



goetzpartners

STRATEGY | M&A | TRANSFORMATION

ITU/BDT Regional Telecommunications Economic and Financial Forum for Arab States

MUSCAT, OMAN

6th December 2016

Introduction

Erik Almqvist is a Managing Director and Head of the Middle East at the Dubai office of **goetzpartners**



Erik has 24 years' experience in management consulting and has held partner positions at Arthur D Little, where he led the telecommunications and financial services practices for the Nordic Region, and at Analysys Mason, where he led the Middle East and the Global Performance Improvement practice



In 1999, he founded Sense Strategy, a London-based advisory boutique which he led for 7 years.



He has advised leading organizations on strategy, regulatory policy advice, broadband deployment and infrastructure, M&A and transformation.



He performed the world's first scientific calculation to ascertain the effect of broadband speed upgrades on GDP for which he received praise from the Prime Minister of Australia.



Erik co-invented the Ericsson Smart City Index



His work has been quoted in leading publications such as The Economist and The Wall Street Journal.



Erik can be reached on

About goetzpartners

goetzpartners is one of the fastest growing elite management consulting firms in the world, having grown **20% year-on-year for the past 5 years in a row**

RESULTS DELIVERED

Focusing on the **HOW**, not only the **WHAT**

Leading 2 of the worlds **LARGEST** digital transformations in the TMT industry
*More than **USD 3bn** in recurring savings*

1991–2016

INTERNATIONAL PRESENCE



14 offices in 11 countries

ENTREPRENEURIAL THINKING



EXCELLENT PERFORMANCE



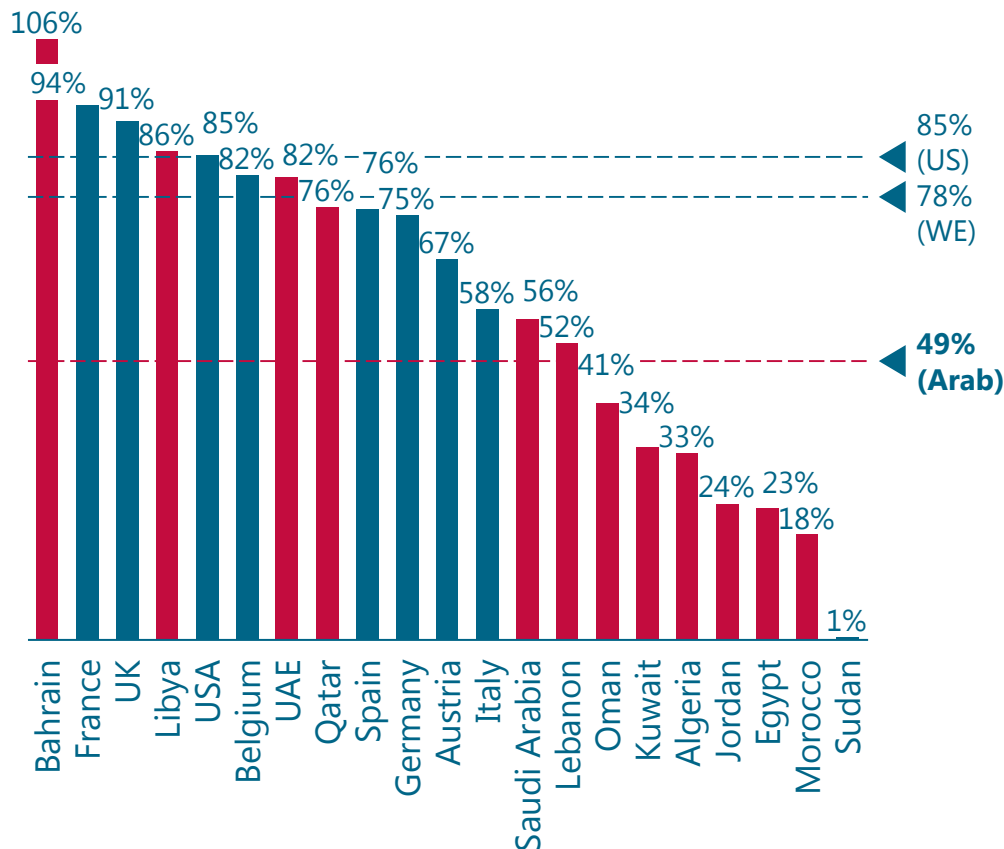
UNIQUE PORTFOLIO



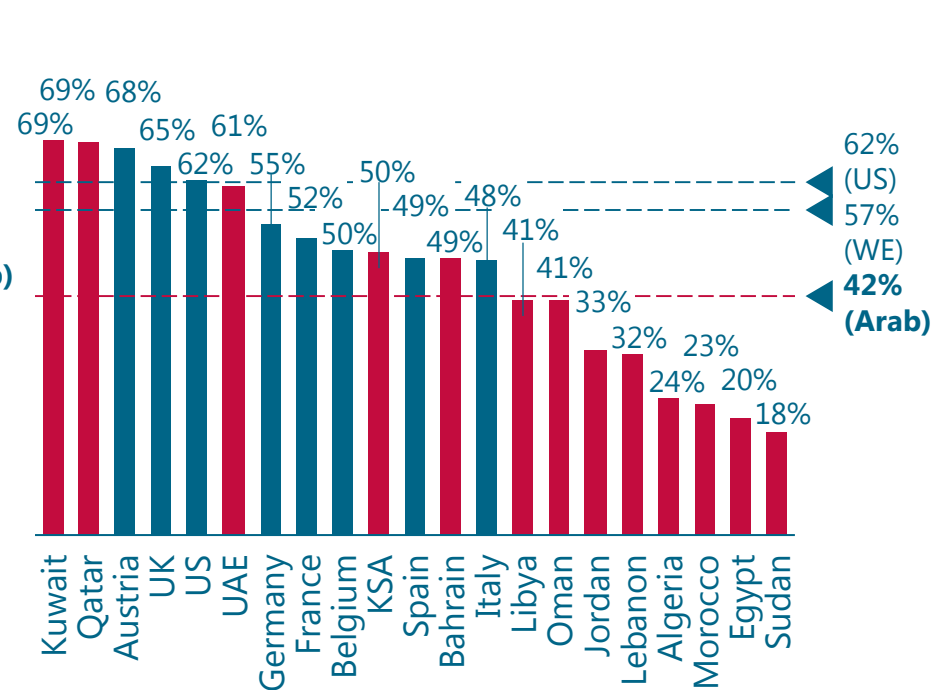
Broadband | Current situation

Leading Arab nations match or surpass the largest OECD nations on fixed and mobile broadband penetration. At the same time, lagging Arab nations operate at quarter or one-fifth of the penetration level of the leaders

FIXED BROADBAND PENETRATION (% HOUSEHOLD)



MOBILE BROADBAND PENETRATION¹ (% POPULATION)

