

Wrinkles of time

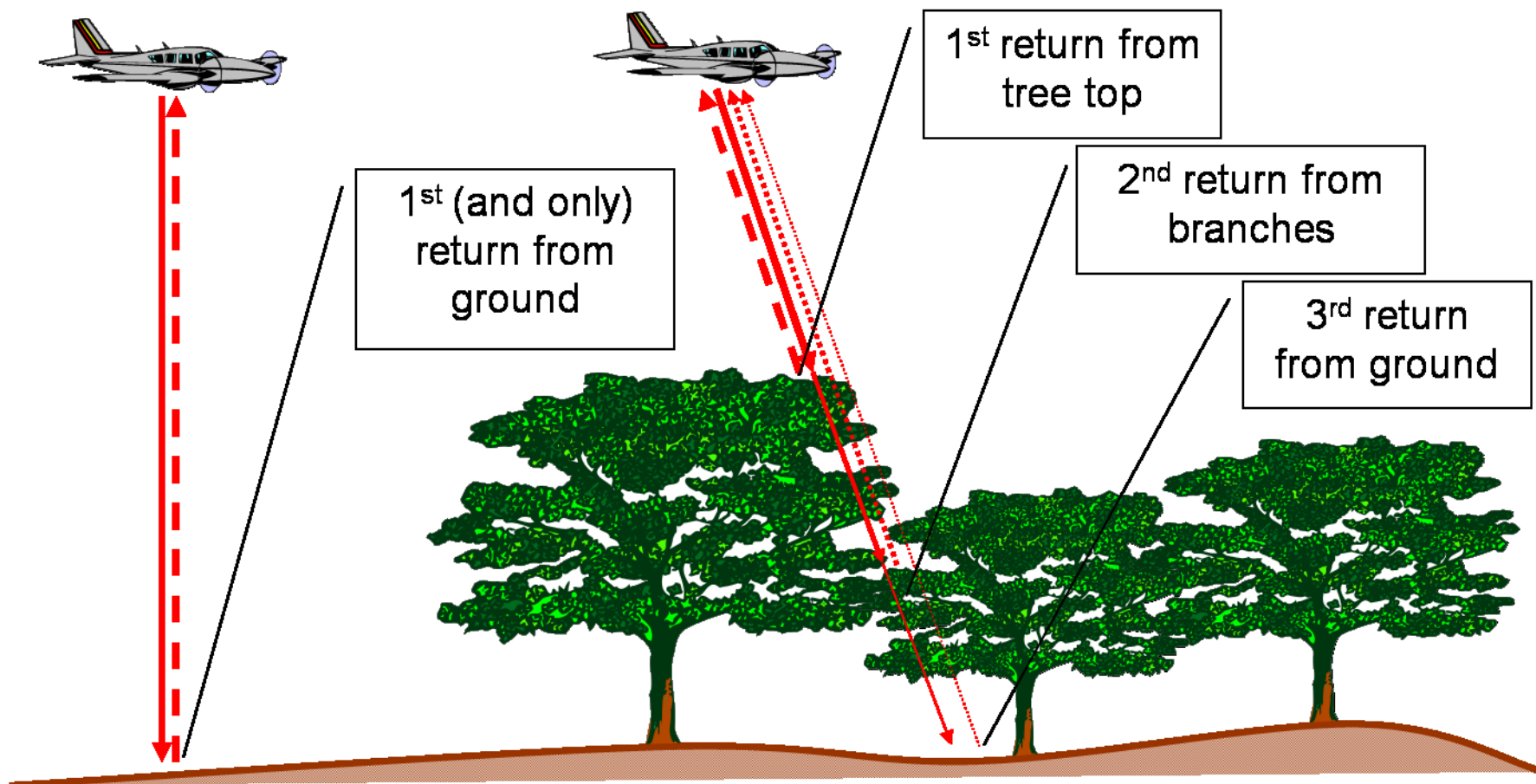
LIDAR

**as a tool for unravelling the (pre)history of
former and present heathlands
in Flanders (Belgium)**

