



SHARED PROJECTS (v1.0)

Creation and Edition

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1. What are shared projects of huellasolar?

Huellasolar is a web platform to build and display sun exposure and radiation maps, especially for urban environments.

Radiation maps of huellasolar offers a lot of features but, build them can take hours or even days depending on the size of the map.

For that reason we have added the option to build shared projects.

Shared projects allow working in groups and, therefore, many users can produce data for radiation map.

2. Differences between single projects and shared projects

Single projects	Shared projects
Edition Only the user who opens the project can edit it. The user is free to erase the project at any moment.	Edition Any user of the web can upload data to the map. Nevertheless, some values, such as cloud index or tlk indexes, can only be modified by the responsible of the project. The responsible of the project cannot erase it once third parts have produce data for it.
Size The size of the map is limited according to the type of account of the user.	Size It is possible to open projects without size limitations independently of the user account. However there is always a limit of size to 116Km ² .
Licenses The user can choose the license and the type of map, open, private, pay or mixed. Whenever he wants the user can change these options.	Licenses Shared maps have always open licenses and are always open maps . This configuration cannot be changed afterwards.

3. How do shared projects work?

Opening of a project

First of all a user opens a project from his projects panel.
The area of work is then divided into tiles.

The project is automatically published as an empty map.

Collaborating

Users first choose the tile of the map which want to develop.
Then, they generate in their PC the packages of data using the desktop tool of huellasolar.
Finally, the data are uploaded to the map.

This way the tile is added to the radiation map and it is being filled step by step.

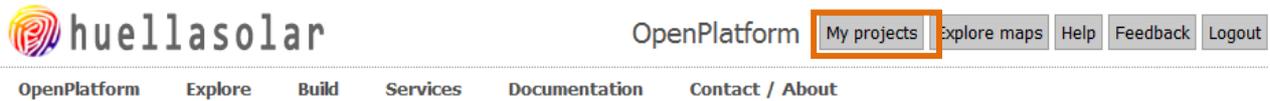
4. Before opening a shared map

When you open a shared project, you are requiring the help of others users to finish it.
Therefore, it is important to take into account the following:

1. To have in mind the **area of work**. The web does not admit maps over 116km².
2. To know what are the sources of data to use in the map.
In order to build a radiation map, it is necessary to have sources of data that, in some way, define the geometry of the area.
If those sources do not exist, it is nonsense to open a project because users cannot contribute.
For example, a user want make a map of a portion of the city of Palencia, in Spain. One of the sources of data that can be used is the Lidar from the National Center of Geographic Information.
3. To know what **procedures** must be followed.
Usually the starting data must be formatted in order to be recognized by the desktop tool of huellasolar. The user who wants to contribute to your map should know what procedures he can follow.
With the same example above, when you open the project you can refer to the manual available in the web about generation of radiation maps from lidar data.

5. Opening a shared map

Go to your projects panel in the web www.huellasolar.com. Select the link 'My Projects' from the menu Openplatform at the top of the page. (You must be registered)



Your projects pane will be loaded. There you can manage and create new projects. Go to the tab 'Create new project. Shared project':



The form to create new projects will be displayed, as shows the following image:

1 Title:
The title identify your project. Users can see the title and description of published projects

2 Description:
You can introduce links to sources of data or any other references to guide the users. For example, if you are going to develop a map of a city from Lidar, you can follow the method in the guide available in the section documentation of the web.
Lower down you can upload a pdf file with instructions to develop the map.

3 Help file:
Optionally you can upload a PDF containing any explanation, instruction, link etc.that could help to guide to those users who want to generate data for the project.

Ningún archivo seleccionado

Define map area:

- 4** 1. Zoom to the work area.
2. Switch on the button . Draw a rectangle over the area. The area must be under 116km². A grid will be automatically generated.
3. Switch off the button .
4. Switch on the button . Click on the tiles you want to remove from the grid until you have defined the limits you want for your map.

The users will select the tiles to develop them and upload their data.