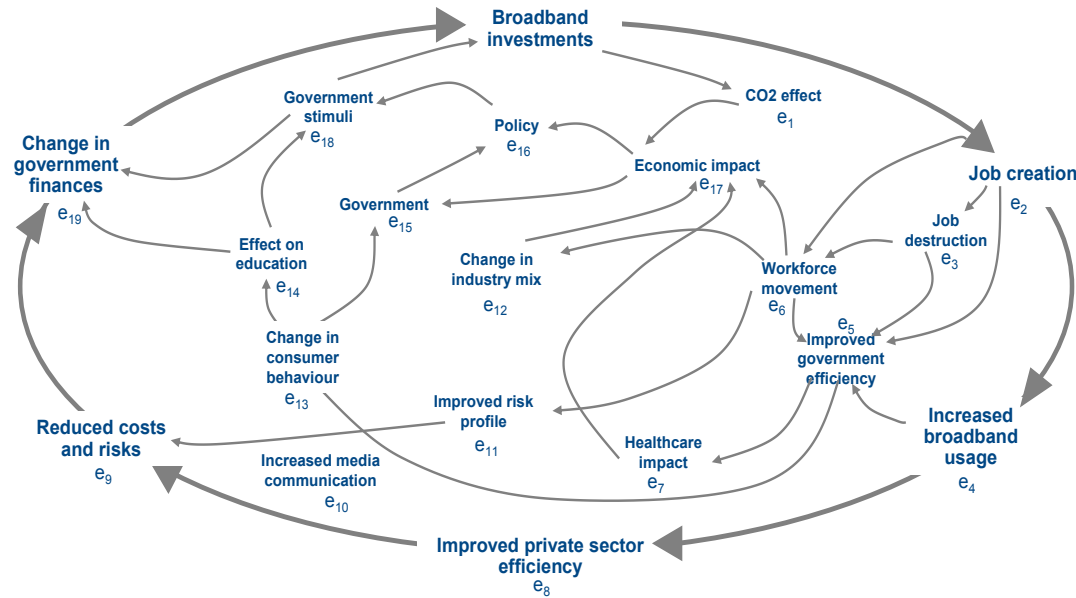


 ARAB NATIONS

[1] Based on unique subscribers
 Source: Telegeography, GSMA intelligence

Broadband | Socio-economic impact

Due to the interdependence of variables, it is impossible to assess the total effect for a society by adding the effects bottom up... instead extremely complex econometric models are used...

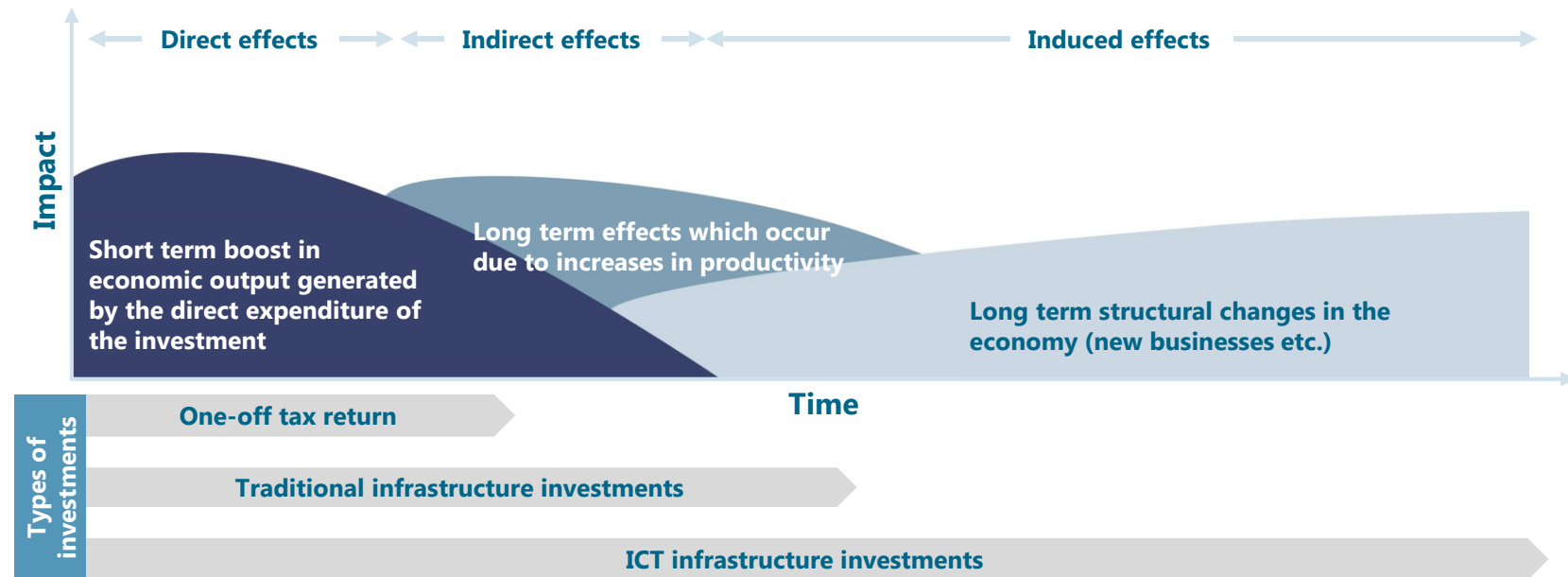


Total effect (E) $\neq e_1 + e_2 + e_3 + e_4 + e_5 + e_6 + e_7 + \dots$

Broadband | Socio-economic impact

Broadband penetration upgrades has significant socio-economic impact both in the short-term and long-term

ECONOMIC IMPACTS OF BROADBAND PENETRATION AND SPEED UPGRADES



EXAMPLES OF ORGANISATIONS STATING A POSITIVE IMPACT OF BROADBAND



Arthur D Little



Broadband | Socio-economic benefits

Multiple previous studies have documented the quantitative benefits generated by increased broadband penetration and moving towards a digital society



- **10% increase** in broadband penetration boost the **GDP by 1%**
- **Doubling** of broadband speed¹ boost the **GDP by 0.3%**



5000 – 14,000 new business establishments for 10% increase in broadband penetration⁷



SMEs that heavily use ICT have **2X the growth and exports** of SMEs who don't use ICT²



Open use of data: Business **productivity** is boosted through efficient use of **data by 5 – 10%**³



15 years of digital economy revolution produce same impact on GDP per capita as **50 years** of industrial revolution⁴



300 kg per year positive net CO₂ effect of home-based e-working⁵



UK: Digital inclusion of a previously excluded individual results in a **salary increase of EUR 967**⁶



