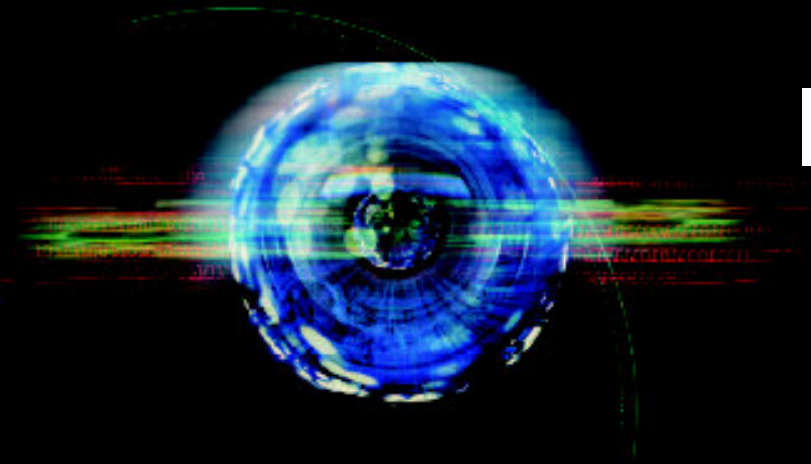


Technology Strategy

Network Security Innovation Platform



Andrew Tyrer

Innovation Platform Manager

Office of Science and Innovation

DTI

Innovation Platforms

Network Security



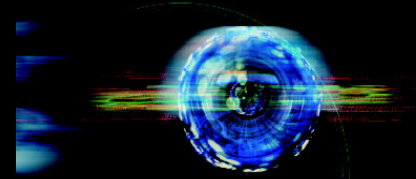
Network Security Innovation Platform Technology Programme ICT opportunities

*Andrew Tyrer
Innovation Platform Manager
Network Security*

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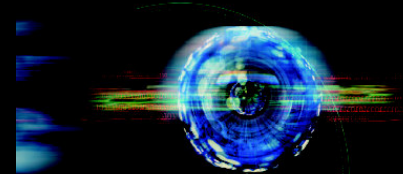
Innovation Platforms

*“By bringing together stakeholders focused on a **societal challenge**, an Innovation Platform will enable the integration of a range of technologies and better coordination of policy and procurement, resulting in a step-change in UK performance, in the quality of public services and the ability of UK businesses to provide solutions.”*

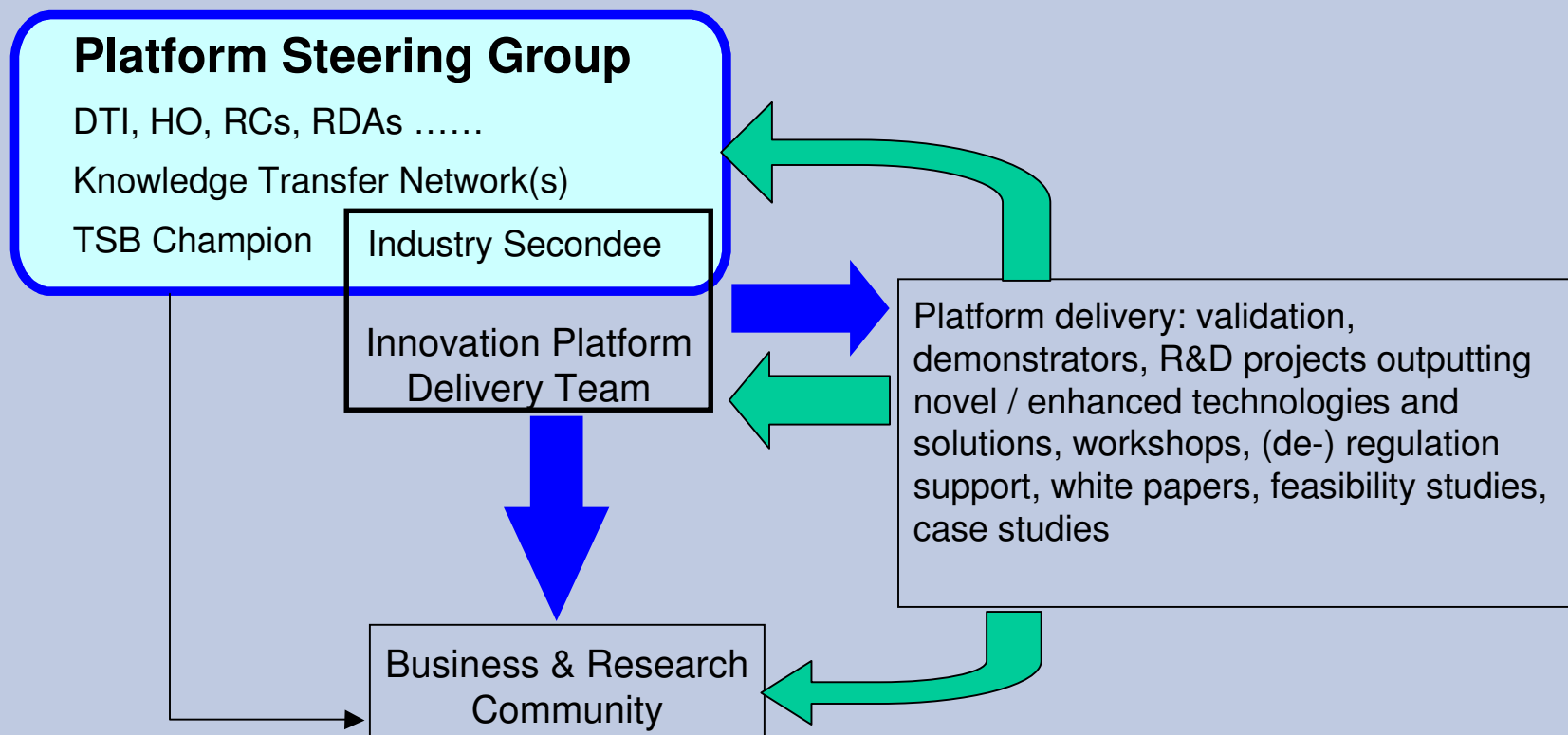
- Engages with business and the research community
- Brings together government stakeholders/funders
- Identifies the appropriate levers to use
- Seeks to align funding streams from separate sources
- Links research to market through procurement opportunities

