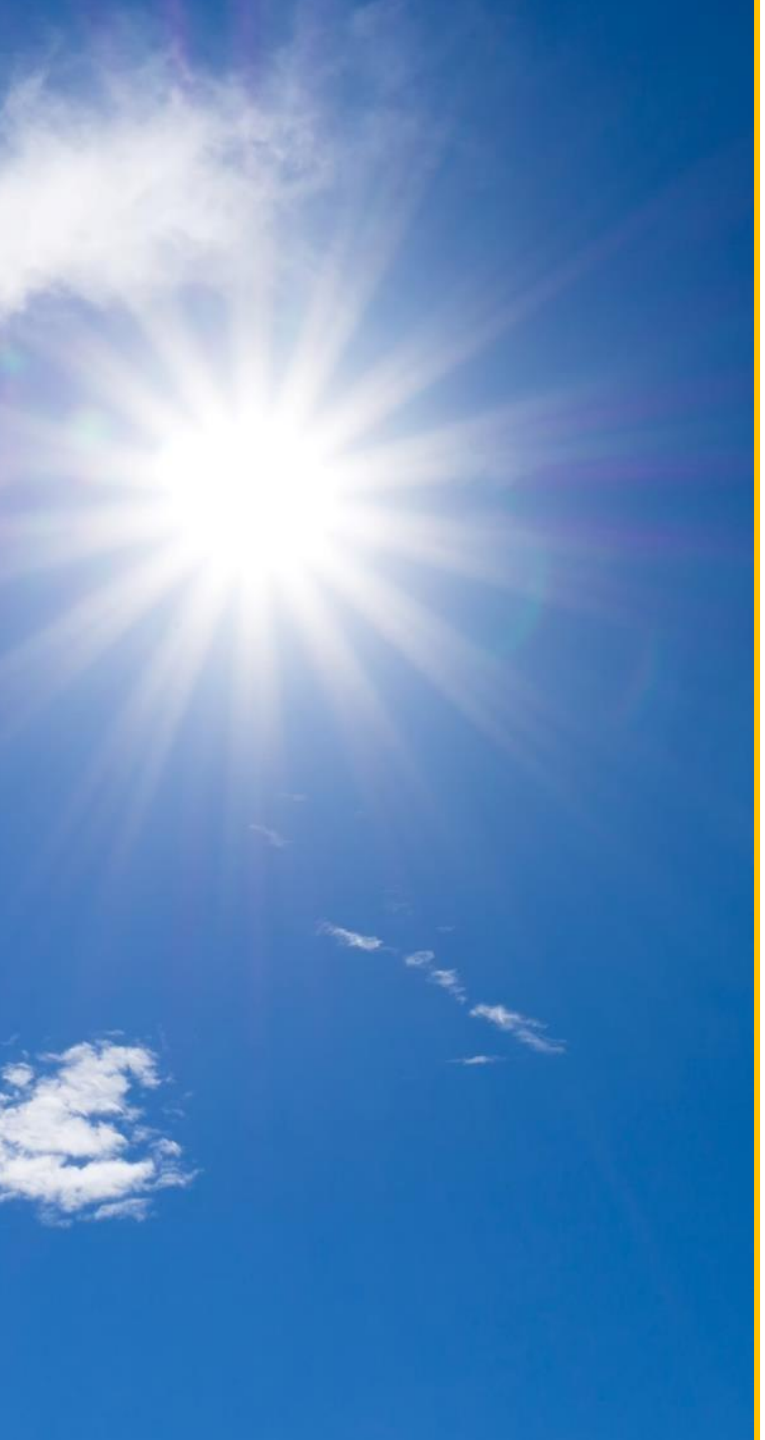
Climate change and health

SGPP meeting 19 October 2021

European Commission

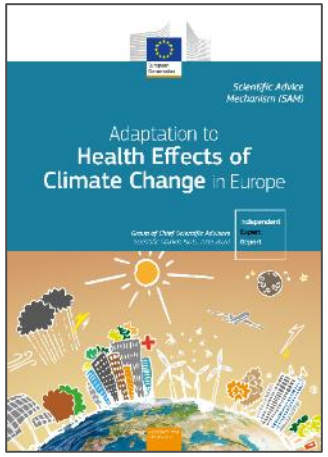


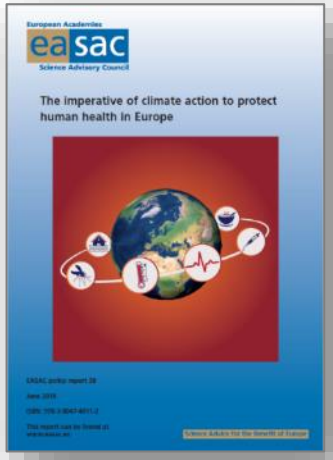
The European green Deal: On the road to climate neutrality

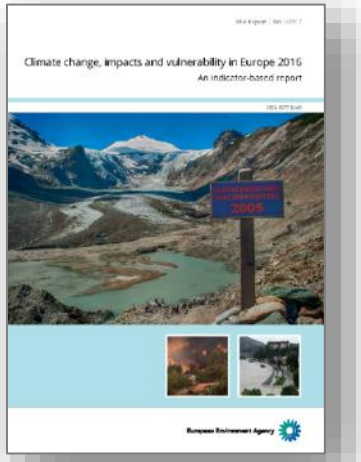
- March 2020:
  EU long-term strategy committing to
  climate neutrality by 2050
- March 2020:
  Commission proposing **EU Climate Law**
- December 2020:
  EU Leaders agreed to cut emissions
  by 2030 by at least 55%