Jan Bastiaens & Erwin Meylemans

August 21, 2017

European Heathlands Network Workshop

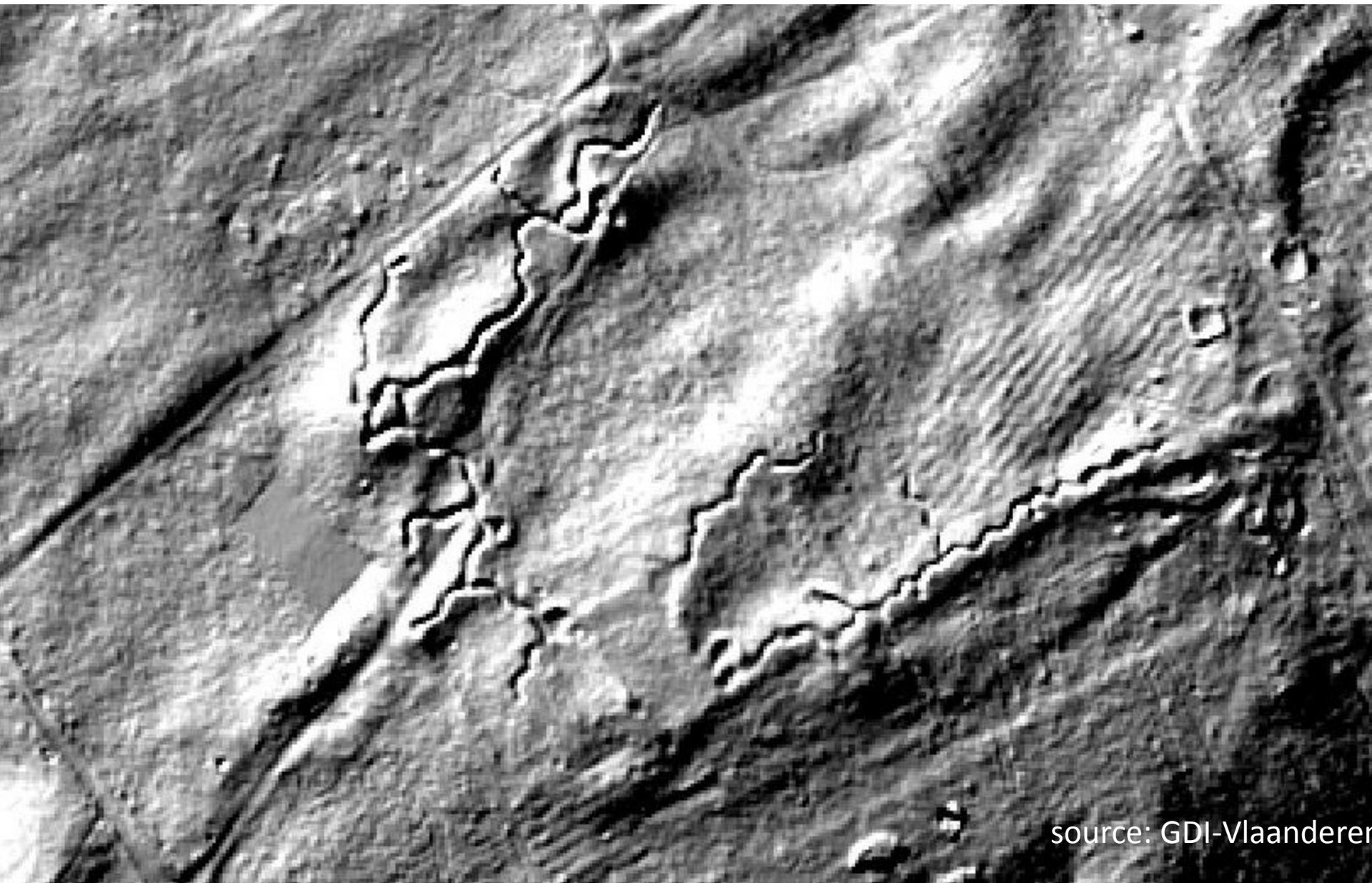




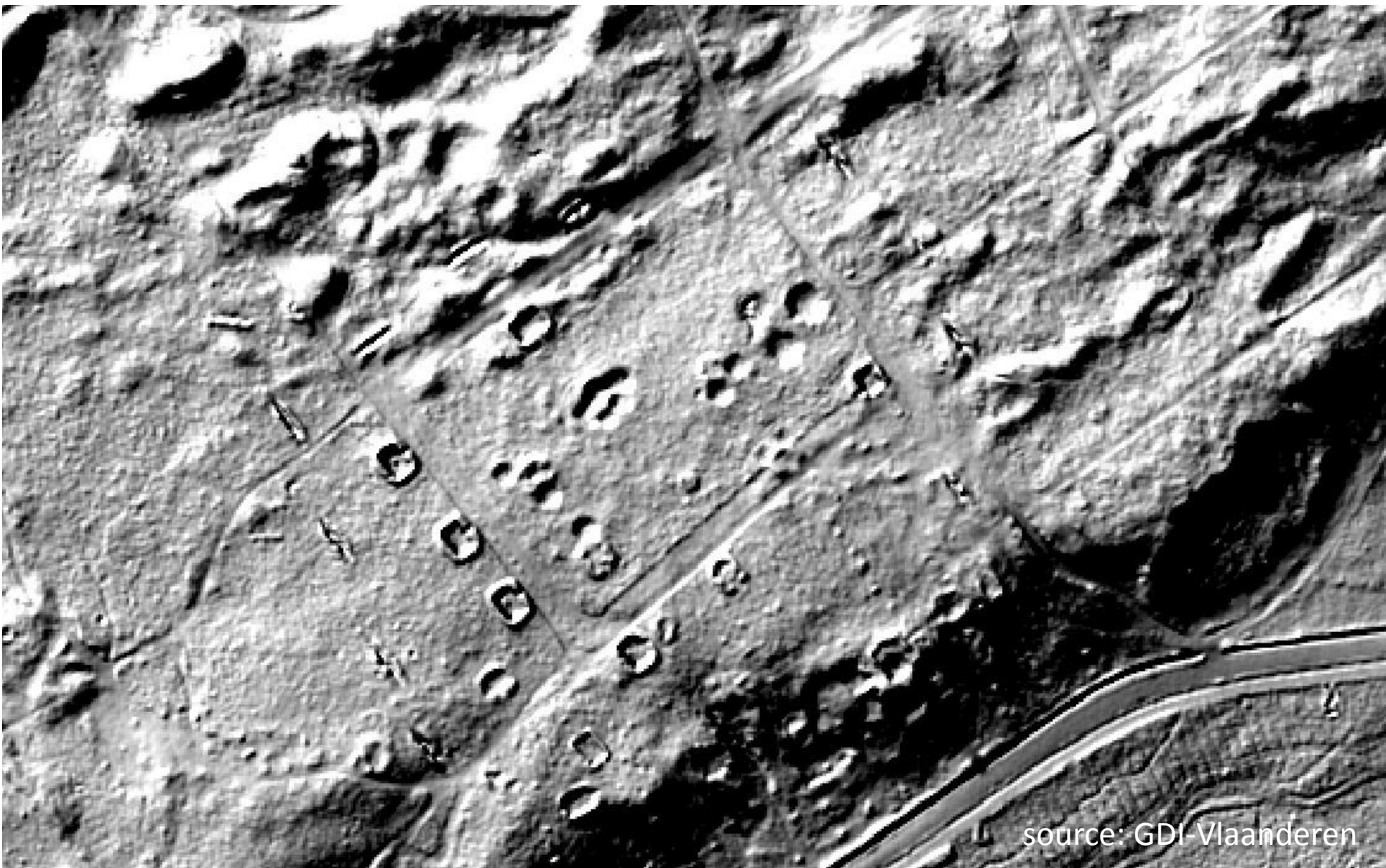
photos: Jan Bastiaens



