



WHEN TRUST MATTERS

Circularity and traceability driving increased **trust, transparency, certainty,** and **sustainability** within **Textile & Clothing**

Presentation for Arendalsuka, Norway - Aug 18 2022

HVORDAN LØSER VI TEKSTILFLOKEN?

13:20-13:30 Innlegg v/ Christopher Lilholm
Tema: Produktpass for klær og om hvordan teknologi kan brukes til å skape tillit og endring



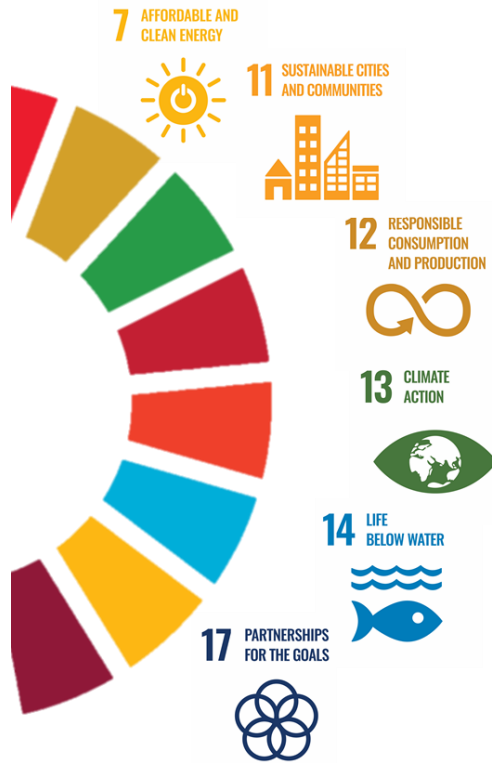
Christopher Lilholm (Chris)
Head of Global Key Customer Management

Go-to-Market | Growth & Innovation
Supply Chain & Product Assurance (SCPA)

Christopher.Lilholm@dnv.com +45 30 45 45 39

A call to act now!

.. with digital assurance solutions already out there



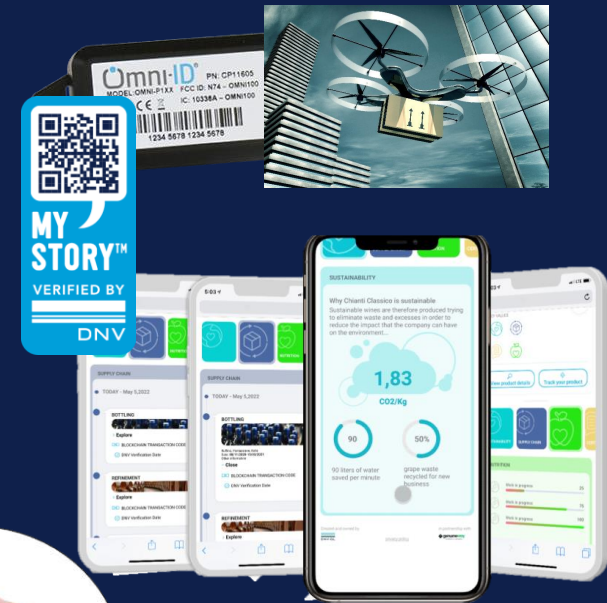
Circularity and zero-waste



Carbon positivity and biodiversity protection



Social impact and inclusive, decent work



Emerging forces driving sustainable clothing



Consumer demand for **sustainable products**



Supply chain risks and opportunities for fashion brands and textile industry



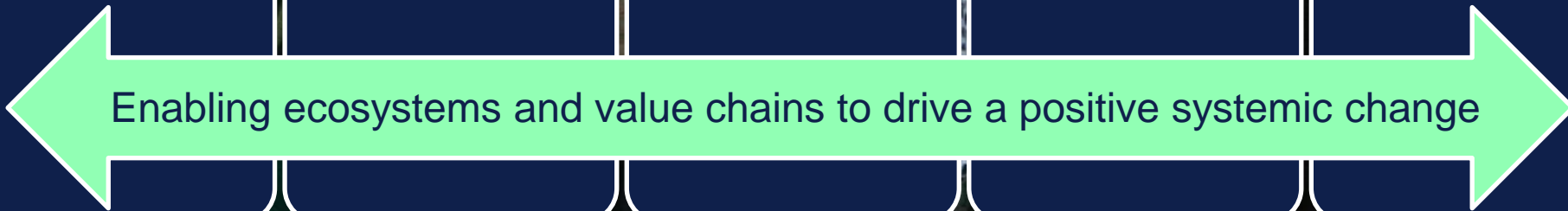
Emerging and enabling **technologies**



New **circular** economic models for textiles and clothing



Meeting forthcoming regulatory changes for **textiles**



Enabling ecosystems and value chains to drive a positive systemic change

A new age of transparency and authenticity!