Open data creates **5X the value for every EUR1** spent on open data⁸

Source: Ericsson, Arthur D Little, digital Thailand, goetzpartners analysis

[1] Up to 30 Mbps

[2], [7] and [4] Telenor

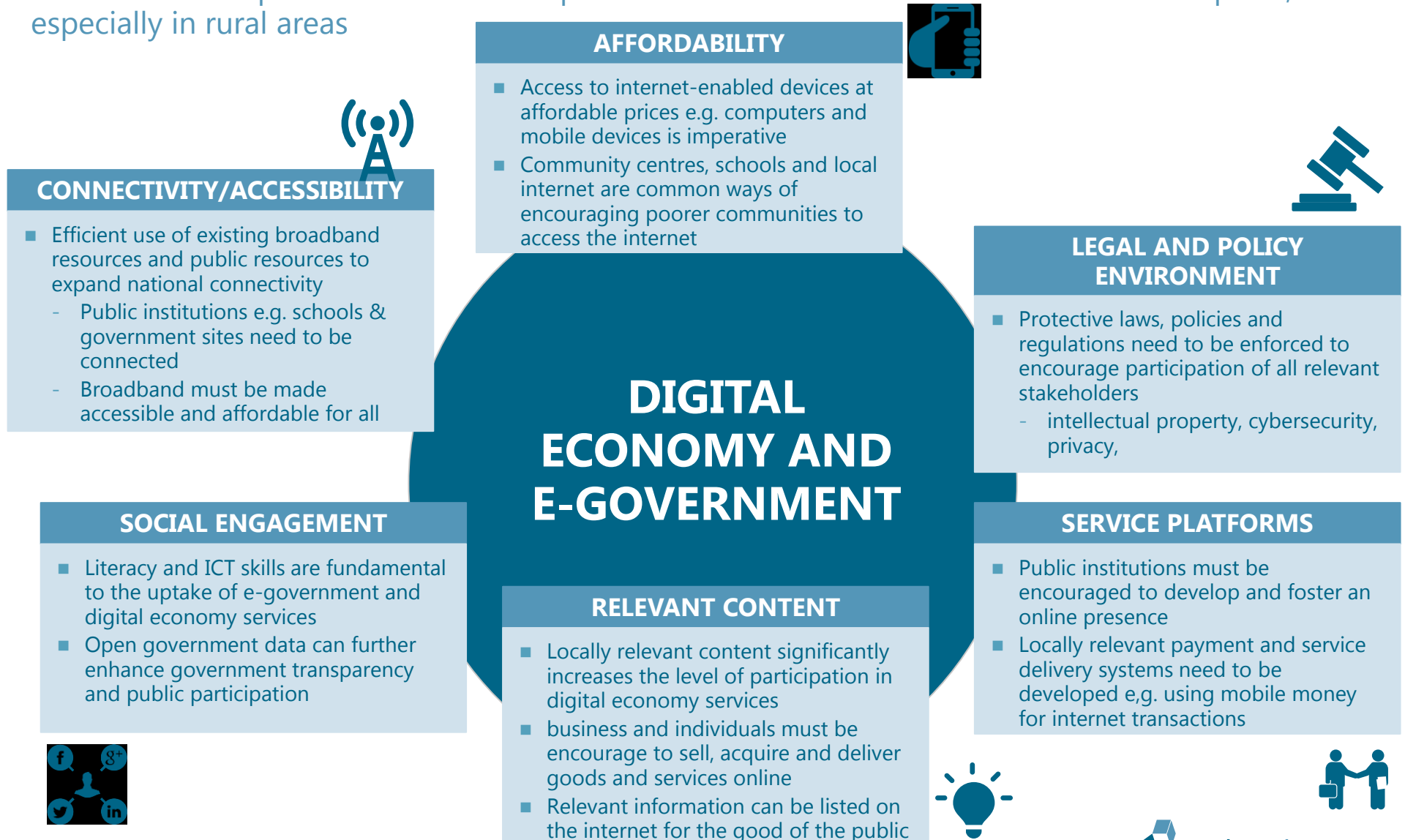
[3], [8] Ericsson

[5] Consumer Electronics Association

[6] PricewaterhouseCoopers

Broadband | Adoption drivers

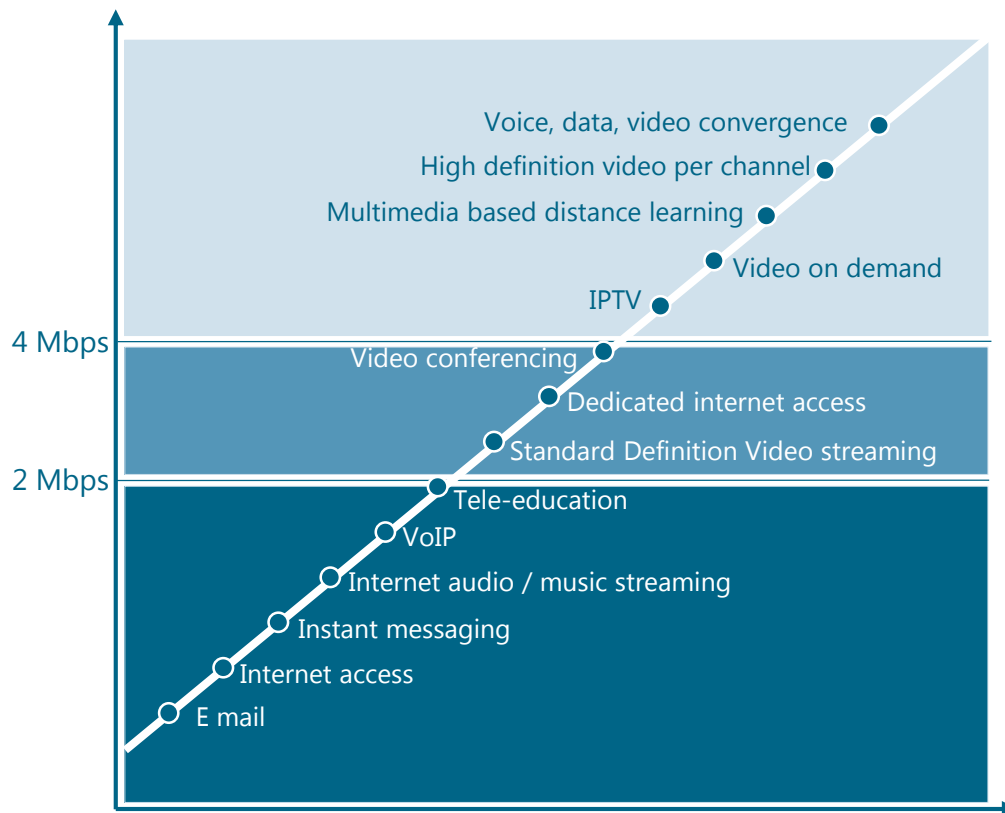
Initiatives are required across all the aspects of the broadband to drive broadband adoption, especially in rural areas



Broadband | Need for future ready network

For an evolving application ecosystem with increasing data needs, investments into a future proof backhaul infrastructure is critical

