

EBU **TECHNICAL**



The Digital Radio Big Picture

**Digital Radio Summit
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EBU TECHNICAL

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What is digital radio ?

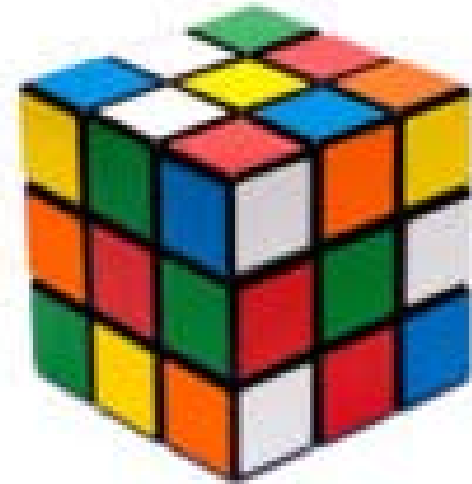


Confusion for all



The radio ecosystem

- Different organisations with different vision&objectives
 - Public or private broadcaster groups
 - Small broadcasters, community radio
- Different radio cultures (from Norway to Italy)
- Different views on services
 - Audio centric
 - Multimedia oriented, on-demand
- Different coverage targets
- Different positions
 - Incumbents (want to protect their audience)
 - New entrants , candidates(without license)
- A very good common analog system: FM-RDS



What platforms for the radio ecosystem ?



Different approaches

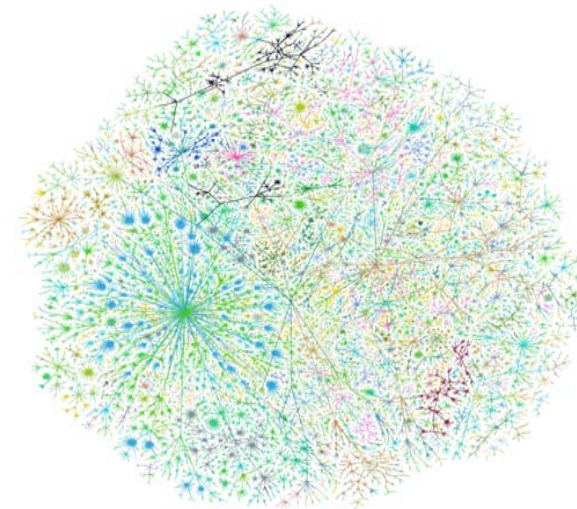
■ Broadcast

- Direct access
- Strict regulation
- Horizontal market
- Efficient one to many delivery
- Free to air
- Spectrum available

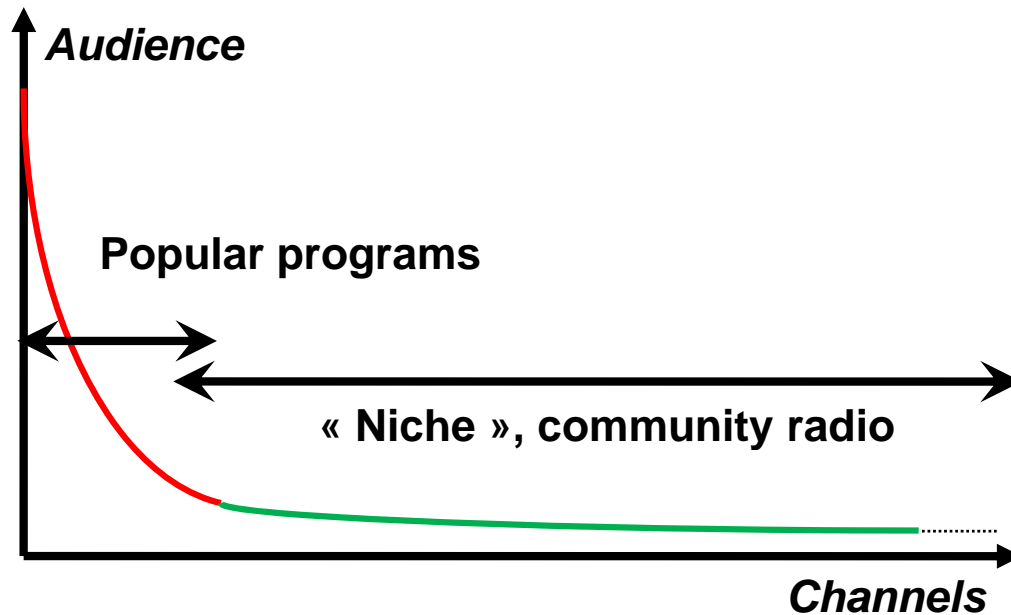


■ Internet/Broadband

- High flexibility
- Worldwide coverage
- Democratised delivery (no license needed)
- Subscription needed for reception (not free to air)
- Inefficient for mass delivery
- Net/operators neutrality questions – quality of service



