

Availability and Robustness of Electronic Communications Infrastructures (ARECI) study

Lucent Worldwide Services, Bell Labs



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Study introduction



- Lucent has been contracted by Directorate-General Information Society and Media
- The study is linked with the “European Programme for Critical Infrastructure Protection” (Green Paper) of November 2005

Small FAQ:

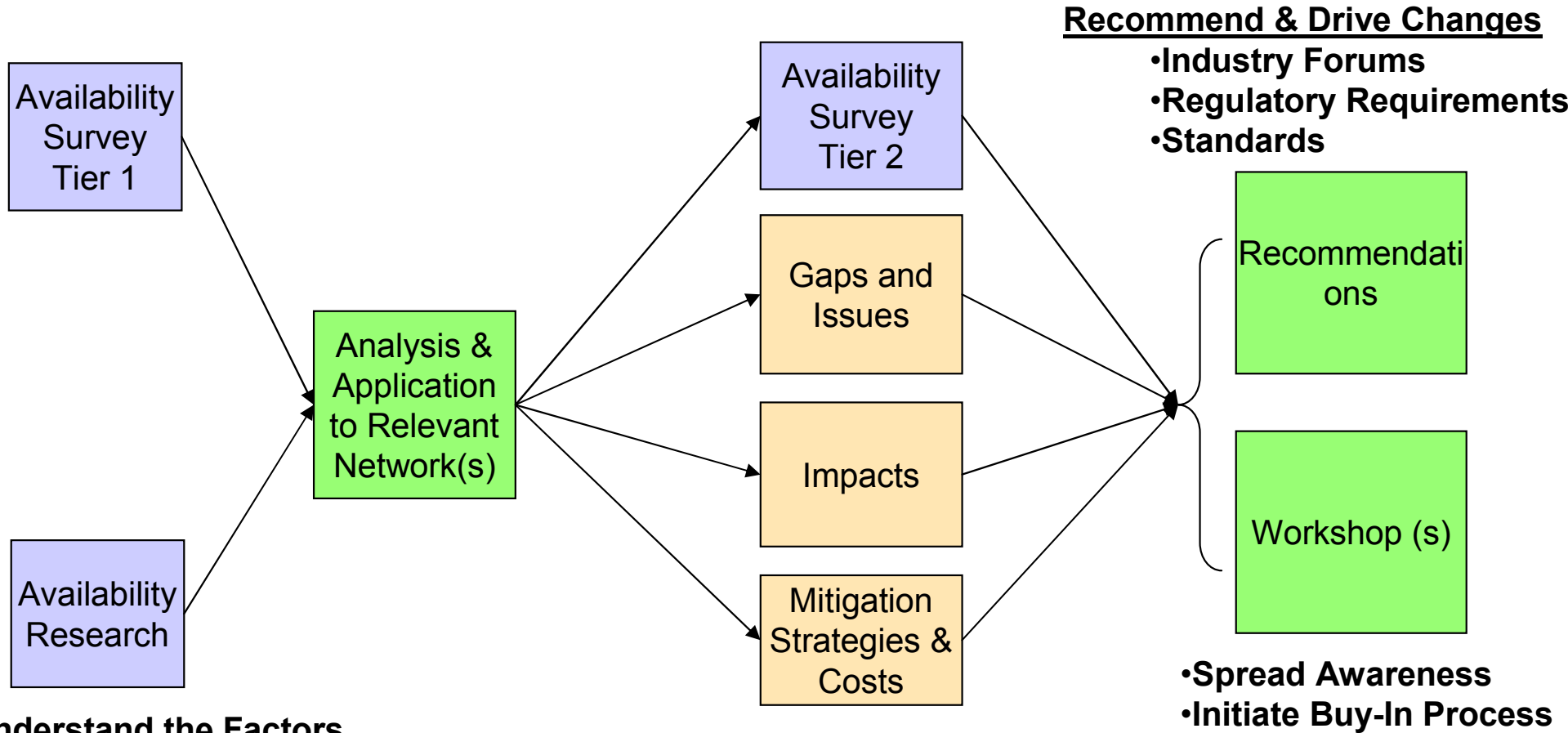
- Will Lucent be selling or advocating anything? No. This is strictly a research and analysis study for the European Commission.
- Will Bell Labs drive changes in networks? No.
- What is the relationship with ENISA? ENISA contributes to our work on expert level

Study objectives

- Providing a comprehensive analysis of the factors influencing the availability of Europe's electronic communications infrastructure
- The target of the study is the identification and analysis of the impact of threats and vulnerabilities on:
 - core (backbone)
 - mobile and wireless networks

with a goal of developing **recommendations** for action by public authorities and industry players to secure Europe's electronic communications infrastructures and mitigate the consequences.

