

Dear intacs e.V. members, SPICE assessors and friends of intacs®!

Yes, the first quarter of the year 2023 is already over, and we have lots of news for you. Our last information letter in October 2022 has been downloaded more than 4000 times. Thank you for your interest!

In January we decided to increase the frequency of our information letter to provide you with the latest news from our Executive Board, Advisory Board, and our Working Groups. There are new PAMs close to their approval, already established PAM's e.g., TestSPICE are still there, and well maintained, and new Working Groups are created to work on interesting topics.

So, have a closer look and enjoy!

All the best,

Your WG "Information Management"

- Thomas Kömmerling ([thomas.koemmerling@intacs.info](mailto:thomas.koemmerling@intacs.info))
- Christian Knüvener ([christian.knuevener@intacs.info](mailto:christian.knuevener@intacs.info))
- Dr. Ganji Rajesh ([ganji.rajesh@intacs.info](mailto:ganji.rajesh@intacs.info))

## Table of Contents

<b>News from the Executive Board</b>	<b>2</b>
<i>intacs Executive Board and Advisory Board Meeting in January 2023</i>	2
<i>intacs e. V. has two new Working Group Leader</i>	3
<i>Usage of our trademarks</i>	3
<b>News from our Working Groups</b>	<b>4</b>
<i>Status of Working Group "AGILE SPICE™"</i>	4
<i>Status of Working Group "Cybersecurity SPICE – an intacs add-on for Automotive SPICE"</i>	5
<i>Status of Working Group "Data Management"</i>	6
<i>Status of Working Group "Hardware PAM"</i>	9
<i>Status of Working Group "Assessor Support"</i>	9
<i>Status of Working Group "Training"</i>	10
<i>Test SPICE: wrongly in a slumber?</i>	10
<i>Medical SPICE: Qualified assessment of software development processes in medical device domain</i>	11
<b>VDA QMC</b>	<b>12</b>
<i>Status of VDA-QMC AK13</i>	12
<i>News from the VDA-QMC Office</i>	13
<b>Disclaimer, Trademarks, and Imprint</b>	<b>14</b>
<i>Trademarks</i>	14
<i>Comments and Feedback</i>	14

## News from the Executive Board

This section summarizes the most important information of our intacs.info “Newsflash”. Never heard about the “Newsflash section”? Have a look at the <https://intacs.info> start page and scroll down to the middle of the page. We are constantly providing interesting news here. The most important ones are later copied to the next information letter. So, you do not miss any important news.

### intacs Executive Board and Advisory Board Meeting in January 2023

After a long period of online meetings, the Executive Board (EB) invited the Advisory Board (AB) for a two-day onsite workshop in Würzburg (Germany) on January 12th – 13th, 2023 to discuss current topics in detail and in person.

On the agenda we had topics like the new training concept for the upcoming Automotive SPICE® PAM4.0, refined rules for assessment observations, updates from multiple Working Groups (WG) and an outlook to challenges in 2023.

So, a lot of work was done by the 17 participants within these two days! The EB, AB and the WG leader are now using this useful output to define or update procedures, training related issues and discuss all details in their WGs.

We will inform you about relevant changes and updates in the next information letters or in the newsflash on our website. So, stay tuned!



*Executive Board, Advisory Board and WG Leads group photo (January 2023)*

## intacs e. V. has two new Working Group Leader

We would like to inform you that:

- Mr. Frank Besemer has taken over the leadership of the Working Group Exam
- Mr. Thomas Kömmerling has taken over the leadership of the Working Group Information Management

We ask for the support of the colleagues in their new functions and continuation of the previous good cooperation.

## Usage of trademarks

We would like to point out that the use of trademarks has been detailed in agreement with our partners as follows:

intacs®, Automotive SPICE®, VDA QMC® and ECQA® are registered trademarks. The usage of the forenamed trademarks and any associated logo for any kind of certificates is prohibited.

The usage of logos for other purposes must always be approved in writing in advance by the respective rights holder. Any infringement may lead to a loss of the assessor's certification and may trigger legal consequences.

Please also mind the statements in the "[Application for Assessor Certification](#)" document signed by each assessor for the first and re-application of the assessor license.

