

**> Is it foreseen that the outcomes, when consolidated, be reflected in any standard or handbook?**

The System Factory Logical Architecture (LA) intends to be a reference and is recognised as a key element of the MBSE strategy together with the Data Hub and Ontologies.

(It is foreseen to align these 3 elements). This LA is a main input for the MB4SE group. For this reason we think any consolidated work will follow ESA's process to produce new or improved standards.

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**> Are there many components/functional requirements of the System Factory not satisfied by current technologies? E.g. I imagine the MBSE Engineering Hub is required for interoperability related requirements**

The System Factory Logical Architecture is broken-down in components which in turn group related functions. These logical functions satisfy (and are traced to) all the identified system requirements.

In particular the functions inside the Data Hub (the major and central logical component) do map to data exchange/interoperability related requirements.

At the Physical Architecture level, that we're now working on, we are performing a mapping to the current concrete technologies/tools used by the 3 LSIs. From this we are deriving a gap analysis that tell us which logical elements - and therefore, system requirements - are not currently covered. These results will come out soon, but we can advance we indeed see many gaps.

**> The focus seems to be a lot on the LSI's, i can imagine more partners in the ecosystem can benefit. Why this focus?**

The aim of the Factory is to allow performing the E-10 SE activities in a MBSE way in the new paradigm of full digitalisation.

Therefore the goal is to cover the whole system at SE level, and this is why the LSIs become the main stakeholders. Also their experience as large integrators is key to such a broad scope. Nevertheless all partners namely customer/suppliers/subcontractors can and shall drive and benefit from the Factory.

In fact the model of the Factory includes roles "Customer", "Supplier" and "Payload Supplier". Customer and supplier related exchanges currently are not complete however, therefore its consolidation should be one of the future work points to address.

Exchanges are to be interpreted between SE office and other disciplines, but as well as between prime supplier and customers/supply chain.

**> A number of artefacts and exchanges were defined. What would be the impact on the System Factory in case the Space System Ontology would make changes to these artefacts /exchange items?**

The Factory model would help us quickly analyse such impact in general, since all exchange items are linked to exchanges that in turn are linked to the functions and components of the Factory.

A more detailed analysis on how such changes could affect the architecture's functions or components would be necessary however - for example, if the change would concern only the item name of a few data contents, perhaps the functional impact would be small or negligible (since the item would still be mostly "compatible/relevant" to the connected functions/functional chains); but if in contrast the changes were to be big enough that would render any functions or functional chains incompatible with the item, then some revision of the architecture would probably be needed.