

Institut für Rundfunktechnik



# Studio and Terminal Technique for Interactive Multimedia Broadcasting

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## Additional Applications for Digital TV

Electronic Programme Guide

Home shopping

Games

Video on demand

Internet access

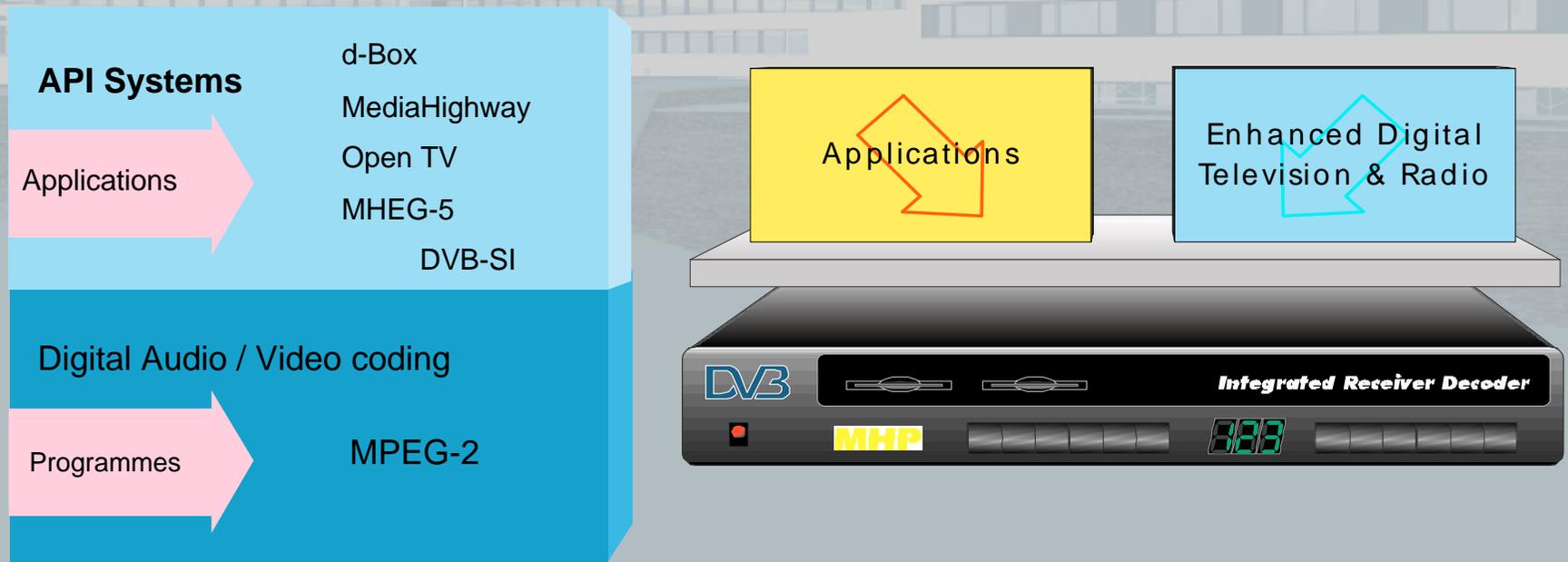
News and stock ticker

Participation in shows and quiz

Talk shows with additional background information

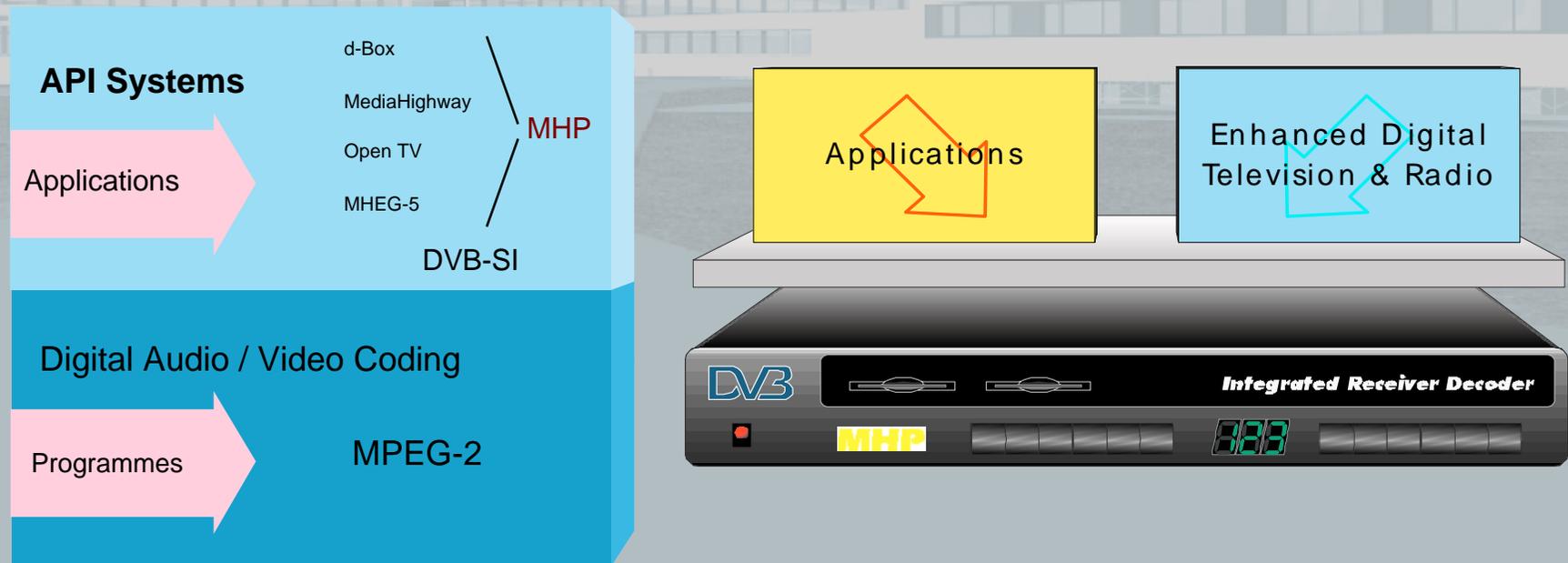
## Commercial Requirements:

DVB pioneering phase resulted in several proprietary APIs



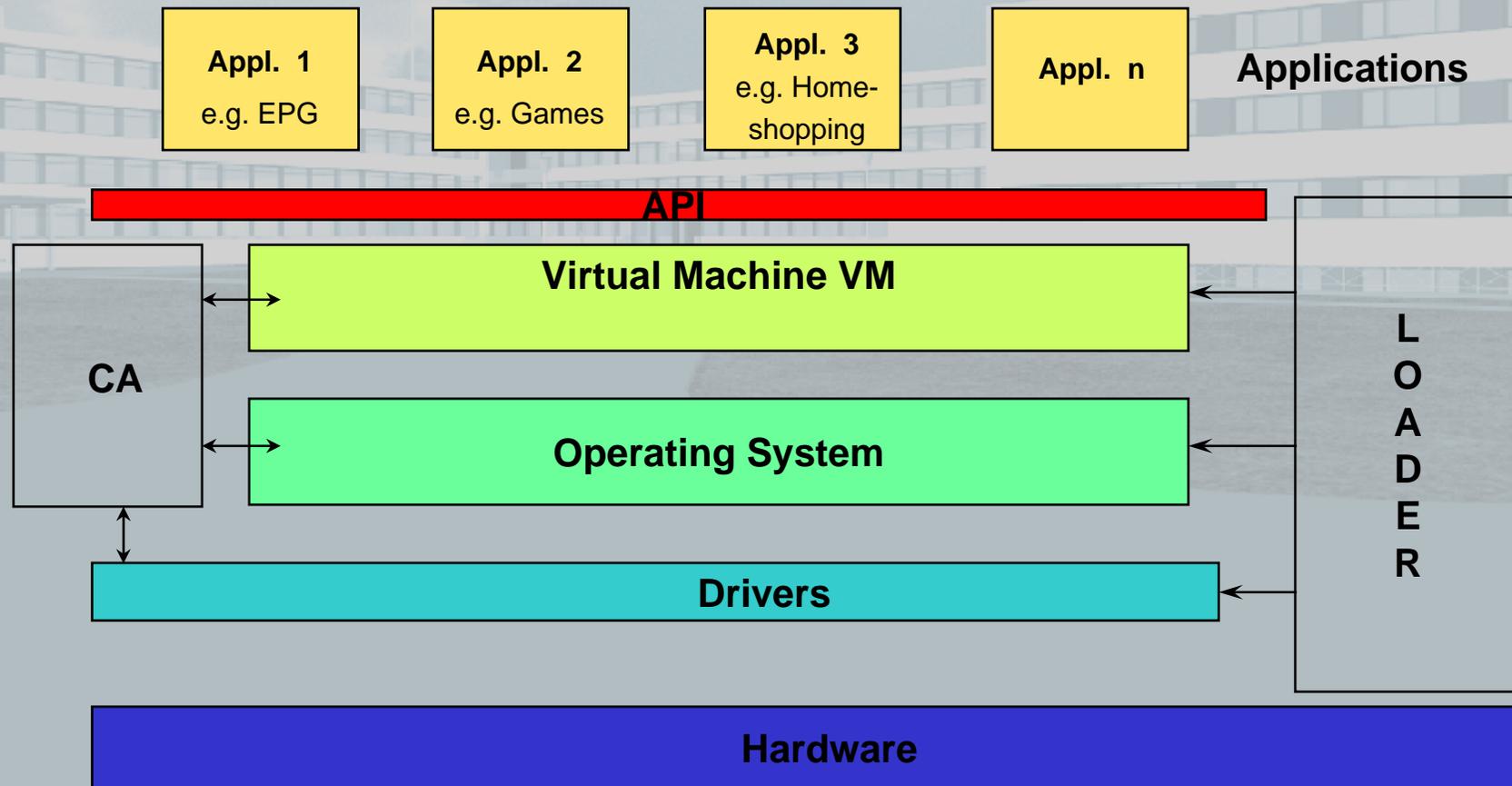
## Commercial Requirements:

- DVB-MHP is building the IRD of the future
- a platform for convergence
  - overcoming market fragmentation