## News from our Working Groups

### Status of Working Group “Agile SPICE™”

#### New intacs training Agile SPICE™

More and more developments are successfully aligned in an agile way. Agile development teams can live very stable and effective processes. However, there are often difficulties to show these strengths and conformance to quality standards.

Agile SPICE™ is a new process assessment model (PAM) that was developed in the intacs working group to be able to measure the established processes in agile development environments and to prove their capacity and effectiveness. Agile SPICE™ also supports the implementation of mature processes in agile environments.

The expert group has also developed a suitable 2-day training and exam questions with Agile SPICE™. The new seminar has proven very successful in two Agile SPICE™ pilot trainings. We received a lot of praise for the content. The feedback has been incorporated. On March 25, the Agile SPICE™ training has now been released by intacs. We will offer the training plus exam on a regular basis starting in April.

#### Training objective

The training enables the participants to apply Agile SPICE™ in their agile environment and to benefit from Agile SPICE™. They will be able to map the elements of Agile SPICE™ with those of other PAMs e.g., Automotive SPICE®. They learn how Agile SPICE™ is interpreted in the context of an assessment. And they know how e.g., Automotive SPICE®-focused companies can gradually become more Agile without jeopardizing the process maturity they have achieved.

With lots of interaction, exercises, and practice-relevant exchange of experiences, agile solutions for typical process improvement.

Certified intacs assessors will qualify to interpret Agile SPICE™ in assessment by successfully passing the exam.

#### Content

The course will address the following contents:

- Agile SPICE™ can support the viewpoint of an agile organization by
  - explaining process capability requirements in agile environments, especially in the automotive industry
  - avoiding discussions about specific agile approaches
  - ensuring expected process capability by the automotive industry
  - helping in both implementing agile good practices and achieving process capability expectations at the same time
  - resolving typical misunderstandings of how to implement and assess relevant Base Practices in agile environments
- The model can support organizations transitioning to agile practices:
  - How to keep existing capabilities while moving toward agile approaches?
  - Learning about agile terminology
  - Discussing typical pitfalls in an agile environment (e.g., how to ensure a minimum of governance)

- The agile processes and their practices help assessors
  - to harmonize interpretations of existing SPICE processes in agile work environments
  - to use common terminology for assessing agile practices
  - to align ratings between classical and agile approaches
- Learn how Agile SPICE™ can help in interpreting management, engineering and supporting processes.
- Exercises & Exam preparation

Please note that, formally and officially, the Agile SPICE™ PAM is not a part of official Automotive SPICE® v3.1 PAM. The certification body for Agile SPICE™ is ECQA®. This certification path is separate from Automotive SPICE® assessors and from VDA QMC®.

Contact: Christian Knüvener ([christian.knuevener@intacs.info](mailto:christian.knuevener@intacs.info))

## Status of Working Group “Cybersecurity SPICE – an intacs add-on for Automotive SPICE®”

The training material for Automotive SPICE® is still in an improvement cycle. In particular, the example as a basis for explaining the SEC.x processes has been improved with additional notes for the trainer. The goal is to demonstrate the derivation of requirements based on the dynamic design of the SW architecture.

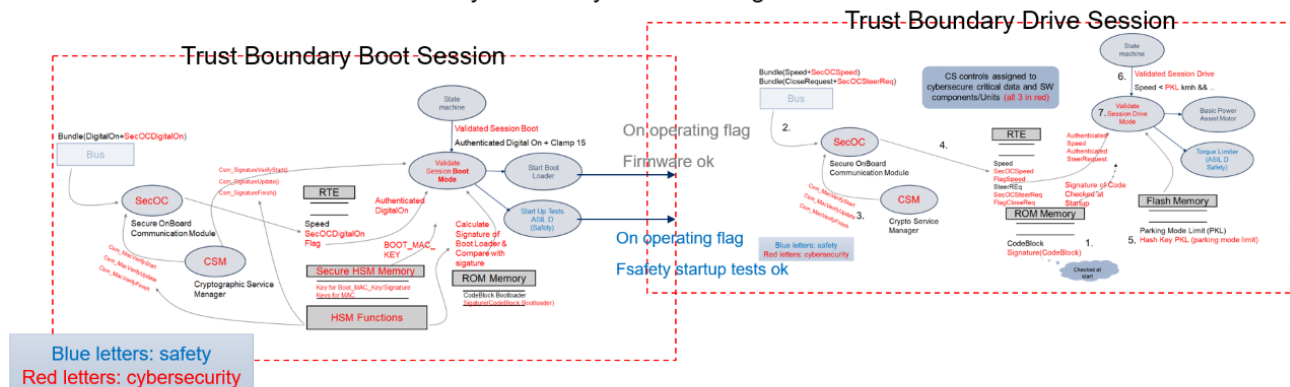
There is not too much to evaluate that needs additional consideration to capture cybersecurity. The most important step is to identify assets and loss scenarios. Based on this, threat modeling must be performed. As always in cybersecurity, a systematic approach and completeness is key. Each operational state must be assessed.

