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Can standards stop the business?

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VP Corporate Standardization – Deutsche Telekom AG



Agenda.

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- DTAG Vita in a Nutshell
 - Key figures and facts
 - Market activity
 - International presence

 - Standardization as a part of DTAG
 - Technology changes and market drivers
 - Infrastructure and production platform changes
 - Standardization challenges

 - Summary
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Deutsche Telekom.

Corporate Vita in a Nutshell.



Financial figures and facts.

Key figures first half of 2007.

Mill. €	First half of 2007	First half of 2006	Change (in %)
Net revenues	31.028	29.972	3,5
domestic	15.417	16.347	(5,7)
international	15.611	13.625	14,6
Adjusted EBITDA	9.584	9.787	(2,1)
Adjusted Profit	1.137	2.036	(44,2)
Net Cash-Flow from operating activities	5.215	5.695	(8,4)
Customers Mobile (Mill.)	111,8	101,1	10,6
Customers Broadband / Fixed Network (Mill.)			
Broadband	13,0	9,8	32,0
Narrowband	37,7	40,1	(5,9)
Registered Internet customers	16,4	14,5	13,1
Employees	217.393	215.527	0,87



Brand structure.

The product brands of Deutsche Telekom.

The customer is the center point for our marketing presence. Deutsche Telekom offers its customers the entire spectrum of IT and telecommunications services from a single source, be it for the communication needs at home, on the go or at work. The three customer brands under the global umbrella brand “T” stand for: T-Home for all products and services at home; T-Mobile for products and services while on the go; and the brand T-Systems offers medium to large-sized business customers ICT solutions around the world.

