

Telcos in the ICT industry – Trends, strategies, upheaval

Observations based on the German example

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- 1. The problems of telcos**
- 2. Causes of the problems**
- 3. The strategies of telcos**
- 4. The industry in upheaval**
- 5. The challenges for those representing interests**

1. The problems of telcos

The problems of telcos – Three negative trends

- **For years, the telecommunications industry in Germany – and other European countries – has been beset by three negative trends:**
 - Declining revenues
 - Falling numbers of employees
 - Lower investments
- **While the general conditions remain the same, none of these trends are showing any signs of a sustained reversal.**

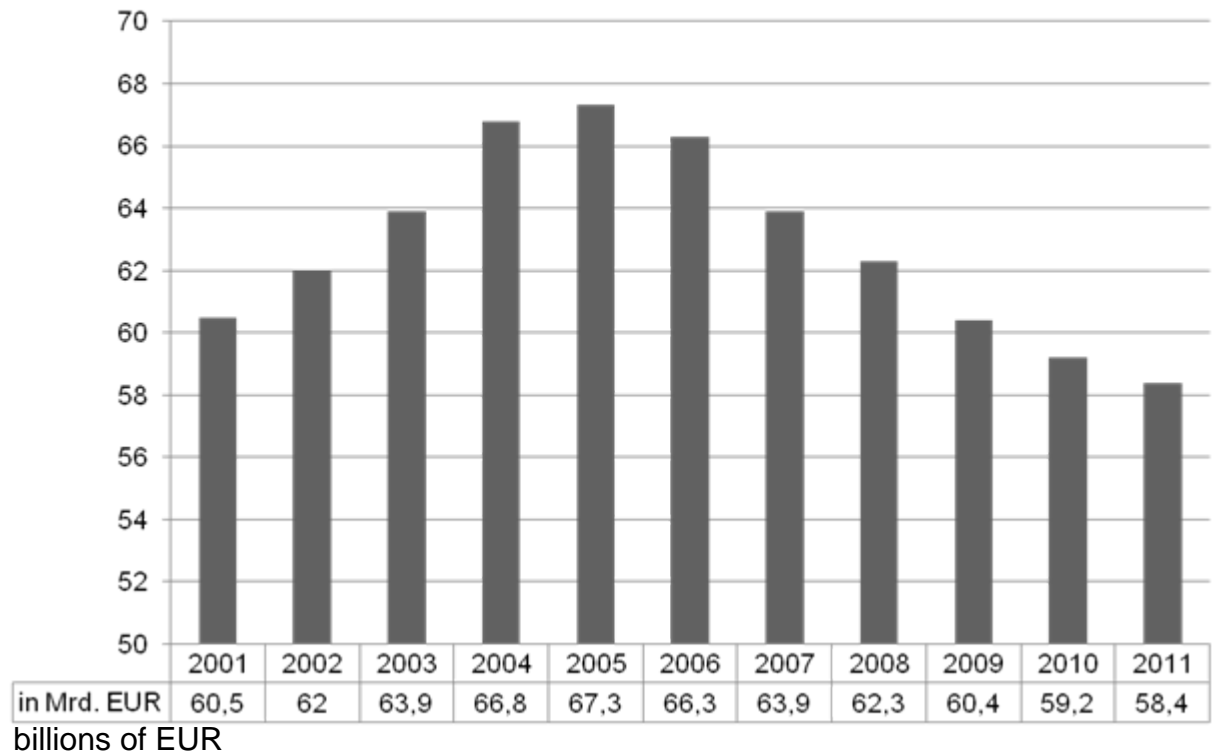
The problems of the telcos – Trend 1

Declining revenues (Germany)

- Revenues in Germany have been on a downward trajectory for six years
- Revenue in 2011 was 13.2% or EUR 8.9 billion p.a. lower than in 2005
- Revenue volume in 2011 was lower than in 2001

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Revenues in the German telecoms market
from 2001 to 2011

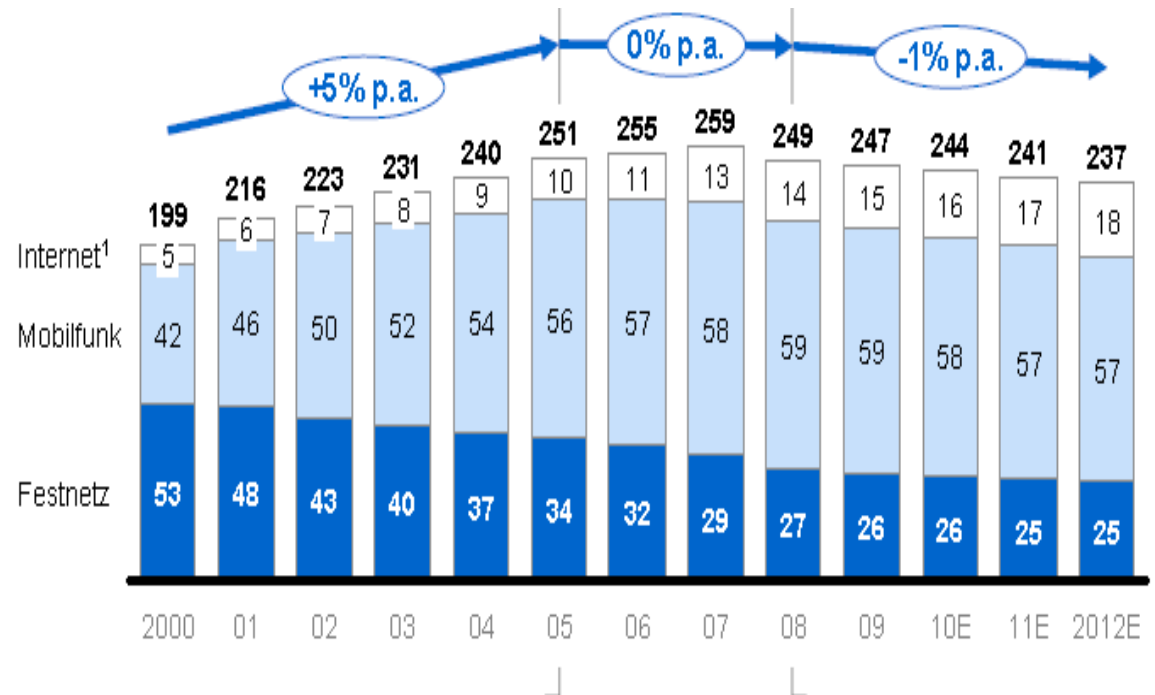


The problems of the telcos – Trend 1

Declining revenues (Western Europe)

Revenue in the telecommunications industry in Western Europe in 2000 to 2012 (EUR billion; %)

Telecommunications in Western Europe had a period of growth followed by a period of stagnation, and has now entered into a process of contraction.



¹ Breit- und Schmalband-Internetzugang

QUELLE: Pyramid (2010) und Schätzungen auf Basis von Vorjahresberichten; Gartner April 2005/April 2005

The problems of the telcos – Trend 1

Declining revenues (forecasts)

- "A key industry in Europe, telecommunications, is threatened ... with decline. By 2020, the consultancy McKinsey expects revenues to fall by 30 percent in Germany alone. ... The very industry which until 2006 shone with above average growth rates, would thereby very quickly become much less important. 100,000 jobs are severely endangered as a result." (Wirtschaftswoche May 30, 2011)
- "Let's face it, the decline in core telco revenues is here to stay. We expect core revenues from European telecom services to continue decreasing until 2015e, by 1.8% per year on average, including a CAGR of -2.4% in mobile and -3.4% in fixed-line, partially offset by +5.8% in pay-TV. The expectation of a decline is consensual among industry participants ..." (Arthur D. Little / Exane Paribas 2012)

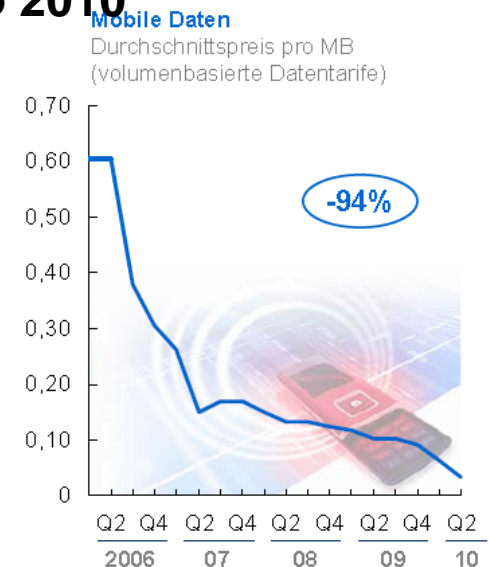
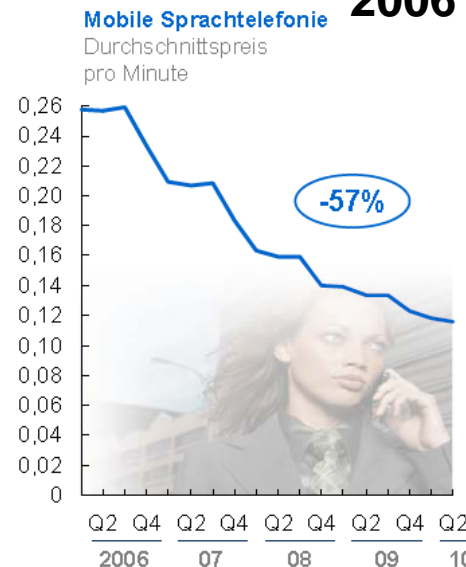
The problems of the telcos – Trend 1

Declining revenues (fall in prices)

- The decline in revenues is not due to falling demand for telecoms services; in fact, demand has increased, in some cases massively.
- Rather, falling revenues are attributable to an extreme drop in prices.
- In 2011, telecoms prices in Germany fell by 2.7% – in contrast to general consumer prices which rose by 2.3%.