APPLICATION EVOLUTION AND BANDWIDTH REQUIREMENT



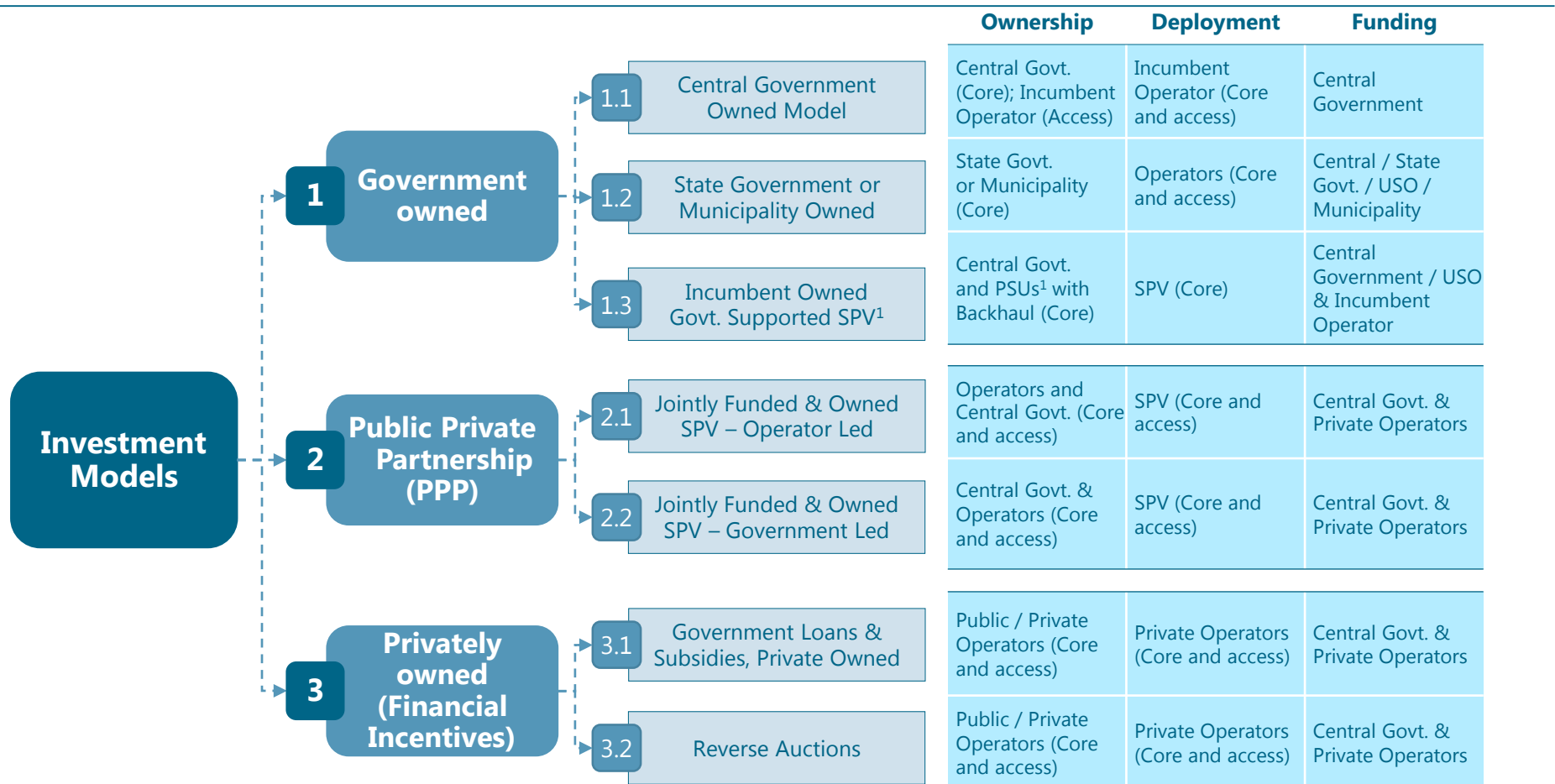
DESCRIPTION

- With introduction of broadband access technologies such as LTE and introduction of converged communication devices, end user demand for data is increasing exponentially
- This has a cascading effect on the required backhaul capacity for data aggregation and transport
- Backhaul technologies that are scalable at a low Capex per MB, in addition to a lower operational cost are required for providing broadband services in rural areas at affordable prices
 - For long term data requirement, optical fibre is the most suitable technology due to its ability to scale for high data volumes

Broadband | Potential investment models

This can be done through several ownership/investment models in partnership with operators, as experienced globally

