

Future ICT: a new approach from research to innovation



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We propose our idea to approach the transition from research to innovation of future ICT market. We believe that modern research and innovation activities need to cross organizational boundaries to reach a tangible and relevant impact on the Company and on the Society. Market is the final destination. To make this journey we have to build a bridge between research ideas and market exploitation working in parallel from both sides.

For this reason we have created a Research and Innovation Lab following the Open Innovation paradigm to promote, at the same time, research and innovation with a new mindset and openness towards internal and external cooperation.

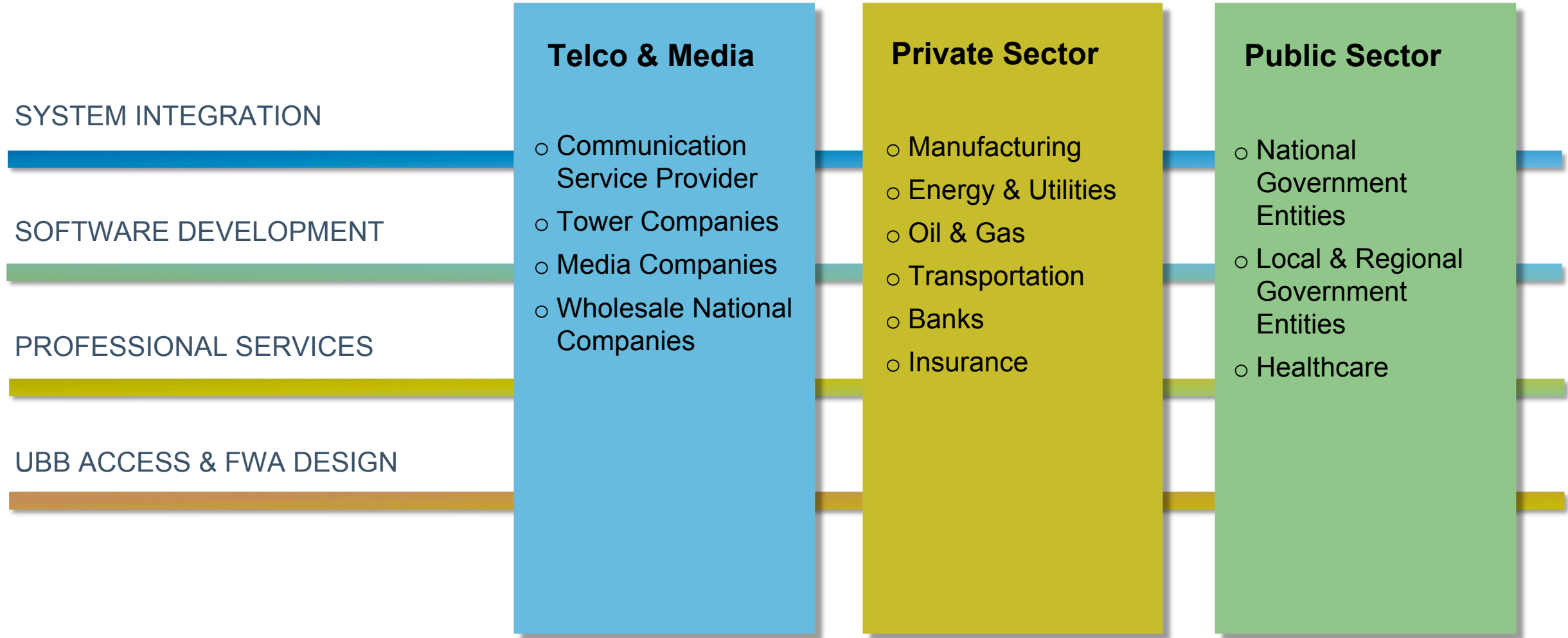


**WE POWER SEAMLESS COMMUNICATION
OF PEOPLE AND OBJECTS,
TECHNOLOGIES AND NETWORKS**

Italtel is a multinational Information and Communication Technology company that combines the traditional positioning in network and communication services with the ability to innovate and develop solutions and applications for digital transformation.

Italtel designs and offers end-to-end solutions that address key issues for productivity and business success as well as for the evolution and simplification of network infrastructures.

Collaborative **Research** and Open **Innovation** foster the development of effective and coherent digitalization path to accompany our customers to their digitalization journey.