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Development of mobile voice and data communication prices in Germany in 2006 to 2010



QUELLE: Merrill Lynch; Connect; Geschäftsberichte

Source: Jürgen Meffert (McKinsey) 2011

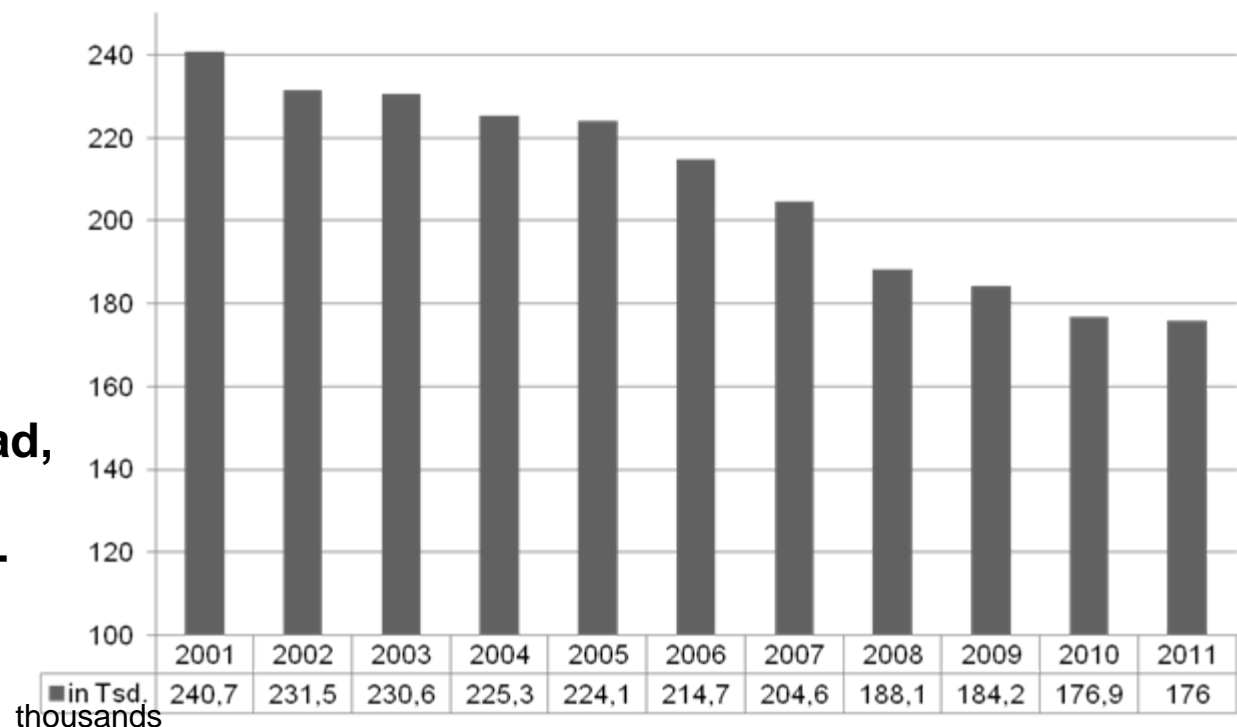
- Thus telecommunications represents a paradox overall – a declining growth industry.

The problems of the telcos – Trend 2

Falling nos. of employees (Germany)

- Employment has fallen for the last 11 years
- In 2011, there were almost 65,000 fewer jobs than in 2001
- No reversal in this trend in sight, instead, negative "technical" momentum (e.g., all-IP) foreseeable

Employees on the German telecoms market
2001 to 2011



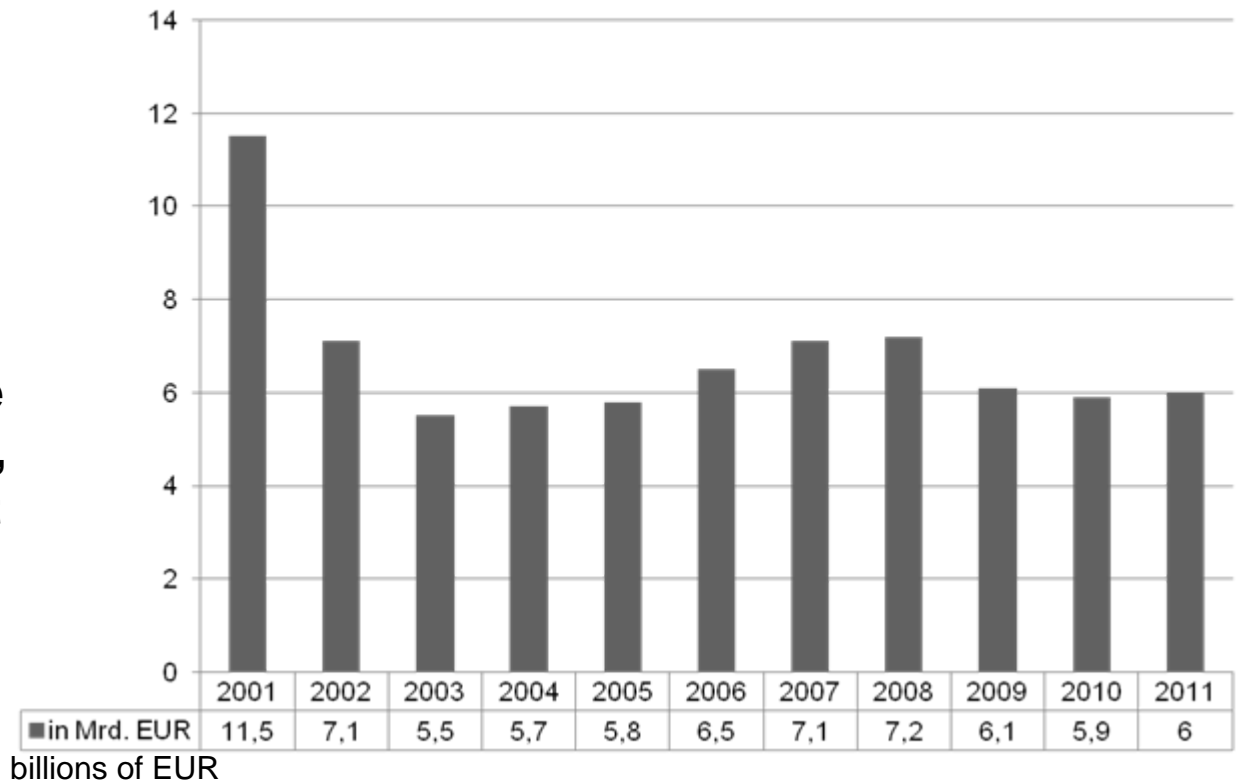
The problems of the telcos – Trend 2

Lower investments (Germany)

- Investments have been falling again or stagnating for 4 years
- Investment volume almost halved against 2001
- At the same time, the industry faces a new, historical investment cycle: FTTH/B requires investment of EUR 80 billion in Germany.

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Telecoms investments property, plant and equipment in Germany from 2001 to 2011



