



# Introducing Euroconsult Group's space training service offering

2022 | 2023



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### Our training service offering in a nutshell

TOPIC 1: Space technical & engineering fundamentals

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# Business line development rationale

### From evolving market needs...

- Customers seek less frequently dry content purchase while requesting more interactive content and in-house knowledge development
- Multiplication/diversification of space sector's players worldwide looking for capacity/knowledge building opportunities
- Training gradually growing into a key lever for skills development that goes far beyond the mere acquisition of space infrastructure
- Space industry players offering training solutions as an essential tool for customer relationship management

### ...to inherent internal synergies

 Training stands at the crossroads of our services CONSULTING TRAINING MARKET INTEL.

- Leverages a unique combination of in-house skills and expertise

**EVENTS** 

- Fully synergetic initiatives and solutions delivering unique value to our customers
- Building upon Euroconsult's and Satconsult's long experience in delivering ad-hoc training modules, workshops and presentations to space stakeholders worldwide



# General service approach

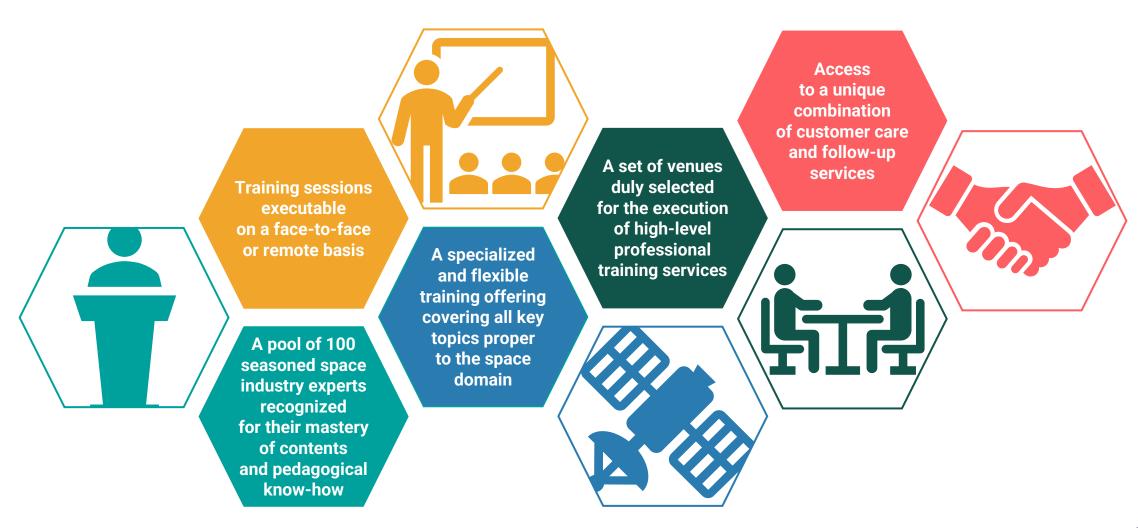
Our training service offering provides interdisciplinary knowledge transfer to governments, the private sector and not-for-profit organizations wishing to increase their expertise in the space sector.

Fully adapted to customers' specific needs, it **customizes both the content and format** of associated training programs **to match customers' specific skill development goals**.

Delivered with an emphasis on **flexibility**, **accessibility** and **experiential learning**, this tailored service provides both **functional and executive-level training** with **defined outcomes**, among which:

- Interdisciplinary training on all key aspects of the space industry: technical, markets, program management, etc.
- Ability to benefit from prepackaged programs or create a customized program
- Benchmarking, profiling, best practices and lessons learned from key players of the space sector
- Possibility to organize tours of government and private industry facilities and meetings with international executives and officials
- Flexibility in choosing a suitable training location, ranging from on-site training on customer premises, in our offices or in a prestigious third-party location
- Exposure to training in a variety of mediums and formats, from videoconferences to face-to-face seminars, and hands-on exercises, over a few hours, days or week-long sessions

# **Key customer benefits**





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# From training topics to delivery modes

Our training service offering is based upon **four main topics** covering, through **38 individual training modules**, the **full spectrum of issues to be considered to operate in the space sector, i.e.**:

- Space technical & engineering fundamentals
- Satellite projects & programs management
- Space legal, regulatory & spectrum management
- Space industry & market dynamics

Related contents are available in **two alternative modes** depending upon customer objectives, requirements, and constraints:

- Pre-packaged
- Customized

Topic 1: Space technical & engineering fundamentals Topic 2: Satellite projects & programs management

Topic 4: Space industry & market dynamics Topic 3: Space legal, regulatory & spectrum management



# **Training catalog overview**

	Topic 1: Space technical & engineering fundamentals	Topic 2: Satellite projects & programs management	Topic 3: Space legal, regulatory & spectrum management	Topic 4: Space industry & market dynamics
Nb. of training modules	17	7	5	9
Typical module duration range*	0.5 to 2 days	0.5 to 2 days	1 to 3 days	1 to 2 days
Typical contents	End-to-end technical and engineering space industry fundamentals	Space program management topics, from business planning to risk management assessment	Legal, regulatory and frequency challenges impacting business plans, investment and programs	Space industry policy, market perspectives and trends
Available delivery formats	Face-to-face or online	Face-to-face or online	Face-to-face or online	Face-to-face or online

<sup>\*</sup> Depending upon customer objectives, requirements, and constraints.



# Training catalog details

Structured along a topic-by-topic basis, the following slides provide an overview of each of our 38 individual training modules in terms of:

- Objectives
- Prerequisites
- Related modules
- Typical duration
- Topics covered
- Module director

None of the content presented in this catalogue shall be considered as contractual. Any interested customer is kindly invited to contact us for a detailed technical and commercial proposal that will be derived from his specific objectives, requirements and constraints.



# TOPIC 1: Space technical & engineering fundamentals

### Training modules list

- 1.1 General introduction to space missions
- **1.2** Space environment & associated constraints
- **1.3** Satellite system design, integration & tests
- 1.4 Satellite platform & subsystems
- 1.5 Quality control & assurance
- 1.6 Launch vehicles & satellite/launcher interfaces
- 1.7 Launch campaign & launch phase
- 1.8 Satellite control operations: From deployment to de-orbitation
- 1.9 Satellite communications systems overview

- **1.10** Satellite communications systems: High throughput systems
- **1.11** Satellite communications systems: Flexible & reconfigurable systems
- **1.12** Satellite communications systems: Constellation systems
- 1.13 Telecom satellite mission operations
- 1.14 Satellite Earth observation systems overview
- 1.15 Satellite optical Earth observation systems
- 1.16 Satellite radar Earth observation systems
- 1.17 Professions & skills in the space sector



# MODULE 1.1: General introduction to space missions

#### **OBJECTIVE**

- The objective of this module is to provide an overall summary of the engineering concepts required to understand the technical fundamentals of a space mission.
- Upon completion of this module, trainees will have learned the basics of the space environment, the main components of a space mission and the process for satellite system design.

#### **PREREQUISITES**

No specific prerequisites. This module is an overview of space engineering for trainees with no technical background, or as a general introduction to more advanced modules in space engineering for trainees with a technical background.

**RELATED MODULES** 

To be mastered

To go further

1.2 to 1.17

2.1, 3.1, 4.1

Connected with

**TYPICAL DURATION** 

• 0.5 to 1 day (4-8 hours)

#### **TOPICS COVERED**

- A unique environment to address specific requirements
- Orbits and space environment
  - Orbital mechanics overview
  - o Some specific orbits: geostationary orbit, sun-synchronous orbit etc.
  - Space environment and constraints
- Key mission components
  - Space segment architecture: platform and payload
  - Ground and launch segment
  - Mission operations
- Key applications and system design
  - o Type of mission and objectives
  - System design drivers

#### MODULE DIRECTOR

Mr. Vincent ASTIER, Director of Engineering, Satconsult



# MODULE 1.2: Space environment & associated constraints

Connected with

3.5

#### **OBJECTIVE**

- The objective of this module is to outline the various specific characteristics of the space environment and related constraints.
- Upon completion of this module, trainees will have learned the key basics to be considered during the design and developmental phases of any space project.

