

FIG

FIG WORKING WEEK 2017

Helsinki Finland

29 May - 2 June 2017

Presented at the FIG Working Week 2017,
May 29 - June 2, 2017 in Helsinki, Finland



Surveying the world of tomorrow -
From digitalisation to augmented reality

Organised by



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The cadastral map of The Netherlands improved

Eric Hagemans, Dutch Kadaster

Plans to improve the geometric quality & the communication of the Cadastral Map



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Map improvement

What?

1. communicating quality
2. improving geometric quality of lines

Why?

1. need for “*find-the-boundary-yourself*”
2. insecurity of square metres

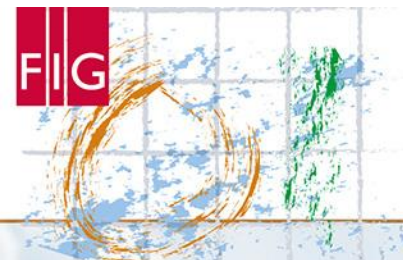
How?

1. automatic **calculation** & **map-making**
2. storing data structured -> **new model**

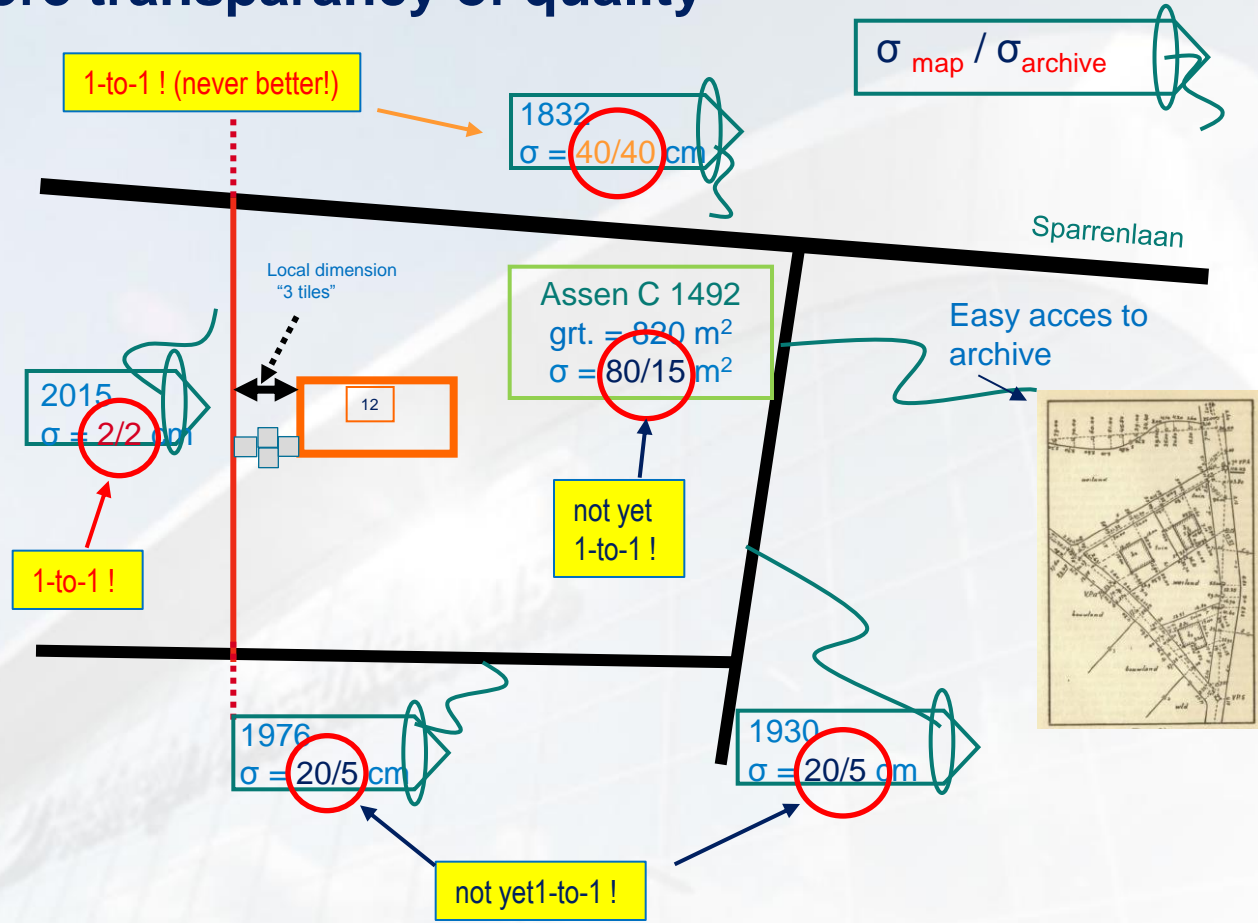


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Goal 1: more transparency of quality



