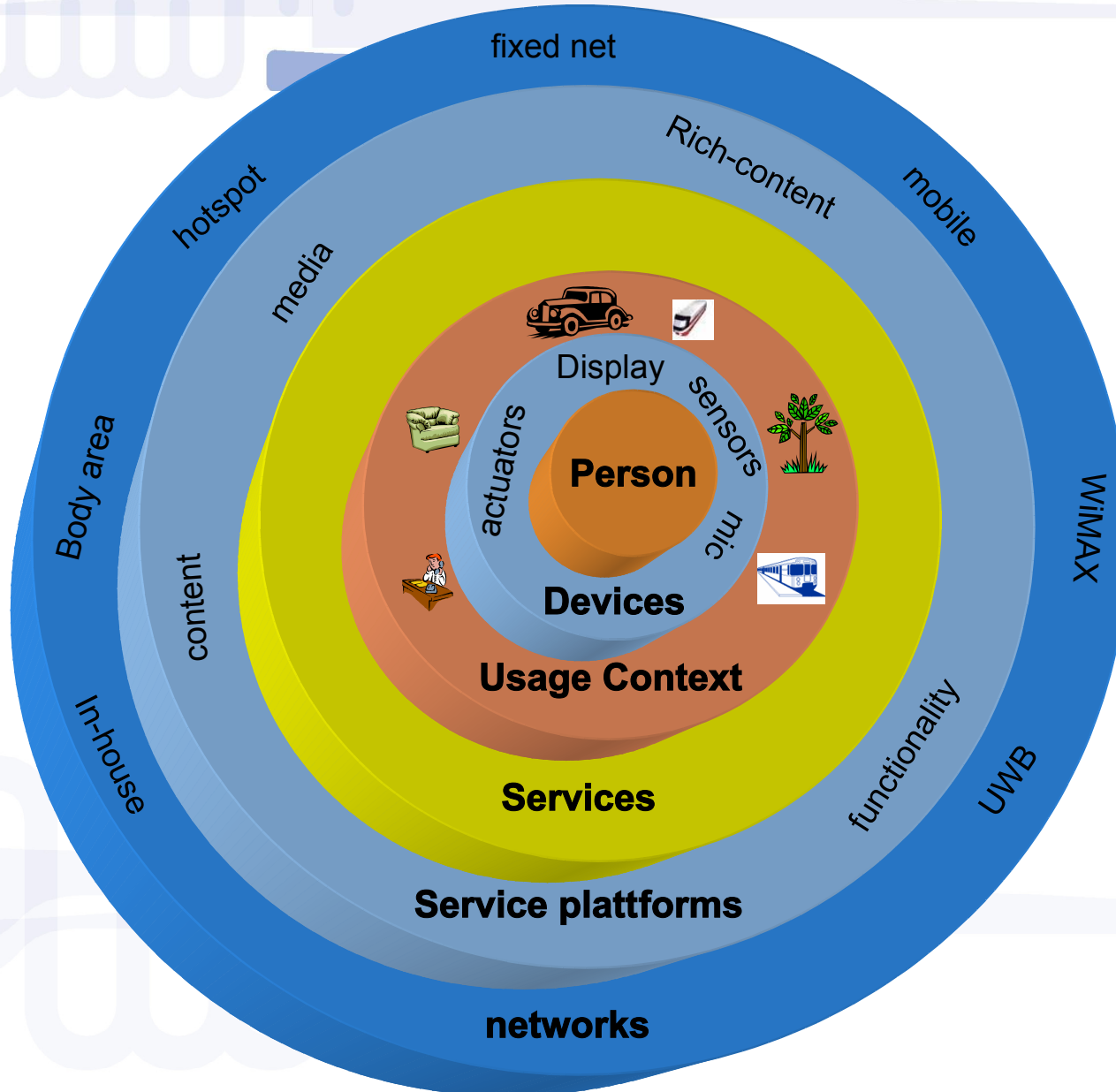


NEM SRA

Improving the focus and looking to EC FP7

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There is a Story NEM has to tell!



What is the story line?

- **People / European citizen are at the center of the NEM perspective**
 - He is “connect to” his environment
 - The environment is seamlessly offering services meeting user expectations
 - Intuitive user interfaces without barriers
- **Services and content**
 - Flexible, dynamic, automated service creation
 - User driven service creation
- **Networking of**
 - **... service atoms** which can connect themselves over networks to new services
 - optimizing the service to the needs and expectations of the consumer.
 - Combination of different service types (communication, media, gaming, ...)
 - **... networks**
 - Seamless session handover between different networks (vertical handover)
 - QoS guarantees
 - **... device components** which can connect to each other and form new devices.
 - Based on the combination of capabilities new features may be available
 - Complementing the features set by adding “networked services”
 - The feature may not be located on the device or even locally available (could be located in the „home environment“)

An Example Scenario

Jimmy is at home; He is carrying several compliant NEM-devices / NEM-components allowing to communicate with and access services in his immediate environment.