#### **PREREQUISITES**

 In order to take full advantage of this module, trainees should have a technical background (meaning either master level or engineering degree).

### **RELATED MODULES**

To be mastered

1.1

To go further

1.3, 1.4, 1.8

**TYPICAL DURATION** 

1 day (8 hours)

### Space environment

- o Key space environment characteristics
- Orbital mechanics

### Space constraints

 Launch constraints (mechanical loads, thermal and electromagnetic environment)

**TOPICS COVERED** 

- Effects of orbital perturbations on spacecraft
- Effects of the space environment on materials and electrical components

### Implications for spacecraft design

- o On-board thermal regulation
- Electronic hardening
- Orbit determination and control
- Mechanical testing

#### **MODULE DIRECTOR**

Mr. Vincent ASTIER, Director of Engineering, Satconsult



# MODULE 1.3: Satellite system design, integration & tests

#### **OBJECTIVE**

- The objective of this module is to describe and explain the sequence and logic of the design, integration and test of a satellite system, outlining the various specific characteristics and related constraints of each phase.
- Upon completion of this module, trainees will have learned the key basics of satellite system design, integration and test sequence.

#### **PREREQUISITES**

 In order to take full advantage of this module, trainees should have a technical background (meaning either master level or engineering degree).

### RELATED MODULES

To be mastered

1.1

To go further

1.4 to 1.8

**TYPICAL DURATION** 

2 days (16 hours)

#### Connected with

2.1, 2.6, 4.3

#### **TOPICS COVERED**

#### Program phase breakdown

- Phase A: Conceptual design
- Phase B: Definition
- o Phase C: Design
- o Phase D: Development, integration and verification
- o Phase E: Operation

#### Design phase

- o Design phase
- o Mission definition
- o Payload/platform sizing
- Satellite definition/satellite budgets
- o Ground control segment definition

#### Integration & test phases

- Foreword and general rules
- Verification program, method and techniques
- Verification phases
- Integration and test sequence
- Typical test sequence (unit/spacecraft, system)

#### MODULE DIRECTOR

Mr. Frank AIROLDI, Senior Space Systems Expert, Satconsult



# MODULE 1.4: Satellite platform & subsystems

#### **OBJECTIVE**

- The objective of this module is to present what constitutes a satellite platform and outline the main characteristics of the various constitutive subsystems.
- Upon completion of this module, trainees will have learned the key basics of what constitutes and drives a satellite platform.

#### **PREREQUISITES**

 In order to take full advantage of this module, trainees should have a technical background (meaning either master level or engineering degree).

### RELATED MODULES

To be mastered

1.1, 1.3

To go further

1.5 to 1.8

**TYPICAL DURATION** 

2 days (16 hours)

Connected with

4.3

#### **TOPICS COVERED**

### Platform system overview

- Platform purpose
- o From mission requirements to platform requirements

### Constitutive subsystems

- o Structure subsystem
- o Thermal subsystem
- Mechanisms
- o Attitude & orbit determination & control subsystem
- Propulsion subsystem
- Electrical power subsystem
- o Telemetry & telecommand subsystem

#### Platform products typology

- o By type of orbits
- o By mass and power range

#### **MODULE DIRECTOR**

Mr. Björn BUCKWALTER, Senior Consultant, Satellite Platforms
 & Operations Expert, Satconsult



### MODULE 1.5: Quality control & assurance

#### **OBJECTIVE**

- The objective of this module is to outline the fundamentals of product assurance in the framework of a satellite manufacturing project
- Upon completion of this module, trainees will have learned about the best practices and typical requirements relating to product assurance activities during a satellite program.

#### **PREREQUISITES**

 In order to take full advantage of this module, trainees should have a technical background (meaning either master level or engineering degree).

