Broadband Future Planning Guide

EU scenarios of the Broadband Future

BREAD/BReATH workshop

Brussels

Wednesday 22nd March 2006

BEACON background

- Project started 1 January 2005, completes end April 2006, STREP
- Policy research project, Collaborative Working Unit
- 4 Partners: Ovum, TNO-ICT, Dublin City University, University of Aarhus

BEACON objectives

- to examine the socio-economic impact of broadband access and use on a set of applications and services and public services and draw related policy implications
  - review the current situation of broadband and develop a picture for future broadband access and use from 2006 to 2010
  - research the potential impact of broadband access and use on the core applications of eBusiness, eWork and eGovernment
  - research the potential impact of broadband on the facilitation of new business models including content development and in overcoming the digital divide
  - develop policy recommendations relating to existing and possible future policies.

Scenarios

55 stakeholder interviews

- UK, Ireland, Netherlands, France, Italy, Poland, Estonia, Czech Republic
- Stakeholders include: fixed and mobile operator, chamber of commerce/industry association, government representative, broadcaster, application developers, others
- countries chosen represent: high and low growth economic environments, high and lower broadband access, greater and lesser use of e-business, leading edge vs follower in e-government service development and broadband content development

Scenario creation

Focused on five thematic areas

- broadband infrastructure / adoption
- eGovernment
- eBusiness
- eContent
- eWork

Included wider macro-level factors including economic and socio-cultural issues

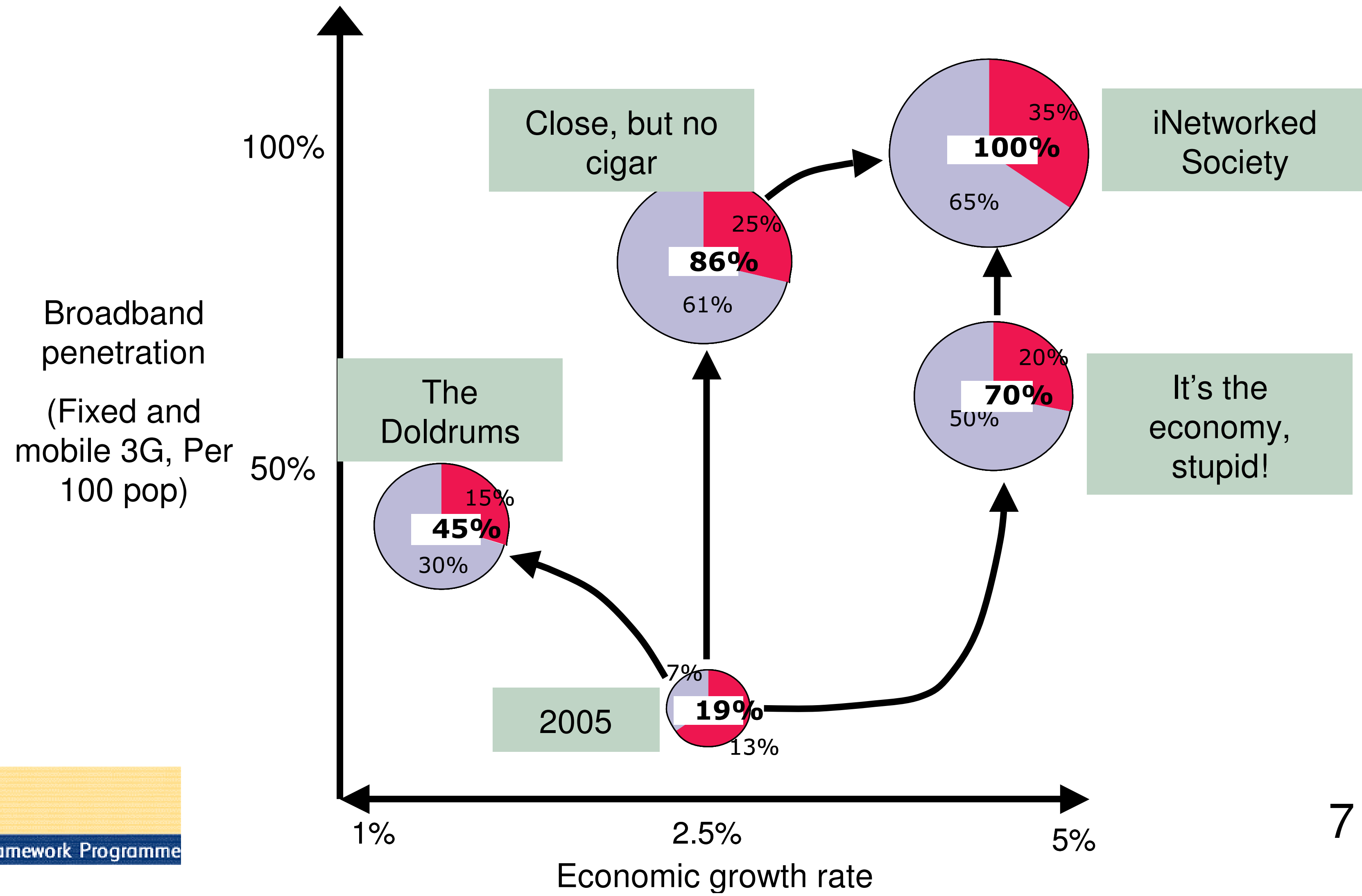
Identified key factors driving change in each area

