



Towards dynamic digital product passport: the approach for food sector

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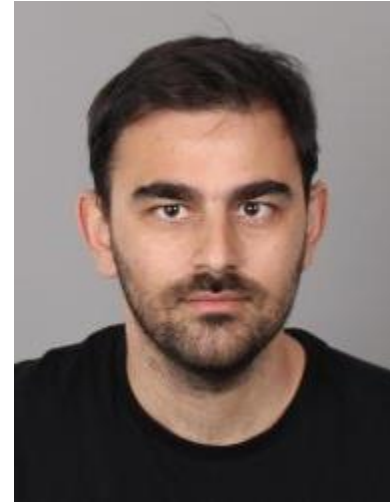
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Digital product passport (DPP) – the concept



- **Digital Product Passport (DPP)** is a digital tool, that displays **information about a product** and digitally facilitates accesses to it by relevant stakeholders
- Different types of information is collected **across the value chain** and throughout the stages of **product's lifecycle** and is presented in the DPP
- **Dynamic and static data** is encoded in a **scannable data carrier** & can be accessed through e.g. scanner of the mobile phone



DPP and the legislation behind

General regulations

- Ecodesign for Sustainable Product Regulation (ESPR) introduces the DPP into EU markets
- ESPR adoption by the Council of the European Union in May 2024
- ESPR and DPP main objectives:
 - to enhance the sustainability of products
 - to encourage interest in products, that are sustainable
 - to support informed decision-making
 - to make comparisons between products easier for consumers

→ Resulting in behavioral change towards more sustainable choices

 - increase exchange of information between supply chain actors

→ improved transparency and traceability & facilitating the work of authorized national executives

Food assets – sector specific relevance

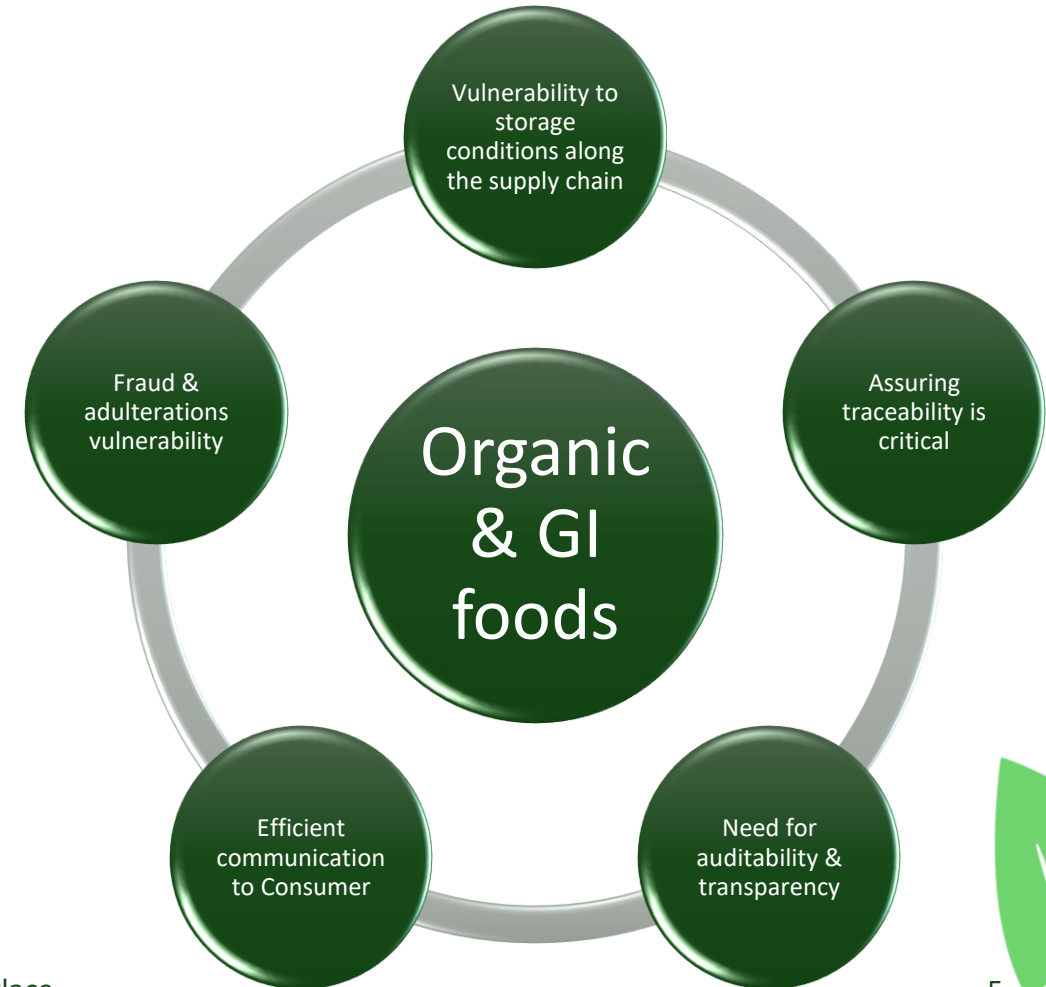
- Currently, the food assets are beyond the ESPR's scope
- EU Regulation on food law and food safety (EC) No 178/2002) & DPP conceptrelevance:
 - enhanced traceability contributing to food safety and confidence
 - auditability and transparency along the supply chain
 - facilitation of informed decision making
 - focus on consumer interest and fair trade