Data source: Bundesnetzagentur (German Federal Networks Agency) 2012

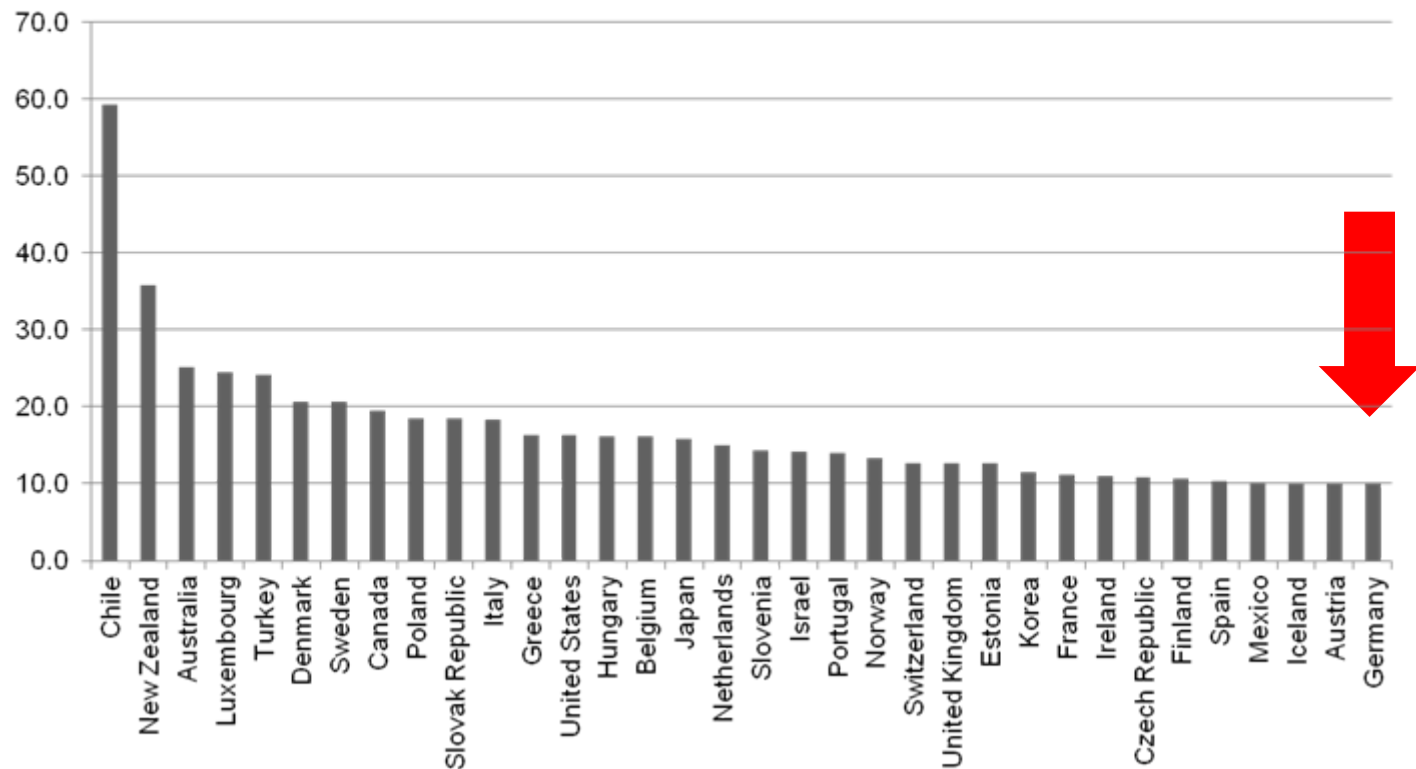
The problems of the telcos – Trend 3

Lower investments (OECD comparison)

With a telecommunications investment share of 9.9% of telecommunications revenues, Germany was at the bottom of the ranking in 2009 in the OECD comparison.

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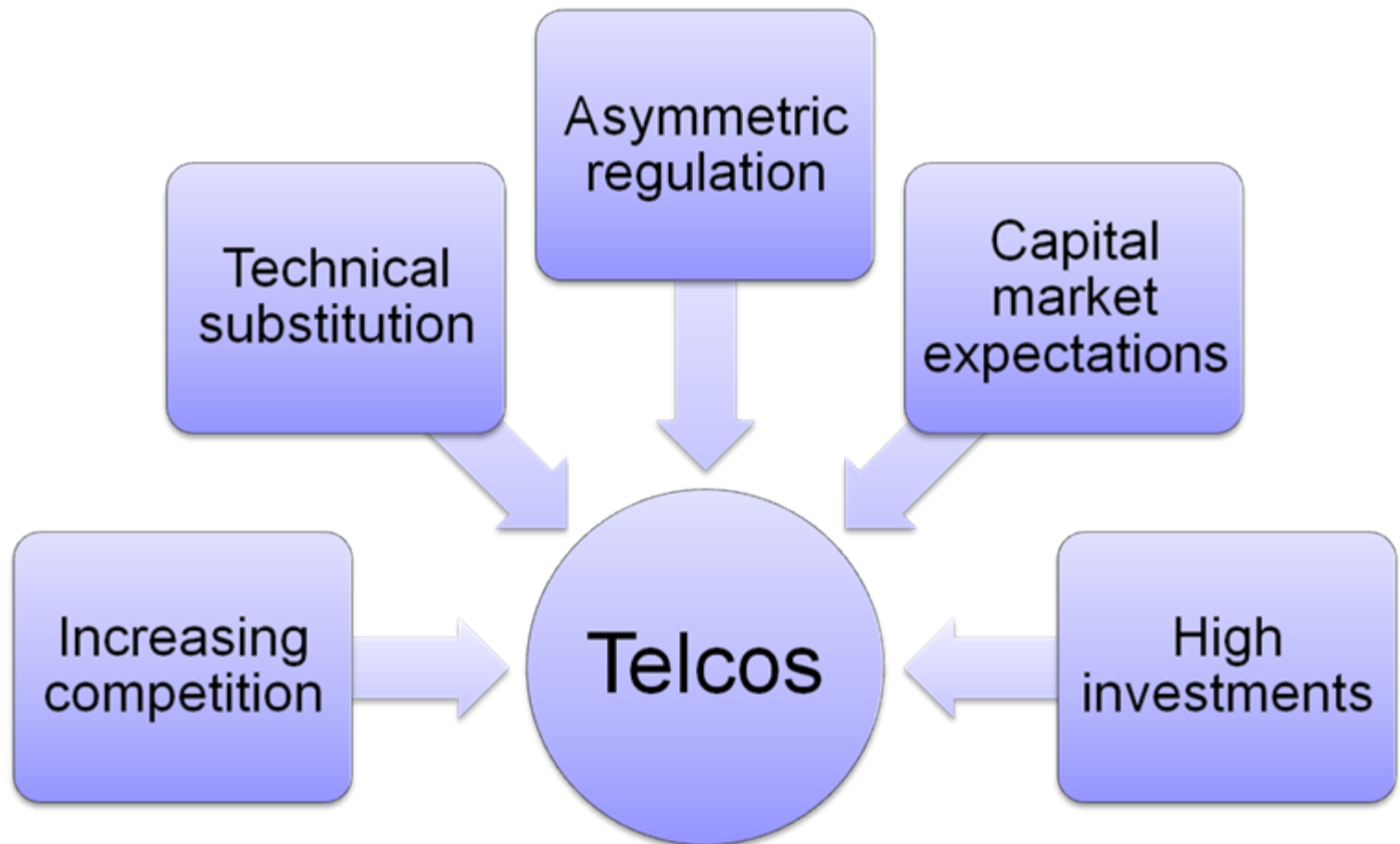
Telecoms investment as a percentage of
telecoms revenues –
OECD countries in 2009



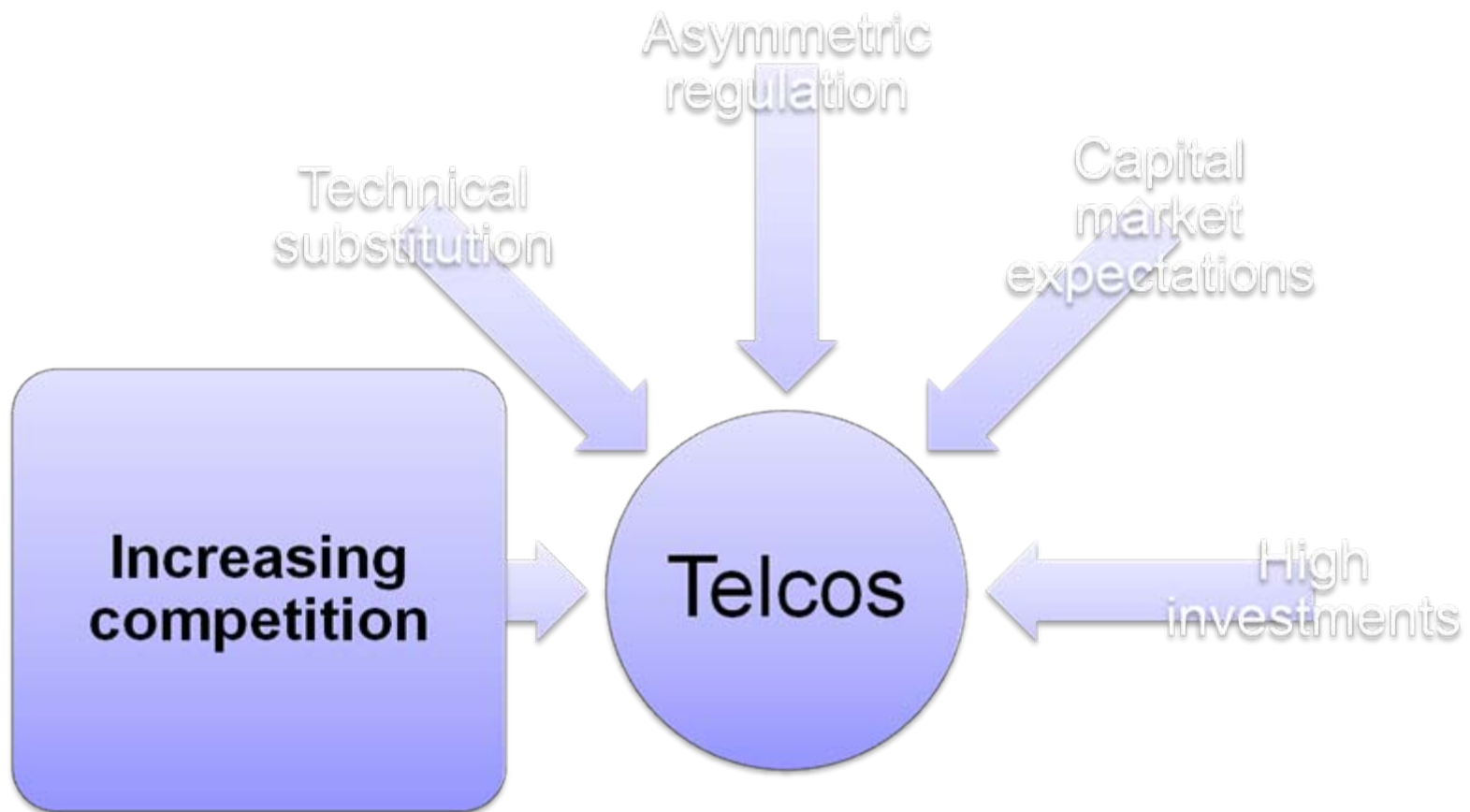
Data source: OECD Communications Outlook 2011