In the end - based on the architectural design - state transitions must be evaluated.

### Example for a software level state machine in a CS SW service architecture

Every threat model of a SW session is considered as a kind of threat model component which has transfer conditions and interfaces to other states. A vulnerability analysis must also account for malicious triggering of a condition.

A refined architecture model will have cybersecurity controls assigned to all interfaces.



Contact: Thomas Liedtke ([thomas.liedtke@intacs.info](mailto:thomas.liedtke@intacs.info))

## Status of Working Group “Data Management”

### The importance of data and data management in automotive business

The future trend in the automotive business is towards greater reliance on data and data management. With the increasing use of sensors, cameras, and other connected technologies in vehicles, large amounts of data are being generated, which can be used to improve vehicle performance, safety, and efficiency. Data management will be crucial for the automotive business to make the most of this data. It will involve collecting, storing, processing, and analyzing data in a secure and efficient manner, as well as ensuring data quality and accuracy. This will require the use of advanced technologies such as big data analytics, machine learning, and artificial intelligence. Effective data management can provide numerous benefits for the automotive business, including better product development, improved customer experience, and increased operational efficiency. It can also enable new business models, such as vehicle sharing and mobility services, which rely on real-time data to optimize operations.

### The SPICE family is growing

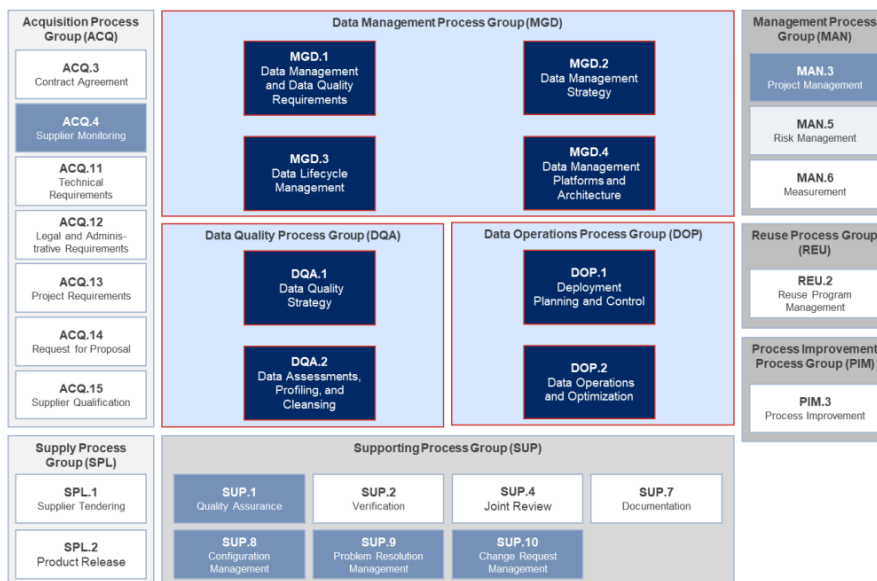
The purpose of the Data Management Process Assessment Model is to provide a structured approach to evaluating and improving an organization's data management practices. This model is designed to identify gaps and inefficiencies in an organization's data management processes, and to recommend improvements that will help an organization to optimize its data management capabilities.

Currently the PAM/PRM is under final review for e.g., compliance to ISO/IEC 33000 family, content and more by several experts within the Intacs® organization and its experts. Target for release of V1.1 April 2023.

Get in contact with the workgroup team, when like to get informed on progress for the model. Further information can be found here: (<https://intacs.info/index.php/list-of-working-groups/601-working-group-data-management-spice>).