Can I trust this product?

Was it made without child or forced labour?

Is it sustainable?

Is it durable?

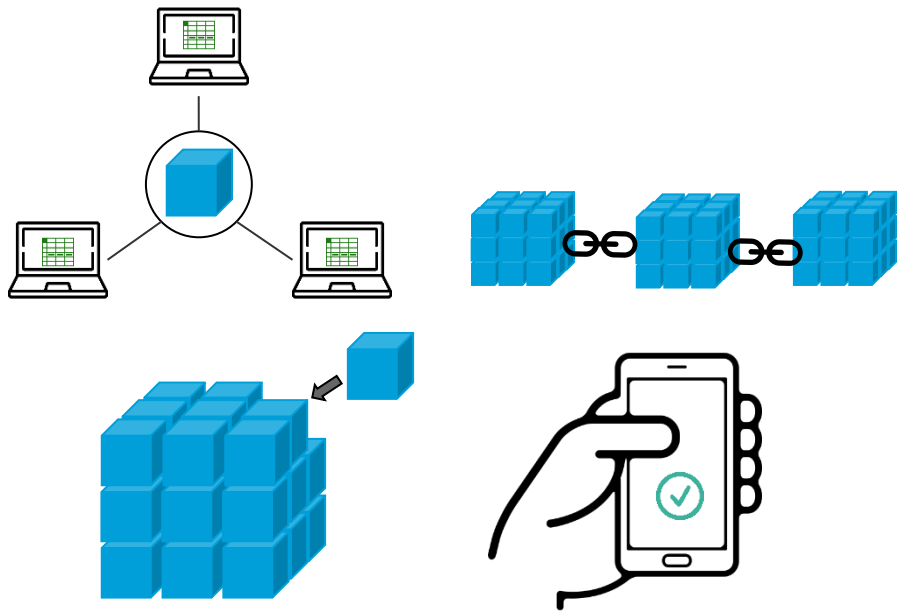
Is it truly recycled?

Is it safe?

What is the carbon and water footprint?

Leveraging a mix of emerging and enabling technologies towards increased assurance and certainty

Blockchain for information immutability



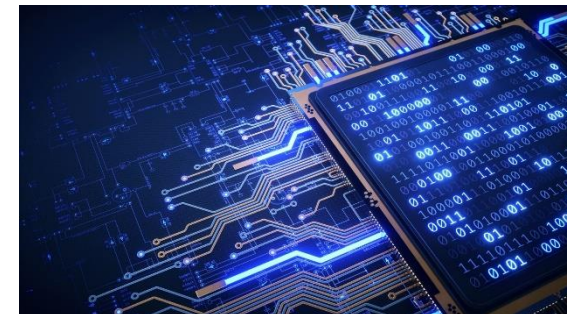
Chips (QR/NFC/RFID)



IoT (drones, sensors, AR/MR)

