

BUSINESS INNOVATION SYMPOSIUM (E6)
Public/Private Human Access to Space - Supporting Studies (2)

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LEVERAGING SCANDINAVIAN ULTRA-HARSH ENVIRONMENT RESOURCE EXTRACTION
EXPERTISE WITHIN THE EMERGING COMMERCIAL SPACE RESOURCE SECTOR

Abstract

Recently, multiple US companies have announced plans to begin resource extraction operations both on the lunar surface and in deep space. These companies, having assembled impressive space business development teams, expect to reap financial returns and achieve market dominance as the pioneers of a new space based industry. Can other companies, from nations not typically associated with flagship national space programs, compete now with these, and other, radically innovative commercial companies on the “high frontier”? Scandinavia is a world class leader in multiple sectors. However, within the terrestrial energy and resource sector, Scandinavia exhibits leadership in one area of particular relevance to the cutting edge competition taking shape in the emerging space resource sector: “ultra-harsh environment” resource operations. Scandinavian firms possess a wealth of experience operating successfully, safely, and responsibly in unimaginably difficult operating environments. These competencies make Scandinavian firms ideally suited to pursue a leadership role in the space resource sector.

Without a history of high profile space achievements planned and operated by a large national space agency, traditionalists might ask: how can nations like Denmark and Norway compete significantly in the commercial space sector? The short answer is: not only can Scandinavian countries compete, but via their collective competitive national advantage in the resource extraction sector, they can excel. Recent successes within the commercial space launch industry herald the arrival of a new paradigm in which expertise in specific fields can be leveraged using commercial space transportation. No longer does a nation need to design, fund, and build all of the hardware and software needed to perform tasks in space. Soon, multiple commercial companies, specializing in various parts of the “product chain”, will be capable of taking Scandinavian companies into space where they can then operate within their specific area of expertise.

This paper will examine the competitive national advantage enjoyed by Scandinavian energy and resource collection companies and apply it to space operations. Using theories related to the creation of new markets and industries, the paper will attempt to show how Scandinavian success in the terrestrial market can be predictive of success in the emerging commercial space resource sector.