

Digital Product Passport (DPP)

Rüdiger Fritz, SAP
Christoph Hock, OI4 Alliance



OI4 – Digital Product Passport (DPP) Project

You can find initial project documentation here:

- teams channel industry WG's (general)
- teams channel technical WG's (general)



Rüdiger Fritz
Ruediger.fritz@sap.com



Christoph Hock
Christoph.hock@openindustry4.com

Context

Ecodesign for Sustainable Products Regulation (ESPR)



[Ecodesign for sustainable products \(europa.eu\)](https://ec.europa.eu/ecodesign/)

“... The framework will allow for the setting of a wide range of requirements, including on:

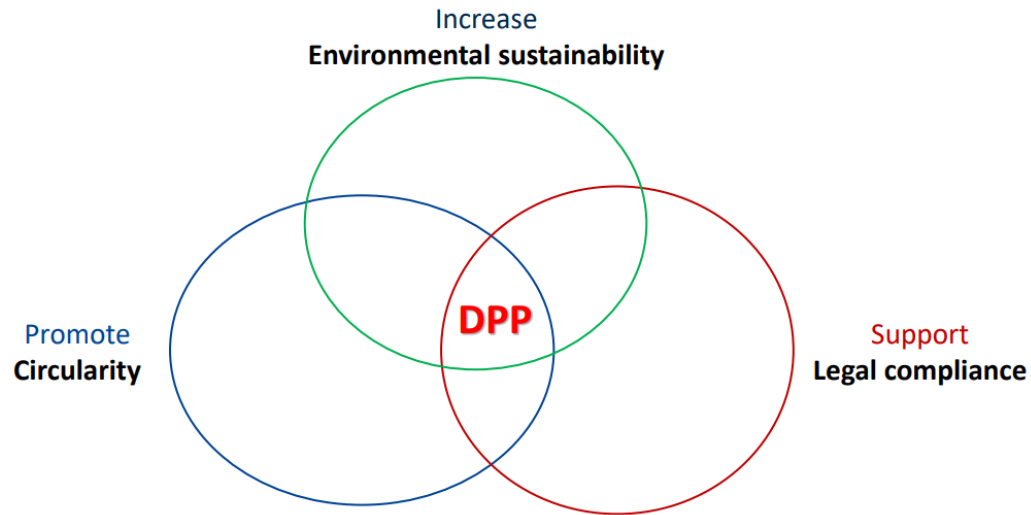
- product durability, reusability, upgradability and reparability*
- presence of substances that inhibit circularity*
- energy and resource efficiency*
- recycled content*
- remanufacturing and recycling*
- carbon and environmental footprints*
- information requirements, including a Digital Product Passport ...”*

*“... **The New Digital Product Passport** will provide information about products’ environmental sustainability. This information will be easily accessible by scanning a data carrier and it will include attributes such as the durability and reparability, the recycled content or the availability of spare parts of a product. It should help consumers and businesses make informed choices when purchasing products, facilitate repairs and recycling and improve transparency about products’ life cycle impacts on the environment. The product passport should also help public authorities to better perform checks and controls. ...”*

Motivation

To conduct an **OI4** DPP Project

The objectives of the European Ecodesign for Sustainable Products Regulation (ESPR):



The political context

- *"The DPP is an important **deliverable** in the European Commission strategy to digitalize our economy (green & digital) ..."*
- *"The DPP-system shall build on existing **best practices** at international level, while also allowing the possibility of using **new technologies** ..."*
- *"The **timeline** is very tight and not extendable. By early 2027 the first DPPs (batteries for e-vehicles) shall be operational. Around the same time, also the first Delegated Acts on ESPR regulated products should become implementable ..."*

Conclusion:

It is very likely, that **many OI4 members will have to fulfill DPP-requirements.**


Although the exact details of the DPP and its ecosystem are not yet defined, a lot of **preparation** (analysis, concepts, action-plans ...) can be based on the already available information.

Let's do this exercise together – with the **joint spirit and wisdom of OI4!**

There are already other projects/working groups dealing with the DPP

Why will an OI4 DPP Project **add value** for you?

N what are example fields of an digital product passport?



