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HELLENIC ASSOCIATION
OF MOBILE APPLICATION COMPANIES
ΣΕΚΕΕ
ΣΥΝΔΕΣΜΟΣ ΕΤΑΙΡΙΩΝ
ΚΙΝΗΤΩΝ ΕΦΑΡΜΟΓΩΝ ΕΛΛΑΔΟΣ
12:44
Pictures
Database
Music
Shopping
8
MAY
Calendar
Security
Community
Your phone
Movie
Calculator
Message
Settings
Greece 4.0!

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Industry 4.0

1st revolution
Water/Steam

2nd revolution
Electricity

3rd revolution
Automation

4th revolution
Cyberphysical systems

Replacement of equipment
Percent of installed base

100

Replacement of complete loom necessary

~ 10 - 20

Little replacement, as tooling equipment could be kept, only conveyor belt needed

~ 80 - 90

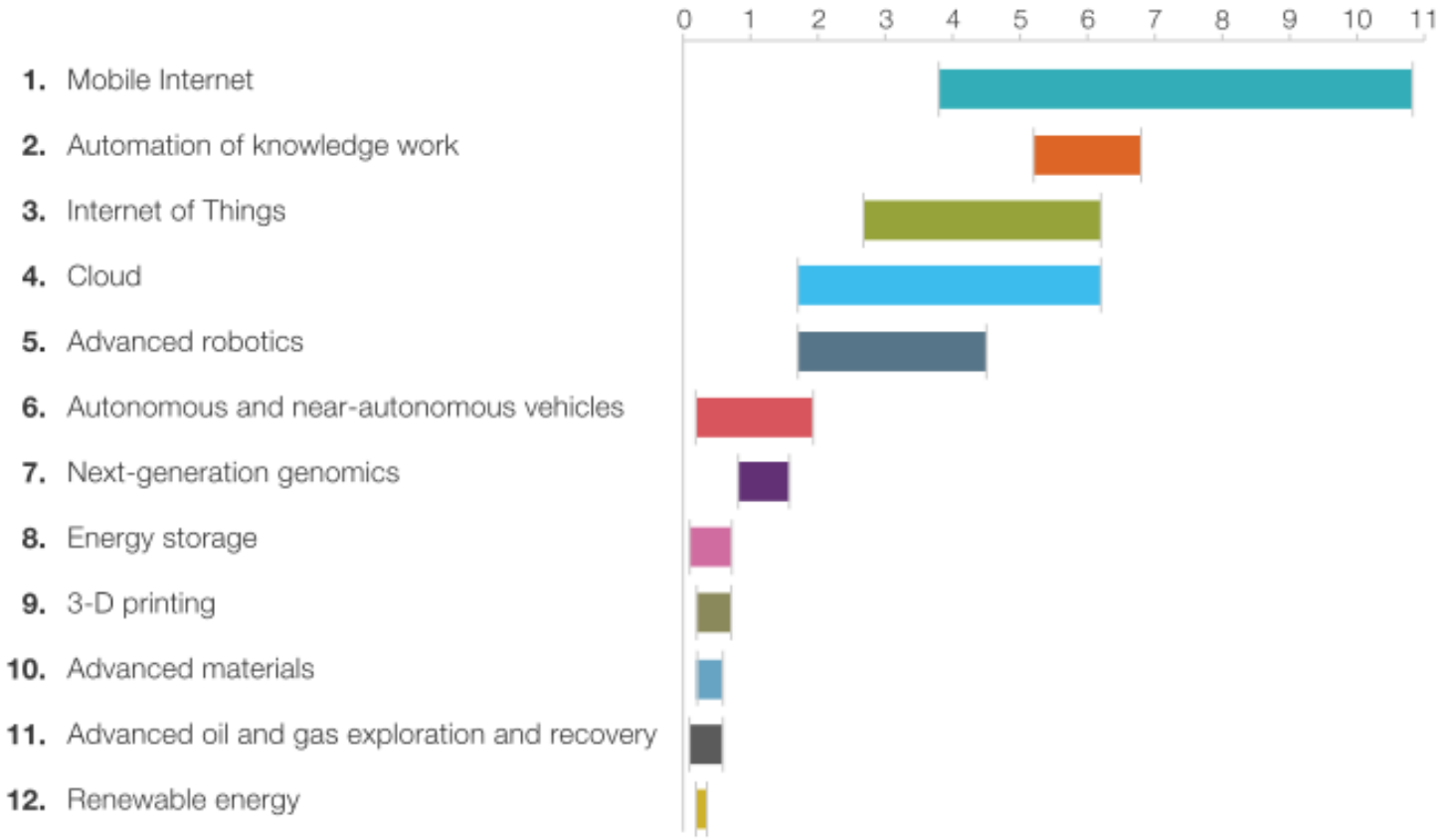
High level of replacement as tooling equipment was replaced by machines

~ 40 - 50

Existing machines are connected, only partial replacement of equipment

A gallery of **disruptive technologies**

Estimated potential economic impact of technologies across sized applications in 2025, $ trillion, annual



SOURCE: McKinsey Global Institute

#1 Mobile Internet

Increasingly inexpensive and capable mobile computing devices and Internet connectivity

Potential economic impact in 2025 across sized applications of **$3.7 trillion–$10.8 trillion**

10–20% potential cost reduction in treatment of chronic diseases through remote health monitoring

Component technologies

- Wireless technologies
- Small, low-cost computing and storage devices
- Advanced display technology, natural user interfaces
- Advanced, low-cost batteries

Key applications

- Service delivery
- Worker productivity
- Additional consumer surplus from use of mobile-Internet services

#2 Automation of knowledge work

Intelligent software systems that can perform knowledge-work tasks

Potential economic impact in 2025 across sized applications of **$5.2 trillion–$6.7 trillion**

