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Interaction studies with multiple vendors

B4 - DC Systems and Power Electronics

PS 1, Q 1

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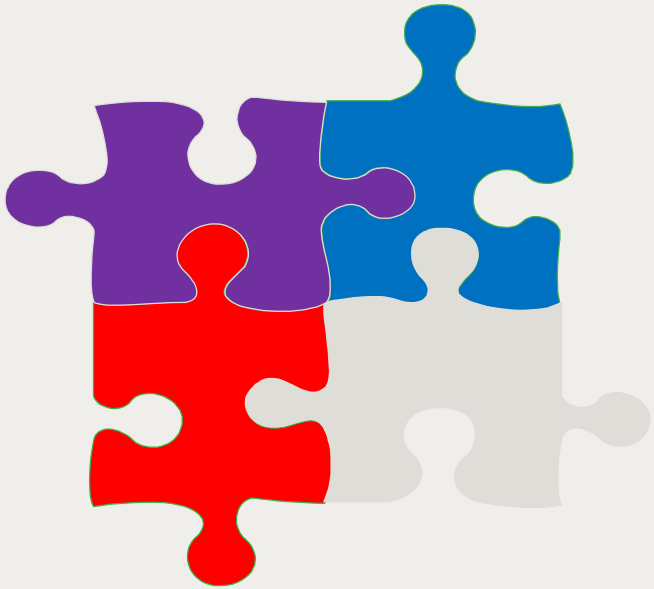
Challenges with interaction studies

- Interaction studies are crucial for maintaining the stability, especially in power electronic dominated systems.
- Interaction studies require information from all relevant parties, which is partly protected intellectual property.
- The information has to be present all together to the system designer (individual vendors).
- Third parties have been involved in some projects to mediate between different vendors. This is a feasible but time consuming approach.

With increasing complexity of power systems, a methodology to perform interaction studies in a fast manner is extremely important.

Requirements for the models of multi-vendor interaction studies

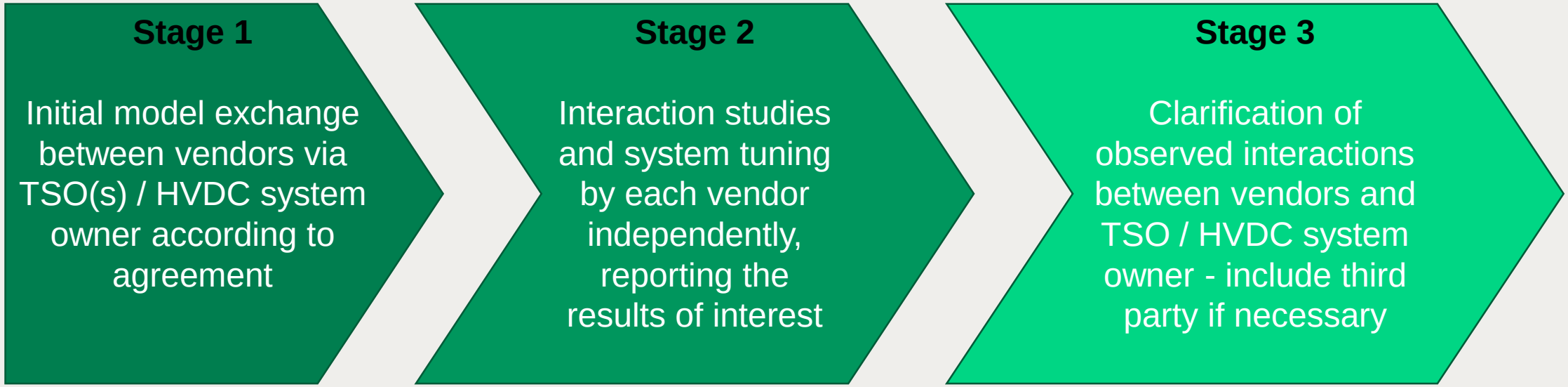
- Vendors commit to exchange relevant information and models under individual project agreements and controlled by the relevant TSO(s) / HVDC system owner(s).
- Roles and responsibilities for all stakeholders are defined and agreed.
- Vendors' IP rights are protected by confidentiality agreements as well as by relevant software mechanisms where applicable.
- Relevant functionalities of the individual system are represented appropriately and at an agreed level of detail.



The HVDC vendors within T&D Europe commit to comply with these requirements – support of all stakeholders, including regulation bodies, is essential.

Optimized workflow for interaction studies in multi-vendor setups

A key enabler for extended multi-vendor systems



This enables:

- Fast project execution due to vendors tuning their controls directly using models from other vendors
- Maintaining clear responsibilities between all parties involved