Roke

Fostering Open and Innovative relations between Academia and Government

Peter Lockhart – Future Technology Manager (CTO)

Consultancy | Innovation | Development | Support

Counter-IED

Countermeasures

Munitions

Pyrotechnics

ROKE

Disclaimer

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Roke Manor Research | Company Snapshot

- Situated in Hampshire, UK
- 450 employees
- Over 350 world class scientists and engineers
- 50 PhD's and 110 Masters
- Secure Site

▪ **Roke Manor Research is part of the Chemring European Electronics Division**

- Provider of contract R&D, technology consultancy and specialist products to the defence, national security and commercial markets

- A remarkable range of competencies in communications, sensors and information systems

- An inspiring strength of passion, commitment and loyalty and the work ethic is striking

- Creating the technology of tomorrow and trusted by our Customers for solving really difficult problems with our brilliant minds!

- Operating in a diverse range of markets and we work with an extensive range of external organisations

- A discriminating, high quality and motivating working environment

- Uniquely aligned with SMEs, Academia, Government Departments and Prime Contractors
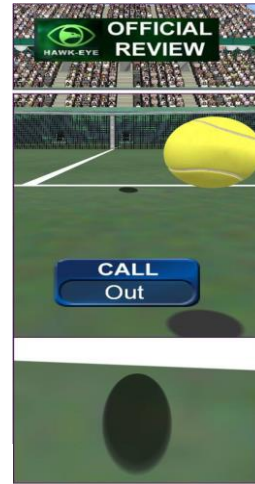
Some Roke Highlights

ANPR

2G/3G Comms

DAB

Air Traffic Management (RVSM)

"HAWKEYE"

"4G" Comms

Congestion Charging

Sound Ranging

Phased Array Radar

Deep Packet Inspection

Super resolution DF
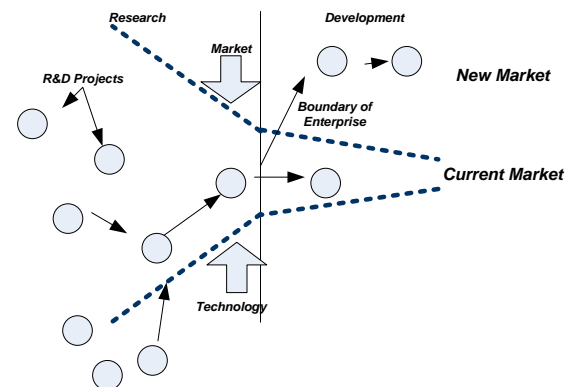
Manpack EW

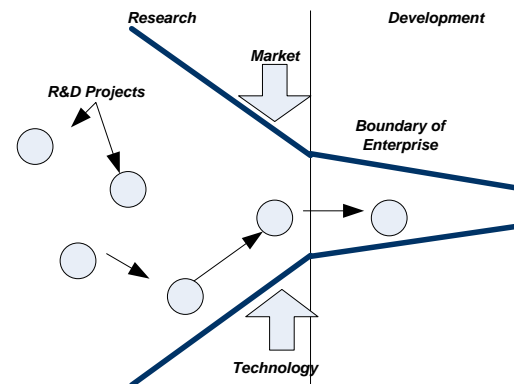Cyber-defence

Our Innovation journey

We should hire the best and brightest people
In order to bring in new products and services to market, we must discover these ourselves
If you want something done right do it yourself
If we discover it ourselves we will get it to market first
The company that gets an innovation to market first wins
We control IPR so that the competition does not profit from our ideas

