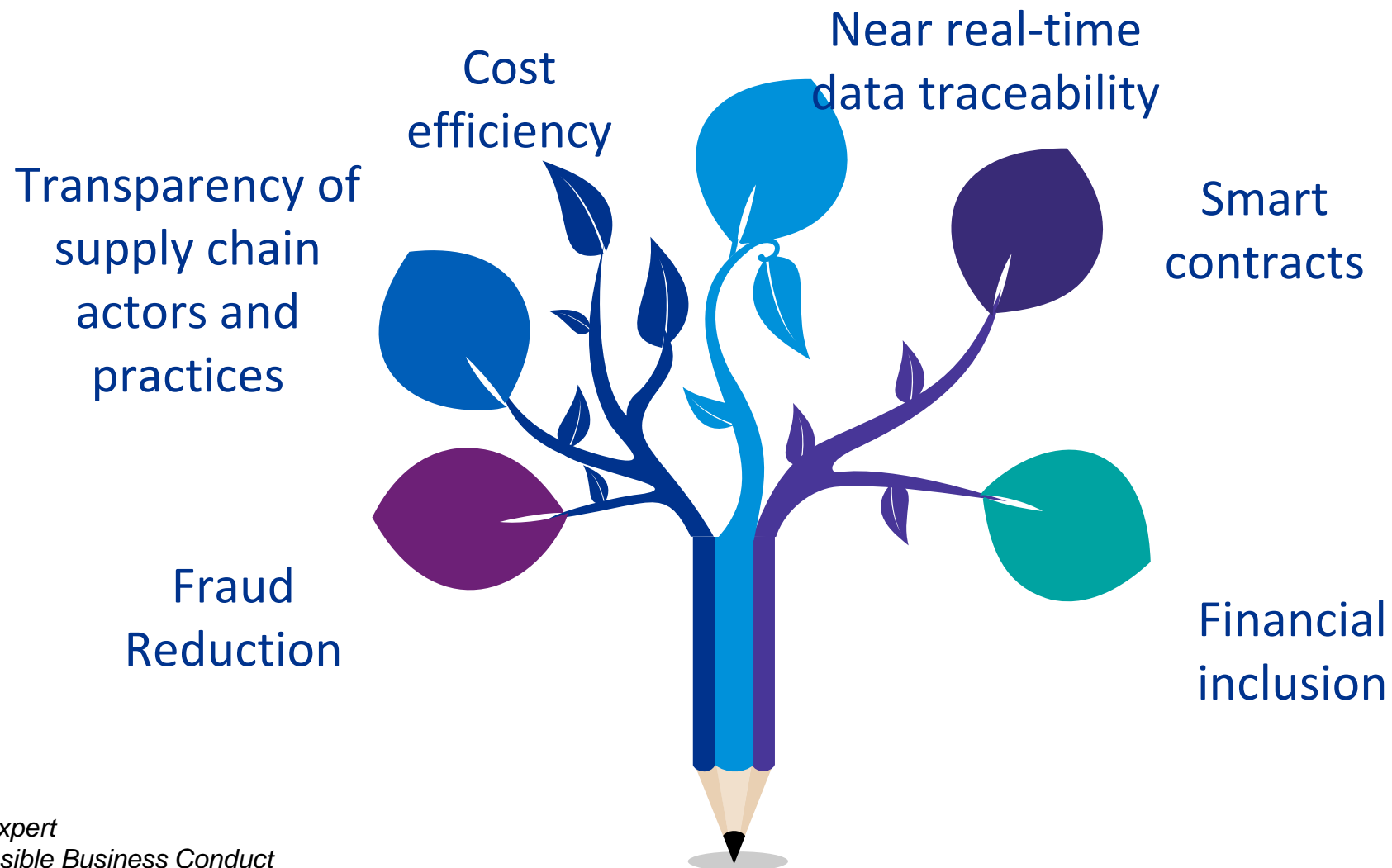
FRANCE	Law on the duty of vigilance of parent and outsourcing companies
GERMANY	Law on the corporate duty of care in supply chains
NETHERLANDS	Law on child labour due diligence
NORWAY	Law on business transparency and human rights and decent working conditions
AUSTRIA	Parliamentary proposal for a supply chain law
BELGIUM	Parliamentary proposal on the corporate duty of vigilance and care in value chains
FINLAND	Government commitment to due diligence legislation
LUXEMBOURG	Government commitment to due diligence legislation
NETHERLANDS	Government commitment to due diligence legislation Parliamentary proposal on responsible and sustainable international business conduct
SPAIN	Government's Annual Regulatory Plan includes a legislative initiative on due diligence



Diversity of regulations and standards

- **Mix** of national, EU wide and international regulations on the one hand and multiple voluntary standards and certifications
- **Purpose and focus differ** based on geographic area, minerals, supply chain stage, sustainability aspects, governance structure and certification process
- Often **difficult to decide** which standard/certification to choose
- Certification can be **costly for suppliers** that have difficulties to pass/share them further downstream

*State of play and roadmap concepts:
Electronics Sector
(RE-SOURCING, 2021)*



1. Alignment of certification schemes (e.g. through equivalent schemes)
2. Data assurance (material traceability, analytical proof of origin, certified auditors, AI)
3. Digital passports (battery, building, textile, CRMs) and digital twins
4. Blockchain (interoperability, Gaia-X, Catena-X)
5. Physical and digital tagging of products

- Pooling of resources
 - Adapting purchasing practices & investing in suppliers
 - Vertical & horizontal collaboration for supplier engagement
 - Exchanging data & knowledge
 - Engaging with Industry Associations, Civil Society Organisations & initiatives
-
- ⇒ **RE-SOURCING Roadmaps at www.RE-SOURCING.eu**
 - ⇒ **Webinar Innovation for Responsible Supply Chains, 22.6.23, 15:30 CEST**
 - ⇒ **Conference Systemic Change for Respo Sourcing, 21.-22.9.23, Vienna**



Inga Petersen
Executive Director at
the Global Battery
Alliance
(GBA)

The Global Battery Alliance Battery Passport

- ✓ What are the 10 Guiding Principles for a sustainable battery value chain?
- ✓ What did the GBA proof-of-concept pilots entail?
- ✓ What are the major high-level learnings from the pilots of the GBA?



