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MEASURING INNOVATION: A NEW APPROACH TO THE MANAGEMENT OF INNOVATION IN
THE COMMUNICATION SATELLITE BUSINESS.

Abstract

An innovation is always the close encounter of an invention and a demand. Innovation has two faces: a “new idea” side and a “new need” side. In the last century, satellite communication was a prestigious and sometime nation pride activity in the hands of national agencies and international public organizations that were very fond of new technologies. The new-idea face of innovation was dominating. Managing innovation was simply to follow the maturity of the new technology, technique, process, . . . from the first sparkle in a lab to a final product in orbit. A tool such as the TRL scale (Technology Readiness Level) that was developed by the NASA was perfect to measure the maturity of the new-idea face of innovation. Since a decade, with the harsh competition of the terrestrial communication networks and the increasing presence of private investors, communication satellite business has changed its motivation concerning the innovation. To keep and develop its business, the communication satellite industry has new urgent needs: to increase the market, to reduce cost and production cycle, to propose new services and applications. . . The new-need side of innovation is now the driving force. A new tool such as the MIM© that is developed by Bernard Monnier, will allow measuring both faces of innovation. This paper will present a new structured methodology for managing the R&D for New Product Development that is based on the measurement of the innovation along the whole product life cycle. The paper will also explain how the measurement of innovation can be applied for a new communication satellite onboard product, the Digital Transparent Processor, which is developed within Thales Alenia Space.