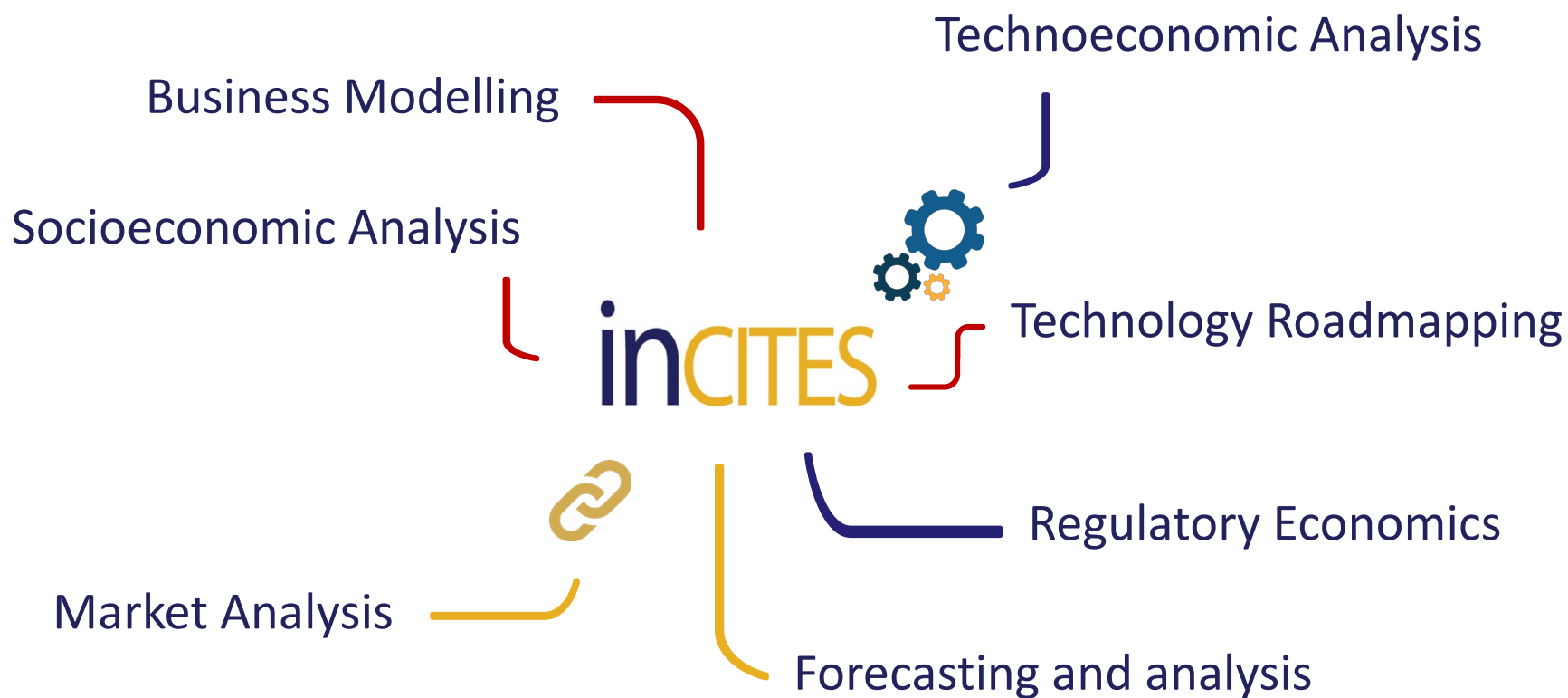


# 5G: Are you ready for the change?

Dr. Theodoros Rokkas, CTO

# inCITES Consulting

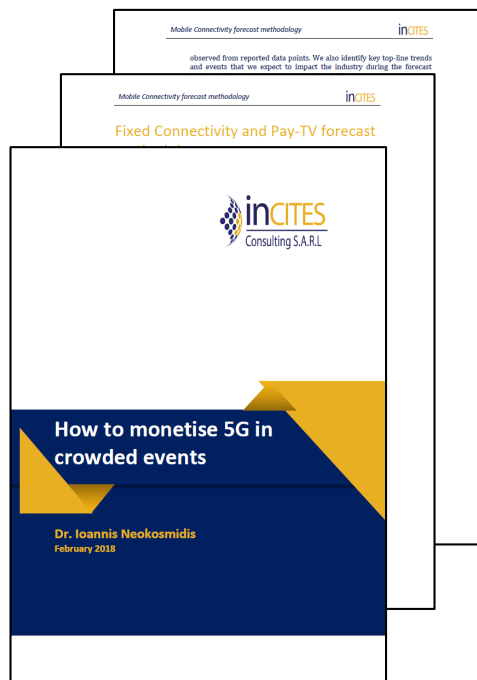


