

A pair of hands with light-colored nail polish is shown holding a glowing, textured crystal ball. The crystal ball is the central focus, emitting a bright white light. The background is dark, and the hands are positioned on either side of the crystal ball, with fingers gently touching its surface. The overall mood is futuristic and visionary.

# Telco 2025

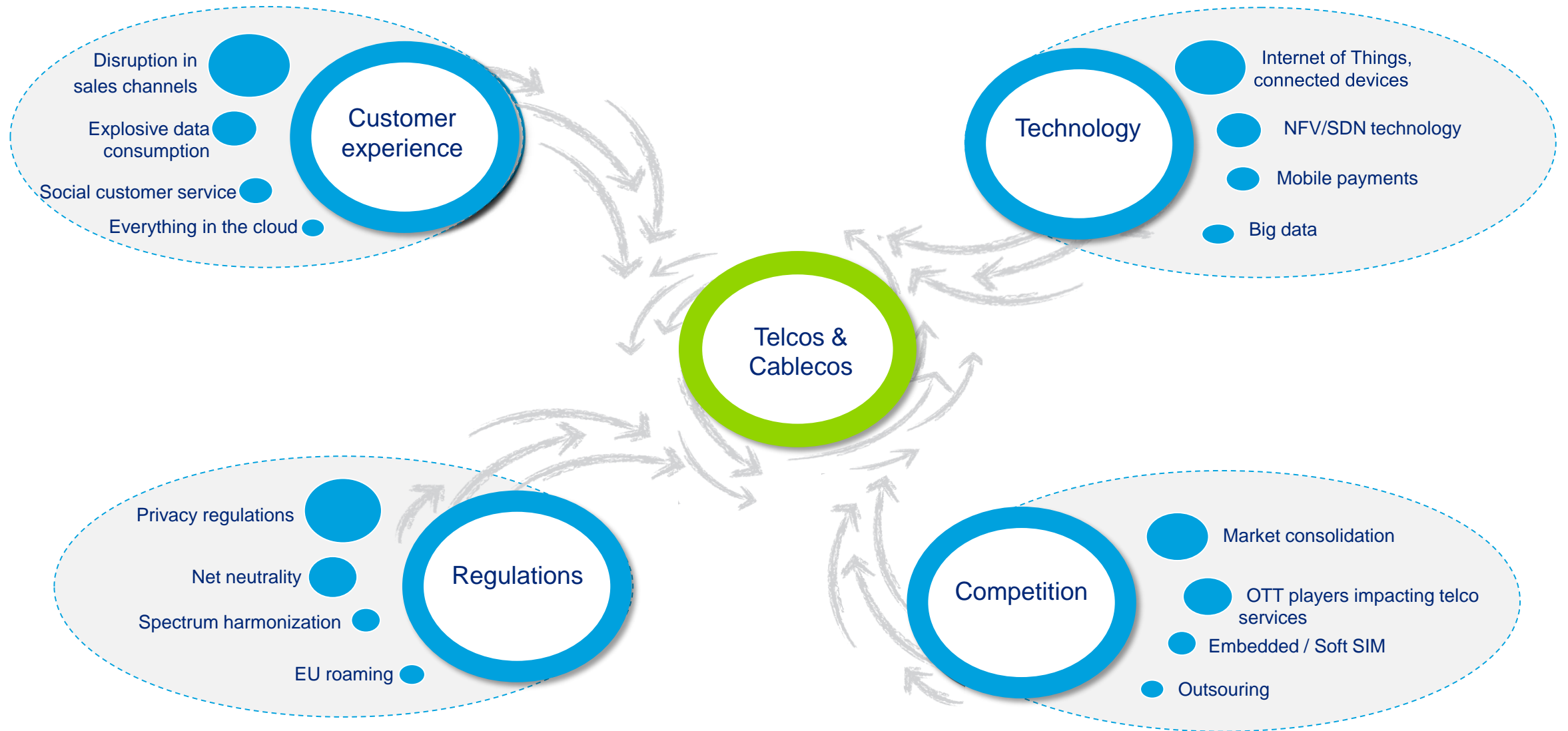
An outlook on Telco  
disruptions

## Telco 2025: objective and approach

- Telcos operate in a highly turbulent market, disrupted by **new entrants** and **new technologies**, facing **new regulations** amidst changing **consumer behavior**
- Deloitte has made an overview of trends and disruptions in the telco market, analyzed from 4 perspectives:
  - Customer experience
  - Technology
  - Competition
  - Regulations
- Per trend two opposing statements are presented and the selection of the statements provides input for a possible scenario for telcos towards 2025
- The objective is to provide insights in disruptive trends, leading to future scenarios and possible measures & initiatives by (senior) management