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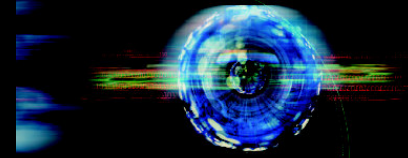


Network Security Innovation Platform



Innovation Platforms

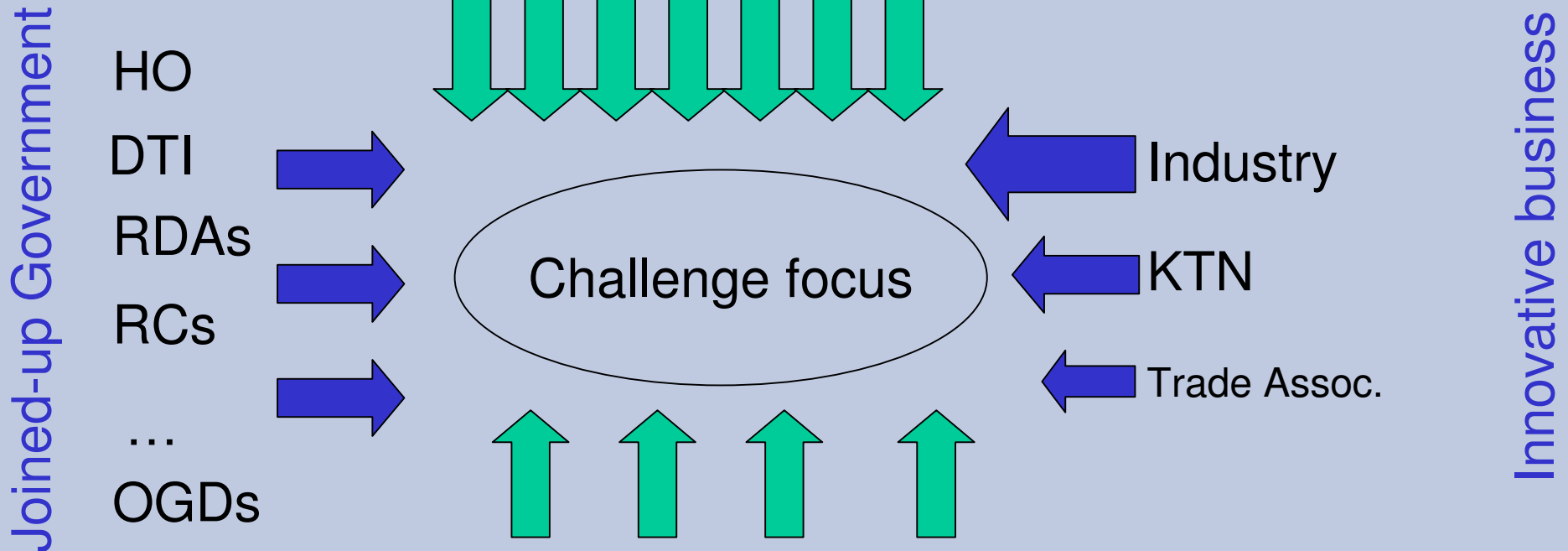
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How will it work?

Integration of a range of technologies

Key technologies



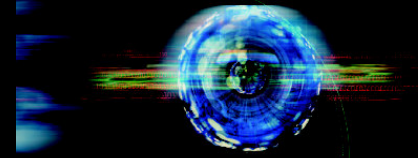
Range of policy & procurement interventions

e.g. Strategic procurement, Collaborative R&D, Knowledge Transfer Networks, patents, regulation & tech standards, diffusion ...

