SPACE ACTIVITIES AND REGULATORY FRAMEWORK OF LUXEMBOURG

An Overview in Relation to the Application for Membership in the UN COPUOS
Structure

I. Activities Connected with Outer Space
II. Regulatory Framework
III. Conclusion.
I. Activities Connected with Outer Space

A. European Space Agency (ESA)

2000: Cooperation Agreement with the European Space Agency (ESA) to participate in the ARTES program
2005: Luxembourg becomes the 17th Member State of ESA
2012 - 2015: Presidency of ESA (together with Switzerland)

B. SES (Société Européenne des Satellites)

World’s second largest geostationary telecommunication satellites operator by revenue
1985: creation of Société Européenne des Satellites
1988: concession granted by the State of Luxembourg
1988: first launch of a satellite - ASTRA 1A
2001 acquisition of GE Americom → SES Global
2006 acquisition of NewSkies
18 Luxembourgish geostationary communications satellites in orbit
SES Full Payloads under Luxembourg License (marked blue)
2 LEO microsatellites in orbit offering AIS (Automatic Identification System of ships) services

2011: launched VesselSat 1
2012: launched VesselSat 2
D. Emergency.lu

Task: to fill the communication gap in the first hours and days after a large-scale disaster
Deployments: Philippines, South Sudan, Mali, Nepal, Venezuela

▲ SES TechCom, SES, HITEC, Lux Air Rescue
▲ Luxembourg Government, Ministère de la Coopération et de l’action Humanitaire, Direction de la Coopération au Développement
▲ Target customers: United Nations, and other actors in global humanitarian community (e.g. Red Cross, NGOs, European Civil Protection agencies)

“I congratulate Luxembourg industry for such a creative solution.”
Ban Ki-Moon
Secretary-General of the United Nations

Effective cooperation between the government and industry
E. Action Plan for Space R&D

http://www.mesr.public.lu/recherche/esa/gateway_to_space/Ministere_brochure_ville.pdf

Main implementation axes of the national strategy:

• ESA Programmes (85%)

• National Initiatives (11%):
  ➢ LuxLAUNCH
  ➢ LuxIMPULSE - National program managed by ESA
    ➢ Technological developments
  ➢ LuxYGT – program for Luxembourg graduates

• Bilateral and multilateral cooperation (4%)
Evolution of space R&D annual budget

- 85% ESA
- 8% LuxLAUNCH
- 3% LuxIMPULSE
- 4% Cooperation

Yearly budget from 2001 to 2012.
F. University of Luxembourg

• Faculty of Science, Technology and Communication
• Faculty of Law, Economics and Finance:
  SES Chair in Satellite Communications and Media Law
Master program (option) in Space Communications Regulatory Framework

1st Year: Space Communication Regulatory Framework in a Regional (European) Perspective
2nd Year: Space Communication Regulatory Framework in an International Perspective
• (mahulena.hofmann@uni.lu)

• Interdisciplinary Centre for Security, Reliability and Trust (SnT)
G. Space activities in Luxembourg and in Europe: Contributions 2012 in relative terms

<table>
<thead>
<tr>
<th>Portion of space activities in GDP</th>
<th>Luxembourg</th>
<th>European average</th>
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<tbody>
<tr>
<td>Space industry + satellite operators</td>
<td>4,3%</td>
<td>0,1%</td>
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<tr>
<td>Space industry (upstream)</td>
<td>0,02%</td>
<td>0,06%</td>
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II. Regulatory Framework: International

- Luxembourg is State Party of
  - 1963 Bann of Nuclear Weapon Tests Treaty
  - 1992 ITU Constitution and Convention since 1866

- Signatory to
  - 1968 Rescue Agreement: signed 1968

- 1961 GA Resolution 1721 B (XVI)
  Information on Astra satellites furnished to UN Secretary General in accordance with the 1961 Resolution;
  Luxembourg examines the possibility of the establishment of an „appropriate registry“ of space objects provided for in Art. II of 1968 Registration Convention as a precondition for accessing the Convention.
Regulatory Framework: National

**1991 Law on Electronic Media, as amended**

**Article 20(1) of Chapter II(A): Concession**

No one can establish and exploit a Luxembourgish satellite system without having first obtained a concession. The concession is granted by the Government, by the proposal of the minister responsible for telecommunications and for the media.

**Article 20(3): Specifications**

Any concession is accompanied by a book of obligations, whose provisions must be respected at all times by the concessionaire.

**Article 20(7) Provisions to be included in the Specifications**

(b) The activities that must be carried out in the territory of the Grand-Duchy;

(d) Monitoring of the activity of the concessionaire by one or more government commissioners.

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**2005 Law on the Organization and Management of RF Spectrum, as amended**

**2013 L.i.R. Regulation regarding the Frequency Plan**
III. Conclusion

• The application of Luxembourg for membership with the United Nations Committee on the Peaceful Uses of Outer Space was received by the Secretariat on 8 November 2013 and was circulated to member States of the Committee in note verbale OOSA/2013/12, CU 2013/249/OOSA/CPLA.

• Given the scale of its space activities, Luxembourg believes that it will be able to make a useful contribution to the work of the Committee.

• Luxembourg would appreciate if its application for membership be accepted.