



# Industrial Internet Reference Architecture

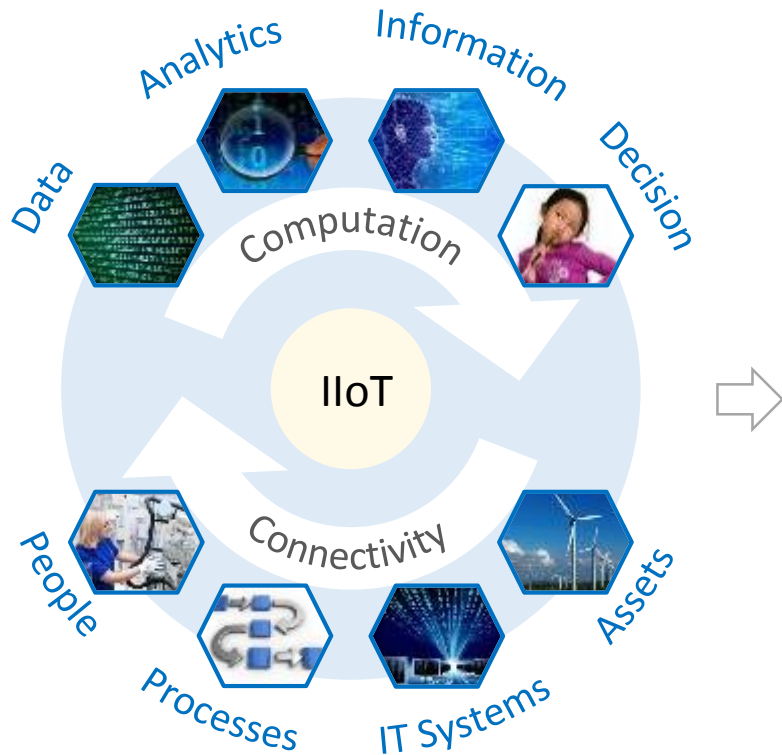
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# Industrial Internet of Things



