



CIRCULARISE PLASTICS

AN OPEN STANDARD FOR SUSTAINABILITY AND TRANSPARENCY
IN THE PLASTICS INDUSTRY

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DOMO | CIRCULARISE WEBINAR | 22/07/2020 2

PRESENTERS



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TODAY'S WEBINAR
AGENDA

1. DOMO Engineering Plastics part of DOMO Group
2. Our commitment to circularity
3. Open Industry Standard for value-chain transparency
4. Q&A

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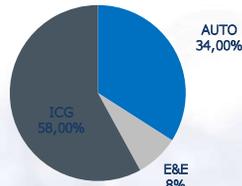
DOMO CHEMICALS
AT A GLANCE

- 2,150**
- €1.5 Bill.**
- 10 OPERATION sites**
- 6 INNOVATION & TECHNICAL centres**

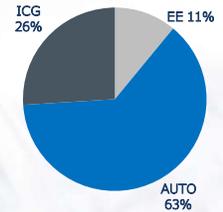
BUSINESS AREAS

- Polymers & Intermediates
- Engineering Plastics
- Nylon Film
- Performance Fibers
- Trading & Distribution

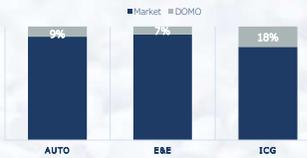
PA6 VOLUME by MARKET (2018)



PA66 VOLUME by MARKET (2018)



MARKET SHARE PA6



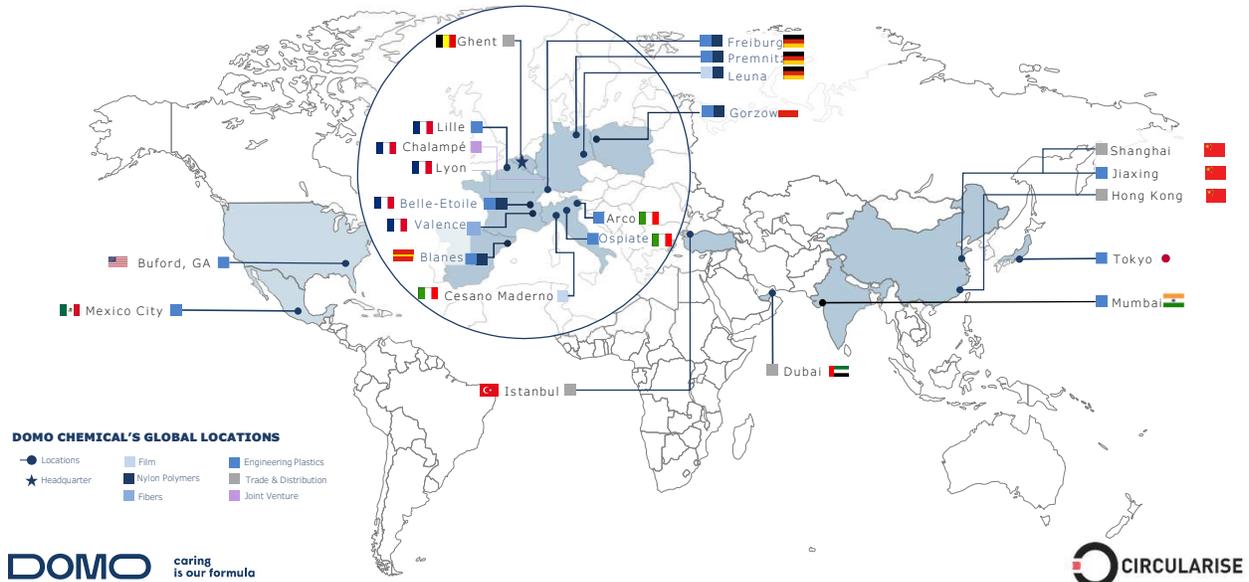
MARKET SHARE PA66



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OUR FOOTPRINT

A GLOBAL PRESENCE ANSWERING LOCAL BUSINESS NEEDS



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ENGINEERING PLASTICS

FOR A BROAD BASE OF APPLICATIONS

PRODUCTS

- Extensive standard and customized PA6 and PA66 compound portfolio
- Enhanced performance compounds
- Leader in sustainable polyamides

