

DigLogs – Digitalising Logistics processes Pilot Action for Venice Port System Authority

Data Management Systems to improve the efficiency of Adriatic Ports

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Venice, december 1st, 2021

Overview

➤ **Base scenario**

- Legal framework references*
- DigLogs pilot action genesis*
- Current operational scenario*
- Possible future scenario*

➤ **The DigLogs Pilot for Venice Port System Authority**

- DigLogs Venice Port pilot pillars*
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- Data sources*
- Training activities*

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Base scenario

Regulatory references

INSPIRING PRINCIPLES FOR THE CREATION OF A DATA INFRASTRUCTURE

Fragmentation, lack of harmonization, data duplication are the main issues showing that there is an urgent need of implementing a Spatial Data Infrastructure



INSPIRE directive (2007/2/CE) states that the amount of time and resources spent searching for existing data or deciding whether they can be used for a particular purpose is the main obstacle to the optimal exploitation of available information base.

The 5 INSPIRE principles

Effective management

Data should be collected only once and kept where it can be maintained most effectively

Interoperability

It should be possible to combine seamless spatial information from different sources across Europe and share it with many users and applications

Sharing

It should be possible for information collected at one level/scale to be shared with all levels/scales; detailed for thorough investigations, general for strategic purposes

Readiness and availability

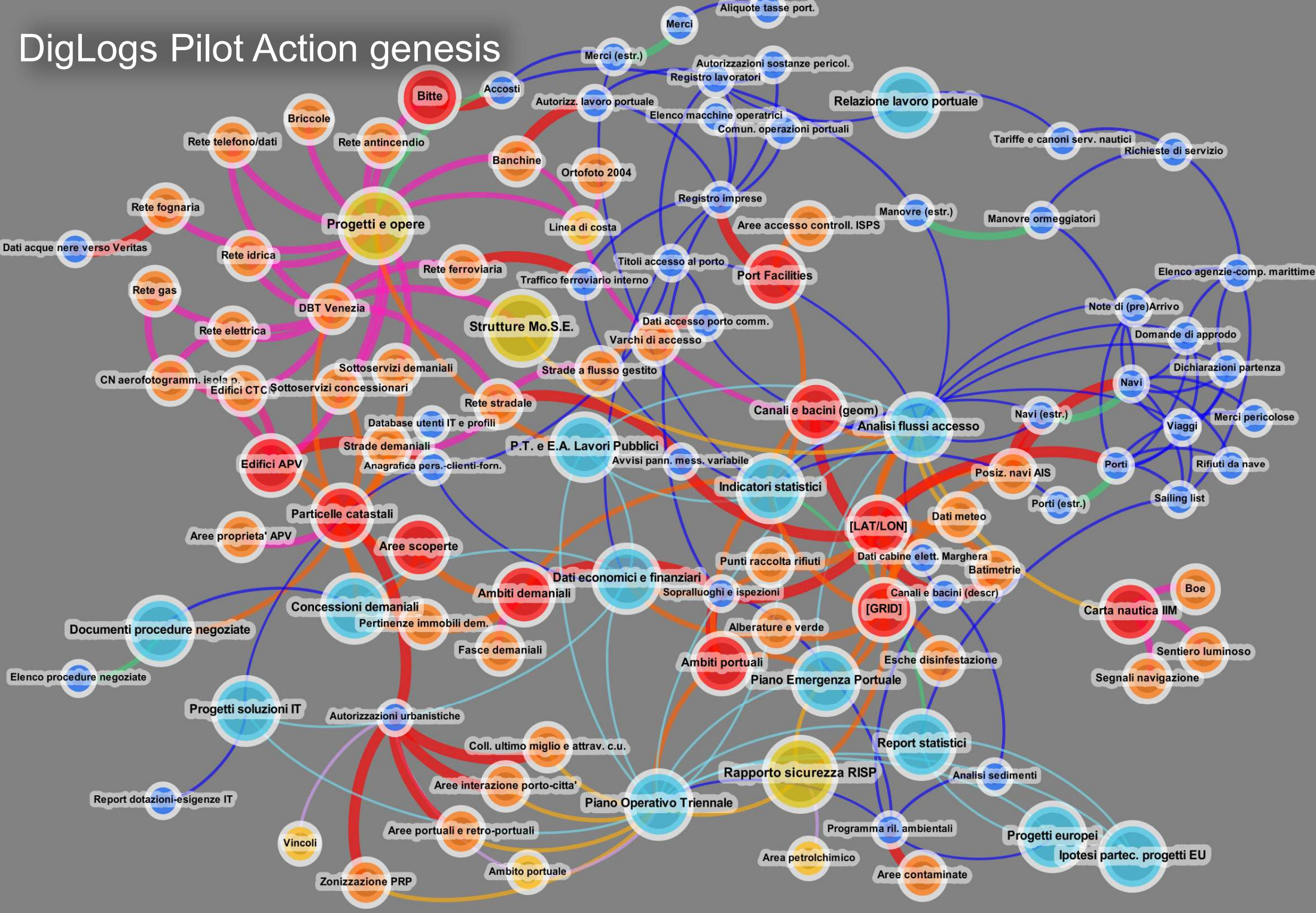
Geographic information needed for good governance at all levels should be readily and transparently available

