



I am the solution.

ZEISS ACADEMY METROLOGY
TRAINING GUIDE



Seeing beyond



Three reasons why ... you should book a training.

Be the solution

Receive insights into quality assurance and master the latest trends and standards. Explore step-by-step solutions that help you to solve your daily measurement challenges. Choose your desired trainings from a wide range of basic metrology software and technology topics and be ready for the future of metrology.

Be the solver

Choose one of four customized learning paths with recommended trainings based on your current level of knowledge and your application. Receive a certificate after completing each training course that is acknowledged worldwide and proves your expertise. Take your career to the next level.

Become an expert

Our trainers are daily users and metrology experts who are ready to answer all your questions during classroom or live online trainings. Leaving the classroom does not end your training experience. You can look up measurement topics in our (e)books, apps or eLearning courses ensuring a continuous flow of knowledge.



Three reasons why ... your company should support your training.

Drive productivity

In-depth process optimization expertise and shared knowledge will make your processes more stable and will make your QM lab perform faster. Ensure that your team can yield precise measurement results conforming to the latest standards and avoid user errors.

Gain competitive advantage

Our experts provide customized training courses for leading edge companies with ambitious metrology demands – sharing the most advanced technological insights in the industry. Your systems, equipment and software are always changing and should grow with your company. Continuous training from the ZEISS Academy will keep your metrology lab up-to-date.

Establish global standards

The ZEISS Academy holds 60 training locations in 24 countries with 210 certified trainers ready to coach you. Ensure shared, standardized knowledge for all your company sites. If this is not close enough: Take advantage of on-site support directly at your location.



»In an effort to help our customers be more competitive, we have invested in a continuous learning platform so that employees can receive the very best that ZEISS has to offer, long after the initial installation.«

Al Chiasson

Vice President Aftermarket & Metrology Services
ZEISS Industrial Quality Solutions

As a metrologist or quality lab leader, you are responsible for ensuring the highest precision without impacting productivity. Sometimes, the unexpected occurs, and you need to use all of your metrology skills and expertise: quickly and effectively.

ZEISS Academy Metrology will support you to master every measuring challenge. Experience over 35 years of quality training expertise and receive the most current knowledge. Become an indispensable resource at your company.

Become the solution.

Establish global standards.

»Receive insightful knowledge about the latest metrology trends and industrial developments which will make you even more successful.«



Katrin Schenk
Product Manager Academy
ZEISS Industrial Quality Solutions



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60 training locations

24 countries

210 certified trainers

ZEISS Academy Metrology is your constant companion, always by your side. Around 60 locations in 24 countries worldwide with more than 210 certified trainers ready to support you. If this is not close enough: Take advantage of on-site support near your location.



Combined Learning. Unlimited Potential.



Learn from everywhere: Live Online Trainings

Whether classroom training or live online training: refresh your knowledge from metrology classes and bring your trainer to your workplace.



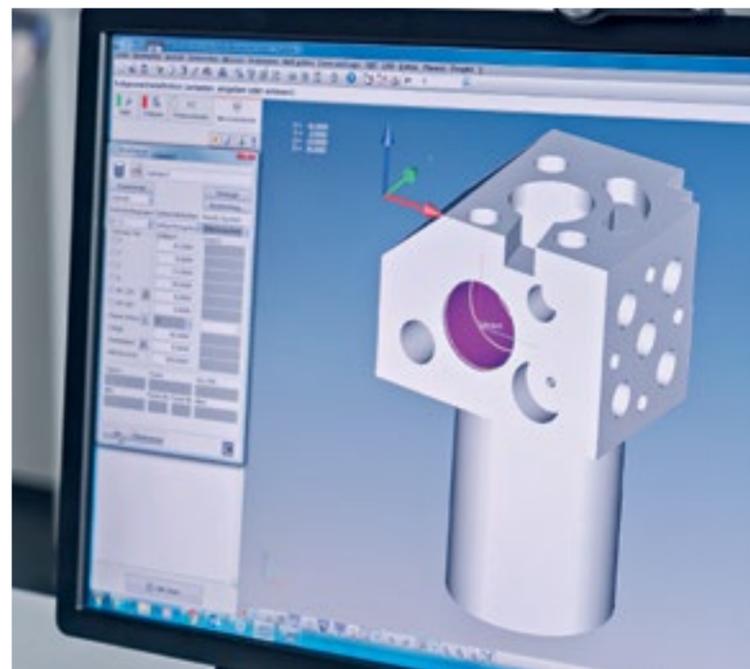
Expand your knowledge with eLearnings

With eLearnings from ZEISS Academy Metrology, you don't have to wait for the next training date but can start right away and expand your metrology knowledge at your own pace – when you want, how you want and where you want.