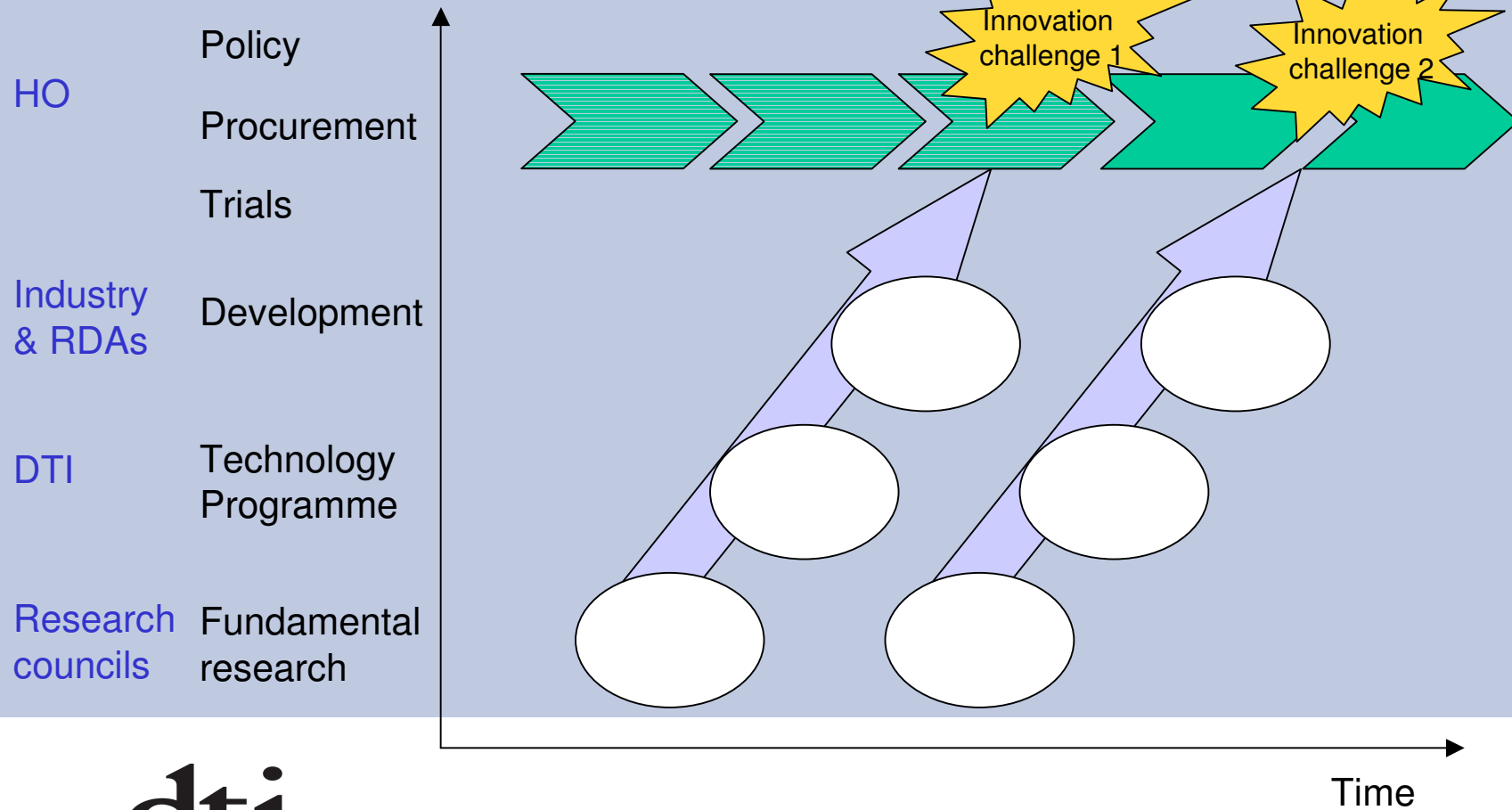
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Tackling future “innovation challenges” in a timely fashion



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Focus

What are the challenges we will tackle?

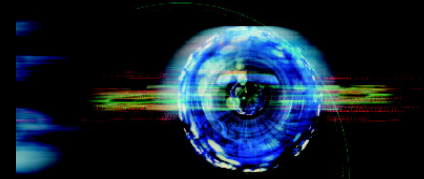
Co-operation with another Government Department

Technology Strategy Board criteria:

- UK capacity to develop and exploit
- Size of the global market opportunity
- Potential for impact and timescale
- Alignment with Public Policy Priorities
- Value of TSB intervention

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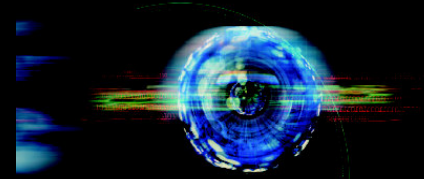


Future Innovation Platforms?