BATTERY SYSTEM

The Global Battery Alliance Battery Passport

May 2023

**GLOBAL
BATTERY
ALLIANCE**

BATTERIES POWERING
SUSTAINABLE DEVELOPMENT

The GBA is the global public-private platform to enable sustainable EV and storage batteries by 2030

About

The Global Battery Alliance (GBA) is a multi-stakeholder, pre-competitive partnership of 120+ businesses, governmental and non-governmental organizations founded in 2017 to help establish a sustainable battery value chain by 2030

Vision

The GBA vision is that batteries power sustainable development towards three overarching outcomes:

1. Establish a **circular battery value chain** as a major driver to achieve the Paris Agreement
2. Establish a **low-carbon economy** in the value chain, create new jobs and additional economic value
3. **Safeguard human rights** and economic development consistent with the UN Sustainable Development Goals

Mission

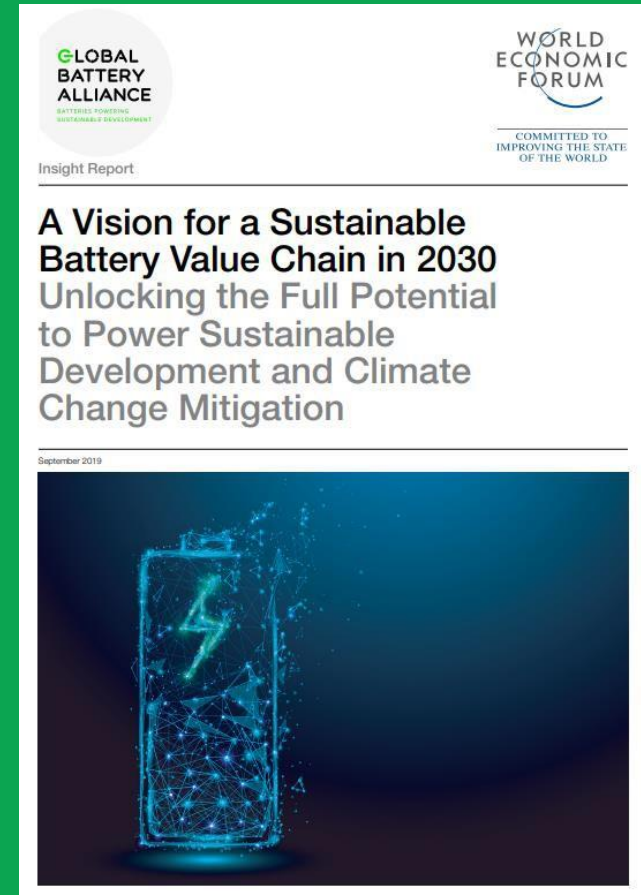
- Establish trusted criteria, data, and benchmarks for a sustainable and transparent battery market
- Mobilize collective action to improve the environmental, social, and governance footprint across the value chain
- Communicate with one voice and with strong media visibility

Goals

To realize the vision, the GBA pursues two sets of initiatives:

- Establishing a digital Battery Passport: comprehensive lifecycle KPI for “sustainable” batteries to measure, track and improve value chain performance, including via a “quality seal”
- Establishing partner-led coalitions to address three challenge areas across the battery lifecycle
 - Responsible sourcing
 - Circular economy
 - Carbon abatement potential of batteries

2030 Vision analytics captured in the 2019 report and updated in 2023



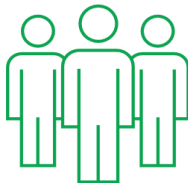
Why the GBA: Convening leaders around the globe to realize the GBA vision of a sustainable and responsible battery value chain in 2030



Establishing a circular battery value chain is a major driver for achieving the Paris Agreement

30% emission reduction in the transport and power sector
50% emission reduction in the battery value chain

***new 2023 analysis:** up to **90%** emissions reductions possible across value chain



Transforming the economy in the value chain creates new jobs and economic value

10 m additional jobs
150 bn in economic value generated in a responsible and just value chain
35% increase in battery demand



Safeguarding human rights and economic development is in line with the UN SDGs¹

600 m additional people with access to electricity, reducing the gap of people without electricity by 70%
Ensuring safe working conditions, fostering anti-corruption practice and eliminating child/forced labor

Impact of a sustainable value chain in 2030 – unattainable with business as usual

¹ Sustainable Development Goals

Today over 130+ organizations support the GBA

Public organizations



In collaboration with



Supported by



NGOs and foundations



Associations



Technology Partners



Knowledge partners



Industry and business



The GBA community has developed 10 Guiding Principles for a sustainable battery value chain

Establish a circular battery value chain as a major driver to achieve the Paris Agreement



- 1 Maximizing the productivity of batteries in their first life
- 2 Enabling a productive and safe second life use
- 3 Ensuring the circular recovery of battery materials

Establish a low carbon economy in the value chain, create new jobs and additional economic value



- 4 Disclosing and progressively decreasing greenhouse gas emissions
- 5 Prioritizing energy efficiency measures and substantially increase the use of renewable energy as a source of power and heat when available
- 6 Fostering battery-enabled renewable energy integration and access with a focus on developing countries
- 7 Supporting high quality job creation and skills development

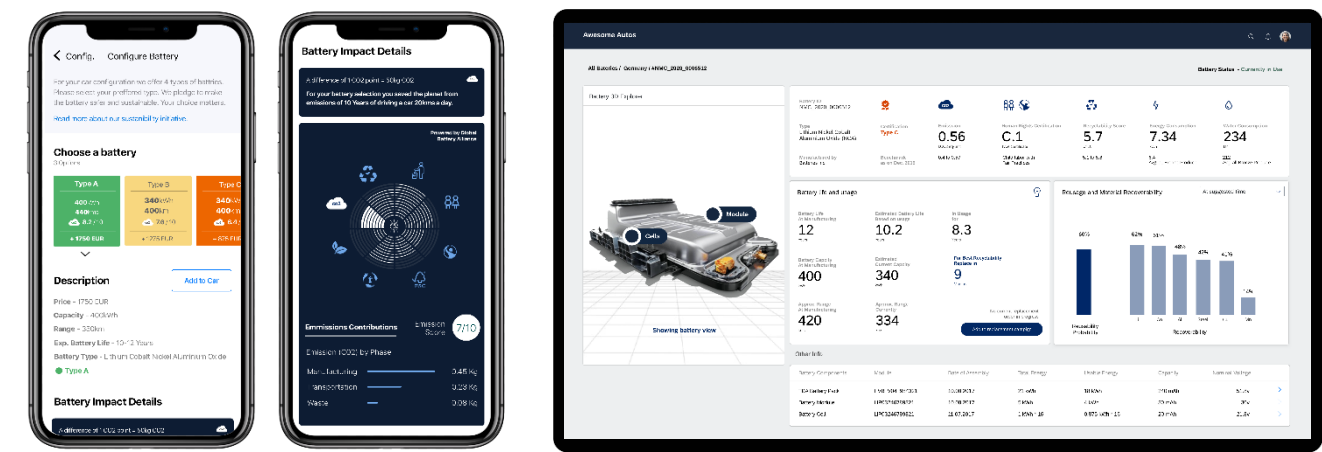
Safeguard human rights and economic development consistent with the UN Sustainable Development Goals



