



COMMUNICATION PLATFORM FOR TENDERS OF NOVELS TRANSPORT NETWORKS

The right way to procure optical transmission technology

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1 CESNET

2 PSNC

3 GRNET



Project at a glance

Communication Platform for Tenders of Novel Transport Networks

Project start: January 2015

Project duration: 36 months

Project type: CSA

Consortium: 3 partners

<http://photonics-complete.eu>



COMPLETE and CEF

- CEF = Customer Empowered Fibre (Networks).
- Who are customers in this case?
- Meant to focus on those who procure dark fibres.
- Customers of big public operators who owns the infrastructure.
 - e.g. NRENs.
- But in PCP, NRENs should focus on their customers (end users) and ask them what they want.
- Based on this use appropriate optical transmission technology.
 - Could come up that speed is not always the case!

COMPLETE Horizont 2020 Goals

- Skip PCP & PPI description.
- H2020 Coordinating and Supporting action.
- Using PCP & PPI mechanisms to use public funds for building beyond state-of-the-art public networks by creation of a common information platform for public procurers and support them by providing the organizational and technical expertise.
- In detail focus on public procurement of advanced optical transmission technologies.
- On the advice of EC to focus more on PCP than PPI (because it is more challenging), especially focus on (end) user needs.

How PCP works in practice? (how to adopt PCP procedures in the NREN environment)

STEP 1: Analysis of the current needs of USERS



STEP 2: Needs verification and description in terms of functionality & performance based requirements



STEP 3: Establish collaboration agreements between public service operators



STEP 4: Pre-commercial public procurement



STEP 5: Public procurement of innovation

STEP 1: Analysis of the current needs of USERS

- Identification of the needs of users of public services offered by infrastructure owners. In the GÉANT ecosystem:
 - Universities
 - Research institutes
 - Local governments
 - Research projects
 - Research individuals
- The gathering of requirements and needs can be implemented by releasing surveys to all customers, but also can be built on strong links and personal relationship between the provider (the NREN) and its customers
- NRENs typically organize such events on regular basis. Examples include i3conference (Poland), KDM Users (Poland) or CEF (Czech Republic), CESNET Days (Czech Republic), CESNET Customer Forum (Czech Republic) or GRNET Tech Meetings (Greece)

STEP 2: Needs verification and description in terms of functionality & performance based requirements

- The needs expressed by the users (concluded as the outcome of STEP1), should be transformed into a set of functionalities and performance based requirements, which must be implemented in a network in order to satisfy the customers.
- The validation and description of the unmet needs must be accompanied by a set of actions, which will provide the answer on the actual and prospected technology readiness level (TRL), the level of innovation advancement required, the state of the art and the availability of the products on the current market.

STEP 3: Establish collaboration agreements between public service operators and their users

- Formal collaboration between involved parties ->collaboration agreements.
- The collaboration agreement should be signed between public network operators, as the owners of the underlying infrastructure and services, and a set of users, which played the pivotal role in the process of identification of new functionality/services.
- The collaboration agreement should clearly describe the interests of involved parties and their responsibility, e.g. for proof-of-concept implementation or testing.
 - Several small-scale tests of in-the-lab technologies have been made during the project period (e.g. 400G over 2000 km*).

* <https://www.cesnet.cz/cesnet/reports/press-releases/eci-and-cesnet-announce-successful-trial-of-400g-flex-grid-blade-over-live-cesnet-network-in-the-czech-republic/?lang=en>

STEP 4: Pre-commercial procurement

1. Notice of competition
2. Signing a contract
3. Research and prototyping

STEP 5: Public procurement

- Purchaser is preparing terms of reference and all other tender documents on the basis of the results of the experimentation and the performances of the best solutions proposed by suppliers who have reached the end of the third phase of the project.
- All provisions of the Public Procurement Law apply.
- The tender is open to all participants of each phase, as well as all other entities that are able to realize the object of the contract in accordance with the specification.

Final Comments (Our Experience)

- Always collect and analyze information from users. Is there a demand for what do you want to invent?
 - If not, do not invent it!
 - Information gathering will result most likely in non-IT (network, transmission, technological etc.) impulse.
 - Your task is to transform this into technology, which probably does not exist (yet) – at least commercially.
 - The technology (optical transmission in this case) should match to users.
- Let's consider the main user requirement was identified „it is too expensive“.
 - Technological requirements have been set to „Spectrum Sharing“ (refer to Pavel Skoda's presentation).
 - Start looking for those, who could provide R&D of the technology defined by the user requirements.



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Project start: Jan 2015

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PARTNERS

