

# European Initiative Smart Anything Everywhere



Haydn Thompson  
THHINK



Final Event of the CSA „Smart4Europe 1+2“

## “Twin Transition - How SMEs can benefit from future digital and green technologies”

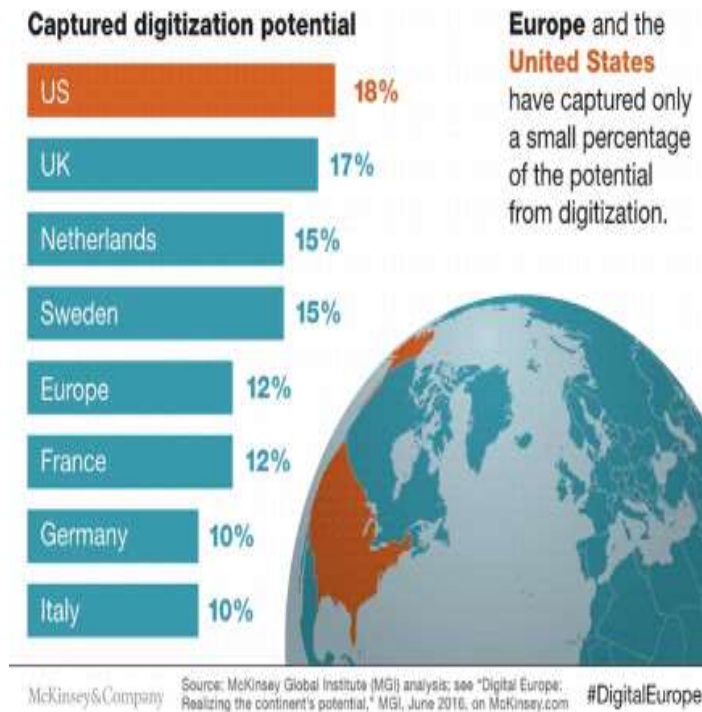
Haydn Thompson / Green Technologies



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# Digitisation Potential