# What we do

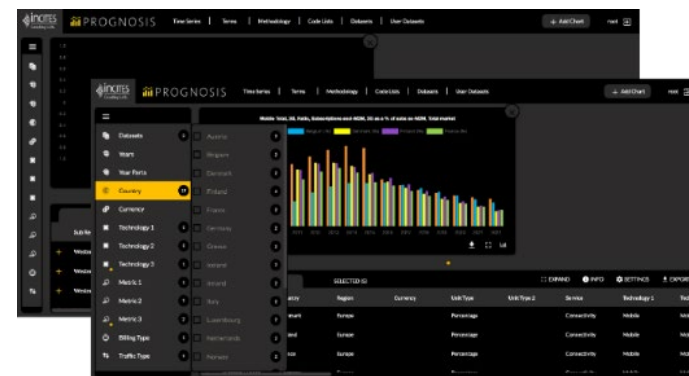
## Consulting



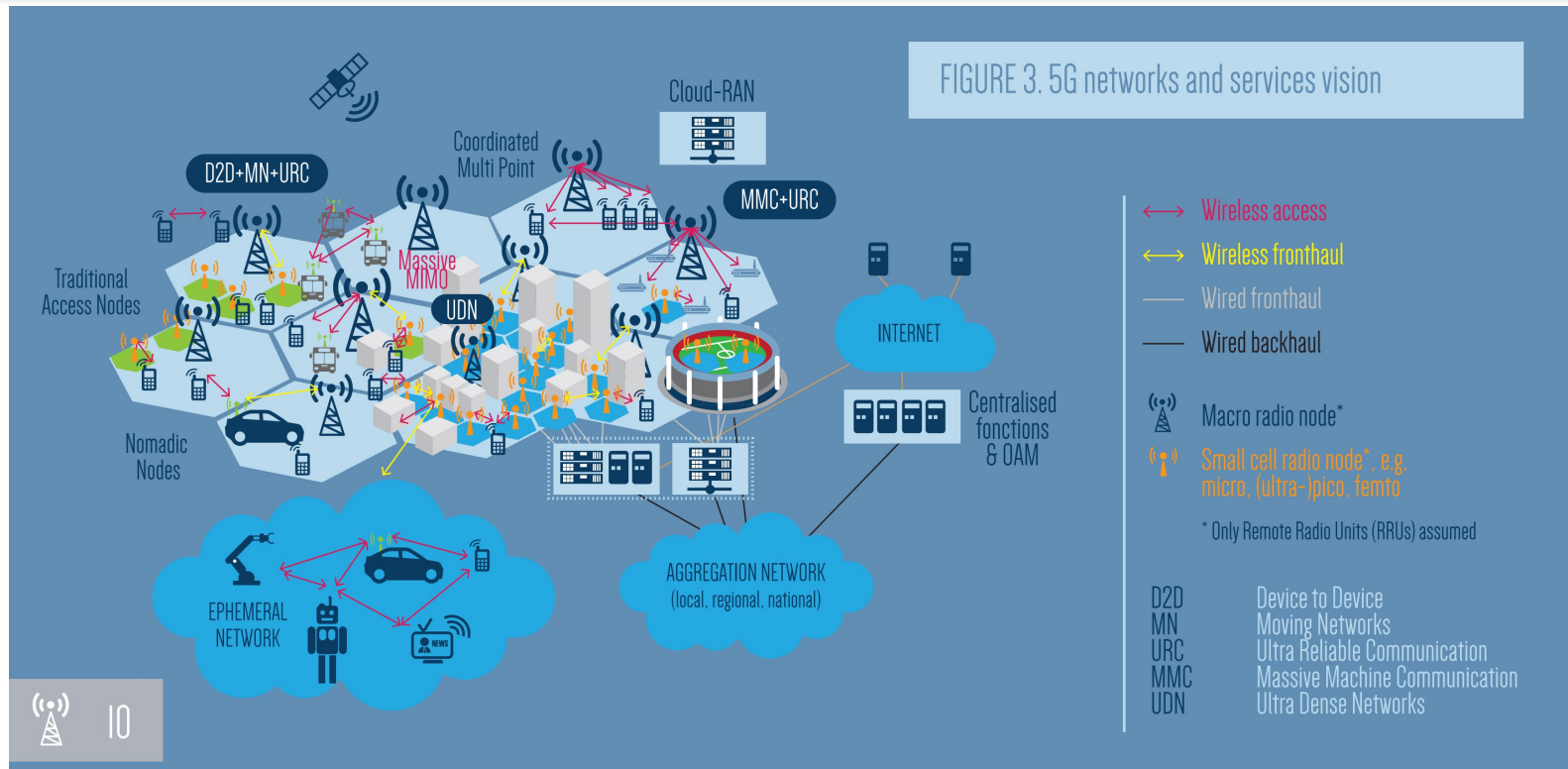
## Research



## Prognosis