■ at home



T · · Home ·

on the move



T · · Mobile ·

■ at work

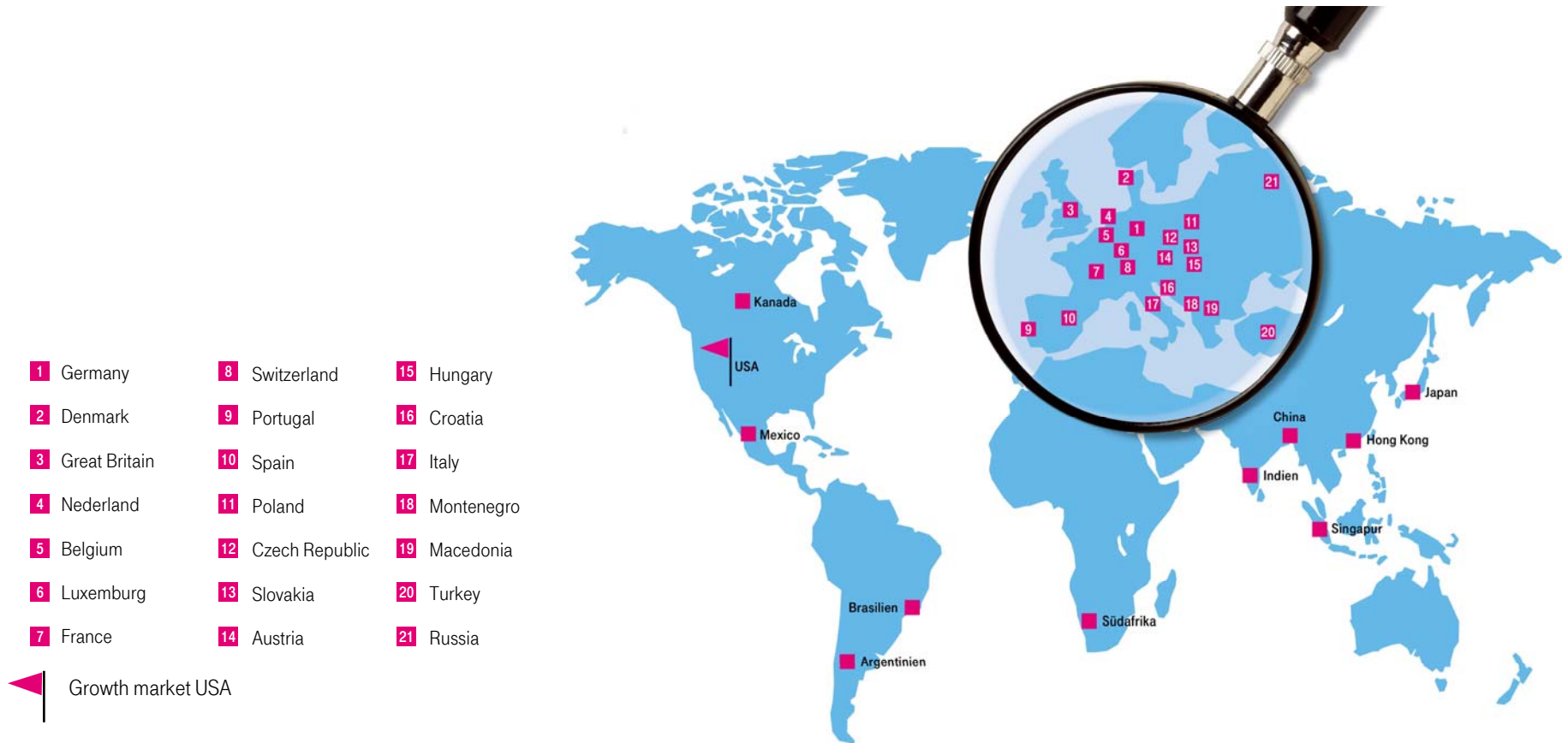


T · · Systems ·



International Presence.

Overview.



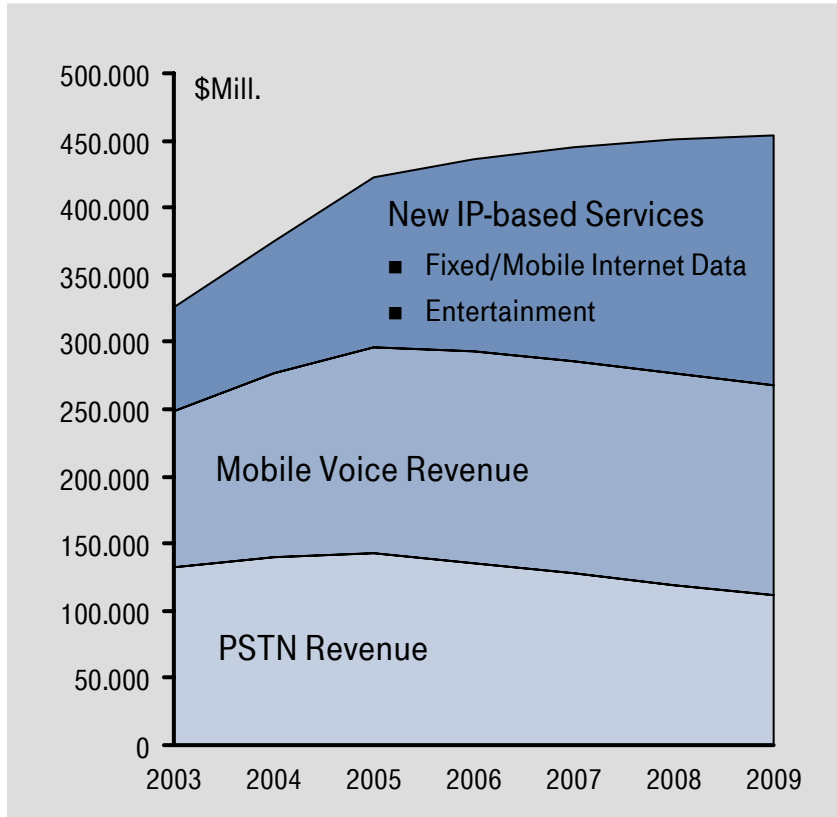
Standardization.

Active part of Deutsche Telekom.



The Carrier Service Provider Market Development.

Saturation of traditional service markets, growth in new markets.