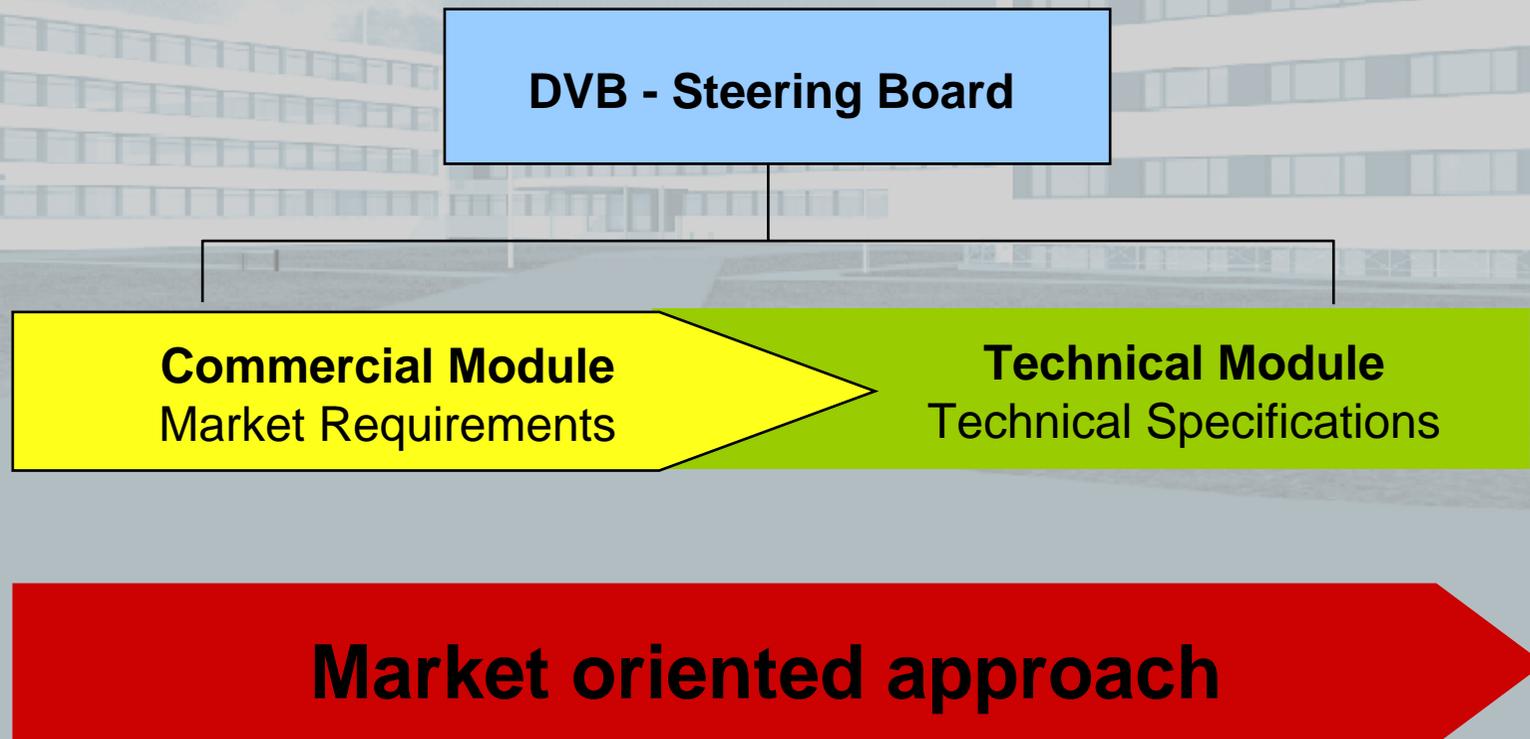


## Commercial Requirements:

### MHP-architecture



## Structure of DVB



## Commercial Requirements:

- Based on open standards
- API separated from CA-System
- Scalability
- Modularity
- Interoperability
- Security
- Evolution and backwards-compatibility
- Upgrade- and download-possibility
- Controlled development path
- User friendly operation
- Affordable cost

,Multimedia Home Platform'

