



MANUFUTURE 2017



MANUFUTURE VISION 2030

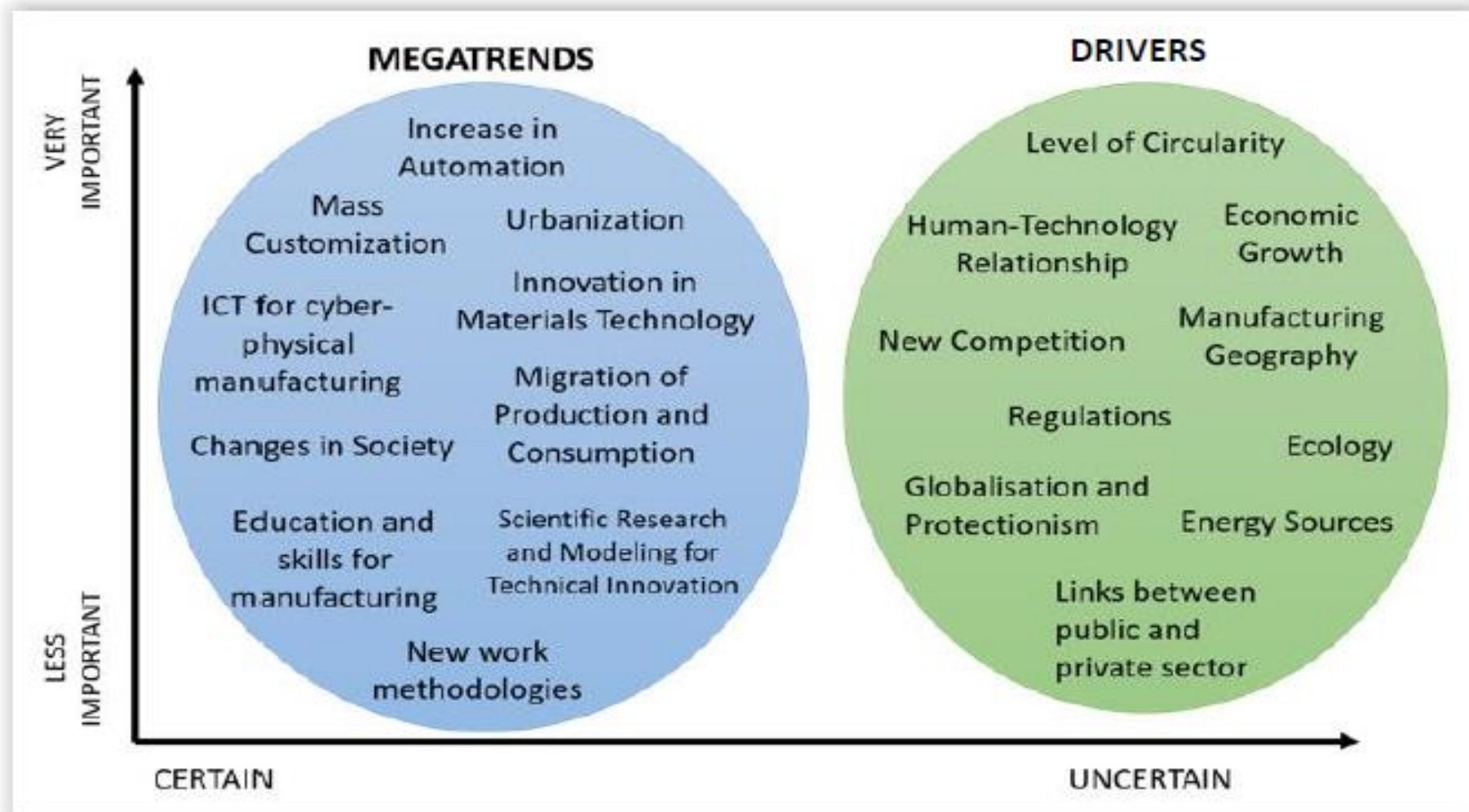
MANUFUTURE 2017 Conference

Tallinn, 24 Oct. 2017

