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Automation in GIS

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Introduction

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 - 9 years of experience in academic geography and research



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 - 5 years of experience at Royal HaskoningDHV
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Automation in GIS: Why and how?



Why should we use automation?

- As a company with a core business in selling knowledge and years of experience we can use automation to capture, store and update this knowledge and experience, which will secure business continuity.
- Automation aims to improve the speed, accuracy and capacity of the delivered outcomes.
- Helps to remain reliable and transparent as an organization – we ensure a consistent outcome with the use of standard ways of working.
- Standardization and automation of our knowledge and experience can be a stepping-stone to new digital services.
- The use of standardization and automation helps to improve innovation.

Where and how do we automate?

- As we develop our geospatial solutions we consistently explore the possibilities for automation.
- At RHDHV we make use of the ESRI suite:
 - ModelBuilder to simplify and communicate processes
 - Transfer Modelbuilder and Python scripts in a Notebook
 - Update layers with AGO Assistant
 - Reuse of online JSON files with AGO Assistant

How to automate

Example: Accessibility analysis



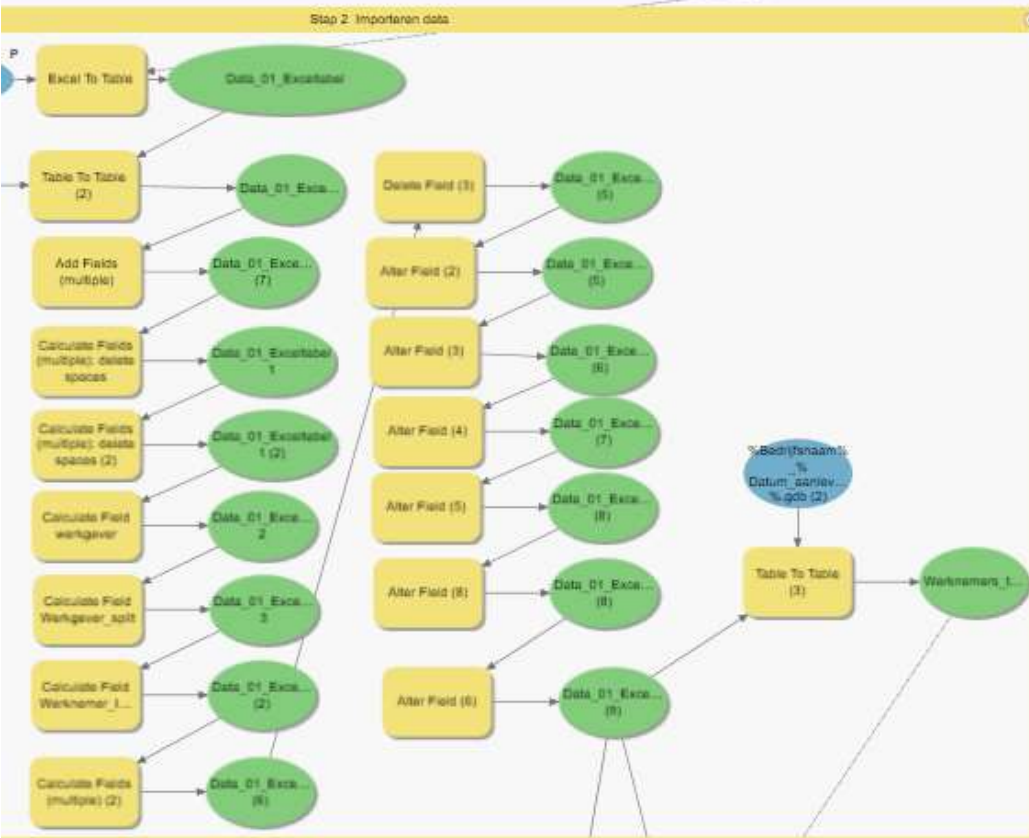
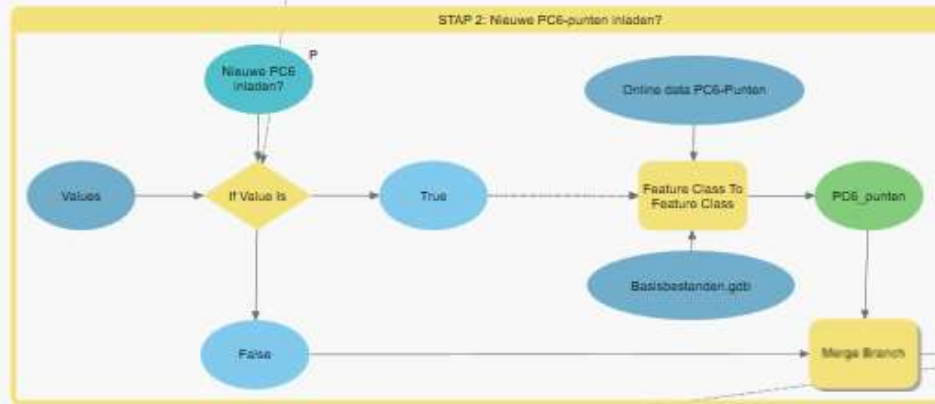
Example: Accessibility analysis