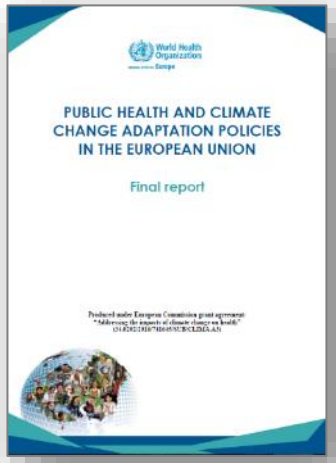
European Commission

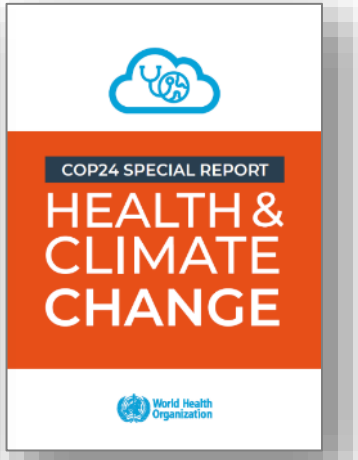
Climate crisis = health crisis

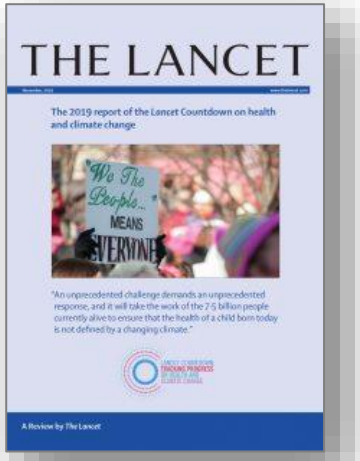












European Commission

Climate action - European Climate and Health Observatory: Objectives

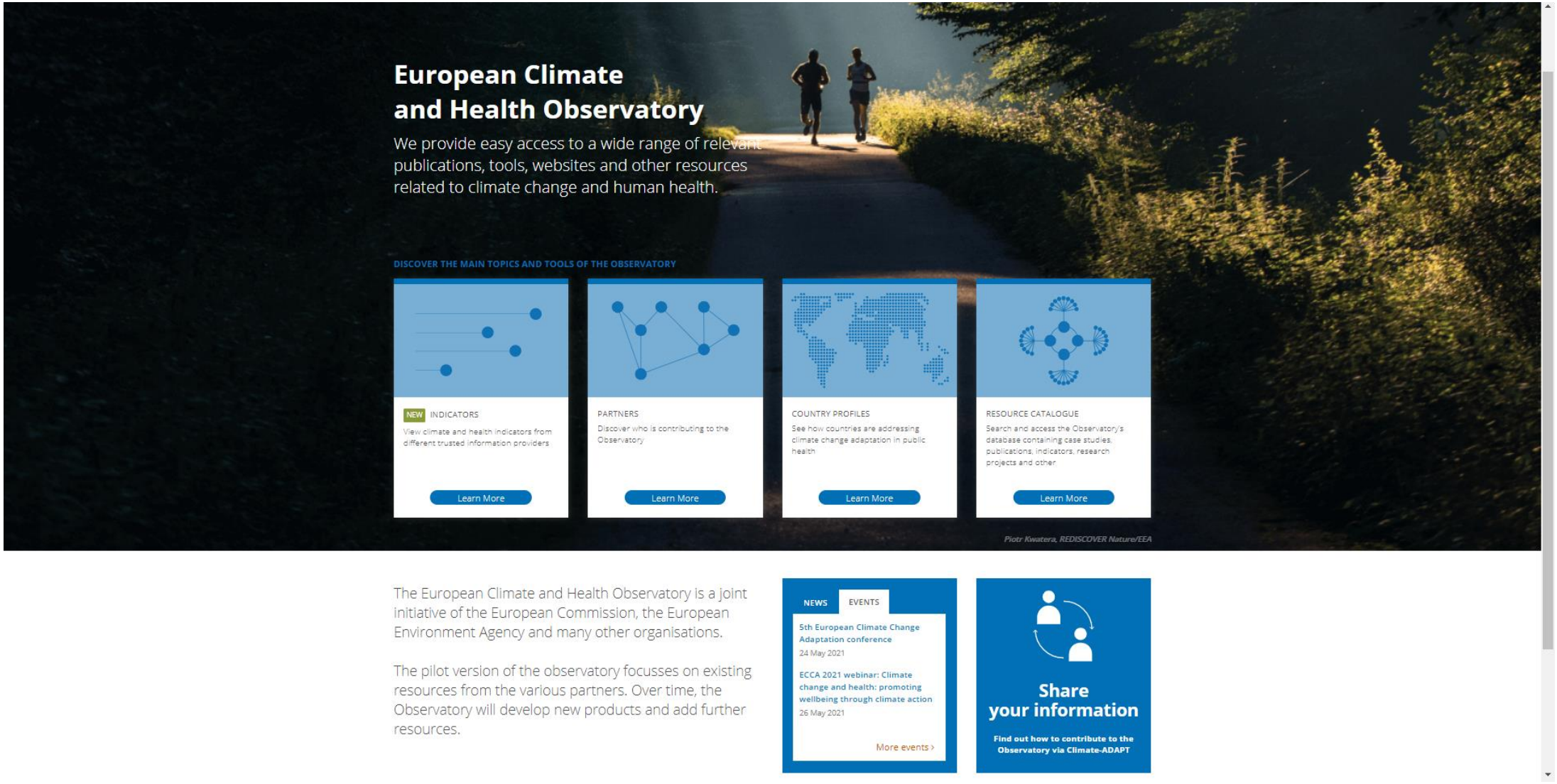
- Improve the knowledge base for policy making and practice
- Connect and pool knowledge, expertise, tools and organisations
- Facilitate learning across countries
- Support the EU Green Deal, EU4Health and the new EU Adaptation Strategy

