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How can Ireland best benefit from its digital dividend?

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Summary of the brief

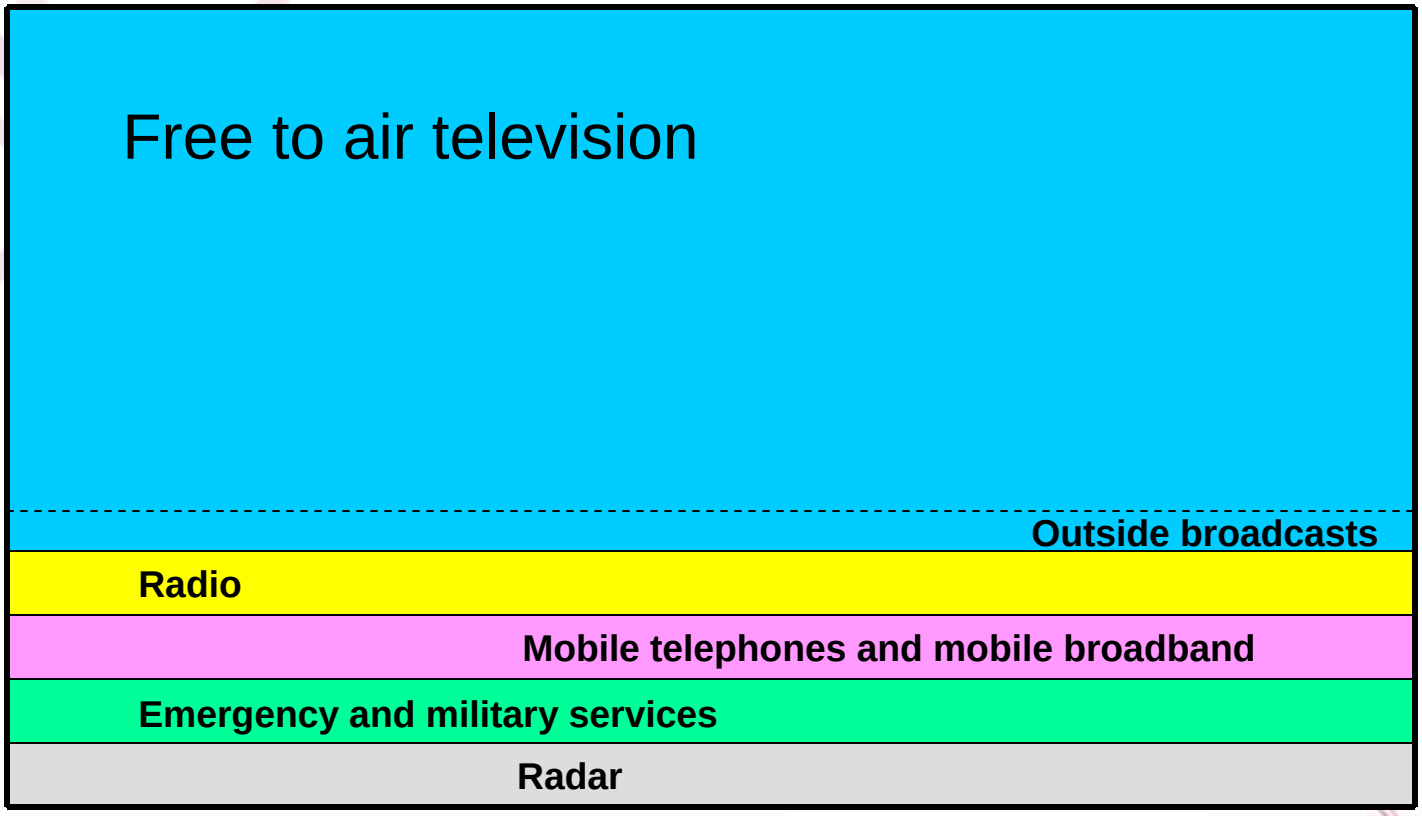
- “recommend approaches for Ireland’s digital dividend Strategy in a national context and the potential benefits that the uses of digital dividend spectrum can bring to our economy, our society and the communications industry, in general”
- “review the European Commission positions on digital dividend strategies”
- “overview of digital dividend strategies adopted elsewhere…highlighting elements that could be adopted in Ireland”