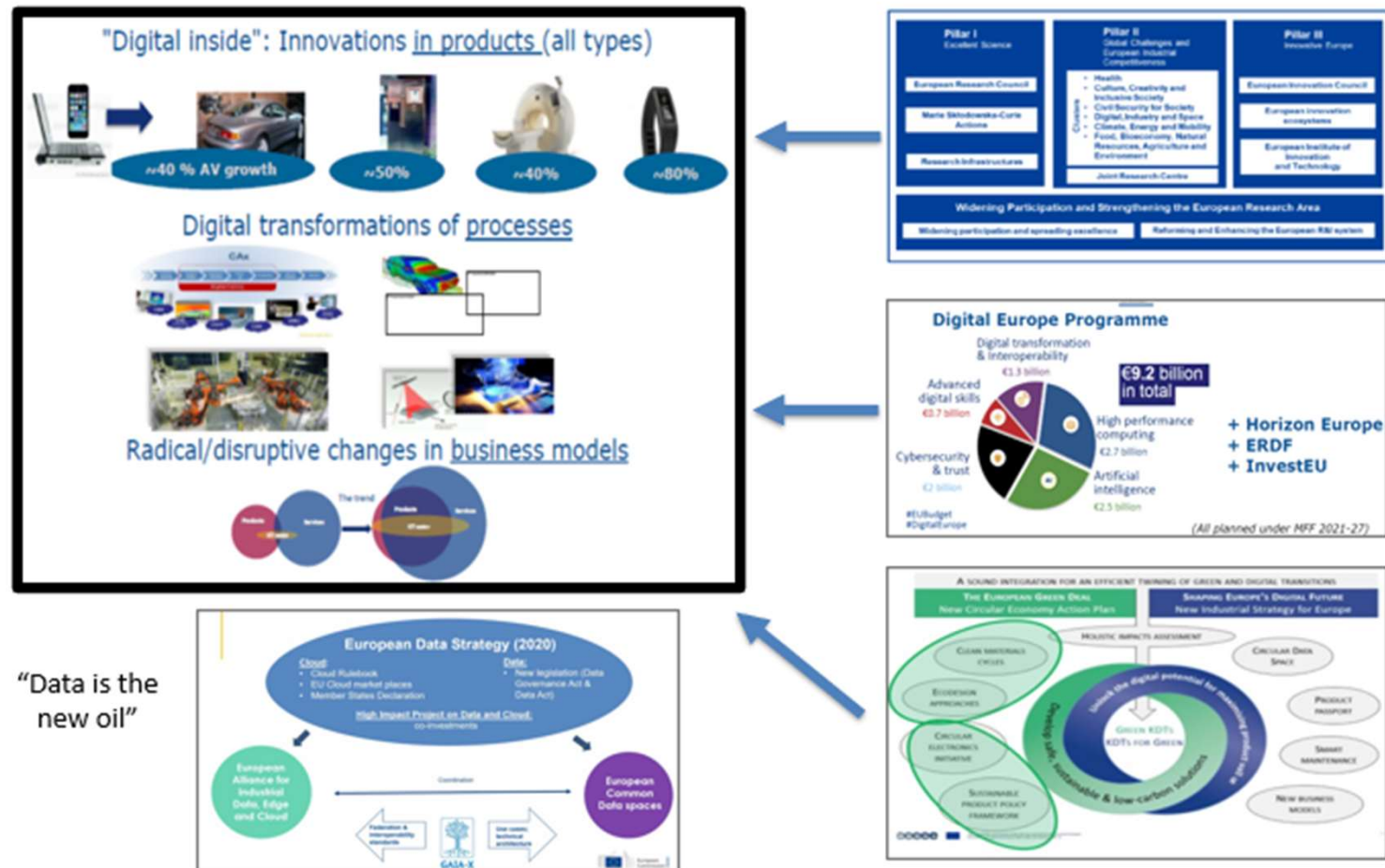


## Impact of Covid

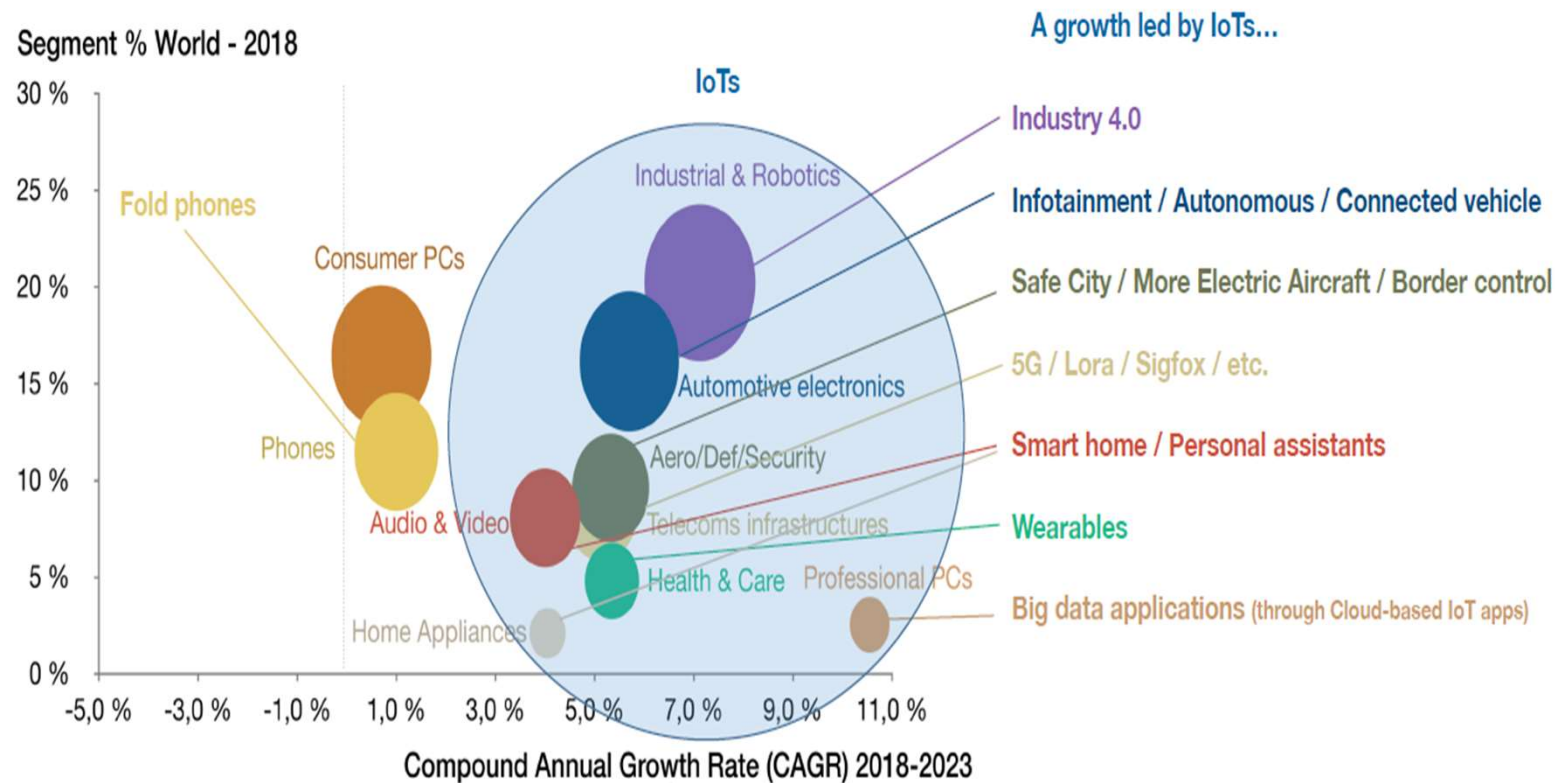


**McKinsey estimates that digitisation will potentially add 1 trillion EUR to the GDP in Europe**

## Changes from Digitisation and EC Support

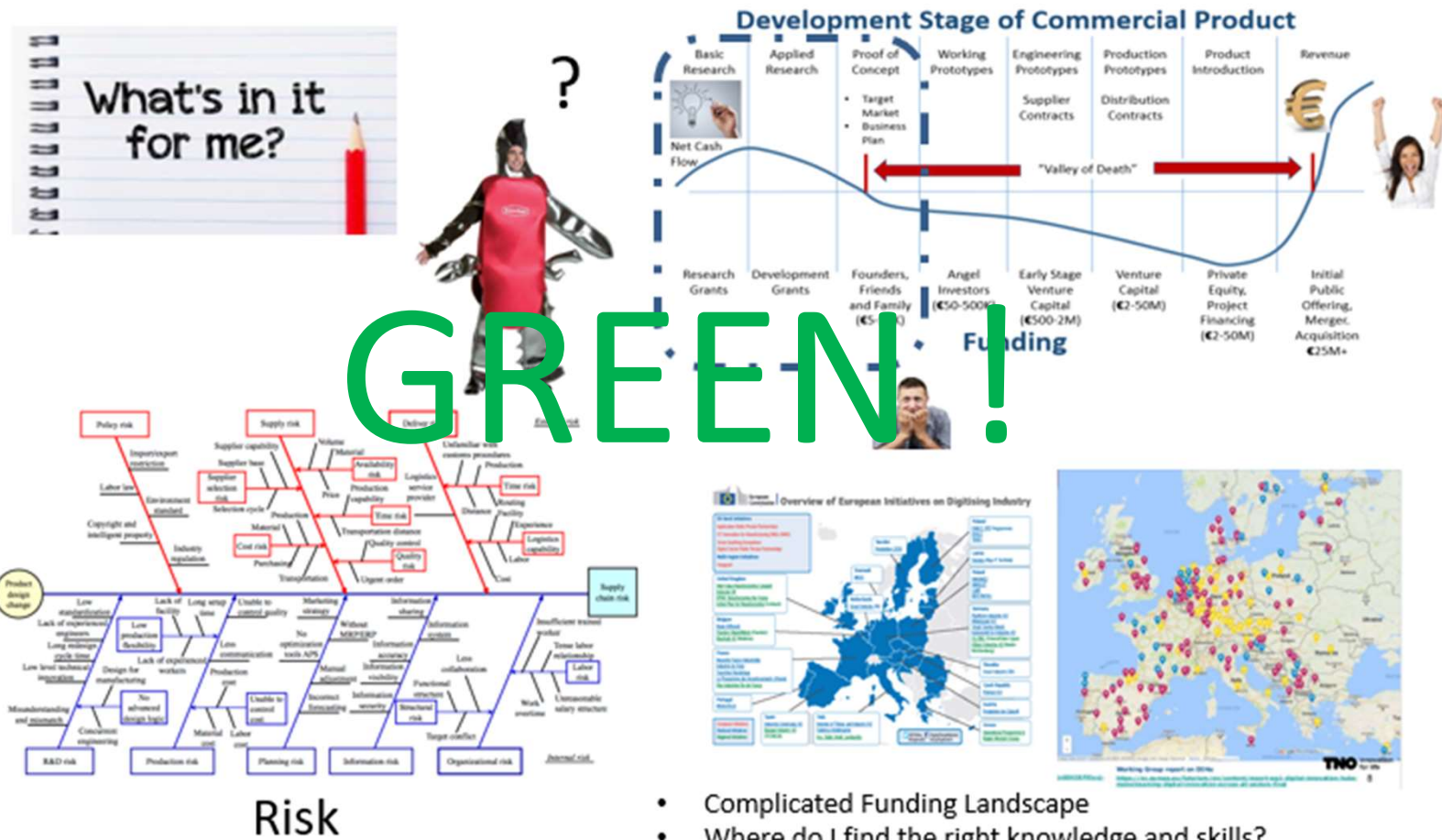


# Opportunities for Europe





# SME Perspective – “I’m busy – make my life