# 5G Vision



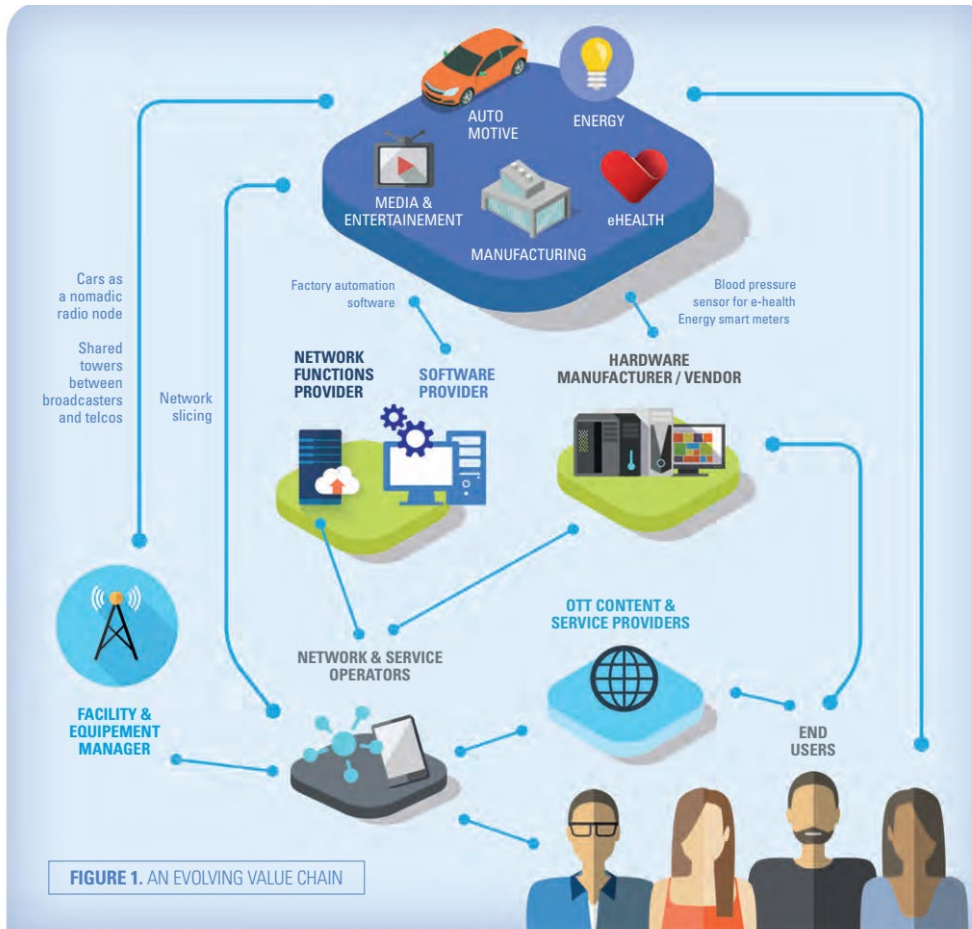
Enhanced:

- Performance
- Flexibility
- Individualization

Innovative business opportunities:

- B2C
- B2B
- B2G

# 5G ecosystem



Network Service Providers

Network Infrastructure managers

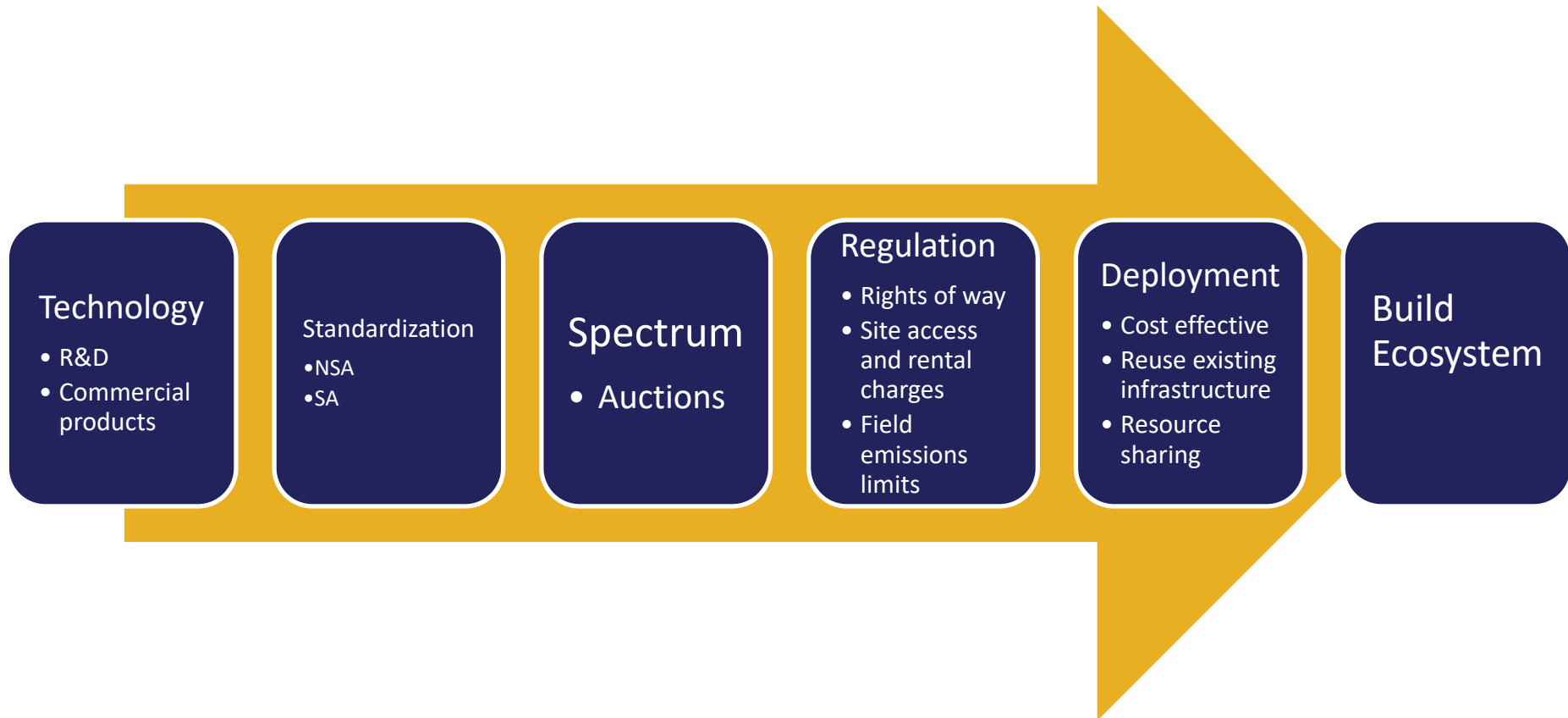
Software Network Function Providers

IT Service providers

Business customers (SMEs)

