jrc-risk-data-hub@ec.europa.eu

# 4th DRMKC Risk Data Hub Workshop

## Conclusion

15 June 2022

# **Forward Looking** – Risk data harmonization

- ***EU Strategy on Adaptation to Climate Change***: …***Risk Data Hub*** *to harmonize the recording and collection of comprehensive and granular* ***climate-related risk and losses data****, and* ***promote national*** *level public private partnerships* ***to collect and share such data****;*

**E.g.** from **SENDAI** → to **NACE (EU taxonomy for sustainable activities )**

| | | | | |
|---|---|---|---|---|
| | Injured | Injured | B-2 | Number of injured or ill people attributed to disasters |
| Direct Economic losses | Aggregated | | C-1 | **Direct economic loss** attributed to disasters in relation to global gross domestic product.(compound indicator) |
| | Aggregated insured | Not addresses in the DRMKC RDH | | |
| | Aggregated private | | | |
| | Sectors | | C-2 | Direct **agricultural** loss attributed to disasters |
| | | | | Agriculture is understood to include the crops, livestock, fisheries, apiculture, aquaculture and forest sectors as well as associated facilities and infrastructure. |
| | | | C-3 | Direct economic loss to all other damaged or **destroyed productive assets** attributed to disasters. |
| | | | | Productive assets would be disaggregated by economic sector, including services, according to standard international classifications. Countries would report against those economic sectors relevant to their economies. This would be described in the associated metadata. |
| | | | C-4 | Direct economic loss in the **housing sector** attributed to disasters. |
| | | | | Data would be disaggregated according to damaged and destroyed dwellings. |
| | | | C-5 | Direct economic loss resulting from damaged or **destroyed critical infrastructure** attributed to disasters. The decision regarding those elements of critical infrastructure to be included in the calculation will be left to the Member States and described in the accompanying metadata. Protective infrastructure and green infrastructure should be included where relevant |
| | | | C-6 | Direct economic loss to **cultural heritage** damaged or destroyed attributed to disasters. |
| | Sectors insured | Not addresses in the DRMKC RDH | | |
| | Sectors private | | | |
| Indirect Economic losses | Not addresses in the DRMKC RDH | | | |

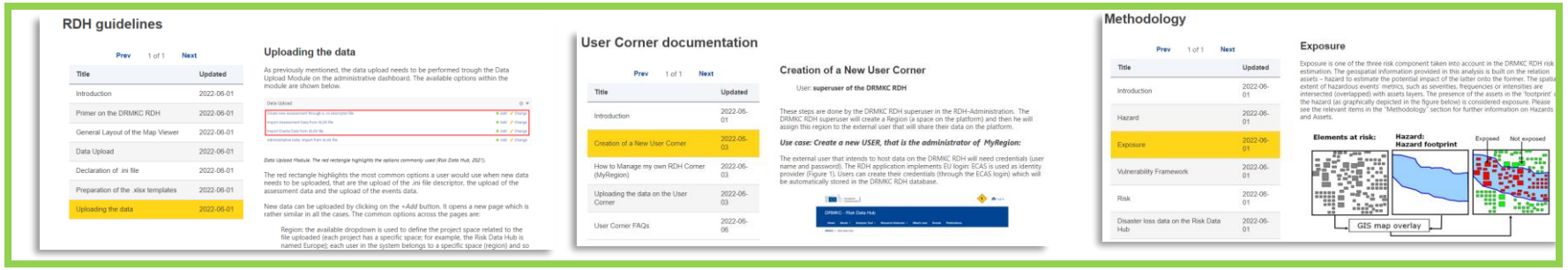
| Building occupancy class | Building occupancy sub-class | Building occupancy sub-class detail | Building occupancy sub-class disaggregation | NACE CODE | ISIC Rev. 4 CODE | GEM CODE |
|---|---|---|---|---|---|---|
| 1. Unknown occupancy type | | | | -- | | |
| 2. Residential | | | | | | |
| | Residential, unknown type | | | | | |
| | Single house dwelling | | | | | |
| | Multi-unit, unknown type | | | | | |
| | Multi-unit apartments / dwellings | | | | | |
| | Temporary lodging | - Hotels<br>- Resort hotels<br>- Suite/apartment hotels<br>- Motels | | | | |
| | Holiday accommodation | - Children's and other holiday homes<br>- Visitor flats and bungalows<br>- Cottages and cabins without housekeeping services<br>- Youth hostels and mountain refuges | | | | |
| | Dormitories | - Student residences<br>- School dormitories<br>- Workers hostels | | | | |