- Network Security (Pilot IP)
- Intelligent Transport Systems & Services (Pilot IP)
- Assisted living
- SCP (waste, energy efficiency - incl. Modern built environment, with potential expansion to water, food chain)
- Environmentally friendly transport

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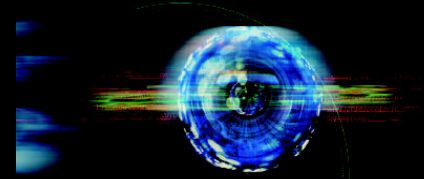


Objectives of Network Security Innovation Platform

- To align DTI investment in Network Security around cross government objectives
- To further and improve the UK's competitive position in the area of Network Security via government interventions and strategic procurement

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Why Network Security?

Secure networks are a fundamental concern of business, governments and society, impacting on almost every facet of modern life.

However, looking at a recent poll of over 1800 adults:

Just over one third (35%) record their password or security information by either writing it down or storing it somewhere on their computer

Nearly two thirds (62.5%) never change their password

1 in 5 people use the same password for non-banking websites as well as their online bank

*Figures provided by APACS

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Network Security

Network Security is concerned with the resilience of the network communications infrastructure and the security of the information being transmitted across the network

This must necessarily include people engaging in network activities and it is therefore relevant to include the usability of such systems including; human factors, beliefs and interfaces such as identity management and authentication tools

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Network Security IP Stakeholders

Other Government Departments

- Home Office, Cabinet Office, CPNIC, CESG

Technology Base

- Cyber Security KTN (On behalf of all KTN's)
- Trade Associations
- Industry
- Users

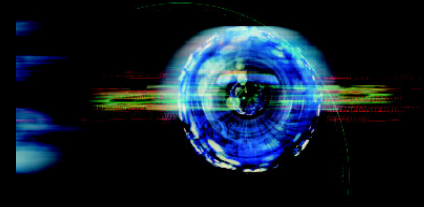
Research Councils

- Economic and Social Research Council (On behalf of all RC's)
- Engineering and Physical Sciences Research Council

*Member of NSIP steering group

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Key Messages

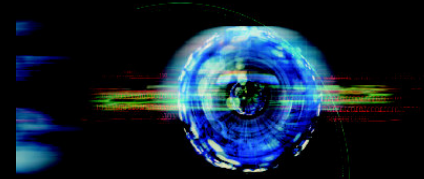
Clear message from government, industry and technical experts that new product technology is not the solution for better network security BUT improvement in existing applications and innovation in Human factors are needed

This Innovation Platform provides a good opportunity to combine social sciences and technological innovation

Identity management is a re-occurring theme for business, government and the citizen

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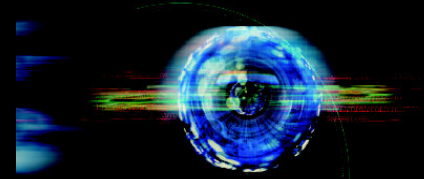
Initial Launch Activities

Technology Programme Autumn 2006 Competition
Human Vulnerabilities in Network Security

- Establishing effective security cultures
 - Managing the paradox of capabilities to vulnerabilities
- Employee risk assessment
 - How to assess the risk?

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Human Vulnerabilities in Network Security

" The Economic and Social Research Council is pleased to work with the DTI Technology programme and business in taking forward this innovation platform. Network security is not just a technological issue: the way people work with the technology can radically increase (or reduce) important vulnerabilities of system security".

Adrian Alsop
Director for Research, Training and Development
Economic & Social Research Council

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Human Vulnerabilities in Network Security

Dual competition with Economic and Social Research Council (ESRC)

Feasibility studies requiring between £50k - £100k of public funding

- Had over 20 organisations registering an interest
- Seven submitted collaborative proposals
- Decision made to fund consortiums

Leading on to Full Proposals with DTI funding of >£4m and co-funding as appropriate from ESRC

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Identity Management and Provision

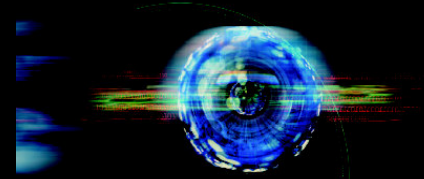
Identity Management is an integrated system of business processes, policies and technologies that enable organizations to facilitate and control their users' access to critical online applications and resources - while protecting confidential personal and business information from unauthorized users.