eBooks and apps: Metrology knowledge on demand

As a technician or coordinate measuring technician, you encounter many questions during measurements in everyday life. With our apps and eBooks, you can look up basic knowledge and questions about metrology at any time.



Classroom trainings at one of our locations

Expand your knowledge with group training courses lasting several days at our headquarters in Oberkochen or at over 60 ZEISS Quality Excellence Centers worldwide.



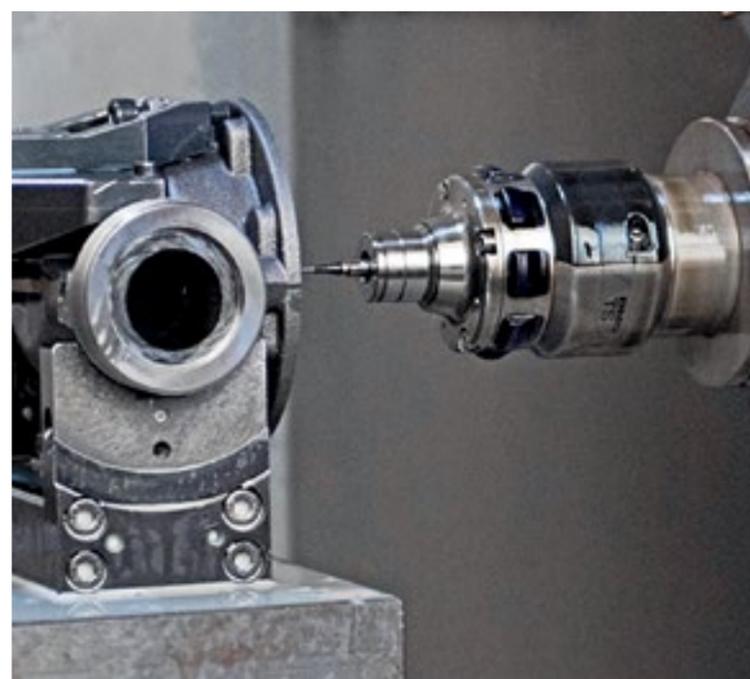
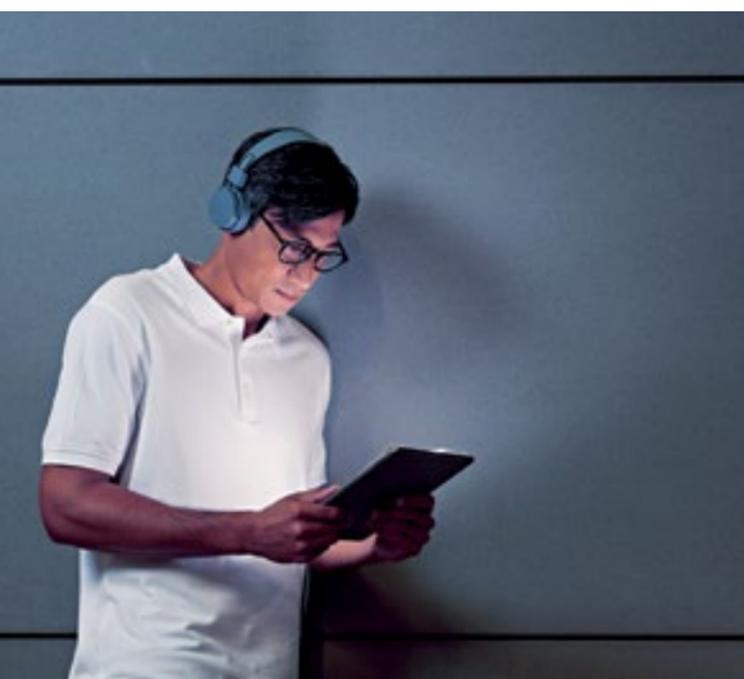
Metrology training in your company

Get to know your measuring equipment better with an individual metrology course.



