

SITAR - Sistema Informativo Territoriale Archeologico di Roma. A dialogue between Archaeological Heritage and Modern Urban Planning

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#### The history of SITAR

2007

#### Starting the project

Joint Commission for the establishment of a Territorial Archaeological Information System of Italian Cities and their territories

2008

Development and testing of web applications and first publication of scientific data on the SITAR webGis in the intranet of the Archaeological Superintendence of Rome

2009

Start of the implementation of the SITAR database, expansion of the logical architecture of the system Joint Commission for the establishment of a National Territorial Archaeological Information System







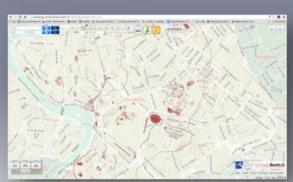
2010

Completion of the Charter of Archaeological Constraints of Rome



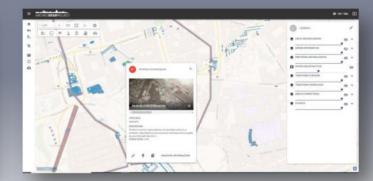
2012 - 2016

New web interface, functional implementation of webGIS and integration of data editing tools in geo-web applications



2017-2019

- 1. Development of web-AIS
- 2. Moving to the new REPOSITAR







#### Main goals of SITAR

- ✓ to overcome years of delay in standarditation process of the archaeological data

  of the Superintendence
- ✓ to simplify the internal procedural work of SS ABAP in the management of administrative and scientific practices related to the protection and promotion of the Cultural Heritage
- ✓ to build a flexible and dynamic tool that can be expanded and modified, according to new needs
- ✓ to provide a tool able to direct and guide a responsible urban and territorial planning;
- ✓ to take advantage of a. previous experiences within the Superintendence
  or other public institutions, b. data already aquired and available
- ✓ to offer to the public and scientific community a tool for sharing archaeological knowledge, in the perspective of a new information democracy





Core samples
Archaeological excavations









REPOSITAR
2.1











Resistivity



Remote Sensing





Scientific publications

**Archival documents** 





#### Logical Level

- OI
  Origin of information
- PA
   Archaeological part
- **UA**Archaeological Unit
- **DT**Archaeological

  Constraints

#### Data Analysis

- Information
- Description
- Interpretation
- Contextualization of scientific data

#### Outcome

- Source of data
- Analysis of data
- Interpretation of data
- Protection and safeguard

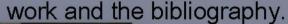




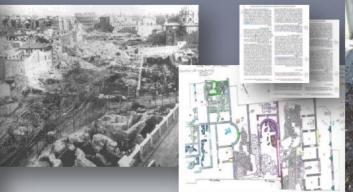




This record (OI) collects all administrative, topographical and technical data of the archeological and / or geo-archeological finding, and identifies **the area where the investigation is**. The record stores all the information related to the archaeological investigation, for example: the research director and his/her collaborators, the costs, the methodology of research, the reliability for the localization of the investigation area, a short description of the archaeological work and the hibliography.















# Level 2 Archaeological Part



Archaeological Part (PA) comes directly from its OI, this is the scientific description of the archaeological findings even if fragmentary, always identified by the binomial of chronological and functional criteria. Recording PA allows to check the current status of the archaeological investigations and to start an early analytical study of the chronological phases.









# Level 3 Archaeological Unit



This level (UA) allows to synthesize the many archeological data from the PA records and to give these findings an interpretation of the historical and topographical context. The UA tells the story of ancient monuments or archaeological sites, their original and modern area, describing the construction, the abandonment and the degradation of each monument, through all the historical changes.



