# System of Systems EngineeringCollaborators Information Exchange (SoSECIE)

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***Holistic architecture description for a future Global Health Assurance System of Systems***

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#### Abstract

The current global healthcare industry suffers from many shortcomings in areas of extreme poverty on the one hand, but it has great opportunities granted by technological breakthroughs, upon the other. At the beginning, this briefing summarizes problems and opportunities in different study cases, such as the case of Doctors Without Borders Rwanda in association with Google to implement a data management system for quarantined Ebola patients, or an embedded mobile phone application to make hospitals more efficient. After, a holistic analysis of a System of Systems architecture is proposed for the treatment of general and specific global health industry focusing on interoperability due to geographical distribution and managerial independence.

#### Biography

Adrián Unger spent the last 15 years working in aerospace systems, from rocket avionics architecture to rocket engine test stands and logistic design for experimental launches. Two years ago, he was offered to create a brand-new office in charge of the global commercialization and study of new applications for the Argentinian synthetic aperture radar (SAR) constellation (SAOCOM). This implied building the team, the information systems and business processes to reach those goals. Today, he is the Head Systems Engineer and Project Manager of this office that is continuously growing.

In 2019, he graduated from Georgia Institute of Technology with a Master´s Degree in Applied Systems Engineering. In the past, he graduated as an electronic engineer (field of study: automatic control) and chemistry technician (field of study: biotechnology). He also holds a postgraduate degree in Fine Arts. In 2020 he volunteered as the head systems engineer for a discrete electronics COVID19 ventilator. This discrete electronics philosophy aimed to achieve the requirements with no use of firmware or software which implies complying many extra standards.

At present, he spends his time working both as systems engineer aiming at high positive social impact with the SAOCOM constellation and as a Professor of Space Systems Engineering and Space Avionics Systems at the Space Systems Engineering career, at the University of San Martin, located in Buenos Aires, Argentina, where I was born in 1980.