A Collaborative Systems of Systems Simulation of Urban Air Mobility

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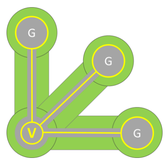
Vehicle Allocation

Selects vehicle for trip considering time and energy constraints

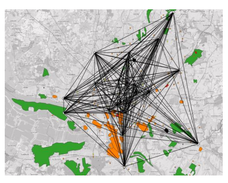
Vertiport Airside Operations

Allocates available takeoff and landing slots at Vertiport



Trajectory

Find deconflicted Trajectory between vertiports

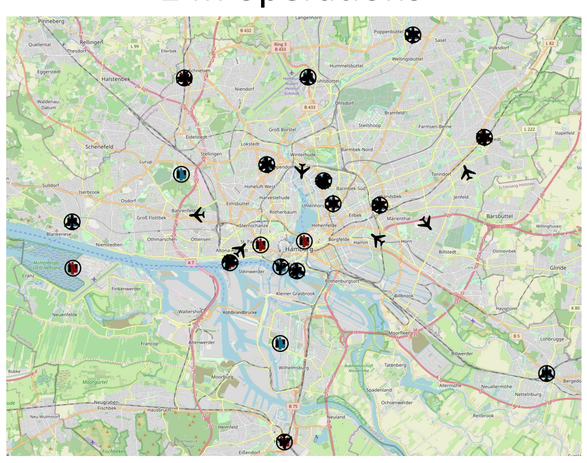


Vehicle Design

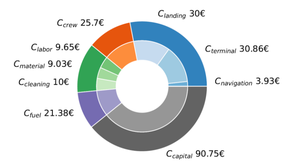
Designs and provides Aircraft Concepts for Simulation

Collaborative Sim Env

Integrates all tools and simulate 24h operations

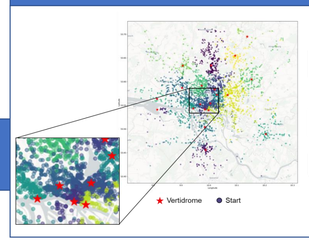


Cost and Revenues



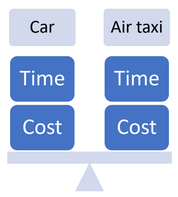
Sets Ticket Price based on Operator Revenue

Demand Modelling



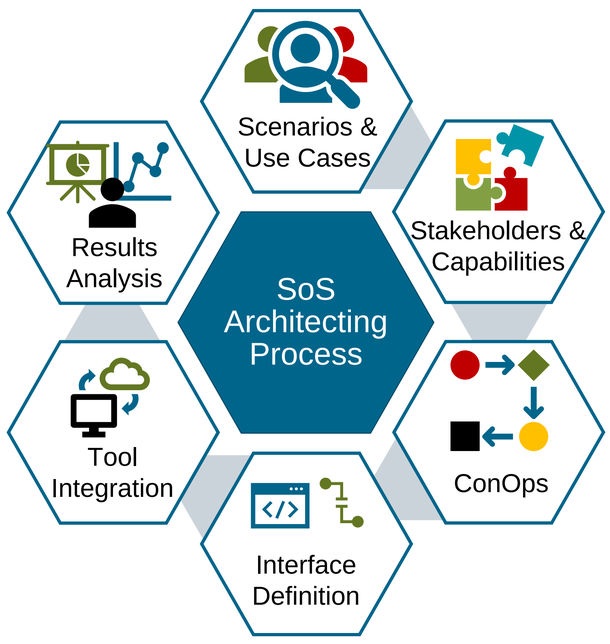
Provides set of potential demand for UAM