The Observatory – Launch on 4 March 2021

climate-adapt.eea.europa.eu/observatory/++aq++metadata/videos/keeping-healthy-in-a-changing-climate-launch-of-the-european-climate-and-health-observatory

climate-adapt.eea.europa.eu/observatory/++aq++metadata/publications/responding-to-the-health-risks-of-climate-change-in-europe/

European Climate and Health Observatory – Portal



climate-adapt.eea.europa.eu/observatory

European Commission

European Climate and Health Observatory – Partnership

Observatory management group

EUROPEAN COMMISSION

Observatory partners

WORLD HEALTH ORGANIZATION - REGIONAL OFFICE FOR EUROPE

THE LANCET COUNTDOWN: TRACKING PROGRESS ON HEALTH AND CLIMATE CHANGE

EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

EUROPEAN ENVIRONMENT AGENCY

EUROPEAN FOOD SAFETY AUTHORITY

COPERNICUS CLIMATE CHANGE SERVICE AND COPERNICUS ATMOSPHERIC SERVICE

European Commission

The Observatory portal: indicators

AIR POLLUTION DUE TO OZONE: HEALTH IMPACTS AND EFFECTS OF CLIMATE CHANGE
Year: 2015
Source: EEA

VECTOR-BORNE DISEASES
Year: 2016
Source: EEA

EXTREME TEMPERATURES AND HEALTH
Year: 2016
Source: EEA

FLOODS AND HEALTH
Year: 2016
Source: EEA

WATER- AND FOOD-BORNE DISEASES
Year: 2016
Source: EEA

VULNERABILITY TO EXTREMES OF HEAT IN EUROPE
Year: 2020
Source: Lancet Countdown

CLIMATE SUITABILITY FOR INFECTIOUS DISEASE TRANSMISSION - DENGUE
Year: 2020
Source: Lancet Countdown

CLIMATE SUITABILITY FOR INFECTIOUS DISEASE TRANSMISSION - VIBRIO
Year: 2021
Source: Lancet Countdown

EXPOSURE OF VULNERABLE POPULATIONS TO HEATWAVES
Year: 2021
Source: Lancet Countdown

THERMAL COMFORT INDICES - MEAN RADIANT TEMPERATURE, 1979-2019
Year: 2021
Source: Copernicus Climate Change Service

THERMAL COMFORT INDICES - UNIVERSAL THERMAL CLIMATE INDEX, 1979-2019
Year: 2021
Source: Copernicus Climate Change Service

HEALTH HEATWAVE (HIGH TEMPERATURE AND HUMIDITY), 1971-2099
Year: 2021
Source: Copernicus Climate Change Service

FIRE WEATHER INDEX - MONTHLY MEAN, 1979-2019
Year: 2021
Source: Copernicus Climate Change Service

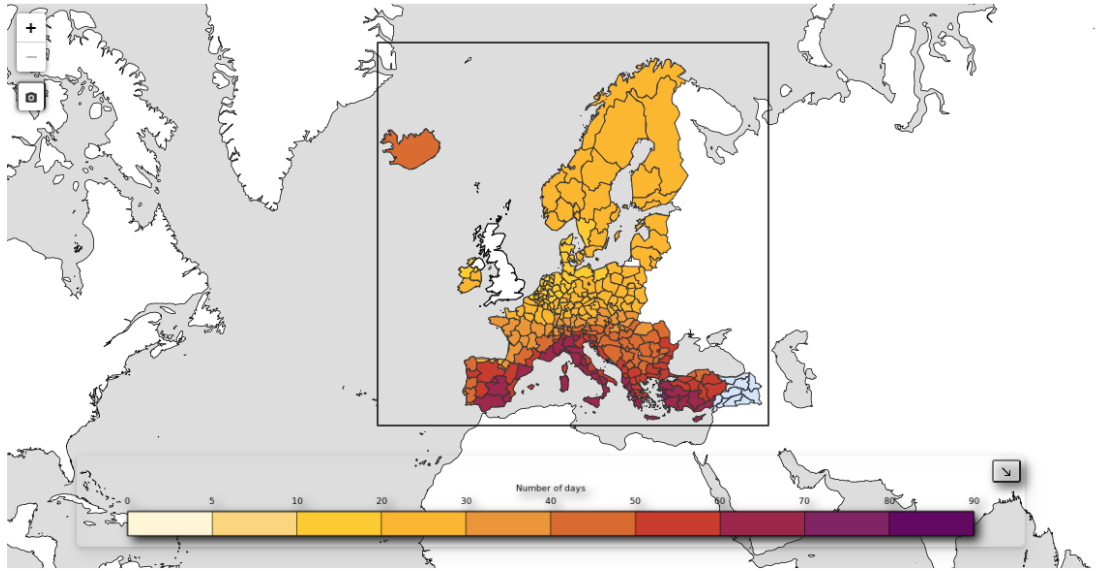
CLIMATIC SUITABILITY FOR THE TIGER MOSQUITO - SUITABILITY INDEX, 1971-2099
Year: 2021
Source: Copernicus Climate Change Service