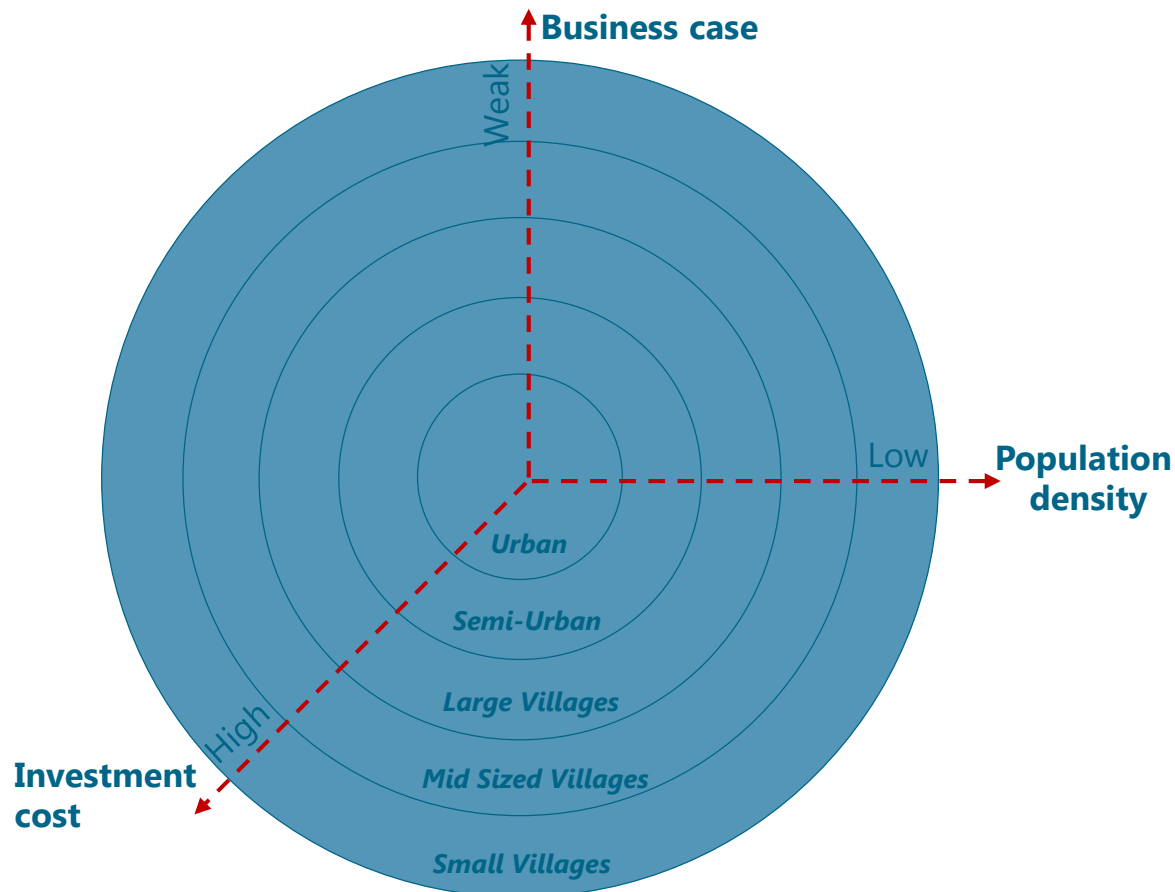
INVESTMENT MODELS



[1] Special Purpose Vehicle
[2] Public Sector Units

Broadband | Rural penetration

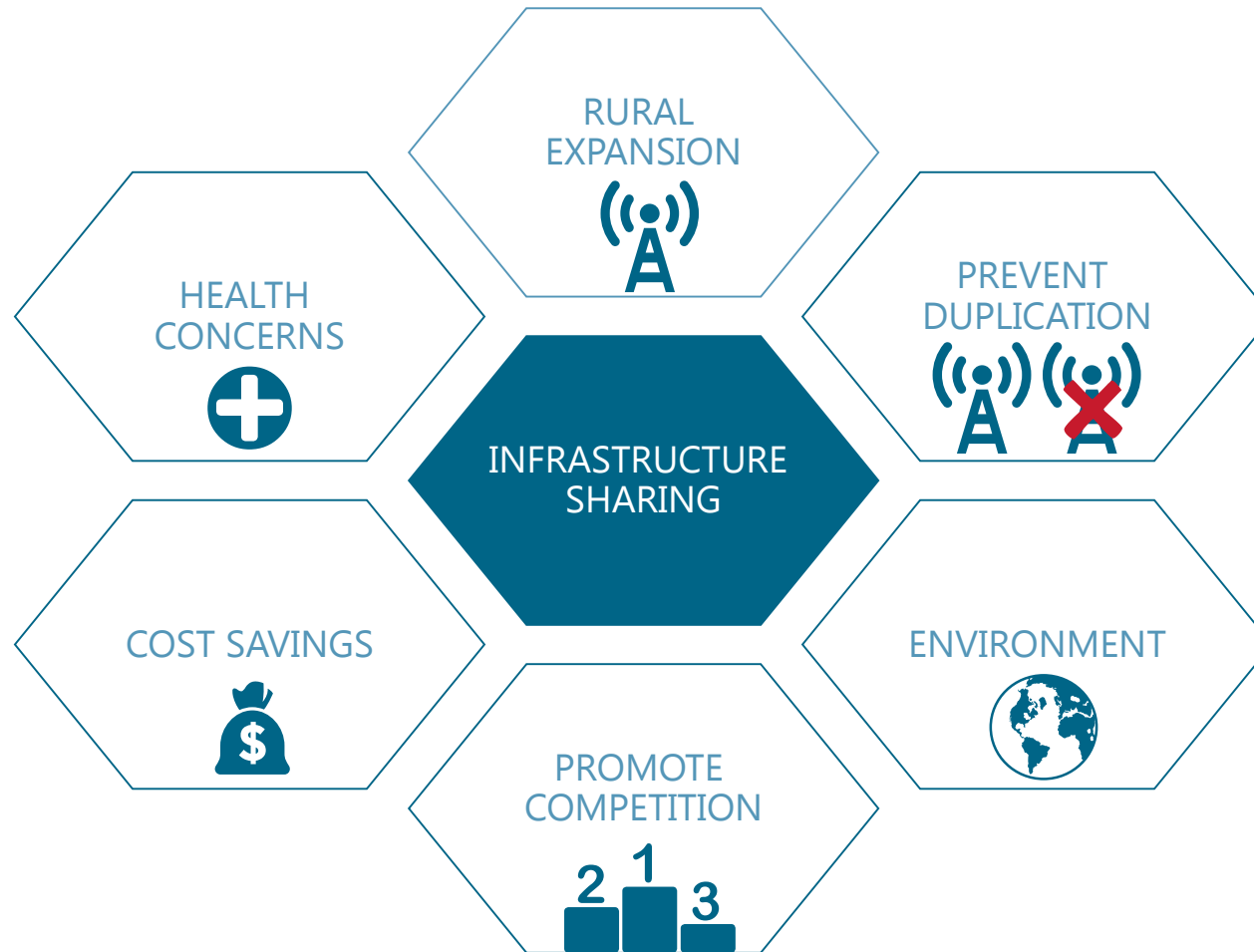
Penetration into the rural areas can be addressed through infrastructure sharing



There is a lack of business case for the operators to provide fixed and/or mobile coverage in the rural areas which can possibly be addressed by **initiatives promoting infrastructure sharing**

Infrastructure sharing | Benefits

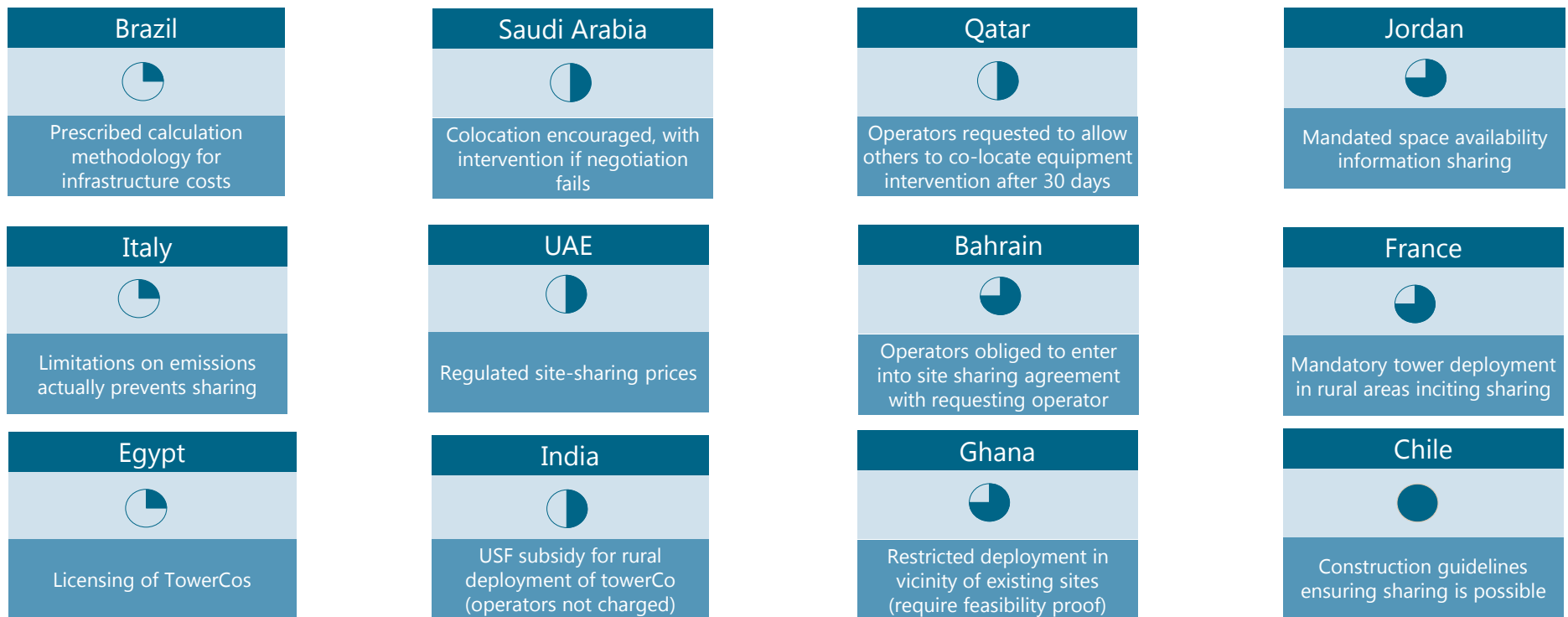
Promoting infrastructure sharing also aids in rural expansion while offering many other benefits



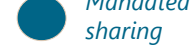
Infrastructure sharing | Initiatives

Regulators have adopted a variety of initiatives to encourage tower sharing in the market

REGULATORY INITIATIVES FOR INFRASTRUCTURE SHARING



Intervention-intensity:

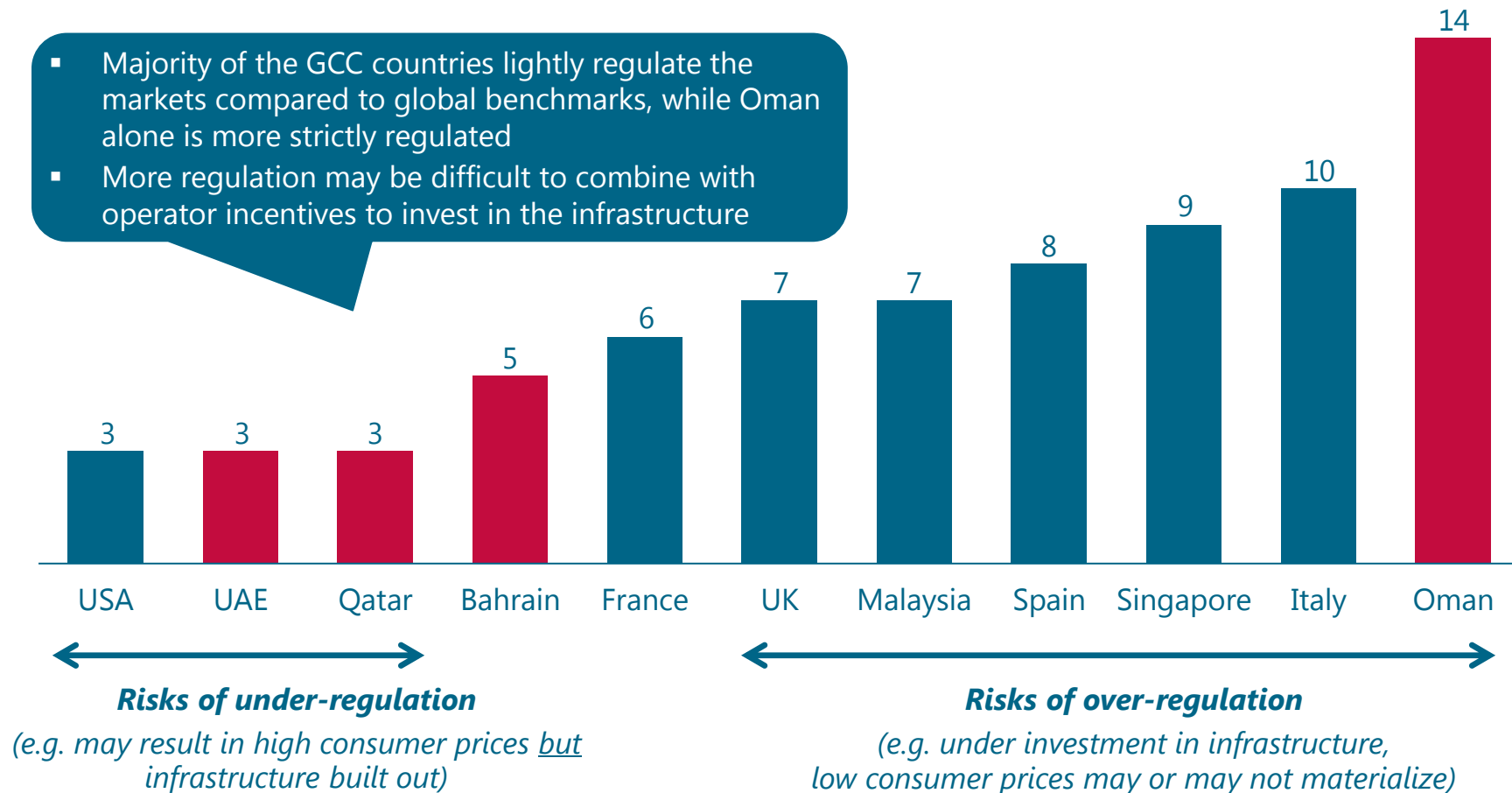


Regulation I Maintaining balance

In a recent study, we benchmarked regulated markets across geographies to find majority of GCC countries adopting light regulations letting market forces promote competition

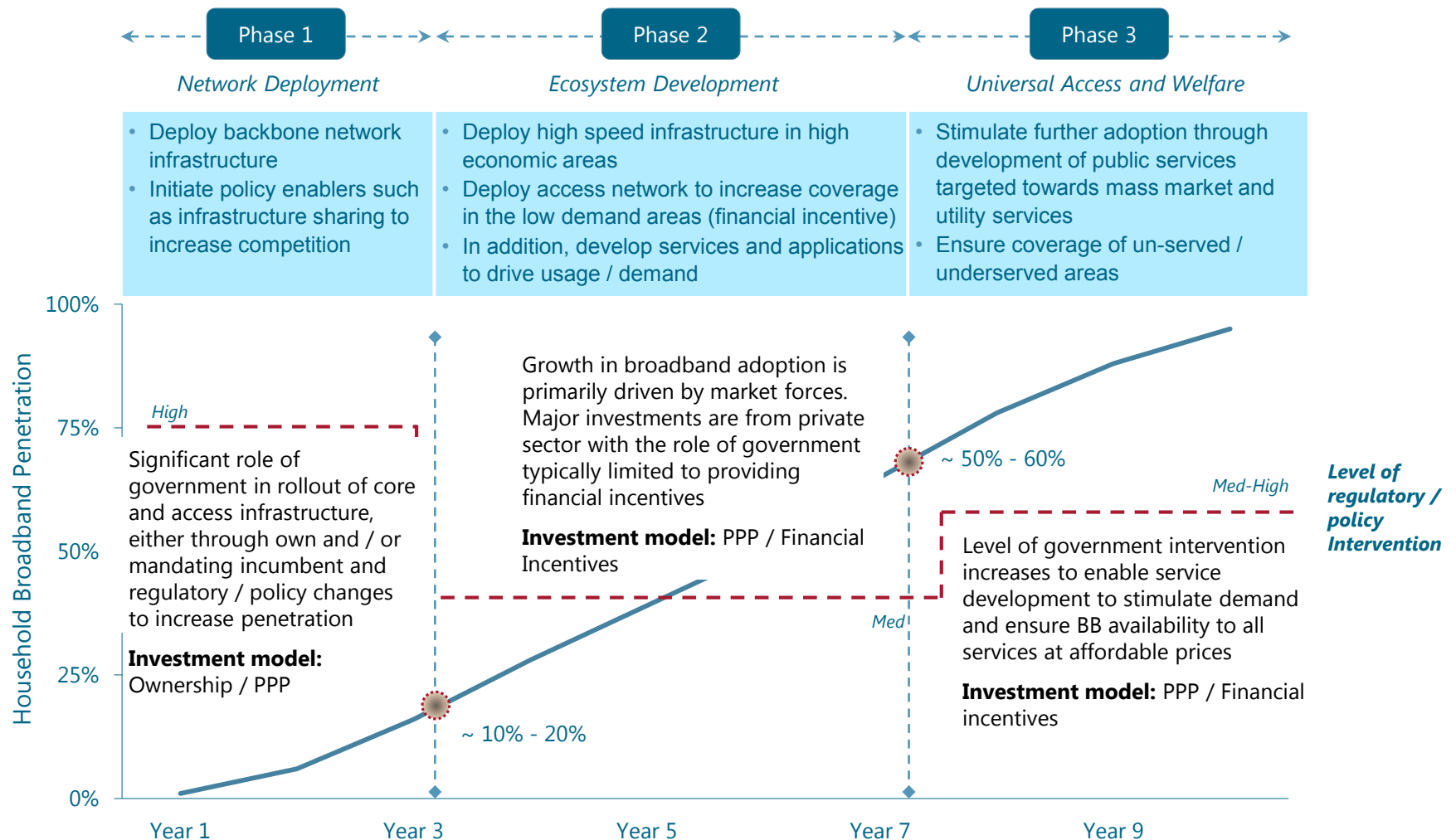
NO. OF SUB-MARKETS REGULATED (ACCESS AND INTERCONNECTION)

- Majority of the GCC countries lightly regulate the markets compared to global benchmarks, while Oman alone is more strictly regulated
- More regulation may be difficult to combine with operator incentives to invest in the infrastructure