Source: Gartner Group Forecast 2005 Data for Western Europe

Carriers' Market Challenges

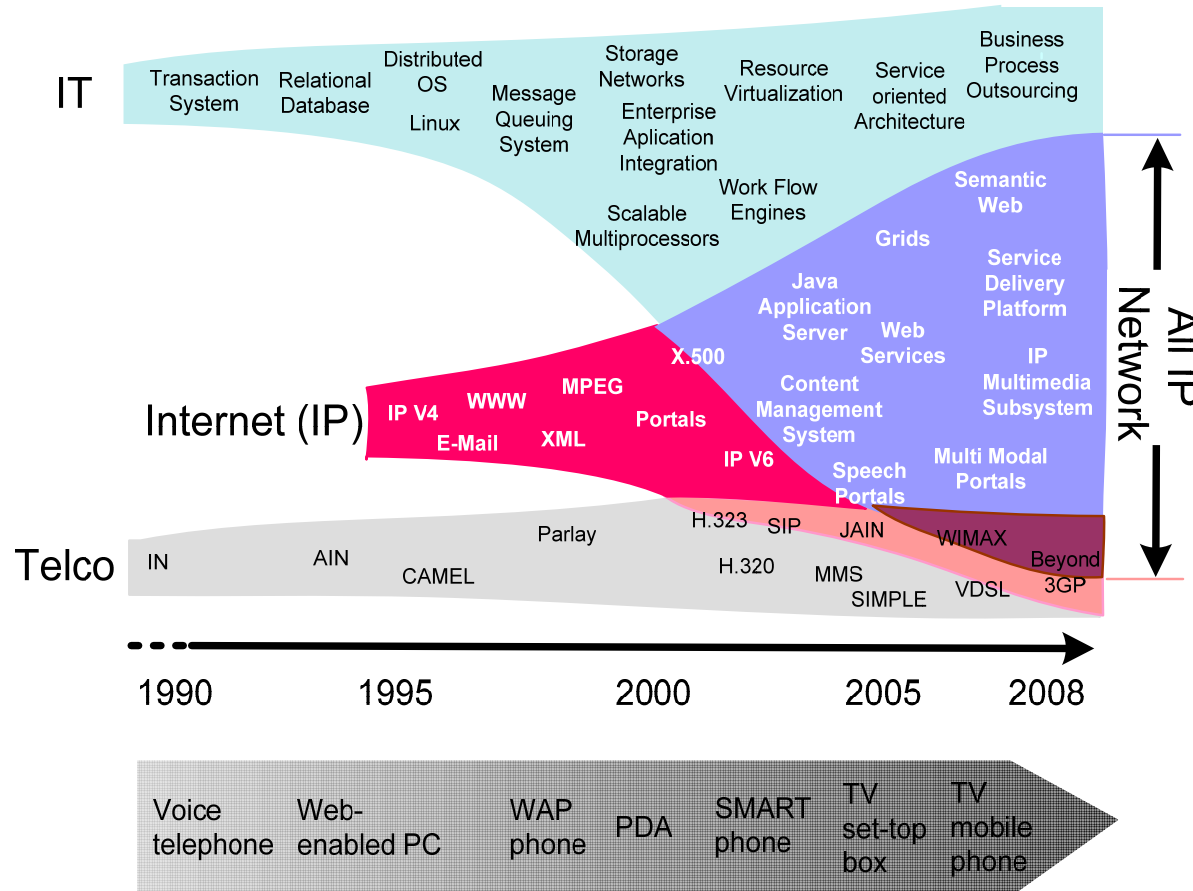
- The fixed voice market is expected to decline 22% between 2005 and 2009
- The mobile voice market is stagnating. Some European markets have 118% penetration
- Margins in fixed and mobile markets are increasingly eroding
- The new IP based services in fixed and mobile are the key future areas of market development with growth projections of about 48% for the same period

Comparison: 2002 ~ 2008
PSTN decrease in USA 34%



The Telco Industry in Europe.

The future convergence of IT and TC is driven by IP.