Mode Choice

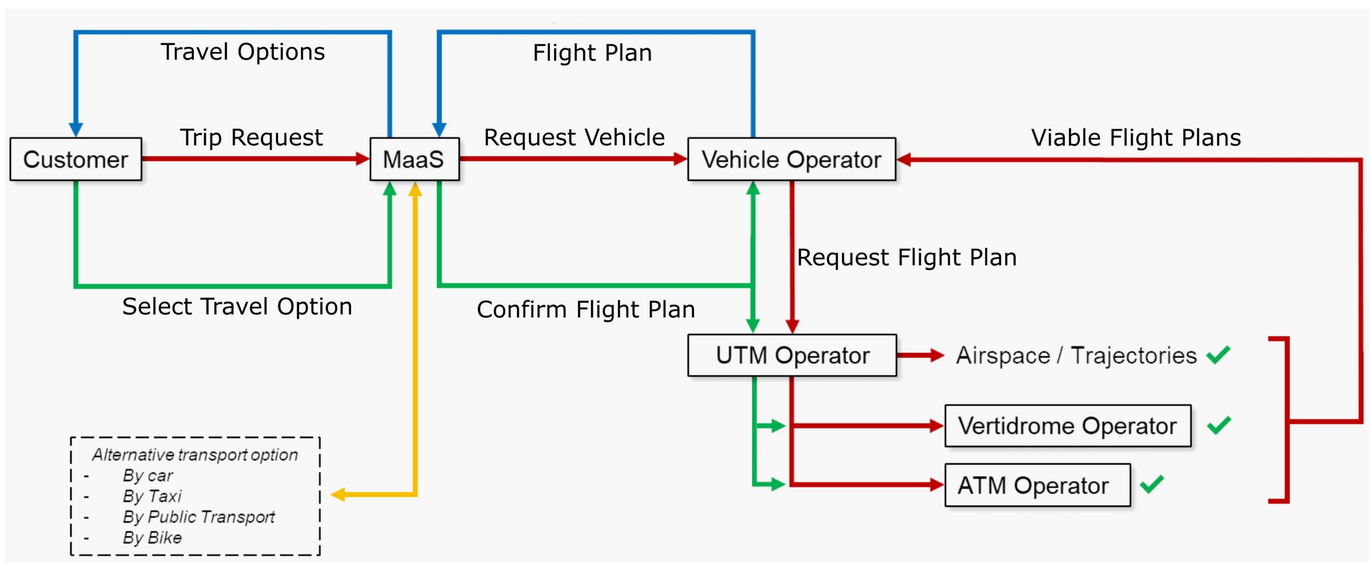


Models passenger mode choice based on UAM ticket price and time

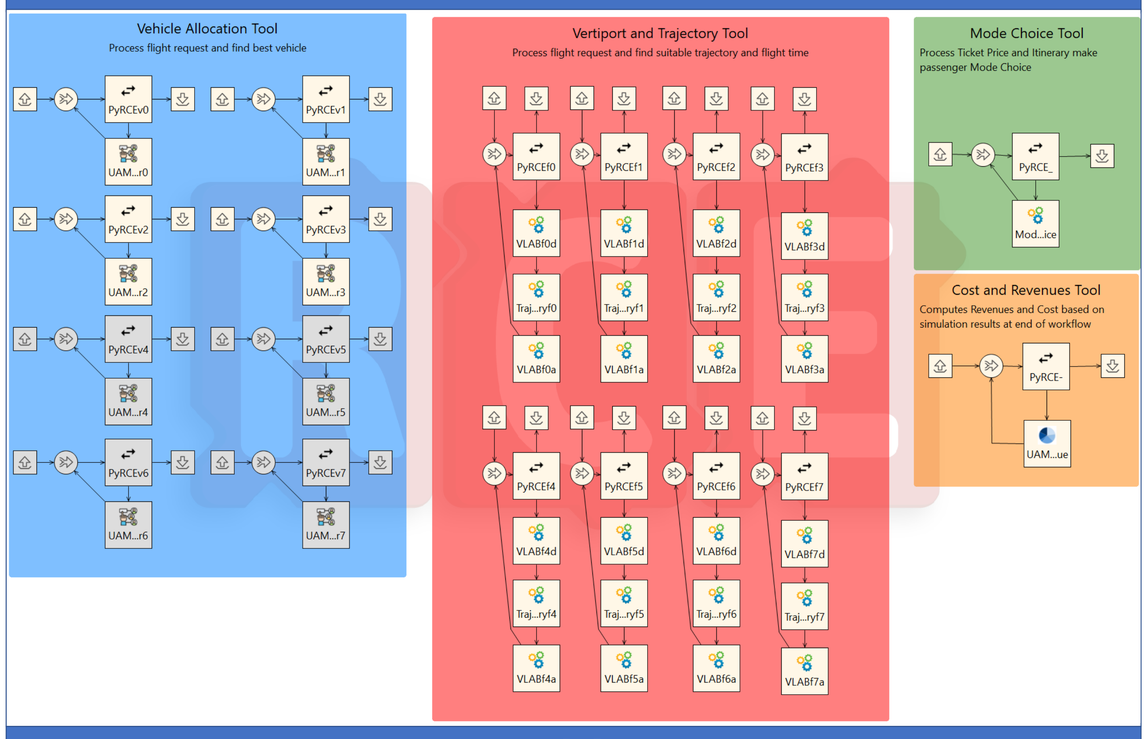
SoS Architecting Process



ConOps



RCE Workflow