Coordinates of the project

5 Longitude Latitude

Enter the country of your project

6 Country

License:

7 Select the type of license for your map. Take into account that open maps will be always open data and, therefore, must have compatible licenses. We reserve the right to block any project that violates copyrights rights. Licenses of shared maps cannot be modified by users after its creation.

Creative-CommonsAttribution

If you have selected 'Other' please, specify:

8 Attribution

9 I have read and accept the terms and conditions of the service

10

1. Title

Type the title for the project.

Take into account that you cannot have two projects with the same title.

The title cannot be modified once the project is created.

2. Description

You can introduce links to sources of data or any other references to guide the users. However the size of the description is limited. If you need to give more information use the option to upload a help file in the point below.

3. Help file

Optionally you can upload a PDF containing any explanation, instruction, link etc. that could help to guide to those users who want to generate data for the project.

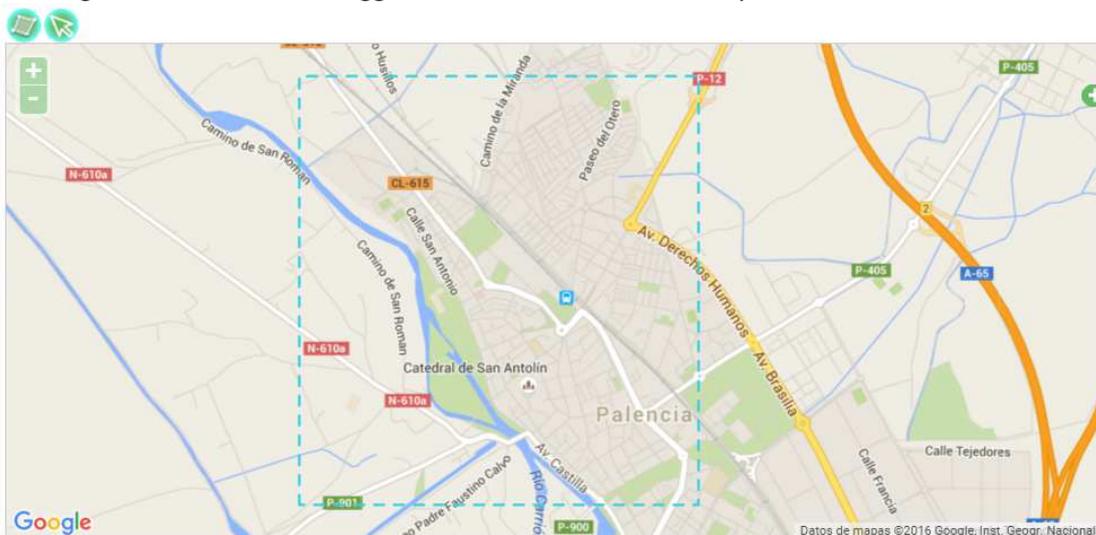
You can upload only one pdf for project and it is limited to 2mb.

4. Define map area

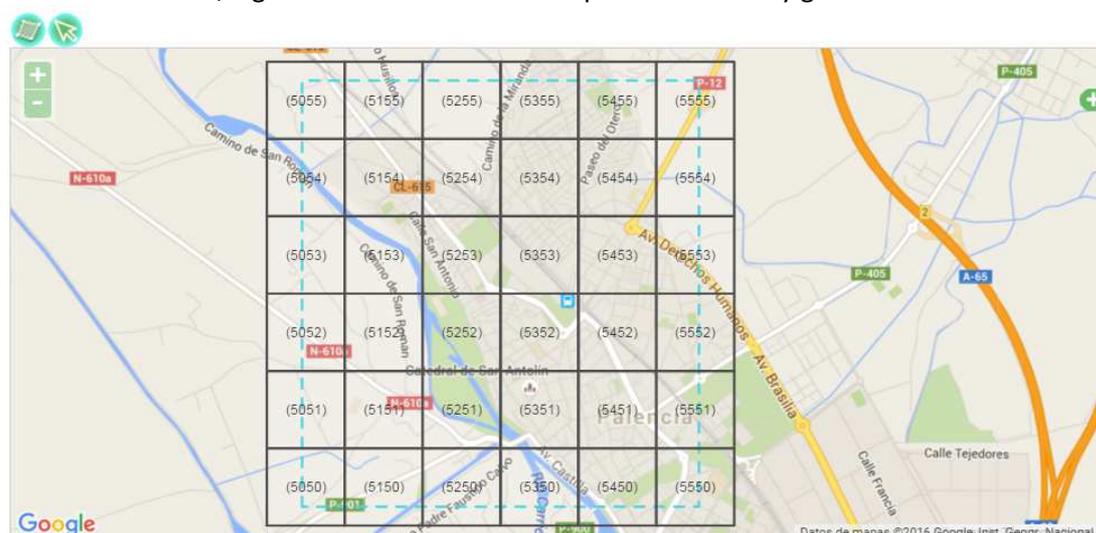
Make zoom to the area that you want to develop.