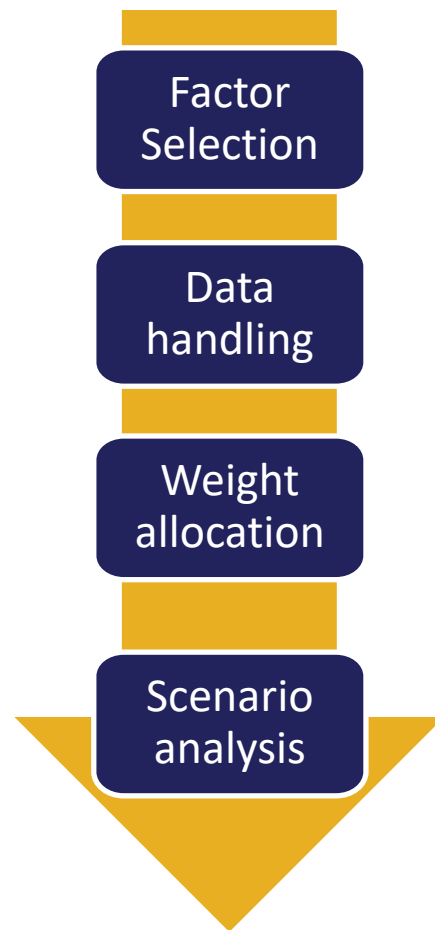
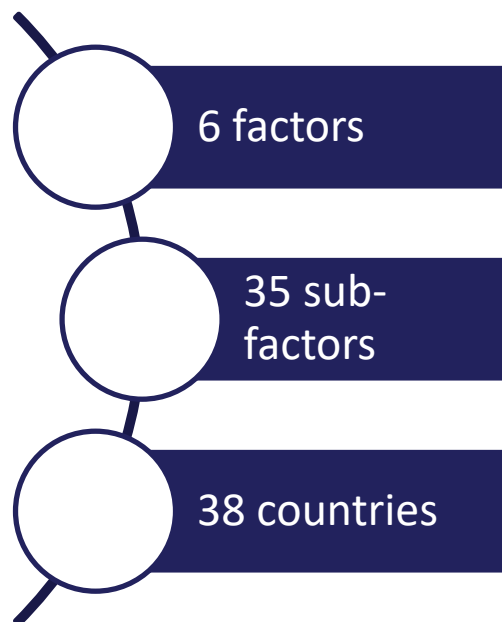
Brokers

# Roadmap



# Europe 5G Readiness Index

[www.incites.eu/europe-5g-readiness-index](http://www.incites.eu/europe-5g-readiness-index)



# Main Factors

## Infrastructure and technology

- Existing fixed and mobile infrastructure that will be used in 5G networks as well as preparatory steps such as spectrum auctions and trials

## Regulation and Policy

- Relate to the regulatory and policy framework

## Innovation Landscape

- Potential contributors to the development of the new technology from a research and financial perspective

## Human Capital

- Quality of the education system and lifelong learning initiatives

## Country profile

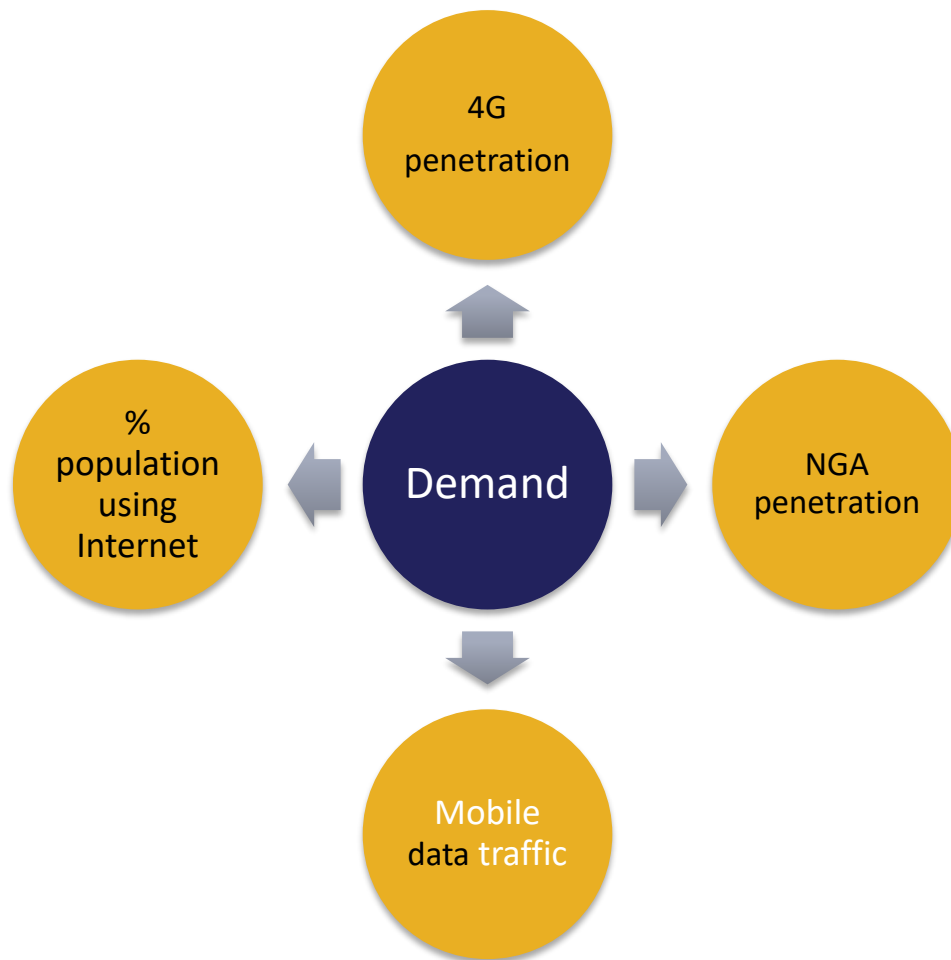
- Existing economic state of a country, existing ICT industry competition and the government's reception of new technologies.