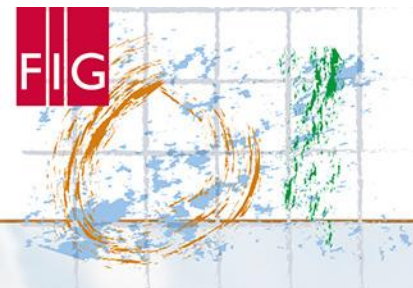


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Feasibility study: "from good to better" *increasing geometric quality and consistency*



Field Sheets
→ **reconstruction**
accurate & local relations

Cadastral Map
→ **overview and relations**
inaccurate & coordinates

"1 to 1 map"
→ **reconstruction & viewer**
accurate & coordinates



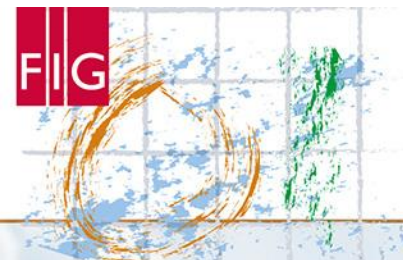


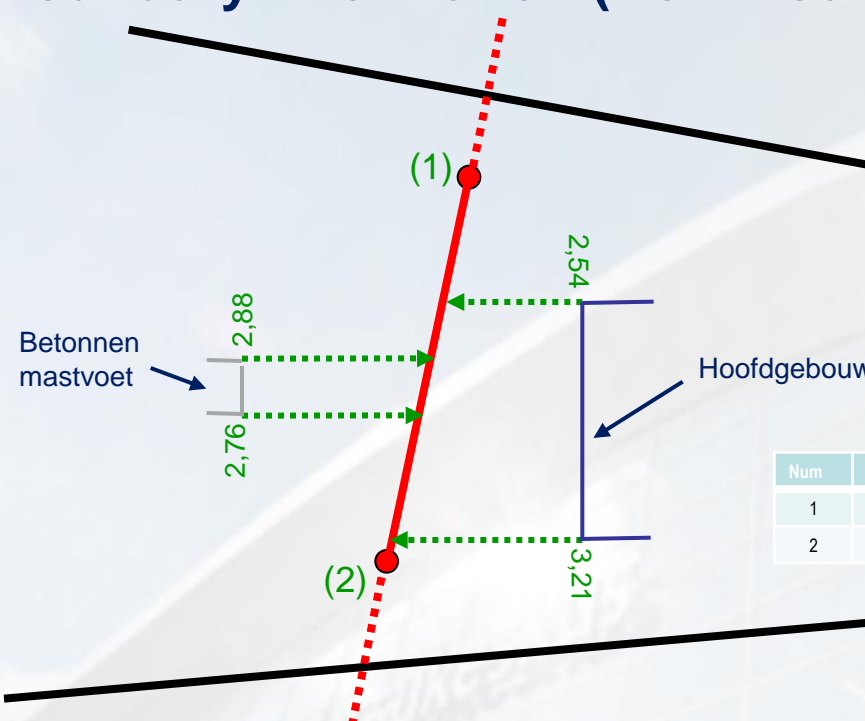
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Goal 2: Boundary information (Do It Yourself)



Infotype	Inhoud
Nummer	APN00 D 12589
Jaar stichting	1985
Topografische definitie	Onzichtbare grens
Adres	Vlierbeslaan 2 Roelofarendsveen

Num	x/y/h	s.a.	topol.	ontstaan	betekenis
1		2 cm	Col	Ter	grens
2		2 cm	Col	Ter	grens



picture?