Additional labor productivity could equal the output of **110 million–140 million** full-time workers

Component technologies

- Artificial intelligence, machine learning
- Natural user interfaces
- Big-data technologies

Key applications

- Smart learning in education
- Diagnostics and drug discovery in health care
- Discovery, contracts/patents in legal sector
- Investments and accounting in finance sector

#3 Internet of Things

Networks of low-cost sensors and actuators for data collection, monitoring, decision making, and process optimization

Potential economic impact in 2025 across sized applications of **$2.7 trillion–$6.2 trillion**

Offers potential to drive **productivity across $36 trillion** in operating costs of key affected industries: manufacturing, health care, and mining

Component technologies

- Advanced, low-cost sensors
- Wireless and near-field communication devices—eg, RFID (radio frequency identification tags)

Key applications

- Process optimization, especially in manufacturing and logistics
- Efficient use of natural resources—eg, smart-meter and smart-grid control of water and electricity
- Remote health-care delivery, sensor-enhanced business models

#4 Cloud

Use of computer hardware and software resources to deliver services over the Internet or a network

Potential economic impact in 2025 across sized applications of **$1.7 trillion–$6.2 trillion**

15–20% potential productivity gains across IT infrastructure, application development, and packaged software

Component technologies

- Cloud-management software—eg, virtualization, metering
- Data-center hardware
- High-speed networks
- Software/platform as a service (SaaS/PaaS)

Key applications

- Cloud-based delivery of Internet services and applications
- Enterprise IT productivity

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Industry 4.0

is the fourth industrial revolution where the brainpower that has gone into creating apps for smartphones is creating applications for smart factories, smart cities and smart ships.

David Grucza, Director, Siemens Drilling & Marine, U.S

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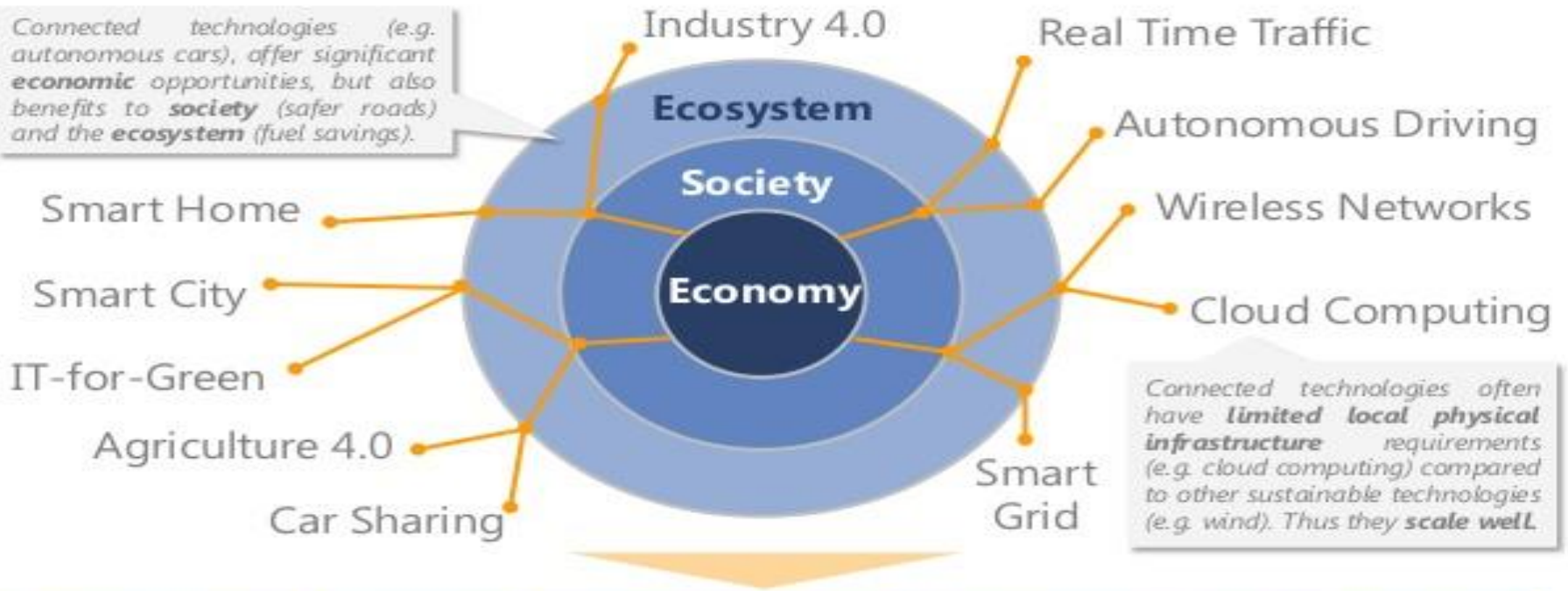
New ecosystems emerge

A Connected technologies as a catalyst for sustainability

High scalability due to limited infrastructure requirements

*Connected technologies (e.g. autonomous cars), offer significant **economic** opportunities, but also benefits to **society** (safer roads) and the **ecosystem** (fuel savings).*



*Connected technologies often have **limited local physical infrastructure** requirements (e.g. cloud computing) compared to other sustainable technologies (e.g. wind). Thus they **scale well.***

From **optimised processes** to **improved decision making** – connected technologies are a **driver for sustainability.** They also offer high potential **scalability** of sustainability effects.