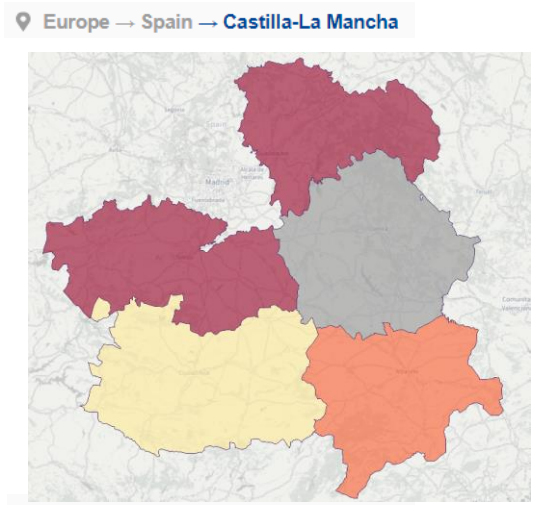
| | | | NACE | ISIC | GEM |
|---|---|---|---|---|---|
| 5. Industrial | | | | | |
| | Industrial, unknown type | | | | IND |
| | Heavy industrial | | | | IND1 |
| | | Head offices | M70.1 | 701 | -- |
| | | Manufacture buildings | C19, C20, C23, C24, C25, C28, C29, C30 | 19,20,23,24,25, 28,29,30 | |
| | | Manufacture of coke and refined petroleum products | C19.1(), C19.2() | 191, 192 | |
| | | Manufacture of chemicals and chemical products | C20.1(), C20.2(), C20.3(), C20.4(), C20.5(), C20.6() | 201(), 202(),203() | |
| | | Manufacture of other non-metallic mineral products | C23.1(), C23.2(), C23.3(), C23.4(), C23.5(), C23.6(), C23.7(), C23.9() | 231(),239() | |
| | | Manufacture of basic metals | C24.1, C24.2(), C24.3(), C24.4(), C24.5() | 241(), 242(), 243() | |
| | | Manufacture of fabricated metal products, except machinery and equipment | C25.1(), C25.2(), C25.3(), C25.4(), C25.5(), C25.6(), C25.7(), C25.9() | 251(), 252(),259(), | |
| | | Manufacture of machinery and equipment n.e.c. | C28.1(), C28.2(), C28.3(), C28.4(), C28.9() | 281(),282() | |
| | | Manufacture of motor vehicles, trailers and semi-trailers | C29.1(), C29.2(), C29.3() | 291(),292(),293() | |
| | | Manufacture of other transport equipment | C30.1(), C30.2(), C30.3(), C30.4(), C30.9() | 301(),302(),303(),304(),309() | |

# **Forward Looking** – Policy Support

Five missions will aim to deliver solutions to key global challenges by 2030. As integral part of the Horizon Europe framework programme, they are a new way to deliver on these commitments.

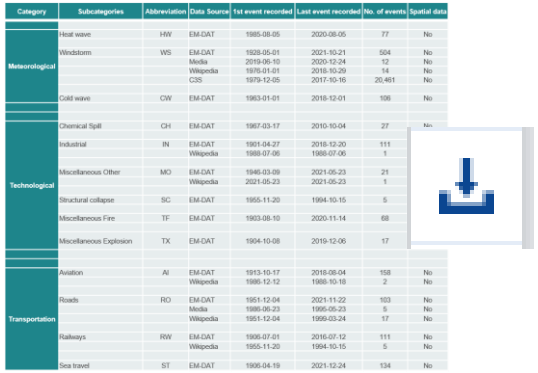
1. **Adaptation to Climate Change:** support at least 150 European regions and communities to become climate resilient by 2030;
2. **Cancer:** working with Europe's Beating Cancer Plan to improve the lives of more than 3 million people by 2030 through prevention, cure and solutions to live longer and better;
3. Restore our **Ocean and Waters** by 2030;
4. 100 **Climate-Neutral and Smart Cities** by 2030;
5. **A Soil Deal for Europe:** 100 living labs and lighthouses to lead the transition towards healthy soils by 2030.



