

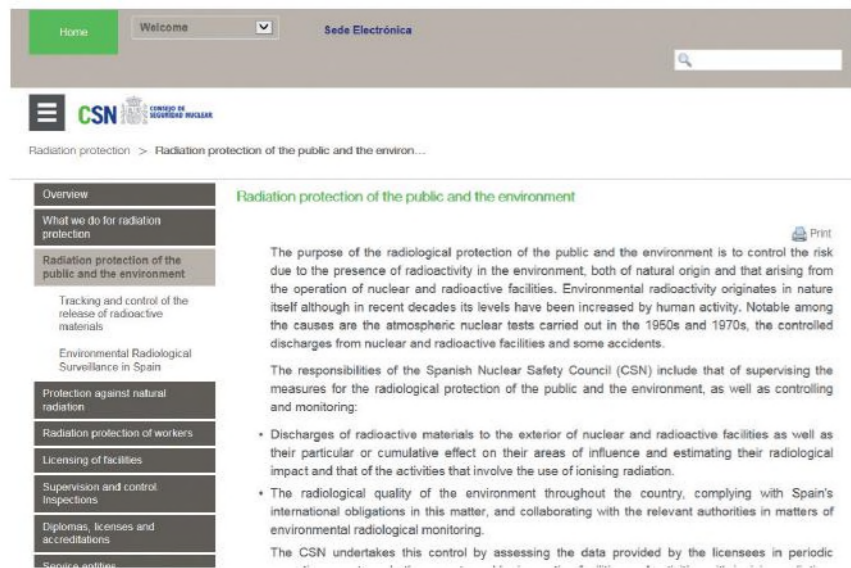
¿How to access KEEPER-WEB?

- Through the CSN's website (www.csn.es), by clicking on the icon "Operating states and environmental data", then in the menu "Radiological environmental values PVRA-REM" and finally in the map presented.



Operating states and environmental data

- Through the CSN's website (www.csn.es), by clicking on the tab "Radiation Protection", then in the menu "Radiation protection of public and environment" and finally in the section "Environmental radiological surveillance in Spain" where you will find a link to the map included in the text.



- Directly through the following link:

<https://www.csn.es/varios/kprgisweb4/index.html?lang=es>

KEEPER-WEB has been developed by the Department of Applications Development (DESA) in the Deputy-Directorate for Information Technologies (STI) and the Department of Environmental Radiation Monitoring (AVRA) in the Deputy-Directorate for Environmental Radiation Protection (SRA), of the CSN.

