Expected benefits

Mean Relevance

- RT & NRT separation
- Connectivity without interfering with RT
- Safety fuctions isolated from user
- Simpler real time communications
- Secure 3rd party apps integration
- Isolation of safety related functions
- Overall Mean
- Allow distributed dev. Teams
- Easier reuse of legacy components
- GPOS and RTOS combination
- Easier computational resources redistribution
- Improved private data protection

Expected benefits per industry

- Aerospace
- Automotive
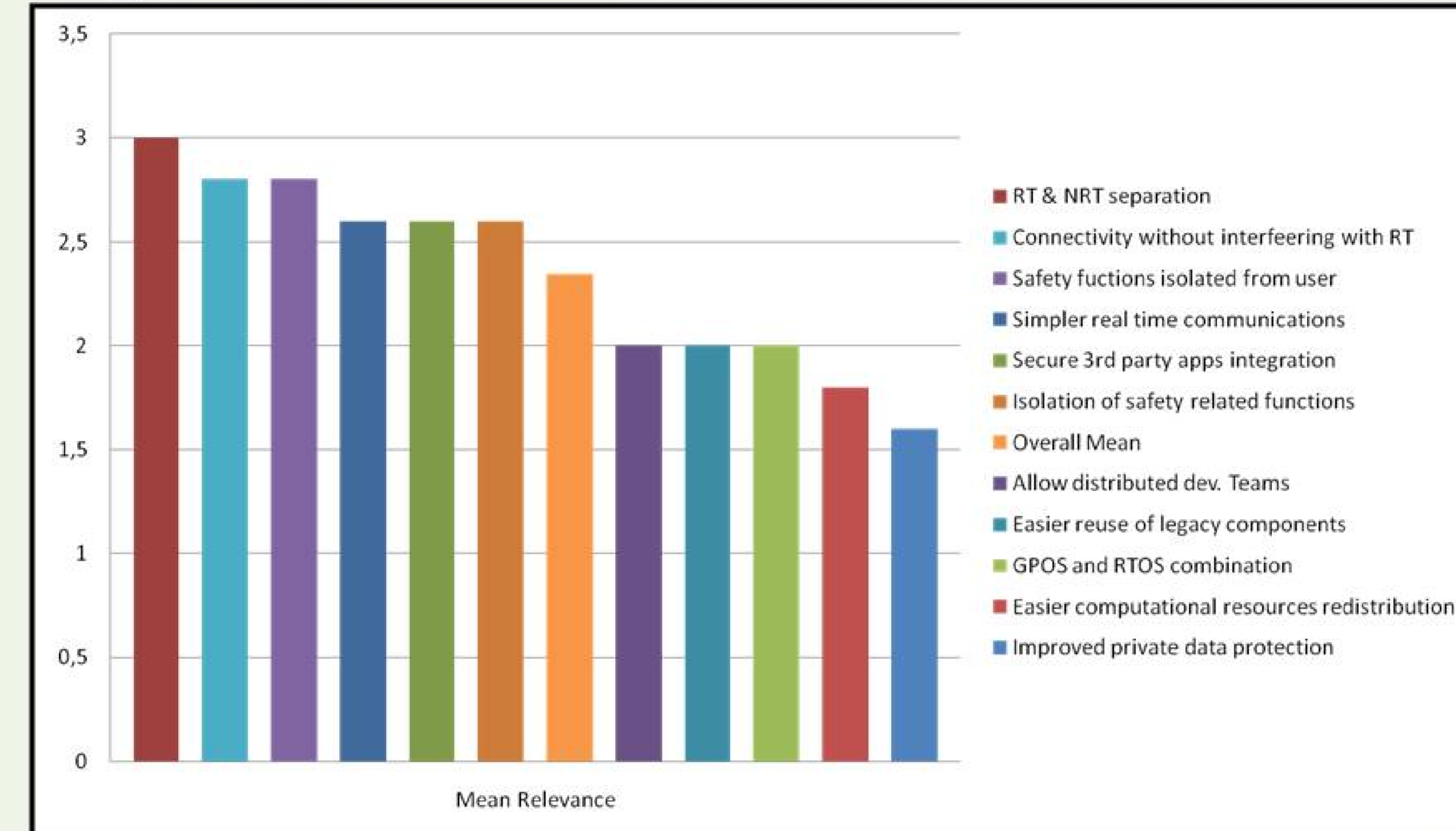- Railway
- Video Surve
- Wind Power
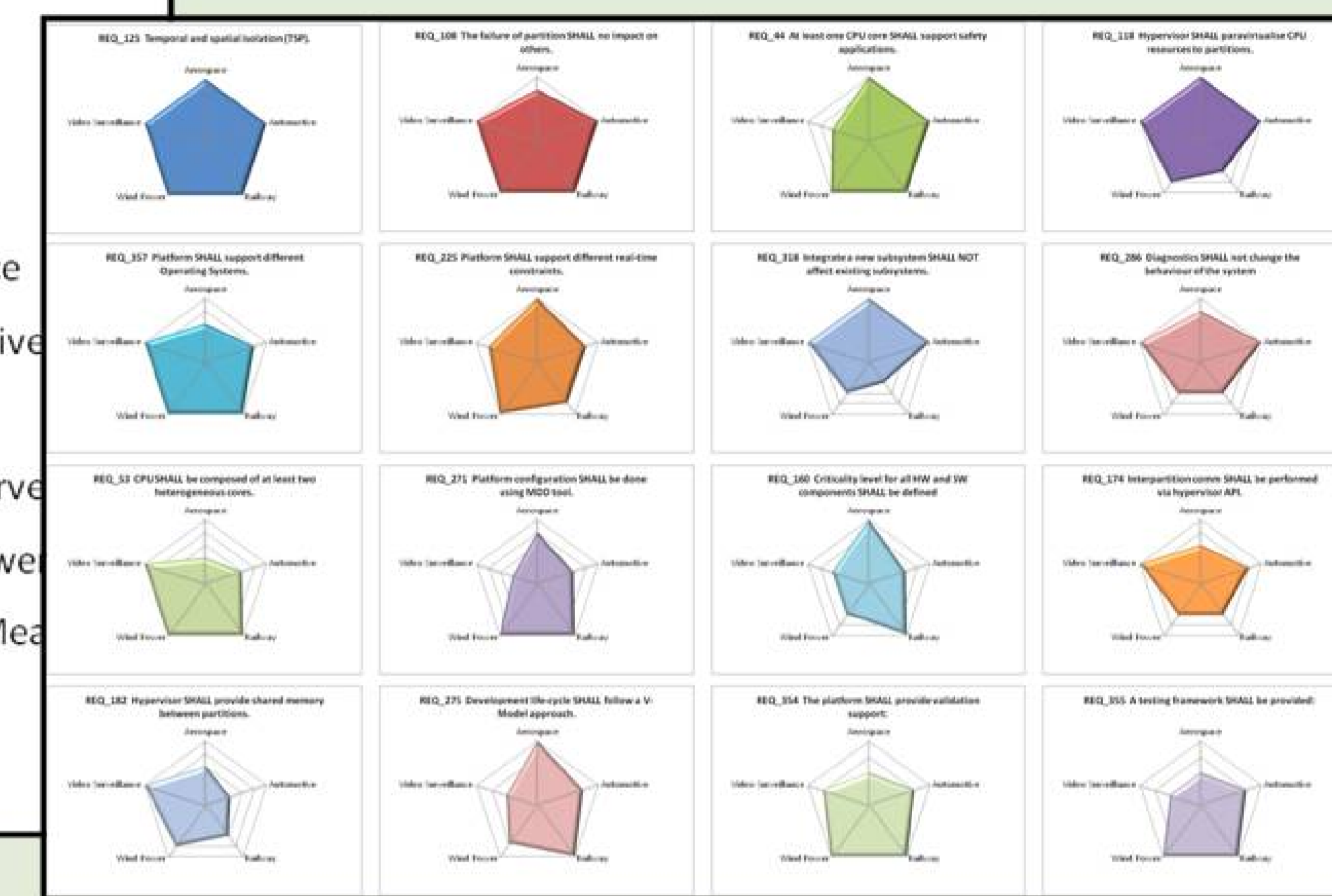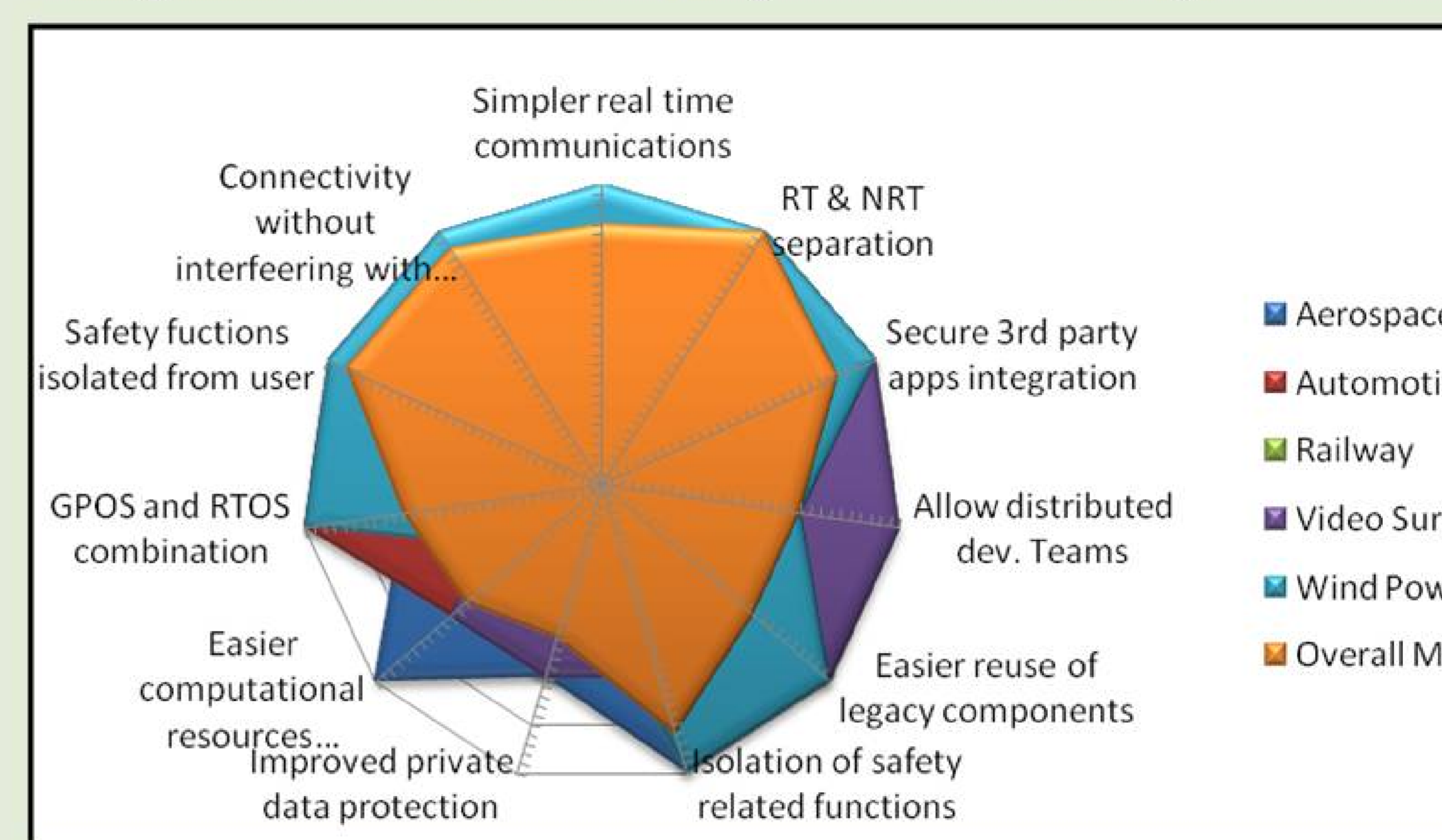- Overall Mea

