

Ripples of risk and discovery: 2005 - 2015

A thoughtengine horizon scan for DTI Foresight



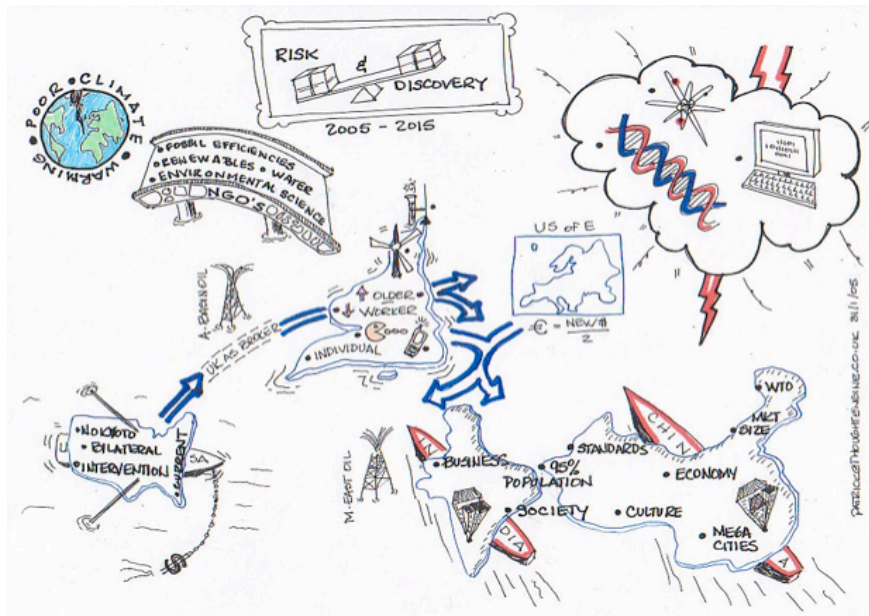
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Note: While the Office of Science and Technology commissioned the work, the findings are independent of Government and do not constitute Government policy.

Executive Summary

The period 2005 - 2015 is one of continuing risk, uncertainty and exhilarating discovery.

Risk is made evident by the emergence of SE Asia as a key influence in economic and political structure, technological developments, business and in the broader fabric of society. Yet, while China and India hold much potential for global growth, they are not without several internal limitations. Ninety-five percent of population growth over this time frame will be in developing countries and much of this will be in urban areas. Coping with population growth, energy demands, pollution and sustaining economic performance will require delicate governance by these new leaders. Meanwhile, the US will retain its position as the largest economy and the dollar as the main currency. But over time, the US economic position will weaken and its international agenda will likely need to change as it courts long-term relationships. Europe and the UK in particular, are well positioned to serve as brokers in this regard, leveraging benefit via unique skills such as quality of research and the strength of specific industries.



NGOs emerge as key players in international policy, touching the hearts of connected citizens who find their faith in tribal relationships - not institutions such as government or marriage. The focus of many of these NGOs and citizens is to make the world a better place, targeting poverty, pollution and climate

change. Armed with greater organisational transparency and the ability to communicate, they will be a force to be reckoned with. Fossil fuels will see us through the period, but many efficiency improvements will take place as well as improvements in renewable energy and environmental science.

And discovery? The science and technology of the atom, gene and computer combine together in a phased S-curve overlap and at a rate never before witnessed. Nanotechnology and Genomics have particularly far reaching effects as they permeate many other sciences and commercial areas. Organ repair, improved cancer treatments, the possibility of a \$1,000 DNA sequence, key knowledge of memory formation, new manufacturing materials, new computer interfaces, Free Open Source Software and the beginnings of quantum computing all hold much promise before 2015.