We will:

- Collaborate with the Engineering and Physical Sciences Research Council (EPSRC) and use their Ideas Factory and Sand Pit concepts
- Co-ordinate activities between stakeholders especially, the Home Office
- Are working up proposals in the area of privacy and consent

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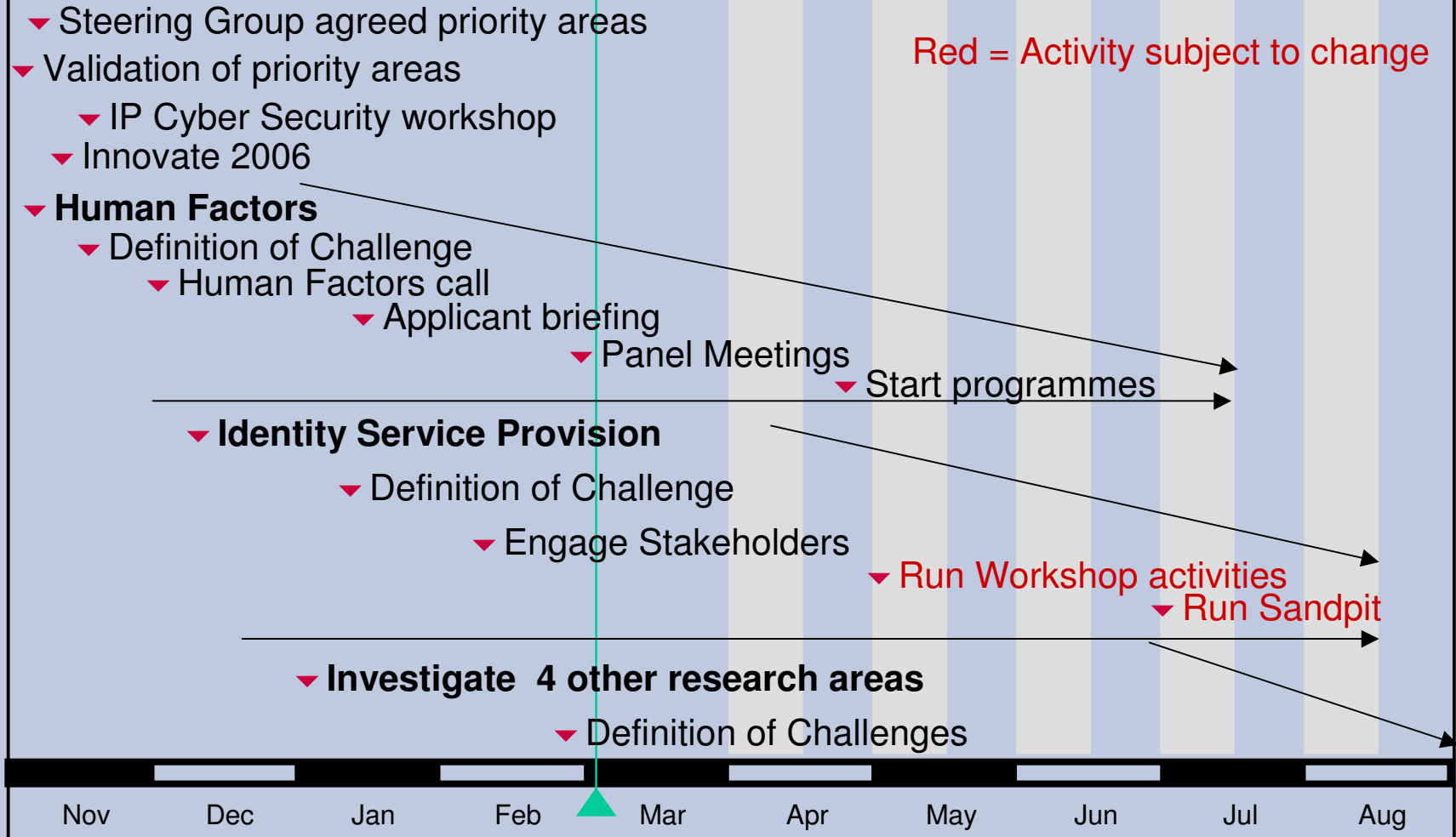
Other Network Security IP priorities

Further areas have been identified by our stakeholders and we will be investigating how we may intervene in these areas

- Information Management
- Provenance
- Deperimeterisation
- Trust and Confidence

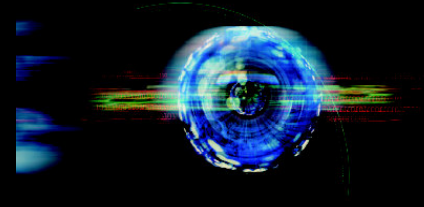
Innovation Platforms

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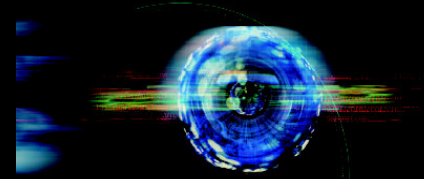


How will UK Industry benefit?