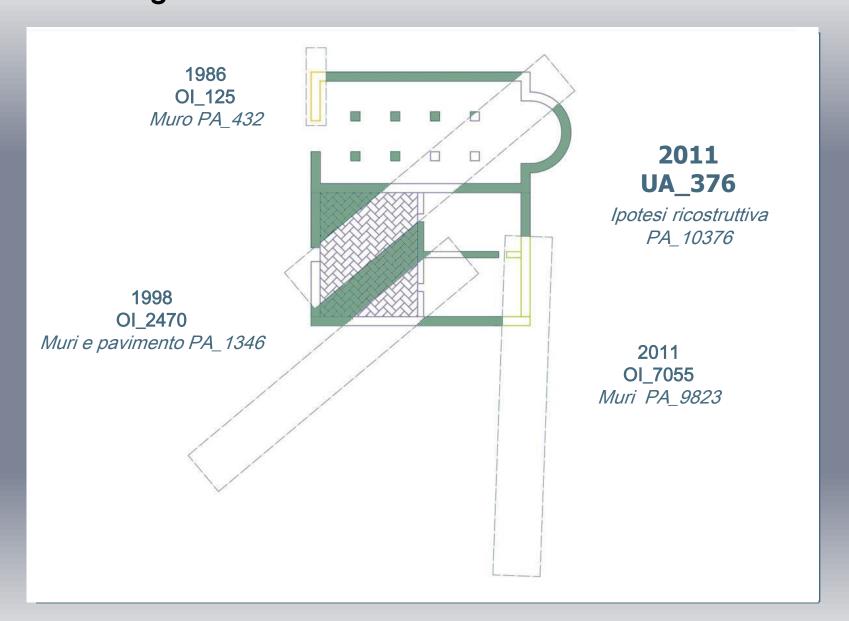






Level 3

Archaeological Unit synthesis of archaeological interpretation



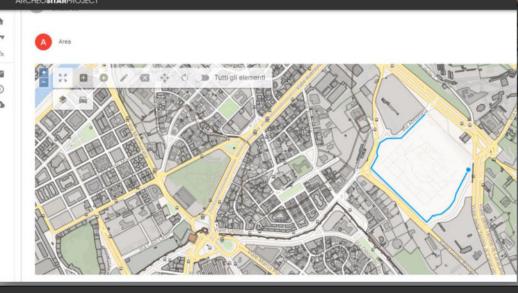
#### Level 3

#### **Archaeological Unit**

SYNTHESIS OF ARCHAEOLOGICAL INTERPRETATION



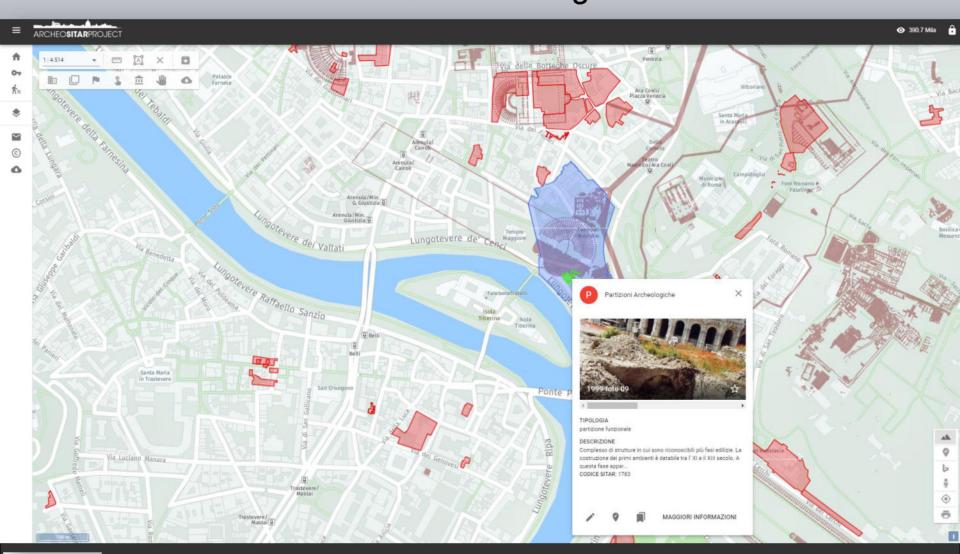
The archaeological units contribute to the identification of historical and topographic sets that have formed the different historical landscapes of the city.





