The INFN
Cultural Heritage Network

1st level nodes:
Laboratories in INFN facilities
2nd level nodes:
Universities, Restoration Centres, Associations, with complementary competencies

3rd level nodes:
Foreign research centres/Universities outside Europe.
- Each 3rd level node is bound to a 1st level node
- Each 3rd level node is encouraged to create a local network with different competencies in its own country

Map labels: TIFPA, CCR Venaria, MI B., TO, PV, LNL, FE, BO, CNAF, PI, FI, OPD, LNGS, RM2, RM3, LNF, UniSS, AIAr, NA, UniSA, BA, CA, CT LNS

University of Kashan (Iran)
Ministero della Cultura del Myanmar
New York University di Abu Dhabi (Emirati Arabi Uniti)
Universidad Nacional de San Martín (Argentina)

INFN-CHNet

Research (50%)	Education (20%)	Third Mission (30%)

Research (50%):
- INFN
- External Projects

Third Mission (30%):
- Public Engagement (40%)
- Access to Laboratories and Instrumentation (30%)
- Technology Transfer (30%)

1 — Nodi di livello 1
2 — Nodi di livello 2
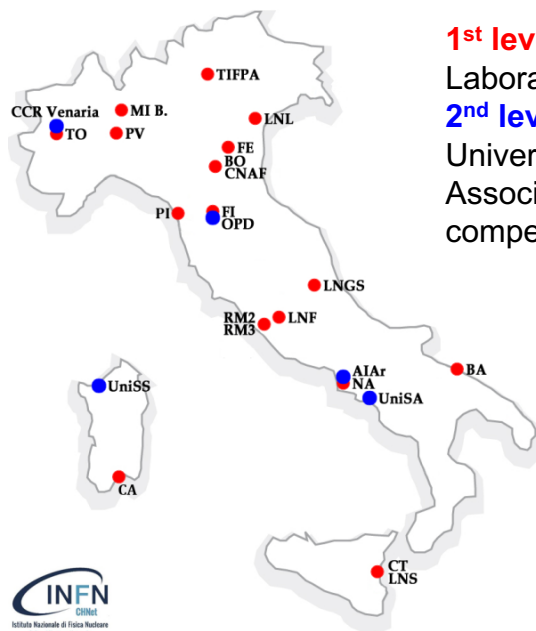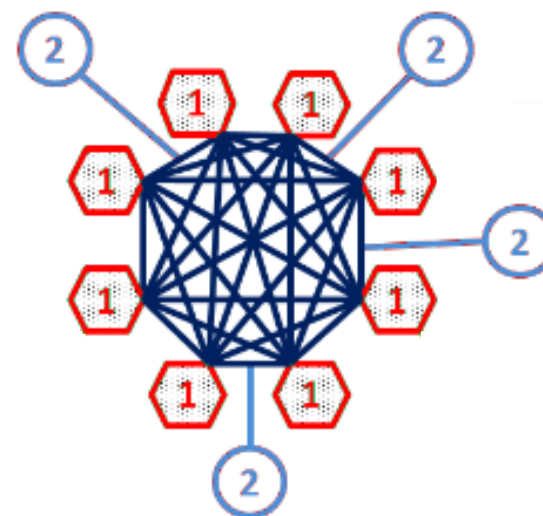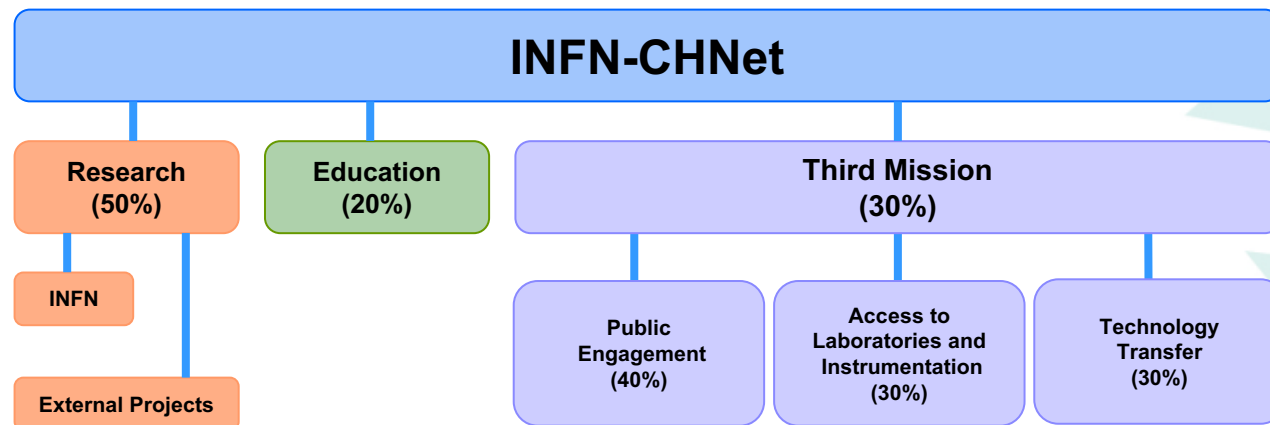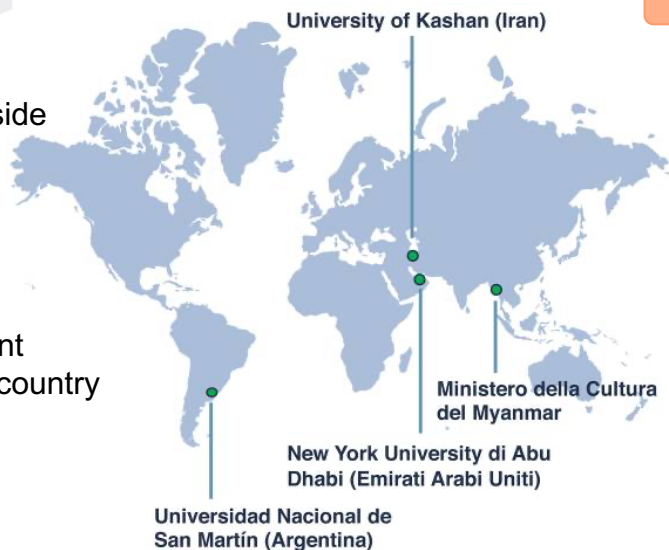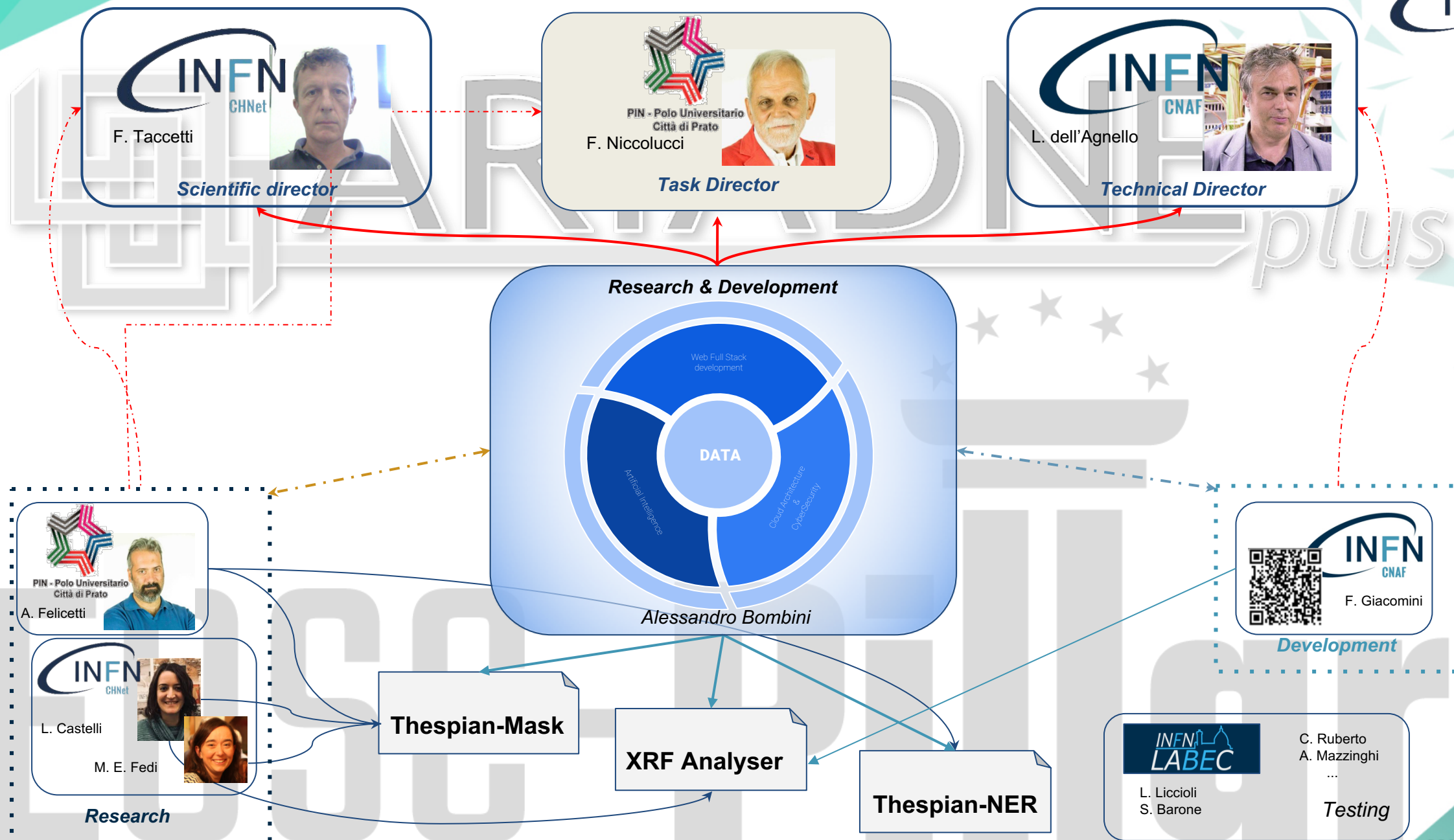
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F. Taccetti

