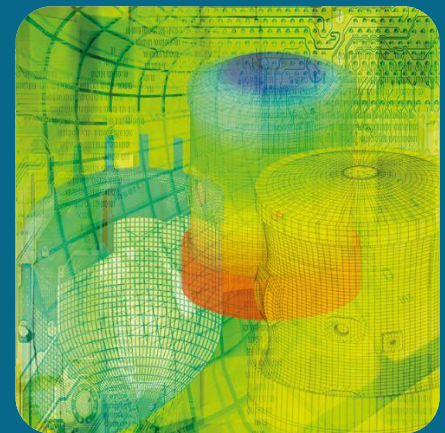




# PRESENTATION OF THE AEROSPACE ACTIVITY



DECEMBER, 2018

## ➔ Company foundation

- › Date and Place of establishment, as a start-up:
  - › November 1991, Craiova – top ranked city and one of the most important university centers of Romania
- › Official name: **AEIC** = **A**utomatics, **E**lectronics, **I**nformatics, **C**onsulting
- › Legal form: SA (Societate pe Actiuni)
- › The founders: a team of research engineers with strong links in academic environment and with high professional interests in Computer Science / Automation / Electronics
- › The main founders still work in the Company

## ➔ Subsidiary of CS Communications & Systems Group ([www.c-s.fr](http://www.c-s.fr))

- › May 1998:
  - › CS Group gains control over 76% of the shares by participating to the increase in shareholder's equity
  - › Official name: CS AEIC
- › June 2006:
  - › CS Group gains control over 100% of the shares
- › Mai 2007:
  - › Official name: **CS ROMANIA**

## → Business

- › Software applications development and maintenance, based on clients requirements
- › Command and Control Systems – SCADA, Automation, Control Centers
- › IT R&D projects and in-house software products development
- › IT software Outsourcing

## → Operational units

- › Development & Maintenance of Software Applications
- › Embedded Systems
- › Command & Control Systems

→ **+27 years of presence on IT&C market**

→ **+23 years experience in software outsourcing for Western Europe and North America countries**

→ **Headcount: > 100 FTE; 90 are engineers in Computer Engineering, Control Systems and Informatics**

› *Mature processes*

› *Strong ability to work remote in multisite teams*

› *Reliable solution*

## → Aeronautics & Space

- Software applications development, based on client requirements
- Total or partial outsourcing of the life cycle of software development for Aeronautics & Space
- Third Party Applications Maintenance
- Meeting industrial standards related to software engineering: DO178B / ED 12B (DAL A...D ) and ECSS System

## → Energy & Industry

- Operational Information Systems
  - Command & Control Centers
  - Energy Management Systems
  - CRM and Energy Trading
- SCADA & DCS Systems
- Prime contractor or subcontractor
- Partners in R&D Environmental Projects

## → ITS & TPAM

- ITS for highways – BackOffice System
- Information Systems for Public Transportation
- Third Party Applications Maintenance
- Railways – Embedded Software Development
- Command & Control Systems for locks on rivers
- Meeting industrial standards for sw engineering: EN 50128 SIL levels 1-4, Agile Methodology...

## → Top clients

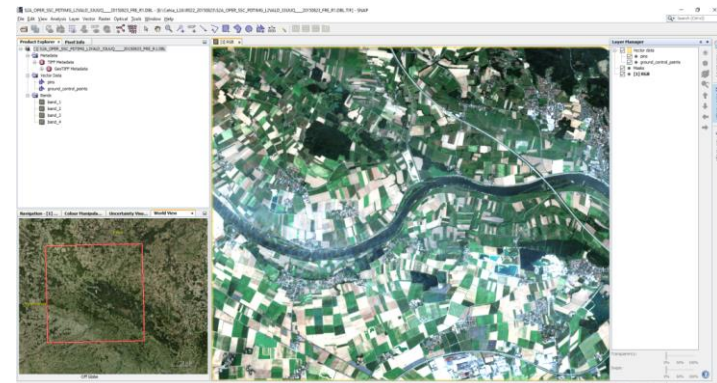






## → Software Services Center for Aeronautics & Space activities

- Opened in 2005;
  - audits and evaluations performed before the first collaboration by: **Airbus, Airbus Helicopters, Thales Alenia Space, Thales Avionics, Pratt&Withney US, SAFRAN – SAGEM and SAFRAN - Turbomeca**
- 80 well skilled resources for Aeronautics & Space software development & maintenance activities
- Meeting industrial standards related to software engineering: **DO178B/DO178C** (all Development Assurance Levels) and **ECSS System**