SOLUTIONS FOR

- Lightweight
- E-mobility
- CO₂ reduction
- Mass customization
- Miniaturization
- Eco-design
- PA66 replacement



AUTOMOTIVE



INDUSTRIAL & CONSUMER GOODS



ELECTRIC & ELECTRONIC

DOMO ENGINEERING PLASTICS AT A GLANCE

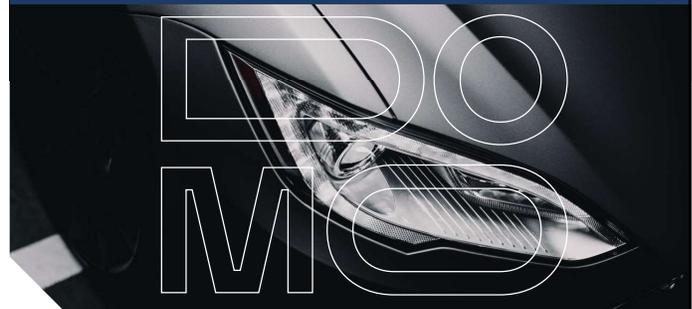
Compounding Capacity: 196kT

Recycled material sales (% of 2019 sales volume): 10%

Production units :

Germany, Italy, France, Poland, China, USA, India.

•New Pinghu site China – Operational ~Q4 2020



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COMMITTED TO THE SUSTAINABLE FUTURE OF POLYAMIDE

We aim to advance circularity in polyamides and secure sustainable value creation in our industry.

We focus on solutions that help to assist the transition from a linear to a circular, resource-efficient economy.

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CIRCULARITY DOMO'S 3-STEP STRATEGY

CIRCULAR STEP 1: POST INDUSTRIAL

- MATERIAL ENGINEERING
- TECHNYL 4EARTH[®]
- MATERIAL PROCESSING (EXTRUSION/MOLDING)
- ECONAMID[®]
 - 47% WATER
 - 80% CO₂
 - 60% ENERGY

CIRCULAR STEP 2: POST CUSTOMER

- MECHANICAL RECYCLING
- CUSTOMER SOLUTION
- WASTE COLLECTING/SORTING

CIRCULAR STEP 3: CHEMICAL RECYCLING

- PETROL-CHEMICALS
- CHEMICAL RECYCLING

Feedstock

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WHY NOW?

PERSPECTIVES ARE CHANGING, GOALS ARE SET

The European Green Deal sets out how to make Europe the first climate-neutral continent by 2050, boosting the economy, improving people's health and quality of life, caring for nature, and leaving no one behind

Circular Cars Initiative launched at United Nations Climate Action Summit

Volvo Cars' ambition that at least 25% of all plastics in cars launched after 2025 will be made from recycled material. It's the most progressive statement around the use of recycled plastic by any premium automotive manufacturer, and is another step in our sustainability journey.

Adidas Challenges The Fashion Industry In Sustainability, Pledging Only Recycled Plastic By 2024