Intelligent Industrial Operations



Transformational Business Outcomes



Healthcare



Buildings & Infrastructure



Transportation & Logistics



Power/Utilities



Oil & Gas



Manufacturing



Agriculture





# IIoT – Common Technical Challenges

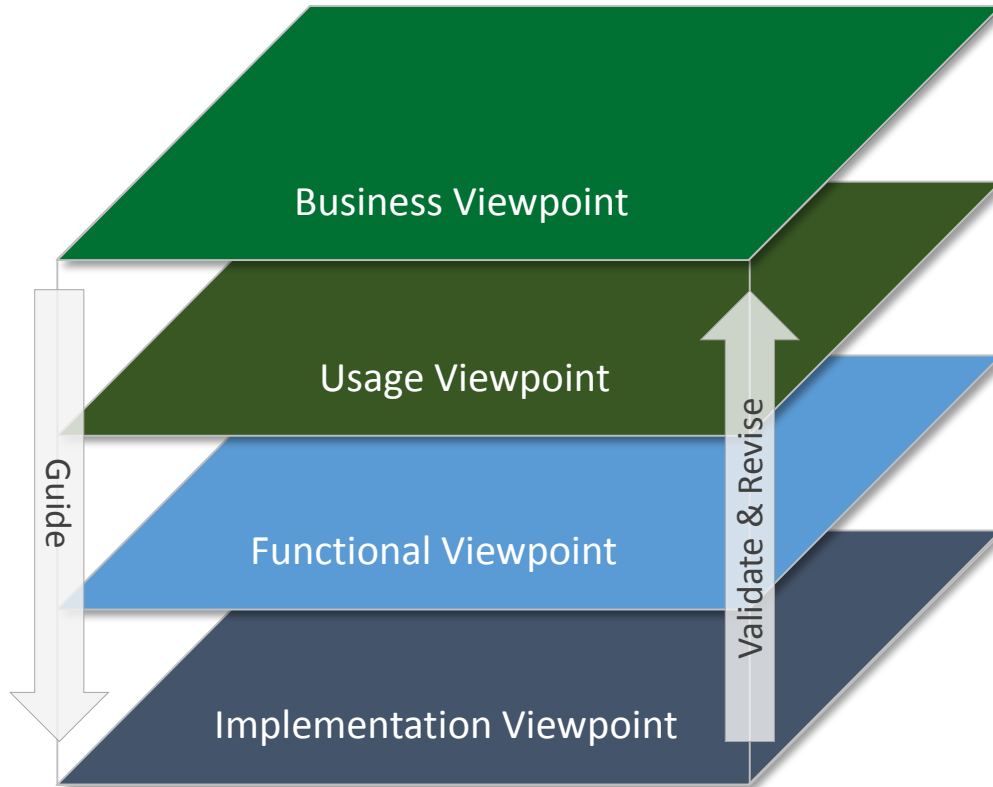


How to solve these shared challenges?





# IIRA – Business Value Driven Methodology



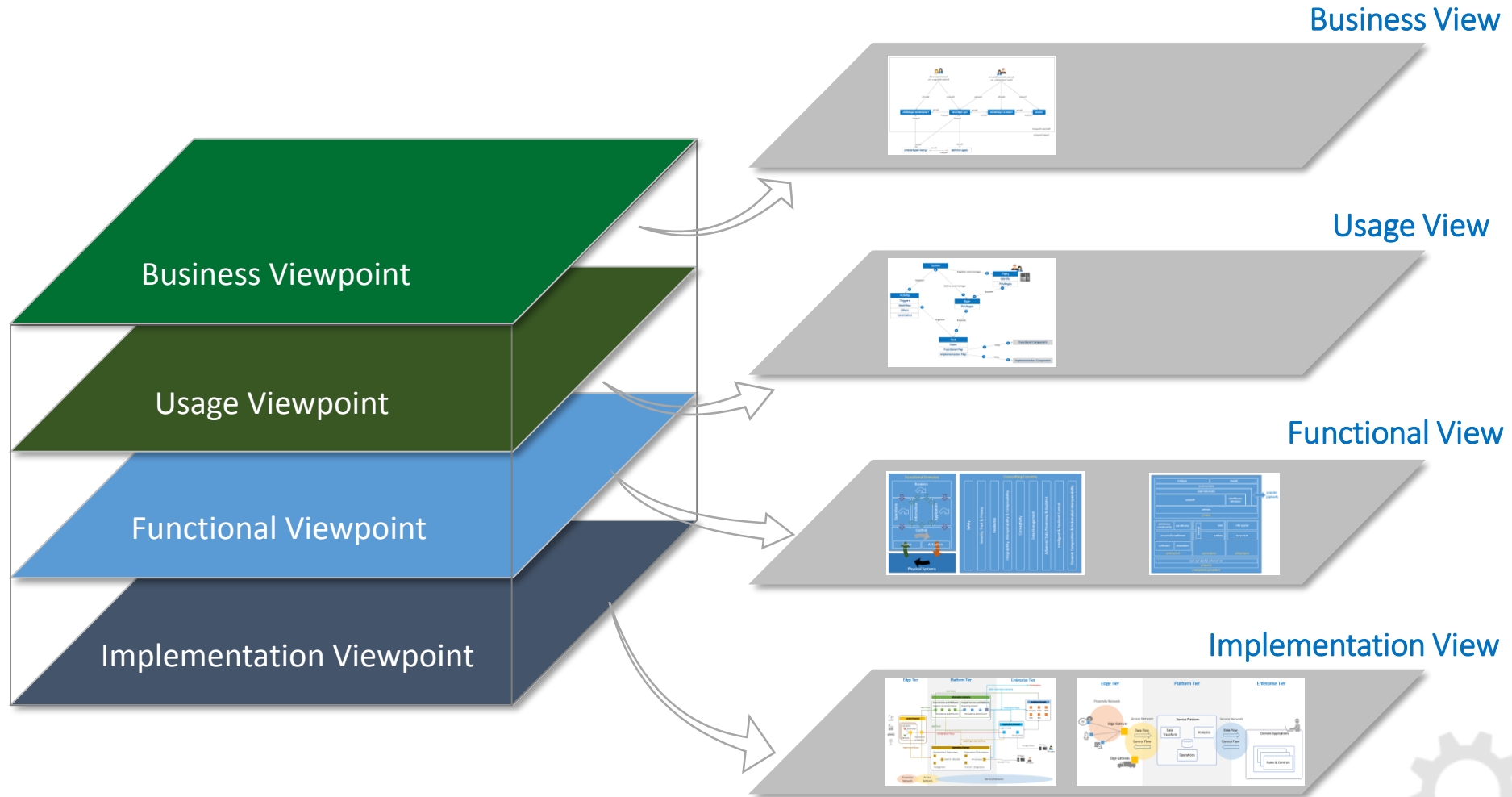
Identify and classify important system architecture concerns into related categories – viewpoints - for their analysis and resolution.

