### Digital Challenges: Semiconductors Driving Innovation

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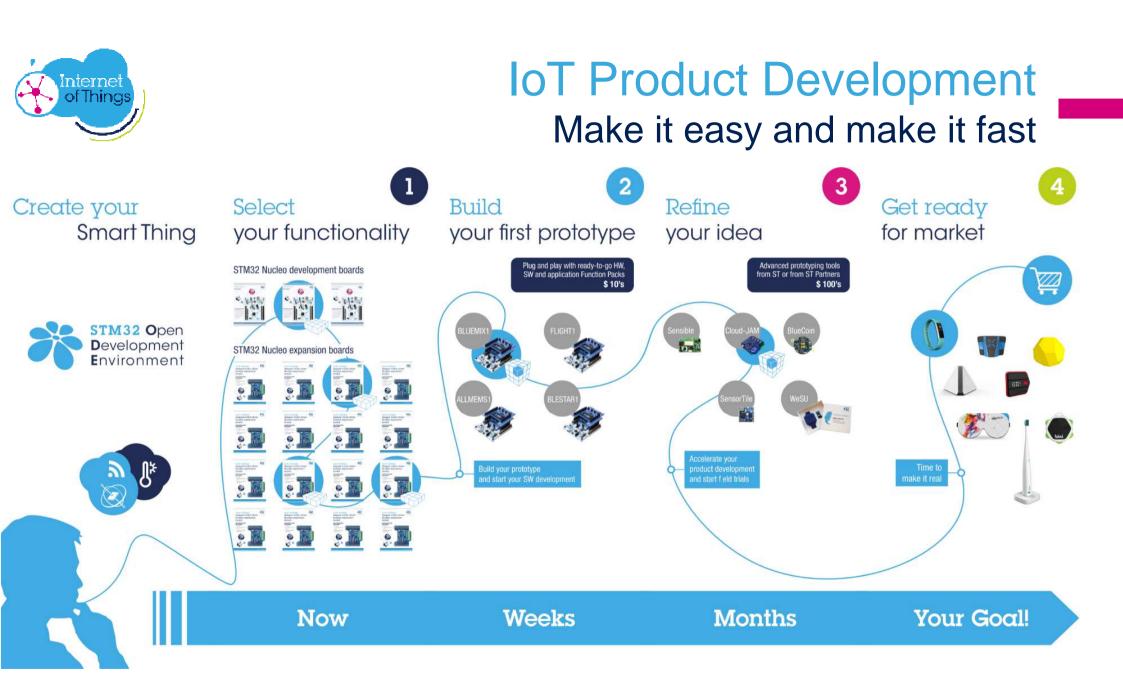




### The Building Blocks of the IoT

	Processing	Security	Sensing & Actuating	Connectivity	Conditioning & Protection	Motor Control	Power & Energy Management
Smart Things			<b>X</b>	<b>a</b>			
Smart Home & City	Ultra-Low Power to High Performance	Scalable security solutions	Full range of sensors and actuators	10 cm to 10 km	Nano Amps to Kilo Amps	Power conversion Monitoring Drivers	Nano Watt to Mega Watt
Smart Industry	đ	$\bigcirc$		(i)	$\bigcirc$		













# Smart Driving





#### More connected



#### Greener





## The Building Blocks of Smart Driving

Safer			Gre	Greener		More Connected		
Digital and Satellite radio receivers	Machine Vision ADAS Processors	RADAR	32-bit Auto Grade Microcontrollers	Engine control ICs	Secure Gateway Solutions	V2X Communication	Telematics processors	
Integrated VDC	HD imaging ICs	GPS/GNSS Low-noise ampl & receivers	Ignition controllers and drivers	Multiple- Phase Motor driver	Analog Audio Processors	EV/HEV Power management ICs	Multiple channel Air Bags	
Auto MEMs, gyroscopes, accelerometers	Communication transceivers	Alternator regulators	Door module drivers	Class AB and D Audio Amplifiers	AM/FM tuners	Valve driver ICs	Infotainment voltage regulators	
High/Low and configurable side drivers/switches	Voltage regulators	Field Effect Rectifiers	SiC Diodes	SiC MOSFETs	Integrated filter and dataline protection	Micro-batteries	DC and Stepper Motor drivers	
Low/High Voltage Planar MOSFET	Planar IGBT	Low Voltage Trench MOSFET	High Voltage Superjunction MOSFET	Ultra Fast & Schottky Diodes	1200V Thyristors	Field Effect Rectifiers	Dataline & Load dump protection	
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### ST Strategy and Offer for Automotive

Safer	Gree	ener	More Connected	
Technology & Product leadership, focusing on high growth areas	Continuing partnerships with automotive leaders to drive innovation	Solutions adapted to mature & emerging markets - also through distribution	ST Supply Chain, Manufacturing & Quality	
BCD 90nmMachine VisionViPower 180nmRADAReFlash 28nmPositioningCMOS 40nmV2X	Car Manufacturers          Image: Walking the second seco	Full Kit Solutions Engine and Body control, Infotainment	In-house manufacturing Agrete Crclles Crcles	
SiC SiC SiC SiC SiC SiC SiC SiC SiC SiC	Cechnology Leaders	Roadmaps for mature and emerging markets Specific MCU Solutions Power Modules for electrification	Automotive Quality mindset 30 Years of Qualification Experience AEC-Q100-2 compliant product portfolios	

