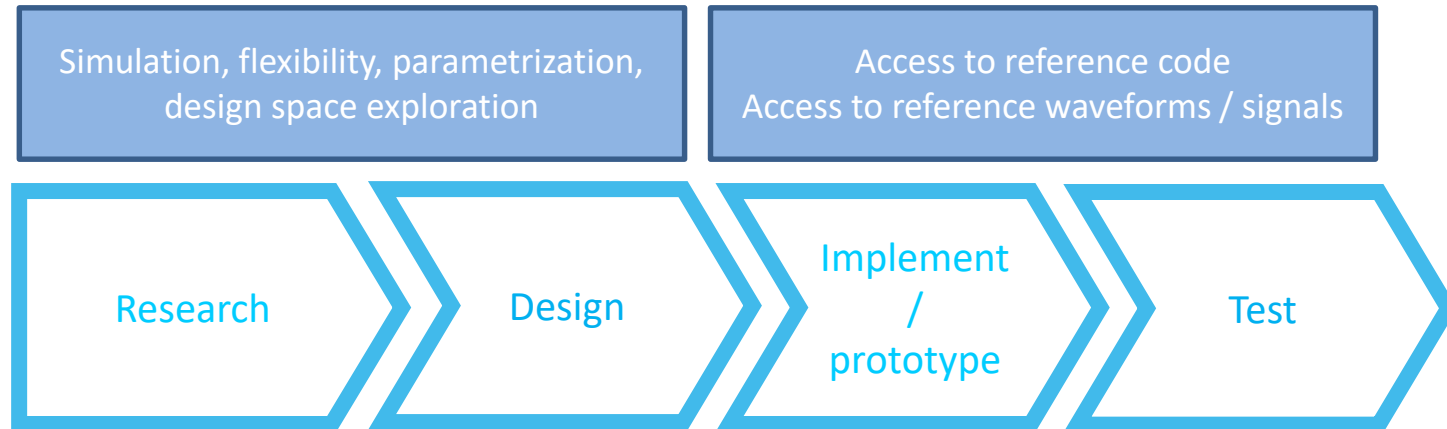




EuWireless Project and SME experience in FIRE

Dr. Sławomir Pietrzyk, CEO, IS-Wireless

EWSN 2018 Industrial Panel, Madrid, 16th Feb 2018



Current solutions

- Specialized software or hardware targeting one element of the above value chain; expensive
- Home-made / open-source solutions with no support

Problems

- Lack of complete, flexible environments for R&D on 4G/5G RAN
- Lack of user-friendly open-source solutions
- Lack of affordable implemented standard references

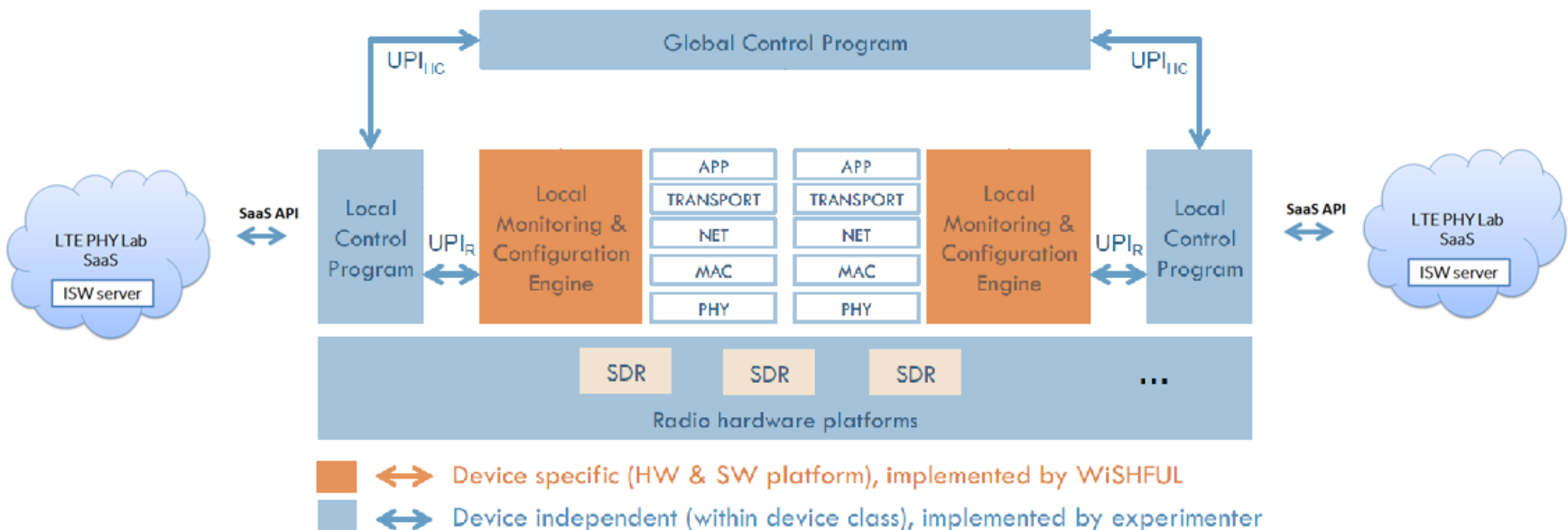
Moreover

- Need to focus on novelty
- Lack of time to prepare and setup experimentation environments

