

# LES BESOINS EN SERVICES DE LANCEMENTS VUS PAR LES OPÉRATEURS DE SATELLITES DE COMMUNICATIONS / LAUNCH SERVICE NEEDS AS SEEN BY COMMUNICATION SATELLITE OPERATORS

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Special Advisor of Eutelsat Chairman and CEO*

### Résumé / Abstract :

This presentation is a European customer standpoint taking into account the worldwide launcher offers to strength its access to space which is vital to support its developing market growth.

An operator has no specific technical expertise to design a new launcher but what matters for a customer, what are the criteria to select and finally to procure a launch service?

To make a comparison between the different launchers, the parameters used are high reliability, attractive price, on-time launch, best-in-place quality of service, environmental footprint....

What type of risks an operator is ready to take to minimize its overall investment while geopolitics is moving quickly, conflicts emerge everywhere and Space Law as well as regulations impose restrictions.

Finally some strategic and tactical considerations will be provided.

### Carrière en bref / Career in brief :

Raphaël Mussalian is currently the Special Advisor of Michel de Rosen, Eutelsat Chairman & CEO

He was the Eutelsat Chief Technical Officer from 2012 to 2014 and as such:

- Member of the Executive Committee
- Chairman of the Technical Committee
- Member of Merge & Acquisition Committee (Satmex)
- Member of the Investment Committee (# 550 M€ per year)
- Satellites procured from Airbus D&S, Boeing, ISRO, ISS, TAS and SS/Loral
- Launchers ordered to Arianespace, Sea Launch, Proton and Long March
- Responsible of 5 Teleports. Ground Segment, 37 Satellites in Operation, Exploitation, NOC, etc...

From 2009 to 2011, he was Director of Engineering

- 10 satellites ordered, launched and insured: W7, W3B, KaSat, W3C, W3D, AB7, W5A, W6A, E25B, E3B
- 40 engineers skilled in Payload, Platform, Systems & Quality
- Partnership with Qatar (QSC&QAF) & Russia (RSCC)

From 1986 to 2008, he was Satellite Engineer, Programme Manager & Launcher Procurement

- 10 Satellites ordered, manufactured, Launched, LEOP & IOT and Insured;
- Eutelsat W2, W3, W4, W5, Hot Bird 6, 8, 9 & 10, Eurobird 1 & Atlantic Bird 2
- Procurement of Ariane, Atlas V, Delta IV, Sea Launch, Proton & Long March
- Mechanical & Thermal Engineer for the Eutelsat II series satellites

He started his career in 1978 at Aerospatiale Cannes, now Thales Alenia Space as Mechanical & Thermal Engineer.