



CASE STUDY /

## Ansys + Ferrari Competizioni GT

“By using Ansys Granta MI to achieve a digital transformation of its materials data, Ferrari Competizioni GT is putting in place the foundations to leverage the latest materials in an efficient and internally transparent way.”

**Ferdinando Cannizzo**

Head of GT Racing Car Design and Development / Attività Sportive GT

### Driving Performance Through Materials Digitization at Ferrari Competizioni GT

#### Ferrari Competizioni GT's decision to adopt Ansys Granta MI as their materials information management platform was a commitment to a material digital transformation journey.

This was driven by the need to accelerate materials innovation and utilization for faster adoption into vehicle design, as well as to ensure every engineering team across Ferrari Competizioni GT used the latest material dataset in their design (CAD), simulation CAE (computer-aided engineering), and product life cycle management (PLM) tools.

#### / Challenge

Several limitations and pain points were identified:

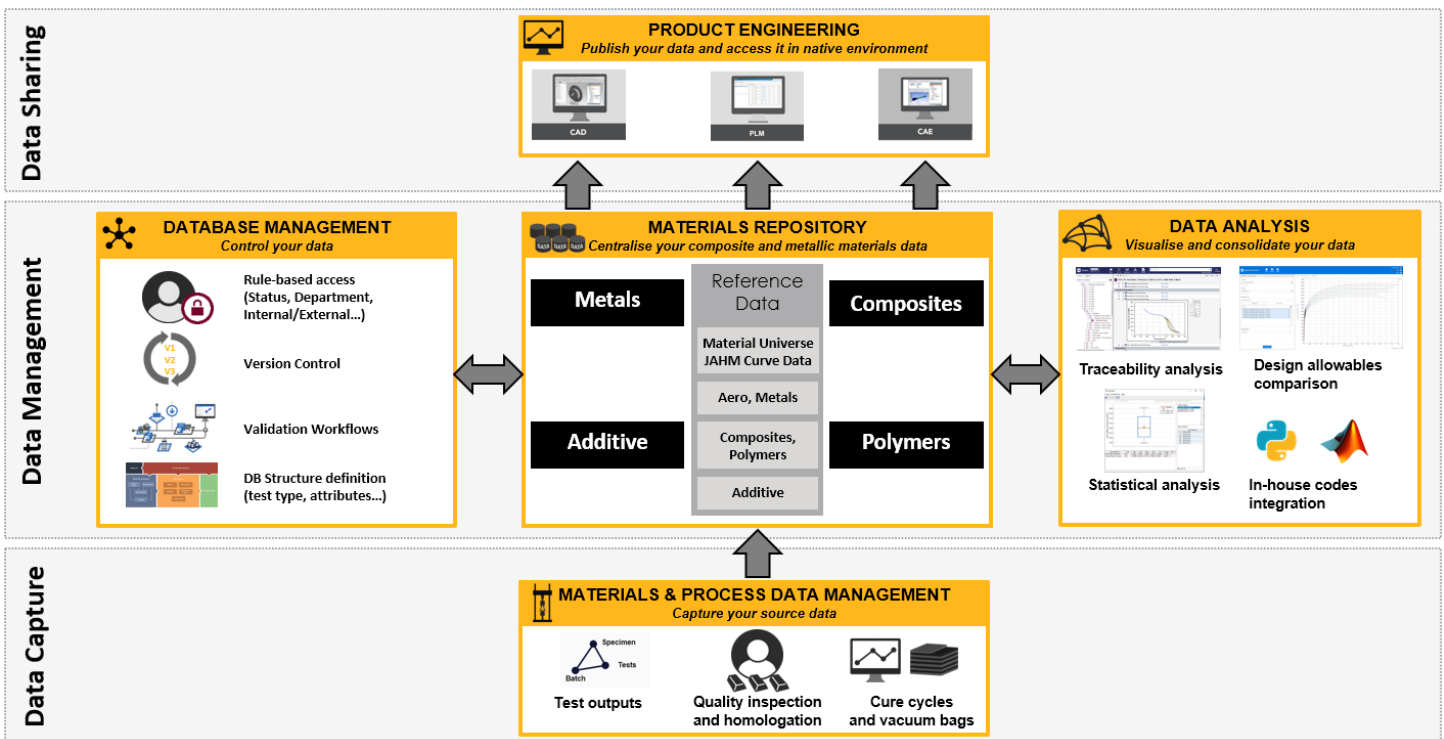
- Data scattered across numerous systems and client PCs, difficult to find and interpret
- Data traceability/history only available to experts/owners
- Unstructured, ad hoc, labor-intensive data management
- Lack of access control and version control for some datasets
- Lack of clear definition of responsibilities for data authors and users
- One material; many definitions

#### / Technology Used

- Ansys Granta MI



## COMPETIZIONI GT



## / Engineering Solution

Adopting Granta MI gave engineering teams across Ferrari Competizioni GT controlled access to:

- Tens of thousands of new commercial material databases: metals, composites, aerospace alloys (MMPDS, StahlDat, NIMS, CMH-17), etc.
- Proprietary material data, generated in-house from suppliers, external test houses, and literature.

Legacy datasets were taken into consideration and migrated into the platform, reducing the number of required data systems and repositories while taking the opportunity to cleanse and harmonize the data, adopting best practices whenever possible.

The full life cycle of metallic and composite materials was considered, from new material, testing, and material performance analysis to the definition of purchasing specifications and datasets approved for car design and simulation.

The collaboration between the Ferrari Competizioni GT team and Ansys was key in achieving a solution that fit Ferrari Competizioni GT's specific needs. It also represented an opportunity to increase the awareness of internal processes, data, and tools, improving them where possible.

## / Results

The digital transformation of Ferrari Competizioni GT's material data enabled four key advantages across the business:

- **Greater Design Agility:** Car designers and simulation engineers can consult Granta MI to quickly find the right material from a broader dataset. They can export material properties in the format required for a preliminary design study or a more complex calculation in their chosen CAE tools.
- **Enhanced Vehicle Performance:** By innovating with materials and better understanding their properties, components don't have to be overengineered, thus saving cost and weight.
- **Standardized Materials Data:** The Materials team captures data in a structured and traceable way, supporting their analysis workflows. These results are access- and version-controlled to share with the wider engineering team.
- **Avoidance of Duplicate Testing:** Materials testing is expensive and time-consuming. Reducing duplicate testing enhances the return on investment (ROI), but also enables more testing to be done on experimental materials.

## / Company Description:

Ferrari Competizioni GT builds cars unique in terms of their performance, innovations, technology, driving pleasure, and design.

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