simpler”



# Application Domains - HORIZON Europe Pillar 2

## 6 CLUSTERS AS PRIORITIES IN HORIZON EUROPE PILLAR 2

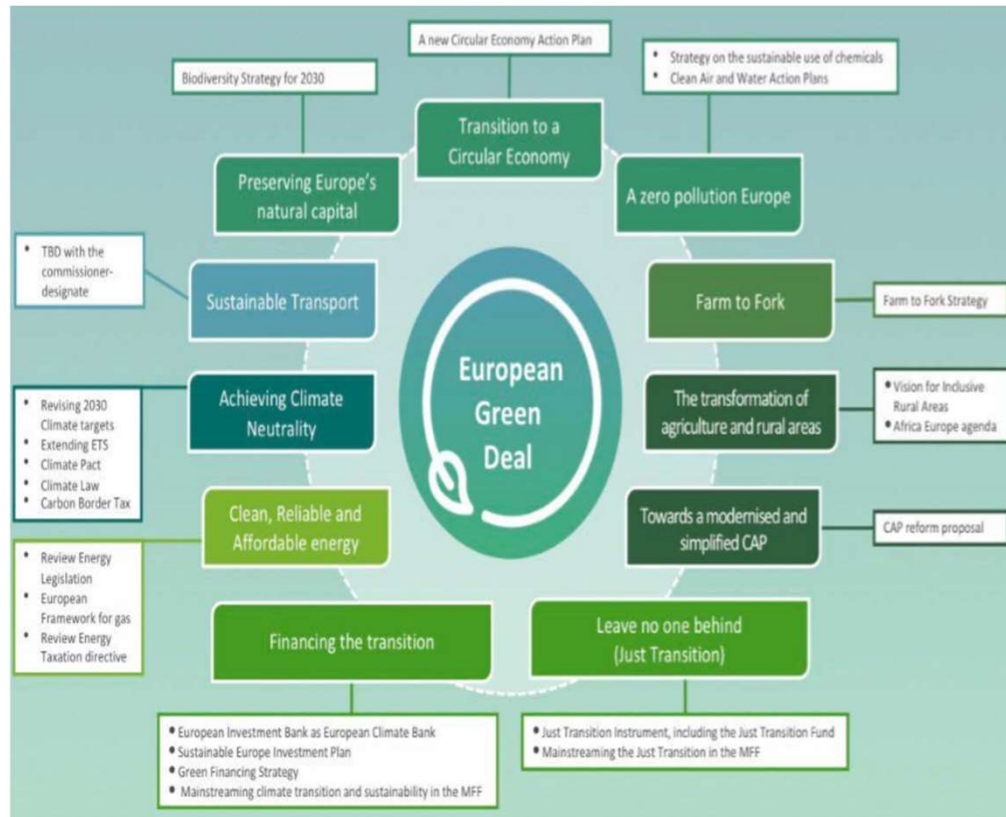
**Global Challenges & European Industrial Competitiveness:** boosting key technologies and solutions underpinning EU policies & Sustainable Development Goals  
Commission proposal for budget: € 52.7 billion



