1. Introduction

In 2017, the Parliament of Luxembourg surprised the international space community by adopting a law enabling commercial missions to exploit space resources. In 2020, this act was followed by a general Space Activities Law, which brought about a regime of authorization and supervision of all other space activities carried out under the jurisdiction of Luxembourg. At the same day of 2020, these legislative steps were completed by a law which allowed Luxembourg to ratify the 1975 Registration Convention.

This complex legislation, its mutual interplay and relation to the UN space treaties will influence the landscape of space activities not only in Luxembourg, but also in other countries. It will be applied by Luxembourg’s public institutions who will use it as a tool for organizing space business in the country. In the long term, the laws will be applied in domestic jurisprudence in cases of disputes. Such jurisprudence will interpret these provisions and determine in concrete cases whether the rules of the new space legislation were respected or violated and decide about the consequences. The laws are already object of academic interest analyzed in the research and conferences and lectured in the Master courses at the University of Luxembourg and abroad. But foremost, they will be studied by the operators who are on the search for the most favorable jurisdiction for their space activities. As such, the laws will be subject of keen interest of both startups and established companies, and their lawyers. They will evaluate whether the authorization procedure is smooth or cumbersome; affordable or expensive; and whether and which insurance is required; whether their potential liability for damage caused by their space object will be capped or not; and what will happen in case that they would be unable to continue their space activity. They will compare the effect of these legal acts with the foreign ones, weigh advantages against disadvantages, and decide.

As law operating with general terms cannot precisely determine all the details of potential future legal relations and procedures, the authors of this Commentary decided to go deeper in the legislative works and reveal the genesis of the provisions of the Luxembourg space laws leading to their final version. The principal reason of this exercise is to understand the core of the obligations and the circumstances of their adoption – or deletion from the text. This was seen as necessary also from the perspective of the fact that the crucial body influencing the final shape of the laws in Luxembourg, the Conseil d’Etat, several times recommended to delete provisions that it considered to be obvious or otherwise unnecessary. This was uncontestably a valid argument from the aspect of the legislative logic, but the resulting purity of some provisions of the text might bring an innocent reader to a puzzle requiring further explanation.

The second motive was the fact that according to the Article 2 of the 1984 Language Act of Luxembourg, the only official language of the legislative acts in Luxembourg is French; this means that also the *travaux préparatoires* which – indeed – can be found on the website of the Parliament of Luxembourg, are accessible for those who master this wonderful and important language; for others they are not. The third ground was the temptation to profit from the experience the authors gained during their active participation in the preparation of the two of the three drafts.

The original idea of the team was to comment the 2020 Space Activities Law only. However, the cooperation with the Ministry of Economy and the Luxembourg Space Agency, which is now preparing the sub-statutory regulations, and the fact that the texts of the two space acts are highly harmonized, lead to commenting both legal documents in a single volume. This starts with the 2017 Space Resources Law, followed by the commentary on the 2020 general Space Activities Law of Luxembourg; at the end, a short commentary on the 2020 Registration Law can be found.

All texts commenting the articles follow the same structure: They begin with the text of the article, followed by its legislative history; after this part, the provision is interpreted. The last element is the evaluation of the rule accompanied by the comparison with examples coming from space laws of other countries. The shorter articles are evaluated in one text; the longer ones which were developed in the course of the legislative works and sometimes have only a formal common denominator, are analyzed in a step-by-step approach. This structure was widely inspired by the *Building Blocks for the Development on an International Framework for the Governance of Space Resource Activities* published by the members of The Hague Space Resources Governance Working Group in 2020. To simplify the work with the Commentary, the Annexes add the English translation of the texts of the laws. The translation of the first two Laws is based on the text published on the website of the Luxembourg Space Agency; the short Registration Law has been translated by the authors of the Commentary. To respect the authenticity of the translations, the text on the 2017 Space Resources Law follows the term “minister” whereas the part discussing the 2020 Law operates with the form “Minister”. The Commentary also chose the form “authorize “and “authorization” instead of “authorise” and “authorisation” because of the term utilized by the Outer Space Treaty.

The work on the volume has been divided among the staff of the SES Chair in Space, SatCom and Media Law of the University of Luxembourg, experienced in several similar publications, including the *The Hague Building Blocks*, *The Introduction to Space Law* (Wolters Kluwer 2019) or the UN e-course on Space Law, among others. PJ Blount was postdoctoral researcher at the University of Luxembourg, Gabrielle Leterre, Antonino Salmeri, and Laetitia Zarkan are doctoral researchers at the SES Chair. The main editor is Mahulena Hofmann who had the chance to participate in the preparation of two of the three space laws included in this volume. A preliminary draft of this commentary was presented in an international SES workshop “National Legislation: Why, When and for Whom?” on 16 September 2021 in Luxembourg.

Despite of the fact that the result of this work is a moving target, pending the adoption of implementing rules and the practice, the authors of the Commentary still hope that they produced a useful early tool for better understanding the space laws of Luxembourg. Only in discovering the relation of their numerous provisions with existing substantial and procedural legislation, they became aware of the complexity of the task, and will be grateful for recommendations on how this small text could be enhanced in the future. They thank to all who supported the idea of the Commentary – especially the Luxembourg Space Agency, the University of Luxembourg, and SES.

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The authors