The INDIGO-DataCloud Project, an experience in H2020 E-INFRA-1 call

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The project

- **An H2020 project** approved in January 2015 in the EINFRA-1-2014 call
  - 11.1M€, 30 months (*from April 2015 to September 2017*)
- **Who**: 26 European partners in 11 European countries
  - Including developers of distributed software, industrial partners, research institutes, universities, e-infrastructures
- **What**: develop an open source Cloud platform for computing and data (“DataCloud”) tailored to science.
- **For**: multi-disciplinary scientific communities
  - E.g. structural biology, earth science, physics, bioinformatics, cultural heritage, astrophysics, life science, climatology
- **Where**: deployable on hybrid (public or private) Cloud infrastructures
  - INDIGO = INtegrating Distributed data Infrastructures for Global Exploration
- **Why**: answer to the technological needs of scientists
1. INDIGO for an open, interoperable e-infrastructure for open science

• The foundation of the INDIGO-DataCloud project:
  • Exploit 15 years of experience in software development of production-quality distributed infrastructures for science matured by the project participants
  • Involve researchers, big resource centers, industry, software developers
  • Develop open source software filling technological gaps that prevent the exploitation of current European e-infrastructures by many scientific communities
  • Define and validate software components to be developed through concrete scientific use cases
  • Reuse and extend existing components wherever possible, develop missing pieces whenever necessary
  • Be as multidisciplinary and as neutral as possible through the adoption of standards
INDIGO-DataCloud and the EU Open Science Initiative

• INDIGO answers to the **3 lines of action** described in the **H2020 consultation report on Open Infrastructures for Open Science**. The project:
  1. Develops an open, interoperable e-infrastructure for scientific data
  2. Supports **open science** organizing the European data space
  3. Enables **collaborations** across diverse scientific communities worldwide

• INDIGO also:
  4. **Contributes to economic growth** through active engagement of industry and through the creation of public/private partnership
  5. Is complementary to other EU H2020 projects and **collaborates to create a complete hardware/software platform for European Science**

More information: https://www.indigo-datacloud.eu
The key elements to build a proposal (our view)

When starting to build a proposal the key elements to take into consideration are:

- strong technical idea
- lead role
- duration and funding
- composition of the consortium
- governance
- external/expert advise
- innovation content
Key elements for a good proposal (1/5)

strong technical idea:

• initially details are not so important

BUT

• fundamental to have a clear idea of:
  • benefits and added value the project will bring WRT the status of the art
  • technology gaps the project is going to address
  • clear needs of well defined user communities

Do not underestimate the importance of realistic KPIs!
Key elements for a good proposal (2/5)

Lead role:
Several proposal attempts fail because it is not clear who will be taking the role:
  • In addition, the leader should devote enough time (one or two full time people) for the duration of the project preparation phase
  • To be defined as early as possible

Duration and funding:
  • Duration should be appropriate for the goals of the project AND also for the time scope of the work programme → the appropriate timing for a possible follow-up proposal should also be considered
  • Budget should be appropriate for the activities and for the number of partners
Key elements for a good proposal (3/5)

Composition of the Consortium:

• This depends on two (partially conflicting) elements:
  • a realistic assumption of the funding which can be requested
  • an appropriate coverage of all the relevant actors

This required many consultations and also an informal communication with the EC → it took a considerable amount of time but at the end we came out with a budget distribution proportional to the real contribution of each partner.

At the end it was quite clear that things were going quite well. However we received some last-minute requests for joining but we decided to not accept them.

Our opinion is that it was a wise decision.
Key elements for a good proposal (4/5)

Governance:
• Should be well defined, clear and effective in the proposal
  In addition, in the proposal preparation phase:
• Identify ‘interim’ WP leaders and deputies as soon as possible
• Address cross-WP issues and activities since the beginning

Important to set up communication tools and start regular meetings to:
• support an effective collaborative effort
• discuss issues
• monitor the progress of the proposal preparation
Key elements for a good proposal (5/5)

External/expert advice:
• during the proposal preparation phase in order to have a critical evaluation
• within the proposal, for the whole project lifetime, to assess the adherence to the objectives and also to the changes in the external environment

Innovation content:
• It became soon quite clear that the proposal evaluation will have also been based on the innovation outcome of the proposal → therefore we have foreseen the Innovation Board as part of the governance structure
Conclusions

These ideas are based on our experience to prepare the INDIGO-DataCloud project proposal:
  • it is for sure the partial view of the project coordinator (INFN)
  • however we can say it has been successful 😊

Hope this is useful for future calls... despite the fact that the WP2016-2017 programme is quite different form the previous one ➔ a lot of different calls with ‘small’ budget