José Carlos Caldeira

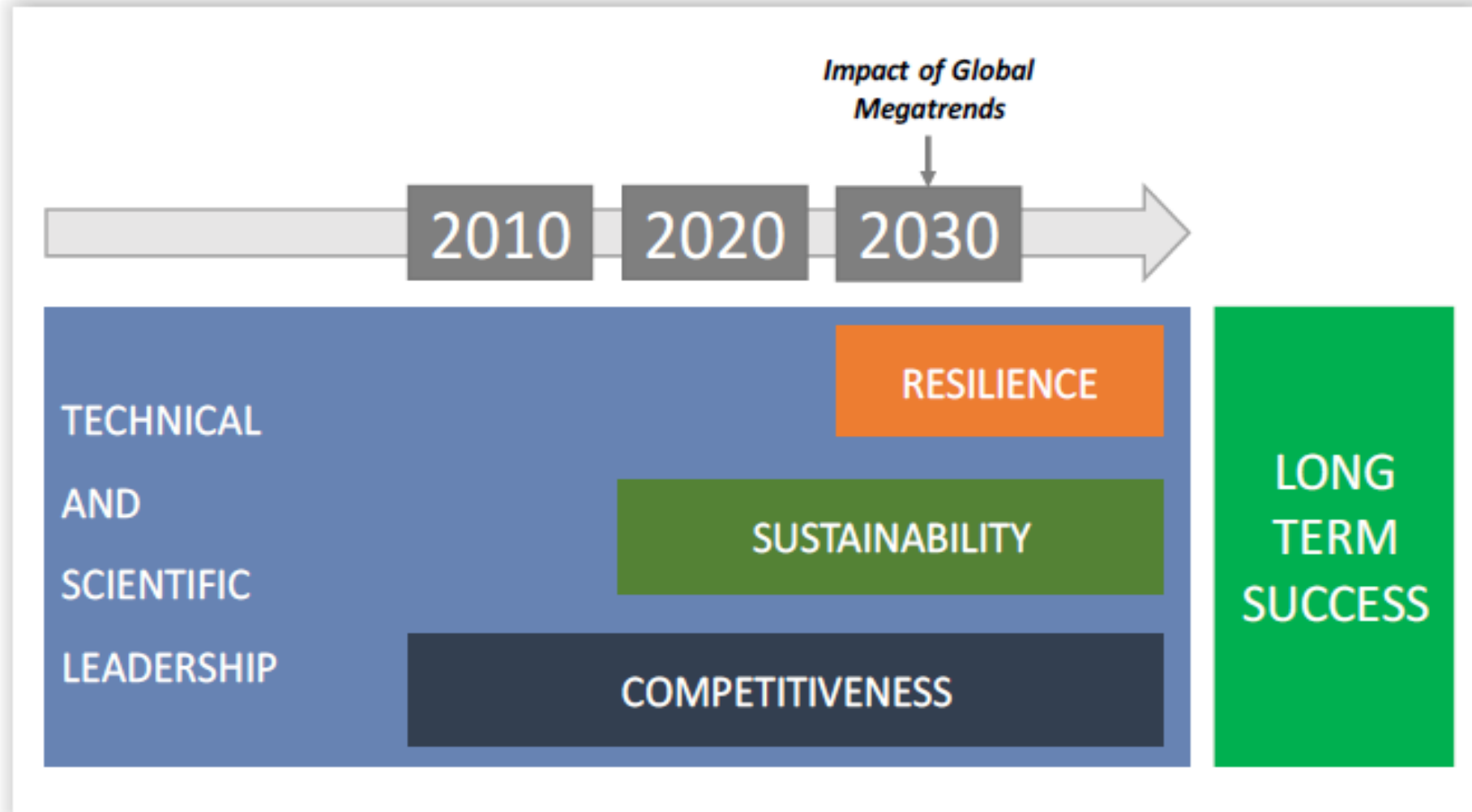
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Megatrends and Drivers



