

I aggregate the PV potential results to the block level for a neighbourhood in Rotterdam

iGUESS Training, June 2014

C. Braun, C. Eykamp, U. Leopold, R. Martin, L. de Sousa, O. Baume

What am I going to learn?



How I can configure the aggregation computation.



How I check and view my results in the mapping tool.



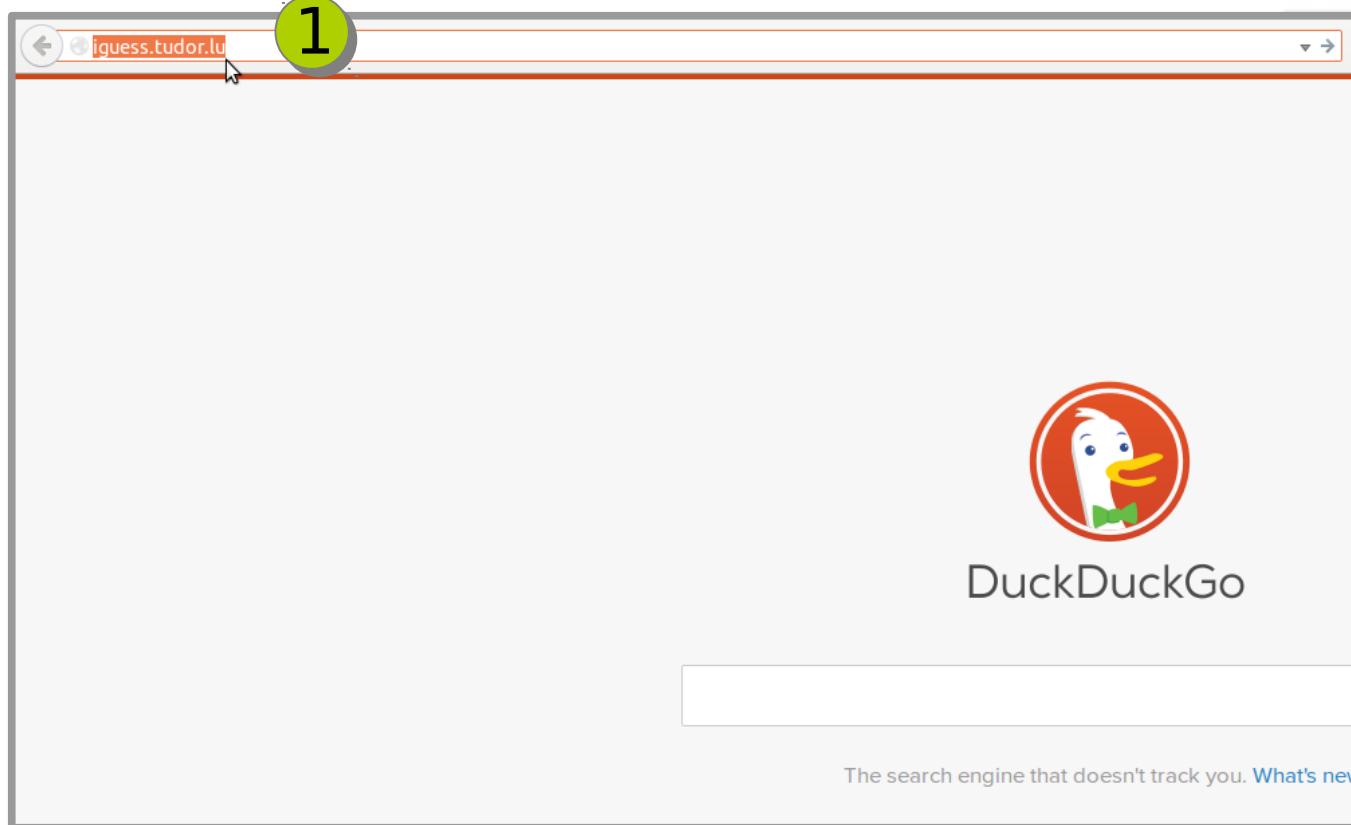
How I use the Slider tool to take decision based on costs and optimal potential.

The iGUESS tool is accessible from your browser with the limitation that that iGUESS properly works only with Firefox .



1

I type ***iguess.tudor.lu*** in the url line. And I type enter



I access the Home page of iGUESS!

- 1 In order to register data I need to be logged in. On the right hand of the menu bar I click on **Login**.

The screenshot shows the iGUESS home page with a green header. On the left is the Tudor logo. In the center is the iGUESS logo with the subtitle "Integrated Geospatial Urban Energy Information and Support System". On the right are several logos: MUSIC, EU, and SEMPER. Below the header, there's a navigation bar with links for Home, Modules, Scenarios, Maps, and About. To the right of the navigation bar is a "New User" link and a "Login" button, which is highlighted with a black rectangle and a large green circle containing the number 1. The main content area has a large green banner with the text "understand your options..." and "plan your future.". Below this, there are three columns of buttons. The first column contains "View Some Data", "Run Calculation Module", and "Check Running Module". The second column, which is larger, contains "View your data or register new datasets" with the subtext "iGUESS can show you any registered dataset on an interactive map of your city.", followed by three purple links: "Explore maps of my city", "See my datasets", and "Register new data". A large grey plus sign icon is centered in this column. At the bottom, a decorative footer features a colorful city skyline silhouette and the number 4.

understand your options...

plan your future.

