

HL-LHC Space reservation why ?

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With the contribution of

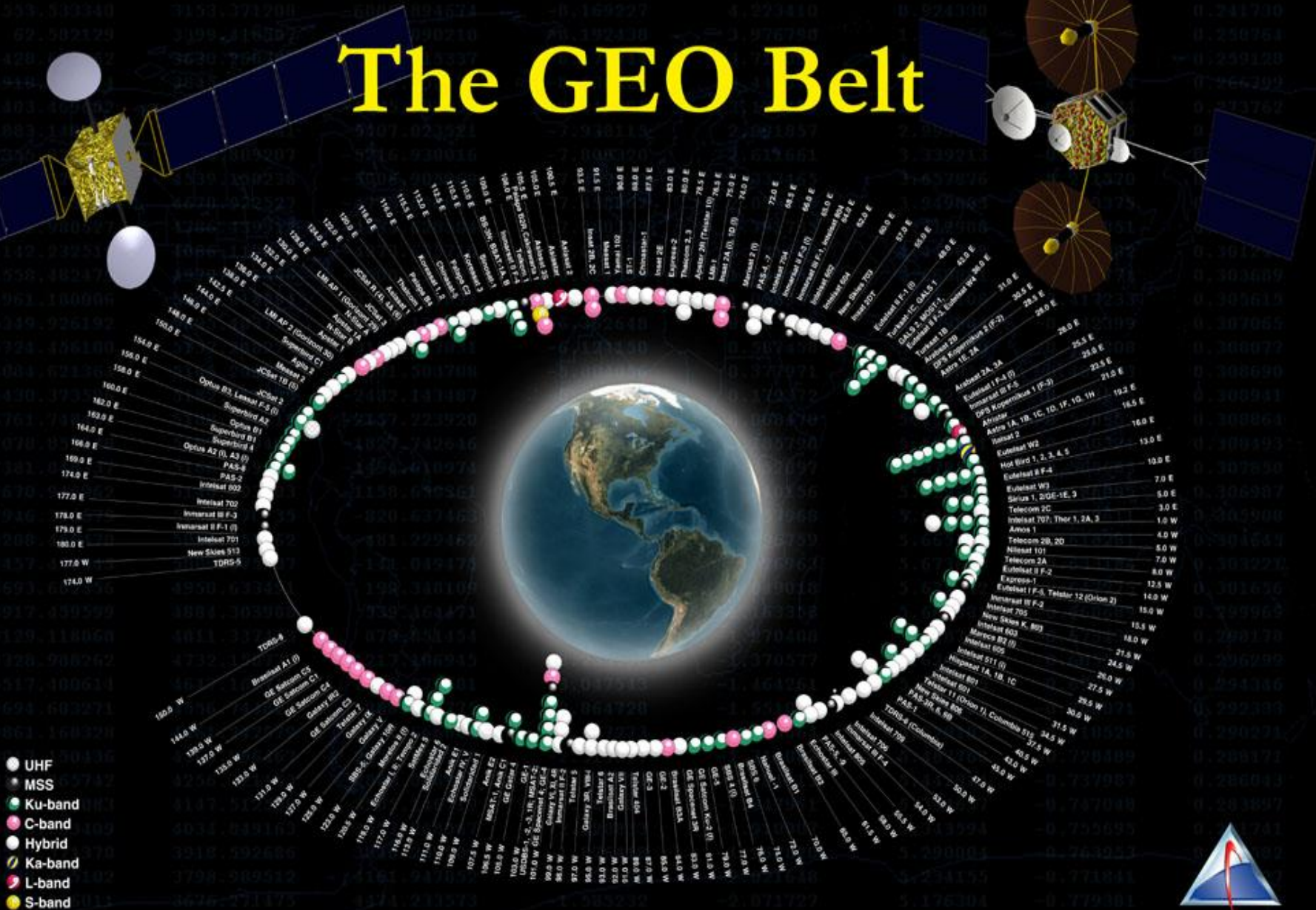
I. Bejar Alonso, Samy Chemli, S. Weisz

Space could be like this....



...but it will look like this...