#### **RELATED MODULES**

To be mastered

1.1

To go further

Connected with

n/a

n/a

**TYPICAL DURATION** 

■ 1 day (8 hours)

- Objectives and commitments of product assurance
- Space product assurance major requirements
  - System
  - Environment
  - Lifetime
- Reliability considerations
  - Reliability
  - o FMECA
  - Safety
- Product assurance domains
  - o Parts
  - Materials and processes
  - Quality control
- Space product assurance programmatic aspects
  - Development and manufacturing control
  - Subcontractor product assurance
- Space product assurance and program management organization
- Risk and nonconformance management

#### MODULE DIRECTOR

**TOPICS COVERED** 

 Mr. Georges BERNEDE, Senior Project Management and Quality Assurance Expert, Satconsult



### MODULE 1.6: Launch vehicles & satellite/launcher interfaces

Connected with

4.3

#### **OBJECTIVE**

- The objective of this module is to present the basics of a launch vehicle and outline the various specific characteristics of the related constraints imposed to interface with the satellite.
- Upon completion of this module, trainees will have learned the basics of a launch vehicle and the keys items to be considered regarding the launcher/satellite interface.

#### **PREREQUISITES**

 In order to take full advantage of this module, trainees should have a technical background (meaning either master level or engineering degree).

#### **RELATED MODULES**

To be mastered

1.1 to 1.3

To go further

1.7, 1.8

**TYPICAL DURATION** 

• 1 to 2 days (8-16 hours)

#### **TOPICS COVERED**

#### Introduction to launch vehicles

- Objectives & principles
- Space transportation
- Rocket principles & some physics (action reaction, jet engine, staging)
- o Overview of the design & key features
- Propulsion (types, performances)
- Guidance/piloting
- Other services (telemetry, pyro system)
- · Safety, flight termination
- Launch pad and launch preparation
- o Effect on the satellite: launch environment

#### Launcher mission analysis: interface design and verification

- Electrical, EMC
- Thermal
- Mechanical (clearance, static and dynamic loads etc.)
- o Trajectory, separation, collision avoidance

#### MODULE DIRECTOR

Mr. Björn BUCKWALTER, Senior Consultant, Satellite Platforms
 & Operations Expert, Satconsult



# MODULE 1.7: Launch campaign & launch phase

#### **OBJECTIVE**

- The objective of this module is to describe the various phases of a satellite launch campaign outlining its characteristics and related constraints.
- Upon completion of this module, trainees will have learned the key basics of a satellite launch campaign.

#### **PREREQUISITES**

 In order to take full advantage of this module, trainees should have a technical background (meaning either master level or engineering degree).

**RELATED MODULES** 

To be mastered

1.1, 1.6

To go further

Connected with

3.5

1.8

**TYPICAL DURATION** 

0.5 day (4 hours)

**TOPICS COVERED** 

#### Introduction

- o Objectives: Why a launch campaign?
- o Organization: A challenge of synchronization

### Launch campaign

- o Preparation (operations, logistics, safety submission)
- o Transportation to launch site
- o Autonomous preparation to launch (satellite, launch pad, launcher)
- Combined operations
- Dress rehearsal

#### Launch

- o Launch countdown
- o From lift-off to separation

#### **MODULE DIRECTOR**

Mr. Björn BUCKWALTER, Senior Consultant, Satellite Platforms
 & Operations Expert, Satconsult



# MODULE 1.8: Satellite control operations: From deployment to de-orbitation

#### **OBJECTIVE**

- The objective of this module is to review the various phases of satellite control operations throughout a satellite's operational life, from deployment to deorbitation.
- Upon completion of this module, trainees will have learned the key basics of satellite control operations.

#### **PREREQUISITES**

In order to take full advantage of this module, trainees should have a technical background (meaning either master level or engineering degree).

#### **RELATED MODULES**

To be mastered

To go further

Connected with

3.5

1.1

**TYPICAL DURATION** 

1 day (8 hours)

#### **TOPICS COVERED**

- Orbit-raising and insertion operations
  - o Possible orbit-raising mission overview and strategy
  - Control instances, coordination and separation
  - o Orbit-raising & insertion phase
- In-orbit testing
  - Platform testing (attitude, currents and temperature monitoring)
  - Payload testing (telecom and EO illustrations)
- On-station operations
  - Orbit control operations (AOCS, maneuvers, etc.)
  - Resource-oriented operations & mission-oriented operations
  - Contingency operations (collision avoidance, degraded modes)
- Disposal operations
  - LEO, MEO, GEO strategies

#### **MODULE DIRECTOR**

 Mr. Björn BUCKWALTER, Senior Consultant, Satellite Platforms & Operations Expert, Satconsult



# MODULE 1.9: Satellite communications systems overview

Connected with

3.1, 3.2, 3.4, 4.6

#### **OBJECTIVE**

- The objective of this module is to help trainees identify the role and definition of each component of a satellite communications system.
- Upon completion of this module, trainees will have a first-level knowledge on the necessary operational functions in a satellite communications system.

