

RIAT+ Training Course



RIAT+ PRACTICAL EXERCISE: From SHERPA to RIAT+

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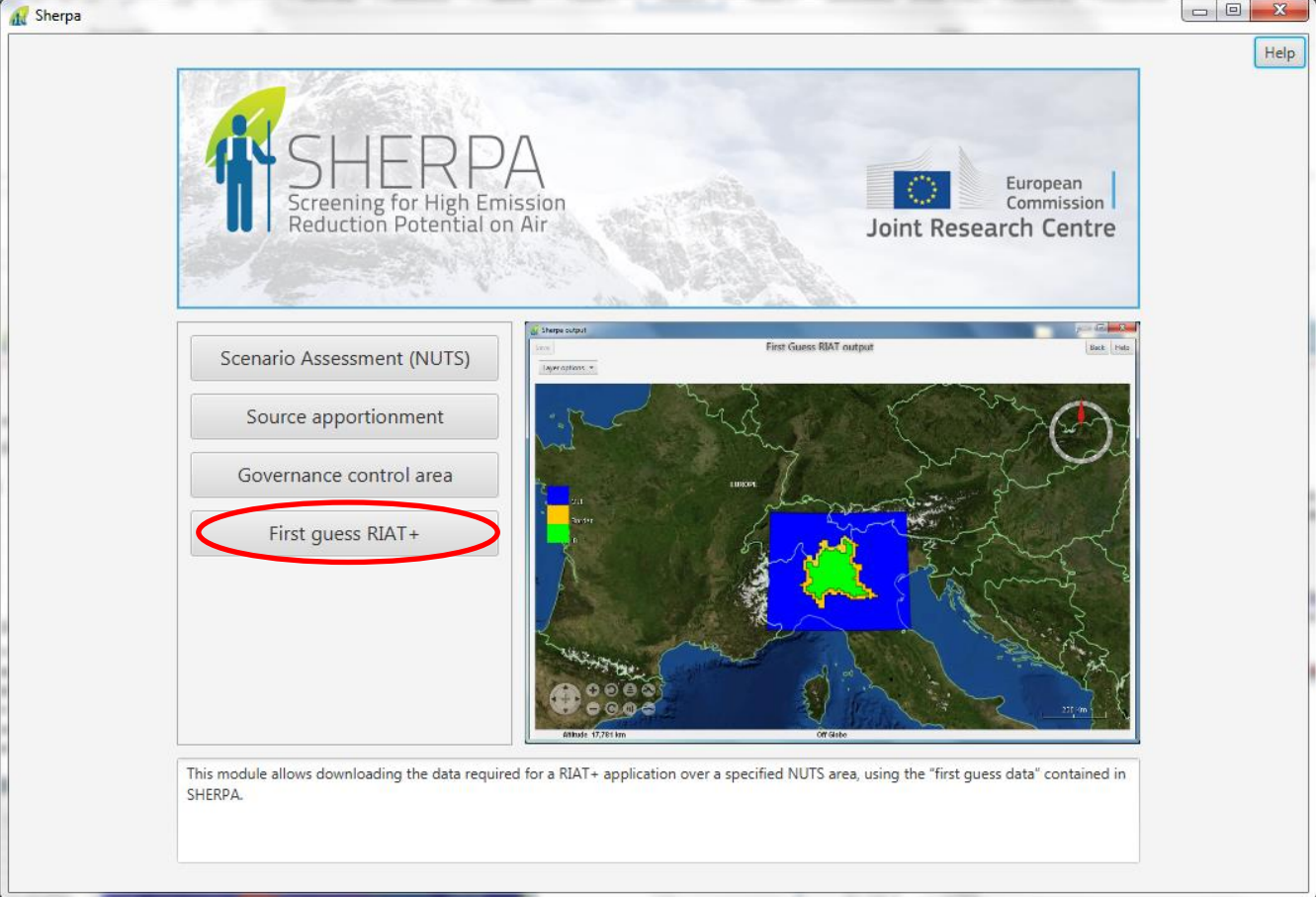
www.riatplus.eu

