

AI: there is plenty of work at the bottom

Introduction

**AI: there is plenty of opportunities for
the electronic components and systems world**

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The ECS world ...

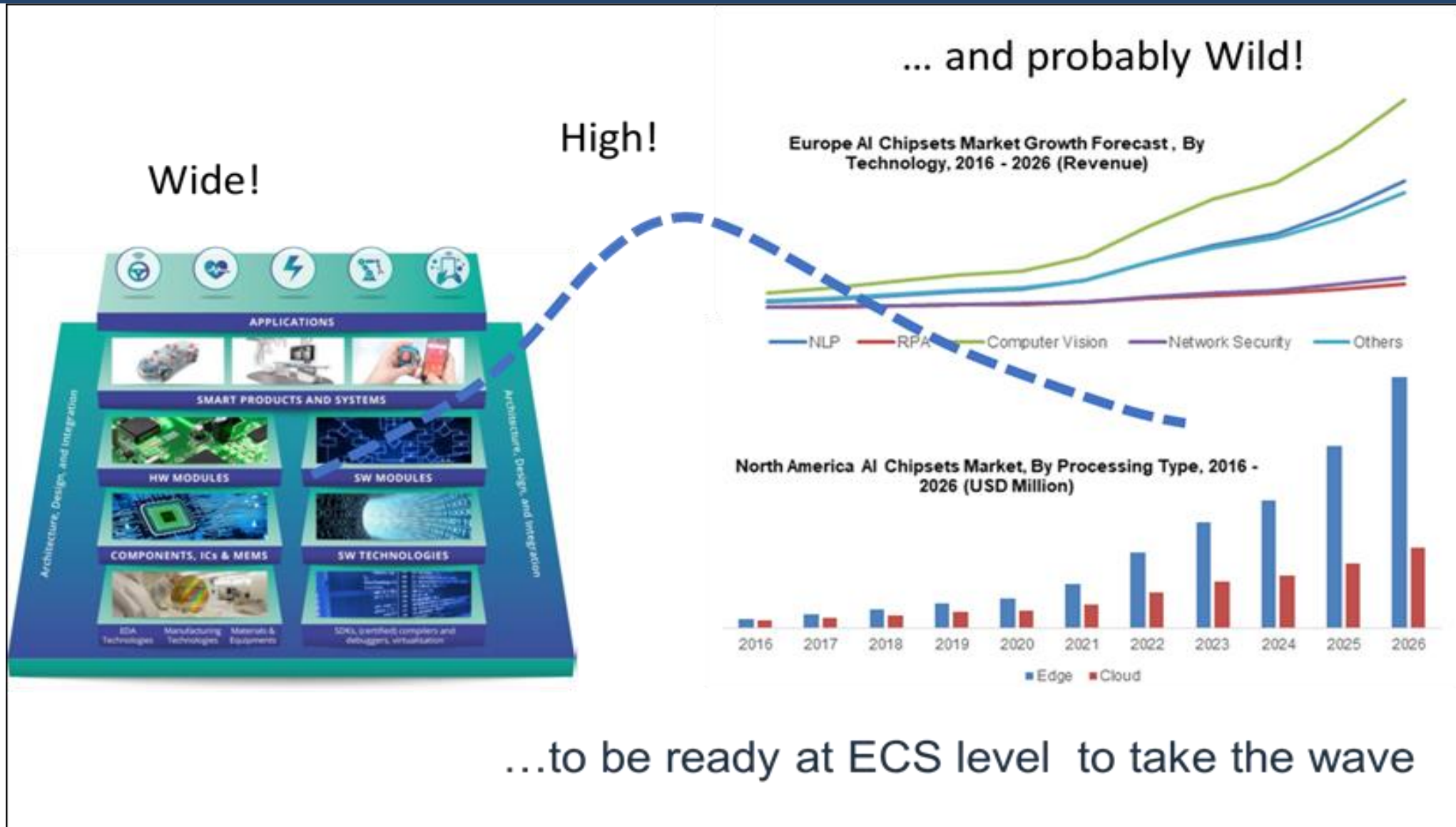
ECS = Electronic Components and Systems



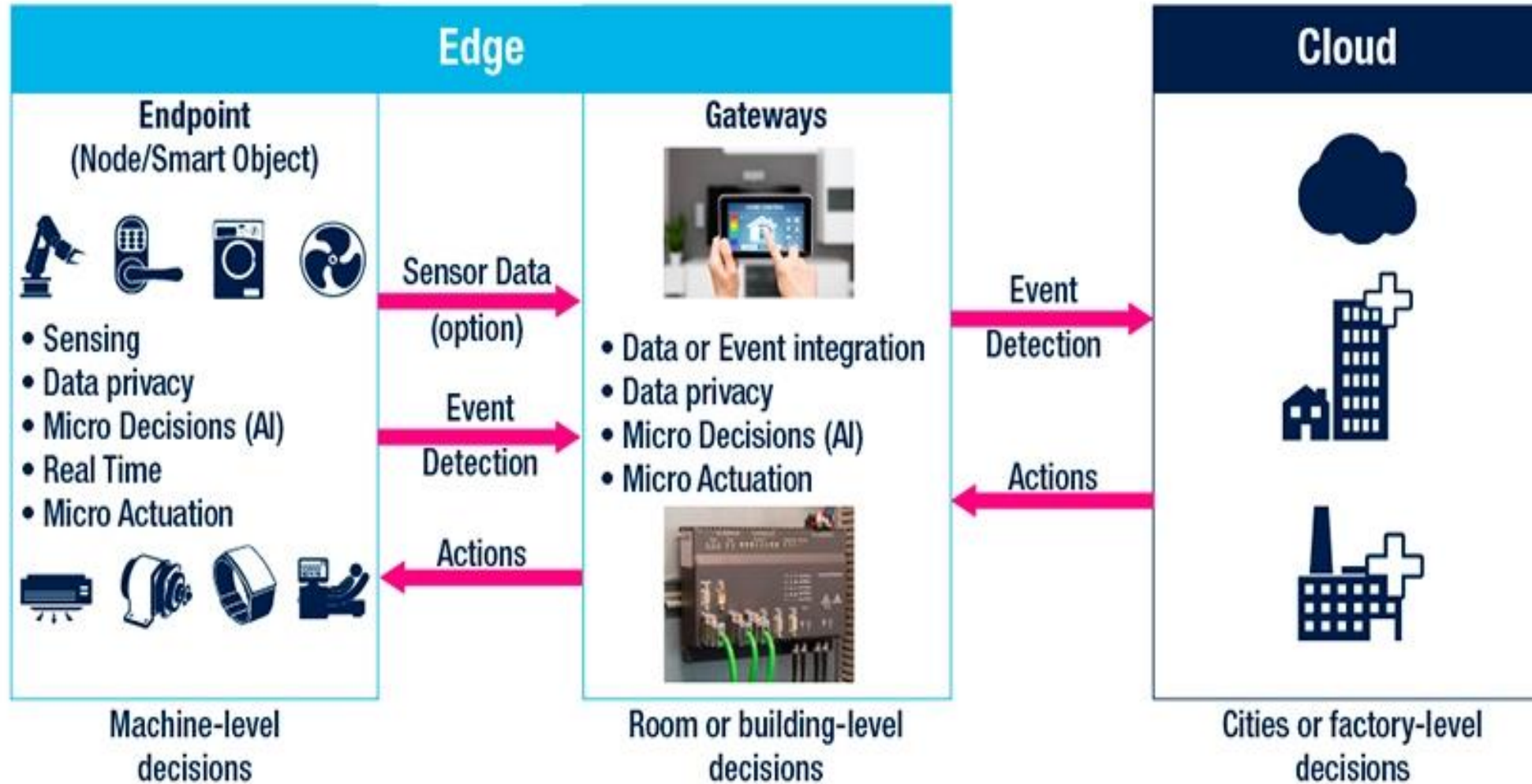
From 2020 Multi-Annual Strategic Plan
of the ECSEL Joint Undertaking