- 8 Immediately and urgently eliminating child and forced labour, strengthening communities and respecting the human rights of those employed by the value chain
- 9 Fostering protection of public health and the environment, minimizing and remediating the impact from pollution in the value chain
- 10 Supporting responsible trade and anti corruption practices, local value creation and economic diversification

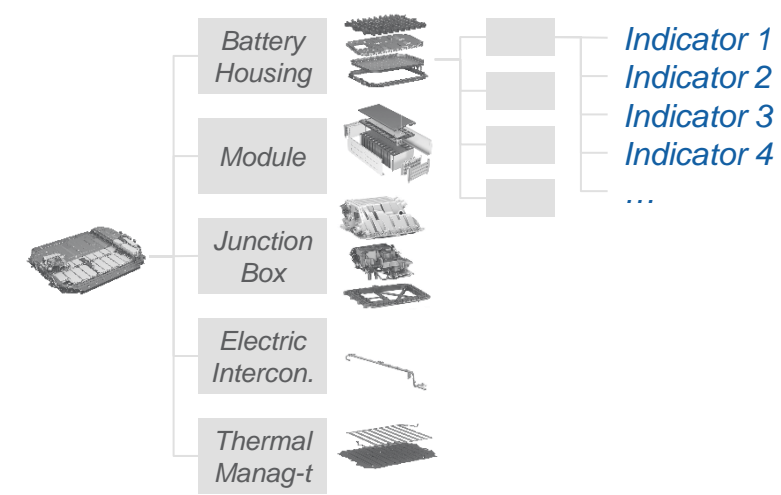
What does GBA actually do?

Action partnerships: Battery Passport

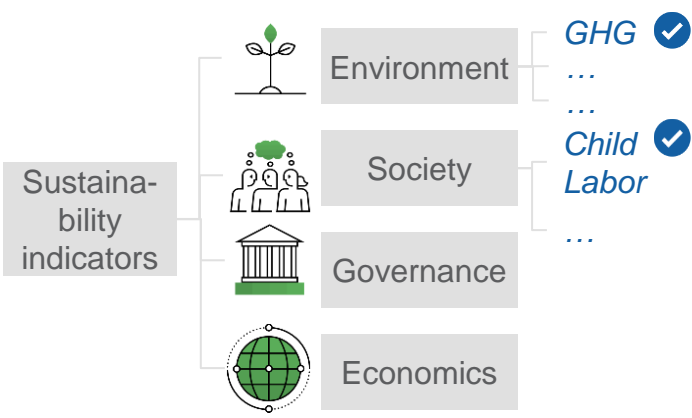


The Battery Passport is the key instrument to enable the development a sustainable, circular, and just battery value chain delivering on GBA’s 10 principles by **monitoring the sustainability performance** based on data **U**nderstandable, **S**tandardized, **A**ccurate, **D**ifferentiating, **A**uditable, **C**omprehensive and providing insights to **trigger improvement action**

Indicators follow **physical structure**



GBA community develops indicators



29 indicator developed, **focus on 2** of them now

GBA manages **access to data**

- GBA BP is to assure proper data aggregation and representation mechanisms, e.g.:
- **OEM** inspects specific model/product types produced and explore its end-to-end value-chain view to discover bottlenecks in emissions and data compliance of suppliers;
 - **NGOs and Civil Society** access the aggregated information on GBA Battery Passport KPIs and allow drill down, maintaining the privacy of participating partners intact

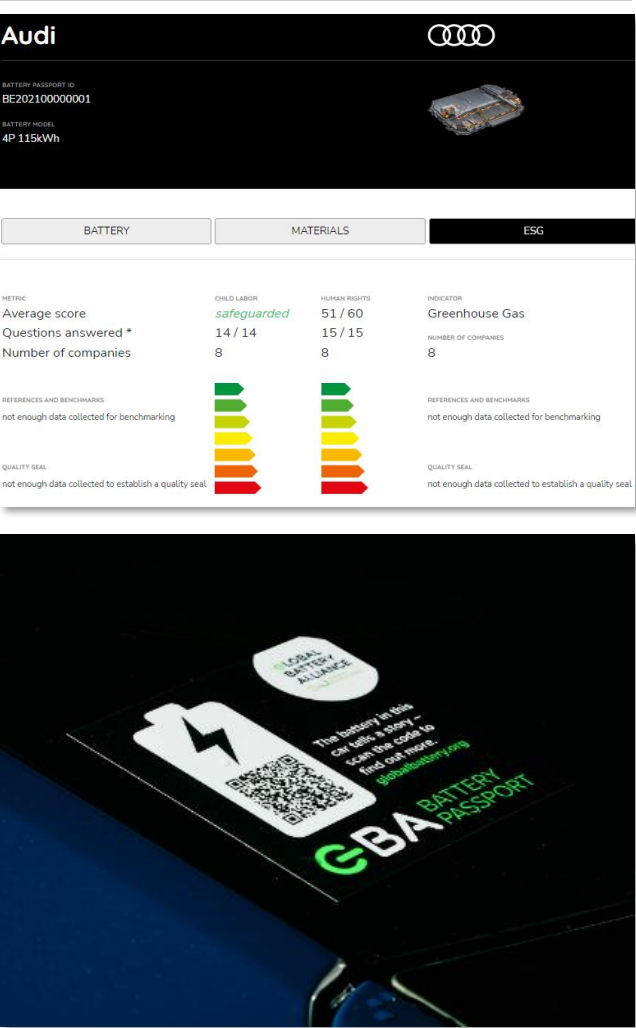
We have successfully launched the world's first Battery Passports in Davos



Rulebooks and PoC learnings



Tangible results



Two high-level presentations



What did the GBA proof-of-concept pilots entail?

GLOBAL BATTERY ALLIANCE

ACTION PARTNERSHIPS • ABOUT • NEWS • EVENTS • CONTACT •

BATTERY PASSPORT PILOT

PROOF OF CONCEPT LAUNCH

About the Battery Passport and the proof-of-concept pilots

On January 18th, at the Annual Meeting of the World Economic Forum in Davos, the Global Battery Alliance has officially [launched](#) the world's first battery passport proof-of-concept pilots. First [conceptualized](#) by the Global Battery Alliance in 2019, the launch builds on three years of pre-competitive multi-stakeholder collaboration across the battery value chain. This included the development of dedicated rulebooks to establish key sustainability performance indicators related to the battery carbon footprint and child labour and human rights due diligence as set out in the [Greenhouse Gas rulebook](#) and the [Child Labour](#) and [Human Rights](#) indices. While the launch of the proof-of-concept battery passport pilots represents a critical milestone and very proud achievement, the long-term objectives of the battery passport are explained in this video.