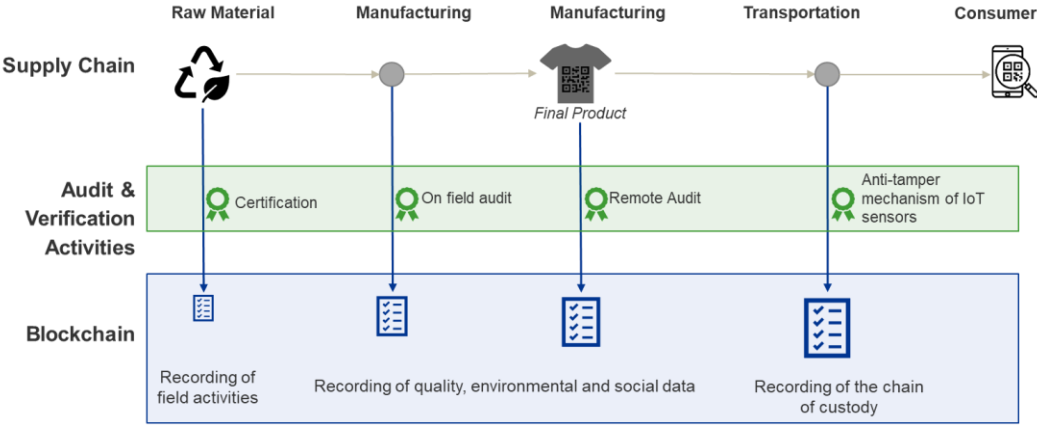


AI



3 main elements towards sustainable fashion

Traceability & Supply Chain Transparency



Sustainability & Circularity

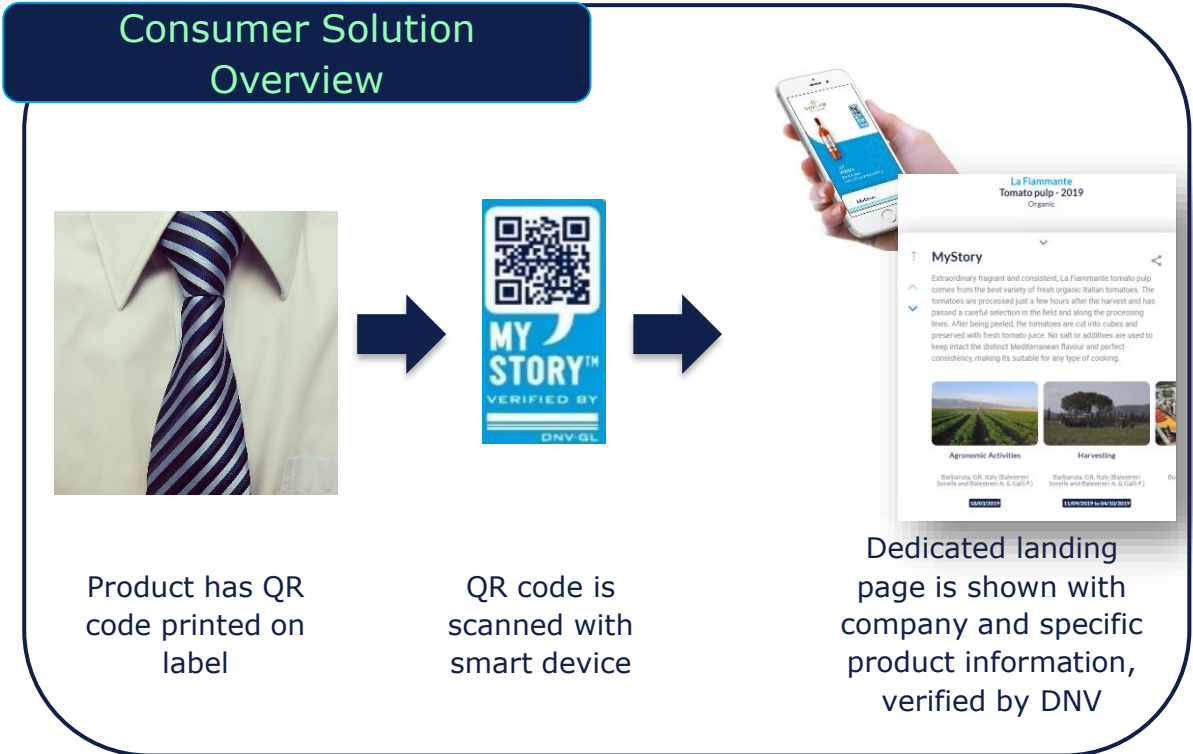
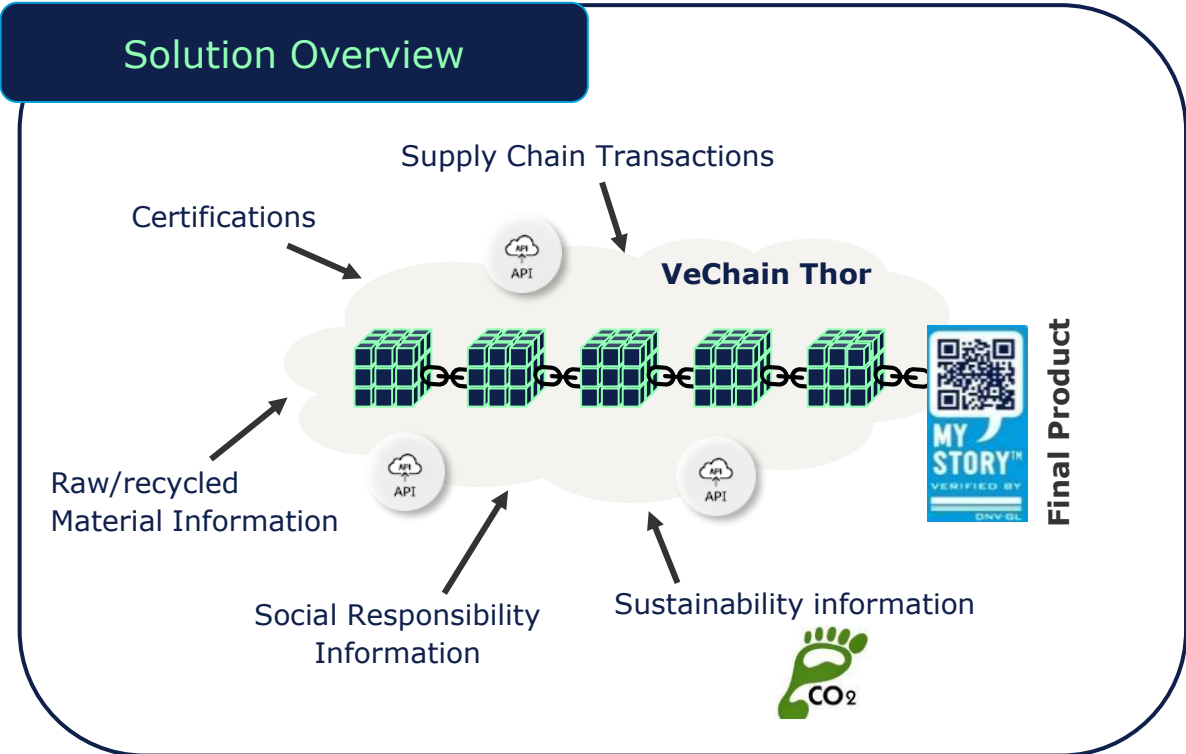


