

ArcGIS Online: publishing geospatial data to the web using the EEA infrastructure

Introduction

ArcGIS Online is a workspace and a web platform for creating and sharing maps.

It is possible to upload your data, create a layer or a map, define the extent, set some visualization options, assign permissions to your layer or map, share, and create web mapping applications or story maps.

This document will focus on the uploading data and publishing to the web capabilities of ArcGIS Online.

For information about the other capabilities please visit <http://doc.arcgis.com/en/arcgis-online/> or contact someone at IDM3.

IMPORTANT: when to use ArcGIS Online to publish geospatial data

The ArcGIS online platform is designed to host small datasets, for example demographic datasets. The EEA requires that datasets uploaded to ArcGIS online are relatively small in size, and should not exceed 1-2MB, or around 5000 records. This is to keep the agencies costs down and keep in line with our ArcGIS online pricing plan. It is for this reason that ArcGIS online should not be used to host large datasets, and tiled image services must NOT be uploaded to ArcGIS online.

To publish bigger datasets and image services, please refer to the ArcGIS Server: [publishing geospatial data to the web using the EEA infrastructure document](#).

To be able to upload to the EEA, first you need to be given access rights. To gain access rights you should email your EEA project manager and CC Sebastien Petit (Sebastien.Petit@eea.europa.eu) stating your Eionet account and /or ArcGIS online account username, to gain access rights.

ArcGIS Online Publishing Explained

ArcGIS online is used by the EEA and its partners to produce and manage web maps. Web maps can bring a number of web services together. These can then be saved and wrapped around a graphic user interface to produce online galleries and other views. They can then be consumed by end users who may want to present them in meetings, conferences etc. These web maps are hosted by the cloud, and can be re-used inside web sites or mobile devices. ArcGIS online also organises EEA applications and services into a number of groups relevant for their content (for example BISE, Natura2000).

ArcGIS online can be managed comfortably by regular users without development skills, once a level of technical familiarity is reached.

Small sized GIS datasets including Excel, CSV-files, KML or shapefiles (as well as script tools, models, etc.) can also be uploaded to ArcGIS online, where they can be shared with other organisations, groups and users.

For further information about how to add items to ArcGIS Online please check:

<http://doc.arcgis.com/en/arcgis-online/share-maps/add-items.htm>

How to add metadata

It is possible to add metadata easily to those items once they are published on ArcGIS Online by accessing the item information.

The screenshot shows the ArcGIS Online interface for an item titled "Article17_Consultation_Habitats_Map_WM". The page has a blue header with the title and an "Edit" link. Below the header are three tabs: "Overview", "Usage", and "Settings". The "Overview" tab is active, showing a thumbnail of a map of Europe with a red overlay, a brief summary, the user "orbeirat_eea", the last modified date "July 28, 2016", and a "Map Image Layer" icon. On the right side, there is a vertical list of buttons: "Open in Map Viewer", "Open in Scene Viewer", "Open in ArcGIS for Desk...", "Share", and "Metadata". The "Metadata" button is highlighted with a red rectangular border. Below the thumbnail, there is a section for "Description" with an "Edit" link.

Article17_Consultation_Habitats_Map_WM
✕

Validate
Save
Save & Close
Save Local Copy
Open
Close

Resource
Quality
Distribution
Representation
Content
Fields
Reference
Metadata

Citation
Details
Keywords
Extent
Contact
Maintenance
Constraints
Additional

Titles & Dates
URLs
Identifiers
Form
Other
Contact

Title*

Alternate Title

Collective Title

Creation Date

EEA's ArcGIS Online metadata follows the INSPIRE Metadata Directive. There is some information that must be filled. The mandatory information is in the Resource tab.

Resource	Quality	Distribution	Representation	Content	Fields	Reference	Metadata
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Citation	Details	Keywords	Extent	Contact	Maintenance	Constraints	Additional
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Description	Language	Status	Representation	Resolution
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Description (Abstract)*

[Edit...](#)

Summary (Purpose)

The **description, summary and credits** are needed in the **Details>Description** section, also **Keywords** are required.

Previous detailed information is mandatory; however all the provided information will be valuable. Once the metadata has been added it is possible to validate it.