Pilot training is already scheduled as well and will be made public very soon. To introduce the model to a wider audience a Gate4SPICE event is setup already: <https://intacs.info/index.php/gate4spice>

The Data Management Process Assessment Model is intended to provide a comprehensive assessment of an organization's data management practices across all relevant functions and departments, including data governance, data quality, data integration, data security, data privacy, and data lifecycle management. The assessment model will help organizations identify areas where they need to improve their data management processes and prioritize actions for improvement.



Data Management SPICE: PAM Overview “Data Management SPICE”

## Areas of application

Data process improvement can be applied to any area where data is being used to inform decisions or measure outcomes. By ensuring the accuracy, completeness, and reliability of data, organizations can make better-informed decisions and achieve better outcomes: for example, in:

- **Business:** In the business world, data is often used to make critical decisions related to sales, marketing, supply chain, products, services, and other areas. Data process evaluation can help businesses ensure the accuracy, completeness, and timeliness of their data, identify data quality issues, and improve their data management practices.
- **Healthcare:** Data is an essential part of healthcare, and data process evaluation can help healthcare providers ensure the accuracy and completeness of medical records, identify areas for improvement in patient care, and track patient outcomes.
- **Government:** Government agencies collect and process vast amounts of data for a variety of purposes, including policy-making, law enforcement, and public safety. Data process evaluation can help these agencies ensure the accuracy and completeness of their data, identify potential privacy concerns, and improve their data management practices.
- **Non-profit:** Non-profit organizations often collect data to measure the impact of their programs and services, and to demonstrate their effectiveness to donors and stakeholders. Data process evaluation can help these organizations ensure the quality and integrity of their data and identify ways to improve their data collection and analysis methods.

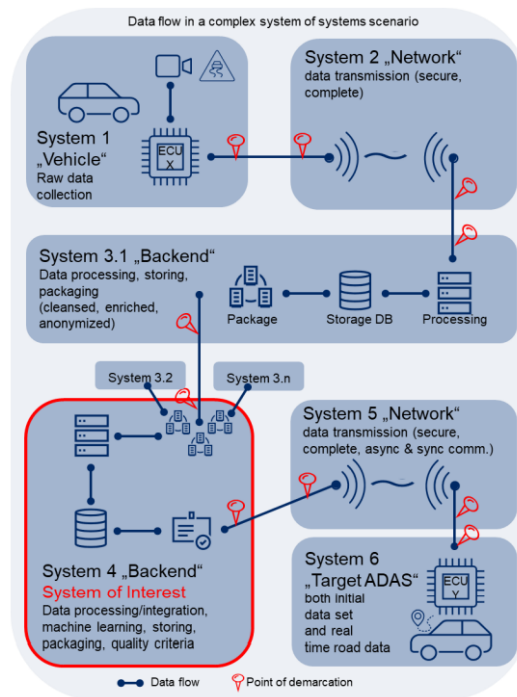
## Distinction to other process models

- Data management process improvement is the process of continuously evaluating and enhancing how an organization manages its data. This can involve evaluating the methods used to collect, store, retrieve, and analyze data, as well as the tools and technologies used to support these activities. For example, an organization might evaluate how well it is able to maintain data quality, ensure data security, and enforce data governance policies.
- Machine learning process improvement is the process of continuously evaluating and enhancing the performance of machine learning models. This involves evaluating how well the models can make accurate predictions or classifications, as well as how well they perform in real-world scenarios. For example, an organization might evaluate a machine learning model's accuracy and precision, as well as its ability to generalize to new data.
- IT service process improvement is the process of continuously evaluating and enhancing how well an organization's IT services are meeting the needs of its users. This can involve evaluating the effectiveness of IT service management processes, such as incident management, problem management, change management, and service level management. For example, an organization might evaluate how well it is able to resolve IT incidents within defined service level agreements, as well as how well it is able to manage changes to its IT infrastructure.

In summary, each of these are important for different aspects of an organization's operations. Data management process improvement focuses on the organization's data management practices, machine learning process improvement focuses on the performance of machine learning models, and IT service process improvement focuses on the effectiveness of IT services.

## An automotive example scenario and its interpretation

An abstract and simplified example scenario is used and described in the PAM/PRM to illustrate how the process model can be applied to a real-world situation. Leading to a more efficient, streamlined, and customer-focused experience, in interpretation of the "Data management" SPICE PAM/PRM.