Easiness of use

Easy to find what geographic information is available, how it can be used to meet a particular need, and under which conditions it can be acquired and used



DigLogs Pilot Action genesis



DigLogs pilot action genesis

Numbers from the survey carried out in 2018 for the “SUPAIR” Interreg project



Organization

Departments

15

Tasks and processes

48

ICT resources

Software applications

22

Storage systems

17

Information assets

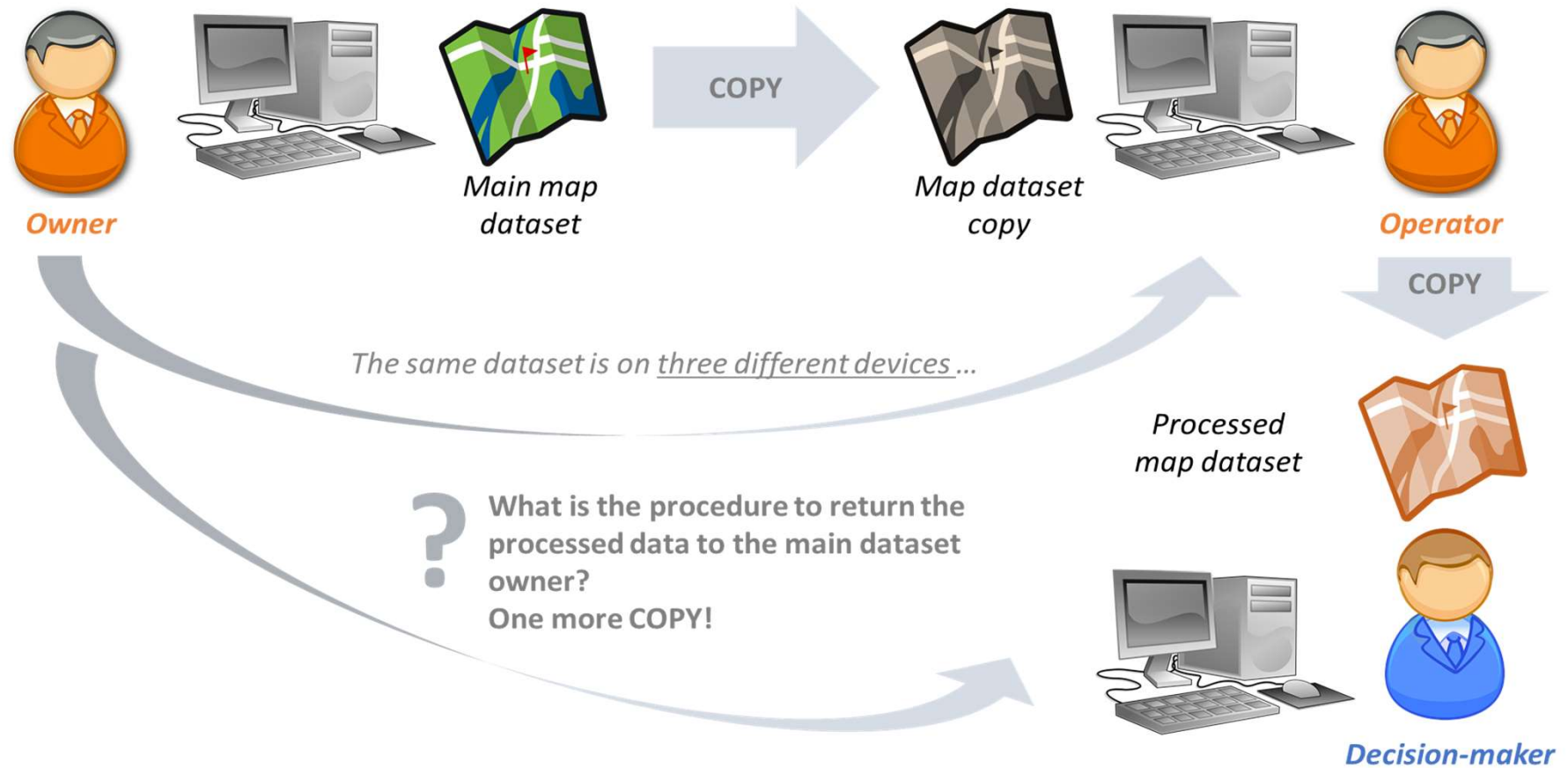
Data sources

107

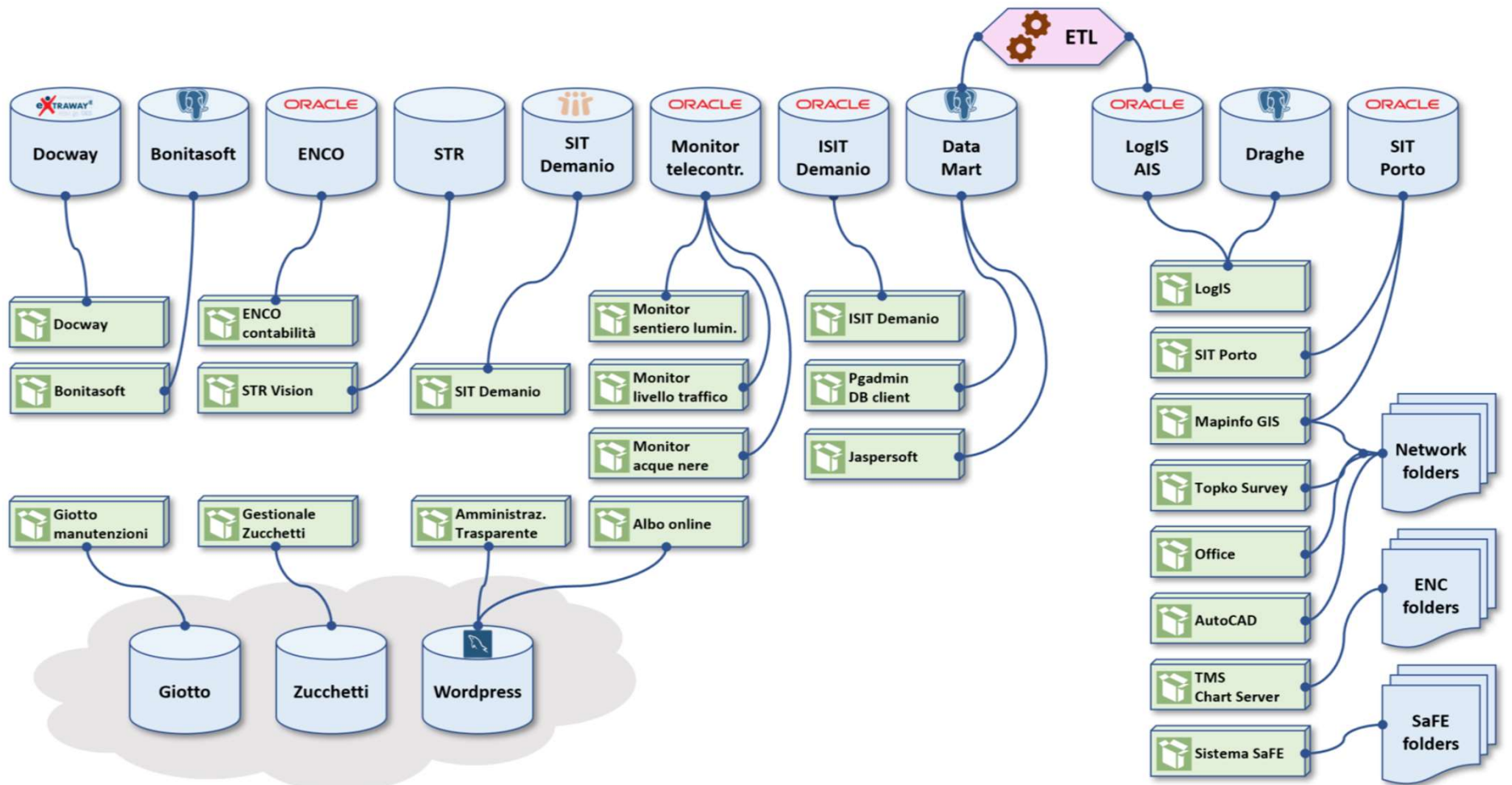
Correlations

204