Three phases of work

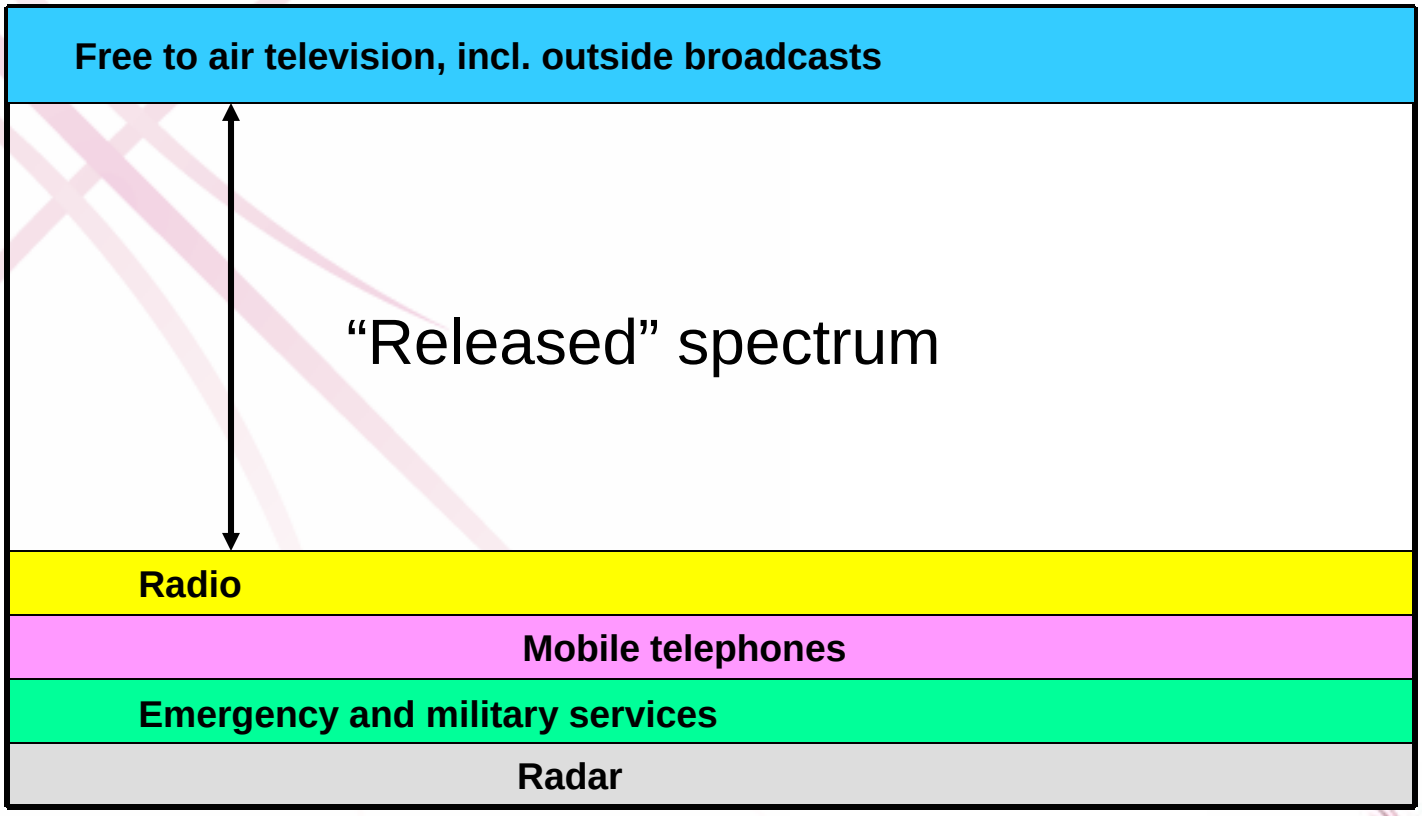
- Phase 1: what approaches have other countries adopted?
- Phase 2: what is the Irish context?
- Phase 3: analysis and conclusions

- Stakeholder interviews running throughout all three phases
  - 20 in total

Radio spectrum in the analogue world - the hypothetical sheet of paper (1)



Radio spectrum in the digital world - the hypothetical sheet of paper (2)



No single definition of digital dividend

- Could be **all** spectrum in these frequencies once analogue signals are switched off
  - i.e. completely redraw the sheet of paper
- Could be spectrum left when **current volume of TV** broadcasting has gone digital
  - i.e. reuse the white space on the sheet of paper
- Could be spectrum left after reservation of spectrum for **current and future** digital TV broadcasting
- Satellite and cable are not involved

Frequency allocation is complex

- Harmonisation desirable for equipment supply
- But a straitjacket may not suit individual national needs
- Border issues are important, especially for TV
- International agreements (under ITU) are the order of the day
- Need to cope with unknown future developments

What have other nations done?