GI/organic food assets

- Organic production
 - Understood as sustainable agricultural system
 - Respecting environment and animal welfare and stretching towards other stages of the food supply chain
 - Principles stricter than those applied in traditional agriculture
 - chemical pesticides and synthetic fertilizers ban
 - restricted use of antibiotics
 - genetically modified organisms use ban
 - obligatory crops rotation
- EU geographical indications (GI) schemes
 - Protection of authentic products associated with specific regions
 - E.g Kalamata olive oil

DPP concept relevance



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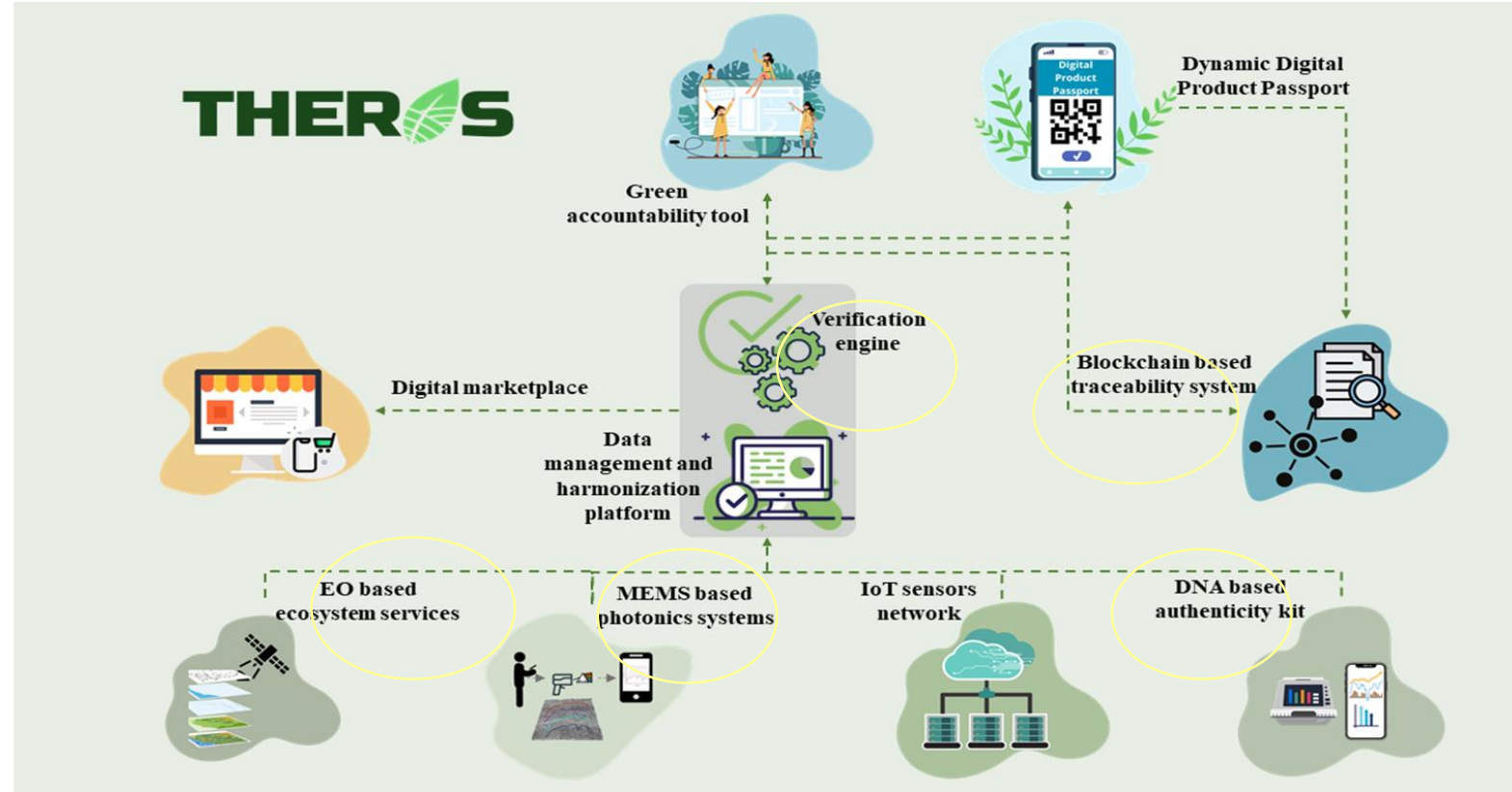
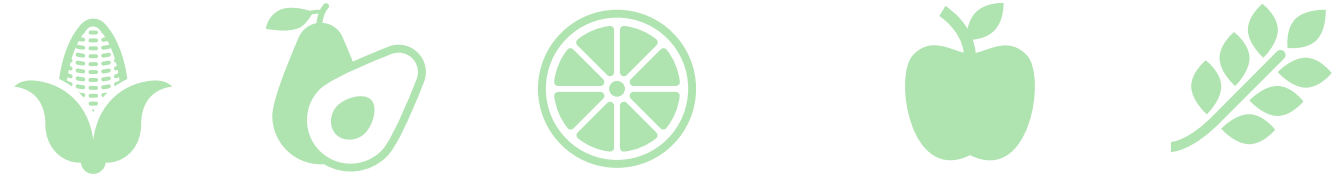
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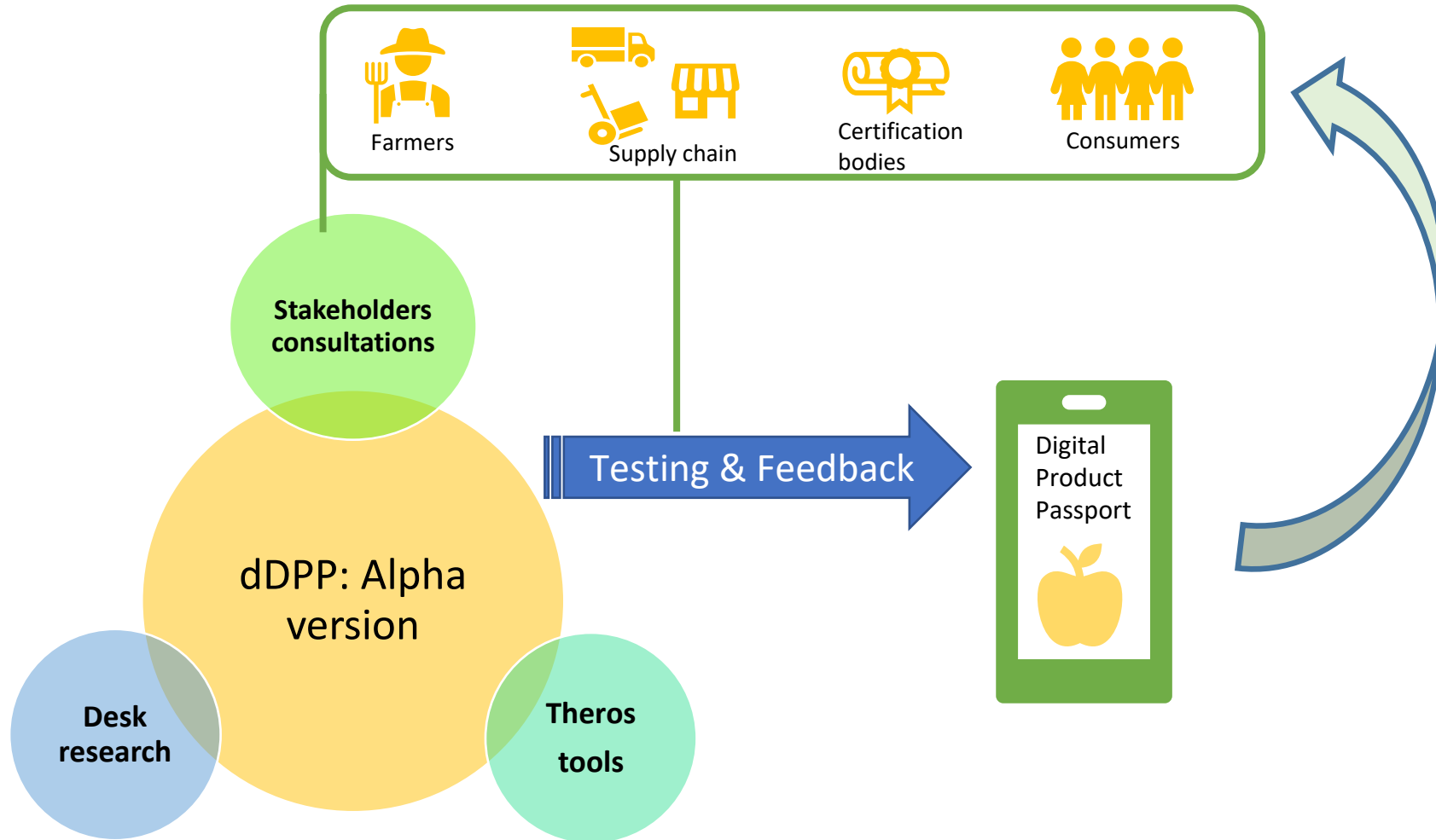
DPP and Theros context