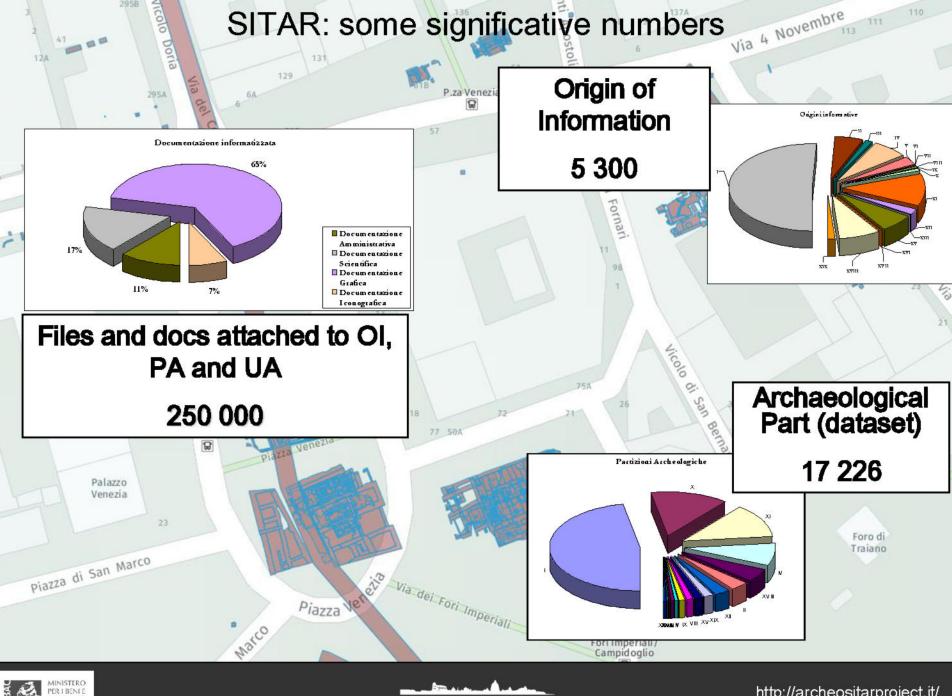


# Level 4 Archaeological Constraints Protection and safeguard





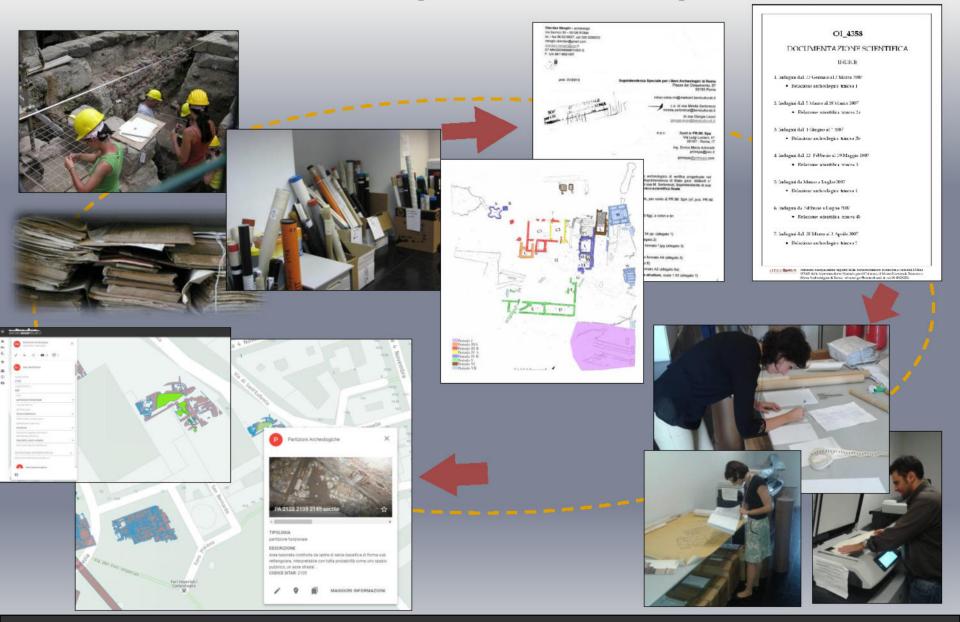








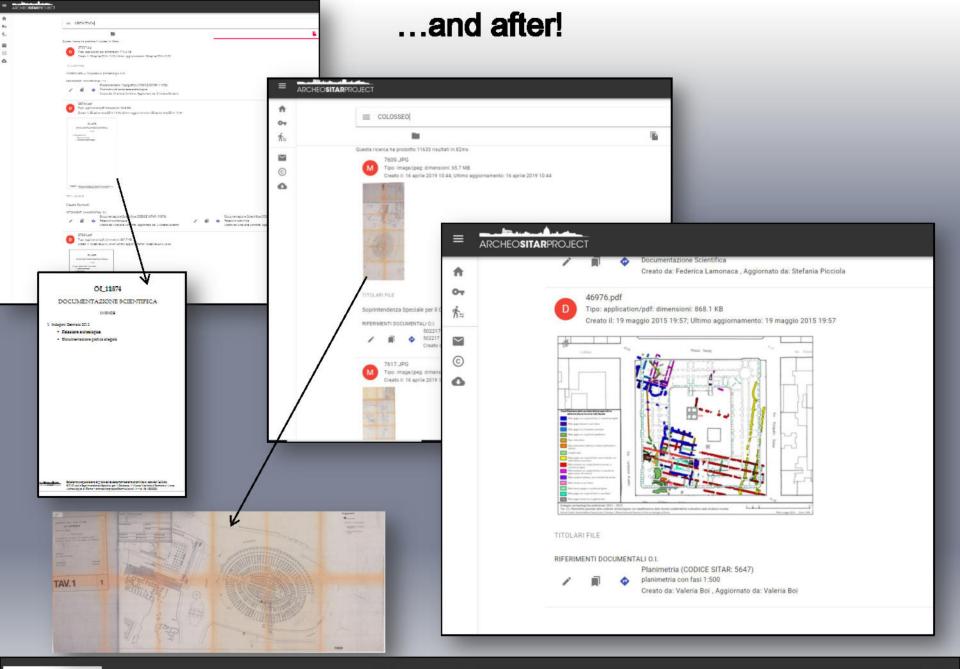
#### From the archaeological data to the digitalization





### Before... 9 Land ACEA s.p.a. RELAZIONE ARCHEOLOGICA Scavi ACEA s.p.a. in Via Palermo fronte civ. 17 (3CN389) e da civ. 12 a civ. 8 (3CN388) 26-28 luglio 2010 BORFIE livelli archiologici Dina: C.R.C. Archeologo: D.ssa M.C. Ric 26-28 Iuglio 2010 un'avi scavo della trincea Acesa.



























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#### ARCHEOSITAR & CLOUD GARR An ecosystem"on-demand"!

### DEV/OPS

SCALABILITY © PERFORMANCE





INTEROPERABILITY © SERVICE









#### **CLOUD GARR**

TASK & BATCH SERVICE