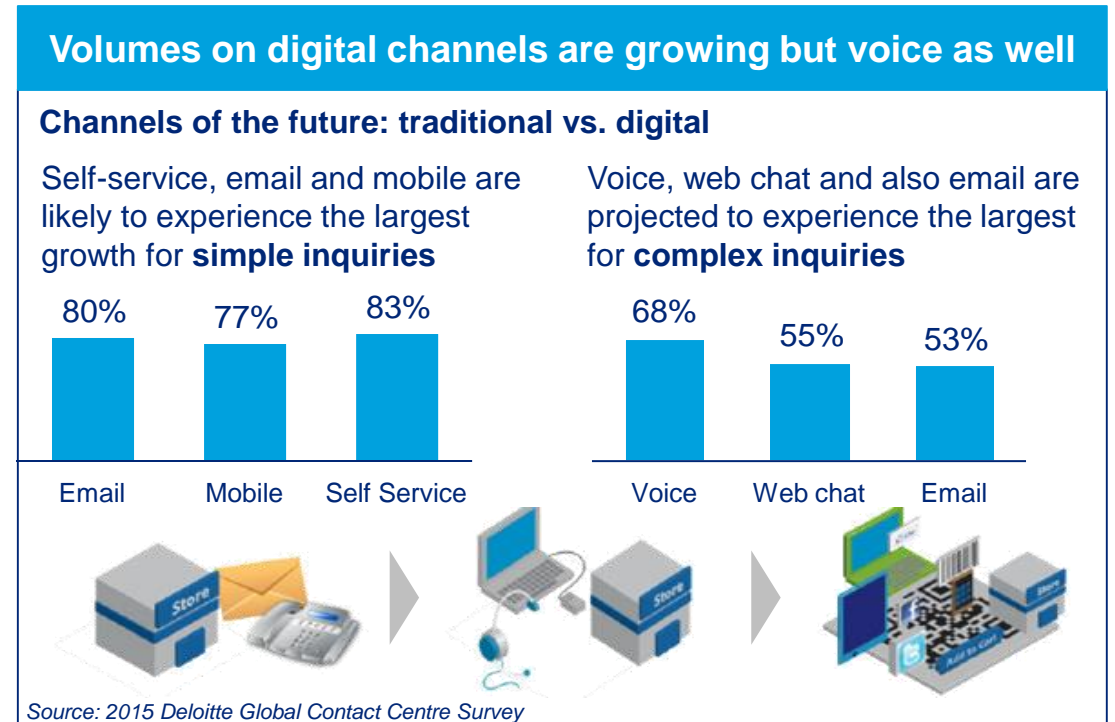
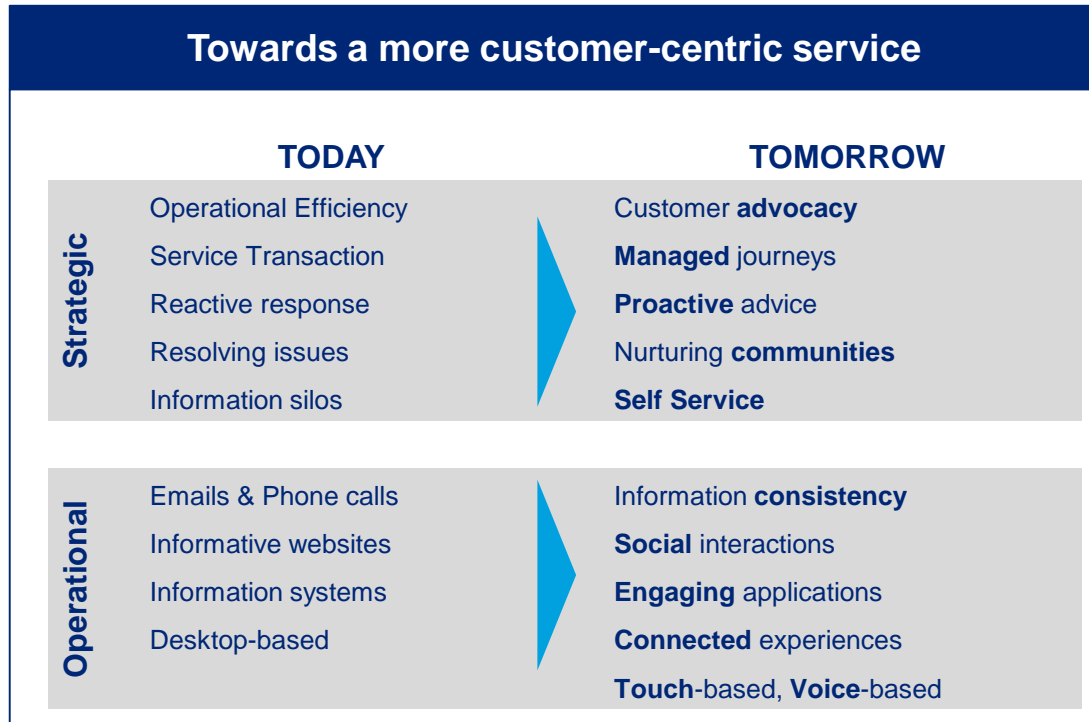