A digital product passport typically includes the following information fields:

1. Product Name
2. Brand Name
3. Manufacturer
4. Production Date
5. Product Type
6. Model Number
7. Serial Number
8. Product Description
9. Materials Used
10. Country of Origin
11. Certifications and Standards
12. Recycling Information
13. Energy Efficiency Ratings
14. Maintenance and Repair Information
15. Warranty Information

Note: The exact fields included in a digital product passport can vary based on the product, industry, and jurisdiction.

Some talking points:

- (1) Which **infrastructure** is required to deliver a DPP?
- (2) How can I minimize the **effort** to fulfill the requirements – can I make use of best-practices?
- (3) Can I **benefit** from introducing the DPP e.g., by identifying synergies, process optimizations, decision basis ...?
- (4) Daily **operations** – e.g. how to deal with change management and lifecycle of DPP (content and spec. evolution)?

... any many more ...

In other words:

It is not about “competing” with other workgroups/organizations or something like a “we too” initiative!

Moreover our intention is to **focus on business processes in context of DDP and infrastructure topics** to fulfill EU-requirements.

→ Helping our members to “**make a virtue of necessity**” (DE: “aus der Not eine Tugend machen”)

Project work packages (Time Estimation 14-18month)



today

Kick-off (after all members)

Quarterly report

Quarterly report

Quarterly report



<ul style="list-style-type: none"> Setting up a dedicated OI4 "DPP" project team. Find who is interested. Define a project setup Find required roles to represent different viewpoints (e.g., Operator, Supplier, Integrator) Commitment for timeline & individual invest / capacity 	<ul style="list-style-type: none"> Share basic knowledge and find common understanding Ideation how to deal with the challenge and gain benefit Company-individual scoping of elaboration: What does DPP mean for your company (According to roles) Assessment of current data availability to discover gaps >> Where to find data; where is it created and maintained in the context of your today's business process 	<ul style="list-style-type: none"> Set baseline for technical approach – elaborate technical architecture (AAS...) Define detailed work packages for Implementation Assumption on system landscape >> sandbox possible/ useful (?) Elaborate (iterative) 	<ul style="list-style-type: none"> Combine individual results Measure efforts Validate & Test Go public; present to audience, acquire feedback Implementation review by broader audience 	<ul style="list-style-type: none"> Create implementation checklist Conduct a lessons learned Review process: Where are potential wins to overcome a DPP burden and gain some wins (e.g., data cleaning, in-house architecture...) Publish reuse patterns
<p>General efforts assumption:</p> <p>2h call every two weeks (per person)</p> <p>+</p> <p>Individual elaboration</p>	<p>2h call (prep. By Rüdiger Fritz)</p> <p>In-person Workshop</p> <p>Home-work (2-week period)</p> <p>Home-work (2-week period)</p>	<p>4h call, individually prepared</p> <p>WBS → TBD</p> <p>unknown</p> <p>2h call every two weeks + Individual elaboration</p>	<p>Hackathon (2 Days)</p> <p>Acc.. 'general assumption'</p> <p>unknown + trade fair presence</p> <p>Acc.. 'general assumption'</p>	<p>Hackathon (2 Days)</p> <p>4h call, individually prepared</p> <p>4h call, individually prepared</p> <p>Acc.. 'general assumption'</p>
	<p>Documentation </p> <p>OI4-support</p>	<p>Documentation </p> <p>OI4-support</p>	<p>Documentation </p> <p>OI4-support</p>	<p>Documentation </p> <p>OI4-support</p>

Sept.

Oct.

Nov.

Dez.

Jan.

Feb.

Mar.

Apr.

May.

June

July.

Aug.

Sept

Oct.

Nov.

Dez.