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First guess RIAT+ in SHERPA tool



The screenshot displays the SHERPA software interface. At the top, the SHERPA logo is shown with the text "Screening for High Emission Reduction Potential on Air" and the European Commission Joint Research Centre logo. Below the header, there is a vertical menu with four options: "Scenario Assessment (NUTS)", "Source apportionment", "Governance control area", and "First guess RIAT+", which is highlighted with a red oval. To the right of the menu is a map window titled "First Guess RIAT output" showing a map of Europe with a highlighted region in green and yellow. Below the map, there is a text box that reads: "This module allows downloading the data required for a RIAT+ application over a specified NUTS area, using the 'first guess data' contained in SHERPA."

Selection of «First guess RIAT+»

First guess RIAT+ in SHERPA tool

Select the region
(PAD in RIAT+)

Enter:

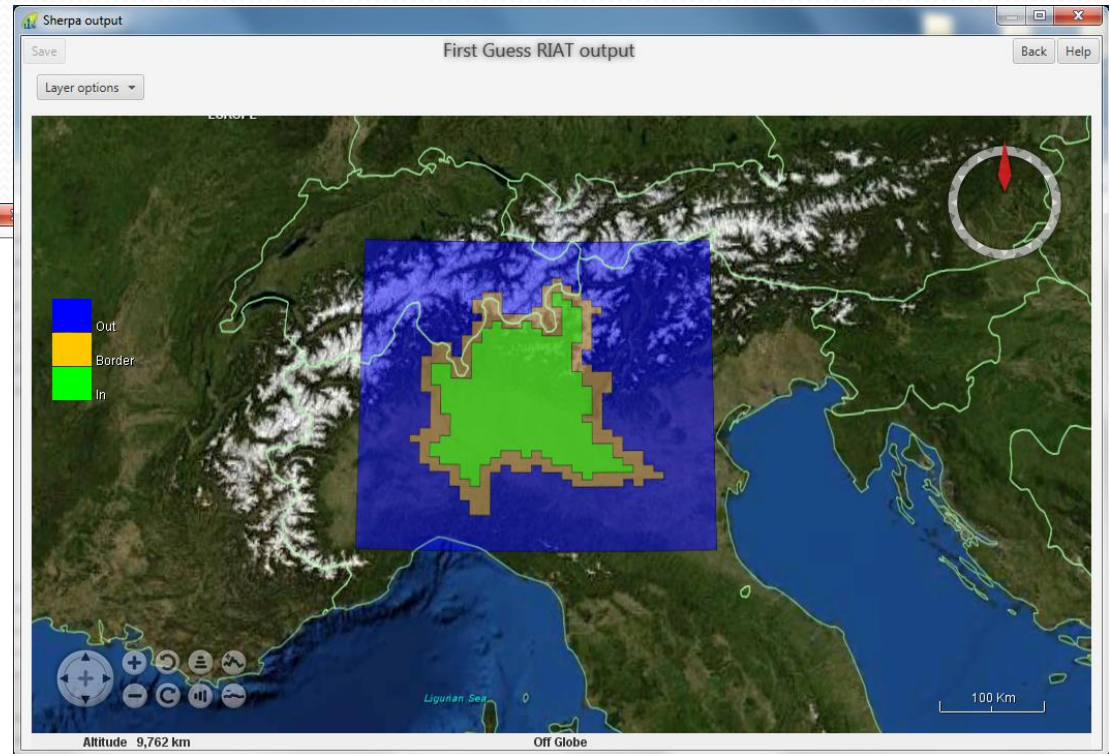
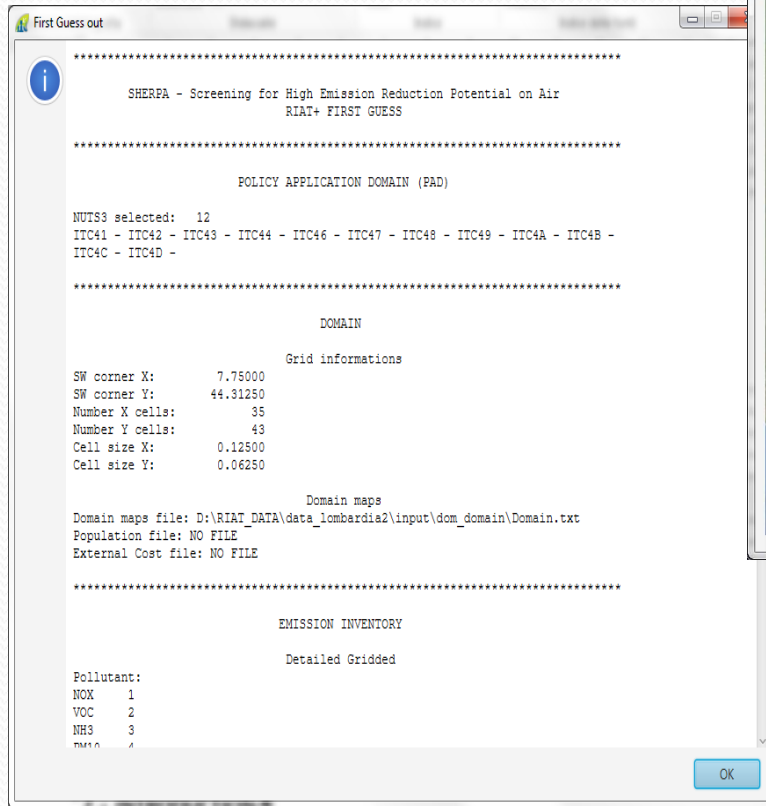
- Number of cells to enlarge the domain area
- RIAT+ data directory and the name of the Region

