

TASK 2.4: USER-CENTRED DESIGN & DEPLOYMENT REQUIREMENTS

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Introduction

A digital platform such as *CircThread* can be viewed as an extensible, distributed and collaborative information system. The success of this type of system depends not only on its technical infrastructure but also on its **ecosystem**. By ecosystem, we understand the collection of both its **users and complementary software services that produce, consume and share information**. Therefore, we can state that the actual value of a digital platform resides on its ecosystem. If this perspective is not taken during the design phase, it could lead to an obsolete system in the medium to long term due to the lack of platform adoption.

In this task, we have taken a **sociotechnical perspective**, which combines the technical perspective of digital platforms with the organisational, business and social perspectives of ecosystems.

Task Roles

 **Leader**



 **Participants**





gorenje

 **comet**
Global Innovation



Questions

User-centred requirements

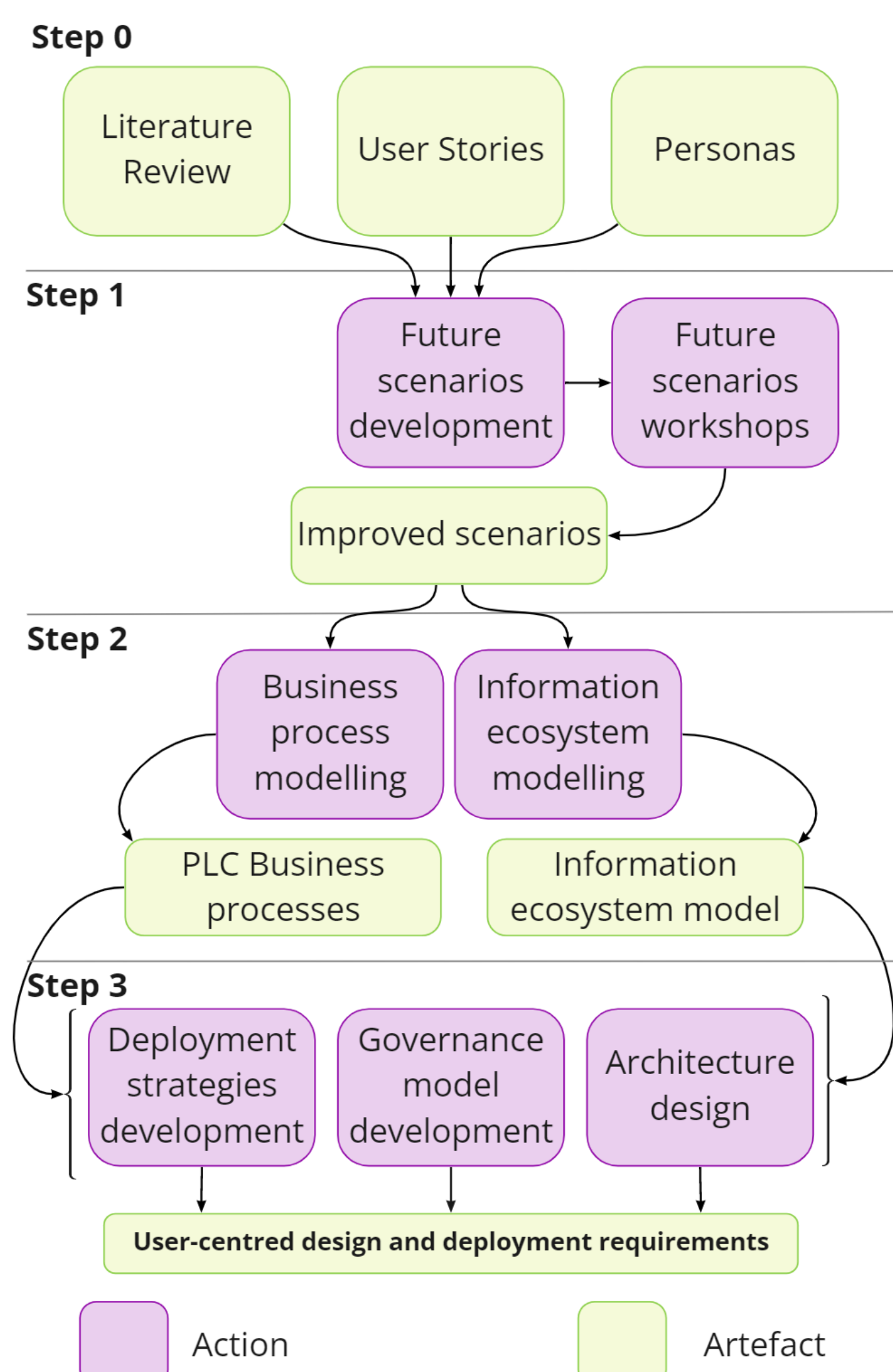
Regarding user-centred design requirements, we want to understand **who inside adopting organisations will interact with the platform** and **what are their goals and needs**. Not only that, but also **how that interaction will take place** and **what skill requirements are necessary for that interaction**.