Then switch on the button 

Draw a rectangle on the area. While the area inside the rectangle is under the max, the rectangle remains blue. If it changes to red the area is bigger than the max allowed and you should reduce it.



When you finish the draw, a grid with the tiles of the map is automatically generated.



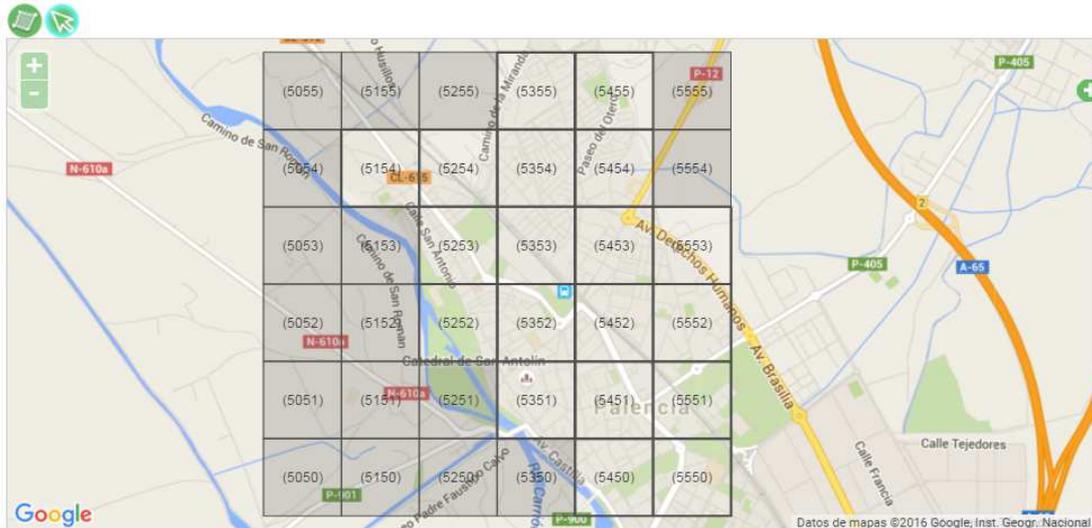
Tiles are numbered from 5050 by default.

Now you can refine the limits and deselect those tiles you are not interested in.

Switch off the button 

Switch on the button 

Click on the tiles to deselect them.



5. Coordinates of the project

The coordinates are automatically calculated.

6. Select the country of your project

Select from the drop list the country of the map.

7. License

Take into account that open maps will be always open data and, therefore, must have compatible licenses. We reserve the right to block any project that violates copyrights rights. Licenses of shared maps cannot be modified by users after its creation.

8. Attribution

Shared projects have always this field with 'huellasolar users'.

Once fill out the form you must read and accept the terms and conditions and click on the button 'Create'.



When you click 'Create', the project is automatically published and it is available to the rest of users. The project is displayed as a new mark in the radiation viewer of huellasolar. Clicking on this mark the users can edit or open it.



Feel free to publish projects while you are checking the web. However, we ask you to erase the projects created only with test purposes. This way, the marks of these projects will not be displayed in the viewer where any user can see them.