The screenshot shows the Sherpa software interface with the 'First Guess RIAT' window. On the left, a list of countries is visible, with 'Lombardia' selected. The map shows a red circle around the region of Lombardy. Below the map, the 'Bounding box cells' section has 'West 5', 'North 5', and 'Est 5' entered. The 'RIAT root dir' is set to 'D:\RIAT_DATA' and the 'Region name' is 'Lombardia'. A 'Map' button is circled in red.

Create the input of RIAT+

First guess RIAT+ in SHERPA tool

RIAT+ files created



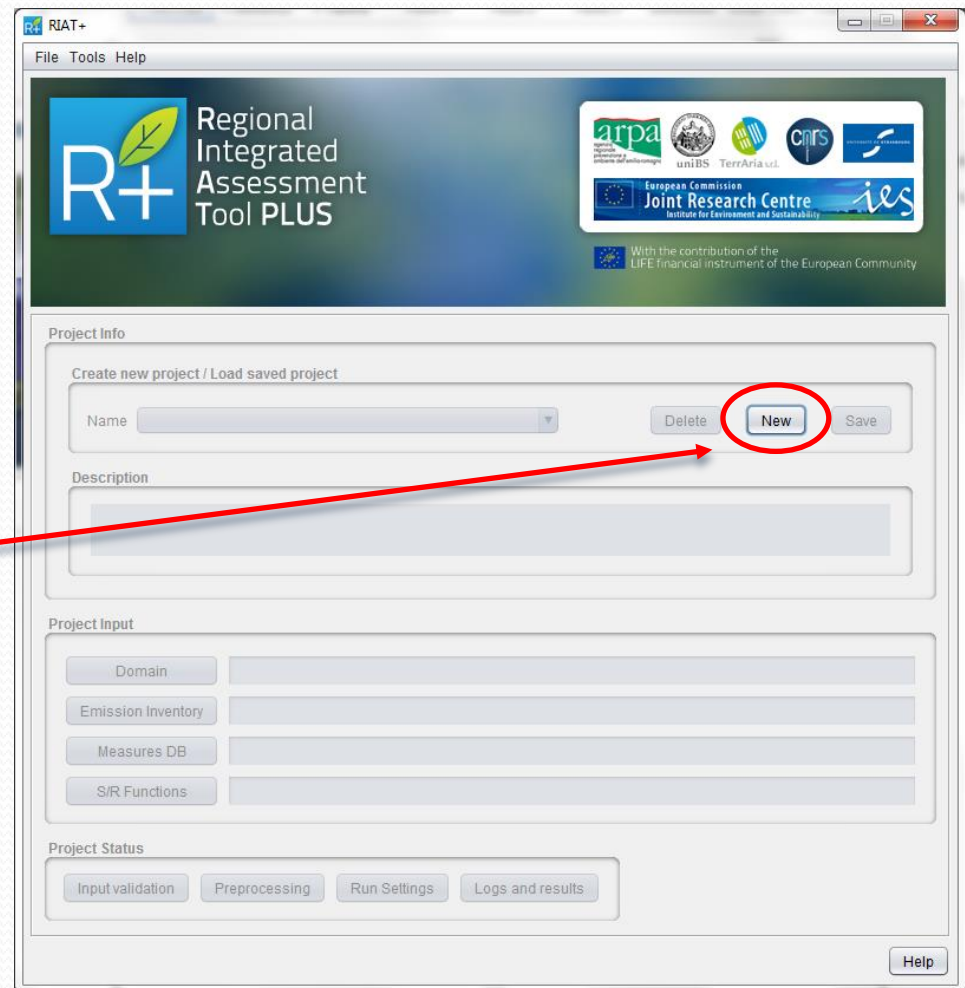
RIAT+ domain

RIAT+ tool

Now you can open RIAT+

The tool is automatically set on the new Region

Create a new Project



RIAT+ tool

RIAT+
File Tools Help

R+ Regional Integrated Assessment Tool PLUS

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Project Info

Create new project / Load saved project

Name: test [Delete] [New] [Save]

Description

[Text Area]

Project Input

Domain [Emission Inventory] [Measures DB] [SIR Functions]

Project Status

[Input validation] [Preprocessing] [Run Settings] [Logs and results]

[Help]

Domain

Domain Configuration

Name: sherpa_domain [Delete] [New] [Save]

Grid Information

Lat Lon UTM Zone N

SW corner X: 7.750000 *deg N° X cell: 35

SW corner Y: 44.3125000 *deg N° Y cell: 43

Cell size X: 1250000 *deg Cell size Y: 0625000 *deg

Domain Maps

[Domain] Domain.txt

[Add Subdomain] [Remove Subdomain]