Trustworthy communication



Digital Product Passport, with verified supply chain data – collected and assured, delivered, and presented to the end consumer digitally

My Story™ consolidates data throughout the Supply Chain, which is **verified by DNV**, in order for the **brand to tell its authenticated story to the end consumer**



Textile & Clothing - COS

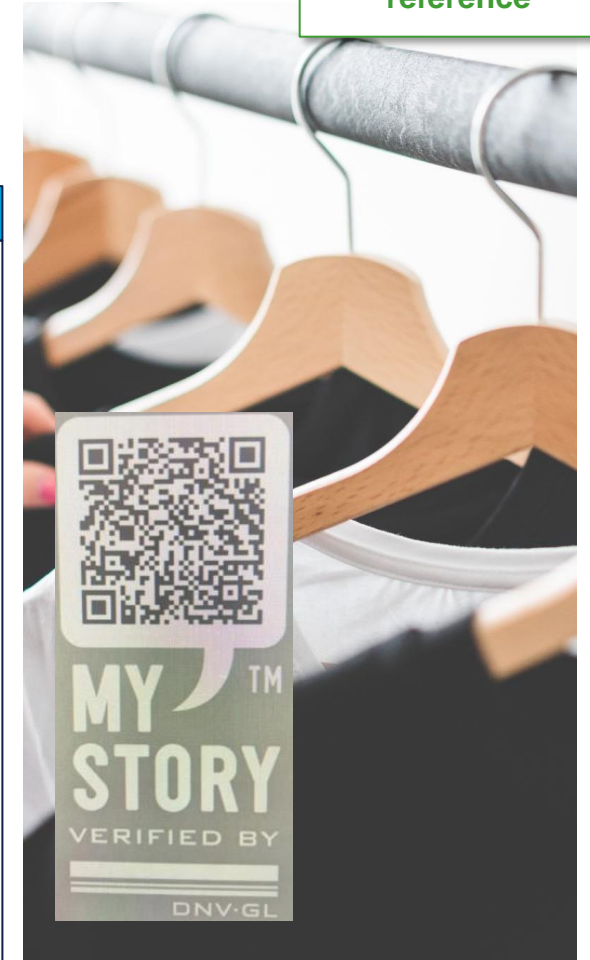
– Creating trust and certainty with digital assurance



Client Case reference

DNV has developed a sustainable solution for COS (part of H&M) to reduce waste and increase product transparency using DNV My Story™, bridging the trust gap between their efforts and consumers' concerns and leveraging the tamperproof blockchain technology with immutable data records.

