

AWST GmbH Company Profile

The Company

Angewandte Wissenschaft Software und Technologie GmbH (AWST – “Applied Science, Software and Technology”) is a dedicated team of IT professionals and scientists with extensive experience in all stages of the software lifecycle. From short-term support to end-to-end development projects, we have the experience and expertise to meet the most demanding software development needs.

Founded in 1997 and based in Vienna, Austria, we specialise in meeting the complex IT requirements of international organisations. We commit to long-term partnerships with our clients, developing a thorough knowledge of their business in order to better address their unique IT challenges.

Market Focus

AWST focuses on software consultancy projects for international organisations. Many of our projects have a scientific background in fields such as nuclear safeguards, geophysical monitoring and earth observation. We have a long track record of successful projects tailored to the specific needs of our customers. Typical AWST projects include:

- Trade studies and pilot projects to prepare the technical decision basis for new software development projects.
- Complete software development projects, from requirements analysis to design, implementation, testing, maintenance and sustainment.
- Configuration management and maintenance of development and test platforms for complex software systems.
- Documentation of new and existing software systems; systematic review and improvement of legacy software documentation.
- System administration services, cloud computing and IT consulting.

Flexible Engagement

AWST offers a variety of arrangements in order to best meet our customer’s unique and evolving needs. These include engagement as prime- or subcontractor or as a provider of contract employee personnel. Our employees work on-site alongside our customers’ staff or in our own offices in central Vienna as needed. When adequate we partner with other local and international companies to better support our customer’s needs. We have existing partnerships with high-profile international and scientific organisations including BNL (USA), the Department of Geodesy and Geoinformation, Vienna University of Technology, Earth Observation Data Centre for Water Resources Monitoring (EODC, Austria), Polar View (international) and the British Antarctic Survey (UK).

Capabilities

Full-Lifecycle Consultancy, System Engineering

AWST's software consultancy expertise spans all stages of the software lifecycle and our experienced staff can support projects at any scale, from individual tasks or phases up to the implementation of entire systems. We have direct experience of:

- Project management and administration; program management support.
- Project definition, feasibility studies, pilots and prototyping.
- Requirements gathering and analysis, trade studies.
- Software architecture, design and development.
- System documentation, including architecture, requirements, manuals and test plans.
- System integration, deployment and installation.
- Software testing, quality assurance and control.
- System administration and operation including virtualized and cloud computing platforms.
- System maintenance and enhancement.
- Consolidation and refactoring of legacy code.

Software Development

Our team of experienced software engineers possess development expertise in a large number of languages and platforms. We currently specialise in Java and .NET/C# development for the Windows platform and on C/C++ development for Unix and Windows. Our developers also have experience in many other languages including Python, Perl, Visual Basic, Pascal, Scheme, MATLAB, *Mathematica* and Fortran. We have successfully developed many different application types, including web applications, web services/SOAs, smart clients, RCP-based GUIs, workflow-based systems and client-server applications.

Scientific Capabilities

Alongside our software development skills we offer our customers rare expertise in applied science and engineering. This is reinforced by the presence of several physics PhDs on our staff, qualified in geophysics, high-energy physics and theoretical physics. This scientific, mathematical and statistical expertise supports our contributions to challenging projects in complex fields like nuclear safeguards, geophysical monitoring and earth observation. Our existing partnerships with scientific organisations further strengthen these capabilities.

Accomplishments and References

Since our foundation in 1997, AWST has grown into a well-integrated team of experts in physics and information technology. Our core customers are United Nations Organisations based in Vienna, Austria, who work in the fields of nuclear monitoring and nuclear safeguards, the Japanese Nuclear Material Control Center (NMCC) and the European Space Agency (ESA). We have successfully delivered a wide range of outstanding projects for these clients. Our focus is the development of custom software solutions that support our customers' vision of a secure world.

- Since 1997 we have supported the installation, operation and maintenance of a unique software system for global seismic monitoring and monitoring of atmospheric radionuclides. We provide ongoing expert support in improving the seismic monitoring system and keeping it up-to-date with newly emerging scientific methods and technology.
- We had a key role in the management and development of an integrated software system for supporting nuclear safeguards at a reprocessing plant in Japan. Our involvement in this multi-year and multi-vendor project covered the initial conception and design, contractor selection and management, the development of several software subsystems, testing and validation of software subsystems, system integration, and system deployment for operations at the reprocessing plant.
- For ESA we performed a trade study for new business process orchestration engines used in ESA's Service Support Environment (SSE), provided software maintenance services for the Standard Archive for Europe (SAFE) tool suite and specified the essential climate variable (ECV) production system as system engineer of the soil moisture project in the Climate Change Initiative (CCI). Providing Earth observation services on cloud computing infrastructures we developed the Exploitation Platform for Soil Moisture (EP4SM) and the Polar Thematic Exploitation Platform together with scientific partners from the respective domains.
- We have successfully delivered many other software projects, including the development of a quality control system for validating electronic data submissions by states under nuclear safeguards, redesign of a secure website providing the main access point for member states to our client's products, services and data, an integrated suite of radionuclide data analysis software applications, an interactive state-of-health monitoring system for radionuclide monitoring stations, and a laboratory information system for radioactive data samples.

Contact

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