

Examples of collaboration



FUME aims to evaluate which changes in land use and land cover, in climate or in socioeconomic factors affected forest fires during the last decades.

Forest fires impacting land and people

The JRC works together with the Southwest Anatolia Forest Research Institute (SAFRI) in Turkey on a project called Forest fires under climate, social and economic changes in Europe, the Mediterranean and other fire-affected areas of the world (FUME). FUME aims to evaluate which changes in land use and land cover, in climate or in socioeconomic factors affected forest fires during the last decades. It also analyses how these

changes will affect forest fires in the future, jointly impacting on vegetation and landscape. A particular focus of the project is fires that take place in extreme climates. How to cope with changes in forest fires in the future is also considered, including the economic cost and the need for policies on a European level. FUME also aims to bridge the gap of knowledge transfer by training and other specific activities.

TUBITAK and the JRC to enhance cooperation

The Scientific and Technological Research Council of Turkey (TUBITAK) is the main body responsible for organising research and development activities in Turkey. It is also the national coordinator for the EU Research Framework Programme in Turkey, and as such promotes cooperation between EU and Turkish research organisations.

On 5 July 2007 TUBITAK and the JRC

established a mutually beneficial cooperation which both sides wish to maintain and develop further. As such, they have agreed to enhance collaboration in a range of fields including energy (non-nuclear) and clean transport, environment and climate change, agriculture and food security, health and consumer protection, information society and cyber security, crisis and hazard management and safety

and security (excluding nuclear). The collaboration foresees that both organisations will share large infrastructures and laboratories and exchange models, data and results from research. The JRC will also host Turkish post-graduate students in their institutes and, together with TUBITAK, organise bilateral visits, joint conferences, information events and training workshops.

JRC and Turkey collaborate on tsunami modelling and warning

The JRC is collaborating with the Kocaeli University and the Middle East Technical University as well as the Kandilli Observatory and Research Institute (KOERI) on tsunami modelling and warning. The collaboration includes hosting scientists at the JRC's Ispra's site, exchange of data, know-how and best practice and the transfer of historical tsunami scenario database, tsunami analysis and deci-

sion support tools developed at the JRC. The collaboration is contributing to the development of the Turkish National Early Warning System, where KOERI has the technical responsibility to establish the National Tsunami Early Warning System in Turkey. The collaboration has supported Turkey's proposal to UNESCO to become a Candidate Tsunami Watch Provider (CTWP) for the Mediterranean Sea.



The National Seismic Monitoring Room at KOERI and the JRC Tsunami Analysis Tool (TAT) are online and running. The TAT tool collects data related to seismic events and combines Tsunami scenario calculations with sea level measurements to help the operator to analyse ongoing tsunami events and produce subsequent alert messages.

Contact the JRC

European Commission
Joint Research Centre (JRC)
External Communication Unit
SC15 05/128
B-1049 Brussels
Belgium
Tel: +32 2 29 74181
Web: <http://www.jrc.ec.europa.eu/>
Contact: <http://www.jrc.ec.europa.eu/contact>

National Contact Point
Ms. Burcu B. Gogus Dogan
Scientific and Technological Research Council of Turkey (TUBITAK)
P.K.54 41470 Gebze - Kocaeli
Turkey

Tel: +90 312 468 53 00/4566
Web: www.tubitak.gov.tr
Email: ncpjrc@tubitak.gov.tr

SPB05.177 © European Union 2012 - 02-2013



Key priorities

Economic and Monetary Union (EMU)

Internal market: growth, jobs and innovation

Agriculture and global food security

Low-carbon economy and resource efficiency (environment, climate change, energy, transport)

Public health, safety and security

Nuclear safety and security

As the Commission's in-house science service, the Joint Research Centre (JRC)'s mission is to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy cycle.

Working in close cooperation with policy Directorates-General, the JRC addresses key societal challenges while stimulating innovation through developing new methods, tools and standards, and sharing its know-how with the Member States, the scientific community and international partners.

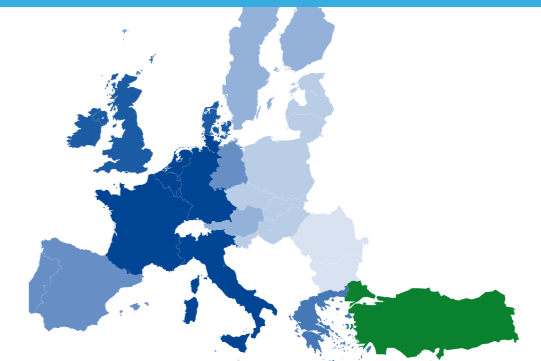
- 2 800 personnel
- 7 scientific Institutes
- 5 sites in Belgium, Germany, Italy, the Netherlands and Spain.

