

Best Practice: Successful Growth Company

## IMA Dresden: Evolution and Development

**Aircraft tests and IMA Dresden – for many years they were synonymous until the company successfully transferred its testing expertise onto several other branches. Today IMA Dresden (short for IMA Material und Anwendungstechnik, Material Science and Application Technology) is an important development partner for microelectronics and composite materials.**

IMA has proven its expertise on every scale. For many years, the company was known for conducting endurance tests for the airframe of the largest passenger aircraft in the world: airbus-model A 380, which has always been associated with Dresden because IMA is located in close proximity to the city's airport.

IMA's roots date back to Dresden aircraft manufacturing in the 1950s, and it has since optimized its test procedures in such a way that environment and forces impacting the trunks, cellular structures and wings during flight, can be perfectly simulated. This saves expensive and months-long load endurance tests in real-time operation; and, it has brought IMA to the forefront, attracting the attention of aircraft manufacturers all over the world.

"The market has shown us clearly that relying on aviation alone is not sufficient," Thomas Fleischer, Managing Director at IMA, says.

For several years, IMA's staff has focused on the application of microelectronics in aviation. According to IMA's vision, the composite materials of the future will already be equipped with embedded sensors that will detect material damage even underneath the surface. This technology would lower inspection efforts while making risks manageable. "The idea, however, reaches far beyond the aviation industry", IMA's Co-director Thomas Reppe says.

### **Heading for New Horizons with the Test Pyramid**

It is no coincidence that the IMA managers, whose six-year contract with Airbus ended in 2011, have based the business on a broader foundation. Today, IMA not only tests components for aircrafts, trains, cars, wind turbines and pipelines, as well as medical products; it is often involved in their development; especially with lightweight construction materials like carbon fiber.

“In many cases we *are* the development,” Fleischer says. To illustrate, Fleischer draws a picture of a test pyramid with single materials at its base, first combinations at the second level, and complete component parts at the top. IMA staff is well-versed in the detailed requirements that need to be met, and the certifications needed to pass testing. Going beyond testing, and offering to accompany the client through all the necessary requirements and certifications until their product is market-ready has become a respected part of IMA’s services to its clients.

Fleischer and Reppe oversee IMA’s projects and adhere to the company’s mission that dates back to its early days in aviation: engage with the largest players of a respective industry. This philosophy continues to serve the company. IMA and the clients it serves value the company’s highly-respected reputation in the aviation industry. The IMA test certificate holds significant credibility. Companies from other industries, Fleischer says, have started applying to IMA to have their products tested.

### **Further Strengthening High Transferability**

Since IMA has been able to transfer its testing expertise from the aircraft industry to other industries, both Fleischer and Reppe have noticed this transferability to be missing in other contexts. “Especially at the Dresden location, there is a high concentration of research institutes and new innovative enterprises that are generating promising ideas and technologies,” Fleischer says.

Yet, the next step - transferring these ideas and technologies into production, and transforming them into world market-ready products and production plants - doesn’t seem to happen often enough. “Watching this phenomenon going on throughout Europe is no comfort,” Reppe, says, “on the contrary.”

### **Culture Change the Next Step**

Fleischer speaks of a culture change that has happened and continues to happen within IMA. The many small companies within the IMA group have become a team with a strong sense of team spirit that makes taking on new projects and new industries feasible. Even if the scale of their products varies greatly in size.

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