

Managing the Future Internet

Benefits for Key Actors (Business Perspective)

Future Internet Cluster Scenario – C

Syed Naqvi (CETIC)

Giorgio Nunzi (NEC Europe)

Frank-Uwe Andersen (Nokia-Siemens Networks)

Ranganai Chaparadza (Fraunhofer Fokus)



Outline

- Introduction
- FI Cluster Scenario C
- Key Challenges & Business Perspectives
- Summary

Motivations

- **Broader impact of the technological innovation**

- Maximum outreach
- Involved in the everyday lives of the citizens



- **Benefits for key actors are derived from the enhanced consumers base**

- Winning the customer confidence through reliable solutions
- Guarantying high usability and low integration effort



- **Operator's benefits are the scenario's focal point**

- How management operations can be supported in a more efficient manner (e.g. automated processes)
- Which capabilities are not currently supported, but can be supported in the Future Internet



Context

Common vision across our projects:

complexity
in operating networks

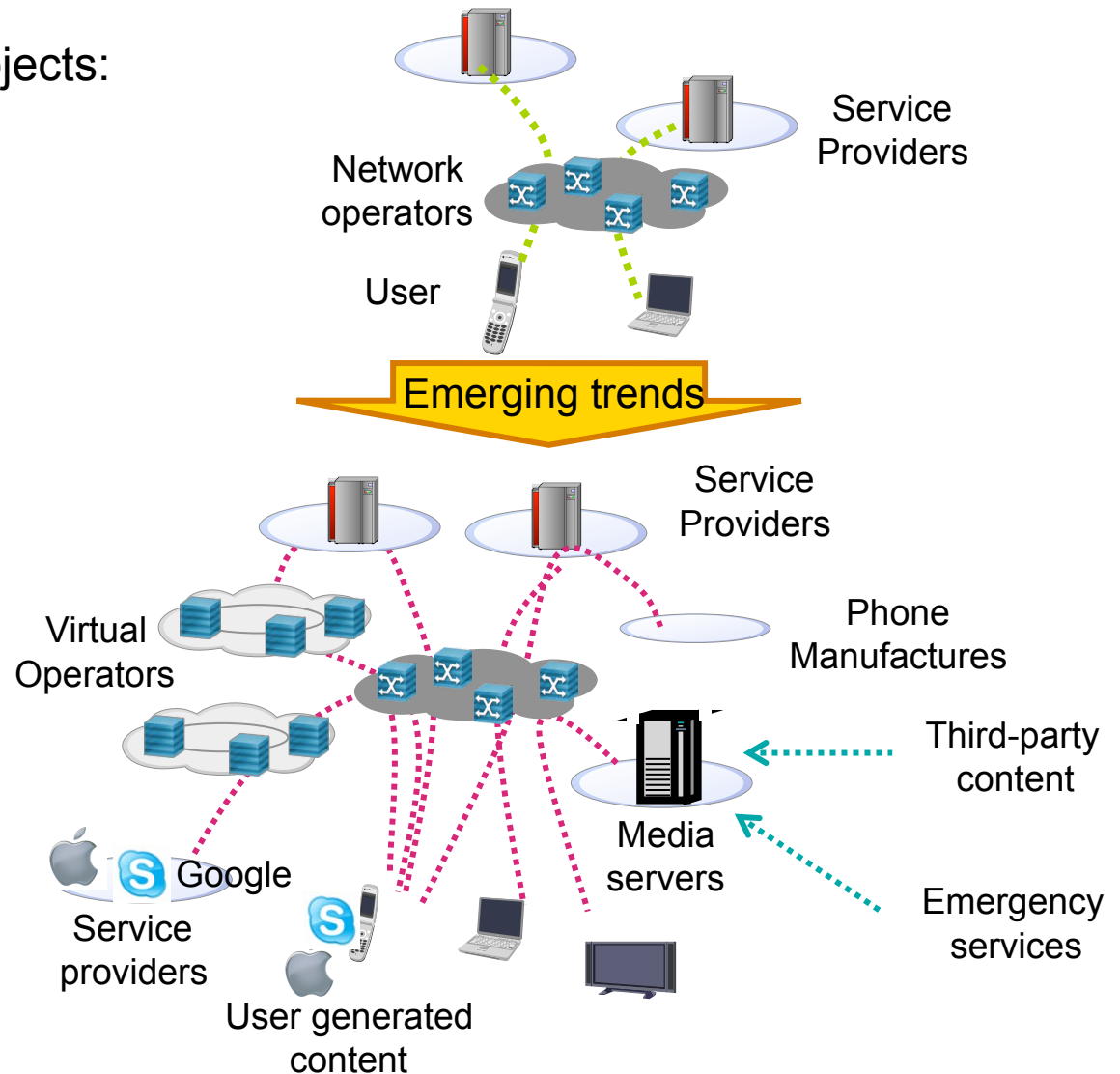
and ...