Customer gets:

- “easy” local dimensions (own tape)
- accurate coordinates (hired GPS)
- additional info & instructions



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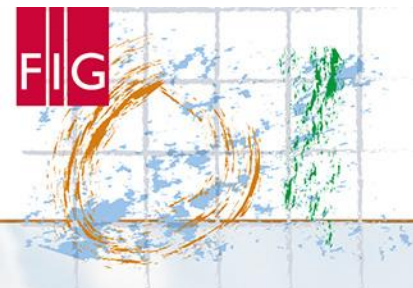


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New datamodel -> LADM survey package?

G.I.S.

automated
map making

LA_BoundaryFaceString
↓
NL_boundary

LA_SpatialUnit
↓
NL_Parcel

Geodesy

automated calculation &
quality description by
"Delft" method

LA_Point
↓
NL_Point

LA_SpatialSource
↓
NL_SpatialSource

always connected!

LA_BoundaryFace
NL: (later 3D?)



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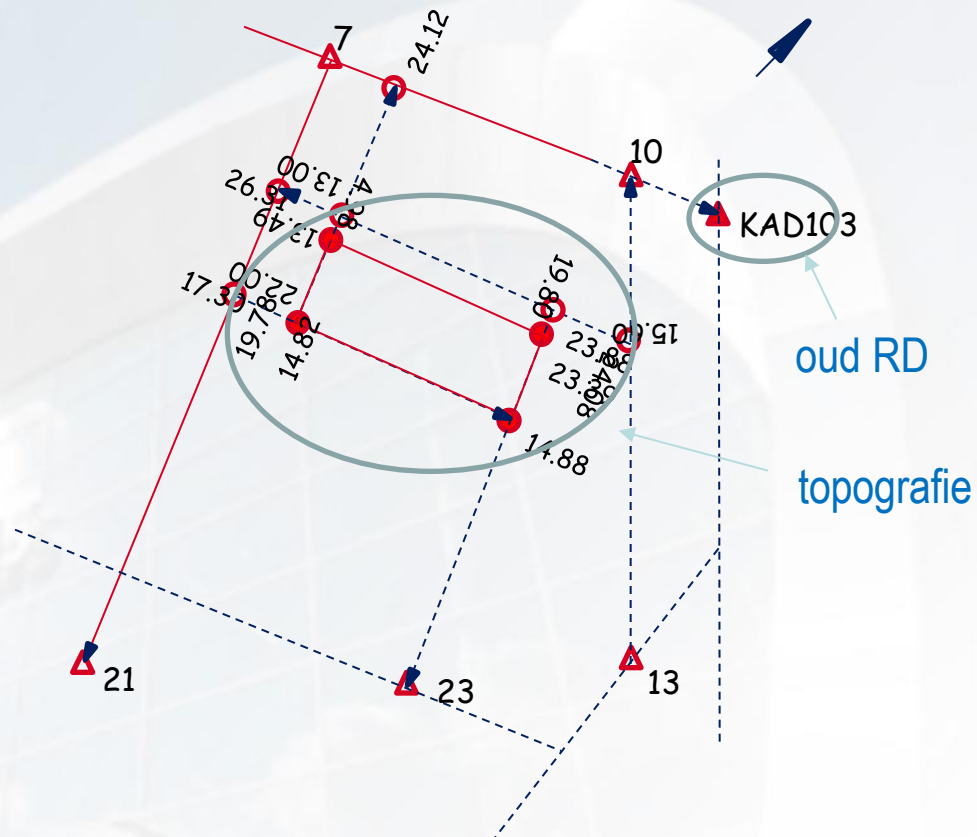
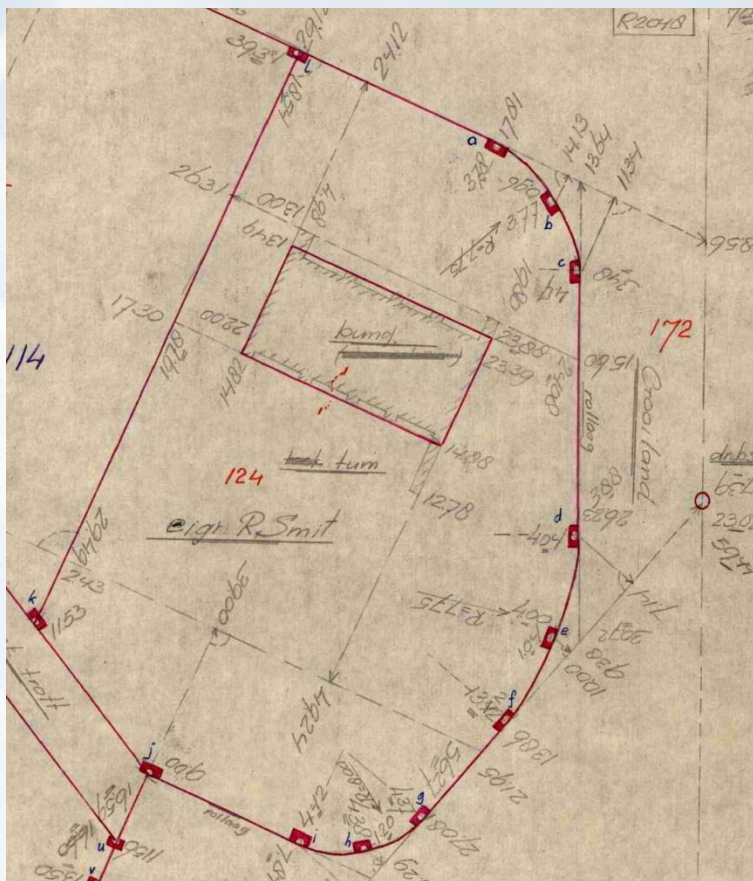
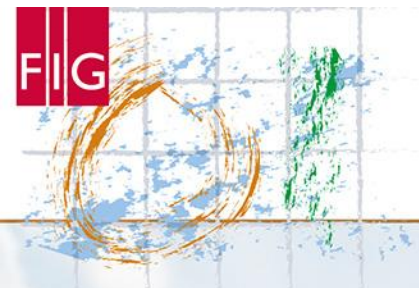