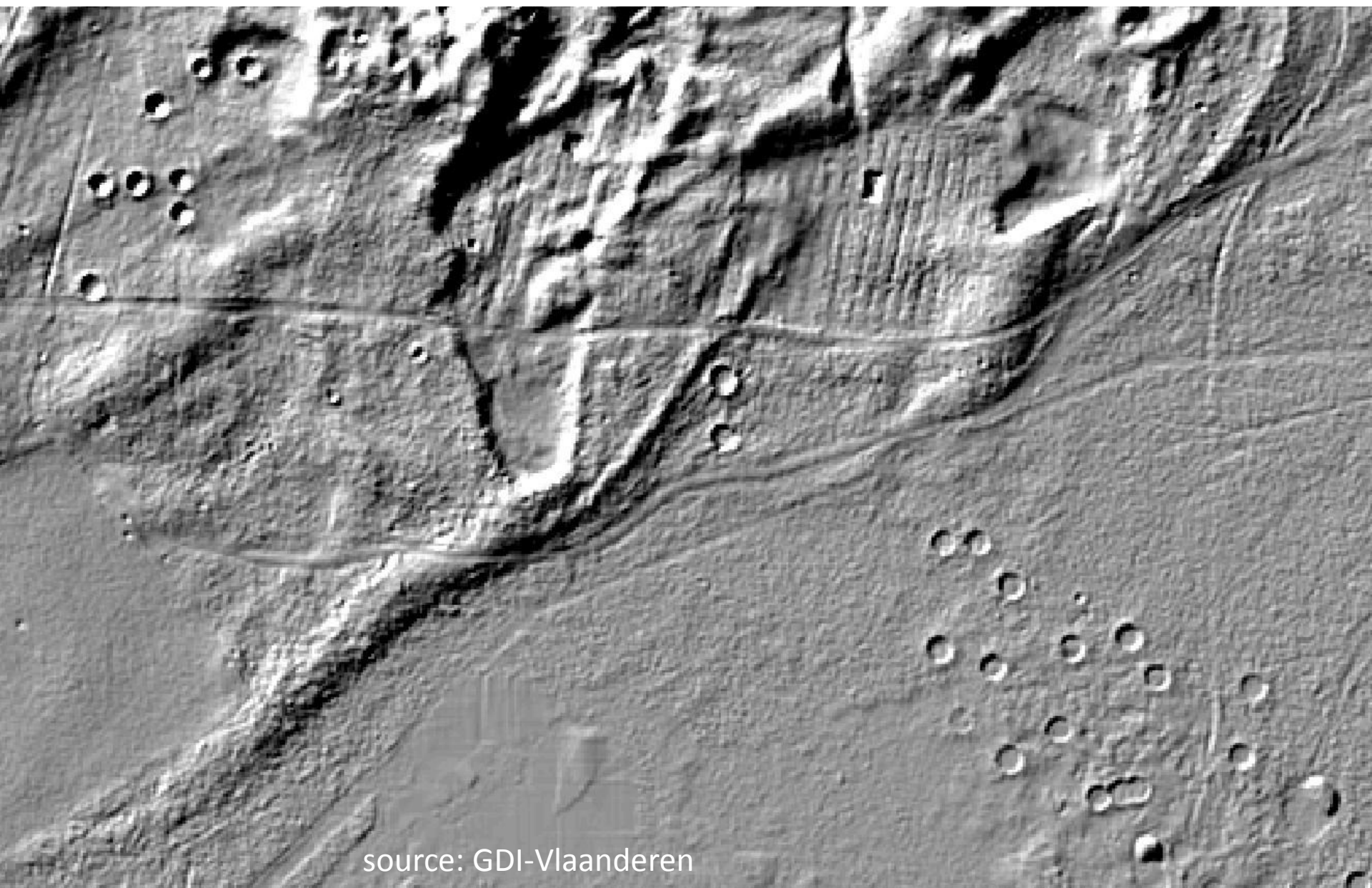
photo: Jan Bastiaens



source: GDI-Vlaanderen



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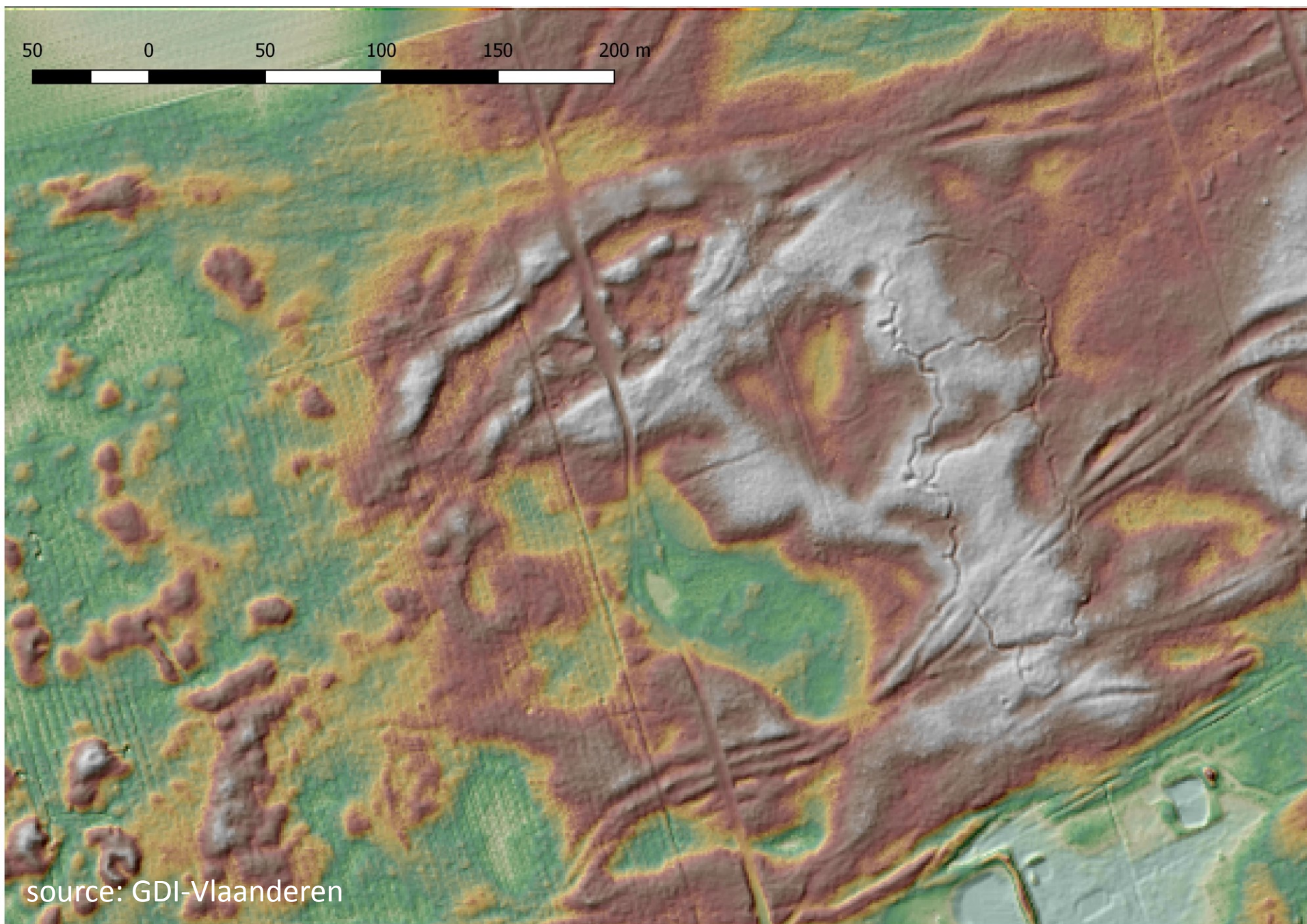






