

Archaeology and digital technologies

CoE CDCPP Plenary 8.12.2021

FINLAND, Ulla Salmela

Strengths and successes



Muinaisjäännösrekisteri sisältää perustiedot Manner-Suomen kiinteistä muinaisjäännöksistä ja tietoja muista arkeologisista kohteista. Rekisterin tiedot perustuvat arkeologisiin kenttätöihin ja tutkimuksiin. Kohteisiin on linkitetty tietoja myös niihin liittyvistä tutkimuksista ja löydöistä. Rekisteri kattaa maantieteellisesti koko Manner-Suomen. Ahvenanmaan muinaisjäännösten hallinnoinnista ja tiedoista vastaa maakuntahallinto.

- Since 1996, national Register of Ancient Monuments and Sites
- Archaeological data (i.e. data on archaeological projects, sites, objects, reports and publications) digitally for everyone free of charge
- The geographical information of the sites is available via standard interfaces as open data to all users, both professionals and citizens

A 3D model of the Hilma wreck, showing a dense collection of wooden planks and debris. The model is rendered in a yellowish-green color and is set against a dark background. The debris is scattered across a large area, with some planks arranged in a grid-like pattern, suggesting the remains of a ship's hull or deck. The model is highly detailed, showing the texture of the wood and the arrangement of the debris.

Citizen science, co-creation

- Findsampo portal: information on archaeological finds by the public, especially metal-detected finds
- Ilppari: a service in which everyone can report archaeological finds and sites on land or underwater
- Visualising underwater archaeological heritage (3 D)

Obstacles and challenges

- Our legislation does not recognize digital archaeological data.
- The insufficient quality of the data, especially the inaccuracy of the geographical data, in the current register.
- No permanent recording solution for primary data and a need to manually record digital information to the national register; inefficient and prone to error.
- Need to develop the digital skills within the heritage administration



Lidark project & National Land Survey laser scanning 2020–2025

- Identifying automatically archaeological remains in the LiDAR material with the help of machine learning
- Thousands of new sites have been identified
- Flood of new sites calls for the automatisisation of registering their data
- Thorough reforms in the process of managing archaeological data, alterations in the practices and principles of inspecting the sites
- Data on the whole country → equality in the regions on exploring their past
- Systematic data → new possibilities to monitoring regularly the state of archaeological sites

In sum

- **First**, we need to identify and resolve the key factors of digitalisation in our legislation concerning cultural heritage
- **Secondly**, we need to apply to the FAIR data principles in the management of digital archeological data (findable, accessible, interoperable and re-usable data)
- **Thirdly**, more comprehensive management of digital, archeological information, also as part of the broader set of information on all kinds of cultural environments.
- Ideas on **cross-cutting interests for future work**:
 - Need to strengthen skills and competences on digital technologies,
 - Resources, research,
 - European interaction and cooperation,
 - A common ground and visions, need to update the frameworks of our work, such as the Valletta convention, to the digital era.