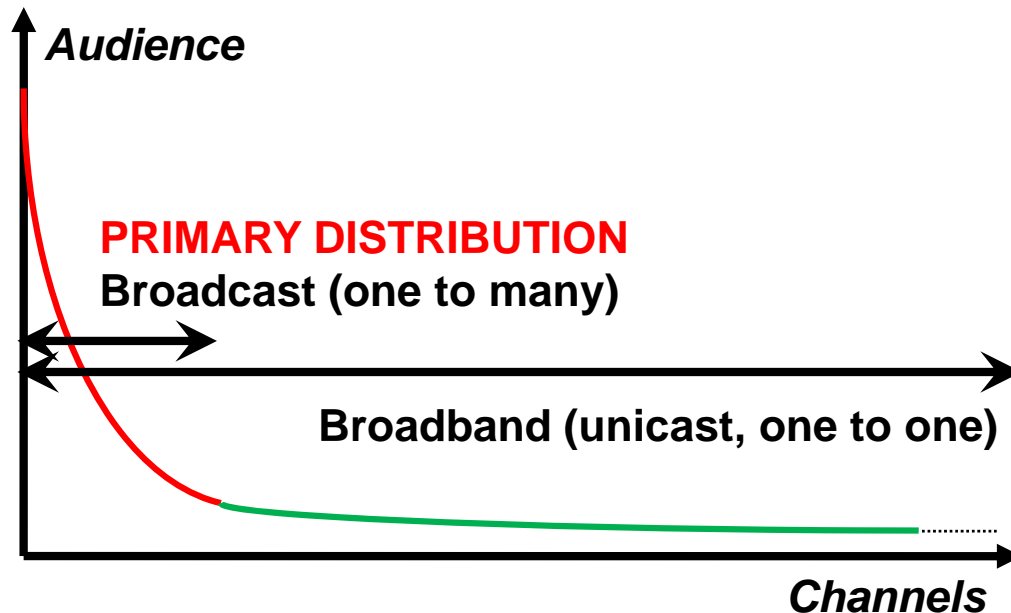
The long tail



- Effect in an environment with a very wide choice such as Internet

Read « The long tail », Chris Anderson

An hybrid broadcast/broadband approach



- Broadcast for core services, national/local channels
 - Efficient delivery through a **free-to-air** broadcast system (one-to-many)
- Internet for additional and on-demand services, niche delivery

Broadcast approaches

- Multiplex approach
 - Scalability (multiplex composition)
 - Low cost per program
 - More complex architecture
 - Unsuitable single program delivery
- Non-multiplex approach
 - Independence
 - Suitable for local coverage of a single program
 - Limited scalability
 - (less frequency diversity)



Challenges and requirements for multiplatform

Challenges:

- Keep it simple for the consumer
- Keep the costs of receiver down
- Constraints on standards choice

Requirements in Europe:

- Open standardisation
- Broadcast: compatibility with CEPT spectrum requirements
- No technology license costs for broadcasting