# Today telecom companies are confronted with a multitude of challenges and disruptions



# Customer experience

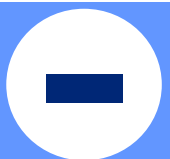
# Customer service will continue to transform through increased connected interactions enabled by technology, thus enhancing customer experience and reducing operational costs



## Range of impact for 2025



Social, digital and instantaneous customer service will be key (customer experience) differentiator for operators



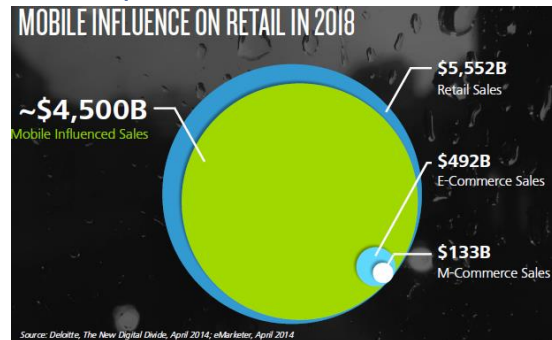
Call centers, stores and customer field service will remain the core of customer service



# A growing shift towards Augmented Reality (AR) & Virtual Reality (VR) in consumer behavior will disrupt Telcos' current sales channels mix

## Market Trends

- In 2018, 85% of the overall sales will be influenced by mobile platform showing strong orientation of consumers towards mobile/online channels
- Omni-channel strategy is at the forefront with consumers engaging through multiple touchpoints, expecting the same experience
- AR & VR market is expected to reach \$150 billion by 2020 and businesses are investigating to use these technologies to grow revenues/profits and improve customer behavior



## Challenges to overcome

- AR and VR technologies are still immature and further developments are needed to be significantly commercially viable
- However, AR and VR can be an innovative way to let customers experience new services, leading to awareness, interest and possibly additional sales



Source:

<http://www.wsj.com/articles/what-does-virtual-reality-do-to-your-body-and-mind-1451858778>  
<http://www.cnn.com/2016/01/08/>

## Range of impact for 2025



Telcos will capitalize on disruption in sales channels, caused by shift in consumer behavior towards AR & VR technologies