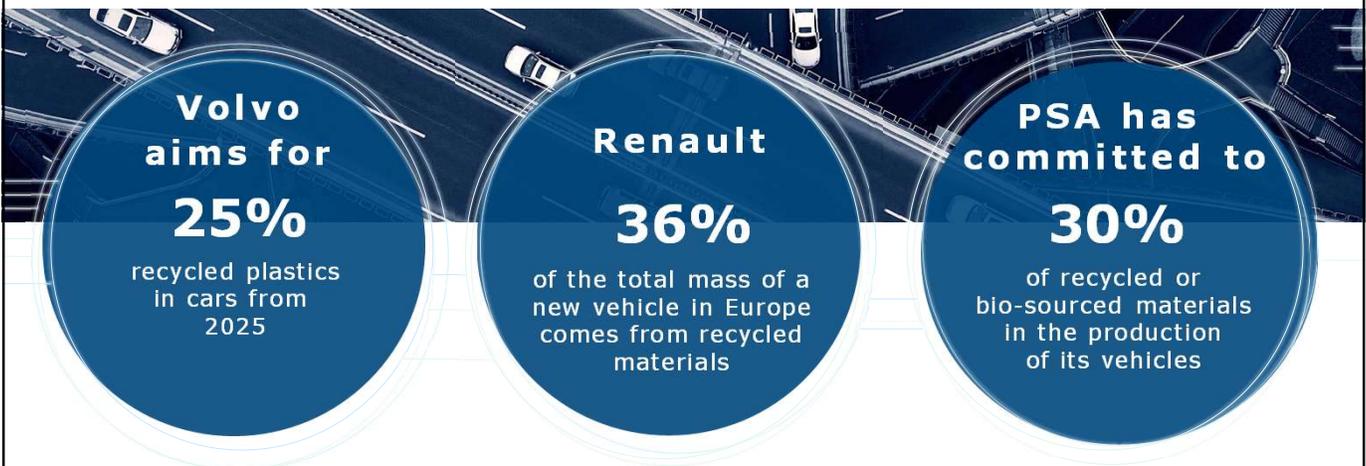
Circular Plastics Alliance: 100+ signatories commit to use 10 million tons of recycled plastic in new products by 2025

Cheap virgin plastic is being sold as recycled plastic—it's time for better recycling certification



RECYCLED PLASTICS

CURRENT MARKET DEMAND

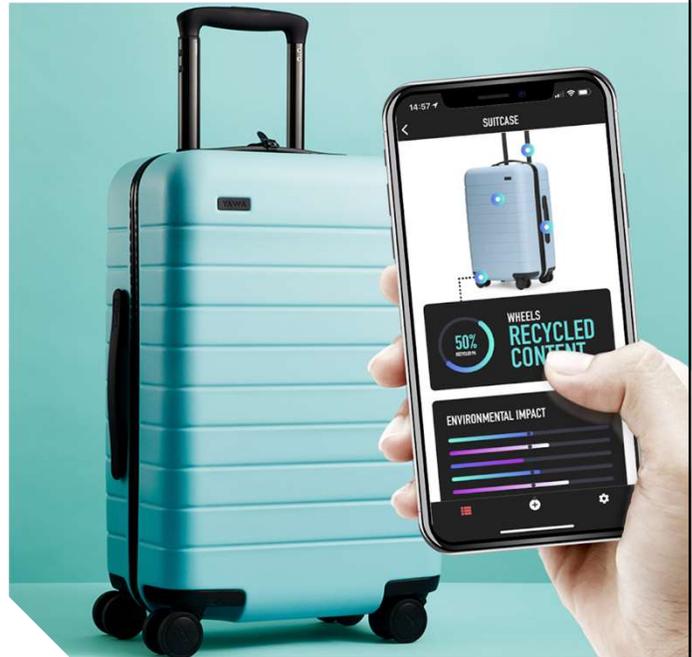


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THE GOAL**WHY DO WE NEED TRACEABILITY?**

- To show the origin and impact of your products
- To avoid greenwashing and build customer trust
- To prove product sustainability with absolute certainty



