

# SAILS@Archaeology

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**Universiteit  
Leiden**  
The Netherlands

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# Current Research @ FdA

## Data Science Research Programme (DSO)

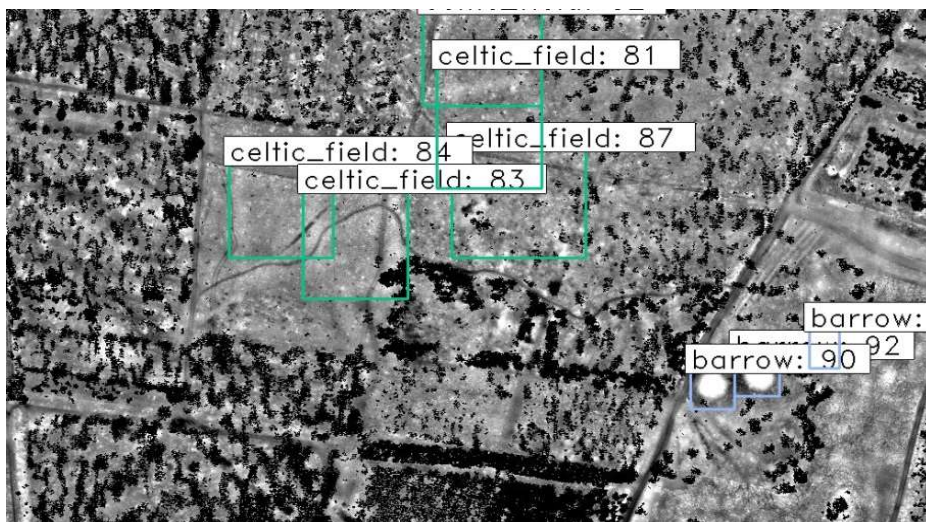
- Archaeological entity detection in grey literature (excavation reports)
  - Text mining / information retrieval
- Archaeological object detection in remote sensing data (LiDAR)
  - Image analysis / computer vision

## Common traits

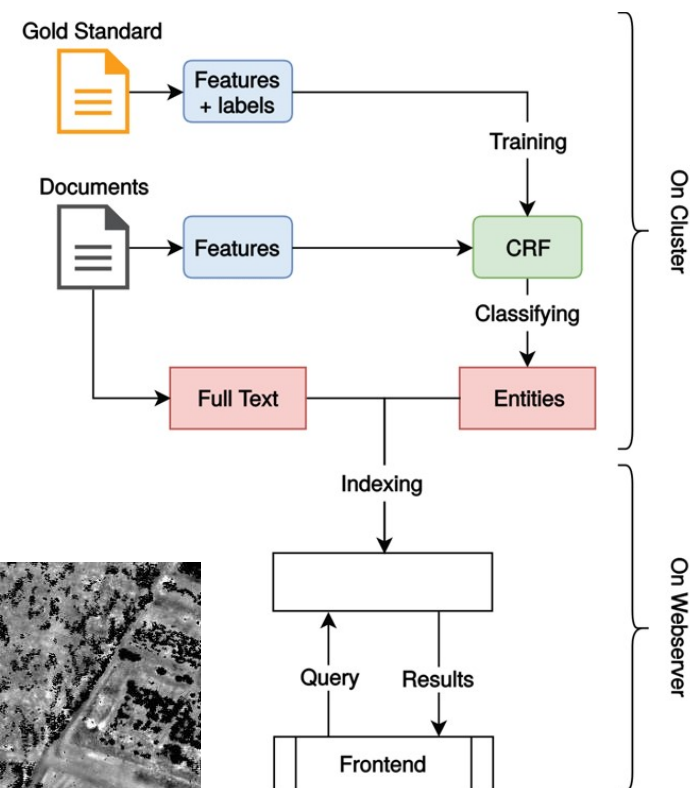
- Machine learning
- Challenge: Small datasets

## Other archaeological projects

- Artefact classification (e.g., pottery, coins)



Verschoof-van der Vaart & Lambers 2019



Brandsen et al. 2019

# Future Research @ FdA

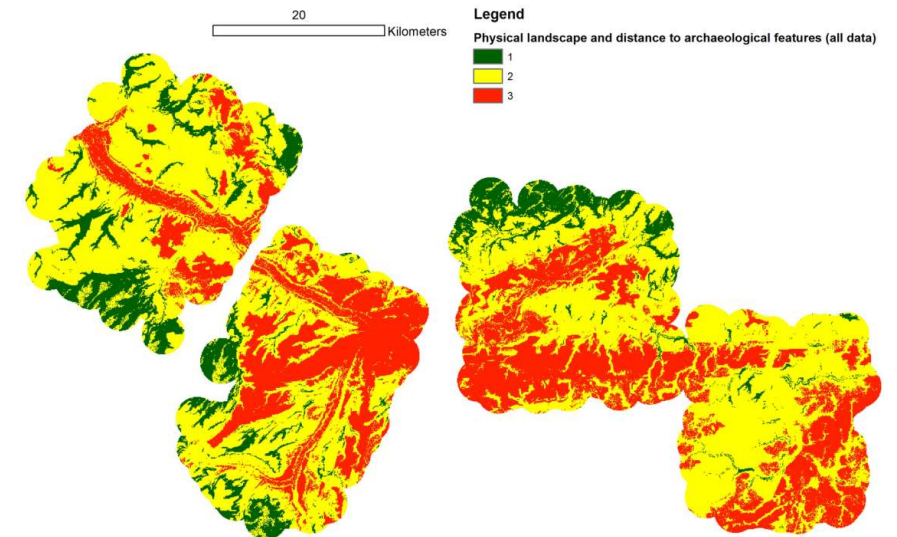
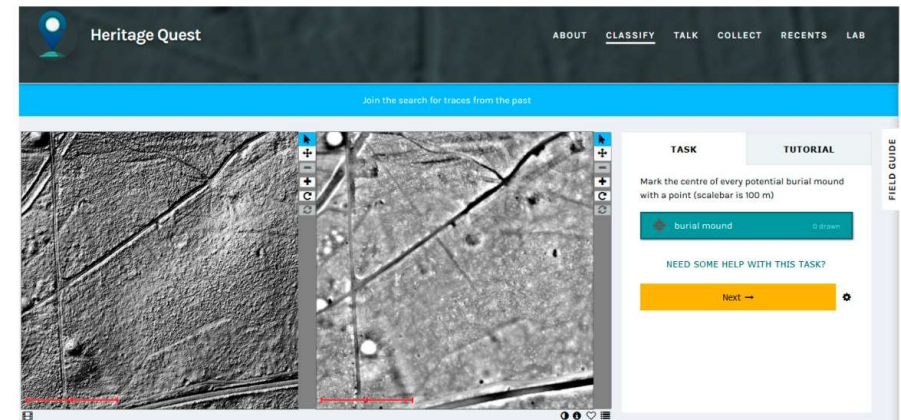
## Combining machine learning and citizen science

- Problem: Small datasets of confirmed archaeological objects
- Goal: Create large training data sets for machine learning
- Implementation: [Heritage Quest](#) @ Zooniverse

## Multi-source predictive modelling

- Assessing the probability of the presence of archaeological traces (of a certain type) in a given area
- So far based on
  - Registered archaeological objects
  - Environmental parameters
  - Theory about human behaviour
- To be added: Remote sensing, textual and image sources etc
- From rule-based approach to machine learning

Lambers et al. 2019



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Revert 2018