

## 4 – ERA-CLIM2 Global Registry

Development of a global registry (Metadata-base) that can list sources of historical meteorological observations useful for Reanalyses, including surface, upper air, maritime and other relevant data







### Provide a valuable information tool for data rescue community

- Avoid duplication of efforts (inventoring, imaging, digitising)
- Compilation of inventories from large data rescue projects and recently digitised data, such as ERA-CLIM, ISPD, ISTI, ECA&D, ICA&D, ICOADS, CHUAN, IGRA, IEDRO, ACRE (several regional data rescue initiatives) ,etc. and I-DARE (WMO Portal for Data Rescue).
- A Metadata Base tool was developed by UBERN for ERA-CLIM that includes surface, upper air and transmission records. It is on-line ([http://www.oeschger-data.unibe.ch/metads/index.php?\\_site=dataset&item-id=ds\\_eraclim\\_surf](http://www.oeschger-data.unibe.ch/metads/index.php?_site=dataset&item-id=ds_eraclim_surf)) and is editable – new records can be added (Stickler et al, 2014, BAMS) and contains the official ERA-CLIM inventories.

# Example of ERA-CLIM Metadata-Base (surface stations)

## Overview of: Surface station (ERACLIM)

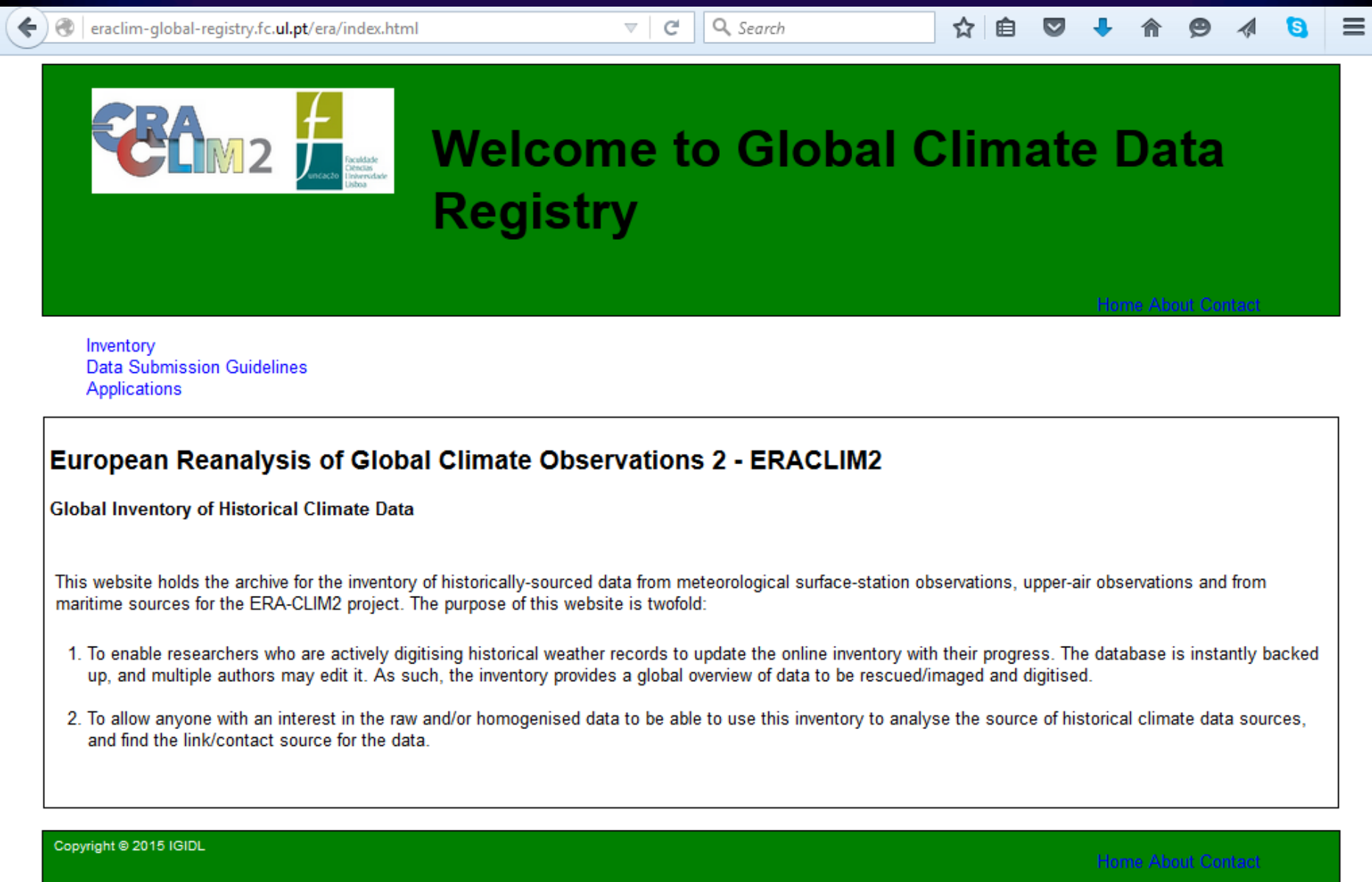
go to

	Label	UID	Contact data	Surface station	Period data	Instruments	Priority	Linked File/Directory
ID: 349667   	import ds_eraclim_surf #0001 at 20140602T151450	19	Group: FFCUL Contact person: Maria_Antónia_Valente Data owner: CLIMAAT/InterregIIIb	WMO#: 85110 Source: CLIMAAT/InterregIIIb_online Station name: Angra_do_Heroísmo Classification 1: Main_Classical_Station Classification 2: Coastal_Station Classification 3: Terceira/Azores Location (geogr): <a href="#">27.23°W / 38.65°N / 45 masl</a>	Operation period: 1864/1 – 2011/12 Record period: 1902/1 – 1952/12 Time resolution: 5 xdaily Estimated station days: 18628	#: <a href="#">9</a>	high	<a href="#">FFCUL/Angra 1902-1905/</a>
ID: 349680   	import ds_eraclim_surf #0002 at 20140602T151451	11	Group: FFCUL Contact person: Maria_Antónia_Valente Data owner: IDL	WMO#: 85490 Source: Coimbra_Geophysical_Institute_Publications_and_Instituto_de_Meteorologia_digital_database Station name: Coimbra/Geofisico Classification 1: Urban/Main_Classical_Station Classification 2: Interior_region Classification 3: Coimbra_Suburbs Location (geogr): <a href="#">8.42°W / 40.21°N / 140 masl</a>	Operation period: 1864/1 – 2011/12 Record period: 1864/1 – 2007/12 Time resolution:	#: <a href="#">10</a>	medium	[-]

