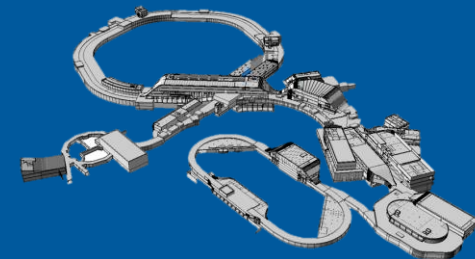# FAIR Quality Assurance Updates

Presenter: Olga Ritscher
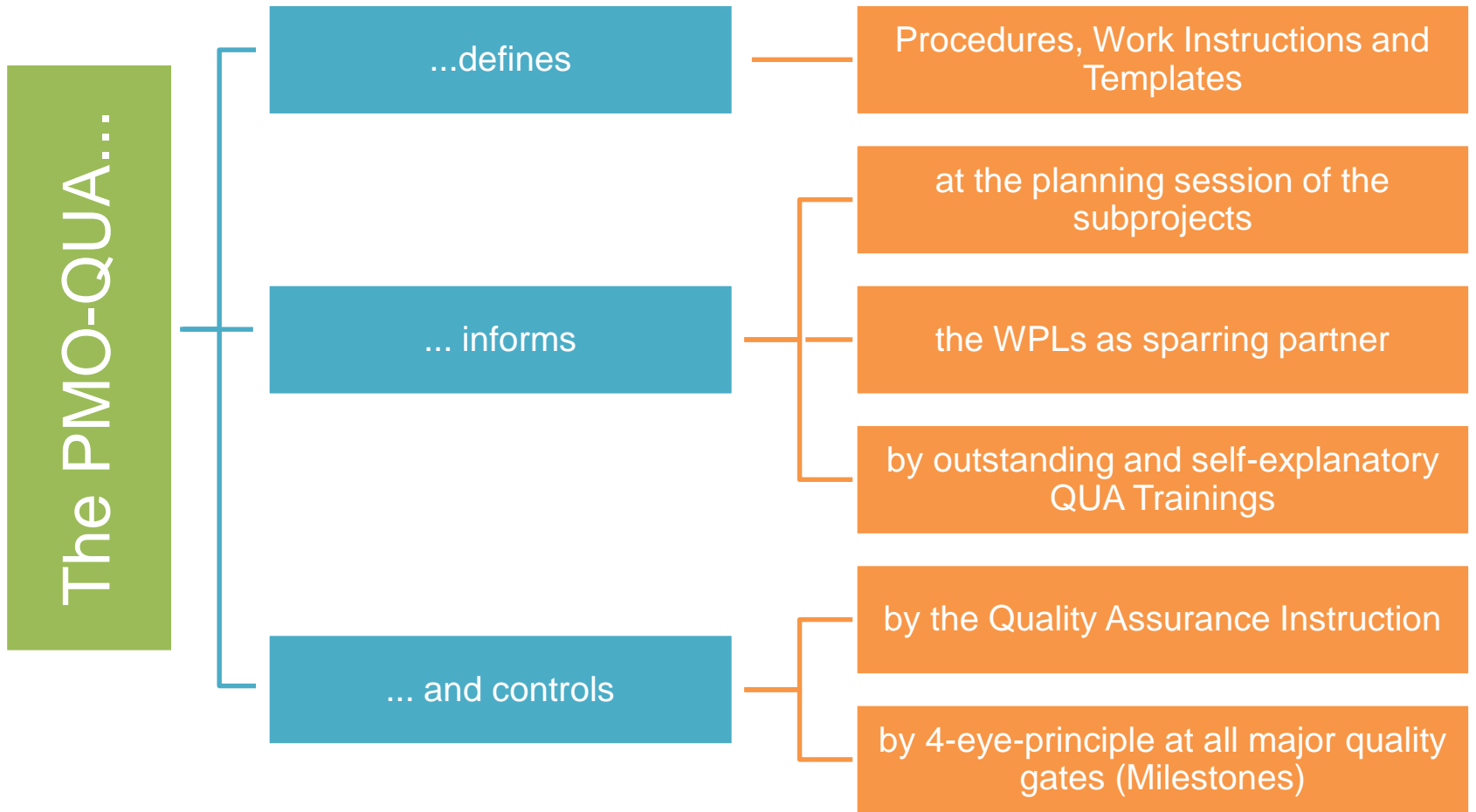
April 26th, 2021