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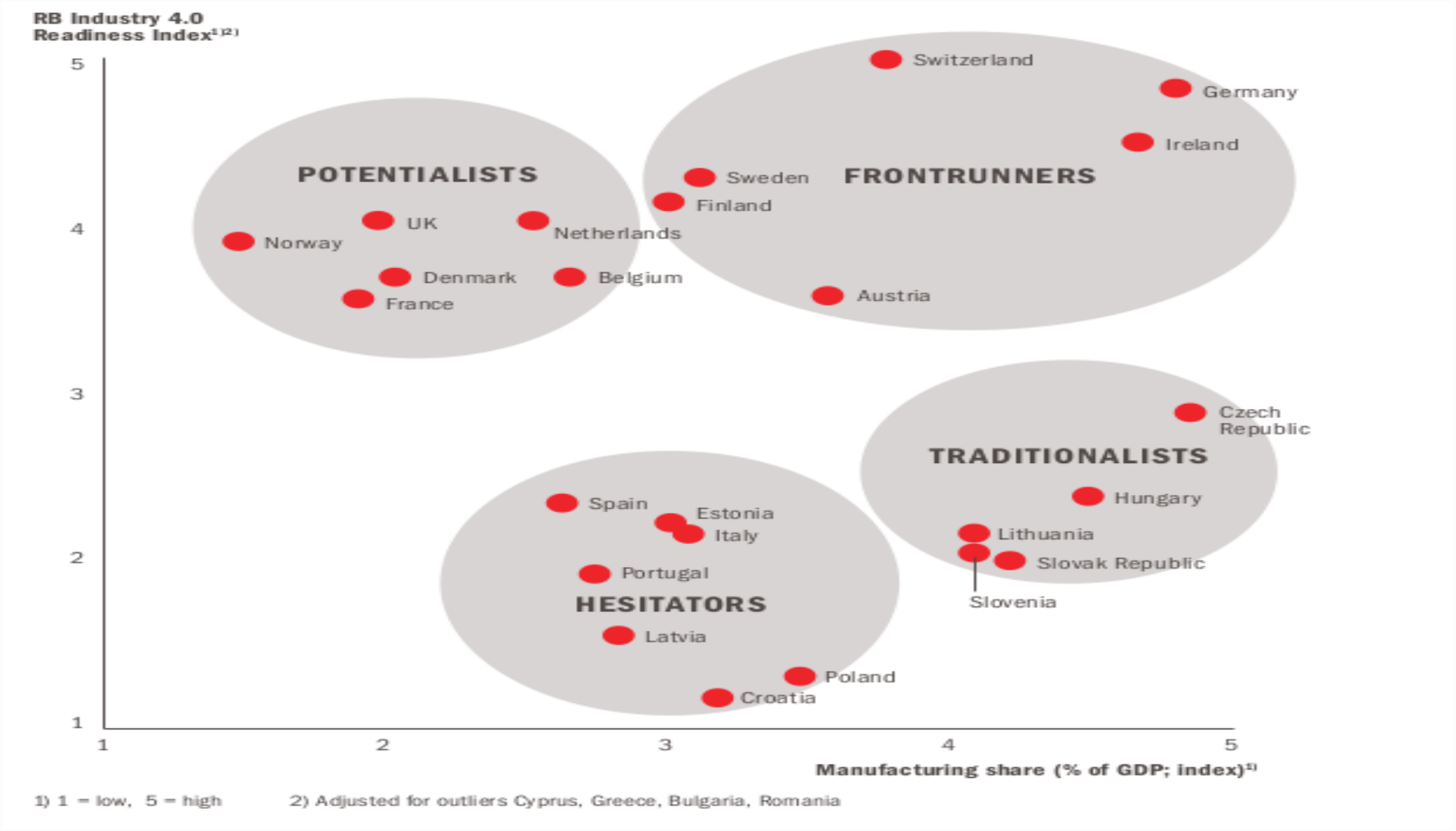
Where is Greece?



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Ελλάδα 4.0

- Agrofood
- Life Sciences & Health - Pharma
- Information and Communication Technologies
- Energy
- Environment and Sustainable Development
- Transport and Logistics
- Materials - Construction
- Culture - Tourism - Cultural & Creative Industries

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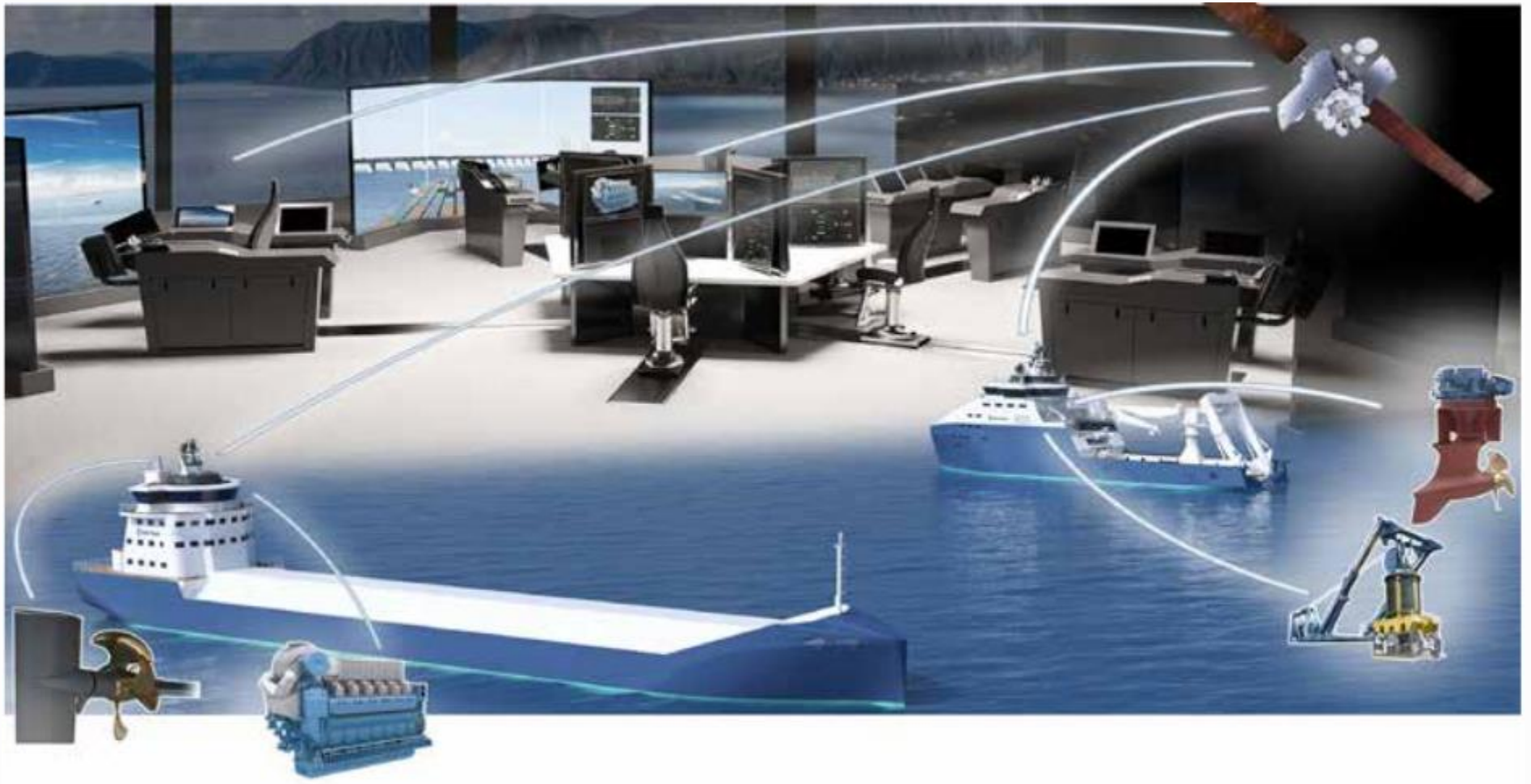
Marine & Logistics 4.0



