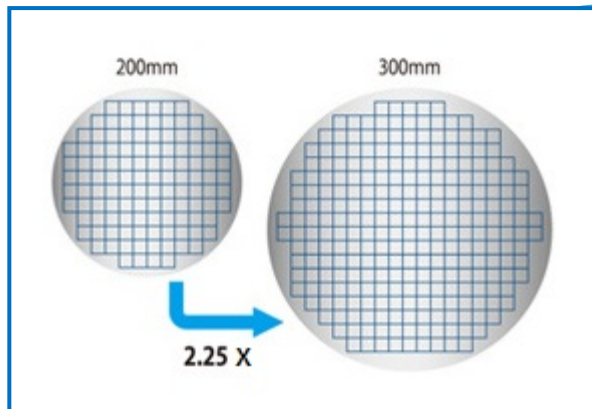




R2POWER300

Is there life for KET Pilot Lines in Italy?



Roberto Zafalon
EU Technology Programmes, Director
R&D and Public Affairs

Where does ST fit?



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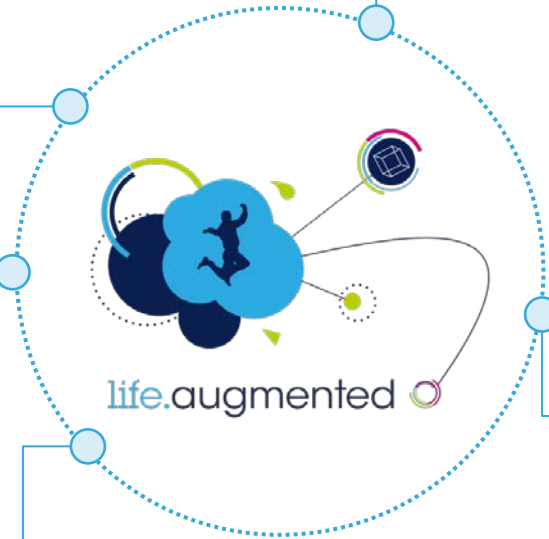
MEMS & Sensors
are augmenting
the consumer experience