Most recent European projects



A Secure and Reusable Artificial Intelligence Platform for Edge Computing in Beyond 5G Networks

BRAINE



Big data pRocessing and Artificial Intelligence at the Network Edge



Q-Secure Net

Quantum Key Distribution (QKD) on current metropolitan fiber-optic networks



GUARD

A cybersecurity framework to GUArantee Reliability and trust for Digital service chains

5G ESSENCE

Embedded Network Services for 5G Experiences



5G-ready applications and network services over sliced programmable infrastructure

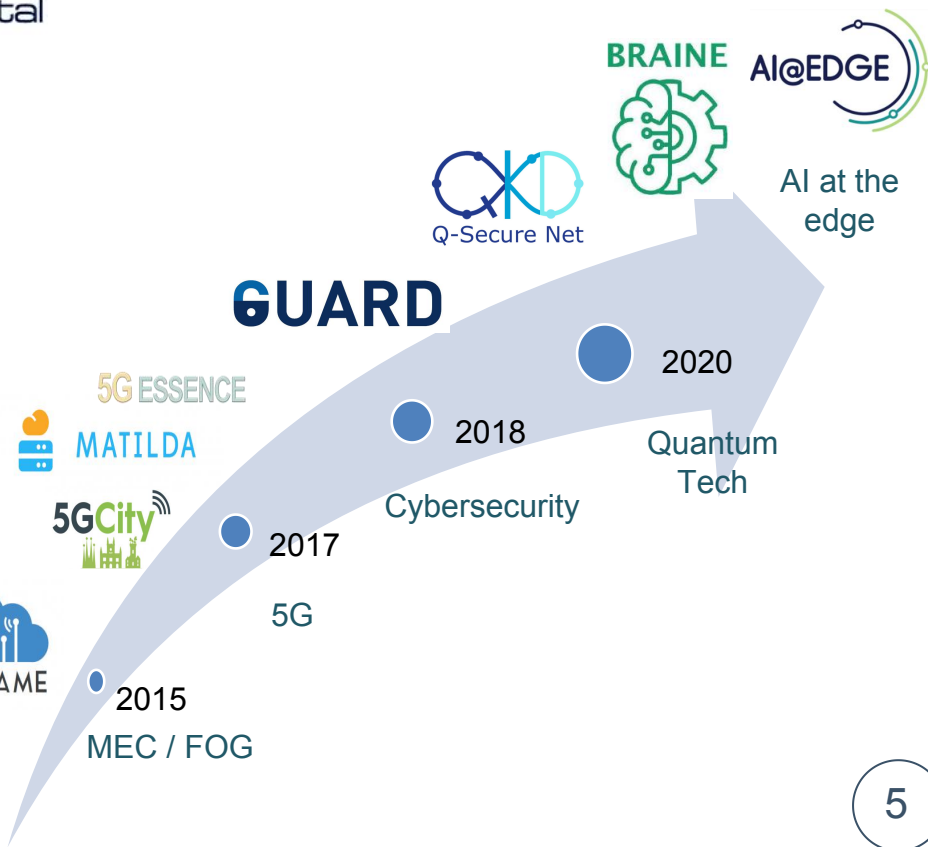


Enabling Smart Cities through 5G Clouds



SESAME

Small cEllS coordinAtion for Multi-tenancy and Edge services



Active development

Edge Node computing

- Virtualized, containerized environment
- Resource orchestration
- HW/SW acceleration

Semantic monitoring

- Transparent distributed monitoring
- Semantic filters at the data generation endpoints

e-Health remote monitoring

- Remote monitoring
- Personal communication

Key Management middleware

- Network of key management
- Physical key generation layer independent
- QoSec

Data broker, data orchestrator

- Light data collection
- Data distribution to reasoning modules
- Reaction

Critical Infrastructure Monitoring

- Multi-sensor fusion
- Optical fiber sensors

Data sovereignty AAA

- Controlled access to data (Authentication, Authorization)
- Business sensitive transactions (Accounting)

Circular Economy Tracing

- Blockchain + encrypted DB as cloud service
- Lifelong product tracing
- Multi-actor, multi-domain value chain

Technologies

- 5G, 6G and beyond
- Edge computing
 - Energy efficiency
 - HW/SW acceleration
 - RAN virtualization
 - Virtualization platforms
- Multi-Media Communication
- AI/ML
 - Video analytics
 - Optimization
 - Computation platform (GPU, Edge)
- Big data, data sovereignty
- Internet-of-Things
- Blockchain
- Cyber security
- Quantum security (QKD)