(PostGRES & Elastic Search Sync)

POSTGRES + POSTGIS (Relational DB + Geo)

ELASTIC SEARCH

**KIBANA** 

FILE SERVICE API WEBAIS REST API

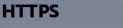
GEOSERVER (OWS + REST API)

GATEWAY API (Netflix ZUUL Proxy + SSO Security)

**SCALABILITY** 



10





**PERFORMANCE** 

**INTEROPERABILITY** 







**SERVICE** 



#### OPEN DATA SERVICES

#### **HYPERMEDIA**

**CONTENT NEGOTIATION** 



JSON, GEOJSON, ATOM









WMS,WFS, WCS



PDF,SHAPE,GEOTIFF



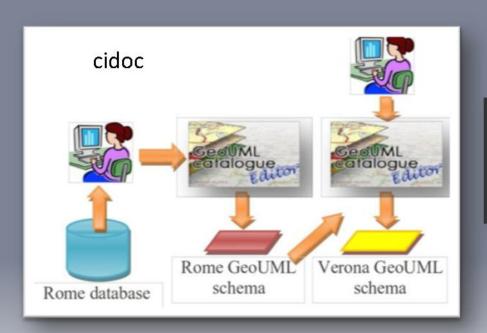


#### Translation of the logical SITAR infrastructure in GeoUML



#### II progetto ARIADNE

Advanced Research Infrastructure for Archaeological
Data Networking in Europe







SITAR data model alignment with CIDOC CRM concepts within ARIADNE European Project