Telcos will not be able to adapt their sales channels to AR and VR technologies

## Customer experience



**Social, digital and instantaneous customer service will be key differentiator for operators**

**Call centers, stores and customer field service will remain the core of customer service**



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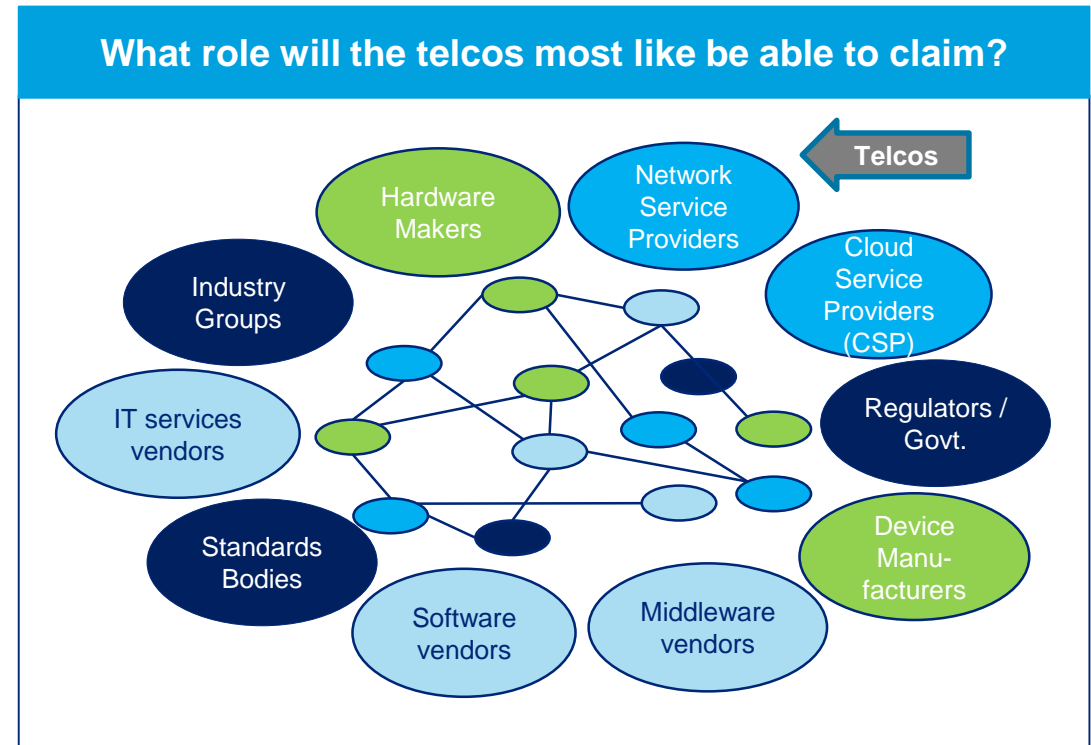
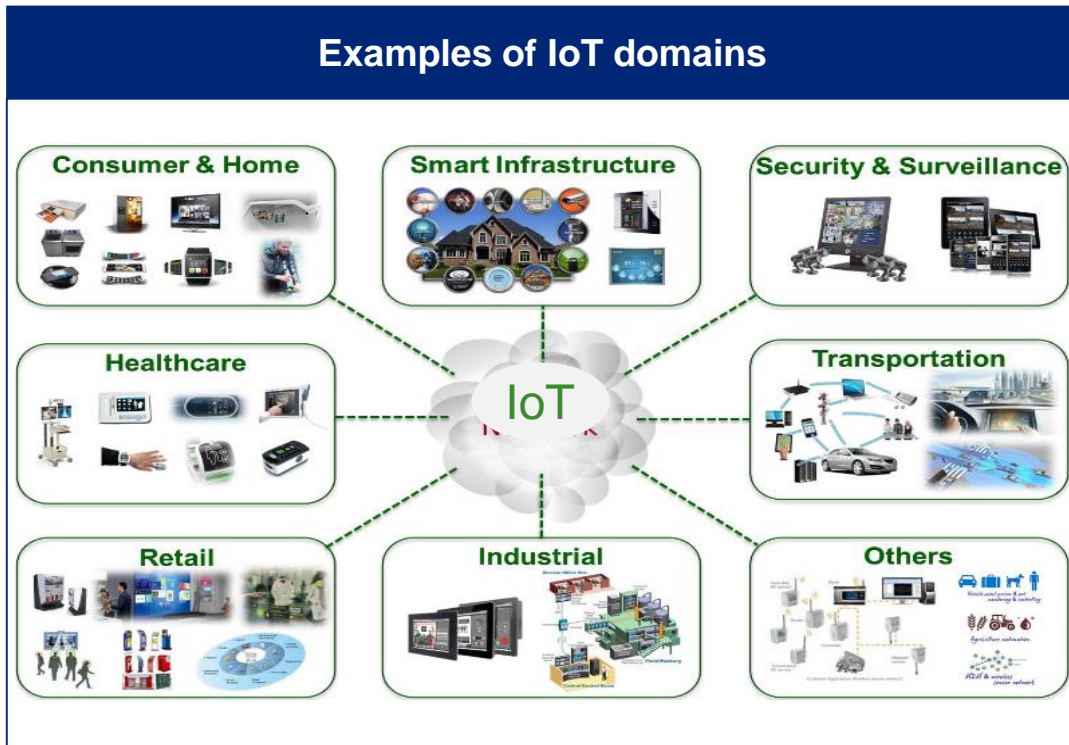
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# Technology



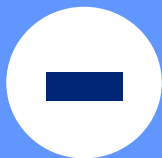
The number of connected devices (IoT) is expected to grow exponentially in the next years, creating opportunities for telcos (e.g. connectivity, big data)



## Range of impact for 2025



Telcos will be the orchestrator of new IoT ecosystems, linking all relevant players and able to monetize IoT services accordingly (connectivity, analytics, etc.)



