

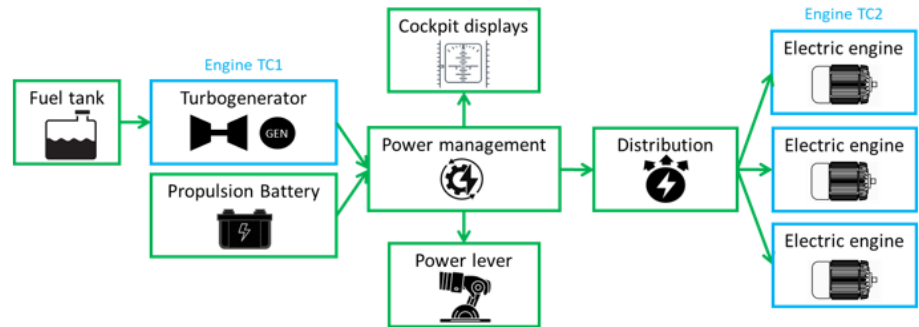
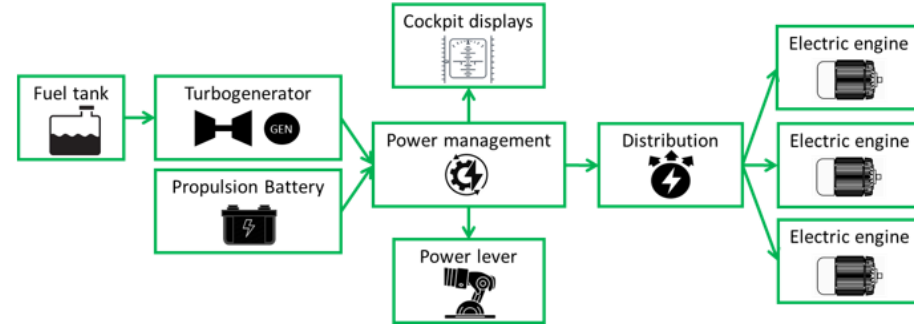
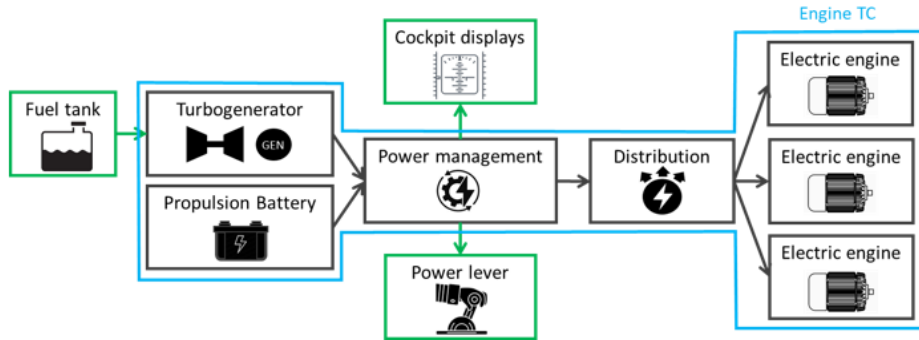
CM-21. A-004 - Summary



- ❖ Aims at providing guidance on **type certification approaches for an EHPS**, especially regarding the perimeter of the “Engine” from a certification perspective
- ❖ **Two ways to certify components of an EHPS** have been identified in accordance with the EASA legal framework:
 - As part of the Aircraft, possible per new Basic Regulation = **Aircraft approach**
 - As part of the Engine, by determining those components and equipment of the EHPS **necessary for the functioning and control of the Engine** (in line with the Engine definition) = **Engine approach**

Notes:

- The ETSO approach has finally not been retained as a possible option to certify components of an EHPS
- Propellers cannot be certified under an Engine TC (must receive their own Type Certificate or be certified under the Aircraft Type Certificate)