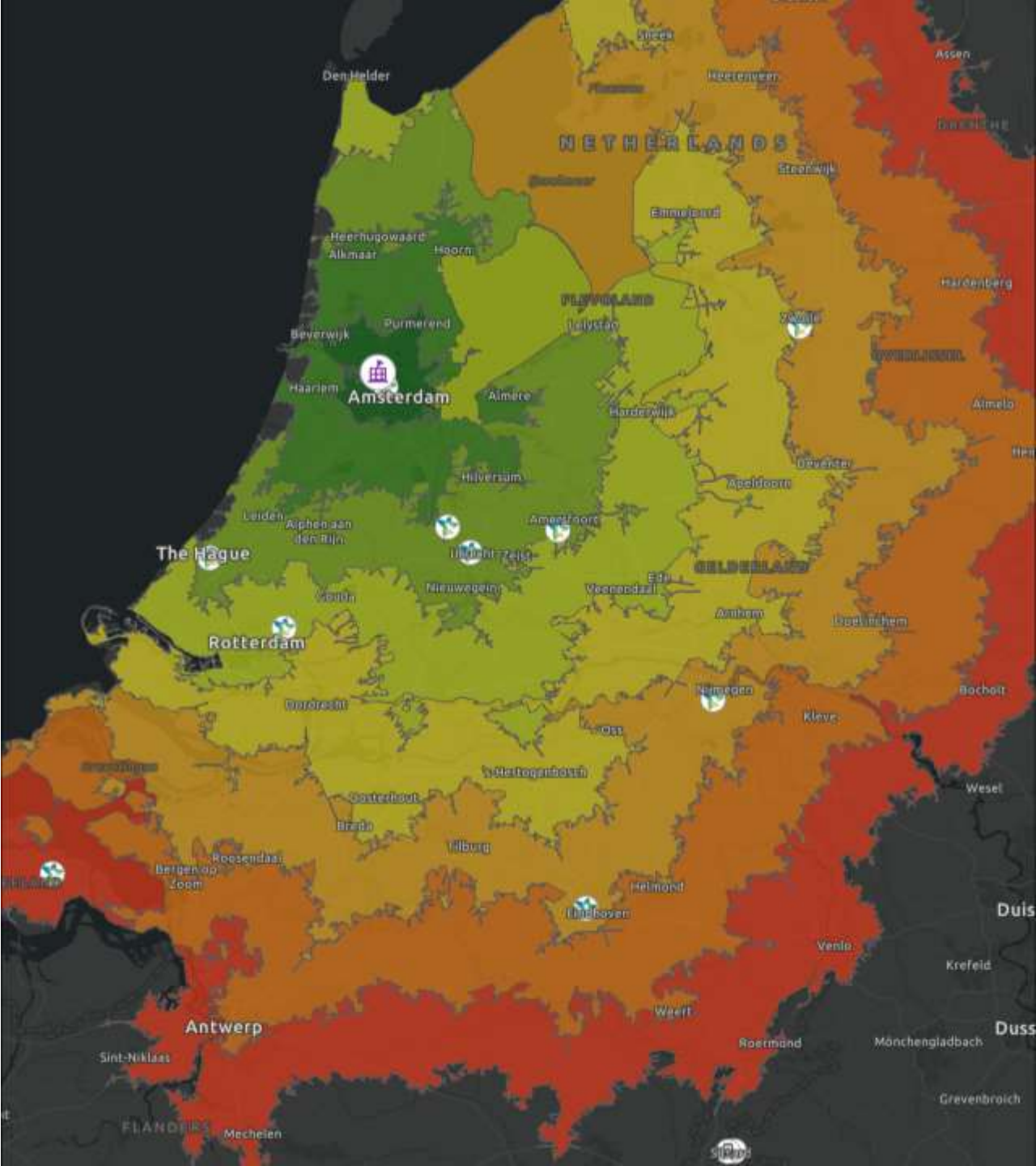


Automation: Accessibility analysis

Repetitive work for different companies

- Make the network dataset which is input for the analysis
 - Notebook
- Run the accessibility analysis
 - Model builder
- Upload the data to ArcGIS Online and prepare web-maps
 - Duplicate/build dashboards easily
 - JSON





