ACINO: Application-Centric IP/Optical Network Orchestration

645127 – ACINO - H2020-ICT-2014-1

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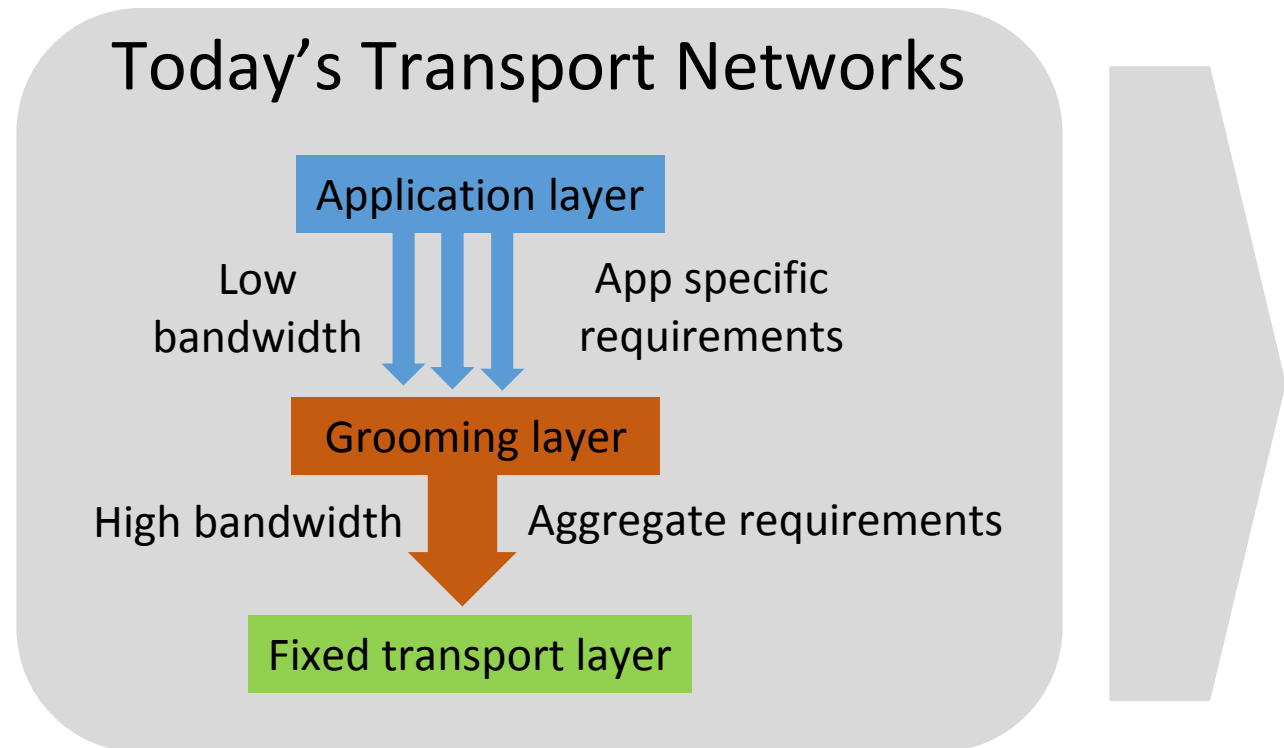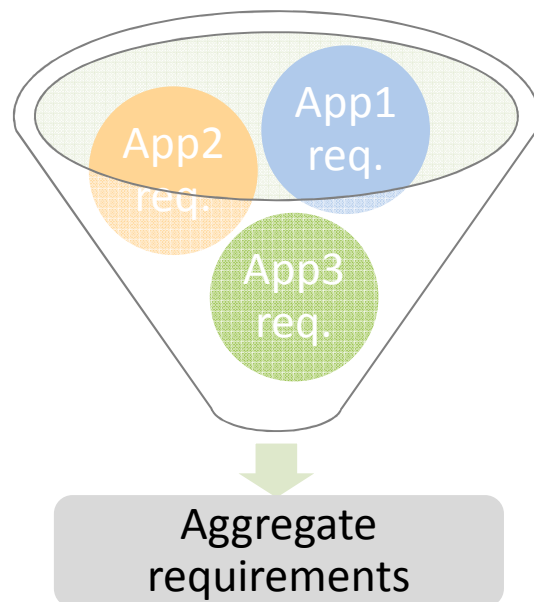
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Main Facts

