

# 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 item name and an "Edit" link. Below the header are three tabs: "Overview", "Usage", and "Settings". The main content area is divided into several sections:

- Thumbnail:** A map of Europe with a color-coded overlay. Above it is an "Edit Thumbnail" link. Below it is an "Add to Favorites" button.
- Description:** A text field containing "Add a brief summary about this item that will display in the results list after a search." with an "Edit" link. Below the text, it says "by orbeirat\_eea" and "Last Modified: July 28, 2016".
- Map Image Layer:** A button with a map icon and the text "Map Image Layer".
- Actions:** A vertical list of buttons on the right side: "Open in Map Viewer" (with a dropdown arrow), "Open in Scene Viewer", "Open in ArcGIS for Desk...", "Share", and "Metadata". The "Metadata" button is highlighted with a red rectangular box.

Article17\_Consultation\_Habitats\_Map\_WM ✕

Resource	Quality	Distribution	Representation	Content	Fields	Reference	Metadata
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Citation	Details	Keywords	Extent	Contact	Maintenance	Constraints	Additional
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Titles & Dates	URLs	Identifiers	Form	Other	Contact
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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																																
<table border="1"> <tr> <td>Citation</td> <td>Details</td> <td>Keywords</td> <td>Extent</td> <td>Contact</td> <td>Maintenance</td> <td>Constraints</td> <td>Additional</td> </tr> <tr> <td colspan="8"> <table border="1"> <tr> <td>Description</td> <td>Language</td> <td>Status</td> <td>Representation</td> <td>Resolution</td> <td colspan="3"></td> </tr> <tr> <td colspan="8"> <p>Description (Abstract)*</p> <div style="border: 1px solid gray; height: 60px; width: 100%;"></div> <p><a href="#">Edit...</a></p> <p>Summary (Purpose)</p> <div style="border: 1px solid gray; height: 40px; width: 100%;"></div> </td> </tr> </table> </td> </tr> </table>								Citation	Details	Keywords	Extent	Contact	Maintenance	Constraints	Additional	<table border="1"> <tr> <td>Description</td> <td>Language</td> <td>Status</td> <td>Representation</td> <td>Resolution</td> <td colspan="3"></td> </tr> <tr> <td colspan="8"> <p>Description (Abstract)*</p> <div style="border: 1px solid gray; height: 60px; width: 100%;"></div> <p><a href="#">Edit...</a></p> <p>Summary (Purpose)</p> <div style="border: 1px solid gray; height: 40px; width: 100%;"></div> </td> </tr> </table>								Description	Language	Status	Representation	Resolution				<p>Description (Abstract)*</p> <div style="border: 1px solid gray; height: 60px; width: 100%;"></div> <p><a href="#">Edit...</a></p> <p>Summary (Purpose)</p> <div style="border: 1px solid gray; height: 40px; width: 100%;"></div>							
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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.

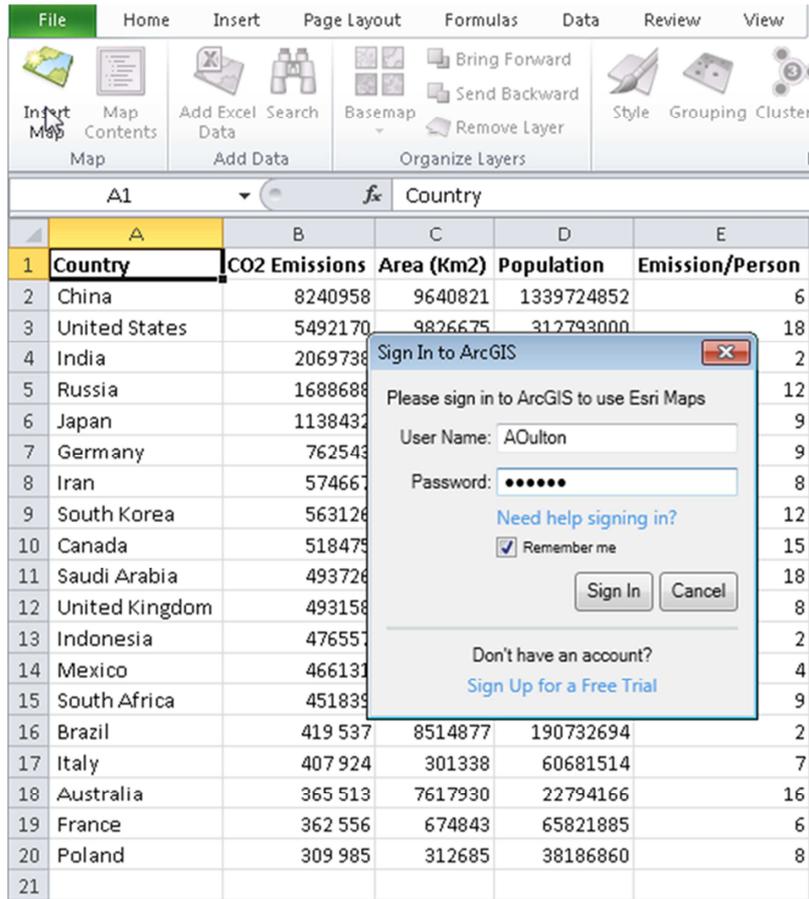
1. Obtain membership to the EEA organisation by receiving an invite from our administrators (once you have registered an ArcGIS online account). This will allow you to publish content to the EEA sub site.
2. Download the 32-bit or 64-bit Esri Maps for Office 2010 or later extension here <http://www.esri.com/software/esri-maps-for-office/download>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