Successful start in metrology with our basic seminar

In our one to two-day metrology courses, you can expand your knowledge in roughness measurement, geometric product specifications or reverse engineering.



Specialist metrology literature for professionals and beginners in metrology

Metrology knowledge right at your fingertips: continue to deepen your knowledge independently even after completing your metrology course with our practice workpieces and books.



An enabling staff. Addicted to metrology training.

Meeting our ZEISS trainers makes a difference: They are trainers – impassioned to enabling people. Making complex material understandable. Representing both: engaged metrology AND educational experts.

ZEISS Academy Voices.

"We have live online training participants from across the globe enriching our trainings. Plus, the participants notice almost no difference between our classroom and live online trainings."



*"We help you to understand the potential of the technology and apply this to your daily job. **You'll see how easy your work can become."***

"Our courses are more than just a training session. They are art. Our trainers enjoy their work and give their best every day."



*"I enjoy most interacting with our customers, **getting to see the „light bulb“ moment when a concept clicks**, the learning process and evolution of what „training“ means at ZEISS."*



A perfect start.

First steps into metrology.

Are you new to metrology or already an experienced technician looking for opportunities to enrich your skills? ZEISS Academy Metrology offers numerous training courses and content that are individually tailored to your needs and level of knowledge. Our trainers support you step by step in online and on-site seminars and training courses.

Metrology Basics

● —————

An amazing start into a world of precision: In these courses you will gain basic knowledge to easily understand and apply measurement tasks. Gain knowledge in measurement techniques, physics, mathematics, standards and design. We offer 3 levels of AUKOM trainings and AUKOM GD&T online or on-site.

Software-based Trainings

● —————

Your first step into unleashing the full potential of your software. These trainings focus on the usage of ZEISS software & software options – effectively! A perfect introduction according to software-based machine and sensor configuration (tactile, scanning, optical, laser, CT).

Technology-based Trainings

● —————

Technology – at a glance: Learn the most relevant facts about metrology devices and techniques. These trainings are specifically designed for the efficient use of devices and sensors. The trainings provide theoretical content, along with practical exercises.



All Application Paths Lead to Unmatched Expertise

No matter which knowledge level you are starting from: With our application-oriented structure and program, you will be able to define your personal learning target and the proper learning path.

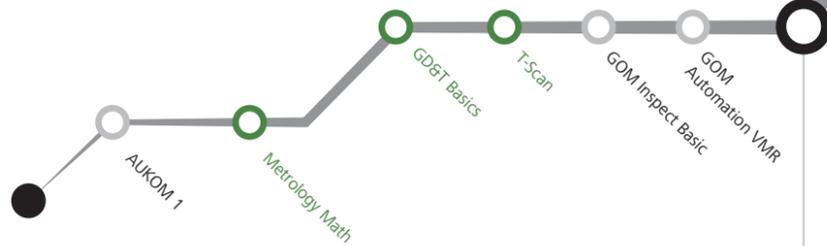
X-Ray Inspection



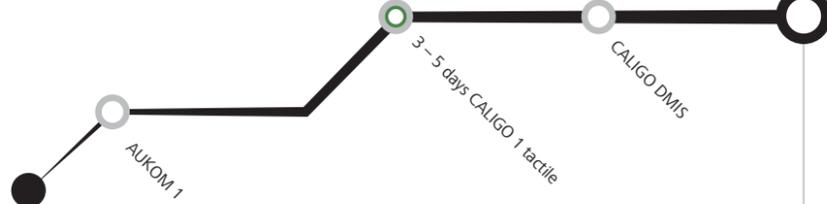
Geometry Inspection



3D Digitalization



Freeform Measurement



ZEISS Operator

If you already have a metrology background and expertise and need to know more about handling ZEISS equipment and software, the Operator Trainings will be the perfect fit. These trainings will guide you through main functionalities and get you started with using our hardware and software.

ZEISS Metrologist

No matter which path you take in our Academy, we will guide you to become a ZEISS-certified Metrology Specialist. With the right trainings, learning formats and practical experience you will deepen your knowledge to master even complex metrology tasks.

