37TH INTERNATIONAL NO-DIG FLORENCE 2019

Fortezza da Basso • FLORENCE (Italy)

30th September • 2nd October 2019

THE ITALIAN SOLUTION FOR THE CADASTRE OF TECHNOLOGICAL INFRASTRUCTURES

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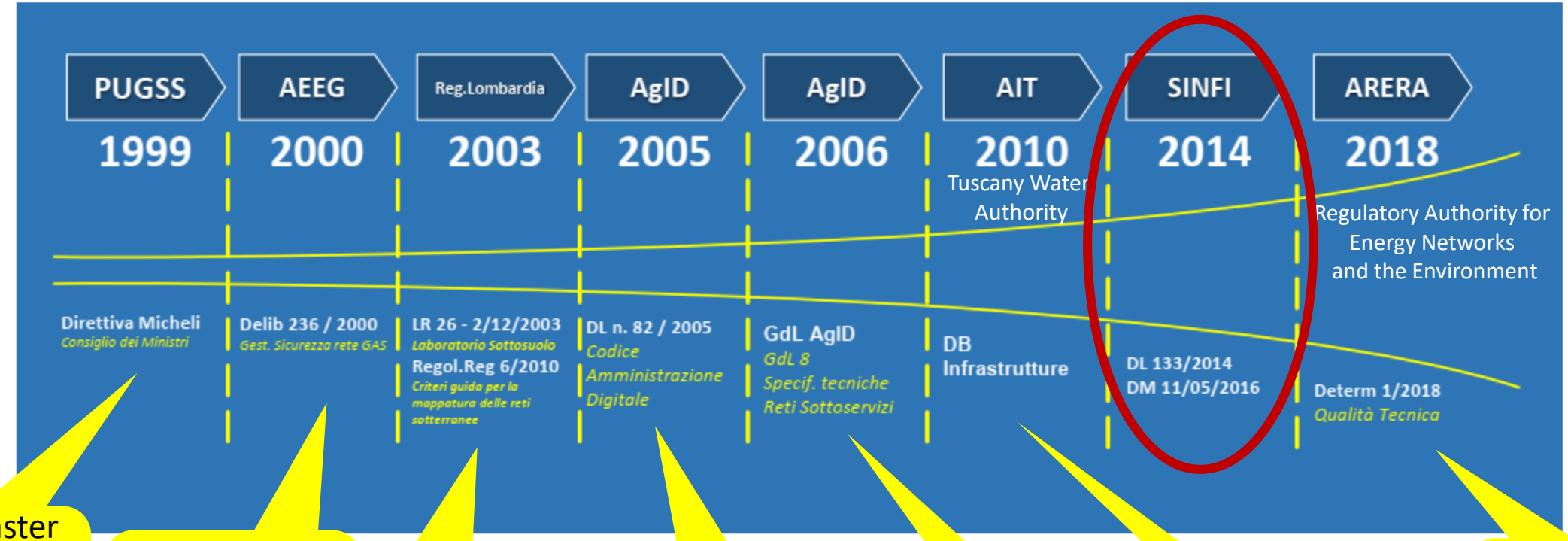
SINFI: a history that began long ago



