

NXP AND FACTORY AUTOMATION

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SEP 2021



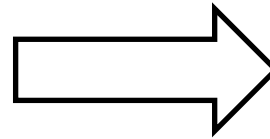
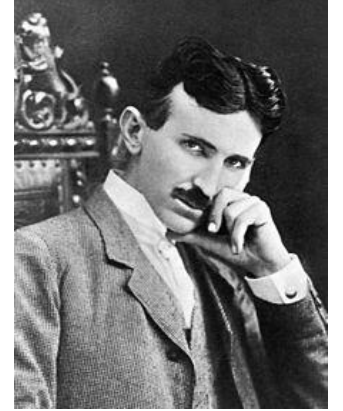
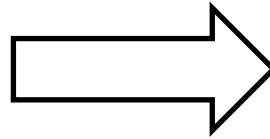
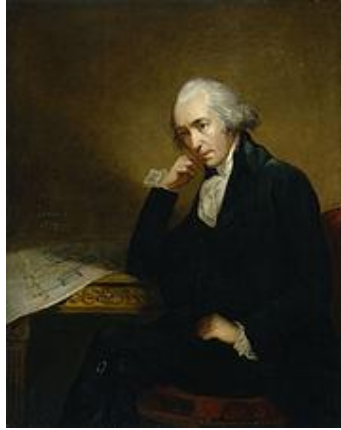
SECURE CONNECTIONS
FOR A SMARTER WORLD

PUBLIC

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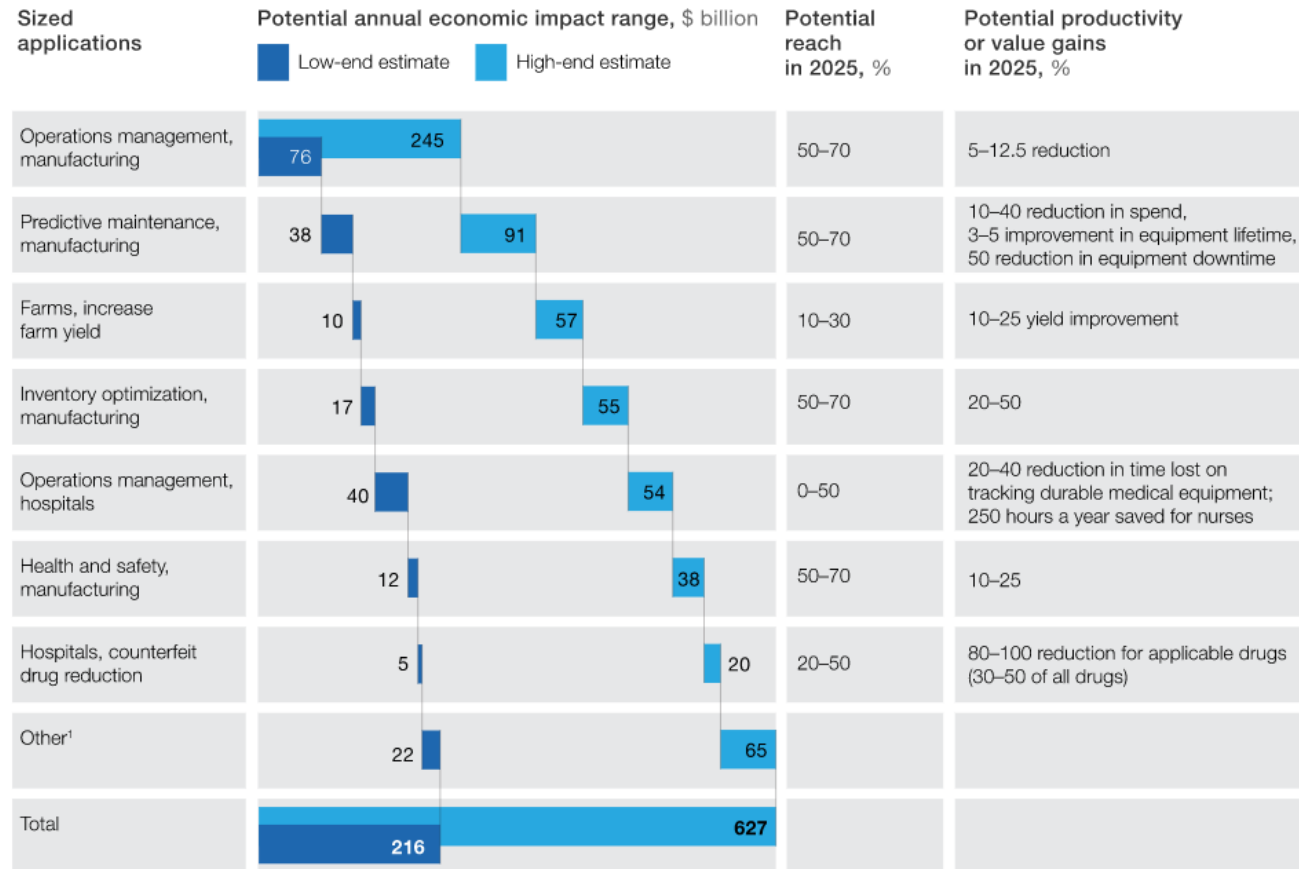


