

Project name:
Date:

Data Ecosystem Mapping



What is a data ecosystem map?

A **data ecosystem map** illustrates the different actors in a data ecosystem, and how value is exchanged across it.

A **data ecosystem** consists of data infrastructure, and the people, communities and organisations that benefit from the value created by it.

Data infrastructure is made up of data assets, standards, technologies, policies and the organisations that steward and contribute to them.

Why use this tool?

Creating a data ecosystem map helps to understand how data creates value.

It identifies the data, data stewards and data users; the different roles they play; and the relationships between them.

You can use your map as a practical tool to plan and visualise a data ecosystem, or show opportunities for increasing value to particular parts of a data ecosystem.

A data ecosystem map can be used to:

- **Collaborate** directly with other stakeholders for organisational/ ecosystem change
- **Explore** new sources of data to improve internal operations
- **Exploit** existing data flows to drive new services or improve existing services
- **Inform** a project to build a data-enabled service
- **Identify** where changes are needed, and what effects they might have

The mapping process prompts you to consider different actors, relationships and ideas in the ecosystem, and can generate useful insights and talking points.

How to use this tool

Materials

You will need sticky notes and coloured pencils or pens.

Method

Use the other side of this paper (overleaf) to draft your ecosystem map.

You can either work on your own, or in a group with other actors in the data ecosystem. It may be useful to use a workshop setting with a facilitator.

Ideally, you will spend one to two hours drafting the ecosystem map, and gather two or three rounds of feedback afterwards to ensure a shared understanding of the data ecosystem.

Once you are happy with your draft map, take a photograph for reference and recreate it in the space above, which you can then display as a poster.

Background information and further resources can be found at: theodi.org/mapping-data-ecosystems

What next?

You can use your data ecosystem map to communicate the shared understanding of the actors and value exchanges in a data ecosystem.

Drafting the map will reveal where the data ecosystem could be optimised and will help to communicate these opportunities.

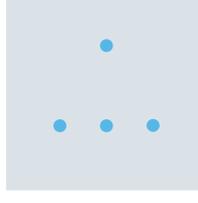
You can also photograph your map and share it on social media using #OurDataEcosystem.

You could also recreate your map using mapping visualisation software.

The **Data Ecosystem Mapping** tool is for anyone who wants to understand and visualise a data ecosystem.

It aims to help you map the actors, data infrastructure and value exchange across a data ecosystem, so it can be communicated and improved.

1. Map the actors



● Actor

Intermediaries
What services add value to a dataset?
Are there groups that aggregate data in the ecosystem?

Creators (for data users)
Who uses the data to create things?
These could be products, services, analyses, insights, stories or visualisations.

Regulators
Those who create and enforce regulatory frameworks.

Policy makers
Those who create policies, principles and measures.

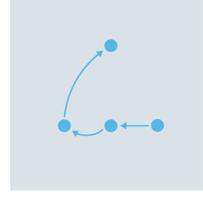
Contributors
The people who contribute to the dataset, either knowingly or unknowingly through use of a service.

Using circles, plot all the people, organisations or services that are linked in some way to the data. You may want to map the ecosystem around you and your role, or around an organisation that uses a dataset, or a specific use-case of the data.
Below are examples of the types of actors you should consider.

Data stewards
Who is responsible for collecting, managing or ensuring access to a dataset?

Beneficiaries
People or organisations that benefit from the data ecosystem because it enables them to make decisions.

2. Map the 'formal' value exchanges



→ 'Formal' value

Physical goods
Are there physical goods associated with the data ecosystem?

Services
What services are relevant to the data ecosystem? Eg transport, bank accounts etc.

Money
Are there fees or charges related to the data and its storage or sharing?

Certificates
What certification relates to the data ecosystem? Eg data licenses, operating licences or safety certificates.

Data
Which datasets you are mapping?
What is the source?

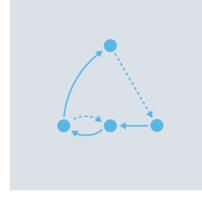
Reports and documents
Are there relevant reports and documents that support the data ecosystem?

Start with the data; draw lines and add labels to indicate what data is being shared or used, and by whom. Add arrows to show direction.

Think of other types of exchange: Do the actors within the ecosystem exchange physical goods? Is there an exchange of money, eg fees for services? Add additional arrows for each of these to populate your map.

Below are examples of 'formal' value exchanges you could add to your map.

3. Map the 'soft' value exchanges



---> 'Soft' value

Support
What support is required to help maintain the data infrastructure? This could be financial or structural.

Feedback
What feedback mechanisms are used within the data ecosystem?

Advice
What advice do actors within the ecosystem provide?

Network
Is there a wider network associated with the data ecosystem?

Policy
What policies relate to the data or other assets within the data ecosystem?

Data supports decision-making with insight and knowledge. Organisations can support each other with advice or feedback.

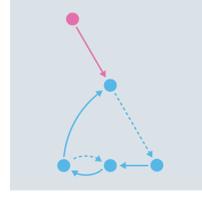
Add these less tangible types of value exchange to your map. It will help you understand more about the connections and relationships between organisations. We suggest using different dotted lines to distinguish them.

Below are some examples of 'soft' value exchanges to consider.

Insights
The insight gained from the data ecosystem, eg when to travel, or how to assign budget.

Knowledge
Are there knowledge networks that would be useful to note?

4. Find opportunities



● Future actor

→ Future 'formal' value

---> Future 'soft' value

Creating new benefits
Where are the opportunities and communities could benefit from new data infrastructure in a sector?

Creating new standards
Where could data standards add value and bring clarity to the ecosystem? theodi.org has a [helpful guide](#).

Finding new stakeholders
Which new stakeholders should be involved? Eg people or organisations who would be needed to help create a new data standard.

Below are some potential future opportunities you could consider.

Improving data flow
What methods could be used to improve data flows between actors in an ecosystem?

Identifying impacts
Where are the areas of changing how data is accessed, used and shared?

Use this side to experiment, discuss and make mistakes. Use sticky notes and pencils, so you can easily move things around and collaborate.

Once you're happy with your draft map, take a photo for reference and recreate it on the other side, ready to display.

Try using one colour for steps 1-3 and something different for step 4. You can use the grey area to add potential future actors. Tip: Use a coin to draw the circles.

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