## Demand

- Reception of new fixed and mobile technologies as well as the use of the Internet



# Demand subfactors



# Data Sources

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OpenSignal

EUROSTAT

ITU

World Bank

World  
Economic  
Forum

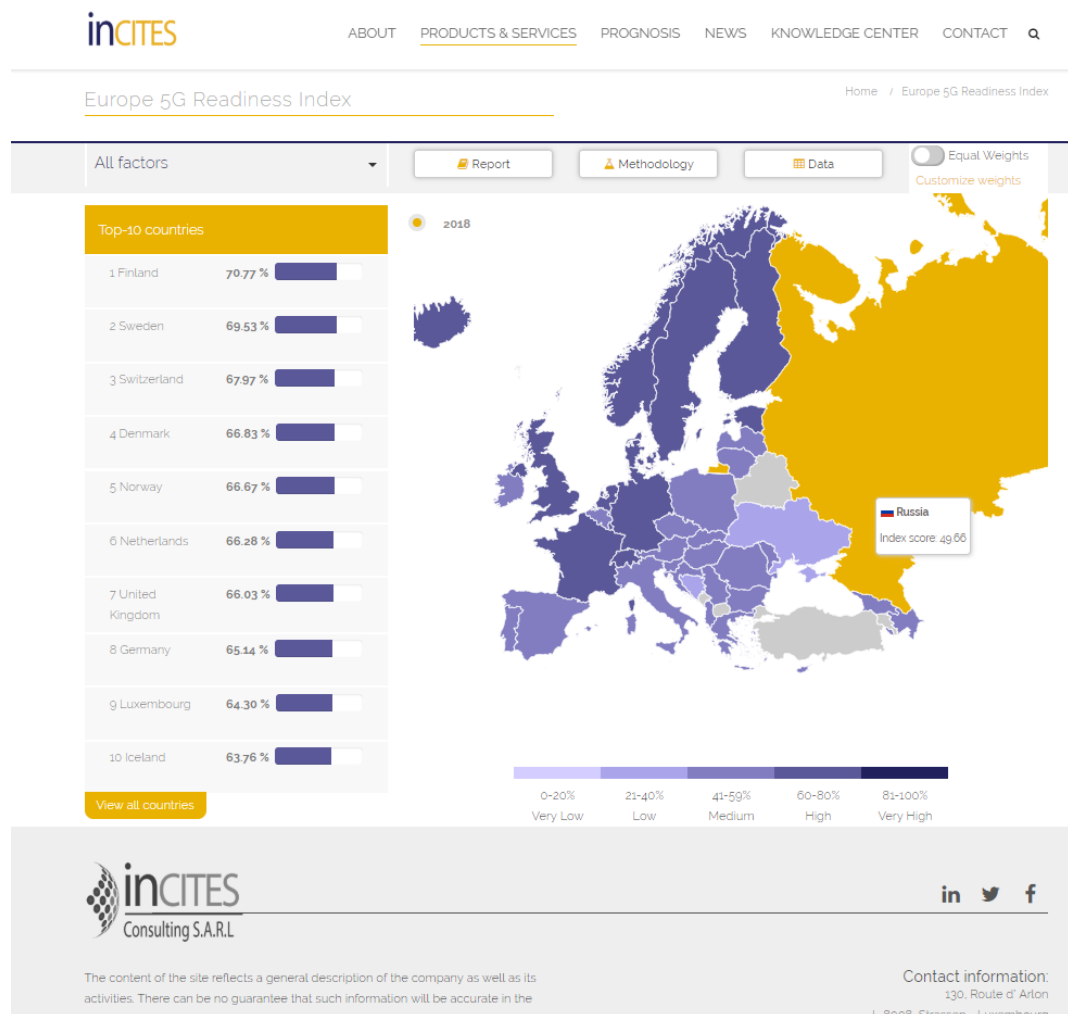
Packet  
Clearing  
House

5G  
Observatory

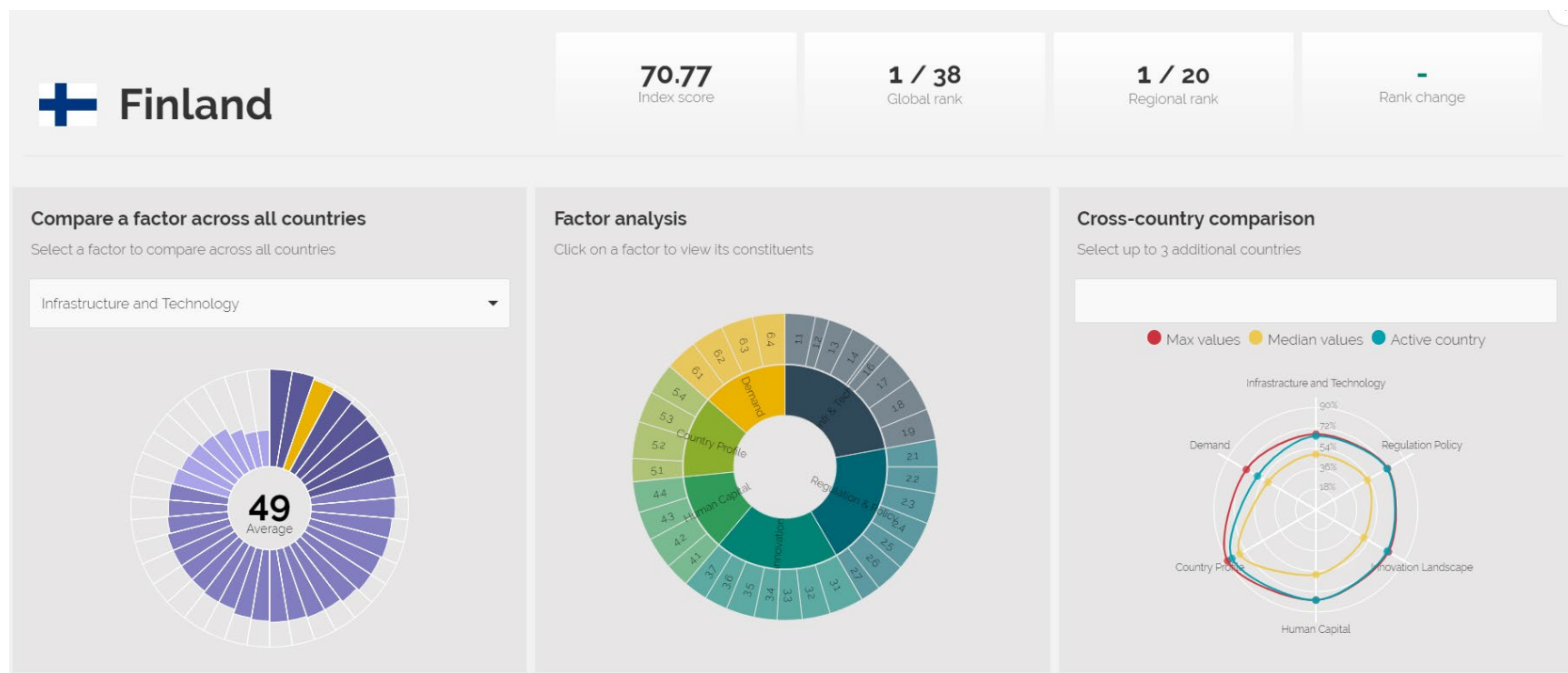
IMF

Prognosis

# Europe 5G Readiness Index



# Europe 5G Readiness Index



# Top-Bottom performers

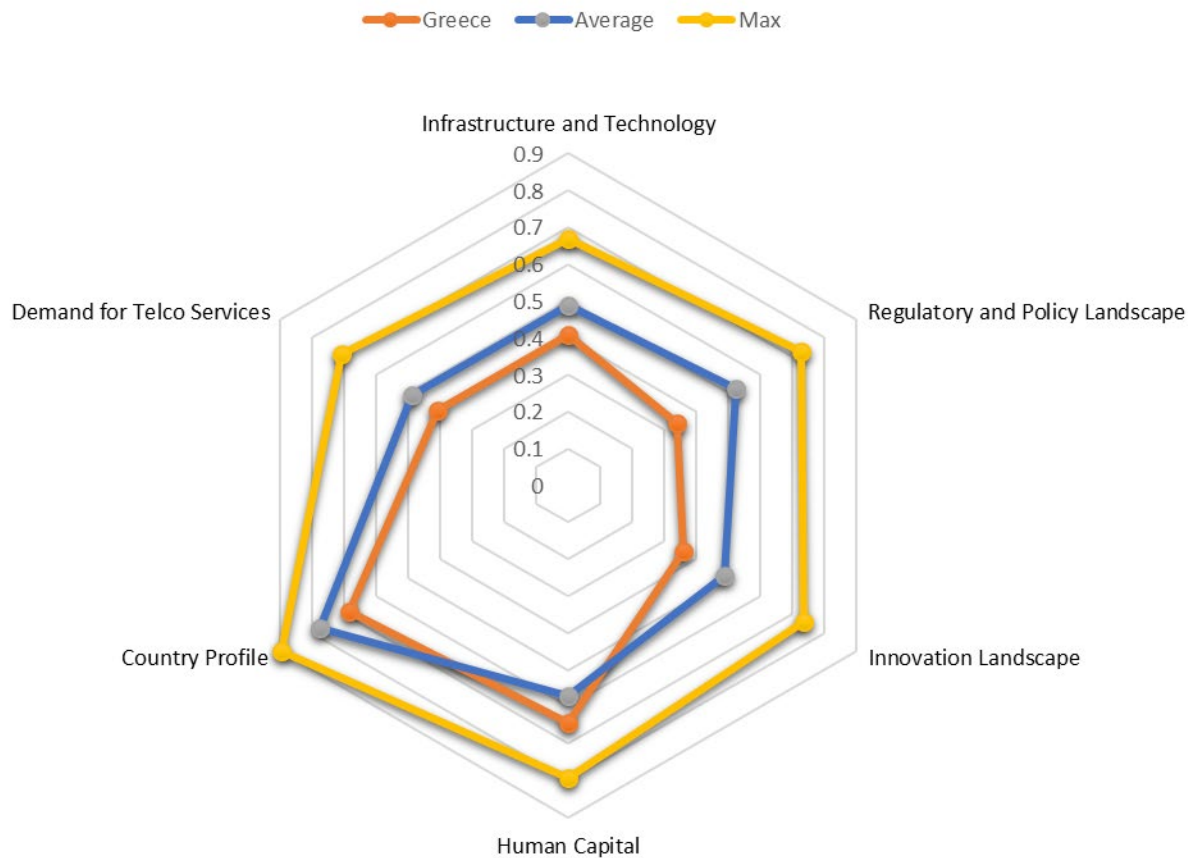
Rank	Country
1	Finland
2	Sweden
3	Switzerland
4	Denmark
5	Norway
6	Netherlands
7	United Kingdom
8	Germany
9	Luxembourg
10	Iceland

Rank	Country
29	Cyprus
30	Greece
31	Croatia
32	Georgia
33	Bulgaria
34	Serbia
35	Moldova
36	Albania
37	Ukraine
38	Bosnia & Herzegovina

# Greece's 5G Readiness

Score:  