Title: Flexible PHY experiments using Remote Radio and cloud processing

Objectives: Provide a cloud-based solution that enables remote hardware-in-the-loop experimentation and LTE/LTE-A RAN modeling & validate LTE PHY Lab SaaS in multiple-nodes environment

Start date: 15.11.2017 – 30.04.2018

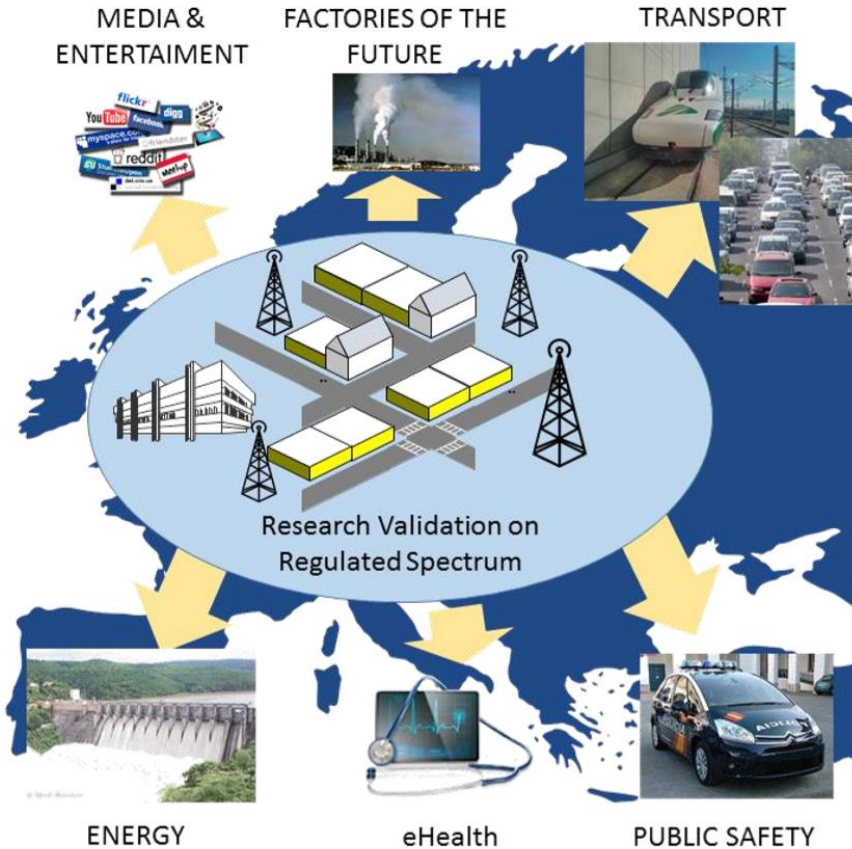


- **Strengths**

- Possibility to validate some concepts at no cost (e.g., subsidized)
- Access to resources which would not be easily available otherwise
- Synergy with large FP7/H2020 projects (networking / dissemination / research)

- **Weaknesses**

- Various legal grounds
- Some require certain level of bureaucracy - reports / accounting
- Typically best effort labs / no QoS / often not working / not ready



- The need
 - Extend lab capabilities to real network with real traffic
 - Offer shared experimental resources to multiple user
- The vision
 - Pan-European test operator



- How do we evolve from contemporary lab-based testing?
- Are all functionalities testable in the same way?
- How do we handle the spectrum?
- How do we handle multitenancy?
- How do we handle test network customers?



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EU Wireless

Development and long-term sustainability of new pan-European research infrastructures
01.2018-12.2019, H2020, budget: 2M EUR

5G Essence

Architectural Approach for the Provision of Enhanced 5G Network Facilities
06.2017-12.2019, H2020 5G-PPP, budget: 7.9M EUR

eWINE

Elastic WIREless Networking Experimentation
01.2016-12.2017, H2020, budget: 2.6M EUR

SOLDER

Spectrum OverLay through aggregation of heterogeneous DispERsed Bands
11.2013-10.2016, FP7, budget: 3.3M EUR

5NOW

5th Generation Non-Orthogonal Waveforms for Asynchronous Signalling
09.2012-02.2015, FP7, budget: 3.5M EUR

Example partners



Example customers