- Internet technologies have been open and standardized from the outset
- Due to the **growing demand for data services**, the emergence of the internet and need for open standards, Information Technology is entering Telco environments
- **Flexibility of IT enables**
 - Decreased time-to-market
 - Efficient product launch
 - 3rd party integration



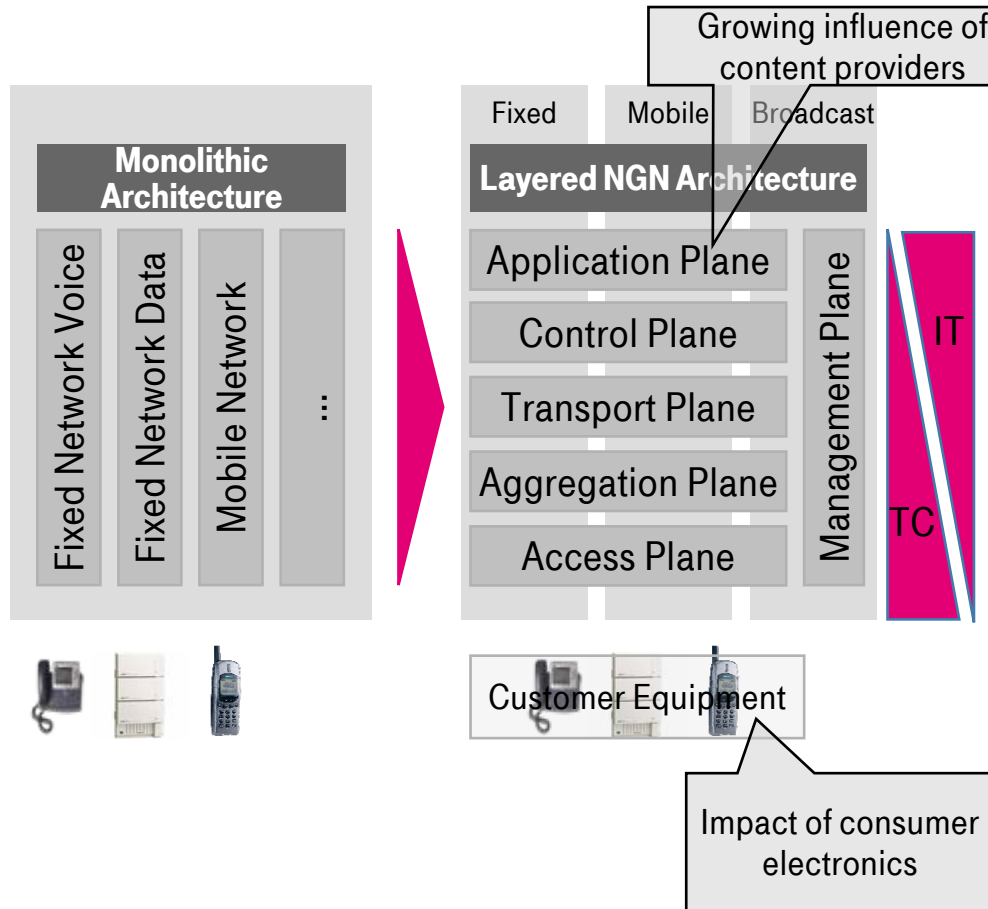
New Paradigm.

Deutsche Telekom is part of a larger, more complex and partially unknown new world.



All IP.

Today's monolithic platforms will be replaced by layered IP based production infrastructures to produce the new services.