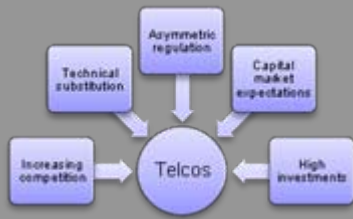
2. Causes of the problems

Causes of the problems – Telcos are under pressure on five fronts



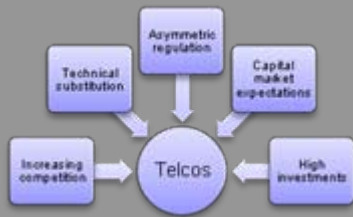
Causes of the problems – Telcos are under pressure on five fronts





Telcos under pressure – increasing competition

- Since the market opened at the end of the 1990s, competitive pressure on traditional telcos has gradually increased.
- There are four main types of competitor:
 1. Competitors that have been there from the start: Vodafone, etc.
 2. Cable network operators: Kabel Deutschland, etc.
 3. Low-cost providers: Eplus, Free Mobile, etc.
 4. Over-the-top players: "the fab five" (Amazon, Apple, Facebook, Google, Microsoft) plus ...



Telcos under pressure – increasing competition

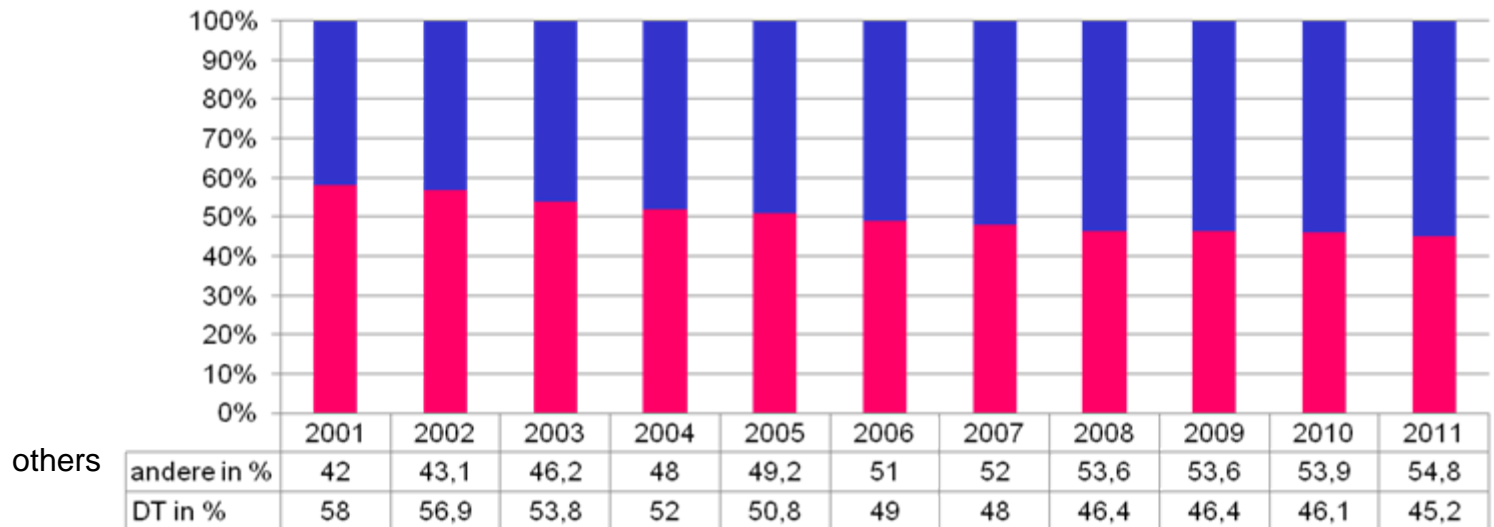
- Competitors that have been there from the start have taken large shares of the market from ex-monopolists over the years, but currently face the same problems.
- The cable network operators, having upgraded their networks, have become fully-fledged competitors: In 2011, they won 61% of all new broadband customers in Germany.
- Low-cost providers repeatedly trigger new downward price spirals – in Germany, E-Plus now offers a mobile telephone and data flat rate for just under EUR 20 per month: EUR 10 to 50 cheaper than the competition.

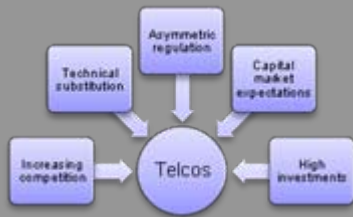


Telcos under pressure – increasing competition

The traditional telcos have been shedding market shares for years, in a shrinking market – DT, for example, has lost 13% since 2001:

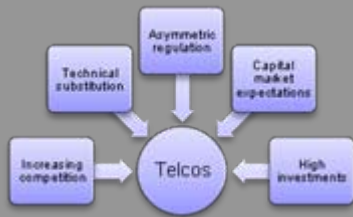
Revenue market shares on the German telecoms market from 2001 to 2011 (DT / others)





Telcos under pressure – increasing competition

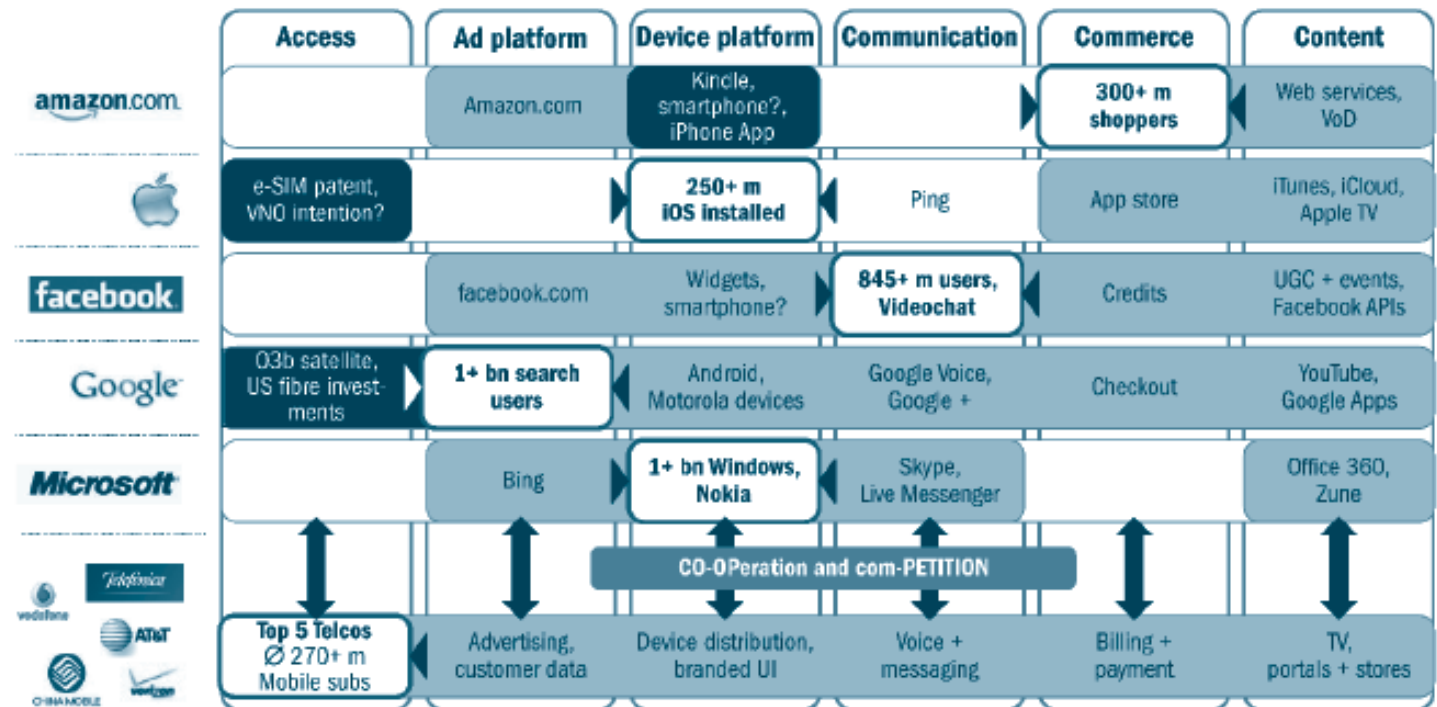
- A new kind of competition has arisen for telcos with over-the-top providers (OTT) like Apple, Facebook, Google and Microsoft.
- The OTT players
 - are generally exceptionally strong financially,
 - do not have their own infrastructure,
 - offer their services generally free of charge over the Internet within their own "eco systems",
 - attack the telcos on several levels of the value chain, including in their own core business.