The source code for the UBERN tool proved difficult to adapt to include new inventories.

FFCUL produced a new code in html, php and JavaScript, using the dhtmlxGrid package (ref.) (ideal for editable tables in websites). Much of the previous ERA-CLIM Metadata-base information was retained and the inventories were uploaded and adapted to the new software.

# [eraclim-global-registry.fc.ul.pt/era/index.html](http://eraclim-global-registry.fc.ul.pt/era/index.html) the new prototype ERA-CLIM2 metadata database tool



The screenshot shows a web browser window with the address bar containing the URL [eraclim-global-registry.fc.ul.pt/era/index.html](http://eraclim-global-registry.fc.ul.pt/era/index.html). The browser's toolbar includes navigation buttons (back, forward, refresh), a search bar, and various utility icons (star, print, download, home, etc.).

The website's main header features a green background. On the left, there is a logo for ERA-CLIM2 and the Faculty of Sciences, University of Lisbon (FCUL). The main text on the green background reads "Welcome to Global Climate Data Registry". In the bottom right corner of this green area, there are links for "Home About Contact".

Below the green header, there are three blue links: "Inventory", "Data Submission Guidelines", and "Applications".

The main content area is enclosed in a white box with a black border. It features a section titled "European Reanalysis of Global Climate Observations 2 - ERACLIM2". Underneath this title is the subtitle "Global Inventory of Historical Climate Data".

The text in this section states: "This website holds the archive for the inventory of historically-sourced data from meteorological surface-station observations, upper-air observations and from maritime sources for the ERA-CLIM2 project. The purpose of this website is twofold:"

1. To enable researchers who are actively digitising historical weather records to update the online inventory with their progress. The database is instantly backed up, and multiple authors may edit it. As such, the inventory provides a global overview of data to be rescued/imaged and digitised.
2. To allow anyone with an interest in the raw and/or homogenised data to be able to use this inventory to analyse the source of historical climate data sources, and find the link/contact source for the data.