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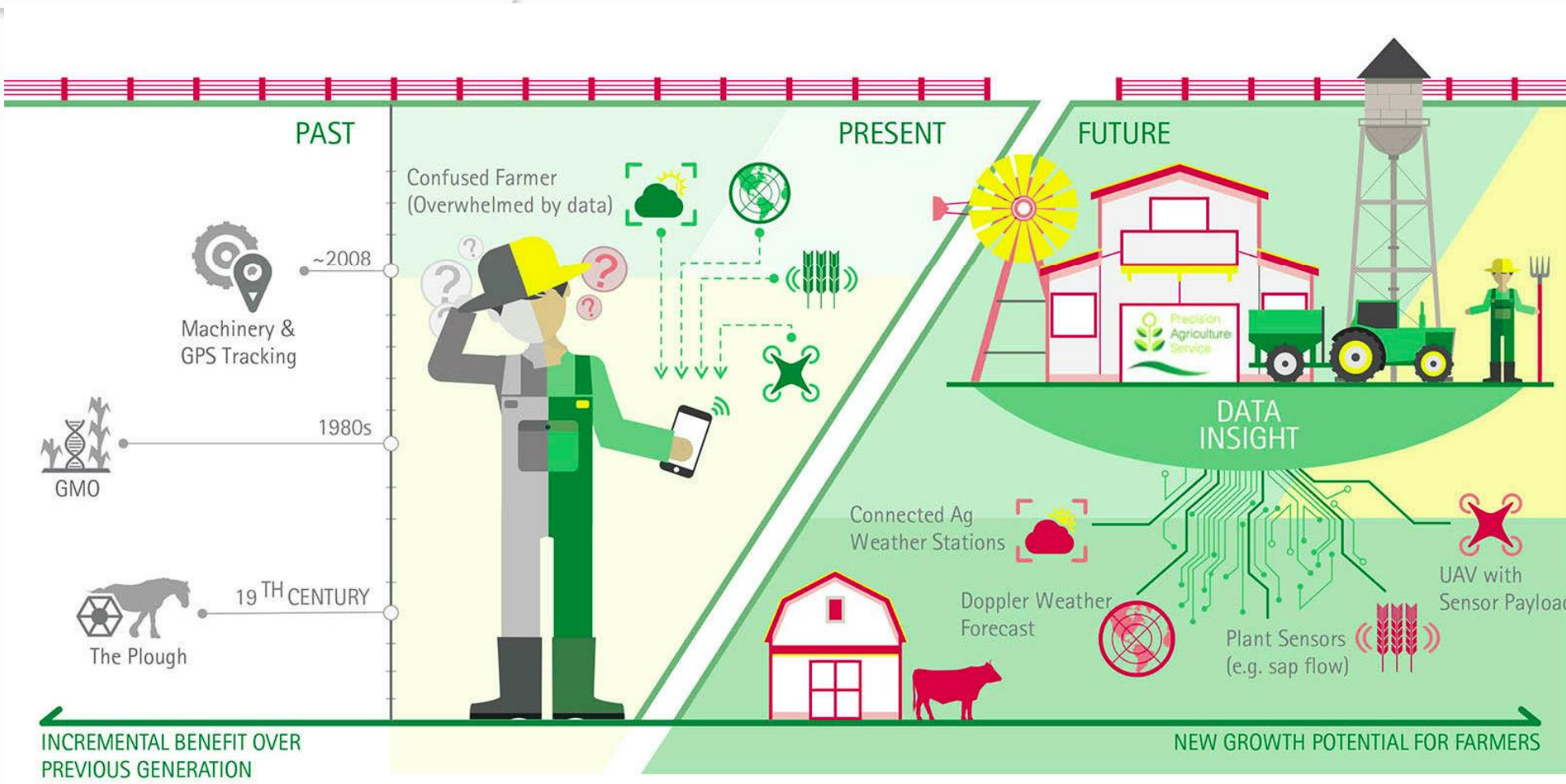
Agro-Food 4.0