photo: Jan Bastiaens

Kaartinventarisatie
Oude wegen de Liereman
1/15.000

St-Lutgardiskerk

Terbeuken

DESSSEL

MAAF

SCHOTEN

De Zesh

Text Landschap

De Liereman

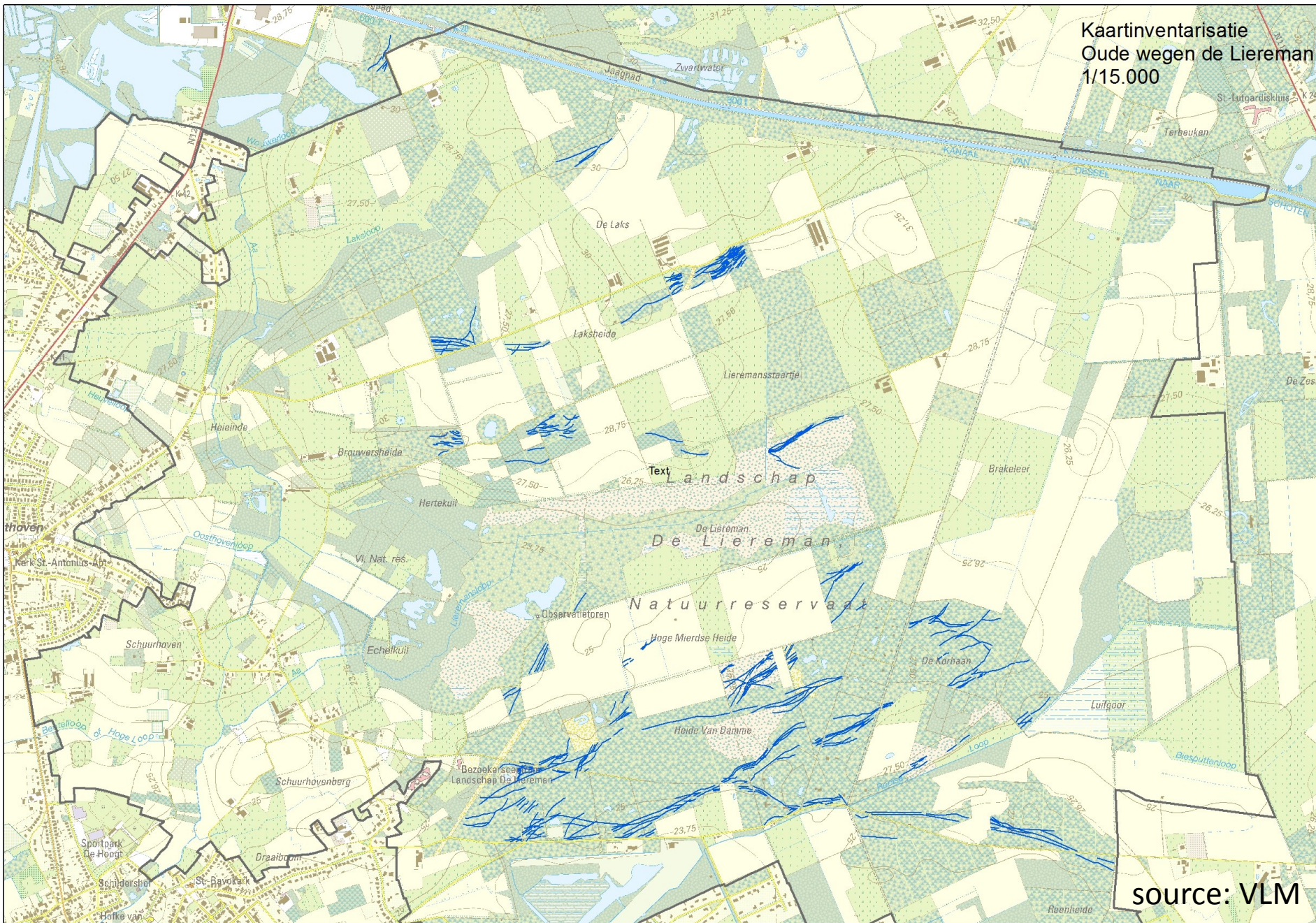
Natuurreservaat

Hoge Mierdse Heide

Heide Van Banne

Bezoekerscentrum