Not all the smart people work for us. We need to work with smart people outside the business
External R&D can create significant value to us
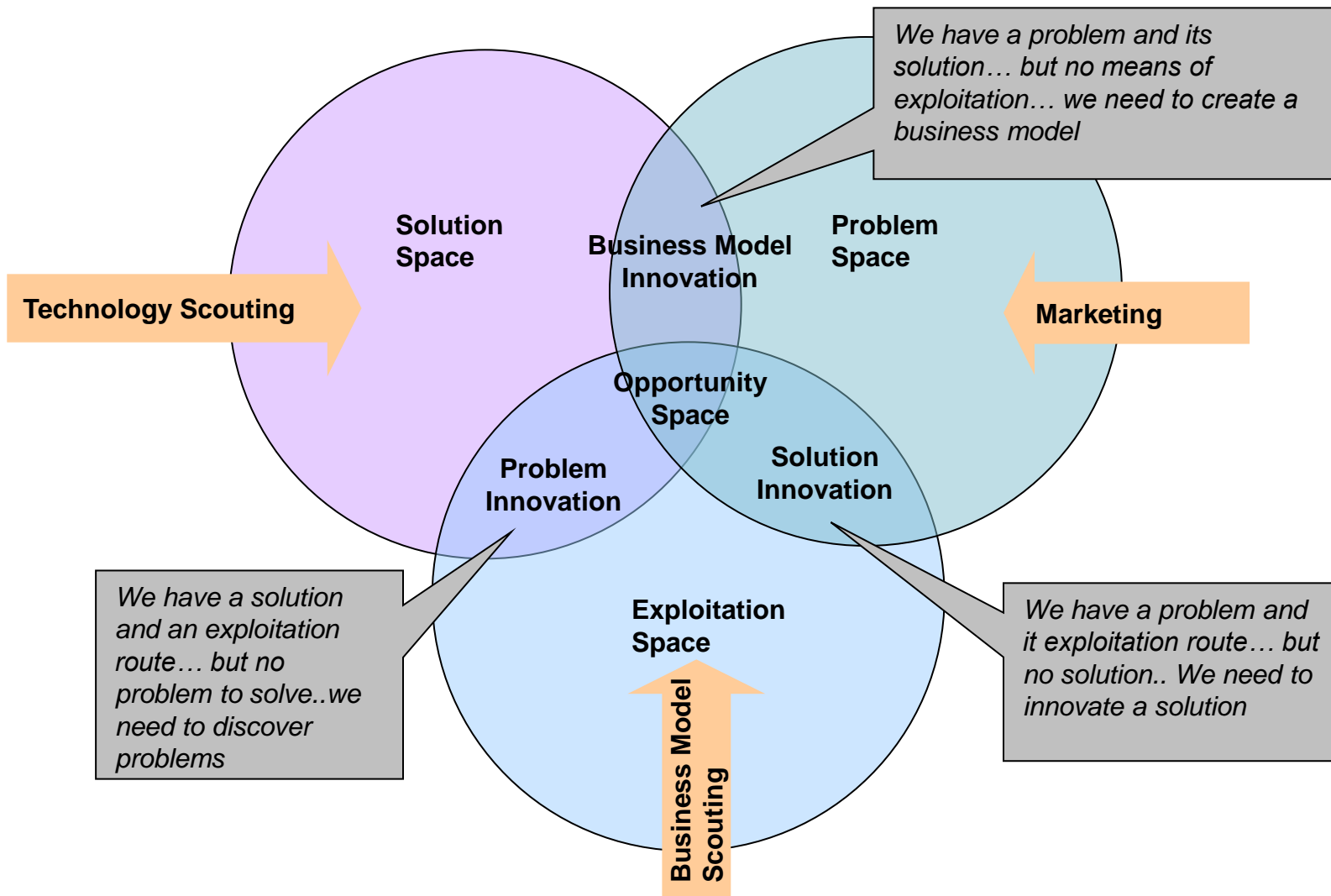We don't have to originate the research to profit

"Building a better business model is better than getting to market first"

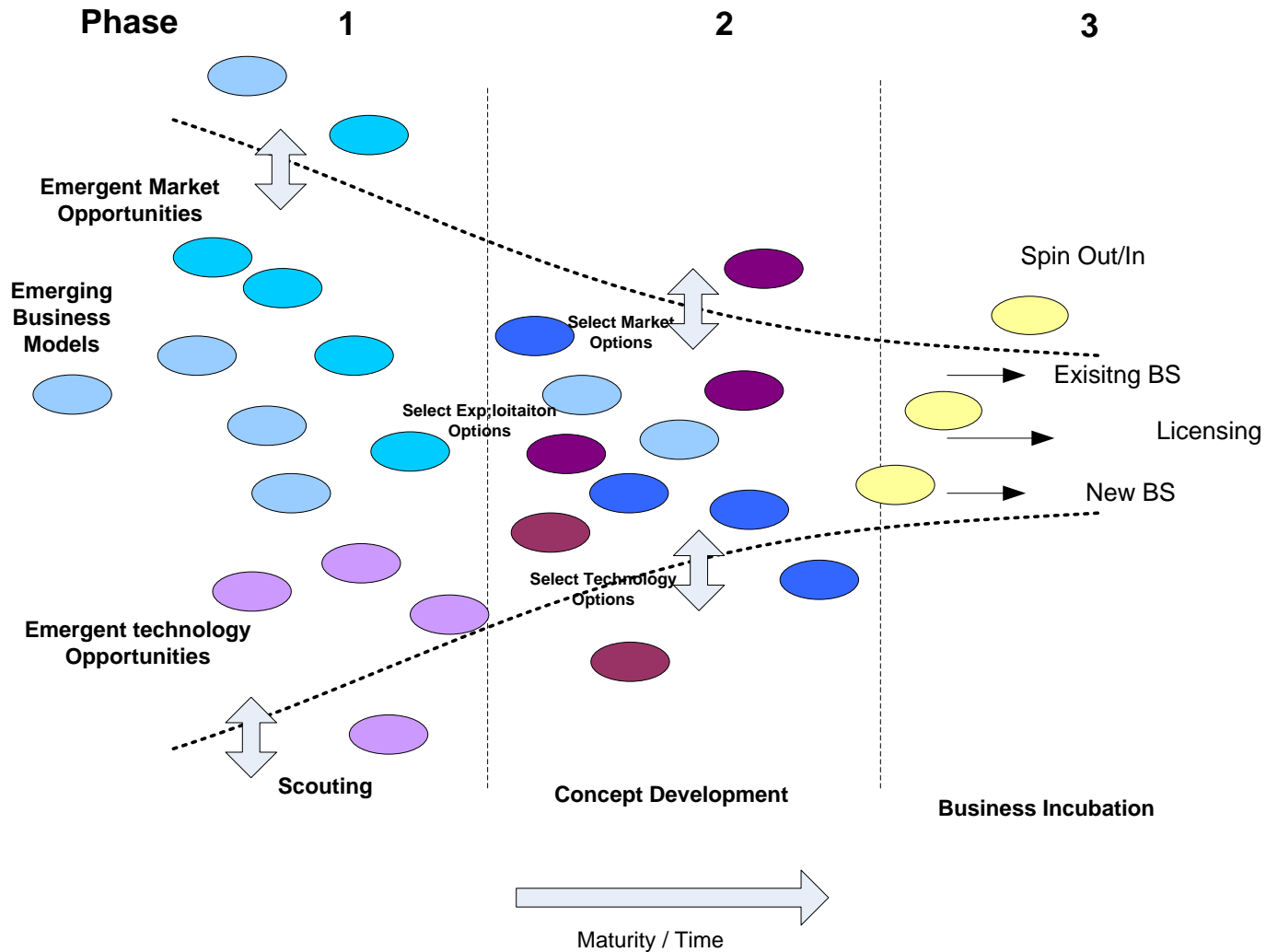We should profit from others use of our IPR and we should by other IPR when it advances our business model