Urban Master Plan of Underground Infrastructures

Gas Network Safety Management

Guidelines for Mapping Underground Networks

National Digital Administration Code

Technical Specifications Underground Networks

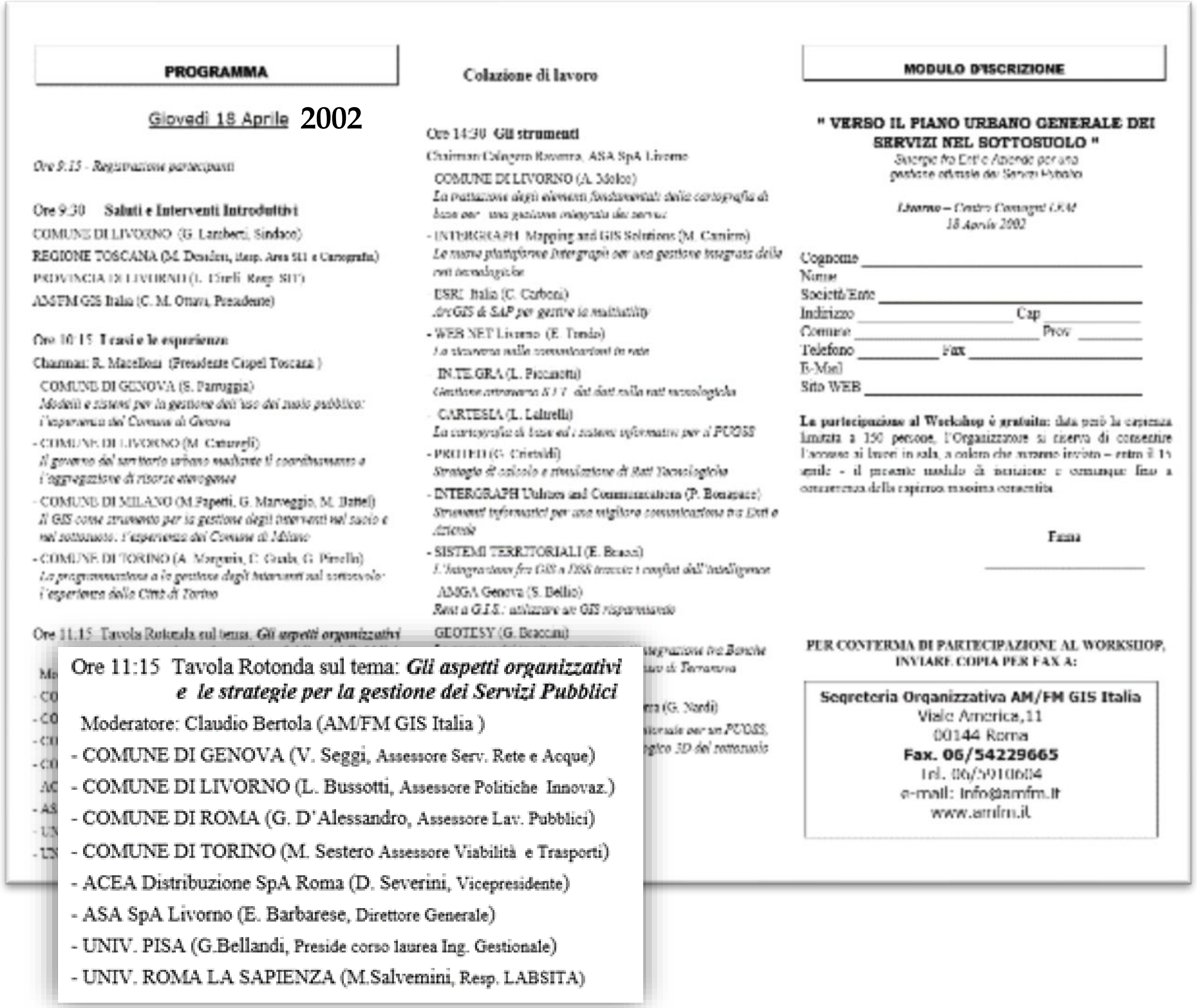
Underground Infrastructure Database

Technical Quality Rules

Followed by the associations

2002 Workshop AMFM GIS Italia Utilitalia

2016 Working Group SGI - AMFM -


PROGRAMMA

Giovedì 18 Aprile 2002

Colazione di lavoro

MODULO D'ISCRIZIONE

" VERSO IL PIANO URBANO GENERALE DEI SERVIZI NEL SOTTOSUOLO "