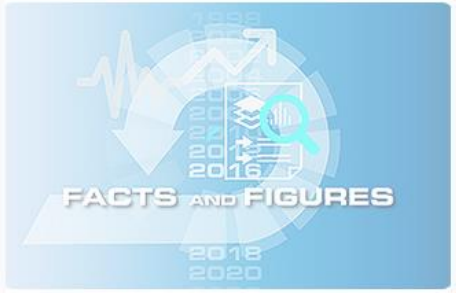
# **Forward Looking** – Map Viewer Features

## Customized Data Downloader



| Category | Subcategories | Abbreviation | Data Source | 1st event recorded | Last event recorded | No. of events | Spatial data |
|---|---|---|---|---|---|---|---|
| Meteorological | Heat wave | HW | EM-DAT | 1985-08-05 | 2020-08-05 | 77 | No |
| | Windstorm | WS | EM-DAT | 1928-05-01 | 2021-10-21 | 504 | No |
| | | | Media | 2019-06-10 | 2020-12-24 | 12 | No |
| | | | Wikipedia | 1976-01-01 | 2018-10-29 | 14 | No |
| | | | CSS | 1979-12-05 | 2017-10-16 | 20,461 | No |
| | Cold wave | CW | EM-DAT | 1963-01-01 | 2018-12-01 | 106 | No |
| Technological | Chemical Spill | CH | EM-DAT | 1967-03-17 | 2010-10-04 | 27 | No |
| | Industrial | IN | EM-DAT | 1901-04-27 | 2018-12-20 | 111 | No |
| | | | Wikipedia | 1988-07-06 | 1988-07-06 | 1 | No |
| | Miscellaneous Other | MO | EM-DAT | 1946-03-09 | 2021-05-23 | 21 | No |
| | | | Wikipedia | 2021-05-23 | 2021-05-23 | 1 | No |
| | Structural collapse | SC | EM-DAT | 1955-11-20 | 1994-10-15 | 5 | No |
| | Miscellaneous Fire | TF | EM-DAT | 1903-08-10 | 2020-11-14 | 68 | No |
| | Miscellaneous Explosion | TX | EM-DAT | 1904-10-08 | 2019-12-06 | 17 | No |
| Transportation | Aviation | AI | EM-DAT | 1913-10-17 | 2018-08-04 | 158 | No |
| | | | Wikipedia | 1985-12-12 | 1988-10-18 | 2 | No |
| | Roads | RO | EM-DAT | 1951-12-04 | 2021-11-22 | 103 | No |
| | | | Media | 1998-06-23 | 1999-05-23 | 5 | No |
| | | | Wikipedia | 1951-12-04 | 1999-03-24 | 17 | No |
| | Railways | RW | EM-DAT | 1906-07-01 | 2016-07-12 | 111 | No |
| | | | Wikipedia | 1955-11-20 | 1994-10-15 | 5 | No |
| | Sea travel | ST | EM-DAT | 1906-04-19 | 2021-12-24 | 134 | No |