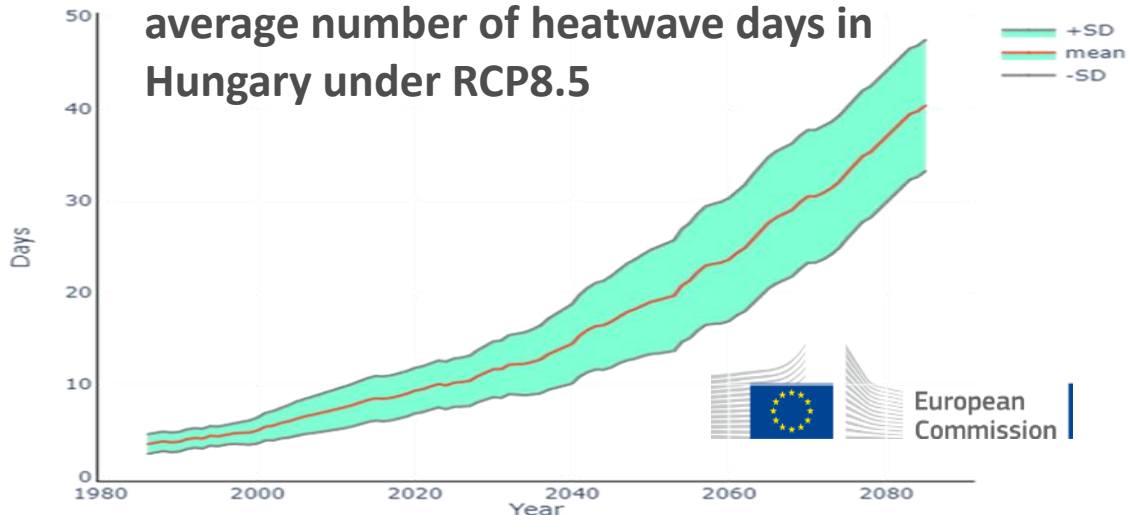
CLIMATIC SUITABILITY FOR THE TIGER MOSQUITO - SEASON LENGTH, 1971-2099
Year: 2021
Source: Copernicus Climate Change Service

Number of health-related heatwave days - Explore index

Go back

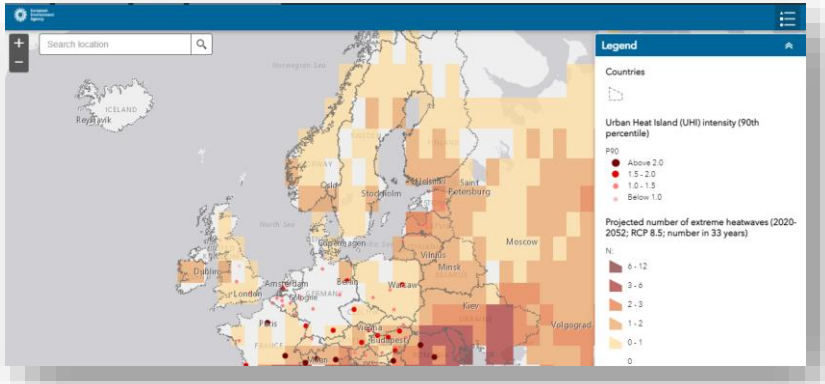
Time period — Choose a time period: 2070-2099
Scenario — Choose a scenario: RCP8.5
Regional aggregation — Choose a regional aggregation size: Second sub-national level (NUTS2)



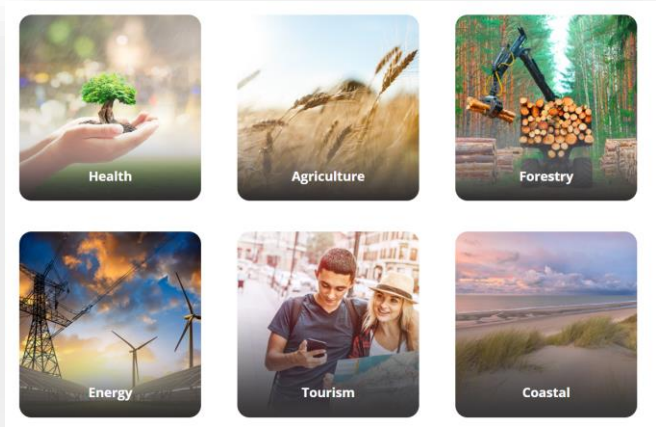


Product(s)

Urban Adaptation Map Viewer



Climate Data Explorer



Case studies

Climate and health indicators

Country profiles

...and more

European Commission

The Observatory portal: early warning systems

European early warning systems

Early warning systems for climate-related risks to health and wellbeing must rely on a sound scientific and technical basis that enables a focus on regions and population groups most at risk. Early warning systems include detection, analysis, prediction, and then warning dissemination followed by response decision-making and implementation. Such systems warn stakeholders and vulnerable populations about climatic hazards such as tropical cyclones, floods, storms, avalanches, tornadoes, severe thunderstorms, extreme heat and cold, forest fires, drought, etc. To be effective and complete, an early warning system needs to comprise four interacting elements namely: (i) risk knowledge, (ii) monitoring and warning services, (iii) dissemination and communication and (iv) response capability.

In Europe, there is a considerable experience with early warning systems, especially for flood and flash-flood risk, storms, forest fires, heatwaves and droughts. Early warning systems are directly relevant for diverse sectors that are primarily affected by climate-related risks, including public health, disaster risk reduction, agriculture, forestry, transport and energy.

Multi-hazard warning systems

Some early warning systems provide services and products for several climate-related risks.

Meteoalarm is a joint effort from EUMETNET (The Network of European Meteorological Services). It provides alerts in Europe for extreme weather events, including heavy rainfall with risk of flooding, severe thunderstorms, gale-force winds, heat waves, forest fires, fog, snow or extreme cold with snowstorms, avalanches or severe coastal tides.

The Copernicus Emergency Management Service (CEMS) operated by the Joint Research Centre of the European Commission provides access (among others) to key European early warning systems, in particular the European Flood Awareness System (EFAS), the European Forest Fire Information System (EFFIS), and the European Drought Observatory (EDO). It also links to the global versions of the these early warning system (GloFAS, GDO, GWIS) and to the Global Disaster Alert and Coordination System (GDACS) for tropical cyclones. These versions cover the overseas areas of Europe that are often affected by extreme events.

