Digital IDs and the Circular Product Data Protocol
Problem: Data needed to resell or recycle is cut off — product can’t be identified by circular partners

- Time consuming
- Costly
- Undervalued
- Design intentions are lost
- No measurement, transparency or accountability
Solution: Digitize products with a shared language, enabling brands & circular partners to:

- Scale circular business models (i.e. resale, rental, sorting, recycling, etc)
- Unlock data and systems essential for maximizing value and recovery of products and materials
- Bring transparency and accountability to the product lifecycle
- Extend sustainability investments

Digital identification is moving retail beyond the barcode
The Internet Of Things (IOT) Connects The Physical And Digital Worlds

Enables value chain stakeholders to access data essential for managing and maximizing product value in the circular economy—resulting in the creation of new systems that unlock transformative benefits to our society, economy and environment.
HOW IT WORKS

A washable data carrier is embedded on each item

Historically, product data has been mostly inaccessible to renewal, resale, and recycling partners due to lack of on-product identification methods. Items with a Digital Identity are affixed with a washable, embedded data carrier that can be scanned by a brand, their customer, or their business partner to access essential information about the item.

EXAMPLES OF DIFFERENT TYPES OF CARRIERS:

- QR Code
- NFC
- RFID
A Digital Passport holds key product and material data

Digital Identity stores and records key information about a garments numerical and brand identification, commerce, categorization, production and attributes – essential for managing and maximizing product value for recommerce or material regeneration.

EXAMPLES OF DATA STORED ON DIGITAL ID:

- Brand Details
- Material Contents
- Manufacturing Facility
A cloud platform connects each item to the circular economy

As systems emerge to capture and host Digital Identities in the cloud, product data can be accessed and exchanged with other online devices, applications and systems. Circular business partners can access product data instantly, creating efficiencies, intelligence and scaling new business models never possible before.

EXAMPLES OF CIRCULAR PARTNERS THAT CAN ACCESS PRODUCT DATA:

- Resellers
- Recyclers
- Regeneration
The CircularID™ Initiative developed & introduced:

The Circular Product Data Protocol

The **shared language** for digital identification of products in the circular economy in fashion & retail.

- Defines product data essential to circular functions
- Ensures data for circular products is communicated in a universally consistent way
- Defines consistent format of product and material-level data
For each product’s digital identity, the protocol outlines the:

- essential data
- structure of the data
CircularID Initiative established to solve

Industry leadership came together to support research, development of Protocol and pilots
## ISEAL Compliant Development Process

Aligns with ISEAL standard setting practices

<table>
<thead>
<tr>
<th>Date Range</th>
<th>Description</th>
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<tbody>
<tr>
<td>Winter and Spring 2019</td>
<td>CircularID™ Initiative internal development of the Protocol</td>
</tr>
<tr>
<td>Summer 2019</td>
<td>60-day Public Comment Period #1, update made</td>
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<tr>
<td>Fall 2019</td>
<td>30-day Public Comment Period #2</td>
</tr>
<tr>
<td>January 2020 – August 2021</td>
<td>The Protocol Pilot Version piloted with brands and retailers</td>
</tr>
<tr>
<td>January 2021</td>
<td>CircularID™ Protocol Advisory Council formed to govern the Protocol, updates made</td>
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<tr>
<td>July 1 - August 1, 2021</td>
<td>30-day Public Comment Period #3</td>
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<tr>
<td>August 1-Sept 15</td>
<td>Protocol and Implementation Guidelines finalized</td>
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<tr>
<td>October 2021</td>
<td>EON will gift Protocol V1.0 to industry under Creative Commons license</td>
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Alignment with Standards

Aligned with adopted industry standards

Aligned with GS1 standards
<table>
<thead>
<tr>
<th>Identification of Products</th>
<th>Identification of Materials</th>
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<tbody>
<tr>
<td><strong>Supporting continued use &amp; circulation of products</strong></td>
<td><strong>Supporting continued use &amp; regeneration of materials</strong></td>
</tr>
<tr>
<td>Enables continued identification of products through circular business models (e.g. rental, resale) and management of products through channels for continued used &amp; circulation (e.g. repair, reverse logistics, peer-to-peer, collections, etc)</td>
<td>Protocol enables the identification of materials for regeneration, including disassembly and recycling.</td>
</tr>
<tr>
<td><strong>Audience = Product Re-circulators</strong></td>
<td><strong>Audience = Material Recyclers</strong></td>
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## Data Field Overview

**Examples of Data Fields**

### Identifying: Numeric & Brand Identification
- Product ID System
- Product ID Value
- Product Name
- Parent Organization
- Brand
- Sub-brand

### Production (Transparency)
- Country of Origin
- Manufacturing Facility Registry (ie OAR)
- Manufacturing Facility Name or Registry Value
- Material Facility - Registry
- Material Traceability

### Commerce
- Description
- Photograph
- MSRP - Currency Code
- MSRP - Currency
- Season
- Season Year

### Product Attributes
- Components and Material Content
- Net Weight (kg)
- Product & Material Certifications
- Body Fabric Type
- Dye Class
- Print Ink Type
- Trims Type & Content
- Sewing Yarn Content
- Fabric Finishes
- Chemical Compliance
- Data Carrier Type, Materials and Placement

### Product Info - Categorization
- Product Name
- Main Product Color Name
- Assigned Color Category
- Country Code for Size
- Size
- Product Categorization Standard
- Age Group
- Gender
- Product Category
- Family
- Article
<table>
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<tr>
<th>What the Protocol IS</th>
<th>What the Protocol IS NOT</th>
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</thead>
<tbody>
<tr>
<td>Protocol is data carrier agnostic</td>
<td>Protocol is not specifying physical data carrier — i.e. NFC, RFID, QR Code, etc.</td>
</tr>
<tr>
<td>Protocol is specifying what data should be stored</td>
<td>Protocol is not storing data</td>
</tr>
<tr>
<td>Protocol is recommending data that should be included</td>
<td>Protocol is not outlining permissions around data access</td>
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</table>
In The News

Leaders across fashion luxury commit to adopting the Circular Product Data Protocol at G20 in Rome

At G20 in Rome, members of HRH The Prince of Wales’ SMI Fashion Taskforce, which includes brands such as Chloe, Mulberry and Burberry,...

Sustainable Markets Initiative Fashion Taskforce Launches Groundbreaking Digital ID

Prince Charles hails news digital ID for fashion brands
After **3 years of R&D, Global Pilots & multiple Industry-Wide Peer Reviews** — The Circular Product Data Protocol™ launches publicly to industry

**To be announced November 2021** — EON gifts Protocol to industry, in Creative Commons license, making Protocol available to all.