



Speakers



Elke Brodbeck DHC AG



Dr Thilo Jania **OLYMPUS EUROPA**



Christian Kunath CSL Behring



Stefan Temps **DHC AG**

SAP - Validation and GMP Compliance



Live Online Training 9/10 November 2021



Highlights

- SAP S/4 HANA in a GxP Environment
- Validation
 - Best Practice Approach
 - Process Oriented vs. Transaction Oriented
 - Agile vs. V-Model
 - Major Changes and Impact on Validation Approach
 - Solution Manager 7.2 as a Validation Platform
 - Case Study: Validation of SAP Cloud Products
- Operation
 - Change Management
 - Lifecycle Management
 - Data Migration
 - Case Study Olympus
- Audit Trail / Data Integrity in SAP S/4HANA
- Artificial Intelligence / Machine Learning and GxP Compliance
- Insights from the Pharma Validation Group (PVG)

Objectives

You will learn

- How to validate SAP S/4HANA in a GMP environment
- Which specific requirements should be taken into consideration in the CSV process
- How to use SAP Solution Manager 7.2 as a validation platform
- What problems could arise during validation and how to solve them
- How to maintain the validated state of SAP with the least efforts

Background

SAP S/4HANA has been launched in 2015 as the new intelligent ERP system. The software is available as cloud edition and as onprem edition. SAP S/4HANA is being called the biggest update to its ERP system in over two decades. Together with the move to in-memory database SAP HANA a new user interface (SAP Fiori) was introduced.

The mainstream maintenance for the predecessor products will end in 2025. Due to this time line a lot of SAP customers have already started the transformation journey to SAP S/4HANA or at minimum have initiated a pre-project.

How will all these technical and functional changes in the surrounding of SAP S/4HANA (user interface, in-memory database, different deployment types) impact the validation approach and the validation scope?

This ECA Live Online Training will provide comprehensive knowledge about how to validate SAP S/4HANA for new SAP customers as well as for installed base customers who are planning a system conversion.

Expect two days full of shared best practices for the validation of SAP S/4HANA considering recent regulatory requirements like EU GMP Guide Annex 11, GAMP 5 and 21 CFR Part 11.

Target Audience

This ECA Live Online Training is directed at experienced employees from

- IT & IT Service Providers
- Quality Assurance / Quality Control
- Production / Engineering

who have to deal with SAP S/4HANA in a healthcare environment.

Programme Day 1

Validation Approach for SAP S/4HANA On Premise

- Legal requirements
- Process oriented and risk based approach
- Best practices
- Agile vs. V-Model

SAP S/4HANA – Major Changes and Impact on Validation Approach

- S/4HANA The new digital core
- Major changes in system architecture
- What does this mean for the validation approach?



Case Study: Validation of SAP Cloud Products (Success Factors)

- Challenges and chances of the new Cloud paradigm
- Best Practices in validation
- Supplier qualification of Cloud Providers
- Operation of Cloud systems
- Ensuring Data Integrity with Cloud Products

Process Landscape and IT System Landscape

- Changes in SAP Product Landscape
- SAP System Landscapes
- System Landscapes for Transformation Projects

SAP Configuration Management vs. Validation Approach

- Implementation Approach
- Customizing and Development
- Change and Transport System
- SAP Release Strategy for SAP S/4HANA
- Validation Challenges



Templates

All participants get a set of useful templates for download:

- Validation plan
- User requirement specifications
- Functional specifications
- Test scripts
- Risk assessment questions
- Data Integrity Assessment
- Data migration

Programme Day 2

Using SAP Solution Manager 7.2 as a Validation Platform

- SolMan as Application Lifecycle Management Tool
- Solution Documentation & Test Management
- IT Service Management
- Change Management
- How can SAP Solution Manager support the S/4HANA transformation?



Case Study: Managing a European SAP Program in a Validated Environment (Olympus Surgical Technologies Europe)

- Project Set-up at Olympus
- Risk based approach
- Experiences / Success factors
- Further implications for the strategic IT-landscape

Transformation to SAP S/4HANA and Data Migration

- A strategic approach to data migration
- Regulatory requirements and data migration
- Validating the data migration

Insights from the Pharma Validation Group (PVG)

- PVG: Tasks, Objectives, Members
- Quo Vadis SAP? The journey from Software Manufacturer to Service Provider
- SAP Audit change in focus: Frequency and content on the test bench

Data Integrity

- Regulatory Requirements
- Data Integrity Assessment
- Data Governance System

SAP Audit Trail in SAP S/4HANA

- Audit Trail functionality in SAP S/4HANA
- Review of Audit Trail
- Audit Trail in CSV documentation