Landschap de Liereman

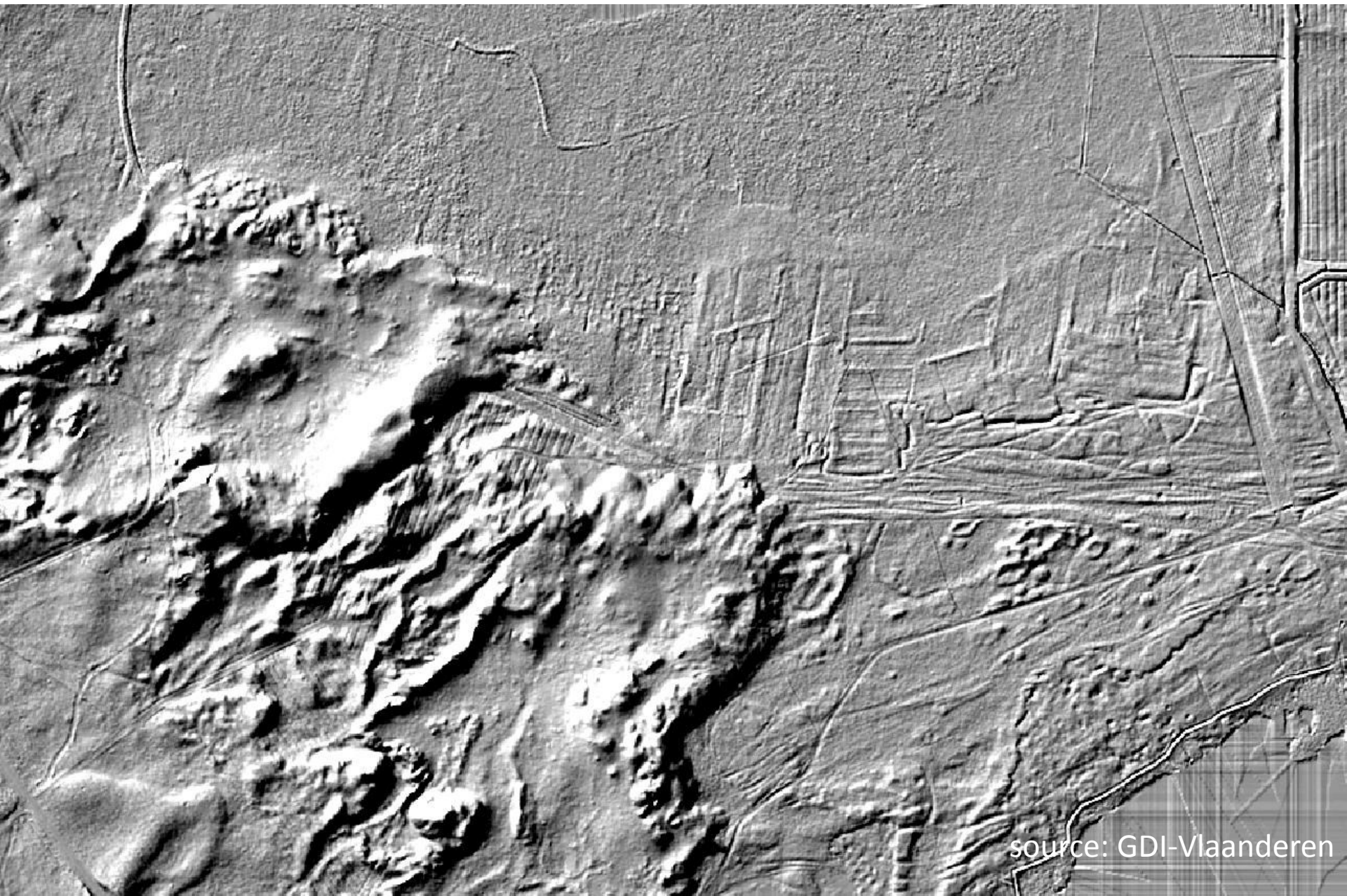
source: VLM



Kaartinventarisatie
Oude wegen de Liereman
1/15.000

Text

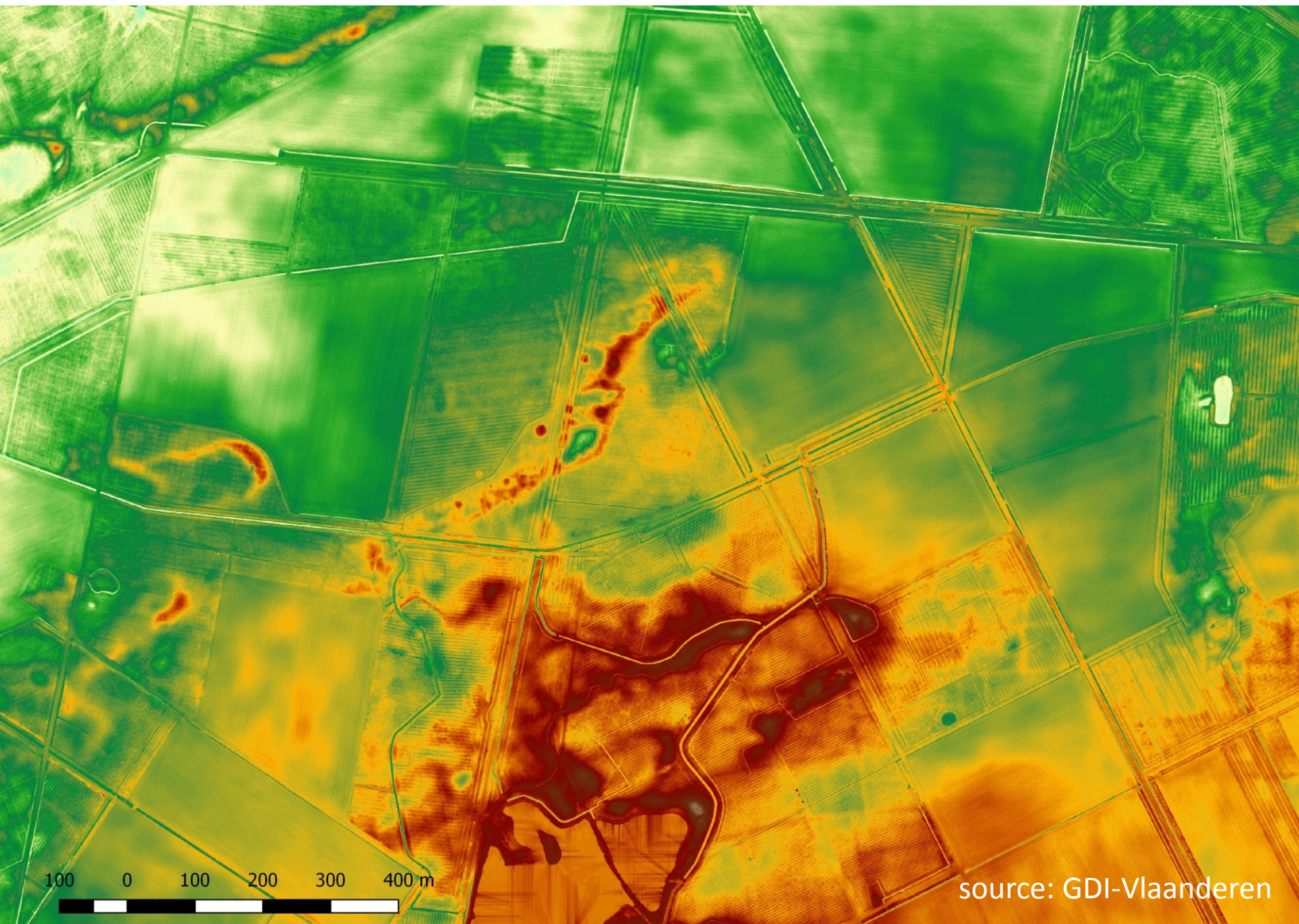
source: VLM



source: GDI-Vlaanderen



photo: Jan Bastiaens

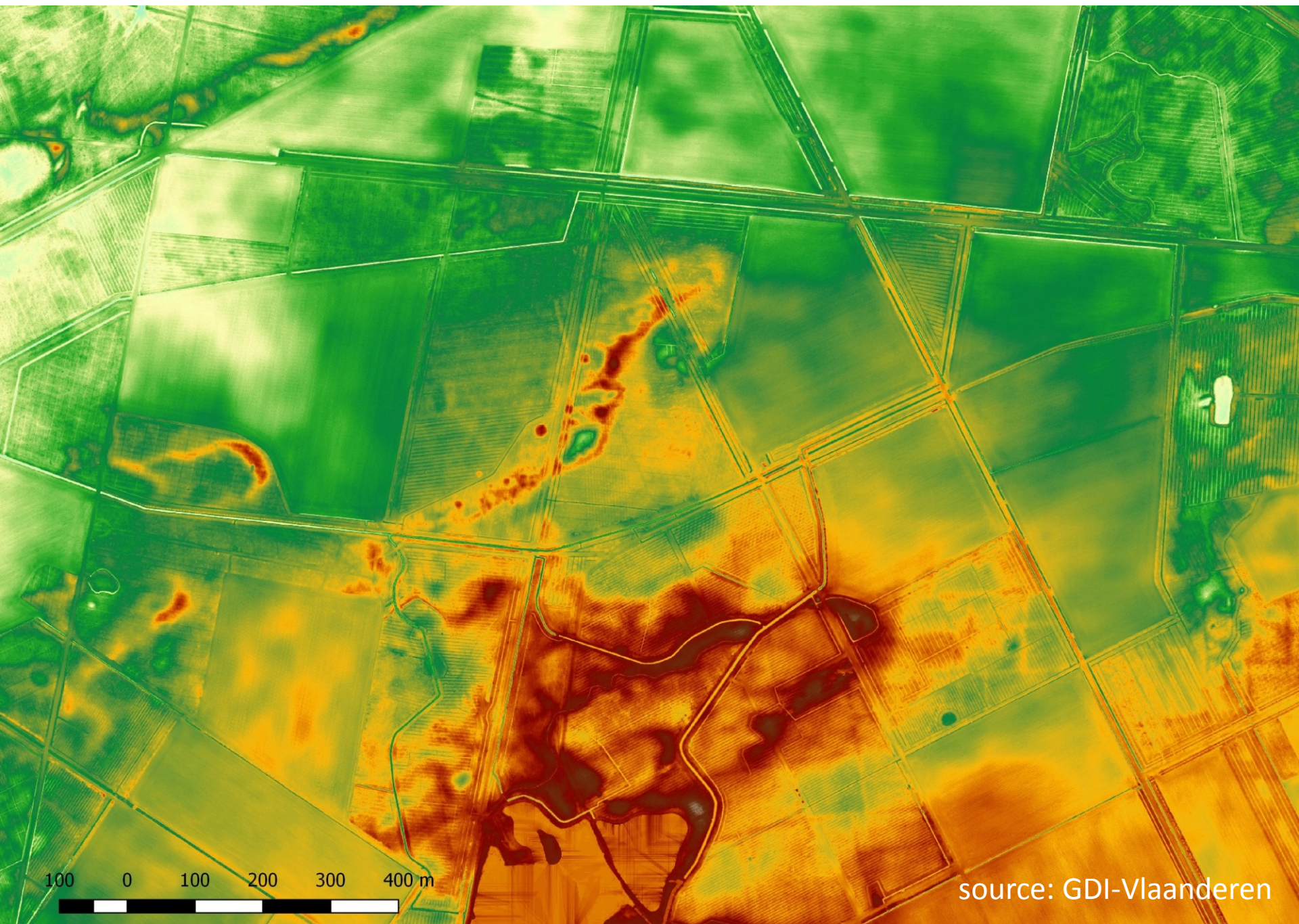