At the bottom of the page, there is a green footer bar. On the left, it contains the text "Copyright © 2015 IGIDL". On the right, it contains the links "Home About Contact".

Click on **Inventory**, then chose the type of inventory

The screenshot shows a web browser window with the URL `eraclim-global-registry.fc.ul.pt/era/inventory.php`. The page features a green header with the CRA CLIM2 logo and the text "Global Climate Data Registry Inventory". Below the header, there are navigation links for "Home", "About", and "Contact". A list of data types is provided: "Surface Data", "Upper Air Data", "Moving Upper Air Data", and "Maritime Data". At the bottom of the page, there is a copyright notice for 2015 IGIDL and another set of "Home", "About", and "Contact" links.

Chosing **Surface Data** or another type of inventory, leads to the user/password login webpage

The screenshot shows a login page with the URL `eraclim-global-registry.fc.ul.pt/era/surfacedata.php`. The page contains the text "Please enter password to access this page". Below this, there are two input fields labeled "Login:" and "Password:", followed by a "Submit" button. The login credentials are: Login: `idl`, Password: `lisbon`.

# Should lead to this page - surface inventory already includes ISPD version4



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11	IDL	66390	Sa da Bandeira	Anoala	13.5	-14.88	1826	01/01/1953	31/12/1974	3	6940	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
5	IDL	9999	Lobito	Angola	13.33	-12.37	1	01/01/1953	31/12/1974	3	6940	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	gap for the 1969-1970 years	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	IDL	66160	Luanda	Angola	13.22	-8.81	42	01/01/1947	31/12/1974	3	9131	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	gap for the 1969-1970 years	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	IDL	9999	Malange	Angola	16.37	-9.33	1193	01/01/1953	31/12/1974	3	6940	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	gap for the 1969-1970 years	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	IDL	66407	Mavinga	Angola	20.35	-15.83	1188	01/01/1953	31/12/1974	3	6940	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	gap for the 1969-1970 years	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	IDL	66422	Mossamedes	Angola	12.15	-15.2	3	01/01/1953	31/12/1974	3	6940	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	gap for the 1969-1970 years	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	IDL	66318	Nova Lisboa	Angola	15.75	-12.8	1200	01/01/1953	31/12/1974	3	6940	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	gap for the 1969-1970 years	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	IDL	66390	Sa da Bandeira	Angola	13.5	-14.88	1826	01/01/1953	31/12/1974	3	6940	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	gap for the 1969-1970 years	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Clicking on the altitude of each station will show a map with the station's location (e.g. Trappes where radiosonde data has been rescued)

The image is a screenshot of a web browser displaying Google Maps. The address bar shows the URL: [https://www.google.com/maps/place/48°46'12.0"N+2°00'36.0"E/@48.7699981,1.992490](https://www.google.com/maps/place/48°46'12.0). The browser's tab bar includes several open tabs: "Aplicações", "Submit a manuscip...", "Watch Scars (2006) ...", "Dig Wattpad App | U...", and "DIG: The Official Pre...".

The Google Maps interface features a search bar at the top left with the coordinates "48°46'12.0"N 2°00'36.0"E" and a search icon. Below the search bar is a blue banner with a cityscape illustration, the same coordinates, and a "Directions" button. At the bottom of this banner are four icons: "SAVE", "NEARBY", "SEND TO YOUR PHONE", and "SHARE".