digital consumer products are
powering the augmented digital
lifestyle



automotive products
are making driving safer,
greener and more
entertaining



Microcontrollers
are everywhere
making everything smarter
and more secure



smart power products
are making more of our energy resources

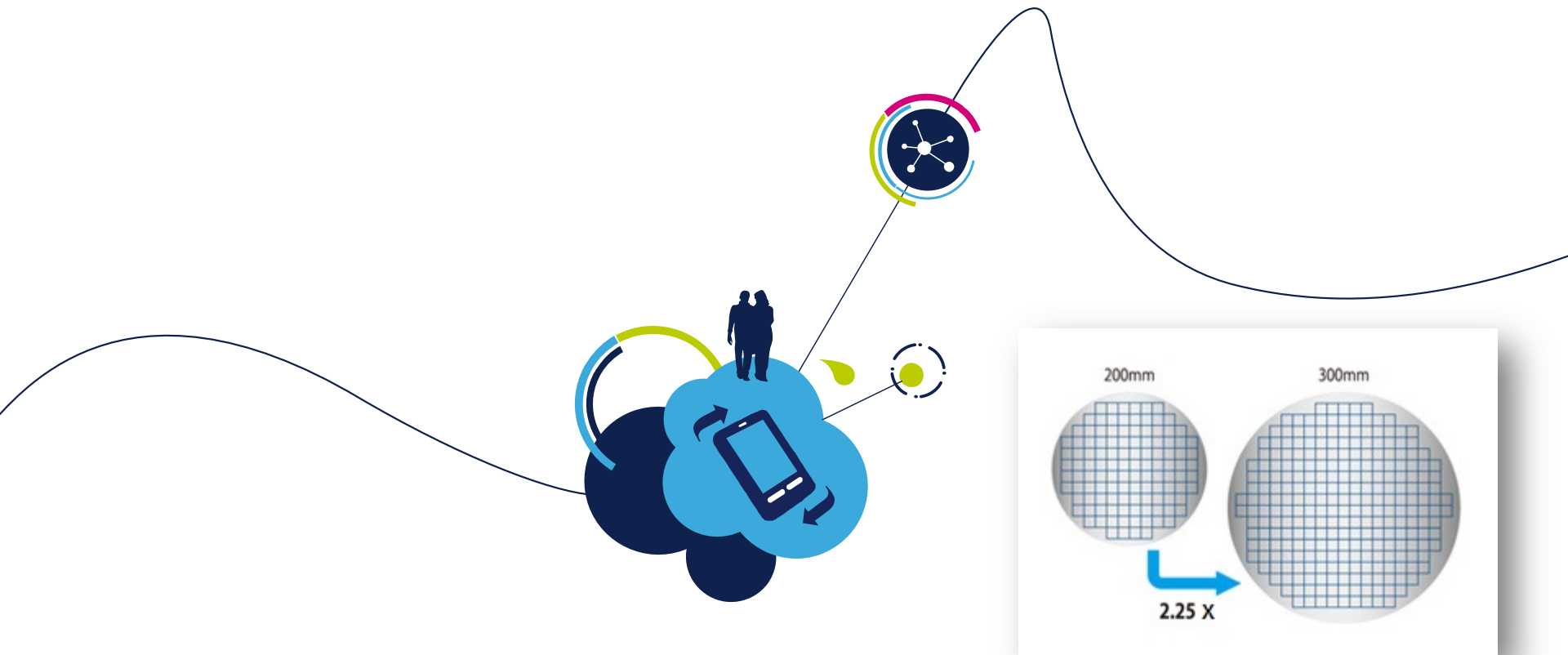


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Flexible Manufacturing Facilities



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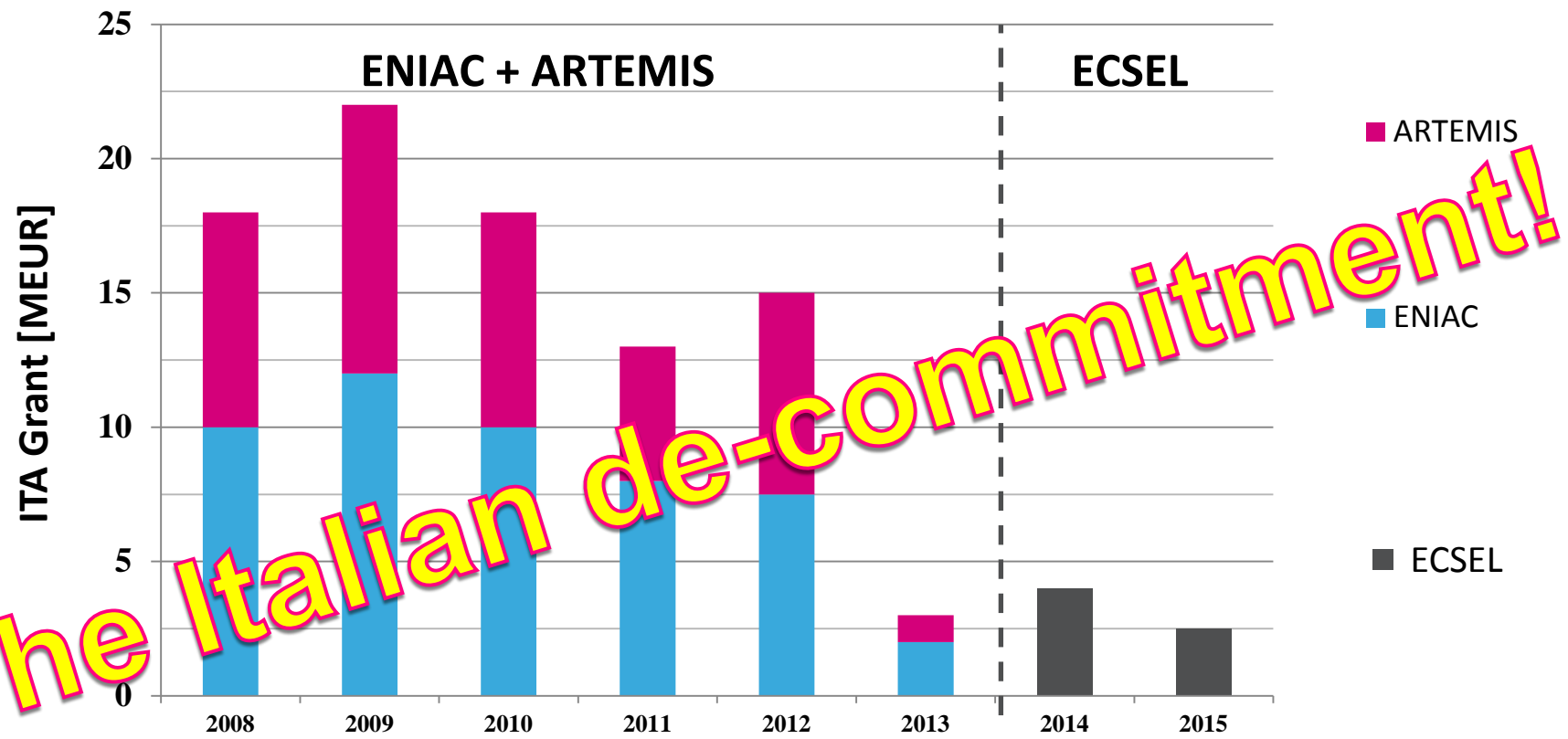