Telcos role within the IoT ecosystem will be solely linked to connectivity with limited monetization potential (commodity)

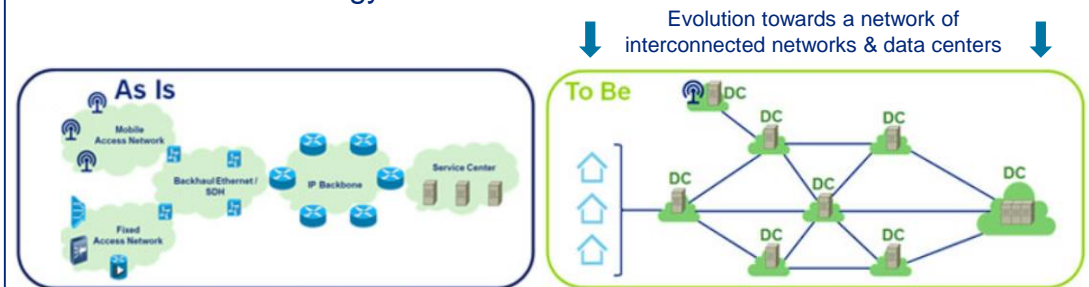
# The NFV / SDN technological advancements will provide business agility to Telcos while lowering opex and capex

## NFV and SDN has potential to revolutionize network

- NFV will decouple hardware and software elements, ending vendor-locking
- SDN / NFV provide end-to-end visibility to Telcos of its network whilst increasing flexibility and easing its network management and introducing tools to allow more interaction between the network, the end-user and/or OTT services
- SDN / NFV will not only increase efficiency in network operations and maintenance but will transform the ICT sector and value-chain by decoupling network switching and infrastructure from network service provision
- SDN / NFV will shift network processing, analysis and management to the cloud, and thus enable global network service provisioning over multi local SDN / NFV infrastructures

## Would Telcos be able to exploit NFV / SDN technology?

- The extent to which Telcos can exploit NFV / SDN technologies depends on the maturity of these technologies and thorough revision of the current regulatory framework
- Adoption of NFV / SDN demands synchronizing legacy system with virtual tools and resources with the advanced skillset of managing the NFV / SDN technology elements in network



Source: *Disrupting Telco Business Through SDN / NFV*  
<http://www2.deloitte.com/es/es/pages/technology-media-and-telecommunications/articles/disrupting-telco-business-through-SDN-NFV.html>

## Range of impact for 2025



SDN / NFV will soon transform both network architecture and the way telcos operate their networks with considerable cost savings

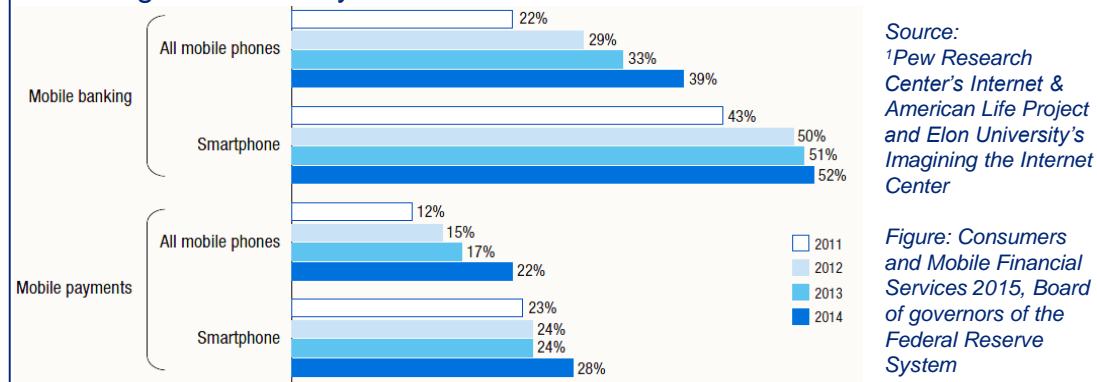
Telcos will not be able to exploit the potential of SDN / NFV in the near years to come



# Currently there are numerous mobile payments initiatives but the role of the telcos is unclear

## Mobile banking & payments will grow towards 2025

- In a recent study, 65% of respondents (technology experts) said they believe that by 2025 most consumers will have embraced the use of smart-device swiping for purchases they make
- However, 33% said they do not trust devices with Near Field Communications technology (NFC) and believe mobile payments will not gain traction by 2025<sup>1</sup>



## A new ecosystem?



## Range of impact for 2025



Telcos will play a significant role in the m-payments value chain incl. monetization of their role

Apart from providing connectivity, telcos won't be able to claim a role in the m-payments world