Agenda

News & Achievements

Lessons Learned

Summary
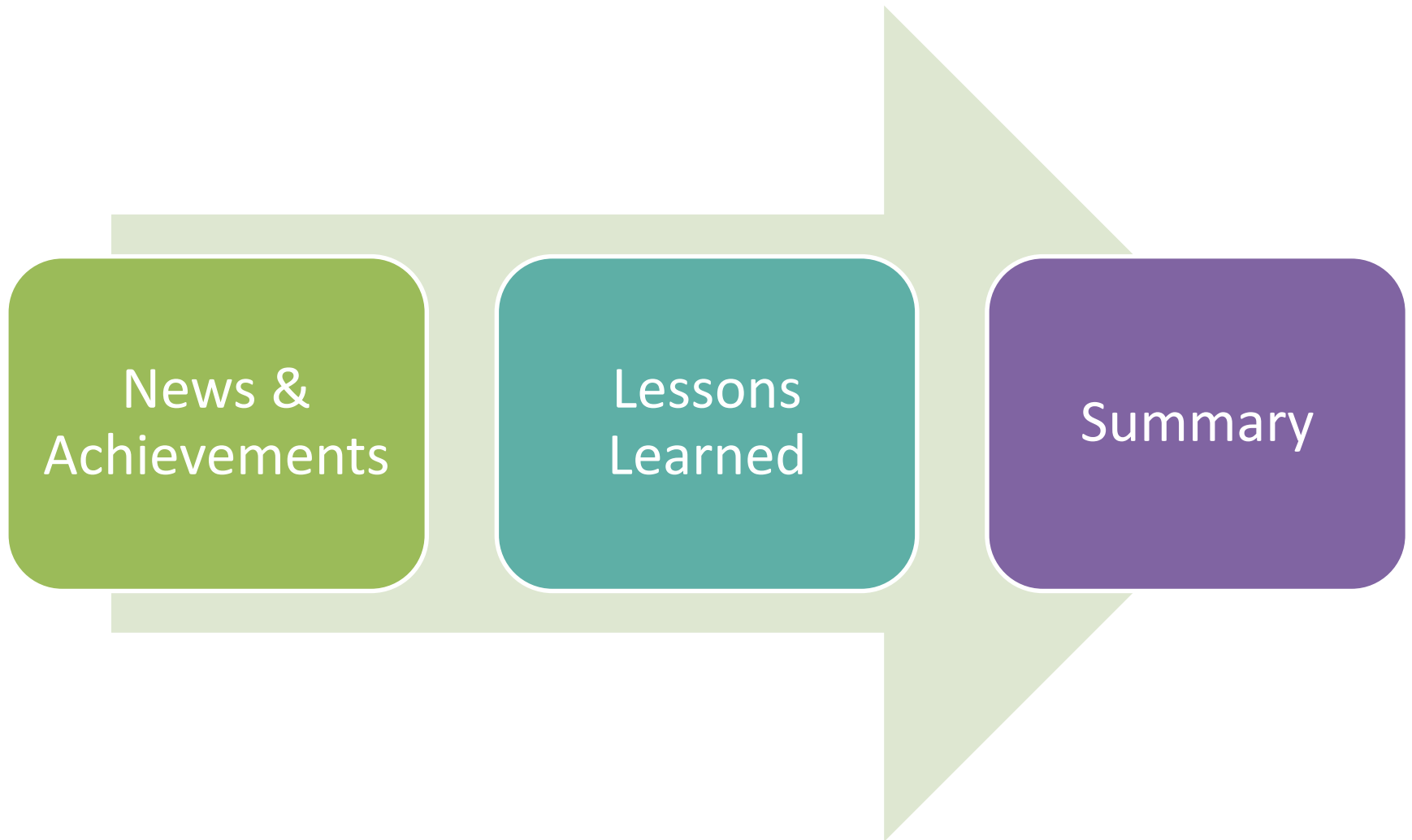
Introduction: Tasks of FAIR Quality Assurance

The PMO-QUA...

