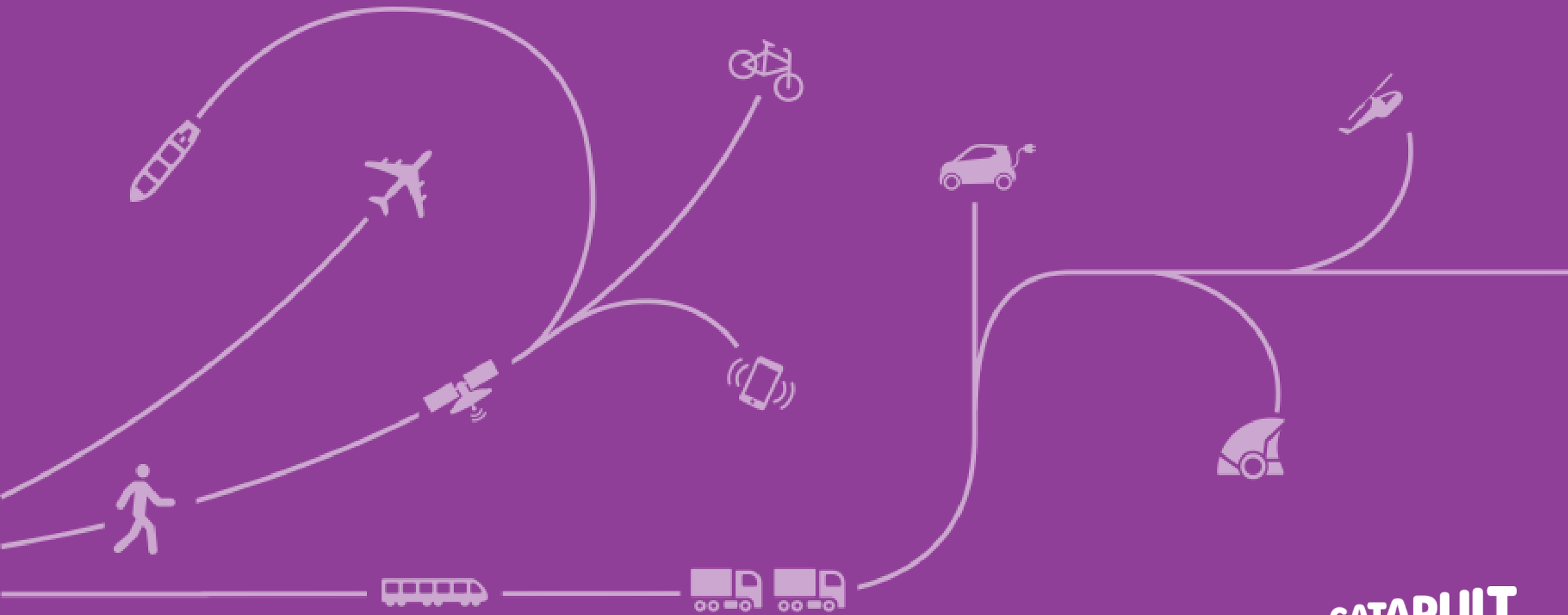
Welcome

Integrated Port Logistics (10th March 2016)



CATAPULT
Transport Systems

The University Partnership Programme

UPP is an ongoing, closed, three year programme with the following universities, which was established to kick start the research base engagement for the Transport Systems Catapult.

1. Heriot-Watt University
2. University of Aberdeen
3. De Montfort University
4. Coventry University
5. Loughborough University
6. Nottingham Trent University
7. University of Nottingham
8. University of Leicester
9. University of Sheffield
10. Sheffield Hallam University
11. University of Southampton

UPP objectives

1. Enable the Transport Systems Catapult to access world class research relevant to Intelligent Mobility;
2. communicate emerging research requirements in Intelligent Mobility to the Transport Systems Catapult and wider academic community;
3. generate links to other activities in which universities are involved that can support our vision of Intelligent Mobility;
4. work with universities and their local business innovation community to exploit research for the benefit of the UK economy;
5. create long term partnerships between the Transport Systems Catapult and University Partners for collaborative research e.g. Horizon 2020; and
6. ensure that the UK has the right skilled workforce to support the Intelligent Mobility market via the development of appropriate training and educational programmes and communication of skills needs.