*Data Management SPICE: Data flow and Point of demarcation*

## Example

Base Practice MGD.1 BP1: Create business/use case. Develop and keep up to date a business/use case as basis for a data management and data quality strategy. Ensure alignment of business case/use case with stakeholder requirements.

## Interpretation for system of interest

A company shall create and regularly update a plan or scenario (business/use case) that outlines how it will manage and maintain the content and quality of its data. This plan should be in line with the needs and expectations of stakeholders, such as customers and employees. The company's data management and quality strategy would then be based on this use case, and stakeholders, such as customers and customer service representatives, would be consulted to ensure that the strategy aligns with their needs and expectations. In the described example the business case is to collect data from different sources and to integrate them into one master data base. Finally tailoring sub databases for various applications and use cases. Fulfilling customer needs regarding content (data, meta data) and quality. This is following the defined quality strategy, especially when different sources are used to serve the same type of data set within the databases. The strategy is ensuring integrity of the database during processing and taking care the final “product” Fulfilling a required level of quality for content and meta information.

## In summary

Data and data management will play a critical role in the future of the automotive business, and companies that can effectively harness the power of data will have a competitive advantage.

Contact: Thomas Sievers ([thomas.sievers@intacs.info](mailto:thomas.sievers@intacs.info))

## Status of Working Group “Hardware PAM”

As you may have noticed already, the HW PAM version v2.1 has been published ([Link](#)). Motivation for changes were community change requests as well as technical and editorial improvements.

The Working Group is happy to see that the HW PAM is gaining more and more recognition and enthusiasm. Many assessments have been performed already. Several publications and talks were presented already, including an invited talk by the Korean SPICE community.

Please note that, formally and officially, the HW PAM is not a part of official Automotive SPICE® v3.1. However, the HW PAM, as defined by intacs, is most likely to be adopted by the VDA and to be included in Automotive SPICE®, which would also lead to “BlueGold Book” Automotive SPICE® Guidelines v2.0 content for the HW processes.

At present, intacs is in the final stage of completing the official intacs HW PAM training course materials, including exam questions. Talks are planned with the ECQA® as the potential certification body to establish a certification path. Please note that this certification path would be separate from Automotive SPICE® assessors and from the VDA QMC for the reasons stated above.

Please continue to let us know about your feedback and change request related to the HW PAM. Many thanks for all the very valuable input you provided in the past to help us improve the model!

Contact: Pierre Metz ([pierre.metz@intacs.info](mailto:pierre.metz@intacs.info))

---

## Status of Working Group “Assessor Support”

### Final review of PAM

The Working Group “Assessor Support” is mainly responsible for organization and support of the well-established Gate4SPICE events.

Thanks to the support of the intacs community, 30 Gate4SPICE events were hosted in 2022. In addition, 18 Gate4SPICE events are already performed or planned for the first half of 2023.

We are happy that meanwhile Gate4SPICE events are taking place all over the world. We are excited to announce that the first event will take place in Mexico in 2023. Another first Gate4SPICE event is planned for the UK.

To ensure that also in the future Gate4SPICE events can continue to be successful and beneficial for the assessor’s community, your support with suggestions for interesting future topics, as a speaker or as a host is highly appreciated. Mr. André Zeh would be happy to support you with organizational questions or to discuss your ideas.

Contact: André Zeh ([andre.zeh@intacs.info](mailto:andre.zeh@intacs.info))

---

## Status of Working Group “Training”

### New work split for WG Training & WG Procedures

Starting in April 2023 we split our WG Training into two teams to be able to manage the increased workload due to a lot of new extensions.

- Team 1 will focus on the maintenance of our existing course material e.g., Process Expert, Provisional Assessor and Competent Assessor. Lead: Bernhard Secher
- Team 2 will focus on the training coordination, creating new courses and new course material for extension trainings. Lead: Klaus Hoermann

The WG Procedures will be in charge of all procedures including all rules for training and certification. In the future, members out of other working groups, e.g., creating a new PAM, will join the WG Procedures for a certain period of time to support the creation or refinement of our existing rules and procedures.