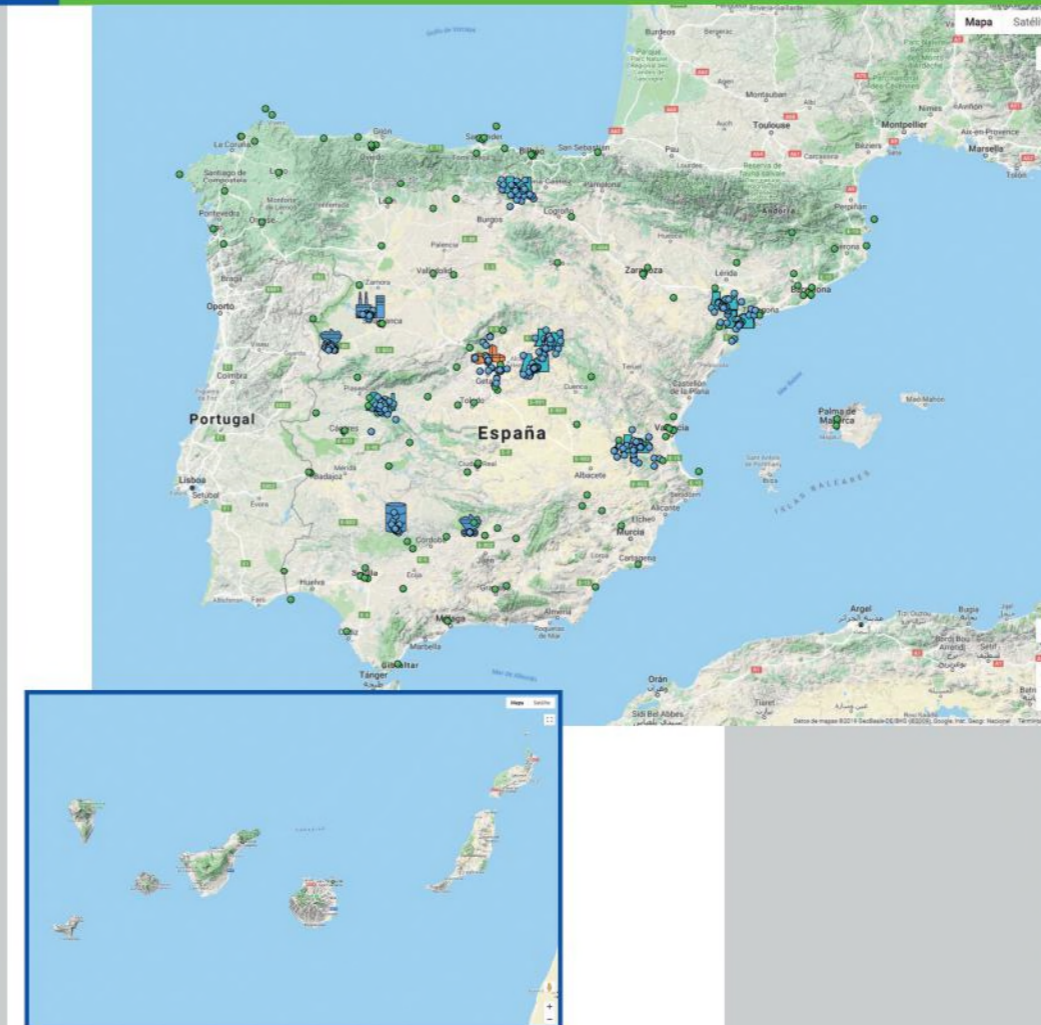
KEEPER-WEB

Public access to the data of the environmental radiation monitoring system in Spain

CSN

For more information, please contact:
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Depósito Legal: M-4815-2019



In order to protect the population and the environment from the harmful effects of ionizing radiation, Spain has a comprehensive and consolidated system of radiological environmental monitoring, whereby the radiological quality of the environment in the entire country is overseen.

The results, which are obtained by a structure of networks and programs, are stored in an integrated data management system called KEEPER, made up of different modules or applications that provide service to different types of users and needs.

The latest of these modules, developed and launched by the CSN in February 2017, is an application hosted on the website of the CSN that gives public access to the radiological environmental monitoring data within KEEPER, on a cartographic format.

With this release, the CSN advances in the performance of its entrusted functions in terms of environmental monitoring, public information and transparency.