Business vision & value driven, concern-resolution centric, iterative design methodology



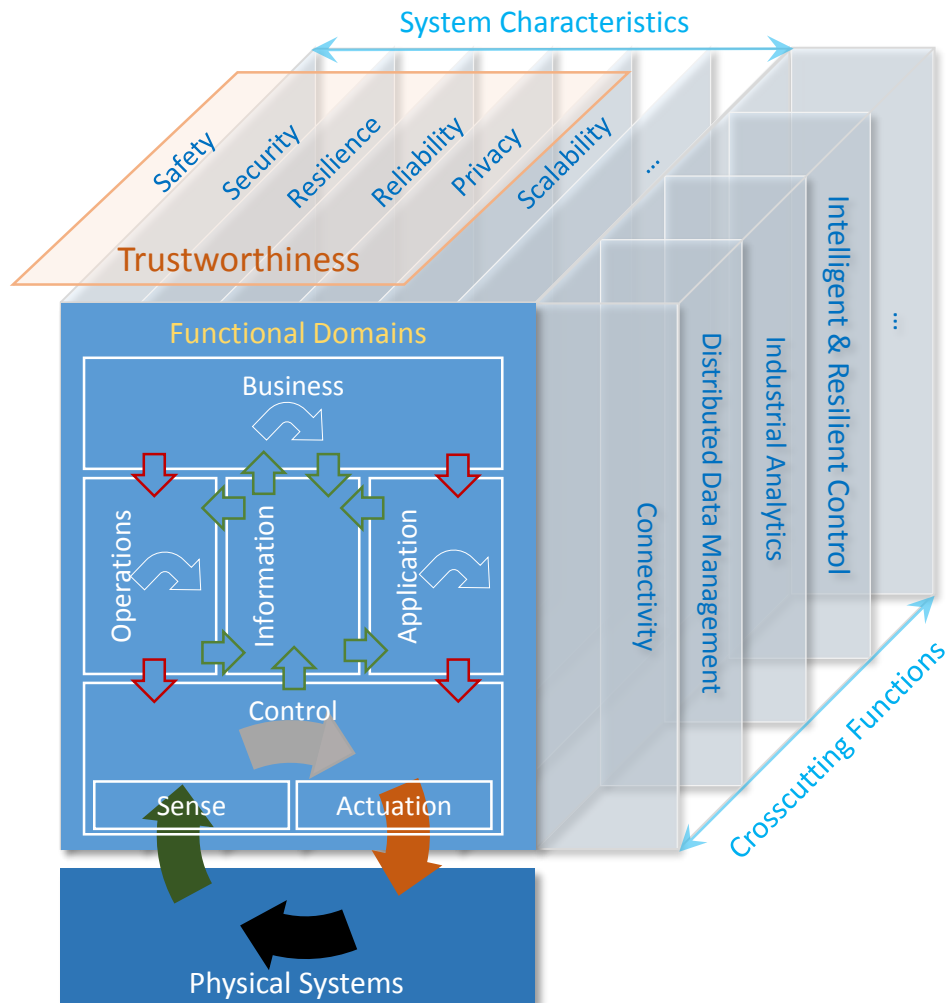


# IIRA - Architectural Templates and Models





# IIRA – Comprehensive Architecture Considerations



Identify major common functional domains & their relation and interaction.