R2POWER300 KET Pilot Line Overview

JTI on period 2008-2015

How Italy stepped out from high tech in EU!

- During 8 years, the total funding from Italy has been dramatically shrinking!



R2POWER300: Goals

”Preparation of R2 move to 300mm for BCD smart power and Power Discrete”

1. To set the stage for the future Fab facility at 300mm located in Agrate Brianza (Italy).
2. To characterize, optimize and install the bridge tools and equipments necessary to achieve the new BCD10 technology, featuring 90nm lithography, ready for 300mm.
3. The project will integrate “Non Volatile Memory” with BCD smart power devices at 110nm lithography.
4. Advanced System in Packages.

ECSEL 2014: Start date: July 1st, 2015

Lombardia: Start date: ? (applied on June 2015)

R2POWER300: Innovation unleashes Strategic Impact

1. The adoption of **Smart power semiconductors** would allow **50% cut of the energy loss in consumer and industrial appliances!**
2. Smart Power is estimated at **CAGR of 8% until 2020, worth 18 B\$.**
3. Investing on 300 mm Pilot Line is **key to sustain the innovation path.**



TRL	1	2	3	4	5	6	7	8	9
	basic principles observed	technology concept formulated	experimental proof of concept	technology validated in lab	technology validated in industrially relevant	technology demonstrated in industrially relevant	demonstration in operational environment	system complete and qualified	system proven in operational environment
Fundamental Research	Pillar 1: Technology Research			Pillar 2: Product Demonstration (Pilot Line)				Pillar 3: Volume manufacturing	