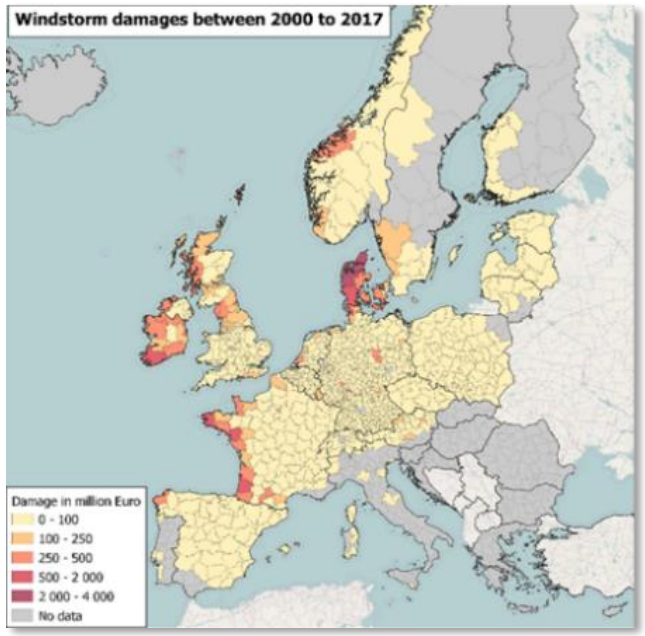
## Facts and Figures

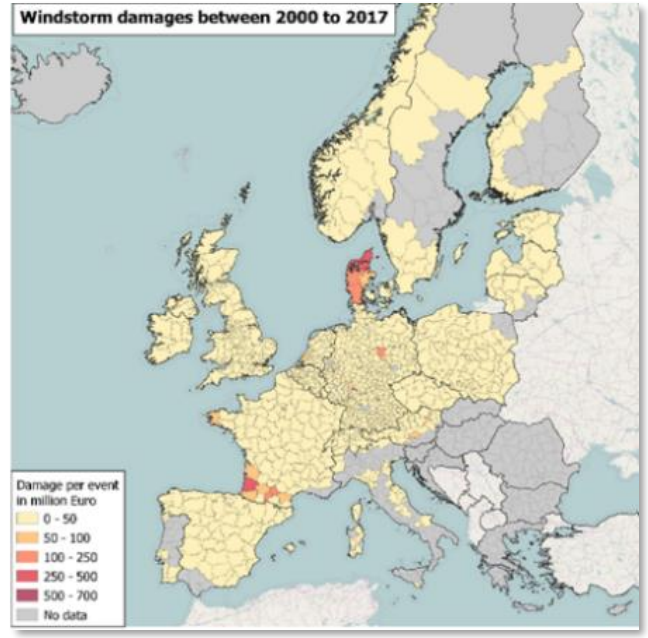



**Facts and Figures - Coming soon!**

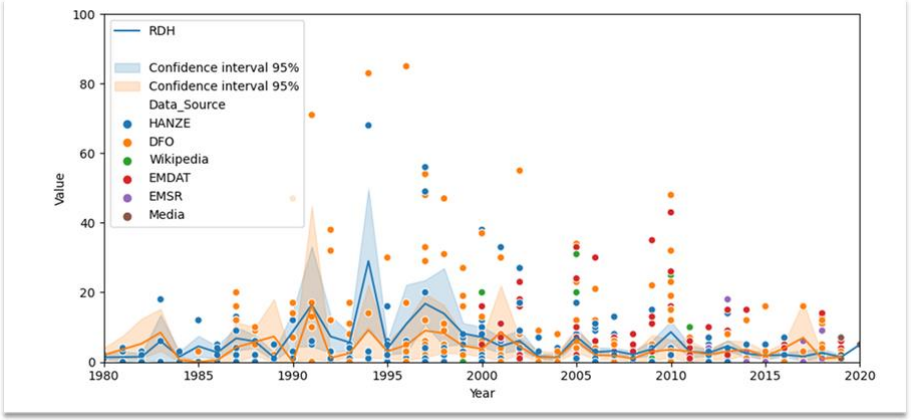
Cross-hazard comparative view of both past and future impacts

