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Italiadomani

PIANO NAZIONALE
DI RIPRESA E RESILIENZA



Centro Nazionale di Ricerca in HPC,
Big Data and Quantum Computing



Aggiornamento WP3

Integrated digital data flow between clinics and HPC centres and Easy-to-use GUI for HPC solvers

Barbara Martelli

Plenaria Spoke8, Casalecchio di Reno 25 giugno 2024

Task 3.1 Digital data flow between the HPC centres and the healthcare centres

(M07-M30)

Synergy with other complementary projects:

- Health Big Data funded by the Italian Ministry of Health
- AlmaHealthDB funded by UniBO
- TeRABIT funded by NRRP
- DARE funded by Complementary NRRP

Starting from two ISO 27k certified cloud platforms:

- CINECA Secure Cloud
- INFN EPIC Cloud (region of INFN DataCloud)

MS 3.1: First clinical datasets transferred from hospital

D3.1: Report on the clinical data flow infrastructure Feb '25

Task 3.1 Status

- Identified the Universal Immune System Simulator as the first pilot application
- First deployment on the ISO certified INFN-Catania site
 - See Rotondo and Lentile's presentation
- Working to extend federation technologies deployed in ICSC Spoke0 to Spoke8 sensitive data use cases
 - See Donvito, Giacomini, Troja's presentations
- Advancements on the CINECA omics platform
 - See Rossi's presentation
- Formed an inter-organization, inter-project, inter-WP technical group with the aim of federating INFN and CINECA ISO-certified platforms starting from the federation deployed in ICSC Spoke0
 - See Serena Moscato's presentation

Task 3.2 GUI implementation for HPC solutions ***(M13 – M30)***

Task taken over by INFN

See presentation by Rotondo, Ientile

TAR3.2.1: definition of the application to be adopted as a proof of concept of a GUI implementation for HPC solutions. -> UISS-MS @ INFN Catania cloud

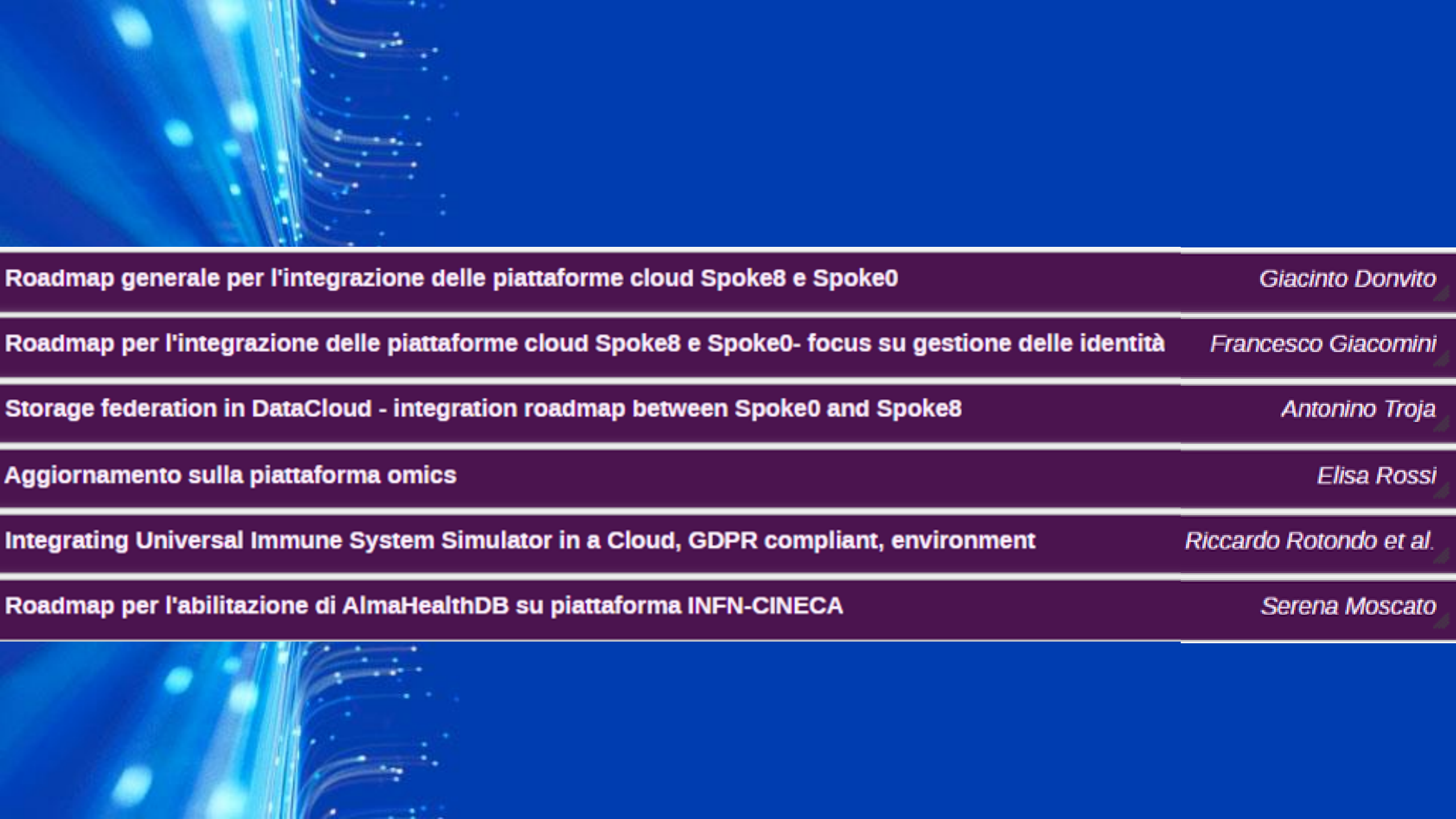
KPI 3.2.1.1: first version of the application and graphical user interface running ✓

KPI 3.2.1.2: preprint of a report describing the chosen application for the PoC, a gap analysis and a list of the activities to be performed in order to enable the user-friendly GUI access to HPC resources



Task 3.3 Conduct comparative studies on selected in silico medicine applications to quantify usability and cost-effectiveness (M24-M36)

Starts in September '24



Roadmap generale per l'integrazione delle piattaforme cloud Spoke8 e Spoke0

Giacinto Donvito

Roadmap per l'integrazione delle piattaforme cloud Spoke8 e Spoke0- focus su gestione delle identità

Francesco Giacomini

Storage federation in DataCloud - integration roadmap between Spoke0 and Spoke8

Antonino Troja

Aggiornamento sulla piattaforma omics

Elisa Rossi

Integrating Universal Immune System Simulator in a Cloud, GDPR compliant, environment

Riccardo Rotondo et al.

Roadmap per l'abilitazione di AlmaHealthDB su piattaforma INFN-CINECA

Serena Moscato



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