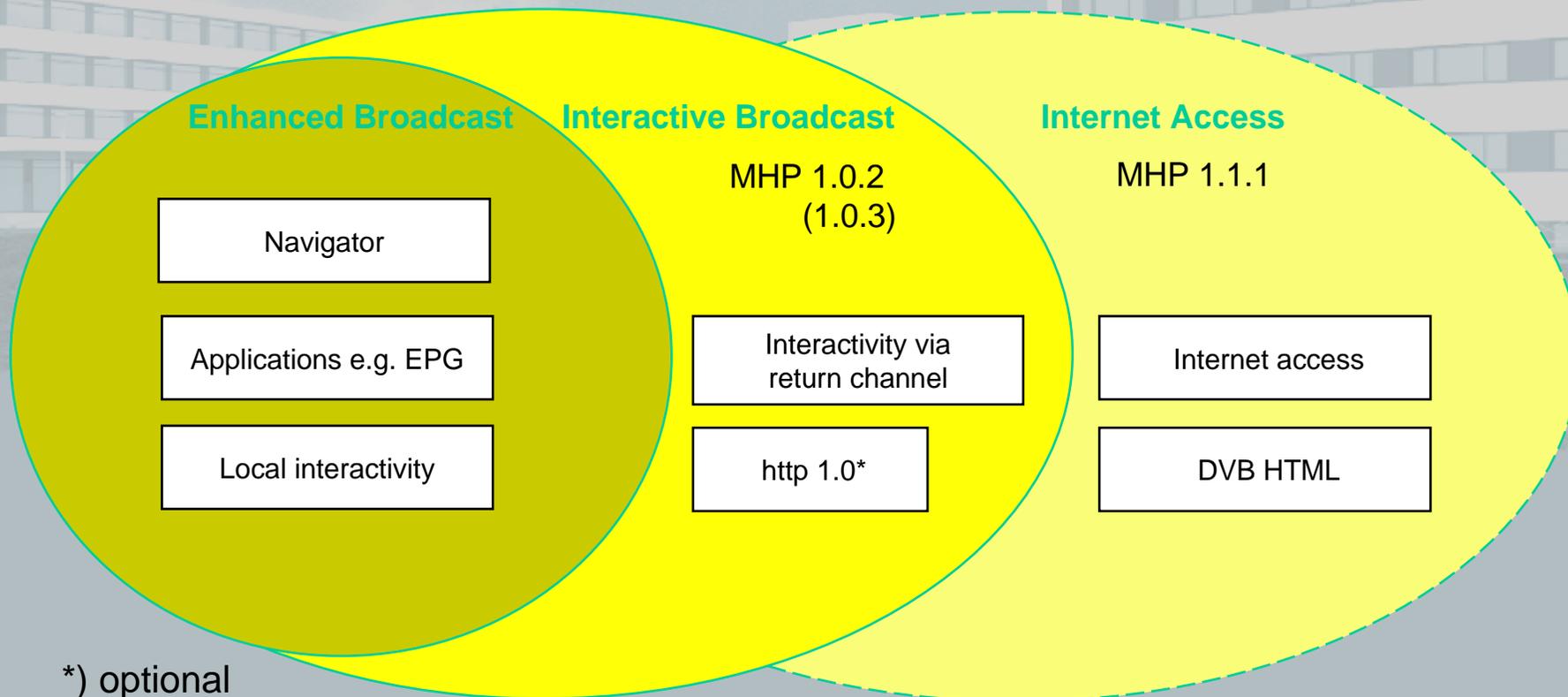


## Basics of the MHP-Specification:

- **Java based API**
- **TV-specific extensions** of the APIs
- Interfacing to **different Conditional Access Systems (CA)**
- Optional display features for **HTML**