Scientific director

F. Niccolucci

Task Director

L. dell'Agnello

Technical Director

Research & Development

Web Full Stack development

DATA

Artificial Intelligence

Cloud Architecture & CyberSecurity

Alessandro Bombini

A. Felicetti

L. Castelli

M. E. Fedi

Research

Thespian-Mask

XRF Analyser

Thespian-NER

F. Giacomini

Development

C. Ruberto
A. Mazzinghi
...

L. Liccioli
S. Barone

Testing

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DHLab XRF Analyser

THESPIAN-NER - Named Entity Recogniton tool for Archeology

Collaborative semantic enrichment of text-based datasets - Italian language version

I primi scavi nell'area pompeiana si ebbero a partire dal 1748, per volere di Carlo III `PER` di Borbone a seguito del successo dei ritrovamenti di Ercolano `LOC` : i sondaggi furono svolti da Roque Joaquín `PER` de Alcubierre, che, credendo di essere sulle tracce dell'antica Stabiae, riportò alla luce nei pressi della collina di Civita diverse monete `ART` e oggetti d' epoca romana `PRD` , oltre a porzioni di costruzioni, prontamente ricoperte dopo l'esplorazione. Le esplorazioni furono ben presto abbandonate a causa degli scarsi ritrovamenti e ripresero soltanto nel 1754; `TSP` nel 1763, grazie al rinvenimento di un' epigrafe `ART` , che parlava chiaramente della Res Publica Pompeianorum, si intuì che si trattava dell'antica città di Pompei[11]. Con Maria Carolina `PER` , moglie di Ferdinando IV `PER` , e l'ingegnere Francesco La `PER` Vega `LOC` , parte della città, come la zona dei teatri, il tempio di Iside `ART` , il Foro Triangolare `LOC` , diverse case e necropoli `ART` vennero riportate completamente alla luce e non più seppellite, ma rimaste a vista; fu durante il dominio francese, con a capo Gioacchino Murat `PER` e la moglie Carolina `PER` che gli scavi godettero di un momento di fortuna, vennero individuate le cinta muraria e riportato quasi del `TSP` tutta alla luce le zona di Porta Ercolano