[About the Human Rights Index and Child Labor Index](#)
[About the Greenhouse Rulebook](#)
[About the GBA Battery Passport Proof of Concept](#)

Welcome to GBA's Battery Passport!

GBA BATTERY PASSPORT

Watch on [YouTube](#)

GBA Battery Passport pilots

Click on the pilots to view the battery passports

[PILOT 1](#) [PILOT 2](#) [PILOT 3](#)

Battery Passport Pilot / Pilot 2

Audi

BATTERY PASSPORT ID
BE202100000001

BATTERY MODEL
4P 115kWh

BATTERY MATERIALS ESG DATA

BATTERY STATUS Original	MANUFACTURING DATE n/a	BATTERY CELL TYPE prismatic	CHEMISTRY NCA
EV MANUFACTURER Audi	COUNTRY OF EV ASSEMBLY Belgium	NUMBER OF CELLS PER BATTERY 432	WEIGHT 728 kg
BATTERY PRODUCER Audi	COUNTRY OF BATTERY PRODUCTION Belgium	TOTAL ENERGY 114 kWh	ENERGY DENSITY 0.1570 kWh/kg
BATTERY CELL PRODUCER Samsung SDI	COUNTRY OF CELL PRODUCTION Hungary	RATED CAPACITY 228 Ah	EXPECTED LIFETIME not disclosed

METRIC	CHILD LABOR	HUMAN RIGHTS	INDICATOR	BCF (PH4)	BCF (PH4)
Average score	safeguarded	51 / 60	Greenhouse Gas	safeguarded	safeguarded
Questions answered *	14 / 14	15 / 15	NUMBER OF COMPANIES	PRIMARY DATA	SECONDARY DATA
Number of companies	8	8		safeguarded	safeguarded

REFERENCES AND BENCHMARKS
not enough data collected for benchmarking

QUALITY SEAL
not enough data collected to establish a quality seal

Three separate pilots, two OEMs (Tesla and Audi), three T&T solution providers (two working together to demonstrate interoperability), engaging three battery manufacturers representing ~ 50% global market share

Differentiated scores for human rights, child labor and battery carbon footprint (individual parameters withheld by GBA to prevent premature comparison)

Establishing exact origin of mined materials for the first time, triggering immediate due diligence review/ actions for OEM

"The battery passport is a great shining light about what's possible and what the future looks like"

Ellen MacArthur

We registered significant interest in proof-of-concept launch

THE WALL STREET JOURNAL.

Global Battery Alliance Creates Digital Passport to Enhance Battery Transparency

By William Boston



Volkswagen's pilot recycling plant for car battery cells in Salzgitter, Germany, last May 2018. MACDONALD/AGENCE FRANCE PRESSE/GETTY IMAGES

The Global Battery Alliance, an organization made up of battery makers, auto and technology companies with support from governments, unveiled a plan to create a battery passport allowing consumers to compare batteries based on their carbon footprint and other sustainability aspects such as the possible use of child labor in mining raw materials.

MORNINGSTAR

Global Battery Alliance Launches World's First Battery Passport Proof of Concept

Provided by Accesswire
Jan 18, 2023 1:45 PM GMT

ALEXANDRIA, VA / ACCESSWIRE / January 18, 2023 / The Global Battery Alliance ("GBA"), the world's largest multi-stakeholder organisation to establish a sustainable battery value chain by 2030, today launched the proof of concept for its Battery Passport at the World Economic Forum's Annual Meeting in Davos.

The Battery Passport is key to facilitating the rapid scaling of sustainable, circular and responsible battery value chains to meet the targets of the Paris Agreement through electrification of the transport and power sectors. It has been developed over three years by the GBA's members, who span the global battery value chain from the mine to recycling, including Audi, BASF, CATL, Eurasian Resources Group, Glencore, LG Energy Solution, Umicore, Tesla, Volkswagen AG, and IT solution providers as well as leading non-governmental and international organisations including IndustriALL Global Union, Pact, Transport & Environment, UNEP, UNICEF and many others, with the support of government institutions like the German Ministry for Economic Affairs and Climate Action, and Natural Resources Canada.

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Global Battery Alliance launches world's first Battery Passport proof of concept


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The Global Battery Alliance today launched the proof of concept for its Battery Passport at the World Economic Forum's Annual Meeting in Davos

January 18, 2023

The Global Battery Alliance ("GBA"), the world's largest multi-stakeholder organisation to establish a sustainable battery value chain by 2030, today launched the proof of concept for its Battery Passport at the World Economic Forum's Annual Meeting in Davos.

GBA BATTERY PASSPORT



The battery in this car tells a story – scan the code to find out more. globalbattery.org

Global Battery Alliance launches world's first battery passport proof of concept.

The Global Battery Alliance ("GBA"), the world's largest multi-stakeholder organisation to establish a sustainable battery value chain by 2030, launched the proof of concept for its Battery Passport at the World Economic Forum's Annual Meeting in Davos.

The Battery Passport is key to facilitating the rapid scaling of sustainable, circular and responsible battery value chains to meet the targets of the Paris Agreement through electrification of the transport and power sectors.

Batteries News

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QM QUALITY MANAGEMENT

AUTOMOBILI MOTO NAUTICA LIFESTYLE MOTOGP FORMULA 1



La Global Battery Alliance ha di recente lanciato il proof-of-concept, ovvero la fase iniziale, del suo **Passaporto Batteria**, a cui per ora hanno aderito Tesla e Audi.

L'idea nasce per porre rimedio al problema del tracciamento dei materiali delle batterie, per aumentare la trasparenza e soprattutto la sostenibilità legata alle auto elettriche.

La Global Battery Alliance e il suo Passaporto Batteria

DIÁRIO DO GRANDE ABC

Nacional Internacional Economia Política Cultura & Esportes

Economia

economia@dgabc.com.br | 4433-8057

Empresa lança passaporte para monitoramento de baterias elétricas durante Fórum Econômico Mundial em Davos



CRÉDITO: DO PROPRÍETÁRIO, SEMI-NOVA A EMPRESA, E FORNECIDA NOS INSTÂNCIAS. PRODUÇÃO: SELO DE QUALIDADE COM BASE NO DESENVOLVIMENTO DE SUSTENTABILIDADE DA BATERIA (POTRIS DITILGALÇON)

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Global Battery Alliance Launches World's First Battery Passport Proof of Concept

January 18, 2023 at 5:46 PM GMT+4

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Global Battery Alliance Launches World's First Battery Passport Proof of Concept

ACCESSWIRE

Responsible Business Alliance

January 18, 2023 · 11 min read

ALEXANDRIA, VA / ACCESSWIRE / January 18, 2023 / The Global Battery Alliance ("GBA"), the world's largest multi-stakeholder organisation to establish a sustainable battery value chain by 2030, today launched the proof of concept for its Battery Passport at the World Economic Forum's Annual Meeting in Davos.