## Basics of the MHP-Specification:

## Services and Profiles



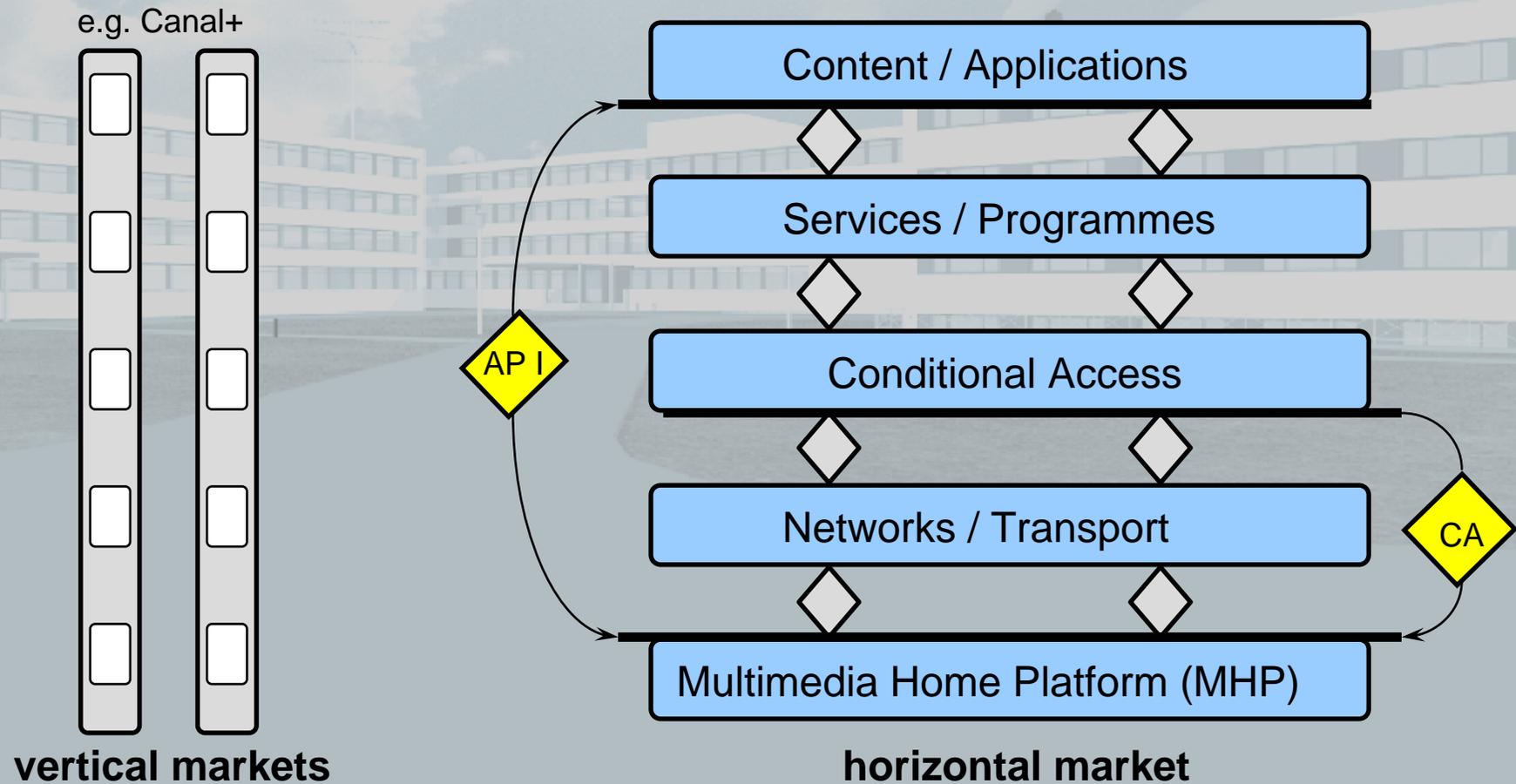
\*) optional

## Status of standards

Enhanced Broadcast	1.02 at ETSI,	} 1.03 end of march at Technical Module
Interactive Broadcast	1.02 at ETSI,	
Internet Access and HTML	1.1.1 work in progress	

**Economic context:**

Vertical versus horizontal markets



## Commercial Requirements:

### Interoperability

- Services running on MHPs from different manufacturers
- Simple services to high level services with high complexity
- MHP-Specification and API independent on network and hardware-platform
- The European Commission has required interoperability on the consumers level – only achievable by a single API

„Multimedia Home Platform“

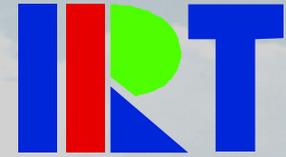


## German Broadcaster

The German public broadcaster ARD, ZDF and the private broadcaster RTL (free to air) and PREMIERE (Pay TV) approved the "Mainzer Declaration" (2001) to migrate the beginning of proprietary API's in 2002 to the standardized API – Multimedia Home Platform (MHP).

## Focus of Trials during Workshops

- Trials
  - ITV for individual events (also synchronized with A/V content): Pilawa, Ratgeber, Christiansen, Politbarometer, Votings
  - 2 more Portals
  - Weather, interactive Ads, Travel services
  - about 10 Games
  - downloadable DVB-HTML plugins
  - 2 more EPGs
  - More Teletext like services
  - Transmission from Web Cams



## MHP Services on Astra

- ARD
  - a „Portal“ (Service selection, recommended events, news)
  - two kinds of customizable ticker services
  - „Enhanced Teletext“ like service (Online Kanal)
- ZDF
  - Portal (Digitext)
- RTL
  - „Enhanced Teletext“ like service (RTL world)
- ProSieben
  - Portal