Agenda

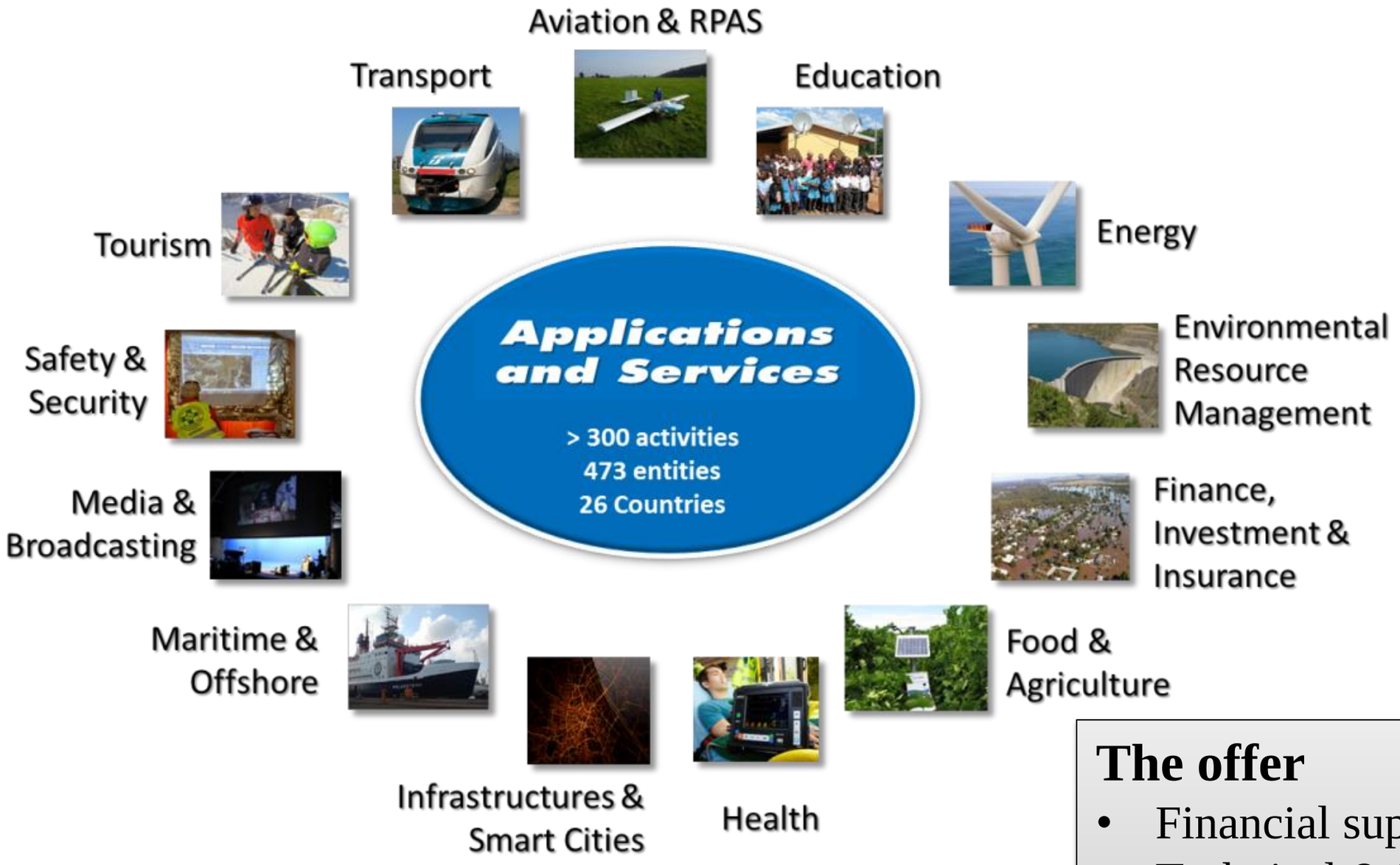
1. Welcome and thanks
2. The purpose of the day
3. Brief introduction to TSC
4. The workshops
5. Insights to spark ideas (presentations)

What are we here to do?