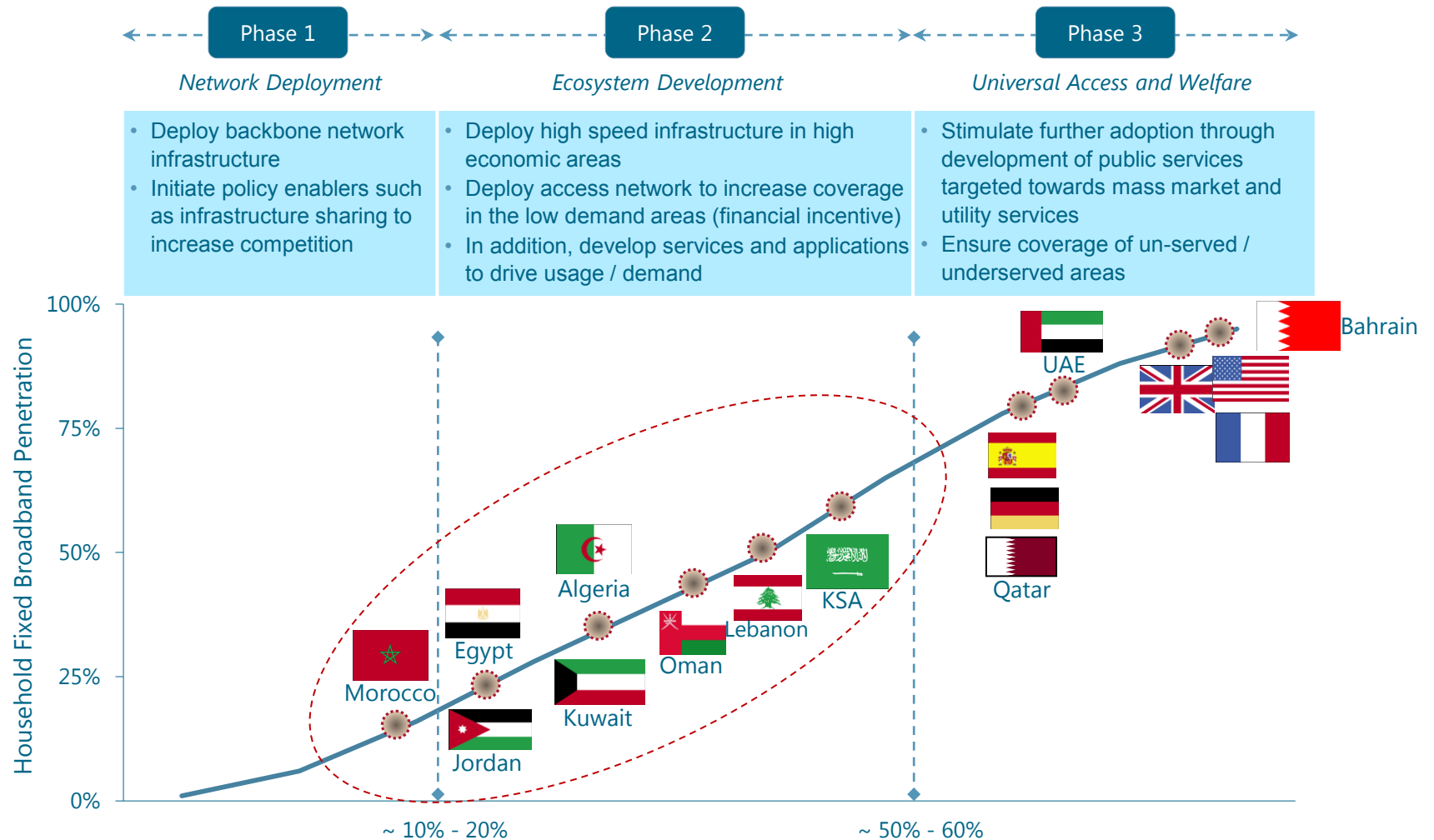
Broadband infrastructure | Building the ecosystem

Ownership models differ across the different phases of digital ecosystem development



Broadband infrastructure | GCC Status

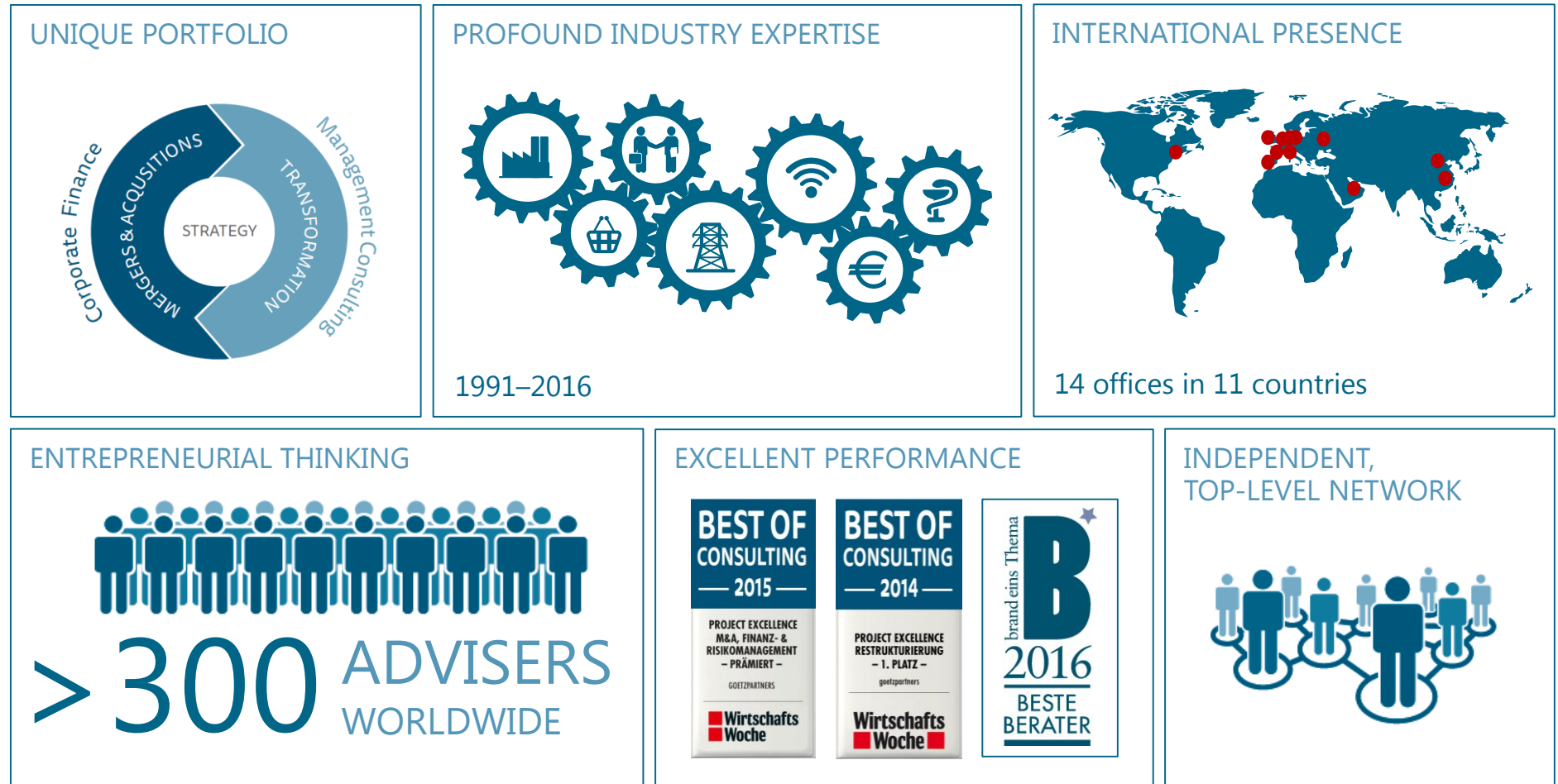
The growth in broadband adoption in majority of the Middle Eastern countries need to be primarily driven by market forces rather than regulatory/government intervention



