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Delegations will find attached document SWD(2024) 130 final (part 2/3).

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PART 2/3

COMMISSION STAFF WORKING DOCUMENT

*Supporting the REPORT FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT AND THE COUNCIL on progress on implementation of article 6 of the
Union Civil Protection Mechanism (Decision No 1313/2013/EU)*

Preventing and managing disaster risk in Europe

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ANNEX II: Progress on the identification of disaster risks

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1.1 Animal and plant diseases¹

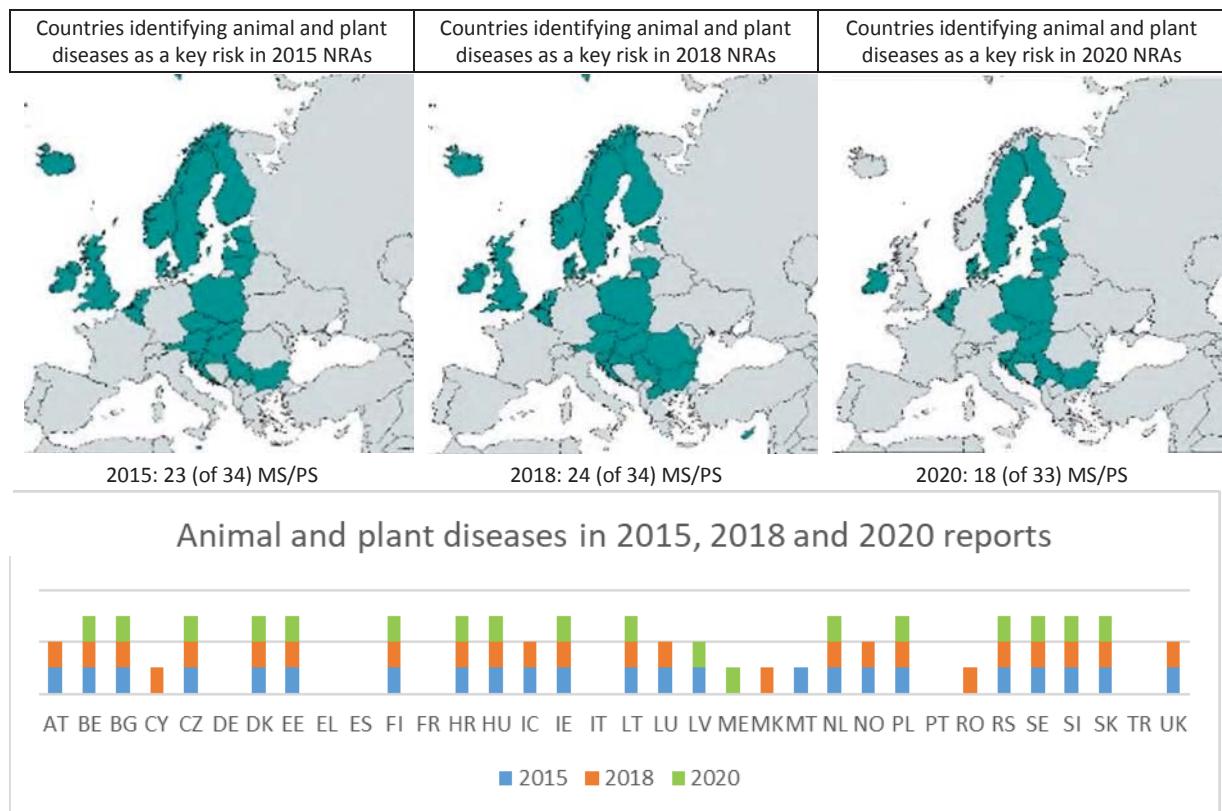


Figure 1.(a) and (b). Countries indicating animal and plant diseases as a risk in the reports covering three reporting periods 2015, 2018 and 2020. (ME and TR reported in 2020 only. IC did not report in 2020 LV and MT did not report in 2018 and MK did not report in 2015).

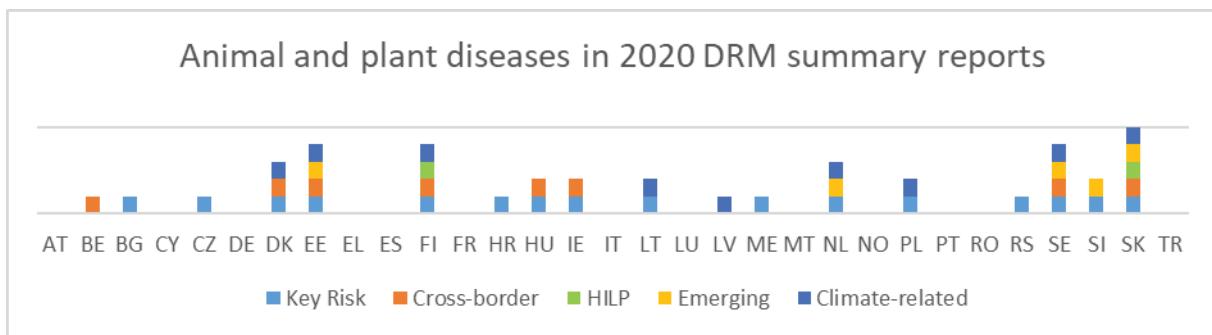


Figure 2. Countries reporting animal and plant diseases in the 2020 DRM summary reports as either a key risk, a cross-border risk, a high-impact, low-probability risk, an emerging risk or a climate-related risk. (IC did not report in 2020).

¹ See also SWD(2020)330 final, Annex I, Chapter 7 and SWD(2017)176 final.

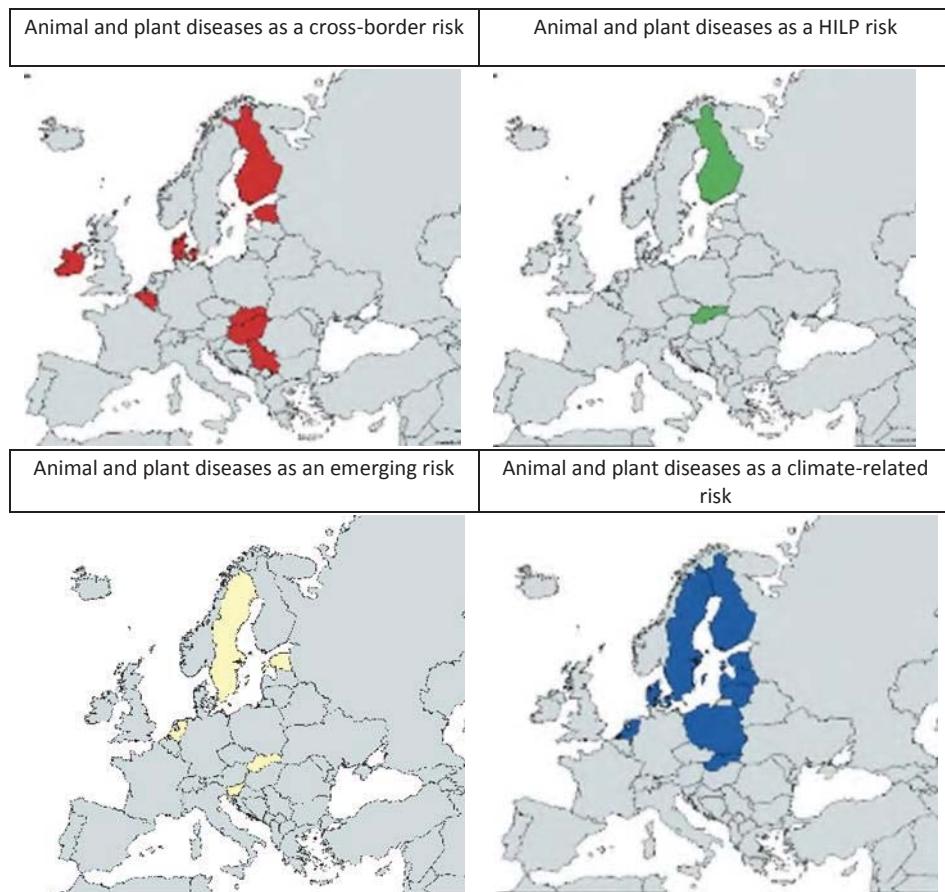


Figure 3. Geographic distribution of animal and plant diseases identified as a relevant risk by category of risk. Red: cross-border risks; Green: high-impact low-probability risks; Yellow: emerging risks; Blue: climate-related risks.

Risk	Further specification of reported risk (number of countries using the term)	Category of risk reported
Animal disease	Animal disease/epizootic (18 countries)	K, CB, H, E, C
Plant disease	Plant disease/epiphytic (9 countries)	K, CB, H, E, C
Pests	Plant pest attacks (1 country)	K, CB, E, C
	Diseases and pests of forest trees (1 country)	K, E
	Outbreaks of Pests and diseases for plants and animals (1 country)	K, C
Invasive species	Invasive species bringing animal and plant diseases (1 country)	E, C

Table 1. Number of countries that identified a specific risk, according to the subcategories used in the national reports (as translated). K: key risk; CB: cross-border risk; H: high-impact low-probability risk; E: emerging risk; C: climate-related risk.

1.2 Cyber threats²

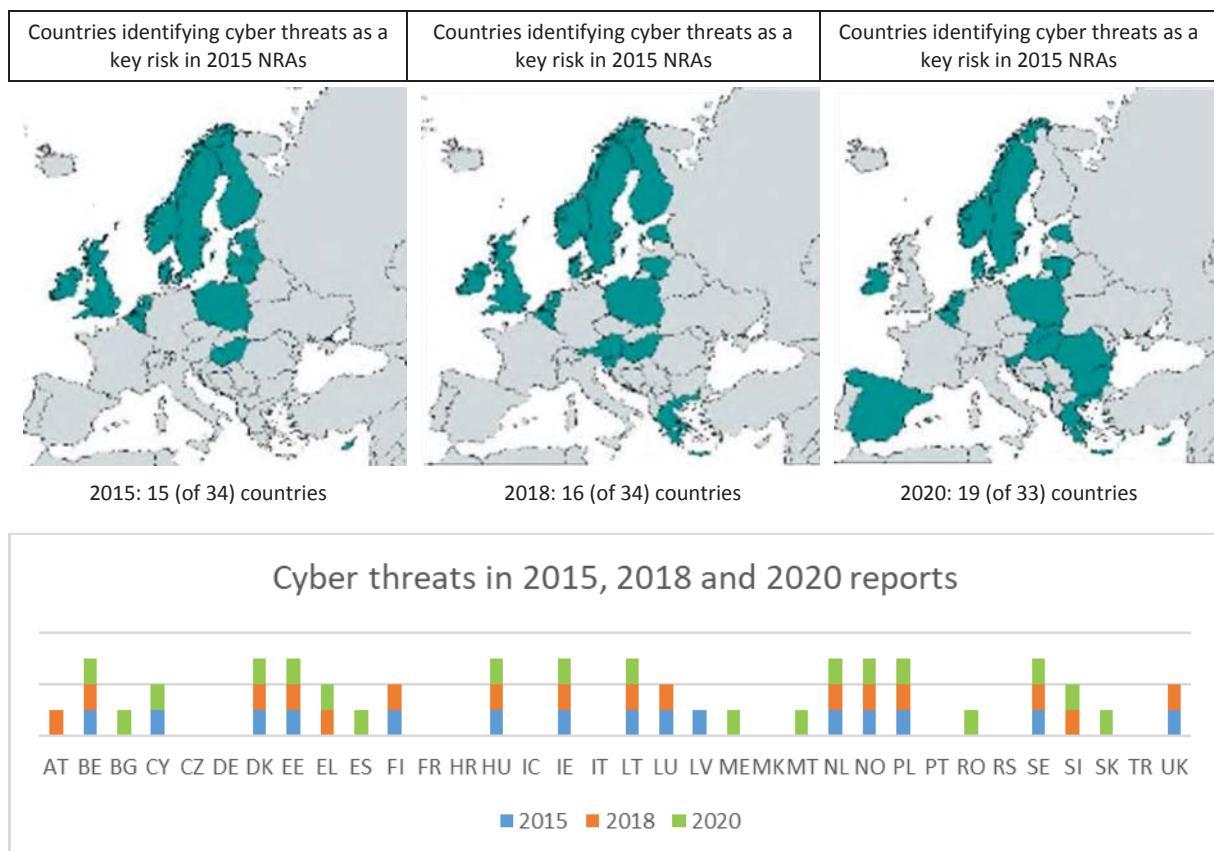


Figure 4. (a) and (b). Countries indicating cyber threats as a risk in the reports submitted for the three reporting periods: 2015, 2018, 2020. (ME and TR reported in 2020 only. IC did not report in 2020. LV and MT did not report in 2018 and MK did not report in 2015).