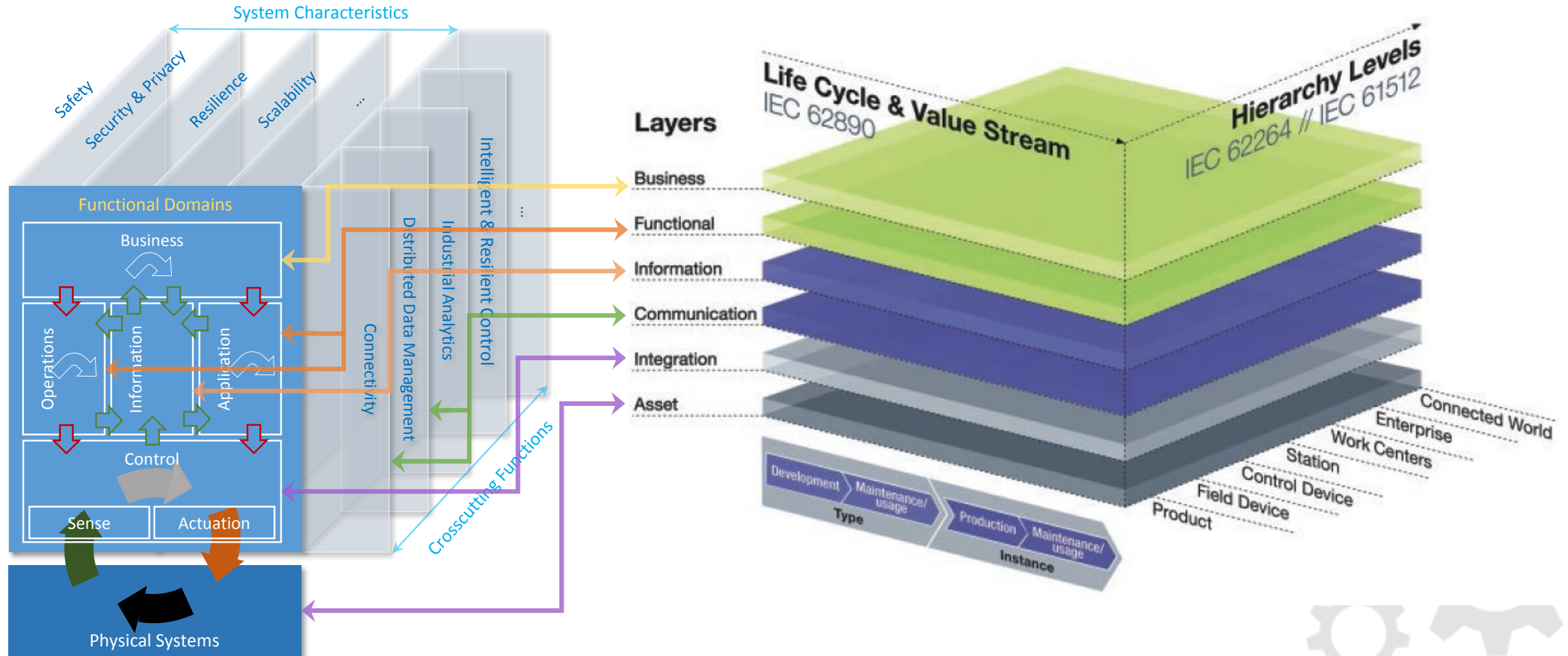
Identify major cross-cutting functions

Identify major system characteristics as emerging system properties





# IIRA & RAMI 4.0 – Complementary Reference Architectures





# IIRA - Summary

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- A standard-based common architecture template and models for designing real world IIoT systems across industries
- Business value driven, highlighting important IIoT system characteristics and trustworthiness – safety, security, privacy, reliability, resilience, etc
- A foundation for consistent communication, sharing know-hows, identifying requirements for interoperability and standards
- For vendors to build marketing fitting reusable products & services
- For implementers to build IIoT systems at low cost & risk, & short time-to-market

