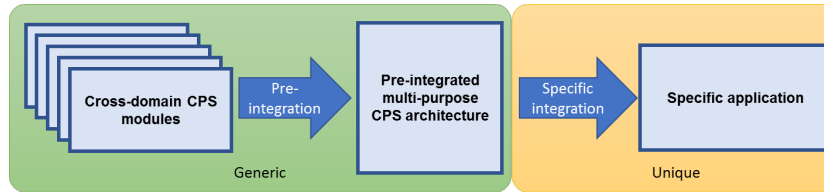


Using specific integration for specific application



Innovation brought by CPS4EU: pre-integrated multi-purpose CPS architecture

Industrial integration context abstraction to ease the link between technology providers and use case providers.

Separate common module integration work from final applications and systems engineering.

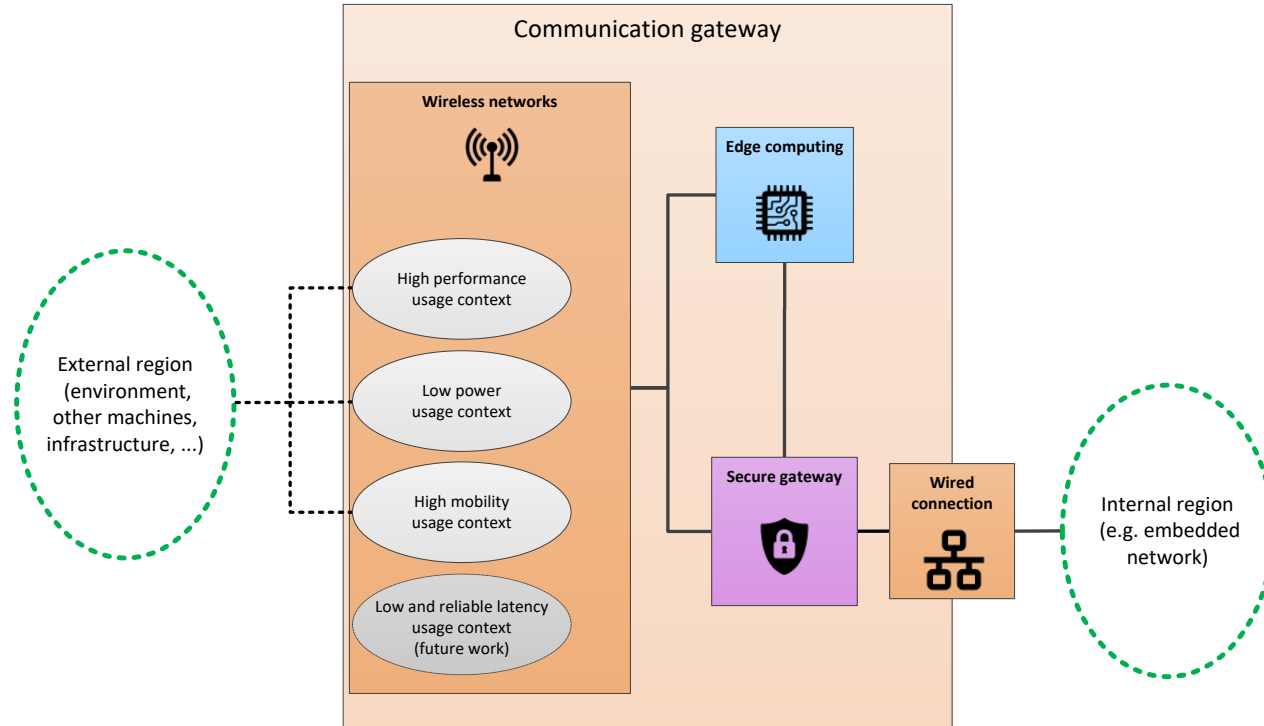
Top-down and bottom-up approaches: from use cases and industrial needs to new generations of modules, and vice versa

5 Pre-Integrated Architectures in CPS4EU

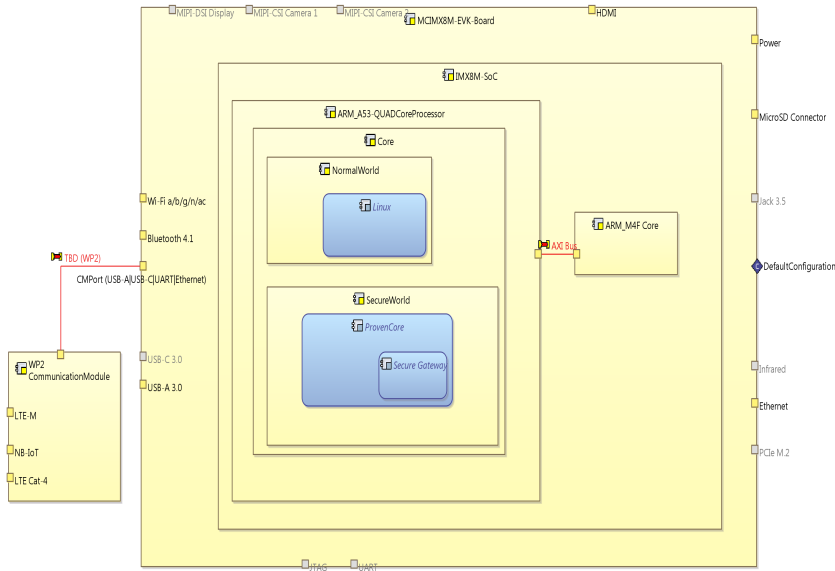
Example: CPS4EU Secure Connectivity PIARCH



From common, reference high-level design patterns and good practices...

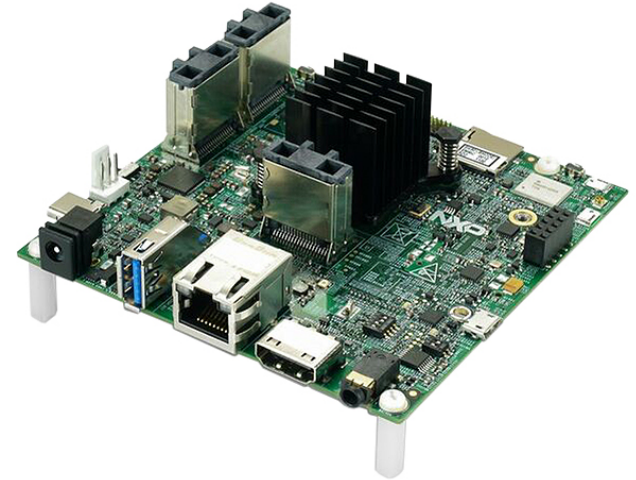


...to a physical instance...



Physical architecture derived from the logical PIARCH

Constrained technical choices



Tool-assisted integration of the physical architecture

Configurable platform

...thanks to a workflow and set of tools.

Secure Connectivity PIARCH tools:

- modelling tool
 - e.g. **Capella**
- configuration files generator
- image builder (custom Linux + apps)
 - e.g. **Yocto**
- hardware emulator (virtual integration)
 - e.g. **UniSim VP**