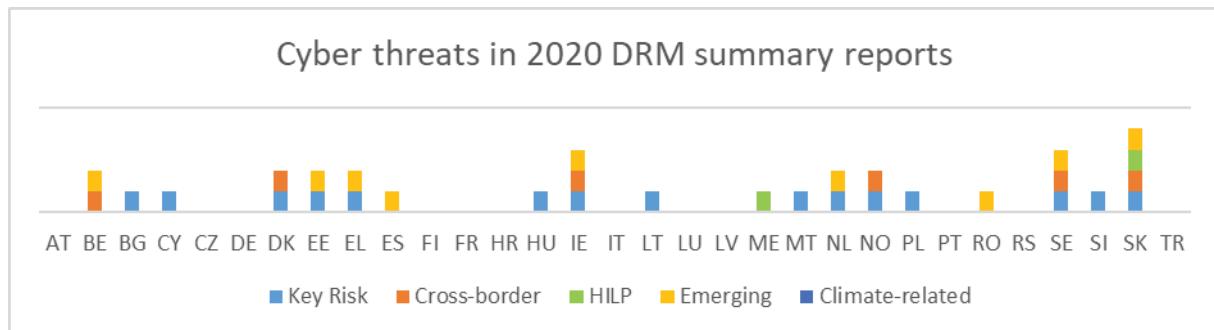


Figure 5. Countries indicating cyber threats in the 2020 DRM Summary reports by category: key risk, cross-border risk, high-impact low-probability risk, emerging risk and climate-related risk. (IC did not report in 2020).

² See also SWD(2020)330 final, Annex I, Chapter 12 and SWD(2017) 176 final.

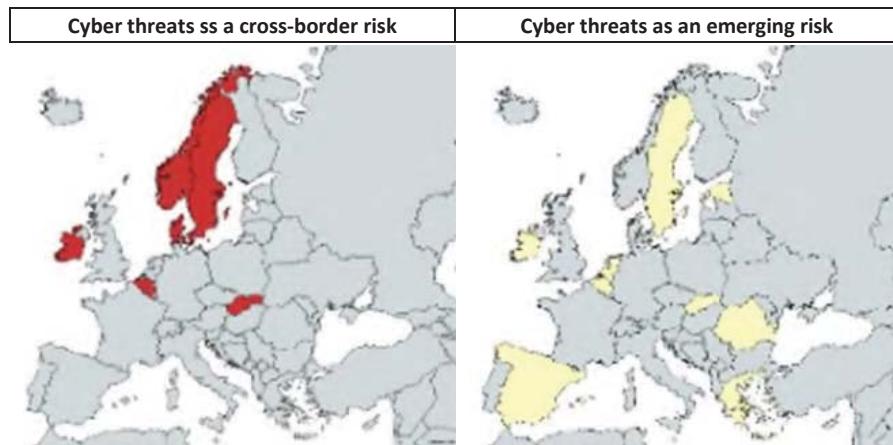


Figure 6. Geographic distribution of cyber threats as a relevant risk by category of risk. Red: cross-border risks; Green: high-impact low-probability risks; Yellow: emerging risks.

Risk	Further specification of reported risk (number of countries using the term)	Category of risk reported
Cyber attacks	Cyber-attacks (14 countries)	K, CB, H, E
	Cyber-attack together with electricity blackout (1 country)	K, E
	Major denial-of-service attack (disruption of critical services) (1 country)	K, E
	Cyber-attack on financial infrastructure (1 country)	K, CB
	Cyber-attacks on communications infrastructure (1 country)	K, CB
Digital technology risks	5G-related risks (1 country)	E
	New technology (AI, 5G) risks (1 country)	E
	Interruption of eID service (security errors in the cryptographic algorithm) (1 country)	K, E
	Interruption of eID service (eID interruption as an interruption of vital service) (1 country)	K, E
	Cloud storage security (1 country)	E
Data security risks	Violation of the integrity of the data essential for the functioning of the state (1 country)	K, E
	Breach of security of information systems and networks (1 country)	K, CB, H, E
Incidents and disruptions	Cyber incident (1 country)	K, CB
	IT sector incident (1 country)	H
	Disruption in IT services (1 country)	K

Table 2. Number of countries that identified a specific risk, by the subcategories used in the national reports (as translated). K: key risk; CB: cross-border risk; H: high-impact low-probability risk; E: emerging risk; C: climate-related risk.

1.3 Disruption of critical infrastructure³

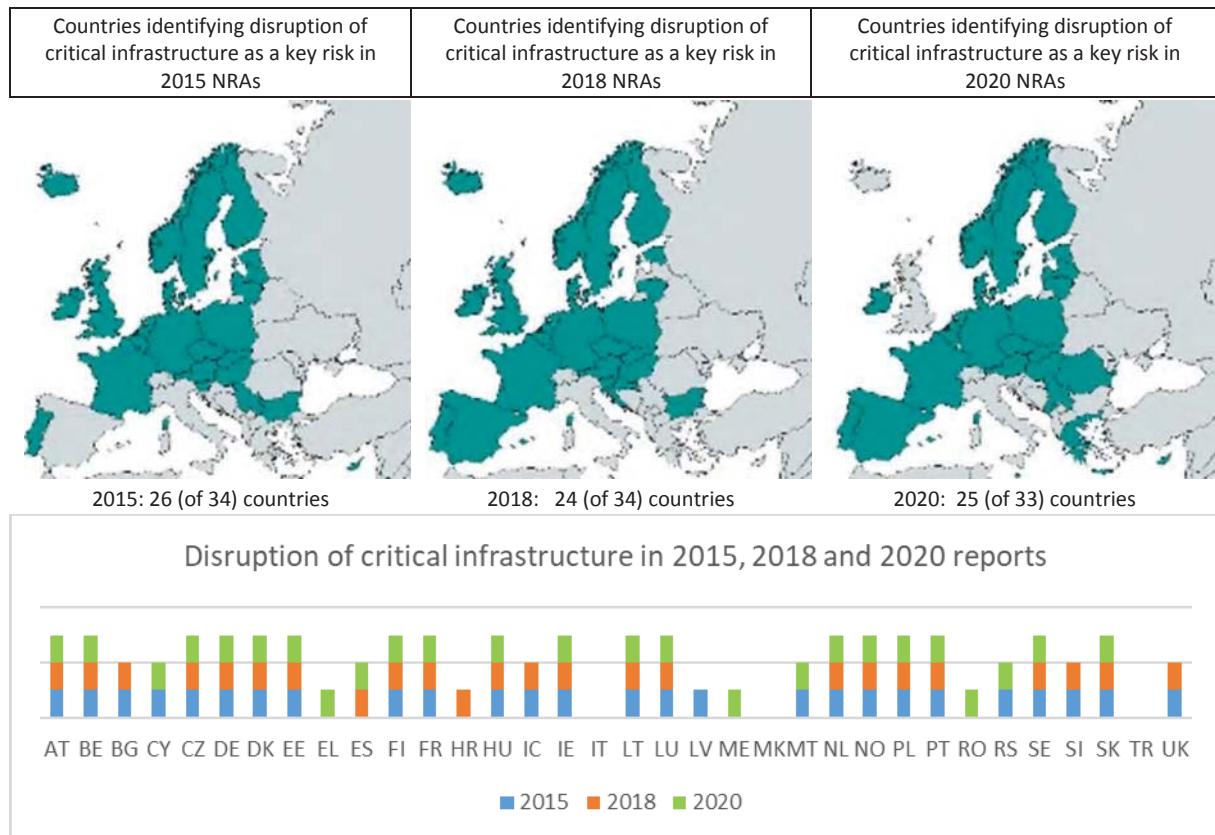


Figure 7. (a) and (b). Countries indicating the disruption of critical infrastructure indicated as a risk in the reports submitted for the three reporting periods 2015, 2018 and 2020. (ME and TR reported in 2020 only. IC did not report in 2020. LV and MT did not report in 2018 and MK did not report in 2015).

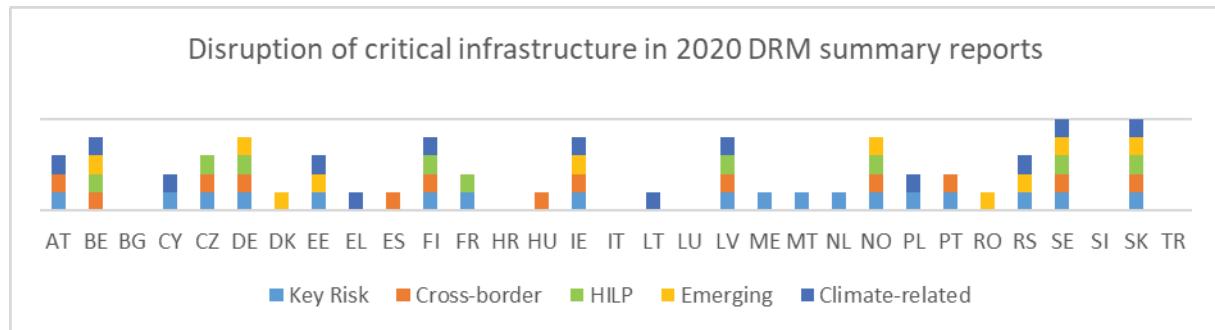


Figure 8. Disruption of critical infrastructure in the 2020 DRM summary reports as a key risk, a cross-border risk, a high-impact low-probability risk, an emerging risk or a climate-related risk. (IC did not report in 2020).

³ See also SWD(2020)330 final, Annex I, Chapter 9 and SWD(2017)176 final.

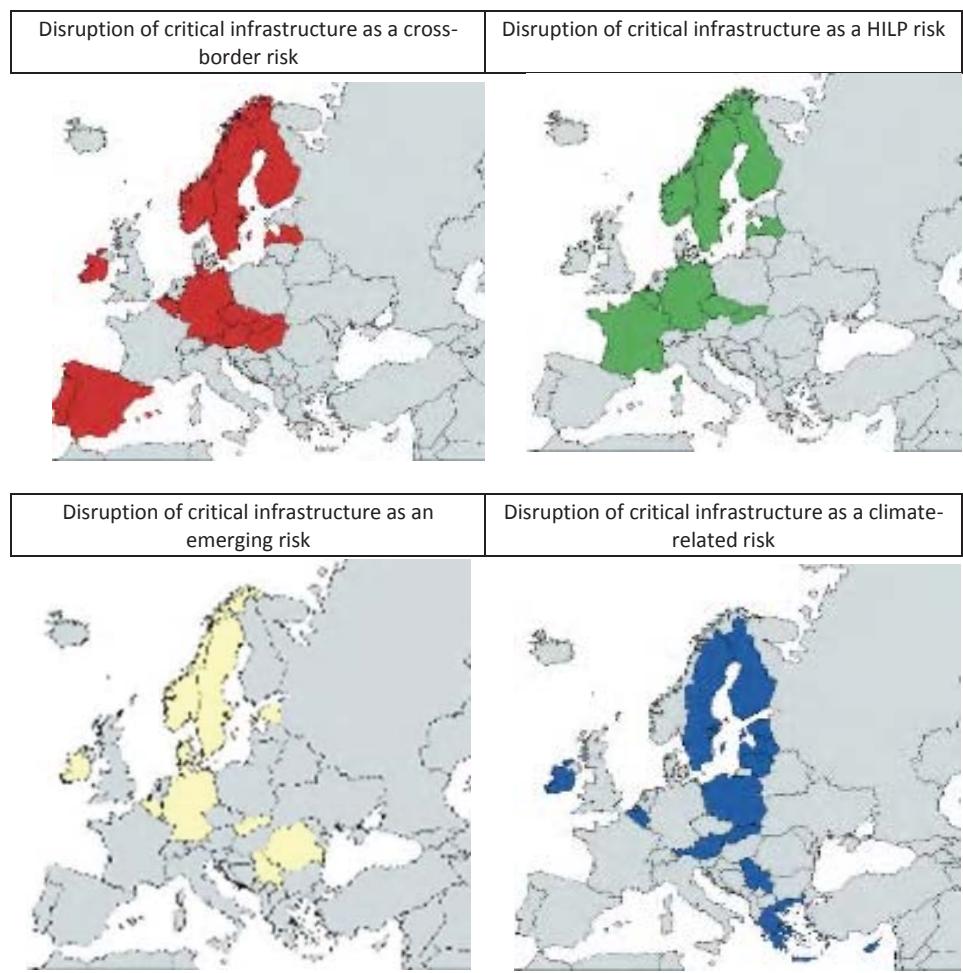


Figure 9. Geographic distribution of disruption of critical infrastructure as a relevant risk by category of risk as reported in the 2020 DRM summary reports. Red: cross-border risks; Green: high-impact low-probability risks; Yellow: emerging risks; Blue: climate-related risks.

