

This work package applies to type 2 (suborbital long-range high speed transportation) and type 3 (orbital servicing low Earth orbit) vehicles.

You will address one of the following topics:

- 1. Imagine you create a space transportation company dedicated to transport passenger on high-speed long-range flights (type 2 suborbital vehicle, whose main characteristics are given in PDF file below):
- You will choose and justify air routes to be possibly operated with this type of vehicle, and taking, if needed, different travel classes (First, Business, Economy,..) into account,
- You will list and detail operations to be conducted during turn-around time (TAT time between landing and next take-off), and associated necessary time, keeping in mind profitability of the routes without neglecting safety aspects.
 - You will determine the associated design constraints in order to obtain a TAT close to

current long-range aircraft.

Or

- Imagine you create a space transportation company dedicated to transport goods and people (professiional or tourists) to a commercial space station in Low Earth orbit (type 3 orbital vehicle
- , whose main characteristics are given in PDF file below):
- You will choose and justify whether to use vehicles that carry only passengers or vehicles that can carry both passengers and freight. You will give details of the services associated with the different services you offer,
- You will detail the operations to be carried out after returning to Earth before setting off on a new mission and you will deduce the associated design constraints so that the vehicle's downtime is as short as possible, bearing in mind your company's profitability without neglecting the "safety" aspects.



General characteristics for the reference vehicles:

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