

NEREUS, Education/training in the Space sector XIX: Space Policy & Skills at regional level

The need to bring space policy, governance, space economics and space law more prominently into university curricula

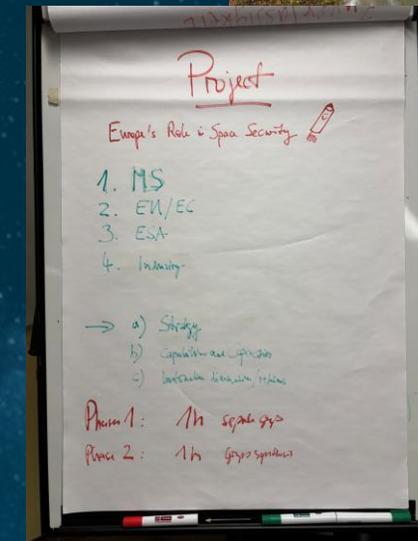
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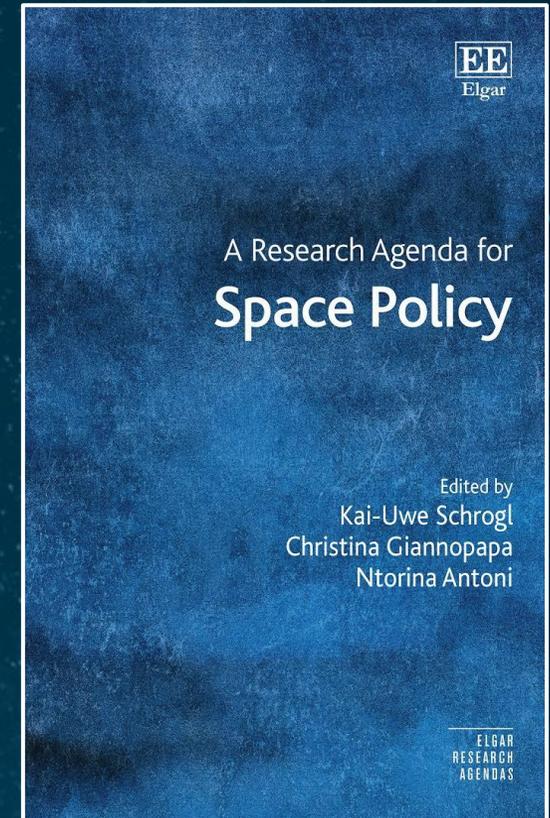
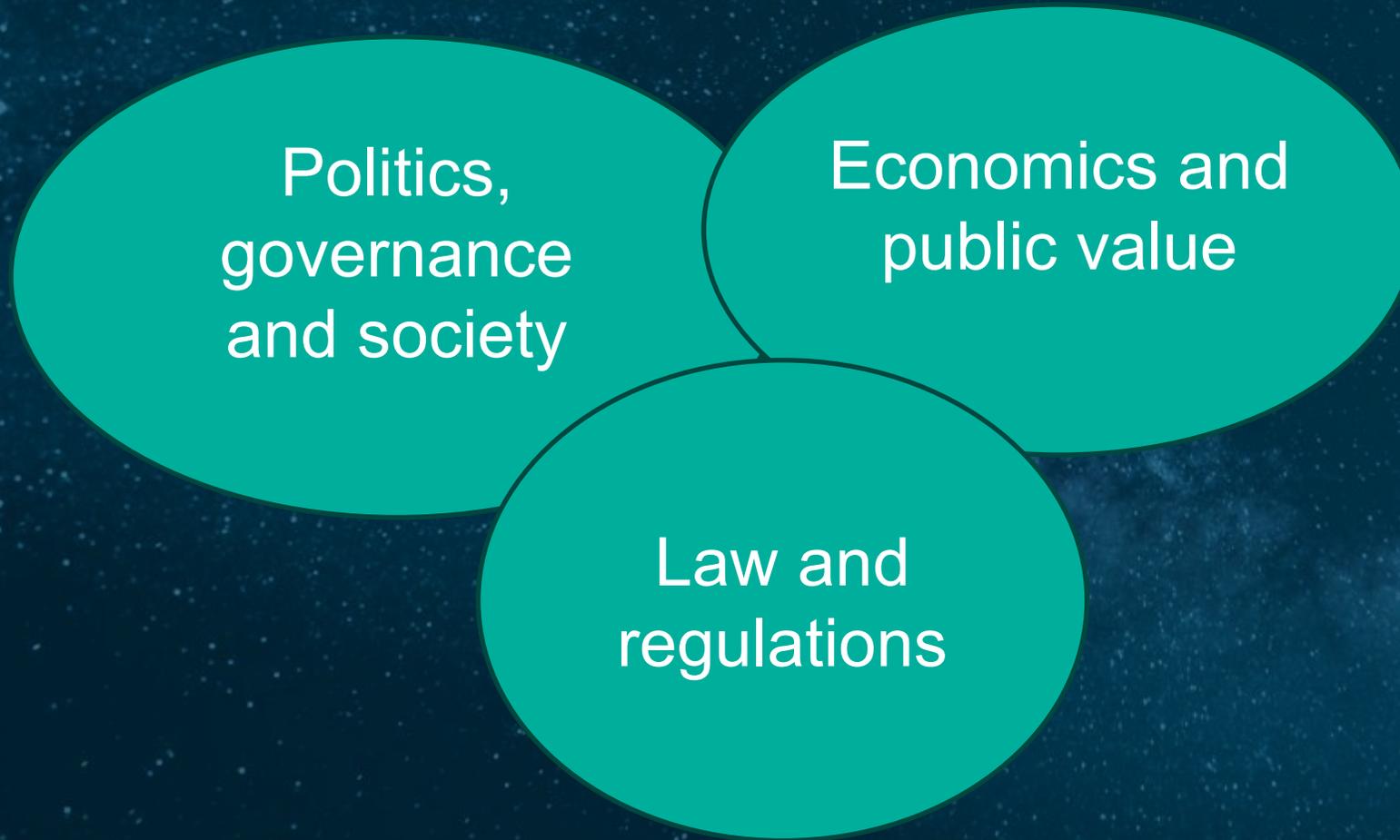
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Issues (proposed by NEREUS):