Goal of COS	DNV Approach	Value delivered
<ul style="list-style-type: none"> • Support the “COS Transparency Project” • To reach 100% recycled, repurposed or more sustainably sourced materials by the end of 2030, if not sooner. • Communicating the above goals and measures to consumers at product level 	<ul style="list-style-type: none"> • A recording of relevant immutable supply chain data in the blockchain to demonstrate product integrity and transparency <p>The solution includes 2 platforms:</p> <ol style="list-style-type: none"> 1. one used for data collection and validation at production and throughout the supply chain 1. another with templates for creating the communication landing pages once the QR code is scanned at consumer level (B2C) <p>Powered by the DNV My Story™ solution</p>	<p>A blockchain based traceability platform for the fashion supply chain from fiber/forest to fashion brand to primarily address</p> <ol style="list-style-type: none"> 1. Transparency & Supply Chain Visibility 2. Sustainability 3. Foundations for Circularity <p>Consumer trust delivered at product level.</p>



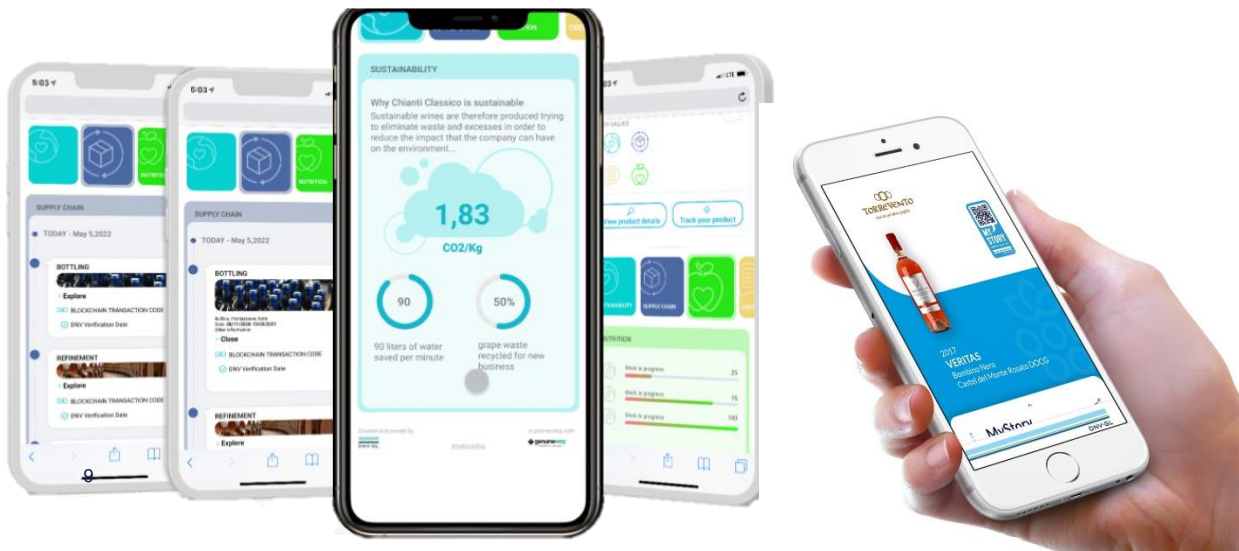
My Story® 2.0 for sustainable purchases

Level up

- Improve the DNV My Story® solution with a more impactful user experience = More **certainty**, more **trust** and more **transparency**.