- A small scale Project under EU H2020 Programme
  - ICT6 - smart optical and wireless network technologies

- Budget: 2.88 M€

- Project duration: 36 months
  - 01/02/2015 to 31/01/2018
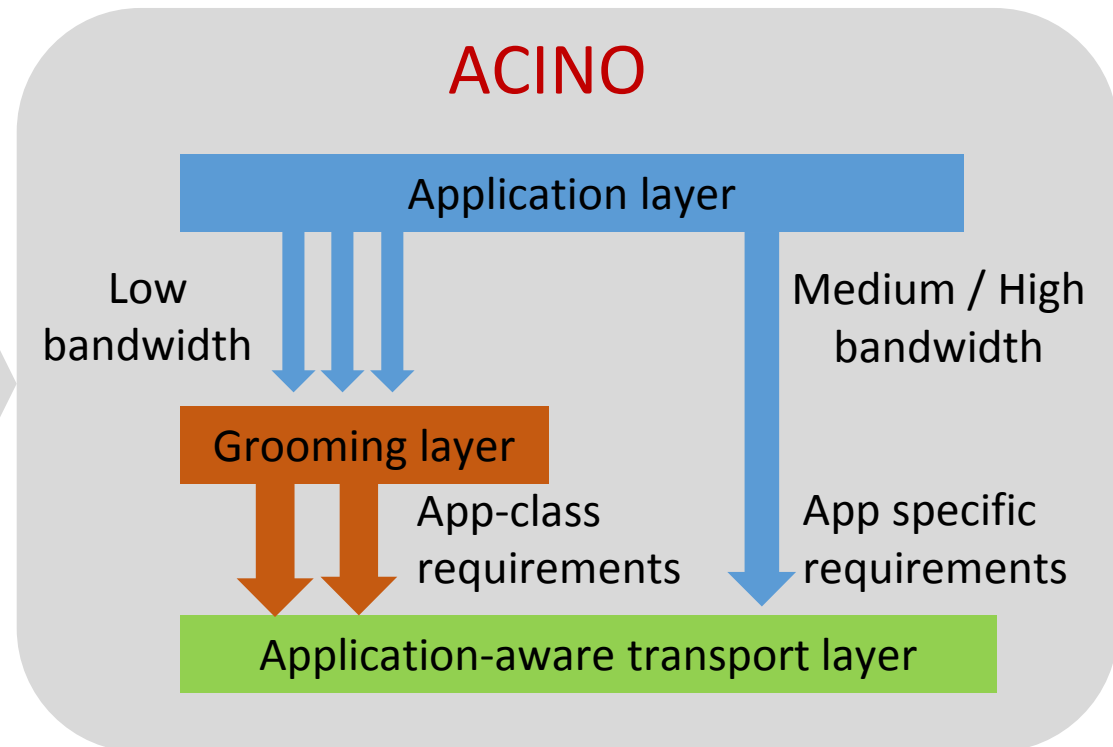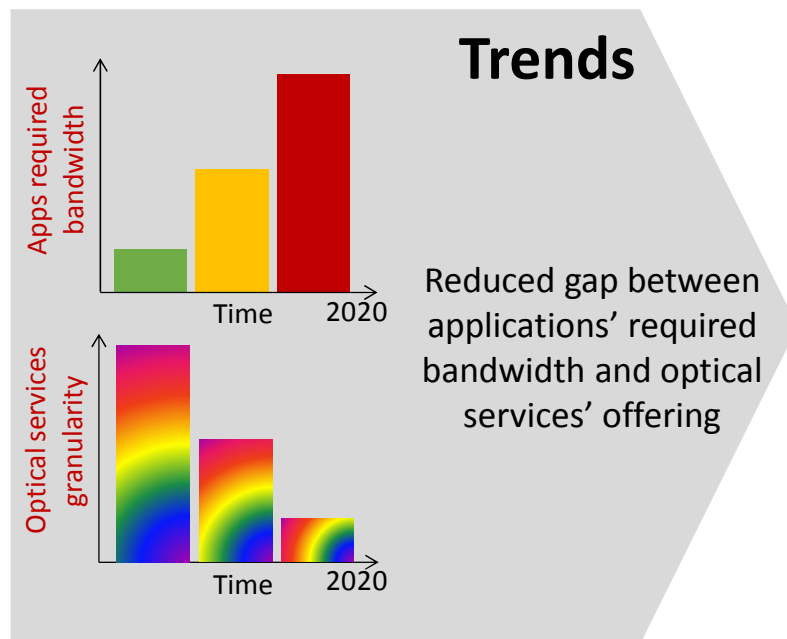