#### **PREREQUISITES**

- In order to take full advantage of this module, trainees should have a technical background (meaning either master level or engineering degree).
- Some experience in the satellite sector will obviously be a plus.

RELATED MODULES

To be mastered

1.1

To go further

1.10 to 1.13

**TYPICAL DURATION** 

1 day (8 hours)

Inventory and definition of satellite-based communications services

**TOPICS COVERED** 

- Raw capacity
- Managed services
- Managed capacity
- o End-to-end solutions
- The space segment
  - o The satellite
  - Satellite control center
  - o The frequency resource
- The mission ground segment
  - User terminals and RF gateways
  - The resource manager
  - Communication hubs
  - Network monitoring instances: The NMS and the CSM

#### **MODULE DIRECTOR**

Mr. Olivier MURET, Senior Satcom Systems Expert, Satconsult



# MODULE 1.10: Satellite communications systems: High throughput systems

#### **OBJECTIVE**

- The objective of this module is to provide trainees with sufficient support to allow a global level of understanding of how a HTS or VHTS system operates.
- Upon completion of this module, trainees will have a good basis for further developing their skills in High Throughput communication systems.

#### **PREREQUISITES**

- In order to take full advantage of this module, trainees should have some background in procurement and/or mission operations of satellite communications systems.
- Some experience in the satellite sector will obviously be a plus.

RELATED MODULES

To be mastered

1.1, 1.9

ered To go further

1.11, 1.12, 1.13

Connected with

3.1, 3.2, 3.4, 4.6

**TYPICAL DURATION** 

• 1 to 1.5 day (8-12 hours)

#### **TOPICS COVERED**

#### HTS/VHTS technology basics

- Frequency reuse principles
- Multispot coverages
- Connectivity principles and network topologies
- o Gateways: number, sizing, location, redundancy, diversity
- o Bent pipe vs. digital HTS
- Resource access techniques
- Frequency resources specificities

### HTS and VHTS systems examples

- o Anik-F2
- VIASAT-3
- o 03B m-Power
- Eutelsat KONNECT VHTS
- HTS/VHTS satcom systems benchmarking

#### MODULE DIRECTOR

 Mr. Hector FENECH, Senior Satcom Satellite Payload & Systems Expert, Satconsult



# MODULE 1.11: Satellite communications systems: Flexible & reconfigurable systems

#### **OBJECTIVE**

- The objective of this module is to give the trainees the key principles of this new generation of satellites. It will briefly cover the design details of the solutions but will go more into detail of the pros and cons of the operations of such systems.
- Upon completion of this module, trainees will have a good knowledge of the advantages and constraints of such emerging solutions.

#### **PREREQUISITES**

- In order to take full advantage of this module, trainees should have some background in procurement and/or mission operations of satellite communications systems.
- Some experience in the satellite sector will obviously be a plus.

To be mastered

1.1, 1.9

**RELATED MODULES** 

To go further

1.10, 1.12, 1.13

Connected with

3.1, 3.2, 3.4, 4.6

**TYPICAL DURATION** 

• 1 to 1.5 day (8-12 hours)

#### **TOPICS COVERED**

- Standard flexible satellite development
  - General principles
  - Procurement and development principles
  - High level design principles
- Standard flexible satellite operations
  - o Ground infrastructure
  - o Beam forming and transmission planning
  - o Centralized resource and forecast scenarios
- Standard flexible satellite benchmarking
  - o Standard flexible vs. conventional bent-pipe systems
  - Standard flexible vs. HTS/VHTS systems

#### MODULE DIRECTOR

 Mr. Hector FENECH, Senior Satcom Satellite Payload & Systems Expert, Satconsult



# MODULE 1.12: Satellite communications systems: Constellation systems

#### **OBJECTIVE**

- The objective of this module is to assist trainees in understanding the logic of design and principles of operations of a communication satellite constellation.
- Upon completion of this module, trainees will have reviewed the top-level characteristics of a satellite constellation, allowing a reasonable understanding of the inputs in such development trade-offs.