100 0 100 200 300 400 m

source: GDI-Vlaanderen

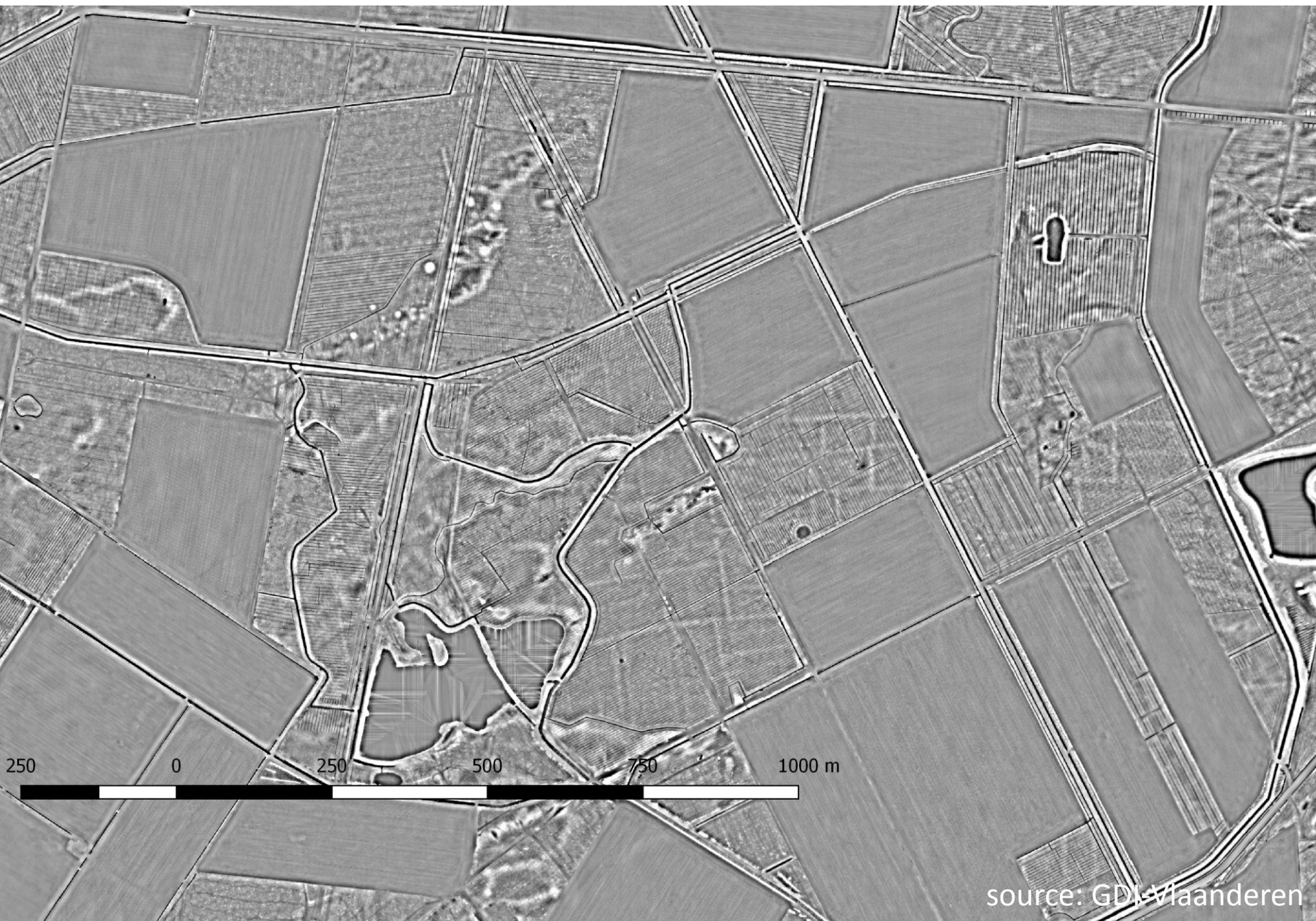


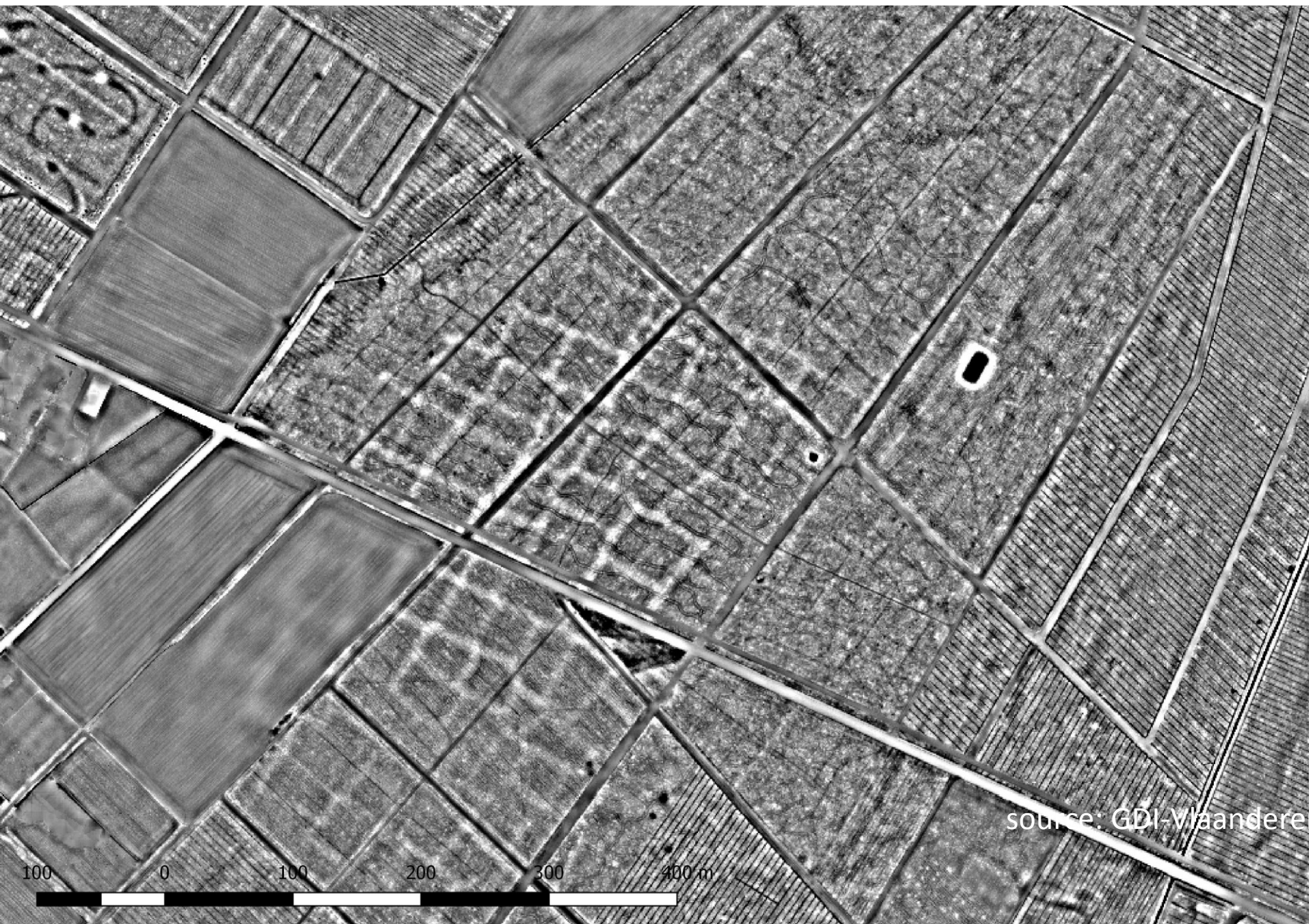
photo: Luc Van Impe



100 0 100 200 300 400 m

source: GDI-Vlaanderen





source: GDI-Vlaanderen

(illustration of celtic field not displayed due to copyrights)