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High Level Vision





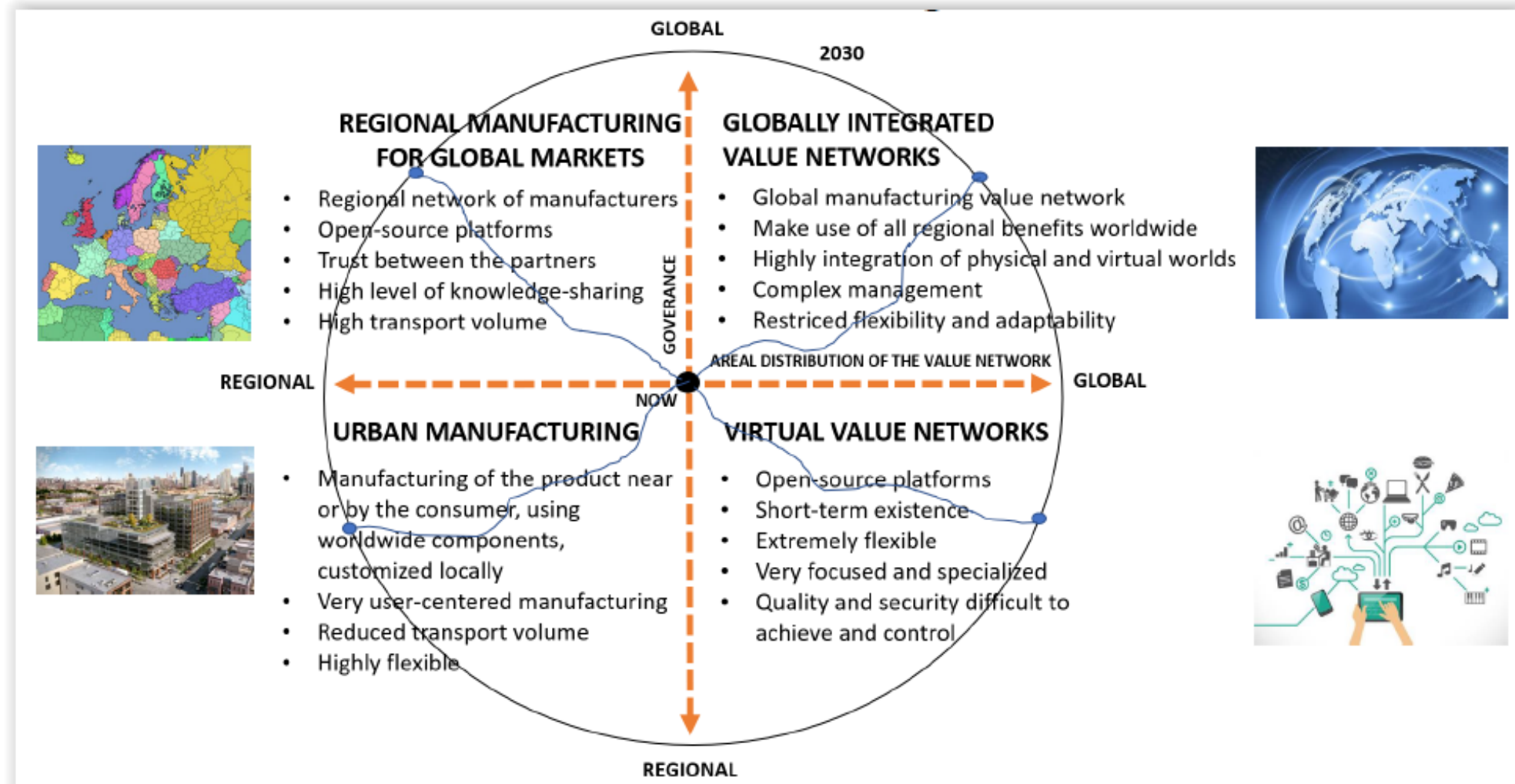
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“RESILIENT” Manufacturing Means:

- GLOBAL: changes in markets, technology, politics, etc.
- FLEXIBLE: adjustable to changes (small or disruptive)
- FAST: information and proactivity
- MODULAR: matching demand (geography and capacity)
- NETWORKED & COLLABORATIVE: integrated value chains; shared risks
- INDEPENDENT: resources; knowledge; circularity
- SUSTAINABLE: use less resources with less impact
- COMPETITIVE: last but not the least!!!

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Scenarios for Future Manufacturing (I)





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In 2030:

- Customers will invent, **create their products** and **drive innovation**
- **Professional manufacturing** of these personalized products will be **highly automated**
- **Flexibility and short delivery** time will be critical for **competitive advantage**
- Dramatically increasing **process speed and zero-defect production** are **prerequisites**
- **Production/assembly close to customers** becomes prevalent for customer-oriented production facilities
- **Pure manufacturing labor costs lose importance** to engineering costs
- **Engineering functions** are located near **global creativity and technological hubs**

- Europe needs to **reinforce its leading role in Knowledge and Engineering**
- Europe needs to **develop a leading innovation system**



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Main Building Blocks:

- Life-cycle oriented and sustainable manufacturing (eco)system: EXTENDED
- New business and innovation (eco)system: GLOBAL
- Role of Science and Technology: INTEGRATED
- Employment in future manufacturing system: CAPTURE
- Role of Education and Training: CRITICAL



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Planning:

- VISION 2030
 - Discussed and approved HLG meeting (Nov 2017)
 - Final version released end 2017
- SRA
 - Draft version mid 2018 (integrating different contributions)
 - Final version released end 2018
- This information will be used to generate Roadmaps for FP9

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THANK YOU