Autonomous Systems Assurance

Through our class-leading Safety Assessment service, we can provide expert guidance to allow you to use these new technologies (such as flight path assurance and flight beyond visual line of sight) safely and in line with regulation and help you select the best approach to assure your Autonomous Systems, plan through-life support, and produce the evidence needed to support your legal and regulatory commitments.

Service Definition

Our globally recognised systems assurance experts help you robustly and cost effectively develop credible safety arguments for all unmanned /autonomous systems. We help select the best approach for satisfying your System Safety Requirements. Our support enables confident application of emerging guidance, with advice available to resolve issues at any level.

Service Features

- Application of relevant safety-related good practice, helps reduce programme costs
- Assist you to understand and implement your autonomous system requirements
- Provide credible and authoritative safety assessments and safety cases
- Access to recognised safety experts with proven real-world track records
- Development of system safety assessments, assurance and auditing
- Access to our trusted system-based safety assurance approach
- Bespoke verification frameworks delivering trusted autonomous systems & components
- Producing standards-related gap analysis, impact assessment and gap closure reports
- Provision of bespoke or off-the-shelf training courses in safety assurance
- Provision of AI/ML expertise towards supporting autonomous systems

Service Benefits

- Ensuring you build confidence in your safety-related autonomous systems
- Assistance in developing relevant, maintainable and readable safety documentation
- Clear roadmaps and action plans to address any identified shortfalls
- We work with your people thereby improving your capabilities
- Access to those responsible for the development of relevant standards
- Helping make the transition from non-safety to safety-related product development
- Expertise in all types of systems across many industry sectors
- Fully independent provision of open and constructive advice and support
- Providing guidance to novel AI/ML approaches in the autonomous sector
- Making what can be complicated customer requirements clear and understandable

Detailed Service Definition

An unmanned system is where the system receives its mission from the human and accomplishes that mission with or without further interaction are considered autonomous. An unmanned / autonomous system's own ability of sensing, perceiving, analysing, communicating, planning, decision-making, and acting, to achieve its goals as assigned is characterised into levels of autonomy.

Autonomous systems have existed for decades and at lower levels of autonomy their assurance and certification is understood. Autonomous systems are becoming the new normal.

We help develop safety arguments for the successful introduction of new technologies including unmanned traffic management systems, sea going vessels, rail systems, air systems and many others.

We are working with research organisations to develop new standards and techniques to assure higher levels of autonomy and the technologies that enable this.

Detailed Service Definition

Our emphasis is on future and emerging systems that incorporate non-traditional aspects.

We conduct:

- Autonomous System Risk Assessment
- Autonomous System safety Auditing
- Supplier Capability Evaluation
- Development & Delivery of Safety Arguments & Safety Assessments
- Autonomous System Safety Assessments
- Certification Strategies
- Autonomous System Safety Design Assurance
- Development of Safety Management Systems for Autonomous Technologies

Why Frazer-Nash Consultancy?

We are an independent consultancy offering a broad range of cloud consultancy services. We have been at the leading edge of digital engineering and software development for over 35 years. We are 'solution agnostic' and provide truly independent advice. We are not tied to any hardware or software products; we design cloud-based solutions which are built on knowledge acquired from a broad range of applications developed across multiple platforms. We utilise this knowledge to add value to our clients through the technological advantages offered by cloud integration.

Our Commitment to Quality

From every aspect of engagement and communication we are committed to providing services and deliverables of the highest quality, to ensure we continually meet and exceed the expectations of our customers. Our processes include suitable controls to ensure progress is closely monitored and decisions are appropriately scrutinised.

In addition to a project manager, every project has a dedicated project supervisor (who impartially monitors and approves monthly progress reports) and dedicated project auditor (who ensures quality is followed). At a deliverable level, all customer outputs are verified for technical accuracy, and approved as appropriate for their purpose by two independent reviewers. Our Quality Management Systems is certified to ISO 9001 and the TickITplus scheme (for software development).

Our Security

Our processes and certification are fit to handle sensitive and classified information up to Top Secret. The majority of our staff are security cleared to at least SC and over 200 of our staff hold DV clearance. We are also experienced in handling highly sensitive commercial information, with the ability to separate teams as necessary for security and conflict of interest requirements. Our IT systems are certified to ISO 27001 and Cyber Essentials Plus.

Our Approach to Subcontracting

Our large base of full-time staff can be supplemented where required through partner companies and trusted associates providing us with flexibility and scale whilst retaining control. We are adept at quickly subcontracting a range of organisations when needed, from sole traders to large multinational companies, through the lifecycle of a project. Our processes focus on identifying, assessing and contracting an appropriate supplier; defining a scope of supply; flowing down terms and conditions where appropriate, and managing risk to ensure the purchase is delivered on-time, within budget and to the required quality. This includes undertaking a due-diligence process to commercially and technically 'approve' the suppliers we work with.

Resourcing

We employ over 1200 technical staff across all grades, from Follow to Set Strategy, with a vast range of specialities, backgrounds and experiences. To enable agile and flexible resourcing, we are grouped into a range of technical delivery areas (e.g. Information Systems, Cyber, Modelling, Software etc.), which can be applied to a range of sectors (e.g. Central and Local Government, Police, Health, Energy). This resource focus combines with our strong portfolio, programme and project management to allow us to monitor demand on a dynamic basis and respond to the changing demands of the project through its lifecycle.

Our staff work across a range of industry sectors allowing us to 'cross-pollinate' ideas and techniques between different domains. We build teams, led by a single responsible project manager, that are tailored to the specific challenge. We are fortunate to have a diverse range of capabilities within the same company, including information security, and human factors specialists. This allows us to efficiently and promptly deliver multi-disciplinary projects that meet your specific requirement.

Our Commercial Approach

Our commercial approach is flexible to provide best service and value to our clients.

We will discuss with you the specifics of the support and services you require and build an appropriate commercial model to deliver this scope. This could be a defined scope fixed priced service, or provision of time and materials agreed day rates suitable for a developing scope.

Where you have service requirements for an extended period, and where we have control of the resource flexibility, we are also able to offer an agreed single blended day rate for support at a range of grades.

Next Steps

To discuss your requirements in more detail or
place an order for services please contact us at
ccs@fnc.co.uk