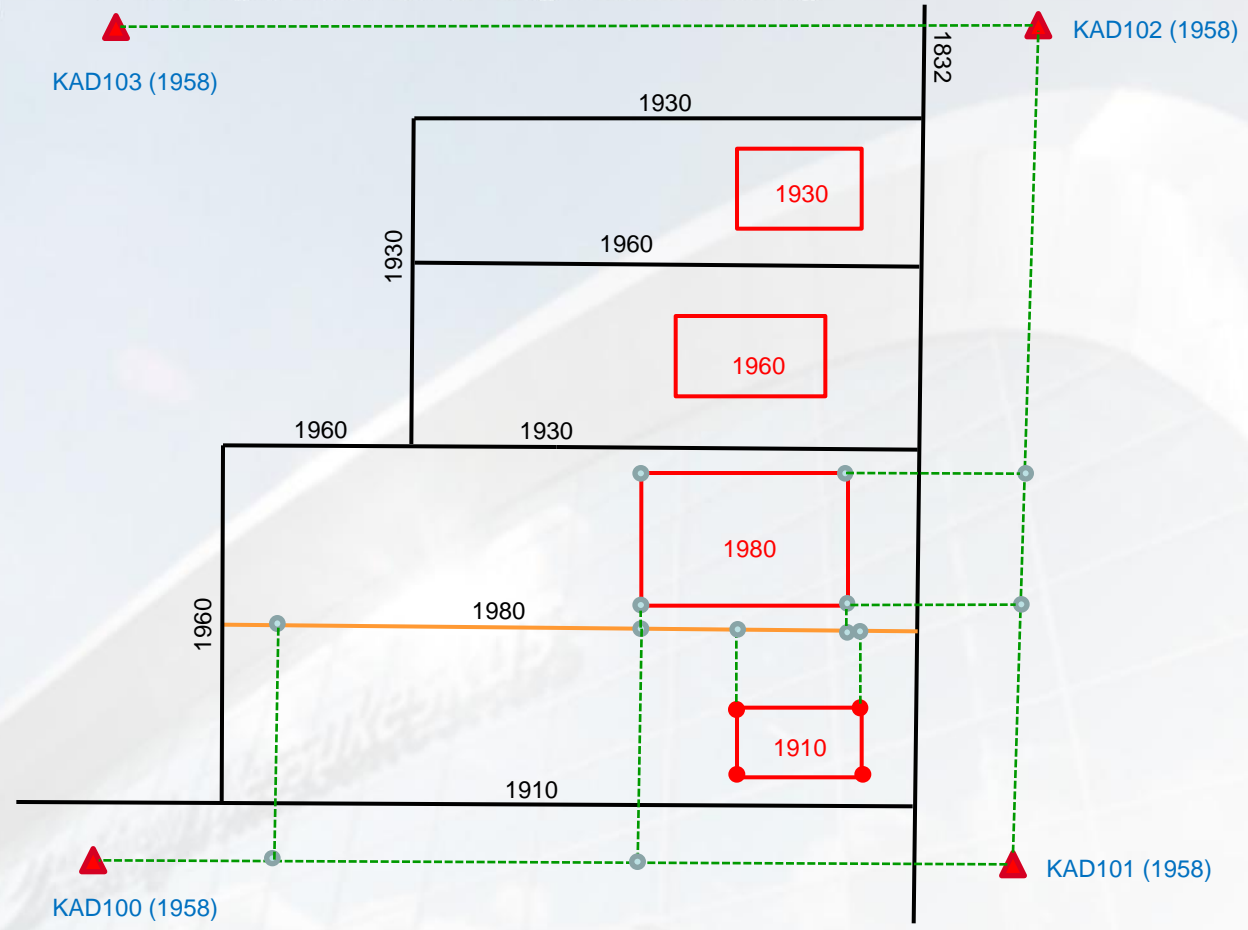


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