Risk	Further specification of reported risk (number of countries using the term)	Category of risk reported
Energy	Electricity supply (6 countries)	K, CB, H, C
	Blackout and power outages (3 countries)	K, CB, H, C
	Oil and oil products (3 countries)	K, CB, H
	Gas (4 countries)	K, CB, H, C
	Generic energy supply disruption (4 countries)	K, CB, H, CC
	Fuels availability (2 countries)	K, CB, H
	Increased dependency on renewable energy (1 country)	E
	Heat supply (1 country)	C
Water	Drinking water (7 countries)	K, CB, H, E, C
	Water supply (3 countries)	K, E, C
Malicious disruption	Attack against critical infrastructure (1 country)	CB
Health and medicines	Limited vaccines supply (1 country)	CB
	Medicine supply (2 countries)	K, E
Economic and financial	Financial risks and disruptions (6 countries)	K, CB, H
	Industrial sector (1 country)	K
	Public economy disruption (1 country)	K, CB, H
	World trade (1 country)	E
	Disruptions in international flows (1 country)	K, CB, H, E, C
	Foreign exchange and monetary system (2 countries)	K, CB, H
Food	Food supply and/or production (5 countries)	K, CB, H, E, C
	Food chain contamination (1 country)	K
Communication and IT	Communication and information system (6 countries)	K, CB, H, E, C
	Satellite-based navigation (1 country)	K, CB, H, E, C
	Interruption of data transmission service (1 country)	K, E
Other/generic	Interruption of vital services (1 country)	C
	Generic critical infrastructure disruption (3 countries)	K, C
	Supply failures (1 country)	CB, H
	Supply chain dependency (1 country)	EM
	Extreme weather-induced disruption (1 country)	K, CB, C
	Risks in economic and non-economic facilities (1 country)	K
Physical infrastructure	Logistics (1 country)	K, CB, H, CC
	Dam failure (5 countries)	K, CB, H, C
	Structural collapse (1 country)	K
	Building fire at critical infrastructure site (1 country)	K, CB, H
	Collapse of physical structures (buildings) (1 country)	K, E

Table 3. Number of countries that identified a specific risk, according to subcategories used in the national reports (as translated). K: key risk; CB: cross-border risk; H: high-impact low-probability risk; E: emerging risk; C: climate-related risk.

1.4 Drought and water scarcity⁴

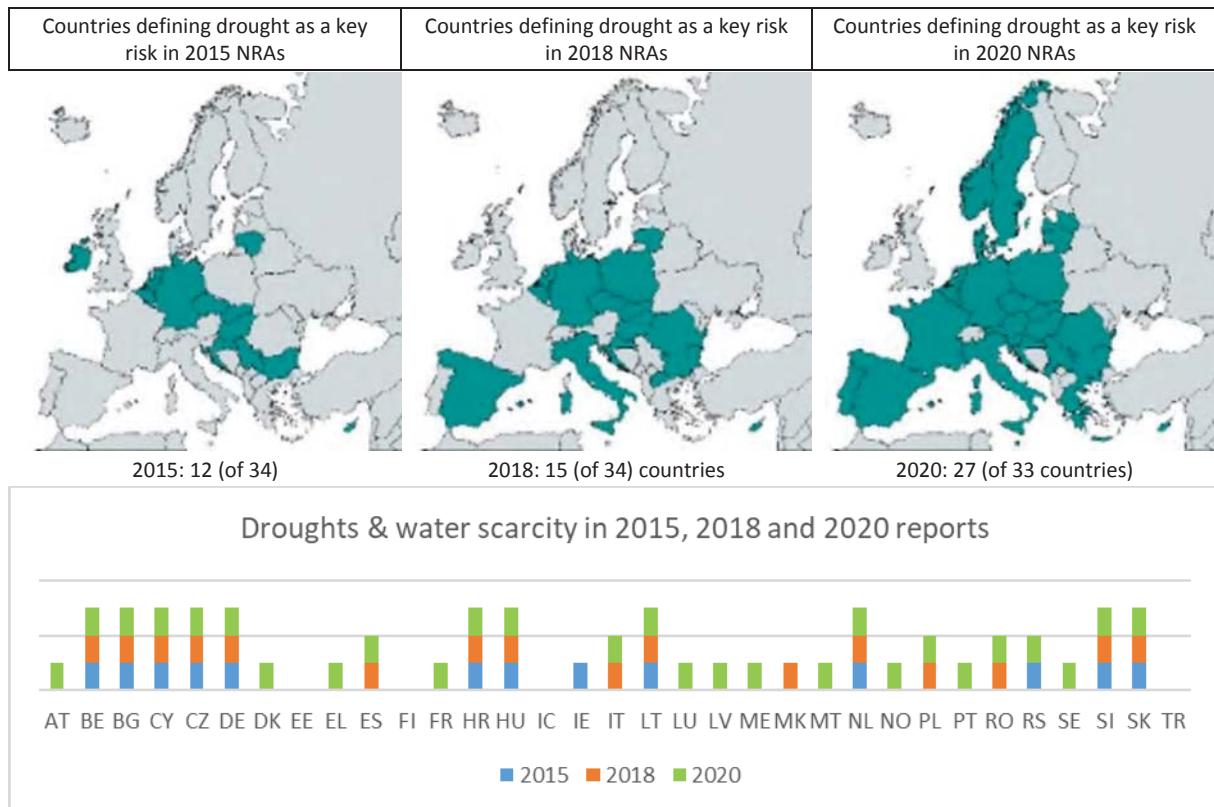


Figure 10. (a) and (b). Countries indicating droughts and water scarcity as a relevant risk in the reports submitted for the three reporting periods: 2015, 2018 and 2020. (ME and TR reported in 2020. IC did not report in 2020. LV and MT did not report in 2018 and MK did not report in 2015).

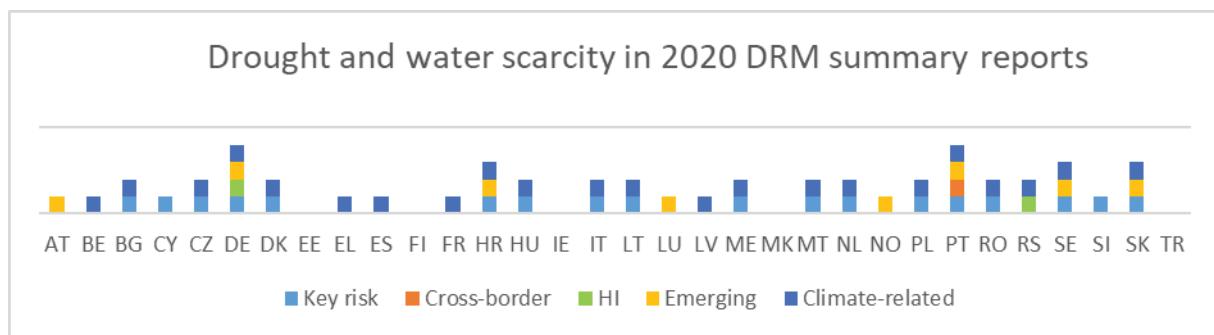


Figure 11. Countries indicating droughts and water scarcity in the 2020 DRM summary reports as a key risk, a cross-border risk, a high-impact low-probability risk, an emerging risk or a climate-related risk. (IC did not submit a report).

⁴ See also SWD(2020)330 final, Annex I, Chapter 3 and SWD(2017) 176 final.

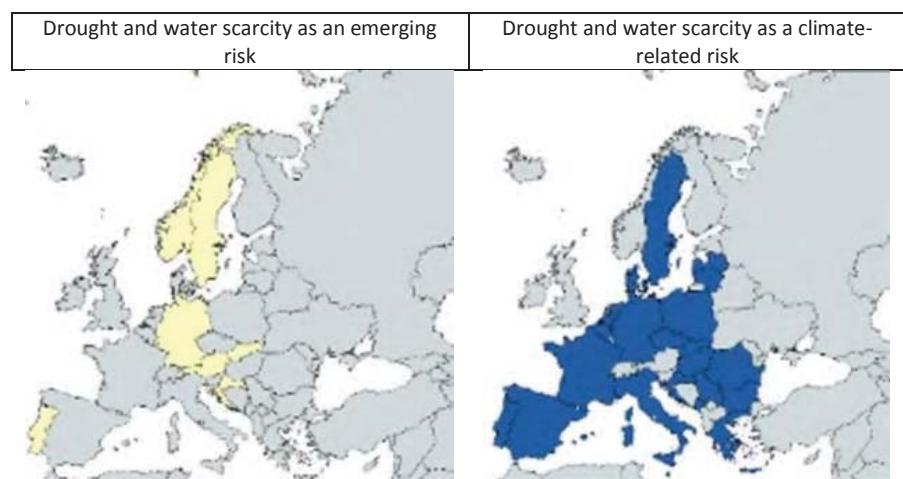


Figure 12. *Geographic distribution of drought as a relevant risk by type of risk. Yellow: emerging risks; Blue: climate-related risks.*

1.5 Extra-terrestrial risk

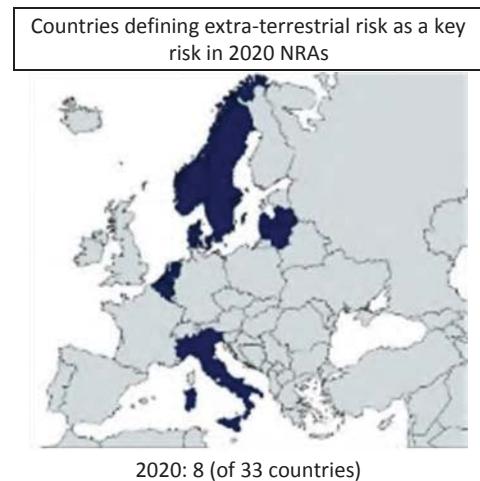


Figure 13. Geographic distribution of extra-terrestrial risks identified as a relevant risk by category of risk as reported in the 2020 DRM summary reports.

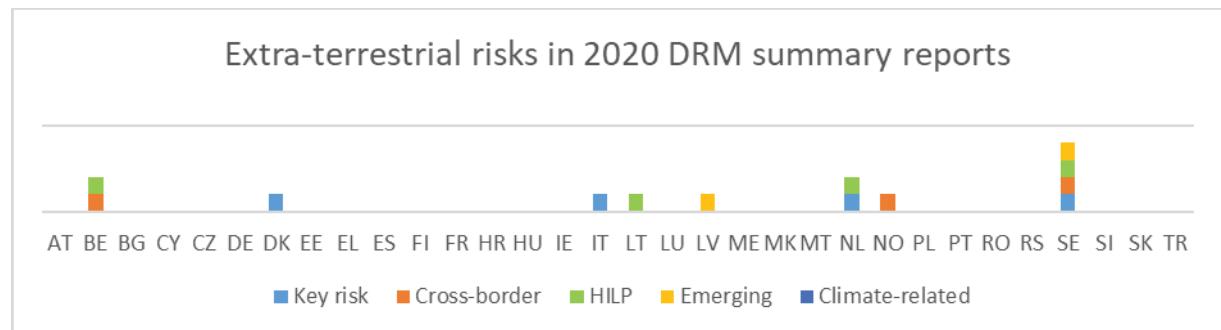


Figure 14. Countries indicating droughts and water scarcity in the 2020 DRM summary reports as a key risk, a cross-border risk, a high-impact low-probability risk, an emerging risk or a climate-related risk. (IC did not submit a report).

Risk	Further specification of reported risk (number of countries using the term)	Category of risk reported
Natural extra-terrestrial risks	Space weather events (2 countries)	K, CB
	Solar storms (3 countries)	K, CB, H, E
	Meteorites and asteroids (3 countries)	K, CB, H
Artificial extra-terrestrial risks	Uncontrolled re-entry of space objects and debris (1 country)	K
	Fall of space artificial earth satellite containing radioactive sources (1 country)	H

Table 4. Number of countries that identified a specific risk by subcategories used in the national reports (as translated). K: key risk; CB: cross-border risk; H: high-impact low-probability risk; E: emerging risk; C: climate-related risk.

