

Metadata in BuiltHub

Building a sustainable and meaningful data flow of the EU Building stock

Ulrich Filippi Oberegger · Senior Researcher Institute for Renewable Energy · EURAC Research

EERAdata Workshop 4, 16 March 2022







Metadata provision on current BSO version



BuiltHub platform

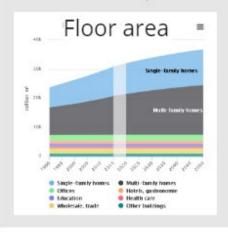
Filters

Dimension: indicators

Dimension: Countries

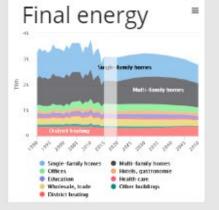
Dimension: Years

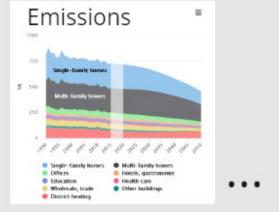
Dimension: Breakdown fuels, uses, technologies Select indicator you want to



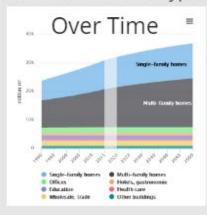
 Graph database → internally, data and metadata are handled equally

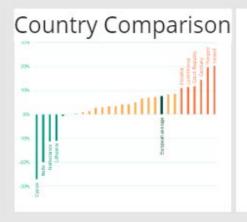
Open question how and where metadata appear / are linked on the GUI





Select visualization type









Data quality

- → Automated pre- and post-processing
- → Complete, standardised metadata
 - DataCite, schema.org, Zenodo
 - Author(s), title, DOI, publisher, publication year, resource type, link, content, origin, geographical extension, spatial and temporal granularity, access, terms of use

→ Comparability of indicators

- Built, gross, net, commercial, rentable, useful, usable, treated, ... square meters
- Primary, final, delivered, useful, ... energy
- → Complete, transparent description of collection/measurement/calculation methods
- **→** Data inspection and quality assessment services
- →Open community discussions on data quality and reliability



BuiltHub platform datasets

Legend			
Α	Building stock related datasets		
В	Socio-economic datasets		
С	Climatic datasets		

Dataset number	Topic type	Name	Content
1	A	Horizon 2020 HotMaps project: Building stock analysis	Complete building stock analysis for the EU27+UK. Values related to final energy consumption and useful energy demand for space heating, space cooling and domestic hot water, construction materials and methodologies, technologies used and building stock data/information (thermal transmittancy, building stock vintages and characteristics, household occupancy related data, etc.) can be found both for the residential and the non-residential sectors per building types and construction vintages.
2	Α	Assessment Complete	Building stock data and data focused the technical systems for production in different is dataset. Final energy at a are available as well.
		tor u	Heso s
28	С	EDGAR (Emissions D Global Atmospheric Res Emissions	and sector (Buildings, and sector (Buildings, power Industry and other and are reported expressed in MtCO ₂ /year.
29	С	CORDEX - Regional climate model data on single levels for Europe	Climatic data for Europe expressed in daily, monthly and seasonal mean values as well as 3 or 6 hours resolution. Data for air temperature at 2 m, wind speed, atmospheric pressure and hum idity can be found.
30	С	PVGIS - Photovoltaic Geographical Information System	This GIS dataset contains data related to the solar radiation. It takes into account both day and night-time periodsexpressing the solar radiation raster map in W/m2.



BuiltHub roadmap

Present Optimally in the next three years Mandate & directive Trading & financial Foster technical for data collection and instruments, infrastructure **Political** sharing regulation expansion **Mutually beneficial** Central data & **Data services Economic** services marketplace use cases rollout **Education and** Collaborative **Consultations & debates** Social initiatives training on future actions networks Technoiality control Visualisation & **Digitalis** ition FAIR data & metadata standardisation user experiencé ocedures logical Model Privacy, data ownership, If **Guidelines & best** Legal protection & licensing framework agreements practices **Environ-**Implementation Control & enforcement Solution **Decarbonisation** plans mechanisms packages & targets & mental scenarios showcases



BuiltHub resources





Get involved!

Be proactive by becoming a...

- Pilot user of our building data platform
- Data provider in exchange of services
- Ambassador, promoting responsible data sharing and collection
- Networker, interacting with our stakeholder community

Or simply follow us:



Contact us at: info@builthub.eu



Or write me: ulrich.filippi@eurac.edu

























Get back to us:

info@builthub.eu

BuiltHub project coordinator: ulrich.filippi@eurac.edu