

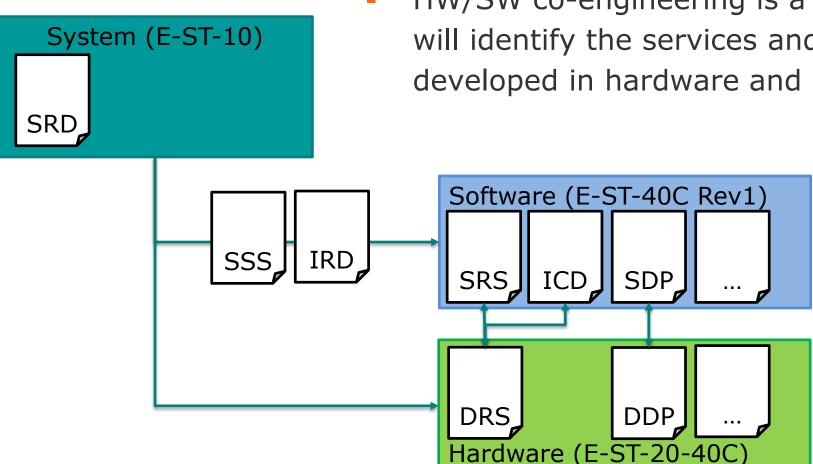
# **HARDWARE/SOFTWARE** co-engineering

... and its introduction into a Model-Based approach



# HW/SW co-engineering as per ECSS (new)





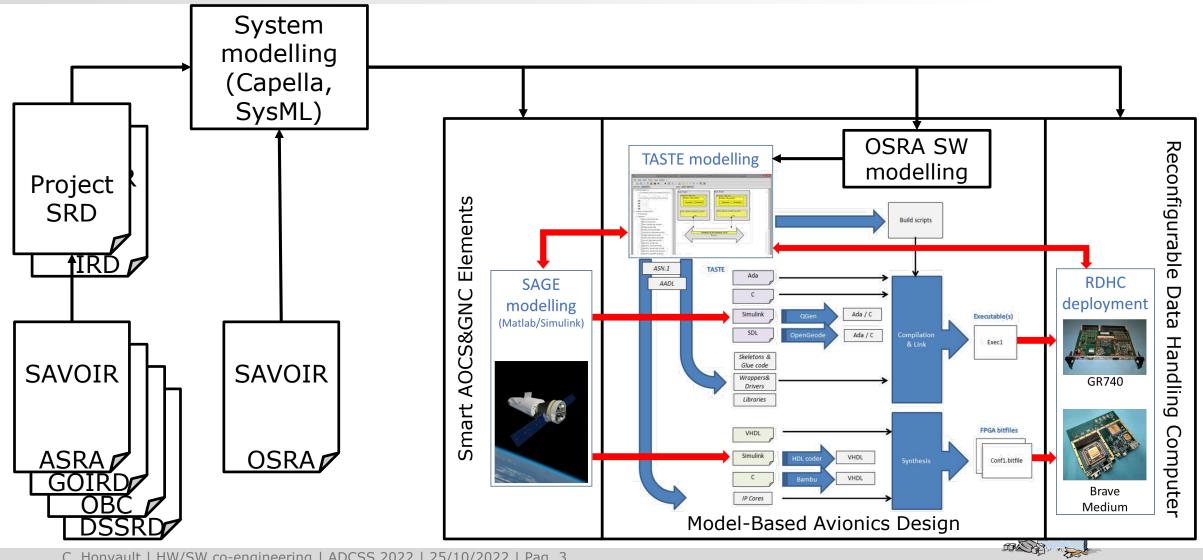
HW/SW co-engineering is a System activity that will identify the services and interfaces to be developed in hardware and in software.

> SDP and DDP shall identify all the interactions between software and hardware teams: models, simulators, code, ...