Heat and health

Europe has experienced several extreme summer heatwaves since 2000, which have led to high mortality and socio-economic impacts. The frequency of extreme heat events and their corresponding effects on human health and wellbeing are projected to increase substantially in a warming climate. The joint collaboration of institutional agencies and multidisciplinary approaches is essential for a successful development of heat-health warning systems and action plans, which can reduce the impacts of extreme heat on the population.

The Heat-Shield project addresses the negative impact of increased workplace heat stress on the health and productivity. The project has developed a MapViewer, which provides a 4-week heat wave forecast for Europe, focussing on occupational health. The project has also produced an Overview of Existing Heat-Health warning Systems in Europe, which provides a state-of-the-art review of 16 European heat-health warning systems and heat-health action plans.

The EuroHEAT portal provides an online heatwave forecast for Europe. It displays daily forecasts of heatwave probability (0–100 %) per NUTS1-Region for the upcoming ten days in a colour-coded map. The tool is no longer actively maintained, but it continues to be operational and is supplied with up-to-date climate data.

Climate-sensitive infectious diseases

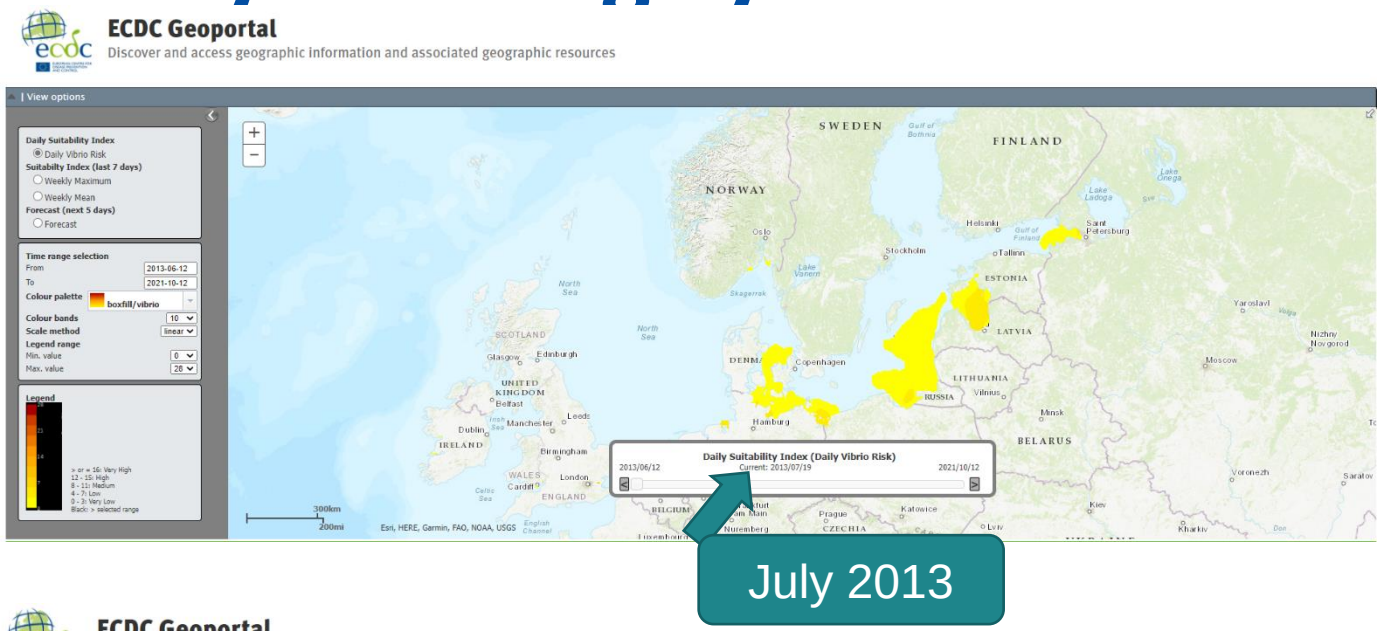
Monitoring changes in climatic and environmental drivers of infectious diseases can help anticipate, or even forecast, an upsurge of infections. Climate change can shift the geographical ranges of vector-borne diseases in Europe, thus early warning is becoming even more important.

The Vibrio Map Viewer developed by the European Centre for Disease Prevention and Control (ECDC), which is hosted on the ECDC Geoportal, provides daily updated forecasts on Vibrio suitability for European coastal areas.