- Greater awareness of and the opportunity to provide innovative solutions to the application of government procurement opportunities
- Improvement of systems integrity by users being more aware of security
- A reduction in internal fraud will lead to increased competitiveness
- Improved Regulation and Standards

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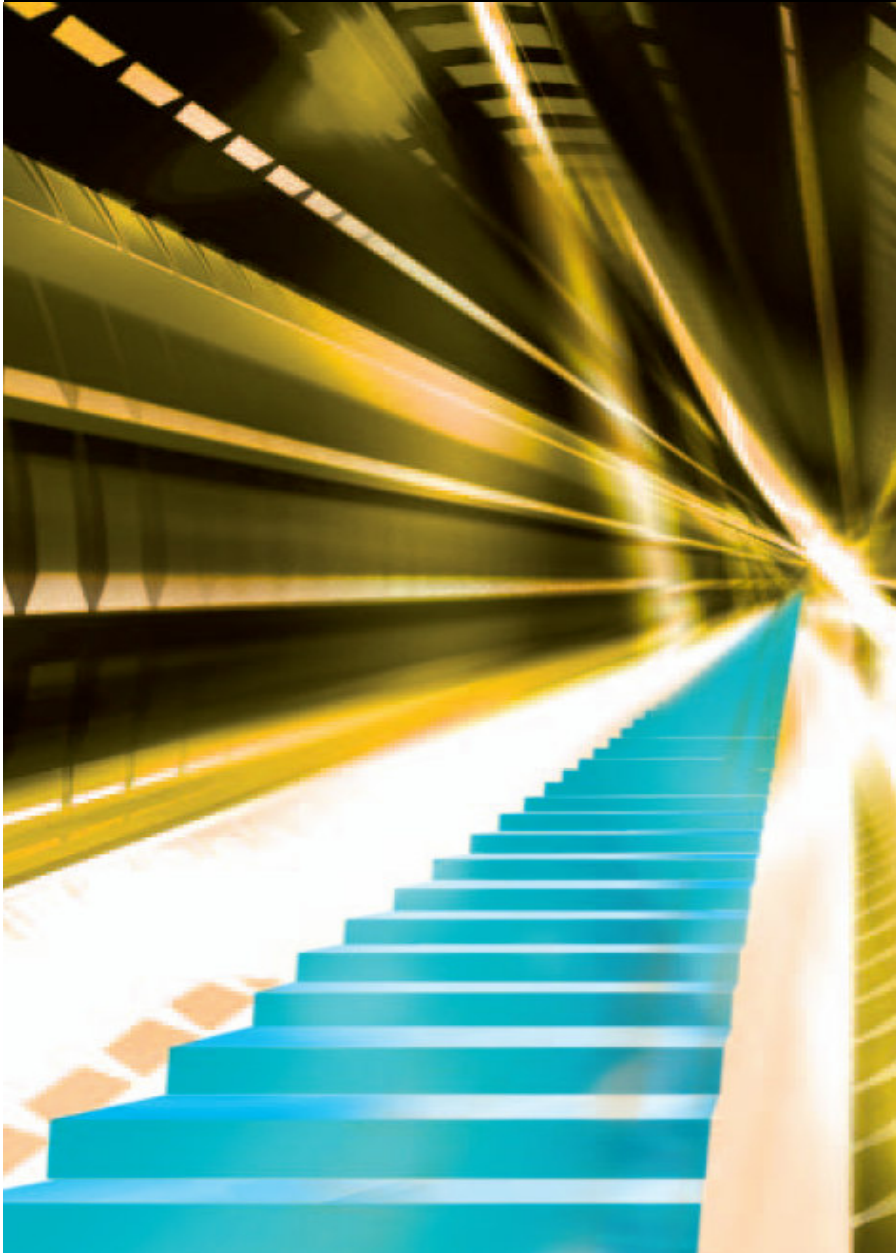


In Conclusion....Network Security

- Has an Impact on all of society, whether we like it or not!
- Presents a challenge to the Platform to
 - Coordinate Cross-Government innovation activity
 - Engage with all stakeholders
 - Provide Innovation into a changing market
- Did you know
 - In the last hour £50,000 of UK credit card fraud will have taken place
 - 10,091 unique phishing sites were reported to the APWG in August
 - Last Year 62% of UK companies had a security incident
 - The average cost of a company's worst incident was £12,000

Technology Strategy

DTI's Technology Programme



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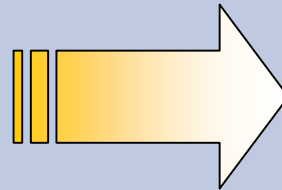
DTI Support for Business

Best Practice

Innovation

Raising Finance

Regional Investment



Grant for Investigating Innovative Idea

Grant for Research & Development

Collaborative Research & Development

Knowledge Transfer Networks

Knowledge Transfer Partnerships

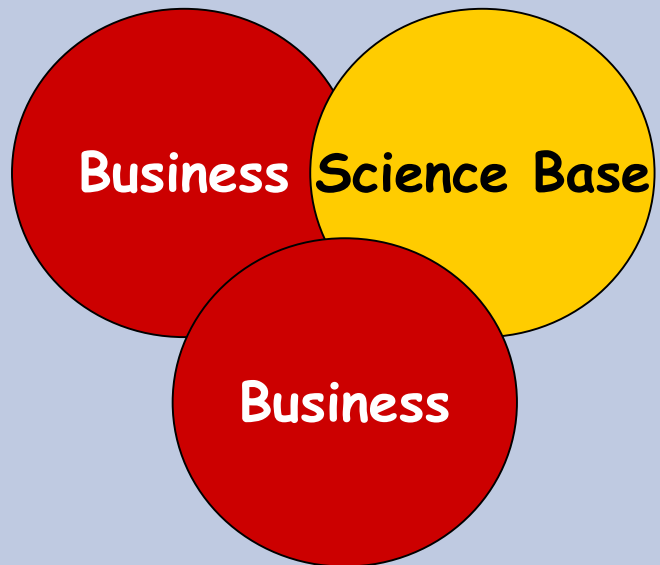
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Eligibility for Grant Award