## → On Board Software

- **"Unit and Integration Test of Digital Engine Control (FADEC) software for PurePower engine series"**, Pratt & Whitney (USA, Canada), 2012 – present
- **"Software development and test for Flight Warning System A350/A380/A400"**, V development life-cycle, Airbus, 2008 – 2014
- **"Software Development and test for Cockpit Avionics Suite of Sikorsky S76-D helicopter"**, V development life-cycle or ISVV/UT, Thales Avionics, 2006 – 2010
- **"Software development and test for Digital Engine Control (FADEC)"**, V development life-cycle, SAFRAN-SAGEM, 2008 – 2016
- **"Operational Software for Air Conditioning and Cabin Pressure Unit of the A400M aircraft"**, V development life-cycle Airbus, 2009 – 2011
- **"Takeoff & landing software optimizations for A400M aircraft"**, V development life-cycle, Airbus, 2013 – 2015
- **"X4 EBC - BMU & MCU Software Development"**, Unit testing, SAFRAN Electronics & Defense, 2018 - present

## → Other software projects

- **"Fly Smart by Airbus – New Gen for A350"**, Airbus, 2010 – 2016
- Maintenance and Engineering for **"AirbusWorld - the Airbus customer portal"**, Airbus, 2012 – present

## ➔ User Segment - Earth Observation

- › **EO/Copernicus: "Sentinels for the common agricultural policy-Sen4Cap"** ESA/ESRIN, subcontractor of UCL, 2017 - 2019
- › **EO/Copernicus: "Sentinel-2 for Agriculture"**, ESA/ESRIN, subcontractor of UCL, 2014-2018
- › **EO/Copernicus: "Science Toolbox Exploitation Portal"**, ESA/ESRIN, prime contractor, 2015 – 2020
- › **EO/Copernicus: "Sentinel-2 Toolbox"**, ESA/ESRIN, subcontractor of CS SI, 2014-2017
- › **EO/Copernicus: "Research and User Support for Sentinel Core Products"**, ESA/ESRIN, subcontractor of CS SI, 2017-2019

## ➔ Support for Scientific missions

- › **JUICE mission: CS ROMANIA in the Core team for "Operations and Database support to the JUICE Space Segment"**, subcontractor of Airbus DS, 2017 – 2022
- › **EUCLID – EGSE: Software development for "Proximity Electronics Module of the Fine Guidance System"**, subcontractor of Elettra/Leonardo, 2016 – 2017

## ➔ Space Segment - On Board Software

- › **GSTP 6 E1: "Pre-Qualification of a Mathematical Library for Flight Software"**, ESA/ESTEC, subcontractor of GTD, 2016 – 2018
- › **ARGOS mission: "Unit Tests for AIU ARGOS"**, CNES, subcontractor of CS SI, 2017 - 2018

## → Ground Segment - Flight Dynamics

- › **ARTES 14 – NEOSAT: “Flight Dynamics Software”**, Thales Alenia Space / ESA, contractor, 2016 – 2020
- › **FDS: “OrbiPro – “Accurate orbital propagator for modeling the effect of various perturbations for GNC and AOCS system's design”**, ESA/ESTEC, contractor, 3rd Call for Outline Proposals under the Romanian Industry Incentive Scheme
- › **FDS: “Implementation of a DSST orbit and attitude propagator in Orekit open-source Flight Dynamics Library”**, ESA/ESOC, contractor, 1st Call for Outline Proposals under the Romanian Industry Incentive Scheme, 2013-2015

## → Ground Segment - Navigation

- › **GNSS/EGNOS: “EGNOS V3, the next generation of the European Satellite Based Augmentation System (SBAS)”**, ESA/ADS, subcontractor of CS SI for Prediction Chain Facility and Monitoring Control Interface Facility components, 2018-2024
- › **GNSS/EGNOS: “Monitor 2: Ionospheric Monitoring Network”**, ESA/ESTEC, subcontractor of IEEA, 2014-2017

## → Ground Segment – Mission Control Centre

- › **Mission Control System: “MUSEG – Multi-mission, User oriented, end-to-end Scheduling Environment for testing resources of GSRF”**, ESA/ESOC, contractor, 4<sup>th</sup> Call for Outline Proposals under the Romanian Industry Incentive Scheme, 2017-2018
- › **EGS-CC: “EGS-CC CDM Maintenance”**, ESA/ESOC+ESTEC, contractor, GSTP Project, 2018 – 2019

## → Support

- › **On site: “Scientific and technical support services to EO exploitation programs”**, ESA/ESRIN, subcontractor of SERCO, 2014 – 2017
- › **IT infrastructure: “E2E Monitoring”**, ESA/ESRIN, subcontractor of CGI, 2014-2015





THANK YOU FOR YOUR  
ATTENTION



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