

FUTPRINT50 Roadmap

Future Propulsion and Integration

towards a hybrid-electric 50-seat regional aircraft

Development of the Initial Certification and Technology Roadmap for the FUTPRINT50 Framework

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This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 875551





"(..) deliver, by 2050, a fully climate neutral air mobility system, meaning that from 2050, emissions do not add to climate change."

FUTPRINT50 

The logo for "FUTPRINT50" consists of the word "FUTPRINT" in a bold, green, sans-serif font, followed by the number "50" in a similar font. To the right of the "50" is a circular icon containing a stylized airplane and a leaf, symbolizing sustainable aviation.

Enable Entry into Service of aircraft that deliver neutral to zero emission regional aviation by 2035-2040

Enable CO2 neutral regional aircraft



50 PAX

Range design mission 400 km

Max range 800 km

Cruise speed Mach 0.5

EIS by 2035-2040

Enable zero CO2 regional aircraft



Concept products

Enable CO2 neutral regional aircraft



Producing a Capability enables realisation of a Concept Product

Aerospace electric propulsion system

Aerospace Energy storage battery

Aerospace high voltage power distribution

Aircraft design for a Hybrid Electric Propulsion System

Long Description



Long Description

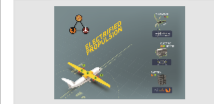
The electric propulsion system required for the hybrid electric aircraft needs to be created using novel and existing technologies. The electric propulsion system together with the conventional propulsion systems can be used to propel the aircraft

Long Description

Key Features

Key features
[4 - 8] MW total power
[2] 4 - 11 MW electric power

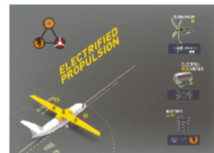
Overview



Description
To advance and create aerospace Electric Propulsion System (EPS)

Key features
[4 - 8] MW total power
[2] 4 - 11 MW electric power

Image Panel



Relationships



Battery hybrid architecture



To certify EPS



To design for EPS



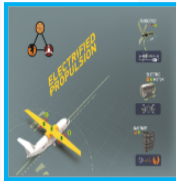
To manufacture EPS

Resources

Tags

Capabilities addressed

CO010



To advance and create and aerospace Electric Propulsion System (EPS)

To design the EPS for the aircraft

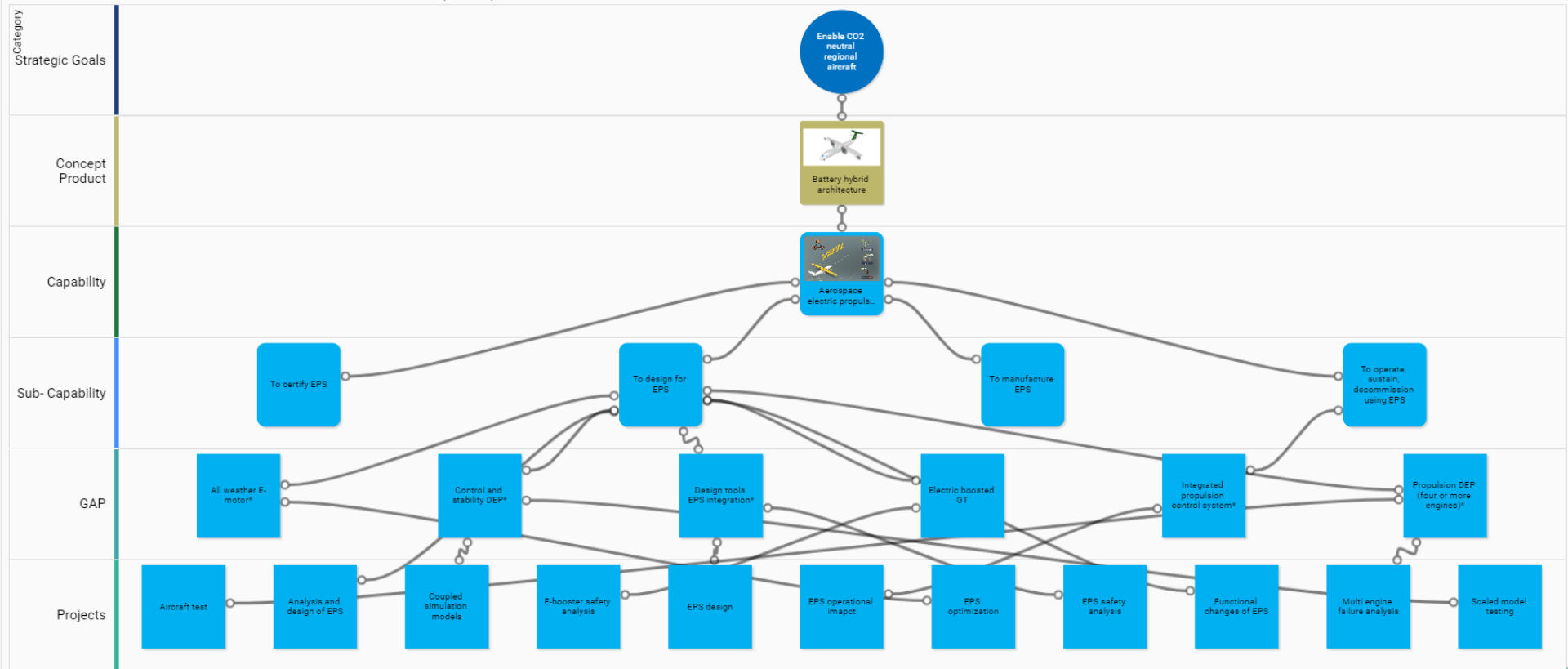
To manufacture the EPS for an aerospace application