Highlights

Main Ingredients:
- ✓ Mixed Criticality
- ✓ Open-source Hypervisor
- ✓ Multicore virtualization
- ✓ Industrial Validation
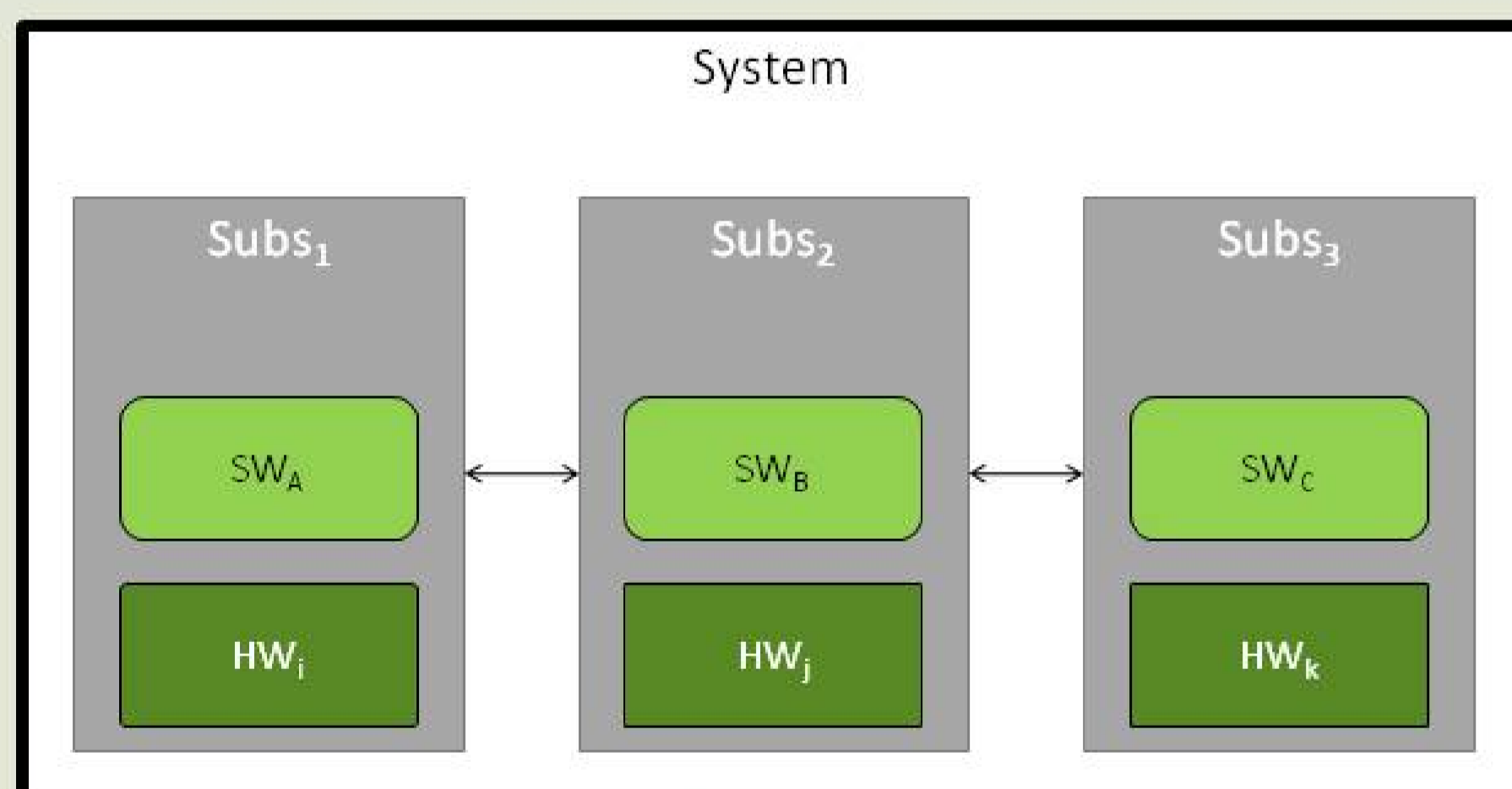- ✓ Model-Driven Methodology