### Overview of the development flow

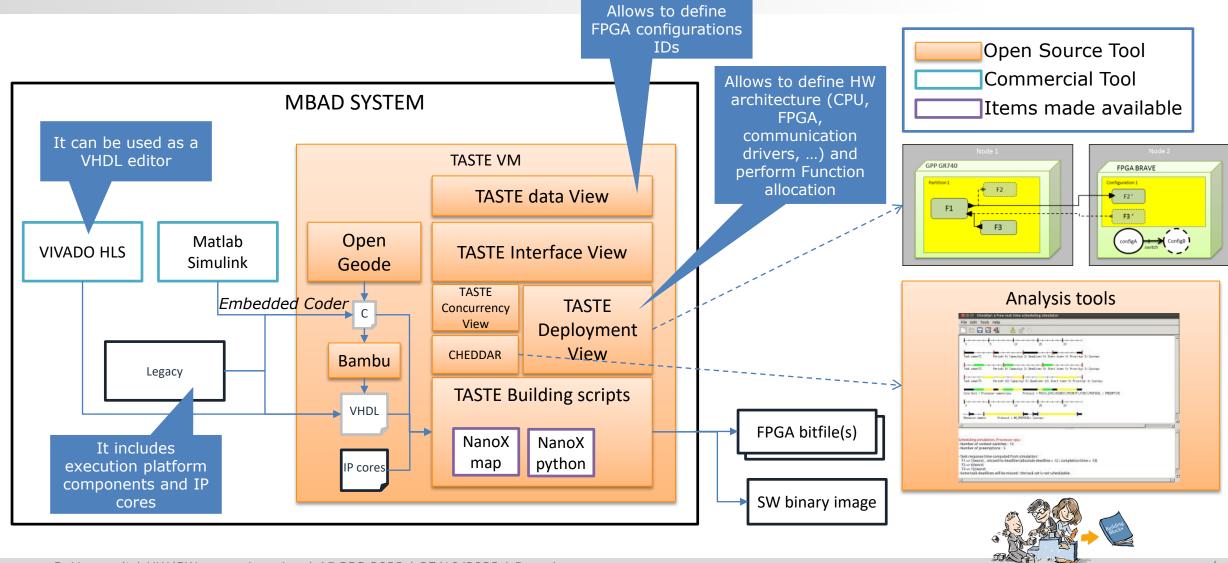




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## HW/SW co-engineering as per CoRA-MBAD





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### **Execution platform software**

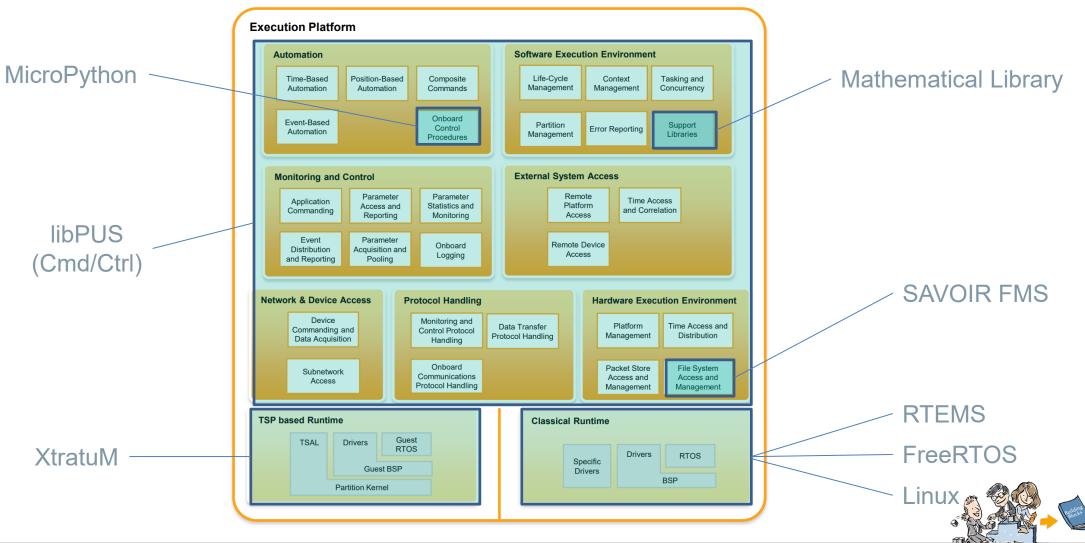


- On-Board Software Reference Architecture (OSRA)
- On-Board Software Reference Architecture for Payloads (OSRA-P)
- Payload Execution Platform Software (PEPS)
- And maybe soon (GSTP Compendium 2022):
  - Model-based execution platform for space applications:
     The activity is aiming at developing a modelling environment targeting the automatic generation of the execution platform of payloads and platforms.



#### **Execution Platform**





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## **CoRA MBAD family**