Cognome
Nome
Società/Ente
Indirizzo Cap
Comune Prov
Telefono Fax
E-Mail
Sito WEB

Firma

PER CONFERMA DI PARTECIPAZIONE AL WORKSHOP, INVIARE COPIA PER FAX A:

Segreteria Organizzativa AM/FM GIS Italia
Viale America,11
00144 Roma
Fax. 06/54229665

Ore 11:15 Tavola Rotonda sul tema: ***Gli aspetti organizzativi e le strategie per la gestione dei Servizi Pubblici***
Moderatore: Claudio Bertola (AM/FM GIS Italia)
- COMUNE DI GENOVA (V. Seggi, Assessore Serv. Rete e Acque)
- COMUNE DI LIVORNO (L. Bussotti, Assessore Politiche Innovaz.)
- COMUNE DI ROMA (G. D'Alessandro, Assessore Lav. Pubblici)
- COMUNE DI TORINO (M. Sestero Assessore Viabilità e Trasporti)
- ACEA Distribuzione SpA Roma (D. Severini, Vicepresidente)
- ASA SpA Livorno (E. Barbarese, Direttore Generale)
- UNIV. PISA (G.Bellandi, Preside corso laurea Ing. Gestionale)
- UNIV. ROMA LA SAPIENZA (M.Salvemini, Resp. LABSITA)

SGI-SINFI WG advances initiatives for:

1 *information, aimed at increasing awareness of Organizations, Institutions, Companies and stakeholders on the various issues relating to SINFI*

2 *institutional communication and initiatives to engage local stakeholders through the most appropriate channels*

3 *technical training, relating to the adaptation of the datasets to the national specifications and INSPIRE*

The National Strategy

- The objective of the National Strategy for Ultra Broadband is to guarantee by 2020 the coverage with ultrafast networks over 100 Mbps at least 85% of the Italian population, the coverage at least 30 Mbps to the totality of the Italian population and the coverage over 100 Mbps to all offices / public buildings, industrial centers, areas of economic interest and demographic concentration, as well as the main tourist resorts and logistics hubs
  ...
- The mapping of existing networks is crucial for proper planning of interventions, to facilitate the sharing of existing infrastructures and, in general terms, for the exploitation of available information
- The establishment of the "**SINFI**", the Cadastre of the technological infrastructures, **aims to give insight into the deployment, across the national territory, of the service networks**, be they Telecommunications or Utilities such as water, electricity, gas and district heating

SINFI at the glance

SINFI, the **National Federated Infrastructure Information System**, is the tool identified for coordination and transparency for the new broadband and ultra-broadband strategy. Among the functions it performs is to facilitate the sharing of infrastructures, through an orderly management of the sub and above ground and the relative interventions, and also offer a single dashboard that efficiently manages and monitors all interventions.

SINFI: The process

It contains the data of the upper and lower ground and is correlated with the national catalog of spatial data (AgID)

Attributes defined on the base of the geotopographic database specification

Definition of the "SINFI" mandatory level

Adding some new attributes to support the necessary interoperability between information systems

Attributes defined mandatory contained in the national technical specifications of the underground networks (AgID)

Adding a class and some new attributes, to support the necessary interoperability between information systems

SINFI: What data to give

YES

Network:
- *supply water*
- *water disposal*
- *electric*
- *gas*
- *district heating*
- *pipelines*
- *telecommunications and wiring*

Network housing infrastructure:
elements destined to host elements of a network, without becoming themselves an active element of the network (cable ducts, technological tunnels, multi-purpose tunnels, pylons, poles, wells or bedrooms).