Projects must:-

- Involve 2 or more organisations, at least one of which is from industry
- Be industry driven
- Conduct R&D to address specific technology priorities in the current competition
- Must be based on research conducted in the UK
- Deliver main benefit in the UK
- Be able to demonstrate how funding from the Programme adds value

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Summary of Programme Process

- Two stage application process - outline followed by full application
- 8 weeks to submit applications at both stages
- Can take 10-12 months from competition open to project start
- At least 3 independent expert assessors review each application
- Gateway questions filter outline applications:
 - Alignment to a specific technology priority
 - Does the Technology Programme funding add value?
- Assessment Criteria:
 - UK's Capacity to Develop and Exploit
 - The Size of the Market Opportunity
 - Potential Impact and Timescale

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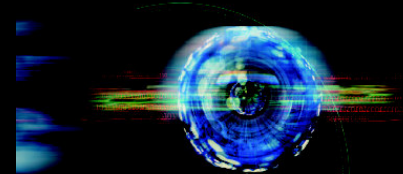


Total Funding Limits

- 75% for Basic Research projects (50% if no science partner)
- 50% for Applied Research projects
- 25% for Experimental development projects.
- Academic partners can be funded either by RC or DTI
- In either case, academic costs are based on 80% FEC
- Industrial partners cannot receive more than 50% of their costs in grant (60% for SMEs)
- Project sizes range from £100k to £9m, with some as much as £30m!
- Typical duration 2 - 3 years

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What we have funded so far

Since February 2004

- 6 competitions
- Over 12,000 applicants
- 610 projects already approved for funding
- Represents over £900m of R&D activity
- Over £420m provided in Government support
- Approx £26m in funds from Research Councils
- And coming next...
 - £90m earmarked for Spring 07 competition
 - Likely launch date end April
 - Watch www.technologyprogramme.org.uk for details

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7 Key Technology Areas

Electronics and Photonics

Advanced Materials

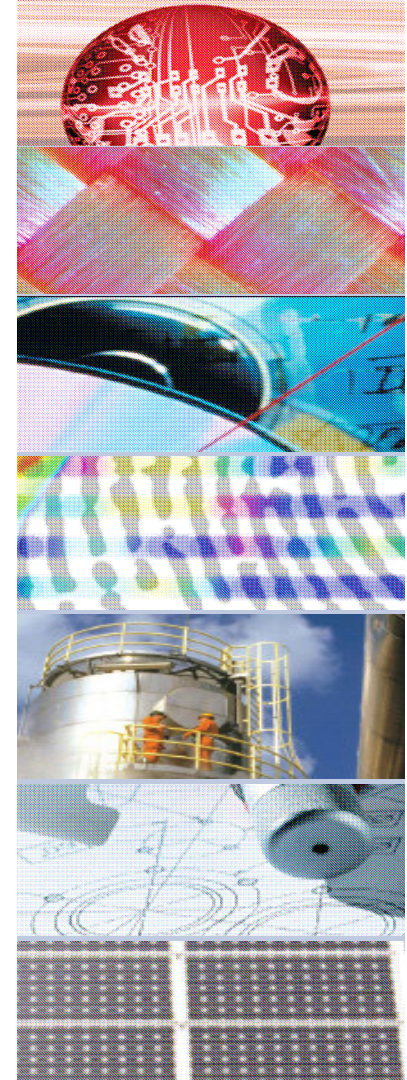
Information and Communication Technologies

Bioscience and Healthcare Technologies

Sustainable Production and Consumption

Design Engineering and Advanced Manufacturing

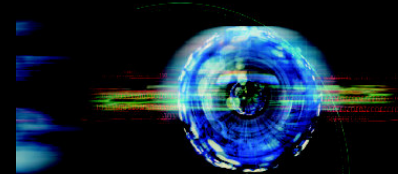
Emerging Energy Technologies



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What you need to read - download from website

Technology priority description

Application Guidance document

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SUCCEEDING THROUGH INNOVATION

Information & Communication Technology: Data, Scientific and Medical Visualisation for innovative products and services

COLLABORATIVE RESEARCH AND DEVELOPMENT

THE TECHNOLOGY PROGRAMME
SPRING 2006 COMPETITION FOR FUNDING

Information & Communication Technology: Data, Scientific and Medical Visualisation for innovative products and services

Summary

This competition seeks Collaborative Research and Development applications from consortia of at least two partners, at least one of which must be from UK Industry, into the challenges posed by visualisation and virtual / augmented reality. Projects may be business-to-business or science-to-business and may be Basic, Applied, Experimental or some combination of the three.