Developed plausible "states" for each factor

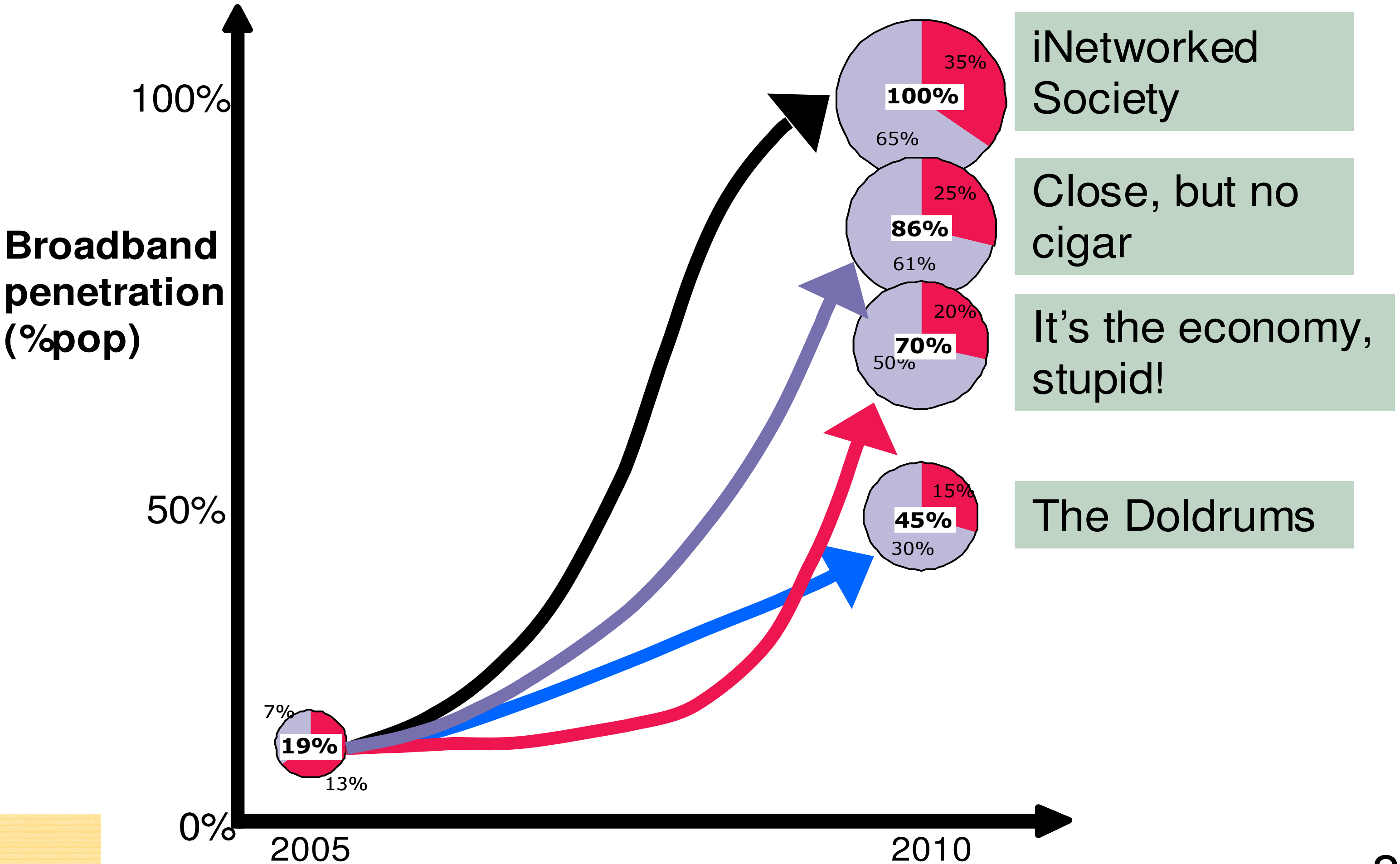
Considered possible combinations

Developed scenario stories or plots which combined thematic areas into consistent developments

Four distinct scenarios



Growth trajectories



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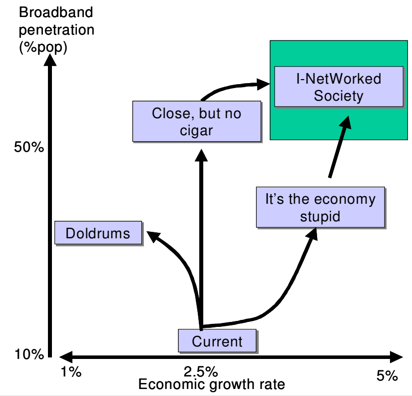
iNetWorked Society (i2010 achieved)



EU broadband penetration 85%

- Fixed 35%
- Mobile 3G 65%

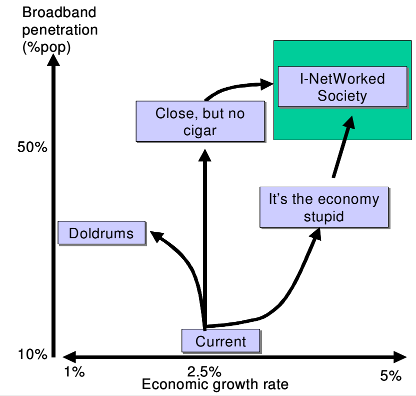
Highly pervasive broadband infrastructure

- EU broadband penetration 100% or higher
- Entry level ~2Mbps
- Wireless broadband, WiMAX, HSDPA

Economic growth of 3.5%

- Virtuous circle with broadband stimulation
- Highly competitive
- Economic agents willing to experiment and seek new ways of interacting and doing business
- New member states grow services-based economies

iNetWorked Society (i2010 achieved)



eBusiness highly developed

- High levels of value chain integration
- Goals and aspirations of Single European Electronic Market nearly achieved