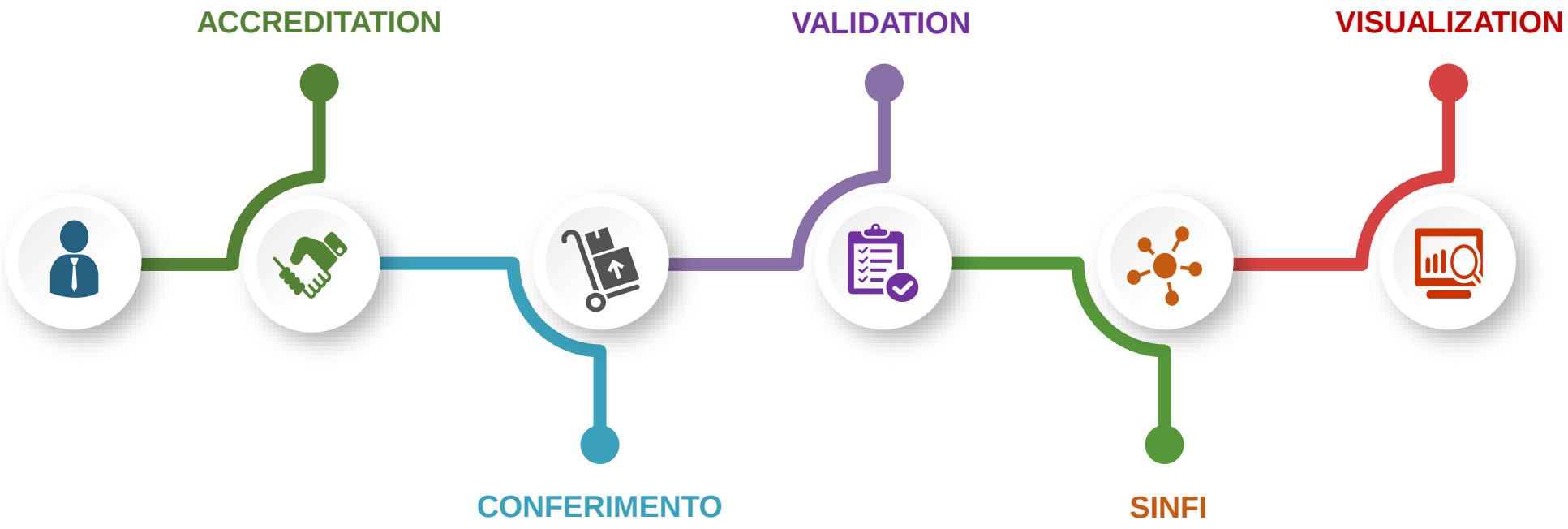
NO

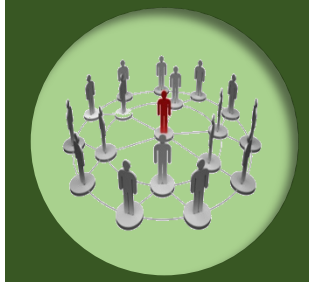
Data excluded from the contribution:
the cables, including the inactive fiber, the elements of networks used for the supply of water intended for human consumption in accordance with article 2, point 1, of the directive 98/83 / CE

The IRU network / infrastructure:
all the Infrastructure or Fiber resources object of IRU, must be conferred to SINFI by the owner, without having to specify the concessionaire