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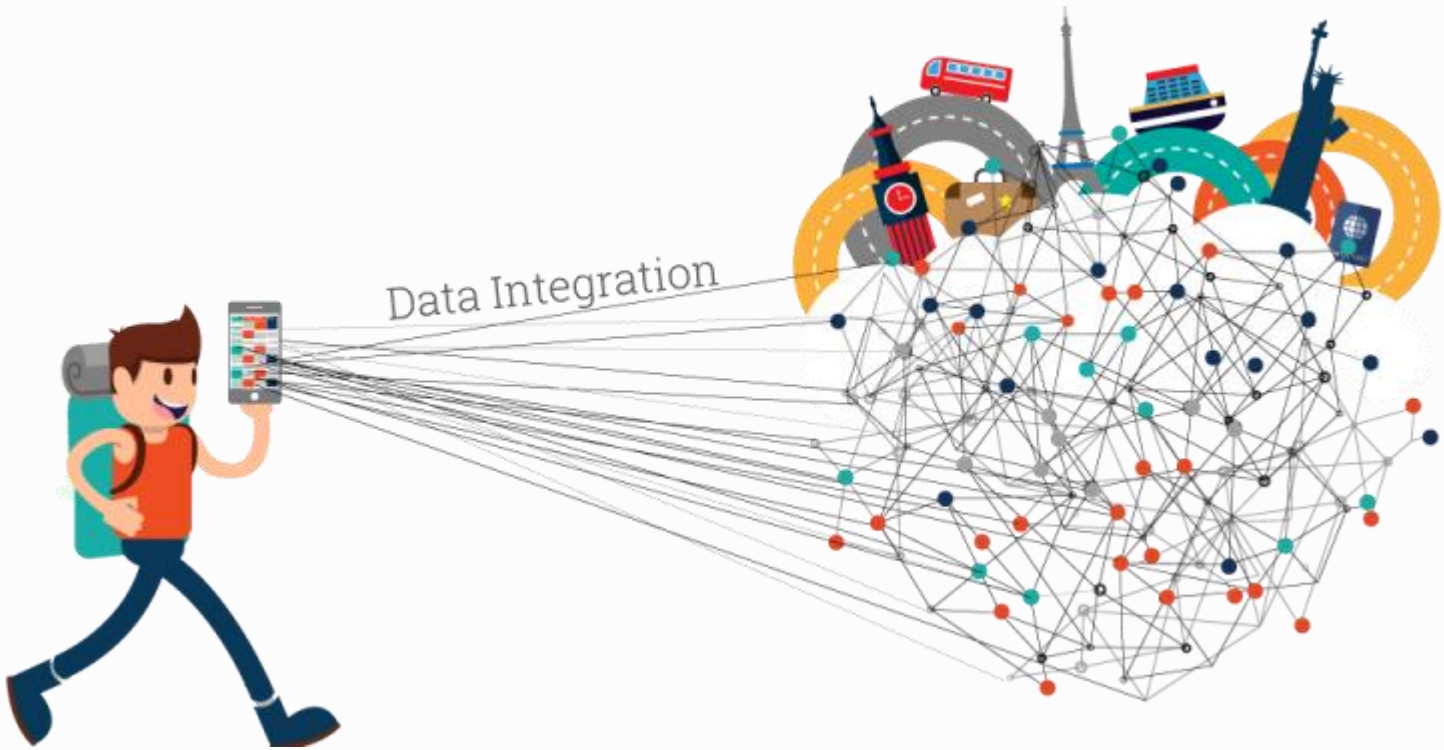
Tourism 4.0



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Health 4.0

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mGov 4.0

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Greece Scales Up!

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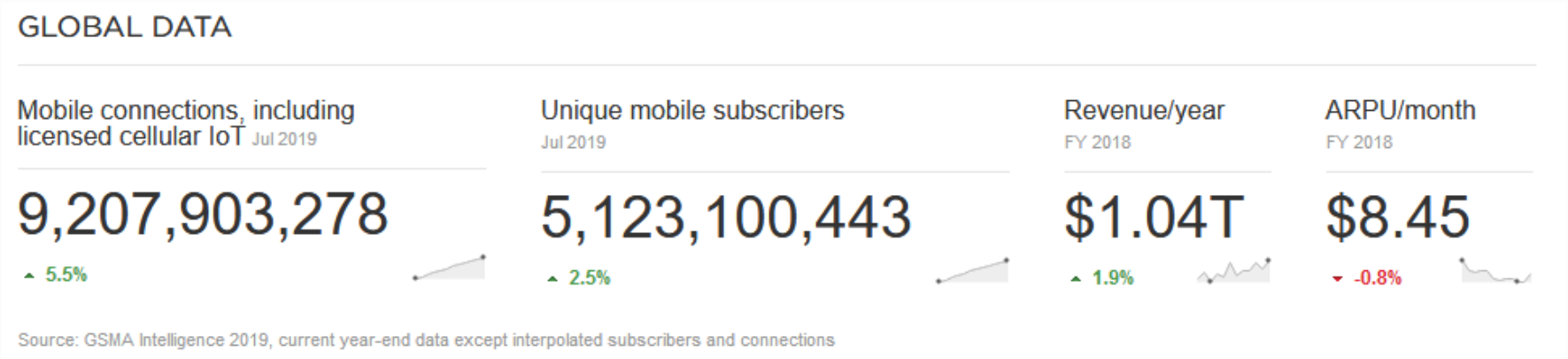
2019: the number of mobile devices is bigger than the world population!



