



**2017-IPR-E-000-8424**

**Natural-hazard impacts on critical infrastructures**

**Position for:**

Trainee

As the science and knowledge service of the Commission, the mission of DG Joint Research Centre is to support EU policies with independent evidence throughout the whole policy cycle.

The JRC is located in 5 Member States (Belgium, Germany, Italy, the Netherlands and Spain). Further information is available at: <http://www.jrc.ec.europa.eu>

**Short description of activity:**

The TechRisk sector within the Technology innovation in security studies the impact of natural hazards on hazardous industry (so-called Natech risk) and critical infrastructures to understand the EU's current and future vulnerability.

In the frame of the 2017 Work Programme the sector analyses the impact of different natural-hazard types on the power grid with a view to understand the factors that influence power-grid recovery times under disaster conditions.

Furthermore, the sector analyses how climate change will affect the safety and supply security of critical infrastructures to identify possible changing vulnerabilities of relevance for design and operation and to propose measures to reduce the associated risks.

The successful candidate will, in close cooperation with the staff of the TechRisk sector contribute to the forensic analysis of different types of past critical-infrastructure disruptions after natural disasters by studying the scientific literature, incident databases, and after-action reports as a basis. He/she will help to identify incident causal factors and the extent of consequences (e.g. number of people affected), including patterns of cascading effects due to interdependencies, and eventually correlating hazard intensity with the

	<p>extent of the disruption and the associated recovery time. The successful candidate will also support the generation of lessons learned on incident prevention and consequence mitigation and the preparation of recommendations for risk reduction.</p> <p><b><u>Qualifications:</u></b> <b><u>Essential:</u></b></p> <p>The candidate must have a university degree in physics or engineering. Applications from student currently preparing a thesis for an MSc degree are eligible. The thesis should match to the subject of the call.</p> <p>Good analytical skills are required.</p> <p>Good knowledge of spoken and written English. (B2 level)</p> <p><b><u>Advantage:</u></b> Familiarity with critical-infrastructure systems is desirable.</p> <p><b><u>For general eligibility requirements, please read the rules governing the traineeship scheme of the JRC:</u></b></p> <p><a href="https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/jrc-trainees">https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/jrc-trainees</a></p>
<b>Institute/Directorate Unit</b>	E. Space, Security and Migration E.2
<b>Indicative duration</b>	5 months
<b>Preferred starting date</b>	As soon as possible
<b>JRC Site</b>	Ispra
<b>Country</b>	Italy
<b><u>JRC contact details</u></b>	<p><b>For any technical problems with your application, please contact:</b> <a href="mailto:JRC-ESRA@ec.europa.eu">JRC-ESRA@ec.europa.eu</a></p>