The Global Language of Business

Incentivising new circular economy business models

CEPS EVENT

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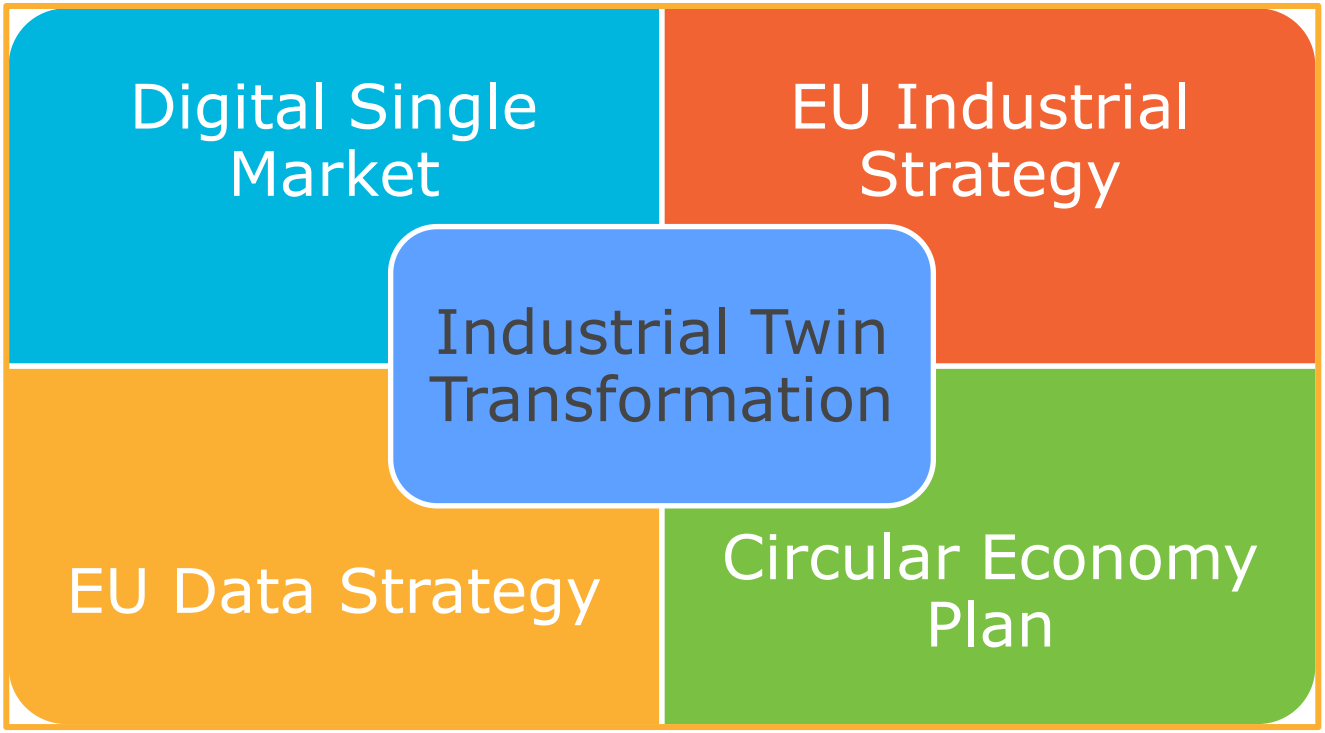
EU PRIORITIES #greenrecovery



Digital Twins

"The idea is not to create a body that develops new standards, but rather to be able to prioritise between existing and future standards to be developed".

Digital twins create a virtual replica of a physical product, process or system. The replica can for example predict when a machine will fail, based on data analysis, which allows to increase productivity through predictive maintenance.

European Data Spaces

The Commission will support the establishment of nine common European data spaces, among which:

- A Common European industrial (manufacturing) data space, to support the competitiveness and performance of the EU's industry, allowing to capture the potential value of use of non-personal data in manufacturing (estimated at € 1,5 trillion by 2027)
- A Common European Green Deal data space, to use the major potential of data in support of the Green Deal priority actions on climate change, circular economy, zeropollution, biodiversity, deforestation and compliance assurance
- A Common European mobility data space