Use extractive text summarisation | Download as html ⬇ | Download as .txt ⬇

| **Person** | Number of Person found in the text: **12** | ⌄ |

| **Location** | Number of Location found in the text: **9** | ⌃ |

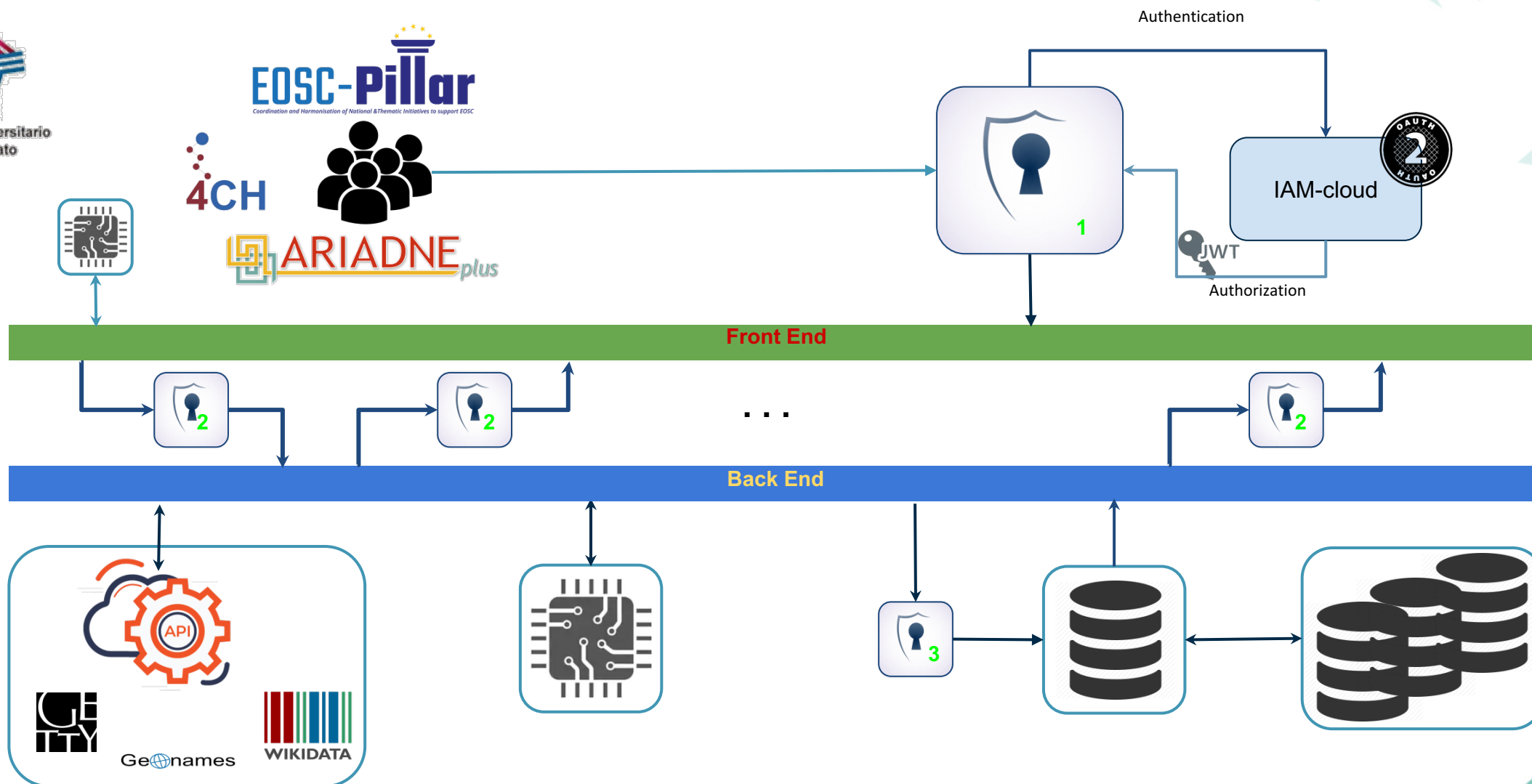| *Porta Ercolano* | (number of appearances in the text: **2**) | ☑ |
Ercolano	(number of appearances in the text: **1**)	☐
Vega	(number of appearances in the text: **1**)	☐
Foro Triangolare	(number of appearances in the text: **1**)	☐
Pompei	(number of appearances in the text: **1**)	☑
Europa	(number of appearances in the text: **1**)	☐

Number of selected entities: **2** | Search database with selected entities - OR 🔍 | Search database with selected entities - AND 🔍

XRF I...

① Study Object

N
T
A
P

Peri...
Study object period

Location Label:
Accademia "La...
Study object Locati...

Location:

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The Cultural Heritage Network Cloud

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- CHNet is the INFN network dedicated to the application of physical technologies on Cultural Heritages.

- It is currently developing, jointly with CNAF and PIN, a set of ontology-enabled web-based services for FAIR-based data storage & analysis, available in its cloud.

- It currently offers cloud services developed within 2 european projects, EOSC-Pillar and ARIADNEplus. In the near future, they will be integrated into the 4CH competence center on Cultural Heritages.

- DHLab, the digital group of CHNet, is currently developing further (micro)services, but it is also involved in few research projects on Digital technologies applied to Scientific Analysis on Cultural Heritages.