new business opportunities!

Future Internet as **platform**:

to support emerging
value creation environments
(see also Scenario D)

and **keep cost efficiency**



FI Cluster Scenario C

- **Players**

- A global connection provider across Europe
- A service provider bundling connectivity and community-like services
- People and their friends + communities located in different parts all over Europe

- **Key drivers**

- Existence and harmonization of different players
- Dynamic instantiation of services
- Integration of pervasive wireless access for home and business networking
- New markets: communities around common interests
- Automatic access to end-use equipment and different access technologies



Ralf's phone (Berlin)

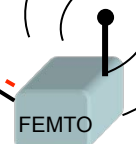
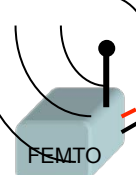
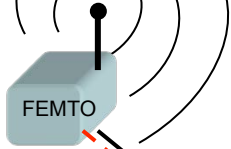


John's phone (Covent Garden)

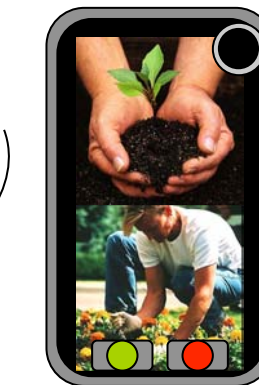
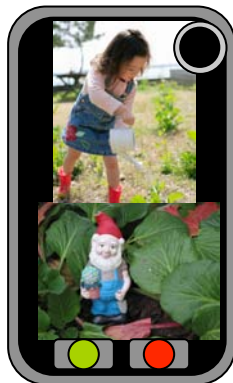
*Example:
The gardening tele-community*



Self-Organizing Femto Network



Sophie's phone (Paris)



Santiago's phone (Sevilla)

Key Challenges & Business Perspectives (1/2)

Technological challenges

- Self-organized wireless femtocell administration and management.
- Decentralized, highly-scalable network management system
- Abstraction of the operations in the underlying infrastructure
- Quality of Service guarantees for the bundled services.
- Management of complex services (e.g. multiparty tele-conference)

Business perspectives

- Facilitating new and improved services with reduced operational costs.
- Off-loading of operator's OAM/ NM system
- New levels of autonomy
- Enhanced competitiveness of businesses
- Cost-effectiveness
- Optimized use of system and network resources
- Simplified service administration

Key Challenges & Business Perspectives (2/2)