- Dynamic DPP (dDPP) for organic (arable crops, fruits, juice, edible oils, flour) & GI food products (mussels) in a mobile app with user friendly interfaces
- Developed within THEROS project
- The dDPP: integral part of a *toolbox for verification & improved prevention of adulterations* for organic and GI food products
- Integration with other THEROS tools feeding the dDPP with verified information about the product and its parcel of origin, including parameters like
 - purity index
 - map markers
 - product origin
 - etc.

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Approach and stakeholders



Meeting, Date, Place

THEROS DPP Data content

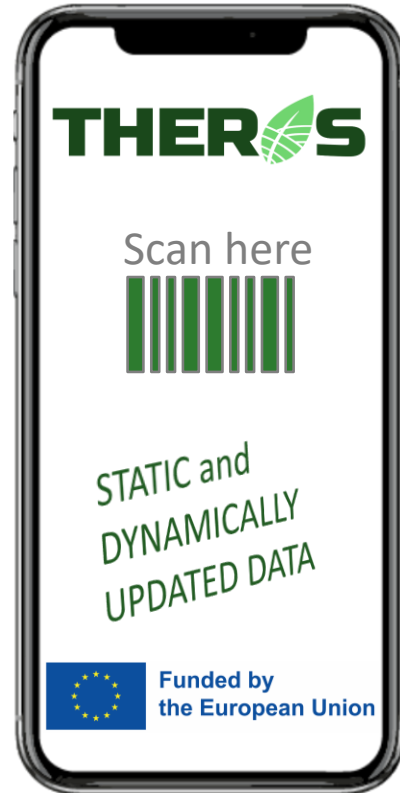


PRODUCT INFORMATION

- Production date
- Expiration date
- Product origin
- Producer

TRACK & TRACE

- Confirm or not product reception and release
- Location & time
- History of the events in the supply chain



SUSTAINABILITY DATA

- Carbon footprint
- ... (TBD)