# Technological (r)evolution



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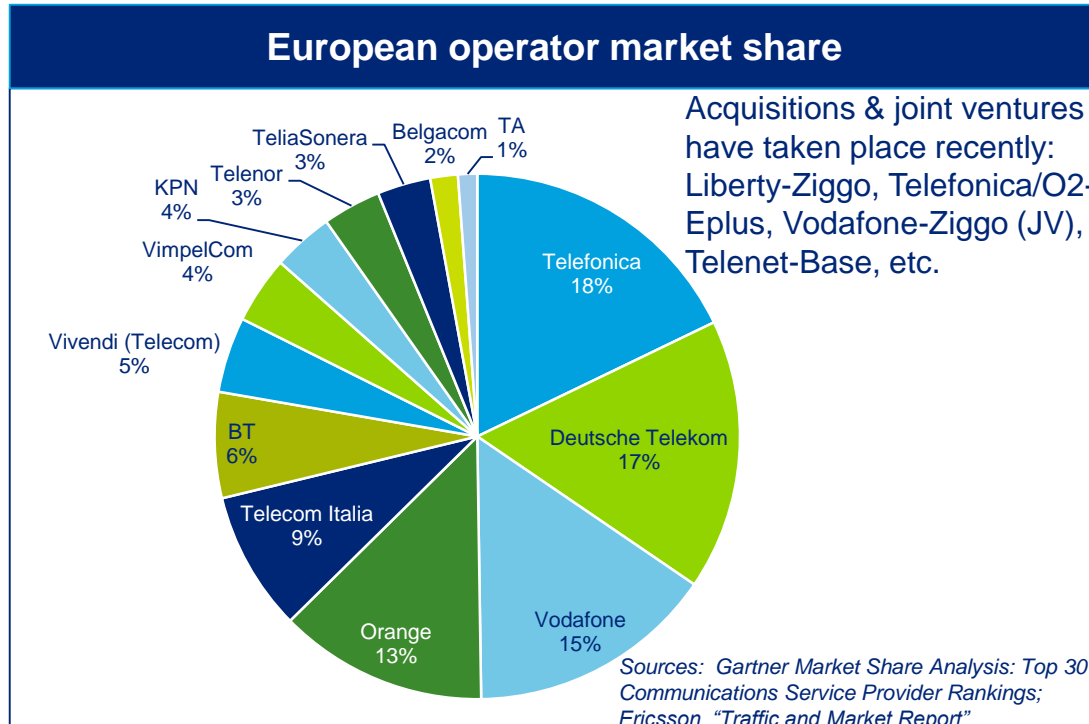
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Competition

# Market consolidation is already on its way. Will there be any unexpected players?



## Who can we expect towards 2025?

### Traditional consolidation

### Surprise moves?

## Range of impact for 2025



Traditional consolidation will proceed, large telco players will increase their footprint and benefit from economies of scale

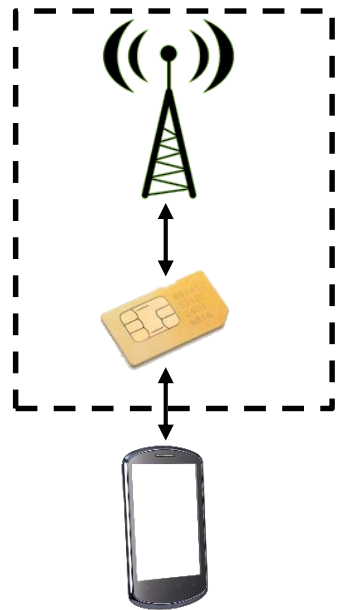


Non-telcos will enter the consolidation game buying network capacity to secure and expand their position in the value chain



# One of the biggest competitive disruptions for telcos would be to lose control of the SIM card to OEMs, who would be able to create a rival ecosystem using soft/virtual SIMs

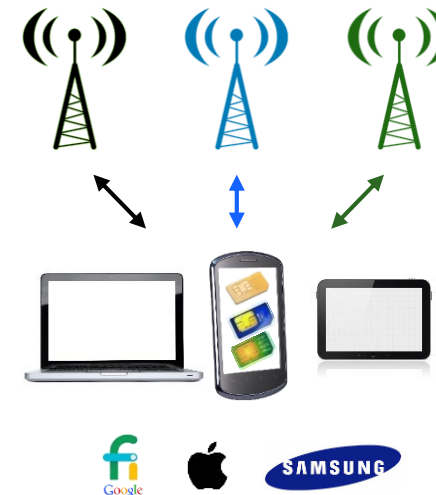
## The traditional SIM card value chain



- Telco provides SIM card that connects to a proprietary mobile network
- Replaceable SIM card to be physically put into the (mobile) device
- SIM card coupled to product proposition ensures customer relationship / ownership e.g. through billing relation
- Proprietary SIM card connects to international networks via roaming agreements