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LINKING PHYSICAL AND DIGITAL**EASY ACCESS TO INFORMATION**

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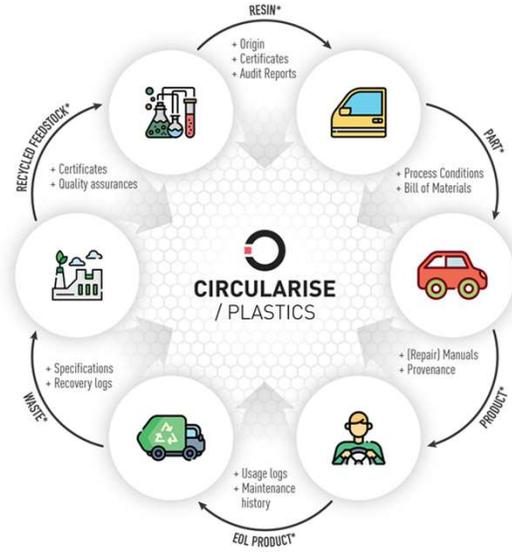
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THE IT CHANGE MAKER
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We work with plastic manufacturers, brands and OEMs to trace raw materials from source, into parts and ultimately to end products.

Using blockchain and other cutting-edge technologies we enable businesses share data about their products while retaining privacy over sensitive information.



PAIN POINTS
A BARRIER TOWARDS CIRCULAR ECONOMY

MATERIAL MANUFACTURERS

Difficult to *provide* proof

BRANDS and OEMs

Difficult to *obtain* proof

“Currently 65% of procurement leaders have limited or no visibility beyond their Tier 1 suppliers.”

- Deloitte Global CPO Survey 2018

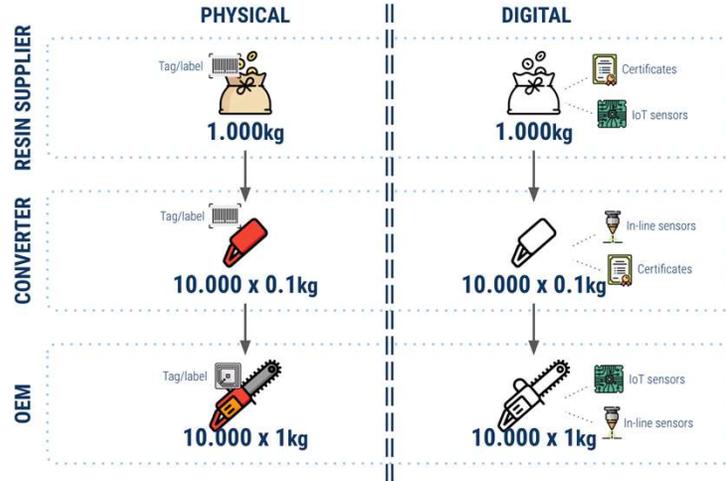


The current paper-based certification is labour intensive and susceptible to fraud.

SOLUTION STEPS

MATERIAL TRACEABILITY

We create a digital world that resembles the physical supply chain, but also includes all information that is needed to prove the sustainability of that supply chain.