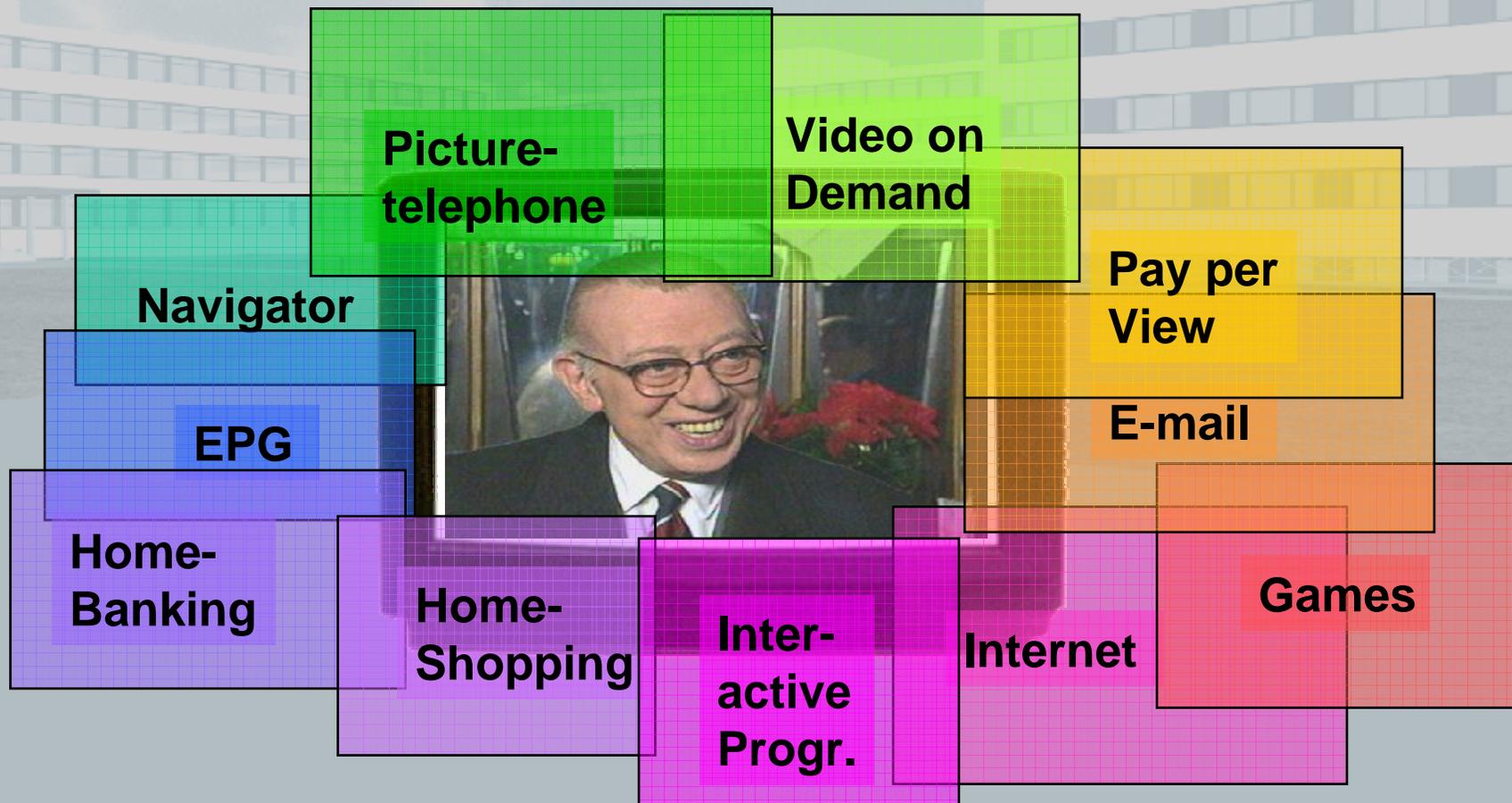
## MHP Services on Astra

- HoerzuTV
  - EPG covering various providers
- CanalSatellite and others
  - 15 and more ITV services based on MHP with DVB-HTML extensions

## New Services:

Outlook on the future

TV stays in the centre but is surrounded by self-contained and linked multimedia services



## **Interactiv Multimedia Broadcasting has started in Germany**

All technical elements for broadcasters and consumers are standardized and available.

The migration to the open standardized Application Programming Interface (API) has started.

The market can be developed for the benefit of the consumers and the broadcasters.