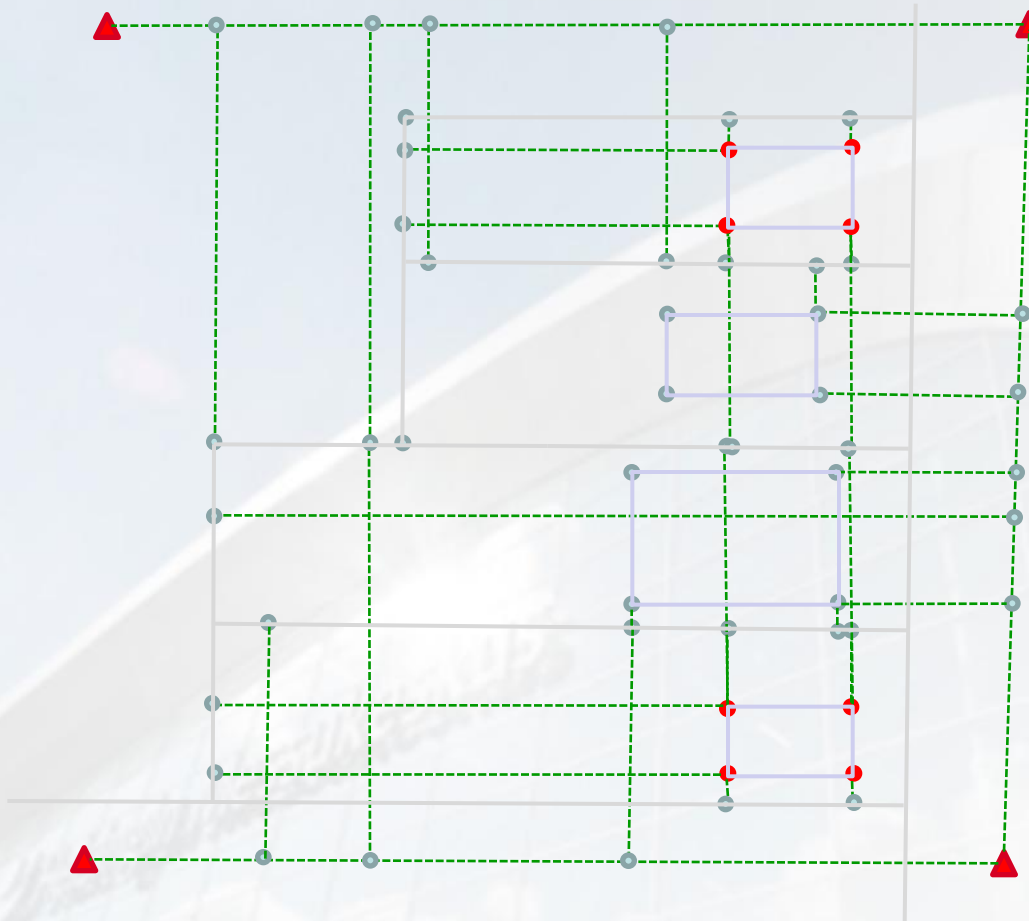