Methodology overview



Understand the Factors

- Which
- Technologies
 - Infrastructures
 - Standards
 - Evolution Path & Timing

Understand Gaps, Impact & Costs

- Accept Some Risk
- Mitigate Other Vulnerabilities
- Compensate with Network Design

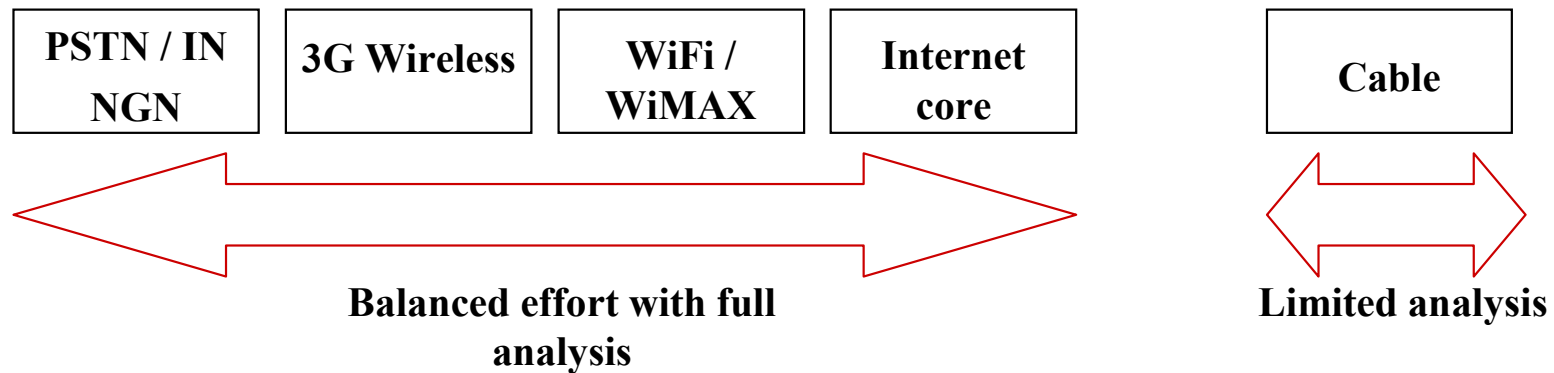
Information sources

EU membership	“Tradition”	Type	Reliability / Security diligence	Relative economical strength
<ul style="list-style-type: none">- Old- Recent	<ul style="list-style-type: none">- Incumbent- “new breed”	<ul style="list-style-type: none">- Service/Network Provider- Internet Service Provider- Regulator- Industry Association- CI Enterprise- Standards Organization	<ul style="list-style-type: none">- Strong- Moderate- Weak	<ul style="list-style-type: none">- Strong- Developing