Source: GSMA - 20 Jul 2019 08:12

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JAN
2019

USE OF INTERNET TECHNOLOGIES

PERCENTAGE OF INTERNET USERS THAT USE EACH TOOL OR SERVICE EACH MONTH

VOICE SEARCH OR VOICE COMMANDS	RIDE-HAILING SERVICES	AD-BLOCKING TOOLS	VIRTUAL PRIVATE NETWORK (VPN)
			
25%	20%	36%	17%

we are social · global web index · Hootsuite

SOURCE: GLOBALWEBINDEX (Q2 & Q3 2018). FIGURES REPRESENT THE FINDINGS OF A BROAD SURVEY OF INTERNET USERS AGED 16-64.

Hootsuite we are social

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The daily routine...

- Source: GSMarena

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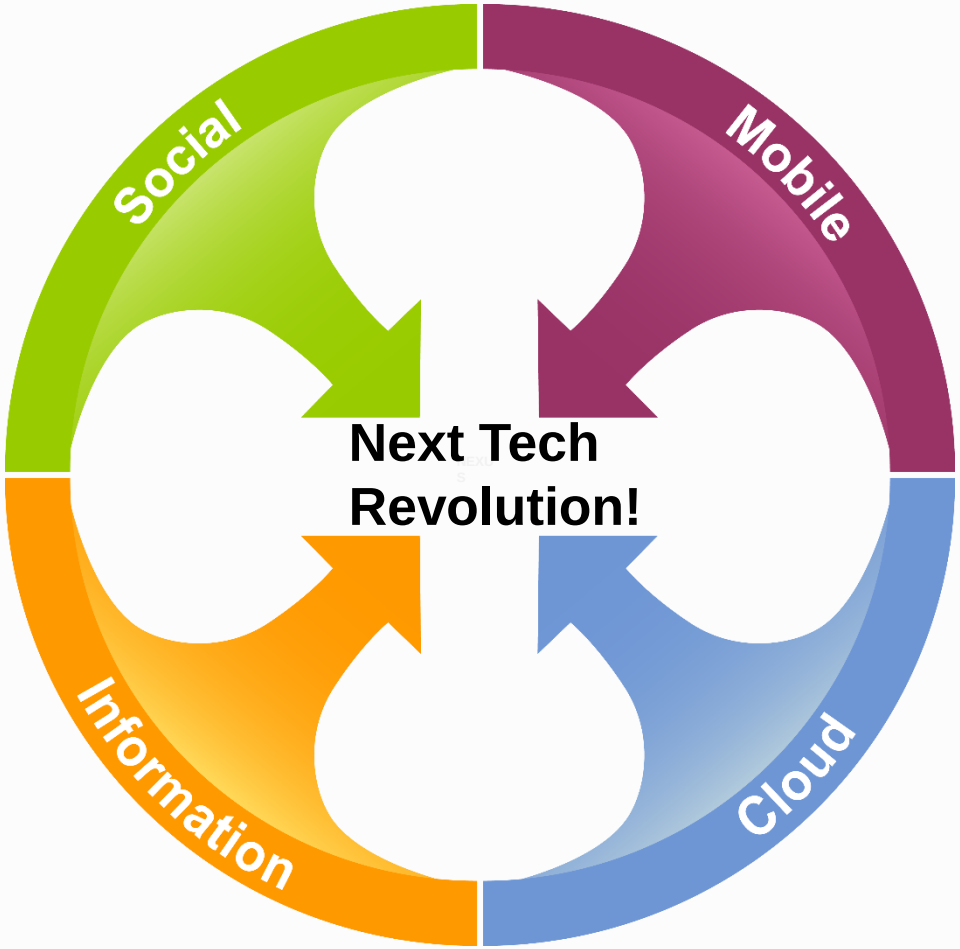
Gartner's Nexus of Forces: Social, Mobile, Cloud and Information



See "High-Tech Tuesday Webinar: Impact of Cloud, Data, Mobile and Social Forces on the Enterprise Software Markets"

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Need for Strategy and Speed

DIGITAL STRATEGY

DIGITAL GOVERNANCE
PROCESS GOVERNANCE – DATA GOVERNANCE – TECHNOLOGY GOVERNANCE

SKILL AND CAPABILITY
LEADERSHIP – SKILL DEVELOPMENT – ORGANIZATION ALIGNMENT

PRODUCT AND PROCESS

SMART PRODUCTS

- **SMART INNOVATION** SMART PRODUCT LIFECYCLE MANAGEMENT
- **SMART FACTORY / SMART PRODUCTION**
- **SMART SUPPLY CHAIN** DIGITAL, INTEGRATED AND INTERCONNECTED
- **SMART SERVICES** DIGITAL AFTERSALES SERVICES
- **SMART SALES** DIGITAL MARKETING AND SALES

INFRASTRUCTURE AND TECHNOLOGY


BIG DATA AND ANALYTICS PLATFORM


CLOUD SERVICES INFRASTRUCTURE


CONNECTIVITY AND SECURITY


ARCHITECTURE AND APPLICATION INTEGRATION

PLAYERS AND ECOSYSTEM


COMPANY


CUSTOMERS


SUPPLIERS


PARTNERS


SOCIAL MEDIA AND CROWD

ENABLERS


SENSORS


MOBILE DEVICES


ROBOTICS


M2M


3D PRINTING

DIGITAL ENABLED BUSINESS MODEL

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about HAMAC

- ✓Established in Athens in 2010, by **32** companies – today **70+** which develop **innovative** applications and services to **mobile devices**
- ✓Its members have a global presence in **40+ countries**
- ✓They have gained **international investors' trust** and have raised funds from the international markets.