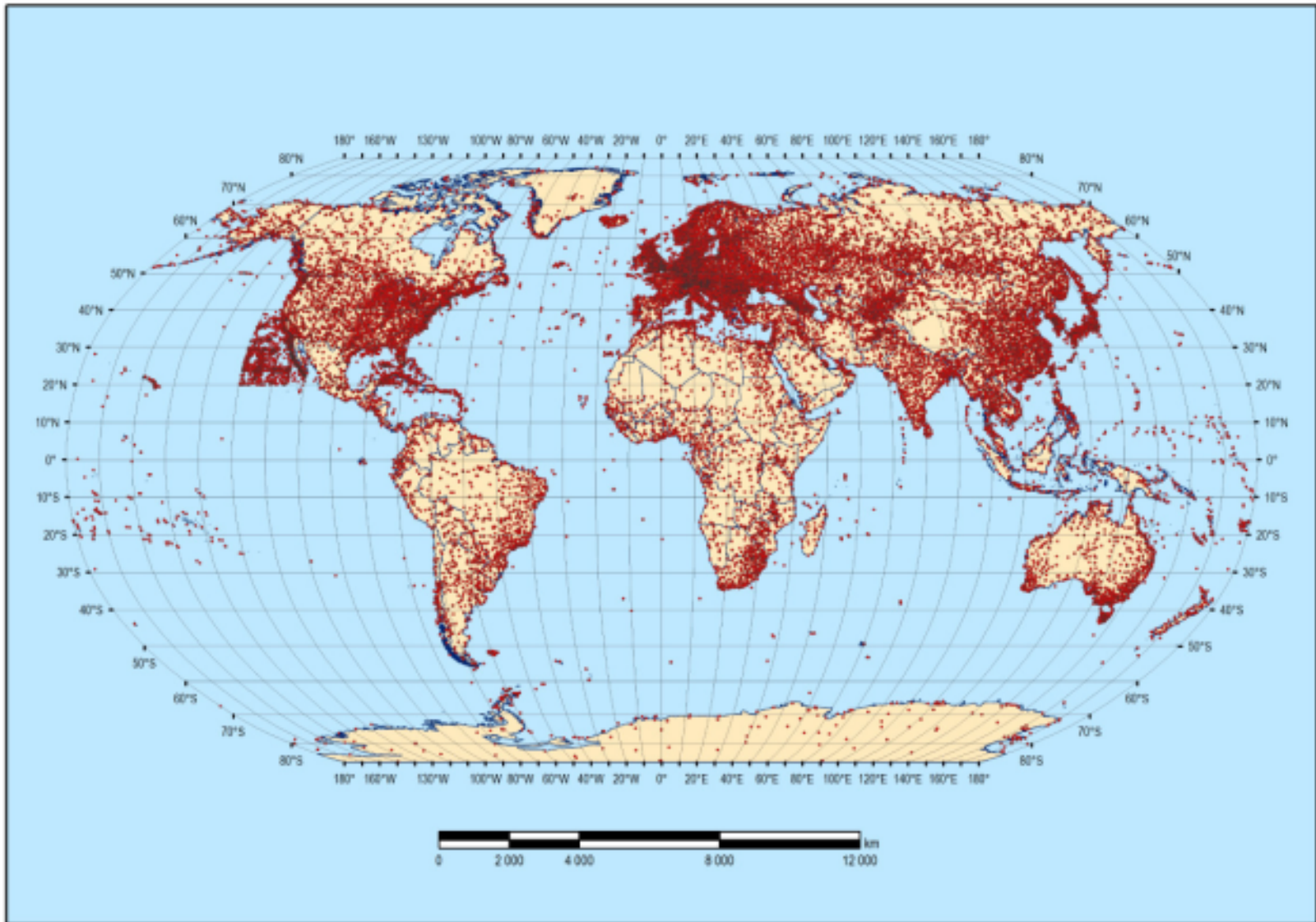
The main map area shows a street view of Trappes, France, with a red location pin. Visible streets include "Rue de Montfort", "Rue Jean Zay", "Allée des maria", "Av des Prés", and "Av du Parc". Road markers for "D912", "D23", "D36", and "N10" are present. The map also shows "SAINT-QUENTIN EN YVELINES" and a "Satellite" inset in the bottom left. The Google logo and a scale bar (2000 ft) are at the bottom right. Map data is attributed to ©2015 Google.





## All stations to be included in ISPD version4

We have received their inventory, and have attributed a country to every point, so that the listing by country can be performed





# ERA-CLIM2 Global Registry

We are after the possibility of having the inventory management included in the Climate Change **COPERNICUS** services, won by the **ECMWF**. IDL will apply with this prototype to an eventual future call on observations services.

Much work has yet to be done on the Global Registry:

Change the database to SQL to **speed** the loading of inventories, allow interactive use by registered users (input data, under strict management control), export inventories with chosen stations for user download, visualisation improvements.

And obtain other inventories to add to the existing ones, related basically with ERA-CLIM2

We are completely open to suggestions from the ERA-CLIM2 community and willing to discuss this tool.