- ESA goals and objectives
  - Understand the issues around ports and the integration of maritime and hinterland logistics
  - Insight will enable better identification of where satellite technologies might address these issues in part or in whole

- TSC goals and Objectives
  - As above + look for opportunities where we can ‘make a difference’
  - What insights might arise on the Port of the Future (H2020)
- Your objectives: Learn, and engage and look for collaborative opportunities

ARTES Applications Programme Elements providing a steady stream of opportunities



The offer

- Financial support
- Technical & Business expertise
- Promotion
- ESA "branding"
- Networking
- Access to 3rd party funding

The goal :

Foster new utilization of existing space capacity and capability, in close partnership with end-users, through the development of integrated (different space and non space technologies) applications projects which demonstrate a potential for sustainable services.

Incubator of Services

The approach

Industry and/or Users co-investment adds credibility to service sustainability potential

Fund providers

USERS

SOLUTIONS Provider

50% of project costs

Feasibility Studies

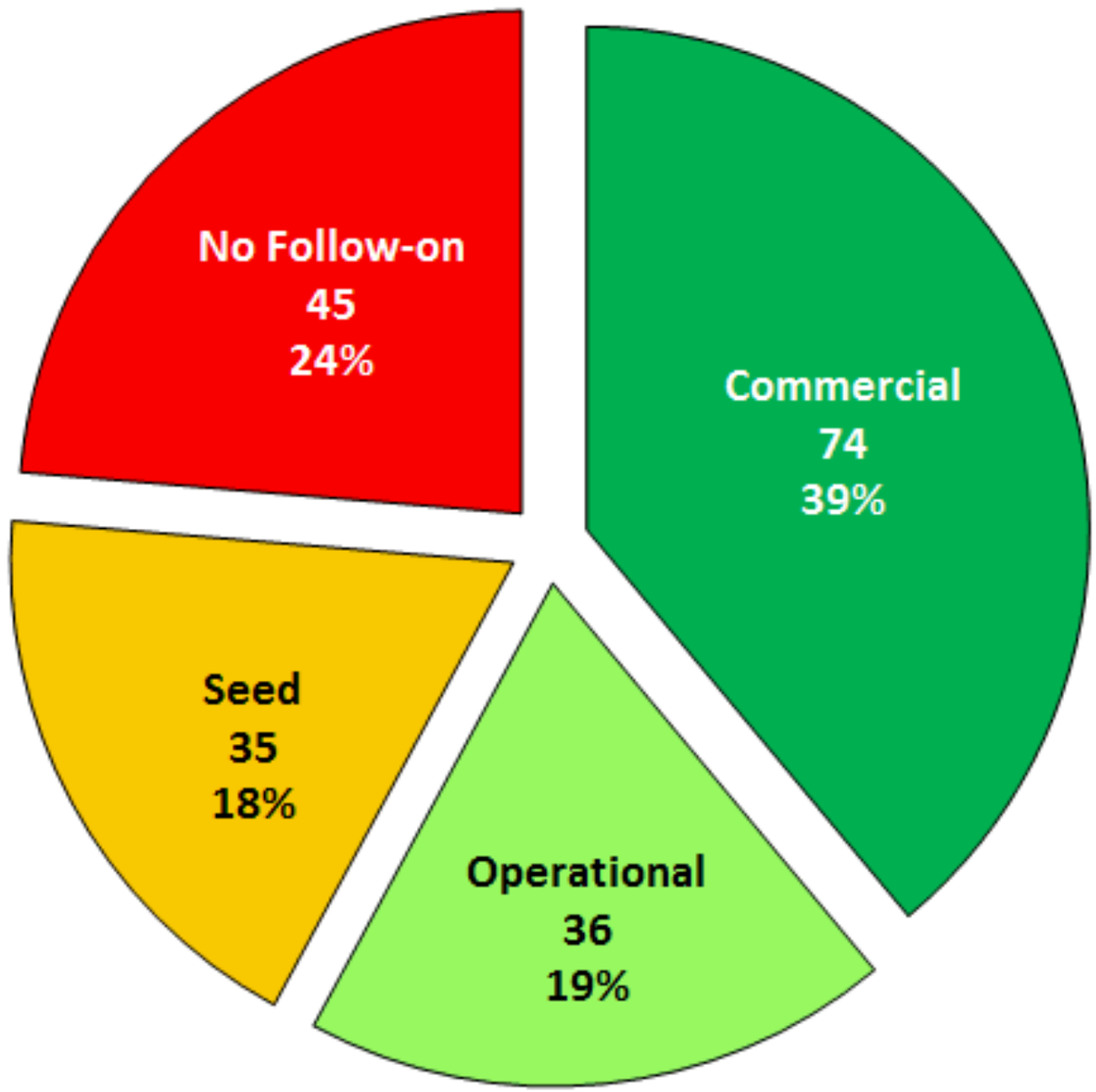
Demo Projects

OPERATIONAL SERVICES

Mature initiatives of proven feasibility

User involvement is required to maximize chances of adoption

IAP projects outcome

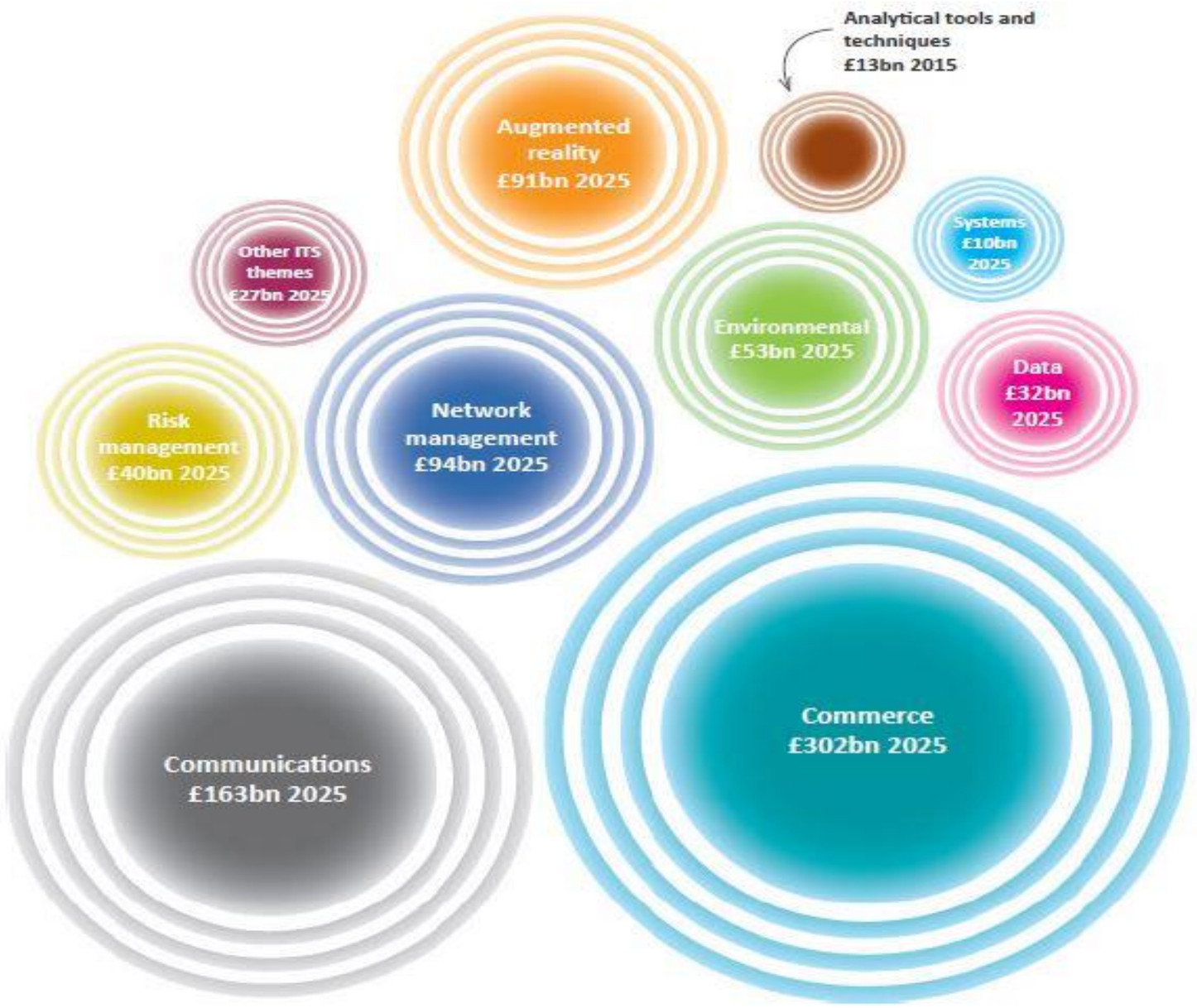


Appraisal based on data collected from **190 completed projects**

The TSC

- Automated Transport Systems
- Customer Experience
- Information Exploitation
- Modelling & Visualisation
- \+ Smart Asset Management (TWI)