When you open a new project, it is listed in the table in the top of the page.

My projects

Title	Description	Type	Status	Actions
Ejemplo Colectivo 1	Proyecto de ejemplo para el manual de uso	Open	Published	 
Ejemplo de proyecto individual	Proyecto de ejemplo de proyecto individual para el manual de uso	-	Not Published	 
Ejemplo Colectivo 2	Proyecto de ejemplo para el manual de uso	Open	Published	 

Single Project
 My Shared Projects
 Other users' Shared Projects where I am contributing

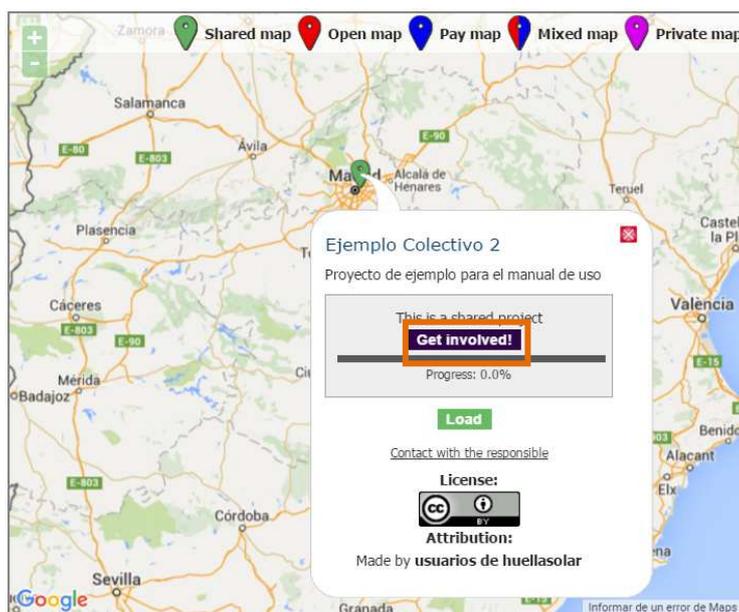
 Edit
  Erase
  View map
  Blocked

As you can see above, the list has a color code, for example:

- The project named 'Ejemplo Colectivo 1' is a shared project and the user is the responsible for the project, meaning he is the person who opened it.
- However, in the case of the project named 'Ejemplo Colectivo 2'. The user is not the responsible for the project and he is only collaborating.
- Finally the project titled 'Ejemplo de proyecto individual' is a single project and the user is the owner of the project.

6. Editing shared projects

Once a shared project is opened, it is visible in the viewer huellasolar. Enter in the viewer clicking on the option 'Explore' in the menu of the web.



Shared maps are green marks in the world map of the viewer.