Fully integrated eGovernment services

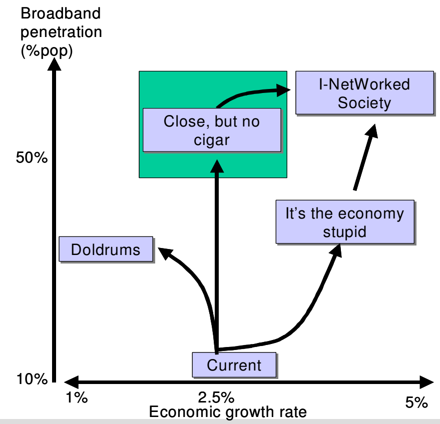
- Interoperable online services

Highly collaborative eWork

- Enabled by ambient mobile ICT environments
- Highly interoperable devices

Innovative content services rapidly emerge

- Highly profitable business models
- DRM / IPR regimes allow for fluid distribution
- High levels of user-generated content



Close, but no cigar (broadband driven)

EU broadband penetration 85%

- Fixed 25%
- Mobile 3G 60%

Extensive broadband infrastructure

- Entry level >1Mbps
- Wireless broadband increasingly used, WiMAX, many HSDPA deployments, initial trial deployments of HSUPA

Economic growth of 2.5%

- Growth moderately higher than 2005
- Improving competitiveness across EU
- Regulatory barriers decreased
- New Member States gradually grow towards a services-based economy

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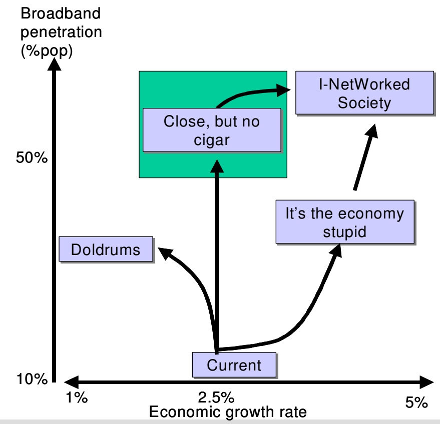
Close, but no cigar (broadband driven)



eBusiness developing rapidly

- Value chain integration accelerating
- Steady progress towards achieving the goal of Single European Electronic Market

Increasing eGovernment services

- Focus on online participation and transactions

Polarised levels of eWork

- Ranging from high levels in fully supported Member States to no real development

Innovative content services emerging at reasonable pace

- Broadband delivery models becoming successful
- DRM / IPR regimes allowing freer distribution
- User-generated content becoming important

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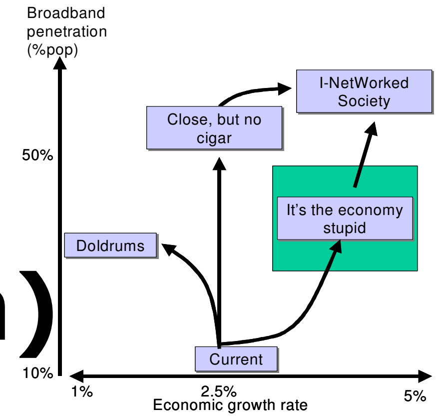

It's the economy, stupid (economy driven)

EU broadband penetration 70%

- Fixed 20%
- Mobile 3G 50%

Business case driven infrastructure deployment

- Entry level >1Mbps
- Wireless broadband increasingly used, WiMAX, HSDPA deployments commonplace, initial trial deployments of HSUPA

Economic growth of 3%

- Growth moderately higher than 2005 and driven by consumption, business investment and world trade
- Economic agents act in familiar ways, later becoming more risk accepting
- Improving competitiveness
- New Member States gradually grow towards a services-based economy and continue to grow their manufacturing infrastructure

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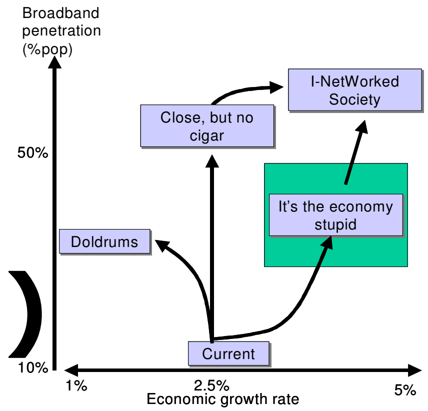
It’s the economy, stupid (economy driven)



eBusiness developing slowly

- Moderate value chain integration
- Slow and piecemeal progress towards achieving the goal of Single European Electronic Market