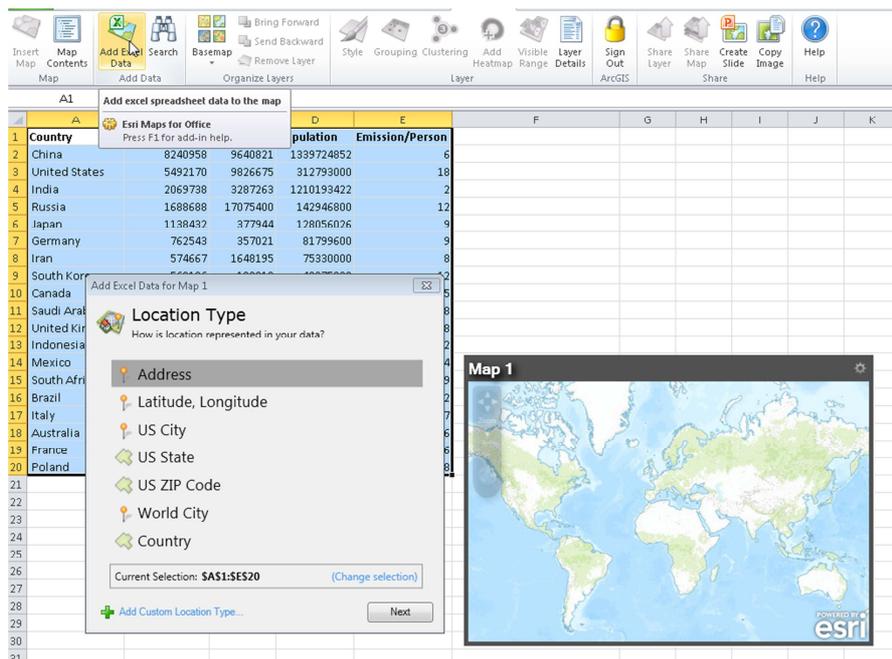
Country	CO2 Emissions	Area (Km2)	Population	Emission/Person
China	8240958	9640021	1339724852	6
United States	5492170	9826675	312793000	18
India	2069738	3287263	1210193422	2
Russia	1688688	17075400	142946800	12
Japan	1138432	377944	128056026	9
Germany	762543	357021	81799600	9
Iran	574667	1648195	75330000	8
South Korea	563126	100210	48875000	12
Canada	518475	9984670	34685000	15
Saudi Arabia	493726	2149690	27136977	18
United Kingdom	493158	243610	62262000	8
Indonesia	476557	1919440	237424363	2
Mexico	466131	1972550	112322757	4
South Africa	451839	1221037	50586757	9
Brazil	419 537	8514877	190732694	2
Italy	407 924	301338	60681514	7
Australia	365 513	7617930	22794166	16
France	362 556	674843	65821885	6
Poland	309 985	312685	38186860	8

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



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).



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

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

Style Configuration

Do you want to group your data:  Yes  No

Choose the column to group: Emission/Person

Group column values by: Number Ranges

Classification Method: Equal Intervals

Number of Groups: [Slider]

Color Ramp: [Color Ramp]

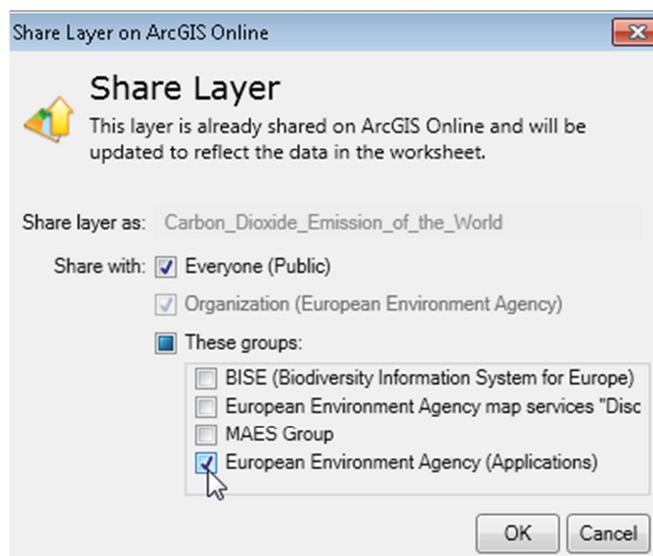
Reverse Colors

OK Cancel

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:

Tags:

Description:

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.