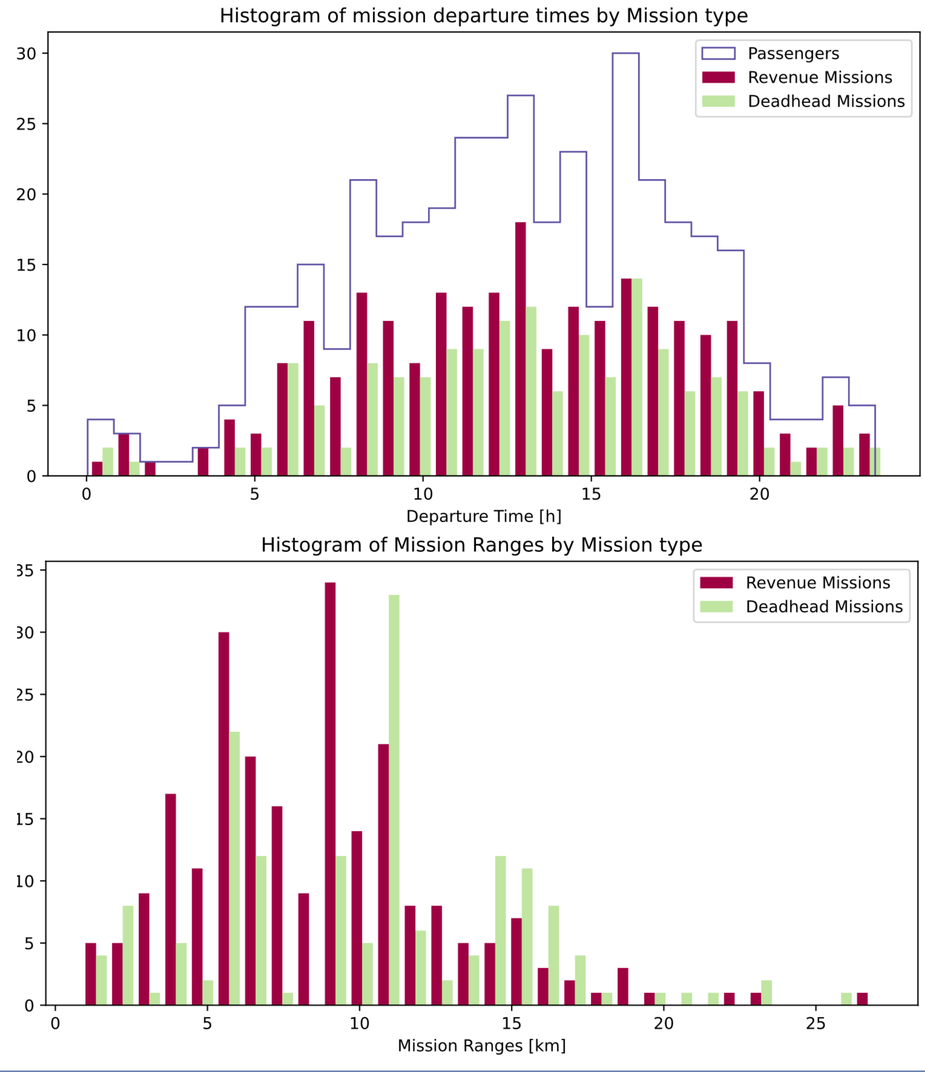
Enablers

RCE — *Tool Execution and Data Exchange*

Basis for a Common Language

cpacs — A Common Language for Aircraft Design

Results



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