Market Sectors

- Telecommunication
- Digital Society
- Quantum Communication
- Industry 4.0
 - MADE Competence Center
 - Asset tracking
 - Safe distributed logistic
- Circular Economy
- e-Health / Wellbeing
 - Remote monitoring
 - Personal communication
- Smart City
 - Citizens security
 - Crowded events
- Smart Energy
- Critical Infrastructure Monitoring
- Agrifood

Proposal time

DREAM IT BUILD THE TEAM

- Definition of the core idea
- Consortium creation
- Technical content

Project execution

DESIGN AND DEVELOP MAKE IT WORKING

- Use cases and requirements
- System design and overall architecture definition
- Design, Development and Integration of system components
- Testing methodology and result evaluation
- Innovation Management
 - Business plan
 - IPR
 - Dissemination
 - Marketing

GO TO THE MARKET GET PROFIT

Exploitation

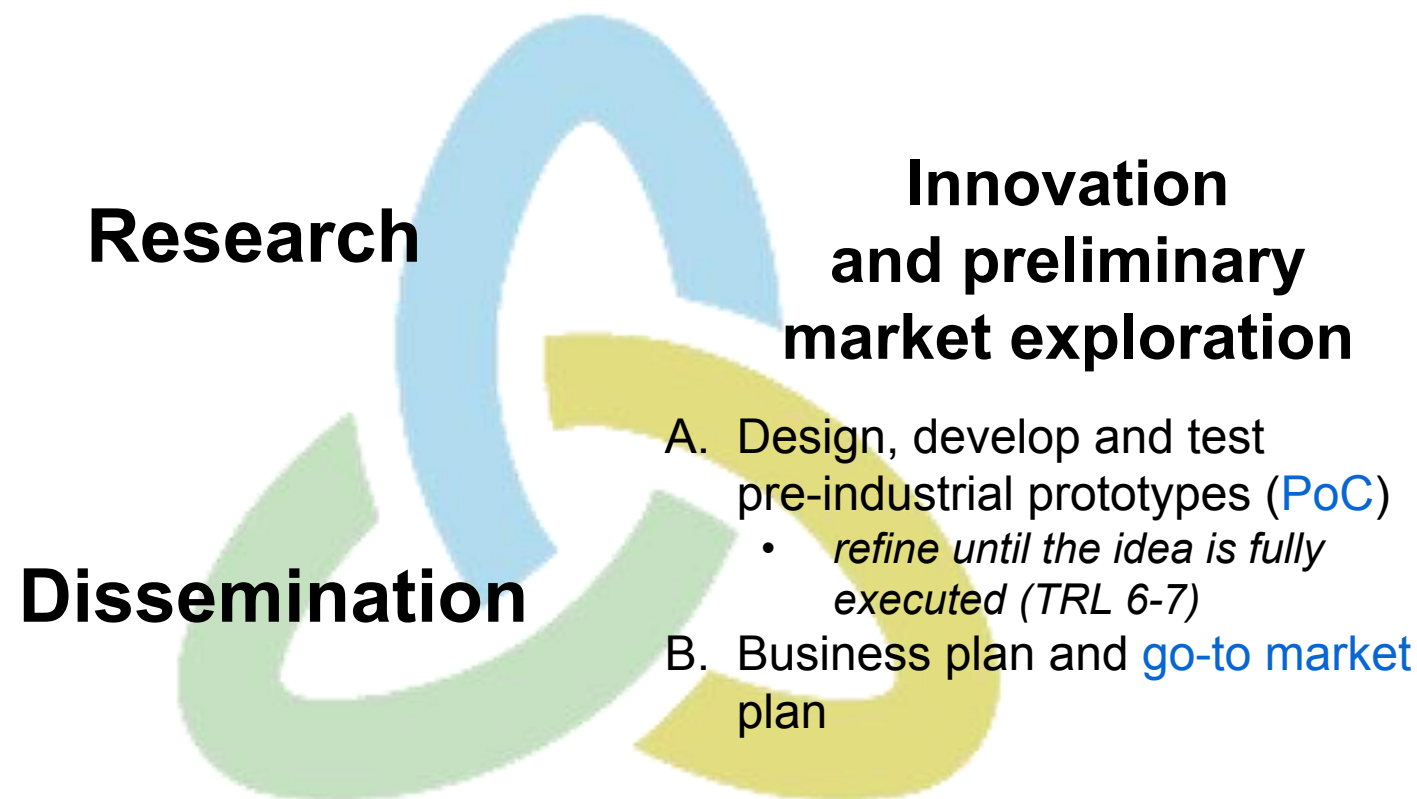
- Market relevant prototype
- Business plan
- Open source community
- Business development and Marketing
- Commercialization

We believe that modern research and innovation need to cross organizational boundaries to generate tangible and relevant impact on the Company and on the Society.