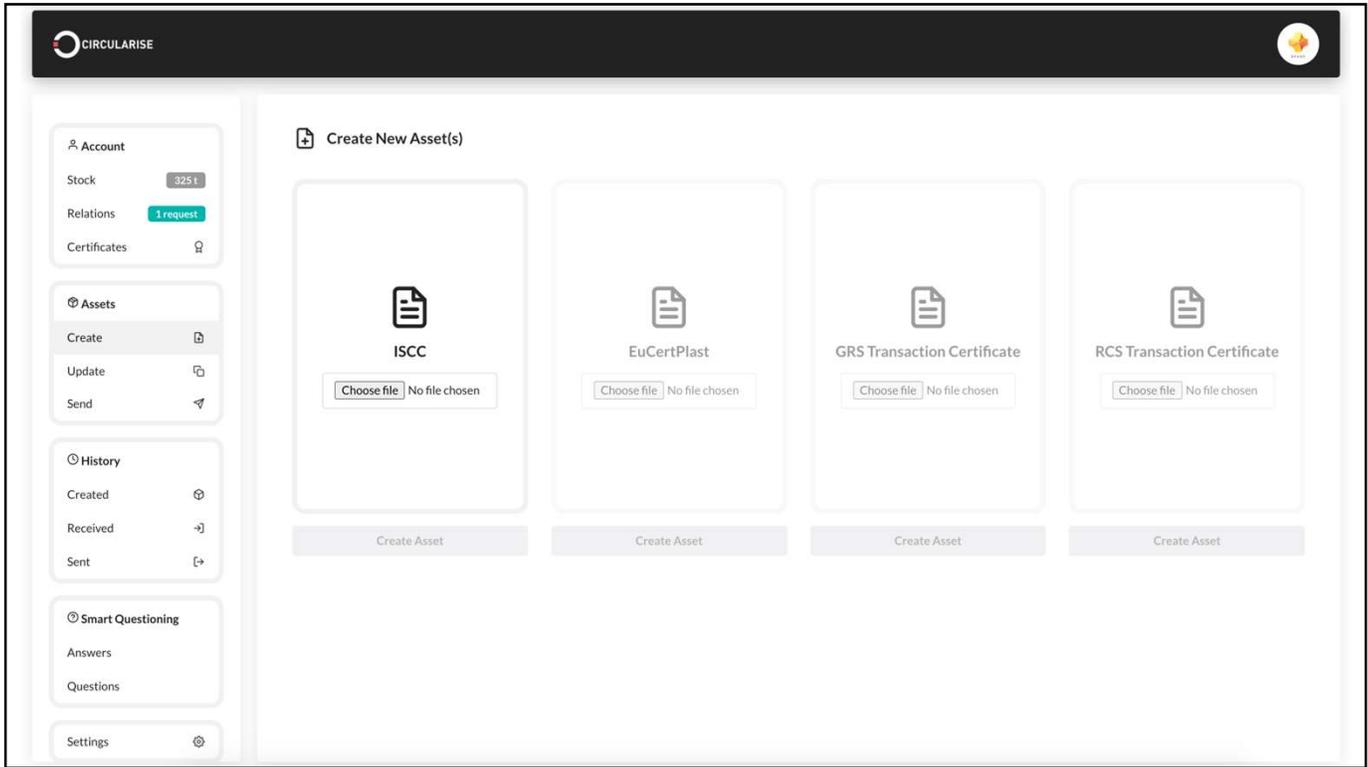
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The screenshot shows the CIRCULARISE web application interface. On the left is a navigation sidebar with sections: Account (Stock: 325 t, Relations: 1 request, Certificates), Assets (Create, Update, Send), History (Created, Received, Sent), Smart Questioning (Answers, Questions), and Settings. The main content area is titled 'Scope Certificates' and contains a 'My Scope Certificates' section. It displays two certificates:

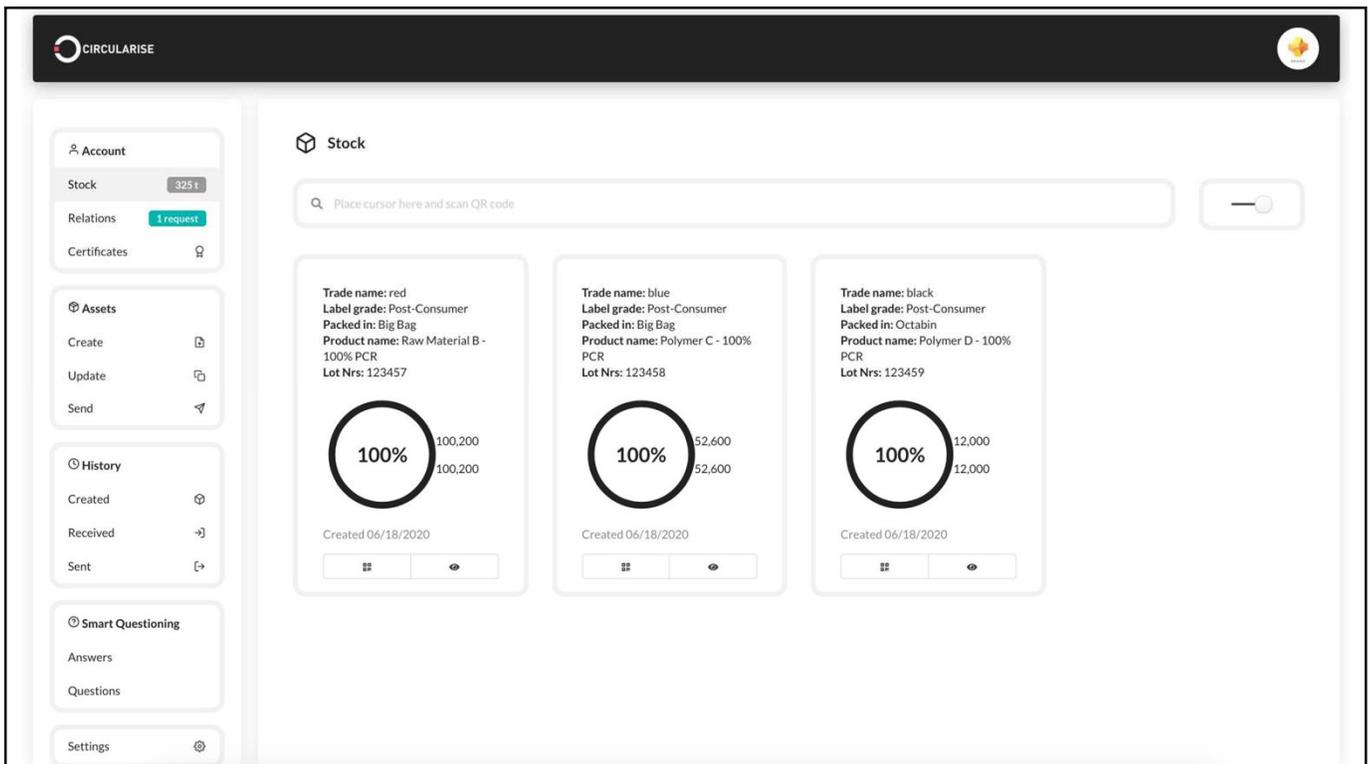
- Valid Certificate:** Issued by Tak Sang (Sze's) Company Ltd. Valid from 2019-11-12 to 2020-07-28. Inspected and assessed in accordance with the Global Recycled Standard (GRS) 4.0.
- Expired Certificate:** Issued by Far Eastern New Century Corporation-GRS/CN. Valid from 2019-10-13 to 2020-04-09. Inspected and assessed in accordance with the Global Recycled Standard (GRS) 4.0.

At the bottom, there is an 'Upload new Scope Certificate' button and a file upload area.

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Update Asset(s)

1. Process & Manufacturing | 2. Lots & Weights | 3. Documents & Audits | 4. Confirm & Summary

Choose one or multiple manufacturing processes

Input	Manufacturing Process	Output
Raw Material	Distillation - Cracking	Base Chemical
Base Chemical	Polymerisation	Polymer/Resin
Polymer/Resin	Compounding	Compound
Polymer/Resin/Compound	Injection Moulding	Finished Product
Polymer/Resin/Compound	3D Printing	Finished Product

← Previous Step | Next Step →

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Update Asset(s)

1. Process & Manufacturing | 2. Lots & Weights | 3. Documents & Audits | 4. Confirm & Summary

Configure the lot(s)

Input: Raw Material (required)

Raw Material ABC... 202300

Process: Cracking & Polymerisation

95 % EFFICIENCY (Maximum)

Output: Polymer/Resin (required)

Product Name	Polymer ABC
Lot Number	123456789
Weight (in KG)	192185

← Previous Step | Next Step →

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The screenshot displays the CIRCULARISE web application interface. On the left is a navigation sidebar with sections for Assets (Articles: 161, Purchase Order), Account (Details, Relations, Settings), and a search bar. The main content area is titled 'Purchase Order' and shows a specific order with ID 124225983. It details the receipt from 'Supplier X' on 06/18/2020, including the purchase order number and date. Asset information for 'Product ABC' is provided, such as lot number, quantity (71620), weight per item (0.5 KG), and total amount (35,810 KG). The status is 'approved' and a transaction link is available. To the right, a 'Supply history & Wastage' Sankey diagram visualizes the flow of materials from raw materials and compounds through various processes like 3D printing and injection molding, resulting in waste and final products.