INDUSTRIAL 1.0 TO 4.0



Great business opportunities behind

In ASEAN, the impact of Industry 4.0 could be between \$216 billion–\$637 billion a year by 2025.



McKinsey&Company

THE REVOLUTION BRINGS NEW REQUIREMENT



Sensing everywhere



data everywhere



Auto - decision everywhere



Performance



Security



Longevity

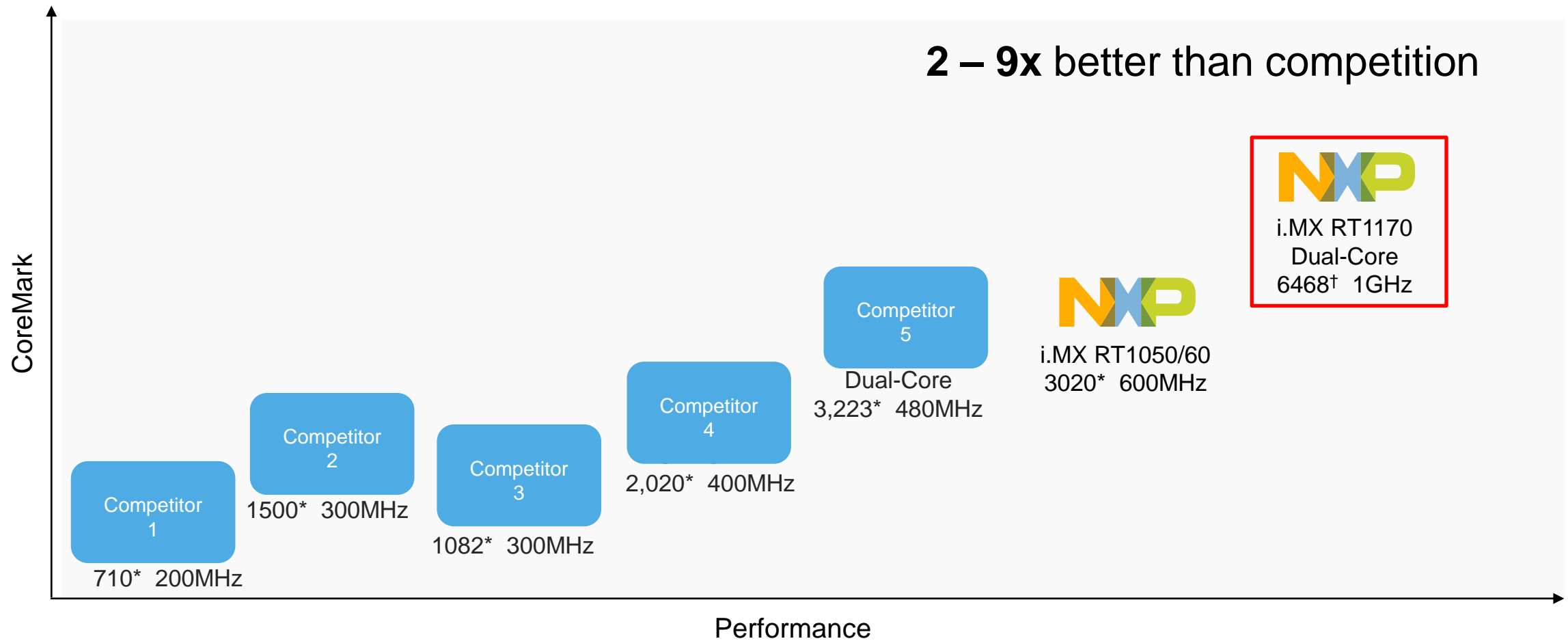


Real time



Robustness

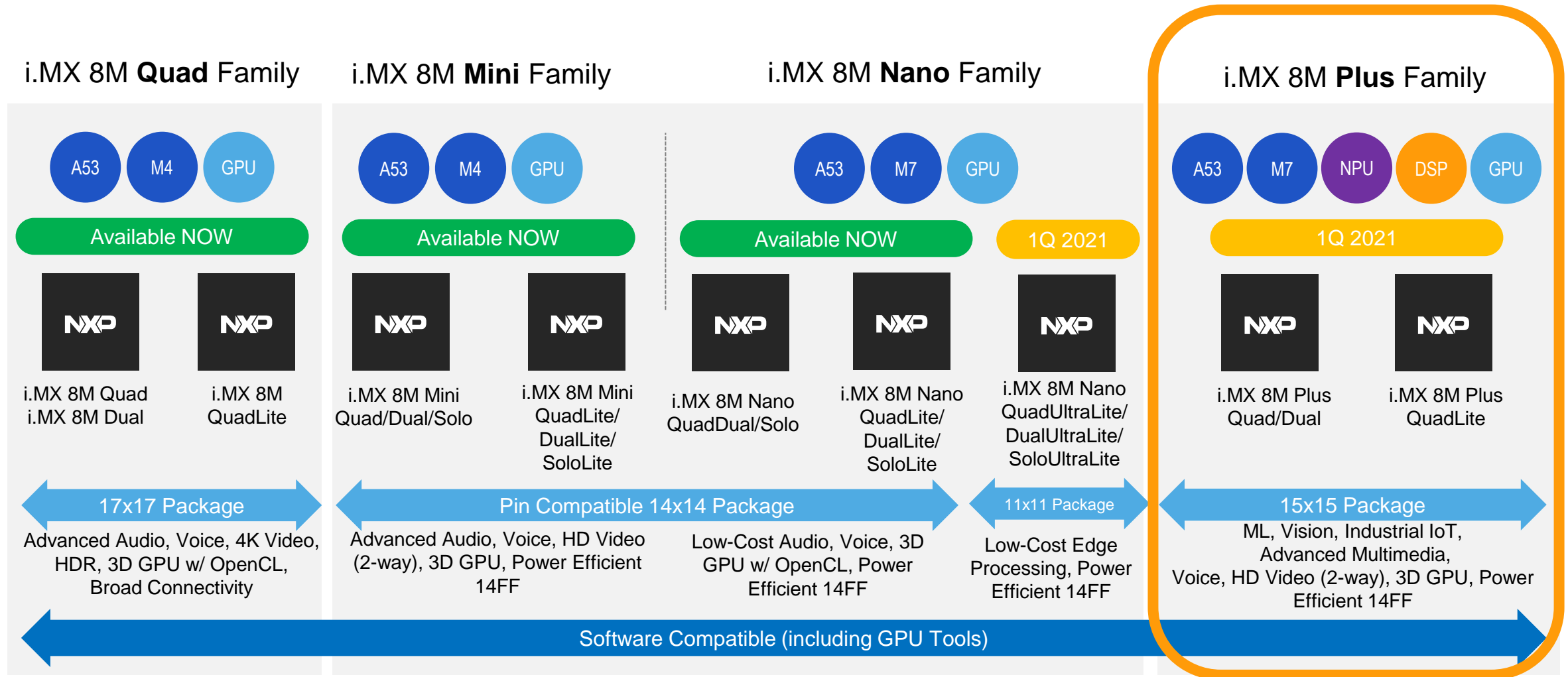
COREMARK COMPARISON AMONG LEADING MCUs – USHERING IN THE GHZ MCU ERA