Example of EHPS certification strategies

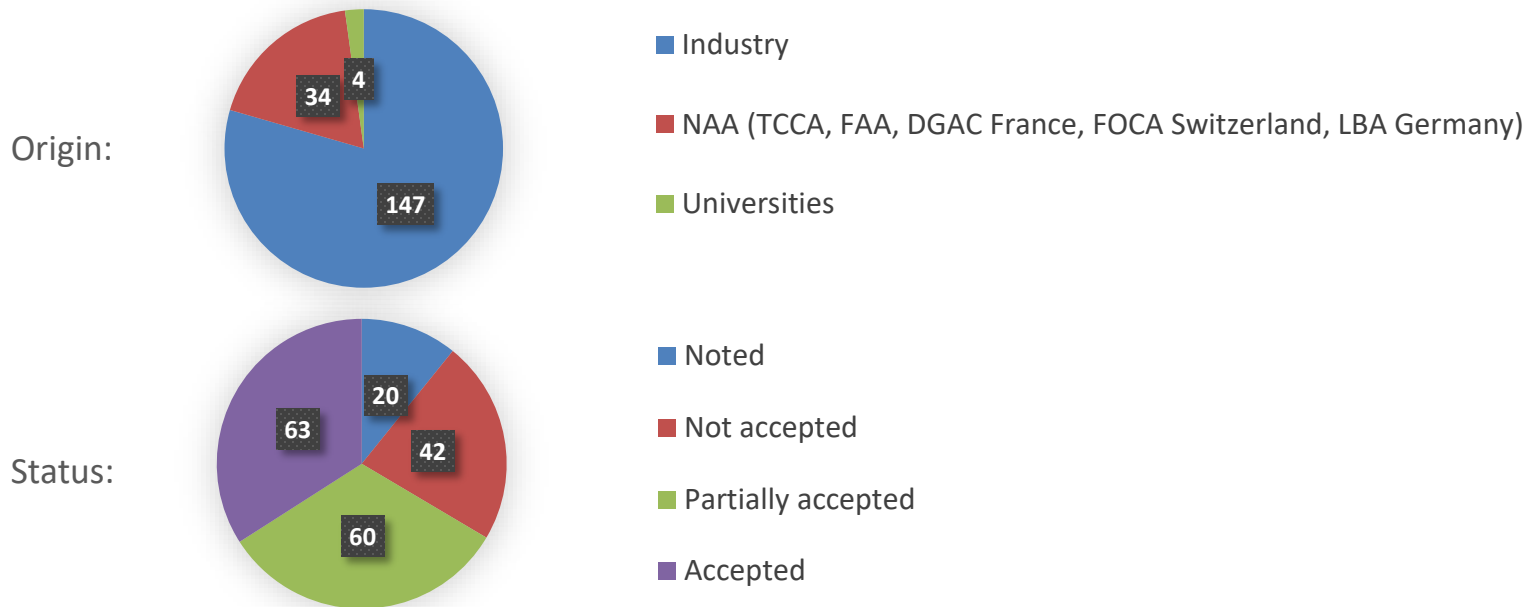


-  Aircraft approach: parts and components certified under the aircraft TC
-  Engine approach: parts and components certified under the engine TC