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RECAP PLATFORM FEATURES

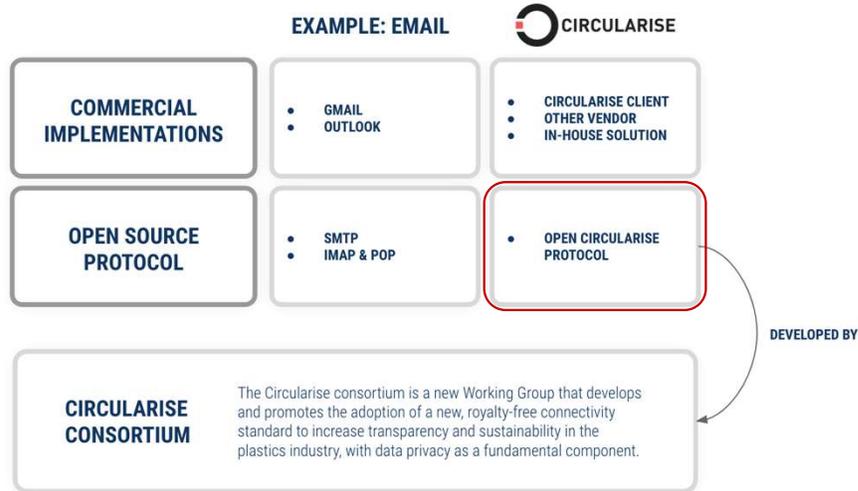
- Make digital twin
- Link with Physical Assets
- Validate Data
- Send & Receive
- Split & Merge
- Role Based Access
- Consumer App
- Protect Sensitive Data

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OUR APPROACH

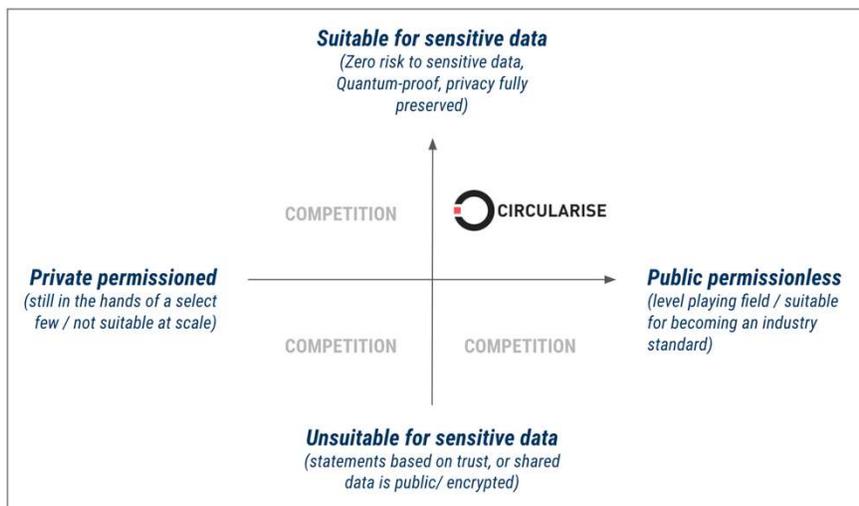
THE OPEN PROTOCOL



COMPARISON AND HIGHLIGHTS

COMPETITIVE ADVANTAGES

- OPEN
- OPEN COMMUNICATION PROTOCOL
- SMART QUESTIONING PATENT PENDING
- EU SUPPORTED



JOIN US
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LET US DRIVE THE CIRCULAR ECONOMY FOR PLASTICS TOGETHER

Q&A

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THANK YOU

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