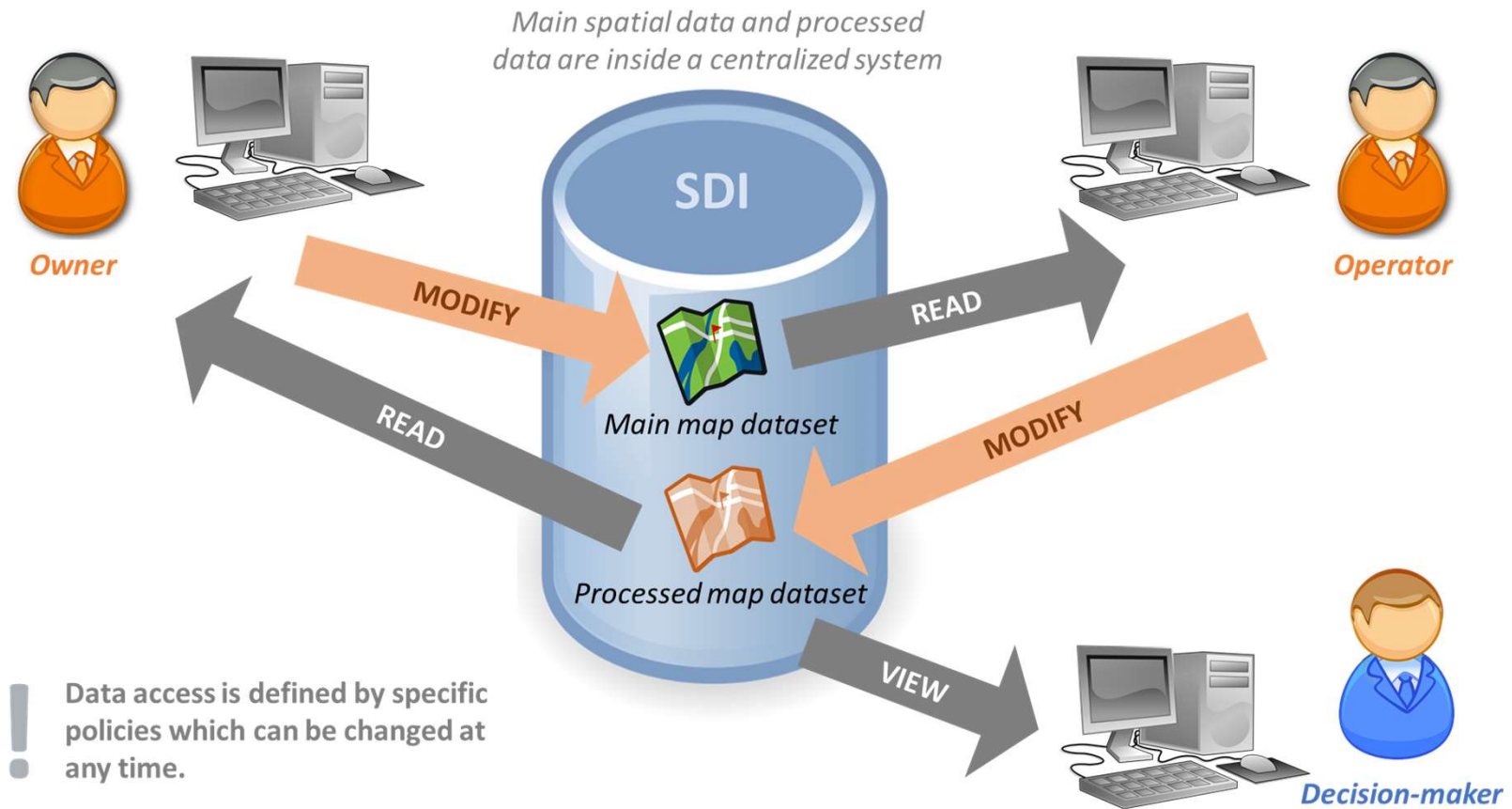
Operational scenario



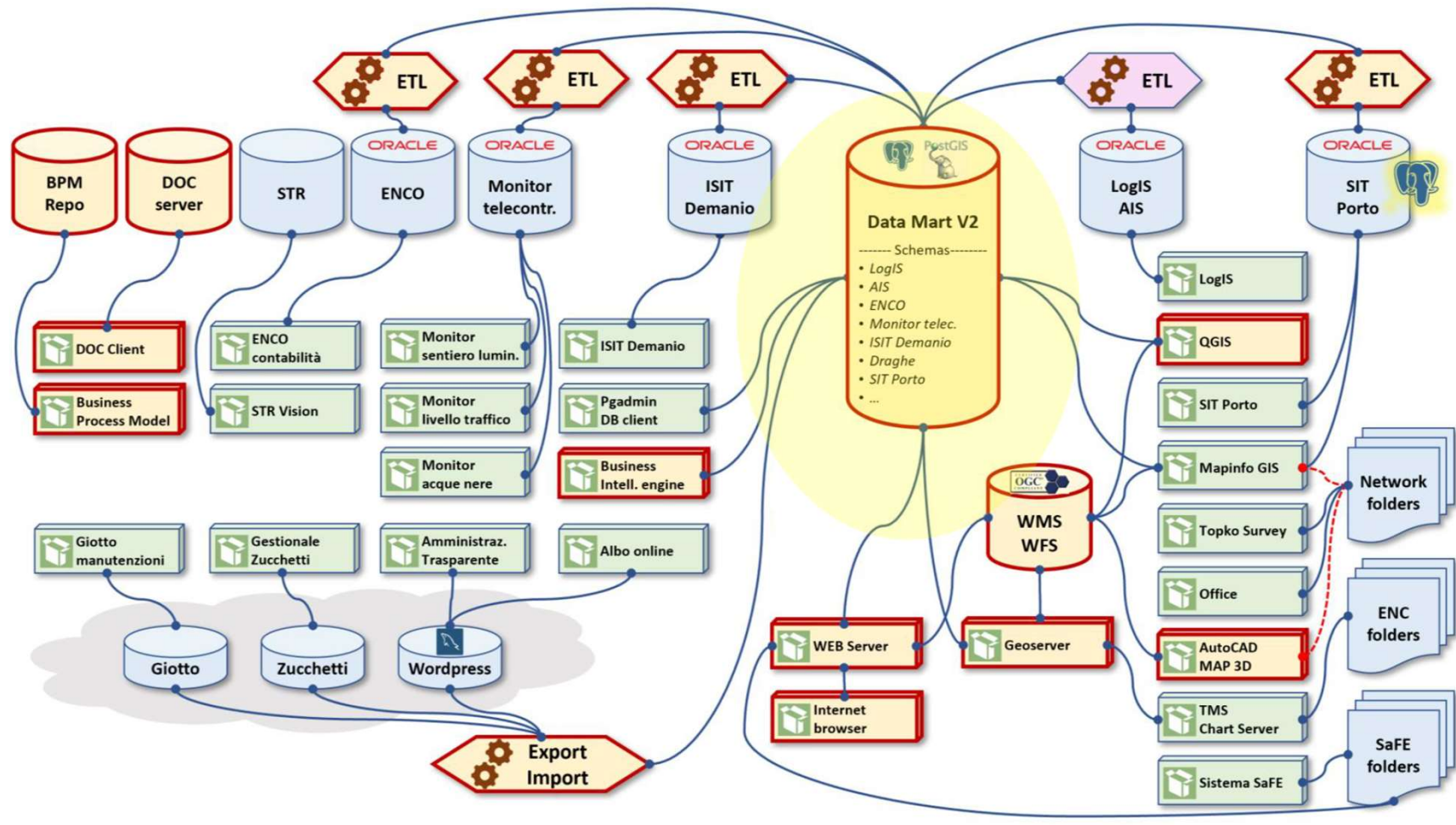
Port System Authority system architecture



Possible future scenario

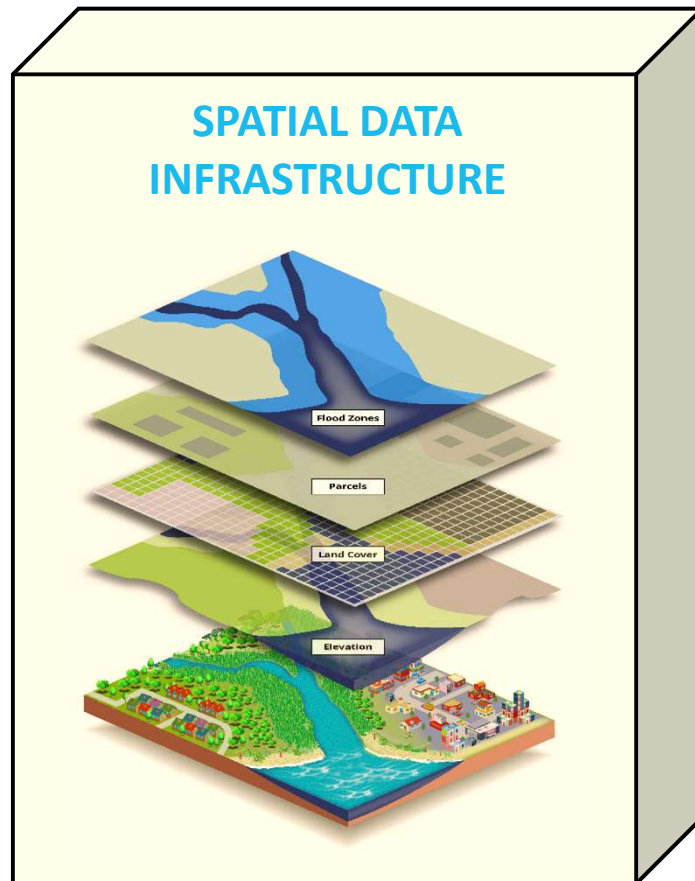


Possible system architecture evolution



The DigLogs Pilot for Venice Port System Authority

DigLogs Venice Port pilot pillars



Venice Port System Authority SDI components

VECTOR MAPS ENGINE



The screenshot shows the pgAdmin 4 web interface. On the left, a tree view shows the database structure under 'sdi'. The main area displays a 'Statistics' table with the following data:

Statistics	Value
Rackends	4
	53256
	43
	380731
	4783256
	62338544
	1995308
	34221
	15231
	547
2021-04-19 09:37:26.576325+02	2021-04-19 09:37:26.576325+02
	0
	0

Desktop GIS direct access

Web interoperability

IMAGERY MAPS / 3D MODELS ENGINE



The screenshot shows the GeoServer Layer Preview interface. It displays a list of layers with the following columns: Type, Title, and Name. The layers listed include:

- R05_11_ED50
- batimetrie
- batimetrie_ombreggiato
- World rectangle
- Manhattan (NY) points of interest
- Manhattan (NY) landmarks
- Manhattan (NY) roads
- USA Population
- Tasmania cities

Venice Port System Authority SDI data sources

Data source optimization summary

Processed input datasets

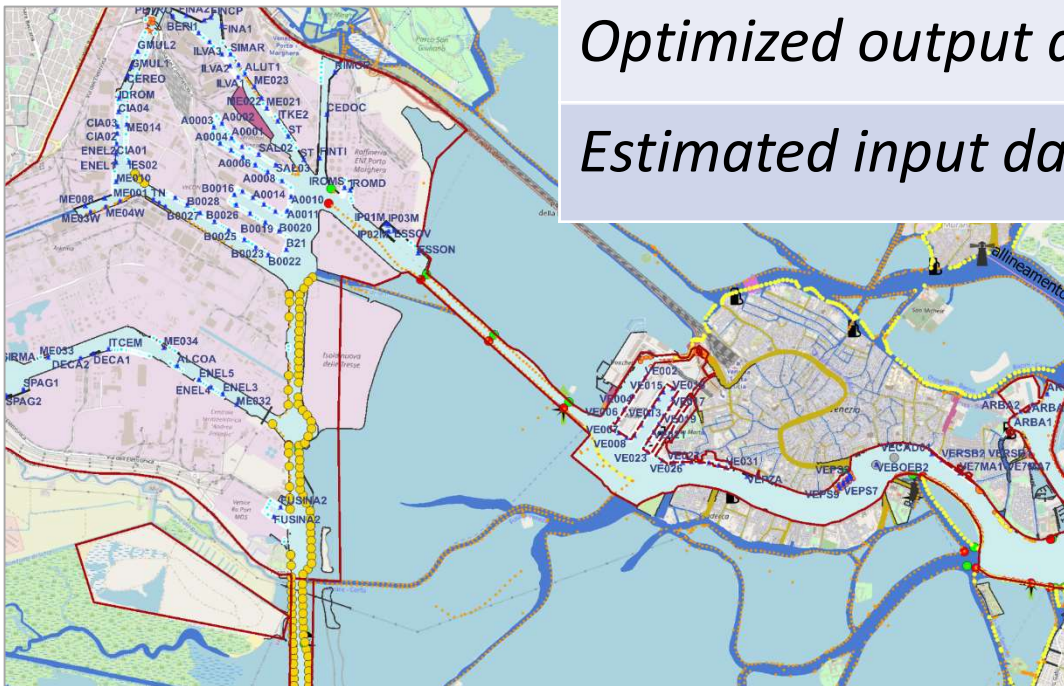
519

Optimized output data sources

45

Estimated input dataset to be processed

100+



Venice Port System Authority training activities

Activities summary

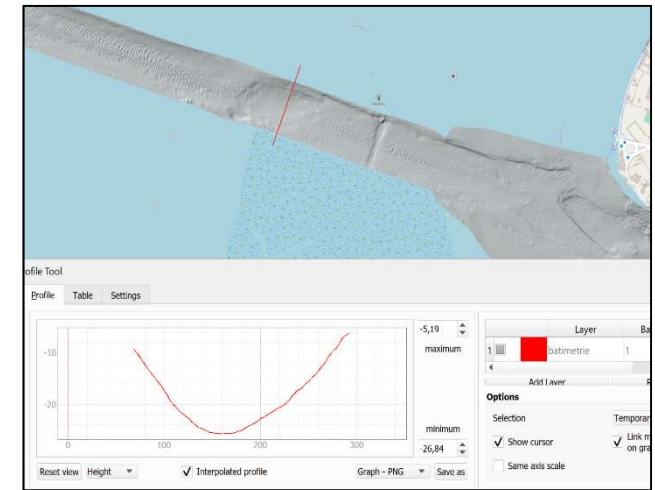
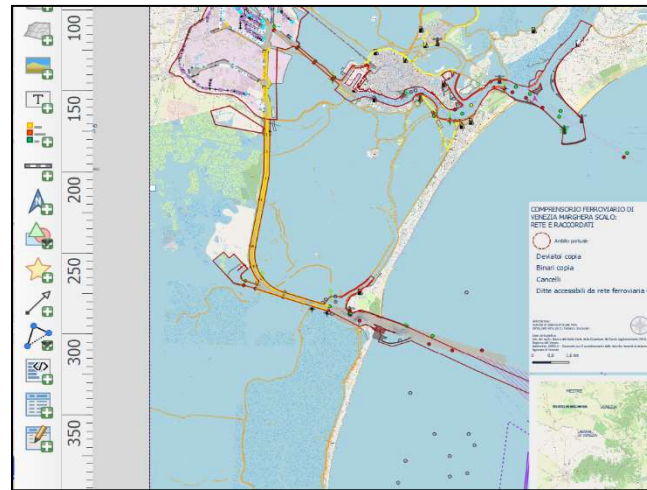
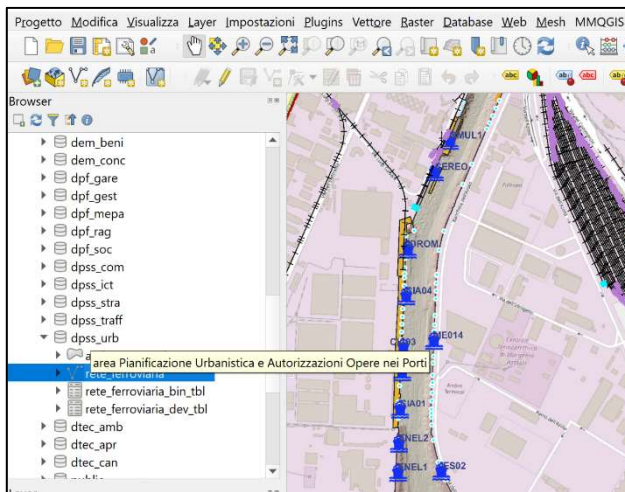
<i>Training period</i>	<i>Oct-21 - Dec-21</i>
<i>Total days of training</i>	23
<i>Involved Port System Authority departments</i>	6
<i>Operators involved in basic training</i>	15
<i>Operators involved in advanced training</i>	2

Venice Port System Authority training topics

- ENVIRONMENT SETTINGS
- DATA ACCESS

- DATA VISUALIZATION
- MAPPING TECHNIQUES

- CUSTOM TOOLS/TECHNIQUES
- PROCESSING / GEOPROCESSING



Long-term perspective

Open Data web portal