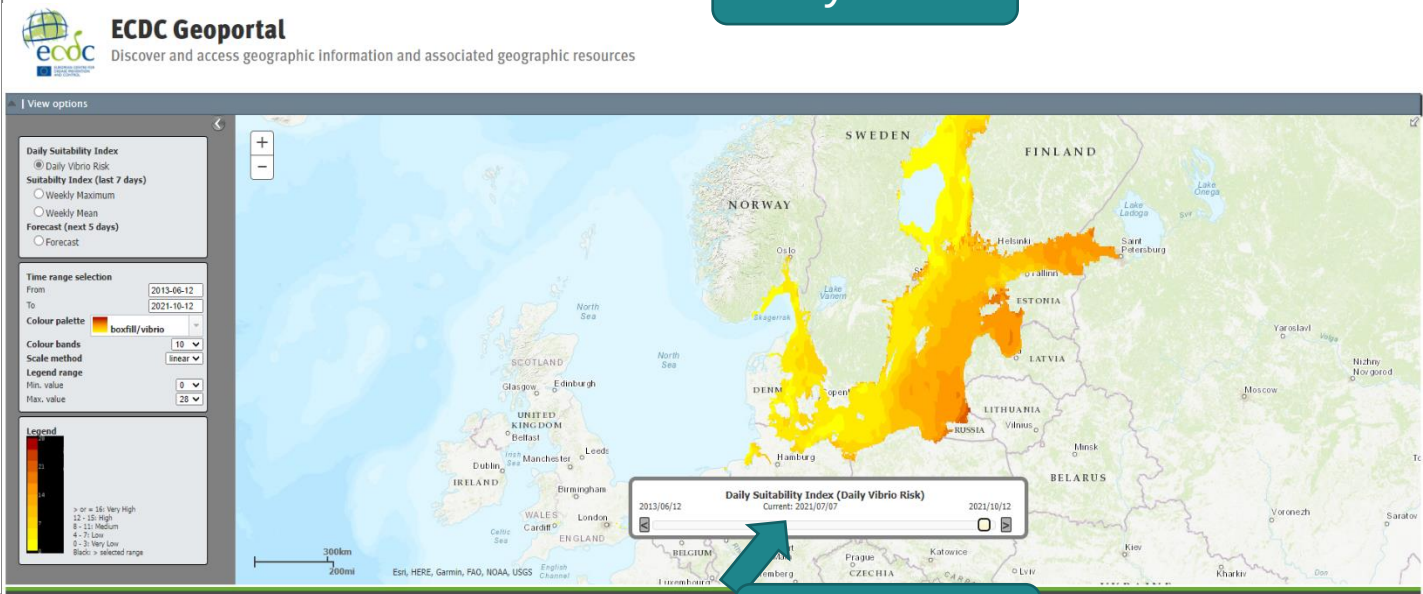
European pollen information services

Rising temperatures caused by climate change mean that trees and other plants bloom earlier or for longer, prolonging the suffering of many people with pollen allergies.

The polleninfo portal provides daily updated pollen forecasts and allergy risk assessments. It has been developed in partnership between the European Aeroallergen Network (EAN) and the Copernicus Atmosphere Monitoring Service (CAMS).



July 2013



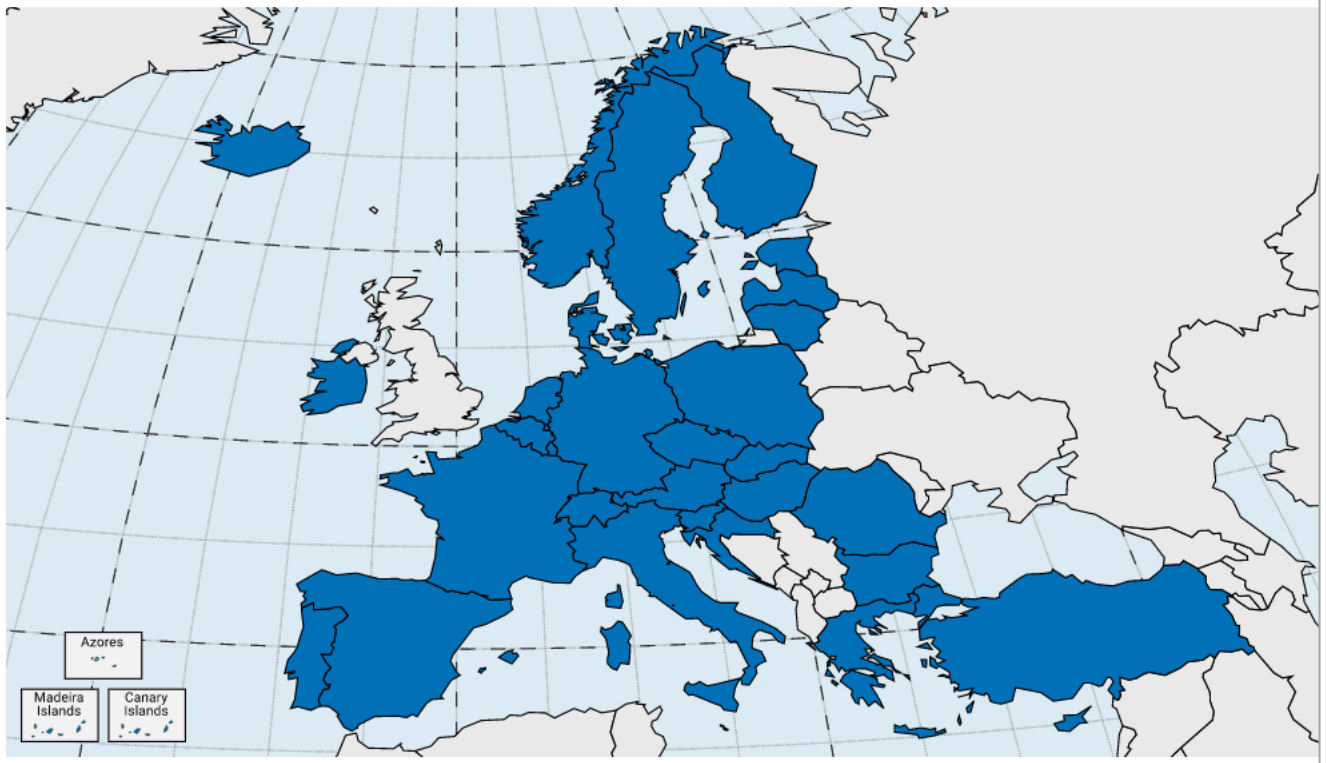
July 2021

European Commission

The Observatory portal: country profiles

Country profiles

› Policy context › **Country Profiles**



Austria

The sources used to compile the health and adaptation information for country profiles vary across countries. For EU Member States, information is based on their 2019 reporting under the EU Greenhouse Gas Monitoring Mechanism Regulation (MMR reporting; see Climate-ADAPT Country pages), the Adaptation preparedness scoreboard country fiches and the WHO study on Public health and climate change adaptation policies in the European Union. Information sources for non-EU member countries of the EEA are more limited.

