



Education, Research, Innovation - A Department's View on the Changing Digital Universe

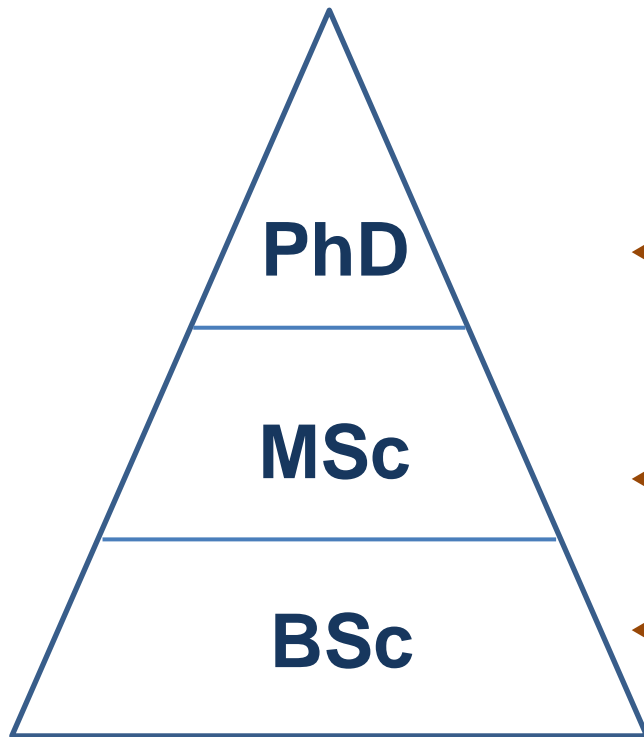
Gábor MAGYAR, Attila VIDÁCS

Dept. of Telecommunications and Media Informatics (TMIT)

