TATA ELXSI

TATA

FUNCTIONAL SAFETY

Safe | Reliable | Secure

Trends

Functional safety market is expected to grow from USD 4.6 billion in 2019 to USD 7.1 billion by 2024, at a CAGR of 8.8%. Market growth is due to mandate for strict safety regulations and requirement for reliable safety systems

Upgradation in robotics and increased use of automated devices are expected to boost the functional safety market growth

Cohesive integration of software and hardware systems

Functional safety market is classified into

- Process industry – O&G, Power generation, F&B, Biotech, pharma etc
- Discrete industry – Automotive, Rail, Medical

Opportunities

Functional Safety Process Audit & Gap analysis for compliance of semiconductor development processes to ISO 26262 and other standards (e.g. IEC 61508, IEC 62443-4-1, ISO/SAE 21434)

Consulting for implementation of ISO 26262 (or IEC 61508) compliant processes in semiconductor development

Developing and testing of safety products (full systems, sub-systems, software, semiconductors etc.)

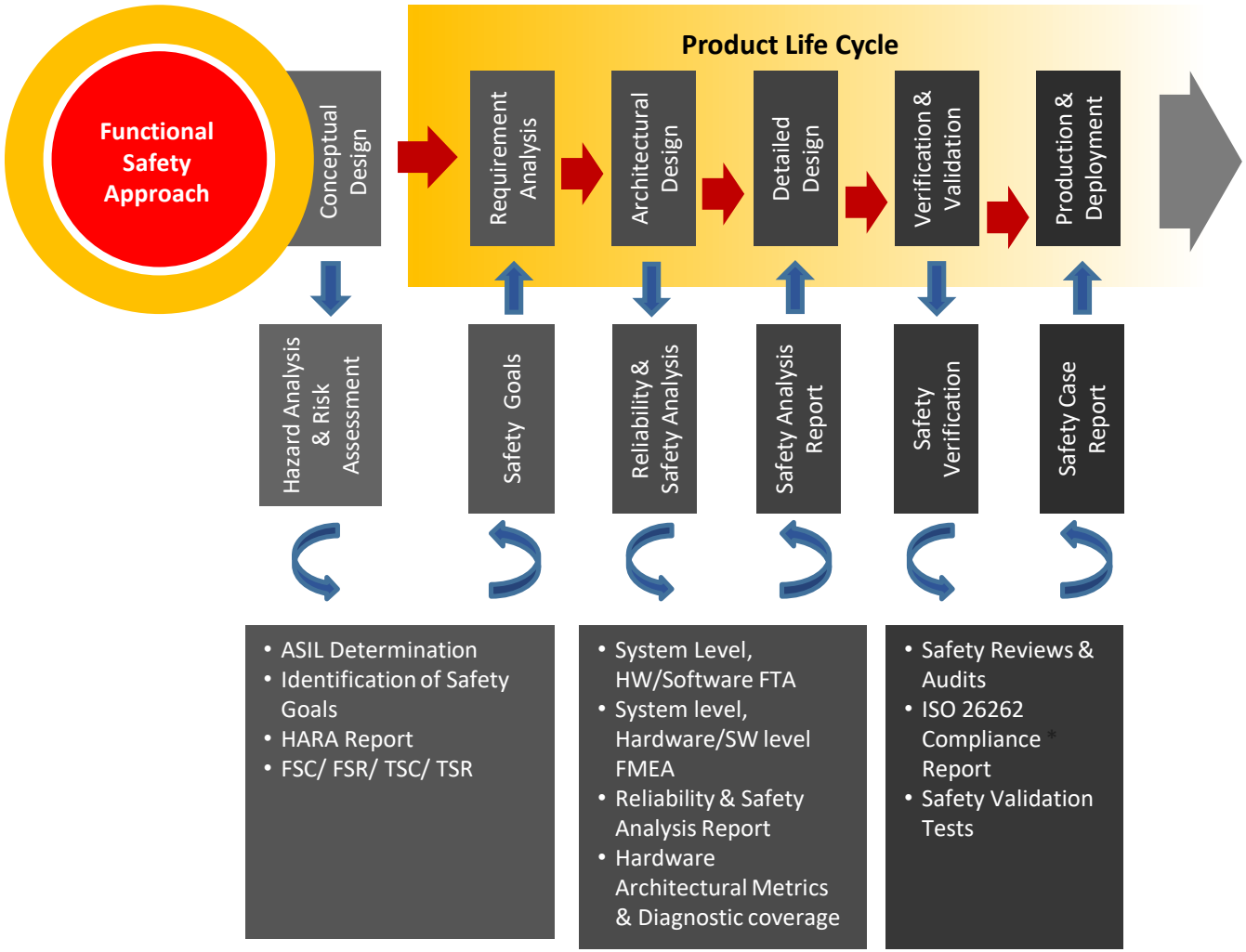
Medical industry has one of the strict safety requirements – ex. Imaging systems to infusion pumps

- Automotive electronics systems
- Locomotive
- Manufacturing

Consumer benefits

- Safe & reliable products
- Asset protection

SERVICE OVERVIEW



Tools and framework

- Reliability Workbench
- FTA+
- Relex
- Medini Analyze
- Medini Analyze

Differentiators

- 100+ Functional Safety certified engineers by TUV and UL
- Hardware & Software Functional Safety enablement
- ASIL A to D implementation in production
- Safety related processes and work product definitions integrated into our Quality Management System

Sample Cases

- ASIL B compliance for implementation of IR Camera Sensor to Gigabit Ethernet with support for PTP (IEEE 1588)
- Body Monitoring Device with Medical Safety (IEC 62304, IEC60601)
- Gap Analysis of existing products & processes

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