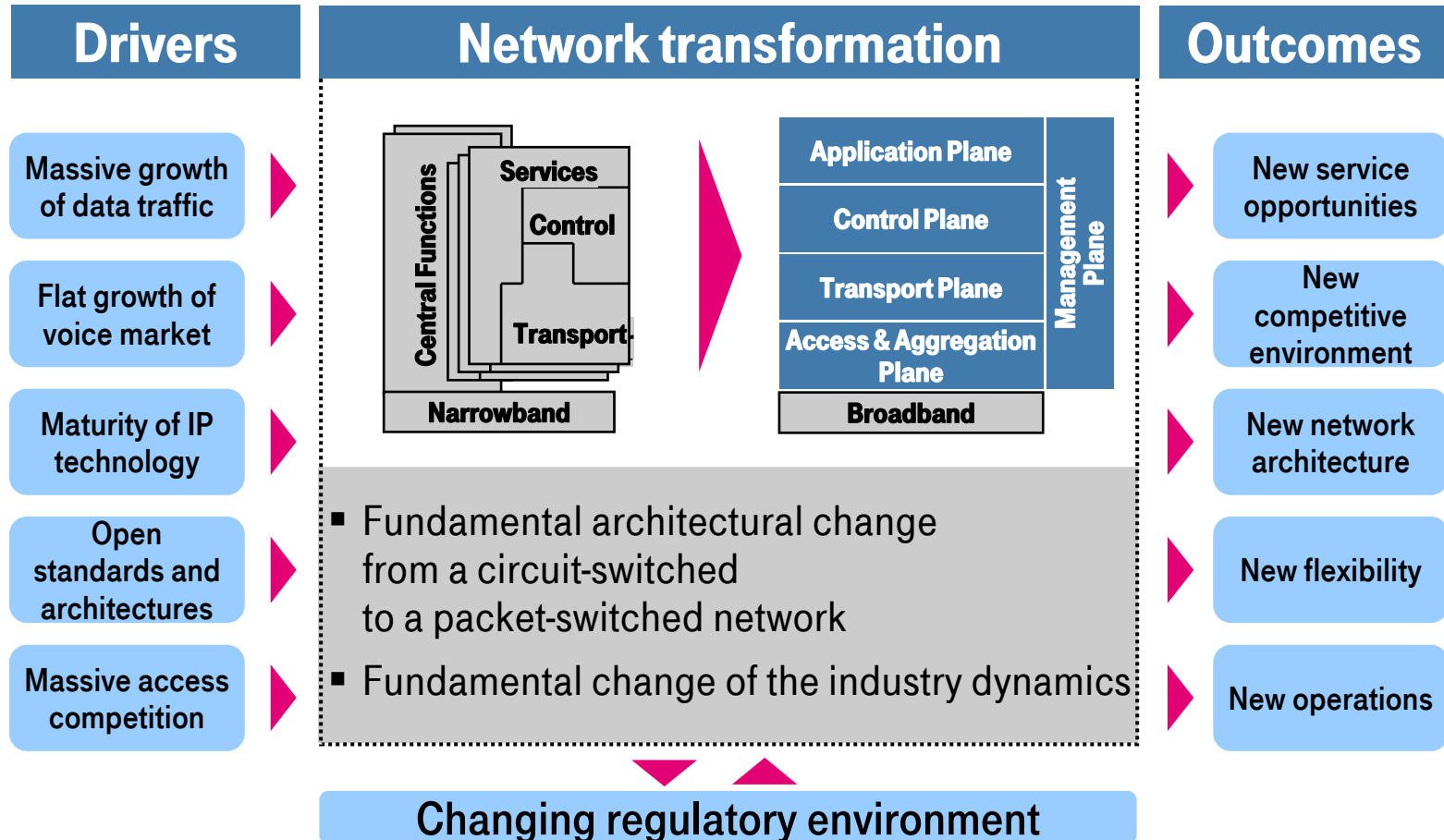
NGN Evolution

- Today's service infrastructure dominated by monolithic legacy platforms
- Future IP Next Generation Network with layered architecture based on open interfaces
- Converging fixed/mobile NGN standards enables converged production infrastructure (e.g. IMS, IP/MPLS-Transport)
- Existing voice services increasingly migrated to NGN production