- Effort: 290 PMs

Challenge

Overcome inaccurate mapping between applications' needs
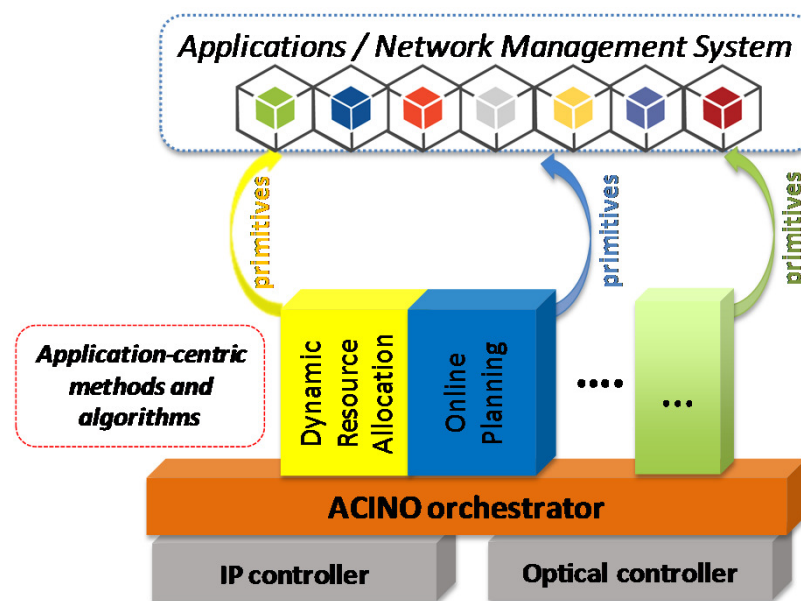and the service they receive from the transport network

Approach

Application-centric: differentiate the service offered to each application all the way down to the optical layer

Trends

Apps required bandwidth

Time   2020

Optical services granularity

Time   2020

Reduced gap between applications' required bandwidth and optical services' offering