Across Europe, the JRC has built up successful partnerships with a large number of public and private organisations under the EU Research Framework Programmes. Under its Enlargement and Integration Action (E&IA), the JRC provides scientific and technical support to Candidate countries for EU accession. It supports the transfer of the *acquis communautaire* to national legislation, and facilitates scientific and technical exchange.

The JRC promotes close cooperation with Turkey through a wide range of expert exchange possibilities, such as job opportunities, workshops,

Framework Programme projects	25
Scientific networks	1
Collaboration agreements	10

training courses and research projects. The JRC collaborates with its Turkish partners on: Together they work in a wide range of areas



including climate change, management of coastal and ocean ecosystems, aquaculture, water management, forest fires, radioactive environmental monitoring, tsunami early warning systems, risk and crisis management, seismic research, food allergies, biomass and fuel cells.

Examples of JRC partners in Turkey

National authorities and laboratories

- The Scientific and Technological Research Council of Turkey (TUBITAK), Ankara
- Turkish Atomic Energy Authority (TAEK), Ankara
- Mediterranean Coastal Foundation Medcoast, Muğla
- Turkish State Railways (TCDD), Ankara

Academia

- University of Istanbul
- Middle East Technical University (METU), Ankara
- Mustafa Kemal University, Antakya
- Dokuz Eylül University of Izmir
- Kocaeli University
- Karadeniz Technical University, Trabzon

Industry

- Turkish Precast Concrete Association TPCA, Ankara
- Yapı Merkezi Prefabrication Inc., Istanbul

Joint
Research
Centre



JRC collaboration with Turkish research organisations – examples

Scientific networks

The JRC collaborates with over 650 partner organisations in around 60 scientific networks worldwide which share a common interest in specific research areas. This collaboration is essential for the JRC's work on harmonising and validating methods and measurements, establishing common standards, and providing scientific and technical support for the implementation of EU legislation. Some examples of scientific networks which involve Turkish partners are:

Radioactivity Environmental Monitoring data bank (REM-REmdb)

- *Turkish Atomic Energy Authority (TAEK), Ankara*

A data bank for information provided by Member States on levels of radioactive contamination of the various compartments of the environment (air, water, soil) which is used to produce annual monitoring reports

Collaboration agreements

The JRC has around 200 operational collaboration agreements and Memoranda of Understanding with public and private research organisations, universities, and national and international bodies. The majority of these agreements concern joint research, information sharing and the exchange of personnel. Some examples of collaboration agreements with Turkish partners are:

Collaboration agreement on nuclear emergency information

- *Turkish Atomic Energy Authority (TAEK), Ankara*

This collaboration agreement deals with nuclear emergency information exchange with EU Member States under Council Decision 87/600/ Euratom.

REmdb Implementation of EURATOM Treaty, Art. 36

- *Turkish Atomic Energy Authority (TAEK), Ankara*

Article 36 of the Euratom Treaty states that all Member States shall periodically communicate information on environmental radioactivity levels to the Commission. These figures are stored in the Radioactivity Environmental Monitoring data bank (REmdb).

Memorandum of Understanding on the European Radiological Data Exchange Platform (EURDEP)

- *Turkish Atomic Energy Authority (TAEK), Ankara*

This Memorandum of Understanding relates to Turkish participation in the EURDEP system during routine and emergency conditions. EURDEP is a network for the exchange of automatic monitoring data. It makes invalidated radiological monitoring data from most European countries available in near real-time.

Collaboration Agreement in the field of Tsunami Early Warning Systems

- *Kocaeli University*
- *Middle East Technical University (METU), Ankara*
- *Kandilli Observatory and Earthquake Research Institute, Boğaziçi University, Istanbul*

This collaboration agreement aims to more effectively understand and resolve scientific issues in the field of Tsunami Early Warning Systems.

Collaboration agreement on livestock traceability and monitoring animal diseases

- *University of Istanbul*

This collaboration relates to effective animal identification and livestock traceability within the framework of monitoring animal health and welfare in addition to monitoring animal diseases.

