

**An introduction to**

# **Digital Product Passport**

**Data sharing festival**  
4 & 5 February 2025, The Hague

**TNO** innovation  
for life

# Sustainability

## Economic

(Do we make money with this,  
long term?)

## Ecologic

(Can we do this within the  
earth's boundaries?)

## Social

(Is this how we treat each  
other?)

## Economic

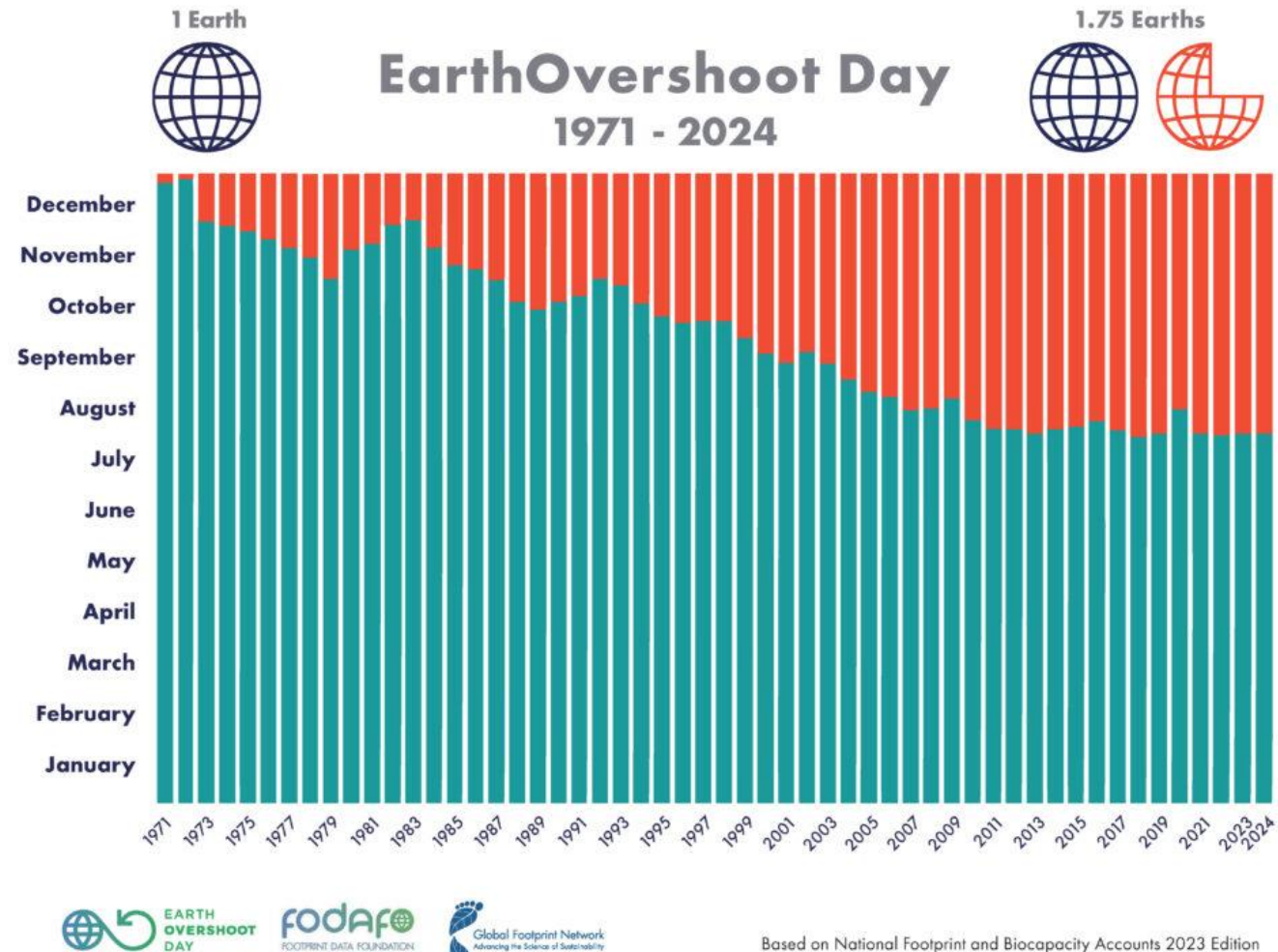
(Do we make money with this,  
long term?)