Huge Growth Potential for Intelligent Mobility



TSC Target 10% of…

- Customer experience - £500bn
- Autonomous systems - £81bn
- Environment & resilience - £94bn
- Modelling & visualisation - £15bn
- Information Exploitation- £98bn

CATAPULT Transport Systems

Transport vs Mobility

Transport

Intelligent Mobility: The efficient and cost effective movement of goods and people

Mobility

WORKSHOP PROCESS

Introduction (5 min)

- Start 1.30pm
- Rules, purpose, goal, and time
- Each table has a facilitator
- Each facilitator will nudge participants to stay in the ‘challenge space’, keep time and help the teams ‘keep the fire burning’

Challenge Session (45min)

- Start 1.35pm
- Teams provided with a **Challenge Canvas** (on the table)
- **5 min:** Individual brainstorm **PEOPLE**, **ACTIVITIES**, **CONTEXTS**, and **CHALLENGES** (silent on whiteboard with post-its!)
- **15 min:** Group discussion of above (in front of whiteboard)
- **5min:** individual prioritisation of above (2 votes each)
- **20min:** Group define **Challenge Statement** and fill out **Challenge Canvas** (around table)

Presentation of Challenges (30 min)

- Start 2.35
- **30 minutes to present the challenges and vote on which ones are the priorities**

Defend and challenge (30min)

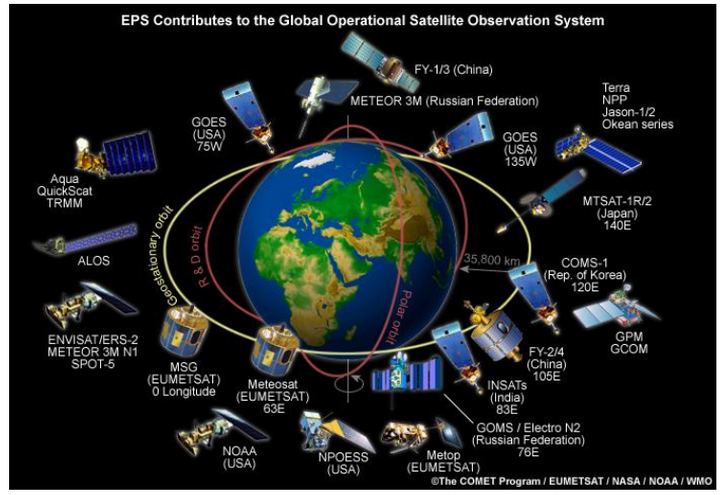
- Start 3.05
- **25 mins to defend or challenge those that seem to have highest prority**
- **5 mins to re-vote** on which should be the priority challenges

- End 3.35pm

The PACE approach

PACE : People, Activities, Contexts, Enablers

- Understand the people who use our systems, products and services
- Understand the activities that people want to undertake
- Understand the contexts in which those activities take place
- Keep in mind how satellite technology enables solutions
  - Activities in contexts provide requirements for enablers
  - enablers provide opportunities for improving activities in contexts



Sparking thoughts and ideas

Presentations:

1. What is Innovation? (Nicholas Stafford, TSC)

2. European Space Agency ARTES Applications. Programme experience in transport and logistics (Roberta Mugellesi-Dow, ESA)

3. Satellite Applications Catapult. Modern satellite technologies in logistics. Satellite Applications of the Future. (Sean McCarthy, SAC)

4. Big data project in maritime and port logistics (Dr Andrew Grainger, University of Nottingham)

5. Port centric logistics as a ‘servitisation’ strategy of the UK ports (Nikolas Valantasis – Kanellos, Heriot-Watt University)

6. End-to-End Automation and the Port of the Future (Chris Moody, TSC)