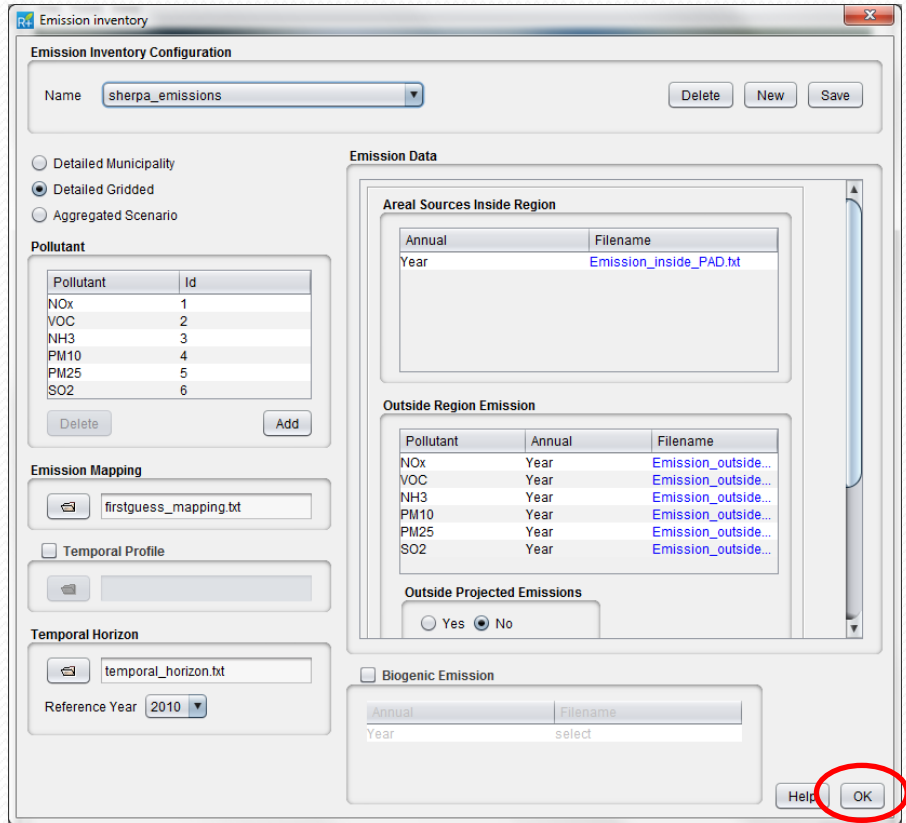
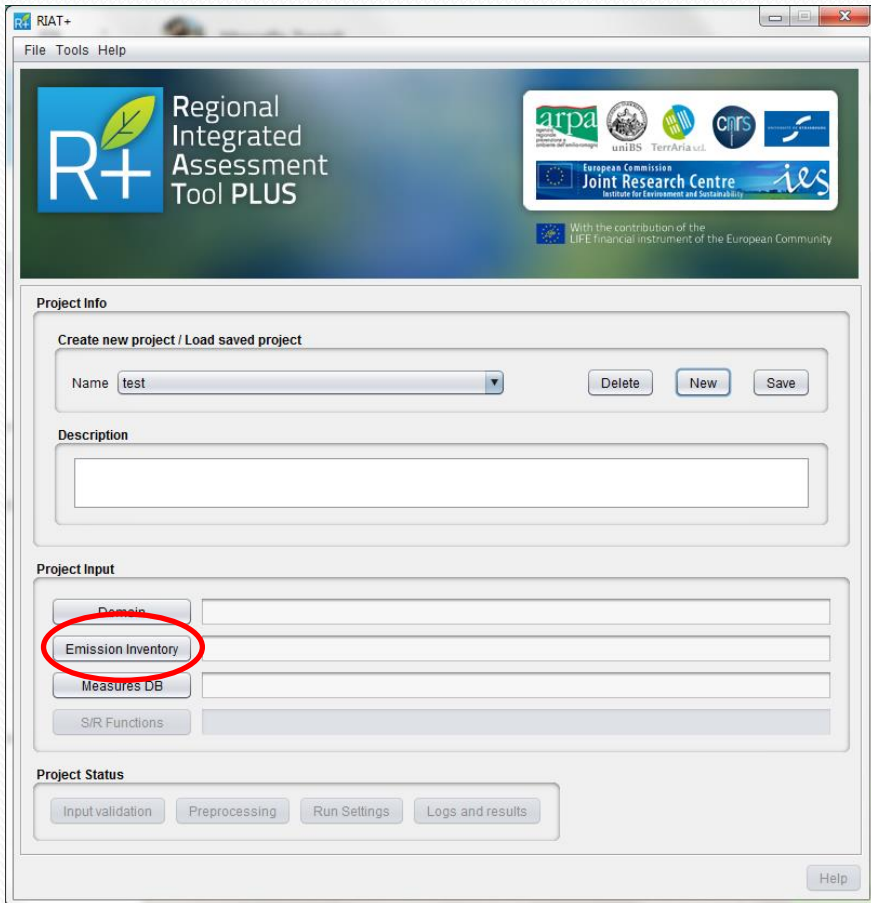
Population [Trash] [Text Field]

External Cost [Trash] [Text Field]

[Help] **OK**

Click to confirm

RIAT+ tool



Click to confirm

RIAT+ tool

RIAT+
File Tools Help

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Project Info

Create new project / Load saved project

Name test [Delete] [New] [Save]