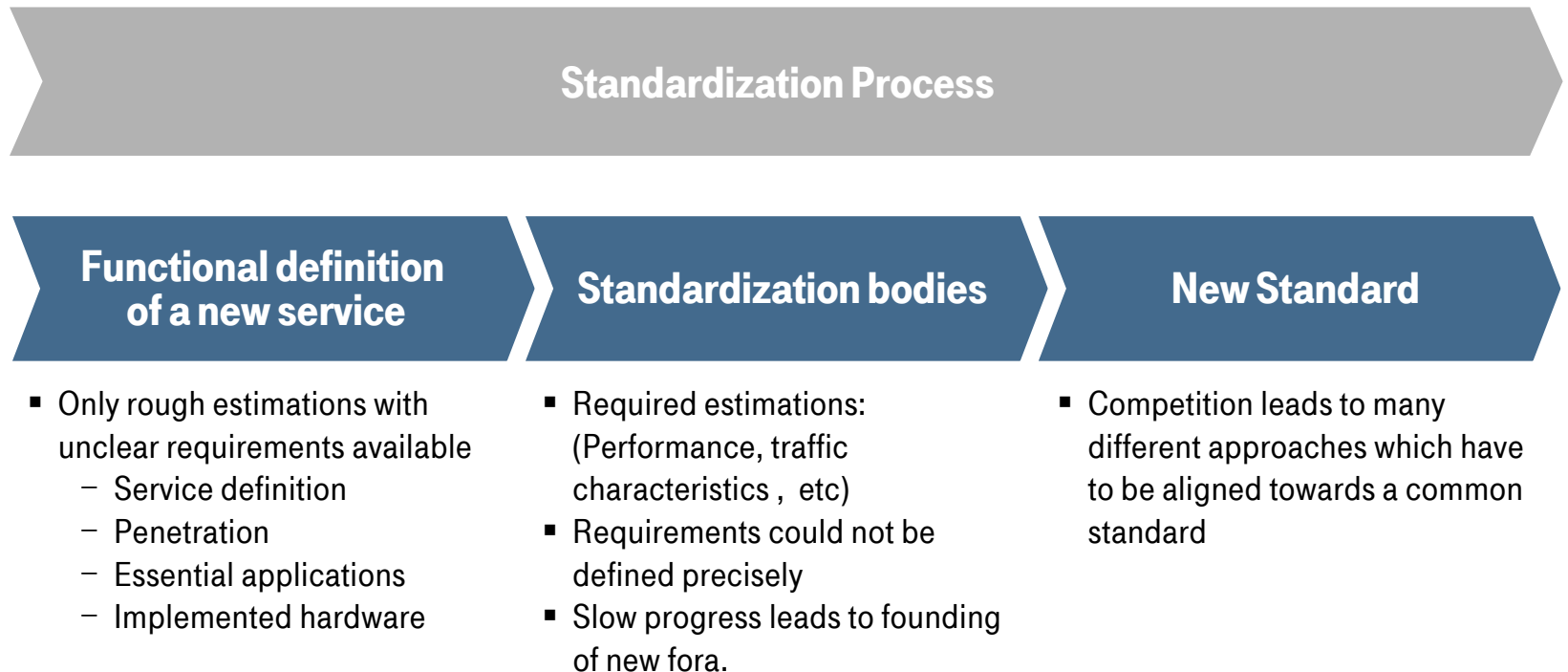
Network Transformation.

Market conditions and technologies drive network transformation which fundamentally changes the telecom industry.