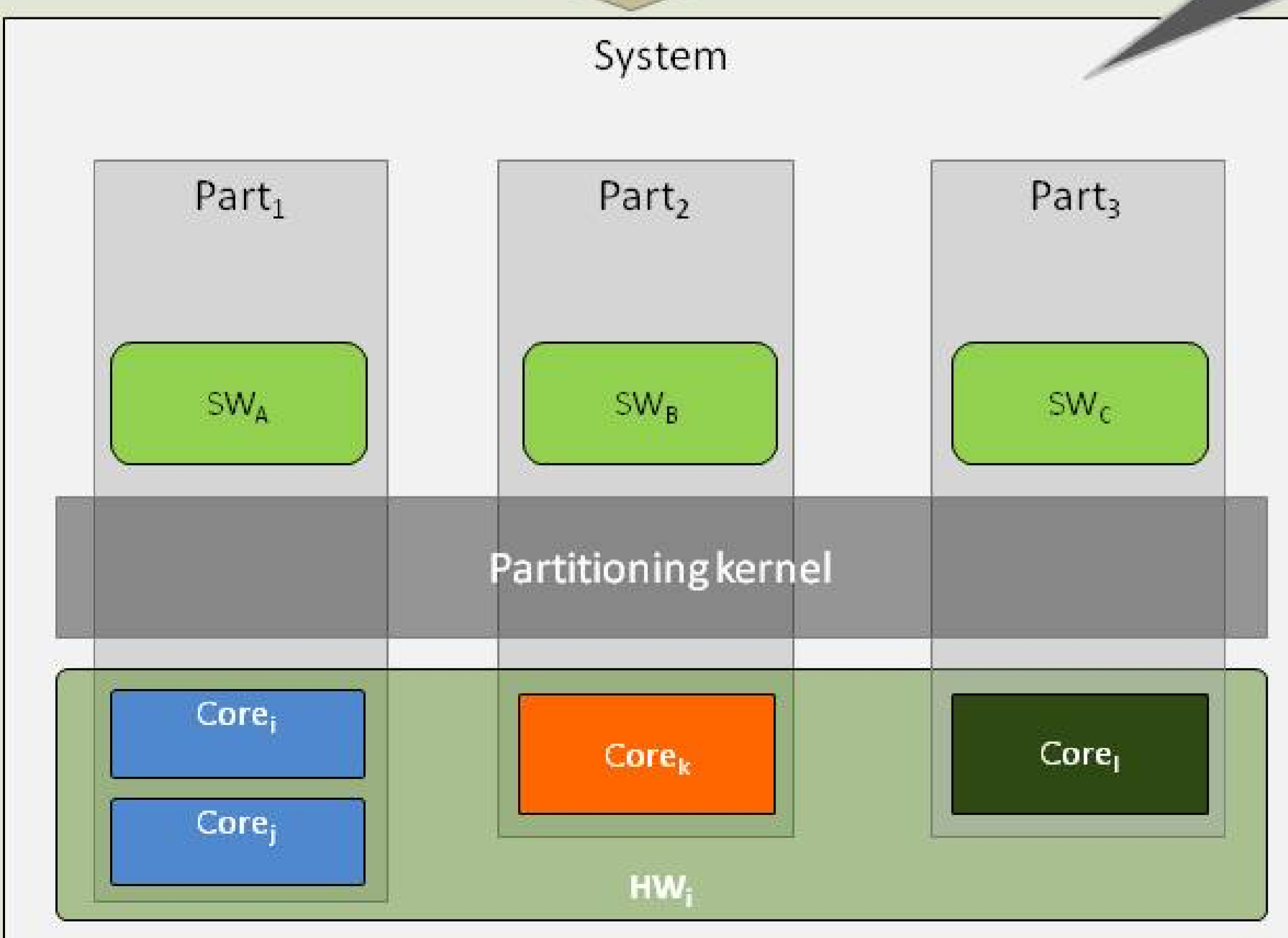## Model-Driven for Mixed Criticality Systems