#### **PREREQUISITES**

- In order to take full advantage of this module, trainees should have some background in procurement and/or mission operations of satcom systems.
- Some experience in the satellite sector will obviously be a plus.

RELATED MODULES

To be mastered

1.1, 1.9

To go further

1.10, 1.11, 1.13

Connected with

3.1, 3.2, 3.4, 4.6

**TYPICAL DURATION** 

• 1 to 1.5 day (8-12 hours)

#### **TOPICS COVERED**

#### LEO constellation system parameters

- Main parameters (orbit, number of satellites, user terminals, size of satellites, gateways, inter-satellite links, frequency resources, launch concept...)
- o Frequency resource for a non-GSO system
- Key principles to develop a high-level design addressing a telecommunication service

### Various constellation systems panorama

- o Globalstar/Iridium
- o 03B
- o Starlink
- OneWeb
- Telesat Lightspeed
- Kuiper
- LEO satcom constellations benchmarking

#### MODULE DIRECTOR

Mr. Yann LE DU, Technical Advisor, Satconsult



# MODULE 1.13: **Telecom satellite missions operations**

#### **OBJECTIVE**

- The objective of this module is to provide trainees with the various operational concepts that are in place for each of the main satcom business models, from raw capacity delivery to end-to-end services.
- Upon completion of this module, trainees will have a first-level understanding of the way a satcom system is operated, through the communication flows between each component.

#### **PREREQUISITES**

- In order to take full advantage of this module, trainees should have some background in procurement and/or mission operations of satellite communications systems.
- Some experience in the satellite sector will obviously be a plus.

To be mastered

1.1, 1.9

**RELATED MODULES** 

To go further

1.10, 1.11, 1.12

Connected with 3.1, 3.2, 3.4, 4.6

**TYPICAL DURATION** 

1 day (8 hours)

#### **TOPICS COVERED**

### Planning process

- Operator roadmap
- o RF planning

### Deployment process

- o Terminals and hub procurement
- o Terminals logistic chain: from factory to field operations

### The network operation process

- o RF operations surveyance
- o QoS monitoring
- Service level agreement

### Mission operation versus business models

- Raw capacity services operations
- Managed services operations
- Managed capacity operations
- o End-to-end solutions operations

#### MODULE DIRECTOR

 Mr. Kevin O'BRIEN, Senior Ground Segment & Operations Expert, Satconsult

# MODULE 1.14: Satellite Earth observation systems overview

#### **OBJECTIVE**

- The objective of this module is to outline the purpose of satellite Earth observation from an end-user's perspective and requirements achieved through dedicated technical solutions.
- Upon completion of this module, trainees will have learned what constitutes the overall philosophy and means for satellite Earth observation.

#### **PREREQUISITES**

 In order to take full advantage of this module, trainees should have a background in engineering (optical, radio communications, electronics, software, etc.) and/or Geographic Information Systems.

#### **RELATED MODULES**

To be mastered

1.1

To go further

1.15, 1.16

**TYPICAL DURATION** 

• 1.5 to 2 days (12-16 hours)

Connected with

3.1, 3.3, 4.7

#### **TOPICS COVERED**

#### Missions

- o Environment (meteorology, agriculture, forestry, etc.)
- Intelligence (economic, security, defense)

#### Main parameters/drivers

- Main characteristics of the observation targets (size, frequency of occurrence, wavelength of observability)
- Design drivers (revisit, resolution, wavelength, day/night, all weather, local, global, tasking cycle)
- o Going from requirements to launch and operations

### System architecture

- Space segment (number of satellites, orbits, agility, ...)
- o Ground segment (stations, ISL, processing, dissemination)

#### Technologies

- o Optical (MSI, HSI), radar (imagery, altimetry), lidar,
- o Connected systems: GeoInt, Sigint

#### MODULE DIRECTOR

Mr. Olivier THEPAUT, Senior Earth Observation Expert, Satconsult



# MODULE 1.15: Satellite optical Earth observation systems

#### **OBJECTIVE**

- The objective of this module is to outline the optical imager's principles, techniques and technologies.
- Upon completion of this module, trainees will have learned general optical image concepts and specific applications and associated technologies.