ZEISS Expert

Some tasks within metrology go far beyond performing measurements. Whenever you have the need to develop or maintain quality and inspection processes, whenever you are part of a design review, whenever you define QCC limits, whenever you're responsible for a measuring room, our ZEISS Expert program will improve your skill set.

- Possible entry for up-and-coming metrology engineers
- Training courses
- e-Learnings or app
- Path switch: Possibility to change learning path
- Training stations you can reach per level

You can find the detailed learning paths on the following pages →

X-Ray Inspection

CT scanning of plastic, assembled or electronic parts require some extensive basics and lots of practical exercises. These specific needs are addressed in our X-Ray learning Path to support you becoming an X-Ray Metrologist.

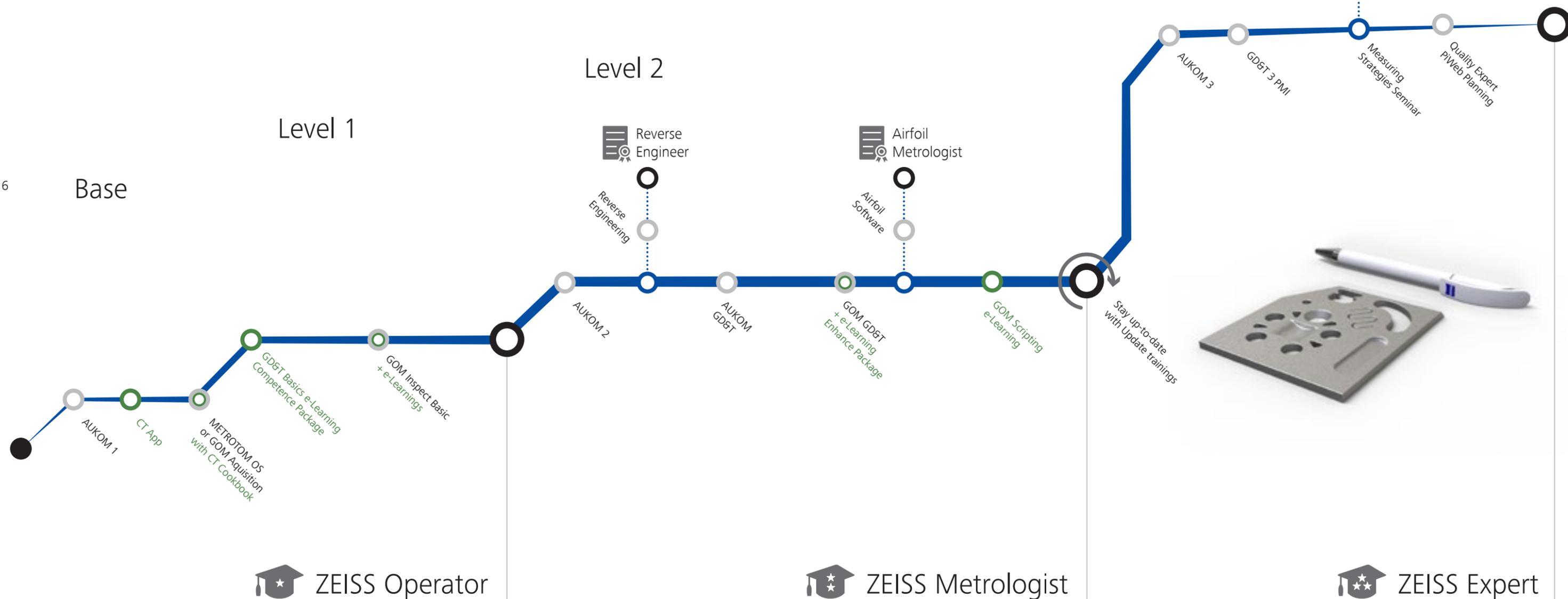
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Base

Level 1

Level 2

Level 3



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Geometry Inspection

From Powertrain to Aerospace, from inline inspection to high precision lab measurements, from size to form, orientation and location. Learn how to program, measure and analyze prismatic parts and gain the necessary metrology knowledge.