CIRCULAR DATA AT FIRST

INTEROPERABILITY

Circular Data for
a Circular Economy

https://www.gs1.eu/news/circular-data-for-a-circular-economy

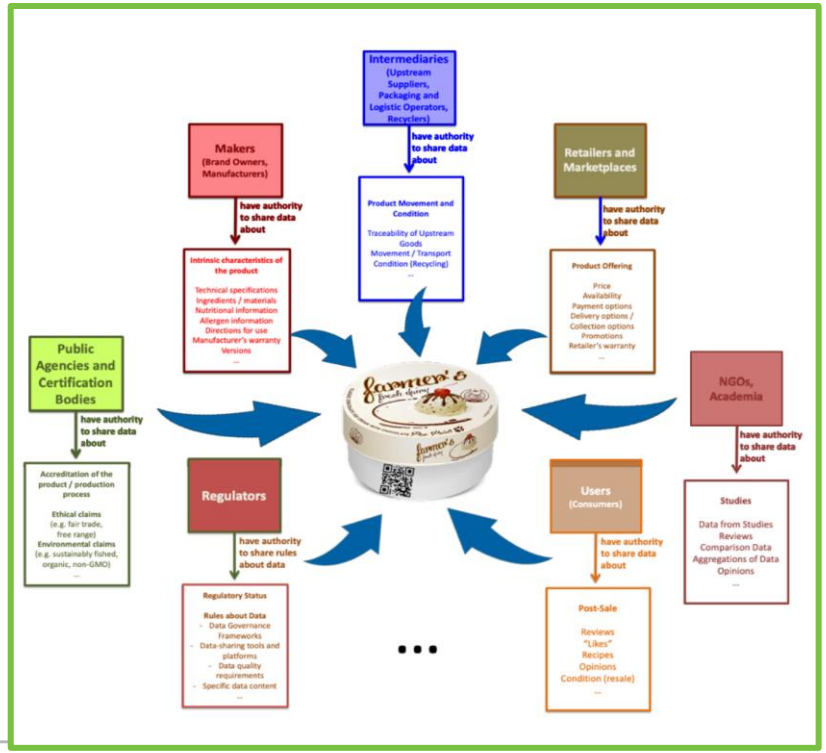
GS1 in Europe is discussing how to concretely implement pilots

The future of data sharing

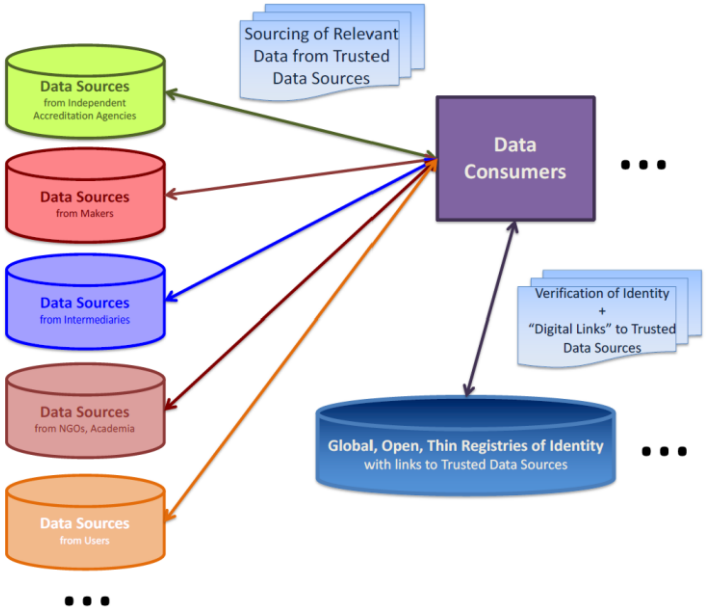
A role for everyone involved in product's lifecycle

GS1 open standards unlock significant value for all actors along the chain.

A common data language that is set on a foundation of globally-unique identification can enable truly decentralised ecosystems of data sharing in which every actor can "play their part".



A scalable data architecture



A common data language will enable content digitally

A common semantic understanding of the meaning of pieces of data is an essential benefit of a common data language.

A common basic data ontology to support extended product lifecycles and circular economy is critical.

Combining easily-understood information with common interoperability principles for IT systems is an approach that will unlock massive value for all entities involved.

How to ensure data interoperability

To ensure that a common “data language” is truly interoperable, it is critical that every product, location, asset and entity have their own globally-unique identity.

Each of these things should have a basic “ID Card/product passport” that contains core information that can be accessed openly and globally.

The ID Cards/product passport can be used to help provide context to deeper information about all of the events across a product’s lifecycle.

To ensure uniqueness and interoperability across data spaces, geographies, cultures, borders and supply chains, it is imperative to identify products, locations, assets and entities through global, open standards

Data sharing principles

At the core of this Future of Data Sharing is a focus on global, unique persistent identification and a common "data language" that enables ALL trading partners, governments, regulators and consumers to easily access and understand the right data…at the right time…and in the right context.

We need to bring technology enablers on the business challenges that we're facing so that the data that we share is increasingly standardised and increasingly accessible by those who should be able to access it.

The Future of Data Sharing will also rely on even newer technology enablers, such as "Linked Data", "Digital Link", "Verifiable Credentials" and "Decentralised Identity", which are just a few of the tools under investigation that promise to unlock a future where "trust moves with the data".

Data sharing principles and challenges

Open standards align strong incentives for all critical stakeholders involved in a neutral, scalable way.

The circular economy model can't be brought to life by any one party. Cooperation across Regulators, Governments, Industry and global standards organisations are essential

GS1 in Europe and W3C joined forces on how to meet the EU Data Strategy and Circular Economy Plan and highlighted the importance of a "standards-based information system" accompanying the flow of goods and materials in the circular economy.

https://www.gs1.eu/news/a-standards-based-knowledge-system-for-the-circular-economy

GS1 and W3C

GS1's internal B2B data systems include some terms relevant to the green economy and these can be added to the GS1 Web vocabulary, but it's likely that additional terms will need to be defined. For example, there is currently no widely recognized machine readable vocabulary for describing an item's carbon footprint, or environmental footprint, or recycling/safe disposal options.

W3C has knowhow about bringing the community together for the development of the missing vocabularies. It is well-placed to facilitate the development of those additional terms.

Schema.org, the GS1 Web vocabulary, the W3C provenance Ontology and more already exist and are likely to be useful and important in future work.

Thanks to All !

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