From single cores to Multi/Many-core

Pre MultiPARTES
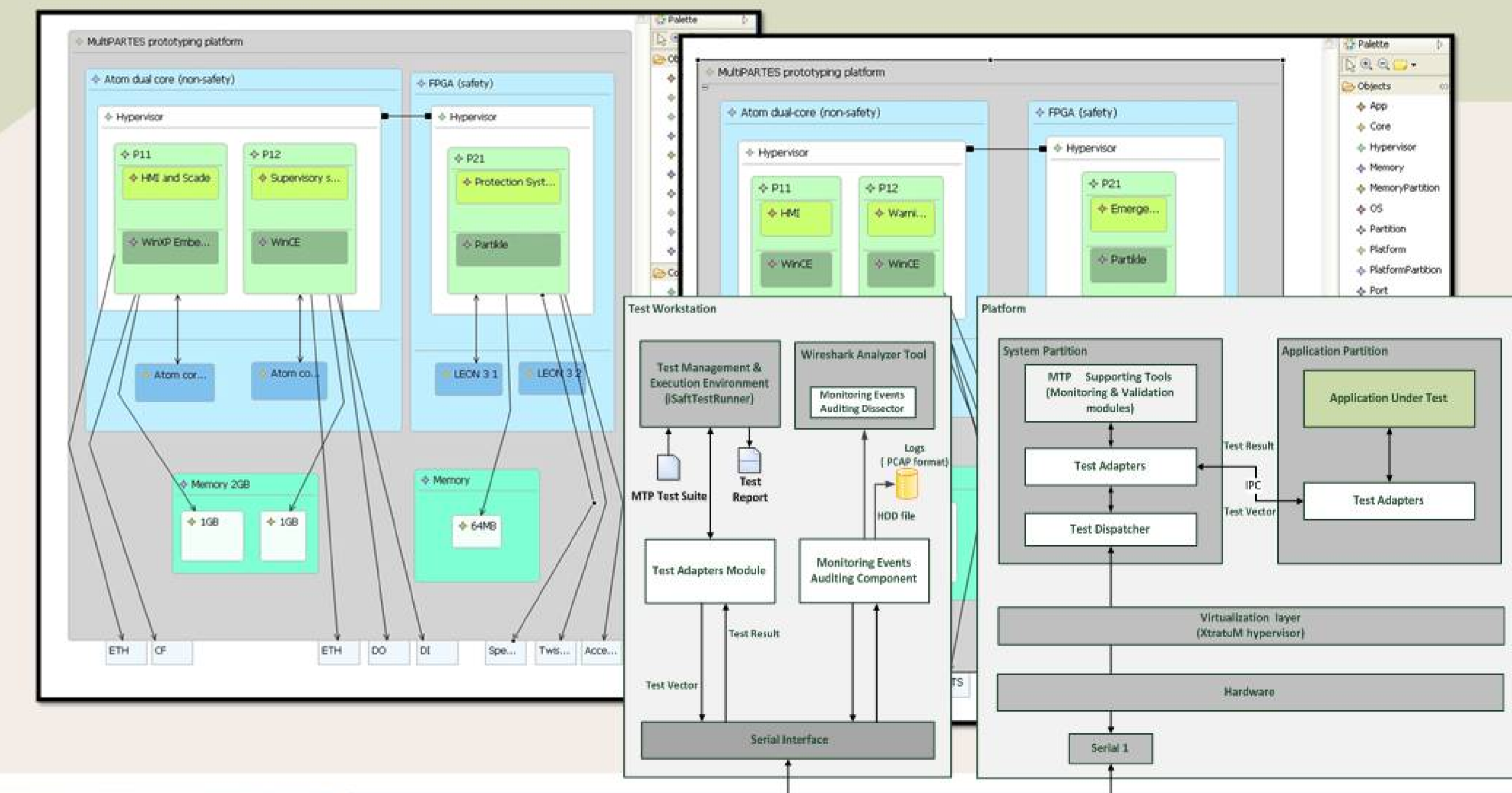
N subsystems, each with specific hardware platform

Ability to integrate several systems into a single hardware platform

With MultiPARTES

Single hardware platform shared by the subsystems by means of partitioning over multiple cores

Open Issues

Points under **discussion** within the consortium
- **Temporal** & Spatial isolation in multicores
- **Certification** of the approach
- Reduce **scope**/number of use cases
- **Security** implications
- Generalize **modeling** approach
- Multicore **heterogeneity**

Industry-driven Project

market orientation is central and critical for the success

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