Clusters in 'Global Challenges and European Industrial Competitiveness'

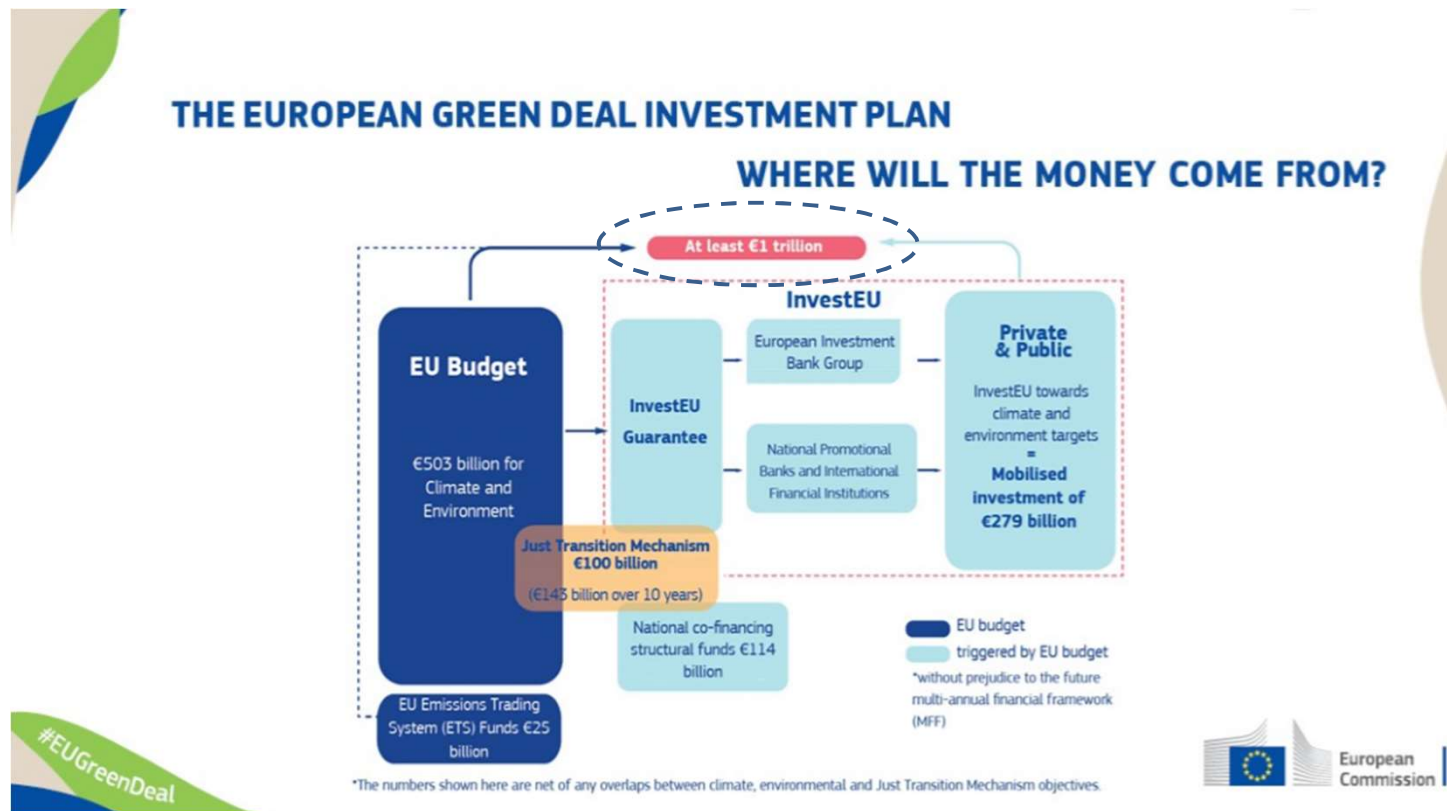
Clusters	Areas of intervention	
Health	<ul style="list-style-type: none"><li>• Health throughout the life course</li><li>• Non-communicable and rare diseases</li><li>• Tools, technologies and digital solutions for health and care, including personalised medicine</li></ul>	<ul style="list-style-type: none"><li>• Environmental and social health determinants</li><li>• Infectious diseases, including poverty-related and neglected disease</li><li>• Health care systems</li></ul>
Culture, creativity and inclusive society	<ul style="list-style-type: none"><li>• Democracy and Governance</li><li>• Social and economic transformations</li></ul>	<ul style="list-style-type: none"><li>• Culture, cultural heritage and creativity</li></ul>
Civil security for society	<ul style="list-style-type: none"><li>• Disaster-resilient societies</li><li>• Protection and Security</li></ul>	<ul style="list-style-type: none"><li>• Cybersecurity</li></ul>
Digital, Industry and space	<ul style="list-style-type: none"><li>• Manufacturing technologies</li><li>• Advanced materials</li><li>• Next generation internet</li><li>• Circular industries</li><li>• Space, including Earth Observation</li><li>• Emerging enabling technologies</li></ul>	<ul style="list-style-type: none"><li>• Key digital technologies, including quantum technologies</li><li>• Artificial Intelligence and robotics</li><li>• Advanced computing and Big Data</li><li>• Low-carbon and clean industry</li><li>• Emerging enabling technologies</li></ul>
Climate, Energy and Mobility	<ul style="list-style-type: none"><li>• Climate science and solutions</li><li>• Energy systems and grids</li><li>• Communities and cities</li><li>• Industrial competitiveness in transport</li><li>• Smart mobility</li></ul>	<ul style="list-style-type: none"><li>• Energy supply</li><li>• Buildings and industrial facilities in energy transition</li><li>• Clean, safe and accessible transport and mobility</li><li>• Energy storage</li></ul>
Food, bioeconomy, natural resources, agriculture and environment	<ul style="list-style-type: none"><li>• Environmental observation</li><li>• Agriculture, forestry and rural areas</li><li>• Circular systems</li><li>• Food systems</li></ul>	<ul style="list-style-type: none"><li>• Biodiversity and natural resources</li><li>• Seas, oceans and inland waters</li><li>• Bio-based innovation systems in the EU Bioeconomy</li></ul>