- These components connect to each other automatically and form his „personal NEM-servant“ .
- It may contain some kind of display and loudspeaker and haptics as well as sensors for voice, force, mimic, gesture, smell, and other biometrical data.
- This virtual device senses its environment for other NEM-components it can connect to (e.g. large screens but also information agents)

Jimmy wants to travel to a European City he has not yet visited (also the country he has not visited yet)

After saying „book me a trip to XYZ“ to his NEM-servant, the servant present shortly the complete schedule and hotel bookings

In preparation of the travel the servant searches for films and other information material of the essential habits in the country

Since Jimmy can remember facts best after training it in a game, the servant seeks in the NEM-service space a NEM-service for converting the material it found into a short knowledge game. It also provides some of the specific preferences of A to make the game easily comprehensible

During the flight Jimmy plays the learning game

Arriving at the airport he watches the latest news on a public airport TV.

Since it is broadcast in native language his servant search for a translation services, connects to it and A is listening through his body ear speaker in his native language.

Example Scenario cont'd

in the evening he looking for a really good local dinner

His servant searches and recommends to Jimmy a restaurant.

The city map service provides a scenic walk to the restaurant complemented with information about the scenic objects

His servant records the walk in order to generate a travel report later, and records comments A is making At the restaurant he looks for guidance how to eat the local specialty. Small video clips describe the selection to him on his local viewing device.

His servant is recording his „experience“.

Arriving in his hotel he wants to relax and watch a nice movie on the in-room cinema.

By connecting to the network his home preferences are transferred so he is “feeling” like at home Since he showed interest in the local culture, the service includes some local highlight movies in the movie selection.

The movie start time is a few minutes delayed, since the quite old movie requires some processing for optimal projection in the in-room cinema.

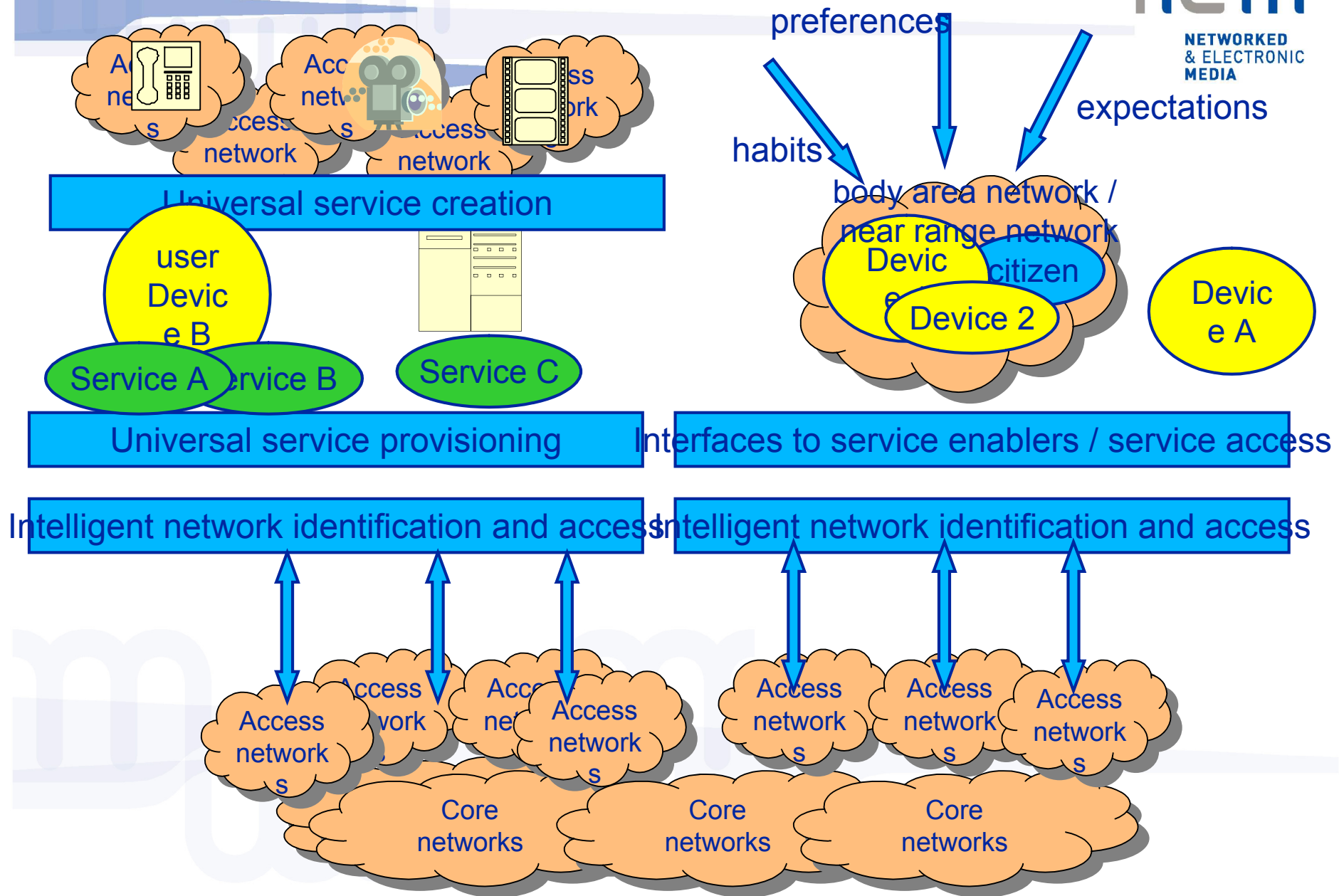
His colleagues at work are very interested in his trip experience and ask for the travel report.

