

The implementation of materials information technology at GKN Aerospace

An open seminar on the topic of 'Mastering Materials Information' was dominated by case studies offering practical, applicable insight into the use of materials information technology in industry. Speaking at the seminar, Jing Li, Methodology Engineer at GKN Aerospace, outlined an enterprise project to implement the GRANTA MI™ system. The project centers on managing materials information for the Aerospace division, a major global Tier 1 supplier with products including aero structures, engine systems, and special products such as aircraft transparencies and ice protection systems.

In managing materials information for this large, international, multi-site organization, several requirements are critical:

- Support for the testing of GKN-owned materials and processes, including **managing the full lifecycle** from test data, through statistical analysis, to design data, and into manufacturing.
- Hosting a **variety of material data sets** to support different applications and material types.
- An **export control** tagging policy is required for data transfer.
- Extensibility to support **REACH** analysis (GKN Aerospace plans to participate in future EMIT Consortium meetings).

GKN went through a three-stage process in order to plan and implement the project:

1. Database evaluation based on detailed company requirements—this process selected the GRANTA MI system.
2. Creating an implementation team and plan, involving multiple departments at GKN, plus Granta experts:
 - End-user engagement early in the process was essential to this step
 - Steps included a 'data survey' to understand and document the GKN Aerospace materials information environment, design of a system, and development of a project plan, training, and support for roll-out.
3. Global deployment in three major phases: first to the UK and Sweden, then to selected sites North America and Asia. Finally, globally to share data throughout the company.

At the time of the seminar, the project had reached the first stage of global deployment, with users at the Filton site in the UK, and Trollhättan in Sweden managing test and design data.