View Some Data

Run Calculation Module

Check Running Module

View your data or register new datasets

iGUESS can show you any registered dataset on an interactive map of your city.

Explore maps of my city

See my datasets

Register new data

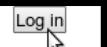
In order to access the maps of my city I click on maps!

4

Log in

Login
Enter your username or email address

Password

 Remember me[Forgot your password?](#)

3

2



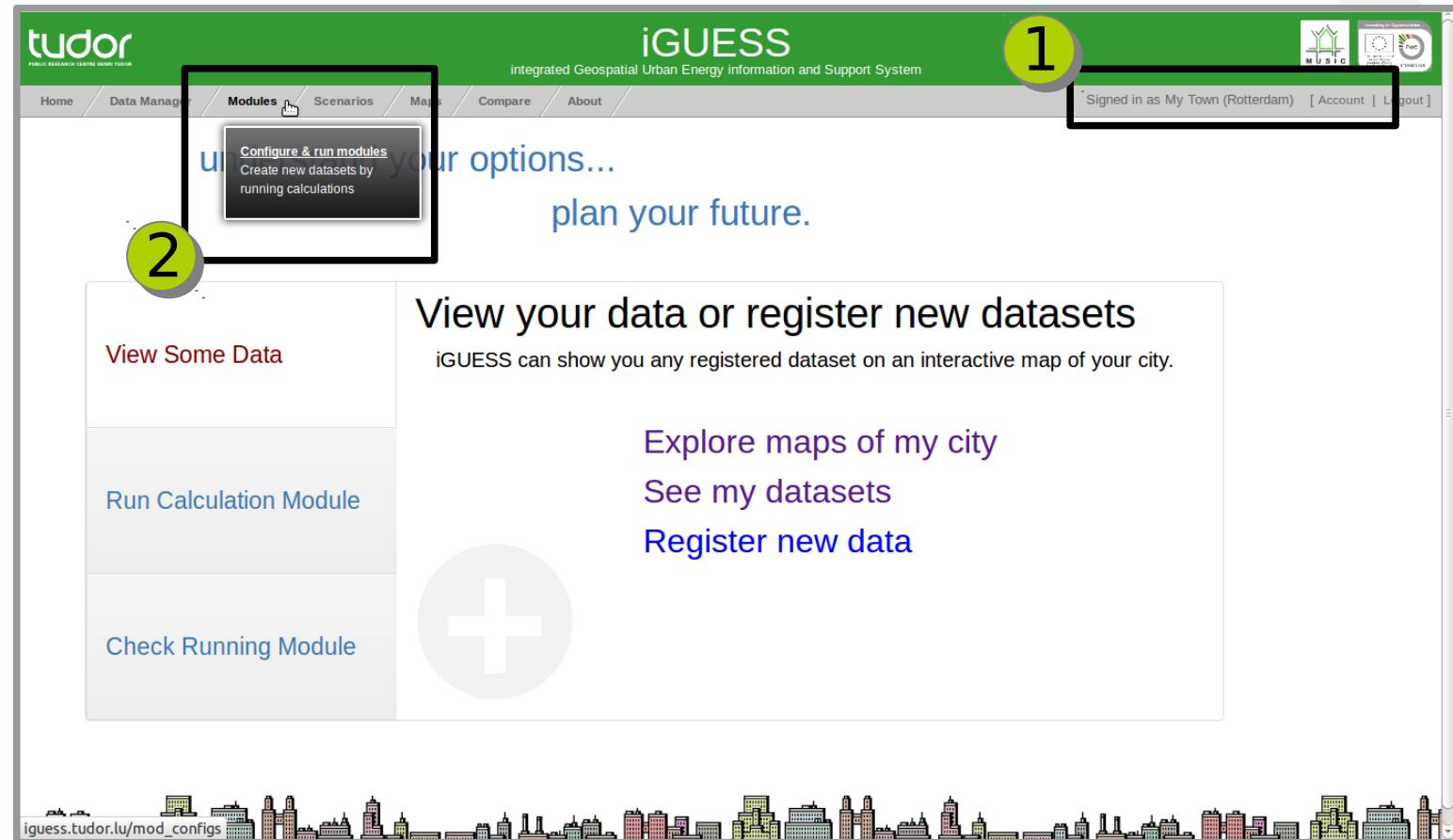
I arrive on the Log in page.

In zone 1 I type my login email and my password.

2 I can tick **Remember me** if I want iGUESS to recognise me user account next time you access the web platform.

Then I click on 3 the **Log in** button.

- Once I am back to the Home page of iGUESS, I can check that I am signed as it is written accordingly.
- In order to access the Data manager of iGUESS I click on **Modules** in the menu bar.



I automatically arrive at the list of **Configured Modules**!

- 1 In the column “status” I can see that not all modules reached the same status.
- 2 If I want to configure a new module, I click on the tab **Module Catalog** in order to access the full list of modules.