ECSEL = Electronic Components and
Systems for European Leadership

... and the great AI opportunity



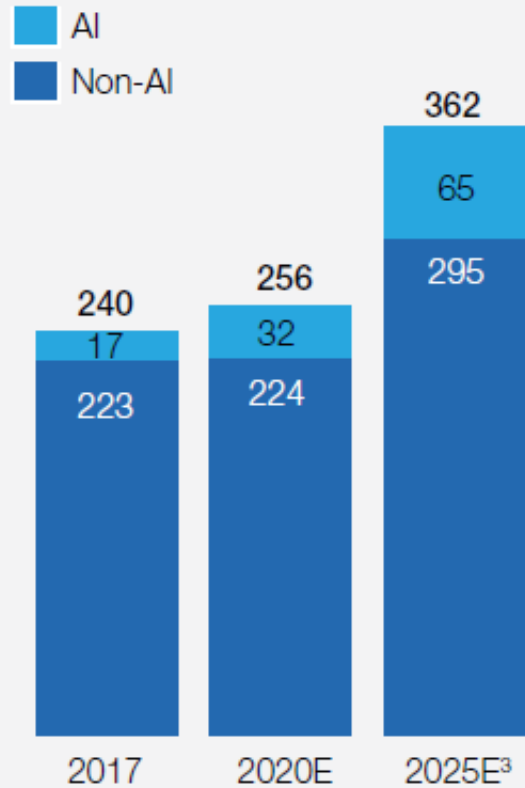
AI areas for innovative ECS



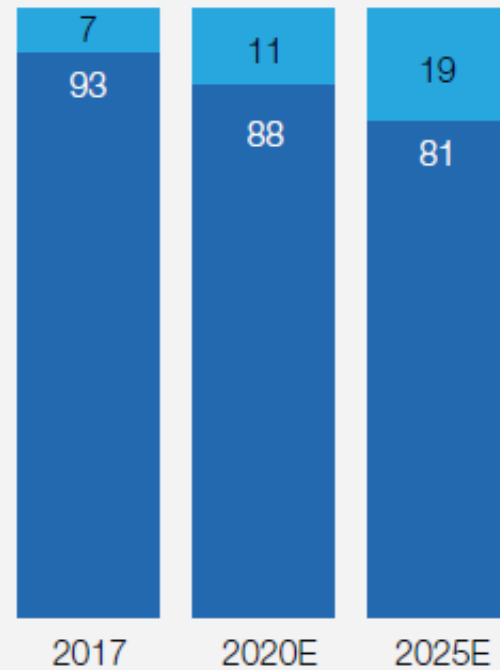
... and the great AI opportunity

Growth for semiconductors related to artificial intelligence (AI) is expected to be five times greater than growth in the remainder of the market.

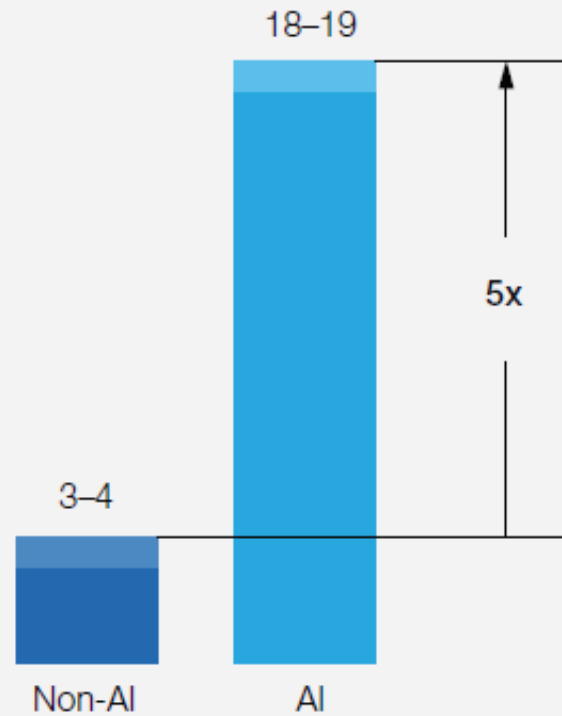
AI semiconductor total available market,¹ \$ billion



AI semiconductor total available market, %



Estimated AI semiconductor total available market CAGR,² 2017–25, %



From
McKinsey &
Company

Development of new ECS

Companies will find many opportunities in the artificial intelligence (AI) market, with leaders already emerging.

	Opportunities in existing market	Potential new opportunities
Compute	<ul style="list-style-type: none">▪ Accelerators for parallel processing, such as GPUs¹ and FPGAs²	<ul style="list-style-type: none">▪ Workload-specific AI accelerators
Memory	<ul style="list-style-type: none">▪ High-bandwidth memory▪ On-chip memory (SRAM³)	<ul style="list-style-type: none">▪ Emerging non-volatile memory (NVM) (as memory device)
Storage	<ul style="list-style-type: none">▪ Potential growth in demand for existing storage systems as more data is retained	<ul style="list-style-type: none">▪ AI-optimized storage systems▪ Emerging NVM (as storage device)
Networking	<ul style="list-style-type: none">▪ Infrastructure for data centers	<ul style="list-style-type: none">▪ Programmable switches▪ High-speed interconnect