HAMAC members

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HAMAC Objectives

- Growing the ecosystem
- Going global
- Access to capital
- Enhancing innovation and enterpreneurship policies

HAMAC Partners

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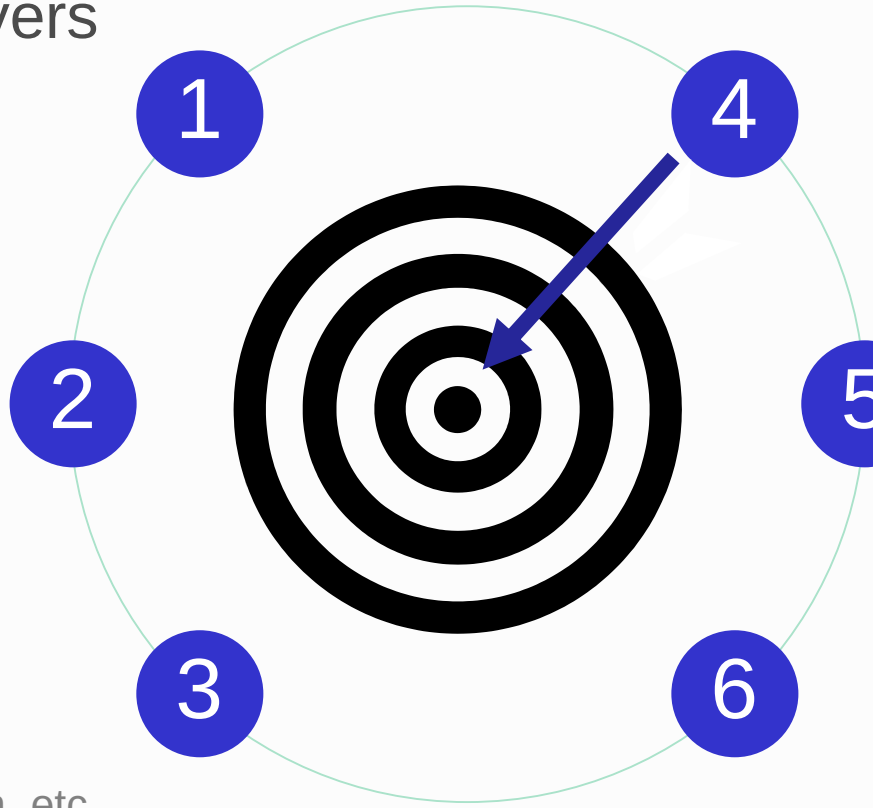
Market Key Players

Banks – Telcos –
Mobile Vendors

Academic

AUEB, ELTRUN,
Piraeus University
etc



Institutional

Enterprise Greece,
Municipality of Athens,
Attica Perfecture

Associations

Σynergies, GRECA,
SEV, IPE,
SEPE Coralia,
etc

Chambers

Greek- Anerican,
Chinese, German, etc

Industries

Shipping,
Logistics,
Tourism,
etc

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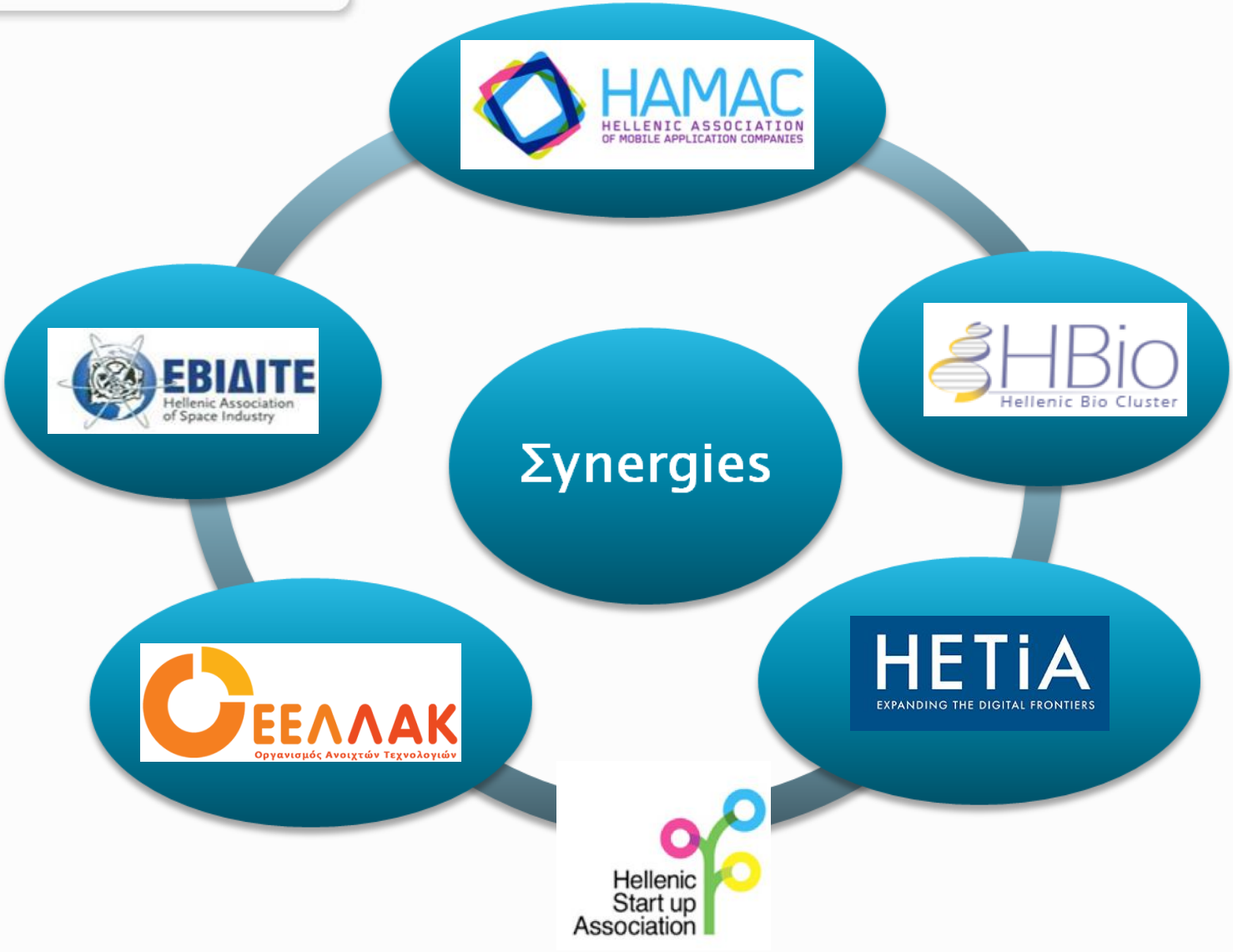
Synergies