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Application layer

Low bandwidth

Medium / High bandwidth

Grooming layer

App-class requirements

App specific requirements
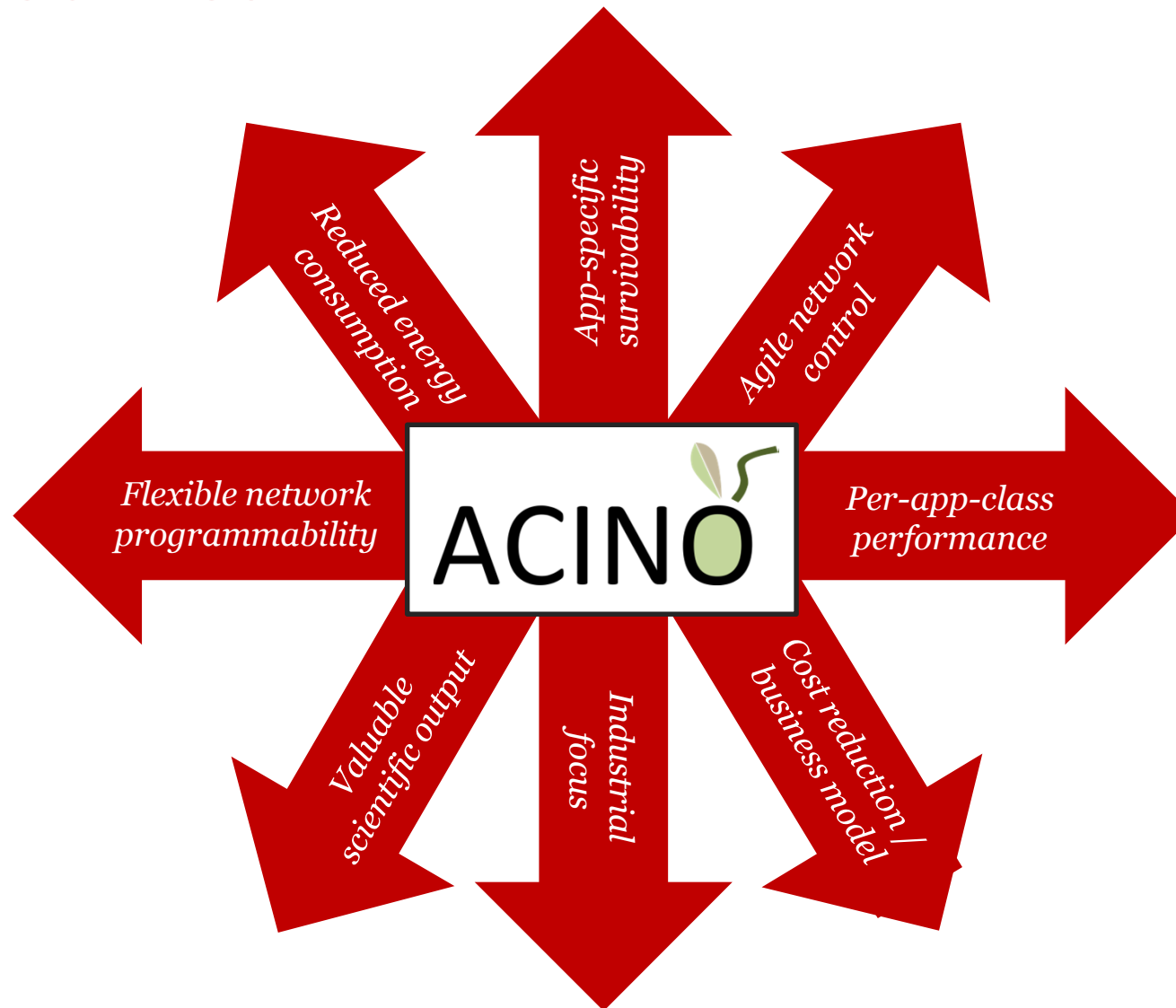
Application-aware transport layer

Solution

Open source modular orchestrator enabling applications to program the IP/Optical transport network by means of high-level primitives

Objectives

Impact

Maintain a state of the art industrial capability on optical network technology in Europe

Prove the value of sliceable transponders and create a business case for this technology

Support the cost efficient emergence of novel classes of network services and applications

Enabling optical layer services directly relating to the needs of the application

Reducing energy consumption

Minimized use of the grooming layer and apps directly mapped into a spectrum slice

Enable managed and automated cross domain optical resources

Integration of vertical domains, SDN cross domain capabilities
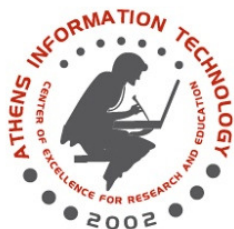
Foster emergence of industry open standards

Proven consortium experience with standardization process

Consortium

Research Center
(Italy)

Research Center
(Greece)