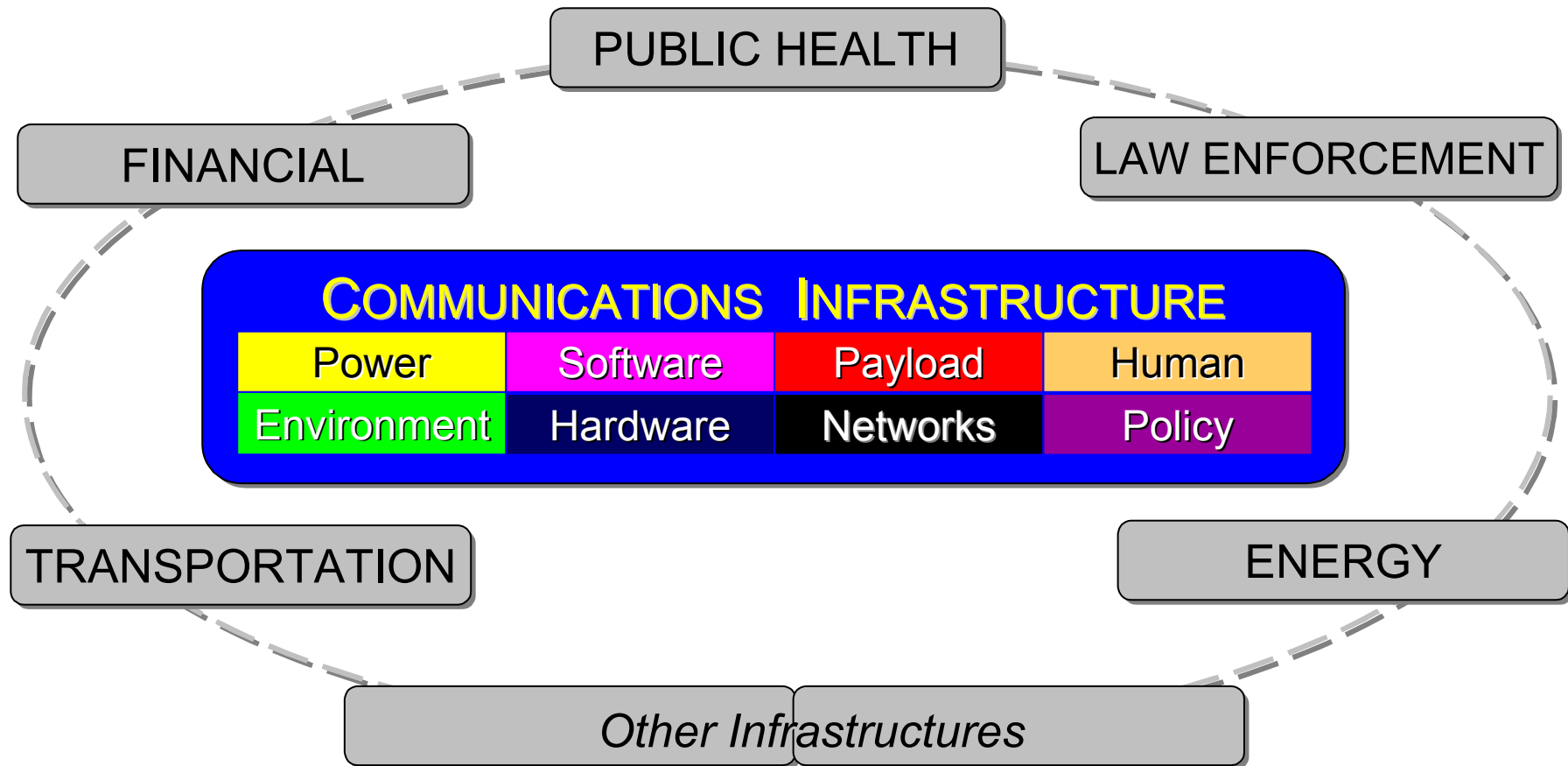
+ existing experience of Bell Labs

Scope Technologies





- Main scope:
 - European NGNs
 - European Internet Back-bone
 - Wireless networks: 3G, WiFi, WiMAX
- Additional scope:
 - Cable networks