Contact: Bernhard Secher ([bernhard.sechser@intacs.info](mailto:bernhard.sechser@intacs.info))

Contact: Klaus Hoermann ([klaus.hoermann@intacs.info](mailto:klaus.hoermann@intacs.info))

---

## Test SPICE: wrongly in a slumber?

The Test SPICE PAM has been an integral part of the intacs® portfolio for about 10 years. There is a small support group there, which has been dedicated to the dissemination and further development of the PAM since 2021.

In these 10 years, a lot has developed in the field of testing, in particular agile development processes (Scrum / Kanban) and test automation of unit and integration tests occupy the test community.

At the end of this development there are some surprising findings:

- There are no more overall test strategies, testing is fragmented, and the overview has been lost, especially in large organizations.
- As much as Automotive SPICE® focused on the topic of process capability, it had the side effect that many organizations saw SPICE as outside their software development and not integrated into their daily business. Result: Only certain target level is reached.
- Testing is still at the top of the food chain. Essential testing steps are outsourced to nearshore or offshore test centers. Significant weaknesses came to light in many Automotive SPICE® assessments.
- Test methods, although explicitly named in ISO 26262, are not used, or are not used in a comprehensible manner.
- Test tools are pure test case management tools, test case design takes place outside of these tools. This inevitably leads to a loss of information. This also means that test cases are designed several times (albeit with different descriptions) and, if necessary, also automated.
- The test case stocks in the test case management tools are hardly comprehensible. In some organizations, the proportion of redundant test cases is 50-60% of the test case inventory.
- At the same time, testing is under high-cost pressure.

All of this should be a reason to take a more fundamental look at the subject of testing. For this purpose, Test SPICE provides a reference model that enables a fully scalable analysis of the testing procedure. Test SPICE is currently available in version 4.0, which can be downloaded from the intacs® website.

The Working Group Test SPICE is of course happy to receive feedback from the community, and new members are also very welcome. Our next steps are:

- 1) Test SPICE is checked for compatibility with newer versions of ISO 33063, ISO 29119, and possibly other models. Result, a high-level mapping, which again proves the compatibility of Test SPICE.
- 2) For Test SPICE, a 1–2-day training will be set up as a model extension training for Intacs certified assessors. The aim of this training is for intacs®-certified assessors to become familiar with Test SPICE.

Have we aroused your interest? Become part of this success story!

Contact: Tomas Schweigert ([tomas.schweigert@intacs.info](mailto:tomas.schweigert@intacs.info))

---

## **Medical SPICE: Qualified assessment of software development processes in medical device domain**

### **New Guideline VDI-MT 5702 Part 2 - Basis for Training and Certification of Medical SPICE Assessors**

SPICE (Software Process Improvement and Capability Determination) is an internationally recognized method for evaluating development processes. It is used successfully in the automotive industry for a long time and is often used as a basis for business relationships between manufacturers, suppliers, and end customers. For medical device technology, an adequate assessment model, Medical SPICE, is available in the form of the guideline VDI 5702 Part 1. In assessments, processes can be classified into different maturity levels and weaknesses in process design and implementation can be identified.

The experts who perform such assessments according to high quality standards must be qualified and competent. The new guideline VDI-MT 5702 Part 2 defines the framework, criteria, and content of the requirements for the training of both Medical SPICE users and assessors in collaboration and in accordance with the intacs® regulations. Furthermore, it contains the requirements for the training participants and for the trainers. It also describes the contents and the framework conditions for the training process. After successful completion, a certificate as a Medical SPICE assessor can be issued based on the guideline.

The publisher of the two guidelines VDI 5702 Part 1 "Medical device software - Medical SPICE Process assessment model" (<https://www.beuth.de/en/technical-rule/vdi-5702-blatt-1/265351851>) and VDI-MT 5702 Part 2 "Medical device software - Medical SPICE - Qualification of developers and assessors" (<https://www.beuth.de/en/technical-rule/vdi-mt-5702-blatt-2/352981651>) is the VDI Society Technologies of Life Sciences (TLS). The current version was published in March 2023 and can be ordered from Beuth Verlag.

Contact: Bernhard Sechser ([bernhard.sechser@intacs.info](mailto:bernhard.sechser@intacs.info))

---

## VDA QMC

### Status of VDA-QMC AK13

The working group 13 of the VDA QMC® (AK13) is recently working on the 2nd edition of the Automotive SPICE® Guideline. This will consider all processes contained in the PRM/PAM 4.0.