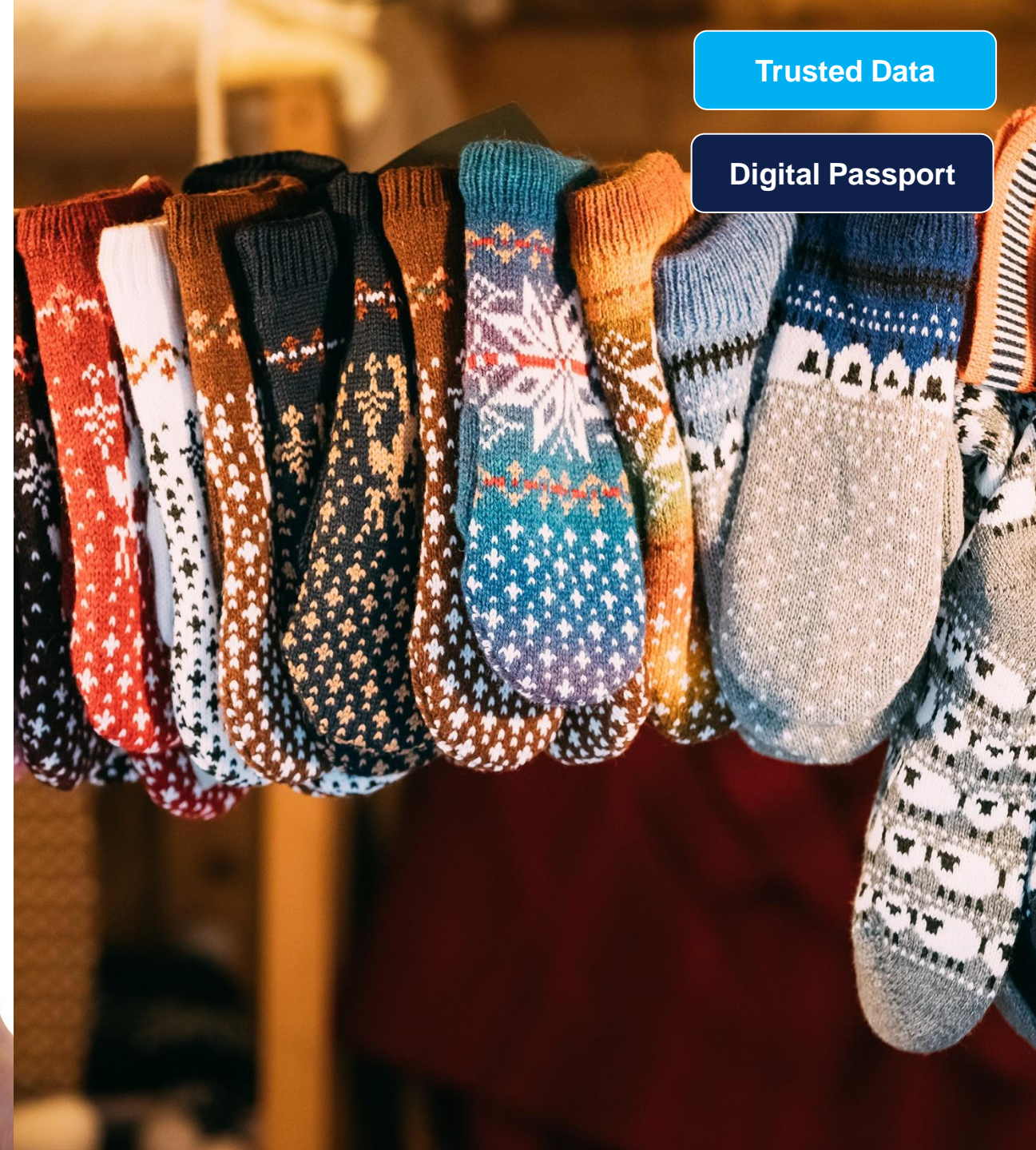
Value delivered

- A new **platform** that contains **standardized categories and taxonomy**, in order to minimize customization requirements
- A new **self-service platform** for our clients to help with the data acquisition and enable **new circular business models**



Trusted Data

Digital Passport



Ecosystems enabling circularity for extended product life using digital product passports – it is all coming together!



Water Quality Monitoring Report

Clothing Identification

Clothing RFID Identification Report

	Brand:	<input type="checkbox"/>	<input type="checkbox"/>
	Fabric:	Cotton Shirt	Leather Jacket
	Color:	White	Black
	Qty:	3	2

- 7.5-8.5 PH (mg/L)
- 10 Oxygen Content (mg/L)
- 1 Turbidity (NTU)
- 5 Electrolysis Rate (mg/L)
- 42 Temperature (°C)

Water Quality Identification

Laundry liquid Identification

Laundry Liquid Monitoring Report

- Cashmere Sweater Detergent Liquid
- 0.4 net weight (L)
- Decontamination, Color Protection/Brightening, Soften Laundry Liquid Effect
- Cotton linen, silk, wool Scope of application
- Neutral PH (mg/L)
- Phosphorus Free Active Ingredients

Identification

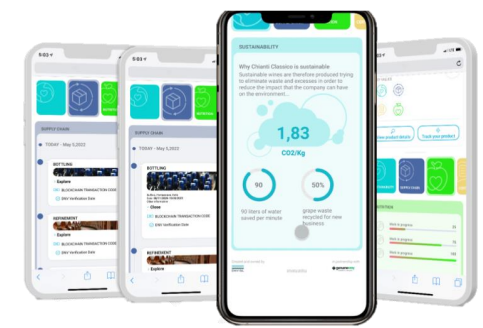
Clothing Washing Program

- Smart Wash Washing Program
- 1400 Rotating speed (rotate/min)
- 50 Wash (min)
- 4 Rinse (Times)
- 30 Temperature(°C)
- 30 Detergent



Health Warning
Silk clothes are best hanged with hangers when they are kept. Do not use metal hooks to prevent rust pollution. Pay attention to hanging clothes in the dark

Imagine the impact and what we can achieve together with



Validated and assured sustainability and supply chain data

Verified green product claims

Digital product passports enabling positive impact ecosystems and new circular economic models