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Greece: 7 years @MWC

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Greece @ space

LDA
GMES IN ATHENS

in cooperation with
EUROPEAN
SATELLITE NAVIGATION
COMPETITION 2014 - 2015

opernicus
The European Earth Observation Programme

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Mobile mini MBA – 6 courses

A HAMAC initiative, in cooperation with ELTRUN, Samsung Hellas and INNOVATHENS powered by Samsung

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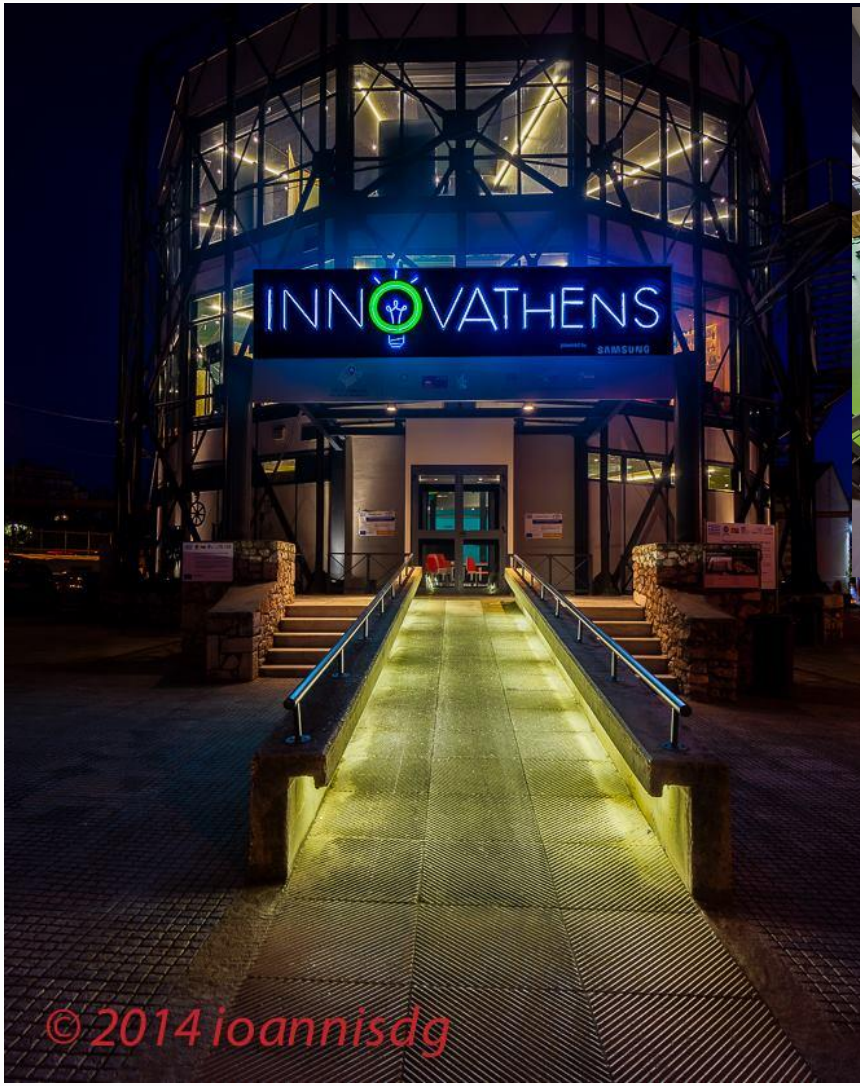
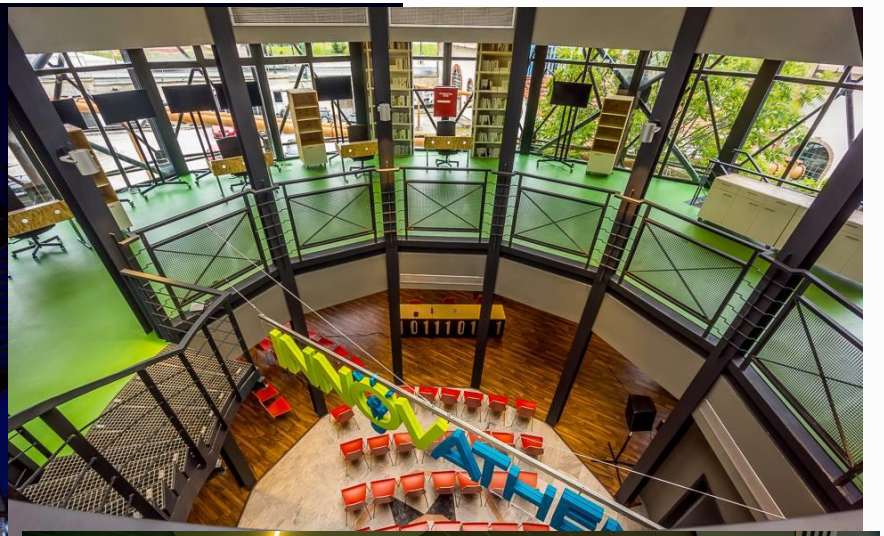
InnovAthens - Synergies





JOIN THE

MOBILE REVOLUTION NOW!

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Yiannis Kotsis-Giannarakis
General Manager

HAMAC

: Hellenic Association of Mobile Application Companies

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Ermoupoli July 2019