# Green Deal



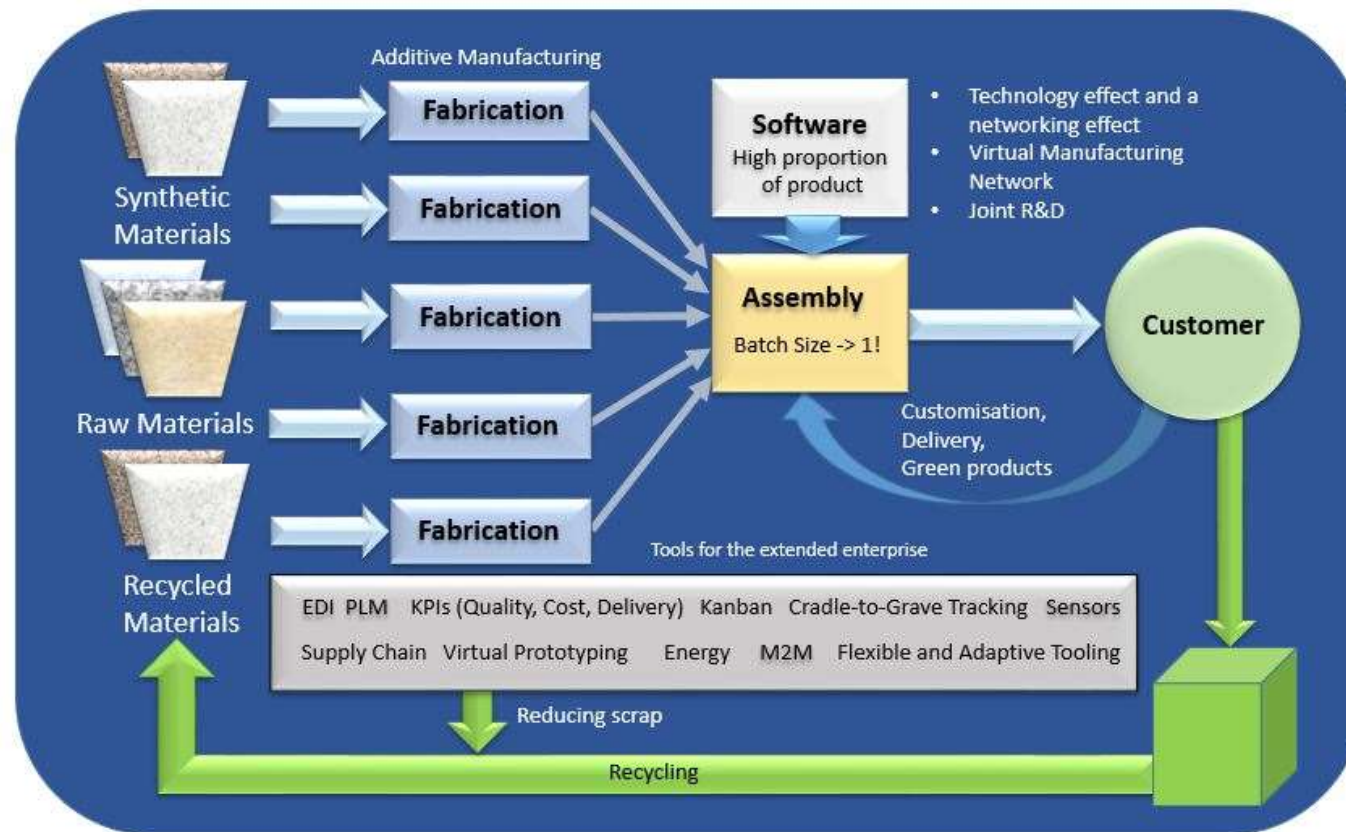
- Boost the efficient use of resources by moving to a clean, circular economy
- Restore biodiversity and cut pollution
- Investing in environmentally-friendly technologies
- Supporting industry to innovate
- Rolling out cleaner, cheaper and healthier forms of private and public transport
- Decarbonising the energy sector
- Ensuring buildings are more energy efficient
- Working with international partners to improve global environmental standards