TRENDING

- Exclusive-Cybersecurity firm Rapid7 explores sale -sources
- UPDATE 1-Peru's Las Bambas mine set to halt production as blockades remain, source says

배터리 생애정보 한눈에...다보스포럼서 배터리 여권 첫 공개

송고시간 | 2023-01-18 17:03

김기훈 기자
기초산업팀

| 글로벌 배터리 얼라이언스 프로토타입 첫선...LG엔솔 개발 참여



GBA가 공개한 배터리 전자여권 개념도

하트뉴스+

레퍼 나폴라도 부수사

이달의소녀 소속 등 막아달라' 진

폴센터 실습생 실재 사전 배경

결가던 여성 때려 구속송치

성남 천여명인속

심은하 "사실무로 뵈 수 있길"

Minjng Magazine

MM Awards Webinars Research Events

SURFACE MINING UNDERGROUND MINING PROCESSING ASSET MANAGEMENT INFRASTRUCTURE FUTURE OF MINING

Battery passport launched at Davos

Sustainable battery value chain organisation the Global Battery Alliance (GBA) launched a proof of concept for a Battery Passport that would track a mineral's source at the World Economic Forum's Annual Meeting in Davos.

电池护照即将问世，记录电池全生命周期数据

2023-01-22 17:41

IT之家 1月22日消息，全球电池护照即将到来。1月18日，在瑞士举行的达沃斯世界经济论坛上，全球电池联盟（GBA）首次发布了电池护照概念验证成果。

Major high-level learnings from the pilots are published on the GBA website



- 1 ESG data granularity.** Bearing in mind the desired comparability of different value chain steps, we will need to define the boundaries of processes more carefully and/or aggregate them in more standardized categories.
- 2 Product scoring.** If we aim to rigorously examine the whole value chain and constantly increase the level of transparency, more than the simplistic scoring metric (averaged, weighted average) of qualitative indicators is required to unlock issues across the value chain.
- 3 Tracing granularity.** The unique battery passport for a battery item becomes less representative than the aggregate information about numerous batteries of the same producer over a dedicated period.
- 4 Content interoperability.** Without comparability of data points (definitions, units, scales), technological interoperability is irrelevant. In contrast, excessive transparency unlocks possibilities to “re-engineer” individual data inputs that affect willingness to share them.
- 5 Data governance.** Transitioning from realistic to real data will require significant regulatory action to complement general data governance discussion. The GBA is uniquely placed to leverage its convening power for data governance discussion and policy development.
- 6 New fields of competition.** We have witnessed a willingness to submit and disclose data via battery passports systems by sustainability champions within the GBA. BP will probably enable new ways of product competition based on sustainability performance.
- 7 Technology readiness.** Track & Trace instruments, in general, demonstrated the desired level of material flow transparency and played the role of the backbone of the ecosystem. As interoperability will dominate future developments, T&T partners will need to adjust business models.
- 8 Establishing trust.** The value of the BP lies not only in measuring sustainability performance or how to implement it technologically. Establishing a trust-worthy interplay among all ecosystem participants proved to be the most significant challenge to address



Mark Hoff
European Head of
ESG and Finance
Sector Lead at SLR
Consulting

CIRPASS: Collaborative Initiative for a Standards-based Digital Product Passport for Stakeholder-Specific Sharing of Product Data for a Circular Economy

- ✓ What are the main aims of Digital Product Passport (DPP)?
- ✓ What are the key features already included in the ESP regulation ?
- ✓ What is the CIRPASS vision for DPP system?



CIRPASS: Collaborative Initiative for a Standards-based Digital Product Passport for Stakeholder-Specific Sharing of Product Data for a Circular Economy

Mark Hoff, SLR Consulting

mhoff@slrconsulting.com

Rotterdam/Frankfurt, 24.05.2023

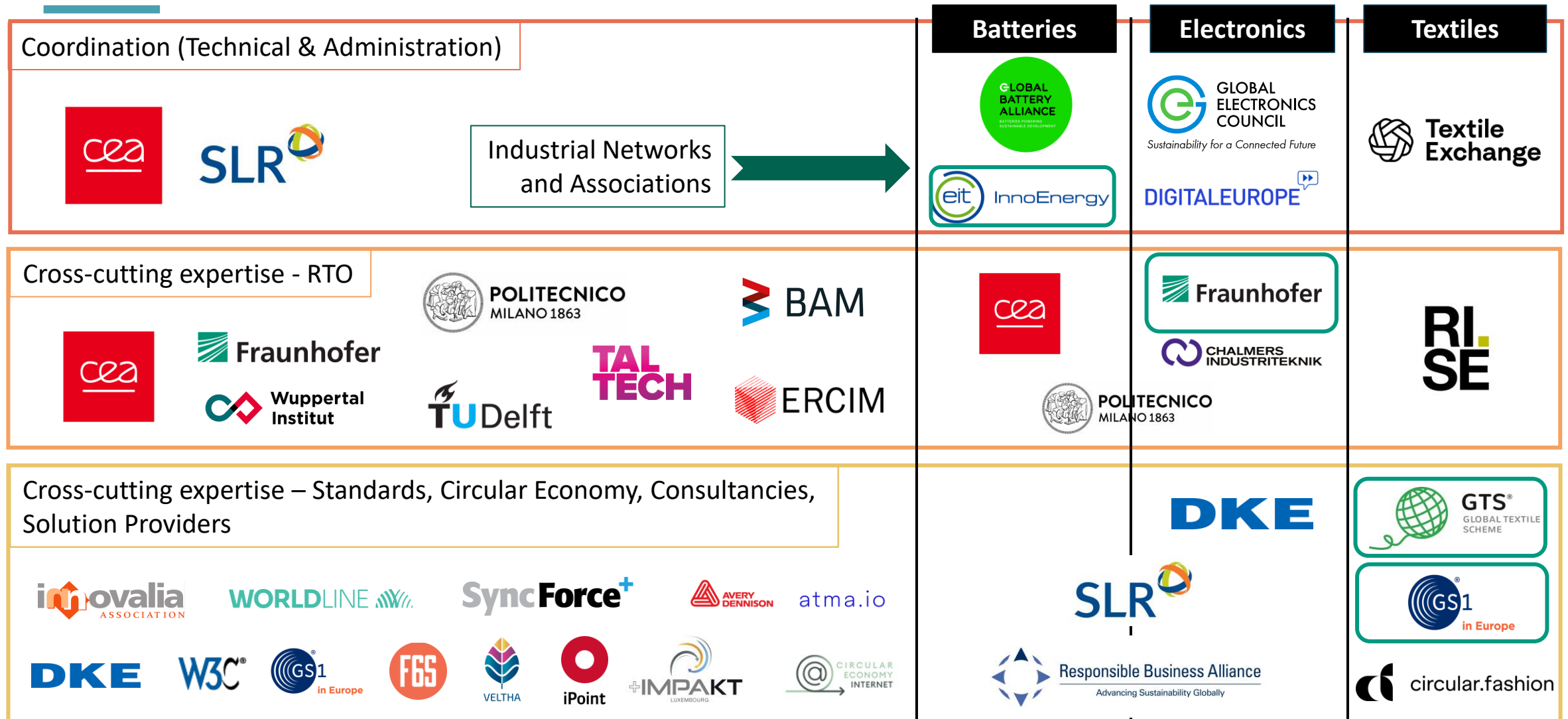
What is CIRPASS?