Framework Programme projects

The JRC is involved in more than 140 collaborative research projects and networks under Europe's Seventh Framework Programme for research and technological development (FP7). This enables the JRC to form partnerships with major European and international research players. Project activities may involve work carried out at JRC facilities which results in increased access to and use of the JRC's specialised infrastructures and databases by scientists and researchers. Some examples of Framework programme projects which involve Turkish partners are:

The development of tools for tracing and evaluating the genetic impact of fish from aquaculture (AquaTrace)

- *Mustafa Kemal University, Antakya*

The AquaTrace project will establish an overview of current knowledge and research on aquaculture breeding and genomic resources with the aims of developing high-powered, cost efficient and forensically validated genetic tools for identifying and tracing the impact of farmed fish in the wild.

The European Research Infrastructure for Thermochemical Biomass Conversion (BRISK)

- *The Scientific and Technological Research Council of Turkey (TUBITAK), Ankara*

This initiative aims to address the fragmentation with regards to access of high-level experimental equipment necessary for advancing in the field of biomass conversion. BRISK integrates networking activities and promotes cooperation between participants in the project and scientific communities so as to facilitate the transnational sharing of infrastructures and increase the overall services available for researchers in the field.

Development of innovative tools for understanding marine biodiversity and assessing good Environmental Status (DEVOTES)

- *Dokuz Eylül University of Izmir*

The project aims to develop new indicators to assess marine waters at the species, habitats and ecosystems level. The partners will also develop and ultimately validate innovative modelling tools to further strengthen our understanding of marine ecosystem and biodiversity changes in space and time, taking into account human activities and variations due to climate change.

People for Ecosystem Based Governance in Assessing Sustainable Development of Ocean and Coast (PEGASO)

- *Commission on the Protection of the Black Sea Against Pollution, Istanbul*
- *Mediterranean Coastal Foundation Medcoast, Muğla*

The aim of PEGASO is to build on existing capacities and develop common novel approaches to support integrated policies for the coastal, marine and maritime realms of the Mediterranean and Black Sea Basins in ways that are consistent with the Integrated Coastal Zone Management Protocol for the Mediterranean.

Policy-oriented marine Environmental Research in the Southern European Seas (PERSEUS)

- *Faculty of Fisheries, University of Istanbul*
- *Middle East Technical University (METU), Ankara*

This project aims to identify the interacting patterns of natural and human-derived pressures on the Mediterranean and Black Seas, assess their impact on marine ecosystems and to design an effective and innovative research governance framework based on sound scientific knowledge.

Prevention, information and early warning to support the management of risks (PREVIEW)

- *Boğaziçi University, Istanbul*

PREVIEW aims to improve the quality and harmonisation of information services for risk management in support of Civil Protection Units and local or regional authorities.

Water management and climate change impacts (REFRESH)

- *Middle East Technical University (METU), Ankara*

The principal focus of this project is to understand how freshwater ecosystems will respond to climate change and other changes in land use, pollution and water demand, in order to develop policies and implementation strategies to protect aquatic and riparian ecosystems.

Improved Fastening Systems of Cladding Wall Panels of Precast Buildings in Seismic Zones (SAFECLADDING)

- *Istanbul Technical University*
- *Turkish Precast Concrete Association TPCA, Ankara*
- *Yapı Merkezi Prefabrication Inc., Istanbul*
- *AFAPREFABRIK Precast Concrete Industry and Trade Co. Inc., Istanbul*

This project aims to investigate the seismic behaviour of precast structures with cladding wall panels and to develop innovative connection devices and novel design approaches for a correct conception and dimensioning of the fastening system to guarantee good seismic performance of the structure.

Pan-European infrastructure for ocean and marine data management (SEADATANET II)

- *Middle East Technical University, Ankara*

The overall objective of this project is to upgrade the present infrastructure into an operationally robust system and one for providing up-to-date and high quality access to ocean and marine metadata, data and data products.

Security of mass transportation – phase II (SECUR-ED)

- *Turkish State Railways (TCDD), Ankara*

The aim is to improve European and global mass transportation security through the development of packaged modular solutions validated through demonstrations, and made available to the full community of operators. First test cities are Madrid, Paris, Milan and Berlin.

Seismic engineering research infrastructures for European synergies (SERIES)

- *Boğaziçi University, Istanbul*
- *Middle East Technical University (METU), Ankara*
- *Istanbul Technical University*

European seismic research suffers from fragmentation of infrastructures between countries with limited access by the scientific and technical community. This 23-strong consortium of key actors in Europe's seismic engineering research (including three industrial partners) addresses these problems in a sustainable way.

Socio economic effects of management measures of the future Common Fisheries Policy (SOCIOEC)

- *Karadeniz Technical University, Trabzon*

SOCIOEC is an interdisciplinary pan-European project bringing together fisheries scientists, industry partners and key stakeholders to work on developing integrated solutions for future fisheries management that are consistent with the overarching sustainability objectives of the EU.