



4IR TECHNOLOGIES SOUTH AFRICA NEEDS



Creating context

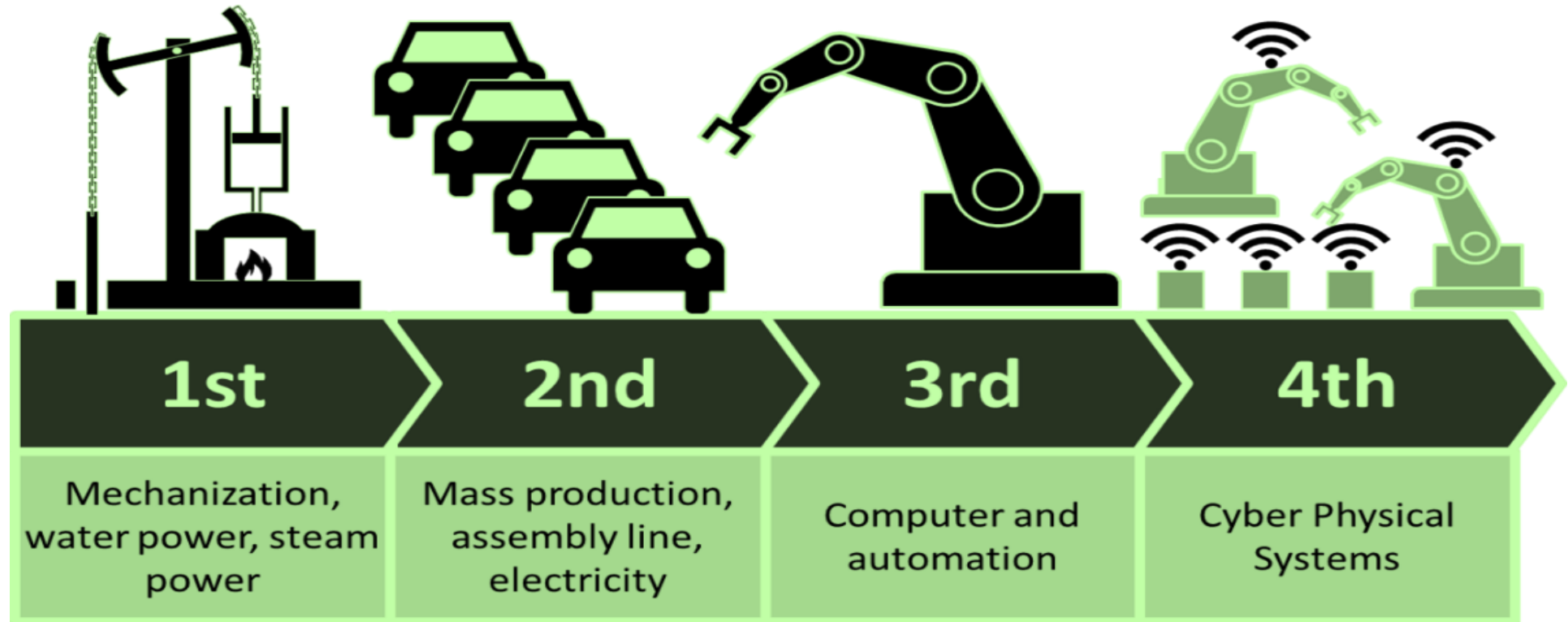
- **What is 4IR**
- **What is driving 4IR**
- **Technologies we need for 4IR**