* Source: <http://www.eembc.org/coremark/index.php>

† NXP calculation

I.MX 8M FAMILY: SCALABLE BROAD MARKET SOLUTIONS



Scalable series of **FOUR** Arm V8 64-bit (/32-bit) based SoC Families

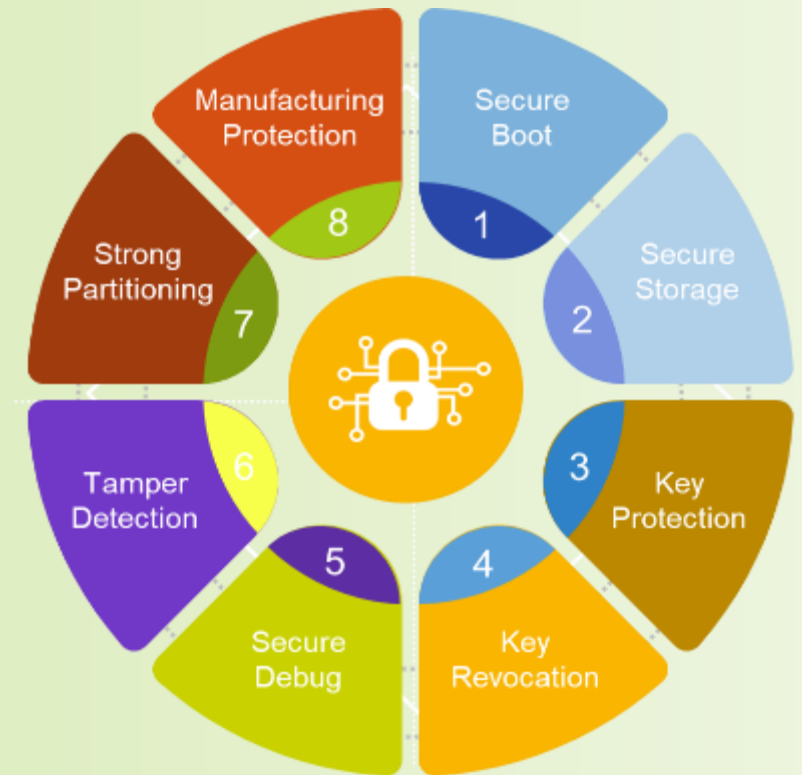
SECURITY



Security

Covering every system vulnerability of the Product Life-Cycle

- **Design** – Hardware, IO, Storage: Trust Architecture
- **Manufacturing** – Key Generation, Provisioning, Updates: Secure Provisioning Tool
- **Software** – Operating System, Applications, Permissions: Trusted Linux
- **Connectivity** – Remote Access, Communications: Network Security Suite



