

## ESA LCA DATABASE

EcoDesign Team

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ESA UNCLASSIFIED – For ESA Official Use Only

→ THE EUROPEAN SPACE AGENCY

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# ESA LCA approach



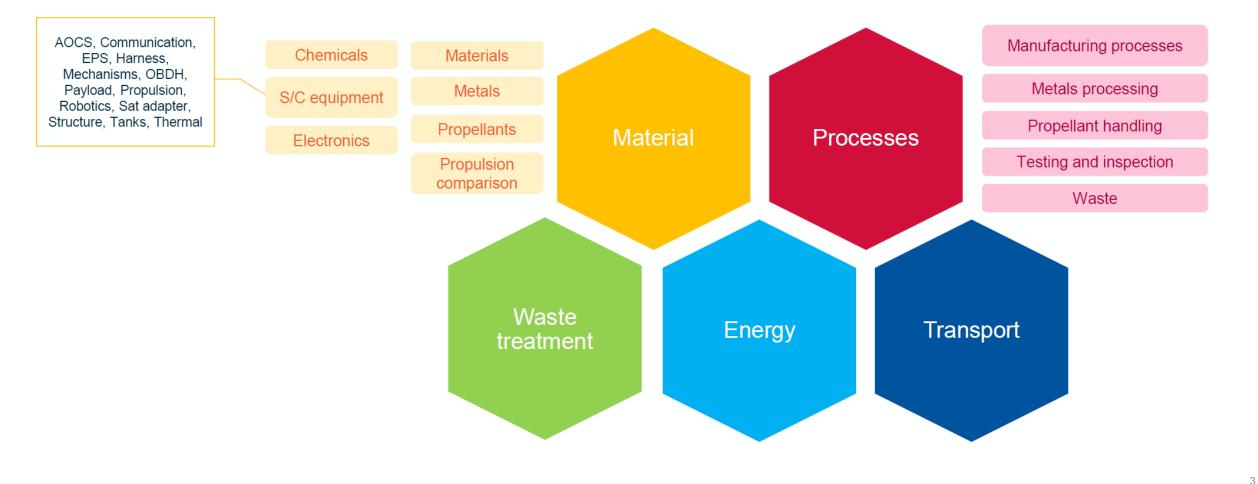
ESA has performed LCA of the 3 different segments:



→ THE EUROPEAN SPACE AGENCY

### **Current structure of ESA LCA Database**





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# **ESA LCA Database update activity - Timeline**



#### ESA LCA database (2016):

- To compile space specific materials, processes, propellants and equipment
- **Note:** Based on literature review and public information

#### ESA LCA database (2020):

- Alignment and integration of datasets coming from ESA projects done between 2016 and 2019 (inc. cut-off)
- update structure of database (datasets re-organized in different categories)
- development of an external and internal Databases to protect proprietary information
- development of user manuals for database and new datasets

### ESA LCA database (on-going):

ESA wants to provide an up-to-date tool to facilitate and support the LCA activities by European Space stakeholders.

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### **ESA LCA Database update activity - Objectives**



This activity aims to improve the effective use and maintainability of the ESA LCA Database.

The objectives of this activity are:

Define a methodology for improvement, update and maintenance

Improve and validate the database

Maintain the database updated taking into consideration the new datasets and the latest changes in the European LCA methodology

**Develop tools to facilitate its usage and distribution** among ESA and European stakeholders