# Financing the Green Deal

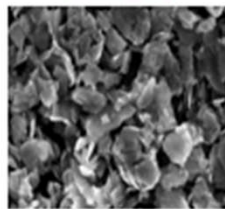
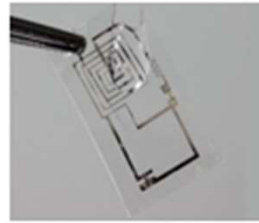
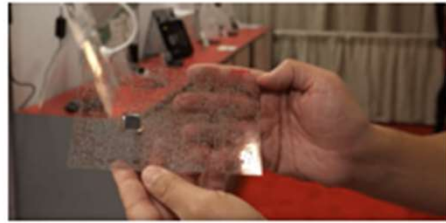
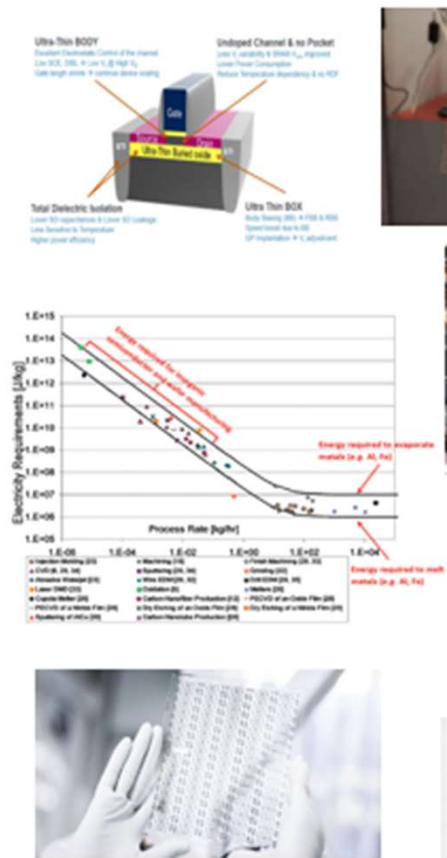