The screenshot shows the iGUESS web application interface. At the top, there's a green header bar with the Tudor logo on the left and the text "iGUESS integrated Geospatial Urban Energy information and Support System" on the right. Below the header is a navigation bar with links: Home, Data Manager, Modules, Scenarios, Maps, Compare, and About. The main content area has a title "Modules". On the left, there's a sidebar with a blue info icon and two bullet points: "Users can create Modules from a Module Template specifying all inputs and outputs that template requires." and "A list of Module Templates can be found in the Module Catalog." To the right of the sidebar is a table titled "Configured Modules". The table has columns: Name, Based on, Status, and Notes. The "Status" column is highlighted with a yellow background and a large green circle containing the number "1". The table lists several modules, each with its name, the source it's based on, its current status, and any notes. One row shows a red error message: "Process not found on server -- It is either offline or has been deleted or renamed". At the bottom of the table, there are buttons for "Delete Module" and "Configuration irradiation training".

Name	Based on	Status	Notes
01_lijn_solar	Solar irradiation	Run Completed	
01_tiny_solar_irra	Solar irradiation	Running	
02_bospolder_pv_potential	PV Potential with user based input	Run Completed	
02_lijn_pv_potential	PV Potential with user based input	Run Completed	
02_tiny_pv_potential	PV Potential with user based input	Run Completed	
03_tiny_greenroofs	Green roofs	Run Completed	
04_lijn_aggregation_solar_irra	Aggregation service with support for slider tool	Run Completed	
04_tiny_aggregation_pvpot	Aggregation service with support for slider tool	Ready	
05_rotterdam_UHI	Unknown process	Ready	
Process not found on server -- It is either offline or has been deleted or renamed		Error	Configuration irradiation training
Delete Module			

The screenshot shows the iGUESS software interface with the 'Modules' tab selected in the top navigation bar. Below the navigation bar, there is a blue header with two bullet points: 'Users can create Module Configurations from a Module Template by specifying all inputs and outputs that template requires.' and 'A list of Module Templates can be found in the Module Catalog.' The main content area is titled 'Modules' and contains two tabs: 'Configured Modules' (selected) and 'Module Catalog'. The 'Module Catalog' tab is currently active, displaying a list of module templates. The first item in the list, 'Aggregation service with support for slider tool', is highlighted with a yellow circle containing the number '1'. The list also includes other modules like 'Building stock energy consumption and savings', 'Geothermal cadastre', 'Green roofs', 'PV Potential with user based input', 'Solar irradiation', and 'Urban Heat Island characterisation'. At the bottom of the interface, there is a decorative graphic of a city skyline.

I get access to the module catalog which is the full list of configurable modules in iGUESS.

- 1 I want to configure the “**Aggregation service with support for slider tool**” and I click on the corresponding line to select a new configuration.

1

The details about the module develops under the line I have just been clicking on. I can see the list of **Module Inputs**.

2

In order to launch a new configuration for this module, I click on the line “**Create new configuration for this service**”.

Signed in as jo (Rotterdam) [Account | Logout]

Modules

▪ Users can create Module Configurations from a Module Template by specifying all inputs and outputs that template requires.
▪ A list of Module Templates can be found in the Module Catalog.

Configured Modules Module Catalog

Aggregation service with support for slider tool

This process aggregates previously calculated data sets according to vector data sets. The result will be available for visualization in the slider tool.
Hosted by: MUSIC PyWPS Server

Identifier: aggregation

Model Inputs

Parameter Name	Identifier	Description
Aggregation level	[aggregate_level]	A vector polygon data set which represents the aggregation level, which could be block or district level polygons.
Base layer to aggregate	[aggregate_basemap]	A data set used for aggregation. to be filled...

Model Outputs

Parameter Name	Identifier	Description
Aggregated data	[aggregation_result]	Aggregated data. This result can be used as input for the 'slider application'

Create new configuration for this service

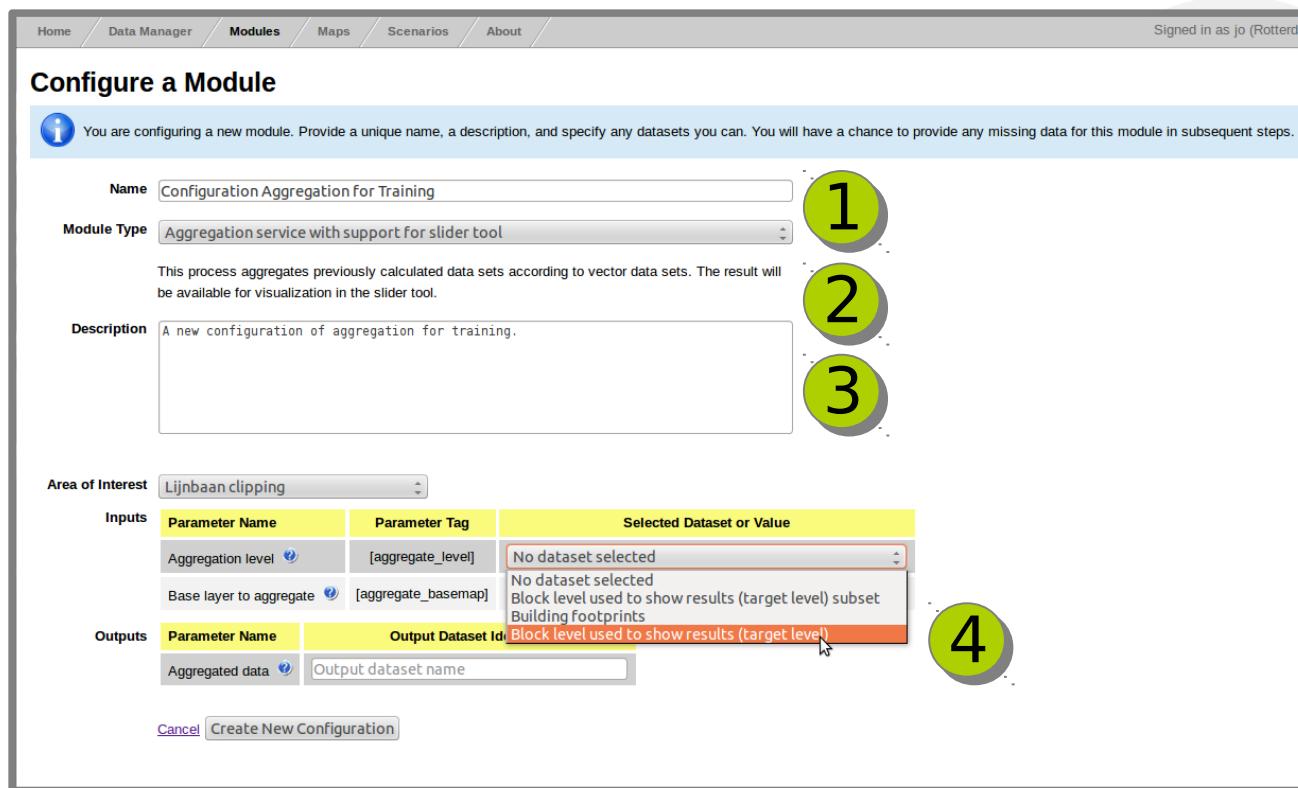
Building stock energy consumption and save
Geothermal cadastre