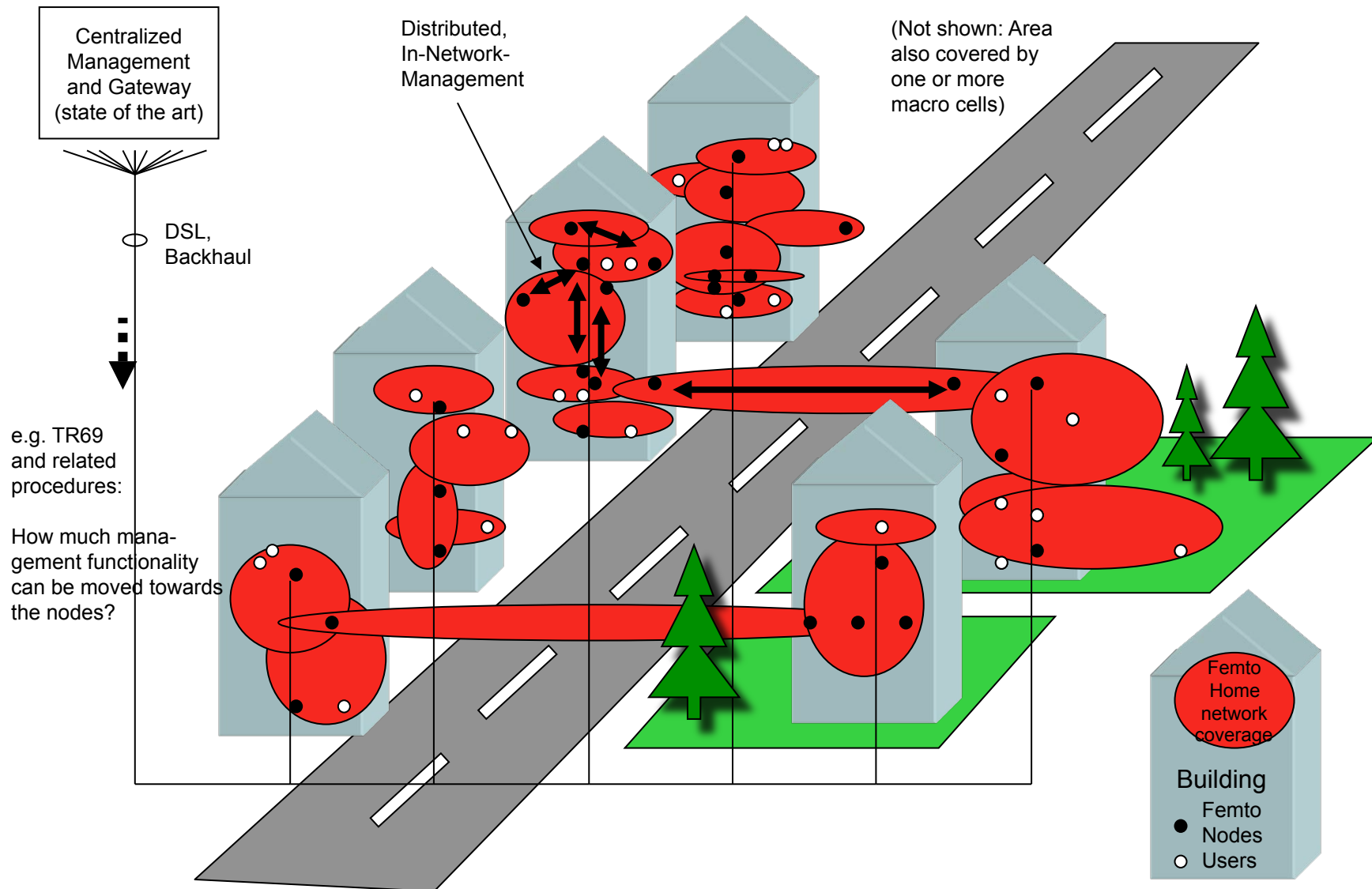
Technological challenges

- Interfaces to translate business goals into network-level objectives
- Generic design principles required for an evolvable Generic Autonomic Network Architecture (GANA)
- Guaranteed performance and robustness of the network

Business perspectives

- Reduced operational expenditures
- Fast time-to-market for service delivery
- Acceptable and realistic capital expenditure

The Femtocell Setting



Summary

- **Future Internet (FI) is beneficial for its key actors!**
 - Business perspectives of the FI technologies circle around operators and service providers
 - FI technologies can enable businesses to enhance their customer base by providing them with a cost effective, broad range of services
- **A number of technological challenges need to be addressed to realize the realm of FI applications**
 - Focus on the definition of the expected behavior of the network
 - Self-management features within the network for a distributed architecture
 - Dedicated functions for resilience and quick reconfiguration inside the network
 - Automated re-allocation of resources according to varying conditions

Thank you