The screenshot displays the Open Data web portal interface. At the top, there is a search bar with the text "Search" and a magnifying glass icon. To the right of the search bar are links for "Registrati" and "Accedi". Below the search bar is a navigation menu with "Dato", "Mappe", "GeoStories", and "Dashboards". On the right side of the navigation menu are links for "A proposito" and "italiano".

The main content area shows search results for "107 Risorse trovate | 1 filtro applicato". The results are displayed in a grid. The first row contains two dataset cards:

- g30**: A world map showing data points. Autore: vicoztechnology@gmail.com. View button.
- NE2_HR_LC_SR_W_DR**: A world map showing shaded relief, water, and drainage. Autore: vicoztechnology@gmail.com. View button.

The second row contains a grayscale world map and a placeholder that says "no image".

On the right side of the main content area, there is a map of Florence, Italy, showing various locations like Sesto Fiorentino, Campi Bisenzio, Fiesole, Scandicci, Bagno a Ripoli, and Lastra a Signa. The map is credited to "© OpenStreetMap contributors." Below the map, there is a dataset card for "areeverdiPolygon" by vicoztechnology@gmail.com, with a "Visualizza dataset" button.

New data-driven services

Online booking systems, congestion and critical situations warnings, performance indicators etc ...

The image is a composite. On the left, an aerial view of a port filled with colorful shipping containers is overlaid with a network of glowing blue lines and nodes, representing data connectivity. On the right, a screenshot of a shipping booking interface is shown. The interface includes a map of Europe and Asia, a legend for transport modes (Rail, Truck, Deep-sea or shortsea, Barge), and a table of shipping options.