photo: Jan Bastiaens



photo: Jan Bastiaens

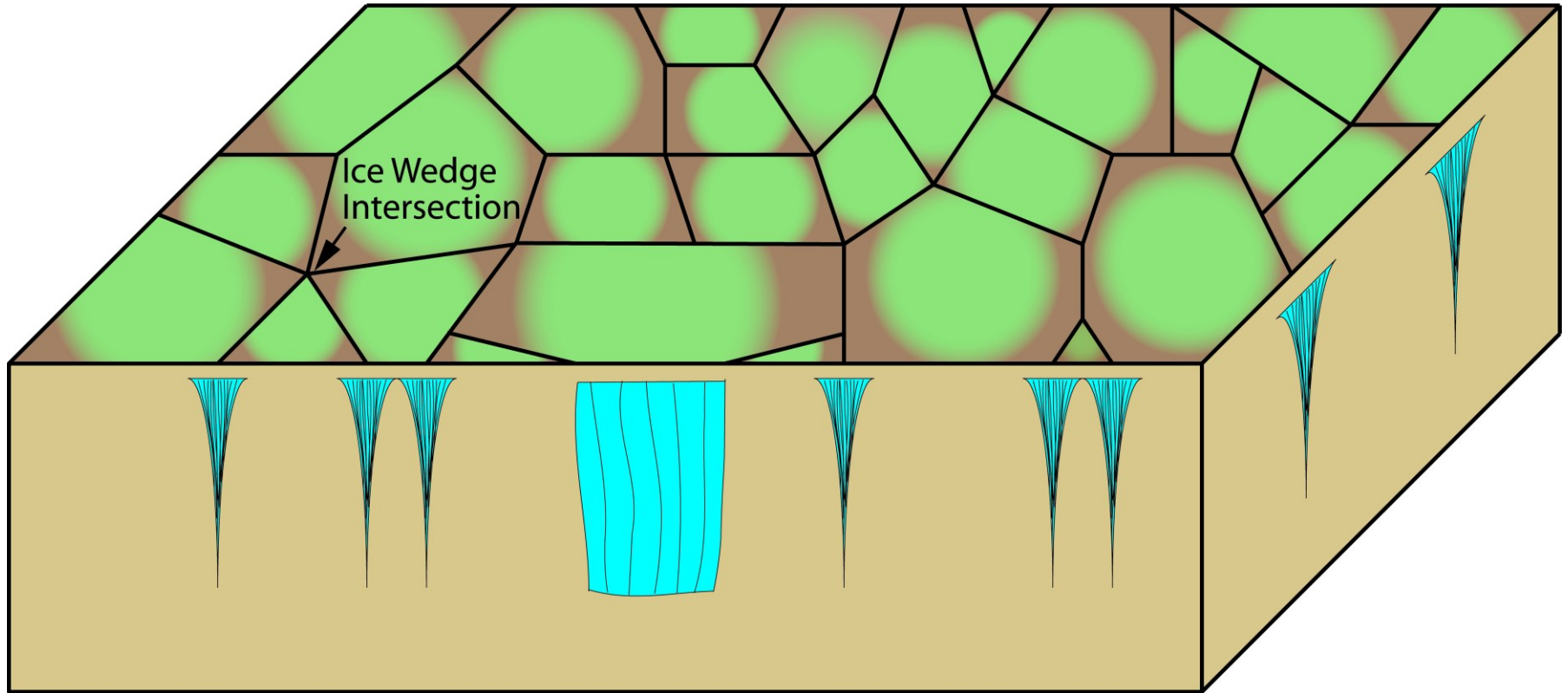


photo:Bas Van der Veken

source: GDI-Vlaanderen

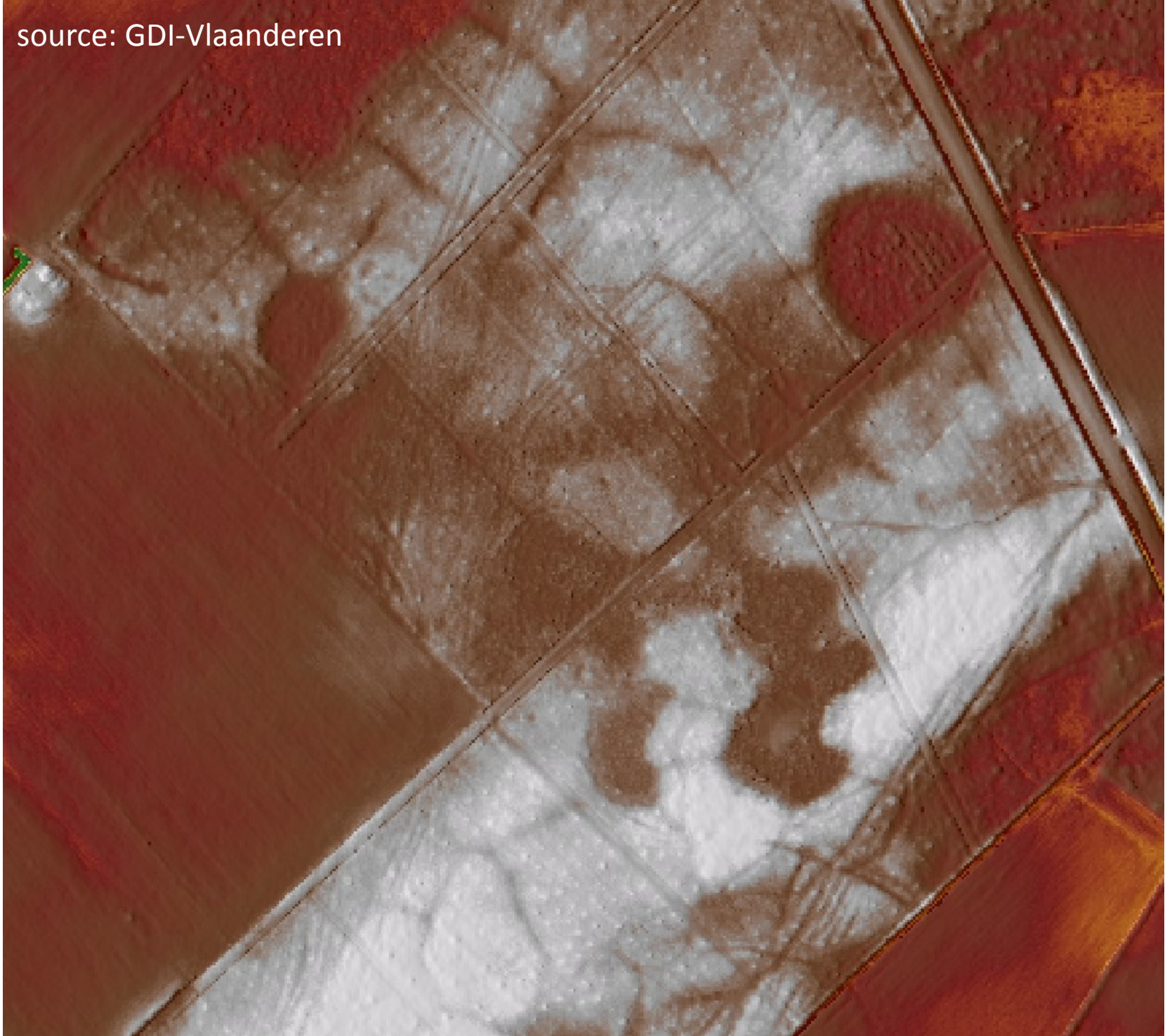
50 25 0 50 m







source: GDI-Vlaanderen







Heathlands as ...

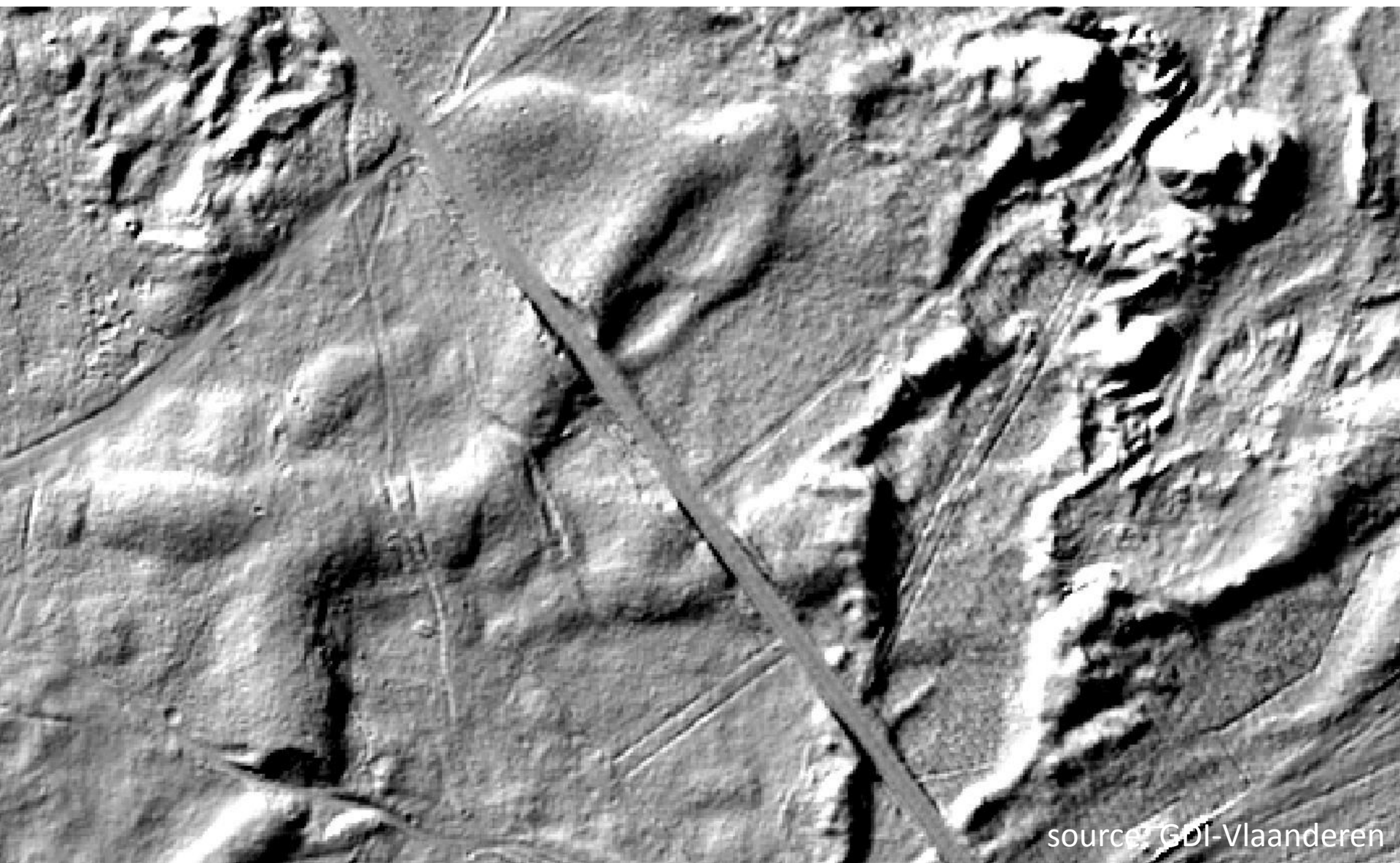
- Landscapes of war
- Landscapes of transport and trade
- Landscapes of religion
- Landscapes of agriculture and habitation
- Landscapes of a completely different past
- Archives of cultural and natural relics (as never seen before or even unknown)
 - with or without a goal of long term impact and visibility