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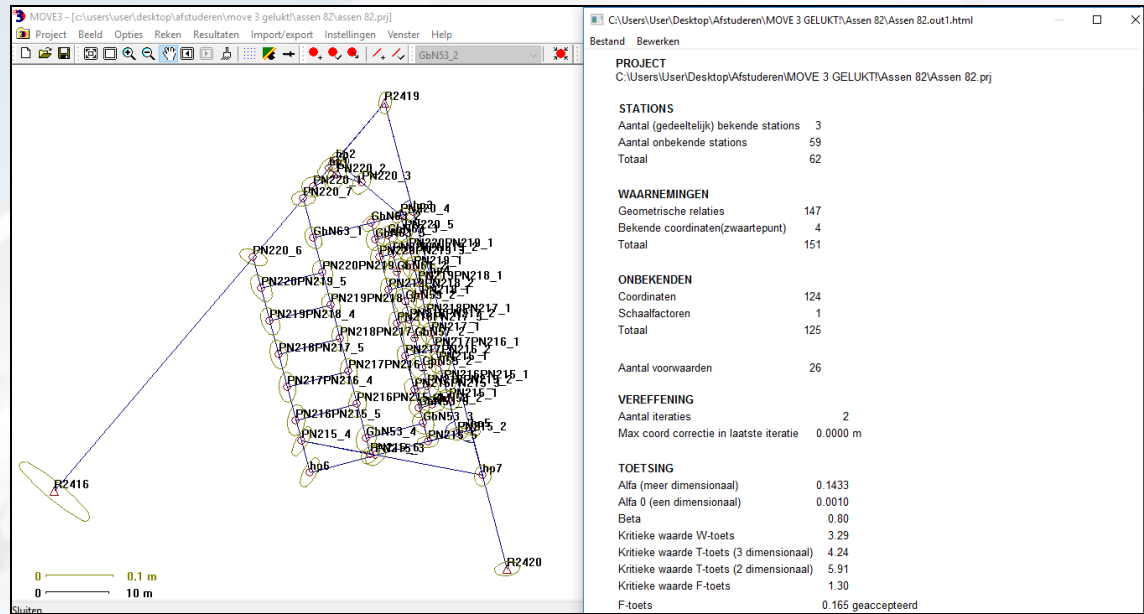
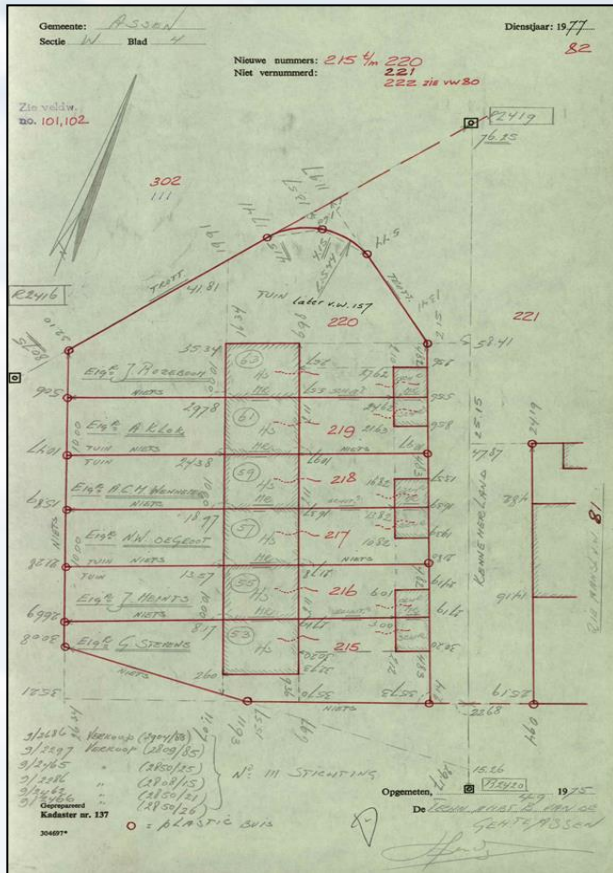