Intelligent ERP: Artificial Intelligence / Machine Learning and GxP Compliance

- How can AI / ML support future processes
- Impact on system design
- How to handle AI / ML during system validation

Speakers



Elke Brodbeck, DHC AG, Switzerland
After completion of her doctorate at the ETH Zuerich, Elke joined DHC AG as a specialist in Computerized System Validation with a strong focus on the

methodological approach for SAP S/4 HANA implementation/validation. Elke also has special competencies in the areas of data integrity and the requirements of the 21 CFR Part 11



Dr Thilo Jania, OLYMPUS Europa SE & Co. KG From 2013 until 2016 he was the responsible Program Manager of the successful SAP Implementation at OLYMPUS Surgical Technologies Europa. In his

current position as General Manager at OLYMPUS EUROPA SE & CO. KG he is in charge of a EMEA-wide process transformation program.



Christian Kunath, CSL Behring Lengnau AG, Switzerland

Many years experience as global CSV (computerized system validation) manager in different pharmaceu-

tical and medical device companies. In 2021 he joined CSL Behring as Senior CSV Manager. Mr Kunath is also Certified Information Security Professional (T.I.S.P.), Supplier Auditor and Chairman of the Pharma Validation Group (PVG).



Stefan Temps DHC AG, Switzerland

Stefan Temps joined DHC as a Senior Consultant in 1996. In 2004 he became Partner of DHC AG, Swit-

zerland. Core competences of Stefan are SAP S/4HANA solution architecture and GxP compliance in the regulated industry. Prior to joining DHC in 1996, Stefan studied Industrial Engineering and Management at the Technical University of Hamburg (Germany).

Your Benefit

Internationally Acknowledged Certificate from ECA Academy

The EU GMP Guide requires:,....
All personnel should be aware of
the principles of Good Manufacturing
Practice that affect them and receive
initial and continuing training,...".
This is why you receive an acknowledged
participant certificate, which lists the
contents of the Live Online Training in
detail and with which you document
your training.



Purchase Order Number, if applicable Country SAP – Validation and GMP Compliance, 9/10 November 2021 Important: Please indicate your company's VAT ID Numbe ZIP Code Title, first name, surname Department City

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P.O. Box 101764

Date of the Live Online Training Thuesday, 9 November 2021, 09.00 h - 18.00 h

All times mentioned are CET.

Technical Requirements

For our Live Online Training Courses and Webinars, we use Cisco WebEx, one of the leading suppliers of online meetings. At https:// www.webex.com/test-meeting.html you can check if your system meets the necessary requirements for the participation at a WebEx meeting and at the same time install the necessary plug-in. Please just enter your name and email address for the test. If the installation is not possible because of your rights for the computer system, please contact your IT department. WebEx is a standard nowadays and the necessary installation is fast and easy.

Wednesday, 10 November 2021, 09.00 h - 17.00 h

Fees (per delegate, plus VAT)

ECA Members € 1,490 APIC Members € 1,590 Non-ECA Members € 1,690 EU GMP Inspectorates € 845

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Organisation and Contact

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For questions regarding organisation please contact: Ms Jessica Frechen (Organisation Manager) at +49(0)62 21/84 44 60, or at frechen@concept-heidelberg.de





Speakers



Frank Behnisch CSL Behring GmbH



Bob McDowall R.D.McDowall Ltd.



Yves Samson Kereon

IT / OT Infrastructure Qualification and Operation in a GMP Environment



Live Online Training 11/12 November 2021



Information Technology and Operation Technology GMP Compliance

Highlights

- Information Technology (IT) / Operation Technology (OT) Infrastructure Enterprise Model
- Regulatory Requirements
- IT Compliance for the IT Infrastructure
- **Supporting Processes**
- Virtualisation as Part of the IT Infrastructure
- Security and Cybersecurity Concepts
- Agile Infrastructure / Infrastructure as Code (IaC)
- Case Studies for Qualification
 - Virtualisation Platform
 - Firewall
 - Central Backup Management System

Objectives

- Get an overview of technologies discussed currently in the pharmaceutical environment
- Learn what requirements are placed on the IT infrastructure and its qualification within the scope of GMP regulations
- Principles outlined can be applied to Operation Technology (OT) for production systems
- IT security and cybersecurity has now taken on a central role; here you will learn about the importance of the IT infrastructure in terms of an appropriate IT security concept
- Case studies show you qualification approaches for key IT infrastructure components
- Virtualization is a part of the IT infrastructure; learn strategies for qualifying the virtual machine and the virtualization platform

Background

In today's pharmaceutical environment, the IT infrastructure is the backbone for the application of a wide range of software solutions. The requirements for IT security are becoming increasingly important. Only a robust IT infrastructure with suitable network topologies and security concepts can guarantee the appropriate security here.

