





Cultural Heritage Agency
Ministry of Education, Culture and Science

Nationwide predictive
modelling as aid to
Archaeological Heritage
Management

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Situation in the Netherlands

- Majority of the archaeological values/remains on land and in water are not visible.
- Problem: archaeological remains have to be dealt with in terms of regional or nation wide spatial planning processes/projects
- Solution: try as best as possible to predict the presence of archaeological remains

2



Predictive modelling

Origin of predictive modelling: settlement studies in USA in 1950-60's. 1970-80's in USA: Cultural Research Management.

Development of GIS approaches has been major advantage + availability of numerous digital datasets.

Two lines of reasoning:

A: Prediction of potential location of archaeological remains (settlements) for use in spatial planning.

B: as means to predict or model past human behaviour to understand our past

3



IKAW 1 (1997)


Indicative Map of Archaeological values

Combination of soil map of the Netherlands 1:50.000 and known archaeological sites and expert knowledge.

Problems:

- Prediction of stone age and late medieval sites difficult
- Urban areas: no information
- Impossible to predict sites under water
- No information on the preservation of sites
- No information on archaeological remains in buried deposits/sediments







IKAW 2 (2002)

Improvements:

- New model for the prediction of stone age sites
- Integration of available digital geological maps including the work by Berendsen & Stouthamer for the Rhine Meuse alluvial plain in the central Netherlands
- Integration of existing knowledge on presence of archaeological remains under water (shipwrecks)




5




IKAW 3 (2008)

- Alternative approach for the province of Flevoland (Peeters 2007).
- Re-assessment of the maritime parts of the province of Flevoland
- Re-assessment of archaeological remains in brook valleys
- Assessment of the effect of covering sediments on the outcome of the model




6



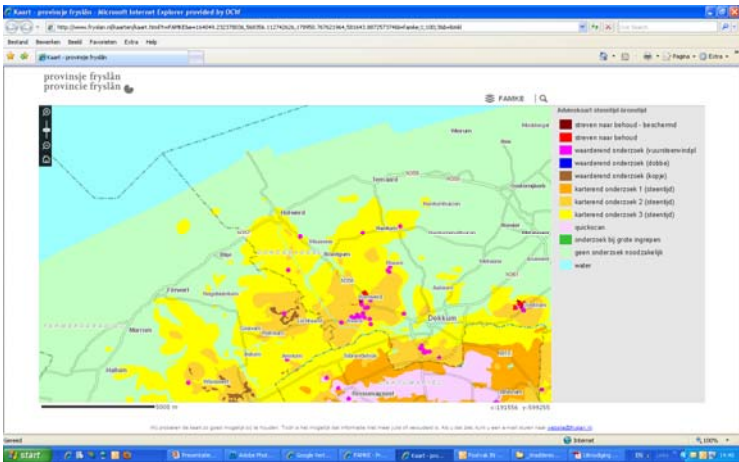
Current practice

- IKAW 3 still in use
- However, in recent years change in national policy: local governments (municipalities) are responsible for spatial planning and also for policies regarding archaeological remains
- As a result numerous prediction models/predictive maps and accompanying policy maps have been produced by archaeological companies.
- These policy maps state guidelines and restriction how to deal with (potential) archaeological remains within the boundaries of the map.


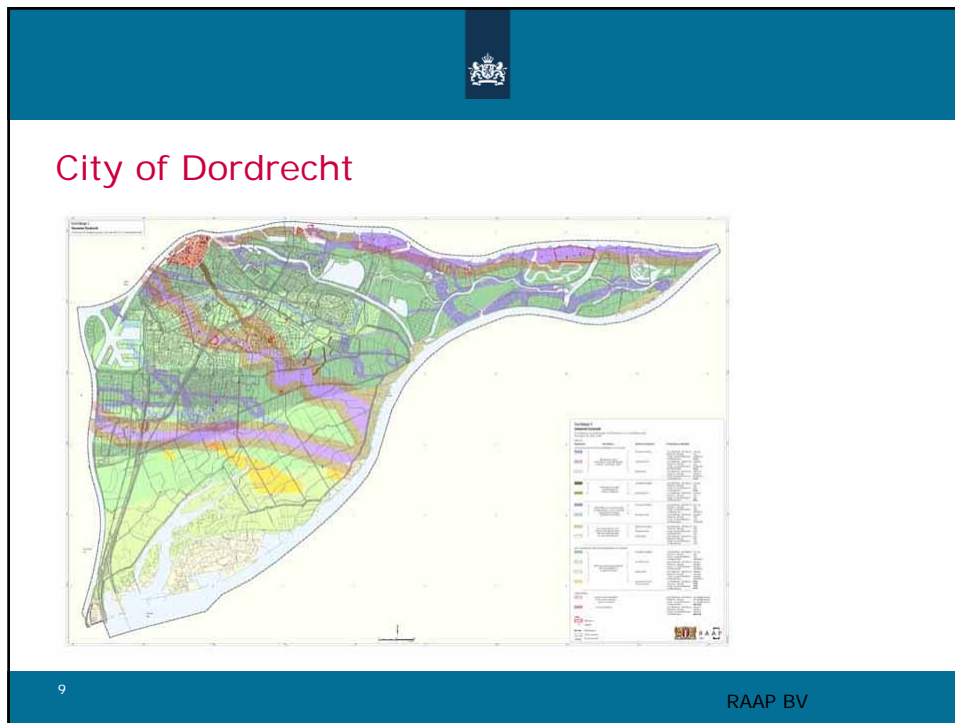
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Province of Friesland



8 <http://www.frysian.nl>



Always remind

Prediction models are models!

IKAW predicts potential locations of archaeological remains (settlements). No model of human behaviour with all its complexities.

Models need maintenance (continuous improvement when new data is available).

IKAW is made to be used in spatial planning decisions, consequently it is also used by people who are not archaeologists.

However, always keep in mind it is a nation wide model and should be used accordingly!

10



Thank you

www.cultureelerfgoed.nl