44.34

Rank:  
30/38



# Individual factor ranking

Factor	Rank
Infrastructure and Technology	30
Regulatory and Policy	37
Innovation Landscape	29
Human Capital	9
Country Profile	36
Demand for Telco Services	29

## Infrastructure and Technology

- Fiber Coverage
- Spectrum auctions

## Regulatory and Policy

- Effectiveness of law bodies
- Legal system in setting disputes

## Innovation Landscape

- R&D expenditure
- University – Industry collaboration

## Human Capital

- Tertiary
- Availability of scientists and engineers

## Country Profile

- GDP
- Importance of ICT to government's vision

## Demand

- NGA penetration

# Current 5G initiatives in Greece

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- Cities:
  - Kalamata, Patra, Trikala, Zografou
- Corridor:
  - Thessaloniki, Sofia-Belgrade: Letter of Intent
- Spectrum auctions
  - 3.4-3.8GHz Q42019
  - 700MHz End 2020
  - 26GHz 2019-2020



# Current 5G initiatives in Europe

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- Commercial networks
  - Finland (Tampere)
  - Estonia (Tallinn)
  - Austria (Rural areas)
  - Switzerland (50 cities)
  - UK (Parts of cities)
- Live tests in five cross-border corridors
- National Strategies (10 countries)
  - Austria, Estonia, Finland, France, Germany, Luxembourg, Spain, Sweden, Netherlands, UK

# How to improve our 5G readiness

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- Create ecosystem
- Consider 5G in NGA deployments
- Leverage:
  - Human capital
  - New applications and services (tourism)

# Thank you!



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