How to proceed?

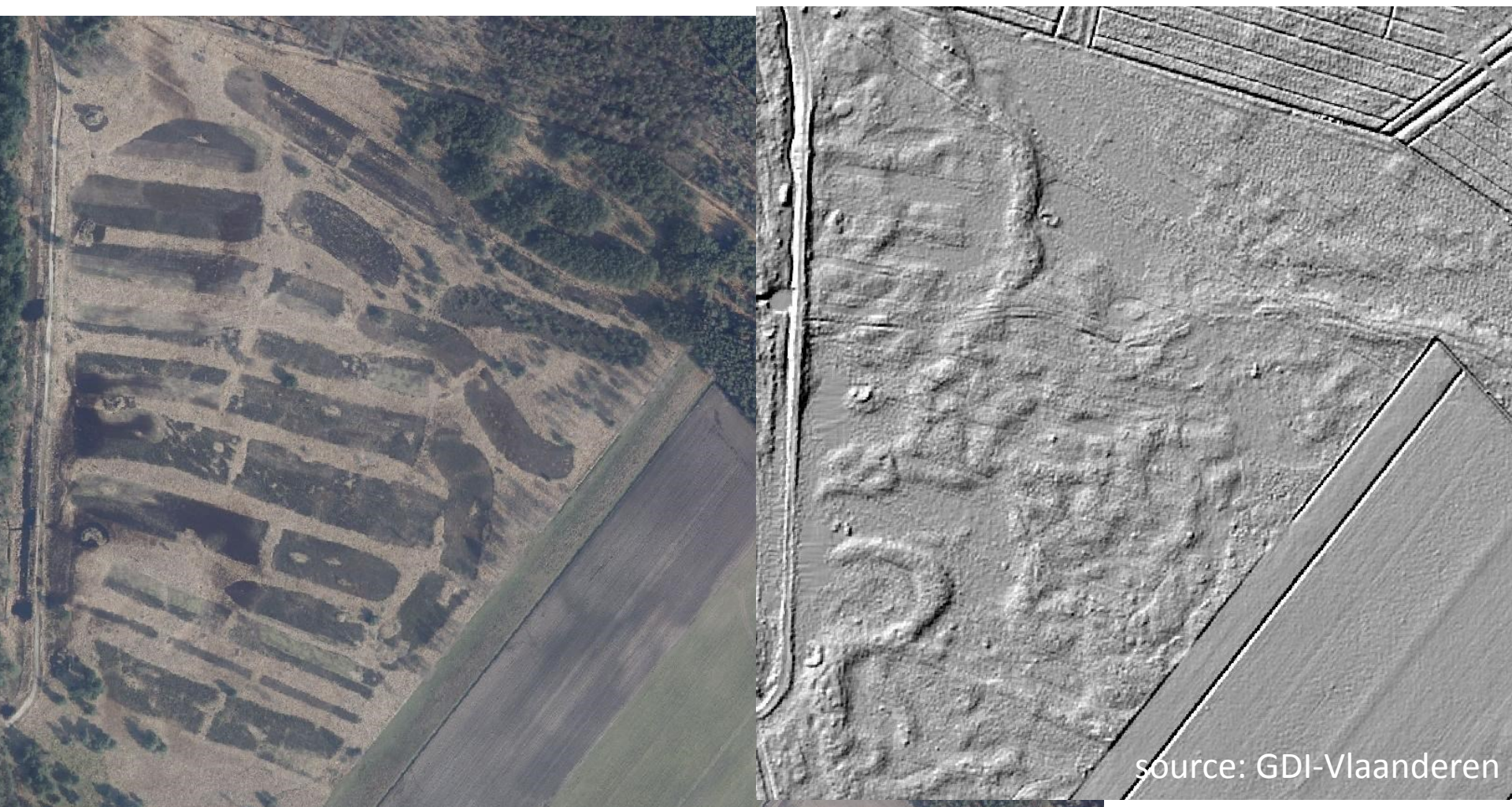
- 1 New stories to be told
 - local/general interest
- 2 Inventory and research (eg. tracks)
 - From where tot where
 - Local or long distance
 - Function in the exploitation of heathlands
 - Seasonality
 - Dating, periods
 - Phases of expansion/contraction
 - Relation to sand drifting
 - Relation to modern network
 - ...
- 3 In the long run: re-evaluation, heritage management

But for the time being

- 1 Be happy
 - A blessing not a burden
 - Nature and culture go together well
- 2 Be carefull (everything is new, nothing is known yet)
- 3 Preserve and integrate
- 4 Document
- 5 Discuss
- 6 Adapt goals, relocate
- 7 Each kind of relics needs its own adapted management
 - Limit traffic (smart network design)
 - Reuse old tracks
 - Enter and leave a cell (celtic field, periglacial polygon) on the same spot
 - Cross structures right-angled, not oblique
 - Follow microtopography when plugging
 - ...
- 8 Evaluate the impact of management



source: GDI-Vlaanderen



General conclusions

- 1 LIDAR provides detailed images of (micro)topography, in high resolution, both vertical and horizontal
- 2 LIDAR makes natural and cultural relics visible
 - that are difficult to map (due to terrain conditions)
 - that are too large to be recognized (an overview is needed for interpretation)
 - that are too faint to be recognized or even invisible to the naked eye
- 3 LIDAR data are contributing vastly to the detection and study of the genesis of and prehistoric impact on (former) heathlands (glacial features, funeral sites, road systems, field complexes, ...).
 - New spatial information and framework for the biography of landscapes

Heathlands (and forests) offer unique possibilities for the study of (pre)historic cultural and natural landscapes and stories to be told



photo: Jan Bastiaens

... and pose great challenges for appropriate heritage and nature management.



photo: Kris Vandevorst

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