Source: GSMA Embedded SIM Specification

## The disrupting soft/virtual SIM value chain



- Physical SIM is replaced by soft/virtual SIM within mobile device (software)
- Mobile connection is based on e.g. best deal available
- Telcos sell network capacity as wholesale product
- Customer ownership not related to SIM anymore
- With the right deals in place no roaming needed

## Range of impact for 2025



Soft/virtual SIMs will not be adopted to a large extent and there will be no significant changes in the traditional telco SIM card ecosystem

In 2025 OEMs have managed to create an ecosystem of soft/virtual SIMs, decreasing degree of customer ownership by telcos



# Will the telcos be able to keep their voice users by introducing high quality VoLTE or will the OTT players like WhatsApp, Facebook & Skype take over voice services?

## Voice (& Video) over LTE (5G): a USP for telcos

Provide faster call setup time	Guaranteed E2E quality of service
Enhance voice quality with wideband coded	Take benefit of low band LTE for extended coverage
Enable simultaneous voice and LTE data	Enable voice services over different technologies (e.g. WiFi)

Provide evolution from voice to next generation rich IMS services

*Source: Nokia Solutions and Networks 2015*

## Will OTT players leverage their customer base to win voice?

### Regular calling with smartphone in NL

Age Group	Percentage
age >13	86%
age 13-19	76%

### OTT voice usage in NL (via WhatsApp, Facebook & Skype)

Usage Frequency	Percentage
Often	5%
Sometimes	16%
Tried it	31%
Never tried it	34%
No idea it exists	14%

*Source: GfK 2015, Multiscope 2015*

## Range of impact for 2025



In 2025 VoLTE has proved to be the most reliable voice service with the highest quality, maintaining this revenue stream for telcos



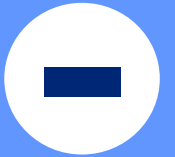
In 2025 OTT providers have fully taken over the voice service from telcos, leaving MNOs to only providing IP access

## Increasing competition



Traditional consolidation will proceed, large telco players will increase their footprint and benefit from the economies of scale

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# Regulations

# Net neutrality is heavily debated across the world, but the details are yet to be defined

What we know now...

telecompaper

HOME : MOBILE & WIRELESS INTERNET GENERAL : FIXED

## Dutch parliament adopts net neutrality amendment

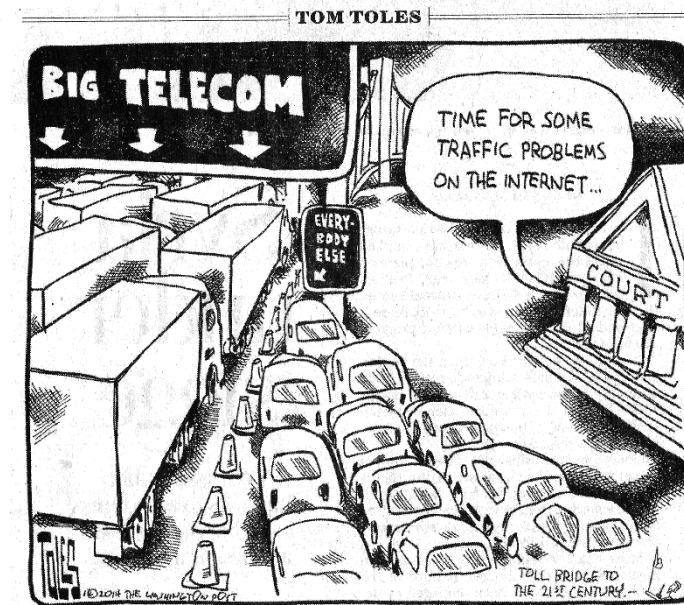
Wednesday 18 May 2016 | 11:02 CET | News

## DeTe CEO: special services do not oppose net neutrality

"a differentiation between services is necessary to facilitate certain sensitive services"

Monday 30 May 2016 | 17:35 CET | News

What might be the future...



## Range of impact for 2025



Telcos will be in charge of what goes through their networks and are allowed to discriminate traffic for commercial reasons

Very strict net neutrality legislation will be in place, leaving telcos no room to discriminate traffic for commercial reasons



# Privacy will remain a hot topic towards 2025 as customers and the public become more privacy aware, whilst rules and regulations are tightening

## The state of privacy in 2016

- The EU is heading towards a new **Privacy Regulation**: new, stricter rules will come into effect before 2025
- **Big Data**: Telcos are sitting on a mountain of valuable user data, waiting to be commercially exploited
- Ever more companies are using privacy as a **prominent selling point** – “Trust us. We’ll guard your privacy”
- The **European Union** declared that the USA is no longer a ‘safe harbor’ for European privacy data