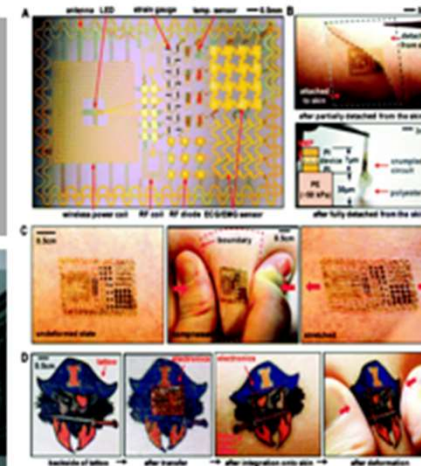
# Green Manufacturing



# Sustainable Electronics and Recycling

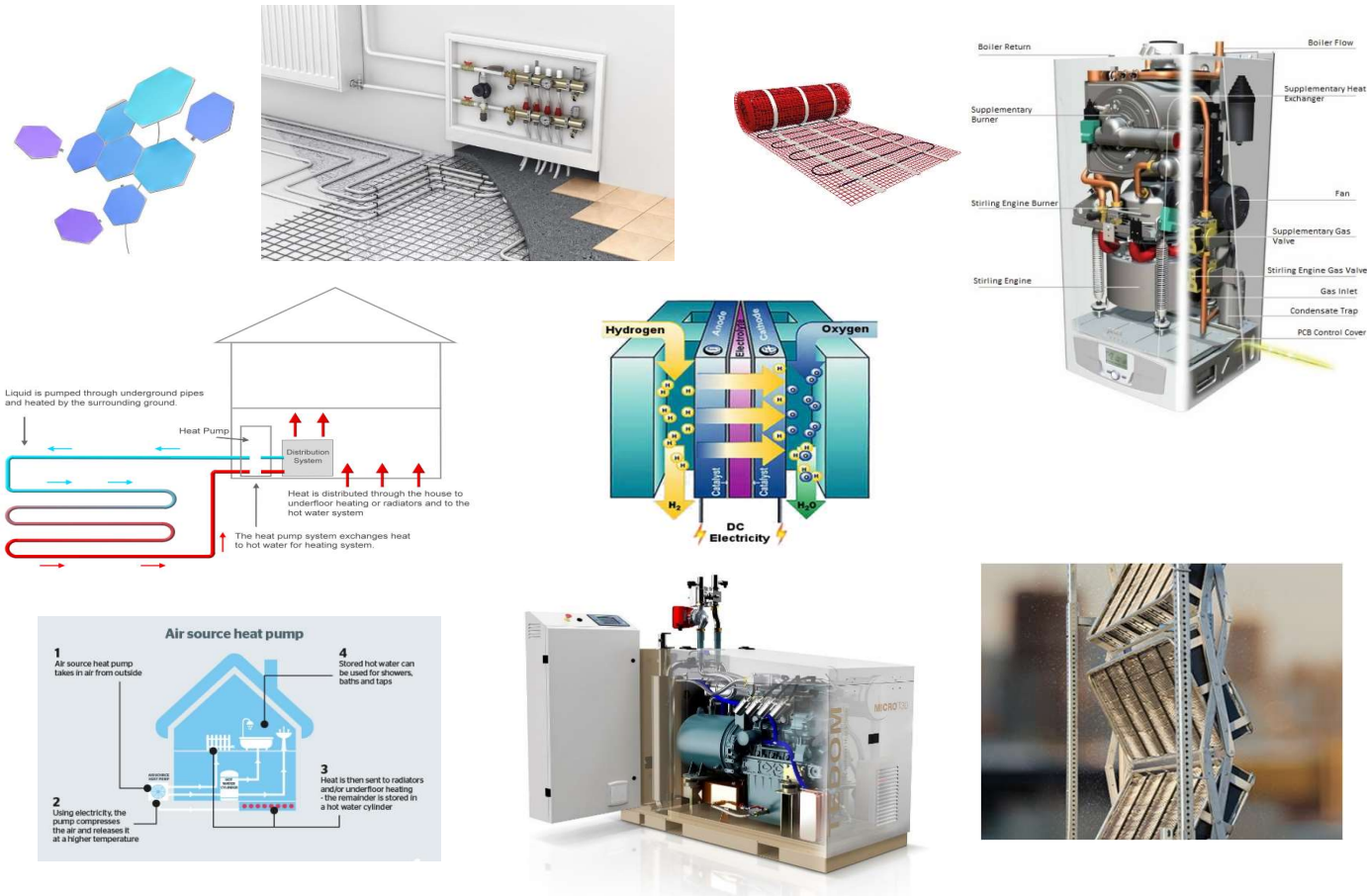


An electric motor (left) as used in millions of car's gearboxes, was chosen by the Fraunhofer team as one of their benchmark. The permanent magnets (rotor with quarter ring magnet, centre, rotor as flux collector, right) built into them contain rare earths. The Fraunhofer researchers significantly reduced the need of rare earths using a combination of different approaches.



Schematic build-up of an automotive battery system.