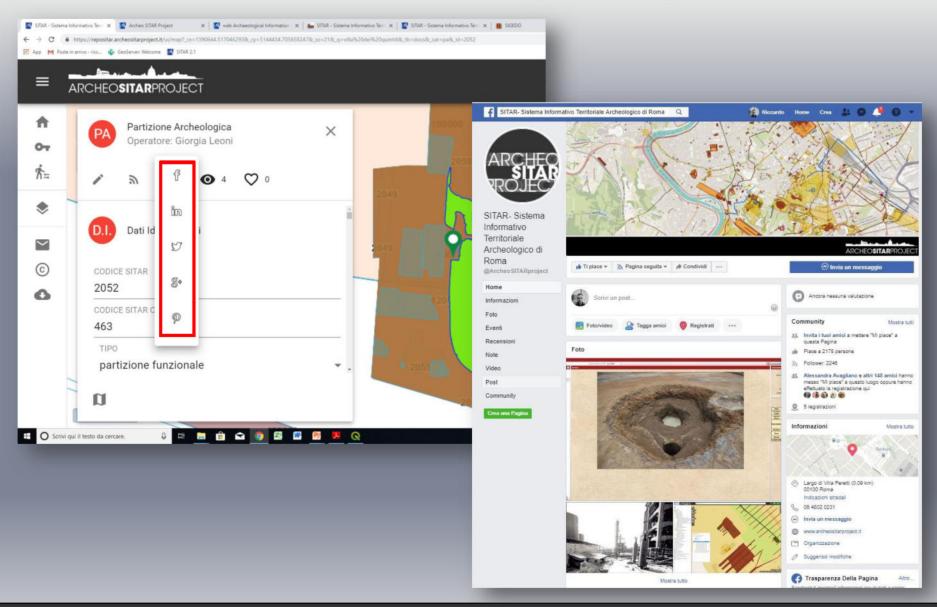








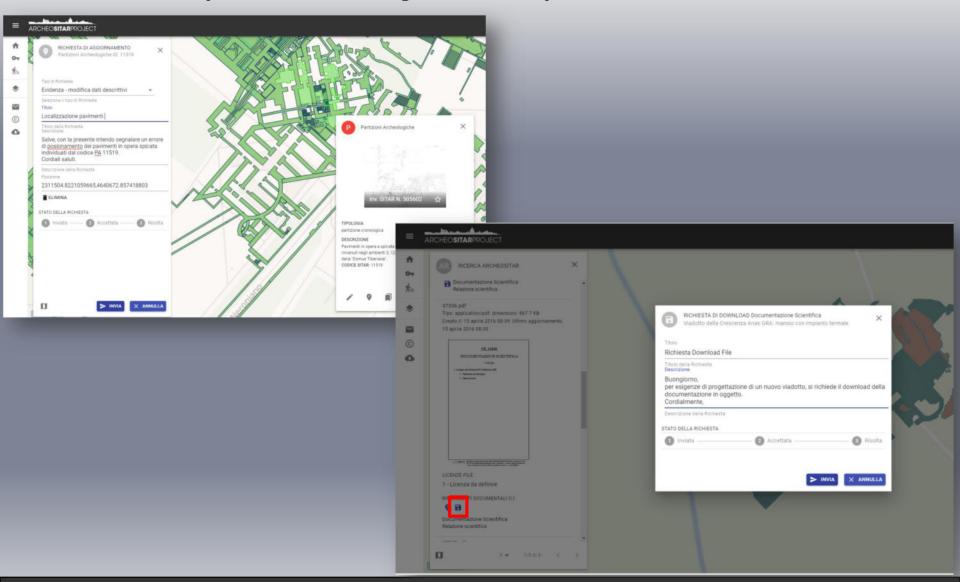
#### REPOSITAR and knowledge sharing







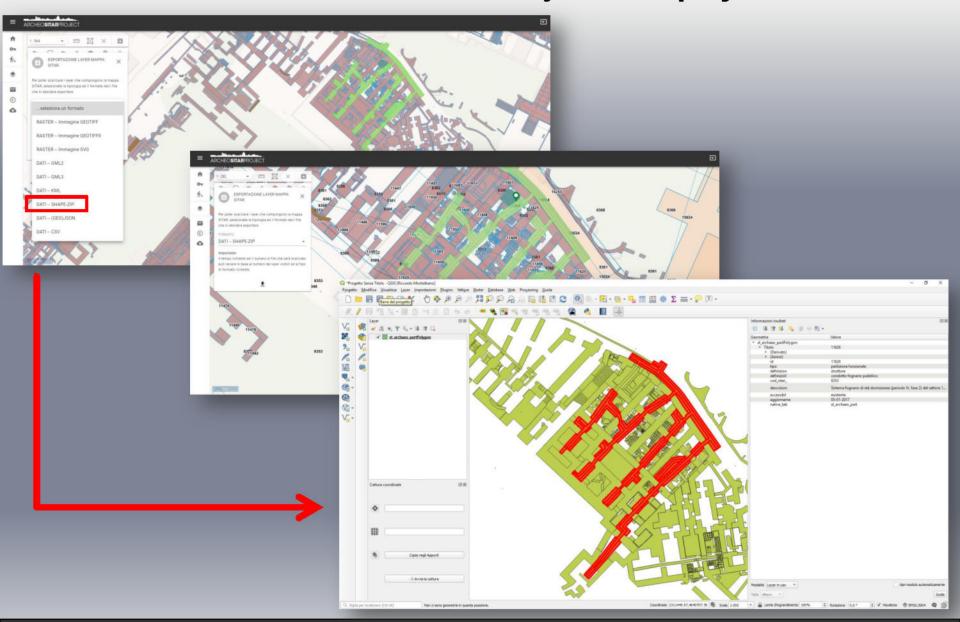
# Public participation: request for change and request for download







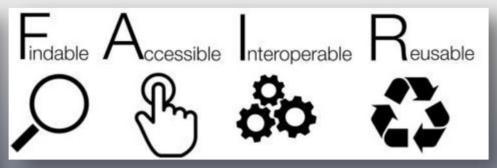
#### From REPOSITAR 2.1 to your GIS project!



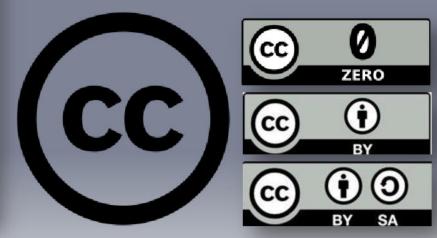








Data should be accessible does not mean that data should be open!







### OPEN DATA FOR THE ARCHAEOLOGICAL HERITAGE PROTECTION Italian Regulatory Framework AGGIORNARE

D.Lgs. 82/2005 e D.lgs 179/2016 and D.lgs 217/2017: CAD, digital administration code

**D.Lgs.** 36/2006: re-use of documents in public administration

D.L. 179/2012: Decreto Sviluppo 2.0

**D.Lgs.** 33/2013: Re-organization of regulation concerning obligations of advertisement, transparency and publication of informations by the public administrations

Faro Convention (1948) ratified by Italy 27 FEBRUARY 2013



A Public Data IS

"a data that everyone can know"

but also

"a data produced by public administrations within their institutional goals"







