MICRONOVA Software and Systems

Consulting



MicroNova supports companies with a comprehensive range of consulting services in the realization of their projects: From concept development and the evaluation of current technologies and trends to process consulting and support during integration into projects and quality management. The optimization of complex test trades is part of the services provided by our international team of experts.

We offer professional consulting for your company in the following areas:

Security and Safety

Cyber security: Systematic hacking defence with process & technology

- » Identify and prioritize potential vulnerabilities in cyber security
- Support in the implementation of processes required to comply with legal requirements and industry standards, such as ISO/SAE 21434, UN ECE R155/156, ISO 27000 and NIS2
- Support in the preparation and implementation of TISAX measures
- » Vulnerability analysis and penetration tests
- » Support with the technical implementation of cyber security solutions in products (V-model)
- » Awareness and training programmes

Functional safety: Process consulting, safety analyses and tool qualification

- » Introduction and implementation of functional safety processes
- Expert advice on project coordination, requirements creation and documentation based on decades of experience with development and test processes in the automotive sector
- Support in identifying and utilizing improvement potential for processes and tool chains as well as in development according to ASPICE
- » Qualification of tools and tool chains in accordance with ISO 26262 and preparation of assessments

Transformation 10X

Reducing costs and increasing productivity through digitalization & methodological expertise



Artificial intelligence



More efficient operating processes through AI integrations

- Strategic and customized solutions for the use of AI that are aligned with business goals and improve overall business performance by up to 15%
- Seamless integration of AI applications into existing systems and infrastructure with a focus on efficiency and scalability to achieve a rapid return on AI investment (ROI)
- » Integrate Al-powered chatbots that provide fast, round-the-clock support and answer customer queries
- » Increase customer acquisition and retention by up to 25% through personalized product recommendations and offers based on analyzed customer preferences and behavior

Virtualization



Earlier and deeper testing with virtual ECUs

- Support in setting up and operating virtual ECUs and performing ASIL-D relevant tests in accordance with the requirements of the ISO 26262 standard
- » Virtual prototypes exist before the real ones, enabling a significantly earlier start to software development and testing
- Saves time and resources, as virtualized ECUs are scaled via computing power instead of the number of HiL systems
- We use of the same development tools as on the HiL system or in the vehicle and simple integration of the virtual ECU into an existing test automation solution





Creation, maintenance and further development of simulation models

- Efficient development of basic and customized models with a high level of hardware expertise
- » Short model compilation times thanks to consistent modularization of the NovaCarts HiL simulators: each control unit and each function receives its own model that can be run directly on the test bench without recompilation of the entire model.
- » Realization of real-time behavior of the models through the type of modelling and by adapting the computing hardware (e.g. co-simulation or FPGAs)
- Many years of experience in the integration of NovaCarts models from MicroNova into the test environments of all relevant hardware manufacturers

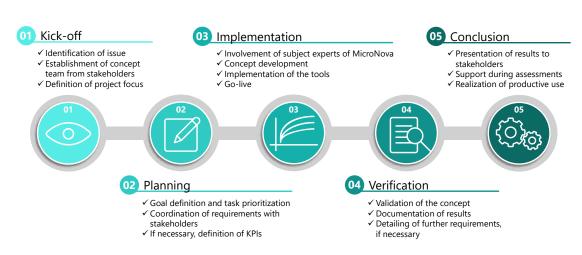
Test Consulting



Optimization of test projects

- » Conceptualization and selection of suitable test methods in the context of digital transformation in the automotive industry
- Support in planning and implementing suitable test processes with great test depth and a high degree of automation
- Tool enhancements and initial setup of the test automation solution through to the complete test project
- Consultancy and training on test processes and methods
- » High test competence and optimized processes reduce management effort and increase scalability.





Workflow of a consulting project

Our experience - your advantage

As MicroNova consultants, we have many years of practical experience in our respective areas of expertise and are proficient in the specific standards and methods. We have access to an interdisciplinary team with experience from a wide range of projects and technologies. Furthermore, we are in direct contact with our experts in hardware and software development as well as in the areas of Testing Solutions and Enterprise Solutions. Benefit from our knowledge and experience from over 35 years of automotive engineering.

Contact us and together we will find out how we can support you with your individual challenges!

MicroNova

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