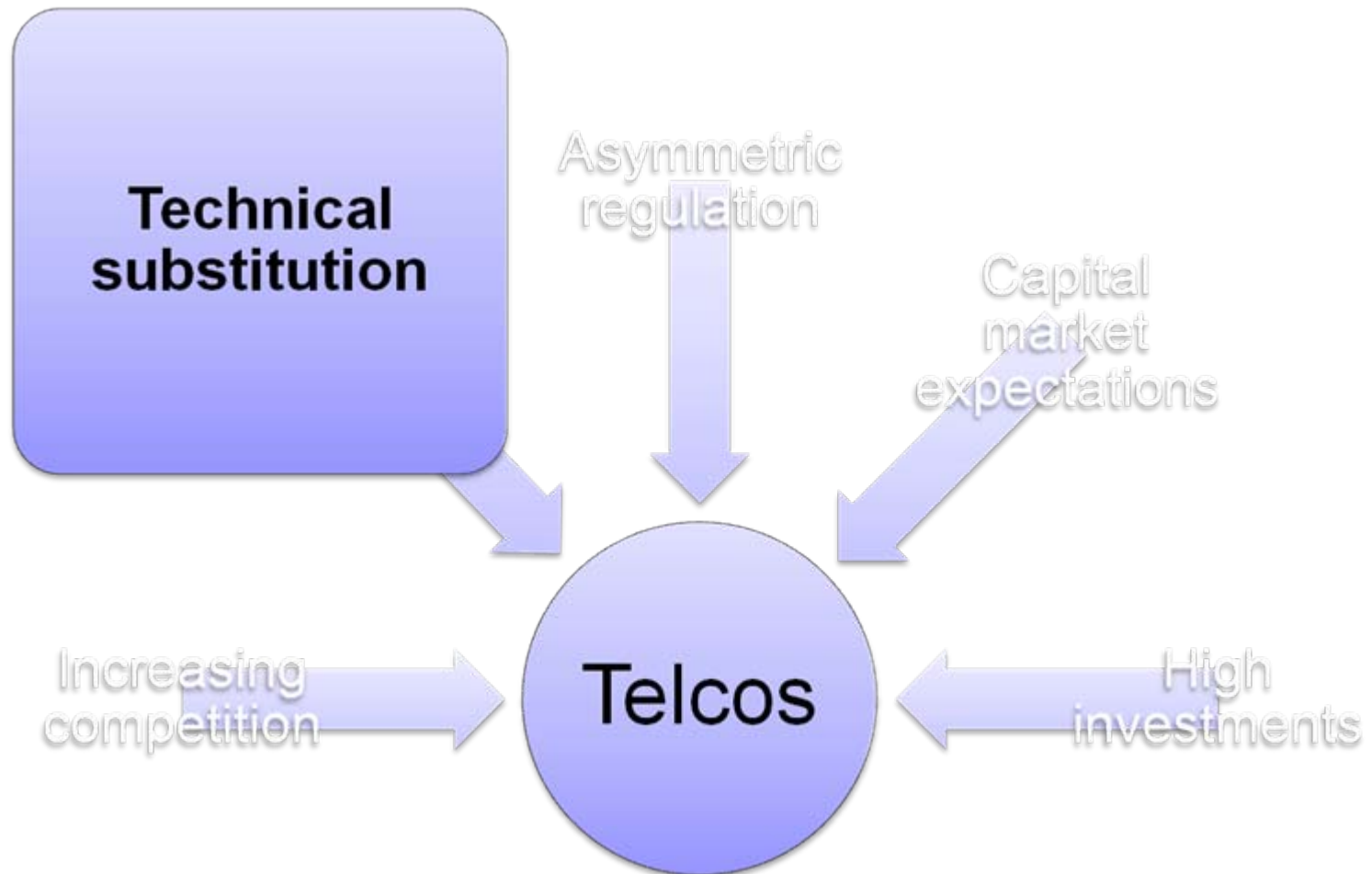
Telcos under pressure – increasing competition

The "Fab Five" will dominate the emerging OTT ecosystems – Telcos need to define their co-opetition strategy along the battlefields

Over-the-top (OTT) battlefields – Fab Five vs. Telco players



Causes of the problems – Telcos are under pressure on five fronts

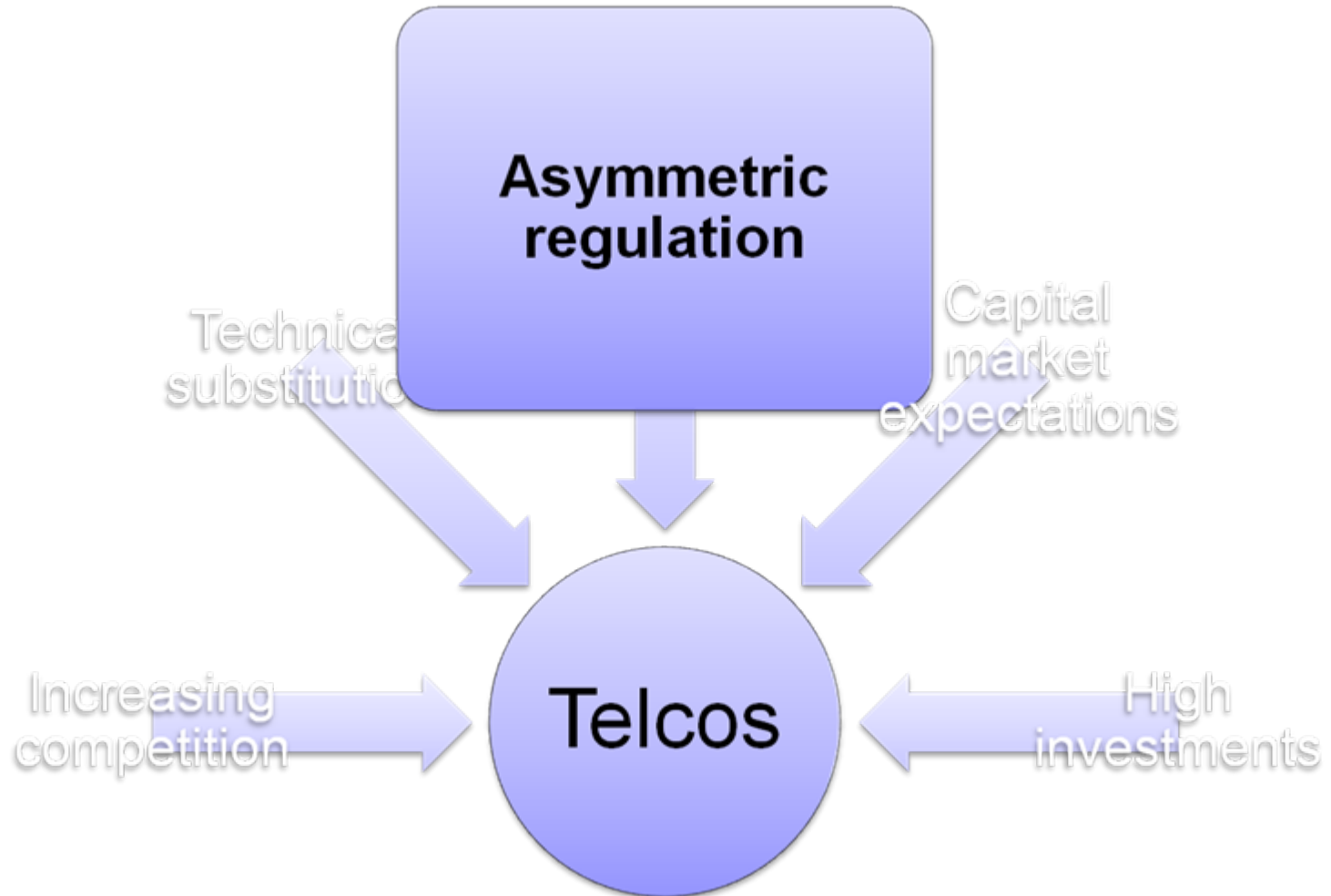


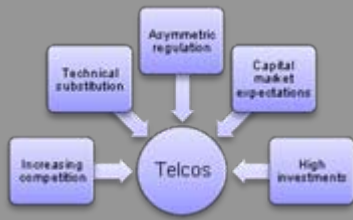


Telcos under pressure – Technical substitution

- **OTT players primarily profit from the possibilities of the technical substitution of lucrative telco services in the IP world.**
- **Examples of technical substitution are:**
 - **Squeezing out traditional text messaging through messaging services (WhatsApp, etc.)**
 - **Squeezing out traditional voice telephony through voice over IP (Skype, etc.)**
- **"Do you still pay to make calls and send text messages on your cell phone? Then you're one of a dying breed." (Capital 5/12)**