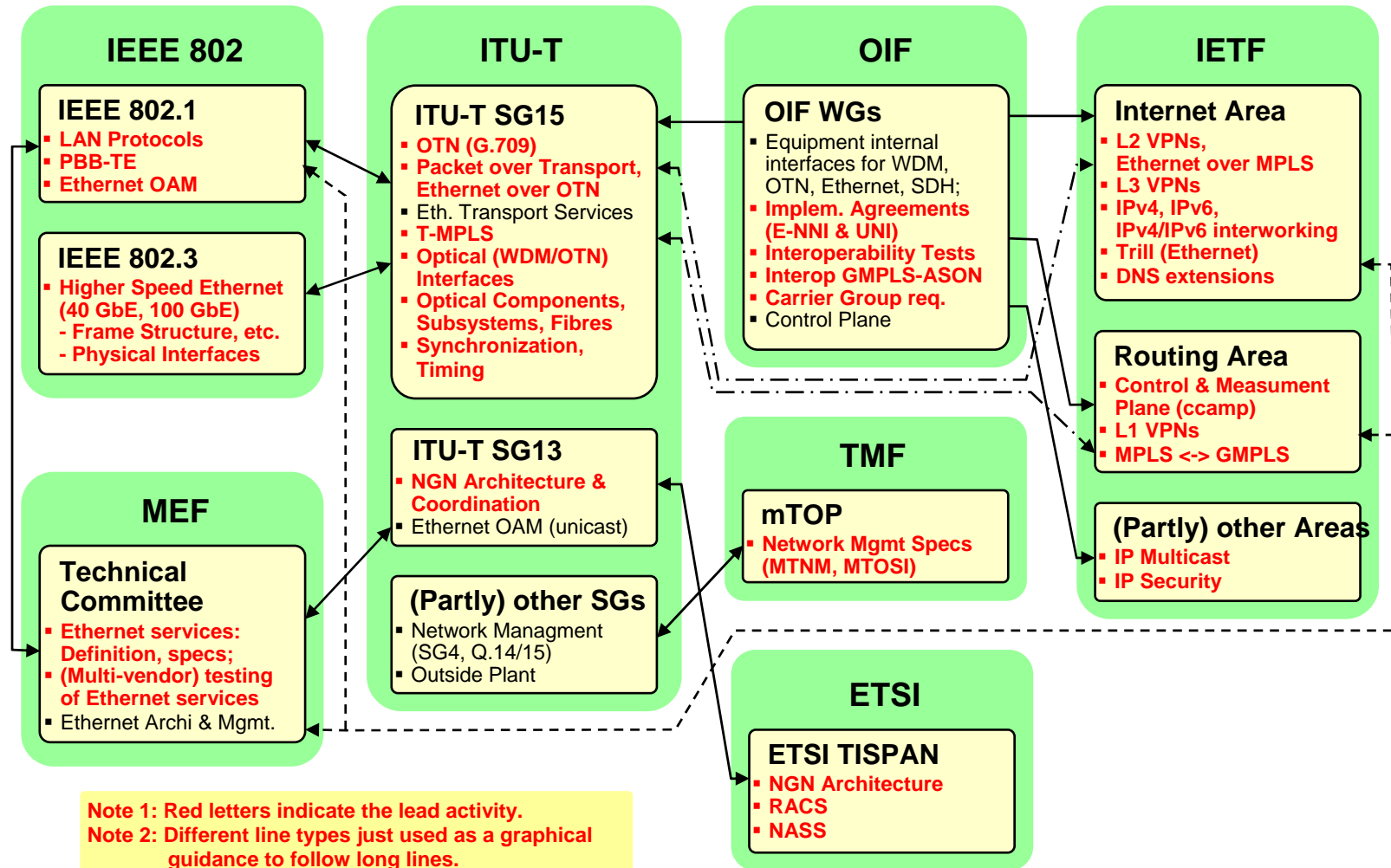
Standardization - Impacts and Challenges.

Difficulties of the standardization process.



Core Networks Standardisation Organisations.

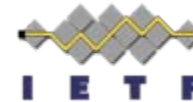
Simplified presentation of some key players and their topics.



Standardization - Impacts and Challenges.

The result is a heterogeneous and diversified structure.