Pharmaceutical regulations contain few or only indirect requirements for the IT infrastructure. The principles of the EU GMP guidelines state "The application should be validated, the IT infrastructure should be qualified". Here the phrase "should" corresponds to a "must"! Further information can be found in the revised version of the GAMP® Good Practice Guide "IT Infrastructure Control and Compliance" published in August 2017.

Target Audience

The Live Online Training is aimed at managers from the pharmaceutical industry, suppliers and service companies who plan, qualify and operate IT infrastructure in a GxP environment

Programme Day 1

IT/OT Infrastructure Model

- Overall IT/OT infrastructure enterprise model
- GAMP IT infrastructure model
- Applying GAMP software categories
- OT specifics
- Applicable to all options: on premise / data hotel / SaaS IT

Regulatory and Legal Requirements / Agreement for IT/OT infrastructure

- GxP regulations with focus on Annex 11 and Chapter 7
- Supplier assessment and agreements for IT suppliers
 - Risk management
 - Quality and technical agreements and service levels
 - Governance and Quality oversight
 - Time synchronisation
- Brief summary of legal requirements
 - e.g. GDPR, HIPAA, etc.

Effective and Efficient Compliance

- Supporting life cycle model
- Specification
- Design
- Verification

Security and Cybersecurity for a Robust IT/OT Infrastructure

- IT infrastructure security requirements
- Cybersecurity: ransomware and malware
- Sizing / Availability / Reliability
- Basic security rules
- Network topology
- Network segregation
- IT infrastructure monitoring
- Recommendation for data archiving support
- PEN testing

Planning Virtualisation Projects

- User / Technical Requirements Specification
- Definition of the installation and deployment approach
- Risk management
- Definition of backup cycles and scenarios
- Efficient planning
- Qualification planning
- Life cycle of virtual environment
- Differences between virtual, physical, and as-a-Service installation and deployment

Virtualisation Platform: Overview

- Platform operation
 - SANs and VMs handling
- RAID technology

Oualification of the Virtualisation Platform

- Platform design
 - Requirements and constraints
 - Data management
 - Disaster recovery
- Qualification planning
 - Specifications
 - Verifications

Qualification Documentation

- QP Qualification Plan
- TRS Technical Requirements Specification
- CS Configuration Specifications
- IQ Installation Qualification a.k.a. Configuration Testing

Programme Day 2

Design Review of IT Infrastructure

- Design Review and Risk Management purpose
- Performing Design Review
- What might go wrong?
- Critical review of the IT infrastructure
- Design and monitoring of mitigation measures



Case Study: Firewall Qualification

- Requirements
 - Purpose
 - Operation
- Risk assessment
- Configuration specification
 - Definition of the security rules
 - Operating parameters
- Configuration Testing (IQ)
- Functional Testing (OQ)
- Operation
 - Monitoring
 - Change & Configuration Management
 - Incident Management

Disaster Recovery Planning

- Regulatory requirements for disaster recovery
- For virtual and physical environment
- Disaster recovery or business continuity plans?
- Disaster recovery plan and testing
 - Order of application recovery with associated data
 - RPO Recovery Point Objective
 - RTO Recovery Time Objective



Case Study: Central Backup Management System

- Requirements
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- Configuration specification
 - Server / Agent / Operating parameters
 - Configuration Testing (IQ)
- Functional Testing (OQ)
- Supporting SOPs
 - System management
 - Backup / Restore
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- Operation

Incident and Problem Management

- Definition of incident and problem
- Incident investigation
- Collating incidents into problems and their resolution
- Linking with change control

Infrastructure as a Platform for Various Applications

- Definition of Platform
- Generic approach
- Standard changes
- Infrastructure lifecycle challenges for applications & GxP
- Specialties in automation challenge for infrastructure in 24/7 real-time applications

Change and Configuration Management

- Regulatory requirements
- Definitions of change control and configuration management
- Outline of a change management process

Agile Infrastructure: Introduction to Infrastructure as Code (IaC)

- Definition & scope
- Toys or tool?
 - 40 years evolution
- Flexibility & Agility
 - From installation to provisioning
- The costs of Agility
 - Rigorous planning
 - Adequate tools
 - Training
 - Risks and benefits

Speakers



Frank Behnisch CSL Behring GmbH, Germany

Frank is Senior Manager Project Engineering at CSL Behring GmbH in Marburg, Germany. He is member of the GAMP® D-A-CH "steering committee" and chairman of a GAMP® Special Interest Group (SIP) for "Small Systems".