st.iguess.tudor.lu/mod_configs/new?template=833

I arrive at the **Configure a Module** window!

For each new configuration I need to fill in the following fields:

- 1 First I give a **name** to my configuration.
- 2 I confirm with the selection button the type of module I want to configure.
- 3 I give a specific **description** to my new configuration.
- 4 I select with the button **Aggregation level** the level at which I want to aggregate my result. In my case I select “**Block level used to show results (target level)**”.



- 1 I select the right Data layer to aggregate.
- 2 Then I click on the **Create New Configuration** button.

iGUESS [Test]
Integrated Geospatial Urban Energy information and Support System

Configure a Module

You are configuring a new module. Provide a unique name, a description, and specify any datasets you can. You will have a chance to provide any missing data for this module in subsequent steps.

Name: Configuration Aggregation for Training

Module Type: Aggregation service with support for slider tool

This process aggregates previously calculated data sets according to vector data sets. The result will be available for visualization in the slider tool.

Description: A new configuration of aggregation for training.

Area of Interest: Lijnbaan clipping

Inputs	Parameter Name	Parameter Tag	Selected Dataset or Value
	Aggregation level	[aggregate_level]	Block level used to show results (target level)
	Base layer to aggregate	[aggregate_basemap]	PV potential in the Lijnbaan neighbourhood

Outputs	Parameter Name	Output Dataset Identifier
	Aggregated data	Block_level_PV_potential

[Cancel](#) **Create New Configuration**

1

2

- 1 The next screen confirms that the new module configuration is ready to be run.
- 2 To run the module now I click on the button “Run Module”.

Mod config was successfully created.

Module Configuration

This module has all its data and is ready to run. Click the Run button to start the process. **1**

Name Configuration Aggregation for Training [Click to edit]

Based on Aggregation service with support for slider tool

Details This process aggregates previously calculated data sets according to vector data sets. The result will be available for visualization in the slider tool.

Note A new configuration of aggregation for training. [Click to edit]

