Interactive presentation of the geographic information on the Belgian part of the North Sea

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During its legal mission, the Continental Shelf Service (FPS Economy, S.M.E.s, Self-employed and Energy) has accumulated a large amount of geographic knowledge on the Belgian part of the North Sea: detailed models and maps used for the monitoring and cartography of the extraction areas, and all available spatial administrative and economic information. The content of this geographic dataset is available and free to our colleagues, stakeholders and the general public. To encourage the exchange of this information and to facilitate the communication to a broad public, the Continental Shelf Service recently started a project to develop an interactive display of all the available spatial data and knowledge.

The Continental Shelf Service already possesses a physical 3D model for exhibition, but this is limited to the detailed representation of the seabed in the extraction area on the Flemish Banks. The new project works on the scale of the entire Belgian part of the North Sea and is not limited to only a representation of the morphological aspects of the seabed. Furthermore, the interface must be constantly adjustable to the rapidly emerging and changing regulation and the constant inflow of new maps and models. Since the display has to encompass very diverse information, a high level of interaction must allow the users to easily choose which information is visible. And finally, the installation must be mobile to allow the use on a maximum number of occasions. As a result, the choice was made for a large multi-touch screen mounted on an adjustable platform, with an easy and well known interface and easy access to internet.

The interface used for the geographical data is Google Earth (see figure 1), well known to a large public and easy accessible on different platforms. This will in the future allow the online availability of the information. At present following data is incorporated:

- Specific maps and data concerning the aggregate extraction (regulation, monitoring and black box data).
- All data from the geographical database managed by the Continental Shelf Service: this includes spatial data related to marine regulation, regularly updated and obtained from the Flemish Hydrography, BAZ (fortnightly publication with information important for marine traffic), and published federal and regional legislation.
- Models and maps resulting from the cartography performed by the Continental Shelf Service: bathymetry, sedimentology and geology. In the future this can be supplemented with external data.
- Spatial data from the Marine Spatial Plan (MSP) coordinated by the FPS Health, Food Chain Safety and Environment.

Since the platform is multi-touch enabled, the interaction with the user happens primarily through multi-touch gestures, increasing the accessibility. Hopefully, this intuitive and easy interface will boost the access to the abundant but not always transparently available marine spatial information.

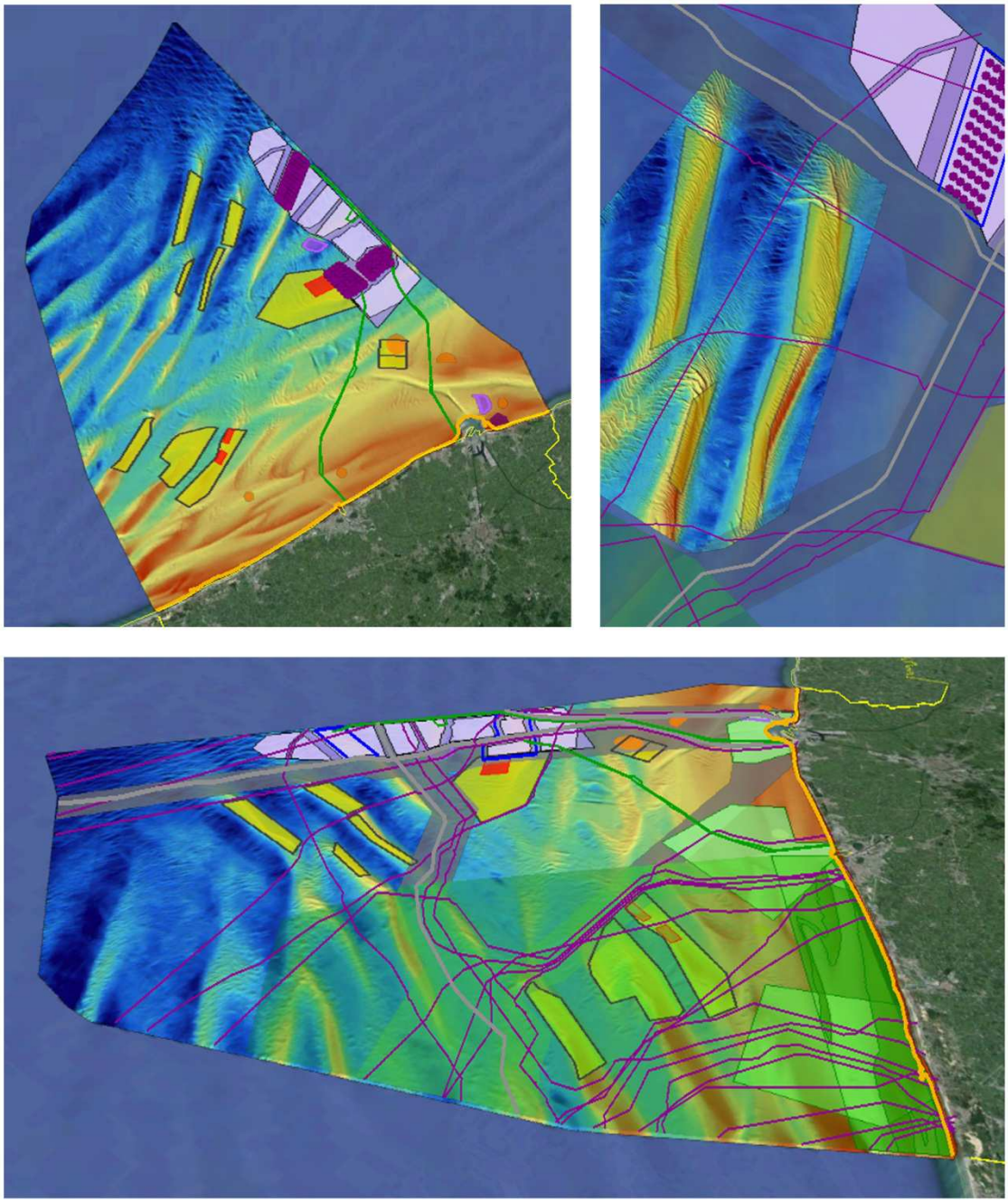

Figure 1: Example of displays of spatial data using Google Earth as interface.