



# **Role of experiments and testbeds in the 5G PPP**

**5G Infrastructure PPP Information Day**

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# Why the need for experiments/testbeds?

- The success of 5G relies on
  - **Developing novel solutions**
  - **Testing** and **validating** the associated prototypes
  - **In integrated, realistic, end-to-end scenarios, with real traffic**
- Demonstrators are also needed for brand building and communication purposes
  - **To achieve visibility** and raise **awareness**
  - **To facilitate impact** and justify the investment
  - **To reinforce the marketing efforts of participating companies**



# Shared experimental facilities offer

- Cost reduction
- Risk sharing in terms of investment
- Flexibility against obsolescence of testbeds
- Shared, distributed, end-to-end validation
- A proven, benchmarked methodology and federated tools
- Trust, reliability, independence, *black-box* approach
- Experience from around the world reinforcing INCO strategy.

# Where in the 5G PPP Call?

## a. Research and Innovation actions

### *Strand 1. Radio network architecture and technologies*

- Experiment-based research preparing for large-scale demonstrator and test-beds, leveraging where possible experimental facilities available in EU Member States or Associated Countries

## c. Support actions

- Roadmaps for key PPP technologies and for experimental requirements and facilities

# Where in the pre-structuring model?

## *Strand 1. Radio network architecture and technologies*

### P5: Efficient Hardware/Software and Platforms for 5G Network Elements and Devices

- **Efficient, reconfigurable, modular and highly scalable platform for RAN processing, depending on different architecture solutions**
- **Demonstration of architectures and platform implementations featuring flexibility, re-configurability, modularity, scalability, multi-RAT capacity and/or improved energy-efficiency**

# What could be the next steps?

- **Phase 0 (Ignition)**: Existing projects cooperate for demos  
12 March 2014 meeting defined a canvas of possible demos
- **Phase 1 (Exploration)**: Proof-of-concept demonstrators +  
roadmap of needs and requirements for experimentation,  
validation, demonstration
- **Phase 2**: Experimental requirements from Phase 1 +  
leveraging existing infrastructures for experiments
- **Phase 3**: Large-scale trials, prototypes, pilots, scalable tests

# Thank you for your attention!