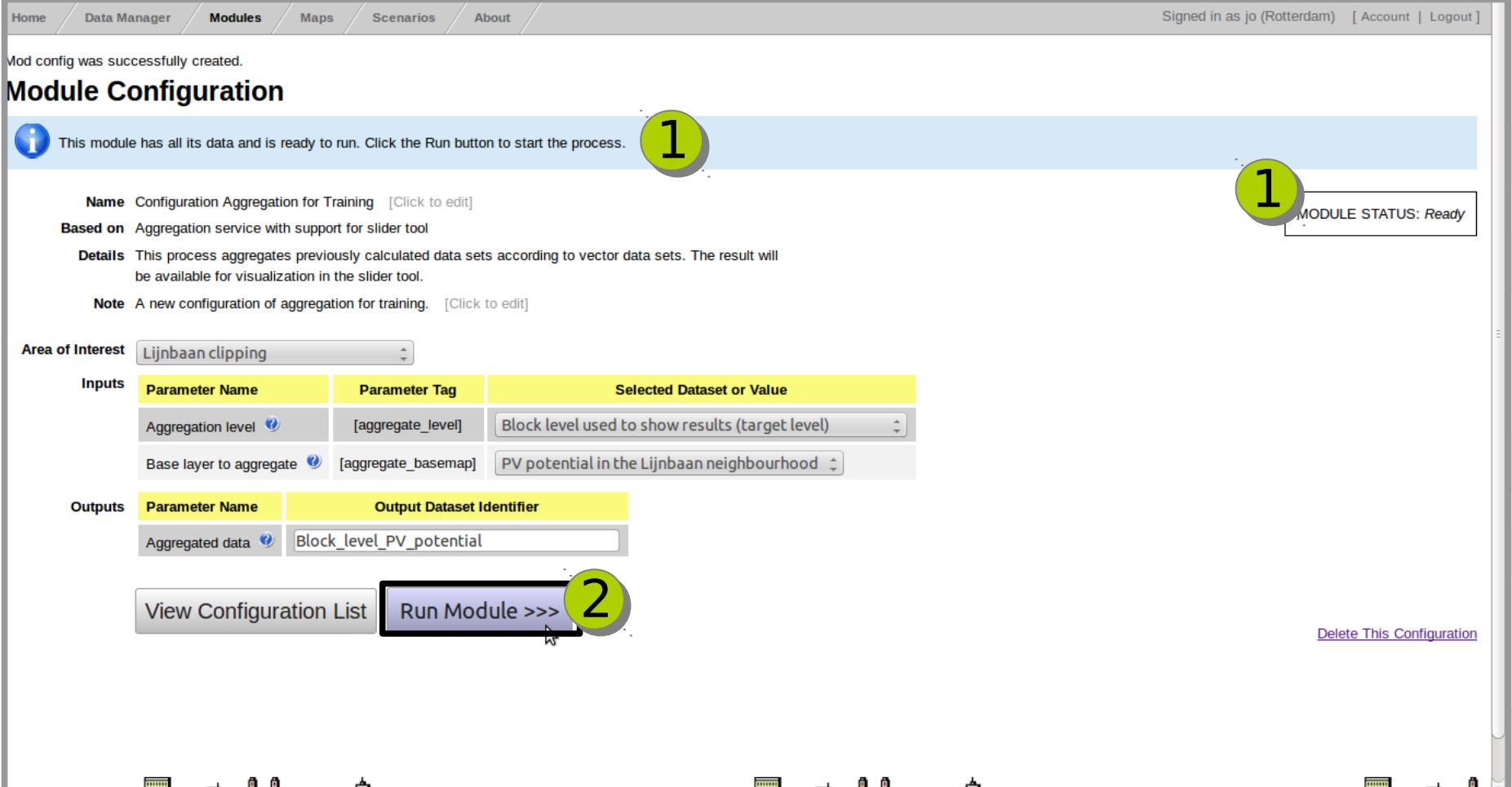
Area of Interest Lijnbaan clipping

Inputs	Parameter Name	Parameter Tag	Selected Dataset or Value
Aggregation level	[aggregate_level]	Block level used to show results (target level)	
Base layer to aggregate	[aggregate_basemap]	PV potential in the Lijnbaan neighbourhood	

Outputs	Parameter Name	Output Dataset Identifier
Aggregated data	[block_level_pv_potential]	Block_level_PV_potential

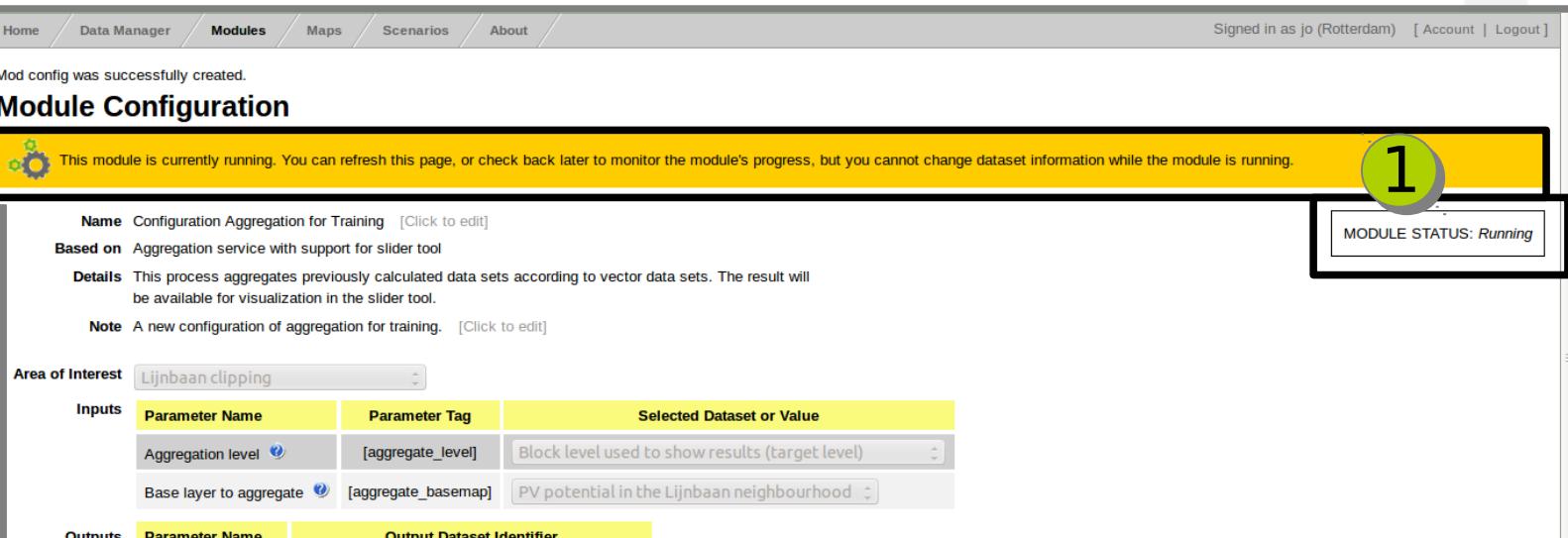
1 MODULE STATUS: Ready

2 View Configuration List Run Module >>> Delete This Configuration



1

The module is running!! This is shown by the orange thin zone at the top of the page and in the **MODULE STATUS** on the right hand side. The percentage completed of the module run is also indicated until the **Run** is **completed** and orange turns into green (**2**).