1.6 Extreme weather⁵

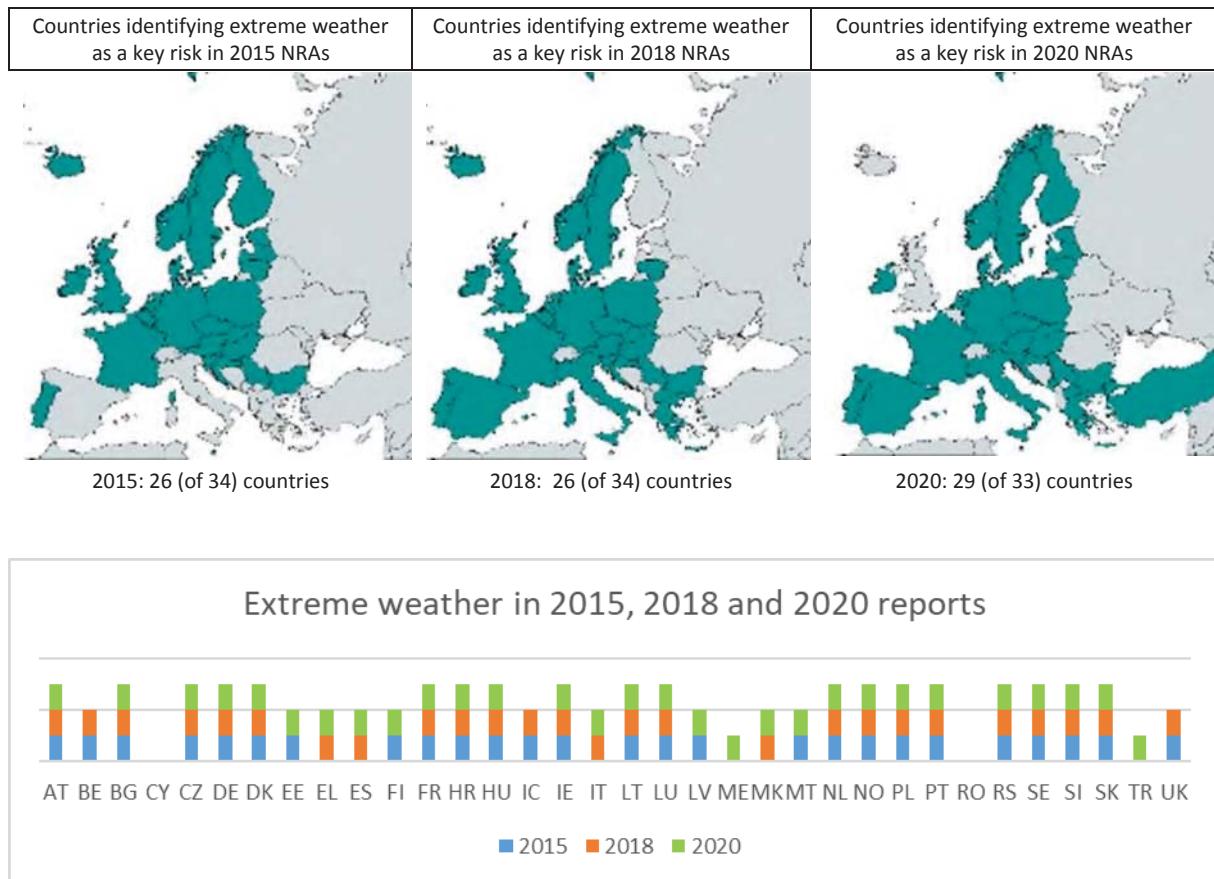


Figure 15. (a) and (b). Countries indicating extreme weather indicated as a risk in the reports submitted for the three reporting periods: 2015, 2018 and 2020.: (ME and TR reported in 2020 only. IC did not report in 2020. LV and MT did not report in 2018 and MK did not report in 2015).

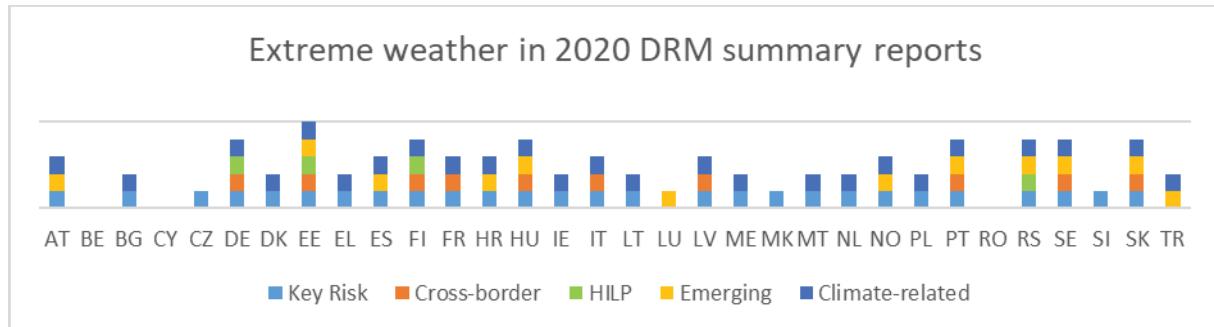


Figure 16. Countries indicating extreme weather in the 2020 DRM summary reports as a key risk, a cross-border risk, high-impact low-probability risk, an emerging risk or a climate-related risk. (IC did not report in 2020).

⁵ See also SWD(2020)330 final, Annex I, Chapter 1 and SWD(2017)176 final.

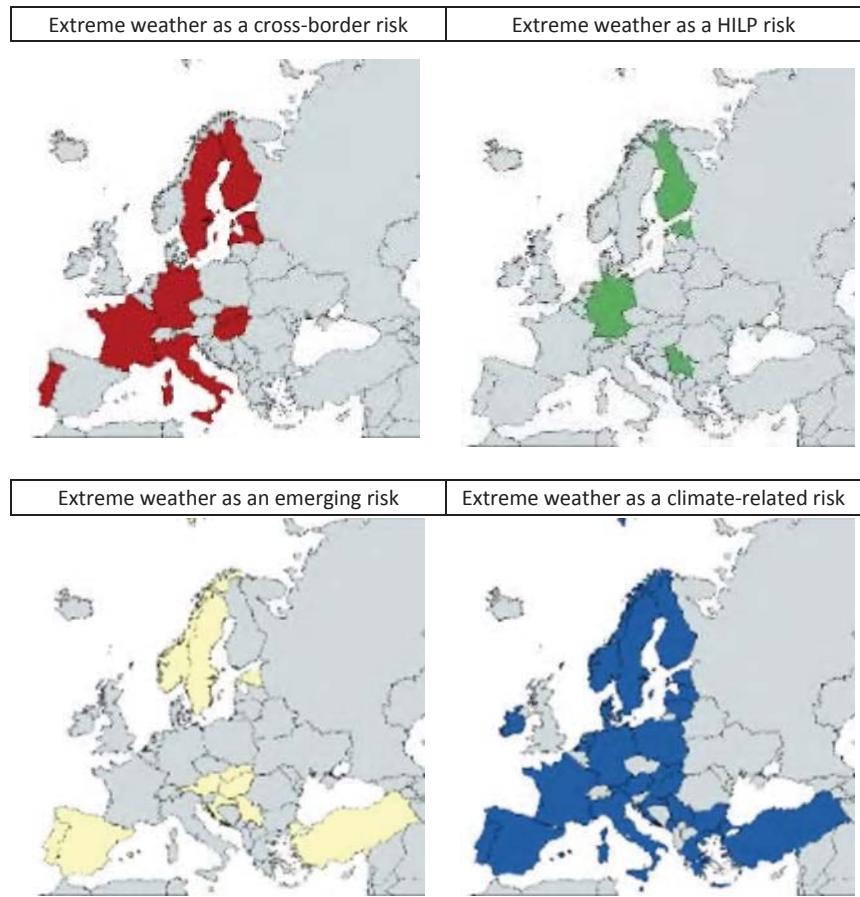


Figure 17. Geographic distribution of extreme weather reported as a relevant risk by type of risk in the 2020 DRM summary reports. Red: cross border risks; Green: high-impact low-probability risks; Yellow: emerging risks; Blue: climate-related risks.

Risk	Further specification of reported risk (number of countries using the term)	Category of risk reported
Wind-related	Storms (13 countries)	K, CB, H, E, C
	Strong winds (9 countries)	K, CB, H, E, C
	Hurricanes (2 countries)	K, C
	Cyclones (2 countries)	K, CB, C
	Tornadoes (1 country)	C
Heavy rainfall	Heavy rain (15 countries)	K, CB, H, E, C
Snow/ice/hail related	Hail (4 countries)	K, C
	Ice (5 countries)	K, CB, E, C
	Ice storm/sleet (2 countries)	K, CB, E, C
	Black ice (1 country)	K
	Snow (11 countries)	K, CB, H, E, C
Storm flood	Storm surge (3 countries)	K, CB, H, C
	Storm flood (1 country)	CB, H
Thunderstorm	Thunderstorms (2 countries)	K, C
Temperature	Heatwaves (18 countries)	K, CB, H, E, C
	Cold waves (6 countries)	K, CB, E, C
Generic	Extreme weather (12 countries)	K, CB, H, E, C

Table 5. Number of countries that identified a specific risk by subcategories used in the national reports (as translated). K: key risk; CB: cross-border risk; H: high-impact low-probability risk; E: emerging risk; C: climate-related risk.

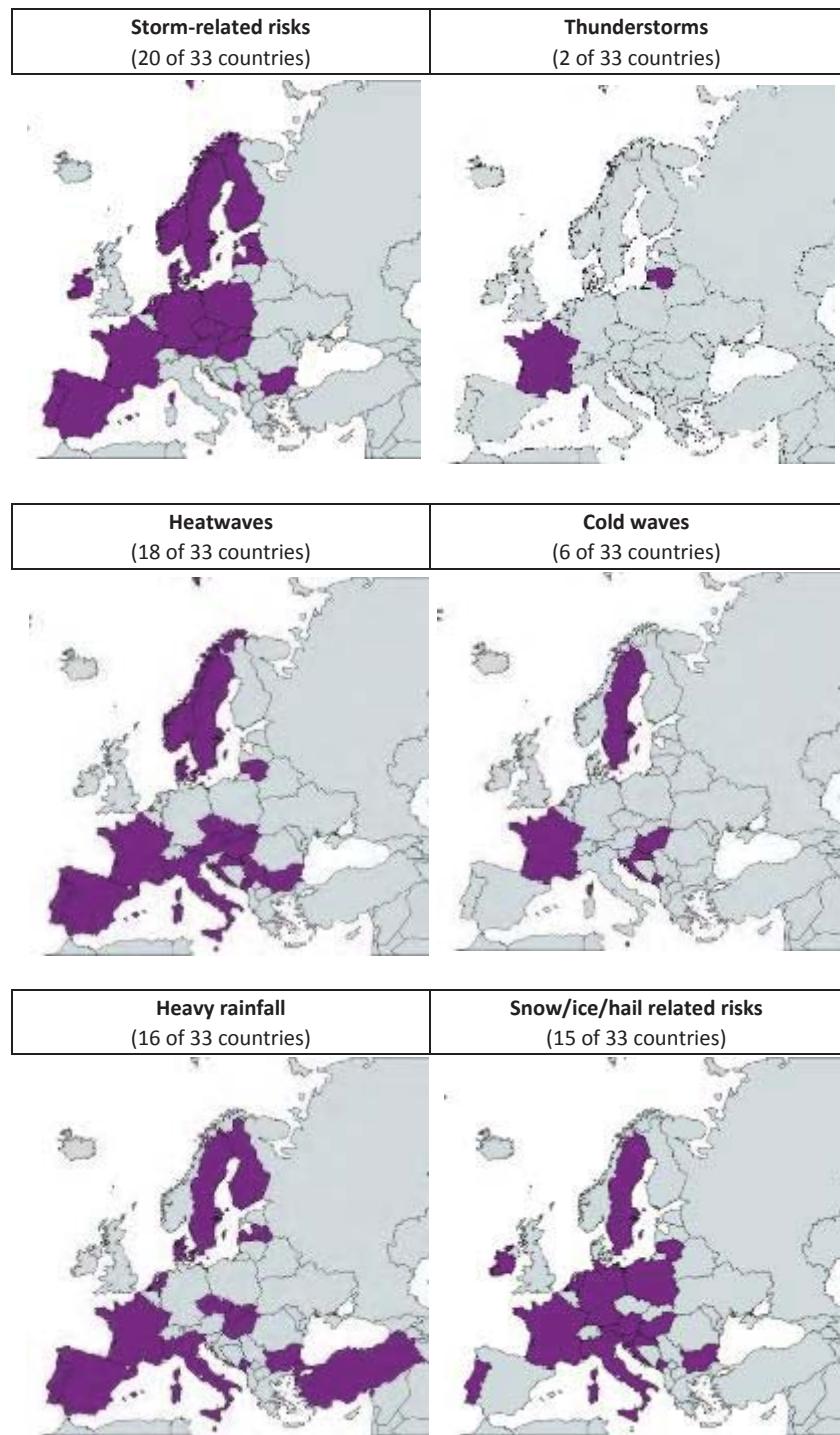


Figure 18. Geographic distribution of specific extreme weather events reported as a risk in the 2020 DRM summary reports.