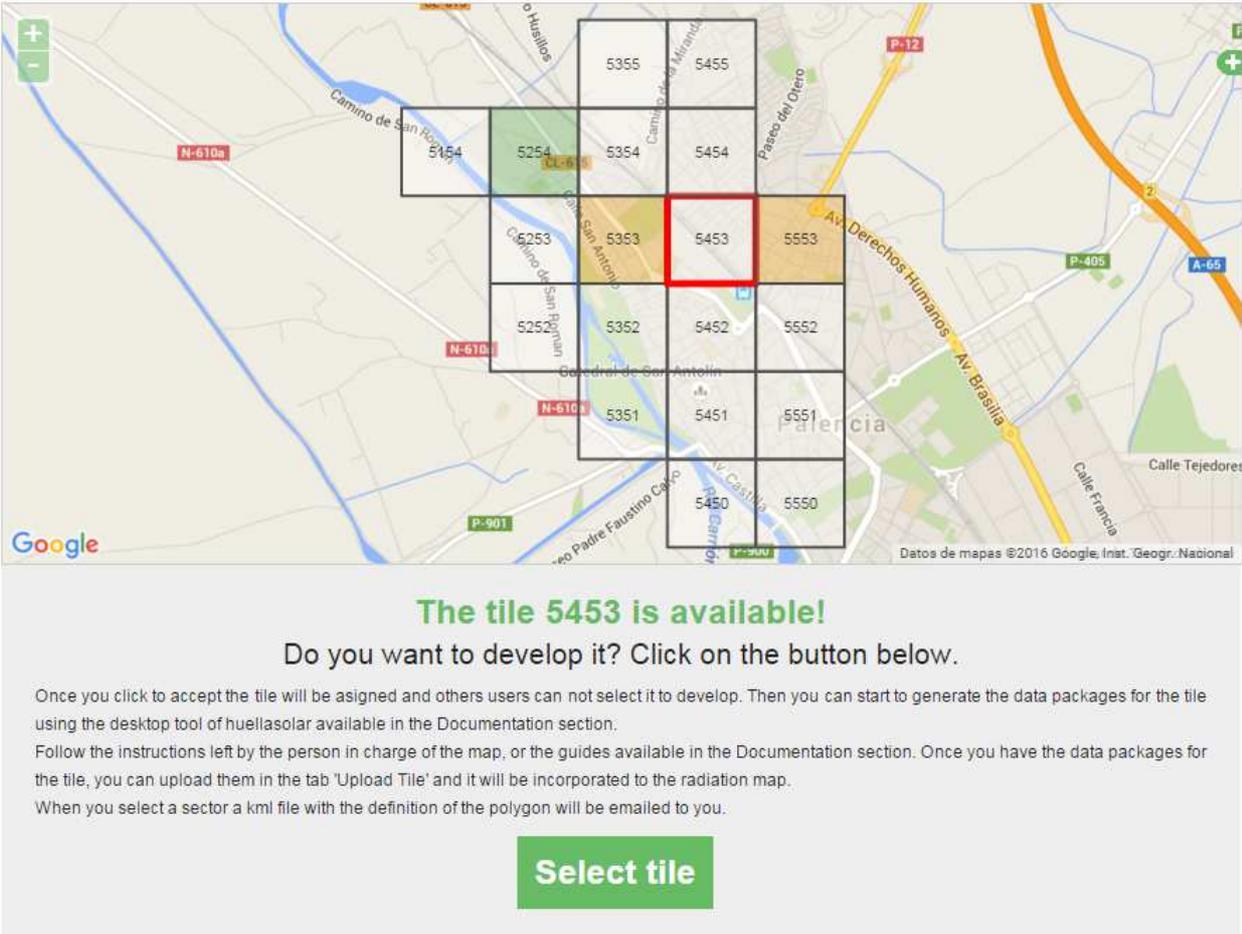
As you can see in the image above, when you click on the mark, a window is displayed. There you can collaborate or load the map.

Click on the button 'Get involved!'. That leads you to the edition panel of the project where you can:

1. Select a tile of the map to develop it.
2. Upload the data of a tile.

6.1. Contributing to a shared map. Step 1. Selecting a tile

You have clicked on the button 'Get involved!' and now are in the edition panel. Select the tab 'Select tile'. Go down to the map in the lower part of the tab. Click on the tile you want to develop.



The tile 5453 is available!
Do you want to develop it? Click on the button below.

Once you click to accept the tile will be assigned and others users can not select it to develop. Then you can start to generate the data packages for the tile using the desktop tool of huellasolar available in the Documentation section.

Follow the instructions left by the person in charge of the map, or the guides available in the Documentation section. Once you have the data packages for the tile, you can upload them in the tab 'Upload Tile' and it will be incorporated to the radiation map.

When you select a sector a kml file with the definition of the polygon will be emailed to you.

Select tile

The system will check if the tile is available. In that case, click on the button 'Select tile'.

The tile will be assigned to you and other users cannot select it from this moment. This way we avoid that different users work in the same tile.



The map uses a color code:

- Transparent. The tile is free
- Orange. The tile has been selected by other user
- Green. The tile is already uploaded to the radiation map



When you select a tile, no one can select it again. For this reason, if you change your mind and are not interested in develop it, it is very important that you decline. To decline a tile just click on it in the map and click on the button 'Decline'

6.2. Contributing to a shared map. Step 2. Building data

Once you have selected the tile, you can start to generate the necessary data.