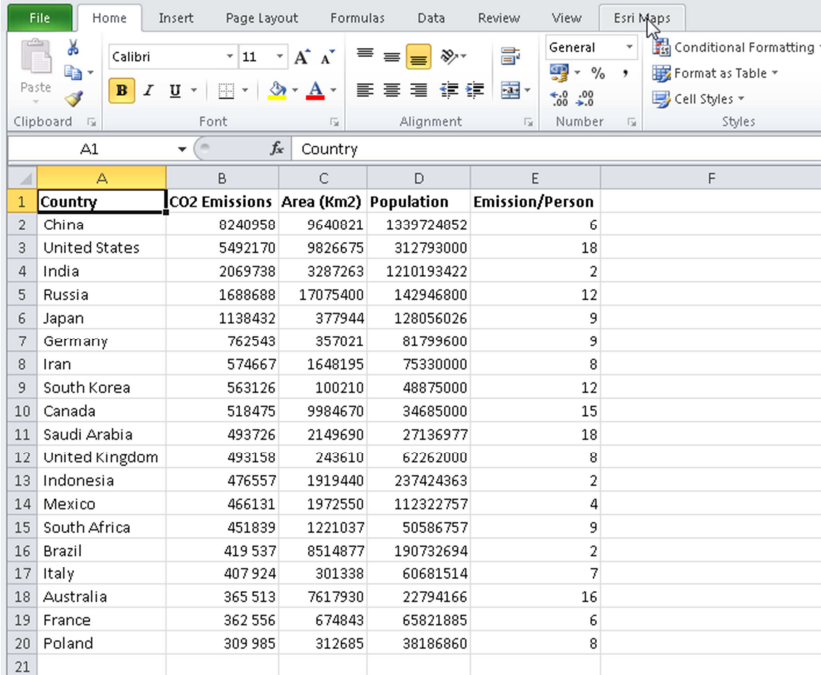
[A brief guide on uploading demographic data to ArcGIS online using ArcGIS for Office extension](#)

This guide will show you how to use the Esri Maps extension for Microsoft Office (In this example Excel) to produce and share web maps and simple web feature services.

1. Obtain membership to the EEA organisation by receiving an invite from our administrators (once you have registered an ArcGIS online account). This will allow you to publish content to the EEA sub site.
2. Download the 32-bit or 64-bit Esri Maps for Office 2010 or later extension here <http://www.esri.com/software/esri-maps-for-office/download>
3. Install the software. This may require you to have an administrator grant you access (contact helpdesk).

4. Esri Maps for Office has to be configured to login to the Organization URL. Go to File->Esri Maps and change the ArcGIS Connection URL to match your organization (<https://eea.maps.arcgis.com>). This option can also be set for the installation settings.

5. Load Microsoft Excel and create your table, when you are finished click the **Esri Maps** button.



	A	B	C	D	E	F
	Country	CO2 Emissions	Area (Km2)	Population	Emission/Person	
1	Country	CO2 Emissions	Area (Km2)	Population	Emission/Person	
2	China	8240958	9640821	1339724852	6	
3	United States	5492170	9826675	312793000	18	
4	India	2069738	3287263	1210193422	2	
5	Russia	1688688	17075400	142946800	12	
6	Japan	1138432	377944	128056026	9	
7	Germany	762543	357021	81799600	9	
8	Iran	574667	1648195	75330000	8	
9	South Korea	563126	100210	48875000	12	
10	Canada	518475	9984670	34685000	15	
11	Saudi Arabia	493726	2149690	27136977	18	
12	United Kingdom	493158	243610	62262000	8	
13	Indonesia	476557	1919440	237424363	2	
14	Mexico	466131	1972550	112322757	4	
15	South Africa	451839	1221037	50586757	9	
16	Brazil	419 537	8514877	190732694	2	
17	Italy	407 924	301338	60681514	7	
18	Australia	365 513	7617930	22794166	16	
19	France	362 556	674843	65821885	6	
20	Poland	309 985	312685	38186860	8	
21						

6. Clicking on the **Insert Map** button will bring up a sign-in request. Sign in using your ArcGIS online credentials

Country	CO2 Emissions	Area (Km2)	Population	Emission/Person
China	8240958	9640821	1339724852	6
United States	5492170	9826675	312793000	18
India	2069738	3287263	1210193422	2
Russia	1688688	17075400	142946800	12
Japan	1138432	377944	128056026	9
Germany	762543	357021	81799600	9
Iran	574667	1648195	75330000	8
South Korea	518475	100000	5000000	2
Canada	518475	100000	5000000	2
Saudi Arabia	493726	100000	5000000	2
United Kingdom	493158	100000	5000000	2
Indonesia	476557	100000	5000000	2
Mexico	466131	100000	5000000	2
South Africa	451839	100000	5000000	2
Brazil	419537	100000	5000000	2
Italy	407924	100000	5000000	2
Australia	365513	100000	5000000	2
France	362556	100000	5000000	2
Poland	309985	100000	5000000	2

7. Once logged in you should click on the **Add Excel Data** button. If you have the table open chose Cell Range, and drag over the cells you want to map.