1.7 Floods⁶

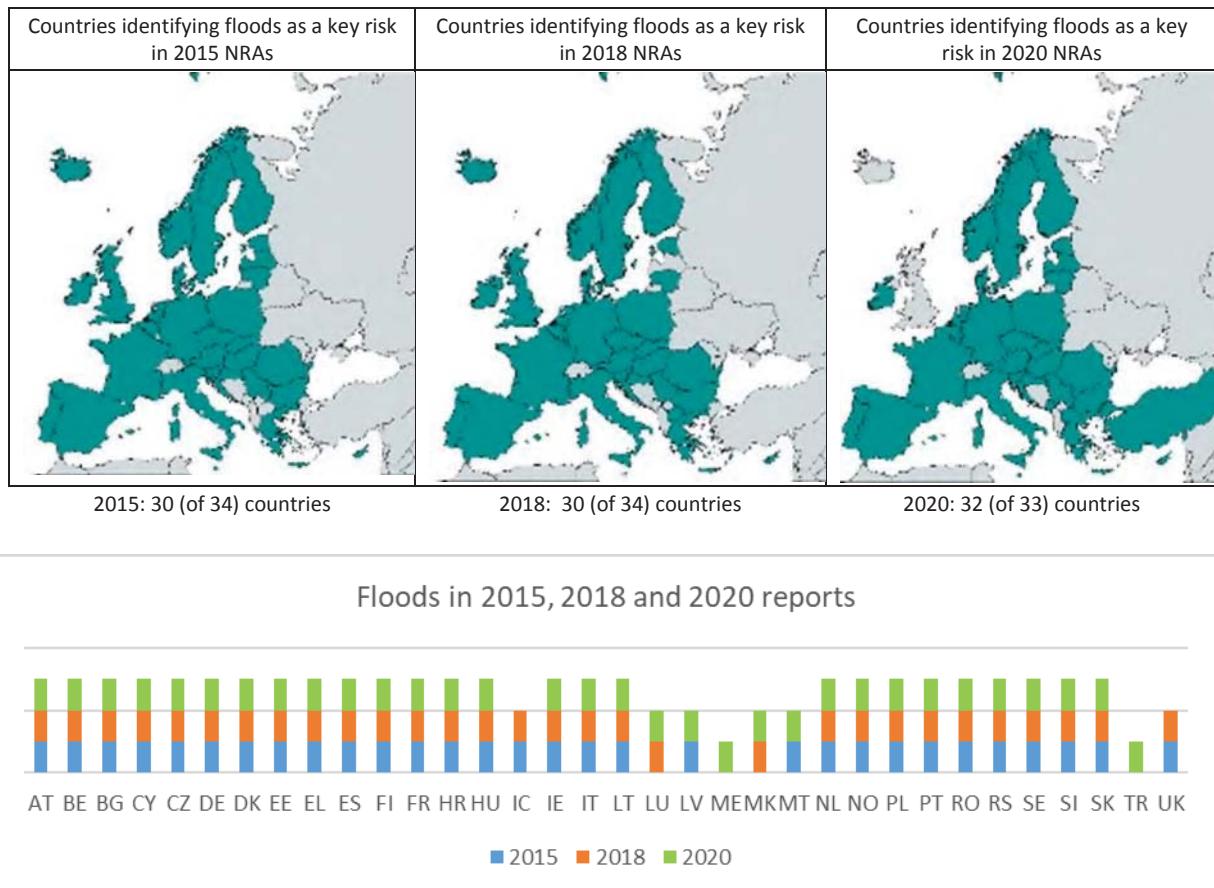


Figure 19. (a) and (b). Countries indicating floods as a risk in the reports submitted for the three reporting periods: 2015, 2018 and 2020. (ME and TR reported in 2020 only. IC did not report in 2020. LV and MT did not report in 2018 and MK did not report in 2015).

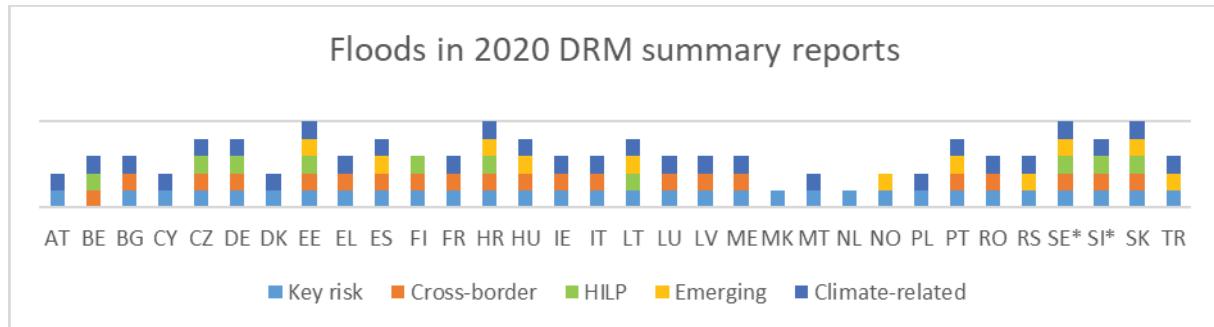


Figure 20. Floods indicated as a risk in the reports covering the 2015, 2018 and 2020 reporting periods. (IC did not report in 2020).

⁶ See also SWD(2020)330 final, Annex I, Chapter 2 and SWD(2017)176 final.

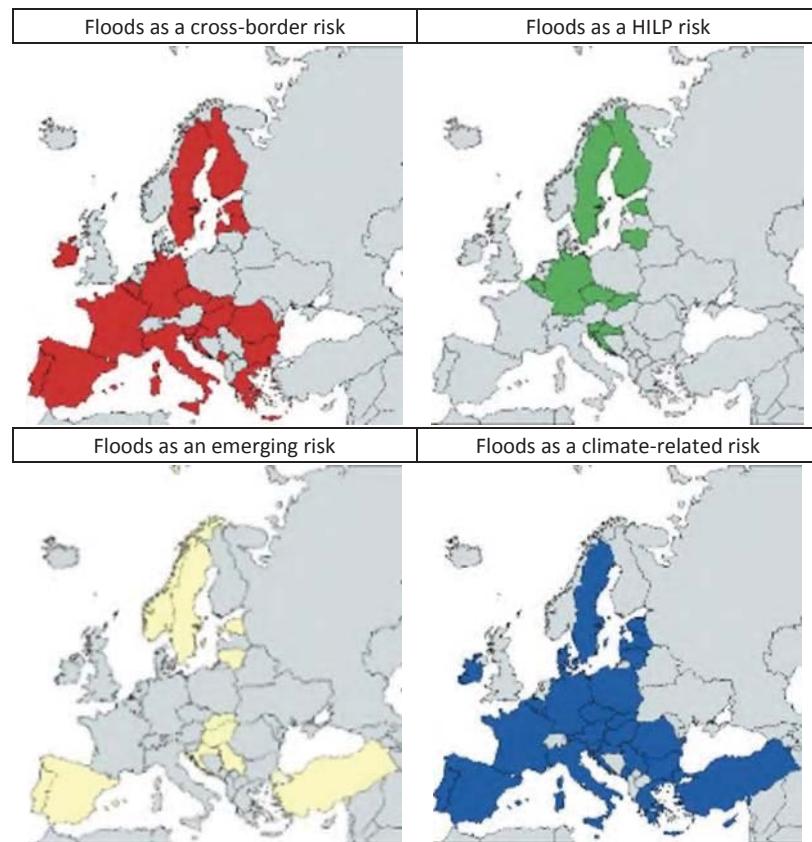


Figure 21. Geographic distribution of floods as a relevant risk by type of risk. Red: cross-border risks; Green: high-impact low-probability risks; Yellow: emerging risks; Blue: climate-related risks.

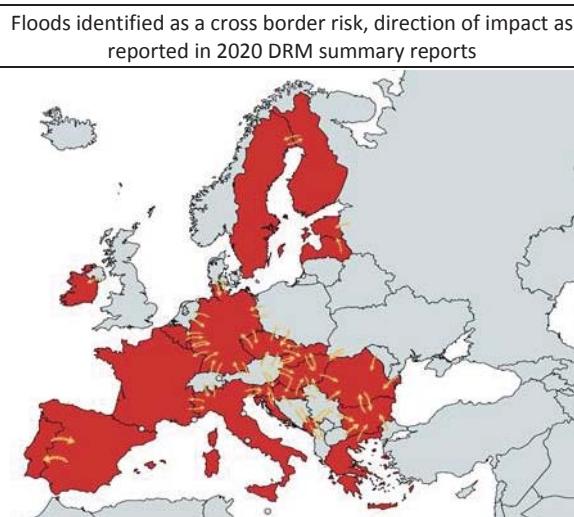


Figure 22. Indications of the direction of impact of floods as cross-border risks as indicated in the 2020 DRM summary reports, either as specifically mentioned cross-border risks, or a risk originating in one country and potentially affecting other countries, following to the reporting guidelines.

Risk	Further specification of reported risk (number of countries using the term)	Category of risk reported
Floods	Floods in general (28)	K, CB, HI, E, C
	Flash floods (6)	K, CB, E, C
	Coastal flood (5)	HI, C
	Fluvial/inland floods (4)	K, CB, C
	Special flood (1)	K, H
	Snowmelt flood (1)	K, C
	Flood from water bearing infrastructure (1)	K, CB, H; E, C
	Storm surge (3 countries)	K, CB, H, C

Table 6. Number of countries that identified a specific risk, according to subcategory of risks used in the national reports (as translated). K: key risk; CB: cross-border risk; H: high-impact low-probability risk; E: emerging risk; C: climate-related risk.

1.8 Geophysical risk⁷

1.8.1 Earthquakes

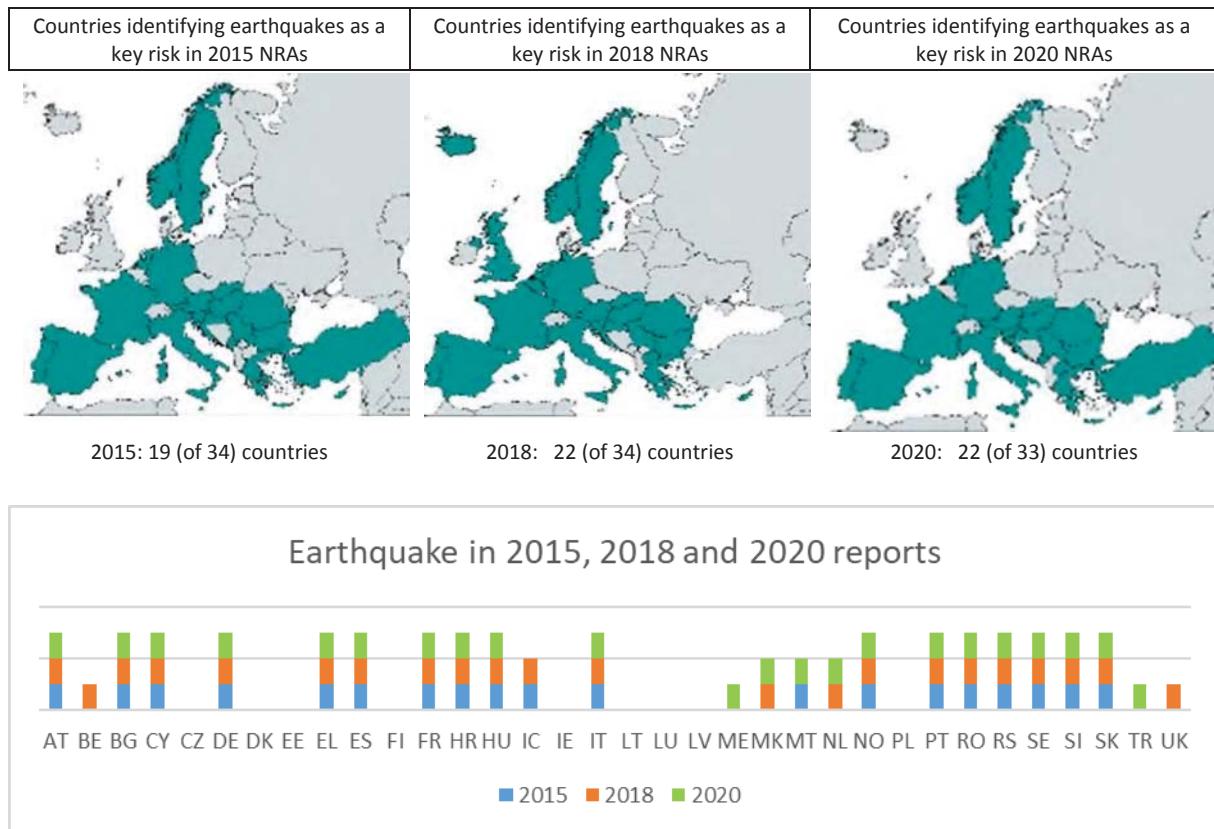


Figure 23. (a) and (b). Countries indicating earthquakes as a risk in the reports submitted for the 2015, 2018 and 2020 reporting periods. (ME and TR reported in 2020 only. IC did not report in 2020. LV and MT did not report in 2018 and MK did not report in 2015).

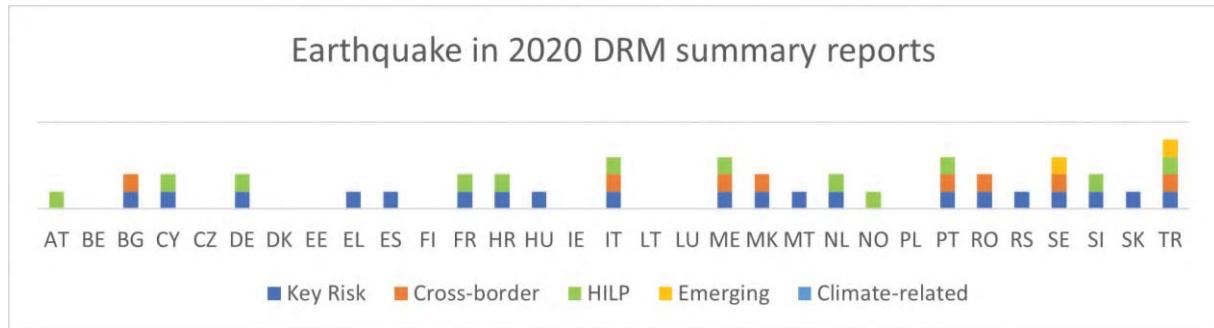


Figure 24. Countries reporting earthquake in the 2020 DRM summary reports as a key risk, a cross-border risk, a high-impact low-probability risk, an emerging risk or a climate-related risk. (IC did not report in 2020).