ABOUT GOETZPARTERS

At a glance

goetzpartners is one of the fastest growing elite management consulting firms in the world, having grown **20% year-on-year for the past 5 years in a row**



A worldwide presence

goetzpartners operates out of 11 countries with 14 offices – project work takes place in over 100 countries worldwide



BEIJING | DUBAI | DÜSSELDORF | FRANKFURT | LONDON | MADRID | MILAN | MOSCOW | MUNICH | NEW YORK | PARIS | PRAGUE | SHANGHAI | ZURICH

>300 advisers at 14 offices in 11 countries

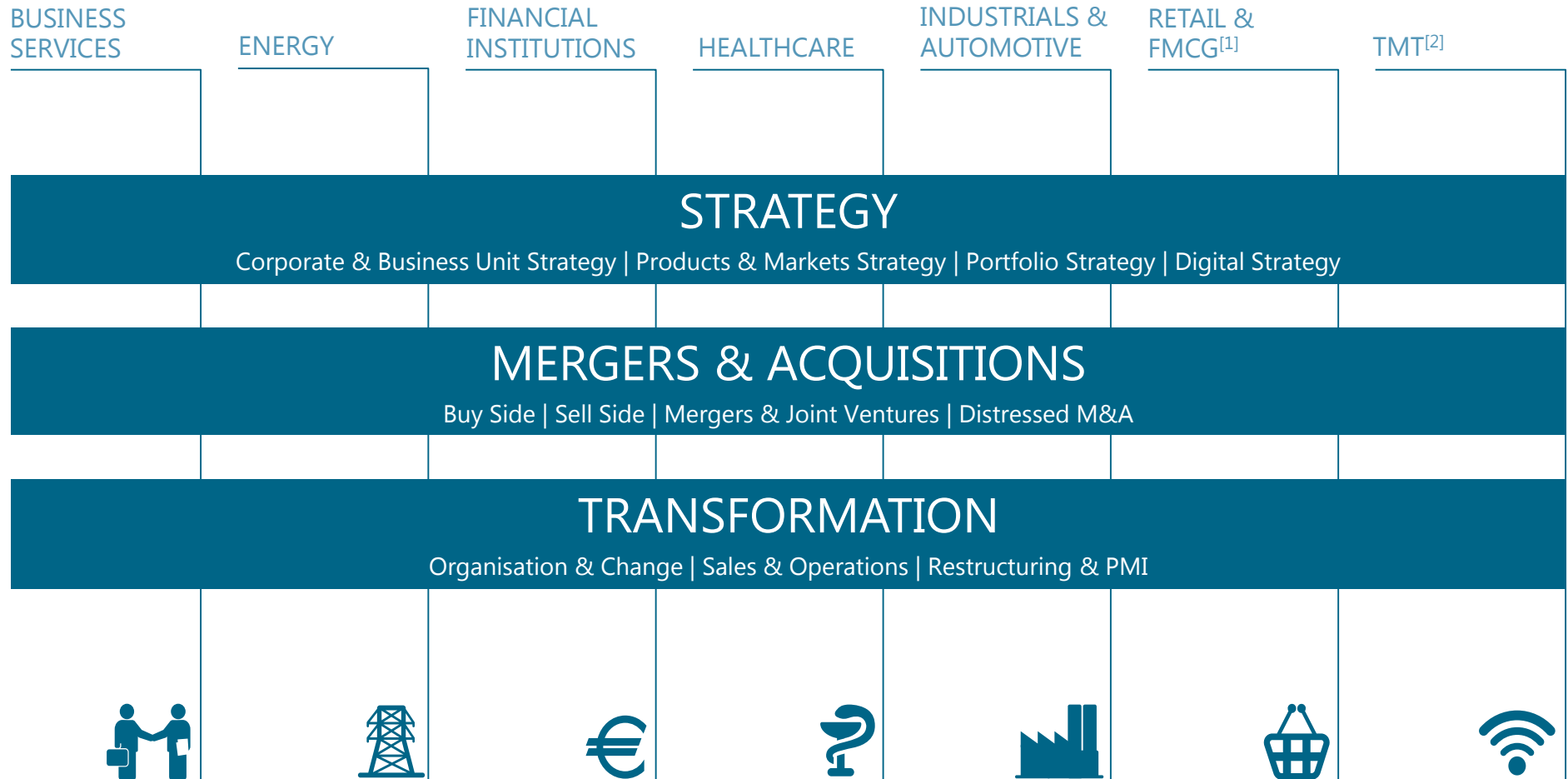
Global project work in over 100 countries

Powerful track record in cross-border M&A transactions



Integrated service portfolio

goetzpartners is an independent advisory firm for all key issues of entrepreneurial activity:
Strategy, M&A and Transformation



[1] Fast Moving Consumer Goods; [2] Telecom, Media, Technology
Source: goetzpartners

Our advisory approach

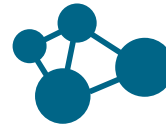


ENTREPRENEURIAL THINKING

- Our Managing Partners Dr Stephan Goetz and Stefan Sanktjohanser have represented pioneering spirit and entrepreneurship for over 20 years now
- Our professionals provide advisory that is entrepreneurial and on eye-level – they are inventive, direct and authentic personalities



goetzpartners



POWERFUL NETWORK

- A far-reaching network of contacts, grown over decades, involving top decision-makers in business and politics
- goetzpartners thinks beyond borders and connects the right people with the right ideas



PENROSE TILES METHOD

- Two geometrical shapes form aperiodic patterns that fully cover a surface without the basic pattern ever being repeated
- Transferred to us, this means: With our range of corporate finance and management consulting services, we cover all key issues of entrepreneurial activity – but we tailor this to our customers rather than working to any kind of pre-set formula

EXCELLENT PERFORMANCE



- In over 100 countries of the world, customers have entrusted us with international advisory projects
- In WirtschaftsWoche magazine's "Best of Consulting" awards, we took first place in "Project Excellence" (2014) and received an award in the "M&A, Finance and Risk Management" category (2015)

TMT client segments

goetzpartners' expertise covers the entire breadth of TMT market – but also goes beyond this market

Telecommunications^[1]

- ICT operator cost transformation
- TV sector market entry
- Product and pricing
- Sales management and stimulation
- Infrastructure development
- Strategic due diligence
- Customer segmentation
- Customer service optimization
- "Content factory"



Technology^[2]

- B2B sales
- Strategy and operation
 - Organization
- Process optimization
 - Bid management

Media

- Introduction of new sales channels
- Sales stimulation and optimization
- Multichannel management
- Sales controlling
- Product development
- Pricing systems
- Operative excellence in product management
- Customer retention
- Customer support optimization

Other industries

- IPTV market entry strategy
 - Market and financial due diligence
- Business development
 - Sales cooperation
- Product development
- Telesales optimization

[1] Telecommunication service providers including Internet-based services

[2] IT service providers, telecommunication equipment manufacturers and related businesses (i.e., hosting service providers, billing service providers)

TMT experience of the Middle East team members

Includes non-goetzpartners branded projects

SELECTED

REGULATORY AND POLICY

- Operator Support
- National Broadband Planning
- Spectrum Management
- Regulatory Training



TRANSFORMATION

- Organization & Change
- Sales & Operations
- Restructuring & PMI



STRATEGY

- Corporate & Business Unit Strategy
- Products & Markets Strategy
- Portfolio Strategy
- Business Information Strategy



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