

SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)  
Near-Earth and Interplanetary Communications (5)

Author: Dr. Norbert Frischauf

SpaceTec Partners SPRL, Belgium, frischauf@spacetecpartners.eu

Mr. Rainer Horn

SpaceTec Capital Partners GmbH, Germany, horn@spaceteccapital.de

Dr. Ingo Baumann

Germany, Ingo.Baumann@bho-legal.com

Mr. Erik Pellander

Germany, erik.pellander@bho-legal.com

Dr. Manfred Wittig

European Space Agency (ESA), retired, The Netherlands, manfred.wittig@wxs.nl

Mr. Tilo Kauerhoff

Technical University of Munich, Austrian Space Forum, Space Generation Advisory Council, Germany,  
T.Kauerhoff@gmx.de

Prof. Otto Koudelka

Graz University of Technology (TU Graz), Austria, koudelka@tugraz.at

NEWSPACE: BUSINESS MODELS AT THE INTERFACE OF SPACE AND DIGITAL ECONOMY -  
CHANCES IN AN INTERCONNECTED WORLD

**Abstract**

According to Wikipedia, “NewSpace” is an umbrella term for a movement and philosophy often affiliated with, but not synonymous with, an emergent private spaceflight industry. Specifically, the term is used to refer to a community of relatively new aerospace companies working to develop low-cost access to space or spaceflight technologies and advocates of low-cost spaceflight technology and policy.

While this description may be arguable, the emergence of numerous start-up space ventures within the last 15 years is a fact. These start-ups cover such diverse areas like telecommunications, Earth observation, rocketry, manned spaceflight and space tourism, energy from space, resource gathering in space, etc. and have attracted over *13.3 billion of investment, including 5.1 billion in debt financing*, since 2000. Over 80 angel- and venture-backed space companies have been founded since 2000 – eight of these have been acquired, at a total value of *2.2 billion*.

As broad as the spectrum of these ventures is, the NewSpace movement has so far been focused to a great extent on the United States, namely the West Coast. Mojave in California has been dubbed “the Silicon Valley on NewSpace”, being home to several of these commercial space enterprises. In trying to understand what the driving forces behind this new ecosystem in the States are, what lessons can be learned and whether – and how – it will be possible to bring the NewSpace philosophy to Germany and Europe, the German federal ministry for economic affairs and energy has launched a study, which is to be undertaken by SpaceTec Partners and BHO Legal.

While the study is not finished yet, early results show that at least four factors are of immanent importance to make NewSpace in Germany/Europe successful. These factors are related to,

1. business philosophy – such as creating and living an entrepreneurial spirit; financing – like the access to early stage risk capital and venture funding; technology management – with a clear focus on spinning-in technologies and ICT-processes and framework – setting up the right political and legal conditions such that private companies can flourish.

This paper will present the insights gained, the lessons learned, the success stories and the failures, challenges and mitigation strategies cumulating into recommendations how the NewSpace movement can be established in Europe in general and in Germany particular. Given the magnitude and growing relevance of NewSpace, these insights are of high interest to stakeholders and decision makers worldwide.