R2POWER300: Application driven Demonstrations



Mobility



Industrial



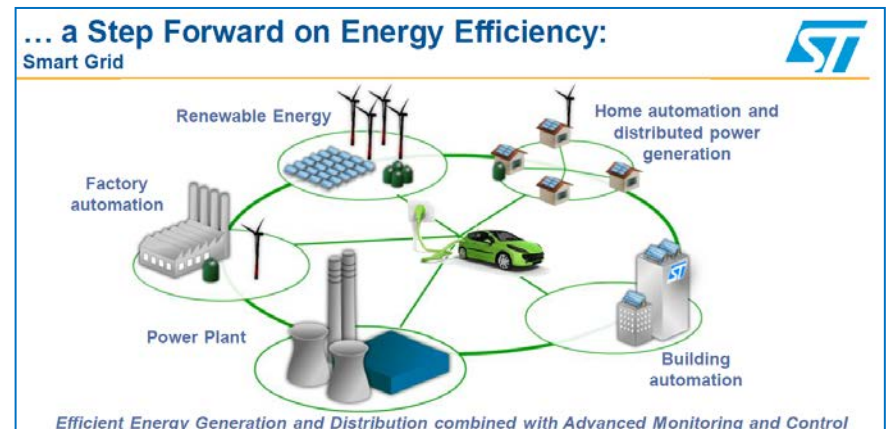
Energy
Efficiency

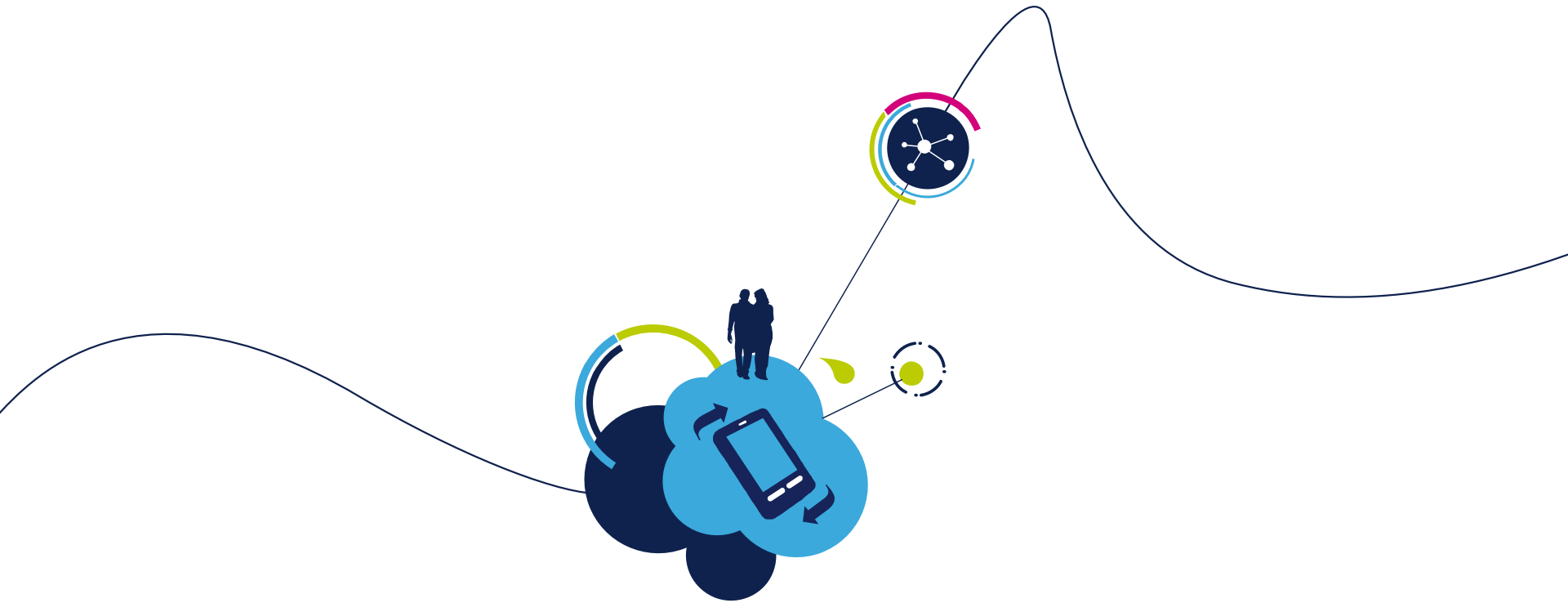
Smart Power Semiconductor Technology

Relevance with the ECSEL's MASP 2014

- **R2POWER300 is committed to challenge with the following targets:**
 - Development and Manufacturing of a multi-KET Pilot Line (i.e. Nanoelectronics, Nanotechnology, Adv. Manufacturing)
 - Energy efficiency and CO2 reduction megatrends.

Technology and Applications:





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