Description

Project Input

[Domain] [Emission Inventory] [Measures DB] [SIR Functions]

Project Status

[Input validation] [Preprocessing] [Run Settings] [Logs and results]

Help

Measures DB

Measures DB Configuration

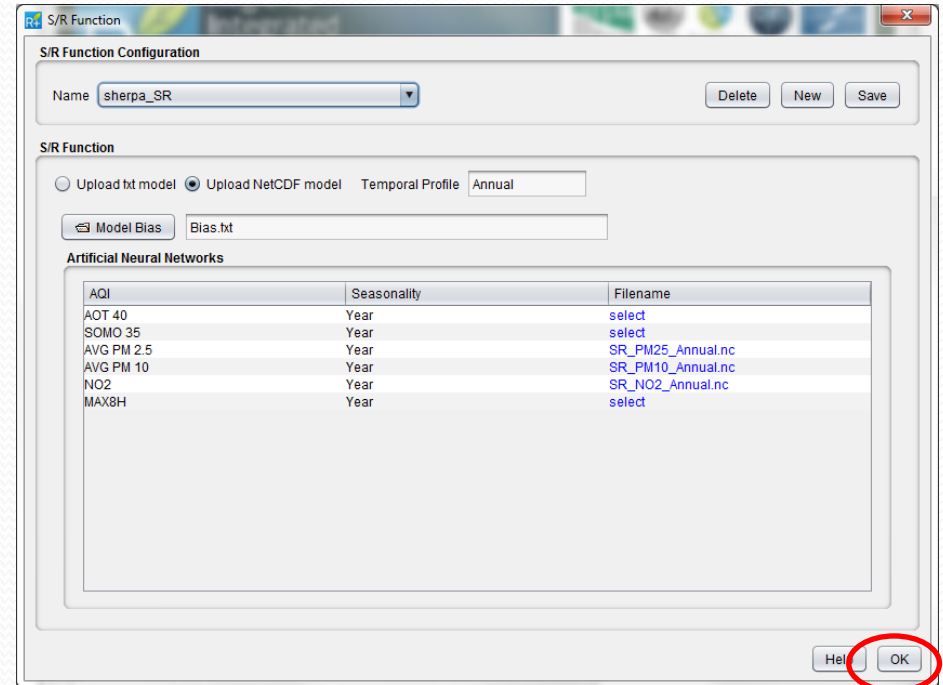
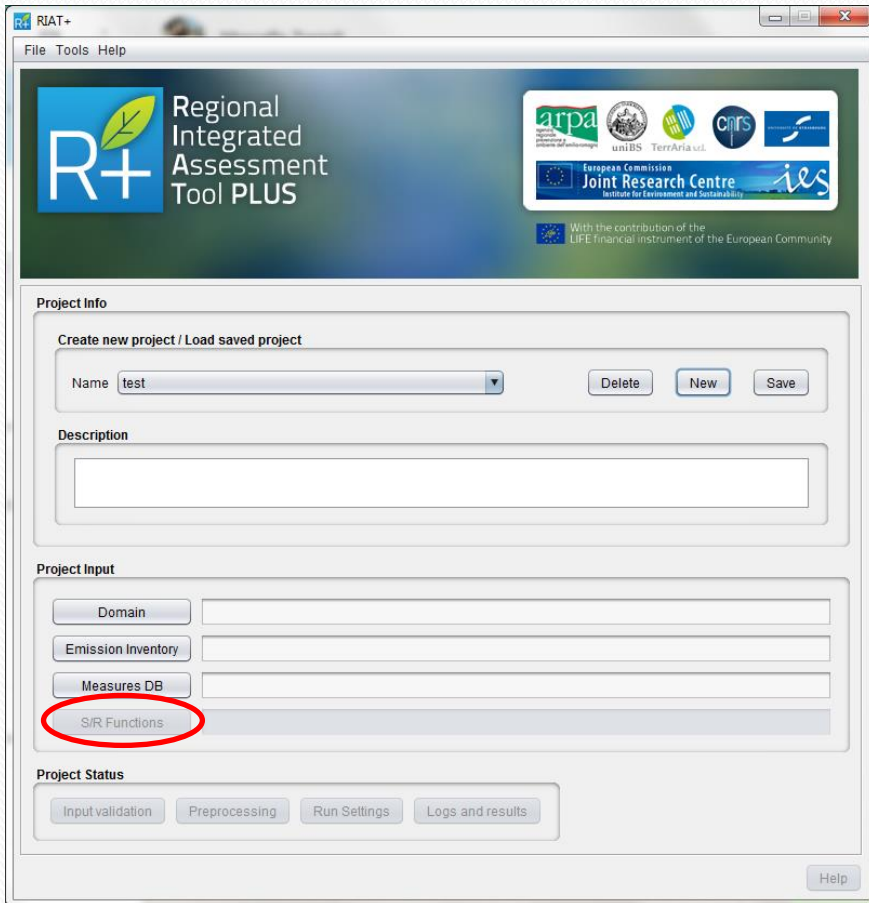
Name sherpa_dbgains [Delete] [New] [Save]

