

DigLogs

Pilot implementation

Progress Report #1

5.3.3. Spatial Data Management System

Responsible partner: CFLI (PP1)			
Involved partners: All			
Version	Status	Date	Author
0.1	Final	01.03.2021	CFLI
Notes:			

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1 Pilot action progress status

1.1 Pilot implementation reference roadmap

- 1) Pilot planning
 - a) Target definition
 - b) User needs analysis
 - c) Hardware/Software prerequisites definition
 - d) Spatial data set to be used for the pilot implementation
 - e) Involved processes and services analysis
 - f) Training and educational program
- 2) Spatial datasets acquisition
 - a) Data acquisition
 - b) Analysis of the spatial data packages for the pilot test
 - c) Optimization and pre-processing training on the job
- 3) Spatial Data Infrastructure implementation
 - a) Data model design
 - b) Performance requirements analysis
 - c) IT infrastructure implementation (HW/SW)
 - d) Network configuration
- 4) Data migration
 - a) Workshop with involved users
 - b) Spatial data conversion and migration test
 - c) Spatial data conversion and migration training on the job
- 5) Procedures implementation
 - a) Procedures objectives assessment
 - b) Grants policy definition
 - c) Procedures development training on the job
 - d) Information design and delivery workshop / training
- 6) Processes and services optimization analysis
 - a) Definition of involved processes and services
 - b) Identification of spatial-data-driven support to processes and services
 - c) Workshop with involved users

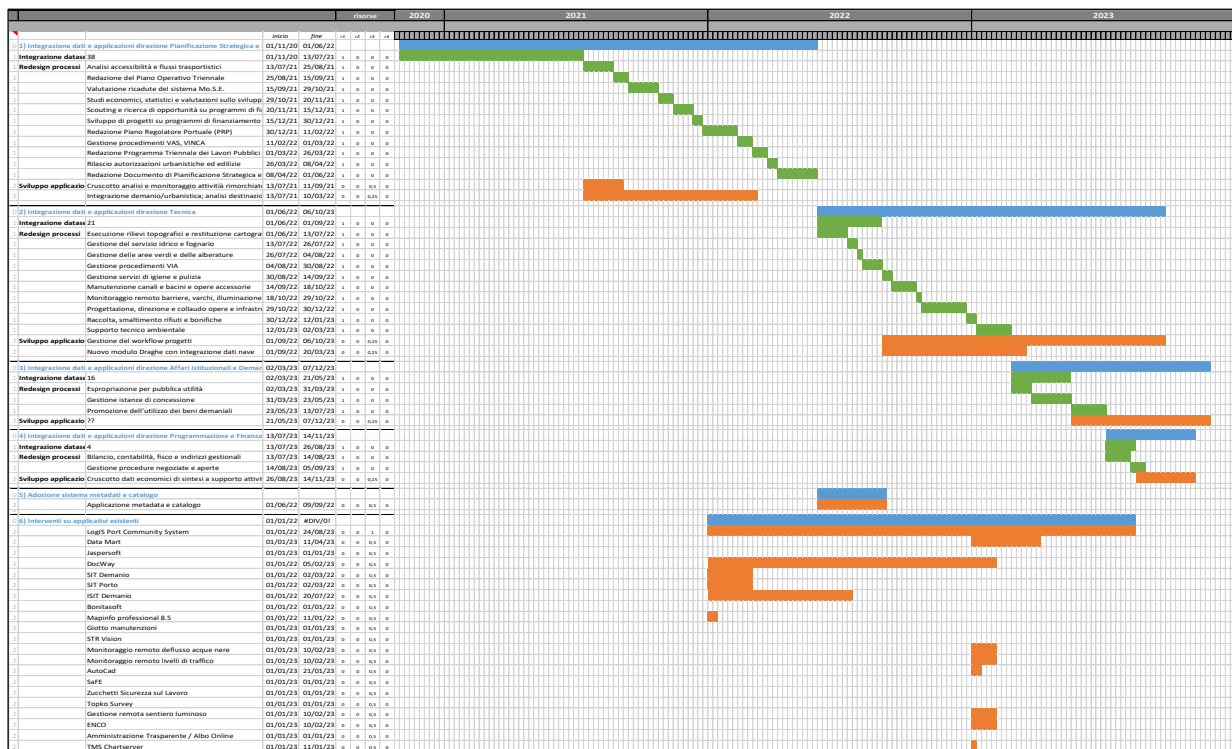
d) Process / service re-design assessment

1.2 Progress status

Tasks 1a, 1b, 1c, 1d of pilot planning **stage 1** have been completed.

In the same stage, tasks 1e and 1f are in an advanced development stage and are going to be completed in a few weeks.

As regards the innovation long-term planning, a more detailed operational and financial program as well as a related time scheduling have been drafted and proposed to be included into the Port Authority three-year operational plan for future implementations.



first draft of the Spatial Data Management System implementation in the three-years operational plan

Regarding the geographical dataset integration activity, the following set have been selected for the implementation pre-assessment:

- Weather station data
- Buoys
- Mo.S.E. system structures
- Navigation aid systems
- Coast line
- Aerial photogrammetry digital map
- Railway
- Streets
- Orthophoto
- Venice Port boundary
- Trees and green areas
- Waste bins location
- Dolphins
- Seabed bathymetry
- Lighted pathway
- Public property areas
- Canals and basins

The **stage 2** related to dataset acquisition has started. Tasks 2a, 2b and 2c are going in parallel and the first 4 datasets have been integrated into the system:

- Railway (processed items: 5; output items: 3)
- Public properties areas (processed items: 1)
- Canals and basins (processed items: 1)
- Bathymetry (processed items: 31; output items: 1)

The **stage 3** is related to the infrastructure implementation and it is almost completed; only the 3d – network configuration is still to be defined in its final version.

The SDI first version configuration includes the hardware server, equipped with an 8-core CPU, 32 Gb RAM, 500 Gb of initial storage (upgradable) and Ubuntu 20.04.1 LTS Operative System, as well as two server applications: PostgreSQL/PostGIS v.12.6 geoDBMS and Geoserver v.2.18.1 OGC compliant interoperable mapping server.

The **stage 4** is in a test/preview stage as some activities are going in parallel with stage 2, particularly regarding the dataset conversion and migration procedures. Some initial training activities have also been carried out.

Stages 5 and 6 are still scheduled for the next months though some aspects related to the grants policies and their impact on the processes have already been addressed.