Bauxite	<b>Coking Coal</b>	<b>Lithium</b>	<b>Phosphorus</b>
Antimony	<b>Feldspar</b>	Light rare earth elements	Scandium
<b>Arsenic</b>	Fluorspar	Magnesium	Silicon metal
Baryte	Gallium	<b>Manganese</b>	Strontium
Beryllium	Germanium	Natural Graphite	Tantalum
Bismuth	Hafnium	Niobium	Titanium metal
Boron/Borate	<b>Helium</b>	Platinum group metals	Tungsten
Cobalt	Heavy rare earth elements	Phosphate Rock	Vanadium
		<b>Copper</b>	<b>Nickel</b>

“The risks associated with the concentration of production are in many cases compounded by low substitution and low recycling rates.”

## Ecologic

(Can we do this within the earth's boundaries?)



August 1<sup>st</sup> marks Earth Overshoot Day, the date when humanity's demand on nature's resources surpasses Earth's capacity to regenerate them for the given year.

## Social

(Is this how we treat each other?)

The screenshot shows a presentation slide with a navigation bar at the top. The navigation bar has seven items: 'Tony's timeline', 'looking back', 'cocoa's 3 big problems', 'planning for impact', 'big solutions', 'TOC in a (cocoa) nutshell', and 'rea i'. A red arrow points to 'cocoa's 3 big problems' with the text 'you are here'.

**CHILD LABOR**

We work to eliminate all forms of illegal labor in the cocoa supply chain, including child labor. In Ghana and Côte d'Ivoire, every other child in cocoa-growing households – which is 1 in every 2 children – is engaged in child labor. Let that sink in.

This translates to 1.56 million Ghanaian and Ivorian children involved in child labor (NORC Report, 2020). And 95% of these children (1.48 million) do dangerous work – like handling sharp objects such as machetes or lifting heavy loads.

The numbers are alarming. And unfortunately, it doesn't stop there. Because human rights violations and environmental destruction often go hand-in-hand.

**1.56 MILLION CHILDREN**

**95%** of those children are doing hazardous work

In Ivory coast, cocoa farmers earn on average \$1,23 whereas a livable income would be around \$2,45.

# Sustainability

## Economic

(Do we make money with this,  
long term?)

## Ecologic

(Can we do this within the  
earth's boundaries?)

## Social

(Is this how we treat each  
other?)

# Traceability

We need to know where  
our products came from

We need to know how our  
products were made

We need to know what can  
still be done with our  
products

What resources went into this  
product?

Under what labour conditions?

Is this steel recycled?

What is the carbon footprint  
of this manufacturing  
process?

Could I still re-use this battery  
for grid scale storage?

Does it have to be recycled to  
the raw materials?

# Digital product passports are a system for traceability

Of a wide range of products,  
with various attributes,  
to be used for various analysis,  
and ease administrative overhead.

By sharing product data between the different stakeholders  
Without giving away control of the data to 3rd parties  
Without giving up company secrets