Measures DB ITAL_ExportDB.xlsx

[Add / Edit Measures] [Edit Activity] [Help] [OK]

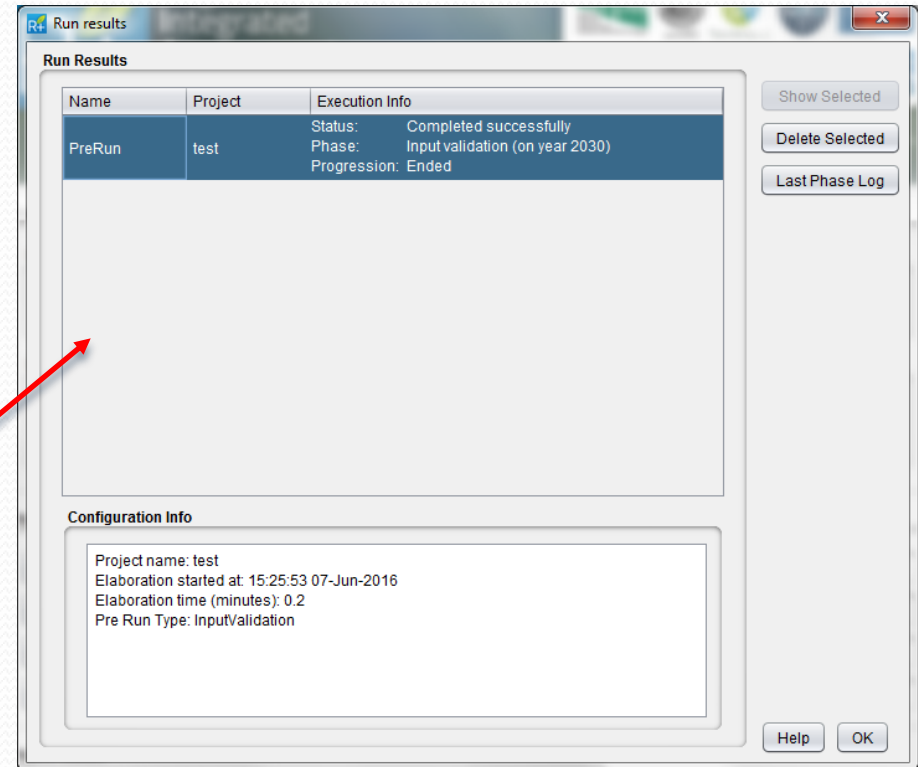
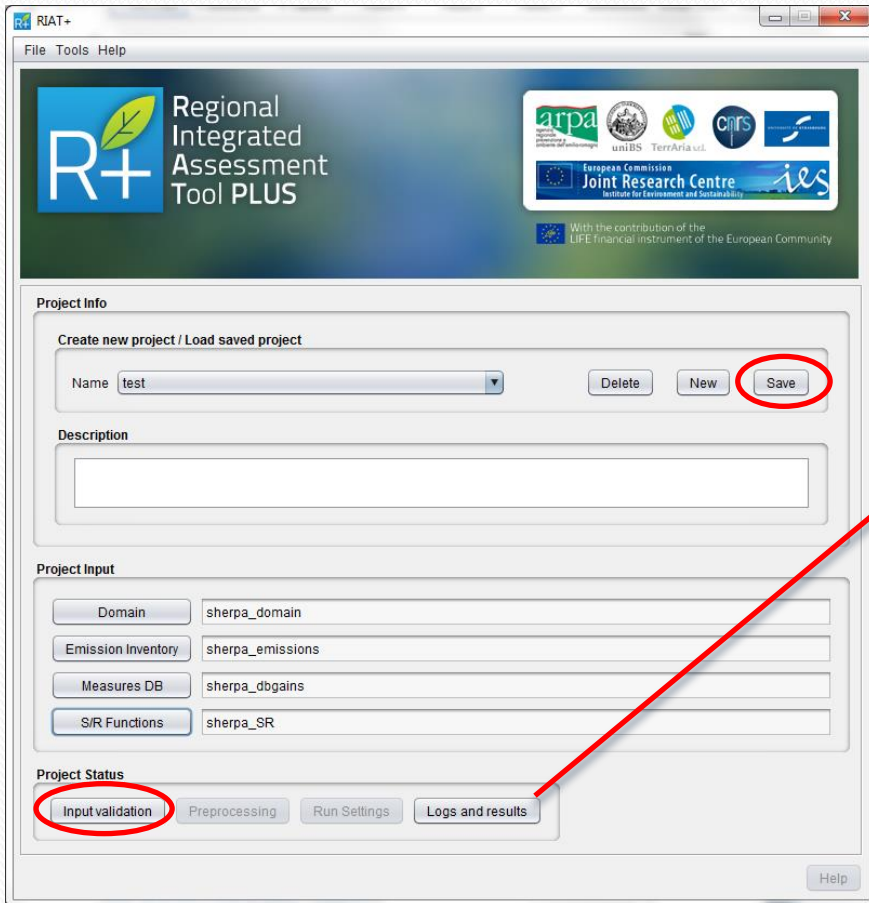
Click to confirm