Comments management

❖ Consultation period from 30 July 2024 to 20 September 2024

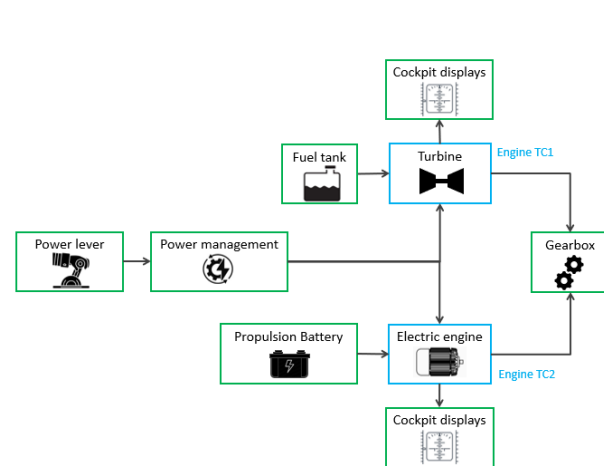
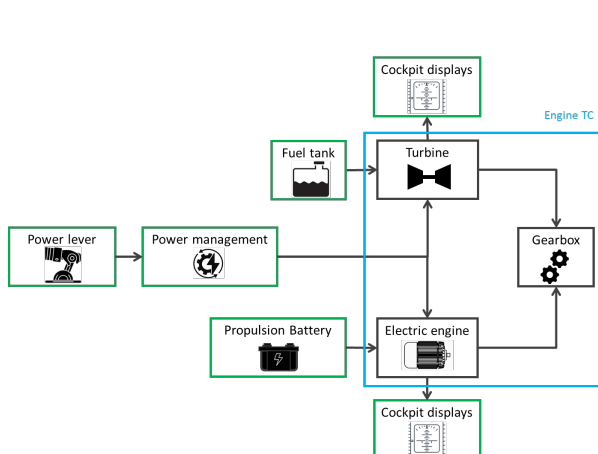
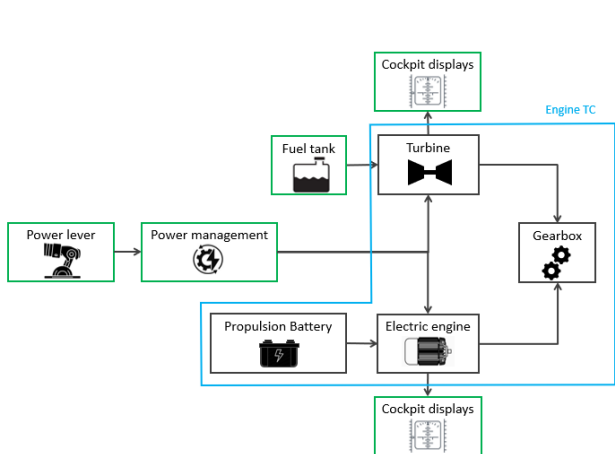
❖ 185 comments received



❖ About **70 comments triggered a CM modification** (with no impact on the CM philosophy)

Main comments received (1/3)

- ❖ EHPS **parallel architectures** were not shown as examples in the first version of the CM
 - ➔ Addition in the CM of **EHPS parallel architecture** examples



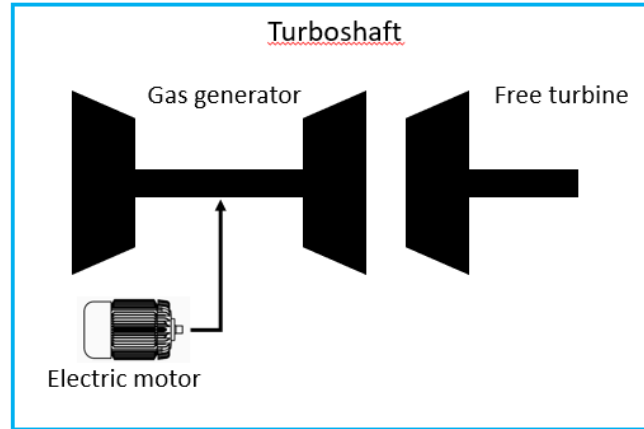
Aircraft approach: parts and components certified under the aircraft TC



Engine approach: parts and components certified under the engine TC

Main comments received (2/3)

→ And of a **hybridised turboshaft** architecture example



Engine approach: parts and components certified under the engine TC

The electric motor does not directly provide power or thrust, but helps the gas generator during transient phases. It is not an engine as per say, and could be considered as an equipment according to CS-E.

Main comments received (3/3)

- ❖ Concerns about the consideration of **Aircraft requirements to address integration aspects**
 - CM modified
- ❖ Confusion about the concept of an **“active/passive” relation** of a component with the Engine
 - EASA response: it refers to a certain level of **dependency between some systems and the Engine control system**.
 - CM modified
- ❖ Possibility of certifying **EHPS components as ETSO articles**
 - EASA response: there are currently **no existing mature industry standards** and, as a consequence, **no E/TSO standards for EHPS components** that can be certified as part of the Engine (*wording modified to take into account the comments made during the meeting*)
 - CM not modified
- ❖ Several requests to cover **additional components or configurations**
 - EASA response: the CM **cannot cover all possible cases**, specific projects **to be discussed with EASA on a case-by-case basis**
 - CM not modified
- ❖ Confusion about the **definition and certification of Propellers, fans and rotors**
 - CM modified

