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INTERNATIONAL COMMERCIALIZATION CONSORTIUMS AS A TOOL FOR SPACE TECHNOLOGY COMMERCIALIZATION

Abstract

We present a case study on a new model for moving space technology into commercial use and the lessons we have learned in developing it and working with it. This model involves pooling technology from space agencies around the world to create a critical mass for industry and leveraging that critical mass to obtain funding for collaborative RD to transform space technology into viable commercial products.

Today most products are developed by integrating multiple innovations/technologies. Indeed a business sector has emerged of "non-practicing" entities (i.e., companies that make nothing) which aggregate intellectual property (IP) in order to sue practicing entities (i.e. product companies). To counter these firms (called patent trolls), manufacturers have begun buying up their own IP portfolios (e.g. Nortele's and Motorola's cell phone patents, Kodak's digital photography patents). That in turn has lead competitors to buy their own portfolios in order to avoid being locked out of the market and to have trading chips when sued for infringement (e.g., Apple v. Samsung).

One consequence is single, stand-alone patents are getting harder to license, unless the invention is that rare thing: major breakthrough. But that does not mean non-breakthrough inventions are worthless. Patent stacking (aggregating the necessary patents to make the product) has been common for years in biotechnology and now is common across economic sectors. This realization has led to an ad hoc informal collaboration between people from the US, Germany, France, Canada, South Africa, Australia, Singapore and elsewhere to explore ways space agencies can collaborate to create our own portfolios in areas of clear downstream product need. This initiative is an outgrowth of a commercialization special interest group meeting at IAC 2012. The working group chose telemedicine as our foci as (1) there is a need for satellite communications to do telemedicine in remote areas and (2) we have as a group a lot of experience in working with remote observation, equipment diagnostics and repair, and robotic operations under conditions of narrow bandwidth and combinations of human and on-board control.

In this paper, as noted, we will present the model and the lessons learned. We will conclude by discussing how using informal working groups to develop an initiative before seeking official agency approval works as well in technology transfer as it does in technology development.