- We considered 6 EU and 6 non-EU countries
  - Finland, France, Ireland, Italy, Sweden and UK
  - Australia, Canada, Japan, New Zealand, Switzerland and USA
- There is no single model out there
  - analogue switch-off dates vary, priorities differ, border issues differ, there is a diversity of public service and commercial values
  - analogue switch-off tending towards 2011/2012
- No ready-made solution that Ireland could import but some useful considerations.....

Strategic considerations for Ireland from abroad

- Detailed digital dividend plan preferred
- Reaching early agreement with neighbours regarding spectrum allocation is key
- Wide support to adopt harmonised sub band at a European level for non broadcasting services
- Important to establish the priorities to be applied to having increased communications capacity
- Spectrum allocation: market or government/regulators, who should decide?
- Good assessments of what demands for spectrum will arise is important for any decision making

For example…

- USA has auctioned all relevant spectrum (261 auctions in the 700 MHz band raised $19 billion)
- Canada is leaving both the timetable and the applications to the market, except for a small allocation to enhanced “public safety” use
- Italy and New Zealand are not (yet) making detailed plans
- In general, a political preference in favour of TV broadcasting

The Irish context - 1

- In relative terms:
  - a small population (4.3 million)
  - high GDP per capita (highest in EU)
  - high rural population (about one third so classified)
  - high penetration of mobile phones (119%, fifth highest in EU)
  - high penetration of pay TV, i.e. satellite, cable and MMDS (74% of households)
- Ireland/UK proximity matters
  - TV signal overspill already well managed

The Irish context - 2

- Limited trialling of digital terrestrial TV so far
- Analogue switch-off date not yet confirmed but expected to be 2012
- Broadcasting Act 2007 reserves 6 multiplexes for TV broadcasting:
  - 2 for RTE
  - 4 allocated to BCI for use by commercial TV
- Provides for consultation re 2 more
- GE06 Plan “allows” 8 National multiplexes
- 4, 6, or 8 multiplexes (if used) represent a huge increase in TV broadcasting capacity

Non-broadcasting demands

- Mobile operators have seen a rapid uptake of mobile broadband
  - they argue that mobile broadband will do much to eliminate “the digital divide”
  - they calculate they need a minimum of 72 MHz and would like something over 100 MHz
- No clamour for more spectrum heard from emergency or military services

Valuing spectrum uses

- Not straightforward
- Not to be confused with auction proceeds
- We based our calculations on two broader valuation studies…
  - Spectrum Value Partners (for the mobile sector)
  - Analysys Mason (for the French Government)
- …and adapted them to Ireland
- SVP was the more influential for us
- However, all such calculations are highly approximate

For Ireland…

- The value of allocating spectrum to broadcasting tapers off as more is allocated
- The value of allocating spectrum to mobile also tapers off as more is allocated – but at a slower rate than with broadcasting
- A mixed allocation therefore seems optimal
  - Conceivably could double the value of any benefits for Ireland
  - this is consistent with what Analysys Mason found for France
- But what should the mix be?

Innovation

- We have discussed with ComReg the potential value of an “innovation reserve”
  - to provide some spectrum (not a large amount) to companies who want to test new spectrum-using applications
- ComReg already runs a successful “Test & Trial” licensing regime
- Ireland may be able to set its stall out to attract international players to test and trial here
  - a form of technical and intellectual inward investment

Our key findings

- Once the initial broadcast benefits are guaranteed there is little scope for increasing value by assigning larger amounts of spectrum to it
- A mixed approach to spectrum allocation is central for Ireland to maximise the benefits
- Depending on demand the amount of spectrum for non broadcasting uses could be in the region of 80 MHz to 120 MHz
- Monitoring spectrum demand will be key; legislation and regulation will need to ensure re-allocation can be implemented if necessary
- Reserving some spectrum for innovation may bring material benefit / Channel 69 could be a possible solution

Next steps: strategic questions for TV

- What is the justification for a very large increase in free-to-air TV broadcasting capacity?
  - 74% of Irish households already pay to subscribe to TV
  - what about other delivery methods (mobile handsets, personal computers, iPods)?
- What is the impact on quality of a large increase in quantity?
- How much public service broadcasting is envisaged?
- Does High Definition TV justify itself?

Next steps: strategic questions for mobile

- How much of a constraint is current spectrum availability?
- What new functions and services are likely to arise under the heading of mobile broadband?
- How will consumers value them?
- To what extent will mobile services converge with those of broadcasters?

Next steps: other strategic questions

- How should spectrum be paid for?
  - Mobile sector favours auctions as quicker and more clear-cut in outcome
- Should spectrum holders be subject to “use it or lose it” conditions?
- Should spectrum be tradable once licensed?
  - if yes, need new primary legislation
  - risk of anti-competitive acquisition and/or hoarding
- What about an innovation reserve?

Thank you!

Europe Economics