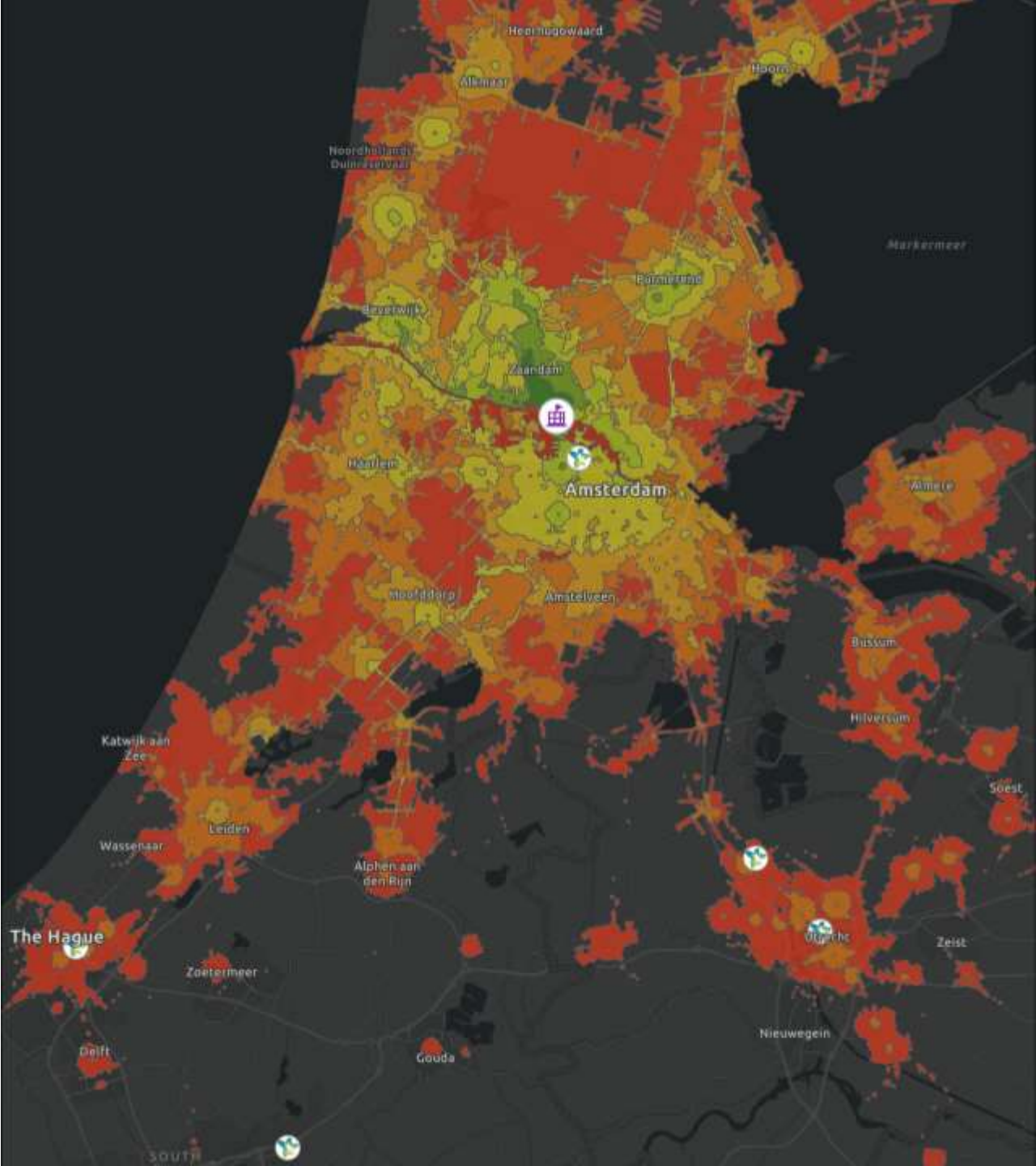
Automation - Conclusion

Result:

- No deep GIS/scripting knowledge needed
- Easy to transfer to co-workers
- Easy updates with new timetables
- Faster to run new analysis – No repetitive work
- No searching for the right dataset

Better structure and reproducibility:

- Always to the same output location
- Same data structure
 - Naming of the feature classes and GDB
 - Column-names



Questions?

For more information, visit our website:

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