Funded by the European Commission under the Digital Europe Programme, **CIRPASS** is a collaborative initiative to prepare the ground for the gradual piloting and deployment of a standards-based **Digital Product Passport (DPP)** aligned with the requirements of the Proposal for Ecodesign for Sustainable Product Regulations (ESPR), **with an initial focus on the electronics, batteries, and textile sectors.**

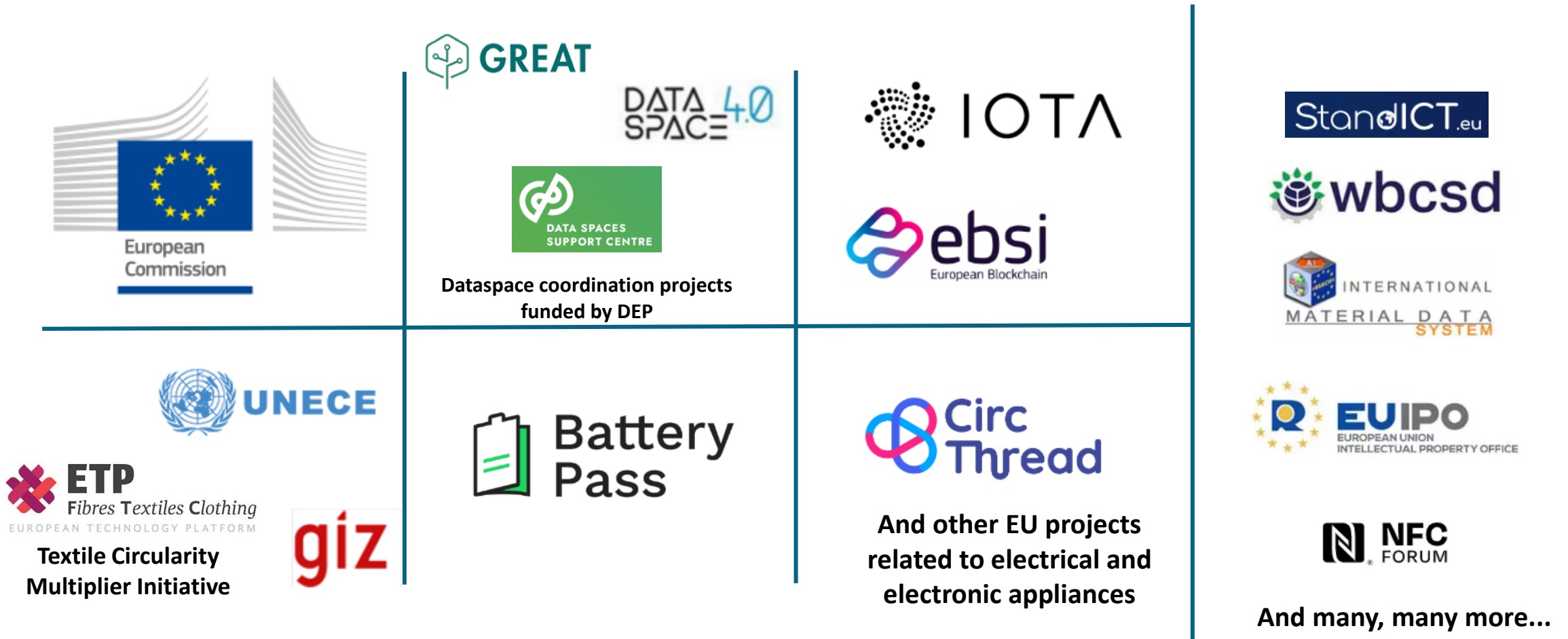
- **Duration:** 18 months (from Oct 2022)
- **Coordination and Support Action (CSA)**
- **Involvement of 31 partners** representing thousands of industrial, research, digital, and international, standards, organisations across Europe and beyond.

CIRPASS Consortium – 31 partners

 Sector Lead



CIRPASS is exchanging with:



Project values & Methodology

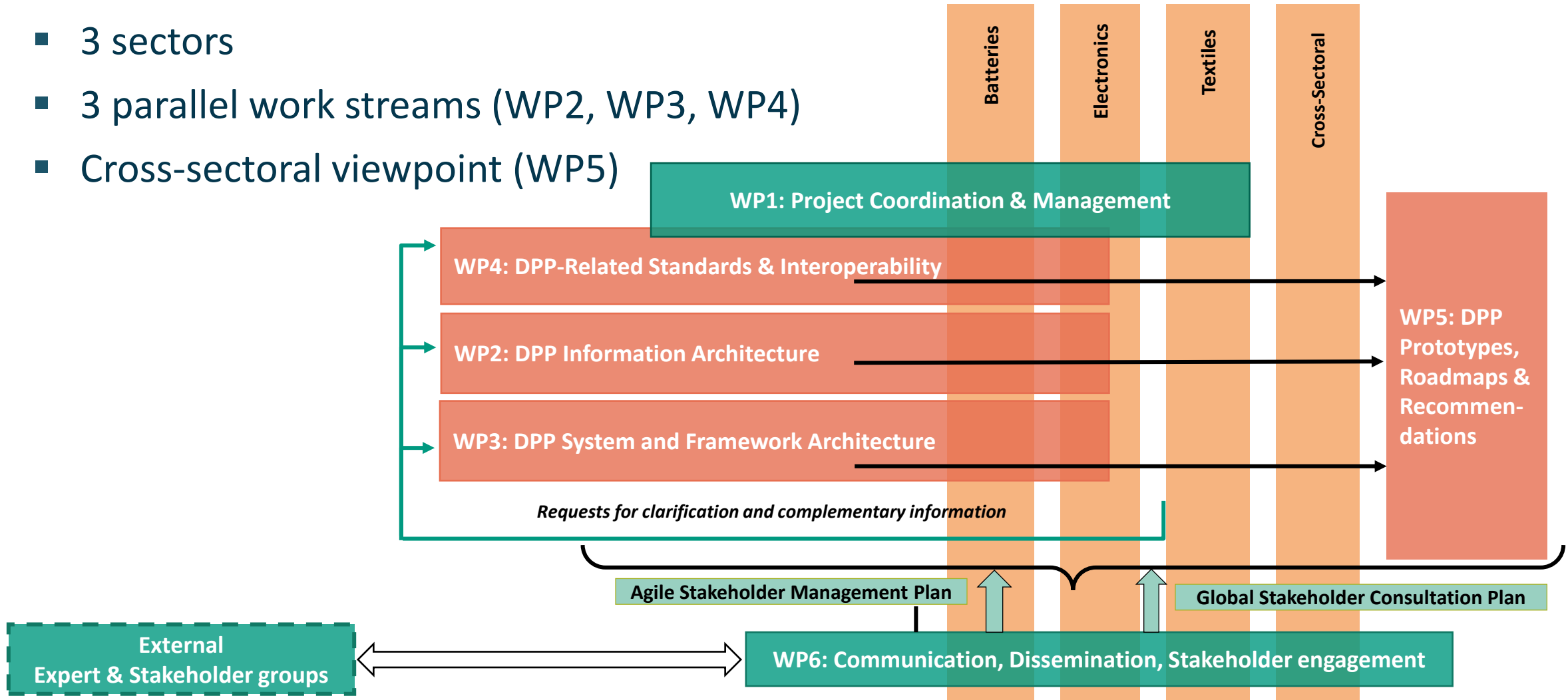
- Within the consortium: Neutrality & transparency
 - No manufacturing company within the consortium
 - Work streams are led by
 - An RTO (a Research and Technology Organization)
 - A Circular Economy & Sustainability Consultancy
 - Co-chaired when required
 - Any CIRPASS partner can represent the consortium in public events.
- Outside the consortium: Inclusiveness & transparency
 - Largest reach-out possible (within manageable bounds)
 - All contributions received (statements, submissions) are treated in the public domain by default
 - CIRPASS project deliverables will be public
 - Use of objective criteria for analyses
 - No filtering of “DPP-related” initiatives
 - If no consensus is reached within the consortium, we will be transparent about this.
 - cirpass.eu website will be used to
 - Collect contributions from all (e.g. polls, surveys, comments on published content)
 - Share knowledge with the “DPP community”
 - Promote a common DPP terminology

CIRPASS Main Objectives

- Create an inclusive forum to build a common understanding of a cross-sectoral DPP.
- Build **stakeholder consensus** on DPP prototypes in three sectors:
 - Batteries
 - Textiles
 - Electronics
- “By ‘Prototype’ is meant a simple description of a Digital Product Passport including agreements and suggestions on all aspects including: data, technical, semantic, organisational and legal.”

CIRPASS Work Streams

- 3 sectors
- 3 parallel work streams (WP2, WP3, WP4)
- Cross-sectoral viewpoint (WP5)



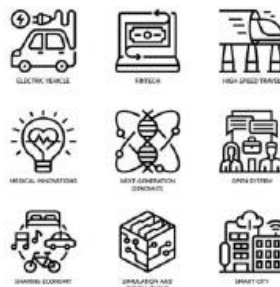
Digital Product Passport (DPP)



Tracking of **raw materials extraction/production**, supporting due diligence efforts



Benefit **market surveillance authorities and customs authorities**, by making available information they would need to carry out their tasks



Enable **manufacturers** to create products **digital twins**, embedding all the information required



Make available to **public authorities and policy makers** reliable information. Enable to link **incentives to sustainability performance**



Tracking the life story of a product, enabling services related to its **remanufacturing, reparability, re-use/re-sale/second-life, recyclability**, new business models



Allow **citizens** to have access to **relevant and verified information** related to the characteristics of the products they own or are considering to buy/rent (e.g. using apps able to read the identifier)

DPP design



- All **standards** and **protocols** related to the IT architecture, like standards on:

- Data carriers and unique identifiers
- Access rights management
- Interoperability (technical, semantic, organisation), including data exchange protocols and formats
- Data storage
- Data processing (introduction, modification, update)
- Data authentication, reliability, and integrity
- Data security and privacy

- The DPP registry

Possible Track & Trace identifiers

- Economic operator's name, registered trade name
- Global Trade Identification Number or equivalent
- TARIC code
- Global location number
- Authorised representative
- Reference of the back-up data repository
- ...

Example of potential attributes

- Description of the material, component, or product
- Recycled content
- Substances of concern
- Environmental footprint profile
- Classes of performance
- Technical parameters
- ...



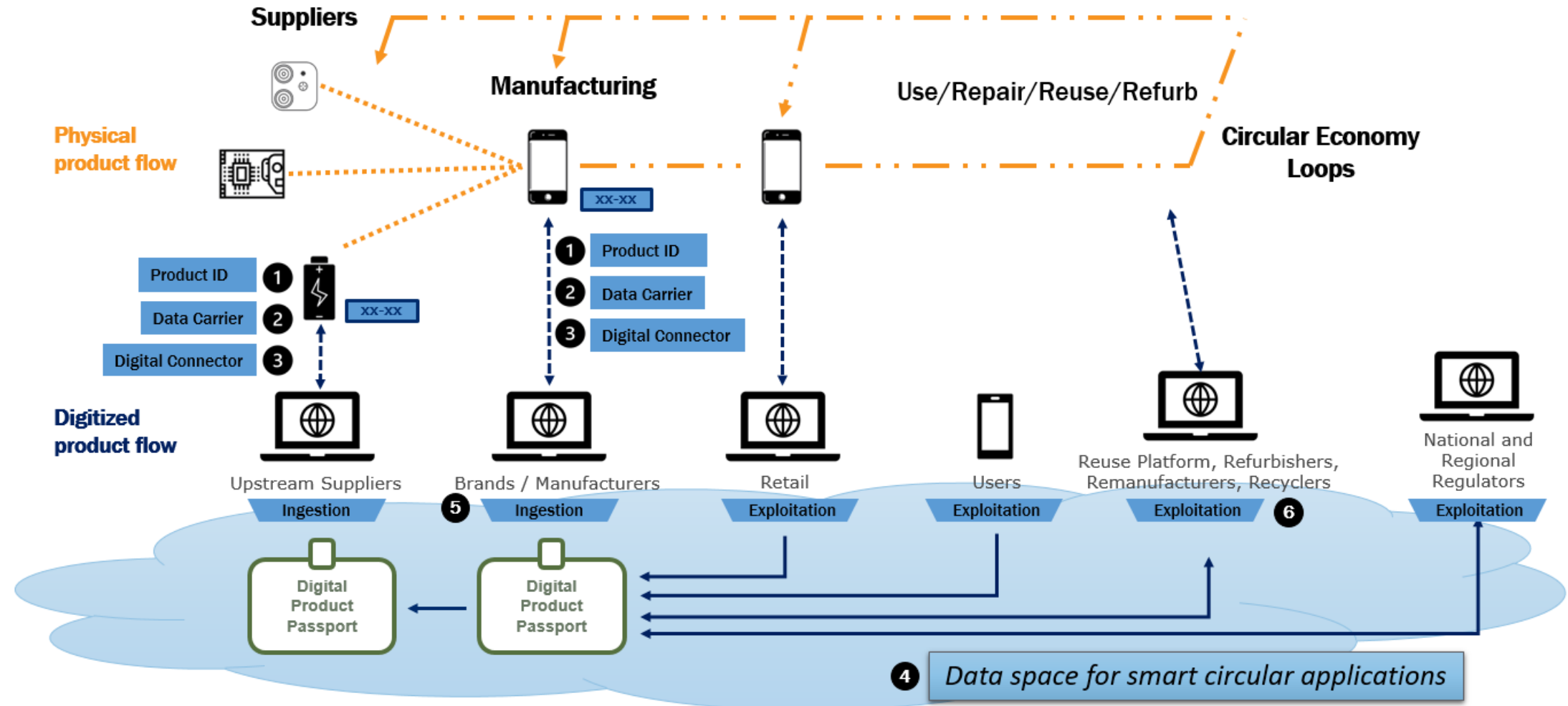
Key features already included in the ESP regulation