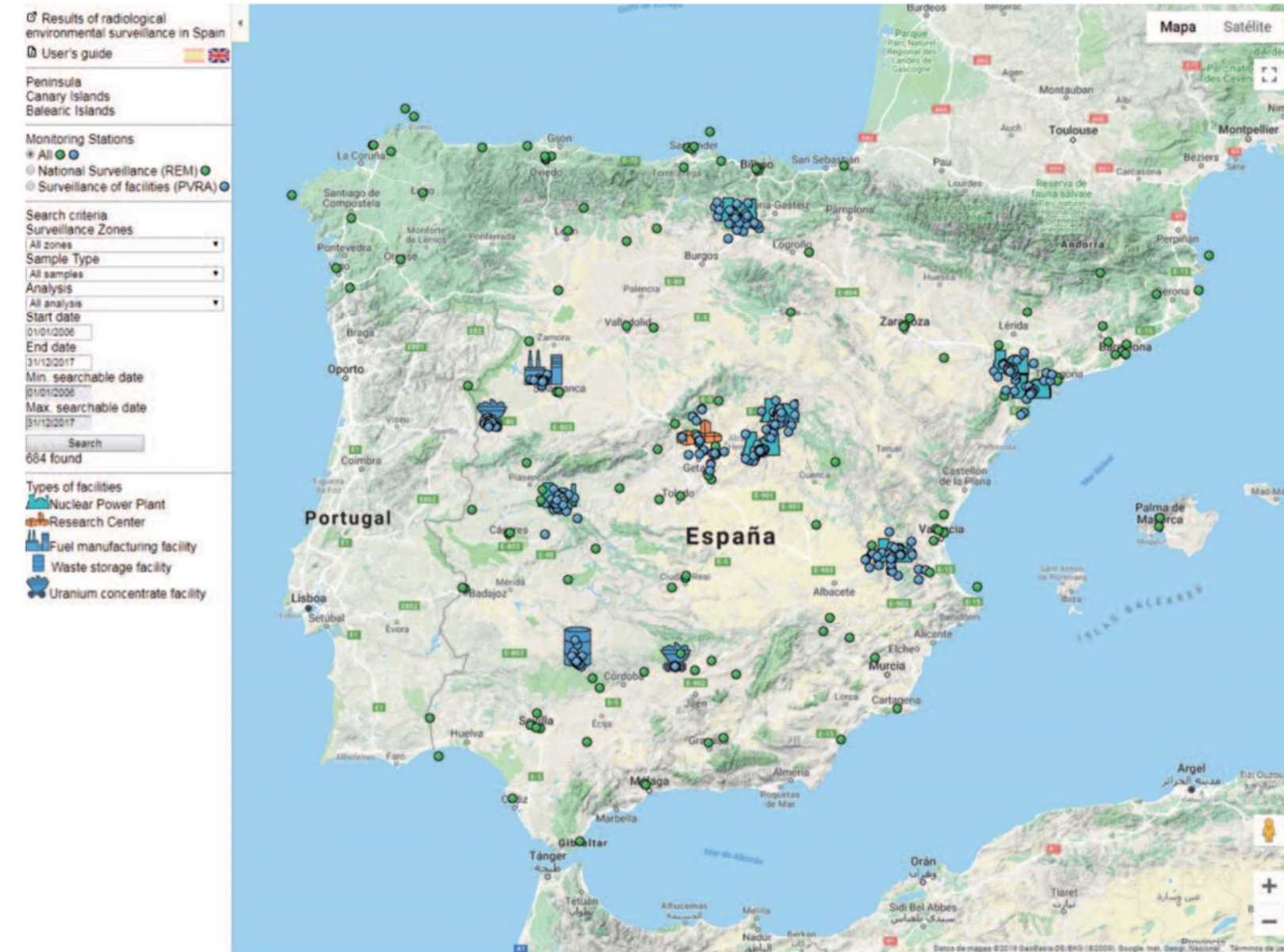
CSN

What can you find in KEEPER-WEB?

- Data of radioactivity in air (dust particles, radioiodine and gamma radiation), rain, soil, drinking, surface and ground water, sediment, fauna, flora and food (milk, vegetables, meat, eggs, fish and seafood) of the Radiological Environmental Monitoring Programmes (PVRA) carried out by the licensees around nuclear power plants and other nuclear facilities (blue dots in the map).
- Data of radioactivity in samples of air, soil, drinking, surface and sea water, milk, and food, carried out by scientists of universities and research centres nationwide (REM). This network is divided in a dense network, made up of numerous sampling points, and a sparse network with eleven locations with high sensitivity measurements (green dots in the map).



What is KEEPER-WEB?



KEEPER is a powerful tool that contains information of the radiological quality of Spanish environment of the last 40 years. It has five different modules to give service to different users:

- Keeper database: core of the system, with more than four million records, used to assess and manage the radiological data by the CSN environmental monitoring experts.
- Telematic submission: used by the data providers to submit their data directly to KEEPER.
- European Union: used to submit the environmental data to the European database in accomplishment of articles 35 and 36 of Euratom Treaty.
- Corporative tool: cartographic tool developed to give access to the CSN staff to the data in KEEPER.
- KEEPER-WEB: cartographic tool developed to give access to the public to the data of PVRA and REM in KEEPER.



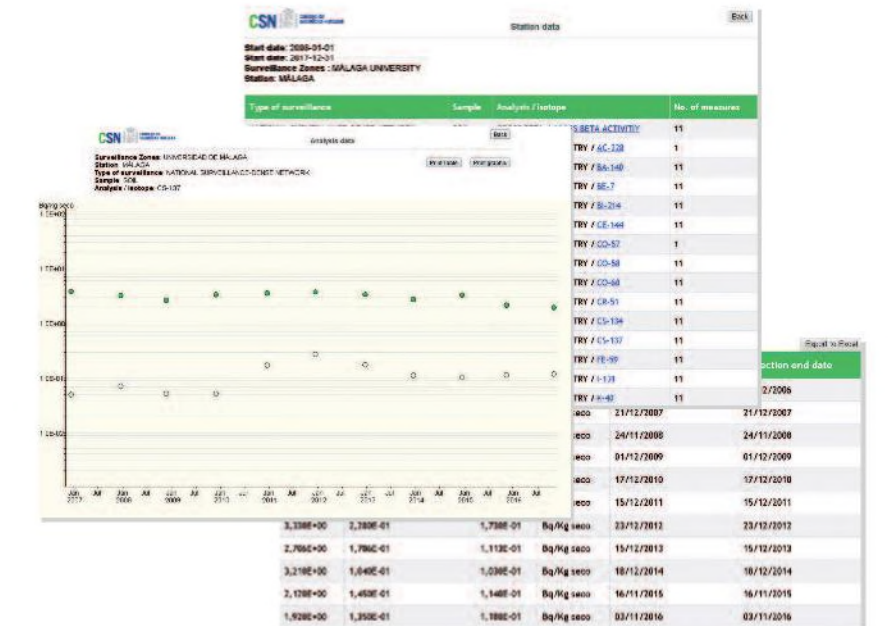
¿How to use KEEPER-WEB?

The main screen offers two different views: the map and the selection panel:

- Map: dots on the map are georeferenced sampling points which, once selected, show information of the sampling point and the available time interval of the data, type of surveillance, sample and analytical determination. Selecting the latter, the data will be displayed.
- Selection panel: made of drop down boxes in the left side of the main screen with different consultation criteria, that, once selected and searched, show on the map the sampling points that meet them.

The radioactivity values, associated uncertainties and lower detection limits (LDL) are displayed in graphs and tables, that can be printed and exported to Excel.

The available time interval will be extended following every sampling campaign after assessment of the data by the CSN experts.



Further information can be found in the user's guide and in the annual environmental monitoring report where the yearly data are explained and assessed.