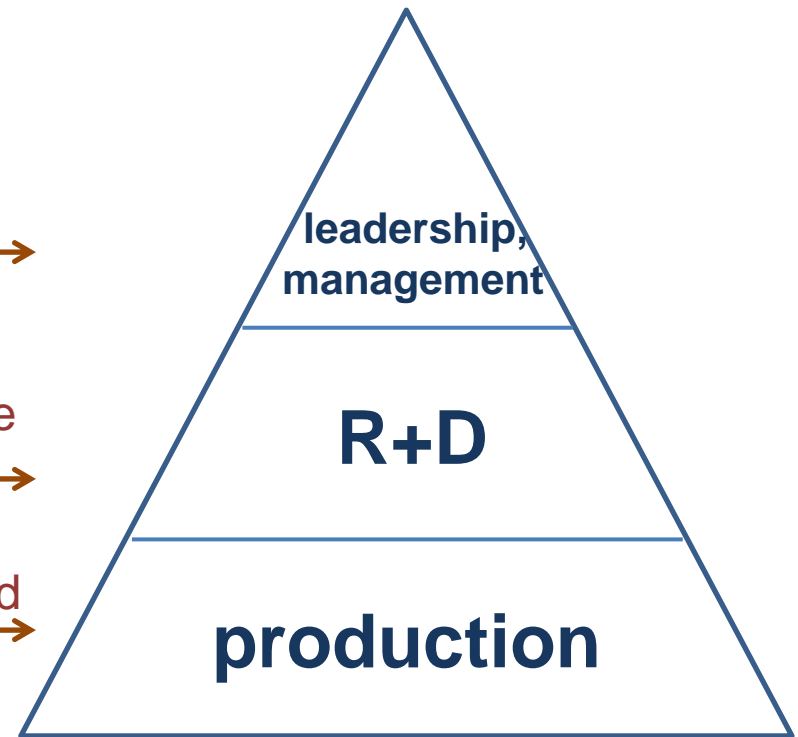
BME-VIK

General framework: interactions of edu and companies

Higher education activities



Company activities



Sector specific
←→

Theoretical base
←→

Practice oriented
←→

Strategic decisions (edu & R+D & innovation) based on megatrends in ICT

Traditional fields



- Telecommunications
- Database management
- Speech processing

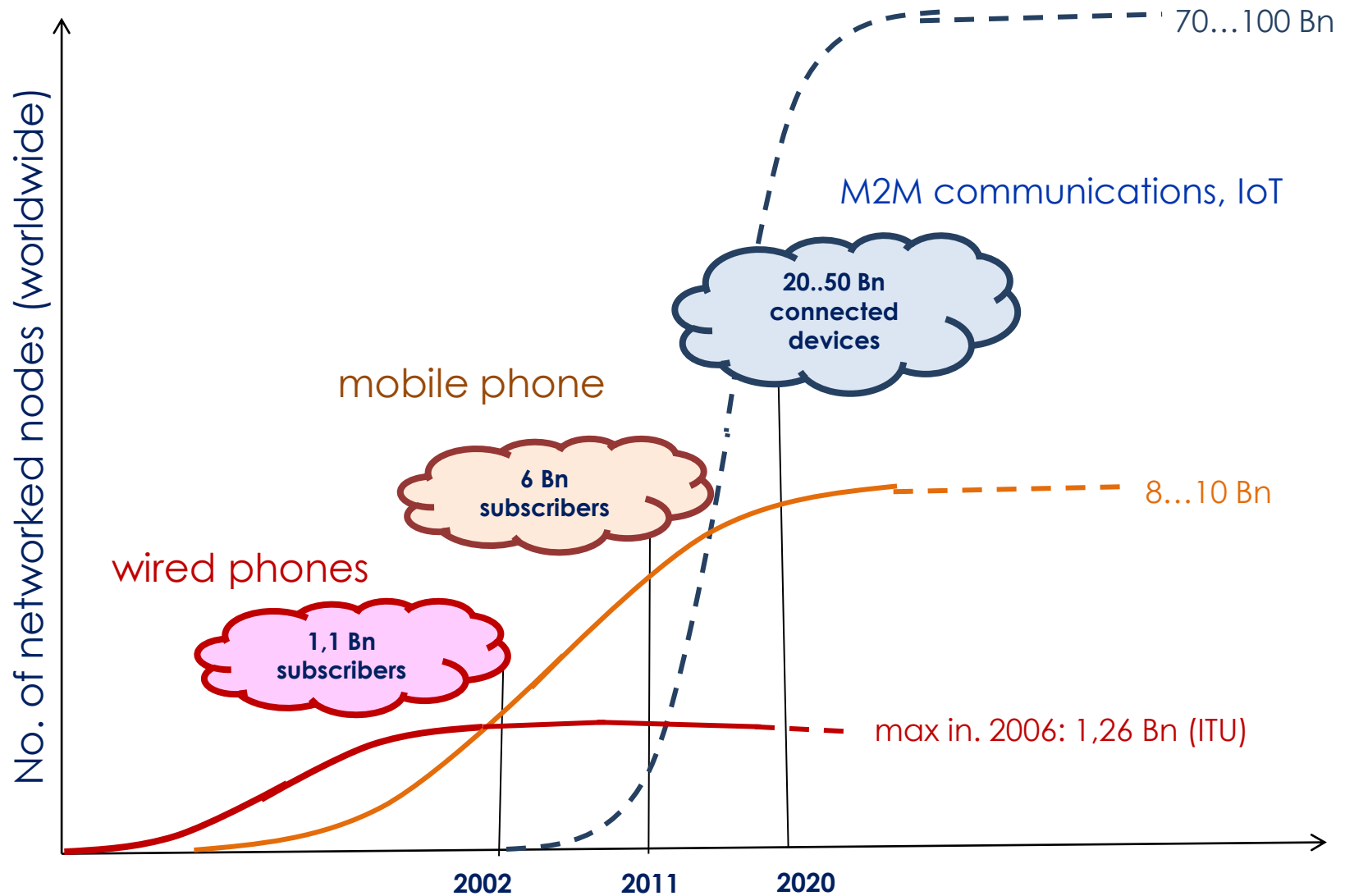
Refocused scope

- Future Internet
- Data Science, Content analysis & management
- Human-computer interactions