Mod config was successfully created.

Module Configuration

This module is currently running. You can refresh this page, or check back later to monitor the module's progress, but you cannot change dataset information while the module is running.

1

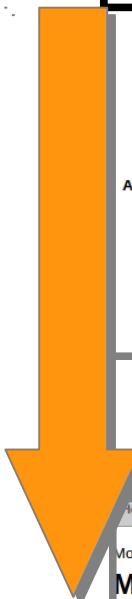
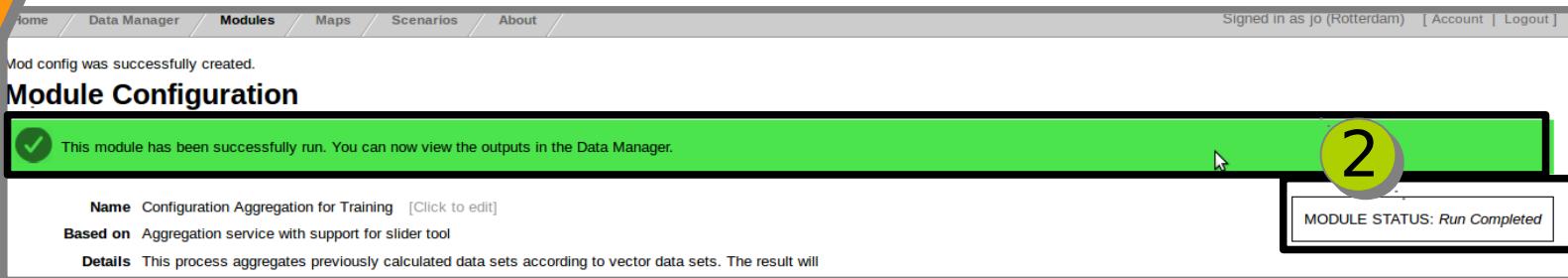
MODULE STATUS: Running

Name Configuration Aggregation for Training [Click to edit]
Based on Aggregation service with support for slider tool
Details This process aggregates previously calculated data sets according to vector data sets. The result will be available for visualization in the slider tool.
Note A new configuration of aggregation for training. [Click to edit]

Area of Interest Lijnbaan clipping

Inputs	Parameter Name	Parameter Tag	Selected Dataset or Value
	Aggregation level	[aggregate_level]	Block level used to show results (target level)
	Base layer to aggregate	[aggregate_basemap]	PV potential in the Lijnbaan neighbourhood

Outputs Parameter Name Output Dataset Identifier

Mod config was successfully created.

Module Configuration

This module has been successfully run. You can now view the outputs in the Data Manager.

2

MODULE STATUS: Run Completed

Name Configuration Aggregation for Training [Click to edit]
Based on Aggregation service with support for slider tool
Details This process aggregates previously calculated data sets according to vector data sets. The result will



The run of the aggregation module in its new configuration is completed!

1

I can check and view the results by clicking the button

Maps

1

Mod config was successfully created.

Module Configuration

This module has been successfully run. You can now view the outputs in the Data Manager.

Name: Configuration Aggregation for Training [Click to edit]

Based on: Aggregation service with support for slider tool

Details: This process aggregates previously calculated data sets according to vector data sets. The result will be available for visualization in the slider tool.

Note: A new configuration of aggregation for training. [Click to edit]

Area of Interest: Lijnbaan clipping

Inputs	Parameter Name	Parameter Tag	Selected Dataset or Value
Aggregation level	[aggregate_level]	Block level used to show results (target level)	
Base layer to aggregate	[aggregate_basemap]	PV potential in the Lijnbaan neighbourhood	