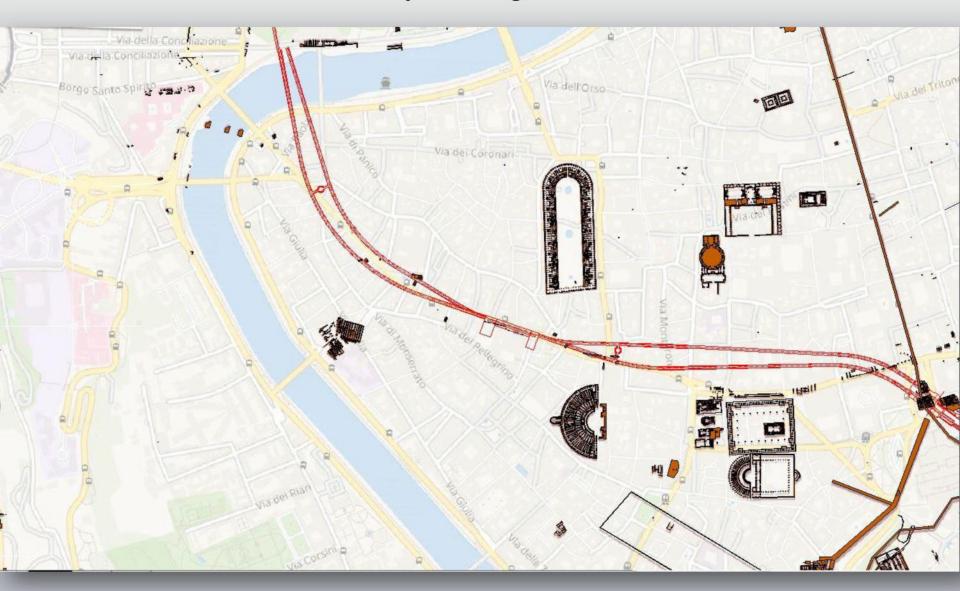
# The dialectic between cultural heritage protection and urban planning







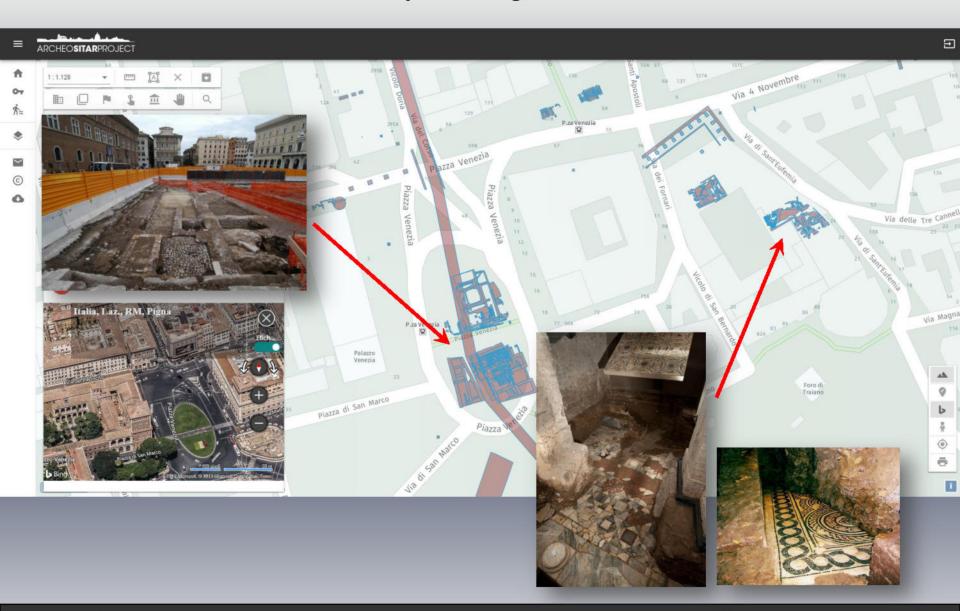
#### SITAR and urban planning: the new METRO C







#### SITAR and urban planning: the new METRO C







#### Urban planning: past or future?







#### CH Safeguard and urban planning: an unsolved problem









#### About us

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