OVERVIEW OF DATA SETS
PART 1 // HOW-TO
VERSION #1 | AUGUST 2020

AIM
The aims of this project briefing are to get an overview on the data sets used in the cluster Net-Zero-2050, to harmonise data sources as best as possible, and finally to provide the colleagues a recommendation for data sets, in order to use as consistent and coherent data sets as possible throughout the various work packages and projects.

STRUCTURE
The project briefing #5 “Overview on Data Sets” is composed of two documents:

- Part 1: How-To (this document)
- Part 2: Excel-Spreadsheet that contains the data sets, divided into
  - Overview table with the most important data sets (one page)
  - Technology table with details about DAC_CCS as well as PtX and PtL (two pages)

HOW-TO
If you need data sets during the project Net-Zero-2050, you can use this table to check if a team member is already working with similar data. Please, if possible, work with the same data set in order to support a consistent and coherent data usage throughout the various work packages and projects.

All data sets that are listed in the overview table have been divided into four categories, so that individual records can be found easily:

1. Economic
2. Social
3. Ecological
4. Technological

These four categories are based on the categorisation of indicators that are used in project 1.1 “National Roadmap Net Zero” for the technological assessment matrix and project 1.2 “Integrated Scenario Analyses”.

Please note: this categorisation followed a rather pragmatic approach and only serves to make it easier to find specific data records (see Table 1). For some data records, the assignment to a single category is not clear, so please also note the other categories if you cannot find the data record you are looking for.
Table 1 Categorisation of data sets.

<table>
<thead>
<tr>
<th>ECONOMIC</th>
<th>SOCIAL</th>
<th>ECOLOGICAL</th>
<th>TECHNOLOGICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>population</td>
<td>GHG emissions</td>
<td>energy efficiency</td>
</tr>
<tr>
<td>employment</td>
<td>non-financial</td>
<td>other emissions</td>
<td>resource efficiency</td>
</tr>
<tr>
<td>price per t CO2 emitted</td>
<td>risk assessment</td>
<td>global carbon budget</td>
<td>energy input</td>
</tr>
<tr>
<td>running costs</td>
<td>(climate)</td>
<td>climate data</td>
<td>installed capacity</td>
</tr>
<tr>
<td>investment costs</td>
<td>acceptance</td>
<td>land cover &amp; use</td>
<td>...</td>
</tr>
<tr>
<td>fuel &amp; raw material costs</td>
<td>socio-economic develop.</td>
<td>soil organic carbon</td>
<td></td>
</tr>
<tr>
<td>taxes &amp; subsidies</td>
<td></td>
<td>biodiversity</td>
<td></td>
</tr>
<tr>
<td>income</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>...</td>
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</tbody>
</table>

OVERVIEW TABLE

Over the last months, an overview of the most important data sets has been compiled (see Part 2, saved here: https://bit.ly/34cI0OQ // only for project partners). To date, it contains about 60 data sets that are specified with the aid of different parameters – ranging from data resolution and unit to data quality and access (see Fehler! Verweisquelle konnte nicht gefunden werden (Figure 1)).

Please note: The overview table can be found on the excel-spreadsheet’s page 1 “Overview | Data Sets” (see highlighted green area in Fehler! Verweisquelle konnte nicht gefunden werden (Figure 1)).
TECHNOLOGY TABLE

Some datasets are based on literature data and are too detailed to be displayed in the overview table. Therefore, the entry in the overview table displays the general range of numbers as well as a link to an additional, more detailed technology table (see highlighted green area in Figure 2). By clicking on this link, the technology table will open and the user can access the information as well as the references (see Figure 3).

![Figure 2 Detailed table for the literature-based data sets, whereby one page is focusing on DAC_CCS and a second page on PtX and PtL (both highlighted in green).](image1)

![Figure 3 Screenshot of a literature-based entry in the overview table (page 1 in the excel-spreadsheet).](image2)

NEXT STEPS

In case you are using a data set that is relevant for the project Net-Zero-2050 and it is not yet in either the overview or the technology table, please inform the respective contact persons (see below). The data sets will then be added and an updated version will be sent to the entire team. Also, if you have improvement suggestions or need assistance, please do not hesitate to contact us.
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More results from the project Net-Zero-2050 are available here:
www.netto-null.org
www.helmholtz-klima.de/en/press/media-library
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