8. Next you can select the Location Type from the applet box based on the demographic data you are mapping (e.g. Countries, cities, states) - for later – how to create your own selection datasets (e.g. bioregions – whatever you want).

Location Type

How is location represented in your data?

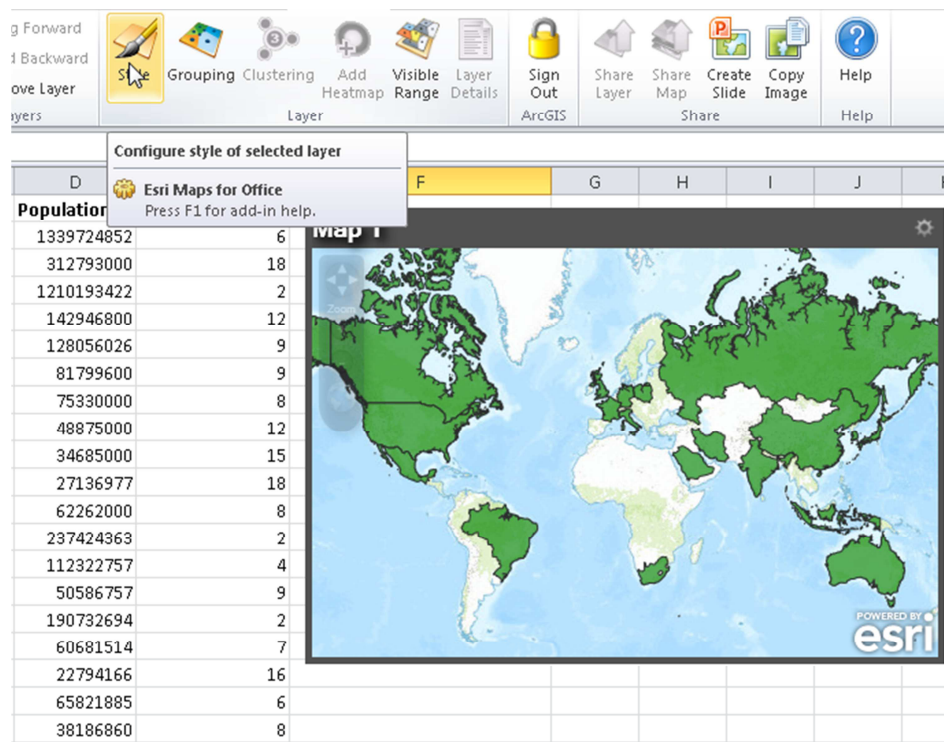
- Address
- Latitude, Longitude
- US City
- US State
- US ZIP Code
- World City
- Country

Current Selection: SA\$1:\$E\$20 (Change selection)

Next

9. Proceed to **Next** and **Add Your Data to the Map**

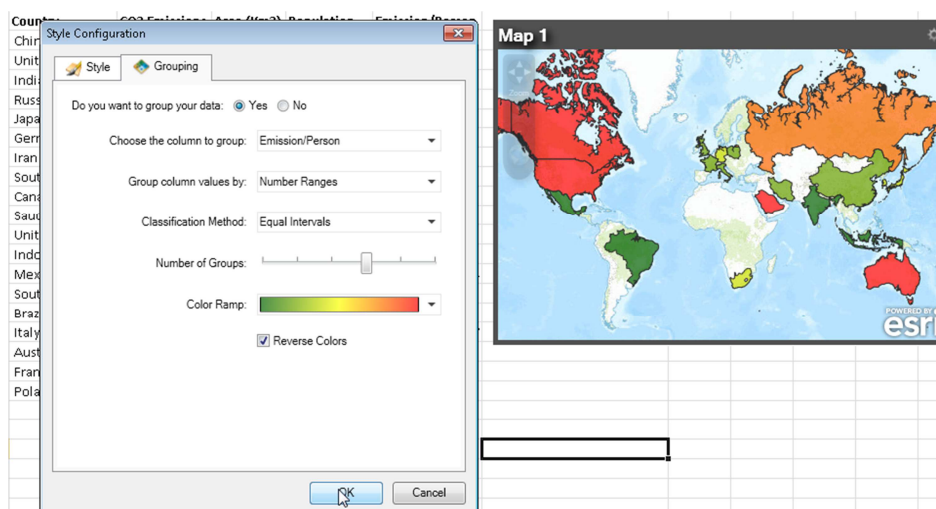
10. Esri Maps will now process for a few seconds to add your data to the base map. At this point you can click on the **Style** button to change your symbology to display according to the tabular data



