

NEW DIMENSION OF YOUR BUSINESS VALUE THROUGH THE CERTIFIED V&V



Steinbeis Consulting Center
JK Certified Systems

OUR SERVICE PORTFOLIO

Product competency

- Licensing and Expert Consulting for the Certified V&V
- System Development & Testing
- Advisory and benchmark analyses



Process competency

- Audits & Assessments
- Test Management
- Optimization of the product value chain
- Innovation Management

Qualification

- Trainings & Workshops
- Coaching
- (e)Learning concepts

Cooperation

- Digital transformation
- V&V concepts of future embedded systems
- Sustainability (UN SDGs)



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JK Certified Systems

YOUR CONTACT

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OUR SUPPORT

- Planning
- Design
- Implementation and Optimization
of V&V in the fields of application:
- Transportation & Mobility
- Information and Communication Technology
- Medical Technology
- Mechanical Engineering



Steinbeis

The platform provided by Steinbeis makes us a reliable partner for company startups and projects. We provide support to people and organizations, not only in science and academia, but also in business. Our aim is to leverage the know-how derived from research, development, consulting, and training projects and to transfer this knowledge into application – with a clear focus on entrepreneurial practice. Over 2,000 business enterprises have already been founded on the back of the Steinbeis platform. The outcome? A network spanning 5,200 experts in approximately 1,100 business enterprises – working on projects with more than 10,000 clients every year. Our network provides professional support to enterprises and employees in acquiring competence, thus securing success in the face of competition.

www.steinbeis.de

17377-2024-03-19 | Bild: © Shutterstock/darimay, mch, edipolna, baranobidmtr



YOUR BUSINESS VALUE IS OUR DRIVE!

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BACKGROUND

The adoption of safety-critical systems across different fields is now a societal duty, enhancing our quality of life and complying with legal norms. For example, driver assistance systems improve road safety, and autonomous vehicles are under testing. However, the current situation is concerning:

- Number of vehicle recalls is increasing (approx. 3.4 million recalls in Europe in 2021, a 12% increase compared to 2020). Source: German Federal Motor Transport Authority.
- Traffic accidents due to faulty electronic components
- Rapid increase in service costs
- Liability cases, especially concerning medical devices
- Counterfeit mechatronic devices (e.g., chainsaws, vehicle diagnostic tools, etc.). Source: Plagiarius

THE CHALLENGES

- Technological and regulatory time pressure
- High dynamics and variety of variants
- Increased interconnectivity between systems
- Shorter development times
- Reduction of development costs, due to cost pressure

Steady worsening of the „Quality Gap“

OUR ANSWER

The challenges mentioned can be categorized into three key themes:

PRODUCT LIABILITY

... Proof of functionality and burden of proof in the case of damage or warranty claim

MANIPULATION PROTECTION

... Detection of unauthorized product modifications, manipulation and or interventions

DEVELOPMENT AND WARRANTY COSTS

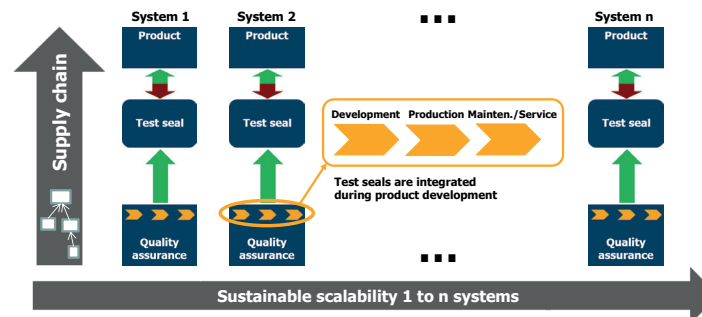
... Optimization of development and test expenses, management of claims for damages and goodwill



These clusters simultaneously represent influencing factors. Their sophisticated integration and intelligent overlap lead to the

Certified V&V:

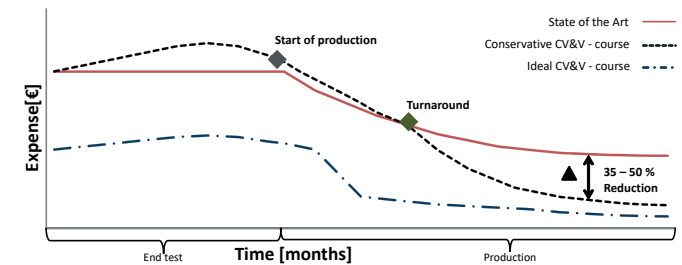
a novel technology that realizes comprehensive and sustainable assurance throughout the product lifecycle.



YOUR BUSINESS VALUE

The Certified V&V approach is patented and brings significant advantages for the user and the end user:

- > **Objective evidences in case of product liability** through calibrated system approval.
- > **Protection against manipulation and misuse**
- > **Substantial cost savings** due to sustainable reduction of the testing efforts and lowering of warranty and goodwill costs



Certified V&V (CV&V) – estimated financial benefit

- > **Competitive advantage** with an electronic test seal as proof of quality
- > **Technology easily implementable**, scalable, and adaptable for new functions

REFERENCE APPLICATION

The Certified V&V has been a significant component in the product development chain of one of the leading automobile manufacturers for several years. It is also utilized by other partners, among others.

DAIMLER

TORC

GLOBAL ID