To certify the EPS for an aircraft application

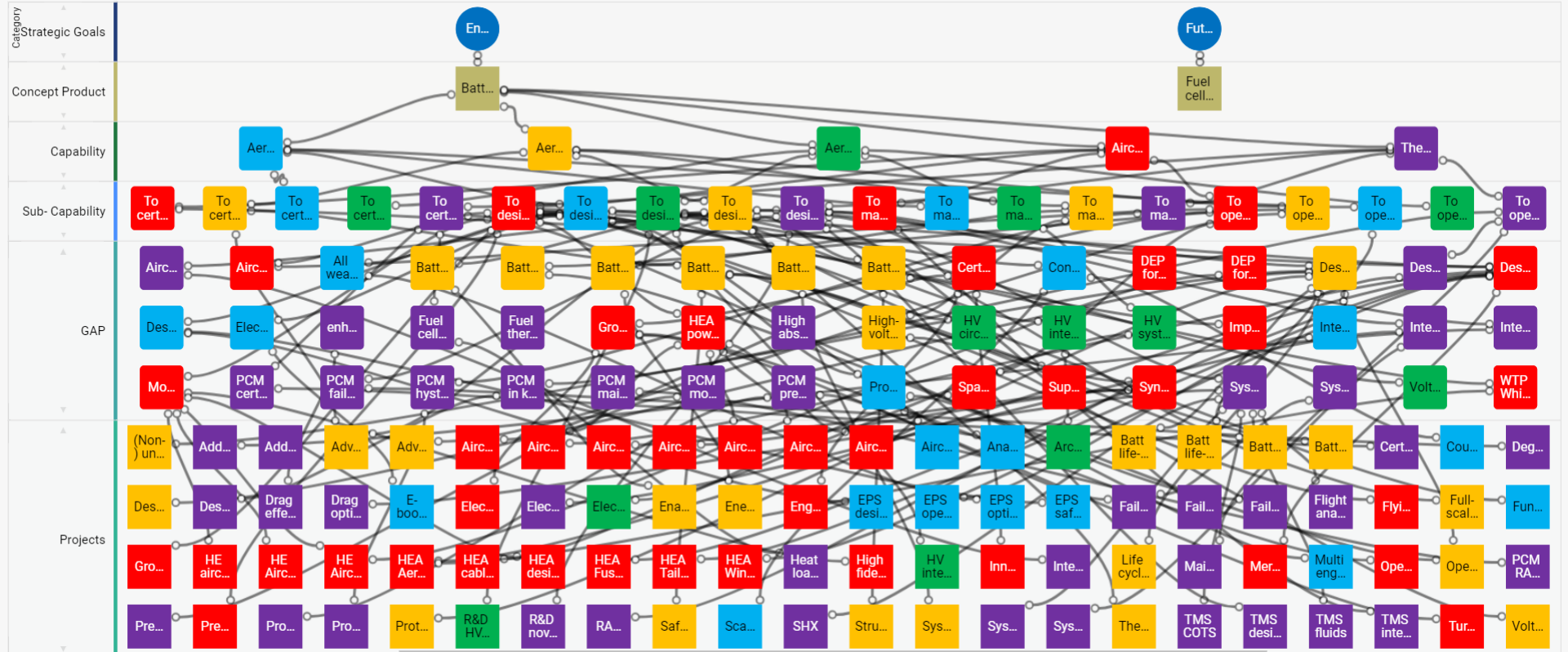
To operate, sustain, decommission the aircraft using an EPS