New specialisations in our educational programs

New R+D initiatives and company partnerships

Strategic decisions (edu & R+D & innovation) based on megatrends in ICT

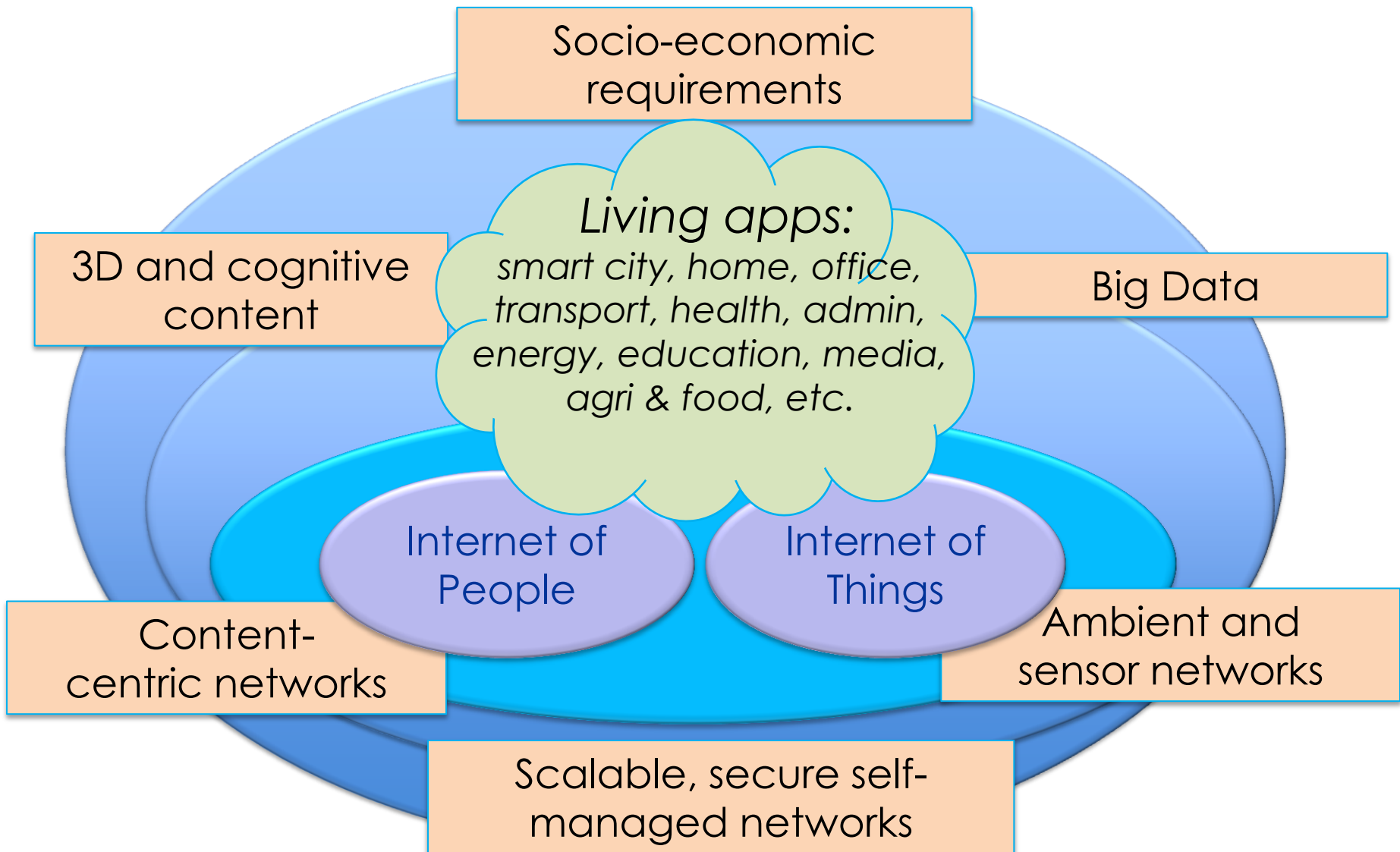


Main challenges of Digital Universe (2014)

– Information became the critical asset

- How to manage huge and growing data (Big Data), make the most of its value (Data Mining)?
- How to transport
 - trusted information,
 - to designated targets (only to them !),
 - in the time and location,
 - (in a user friendly way)
- **Future internet as a critical infrastructure:**
 - How to manage the growing (booming) traffic, with changing traffic characteristics (new services, IoT)?
 - How to ensure ubiquitous (and trusted) access (Digital Universe)?
 - How to make growth sustainable?
(technical, economical, environmental)

Future Internet vision 2014



Future Internet research layers