⁷ See also SWD(2020)330 final, Annex I, Chapter 5 and SWD(2017)176 final.

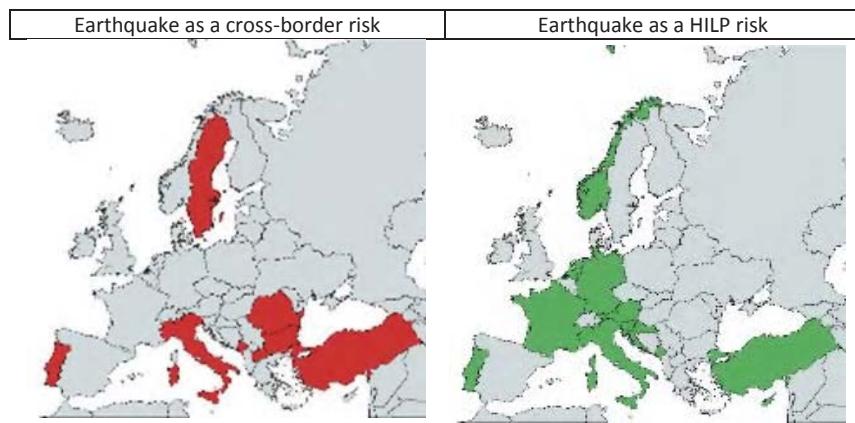


Figure 25. Geographic distribution of earthquakes indicated as a relevant risk by type of risk. Red: Cross-border risks; Green: high-impact low-probability risks; Yellow: emerging risks; Blue: climate-related risks.

1.8.2 Tsunamis

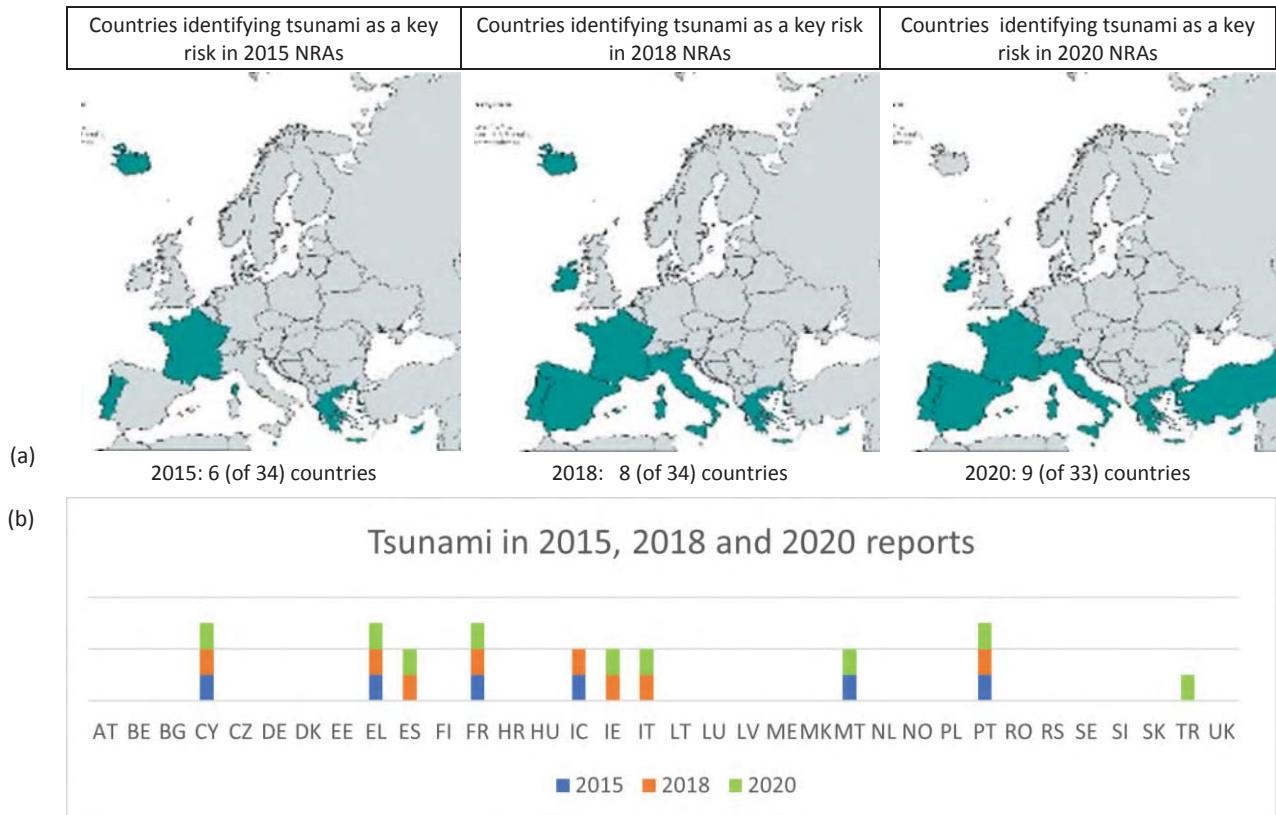


Figure 26. (a) and (b). Countries indicating tsunamis as a risk in the reports covering the three reporting periods: 2015, 2018 and 2020. (ME and TR reported in 2020 only. IC did not report in 2020. LV and MT did not report in 2018 and. MK did not report in 2015).

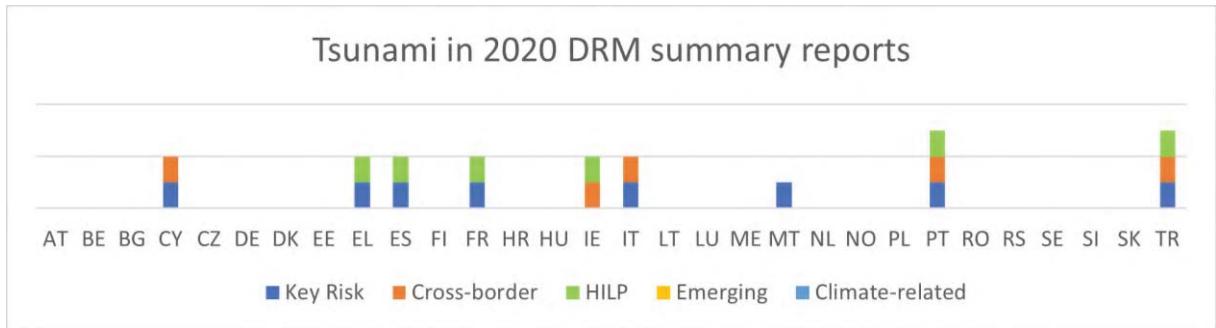


Figure 27. Countries indicating tsunami as a key risk, a cross-border risk, a high-impact low-probability risk, emerging risk or a climate-related risk. (IC did not report in 2020).

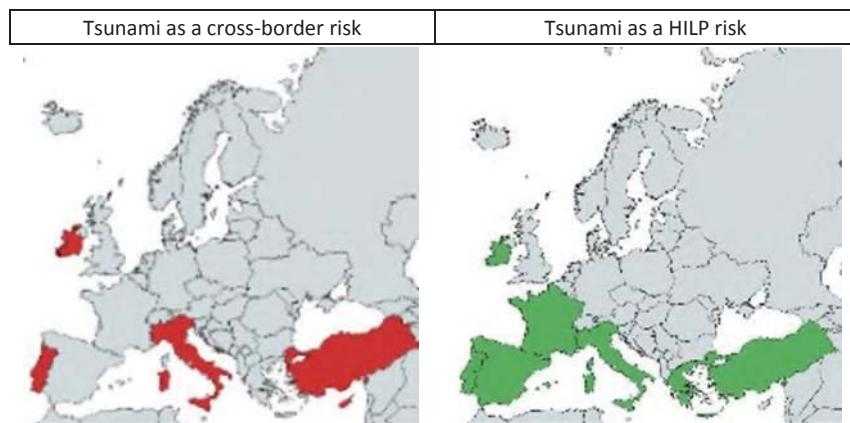


Figure 28. *Geographic distribution of tsunamis reported as a relevant risk by type of risk. Red: cross border risks; Green: high-impact low-probability risks.*

1.8.3 Volcanic eruption

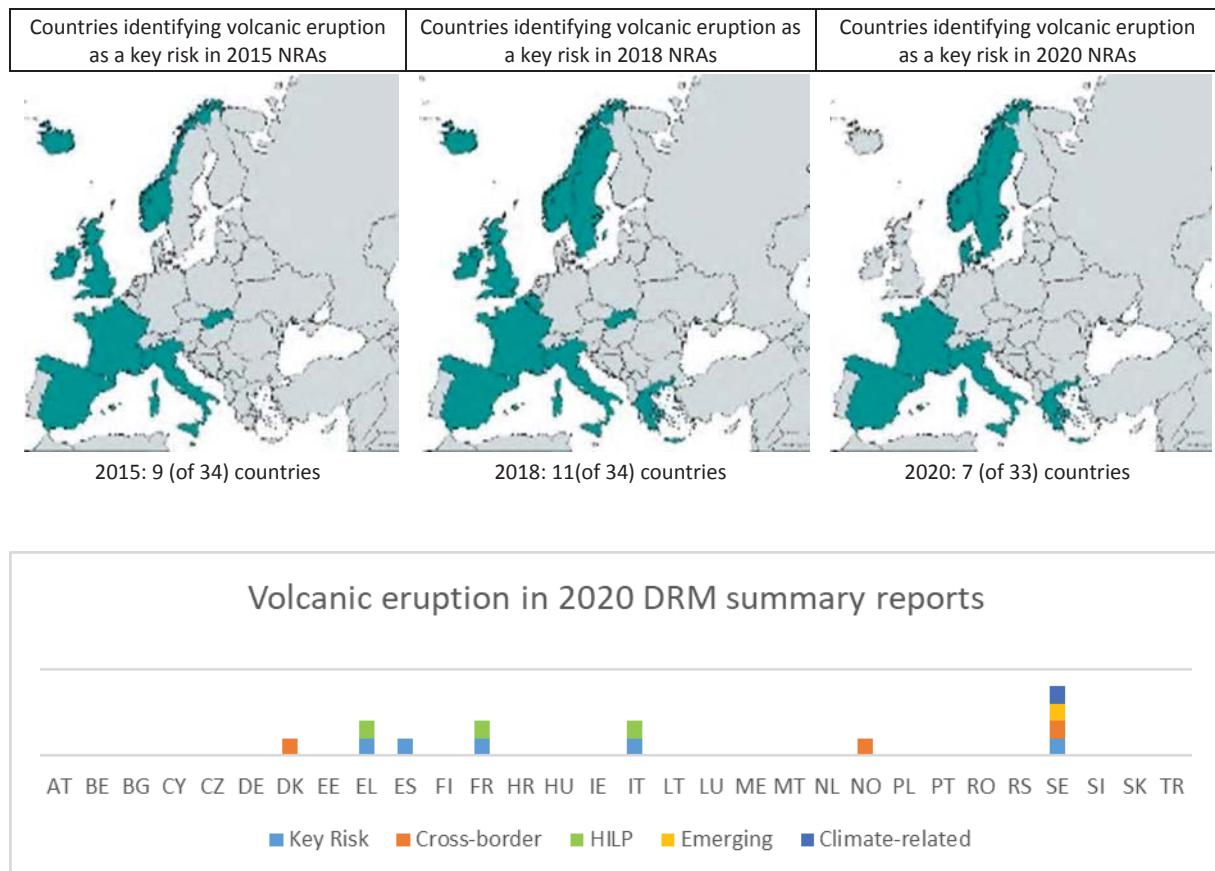


Figure 29. (a) and (b). Countries indicating volcanic eruptions as a risk in the reports covering the three reporting periods 2015, 2018 and 2020. (ME and TR reported in 2020 only. IC did not report in 2020. LV and MT did not report in 2018 and MK did not report in 2015).