Causes of the problems – Telcos are under pressure on five fronts

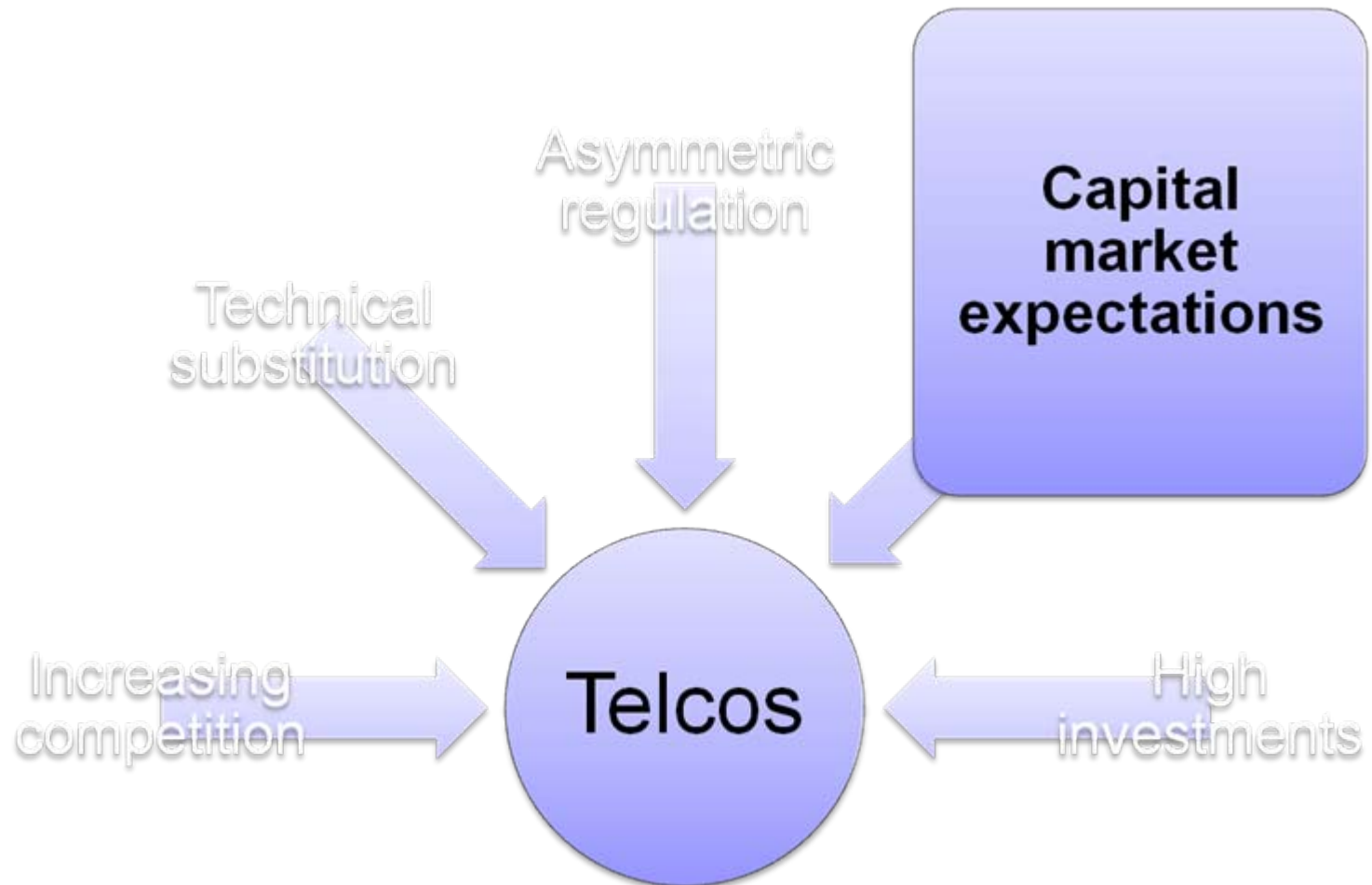


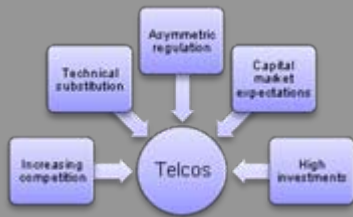


Telcos under pressure – Asymmetric regulation

- **Ex-telecoms monopolists have been subject to intensive, asymmetric regulation for years.**
- **The core aims of regulation are**
 - **to increase competition and**
 - **to reduce consumer prices.**
- **Regulation is primarily directed at traditional providers and, for example, ignores cable network operators altogether.**
- **According to DT's estimates, the German telecommunications industry has lost almost EUR 9 billion since 2005 through regulation.**

Causes of the problems – Telcos are under pressure on five fronts

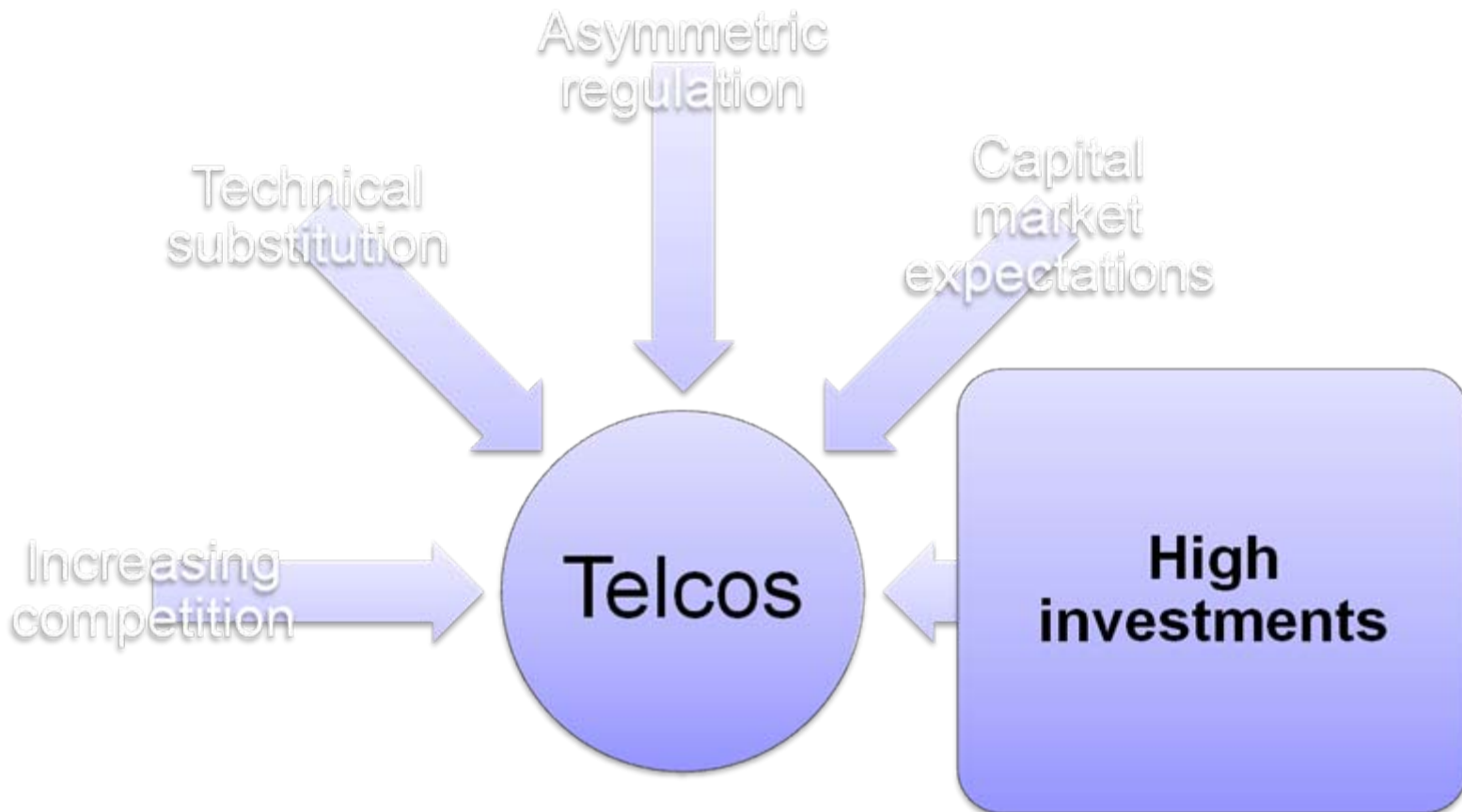




Telcos under pressure – Capital market expectations

- Telcos have also been under pressure for years from high capital market expectations.
- This can be seen among other things in
 - corporate management based on return on investment KPIs (ROCE)
 - dividend guarantees for longer periods
 - excessive payouts in relation to corporate profits.
- "This spring, the German communications Group (DT) is paying out to its shareholders almost twice as much as it earned in 2011." (SZ on May 7, 2012)