Dr Bob McDowall R.D.McDowall Limited, Bromley, Kent, UK

Analytical chemist with over 45 years experience including 15 years working in the pharmaceutical industry and afterwards working for the industry as a consultant. Bob is an ISO 17025 assessor and he has been involved with the validation of computerised systems for over 30 years and is the author of a book on the validation of chromatography data systems. He was also a contributor to the GAMP IT Infrastructure control & compliance and Lab System Validation 2nd edition Good Practice Guides. He is a core member of the GAMP Data Integrity SIG. He recently published his book on Data Integrity and Data Governance: Practical Implementation in Regulated Laboratories.



Yves Samson, Kereon AG Basel, Switzerland

Yves joined the industry where he served as project and site engineer automation. In 2002, he founded Kereon AG. He is member of GAMP® Europe Steering Committee, co-founder and chairman of GAMP® Francophone and edited the French version of GAMP® 4 / 5. Membership: Active member of the GAMP working group 'IT Infrastructure Compliance and Control' / ECA "DI & IT Compliance Group".

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SAP – Validation and GMP Compliance, 9/10 November 2021

 \square IT / OT Infrastructure Qualification and Operation, 11/12 November 2021

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IT / OT Infrastructure Qualification and Operation in a GMP Environment



Live Online Training 11/12 November 2021



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Frank is Senior Manager Project Engineering at CSL Behring GmbH in Marburg, Germany. He is member of the GAMP® D-A-CH "steering committee" and chairman of a GAMP® Special Interest Group (SIP) for "Small Systems".



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> Terms of payment: Payable without deductions within 10 days after receipt of sponsible for discount airfare penalties or other costs incurred due to a cancel-lation. Important: This is a binding registration and above fees are due in case of can-

> > CONCEPT HEIDELBERG reserves the right to change the materials, instructors,

Cancellation until 1 weeks prior to the conference 50 %

If you cannot attend the conference you have two options:

1. We are happy to welchome a substitute colleague at any time.

1. You have to cancel entirely we must charge the following processing fees:

- Cancellation until 2 weeks prior to the conference 10 %,

If the event must be cancelled, registrants will be notified as soon as possible and will receive a full refund of fees paid. CONCEPT HEIDELBERGwill not be respeakers without notice or to cancel an event. invoice.

E-Mail (Please fill in)

Phone / Fax

nal Dafa. Concept Heidelberg will use my data for the processing of this order, for which I hereby declare to agree that my personal data is stored and processed. Concept Heidelberg will only send me information in relation with this order or similar ones. My personal data will not be disclosed to third parties (see also the privasy policy at http://www.gmp-compliance.org/eca_privacy.html).1 note that I can ask for the modification, correction or deletion of my data at any time via the contact form on this website.

Date of the Live Online Training

Thursday, 11 November 2021, 09.00 h - 17.30 h Friday, 12 November 2021, 09.00 h - 16.45 h

All times mentioned are CET.

Technical Requirements

For our Live Online Training Courses and Webinars, we use Cisco WebEx, one of the leading suppliers of online meetings. At https:// www.webex.com/test-meeting.html you can check if your system meets the necessary requirements for the participation at a WebEx meeting and at the same time install the necessary plug-in. Please just enter your name and email address for the test. If the installation is not possible because of your rights for the computer system, please contact your IT department. WebEx is a standard nowadays and the necessary installation is fast and easy.

Fees (per delegate, plus VAT)

ECA Members € 1,490 APIC Members € 1,590 Non-ECA Members € 1,690 EU GMP Inspectorates € 845

The conference fee is payable in advance after receipt of invoice.



Would you like to save money?

If you book the live online trainings "IT / OT Infrastructure Qualification and Operation" and "SAP Validation and GMP Compliance" (9/10 November

2021) simultaneously the fee reduces as follows:

ECA Members € 2,790 APIC Members € 2,890 Non-ECA Members € 2,990 EU GMP Inspectorates € 1,690

Registration

Via the attached reservation form, by e-mail or by fax message. Or you register online at www.gmp-compliance.org.

Presentations/Certificate

The presentations will be made available to you prior to the Live Online Training as PDF files. After the event, you will automatically receive your certificate of participation.

Conference language

The official conference language will be English.

Ordering Recordings

Independent from the Live Online Training Courses, you can also order recordings of selected Live Online Training Courses at the same conditions – at www.gmp-compliance.org/recordings. These recordings will be provided on our media server. All you need to watch it is an Internet browser - no additional software.

Organisation and Contact

ECA has entrusted Concept Heidelberg with the organisation of this event.

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