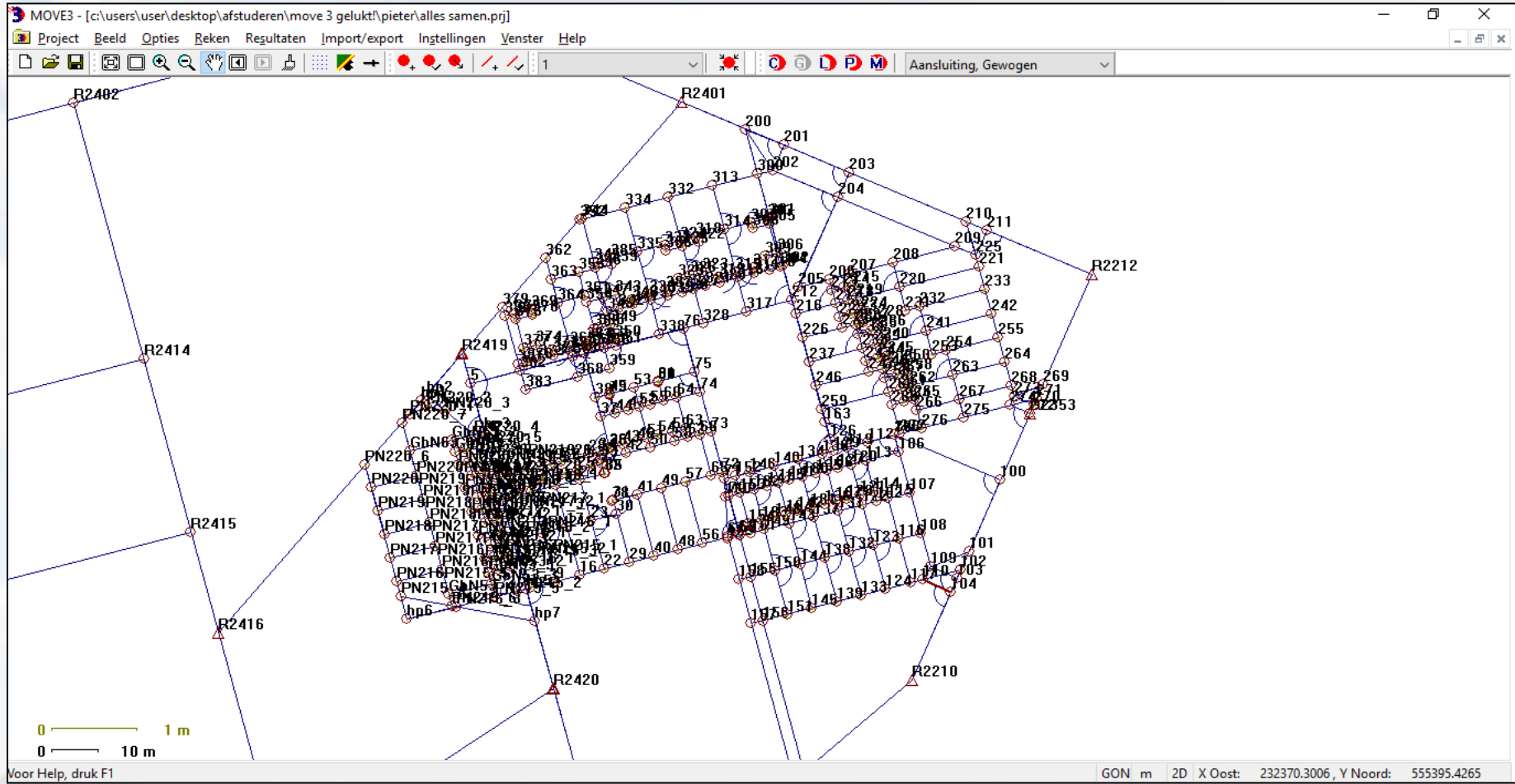


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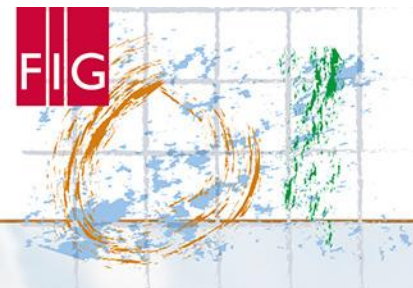


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amsterdam

FIG WORKING WEEK 2020
MAY 9 – MAY 15

Smart Surveyors for Land
and Water Management