Causes of the problems – Telcos are under pressure on five fronts

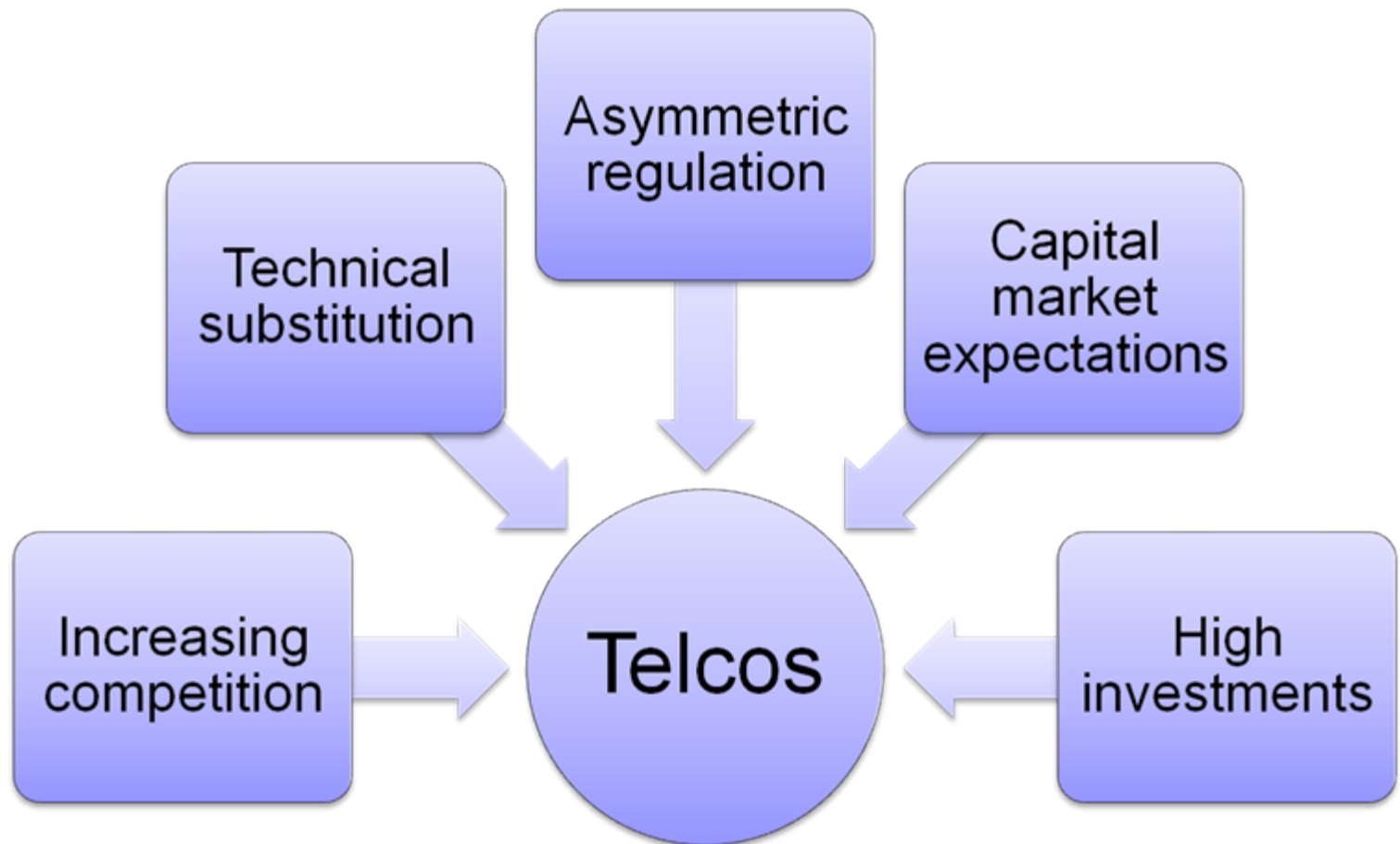




Telcos under pressure – High investment requirements

- In response to or in anticipation of rising broadband requirements ("gigabit society") and due to pressure from cable providers, telecommunications network operators face the challenge of comprehensively modernizing their infrastructures.
- The nationwide implementation of Next Generation Access (FTTH/B) required investments of up to EUR 80 billion in Germany.
- Owing to insufficient investment incentives, insufficient funds and excessive risks, investments of this volume are not likely for the foreseeable future.

Causes of the problems – Telcos are under pressure on five fronts



3. The strategies of telcos

The strategies of telcos – Two main approaches

- The strategic responses of the telcos focus on two main approaches – a more "offensive" and more "defensive" approach.
- The aim of the more offensive approach is to unlock new sources of revenue, primarily through the options of internationalization and setting up new business areas.
- The more defensive approach primarily aims to improve cost structures.

Offensive strategies of telcos – Internationalization taking example of DT

Deutsche Telekom – Foreign share in 2000 / 2005 / 2010

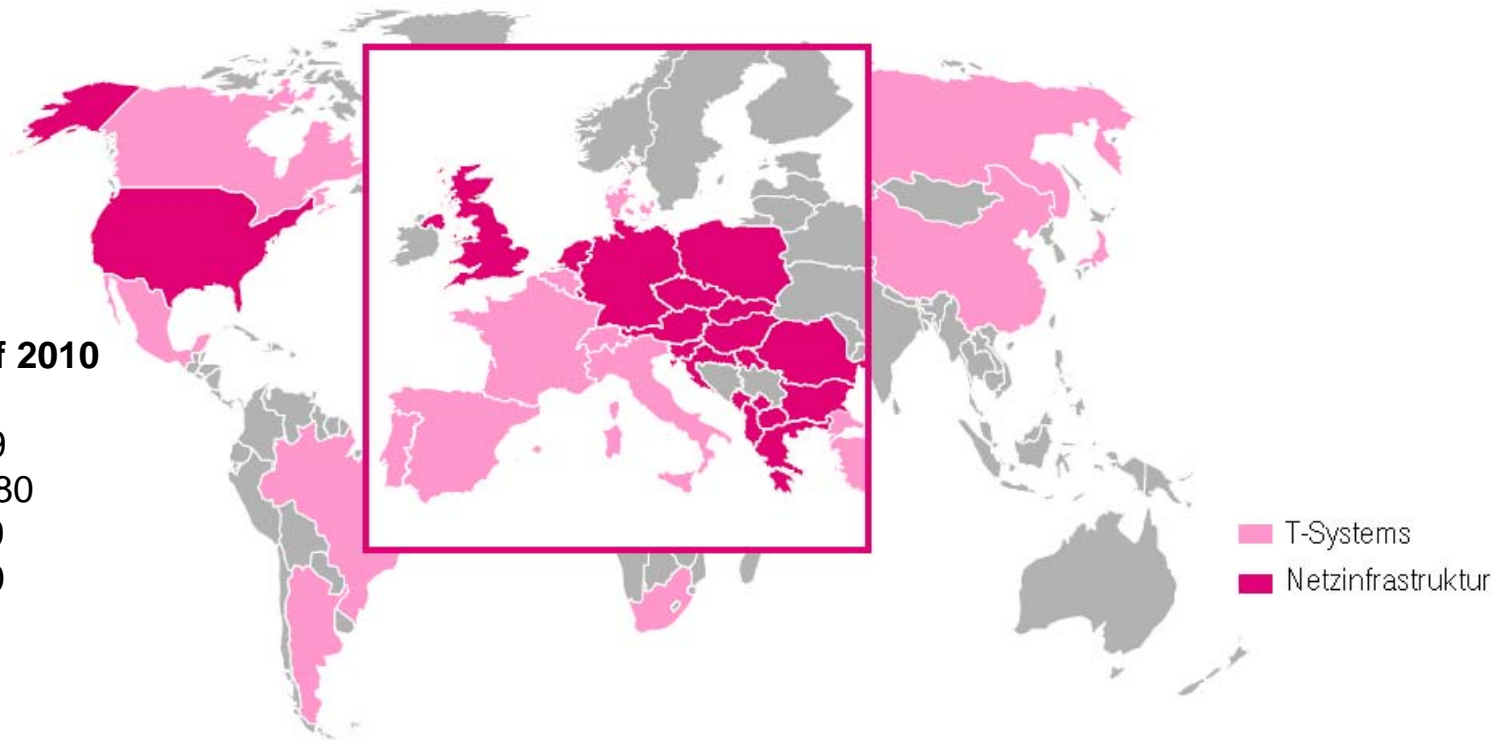
	2000	2005	2010
Revenue	19.0% 	42.6 % 	56.3 %
Employees	21.1% 	31.1% 	50.1%

Source: Annual reports

Offensive strategies of telcos – Internationalization taking example of DT

FTEs at end of 2010

USA: 38,449
Greece: 16,649
Romania: 11,480
Hungary: 9,899
Slovakia: 7,050
Croatia: 6,323
Poland: 5,351
Spain: 4,531
Czech Republic: 3,546 ...



Offensive strategies of telcos – Problems of internationalization

- **The attempt to offset falling revenues in the domestic market through international expansion did not prove to be a silver bullet universally and in some cases created substantial burdens for telcos:**
 - **DT's write-downs on foreign goodwill in 2009 to 2011: EUR 6.1 billion in total**
 - **Problematic situation with T-Mobile US with repercussions for the entire Group**
- **The strategy of internationalization is therefore increasingly implemented using more defensive components – sales, cooperations (e.g., FT-DT), cost cutting.**

Offensive strategies of telcos – Setting up new business areas

- Many telcos are currently pinning their hopes on the setting up of new business areas, e.g.,
 - with intelligent networks in related markets such as healthcare, energy and automotive,
 - with mobile payment services,
 - with cloud services.