Lead time	Transfers	Departure	Arrival	Eg. CO ₂	Ship	Details
26 days	1	18 MAY - 08:00 SIN - 08:00	11 JUN - 00:00 SIN - 00:00	1606	Hapag Lloyd, HMM, ONE, YML	details
23 days	1	18 MAY - 08:00 SIN - 08:00	10 JUN - 00:00 SIN - 00:00	1609	Hapag Lloyd, HMM, ONE, YML Contargo...	details
24 days	1	18 MAY - 08:00 SIN - 08:00	11 JUN - 00:00 SIN - 00:00	1636	Hapag Lloyd, HMM, ONE, YML Europe...	details

Real-time based web services

Navigation mobile APP EVO version, information and notification systems, etc.

VesselFinder

MAP VESSELS PHOTOS PORTS NEWS SERVICES

Search Ships / Ports

CORAL
General Cargo Ship

Details Track Add Photo Add to fleet

Chioggia, Italy
ETA: Oct 26, 08:00

Speed: 8.6 kn Course: 339.4° Draught: 3.6 m (max 3.3)

Status: Under way Last report: Oct 27, 2021 08:51 UTC

Bosphorus North Anch.
ATD: Oct 21, 01:02 UTC

PORT CALLS

WEATHER

VESSEL PARTICULARS

Gross Tonnage:	Built:	IMO number:
2456	1986	8932302
Deadweight:	Size:	MMSI:
3128	108 / 15m	273427610

Lat: 44.91036 Lon: 12.73096
44° 54.622' 12° 43.857'

100 nm

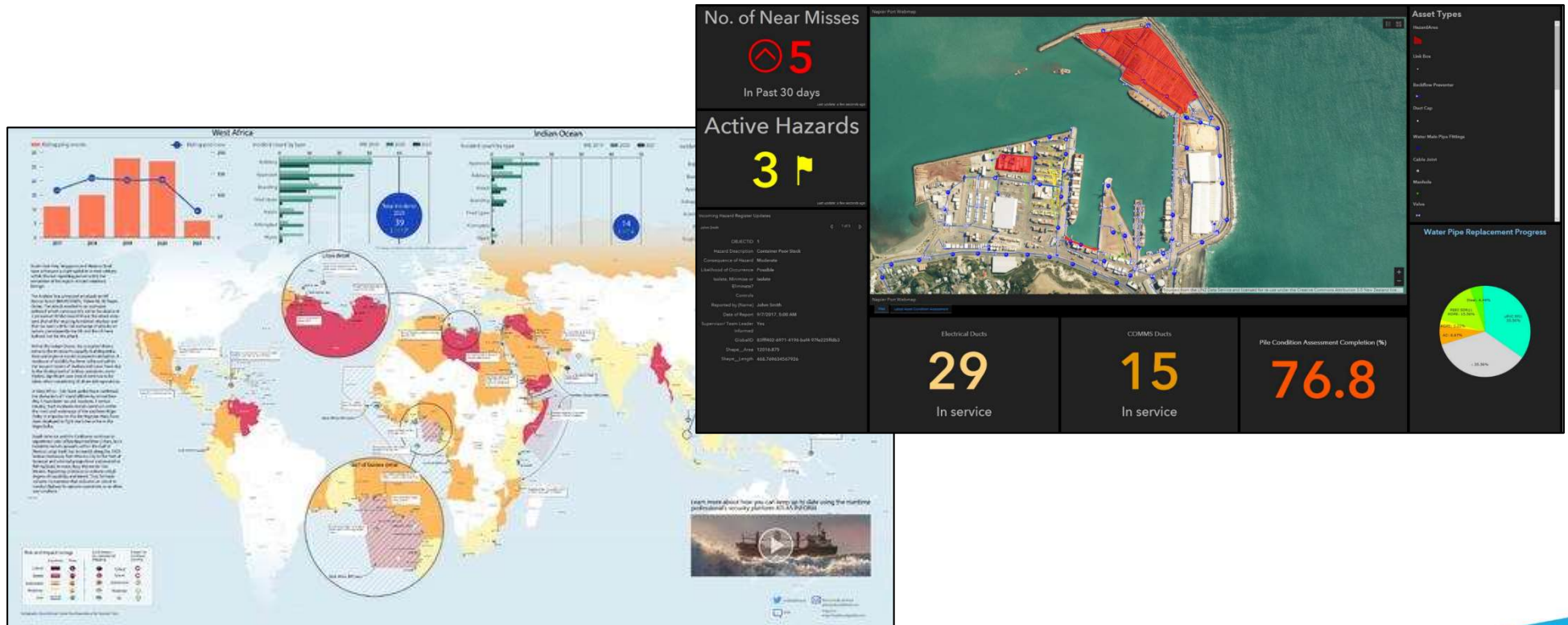
Hear from Prospeed users first-hand. Find out if Prospeed is right for you. Click here

OPEN

Hertz

Spatial based Business Intelligence

Public works monitoring dashboards, documents management systems, assets and advanced management ...



Thank you

Contacts


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