A Capability is composed of other Sub Capabilities

Aerospace Electric Propulsion System (EPS) Projects



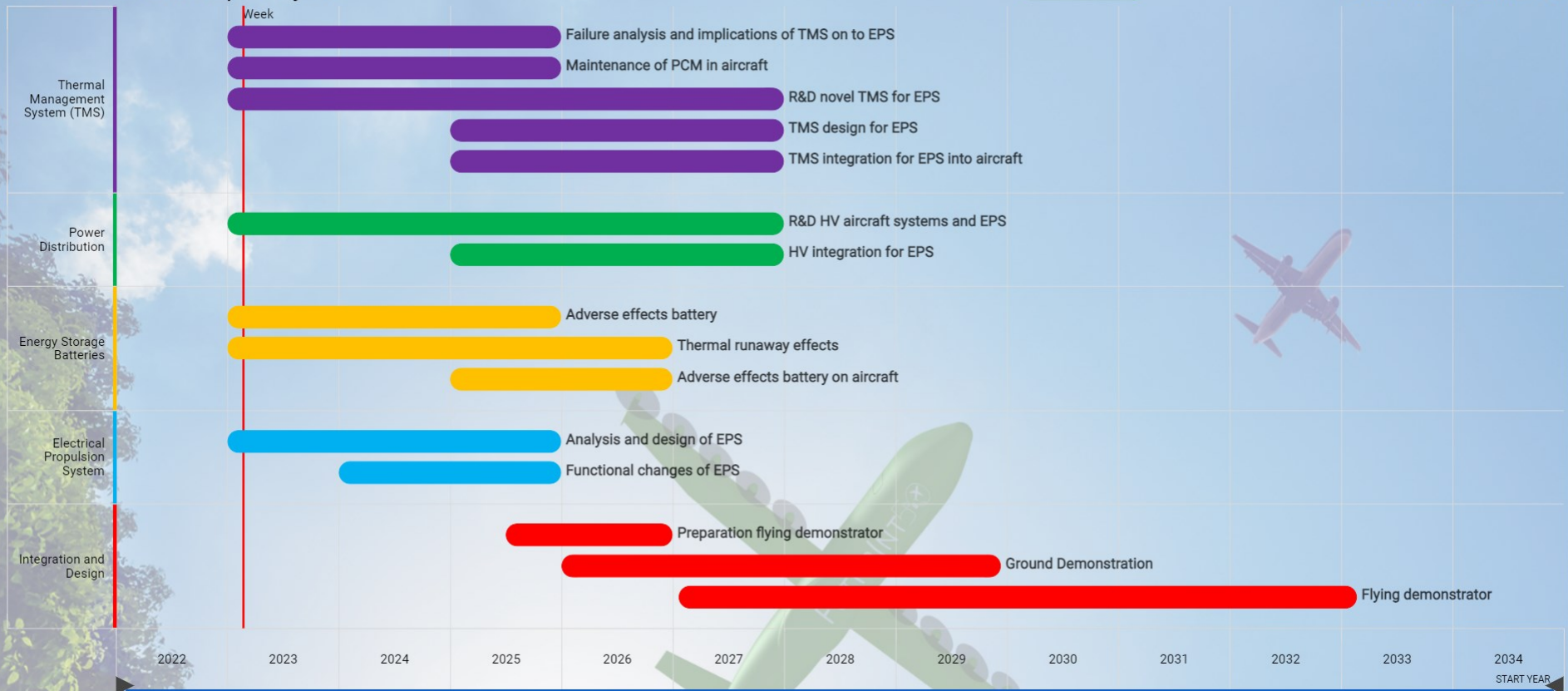
FUTPrint 50 Framework

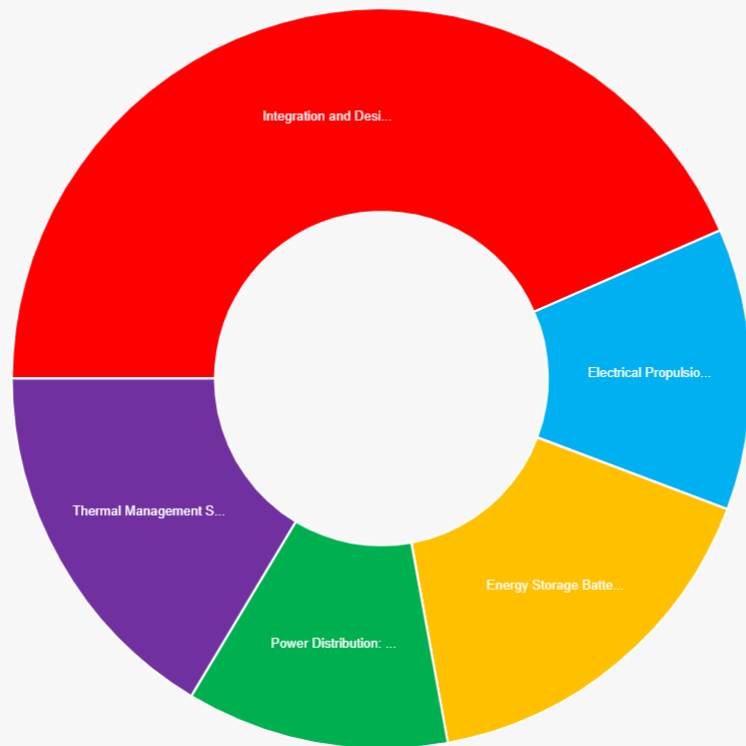


FUTPrint 50 Roadmap - Projects


TRL Dashboard

Total No. of Items: 15









 Aerospace electric propulsion system


 Aircraft design for a Hybrid Electric Propulsion System

 Thermal Management System

 Clean Hydrogen Partnership



 Aerospace high voltage power distribution

 Aerospace Energy storage battery



BATTERY 2030+



Questions / Comments?

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FutPrint 50 Roadmap

FUTPrint50 Questions / Comments

If you have a question or a comment please enter in the field below and we will respond and post a reply here. If you leave your name and contact details we will reply to you directly.

What is your question?

Add additional information here

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