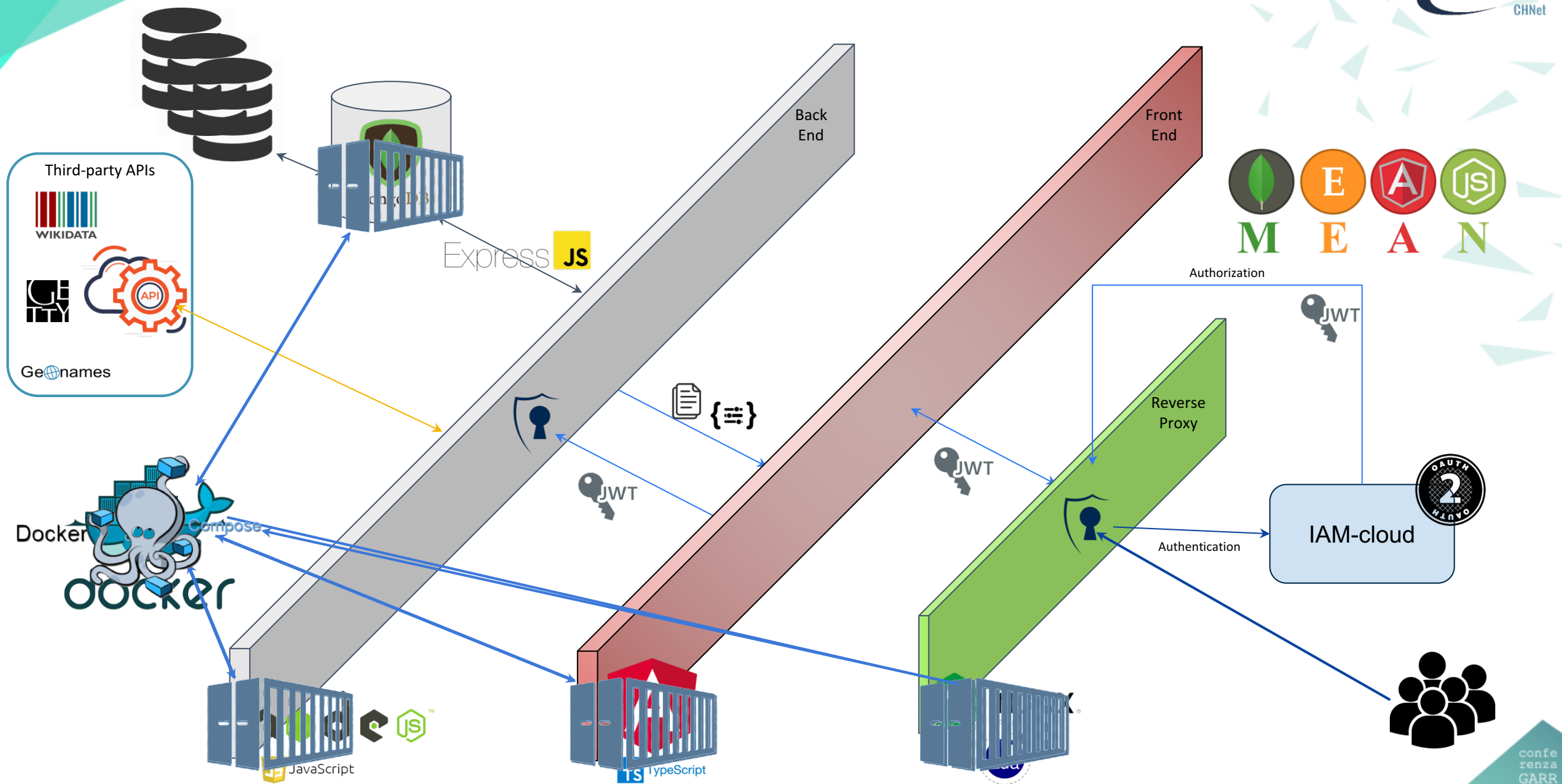- The goal is to move (almost) all CHNet software and data in the cloud.

