Model Based Avionics Panel

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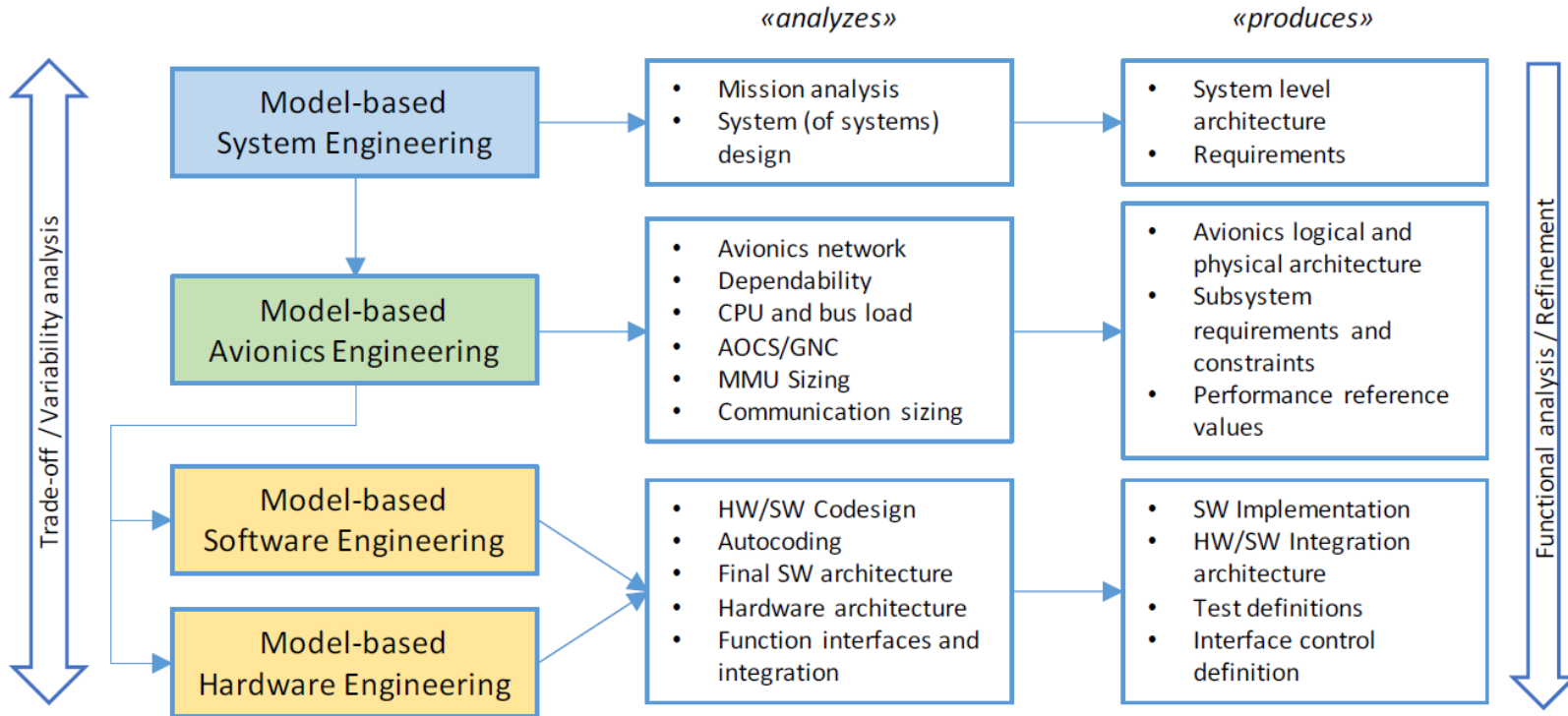# DOCUMENT

SAVOIR Model Based Avionics Roadmap

space avionics open interface architecture

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Model Based Avionics

- **Q1- Model Based Avionics establishes the digital continuity between system and Hw/Sw/Control**
  What is, in your own professional context, the specific benefits that we can expect from MBA?

  (hints: automation, consistency verification, data flow verification, performance, resource usage, automatic generation of document/ICDs/configuration files, clear description of the avionics bus usage, clear software architecture, clear deployment view, requirement traceability, avionics validation, reuse, schedule, etc)

- **Q2- What are the main obstacles which exist in your company to establish MBA?**

  (hints: interoperability of tools, unclear process, lack of discipline synchronisation in schedule [means hw is early, sw is late, aocs life cycle],

- **Q3- What would you change in your company or in your customer/supplier relationship to enable MBA ?**

  (hints: organisation/merge hw and sw teams, process/define a MBA process, roles/define an avionics architect role, training)

- **Q4: We have seen presentations mainly related to the descending part of the V life cycle (requirements, design, implementation).**
  How could we extend this part of MBA to (i) the rest of the life cycle and (ii) other disciplines?

  (hints: use avionics and power models for simulation, executable systemC for tradeoff, Simulink for AOCS, OBC simulator , microchip emulator, and then flatsats, twins of equipments, contribution to spacecraft twin, avionics validation; electrical design, PCB)

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