Regarding this topic, we have built on top of the results from task 2.2, which has identified user needs and requirements with the user story methodology.

Ecosystem and deployment requirements

The second part of this task is responsible for understanding ecosystem dynamics in order to develop the appropriate deployment requirements and strategies. Therefore, we need to answer questions such as **who are the necessary ecosystem participants** and **what would a minimum viable ecosystem look like** for each pilot. Moreover, **what are the expected contributions of ecosystem participants**, and **how can we incentivise the deployment** of a new *CircThread* instance and **expansion of actors** across the product life cycle. A final effort involves solving the **chicken or egg dilemma**.

Methodology



Step 1

Create a shared platform an ecosystem usage vision with descriptive scenarios

Step 2

Formalise knowledge from scenarios in artefacts with an organisational and ecosystem perspective

Step 3

Develop deployment strategy, governance model and ecosystem architecture recommendations

Results

Future Scenarios

Description: Descriptive narratives which detail the interaction and information flow between adopting users and the *CircThread* platform.

Goal: Align and validate *CircThread* vision and discuss actors, roles, processes and ideas.

Business Processes

Description: Diagrams which detail the flow of events, tasks and responsibilities inside an organisation. At the same time showcasing interactions between inter-organisational actors.

Goal: Formally detail the new business processes which will be created or changed with the adoption of *CircThread* into pilots' working systems.

Information Ecosystem

Description: Model which can be used as a collaborative tool to understand *HOW*, *WHEN* and *WHAT* information is processed by *WHO* during the product life cycle.

Goal: Understand the *CircThread* ecosystem's dynamics by testing different actors and informational dependencies.