Information from MMR reporting. Country profile on Climate-ADAPT

The Austrian National Adaptation Strategy (NAS, 2017) contains a qualitative vulnerability assessment for nine sectors, including the health sector.

A national adaptation plan (NAP) was revised in 2016 and presents a catalogue of 135 adaptation options for 14 areas of action. Health is one of the areas of action. The integration of adaptation into sectoral policies and programmes, and thus mainstreaming, is increasing, with practical examples, including examples from the health sector.

The Austrian assessment report of 2014 contains a vulnerability assessment and a section discussing the impact of climate change on health. The first special report addressed health, demography and climate change and was published in September 2018.

Information from Adaptation preparedness scoreboard Country fiches

Institutional barriers and lack of political momentum currently hinder the implementation of cornerstone policies that include adaptation measures at sectoral level (e.g. in health and transport).

Several recommendations proposed under relevant sectors (including the health sector) in the NAP involve the insurance sector and refer to it as a key actor.

Information from WHO Publication Public health and climate change adaptation policies in the European Union

Austria is among those countries that have developed national climate change vulnerability, impact and adaptation assessments. It has developed strategic frameworks and action plans for health-focused climate change adaptation. National policies (strategies or plans) on health and climate change have also been developed. Key policies and strategies reflect climate change and health considerations.

Several health assessments have been conducted as part of the NAS, covering hazards, such as heat risks, vector spread potential and allergenic pollens.

In 2012, the health targets for Austria were approved by the Federal Health Commission of Austria and the Austrian Council of Ministers. The overall objective was to improve the health of all people living in the country, irrespective of their level of education, income or situation in life. One specific health target deals with "securing sustainable natural resources such as air, water and soil and healthy environments for future generations" and discusses climate change adaptation.

A national mosquito surveillance system has been implemented with integrated cooperation between government agencies, human and veterinarian health institutions, the national reference laboratory and blood donor system. Surveillance of vector-borne infections is included, in addition to climatic and environmental aspects relevant to their spread and continuous monitoring of the circulation of etiologic agents.

WHO case studies from publication Public health and climate change adaptation policies in the European Union

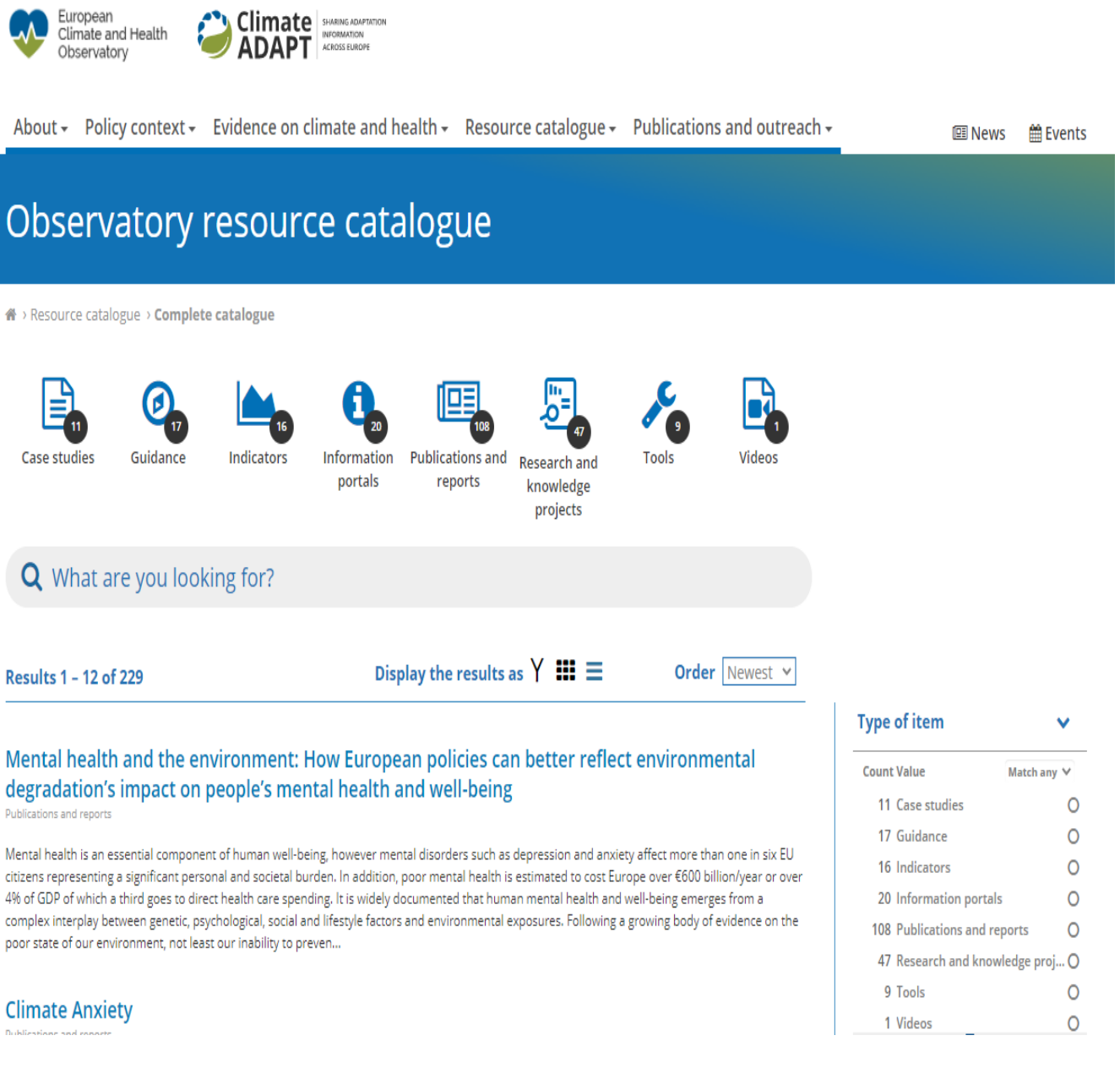
Operation of the national heat protection plan