IRU : *Indefeasible Right of Use*

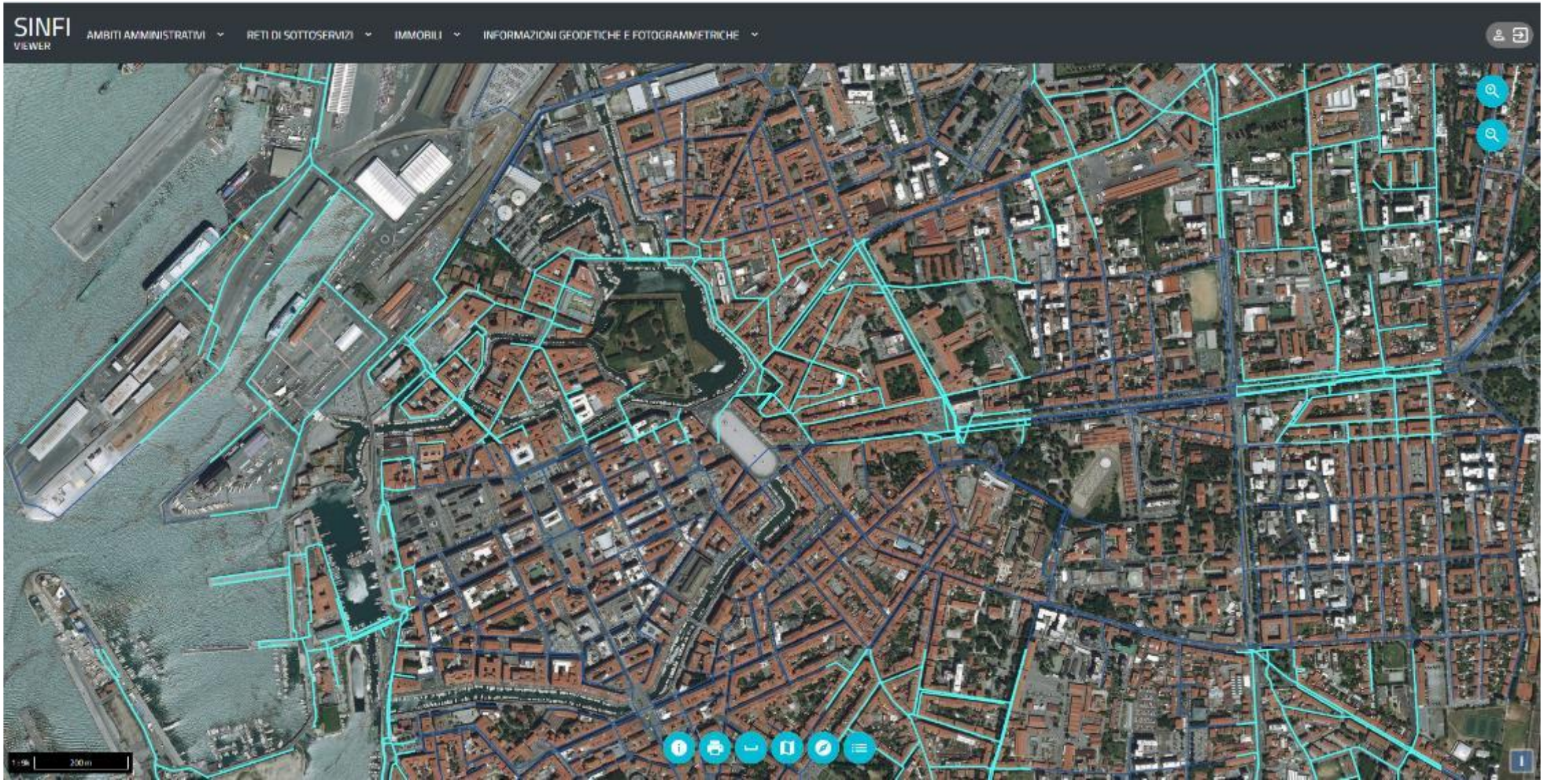
SINFI: From the provision of data to the display





The INFRATEL SINFI Team provides support for access, assistance, validation and visualization

SINFI: The viewer



SGI – SINFI WG: Area of action

➔Sustainable Development

Context: the promotion of indicators on the **use of geospatial data to monitor compliance with the Sustainable Development Goals** (SDG) of the *2030 UN Agenda for Sustainable Development*

- ✓ Concerning SINFI, SGI WG participates to the specific national working groups devoted to SDG 9 and SDG 11
- ✓ "Report on the Urban Agenda for Sustainable Development" (2019): goals and recommendations has been proposed and approved in accordance to the ISO / IEC DIS 30146 "Smart City ICT Indicators", **suggesting monitoring and use of geospatial data at an urban level**
- ✓ Within initiatives to make Smart Cities aware of such objectives, **actions can be envisaged to increase the use of SINFI, its information content and related services, in synergy with other geospatial data infrastructures**