#### **PREREQUISITES**

In order to take full advantage of this module, trainees should have a background in engineering (optical, radio communications, electronics, software, etc.) and/or Geographic Information Systems.

#### **RELATED MODULES**

To be mastered

1.1, 1.14

To go further

1.16

TYPICAL DURATION

Connected with

3.1, 3.3, 4.7

1 to 1.5 day (8-12 hours)

#### **TOPICS COVERED**

#### Optical image principles

- Image geometry
- Radiometric aspects
- Image acquisition and processing

### Key sizing parameters

- o Agility, swath, on-bord storage
- o Frequency bands (visible, NIR, SWIR, ...), spatial resolution
- Modulation Transfer Function, Signal-to-Noise Ratio
- Other key sizing parameters

### System architecture

- o From users' requirements/parameters to system design (space and ground segment) design
- o Illustrations with operated missions or future concepts

#### MODULE DIRECTOR

Mr. Emmanuel SEIN, Senior Earth Observation Expert, Satconsult



# MODULE 1.16: Satellite radar Earth observation systems

Connected with

3.1, 3.3, 4.7

#### **OBJECTIVE**

- The objective of this module is to outline the radar (or SAR) imager's principles, techniques and technologies.
- Upon completion of this module, trainees will have a general knowledge of radar (or SAR) image concepts and specific applications and associated technologies.

#### **PREREQUISITES**

 In order to take full advantage of this module, trainees should have a background in engineering (optical, radio communications, electronics, software, etc.) and/or Geographic Information Systems.

#### **RELATED MODULES**

To be mastered

1.1, 1.14

To go further

1.15

**TYPICAL DURATION** 

• 1 to 1.5 day (8-12 hours)

#### **TOPICS COVERED**

### SAR image principles

- SLAR and SAR geometry
- o SAR azimuth and range ambiguities

### Key sizing parameters

- o Minimum antenna area and maximum merit factor
- Radar equation and power sizing
- Other key sizing parameters (datarate, tasking cycle)

#### Advanced modes and architectures

- o ScanSAR, spotlight, multibeam, reflector
- o Monostatic, bistatic (single sat, dual sat), multistatic (sat train)

### Program approach

- From users' requirements/parameters to system design (space and ground segment) design
- o Illustrations with operated missions or future concepts

#### **MODULE DIRECTOR**

Mr. Jérôme COLINAS, Senior Earth Observation Expert, Satconsult

# MODULE 1.17: Space sector's professions & skills

#### **OBJECTIVE**

- The objective of this module is to outline the various professions found in the space sector and associated skills.
- Upon completion of this module, trainees will have acquired a high-level of understanding of typical training paths to follow in the space sector, be it to consolidate, refresh or create related capacity building programs.

#### **PREREQUISITES**

 No higher education degree (neither technical nor business) is required to attend this module.

#### **RELATED MODULES**

To be mastered

1.1, 1.2, 2.1

To go further

Connected with

2.2 to 2.7, 3.1, 3.4, 4.1

TYPICAL DURATION

0.5 day (4 hours)

#### **TOPICS COVERED**

- Reminder of the space sector's value chain
  - General overview
  - Upstream activities and players
  - o Downstream activities and players
- Professions in the space sector
  - o Technical & engineering professions
  - o Business planning & development professions
  - > Program management professions
  - Other professions
- Required skills in the space sector
  - o Technical & engineering skills
  - o Business planning & development
  - o Program management skills
  - Other skills
- Examples of typical capacity building programs

#### **MODULE DIRECTOR**

Mr. Pierre VALENTI, Senior Affiliate, Training Services, Euroconsult



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**Euroconsult Group presentation** 

### **Contact information**

### **Contact details**



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### **References & achievements**

- Designed and/or managed the successful implementation of more than 50 training programs for space stakeholders worldwide over the past decade (2012-2022), including: ADD (South Korea), AEB (Brazil), Azercosmos (Azerbaijan), Bank Rakyat Indonesia (Indonesia), CONIDA (Peru), GMV (Spain), MEASAT Satellite Systems (Malaysia), MTCIT (Oman), Türksat (Turkey)...
- Designed and continuously upgraded Euroconsult's training service offering since 2020.