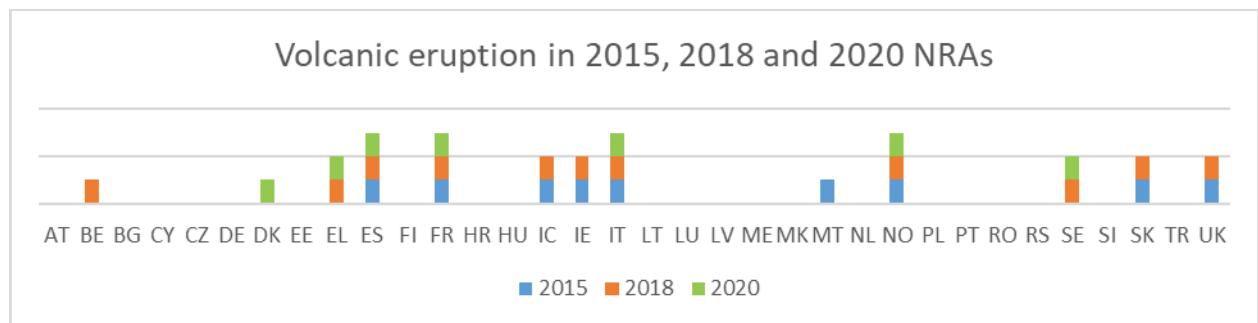


Figure 30. Volcanic eruptions identified in the 2020 DRM summary reports as a key risk, a cross-border risk, a high-impact low-probability risk, an emerging risk or a climate-related risk. (IC did not report in 2020).

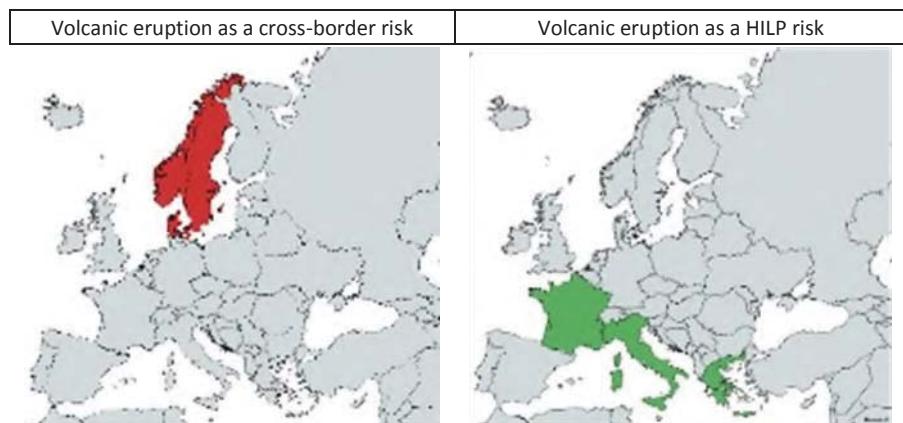


Figure 31. Geographic distribution of the risk of volcanic eruptions by type of risk. Red: Cross-border risks; Green: high impact low-probability risks; Yellow: emerging risks; Blue: climate-related risks.

1.9 Human health risks⁸

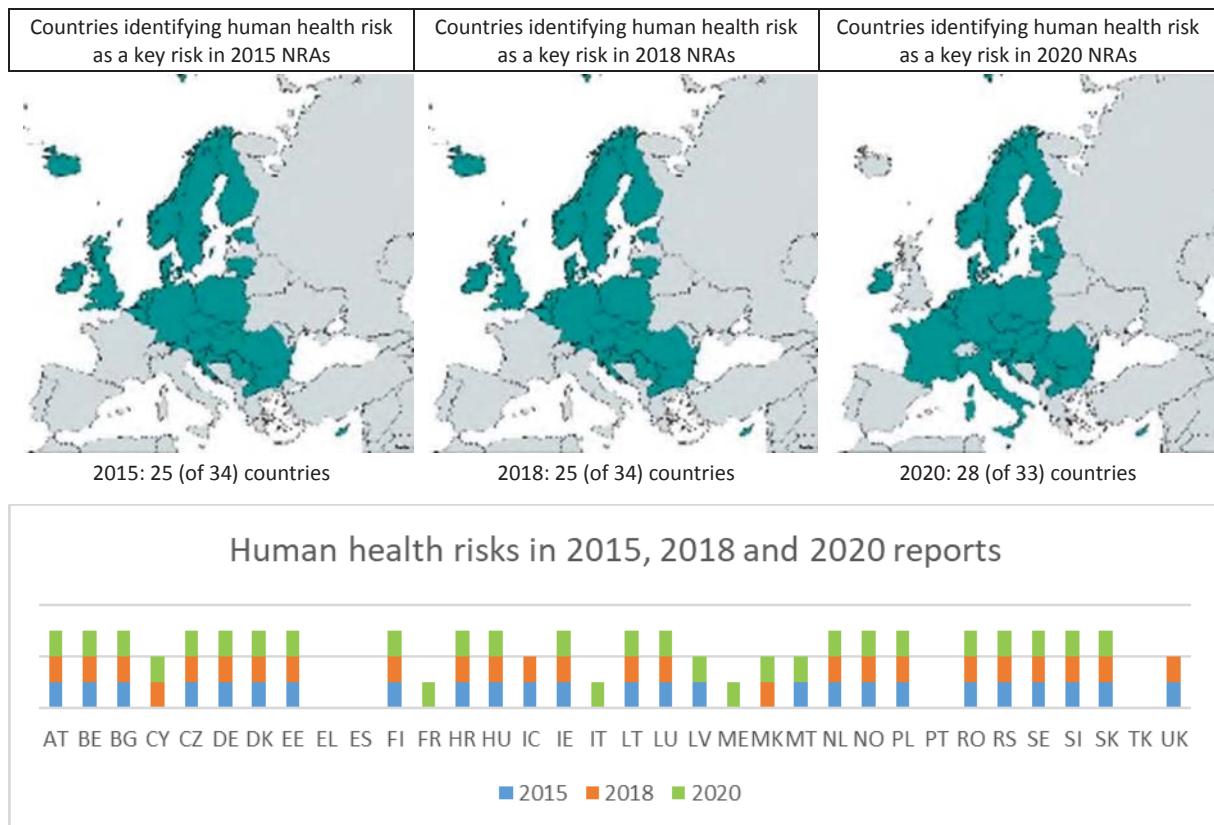


Figure 32. (a) and (b). Countries indicating human health as a risk in the reports covering the 2015, 2018 and 2020 reporting periods. (ME and TR reported in 2020 only. IC did not report in 2020. LV and MT did not report in 2018 and MK did not report in 2015).

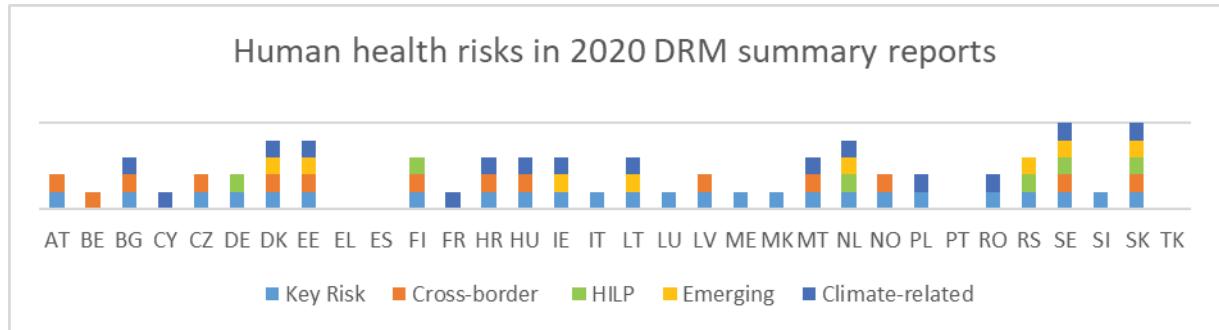


Figure 33. Human health risks indicated in the 2020 DRM summary reports as key risk, a cross-border risk, a high-impact low-probability risk, emerging risk or a climate-related risk. (IC did not report in 2020).

⁸ See also SWD(2020)330 final, Annex I, Chapter 6 'Epidemics/Pandemics' and SWD(2017) 176 final

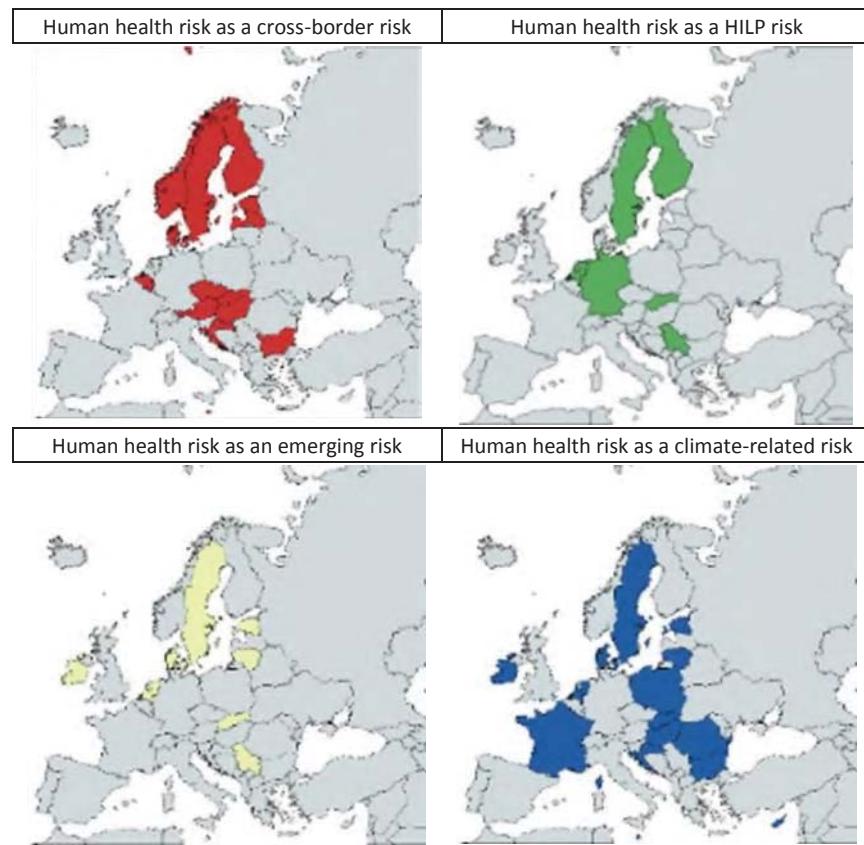


Figure 34. Geographic distribution of floods identified as a relevant risk by type of risk. Red: cross border risk; Green: high-impact low-probability risk; Yellow: emerging risk; Blue: climate-related risk.

Risk	Further specification of reported risk (number of countries using the term)	Category of risk reported
Infectious diseases	Pandemic/epidemic (23 countries)	K, CB, H, E, C
	Contagious diseases (1 country)	K
	New infectious diseases (1 country)	C
	Re-appearance of communicable diseases (1 country)	K
	Diseases without treatment (1 country)	CB
	Exotic diseases (1 country)	E
	Zoonotic diseases (3 countries)	K, E, C
	Long COVID (1 country)	E
	Invasive species bringing human, diseases (1 country)	E, C
Other human health risks	Foodborne diseases (2 countries)	K, C
	Water borne diseases (2 countries)	K, C
	Antibiotic resistance (6 countries)	K, CB, E, C
	Mass intoxication (1 country)	K, E
	Vaccine hesitancy and decrease (2 countries)	K, E
	Food safety chain incidents (1 country)	K, CB
Generic	Health and well-being risks (1 country)	C
	Sanitation/sanitary risks (2 countries)	K
	Health and Hygiene risks (1 country)	K
	Threats of biological, chemical, environmental and unknown origin to human health (1 country)	K

Table 7. Number of countries that identified a specific risk, according to subcategories used in the national reports (as translated). K: key risk; CB: cross-border risk; H: high-impact low-probability; E: emerging risk; C: climate-related risk.