Increasing eGovernment services

- Slow progress with focus on online information; some back-office development

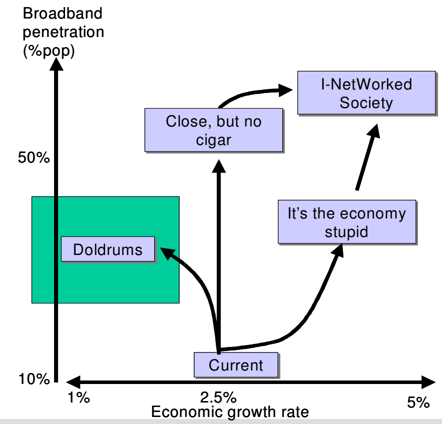
Moderate progress in eWork

- Low levels of mobile collaborative eWorking

Slow progress in interactive content

- Broadband starting to emerge as distribution channel
- DRM/IPR becoming easier to exploit across digital channels

The Doldrums (economic downturn)



EU broadband penetration 45%

- Fixed 15%
- Mobile 3G 30%

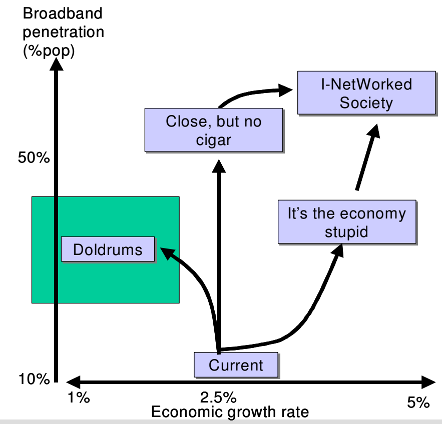
Slower broadband infrastructure deployment

- Entry level ~1Mbps
- Wireless broadband rarely used
- Low level HSDPA deployments

Economic growth of 1.5%

- Growth below 2005 levels with consumption, business investment levels depressed
- Consumer and producer behaviour is hesitant and risk-averse
- Economic growth in new Member States keeps pace with 2005 levels but not enough to compensate for the slowdown in EU 15

The Doldrums (economic downturn)



eBusiness developing very slowly

- Little value chain integration
- Slow and piecemeal progress towards achieving the goal of Single European Electronic Market

Fragmented eGovernment services

- Slow progress with focus on information services
- Little progress in front- and back-office reorganisation

Low levels of eWork

- Some developments building on existing levels of teleworking and home-working

Little progress in interactive content

- Lack of compelling content services
- DRM/IPR problematic with strict and costly restrictions

From scenario outcomes to policy implications (1)

- What do scenario outcomes mean for policy formulation?
- Adjustment of *individual* policy instruments and/or the overall policy *mix*?
- How does the *current* policy mix compare with the four scenarios?
    - Scenario iNetworked Society
    - Scenario Close…but no cigar
    - Scenario It's the economy, stupid
    - Scenario The doldrums

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From scenario outcomes to policy implications (2)

- **Step 1:** Inventory of existing and planned EU policy instruments relevant to the five broadband domains in Beacon
- …covering policy instruments used by DG Information Society and Media and other relevant DGs
- Analysis is based on a policy taxonomy and meant to screen existing and planned policies in terms of aptness and appropriateness vis-à-vis the four scenario outcomes
- Not exclusively EU policies, but also national policies! Goal: to address existing gaps, duplications, synergies
- **Step 2:** 'Test' these EU policies against the Beacon scenarios
- **Step 3**: Develop a 'policy support toolbox' plus set of recommendations

Thank you.

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