

WRegSAT I, 2025 Regulatory Challenge

Supplementary Brief – Analogous Industries

Analogous, Adjacent and Intersecting Industries

Space activities overlap with an extraordinary range of other industries or are immediately ‘upstream’ or ‘downstream’ of other industries (receive input from, or provide output to other industries). Space activities are variously regulated through other regulatory regimes including those covering:

- use of the electromagnetic spectrum,
- telecommunications,
- carriage of dangerous goods,
- aviation,
- tourism,
- environmental management,
- land use,
- use of maritime areas,
- indigenous affairs ,
- export controls,
- foreign investment, and
- ... more.

On the one hand, this might appear to simplify the regulatory challenges, because some activities are already ‘regulated’. However, the threshold challenge that arises from such overlap is to define the scope of activity that is uniquely ‘space activity’ and that requires *sui generis* regulation. Is it only ‘launches and returns’, for example? Supposing that challenge can be neatly addressed, a further challenge is to ‘harmonise’ the regulation of space activities with regulation in intersecting and adjacent industries. That is, regulation of ‘space activities’ should not undermine the achievement of similar regulatory objectives in other industries, but rather would enhance the achievement of similar regulatory objectives in other industries.

Experience gained from regulatory approaches in other industries can also offer analogies for approaches that could be considered in the space industry. The pursuit of harmonisation and use of analogies from other industries must be approached with caution though.

- While aviation regulations offer guidance, space activities involve complex orbital dynamics and the absence of jurisdictional boundaries like airspace. The distances, speeds, and conditions of space operations differ significantly, making direct comparisons challenging.

- Similarly, the dynamic and expanding nature of space activities, including emerging applications like space tourism and on-orbit servicing, goes beyond traditional telecommunications. Regulations in telecommunications may not address the physical risks of space activities, such as collisions and debris.
- The unique nature of space makes some aspects of environmental regulation difficult to apply. Traditional Environmental Impact Assessments are designed for Earth-based activities, while the effects of space activities can include global and even off-world impacts, such as the accumulation of debris in orbit, which requires an entirely different regulatory approach.
- The objectives of national security often differ from those of commercial space activities, focusing more on strategic interests than on economic development. Applying national security regulatory approaches to civilian space activities can sometimes stifle innovation and restrict private sector growth.