1.10 Industrial accidents⁹

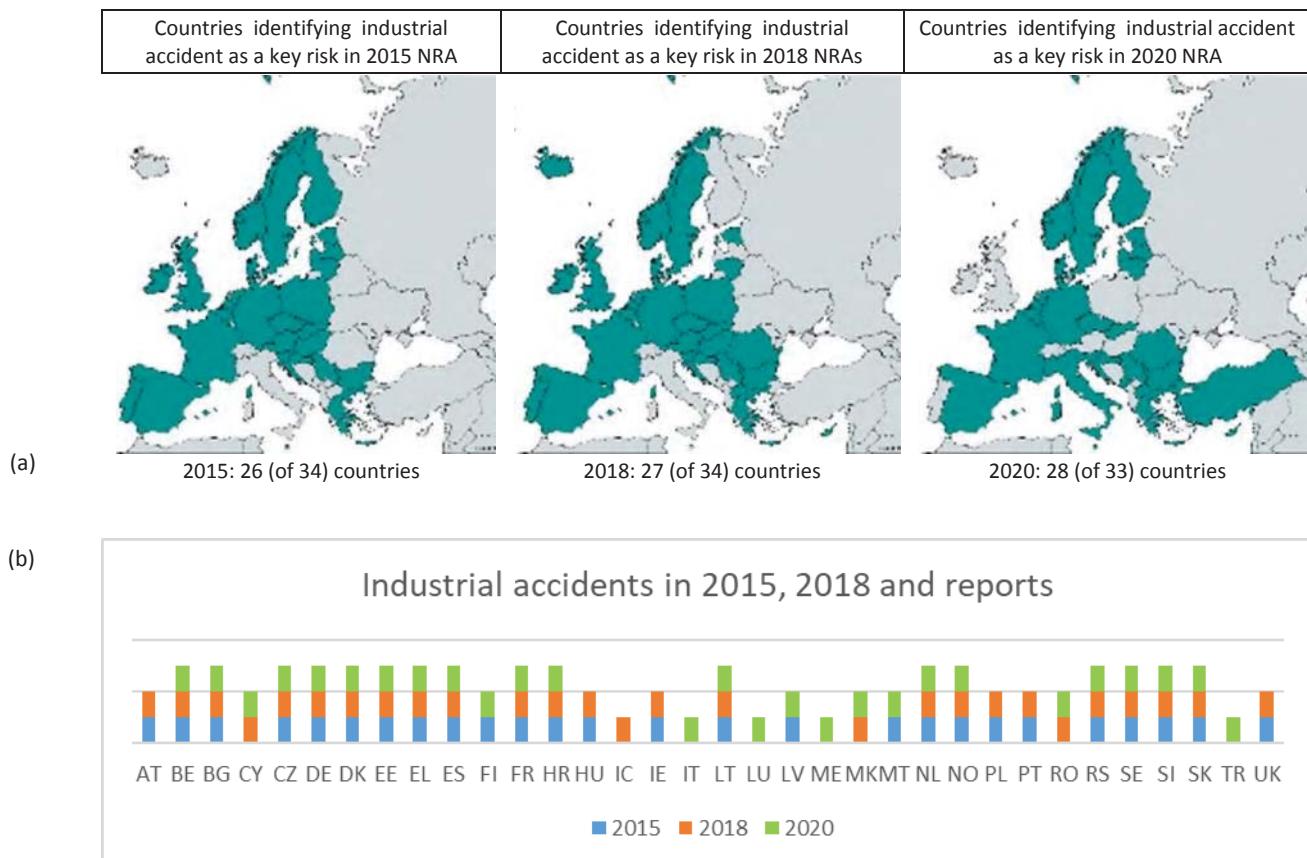


Figure 35. (a) and (b). Countries indicating industrial accidents as a risk in the reports covering the three reporting periods 2015, 2018 and 2020. (ME and TR reported in 2020 only. IC did not report in 2020. LV and MT did not report in 2018 and MK did not report in 2015).

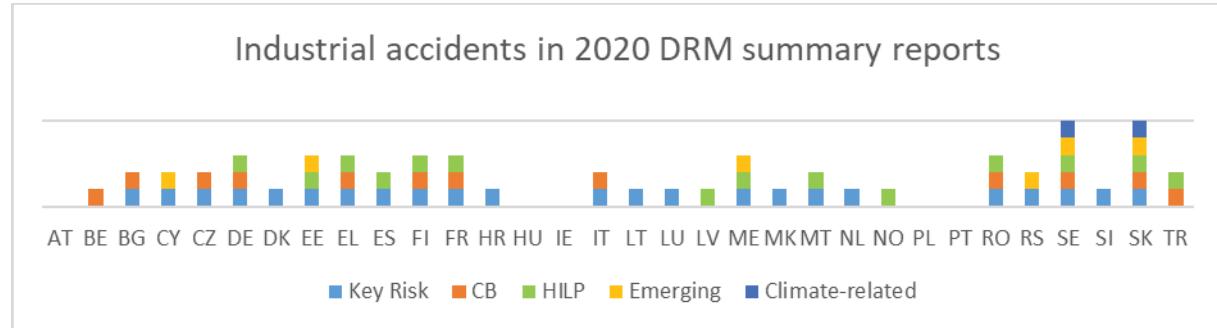


Figure 36. Industrial Accidents in the 2020 DRM summary reports as key risk, a cross-border risk, a high-impact low-probability risk, an emerging risk or a climate-related risk. (IC did not report in 2020).

⁹ See also SWD(2020)330 final, Annex I, Chapter 10 and SWD(2017)176 final.

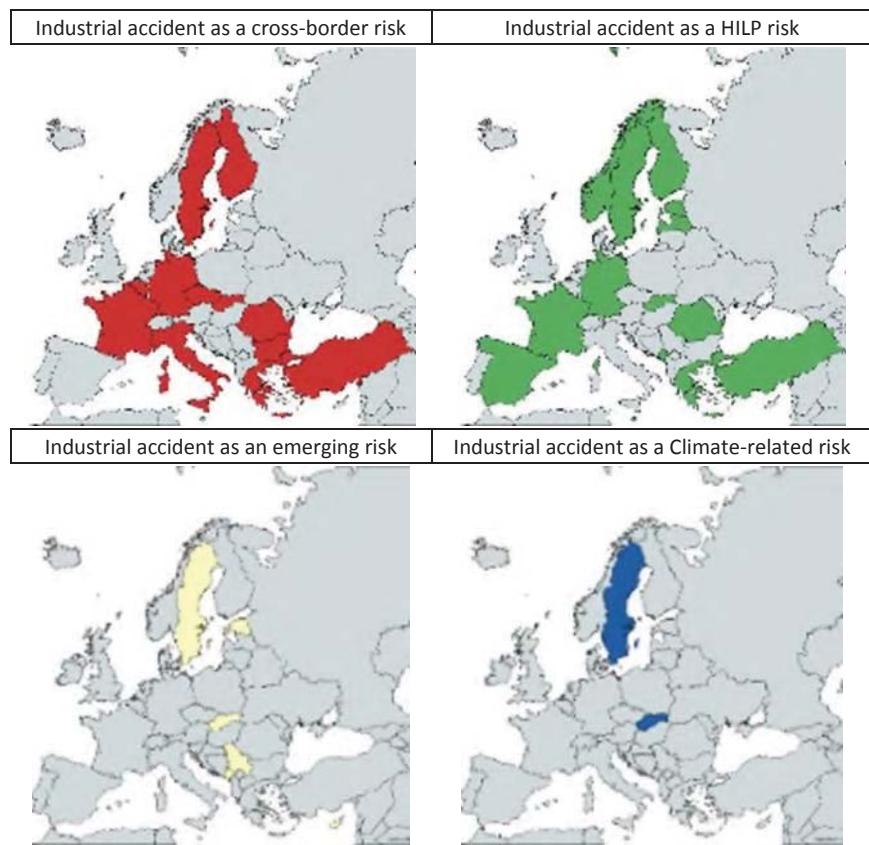


Figure 37. Geographic distribution of industrial accidents identified as a relevant risk by type of risk. Red: cross-border risks; Green: high-impact low-probability risks; Yellow: emerging risks; Blue: climate-related risks.

Risk	Further specification of reported risk (number of countries using the term)	Category of risk reported
Industrial accidents	Industrial accident at a 'Seveso Directive' site (3 countries)	K, CB, H
	Industrial accidents (6 countries)	K, CB, H
	Technological risks (5 countries)	K, E
	Domino effect accident in enterprise liable to be affected by major accident (1 country)	K, H, E
	High risk industries (1 country)	K, CB
CBRNE	Explosion at an industrial plant (3 countries)	K, CB, H, E
	Generic CBRN-E (non-malicious) (4 countries)	K, CB, H, E
	Dangerous chemical substance leakage/accidents (9 countries)	K, CB, H, E, C
	Release of biological materials (5 countries)	K, CB, H, E, C
	Accidents involving dangerous substances (1 country)	K
Specific industries	Mining risks (1 country)	K, H
	Hydropower plant accidents (1 country)	H
Transport-related	Transport of dangerous goods (1 country)	K
	Leakage of dangerous chemical, biological and radioactive material during transport (1 country)	CB
Other	Environmental burden (1 country)	K, CB, H, E, C

Number of countries that identified a specific risk, according to subcategories used in the national reports (as translated). K: key risk; CB: cross-border risk; H: high-impact low-probability risk; E: emerging risk; C: climate-related risk.

1.11 Mass migration

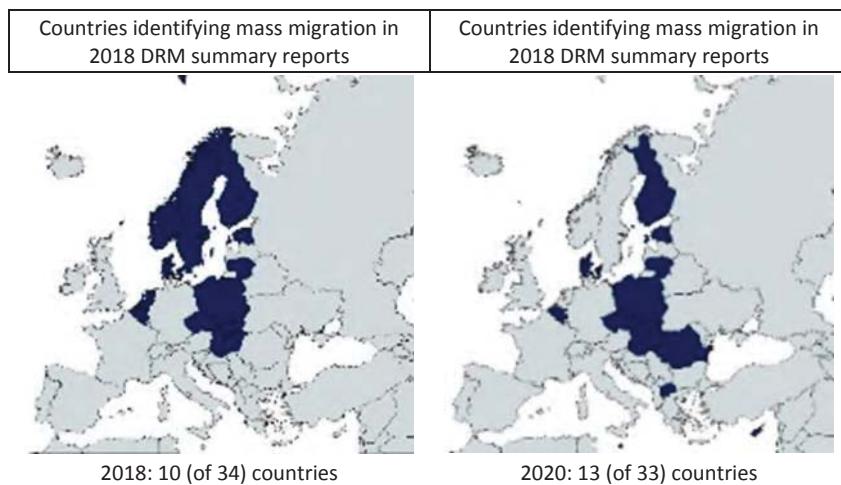


Figure 38. Mass migration indicated as a risk in the reports covering the reporting time periods 2018 and 2020. (ME and TR reported in 2020 only. IC did not report in 2020. LV and MT did not report in 2018).

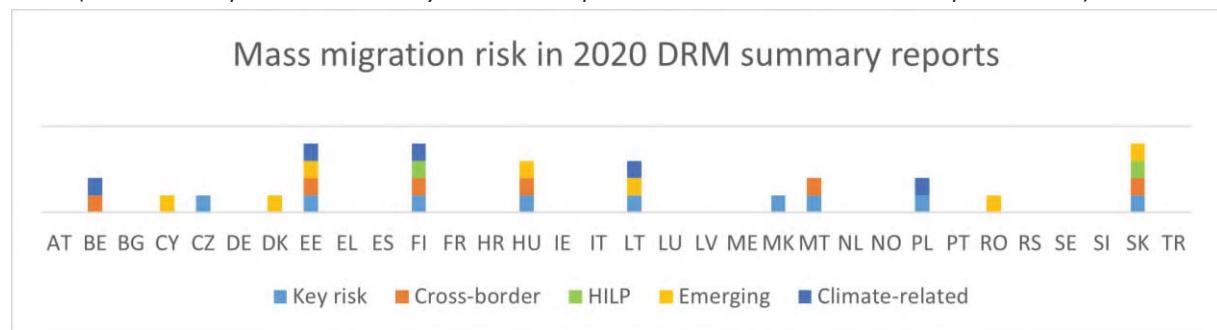


Figure 39. Mass migration identified in the 2020 DRM summary reports as a key risk, a cross-border risk, a high-impact low-probability risk, an emerging risk or a climate-related risk. (IC did not report in 2020).

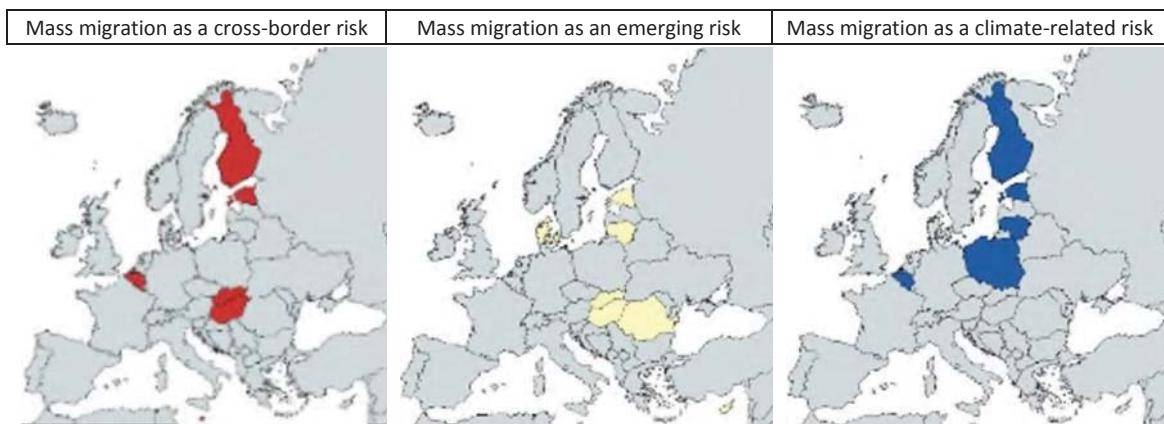


Figure 40. Geographic distribution of mass migration as a relevant risk by type of risk. Red: cross-border risks; Green: high-impact low-probability risks; Yellow: emerging risks; Blue: climate-related risks.

Further specification of reported risk (number of countries using the term)	Category of risk reported
Climate-induced migration (2 countries)	CB, E, C
War and poverty induced migration (1 country)	E
Irregular migration (1 country)	E

Table 8. Number of countries that identified a specific risk, according to subcategories used in the national reports (as translated). K: key risk; CB: cross-border risk; H: high-impact low-probability risk; E: emerging risk; C: climate-related risk.