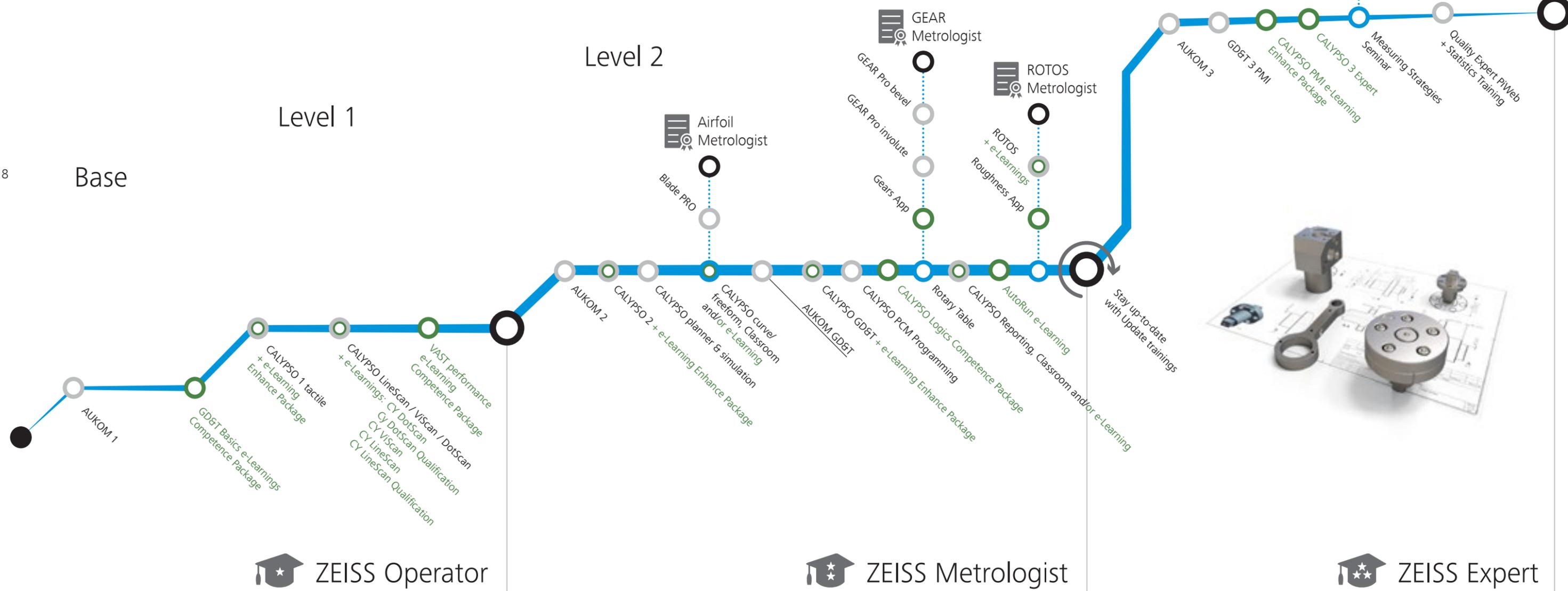
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Base

Level 1

Level 2

Level 3



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3D Digitalization

Optical scanning, point clouds, reverse engineering, tool correction - just to name a few of the things you will learn and apply when focusing your learning path on 3D Digitalization.