Outputs

Parameter Name	Output Dataset Identifier
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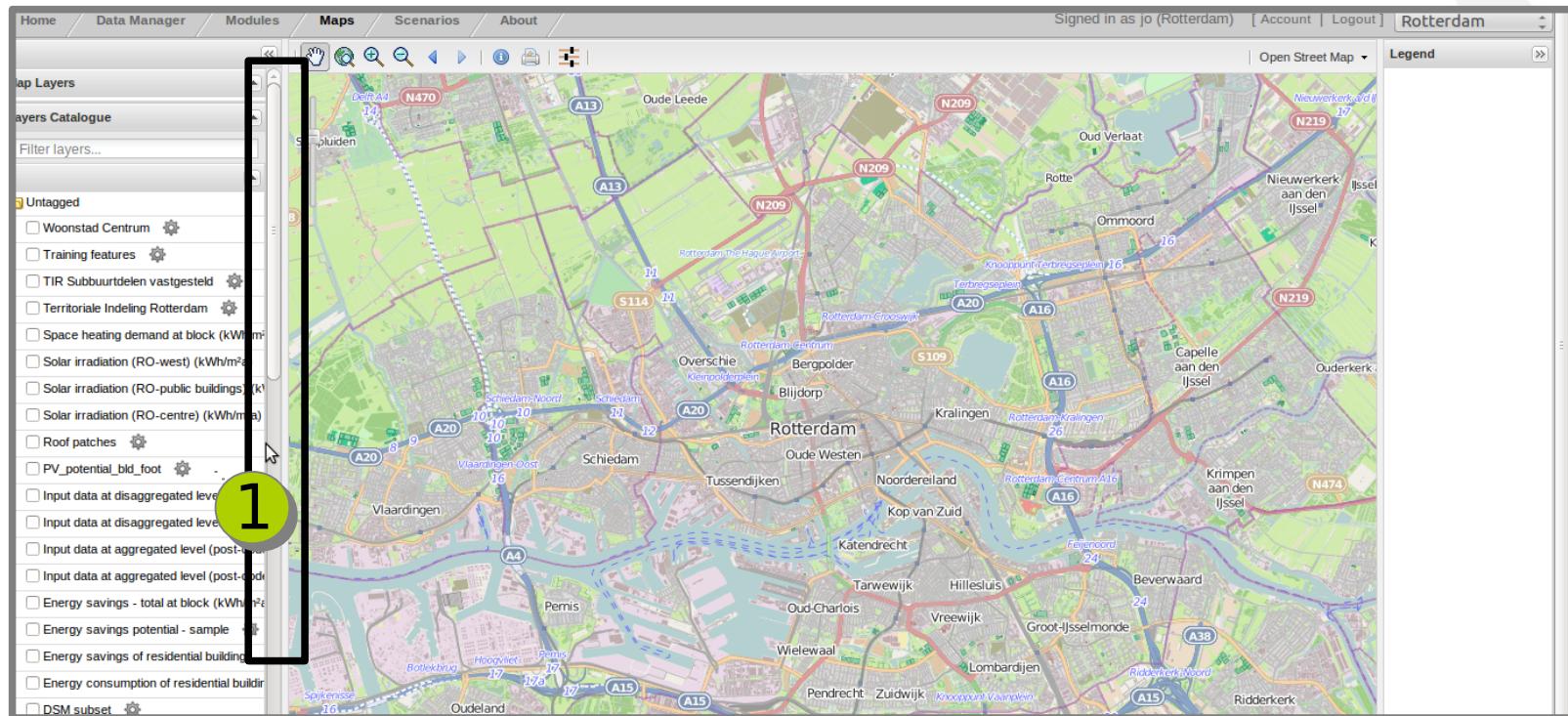
MODULE STATUS: Run Completed

I arrive in the **map viewer** environment.

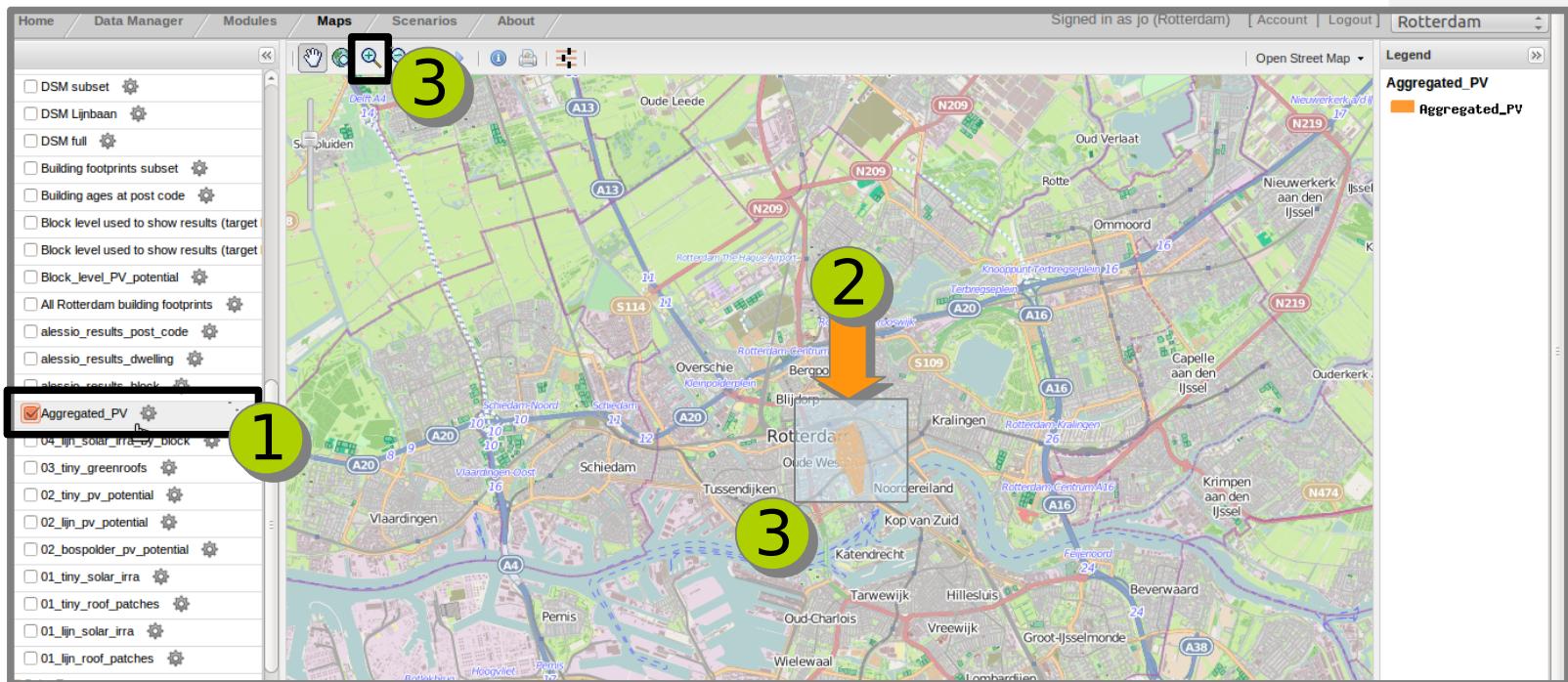
I can check that the output of the Module I ran appears in the list of the layers of my city.