An email with a KML file will be send to you. The file defines the exact bounds of the tile and it will be useful to delimit the data.

The data are built with the desktop tool of huellasolar. You can freely download it form the section 'Documentation' in the web.

The desktop tool is a little app for Windows that compiles the data and generates a set of files necessities to configure the radiation map.

The download includes a manual, explanations about supported formats and examples.

To generate the files follow the indications given by the manager of the data in the description or in the help file of the project. Format the data in order to be recognized by the tool and process them.

If you have questions, ask to the person responsible of the map or contact us.



It is highly recommendable to have the files for the tiles surrounding the tile we are processing. In this way it is avoid the possible loss of reliability in the bounds of the tile.

For example:

A user is generating the data for the tile '5454'. The user has already formatted the initial source of data to have a tif file '5454.tif' (or 5454.png if it is the case) according to the explanations in the manual of the 'huellasolar databuilder' tool.

When he proceeds to compute the tile 5454 it is recommendable that there were present the files for the adjacent tiles such as 5353, 5453 and so on, as you can see in the image below.



The 'huellasolar databuilder' checks if there are files of data of the tiles adjacent. This way they are taking into account in the calculations of shadows and the reliability of the data when we are near the bounds of the tiles is better.

6.3. Contributing to a shared map. Step 3. Uploading data

Once you have generated the file for the tile, you can upload them to the map.

The desktop tool of huellasolar outputs a set of sixteen file .hsp and a .png file for each tile.

Go to the edition panel of the project as it is explained above.

Select the tab 'Upload tile'

There you will see first a table with the status of the project and the tiles already uploaded.

Down this table you will find two areas where you must drag and drop the files generated, as you can see in the image below.

Current status of the map:

Sector	Altitudes Raster	Data packages															
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
5254	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

1 This is the table with the progress of the project. You can see the tiles already uploaded by the users.

File PNG of results:

Drop your raster here

Clear list

2 Drag and drop here the .png file generated by the desktop tool. Click on the upload button that will be displayed.

Files HSP of results:

The sixteen files of data of the tile must be listed in the grey area to be allowed to upload them. It is not allowed to load packages partially.

Drop your hsp files here

Clear list

3 Drag and drop here the sixteen files .hsp generated by the desktop tool. All the files must be listed in order to upload them.

 First you must select the tile as it is explained in the point 6.1. Otherwise you cannot upload any data to the map and an error message will be prompted.

When the data are uploaded, the tile is automatically added to the radiation map and it can be consulted in the huellasolar viewer.

7. Additional options for the manager of the project

The manager of the Project is the user who opens the project. This user has additional edition options. The manager is the only one who can edit values such as cloud indexes, turbidity coefficients or values related with production of electricity.