- This also applies for Deutsche Telekom:

Wachstumsfelder der Deutschen Telekom Umsatz (Mrd. Euro)	Geschäftsjahr		Differenz		Ziel 2015
	010	2011	in Mrd	in Prozent	
Mobiles Internet	4,4	5,2	0,8	18	10
Vernetztes Zuhause	6,2	6,3	0,1	1,7	7
Online-Dienste für Privatkunden	0,9	0,9	0,0	–1,8	2–3
Außenumsatz T-Systems (einschl. Cloud-Dienste)	6,4	6,5	0,1	1,2	8
Intelligente Netze (in den Bereichen Energie, Gesundheit, Media Distribution, Vernetztes Auto)	–	0,1	–	–	1

Offensive strategies of telcos – Problems with new business areas

- The telcos' efforts to tap into new sources of revenue in digital markets are still too new to be balanced, but are already giving rise to skeptical questions:
 - Can the telcos do that?
 - Isn't the competition too intensive?
 - Is it enough?
- By 2015, 4.9% of telco income can come from new markets. "However, this value is not enough to completely offset the negative overall trend." (ADL press release May 2012)

Defensive strategies of telcos – Improvement in cost structures

- In view of the problems of offensive strategies focused on increasing revenues, telcos have been trying for some time to secure their profitability primarily by defensive means – i.e., on the cost side.
- The option of cost cutting has a number of advantages from management's point of view:
 - Can be used to make decisions independently
 - Does not depend either on uncertain demand or counter strategies by competitors
 - If successful, has an direct and rapid effect on income
 - Highly favored by the capital markets

Defensive strategies of telcos – Approaches for cost cutting

- **Reduction in investments/R&D**
- **Internal rationalization**
 - in technical terms – e.g., all IP
 - in organizational terms – e.g., site centralization
- **Reduction in terms and conditions**
- **Workforce reduction**
- **Outsourcing, nearshoring, offshoring**
- **Sale of business units**
- **Cooperations in network operation**
- **Etc.**

Defensive strategies of the telcos – Acceptable profit with less revenue?

- Example of DT:**
 Revenue 2009: €64.6 bn
 Revenue 2011: €58.7 bn
2009/2011: minus 9.1%
 EBITDA 2009: €19.9 bn
 EBITDA 2011: €20.0 bn
2009/2011: plus 0.5%
- The telcos' defensive strategies were relatively successful in terms of earnings for a number of years, but are now reaching their limits.**

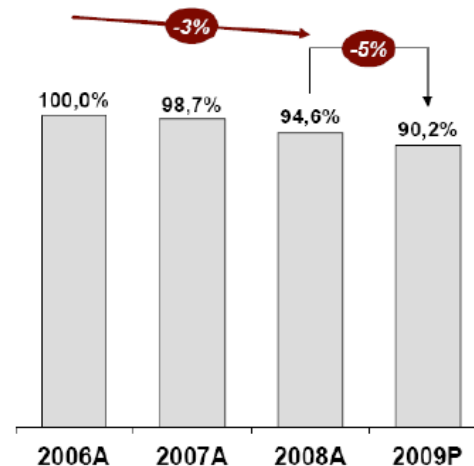
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Analyse A.T. Kearney: „Telekombranche erleidet Umsatzrückgang bei steigender Profitabilität - Restrukturierungen der Unternehmen zeigen Wirkung“

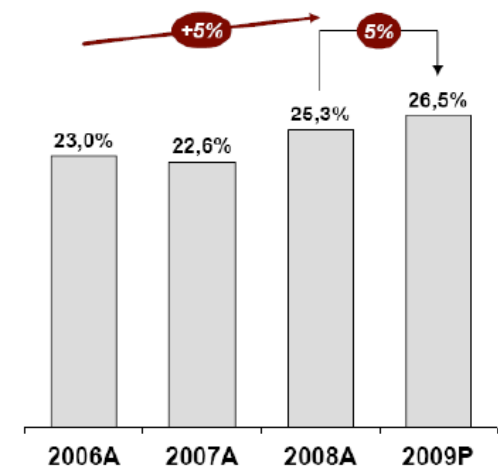
Illustrativ

Umsatz- und Gewinnentwicklung
(Umsatz 2006 = 100%; in %)

Umsatzentwicklung Top 6 Unternehmen



EBITDA % Top 6 Unternehmen



Unternehmen: Deutsche Telekom, Vodafone/Arcor, Telefonica o2, E-Plus, Hansenet, United Internet
Quelle: IDC, VATM, A.T. Kearney Analyse

aus: A.T. Kearney 2009 (Die Daten für 2009 sind Prognosewerte.)

Telco strategies – market consolidation and partnering

- Telcos are stepping up their efforts to consolidate their oversaturated markets and enter into cooperations. These efforts can be applied nationally or internationally and can be offensive (aimed at tapping into new revenues) or defensive (focused on cost cutting) in nature.
- Examples include network cooperations in several countries (e.g., EverythingEverywhere), the collaboration between France Telecom and DT, partnering efforts with OTT players, the establishment of "incubators".

4. The industry in upheaval

Facing upheaval

- **Telcos are on a problematic trajectory: On the one hand, they have a lack of prospects for profitable growth, on the other, many are at risk of failing in the historic task of creating a modern telecommunications infrastructure within an acceptable period of time. Their performance is unsatisfactory both in business and economic terms.**
- **It is therefore questionable whether the status quo can remain stable in the long term. It is more likely that there will be new upheaval in regulation models and market structures.**

Facing upheaval – Three scenarios

Status quo
plus

Separation

Return
of the state

Facing upheaval – "Status quo plus" scenario

Telefonkabel aus Kupfer auf dem Kieker

EU dringt auf Ausbaudes
Glasfasernetzes

Die großen Telekommunikationsunternehmen bald zu Europa sollen ihre Kupferleitungen günstigeren Preisen lassen. Die EU-Kommission regte gestern in Brüssel an, die behördlich genehmigten Zugangspreise für diese Netze zu senken, um die Branche zu Investitionen in eine superschnelle neue Glasfasernetze zu drängen. EU-Telekommunikationsminister drängen. Die Kommission auf einer Konferenz des Branchenverbandes ETNO, dass die Unternehmen sich bisher mit den notwendigen Investitionen zufriedenhielten. Ein Grund könne sein, dass die Betreiber des schon langstabilisierten Kupfernetzes über die geschriebenen hohen Gewinne ein Nutzungsentgelt hohe Gewinne einstrichen und der Abschied nicht lohnte. Die EU will bis 2015 für alle Bürger

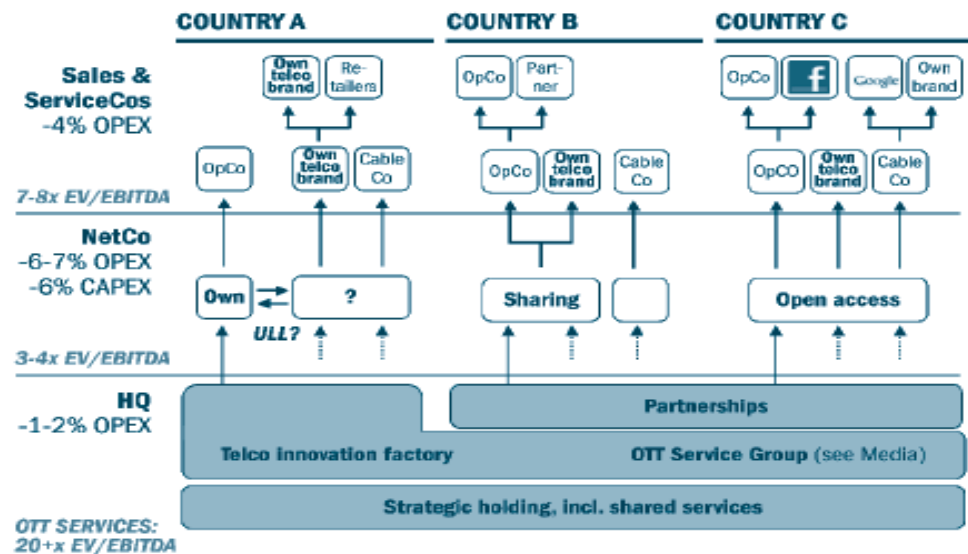
FTD, October 4,
2011

- **Regulatory intensification of competitive pressure by reducing access charges to copper networks**
- Increase in risk premiums for investors**
- **Facilitation of cooperations to the point of accepting temporary fiber-optic monopolies**
- **Open access**
- **New financing models (e.g., involvement of content producers, divestiture of broadband, etc.)**

Facing upheaval – "Separation" scenario

- Initial considerations:
 - Fiber-optic access networks are natural monopolies
 - Different economies for networks / services
 - Facilitation of partnering
 - Facilitation of service-based competition

- Breakdown into
 - NetCos
 - ServCos
 - HQ



Source: Roland Berger

Facing upheaval – "Return of the state" scenario

- **Public subsidies to expand networks**
 - demand side
 - supply side
- **Expansion and operation of fiber-optic networks by municipal and/or regional authorities, public companies, etc. (if necessary as PPP)**
- **Establishment of a national network expansion company – "Australian model"?**



5. The challenges for employees and their representatives

The Challenges

- The unbroken dominance of defensive strategies places permanent pressure on conditions for employees and makes further workforce reductions likely.
- The prevailing upheaval in business models, corporate structures and regulatory concepts will entail fundamental changes for employees.
- Increased cooperation efforts by the telcos, nationally and internationally, put a more intensive cooperation between lobbies in Groups and in the industry on the agenda.

In closing, one thing is certain ...

**"Because things are the
way they are,
things will not stay the
way things are."**

Bertolt Brecht: Lob der Dialektik