COMPLIANCE DATA

- View organic production certificate

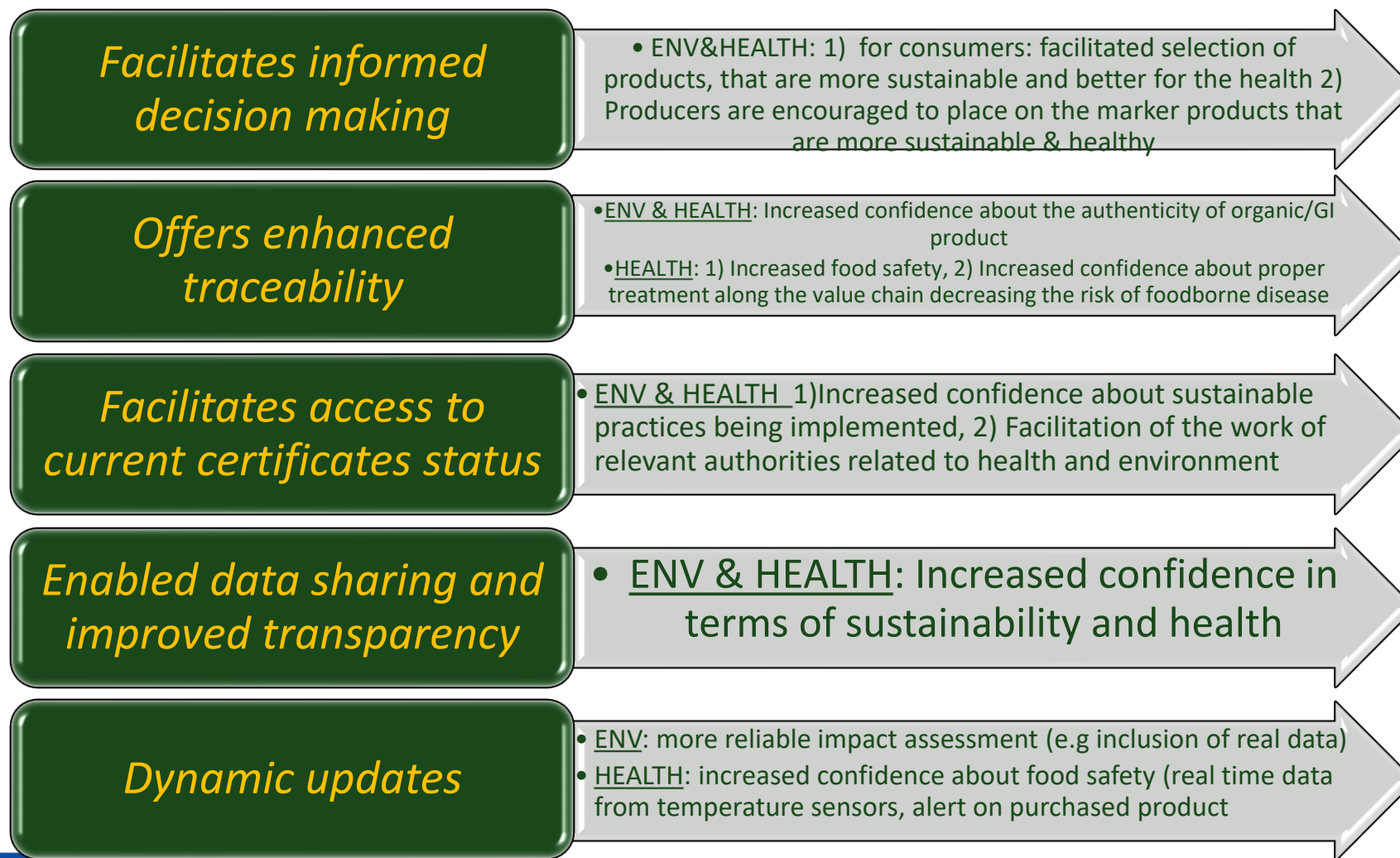
VERIFICATION DATA

- Product origin
- Organic/not organic


- **Dynamic updates:**
 - system feature forming a core idea behind the dDPP
 - Stemming from the dynamic nature of any supply chain
 - As product reaches the successive stages of the supply chain the information flows evolve and dDPP is **updated by authorized actors** using system update mechanism



Environmental and health benefits in THEROS dDPP & beyond



Challenges & strategies

Encountered challenge	Strategy applied 
No legislation for food DPP & ongoing legislation efforts for DPP for other sectors → no official guidelines on data to be included in the DPP	Inclusive approach involving potential users of the dDPP in the decision process, an attempt to comply as closely as possible with existing regulations, that seem to be especially relevant
Limited data availability, especially on sustainability	<ul style="list-style-type: none"> • 1st stage: data determined by the availability of data • 2nd stage: examining the relevance of data from other THEROS tools • 3rd stage: looking into ideas raised during consultations with stakeholders
Significant interest of the food sector stakeholders was not reflected by the number of consultations participants	Informative campaigns for the stakeholders focusing on potential benefits of the DPP implementation



Next steps



The technical implementation of the presented concept is currently ongoing with the final version of the app available within next months

- Testing (alpha version) by stakeholders – future potential users of the dDPP from the organic/GI food sector, collected feedback will be used for enhancements towards final version of the dDPP
- Special focus: *feedback from consumers* (as basis for successful implementation, important acceptance and positive reception of the dDPP)
- Defining next steps towards adaptation to other sectors: adjustments based on sector specificities, data availability and sector specific legislation



Digital Product Passport & Tracing: projects joining forces

1st ICCS Digital Product Passport event – ONLINE **THEROS**



14th of November, 10:00-13:00 CET

This year's featured project: DigInTraCE

Aims of the event:

- *Get to know other DPP and tracing scientific initiatives and researchers involved*
 - *To initiate cooperation & ideas exchange*
 - *To identify common challenges and strategies towards overcoming them*
 - *To present novelties per project*
- ***To understand what we need to consider in the transition from sector-specific towards a common approach***

Projects with confirmed presence: CIRPASS, THEROS, DPP4Food, Reconstruct, MöbelPass, DigInTraCE, Plooto, & some Special Guests from EC, Standardization bodies 😊



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www.theros-project.eu



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Thank you for your attention!



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