Research and Innovation Lab

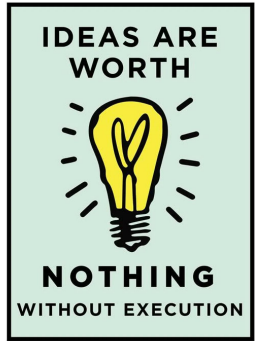
cares about all the phases from research to innovation

- project finance administrative staff
- technical project managers
- researchers
- innovation managers
- business developers



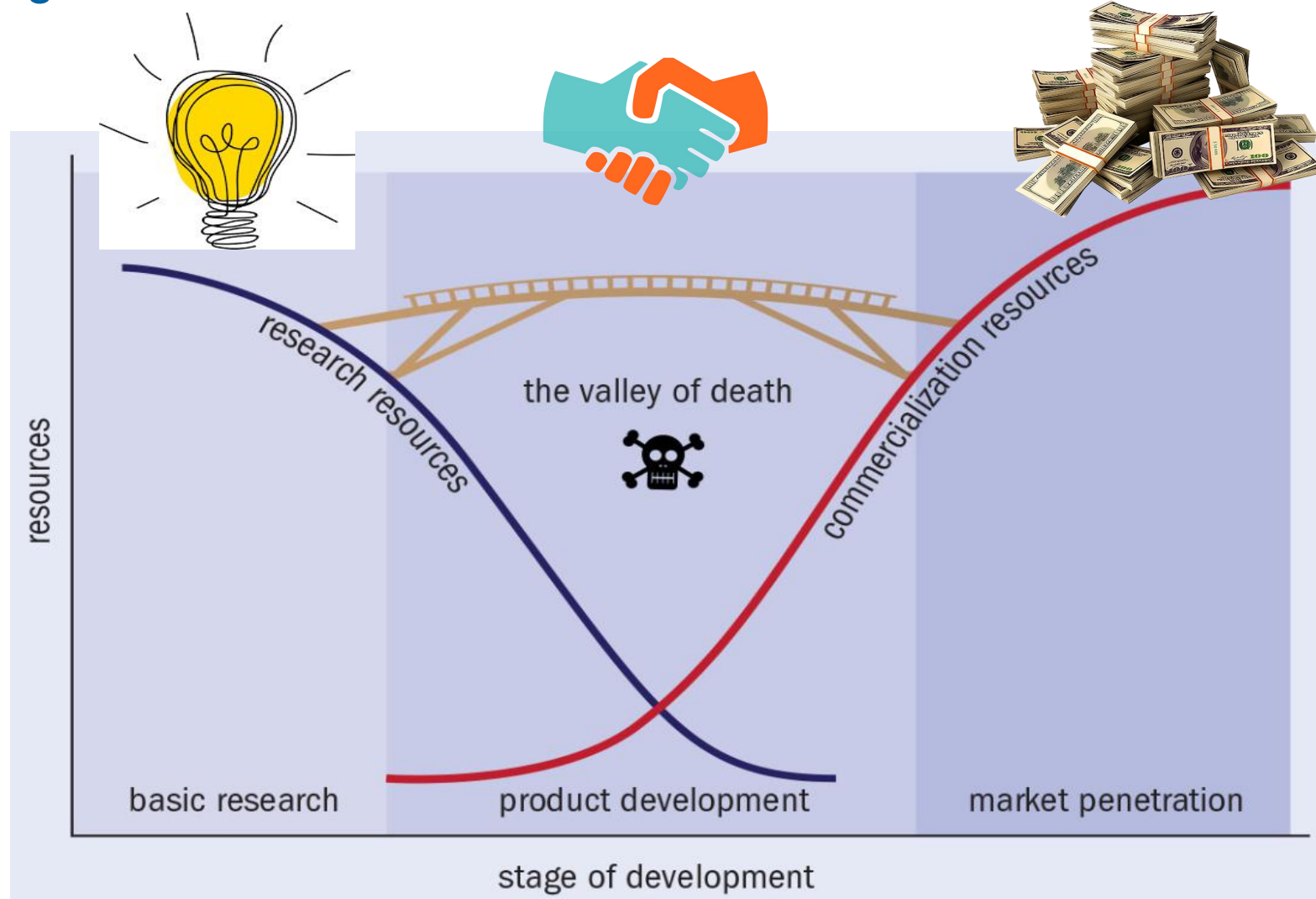
The valley of death risk

Build the bridge from the two sides



“To me, ideas are worth nothing unless executed. They are just a multiplier. Execution is worth millions.”