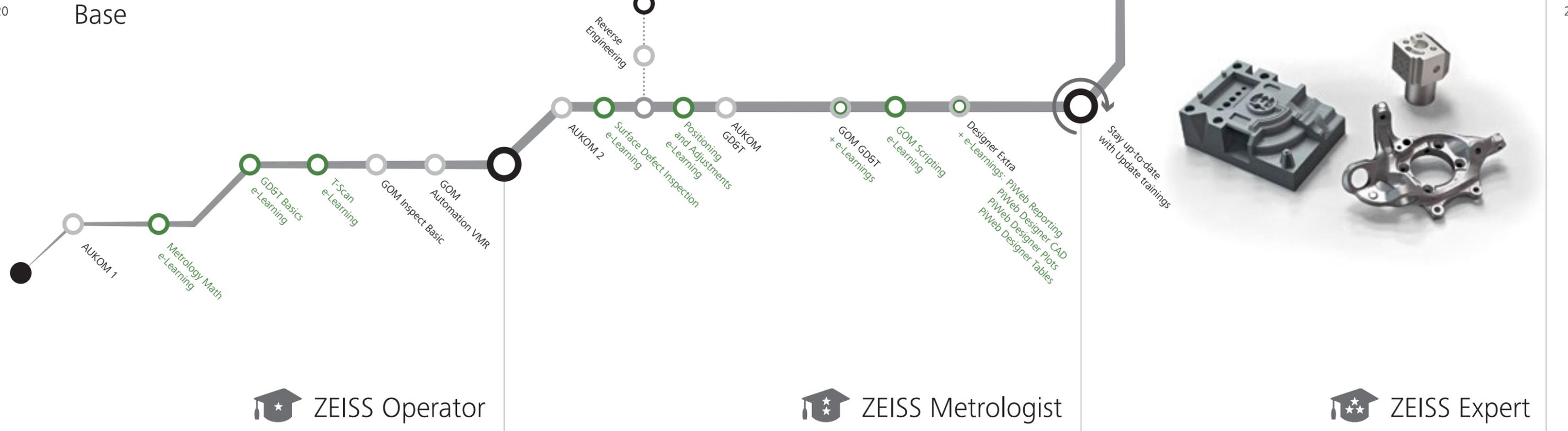
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Base

