



Engineering Consulting Capabilities Statement

EGD
Bright Ideas
Secure Solutions



El Ganso Dorado GmbH provides a new take on engineering consulting. We know how to successfully develop, test, and deliver because we've done it for products such as spacecraft, autonomous vehicles, and quantum computing. We're committed to focusing this expertise on all complex projects needing technical solutions and process implementation in a way that doesn't interfere with innovative, agile environments.

Model-Based Systems Engineering (MBSE)

Create End-to-End Traceability

Along with academic and industry experience in traditional Systems Engineering, we are OCSMP certified for MBSE/SysML proficiency and we specialize in digital transformations, including custom SW tools connectors for complex systems to capture functional, behavioral, and structural relationships. Here are some examples of how we can help:

- Systems Modeling Language (SysML) and Requirements/Specifications
- Concept of Operations (CONOPS) development
- Administration, user training, and roll-out of industry tools such as DOORS, Rhapsody, Jama, GENESYS, Enterprise Architect, Polarion, Arena PLM, Duro PLM, Teamcenter, and others

Functional Test Development

Demonstrate Requirements Are Met

Troubleshooting is inevitable. Released hardware is often not available for software developers to begin early testing. The cumulative hours we have spent in labs, in high bays, on shop floors, and in the field have taught us to be relentless in solving problems like these in verification, validation, and yes, troubleshooting. When we say "test development" we are referring to all test processes: informal testing, such as unit, white- and black-box testing, services to further extend the reach of formal IT/Cyber security penetration testing, as well as Verification and Validation (V&V)*. We can build or help you develop HIL tests for complex systems, custom testbeds and SW connectors, and simulations for software environments. Here are some of the difficult aspects of testing we can help you solve:

- Custom Test Equipment Design
- Test Plan Development and Technical Audit
- Training, setup, development using Industry Tools such as Vector, NI LabVIEW
- Failure Modes and Effects Analysis (FMEA) (Concurrent, Functional, Design, Process)
- Automated and Regression Testing/Testbeds

*We do not perform certification testing or safety audits, but we can help you prepare and develop the tests needed for such.

System Architecture

Define the Conceptual Model

In many projects, an aggressive schedule or a lack of experimental data prevents teams from defining the System Architecture before development begins. We're skilled at getting up to speed on your project quickly, determining what missing information is blocking your team, and creating the formal representation of the system in parallel to your ongoing work. Whether you already have your system architecture in place and need formalized documentation, or you need guidance to start from scratch, we can support you with:

- System Decomposition
- Functional, Behavioral, Structural Definition
- Interface Definition
- Data Bus Evaluation and Network Design
- Security Recommendations (future-proofing), Investigation, and Analysis
- Planning for Scalability and Reuse (future-proofing)

Embedded Systems

Produce Specialized Solutions

Developing embedded systems can be particularly challenging due to stringent size, power, or timing constraints. We can help with all development phases, from selecting processor types and evaluating system performance, to developing hardware and software. Our focus is on the embedded side of security, though we also have significant experience with IT/Cyber security. Ask us for details about our project experience in:

- Hardware Design, Test, and Technical Audit
- Processor recommendations based on functional requirements evaluation
- FPGA Development
- Software Development (including RTOS)
- Security Test, Technical Audit, Forensics, and Investigations

About Us

Resourceful. Conscientious. Accountable.

These are the core values you can expect when working with our team.

We're headquartered in Germany, and we serve customers throughout the US and Europe.

Our team consists of engineers and industry experts with backgrounds in Space Systems, Automotive (primarily EV), Quantum Computing, and US and European government contracts.

EGD's engineers and technical experts have the following qualifications:

- BS and MS Engineering degrees
- Certified Test Conductor (CTC) and Certified Principal Engineer (CPE) in an aerospace environment
- OMG Certified Systems Modeling Professional (OCSMP) Certification
- Experience in both large companies and startups

Taking the tedium out of traceability

Tell us about your goals, and we'll help you build a development roadmap.



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