

ESA LCA DATABASE

EcoDesign Team

21/09/2021

ESA UNCLASSIFIED – For ESA Official Use Only

→ THE EUROPEAN SPACE AGENCY

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ESA LCA approach



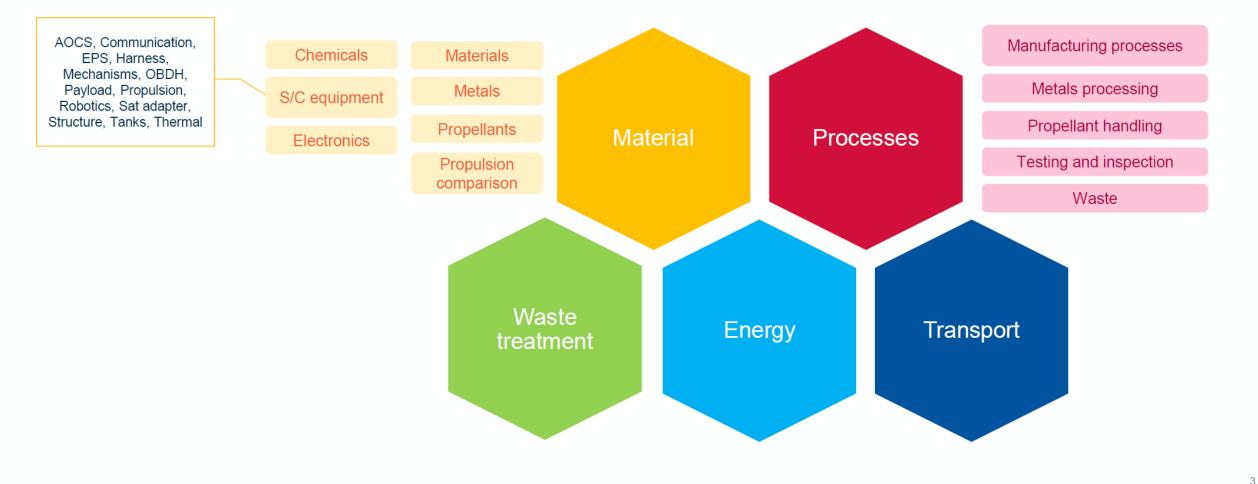
ESA has performed LCA of the 3 different segments:



→ 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