RIAT+ tool



Click to confirm

RIAT+ tool



With «Log and Results» button, the user can check the progression of the process

Save the project and validate input data
(it verifies the input data coherence)

RIAT+ tool

Run Settings

Run Name

Decision Approach

- Cost Effectiveness
- Multi Objective
- Scenario Detailed
- Scenario Aggregated

Cost Constraint

Internal Cost Over CLE (M€)

Technology Replacement

Yes No

Air Quality Objective

PM

- AVG PM 2.5
- PM 10

AVG

a b

None

Ozone

- AOT 40
- SOMO 35
- MAX O3 8H
- None

NO2

- AVG NO2
- None

Weight

Type

AOT 40

SOMO 35

MAX O3 8H

AVG PM 2.5

AVG PM 10

AVG NO2

Exceed PM 10

Year Opt In Scenario AR

Spatial AQI Aggregation

Above (value)

AOT 40	Domain AVG	<input type="text" value="30000"/>
SOMO 35	Domain AVG	<input type="text" value="3000"/>
MAX O3 8H	Domain AVG	<input type="text" value="15"/>
AVG PM 2.5	Domain AVG	<input type="text" value="15"/>
AVG PM 10	Domain AVG	<input type="text" value="15"/>
AVG NO2	Domain AVG	<input type="text" value="15"/>
Exceed PM 10	Domain AVG	<input type="text" value="35"/>

Budget Constraint

Non technical

Yes No

Policy Application Domain

Subdomain

PAD	AQI Target	Name
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Region

Buttons: Help Run Run Results

At the c

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