

IAF BUSINESS INNOVATION SYMPOSIUM (E6)  
Innovation: The Academics' Perspectives (3)

Author: Mr. Gil Denis  
Airbus Defence and Space, France, gil.denis@airbus.com

Mr. Didier Alary  
Airbus Defense and Space, France, didier.alary@airbus.com

Mr. Xavier Pasco  
Fondation pour la Recherche Stratégique, France, x.pasco@frstrategie.org

Mrs. Nathalie Pisot  
Airbus Defence and Space, France, nathalie.pisot@airbus.com

Mrs. Delphine Texier  
Airbus Defence and Space, France, delphine.texier@airbus.com

Mrs. Sandrine Toulza  
Airbus Defence and Space, France, sandrine.toulza@airbus.com

FROM NEW SPACE TO BIG SPACE: HOW COMMERCIAL SPACE DREAM IS BECOMING A  
REALITY?**Abstract**

New space is a misleading expression. Many new trends steer the evolution of space activities. Development of commercial space, with start-ups and space ventures, is one of the most visible trends in space. Stimulated by the first initiatives related to space tourism, access to space and the growing use of small-sats, space activities have attracted new entrepreneurs, both start-ups and big web actors with substantial investment capacity. This revolution started in the Silicon Valley and spread worldwide. Start-ups have attracted around \$18.4 billion of investment since 2000. It is far below the annual institutional budgets but the pace gained momentum since 2006 and specially 2012. Between teenage crisis and age of reason: new space is now old. . . The first start-ups shall confirm their promises, while new players pop up and try to find their way. It shakes the legacy players but those demonstrate resilience and adaptation capacity. It is now the right time to take stock of the first lessons learnt. Start-ups disrupt established industry? Instead of a simplistic shortcut, this paper reports an “organisational ecology” study. Its ambition is to help understanding complex evolutions in the space ecosystem. The first part of the paper introduces the current ecosystem, its actors, the main trends and the five main types of activities (going to space, down to Earth, space in space, far from Earth and the space meccano). Through facts and figures on technology, investments and markets, the second part reviews how “new space” trends is preparing the advent of big space. The third part analyses one specific segment, with a deep dive in Earth Observation and Telecommunications: new initiatives and strategies, market evolution. This sector is particularly relevant: it includes both institutional and commercial markets and new actors are either small but ambitious startups or big companies backed by powerful investors. Th last part is a foresight exercise, discussing possible evolutions and impacts, threats and opportunities. The decisive role of institutional actors and the new Newspace with more and more space-faring nations is also highlighted. It is clear that something big is happening in space. It is too early to depict the new landscape. While opening new academic questions, this preliminary study shows that the future picture will not be black and white but more colorful with nuances depending on markets, regional specificities and national policies.