=> Strong need for harmonisation



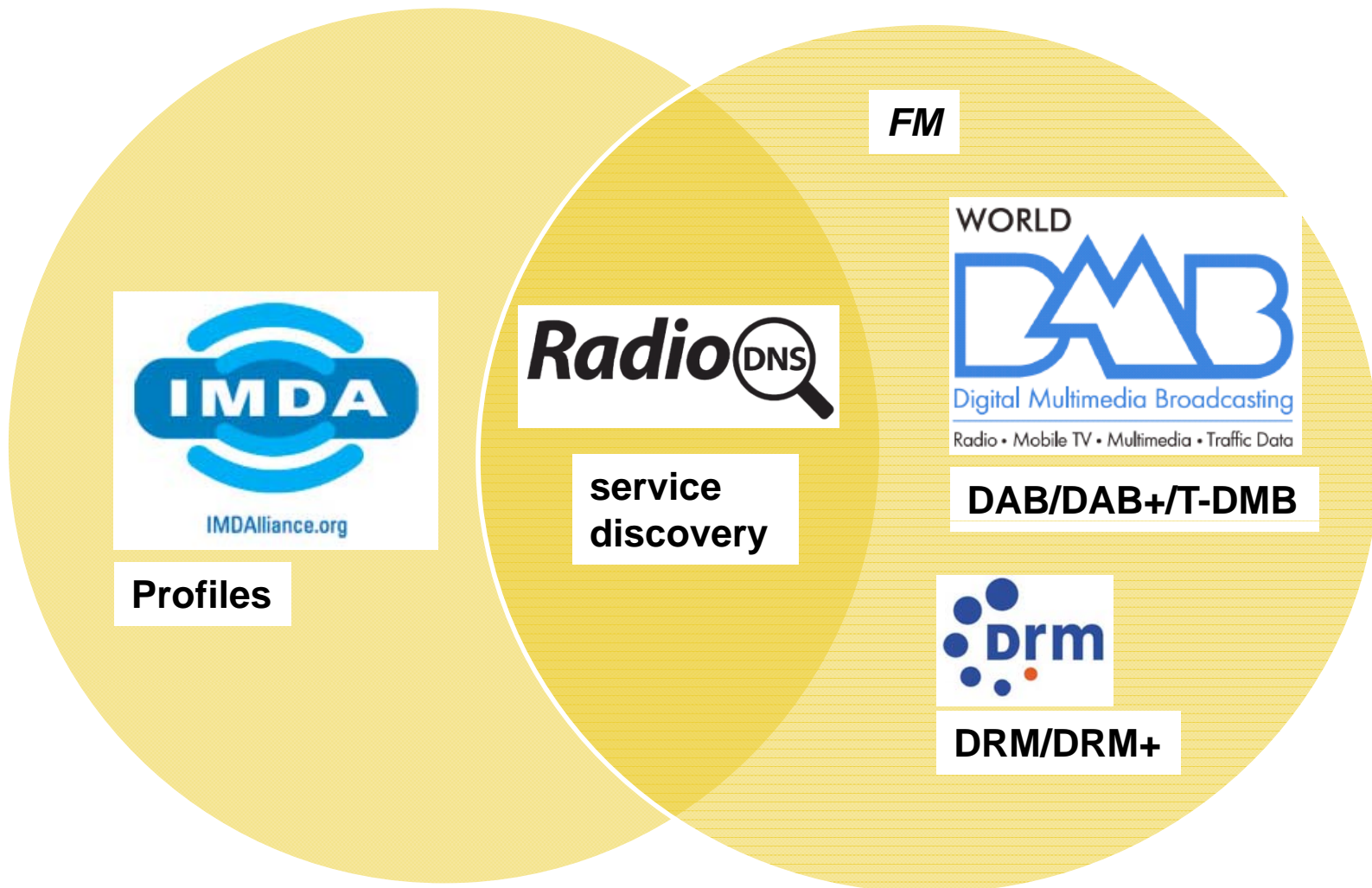
Complementary technologies



Standards for hybrid broadcast/broadband

Broadband (Internet)

Broadcast



Profiles of receiver: standard radio receivers

- Standard radio receiver profile
 - The “daddy’s radio” as we know it (doesn’t mean it will die)
 - Simple text screen
 - Low cost



Profiles of receiver: Rich media receivers

■ Rich media receiver profile

- Colour screen
- Multimedia
- Interactive controls
- Very often with Internet connection (wifi, 3G)
- Integration in multimedia devices (players, phone, car nav, etc)



Harmonisation of middleware

- Service discovery
 - Handover Broadcast ↔ Broadband
- Text services
 - Simple text (label, song title)
 - Advanced text (“Teletext” like service)
- Rich content
 - Visual radio, slideshow
 - “Flash” like applications
- Electronic Program Guide
- Enhanced traffic information
- Surround sound



Proposal



European Digital Radio Forum



European Digital Radio Forum

- Mission: harmonisation of digital radio in Europe

Objectives:

- Gather standardisation bodies working on digital radio as a primary service
- Provide a forum for discussions on points of common interest, harmonisation of technologies
- Enable broadcasters to promote coherent and consistent technology policies across different digital radio platforms



European Digital Radio Forum

Agenda:

- End January '10 – first exploratory t'conf
- Digital Radio Week (15-19/02/10) – Meeting with standardisation stakeholders to discuss proposal
 - <http://tech.ebu.ch/digitalradio10>
- March 2010 – Workplan, Launch of first efforts



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Thank you

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Agree on technology, compete on content (N.Piggott)