The screenshot shows the Esri Maps for Office interface. At the top is a toolbar with icons for Forward, Backward, Layer, Grouping, Clustering, Add, Heatmap, Visible Range, Layer Details, Sign Out, Share Layer, Share Map, Create Slide, Copy Image, and Help. Below the toolbar is a table with two columns: 'Population' and a numerical column. The table contains 18 rows of data. To the right of the table is a world map showing the continents colored in shades of green. A 'Style' button is visible in the top left corner of the map area.

Population	
1339724852	6
312793000	18
1210193422	2
142946800	12
128056026	9
81799600	9
75330000	8
48875000	12
34685000	15
27136977	18
62262000	8
237424363	2
112322757	4
50586757	9
190732694	2
60681514	7
22794166	16
65821885	6
38186860	8

11. Once you are satisfied with the Style Configuration, press OK

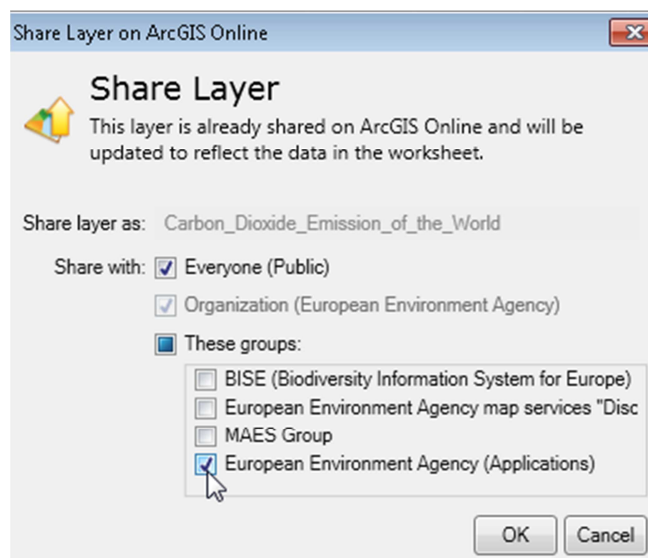


The screenshot shows the 'Style Configuration' dialog box with the 'Style' tab selected. The dialog box contains the following settings: 'Do you want to group your data?' set to 'Yes', 'Choose the column to group:' set to 'Emission/Person', 'Group column values by:' set to 'Number Ranges', 'Classification Method:' set to 'Equal Intervals', 'Number of Groups:' set to 5, 'Color Ramp:' set to a red-to-yellow gradient, and 'Reverse Colors' checked. To the right of the dialog box is a world map showing the continents colored in shades of red and orange. A 'Map 1' window is also visible in the background.

12. Note that there are many ways in which you can customise your maps. A good online reference can be found here <http://resources.arcgis.com/en/help/esri-maps-office/index.html#/029300000026000000>

13. When you are satisfied with your map, you can share it as a layer. Note that you will only have the option of sharing layers and publishing your maps if you are given publisher privileges. If your **Share Layer** and **Share Map** buttons are greyed out you can contact Sebastien Petit at the Agency to ask for temporary publisher permissions.

14. To share your data as a web feature service click on **Share Layer** and give your layer an appropriate name. Here you can select which organisations and groups you wish to share the data with. Making your data publically available will mean that anyone can consume it, even without an ArcGIS online account.



15. In a similar way you can click on **Share Map** to upload your maps to ArcGIS Online as web maps.

Share Map on ArcGIS Online

Share map

Enter the map details to be shared on ArcGIS Online.

Title: Carbon Emissions per Capita of the World

Tags: CO2, Green House Gasses, Environment, EEA

Description: This map represents CO2 Emissions per Capita for a selectic

Share with: ☒ Everyone (Public)
☒ Organization (European Environment Agency)
☒ These groups:

- ☐ BISE (Biodiversity Information System for Europe)
- ☐ European Environment Agency map services "Discor
- ☐ MAES Group
- ☒ European Environment Agency (Applications)

Next

16. Now when you log into the ArcGIS online site you should be able to see the uploaded feature service and map in your 'My Content' tab.