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Collective infrastructure makes you stronger

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In the GN5-2 project The GÉANT Association will develop investment proposals for three service concepts, with a large, long-term expected impact that may require significant future investment and commitment from the NREN community. Each service concept will only succeed if a concerted collective effort is made, over time. The presentation will present each concept at high level, explain the reasoning and hypothesis behind each and explain the process that will be followed to produce the investment proposals which would -hopefully- lead to a significant increase of community capability over time.

The work has just begun, so this is a key opportunity for the wider community to influence its direction.

These concepts are:

Common PaaS Cloud Middleware for Integrated Trusted Research - A common baseline suite for Platform as a Service cloud research data environments, integrating NREN services such as T&I and security by design, deployable to any Infrastructure Cloud (commercial or community), offering Virtual/Trusted Research Environment functionality to end -users, anchored in the R&E trust ecosystem and with federating capabilities.

Data movement infrastructure for research datasets - A research data transfer infrastructure aims to make large transfers of significant size (i.e. sub-CERN, 0.5 TB < X < 1PB) trivial for any researcher, by integrating available tooling and protocols into a coherent, widely deployed, easy-to-use and secure infrastructure that goes where the network goes. It simplifies many of the challenges around point-to-point data transfers, allowing users to move on from bits and files to managing datasets. This solution will fully leverage the available network capabilities to all researchers.

Pan-European, Sovereign Object Storage for Research Data - This topic will investigate a pan-European infrastructure for research data storage. Baseline requirements include a collectively procured, built and managed technology platform that offers simple object-storage interfaces, deployed in a distributed way that satisfies digital sovereignty requirements. This targets research data repositories with the promise of providing better and cheaper low-level storage by leveraging European-size economies of scale. Such storage will manage technical complexity with great potential savings by unlocking the benefits of building a collective, European infrastructure while recognising the national character of most sovereign data storage infrastructure efforts.

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