

High-tech

/multi-disciplinary system
and product development

>the right development

High-tech

/market vision

OEM companies are facing fierce international competition when it comes to technology and price. Market shares are difficult to maintain and even more difficult to increase. As a result, OEM companies have to streamline their business models, focusing increasingly on their core competences. The strategy is to outsource non-core activities to reliable and trustworthy partners.

Ultimately, this involves partnerships with design companies that understand the OEM industry and can take on full responsibility for complete modules or subsystems. Design partners should be flexible, responsive to changing requirements and provide production-ready designs. First-time-right design is essential in order to achieve a short time-to-market.

>technological innovation and integration

For more than two decades, Technolution has been the innovative design partner for major OEM companies. Our focus is on working with our partners to develop embedded products and systems consisting of electronics, programmable logic, embedded software and, if necessary, mechanics. The integrated project management of multi-disciplinary teams, including partner companies, is embedded in our development approach. This is the key success factor in achieving high quality solutions to challenging problems at the high end of the OEM market.

>our competences

Our solutions can be found in products for many market segments, including medical imaging and treatment solutions, semi-conductor equipment, professional printing machines, laboratory equipment and utility machines. Our applications focus on high-speed data acquisition and data processing, motion control and complex power supplies. Years of expertise have been gained through understanding complex and innovative designs that require digital data processing, using high speed data-paths, mixed-signal electronic designs and high-efficiency power drives.

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>data acquisition

Designing data acquisition systems requires a multi-disciplinary approach. For the selection of optimal sensor technology, we combine a thorough understanding of the physical problem at hand with a broad overview of the available components. The realization of signal conditioning, signal processing and high-speed data communication functions leverage our experience in the design of embedded systems. Our track record includes applications in the low-power domain, in harsh environments and in high volume data-acquisition systems.

>high-speed communication

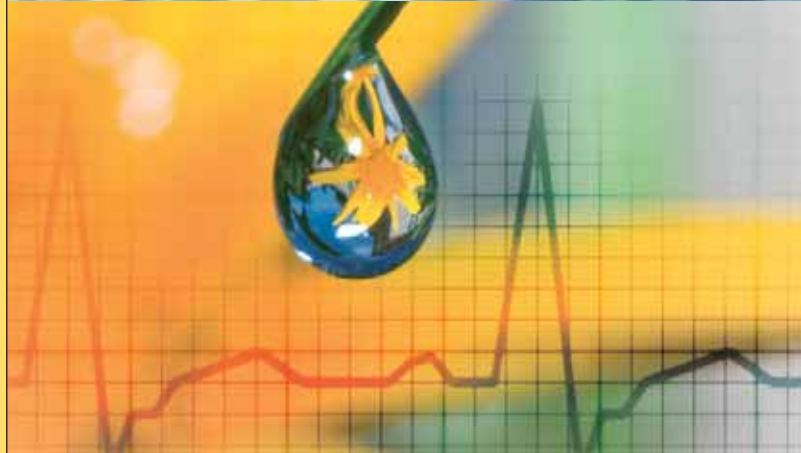
Many current high-tech products and systems require the reliable transport of large amounts of real-time data. Technolution has the field-proven experience to realize high-speed communication solutions for embedded applications. Moreover, we are constantly innovating our capabilities to remain at the forefront of communication technology, so that we can provide you with optimal, cost-effective solutions.

>real-time image processing

Technolution is a provider of image processing platforms for many applications. We realize such platforms using customized real-time computer systems. Alternatively, our full-hardware platforms using programmable logic components ensure that mission-critical tasks can be performed deterministically and reliably. We also provide application-specific processing cores to provide the best of both worlds: software flexibility combined with hardware determinism.

>motion control platforms

For the development of high-performance high-speed motion-control platforms, we combine our analog electronics expertise of high-efficiency power stages with our knowledge of position and velocity sensors. We apply our digital signal processing technology in order to achieve best-in-class control performance. Our solutions can be used for all sorts of motor drives, including piezo motors. Our medical-grade motion-control platforms comply with the most stringent safety standards and are used for treatment systems.



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>project management

The key to successful product and subsystem development and integration is to ensure that every link in the value chain fits. The management of multi-disciplinary development teams, involving multiple development and manufacturing partners, is a complex process and is essential to ensuring successful project completion. Our project managers come from solid engineering backgrounds and are well experienced in managing multi-disciplinary projects. Transparency and open communication is provided in all major decisions and stakeholders are kept closely involved during project reviews.

www.technolution.eu/high-tech

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>design for lowest TCO

Outstanding product reliability and robustness are essential to lowering the Total Cost of Ownership (TCO). We involve partners such as the Electronics Manufacturing Services (EMS) at an early stage of the design phase in order to optimize Design for Test (DfT) and Design for Manufacturing (DfM) and jointly define the production test strategy. We take responsibility for managing the production yield of our designs up to the release for production volume, including Production Part Approval Process (PPAP). We also remain involved in order to provide Life Cycle Management (LCM) support in the form of field service support as well as taking responsibility for component obsolescence.