Ref H.Chesbrough: Open Innovation 2003
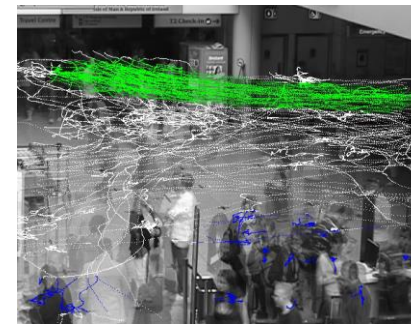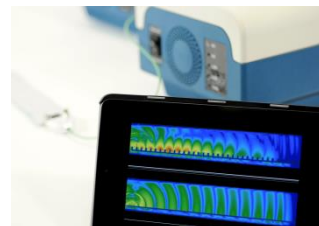
A simple operating model for Innovation

We have a problem and its solution… but no means of exploitation… we need to create a business model

Solution Space

Business Model Innovation

Problem Space

Technology Scouting

Marketing

Opportunity Space

Problem Innovation

Solution Innovation

We have a solution and an exploitation route… but no problem to solve..we need to discover problems

Exploitation Space

We have a problem and it exploitation route… but no solution.. We need to innovate a solution

Business Model Scouting

Our Innovation funnel

Phase **1** **2** **3**

Emergent Market Opportunities

Emerging Business Models

Select Market Options

Spin Out/In

Select Exploitaiton Options

Exisitng BS

Licensing

New BS

Select Technology Options

Emergent technology Opportunities

Scouting

Concept Development

Business Incubation

Maturity / Time

After Chesbrough

Chemring Group

Creating a virtuous circle
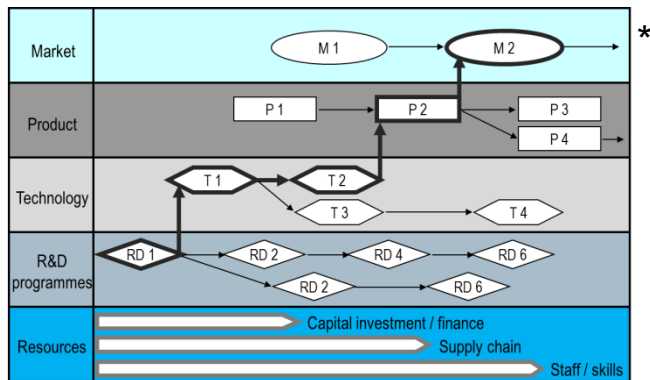
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Manage market pull and tech push

Delivering Value
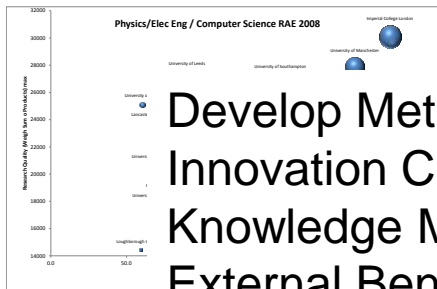
Develop Metrics (BSC)
Innovation Challenges
Knowledge Management
External Benchmarking

Industrial Liaison
Industry Advisory Committee
Alumni Networks
PhD/EngD Sponsorship
Collaborative R&D
Grant Support
Corporate Alliance
Cross lecturing
Government Networks /CDE

Developing the culture

Build the Network

* T Plan – R. Phaal University of Cambridge

Some examples of Collaborative R&D