Level 1

Level 2

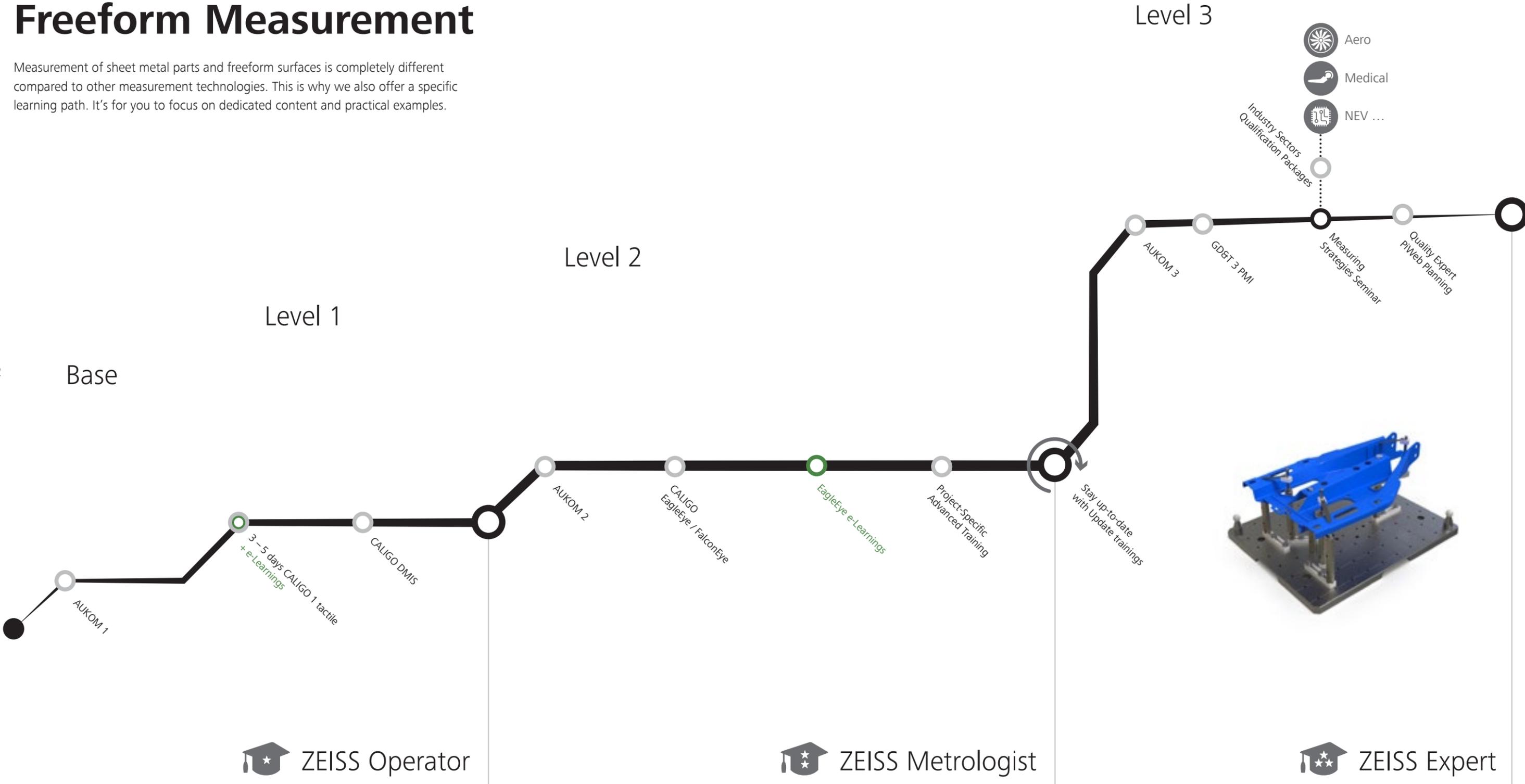
Level 3

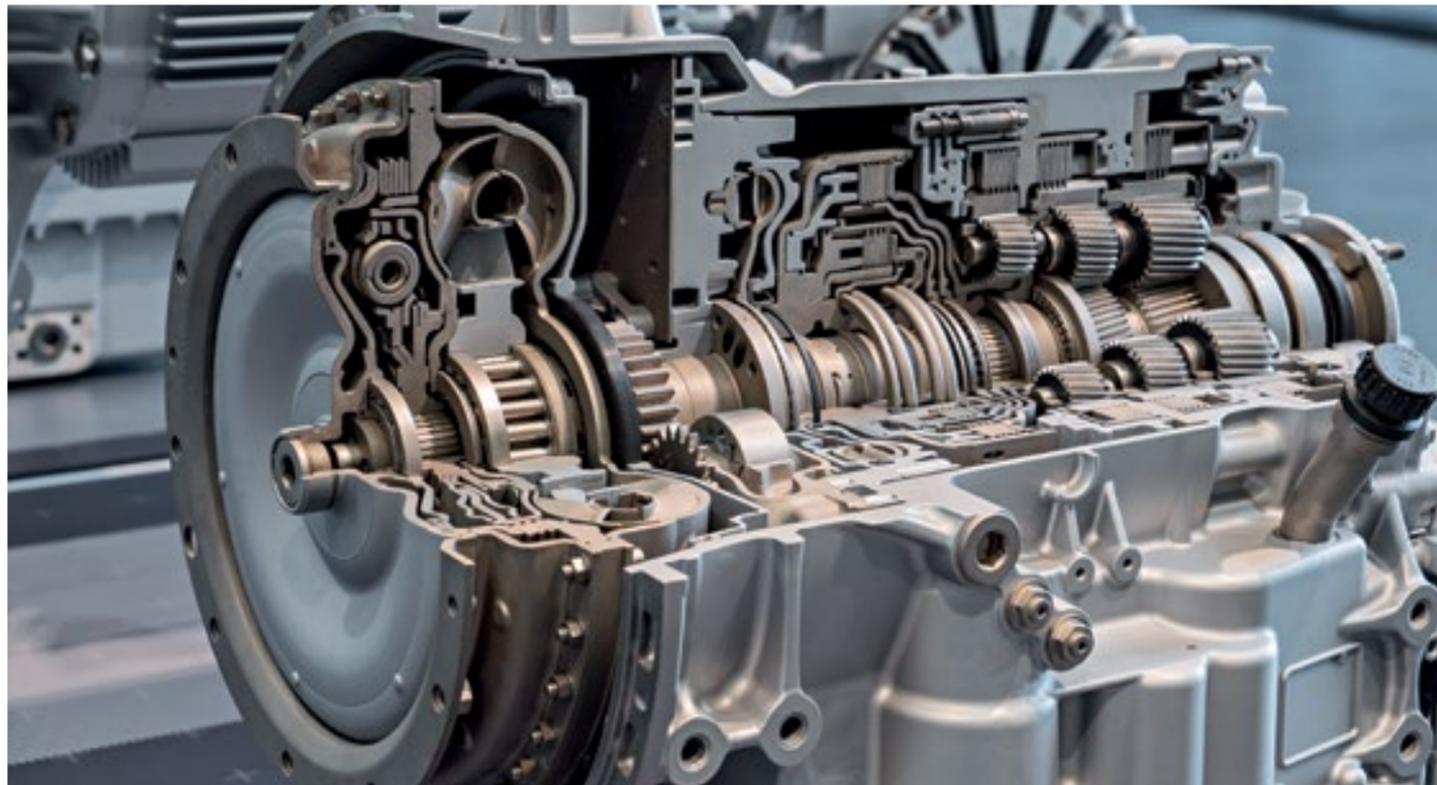


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Freeform Measurement

Measurement of sheet metal parts and freeform surfaces is completely different compared to other measurement technologies. This is why we also offer a specific learning path. It's for you to focus on dedicated content and practical examples.





Customer Success Story.

ZF Friedrichshafen.

Their metrologists have to create new measurement programs every day and the trainings from ZEISS help them to master the challenge.

Driven by a Thirst for Knowledge

A total of 32 employees, 13 of them metrologists, are responsible for quality control. Mehmet Akol is one of them. Akol joined ZF Friedrichshafen ten years ago and initially worked in gearbox production. Every day he was faced with measurement results from quality inspection. If these conflicted with the results produced by his processing center, Akol wasn't satisfied with simple explanations: "I always wanted to know where the measurement results came from and why they turned out the way they did. I constantly asked about this and that's why I drew so much attention to my quality inspections." This prompted Akol to switch to metrology three years later; he's not easily satisfied with his measurement results here, either: "Everyone can share a result, but you have to know how it came to be and how you should evaluate it. Only then can it be valuable for the worker." He always questioned processes and results and wanted to find out the background to them. His curiosity led him to attend his first AUKOM seminar at ZEISS in 2014, which he followed up with AUKOM Stages 2 and 3 and AUKOM GD&T. He also attended further seminars on CALYPSO, GEAR PRO and on offline programming. He even received training in a special subject, the Fourier analysis.

About ZF



ZF is a global leader in driveline and chassis technology as well as active and passive safety technology. The company has a global workforce of 149,000 with approximately 230 locations in some 40 countries. In 2018, ZF achieved sales of 36.9 billion € and as such, is one of the largest automotive suppliers worldwide.



Customer Success Story.

Festo SE & Co. KG.

Establish quality standards with standardized knowledge across the globe.