1

I explore further down to find the right line.

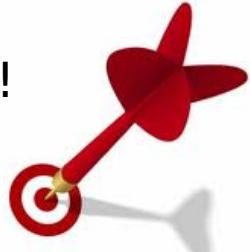


- 1 I click on the line Aggregated_PV...
- 2 ...the aggregated results appears on the map!
- 3 I click on the **Zoom in** tool and I select the zone to zoom in with the cursor.



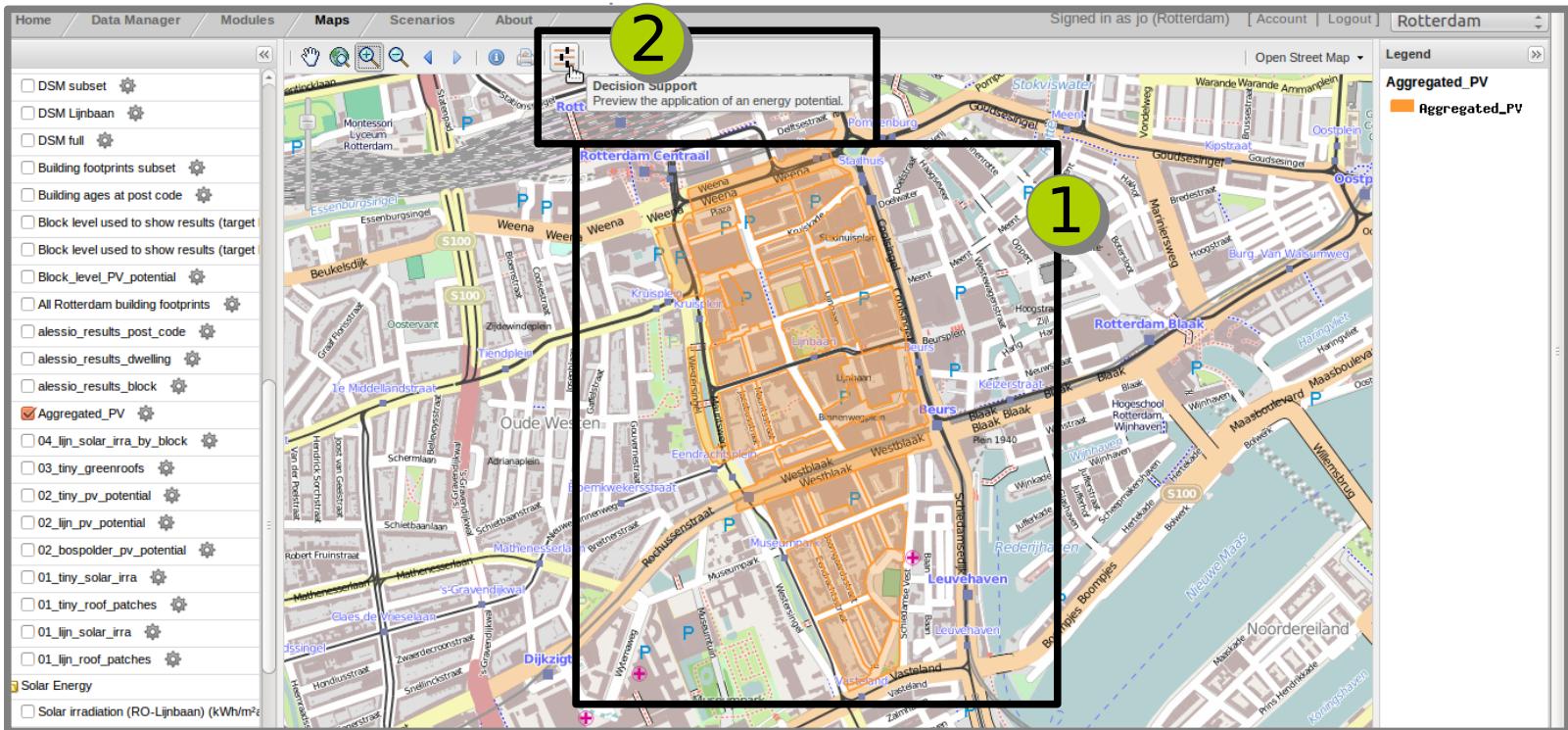
1

Now I can better observe the zone on which I am working!
I can see that zones of computation have been aggregated to the level of blocks!



2

In order to observe the potential effect on decisions about the installation of PV panels on the selected zone, I click on the slider button



Next steps

I use the slider button the manage the potential of PV panels installation at the block level!!

To continue you can follow the instructions of the following document:



I compute the PV potential for a neighbourhood in Rotterdam.