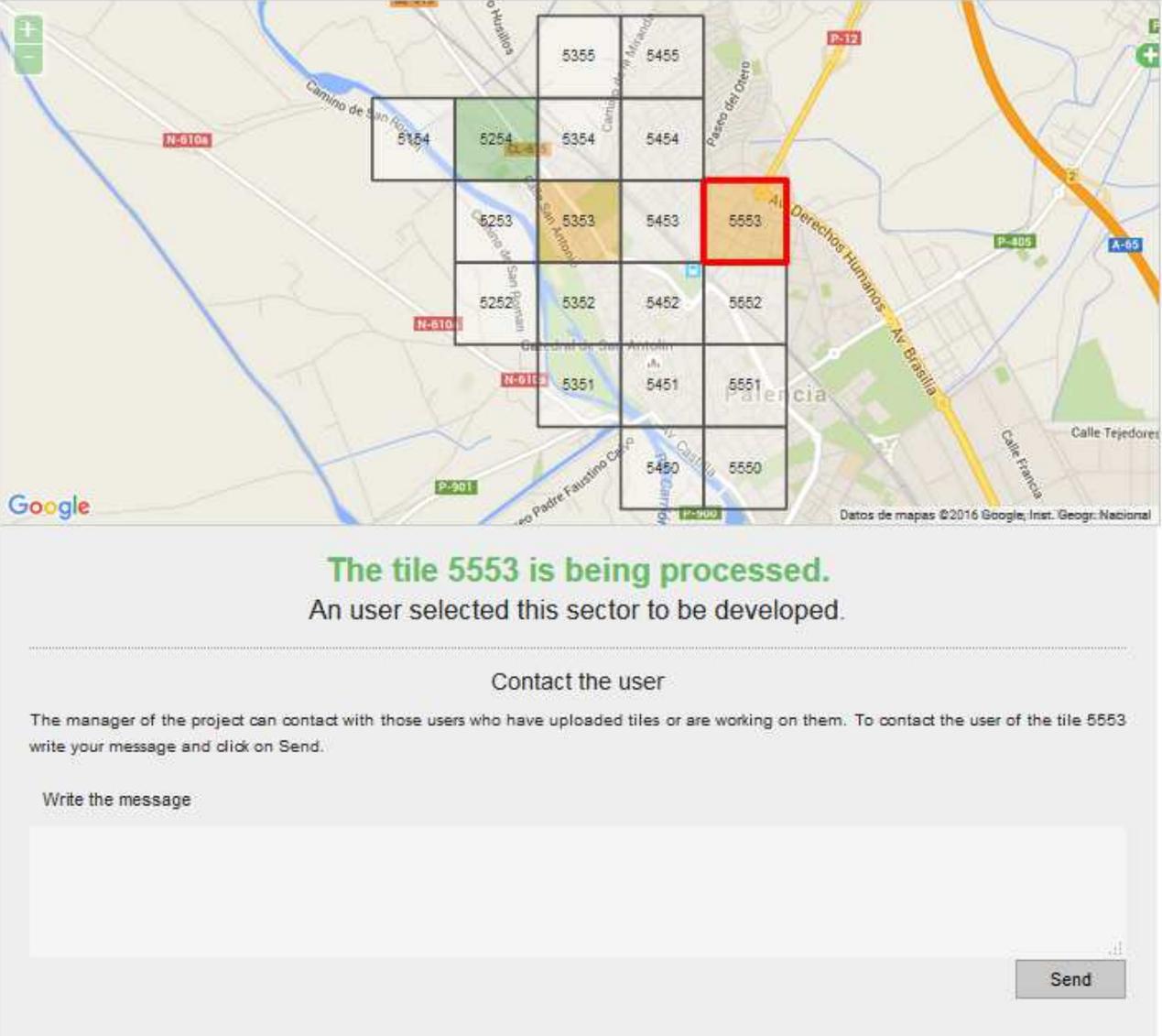
The manager has two different edition panels:

- The common edition panel. It is accessed from the huellasolar **viewer** as we have seen in the point 6.
- The private edition panel. It is accessed from the menu '**My projects**'. In this panel the user has access to the values of radiation and production that can only be edited by him. For further explanations about these variables, please check the manual of the OpenPlatform.

 In order to upload data to the map, the manager first must select a tile exactly the same as the other users and as it is explained in the point 6.

The manager has also the option to **contact with the users** who are developing tiles for the map.

To that purpose, he must go to the common edition panel and click on any of the tiles in progress. Then a contact form will be added to the information below the map.



The tile 5553 is being processed.
An user selected this sector to be developed.

Contact the user

The manager of the project can contact with those users who have uploaded tiles or are working on them. To contact the user of the tile 5553 write your message and click on Send.

Write the message

Send

In the image the manager has clicked on the tile '5553' which is being developing by other user. In this case he has a contact form where he can send a message to the user.

 On the other hand, the manager of the project can be contacted by the users interested in the project. Communications must be limited to issues referring the map and are regulated by the term and conditions as well as the privacy policy of the web.
Under any circumstance the users have access to the email of other users.