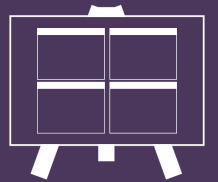


Data Map



How to use
Template
Example

Data Map

The Safe-DEED Data Map helps you to identify possible data sources that can be utilised to develop new data-driven services. To facilitate and structure the search for possible data sources, we have divided the data map into four quadrants. With the help of the descriptions and examples, you can either create a general data inventory or search for specific data for a future data service.

Tips for use

You can fill out the Data Map by yourself but it is more effective if done by a group of people, for example with colleagues from different departments and disciplines.

Make a large print of the Data Map template to use in a brainstorm. Use sticky notes to easily move and change your inputs. Since the tool is also available as a pdf form (template), you can also fill it out collaboratively in e.g. a video conference.

Get inspired by the example from a Bakery Chain which uses various data (see filled out Data Map) to plan production and make sales forecasts for its shops. The data-driven service was realised by the analytics company www.meteolytix.com

How to use

The Safe-DEED Data Map is divided into four quadrants. The four quadrants vary mainly in terms of ownership and usage rights of

the data. We recommend starting with the first quadrant (top left).

1st Quadrant: Data owed by our company

Here we are looking for internal or potentially new internal data sources available in your own company e.g. process data from production or provision of services, financial data or sales data. Since the ownership of this data is clear, its use in compliance with the GDPR is not a problem.

2nd Quadrant: Data created in collaboration with a 2nd party

The second quadrant (right-top) is intended for data created in collaboration with a 2nd party (customer, supplier etc.) Think of data generated through product/service usage (car, social media), data collected by order of a company or data created within supply chain processes. For this kind of data, the ownership and usage rights need to be checked and defined.

3rd Quadrant: 3rd party data provider

The bottom left quadrant is reserved for data from 3rd party data provider e.g. free available data mostly provided by government websites or on open (research) data platforms. There also exist several data market platforms where a broad range of data can be bought. Usually, the ownership and usage rights of this data are clearly defined.

4rd Quadrant: Data created and owned by a 2nd party

In the downright quadrant, we look for data which are only be utilised by application of privacy-preserving technologies (e.g. anonymization, multi-party computation). This data are created and owned by a 2nd party (data from companies of other industries and branches or even competitors) where we usually have no data access and the willingness to share is questionable. If this data can be utilised the usage rights need to be negotiated.

The development of this tool was supported by the European Union's Horizon 2020 project www.safe-deed.eu under grant agreement No 825225.

data map

name _____

date _____

Data owned by our company

(1st party data, ownership clear)

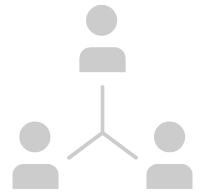
Existing or potential new internal data sources e.g. process data from production or provision of services, financial data or sales data.



Data created in collaboration with a 2nd party

(ownership uncertain, usage of data needs to be defined)

Data generated through product/service usage (car, social media), Data collected by order of a company, Data created within supply chain processes



3rd party data provider

(ownership clear, usage rights defined)

Free available data mostly provided on government websites or on open (research) data platforms. Buying data from data markets or data platforms.



Data created and owned by 2nd party

(willingness to share questionable, usage rights to be negotiated)

Data potentially utilizable with privacy-preserving technologies e.g. multi-party computation. Confidential company data or sensitive personal data.



Example Bakery Chain

industry Food Production

products & services Bakery products

size of business Industrial bakery (> 250 employees)

revenue > 25 mio €

location Central bakery with many bakery stores in different geographic locations



Did you know that the weather influences what kind of bread and pastries we buy? A bakery and a data analytics company found out that when temperatures rise, people eat less black bread. On the other hand, the baker sells more rolls as soon as people are on holiday. Rain, however, is good for cake sales. The data analytics company Meteolytix evaluates weather data and weather independent influencing factors for calculating a sales forecast per store and product. Through a combination of various data sources and application of advanced data analytics methods, valuable benefits for the bakery are created.

The Data Map

To find the right data sources for the weather-dependent sales forecast use the Data Map in the following way. First look for available internal or potentially new internal data sources of the bakery e.g. sales history data per shop, production history data etc. Then think of data created by 2nd parties (2nd quadrant) like customers e.g. social media data or customer ratings (Yelp, Google). Most important for the forecast based on external factors is the 3rd quadrant of the data map. This includes for example weather data (weather forecast), geolocation data (street maps) or calendar data (public holidays, holiday seasons, school holidays). Finally take a look at data created and owned by a 2nd party where we usually have no data access and the willingness to share is questionable. In the bakery example, encrypted mobile phone motion data are used to analyse the visitor frequency around the bakery store. The identified data sources by using the Data Map are the basis for the further development of the forecast model.

Data Map

name Bakery
date _____

Data owned by our company

(1st party data, ownership clear)

Existing or potential new internal data sources e.g. process data from production or provision of services, financial data or sales data.

- Data from Mobile Payment System
- Sales History Data per shop
- Production History Data
- Promotional Activity Data
- Customer Satisfaction data



Data created in collaboration with a 2nd party

(ownership uncertain, usage of data needs to be defined)

Data generated through product/service usage (car, social media), Data collected by order of a company, Data created within supply chain processes

- Social Media Data
- Customer Ratings (Yelp, Google)



3rd party data provider

(ownership clear, usage rights defined)

Free available data mostly provided on government websites or on open (research) data platforms. Buying data from data markets or data platforms.

- Weather Data (weather forecast)
- Geo Location Data (street maps)
- Calendar Data (public holidays, holiday seasons, school holidays)
- Demographic Data (income, population)



Data created and owned by 2nd party

(willingness to share questionable, usage rights to be negotiated)

Data potentially utilizable with privacy-preserving technologies e.g. multi-party computation. Confidential company data or sensitive personal data.

- Mobile phone motion data