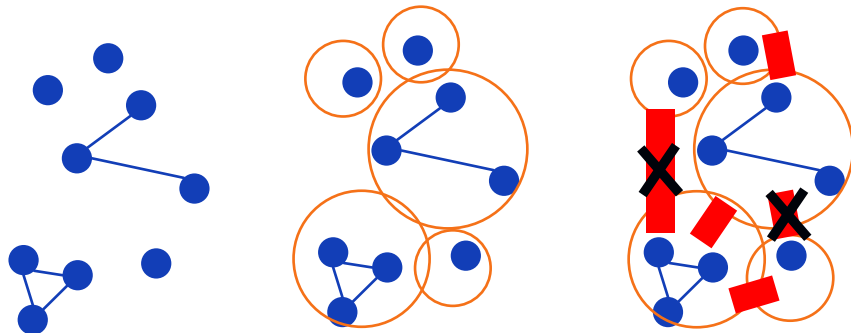
While strengthening European values



# Collaboration

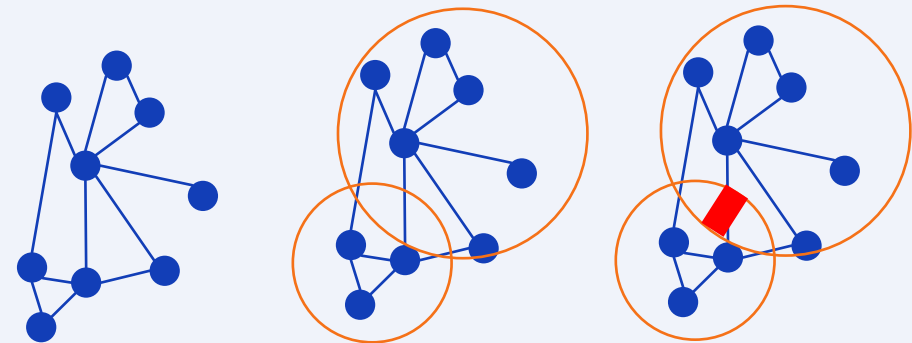
## PATH 1: SILO'S AND HIGH COST

Technical decisions and point solutions now limit future interoperability



## PATH 2: INTEROPERABILITY AND LOW COST

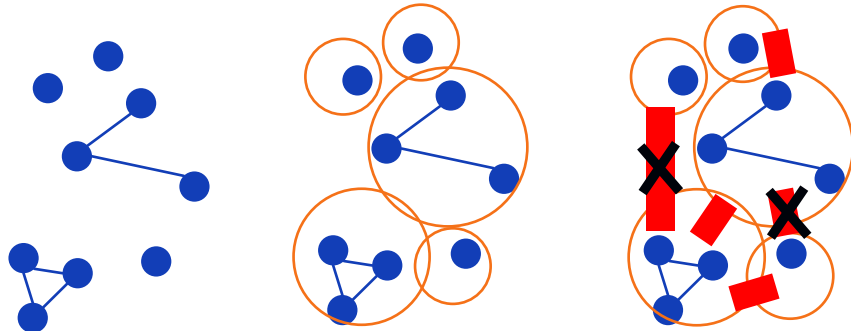
Collaboration from the start provides a foundation for interoperable DPP solutions, across sectors and industries.



# Collaboration

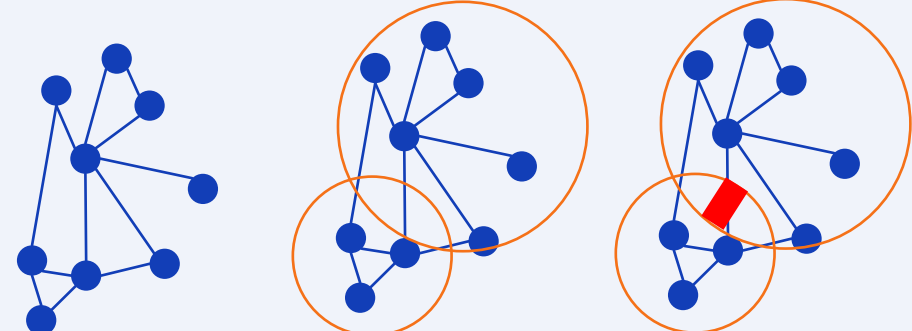
## PATH 1: SILO'S AND HIGH COST

Technical decisions and point solutions now limit future interoperability



## PATH 2: INTEROPERABILITY AND LOW COST

Collaboration from the start provides a foundation for interoperable DPP solutions, across sectors and industries.



Feb. 5th

DPPs – an introduction by Sjoerd Rongen

# For today

Opportunity to set up these collaborations

Break-out sessions in the afternoon

A panel discussion on DPPs

But first, Alexandru Ion & Sotirios Kanellopoulos!