## Subnational Units View

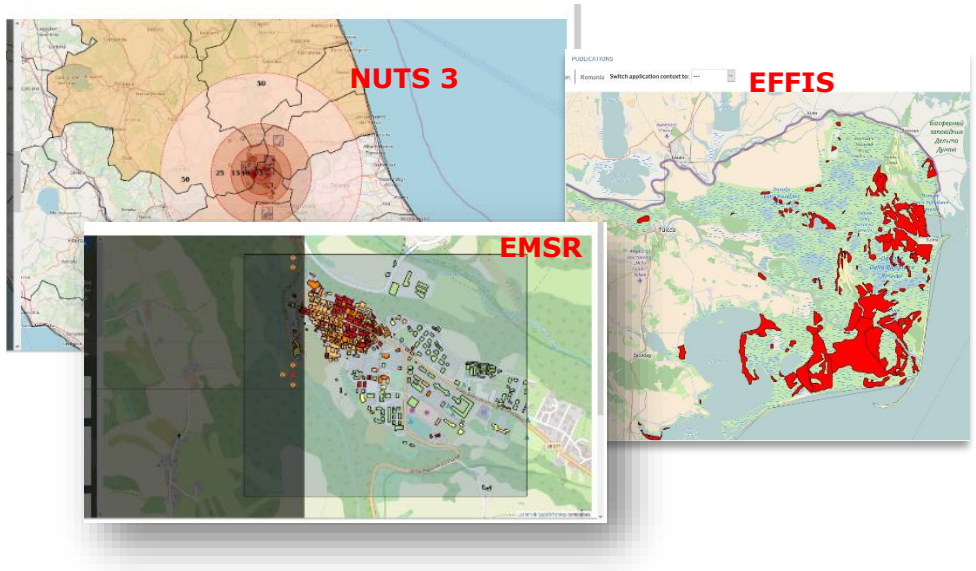


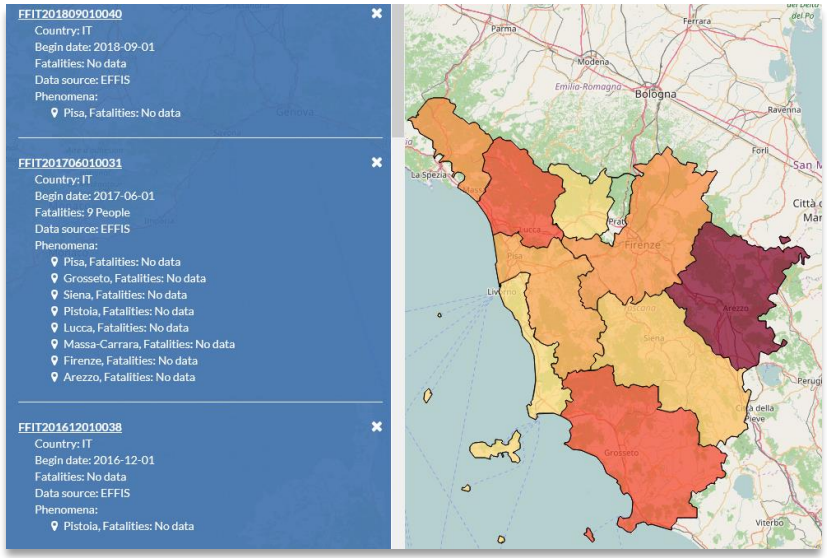
# **Forward Looking** – Loss Data Database and Visual




Spatially and Temporally Disaggregated Impacts




Event Viewer




Expand the sample of events including man made hazards, cyberphisical threats etc.

# Forward Looking - Vulnerability

Multi-hazard Vulnerability Composite Indicator

Hazard Independent Index

- Focuses on four dimensions:
  - Social
  - Economic
  - Political
  - Enviromental
- Systemic features of an area/community

Time Projections

Hazard Dependent Index

- Based on:
  - the relation between the metric of the hazard and the characteristic of exposure
  - Other metrics such as past events

European Commission

# Forward Looking – From the Audience

- Among others:
  - Compounding Risks;
  - Further disaggregation of exposed assets;
  - Absolute values of loss data to go beyond the relative rescaling of the 0-10 indicator;
  - Increased compatibility with other Loss and Damage Taxonomy;
  - Estimation of indirect losses;

**Suggestions are welcome:**

- https://ec.europa.eu/eusurvey/runner/DRMKCRiskDataHubWorkshop2022
- Requires EU Login (i.e. credentials used to register to the Workshop)

# Thank you

jrc-risk-data-hub@ec.europa.eu

© European Union 2020

Unless otherwise noted the reuse of this presentation is authorised under the CC BY 4.0 license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

European Commission