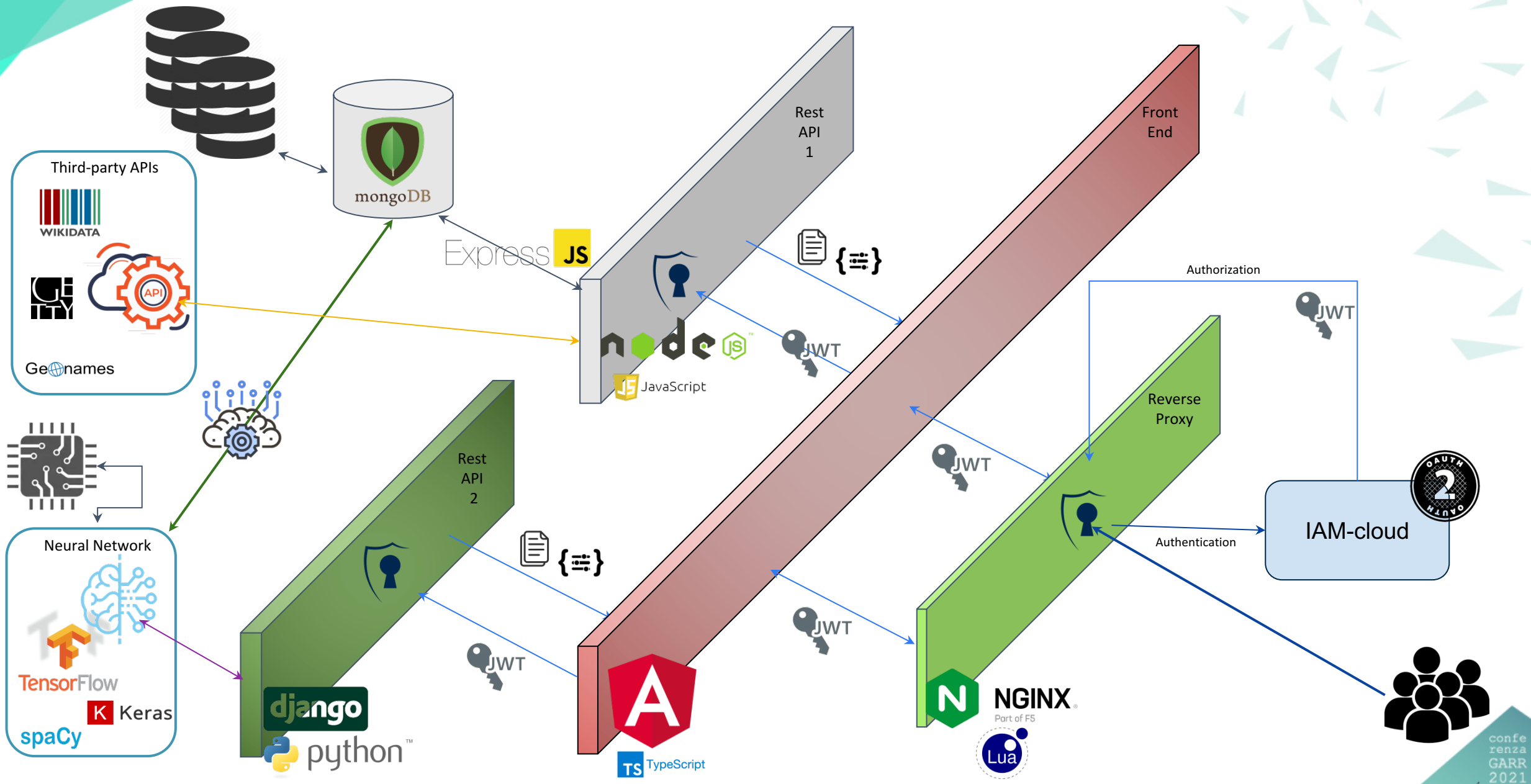CHNet cloud: an EOSC-based cloud for physical technologies applied to cultural heritages - Alessandro Bombini - *INFN CHNet, Firenze*

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Thank you for your attention!

Alessandro Bombini

INFN CHNet, Firenze

Extra slides

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DHLab in EU Projects:
EOSC-Pillar WP 6

EOSC-Pillar
Coordination and Harmonisation of National &Thematic Initiatives to support EOSC

WP 6.5

FAIR principles in data life-cycles for Humanities
This case will be a model for linking with other data repositories used in social science and humanities (SSH) communities. It will also liaise with CO-OPERAS GO-FAIR Implementation Network to ensure that SSH needs are correctly taken into account in order to facilitate the integration of SSH in EOSC.

Lead: CNRS

Community-driven Pilots

WP 6.9

Integrating heterogeneous data on cultural heritage
The management of digital objects remains an area of interest that crosses disciplines, institutions and infrastructures. In this context, the need for building aggregations or collections of such objects has become an essential element. The goal of this use case is to port the TEXTCROWD-a service in EOSC for multiple languages and compare the performance with TEXTCROWD-b developed with a different approach.

Lead: INFN

TEXTCROWD ——————→ THESPIAN-NER

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