- **No proprietary solutions:** All information included in the product passport shall be written in an **open, standard, inter-operable format** and shall be machine-readable, structured, and searchable, in accordance with the essential requirements included in Article 9.
- **Granularity:** The information included in the product passport shall refer to the product **model** (e.g. iPhone 13), **batch** (e.g. iPhone 13, produced in factory XYZ), or **item** (e.g. iPhone 13, serial number 123456789) as specified in the applicable delegated act referred to in Article 5(1).
- **Access rights ('need-to-know'):** the access to information included in the passport shall be regulated in accordance with the essential requirements included in Article 9. The specific access rights at product group level will be identified in the applicable delegated act referred to in Article 5(1).
- **Liability:** The **economic operator** placing the product on the market is responsible for making available the EU DPP and for the information included therein.
- **Track & tracing:** Article 11 specifies that unique **operator** identifiers and unique **facility** identifiers may be requested. These are key information component to allow the track & tracing of information along the supply chain

CIRPASS vision for the DPP system

- The DPP: an information system for the Circular Economy.
 - Based on open standards
 - Decentralized
 - Focus on data interoperability (machine-readable, structured, searchable).
 - Permissioned access to data
 - Data usage control
- Not a « from scratch » solution: The system should have the flexibility for maximum reuse of legacy systems and standards.
- Hundreds of companies are rolling out « DPP solutions » now → need an incremental deployment of the DPP system.
- Possibility to enrich the DPP progressively, including with non-mandatory data.
 - *« What we found is that data that is not useful today will be useful in the future, as recycling technologies evolve.»* Sascha Bloemhoff, Marketing Director, NIAGA (Dec. 6 2022)
- The DPP system must be co-designed with existing DPP pilot developers.

DPP system – 6 pillars / terminology



Digital Product Passport in a Nutshell

A **Digital Product Passport (DPP)** is a structured collection of product related data with pre-defined scope and agreed data ownership and access rights conveyed through a unique identifier and that is accessible via electronic means through a data carrier. The intended scope of the DPP is information related to sustainability, circularity, value retention for re- use, remanufacturing, and recycling.



Digital Product Passport in a Nutshell

The DPP's goals are:

1. Enhancing sustainable production;
2. Extending product lifetimes, optimising product use, and providing new business opportunities to economic actors through circular value retention and extraction;
3. Supporting consumers in making sustainable choices;
4. Enabling the transition to the circular economy by boosting materials and energy efficiency; and
5. Supporting authorities to verify compliance. (European Commission).

Get Involved in CIRPASS

- **Visit our website >> <https://cirpassproject.eu/get-involved>**
 - Have your say on CIRPASS' results
 - Join CIRPASS' consultations and events
 - Join the CIRPASS Stakeholder Community
- **Be the first to know! Subscribe to our newsletter**
 - <https://cirpassproject.eu/#newsletter>



Thank you!

www.cirpass.eu

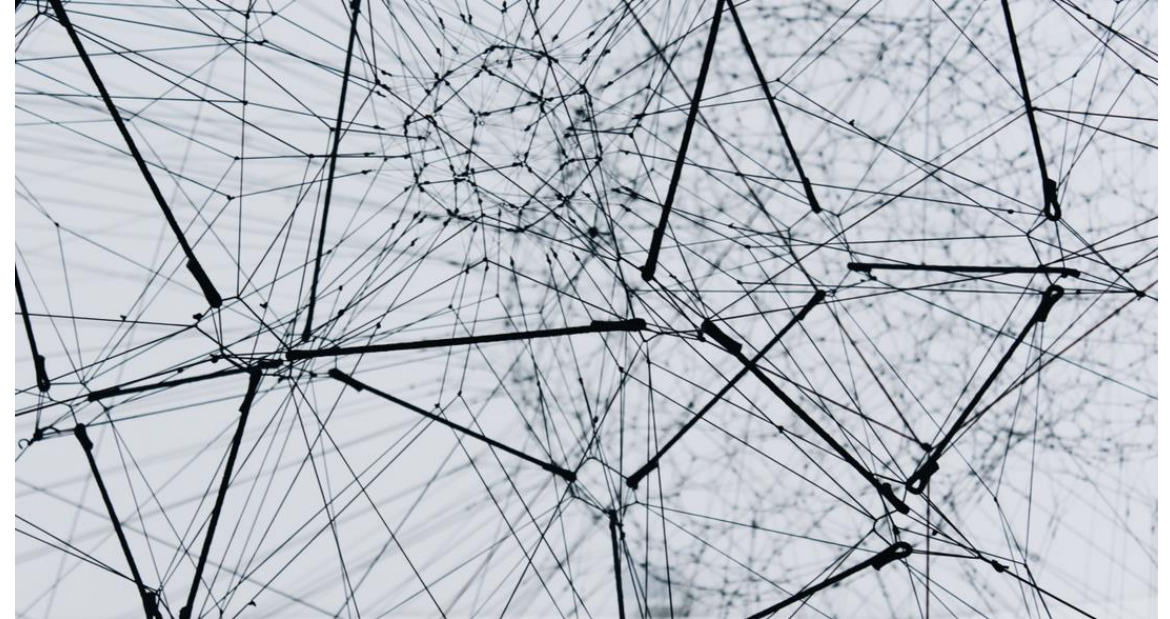
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Webinar
Innovation for
Responsible Supply Chains,
22.6.23, 15:30 CESt



Conference
Systemic Change
for Responsible Sourcing,
21.-22.9.23, Vienna