- Where are the emerging courses on space law, policy, and institutional frameworks?
- How to encourage faculties to integrate policy-oriented modules in engineering, business and legal studies?
- Emphasising the growing demand for individuals who understand governance structures and regulatory developments.
- How can regions and academic institutions collaborate to strengthen the talent pipeline?





These social sciences, relevant for space, respond to:

- a growing need to support the key questions of European integration, security and prosperity;
- a further strengthened and self-confident role, regions play in this policy area;
- intensifying the links between academic research/universities and space industry and applications on the spot, which are governed particularly effectively on the regional level due to the regions responsibilities;
- maintain the critical ability to assess in the age of AI/ChatGPT.

Contributions by universities and research I - Towards a stronger role of universities and research:

- Universities and academic institutions should be able to identify topics and research questions and deal with them without interference and dependence. This will avoid «blind spots».
- Universities and academic institutions provide «understanding» (including in Executive Courses they are now more frequently offering) and not «advise».
- Universities and academic institutions can be much more divers in every respect and thus provide advantages through broader horizons.



PhD Ntorina Antoni, TU Eindhoven, Open Innovation in the space sector, PhD Lise Dubois, Lyon-3, Franco-German space cooperation

Contributions by universities and research II - Institutions and networks:

- Universities and academic institutions play a different and complementary role to think tanks (ESPI, FRS, IAI etc.) and consultancy companies. Do not expect from them or force them to all deliver the same.
- Academic networks exist in our fields (as CEMS or ECSL on the European level or SichtTRaum or BISA on the national level) and can lead discussions with broadest scope.
- Social science academic networks as effective basis for transdisciplinary connection with the sciences, engineering and applications.



Key issues in politics and society:

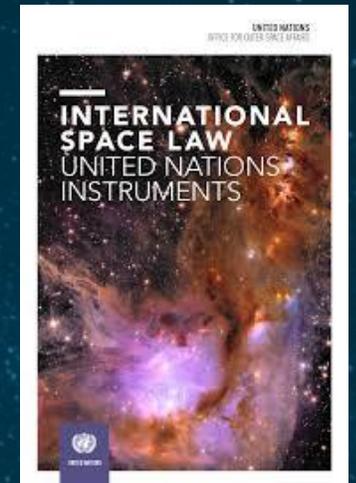
- How can space be effectively integrated in other policy areas and increase their results, efficiency and outputs?
- How shall autonomy, independence and sovereignty of Europe in space be shaped?
- What is the appropriate level of «securisation» for space as a critical infrastructure and key element of defence?
- How shall Europe organise its international partnerships based on its role as a »normative power«?

Key issues in economics and public value:

- A successful space economy cannot be measured alone by revenues, profitability, number of start-ups or jobs, but has to look at the broader picture of «public value»?
- How can strong agencies on the European and national levels support a space industry, which effectively and efficiently delivers the means for fulfilling policy objectives?
- How can Europe (as through EU Space Act) and the national governments support the establishment of key principles for the global space economy to provide European industry with a level-playing field and market opportunities?

Key issues in law and regulations:

- How to implement international obligations (Outer Space Treaty and other legal frameworks as by ITU or WTO) in Europe so that a harmonized legal and regulatory framework is established?
- How can European legislation protect from external dependence and internal monopolies?
- How can Europe further play a distinguished role in international space law and regulation development (in UNCOPUOS, ITU, ISO and other forums)?



Challenges and gaps, where universities and research can make a difference:

- Debates in these three fields are burdened with thematic as well as institutional conflicts and red lines. Academic research can transgress «red lines» in a constructive way.
- Space still sometimes tends to be a political ivory tower. Academic research can identify also surprising new thematic parallels and links.
- Also the three fields tend to be silos, where academic research provides established instruments, methodologies and means for multi/inter-disciplinary approaches additionally with science, technology and applications.

Suggestions for implementation:

- Establish a) interdisciplinary pôles for social sciences (political science, economics, law) and b) link them wherever possible with engineering/science (like in a) Turino, Durham and Oxford, b) UNIVERSEH, c) Bundeswehr University) supported by regional, national, European funded research programmes.
- Provide publication opportunities for young academics (as special issues of established journals as Space Policy, new series as NOMOS/Tectum, online opportunities).
- Further suggestions (also for funding) and examples by participants.



