Introduction to the NCP training

Gonzalo León
Director of the Centre for Technology Innovation (CAIT)
Universidad Politécnica de Madrid
Prof. Gonzalo León

- Full professor of Telematics Engineering (UPM)
- Deputy Rector for Innovation Partnerships (UPM)
- Director of the Centre for Technology Innovation (CAIT)
- Spanish Delegate in SFIC (EU Council)
- Senior Policy Advisor for International Relations in the Spanish Secretary of State of R&D and Innovation

Former positions:
- Sec. General for Science Policy of the Spanish Government
- Vice-President for Research (UPM)
- Deputy Director General of Int. Relations (Spanish MEC)
- Deputy Director of the Office of S&T (Spanish Government)
- Member of CREST and ESFRI
- Chairman of the “Lisbon Strategy follow-up expert group”,
- Chairman of the “Research Infrastructure expert group”
- Chairman of the “FP7 Space Advisory Group” (EC)
- Rapporteur “G8 Research Infrastructures”

gonzalo.leon@upm.es
Learning objectives

• To understand the basic concepts behind innovation management
• To describe some techniques used in the management of innovation projects
• To understand the mechanisms to exploit the results of research projects in the EU
• To know the structure, drivers and trends for funding disruptive technology products and services in the EU
Planning (I)

Theme 1: 9:00-10:00

• Innovation concepts
  ✓ From the idea to the market:
  ✓ Relationship of innovation to research and development

• Types of innovation: complementary perspectives
  ✓ Product, process, service
  ✓ Evolutionary, revolutionary (disruptive)
  ✓ Open, closed

• Drivers for technology innovation
  ✓ Multidisciplinary approach
  ✓ Globalisation
Planning (II)

Theme 2: 10:00-11:00

- Innovation projects
  - Definitions:
  - Life-cycle models
  - Planning phases: relevance to piloting and demonstration

- Characterization: dimensions of complexity
  - Innovation profiles

- Interaction between research and innovation
  - From the idea to the market
  - Technology readiness levels (TRL)
  - Roadmaps for products and services
Planning (III)

Theme 3: 11:30-12:30

- Project innovation management
  - Inputs, outputs,
  - Milestones, deliverables
  - Resource allocation
- Organisational innovation
  - Lean management
- Risk management
  - Time, cost, technology, people, intangibles
- People management
  - Team building, profiles, culture
Planning (IV)

Theme 4: 12:30-13:30

- Technology evolution
  - Diffusion rates
  - Diffusion models

- Technology intelligence
  - Technology watch
    - Critical watch factors
    - Technology watch reports
  - Forecasting
    - Delphi method
Theme 5: 14:30-15:30

- Innovation in the EU:
  - International comparison with other world players
  - EU innovation SWOT

- Innovation Ecosystems
  - Innovation culture
  - The role of stakeholders
  - The EIT Digital ecosystem

- Conclusions
Planning (VI)

• **Theme 6: 15:30-16:30**

• Funding for innovation projects
  ✓ When and how much I need
  ✓ National funds
  ✓ The EU landscape
  ✓ Synergies between H2020 and other funds
  ✓ Risk capital
    ‣ Corporate venture

• Service innovation (from FP7/H2020)
  ✓ The case of FI-WARE
Documentation to be distributed to the participants:

- Copies of slides
- Selected readings per lecture

Documentation will be loaded in an on-line repository in the CAIT (UPM) for easy access to participants after the course.