



Pan-European Laboratory for Next Generation Technologies, Networks and Services

Vision | Concept | Roadmap

www.panlab.net



Panlab is a support action under European Framework Programme 6 with the objective to design the appropriate concepts for federating European testbeds via a Pan-European laboratory organisation.

Vision for long-term end-to-end testing

The vision of Panlab is to identify the long-term requirements of the ICT industry for end-to-end testing and to address these requirements by providing federated on-demand testing facilities via a Pan-European Laboratory organisation. This will strengthen the global competitiveness of the European ICT industry.

Leveraging synergies between testing facilities and laboratories, the Pan-European laboratory organisation will make European R&D more effective, especially by bridging the gap between basic research and market-oriented development. The Panlab organisation will particularly help to make advanced carrier networks and services interoperable across Europe and, thus, reduce the business risk and shorten time-to-market.

The Panlab concept

The Panlab approach is based on the concept of federation of distributed interconnected test laboratories and testbeds that enable usage of required platforms, networks and services for broad interoperability testing. The coordination of resources and access to the testing services will be controlled by a central Panlab organisational entity.

This organisation will enable the trial and evaluation of technologies, system solutions, service concepts and business models to the point where the risks associated with launching them as commercial products will be minimised. The accomplishment of this major objective, which will assist many different European collaborative projects, is an important step towards the establishment of a truly pan-European R&D collaboration network.

Roadmap

The Panlab roadmap outlines how and when the Panlab organisation is implemented. This roadmap is generic and independent of specific testbed facilities that can be part of the federation. The organisation enables testbed configurations that can be tailored to meet specific customer requirements.

Figure 1 presents the three major implementation phases: (1) Prototype Operation, (2) Initial Operation, and (3) Full-Scale Operation as well as two principal milestones of the Panlab organisation deployment that indicate:

- The level of maturity and richness of service offering to customers.
- The status of the organisation as a legal entity for operating the main functions of the Pan-European laboratory and the offering of services to customers.

The milestones specify the way to deploy the Panlab organisation and cover:

- Legal and organisational aspects
- Technical infrastructure, and
- Operational processes and service offering.

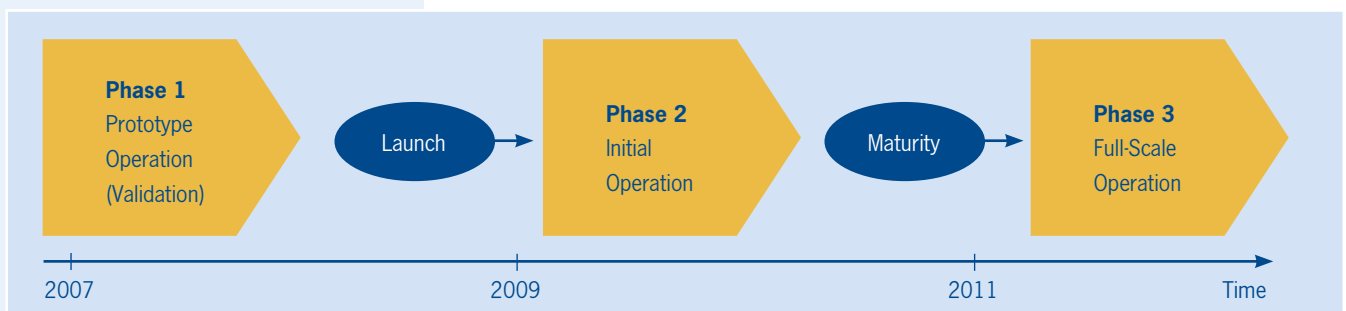


Figure 1: Panlab organisation incremental deployment

Organisation

The Panlab project concluded that a non-profit organisation is the most suitable solution for the legal structure of the Panlab organisation. However, at the same time, the organisation may also provide testing services on a commercial basis, ensuring industry participation in the testbed federation. Thus, another option is to establish the organisation as a public-private partnership.

The founders of the public-private Panlab organisation would also become members of its General Assembly, the highest decision-making body of the organisation. The General Assembly would be particularly responsible for:

- Establishing and steering the Panlab organisation office as well as appointing the executive director and other executive officers.
- Defining business and membership models for the Panlab organisation.
- Defining the organisation's overall strategy.

Expected impact

The infrastructure of the pan-European Laboratory consists of testbeds, integrated by Teagle, a dedicated web-based tool for federated testing. The testbeds are geographically distributed across Europe and are interconnected through various networking means. The Teagle is operated by the organisation's office, which is responsible for the testbed resource coordination and the long term evolution of the federation.