Deployment Strategies

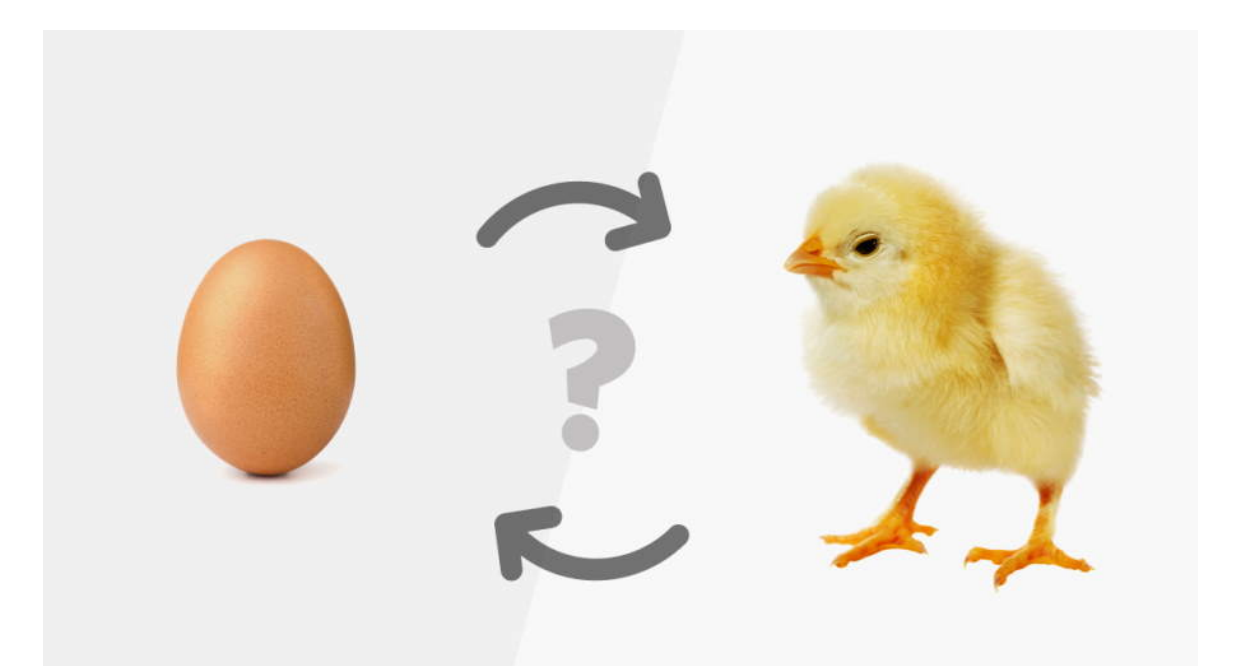
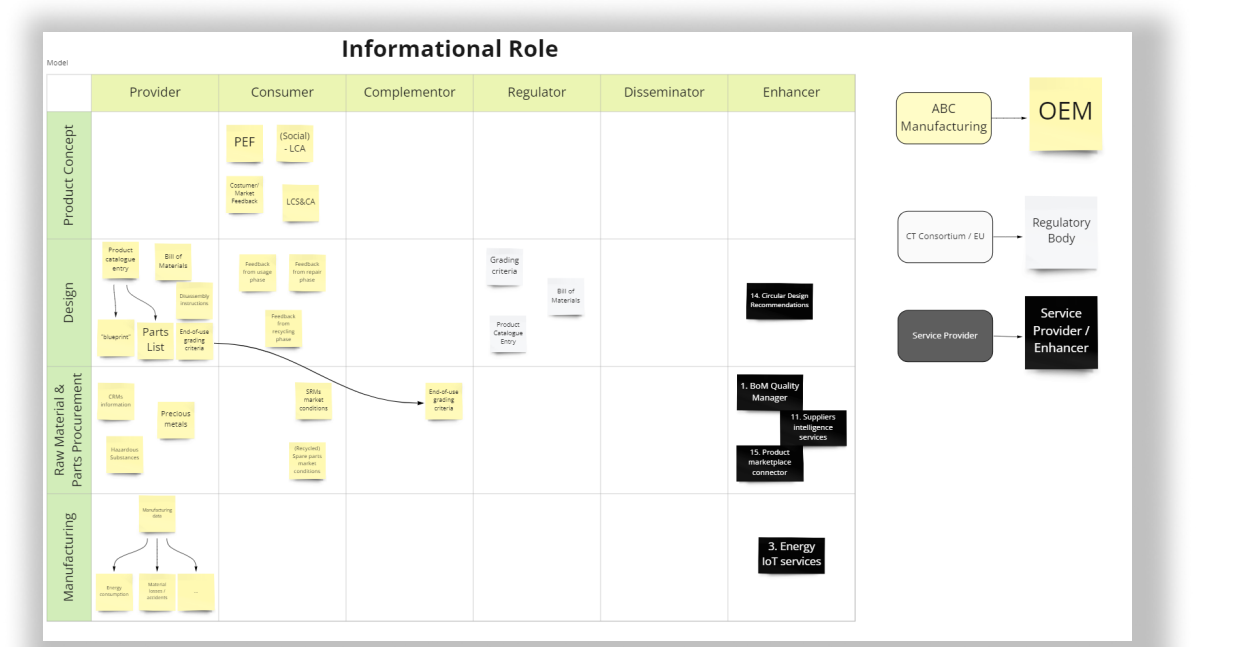
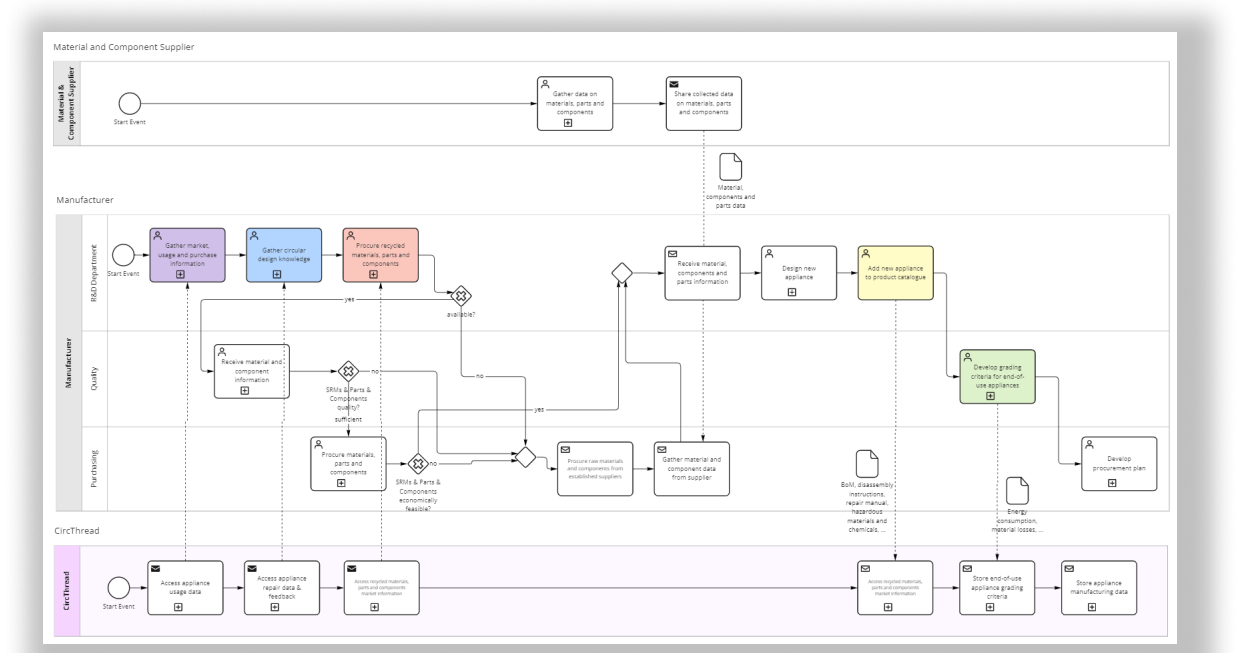
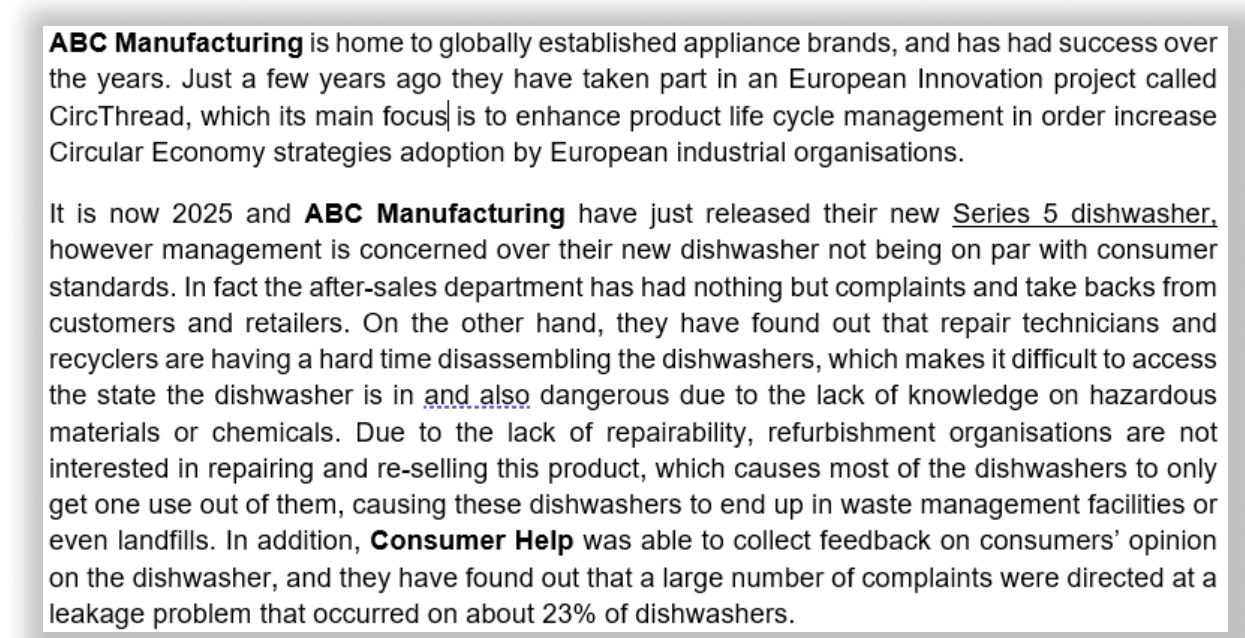
Description: Strategies to deploy an ecosystem by solving the chicken or egg dilemma, which describes the need for one side of the ecosystem to be present for it to be attractive for another to join.

Goal: Provide recommendations to solve the chicken or egg dilemma from the knowledge gained from the previous artefacts.

Governance and Architecture

Description: Ecosystem governance and architecture detail the rules and requirements of ecosystem participation.

Goal: Provide recommendations for the *CircThread* governance model given our findings from the literature and partner interactions.



Conclusion

The results of this task provide knowledge on what the **future of *CircThread*** could look like and validates this future vision with the partners. Moreover, we have formally documented **business processes** for each individual organisation type (OEM, PRO, recycler, retailer, etc.), which will serve as a guide to understanding who is responsible for using the *CircThread* platform inside adopting organisations. We then take a more inter-organisational/ecosystem-wide perspective and with the **Information Ecosystem** model are able to create ecosystem roles which dictate **how, when, what and by who information is processed**. These roles also provide examples and requirements for platform interaction and ecosystem adoption.

Through literature and past circular ecosystems projects case review, we also provide recommendations for other tasks of a more socioeconomic nature. More specifically, the creation of **ecosystem deployment strategies** outside the scope of the pilot partners, **ecosystem governance model, and conceptual architecture**. This effort will aid in understanding how we can deploy and incentivise the expansion of actors in a real-world scenario and define the expected contributions and requirements for actors to join the *CircThread* ecosystem.