Based on the recorded content, his comments, and the associated meta data he produces a very nice blog report.

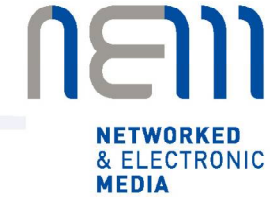
It is a very good report and he wants to publish it. He wants to include some of the information of the services in XYZ, so he is clearing the rights for the items references in his blog.

He shares his report as a community TV-service.

NEM System View



Strategic Research Agenda



Basic Concept:

- services and applications give ideas about NEM-scenarios
- the remaining sections describe necessary technology aspects / components

Overall Structure

- Services and Applications
- Content
- Network Infrastructure, Delivery Networks
- Terminals, User Devices
- Enabling Technologies

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NETWORKED
& ELECTRONIC
MEDIA

Challenge 1

Pervasive and trusted network and services infrastructure

Objectives

- The network of the future
 - Ubiquitous network infrastructures and architectures; Optimized control, management and flexibility of the future network infrastructure; Technologies and systems architectures for the Future Internet
 - Service and Software Architectures, Infrastructures and Engineering
 - Strategies and technologies enabling mastery of complexity, dependability, and behavioral stability
 - Service architectures, technologies, methods and tools
 - Secure, dependable and trusted Infrastructures
 - Networked Media
 - Interoperable multimedia network and service infrastructures; End-to-end systems and application platforms
 - New Paradigms and Experimental Facilities
 - New, disruptive networking paradigms, architectures and protocols,
 - Critical Infrastructure Protection
-

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Challenge 4

Digital Libraries and Content

Objectives

- **Digital Libraries, Usage, and Learning**
 - Networked libraries, robust environments, feature-rich content, digital preservation of content, adaptive and intuitive learning
- **Intelligent Content Creation and Management**
 - Advanced authoring, manage lifecycle of content, personalized distribution (presentation and consumption) of content, self-adaptive content, user-produced content, knowledge management

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Challenge 6

ICT for Mobility, Environmental Sustainability, and Energy Efficiency

Objectives

- **ICT for the intelligent car and mobility services**
 - always-on mobility services, context-aware personal communications, always available information access
- **ICT for cooperative systems**
 - Vehicle-to-vehicle communications, ad-hoc networks

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Challenge 7

ICT for Independent Living and Inclusion

Objectives

- **ICT and Aging**
 - Open system reference architecture enabling independent living, seamless integration, cost-effective and reliable systems
- **Accessible and Inclusive ICT**
 - Content representation adaptable to people with specific needs, personal assistive systems

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„Challenge 8“

Future and Emerging Technologies (FET)

Objectives for 2007- 2008

- **FET-2: Pervasive Adaptation**
 - Information and communication systems autonomously adapting to highly dynamic and open technological and user contexts, massively scalable systems

- **FET-6: ICT forever yours**
 - framework for extremely long-lived systems, requiring minimal intervention and management to survive in spite of changes in usage, host device, or network context

Scenarios to keep in mind

- Digital Cinema
- Sustainable and personalized health care (challenge 5)
- Personal avatar / robotic system for navigation in a networked environment (challenge 2: cognitive systems, interaction, and robotics)
- Support of aging people and people with disabilities (challenge 7: ICT for independent living and Inclusion)