Consumer choice for impact, industry and brand commitment + deep and wide regulatory support

The solutions are here, **why wait**



Thank you

Reach out to me for more information

And do LinkedIn to stay in touch

Christopher Lilholm

Christopher.Lilholm@dnv.com

+45 30 45 45 39

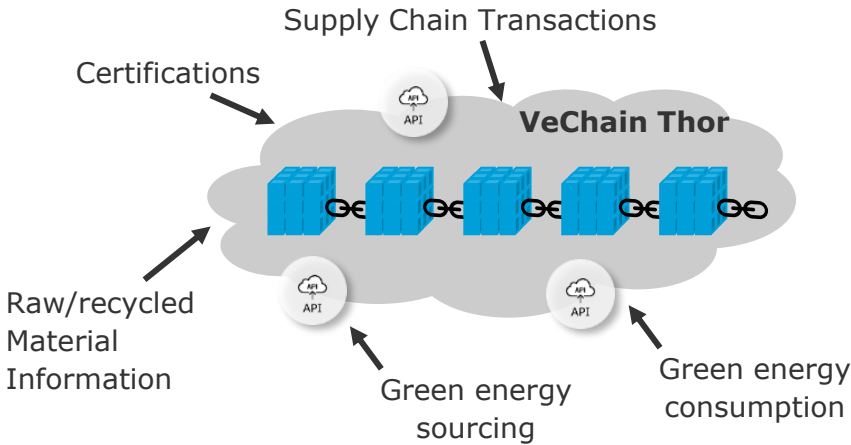
www.dnv.com



A trustworthy narrative - from beginning to end

Basing your sustainability impact on trust, data and science

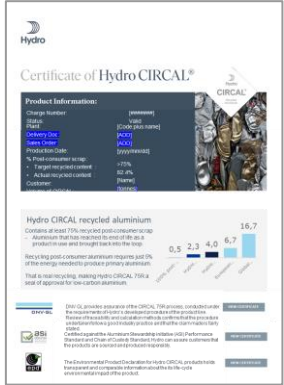
Building a digital product passport with immutable blockchain data



TAG. TRACE. TRUST.
by DNV

B2B

B2C



B2B Product



B2C Product



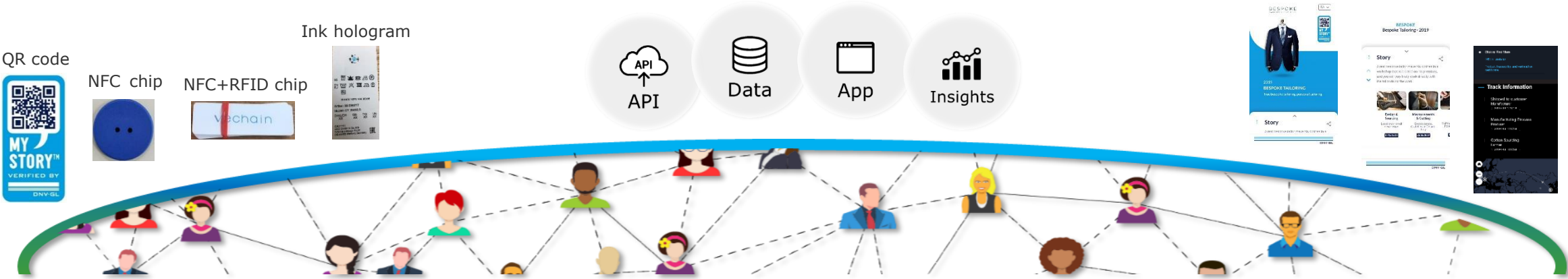
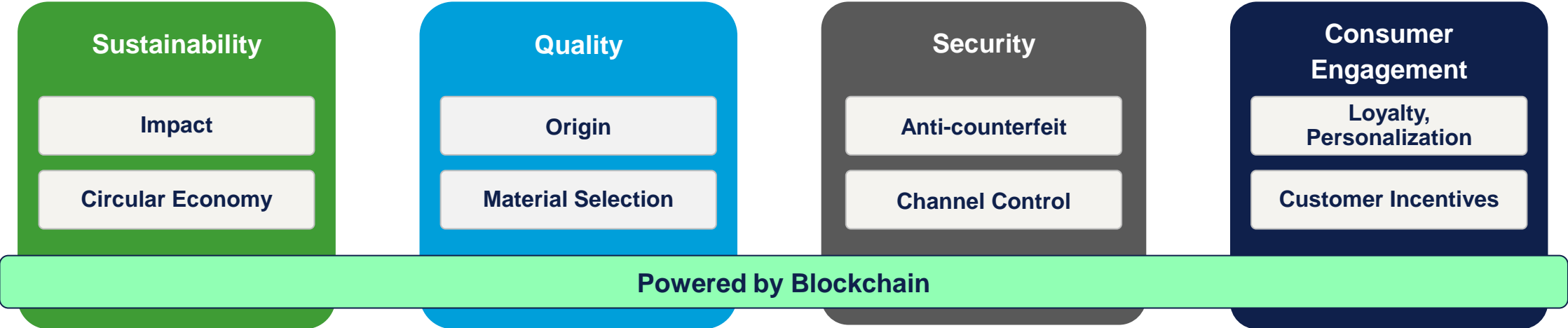
Data collection view – product claim data to be verified

