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Integrated Support of Large Scale Research Instruments

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TNC 2024 - BoF

<https://tnc24.geant.org/submit/>

Title of the BoF

(Max 15 words. This will also become the final title of the BoF.)

Integrated Support of Large Scale Research Instruments

Meeting organiser's name(s)

Damien Saucez; Roberto Trasarti; Bartosz Belter

Meeting organiser's affiliation(s)

Inria; CNR-ISTI; PSNC

Meeting organiser's email address

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Introduction of the meeting (BoF)

(Please submit a paragraph, with a minimum of 50 words.)

Research has become more technological than ever, not for the sake of technology but because answering complex questions requires complex interactions of software and hardware. Such that a single researcher or even a traditional team cannot have the skills to master their domain of science and at the same time setup and operate computational and validation tools.

Witnessing this general trend, the *European Strategy Forum on Research Infrastructures (ESFRI)* [<https://www.esfri.eu/>] aims to supply Europe with infrastructures that support ground breaking research. In a nutshell, long-term funding is provided to build, operate, and support infrastructures that are central to research. Hence, fostering collaboration, promoting open science, and rationalizing costs.

Interestingly, even though the field of application of the research instruments might be drastically different (if not orthogonal); all such instruments rely on complex hardware/computing systems that are interconnected and share some common needs and services.

NRENs and GEANT provide plethora of services, from low level high speed links to Trust & Identity services or security. However, when it comes to put all the bricks together each instruments has to re-invent the wheel and we can see that often internal (sub-optimal) solutions are chosen.

With this BoF we would like to start the discussion on how GEANT and NRENs could help in providing a well unified set of services that are the core of research infrastructure, regardless of their domain of application. One could see it as a first thought on how to package all critical and common services of the infrastructure.

To foster the discussion the BoF will be organized as follows:

1. 10min. Brief explanation of what ESFRI is and why it is different than usual demands from research an academy;
2. 20 min. A short presentation of selected ESFRI projects and their technical requirements;
3. 10 min. A presentation of services that ESFRI projects need and that could benefit from the GEANT community;
4. 40 min. Structured discussion with attendees on what and how to structure common good services tailored for ESFRI projects;
5. 10 min. Wrap-up and way forward.

Over a slot of 90 minutes, we expect time for discussion of 40 minutes at least as we assume that the audience will be technically sound.

It is worth mentioning that even though the BoF is organized by the SLICES-RI (<https://www.slices-ri.eu/>) and SoBigData PPP projects (www.sobigdata.eu), the objective is to benefit to the whole European community.

Intended audience

NREN service/platform leaders; technical leaders; researchers; academic engineers.

How many participants are expected?

30 - 40