The GEO Belt



...and we would like to keep avoiding this



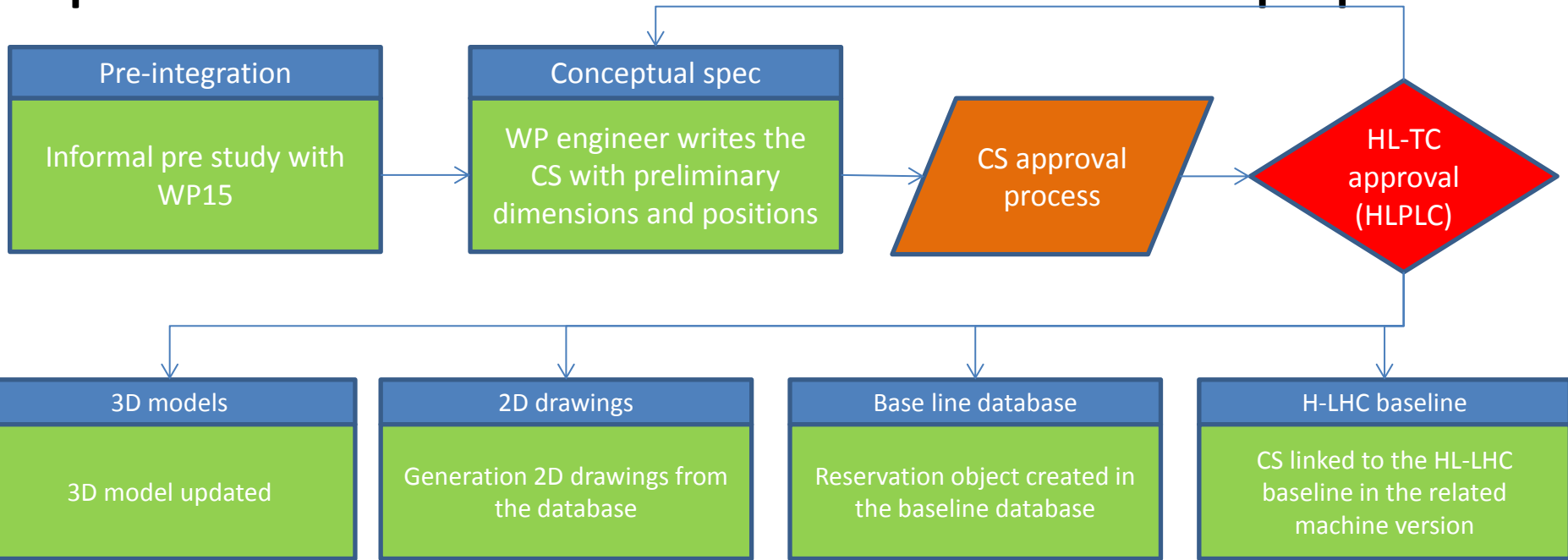
The present status

- Present LHC reservation was done on the base of Engineering Change Requests
- The reserved space is tagged on the LHCSLSX layout drawings, but without reference to the triggering document. Difficulty to go back to the original motivation without the support of an expert from the Configuration Management
- The reservation of the space of not on the beam equipment follows the same procedure, but not so clearly formalised

What we want to achieve and some guideline

- Space reservation shall be possible also for new equipment under conceptual development stage and ECR at that level is not necessarily the best tool
- The space reservation shall be linked to the baseline database with a clear link to the triggering document
- Space reservation shall be traced in 2D as today, but also in 3D
- Space reservation is linked to an equipment/system. If the system is not going to be installed the space reservation is erased and the space slot is ready for allocation to the system/equipment that the HL-LHC project deems as most important for that slot
- Space reservation system shall work also for equipment not on the beam line

Space reservation flow chart beam equipment



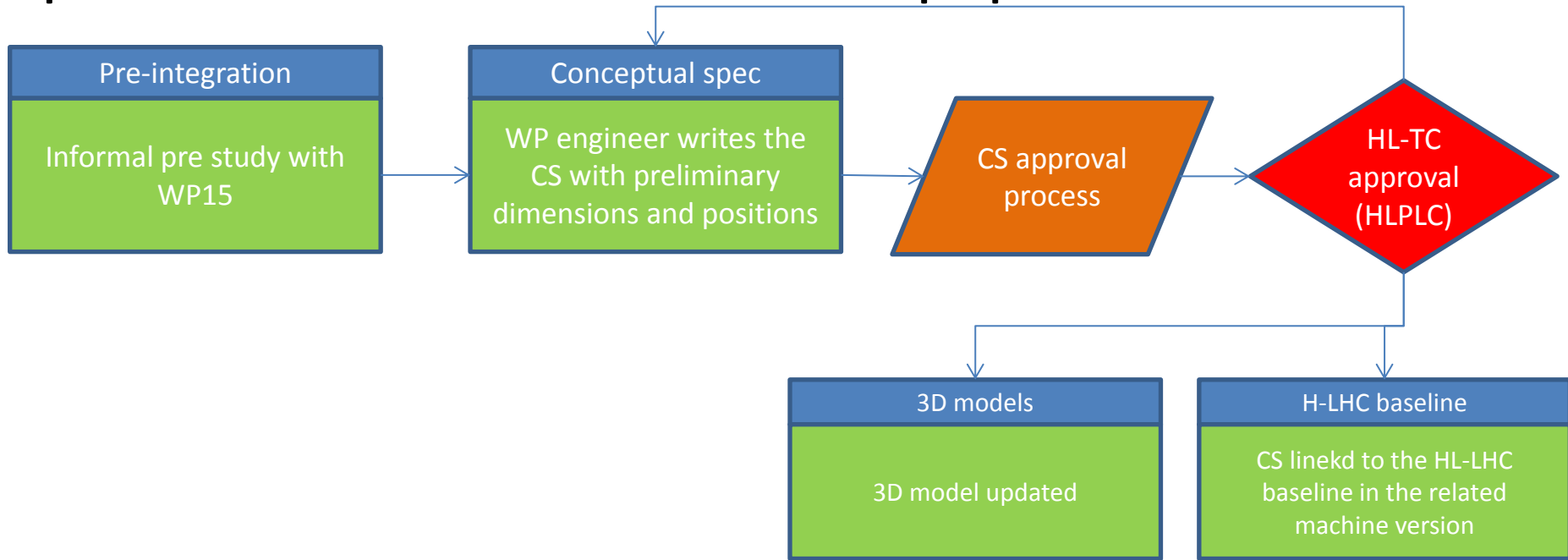
In case of space reservation modification the process is repeated starting with the WP engineer modifying the CS

When Design File is produced (this includes the Engineering Specification) space reservation will be updated and an ECR shall be produced.
Both (DF and ECR) shall be approved by the HL-PLC

After approval of the Design File any space change shall be object of an ECR

For installed equipment, modification of space allocation need an ECR to be approved by HL-PLC and LMC

Space reservation flow chart equipment not on beam



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Concluding remark

- A QA procedure describing the process has been written:” **LHC RESERVATION OF SPACE FOR EQUIPMENT INSTALLATION**” HC-PM-QA-313 EDMS nr 1344489.
- The procedure is active as today for the HL-LHC systems/equipment
- Extension to the LHC under discussion and approval