**theguardian** European parliament approves tougher data privacy rules  
April 2016

## Does anyone care?



## Range of impact for 2025



Privacy is history. Telcos (following OTT players like Facebook) use their knowledge to maximize commercial exploitation of consumer data

Strict privacy legislation will be in place restricting telcos to commercially exploit consumer data



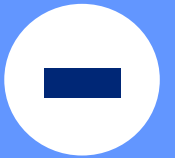


# Regulatory reform



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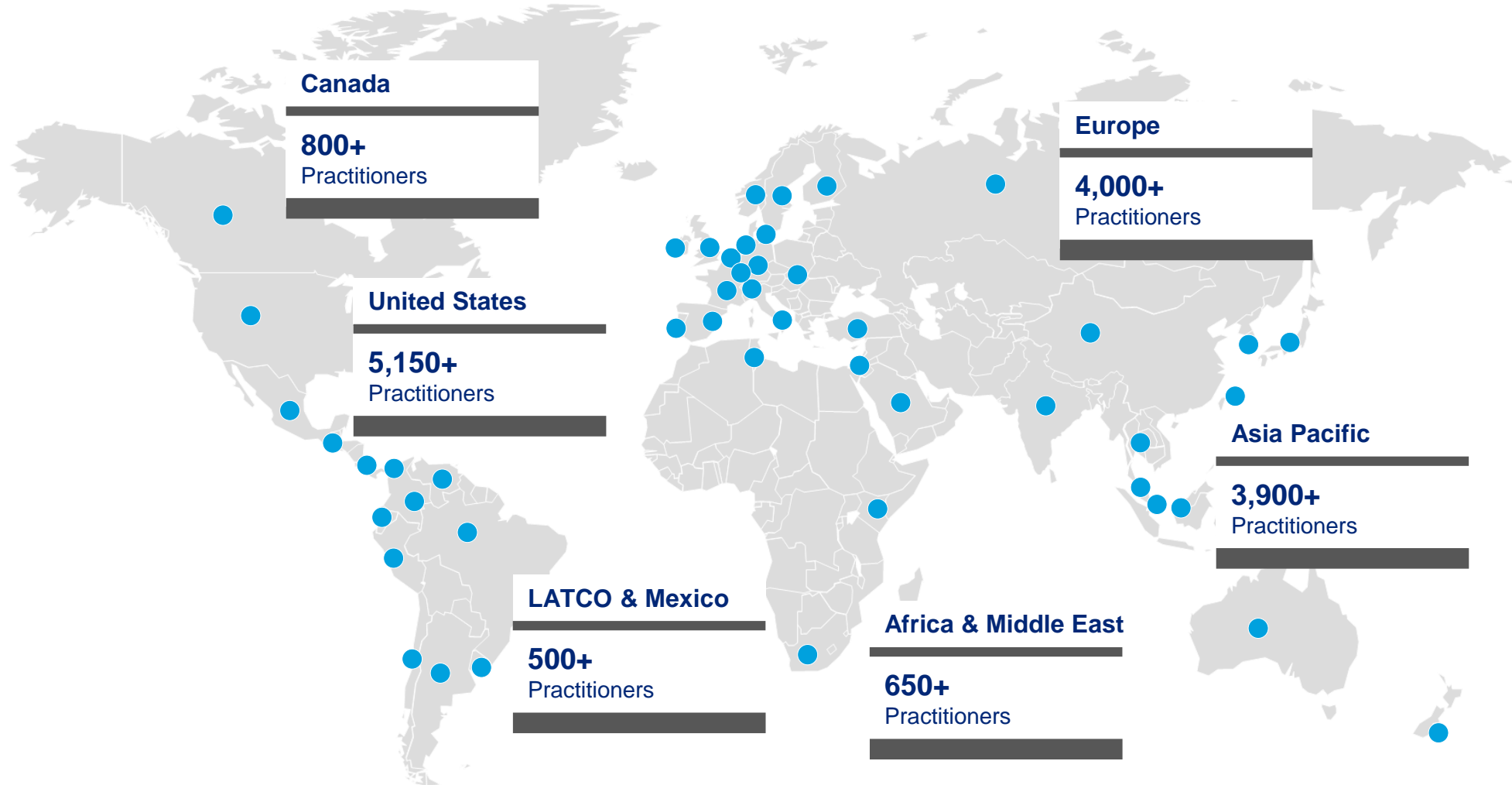
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Thank You!

# Deloitte Global TMT footprint

Over 15,000 TMT professionals



# TMT Global clients overview