TODAY All-Members

Kick-off SPS '23

HMI '24

SPS '24

How it will start

today

Kick-off (after all members)

Forming

Ramp-up

Elaboration

Implementation

Learnings

- Share basic knowledge and find common understanding
- Ideation how to deal with the challenge and gain benefit
- Company-individual scoping of elaboration: What does DPP mean for your company (According to roles)
- Assessment of current data availability to discover gaps »
Where to find data; where is it created and maintained in the context of your today's business process

2h call
(prep. By
Rüdiger
Fritz)

SAVE THE DATE



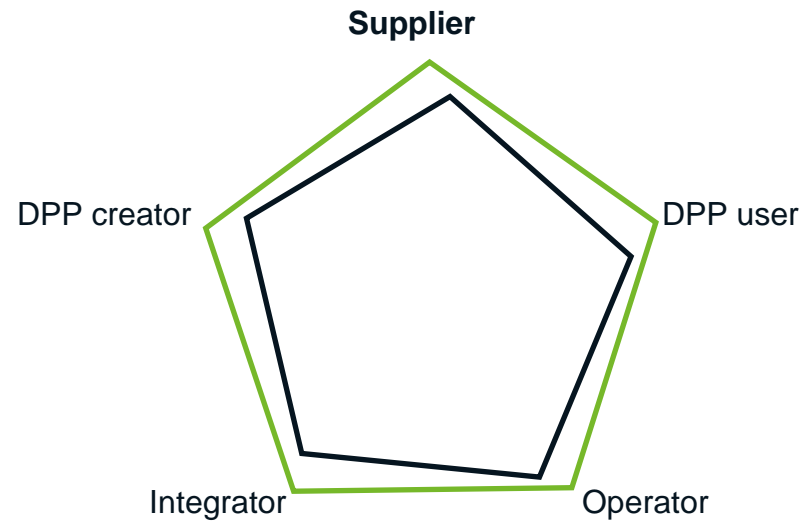
17th of October from 10-12.00am

- Please join this call...
 - ... if you are **committed to participate** the project
 - or if you **need more information** for your final decision
- Goals of the call...
 - 1) Present known status quo of DPP and find common understanding
 - 2) First exchange of ideas and perspectives
 - 3) Agree on mode of work and meeting schedule



Apply now.

- Project kickoff: **17th of October from 10-12.00am**
- To conduct the project, **we need your commitment**



Minimum requirement to conduct the project

- 6-8 permanent contributors & 4 associates
- Ideally a double staffing of roles & min of 3 suppliers to **ensure multiple views = OI4 value add**



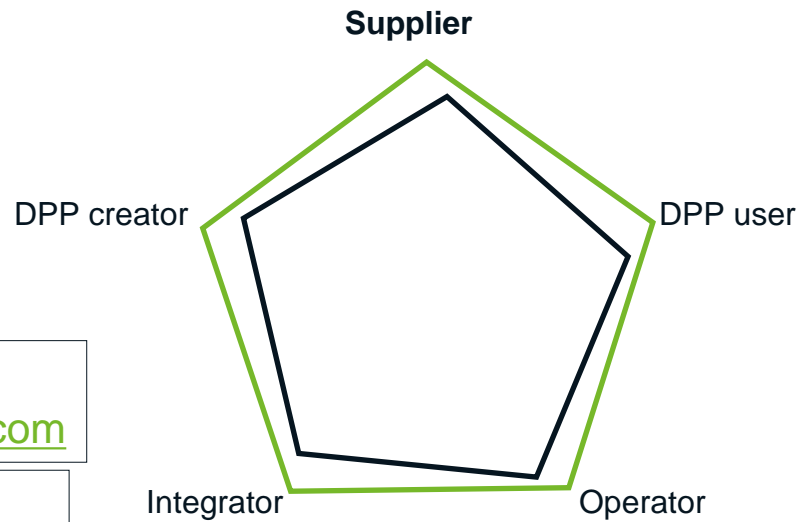
Apply now.

- Project kickoff: 17th of October from 10-12.00am
- To conduct the project, we need your commitment

Interested? *yes!*

mailto:
Christoph.hock@openindustry4.com

Text: Indicate the role you will contribute (Consumer, provider...)



Minimum requirement to conduct the project

- 6-8 permanent contributors & 4 associates
- Ideally a double staffing of roles & min of 3 suppliers to ensure multiple views = OI4 value add



Who's in? ... some have indicated participation interest...

▪ DPP Consumer / Purchase

KUKA



Endress+Hauser

▪ DPP Provider / Sell



KUKA



▪ Enabler / Integrator



DEVICE
INSIGHT



complement
the digital enablers

NTT DATA





Thank you!