



UNITED NATIONS
UNIVERSITY
CRIS

Institute on Comparative Regional Integration Studies

GR:REEN

Global Re-ordering:
Evolution through European Networks

Future Trends Series - GR:REEN Project

Title of the report

Technology and Innovation Futures: UK Growth Opportunities for the 2020s (2012 Refresh)

Area

Science and Technology

Reporter

Foresight (Government Office for Science)

Type of the Reporter

National Research Programme under the UK Government

Periodically updated?

No

First issued year

2007

Latest update

2012

Official website

<http://www.bis.gov.uk/foresight>

Language available

English

Short summary

The report studies developments in technology and innovation that have the potential to support economic growth in the UK over the next 20 years in a sustainable way. A precedent study in 2010 assesses that "Firstly, there are strong opportunities for growth in the UK economy if businesses can harness the scientific and industrial capabilities required to take advantage of the technologies and innovation identified in the report. Secondly, the UK will undergo an energy transition during the next 10–20 years and there will be important opportunities for UK companies. Thirdly, there continues to be a critical need for a stable, coherent framework of regulation and support, so that the private sector has the confidence to invest, including in intellectual property to protect research and development and encourage investment." The current updated 2012 report underlines that additionally to the precedent trends, new ones have emerged including the potential for more emphasis on gas, for tackling supply from renewable sources, and new opportunities from hybrid energy systems combined with rapidly developing battery technology.

Key trends

- There is a huge potential of science and technology to generate economic growth and addressing challenges such as climate change and resource scarcity. Indeed, those challenges can be addressed through making best use of resources, recycling, include renewable energy, and reducing the carbon use.
- “Significant shifts have taken place in energy technologies during the past two years. Some of these have more to do with the UK’s economic and policy context than technology developments per se. But progress in a few areas of research and development have influenced forecasts for the application of energy technologies and the mix of resources compared with those mapped out in 2010”;
- “As technology erodes the dominance of the 20th century centralised production, mass market economy, new actors are emerging, while some traditional actors are finding a new role. In areas such as the digital spheres of music, film and fashion, individual preferences have a direct influence on products. In other areas, in which industrial scale is still important, the innovation actors may be clubs, associations, user groups, or parts of local government and regional partnerships”;
- “The move towards human-centred design is driven by similar factors and trends and enabled by similar advances in technology as the ‘on demand’ theme: An abundance of mass-produced consumer products leading to saturation, a desire for personalised products and services, an ‘experience culture’ developing at the expense of the acquisition and ownership culture, digitisation and an information-based economy, leading to reproducibility at minimal or zero marginal cost, a move towards ambient intelligence and ubiquitous computing power.”

Suggestions

The UK government will have a key role in supporting new technologies and should therefore focus on:

- “(...) providing direct support to generating the right environment for investors through a stable and consistent regulatory framework”;
- “(...) do more to broker relationships between research and industry to encourage new ideas to be translated into successful commercial outcomes”;
- “(...) intervene helpfully to counter ill-informed criticism while taking seriously its role in protecting our society from any threat, and help to communicate how exciting and transformative these new technologies can and will be over the coming 20 years.”

Methodology

Research from primary sources and secondary sources; modelling

Reference to other trends reports? If yes, which reports?

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