



**2018-IPR-E-000-9629**

**Natural-hazard impacts on critical infrastructures**

**Position for:**

Trainee  
(2 positions)

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

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**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 2018 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 resilience 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 extent of the disruption and the associated recovery time. The successful candidate will also support the generation of lessons learned

	<p>on incident prevention and consequence mitigation and the preparation of recommendations for risk reduction.</p> <p><b><u>Qualifications:</u></b></p> <p><b><u>Essential:</u></b></p> <ul style="list-style-type: none"> <li>• The candidate should have or should be close to attain (<i>the purpose of the training must be directly related to the subject of the thesis</i>) a university degree in <u>physics or engineering</u></li> <li>• Good analytical skills</li> <li>• Good knowledge of spoken and written English (Level B2)</li> </ul> <p><b><u>Advantage:</u></b></p> <ul style="list-style-type: none"> <li>• Familiarity with critical-infrastructure systems</li> </ul> <p><u>For general eligibility requirements, please read the rules governing the traineeship scheme of the JRC:</u></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>Directorate / Unit</b>	E. Space, Security and Migration E.2
<b>Indicative duration</b>  <b>Preferred starting date</b>	5 months  01/04/2018 (1 <sup>st</sup> position) 01/08/2018 (2 <sup>nd</sup> position)
<b>JRC Site</b>  <b>Country</b>	Ispra  Italy
<b><u>JRC contact details</u></b>	<b>For any technical problems with your application, please contact:</b> <a href="mailto:HR-AMC8-RECRUITMENT-TOOLS-SUPPORT@ec.europa.eu">HR-AMC8-RECRUITMENT-TOOLS-SUPPORT@ec.europa.eu</a>