Customer overview – Verified claims hosted by DNV

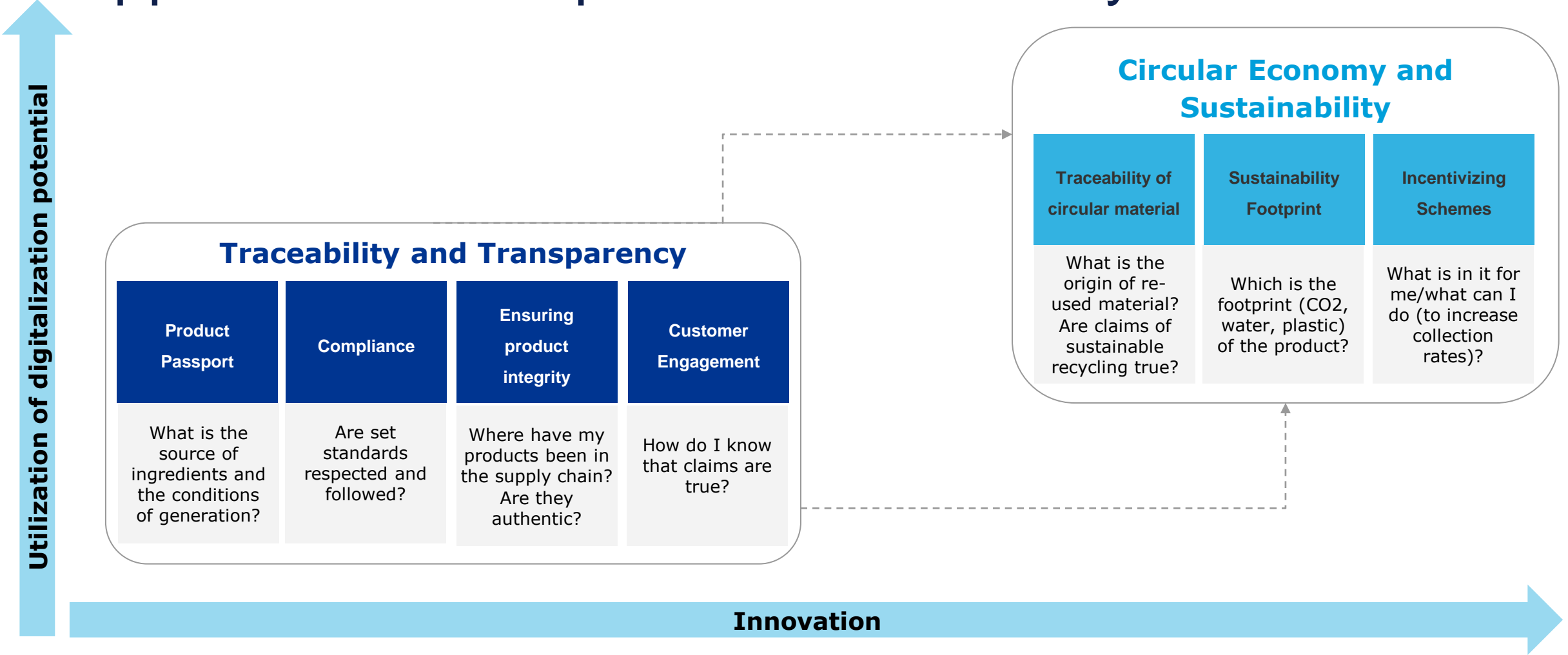


My Story™ can be personalized to cater each companies needs...

An integrated approach, with **4 communication pillars** and **several tools** that companies can leverage on depending on their needs



DNV GL's innovation and digitalization capabilities support customers path to sustainability



Adoption, barriers and benefits of circular economy models

Some findings from DNV Viewpoint – “Circular Economy. How are companies transitioning””