A draft version of PRM/PAM 4.0 has been reviewed by selected experts during December 2022 and January 2023 to form a new draft as a reference for the Yellow-book draft of the Automotive SPICE® Guidelines.

The AK13 has processed approx. 3200 reviewer findings. AK wants to thank all reviewers for their valuable contribution.

The draft version (yellow book) of the guideline is planned to be published in May 2023 and if so, the final version together with the PRM/PAM 4.0 will be published in late Q3/2023. Commenting of the draft guideline is according to procedures of VDA QMC®.

At present, the following processes are considered. Please note that the terms based on which the intacs HWE.x processes can be integrated is presently being discussed by intacs and the VDA. Further, that a final decision about a standard “VDA scope” has not yet been made.

SYS.1 Requirements Elicitation	MLE.1 Machine Learning Requirements Analysis
SYS.2 System Requirements Analysis	MLE.2 Machine Learning Architecture
SYS.3 System Architectural Design	MLE.3 Machine Learning Training
SYS.4 System Integration and Integration Verification	MLE.4 Machine Learning Model Testing
SYS.5 System Verification	
	SUP.1 Quality Assurance
VAL.1 Validation	SUP.8 Configuration Management
SPL.2 Product Release	SUP.9 Problem Resolution Management
	SUP.10 Change Request Management
SWE.1 Software Requirements Analysis	SUP.11 Machine Learning Data Management
SWE.2 Software Architectural Design	
SWE.3 Software Detailed Design and Unit Construction	MAN.3 Project Management
SWE.4 Software Unit Verification	MAN.5 Risk Management
SWE.5 Software Component Verification and Integration Verification	MAN.6 Measurement
SWE.6 Software Verification	
	ACQ.4 Supplier monitoring.
	REU.2 Management of Products for Reuse
	PIM.3 Process Improvement

In parallel the AK13 is working on an additional PAM for Potential Analysis. The review phase for this PAM is planned for Q2/2023.

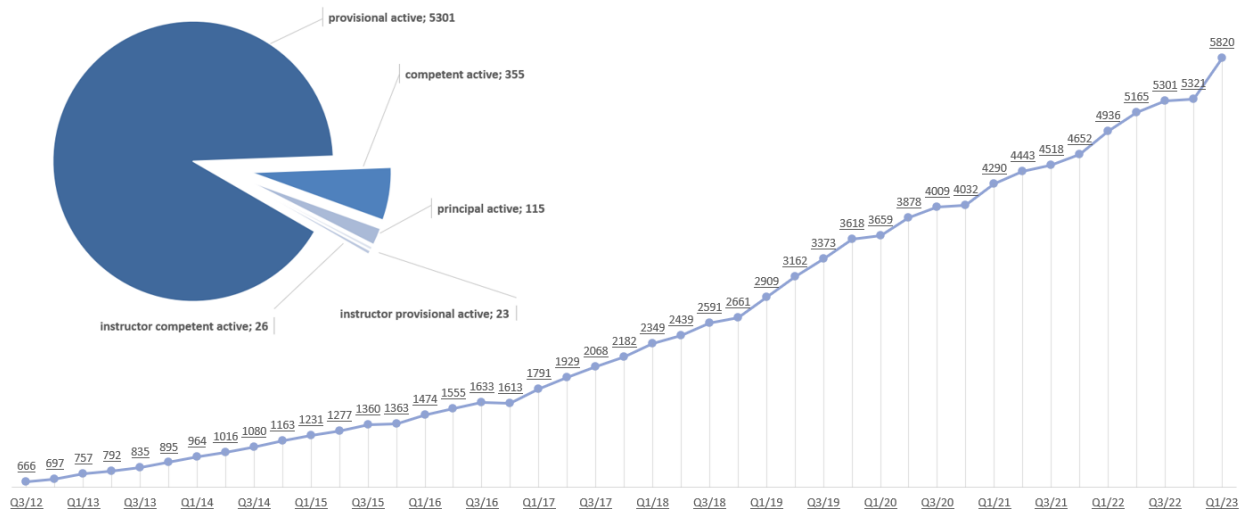
*This text is kindly provided by VDA QMC® AK 13.*

Contact: Albrecht Wlokka (Head of VDA AK13)