Background

This competition is in the category of "Information and Communication Technologies" in the classification used by the Technology Strategy Board's "A Call to Action".

With the emergence of cheaper processing power and grid technologies, computations of scientific and engineering problems, financial models or any number of large scale or complex systems can be carried out that generate ever larger sets of data. Previously the understanding and interpretation of the data was often aided by some form of visual presentation but as these technologies and challenges become more widespread it is becoming increasingly difficult to do so without advanced visualisation.

E-learning often seeks to use visualisation technologies to allow the learner to assimilate quickly the necessary information and to experience something similar to what may be encountered in the environment. Often this visualisation and associated simulation and modelling technologies will be the only way to experience such a situation eg operating a machine not yet built or in disaster management. Visualisation can also be important in consumer products that seek to be more immersive.

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SUCCEEDING THROUGH INNOVATION

Guidance for Applicants
Autumn 2006 Competition for
Funding for Collaborative
Research & Development Projects

THE TECHNOLOGY PROGRAMME

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Relevant Technology Areas in Spring competition

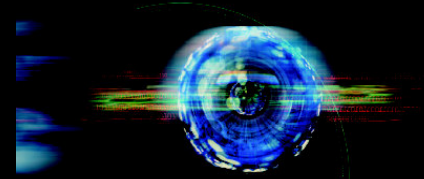
Information and Communication Technologies - Networked Enterprise (Indicative budget of £10M)

Project aims should include:

- Improve competitiveness and dynamic cooperation between enterprises, improve access to global markets and enable new forms of business processes, new types of virtual enterprises and supply chains.
- Provide the technologies for building interoperable infrastructures for such digital ecosystems and the knowledge-sharing environments increasing ICT adoption

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Relevant Technology Areas

Business Challenges

- Capturing and using unstructured data and information
- Sharing information between groups (within an organisation or between elements of a virtual organisation)
- The development of flexible supply-chains
- Supporting the emergence of new business ecosystems
- Capturing and transferring the tacit knowledge of key individuals

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Relevant Technology Areas

Technology Challenges

- Mobile and remote working tools
- Improved context-specification
- Collaborative working tools and platforms
- Advanced knowledge technologies for effective teamwork
- Human-centred working
- Interoperability of software and services
- Integration of grid, pervasive, mobile and location technologies
- The development of trust
- Security

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Relevant Technology Areas in Spring competition

Design Engineering and Advanced Manufacturing (Indicative budget of £40M)

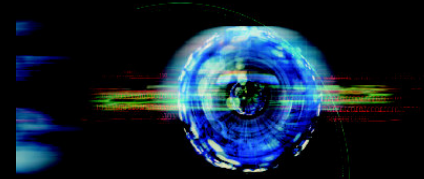
Exploit novel approaches to:

- Complex, dual element human-technology systems
- Design development processes for large scale manufacture and production
- Design development for reliability, safety, performance, availability and maintainability
- Design, simulation, modelling and/or prototyping of new technologies, systems and components
- New paradigms in simulation and visualisation with applications in the creative industries
- New CAD tools and design methodologies (including formal methods, verification and simulation, design for test, reliability and manufacture).

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What to do next

- Watch for announcement of competition on DTI website:

www.dti.gov.uk/innovation/technologystategy/technologyprogramme/index.html

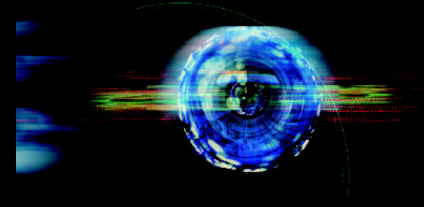
- ...or use links from the Programme extranet

www.technologyprogramme.org.uk

- Register on the extranet to receive announcements
- Application guidance and technology priority descriptions should be available by early March
- Competition likely to open 24th April (not confirmed - check the website)
- Deadline for outline applications 8 weeks later

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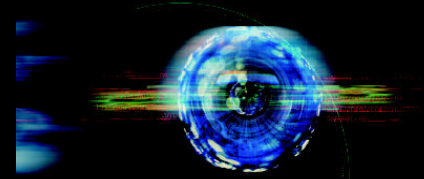


Tips for Success

- Read the guidance and technology description
- Get the right people together
- Attend the briefings for applicants
- Check the deadlines
- Complete the application forms as instructed
- Understand your ultimate market
- Ensure there is a wider benefit beyond the consortium partners
- Talk to the Programme, we're here to help!

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Contact details

- For full information about the Programme:

www.dti.gov.uk/innovation/technologystategy/technologyprogramme/index.html

- For access to extranet and documentation:

www.technologyprogramme.org.uk

- Helpline Tel: 01355 272155

- Email: info@technologyprogramme.org.uk

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