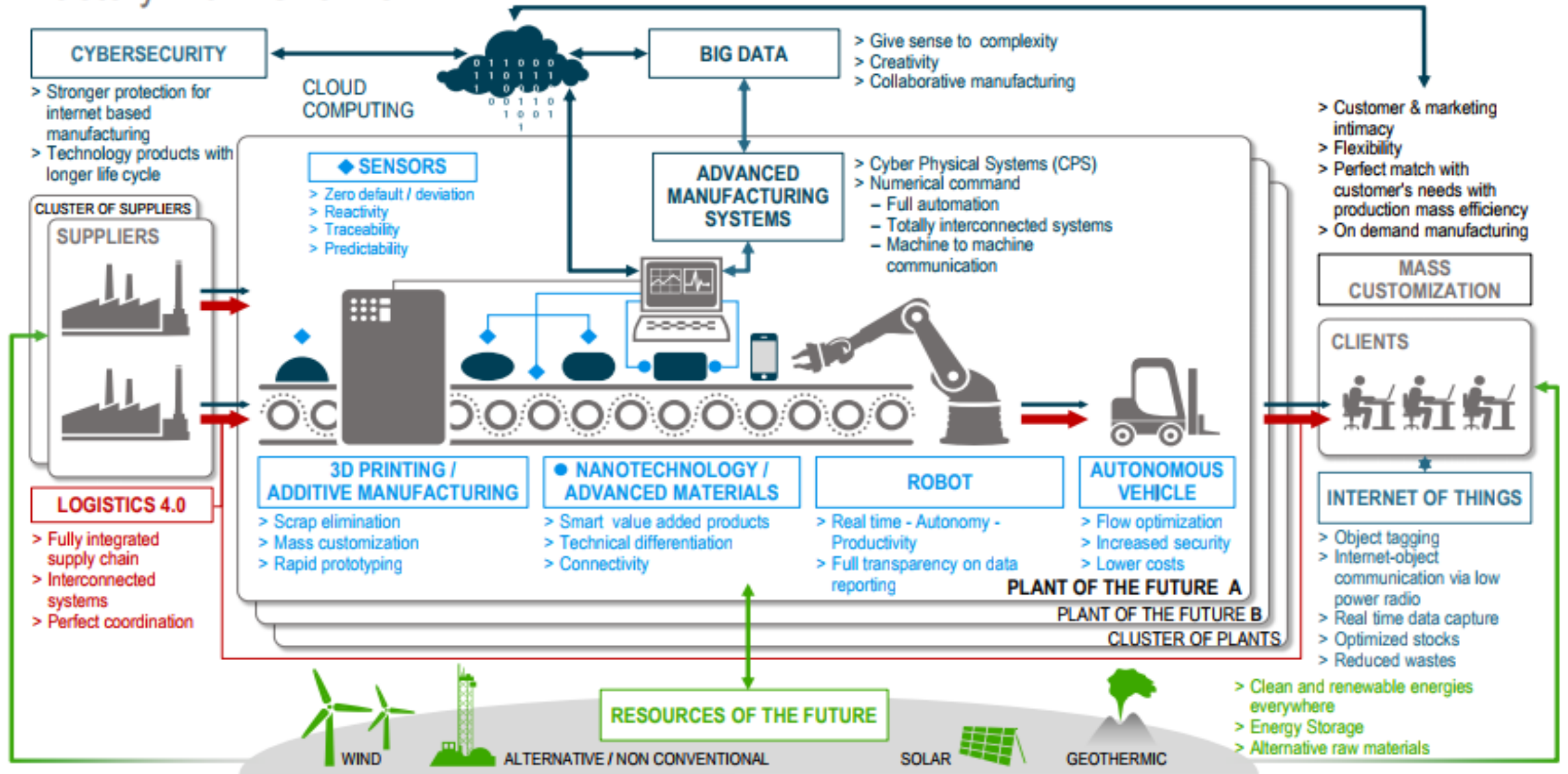
Fourth Industrial Revolution



Industrial Revolutions



Factory 4.0 – Overview



Source : Roland Berger

160607_KS_ Industrie 4 0_Presentation_Siemens_Hellas_send.pptx | 9

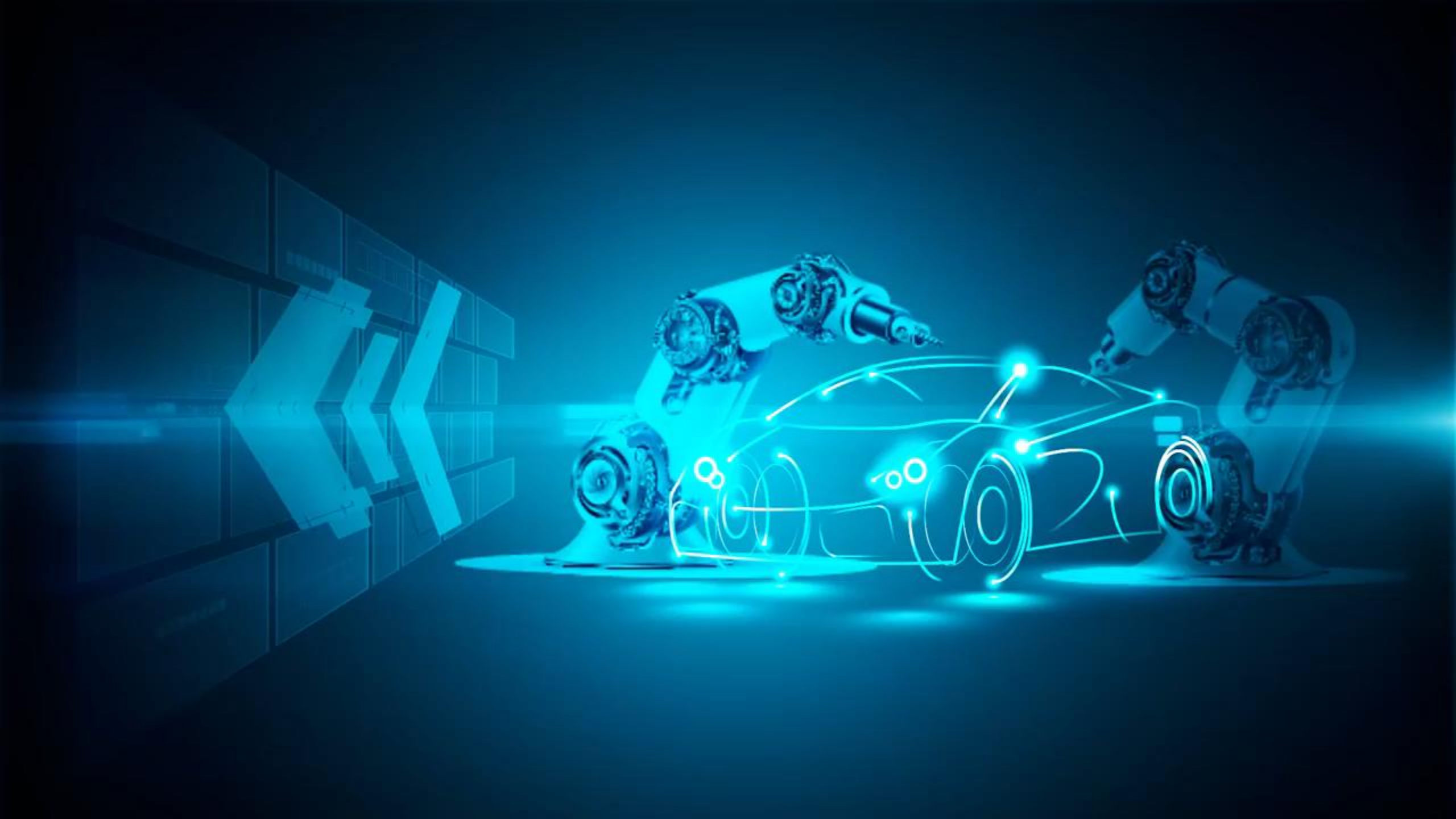
Key technologies



The Megatrends

- Technological and social change
- Digitization of economies
- Transparency in everything
- Automation of industries
- Greening of human practices
- Net centric society





How economies could change

Manufacturing sector

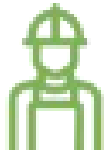
Service sector



Standardized output
(largely automated)

Mass-scale industrial manufacturing
(e.g. energy, natural resources, food, chemistry & new materials, machinery & equipment, etc.): highly autonomous cyber-physical manufacturing systems

Digitalized & machine-assisted massive use services (e.g. digital health, digital entertainment, unmanned transportation, post-retail distribution, etc.)



Customized output
("human touch")

Customized end-user manufacturing
(consumer electronics, consumer transport, apparel, furniture etc.): localized personalized production based on 3D manufacturing

Customized highly-personalized services (e.g. wellness, psychotherapy, fitness & tourism, hospitality, personalized art & entertainment, etc.), both digital & physical

What does SA need?



A different perspective

- **Technology bank**
- **Local production of 4IR technologies**
- **Digital infrastructure**
- **Cyber security**
- **Ethics/ governance**





Thank you
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