SGI – SINFI WG: Area of action

➔Standardization initiatives (I)

Context: SGI and AMFM GIS Italia, together with others, have promoted the new professional figure of the Geographic Information Manager, GIM, within the National Standardization Body, UNI / UNINFO

- ✓ The initiative led to the Standard UNI 11621-5: 2018 "Professional profiles related to geographical information"
- ✓ It defines the professional profiles related to the professionals operating in the geographic information sector according to the European Competence Framework (e-CF)

European e-Competence Framework

- ✓ As a part of its use promotion, actions aimed at the professional needs of the "Network Infrastructure" are being envisaged. **In perspective, the definition of an *ad hoc* professional profile can be considered, to be included in subsequent updates of the standard itself**

SGI – SINFI WG: Area of action

➔Standardization initiatives (II)

Context: as regards a specific Working Group UNI / Reference Practices on "Professional Profiles connected to Industry 4.0 - Critical Infrastructures, Sectors: Construction, Energy and Railway", SGI participates to the related work efforts, aiming to propose and support the "geo-digital" knowledge, skills and competencies of the managerial professional profiles who will be able to transfer the innovation processes connected to

- ✓ As a part of this initiative, it has been highlighted the importance of knowledge, skills and competencies requirements related to SINFI for professional profiles relating to critical infrastructures in these sectors
- ✓ Furthermore, actions can be envisaged for the promotion of SINFI in such a context, and in perspective, the preparation of a specific Reference Practice dedicated to SINFI can also be considered

SGI – SINFI WG: Area of action

➔ IATT - Italian Association for Trenchless Technology

Context: The twenty-year collaboration between IATT and AMFM GIS Italia has been developed on the topics of Geographic Information Systems, the standards related to network data models and security issues

- ✓ Technologies not involving digging, for the rehabilitation of underground pipelines need to count on a good knowledge of the subsoil networks reported in a data model able to be shared at a national level
- ✓ SINFI is the natural answer to this need: it represents the contact point between intending to promote study and experimentation initiatives in the coming years through workshops, webinars, mailing lists
- ✓ **Our paper presented at the Conference can be considered one of the first steps of this joint path**

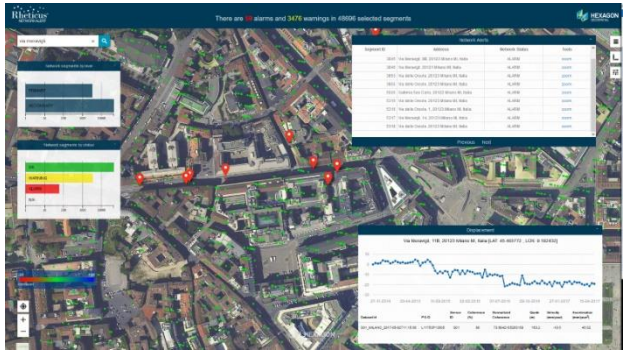
SGI – SINFI WG: Area of action

➔ Copernicus Programme

Context: On the basis of the data made available by Copernicus and other similar systems, it is possible to continuously and accurately observe processes and phenomena, both natural and anthropogenic, for a better management of the environmental resources, the territory, the risks and emergencies, also related to the climate change

- ✓ Within the Copernicus National User Forum, the **SGI and AMFM GIS Italia Associations** have proposed to create opportunities to present SINFI, in order to support the development of services based on the integration of satellite data, dataset out of the network infrastructure cadastre and other ground data

- ✓ **Some Network Utilities already use services based on these technologies, for example to prevent sudden and serious failure of the ground caused by water leaks from the pipelines**



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Thank you!

ASA Azienda Servizi Ambientali SpA

amFM

Stati Generali dell'Innovazione