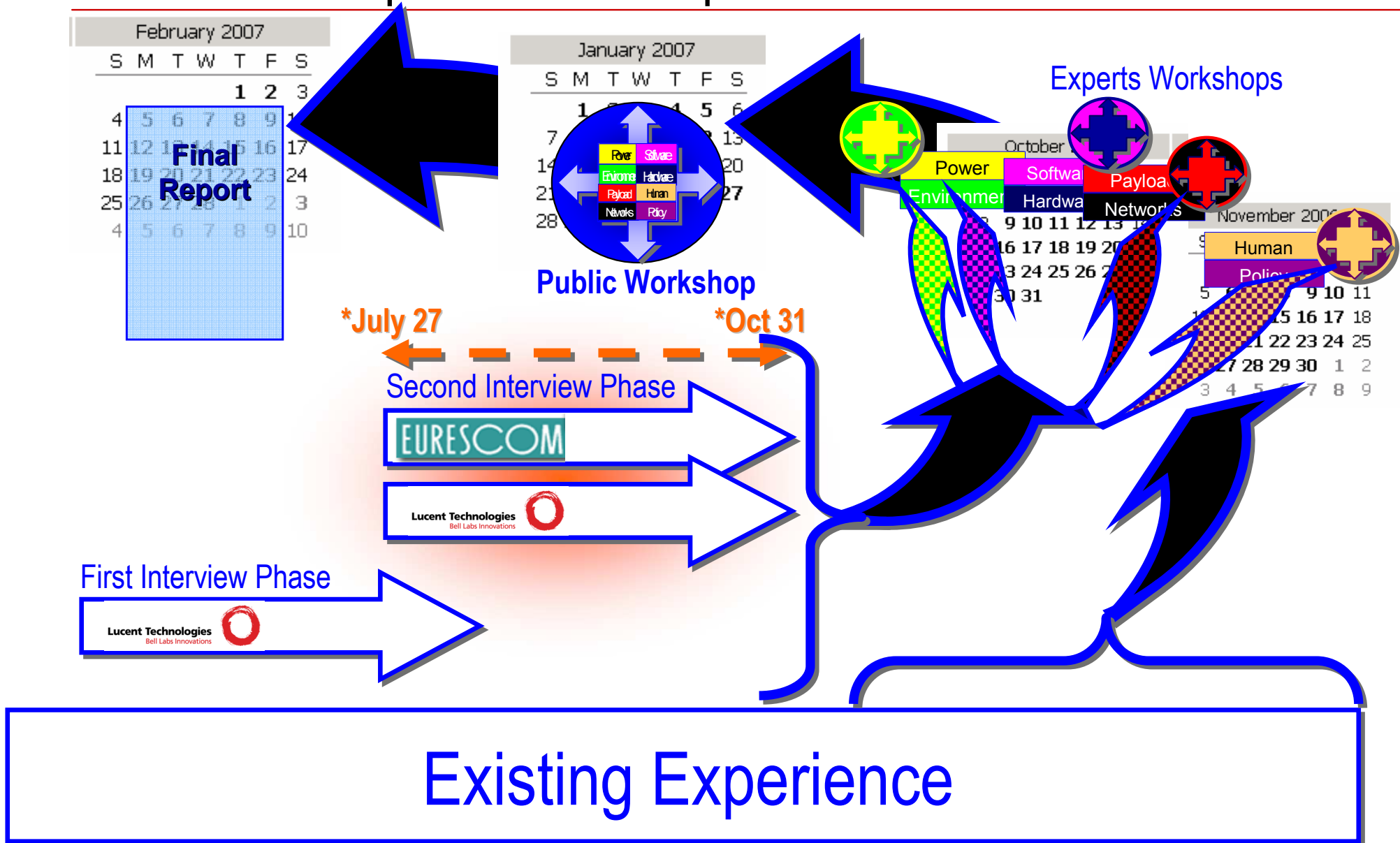
Critical infrastructures and 8 ingredients of communications Infrastructure



Experts Workshop Overview

Workshop	Ingredients	Date	Location	Hosting Stakeholders
 1	Power Environment	Tuesday October 3	Rome, Italy	Telecom Italia, Italian Government
 2	Hardware Software	Wednesday October 11	Berlin, Germany	Rhode & Schwarz
 3	Network Payload	Friday October 6	London, U.K.	BT, U.K. Government
 4	Policy Human	Wednesday November 15	Brussels, Belgium	t.b.d.

Timeline of Experts Workshops and Deliverables



Existing Experience

Contribution of CERT's

- CERT's are playing a significant role ensuring availability and security of telecommunications infrastructures
- **We invite TF-CSIRT representatives to the workshops**
- Project team would like to collect unique views and opinions of CERT's around Europe
- What are the key benefits to participate as an expert in the workshops?
 - Opportunity to learn from Europe's experts in your field
 - Unique opportunity to share your insights into Europe's future networks
 - Opportunity to influence guidance being prepared for the EC on availability and robustness of Europe's networks

Contact information

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Workshop registration:

<http://www.bell-labs.com/europe-networks-workshop/index.html>