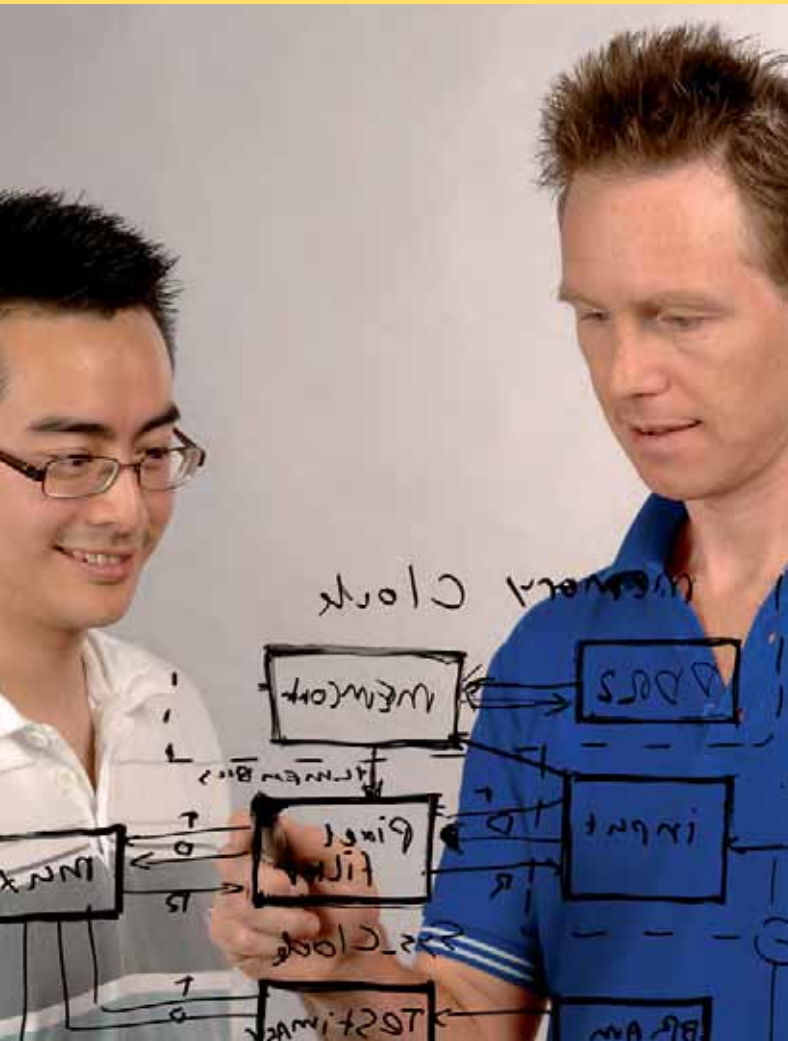
>design for eXcellence

Design for eXcellence (DfX) is integrated into every step of our development process. As part of our DfX strategy, Technolution performs the following steps during the design phase:

- Early manufacturer involvement
- Design verification
- Design margin optimization
- Product cost engineering
- Design for Test (DfT)
- Design for Manufacturing (DfM)
- New Product Introduction (NPI)
- Yield optimization.

>eXcellence

>design





>life cycle management

Our Life Cycle Management (LCM) offering is comprised of a set of services which include maintenance of the design, extended warranty, development and field service support in order to help your products succeed in the market. We can offer form-fit-function compatible solutions for up to 25 years. We offer LCM both for products developed by us and for products developed by your development teams.

>development

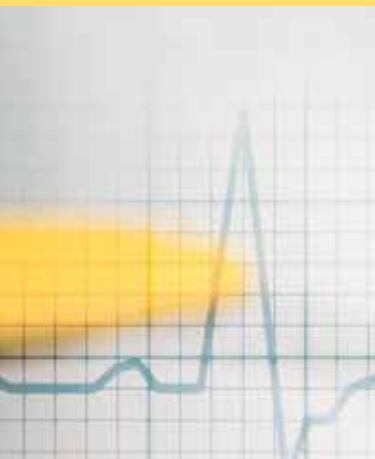
>supply chain management

Our Supply Chain Management (SCM) services are intended to ensure worry-free manufacturing and delivery of the developed products in the years ahead. Working on the basis of product characteristics, volume and lifetime requirements, we will select the optimal manufacturing partner(s) for your product.

Together with our partner(s) we will do everything we can to deliver the agreed volume of products to specification and on time. Throughout this process, Technolution will remain your first and only point of contact (although other options are possible too).

>supply-chain





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