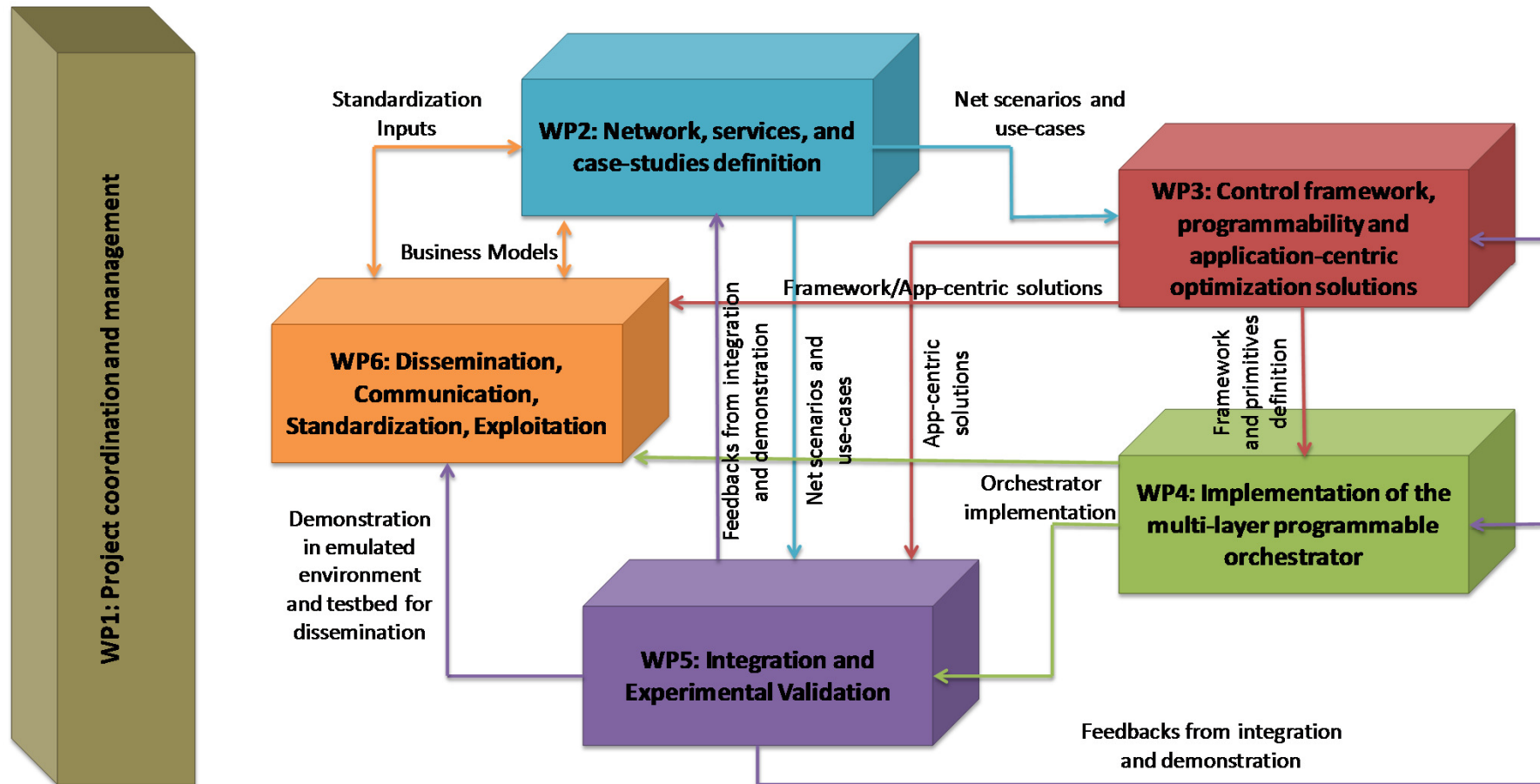Research Center
(Sweden)

Network Operator
(Spain)

SME
(Israel)

System Vendor

Workplan

Contacts

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