

# Earth Observation Consultant



**COMPANY:** e2E SERVICES LTD.

**JOB REF:** RES. 036

**TYPE OF ROLE:** Permanent

**LOCATION:** Welwyn Garden City



## **Our Company**

We have been at the forefront of innovation in the satellite communications industry for two decades, offering to all its stakeholders unrivalled expertise to design, develop and operate state-of-the-art solutions and systems, world-wide. Our portfolio of services and technology know-how covers the entire spectrum of any satellite communication project, from market opportunity sizing and end-user requirements down to ground network development, commissioning, and operations. To both commercial and defence related domains, we also offer unique modular and agile technology to enable a more user-friendly and accessible use of satellite communication resources.

Innovation and ingenuity are the guiding principles of anything we do for our customers. Working with e2E requires a high level of dedication and personal motivation, commitment and a drive to continually seek to improve things but the results our Group has consistently achieved over the years, at personal and team levels, are outstanding and make e2E a great place to work.

## **Job Description**

We are expanding our team and are seeking a **Earth Observation Consultant** to provide subject matter expertise in Earth Observation space-based sensor technologies and surveillance within both the civilian science and defence surveillance domains. You will provide support to the e2E Business Development team to develop winning proposals and bid content that delivers solutions to our Clients' requirements, ensuring a comprehensive and consistent response and based on best practice. In addition, you will participate in a variety of projects to provide innovative solutions for Earth

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Observation applications to our industrial, intergovernmental agencies and defence clients. Such projects will range in scope from early phase R&D studies through to proof of concept, development, test and verification and operations.

## Key Responsibilities

- Lead group efforts to develop and document technical solutions in response to customer requests for proposals (RFPs).
- Collaborate in an R&D multi-industrial consortium team environment, to include providing mentoring, direction, and peer review of team members.
- Evaluating and reporting on space-based sensor technology and supporting processes, including passive and dynamic sensors, with an in-depth knowledge of Synthetic Aperture Radar (SAR) techniques.
- Assess and evaluate the performance of remote sensing systems and relate sensor characteristics to the performance of automated and manual detection, classification, and characterization of targets.
- Assessment and evaluation of space-based sensor data exploitation techniques of geospatial data to solve tactical, military, and intelligence problems using both real time and forensic techniques (includes data processing, data analysis, tool development.)
- Assessment and evaluation of signal and image processing algorithms for space-based sensor data processing and exploitation.
- Support the development of a high level architecture for space-based sensor surveillance data flows from detection through to acquisition, dissemination and presentation using advanced AI and machine learning technologies.
- Assess and evaluate utility of applications for Earth Observation, multi-spectral, and/or radar sensor data.
- Apply and interpret advanced engineering or scientific theories, concepts, and techniques.
- Develop or direct the development of solutions for civilian and military applications to complex technical problems where little or no precedent exists, and innovation is required.
- Serve as the primary customer interface on space-based sensor present and future technology development issues.
- Implement algorithms in high-level scientific computing languages (MATLAB, IDL, Python).
- Support formal software transition processes, including system/subsystem/component-level design.
- Identification of the technology requirements for future Earth Observations missions, covering the whole spectrum (mainly platform and ground stations network, but also support to optical and RF instruments).
- Document research through technical reports and papers.

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- Support the Company Business Development team and provide relevant inputs for competitive commercial tenders.
- Interaction within ESA and also with ESA's Member States on EO future technologies e.g., through dedicated information days.

## Skills, Character and Experience

### Essential

- UK, EU or NATO Security clearance required or at least the ability successfully apply for clearance.
- BSc degree or higher in Engineering or a related technical field is required plus 5 or more years related experience. MSc. or Ph.D., may substitute for 2 years of experience.
- Programming skills in a high-level scripting language such as MATLAB, Interactive Data Language (IDL), STK or Python.
- Experience and knowledge in Synthetic Apertures radar and other space-based radar technologies, including both dynamic and passive techniques.

### Desirable

- Experience in AI and machine learning techniques in the EO data processing including image recognition and identification techniques. Object-oriented programming, C/C++, Java, Javascript, AngularJS, Django, and Postgres, would be a distinct advantage.
- SAR and radar simulation and modelling experience.
- Knowledge and awareness of a wide portfolio of Earth Observation missions across Europe and USA, including both space and ground segments.
- Knowledge and awareness of technology developments for future EO missions, in particular for the standardisation of the platform and for the communications with the ground segment.
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### Salary

- Salary is dependent on skills/experience plus a growing list of Company benefits.
- Please apply by sending your CV to [recruitment@e2egroup.co.uk](mailto:recruitment@e2egroup.co.uk)
- By submitting your CV/application you are consenting to e2E Group using and storing information about you for monitoring purposes relating to your application of future employment. This information will only be used by e2E Group.

e2E Group is committed to achieving workforce diversity and welcome all applications irrespective of social and cultural background, age gender, disability, sexual orientation or religious belief.

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