## News from the VDA-QMC Office

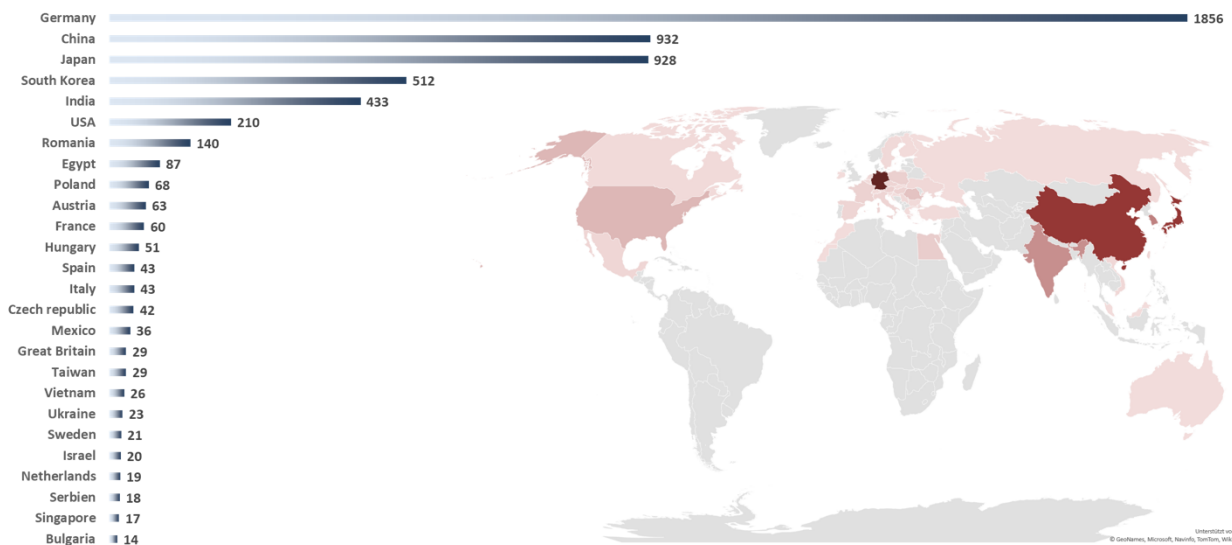
### International Automotive SPICE® Assessor community still growing

Latest numbers from the VDA QMC®, the intacs certification body for the automotive domain, are demonstrating a continuous growing attendance and distribution of Automotive SPICE®. By the end of the first quarter 2023, the certification office lists 5820 active assessors, showing an increasing demand of personal certification based on the intacs scheme. Whereas most certificates have been issued on provisional level, also the number of lead assessors have been on a rise. A total number of 519 assessors on higher qualification levels, including 49 instructors have been reported.



VDA QMC registered Automotive SPICE® Assessors by status

A hotspot of the international distribution is still Germany, but especially the Asian community with countries like Japan, China, India, and Korea is very active and lively, providing almost half of the assessors worldwide. In the last quarter China has exceeded Japan by numbers for the first time in the history of intacs, now hosting the second largest assessor community on a global scale.



VDA QMC registered Automotive SPICE® Assessors by region

This text and graphs are kindly provided by the VDA QMC® Office.

Contact: Dr. Jan Morenzin ([office@automotivespice.com](mailto:office@automotivespice.com))

## Disclaimer, Trademarks, and Imprint

In case you like to register or cancel your registration for this newsletter, please log-in into your account at [intacs.info](https://intacs.info) and edit your profile.

### Trademarks

- Automotive SPICE®, ASPICE®, VDA® and QMC® are registered trademarks of VDA Verband der Automobilindustrie e.V., 10117, Berlin, DE
- ECQA® is a registered trademark of Reiner, Michael, 3552, Dross, AT
- intacs® and Agile SPICE™ are registered trademarks of International Assessor Certification Scheme e.V. (iNTACS e.V.), 51147, Köln, DE

### Comments and Feedback

Do you have comments or feedback to our information letter?

Your feedback is highly welcome!

All the best,

Thomas Kömmerling

intacs® information management, Contact: ([thomas.koemmerling@intacs.info](mailto:thomas.koemmerling@intacs.info))

International Assessor Certification Scheme e.V. (intacs e.V.), Herderstr. 7, 51147 Köln, Germany