The Teagle tool embraces a set of web services that enable customers to express

their testing needs and get feedback on where, how and when a required federated testing can take place. In other words, using Teagle, customers can define and locate specific testbed facilities suitable to their testing needs. This search is done through a database of the federated testbeds. The second group of Teagle objectives addresses complete operational assistance to partners and customers. This includes the management of the resource allocations and reservations, as well as the required interconnections between the testing facilities (Figure 2).

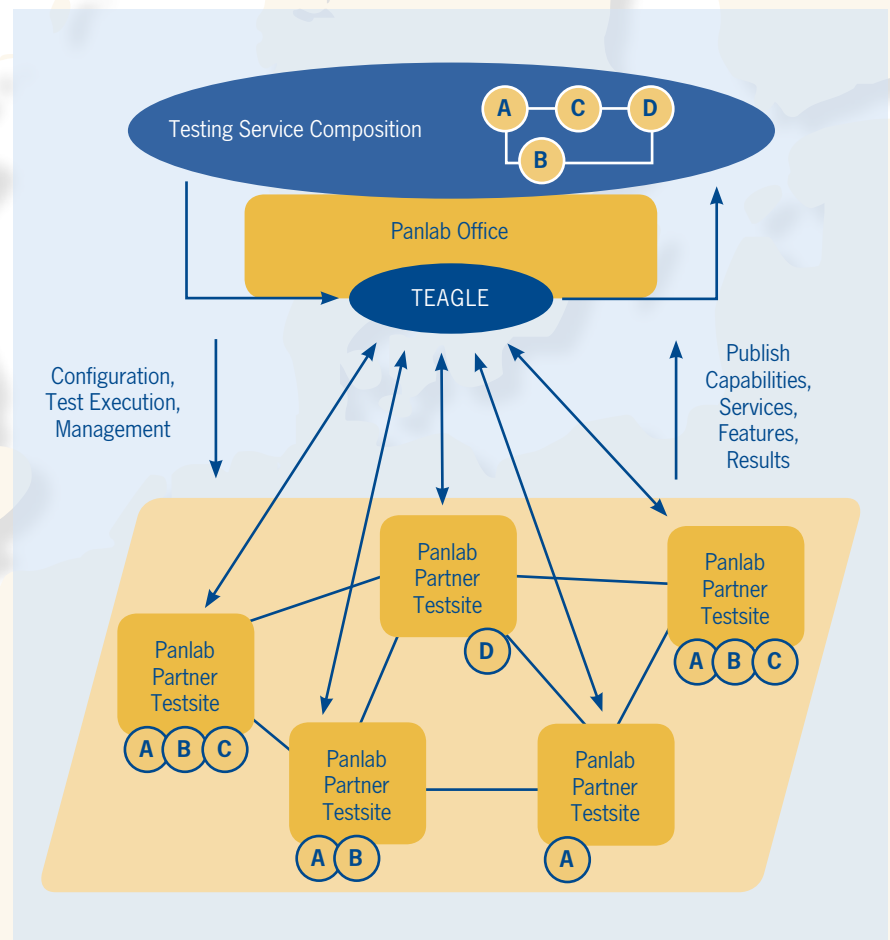


Figure 2: The Panlab testbed federation concept

Panlab SSA Consortium

Alcatel-Lucent (France)

Dimes - Digital Media Innovations (Finland)

Eurescom - European Institute for Research and Strategic Studies in Telecommunications GmbH (Germany)

Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e.V. - FOKUS Institute (Germany)

France Télécom R&D (France)

Italtel S.p.A. (Italy)

Nokia Corporation (Finland)

RAD Data Communications (Israel)

Telefónica I+D (Spain)

Thomson R&D (France)

École de technologie supérieure (University of Quebec) (Canada)

Panlab Community

The Panlab Community consists of individuals and organisations, who operate or require testing laboratories and testbeds and who are interested to join the testbed federation within the emerging Panlab organisation.

Joining the Panlab Community is free of charge and can be done via this web page: www.panlab.net/community.html

About Panlab

Panlab is a Specific Support Action of the European Union's 6th Framework Programme, Thematic Priority 2 (Information Society Technologies). It was submitted to the fifth call of the programme and addresses the strategic objective "Research networking testbeds". The project is partly funded by the European Commission. Panlab is running from June 2006 to May 2008 and has an overall budget of about 1.3 million euro.

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About EU Framework Programme 6

The EU Framework Programme 6 (FP6) has two main strategic objectives: strengthening the scientific and technological bases of industry and encouraging its international competitiveness while

promoting research activities in support of other EU policies. FP6 is focused on a number of thematic priorities, including Information Society Technologies.
EU FP6 website: <http://cordis.europa.eu/fp6>