Festo relies globally on training from and with ZEISS in measuring and testing technology.

Comprehensive training increases competence

Almost all ZEISS measuring solutions are in use at Festo: the future-proof computed tomography system ZEISS METROTOM 1500 or high-end machines like the ZEISS XENOS. Festo has relied on ZEISS for more than 30 years, both in terms of technology and training, worldwide. Like Festo, ZEISS is also internationally positioned - an important prerequisite for meeting Festo's training requirements. The topics of the measurement technology training courses are wide-ranging: from basics, application and software updates to special topics such as geometric product specifications. This is also confirmed by András Kunt, Head of Quality & EHS+Facility at the Hungarian plant: "It is particularly effective that the training courses not only cover the programming of the machines, but also include all elements of measurement technology. I am not only proud that we work with the best systems in quality assurance, but also that we can benefit from a high and uniform training standard". Festo also attaches great importance to training in the respective national language. "Experience shows that learning success is 30 to 50% higher if people can learn in their own language," says Lang. "And to my knowledge, only ZEISS can reflect this diversity."

Individual learning paths to success basics of coordinate measuring technology and also attend technology trainings from ZEISS. The employees follow an individual learning path, depending on their level of training and knowledge. The training courses, which last several days, take place at the nearest ZEISS Quality Excellence Center. ZEISS trainers, on the other hand, come to the Festo factories for the device and software-specific training courses. Here, they practice directly on Festo components.

About Festo

FESTO

In Esslingen, Baden-Württemberg, Festo SE & Co. KG develops automation technology that is in demand worldwide. However, Festo's technology is not the only technology used by manufacturing companies around the globe. Festo knows how to communicate skills in the best way and sets high standards in the development and further training of its own employees.

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