Space Solutions for Sustainability on Earth

Overview

Under the framework of the European Commission’s Joint Research Centre’s (JRC) call "Science Meets Parliaments / Science Meets Regions", the Ministry of Economy, the Luxembourg Space Agency, the University of Luxembourg- Faculty of Law, Economics, and Finance, and the Luxembourg Institute of Science and Technology (LIST) are co-organizing the one-day conference titled Space Solutions for Sustainability on Earth.

The one-day event will focus on domestic environmental topics and the use of space technologies to support policymakers by using selected European space programs – Copernicus and Galileo. Most importantly, this conference has a special focus on the Luxembourg’s strategy under the environmental objectives of the United Nations Sustainable Development Goals (SDGs).

The conference is structured in two parts:

In the first part, keynote speakers will address the environmental political needs of Luxembourg pursuant the Luxembourg’s SDGs. The second part is dedicated to the use of space technologies for environmental applications focused on two main axes:

1. The use of Earth Observation (EO) for agriculture, land management and natural disaster response;

Agenda

Morning session

09.00  Arrival and registration

09.30  Welcome and introductory remarks
▪ Fernand Etgen, President of the Luxembourg Chamber of Deputies
▪ Prof. Stéphane Pallage, Rector of the University of Luxembourg
▪ Prof. Isabelle Riassetto, Vice-Dean of the FDEF, University of Luxembourg
▪ Dr. Thomas Kallstenius, CEO LIST

Master of ceremonies: PJ Blount, University of Luxembourg, Luxembourg

10.15  “Science Meets Parliaments” Initiative
   Maren Hunds, European Commission, JRC
   “The land; where farming, environment, climate, society and money meet”
   Alan Belward, European Commission, JRC

10.40  Luxembourg space activities
   Marc Serres, Luxembourg Space Agency, Luxembourg

10.55  Sustainable Development Goals (SDGs) and the use of space technologies
   Jorge Del Rio Vera, United Nations Office for Outer Space Affairs

11.10  The combination of artificial intelligence and EO data: Regulatory challenges
   Benjamin Hourte, Earthlab, Luxembourg

11.25  Luxembourg space legislation
   Mahulena Hofmann, University of Luxembourg, Luxembourg

11.40  Discussion with the audience
   Moderator: Niklas Hedmann, United Nations Office for Outer Space Affairs (UNOOSA)

12.30  Lunch at the premises of the Chamber of Deputies
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<tr>
<td>13.30</td>
<td>Panel I: EO for a sustainable Luxembourg</td>
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<tr>
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<td>Moderator: Geoff Sawyer, EARSC</td>
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<tr>
<td>13.45</td>
<td>Introduction to EO and the European Union Copernicus programme</td>
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<td>Prof. Lucien Hoffmann, LIST, Luxembourg</td>
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<td>14.00</td>
<td>International case study:</td>
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<td>Copernicus Sentinel data use for potato farming in Belgium</td>
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<td>Steven Krekels, VITO, Belgium</td>
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<td>14.15</td>
<td>The Luxembourg case studies:</td>
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<td>The use of Sentinel data in agriculture</td>
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<td>Anne Peschon, Ministère de l’Agriculture, de la Viticulture et du Développement rural, Luxembourg</td>
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<tr>
<td>14.30</td>
<td>The use of Copernicus data in flood management and disaster assistance</td>
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<td>Guy Schumann, RSS-Hydro, Luxembourg</td>
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<td>14.45</td>
<td>Panel discussion: EO data addressing environmental challenges in Luxembourg: Gaps, challenges, and opportunities. Panellists:</td>
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<td>• Martijn Houtepen, Skygeo, the Netherlands</td>
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<td>15.15</td>
<td>Coffee/Tea break</td>
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<td>15.30</td>
<td>Panel II: Global Navigation Satellite System (GNSS) for a sustainable Luxembourg</td>
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<td>Moderator: (tbc)</td>
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<td>15.30</td>
<td>Introduction to GNSS</td>
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<td>F. Norman Teferle, University of Luxembourg</td>
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<td>15.45</td>
<td>Introduction to the European Union GNSS Galileo &amp; EGNOS</td>
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<td>Omar I. Valdés Solorzano, European GNSS Agency (GSA)</td>
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<td>16.00</td>
<td>International case study: GALILEO 4 Mobility, shared mobility pilots with enhanced GNSS</td>
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<td>Marti Jofre, Pildo Labs, Spain</td>
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<td>16.15</td>
<td>The Luxembourg case: The use of GNSS in the Land Registry and Topography Administration</td>
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<td>Bernard, Reisch, Administration du cadastre et de la topographie, Ministère des Finances, Luxembourg</td>
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<td>Panel discussion: European GNSS data addressing Luxembourg’s needs</td>
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<td>• Juan Carlos Merlano Duncan, SnT, University of Luxembourg, Luxembourg</td>
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<td>17.00</td>
<td>Conclusions: Building a roadmap</td>
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<td>Discussion with the audience</td>
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<td>Closing cocktail</td>
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