# Smart Energy and Low Carbon Applications



# Home Automation

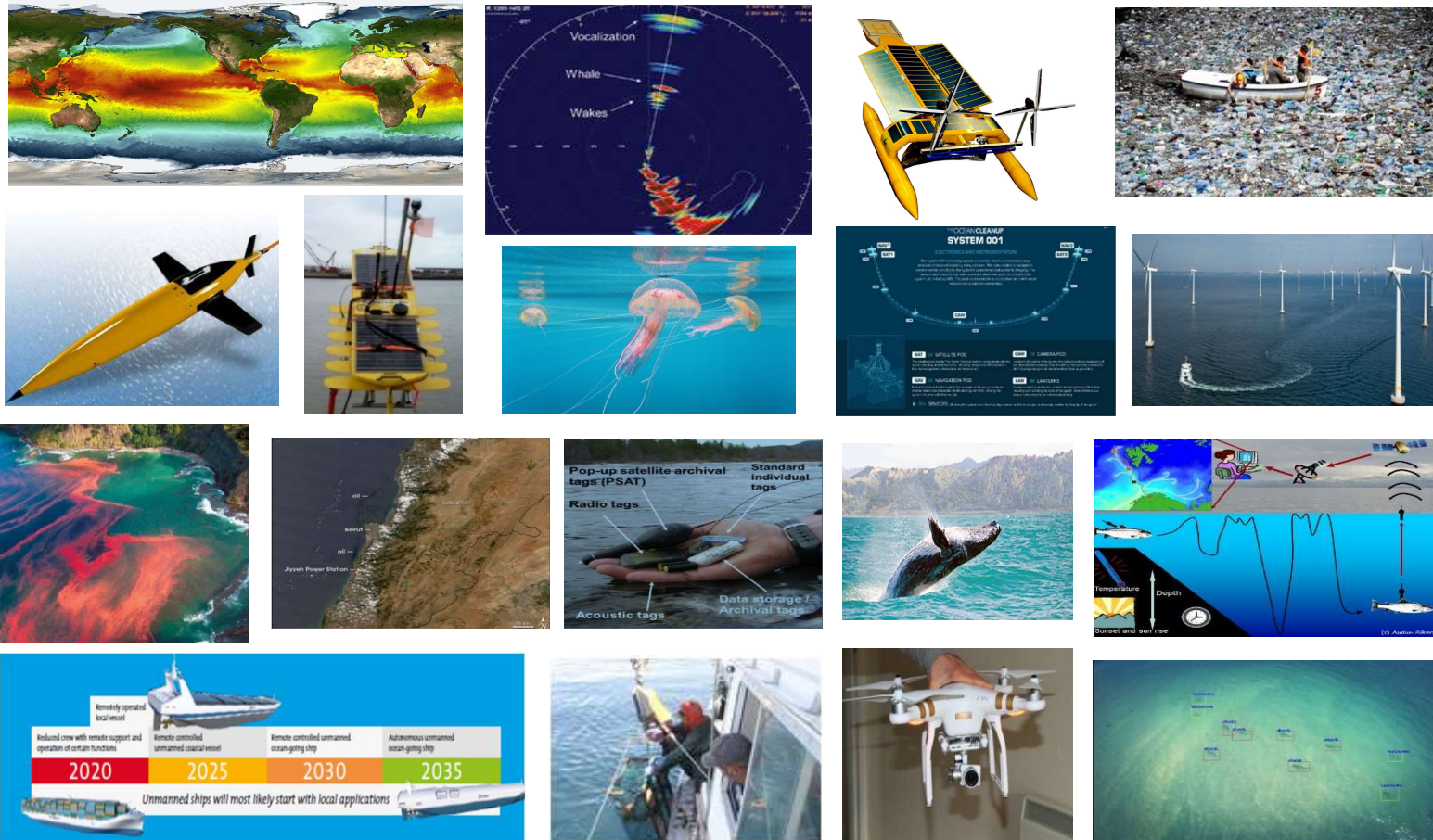




# Agriculture

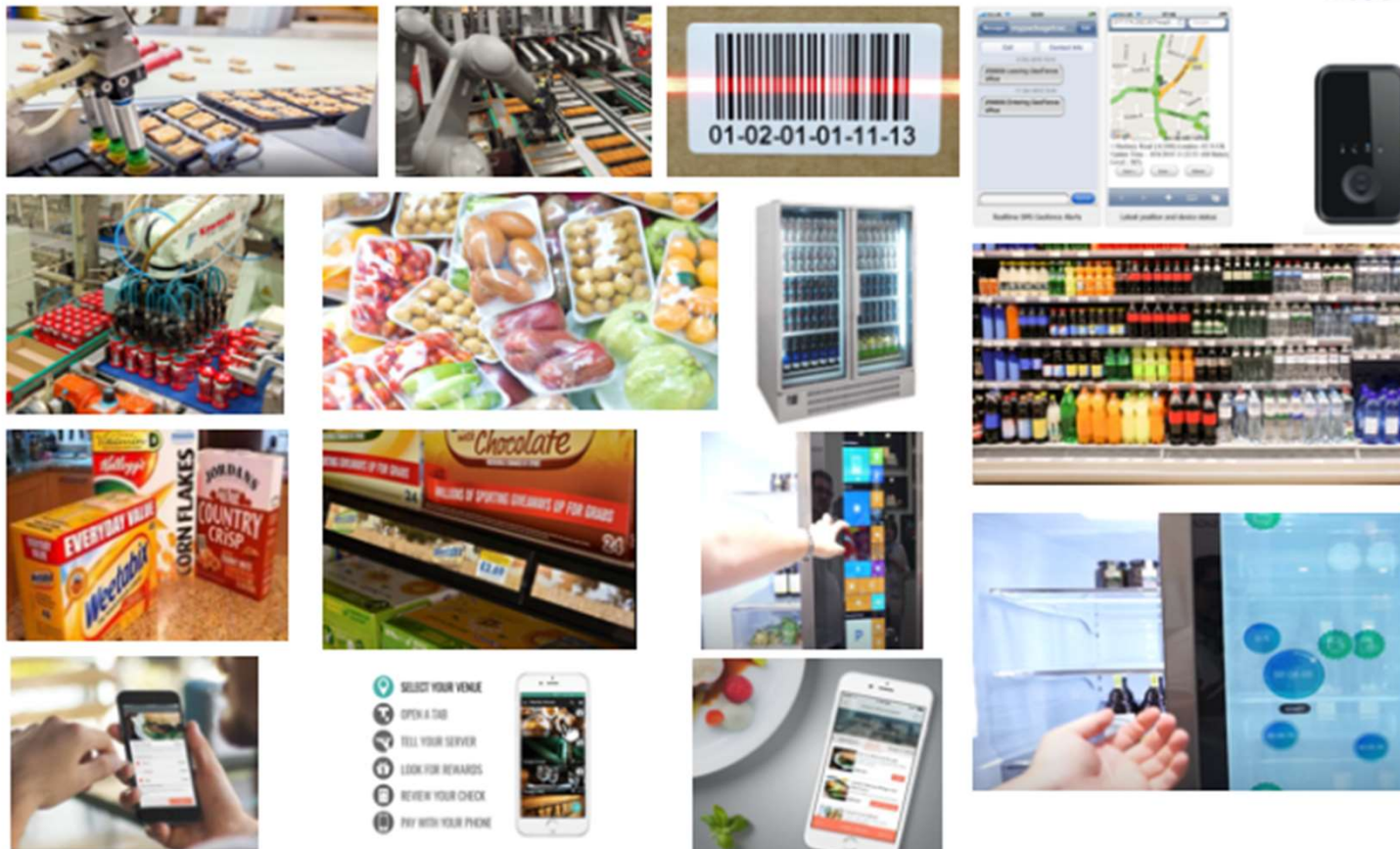


# Ocean Monitoring





## Food and Beverage



# Green Applications – Everywhere!



**Sustainable Manufacturing  
and Recycling**



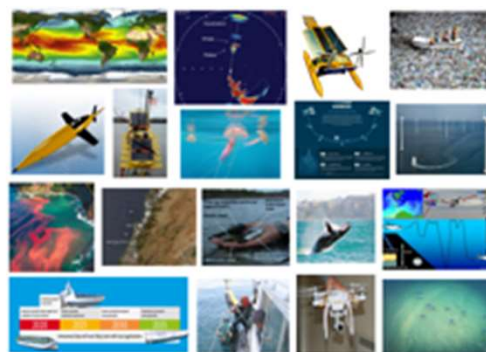
**Smart Energy and  
Low Carbon Applications**



**Home Automation**



**Smart Agriculture**



**Ocean Monitoring Applications**



**Food and Beverage**



# Concluding Remarks

- There is still a lot more to achieve with digitalisation
- The Green Deal is a key new driver
- There are great opportunities for SMEs in the Twin Green and Digital Transition
- Green applications are everywhere!
- SMEs need help to make this transition – EDIHs an excellent model!