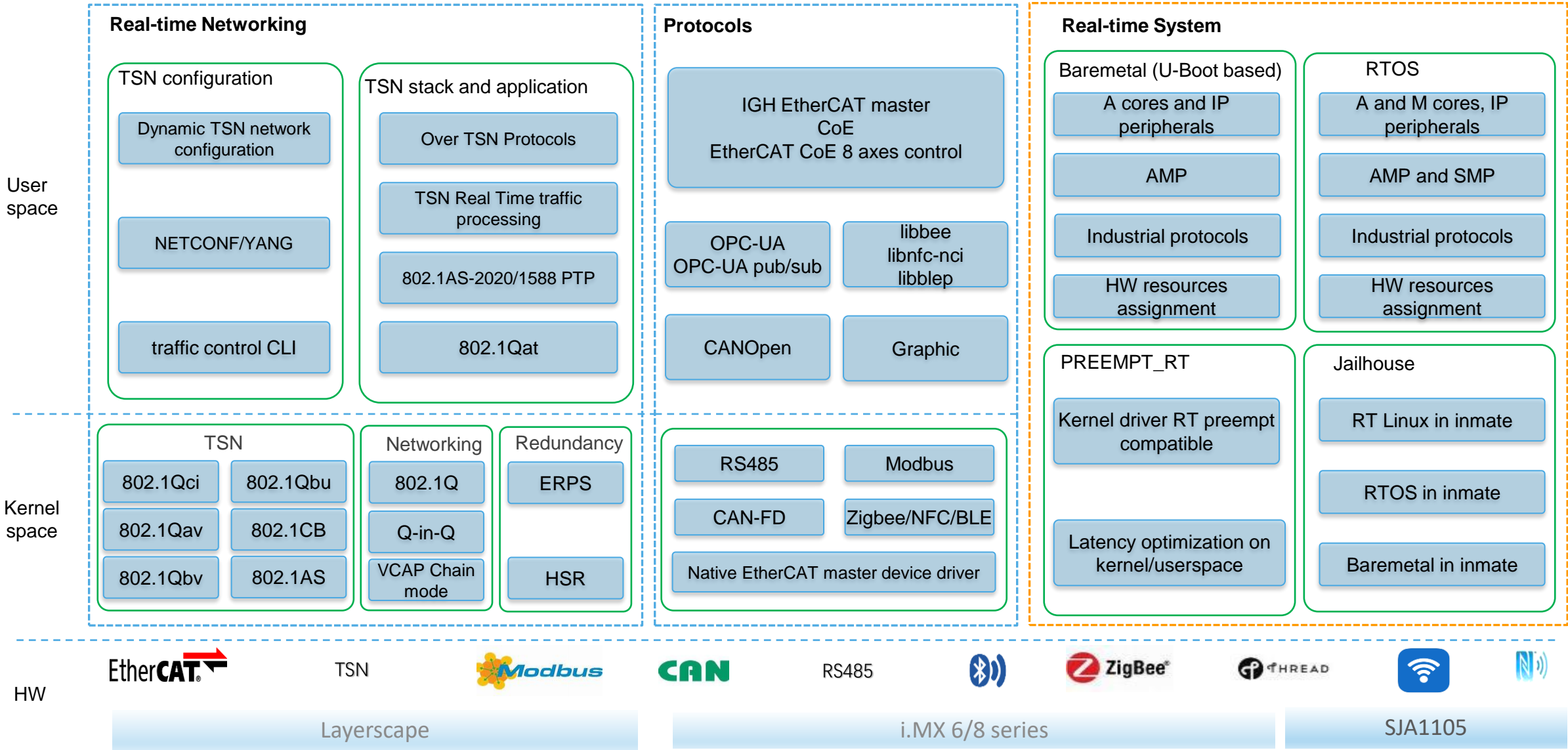


Strength in Product Longevity

- ▶ NXP (both NXP LPC and former Freescale) have longstanding track records of **providing long-term production support** for our products
- ▶ NXP has a **formal product longevity program** for the market segments we serve
 - For the automotive and medical segments, NXP will make a broad range of solutions available for a minimum of **15 years**
 - For all other market segments in which NXP participates, NXP will make a broad range of solutions available for a minimum of **10 years**
 - **Life cycles** begin at the time of launch
 - Includes NXP's standard end-of-life notification policy
- ▶ For a complete list of participating products, visit, nxp.com/productlongevity



Real-time Edge Software



Qualification Level	Characteristics	
Commercial or Consumer Highest MHz**	5-year life*, 50% on Typically: 0°C to +85°C Tj	22K hours
Industrial Longest operating life**	10-year life*, 100% always on Typically: -40°C to +105°C Tj	88K hours
Automotive Widest temperature range**	15-year life*, 10% on Typically: -40°C to +125°C Tj	13K hours

**Product Lifetime Usage* application notes should be used to estimate expected power-on hours (PoH) for each use case scenario, e.g. AN12983

**These descriptions represent the typical result for each qualification level in each product family

Success in Industrial Applications Processors



Human machine interface

Industrial HMI, i.MX RT, 6, 7, 8 series
Building control panel, i.MX RT, 6, 7, 8
Kiosk, i.MX 6, 8
Two-way radio, i.MX 6 series
Avionics display: i.MX 6, 8, 8M
Fitness equipment: i.MX 6 and 8
Health care: i.MX RT, 6, 7, 8 series
Industrial vehicle display, i.MX 6 and 8



Machine vision & learning

Scanner, i.MX 6ULL, 7D, 8M Mini
Service robot, i.MX 6, 8X, 8M Mini
Room monitor, i.MX RT, 6 and 8
Industrial printer, i.MX 6, 7D, 8
Machine vision, i.MX 8QM



Industrial control & network

Factory Robot, LS10xx, i.MX 6
Motion control, LS102x/104x
Building control, i.MX RT, 6, 7, 8, LS
Gateway, i.MX 6, 8M, LS1028
Process manager, i.MX 6SoloX
Avionics control, LS
Solar inverter boost, i.MX RT, 6ULL
Test & Measurement, i.MX 6, LS



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