[Steve Jobs]

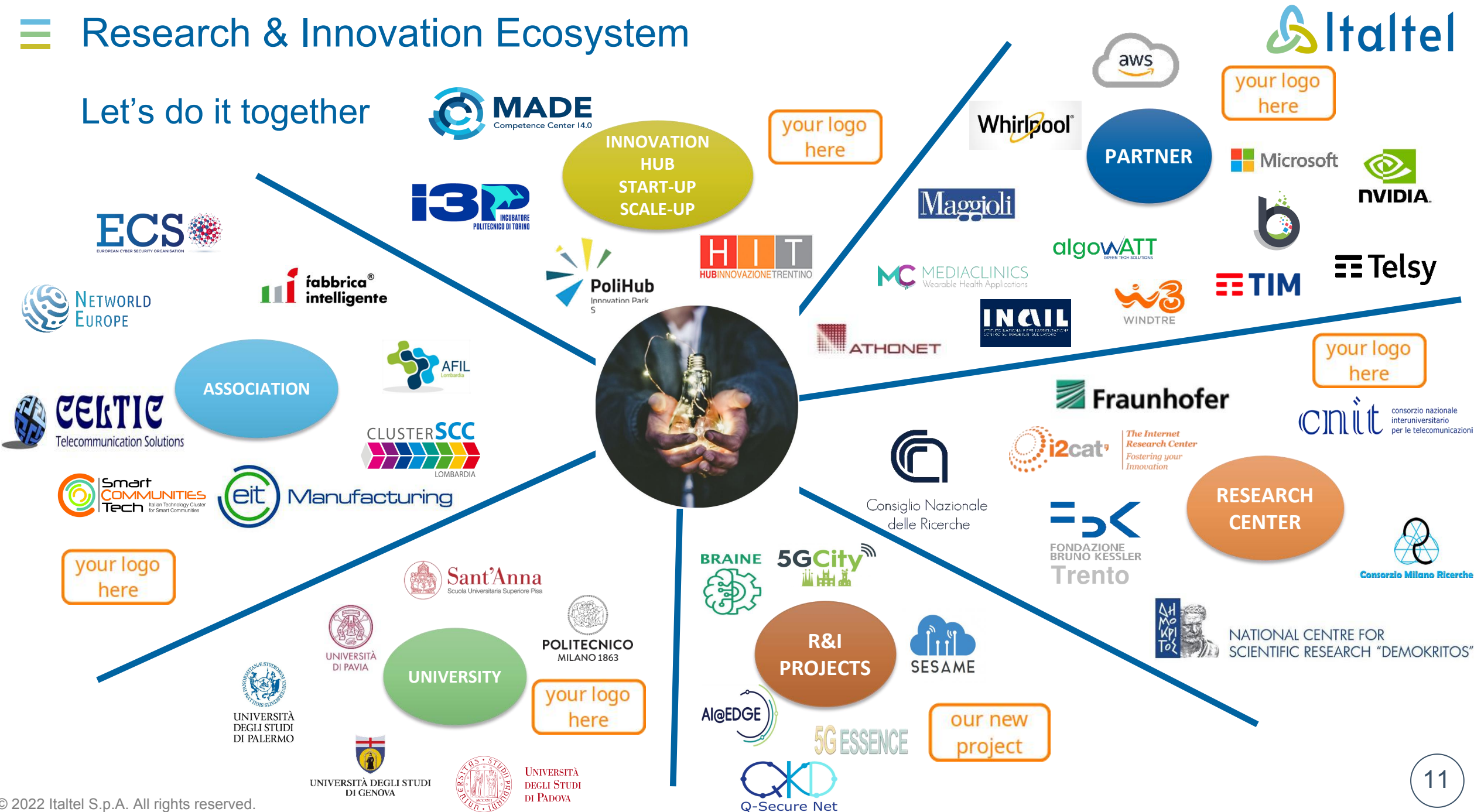


“Money never starts an idea; it is the idea that starts the money”

[W.J. Cameron]

Research & Innovation Ecosystem

Let's do it together



Thank you



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