### **Career abstract**

- Pierre VALENTI (<a href="https://www.linkedin.com/in/pierrevalenti">https://www.linkedin.com/in/pierrevalenti</a>) has spent most of his 28-year career in the space sector, leveraging a proven track record in such key functions as business planning, business development, business intelligence, market research and training.
- His previous professional experience includes a ten-year tenure (1999-2009) as Marketing & Sales Manager with the Telecommunications Satellites business unit of Airbus Defense & Space, Space Systems. He also acted as Arianespace's Marketing Director from 2009 to 2011. In addition to this solid industrial experience, Pierre also worked for such renowned consultancies as Accenture (1994-1996), Euroconsult (1996-1998) and Satconsult (2011-2012).
- More recently, he served as Deputy Managing Director (2012-2013), then Managing Director (2014-2019) of the Institut Aéronautique & Spatial (IAS), a training agency operating under the aegis of GIFAS, the French aerospace industries association.
- In 2020, he decided to join forces with Euroconsult to structure and develop a dedicated training service offering (https://www.euroconsult-ec.com/training).



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Our training service offering in a nutshell

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# Leading independent group

Euroconsult Group is the leading global consulting group specializing in the space sector and satellite enabled verticals.



- Privately owned
- Fully independent
- 40 years of experience
- 7 global locations
- 600 clients
- A team of over 100 multidisciplinary experts



# **Clients**



Governmental & international organizations



Financial institutions & insurance



Service providers



Satellite operators



End users



Satellite & equipment manufacturers



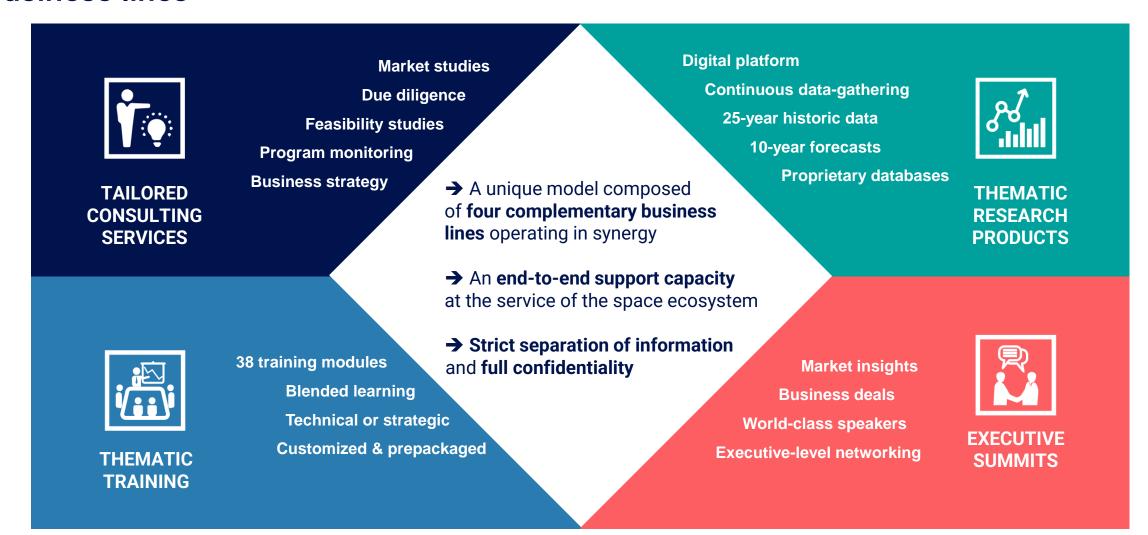
Launch service providers

# 600 clients in 50 countries 7 global locations





### **Business lines**



# Euroc@nsult Group Training