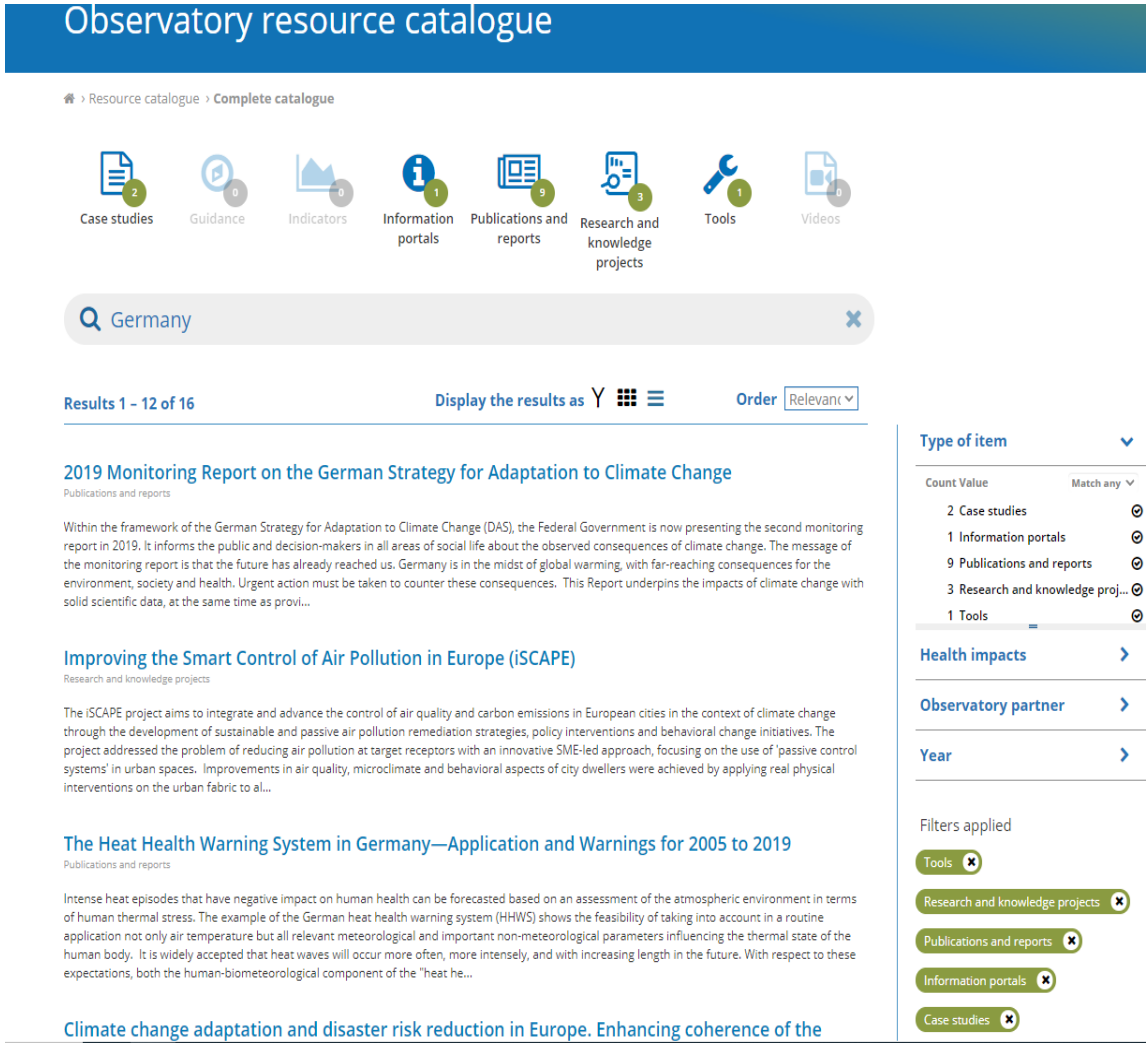
An Austrian heat protection plan was prepared and put into action in 2017, led by the Ministry of Health and Women's Affairs. Government institutions at the national and regional levels were involved in its elaboration and worked together, taking on various roles during different stages of the plan's operation. Other actors involved included health professionals, hospitals and other emergency staff. The plan gives meteorological baseline information for heat warnings, provided by the National Meteorological Service. The Ministry of Health and Women's Affairs sets out

https://climate-adapt.eea.europa.eu/observatory/policy-context/country-profiles

European Commission

The Observatory Portal: resource catalogue





Council Conclusions of June 2021 on the new EU Strategy on Adaptation to Climate Change

WELCOMES the establishment of the European Climate and Health Observatory; STRESSES the need to further define the responsibilities and objectives of the Health observatory, also in relation to existing and future institutions and RECOGNIZES the importance of the One Health approach;

What next?

Work plan 2021-2022

Proposal to concentrate on two major climate related health risks:

- **Climate-sensitive infectious disease threats** (such as Lyme disease, Dengue or West Nile fever) – *possible link with HERA*
- **Heat stress** (leading to death, ill health and reduced work capacity; and exacerbated by air pollution and the projected increase of pollen and other allergens) - *updated country profiles and heat health guidance with the WHO*

Stakeholder involvement through the HPP/ launch of the new thematic network in November 2021

European Commission