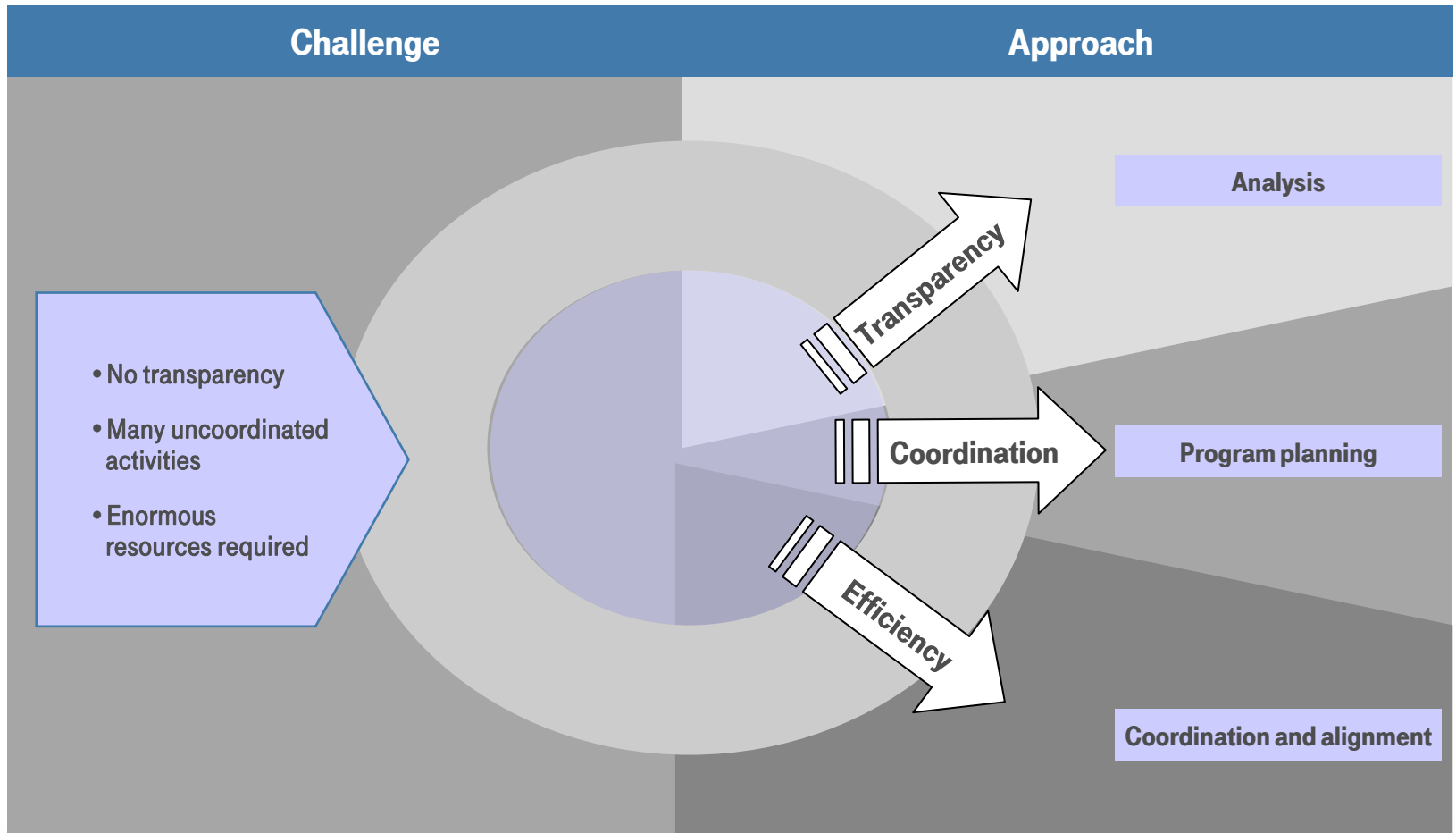
The number of standardization bodies and fora increases the effort.



Standardization - Impacts and Challenges.

Additional resources are costly and will not be available.

Therefore transparency and utilization of synergies is imperative.



Summary.

The TC industry is facing several challenges from new standards.

- Patents / IPRS and the stealth action of patent trolls
- High costs for worldwide participation
- Increasing number of fora
- Increasing number of players in a former well known environment -> increased complexity in standards
- For example: The danger of control by a specific group (if manufacturers control a technology -> creation of barriers for innovation and new entrants)
- High turn around / short life cycles of technologies (example: 75% of new customer equipment is younger than 1 year)
- There are still relevant sectors with a lack of standard (probably due to a combination of the above factors) which block production and deployment of necessary new services (example: set top boxes)
- High trade off between security and openness (be it in standards, infrastructures, etc.)
- Standardization is Economic Policy!



Thank you for your attention!