- **...defines** → Procedures, Work Instructions and Templates

- **... informs** →
  - at the planning session of the subprojects
  - the WPLs as sparring partner
  - by outstanding and self-explanatory QUA Trainings

- **... and controls** →
  - by the Quality Assurance Instruction
  - by 4-eye-principle at all major quality gates (Milestones)

Conclusion: Aim of Quality Assurance is to save time and costs

Introduction: 4-Eye-Principle

● The QUA is asked to confirm all milestones (e.g. CDR, FDR, FAT, SATs)
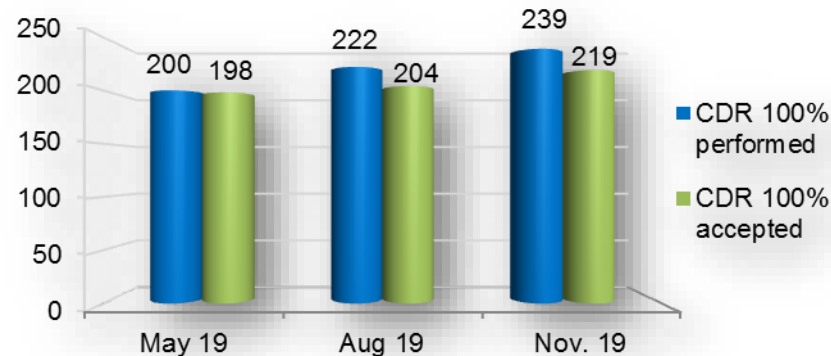
● If the project status is set to 100%, please indicate within the field "Notes" <u>within MSProject the link to the acceptance record</u> (or to the applicable documents, e.g. for released Specifications)

➢ This saves all project members a lot of time in search and reduces queries massively

- Some recommendations for process improve: quality objectives, general attributes of the whole document, staff training at BINP
- Check list "Control of documentation" to CDR and FDR
- Discussions on process optimization

Source: BINP

News & Achievements: QUA Training

- **QUA Online training was carried out end of 2021 – 72 Participants**
- **New Quick Guides: https://edms.cern.ch/document/2338877**

Managing Acceptance Records within EDMS

Managing NCRs within EDMS

News & Achievements: New Template for Kick-off Meeting

- New template for Kick-off Meeting
  https://edms.cern.ch/document/2419626

- The milestone will be accepted through approval and release of
  the meeting minutes

News & Achievements: Updated documents

- Procedure for pre-assembly https://edms.cern.ch/document/2217753
- Template for nonconformities https://edms.cern.ch/document/1503137/6
- The General Specification https://edms.cern.ch/document/1365092/3

F-VA-QUA-en-0038 „Pre-Assembly Process"

F-FO-QUA-bl-0003_NCR-V005

F-GS-PMO-en-General_Specification

News & Achievements: Digital Acceptance Record

● Release without physical signatures possible (as requested)
F-FO-QUA-bl-0002_Template_Acceptance_Record-V005.pdf

● PDF template can be filled in digitally

■ No printing, no running for signatures, no scanning

■ Bilingual, short explanation on form

● Covers all milestones

■ No longer different protocol for SAT Aa

● Release by EDMS approval

> If preferred the physical signature is still possible
> *(but not recommended)*

https://edms.cern.ch/document/1458121

News & Achievements: QUA Intranet becomes Extranet

Information page of Quality Assurance

This page is the entry point of QUA and offers a collection of information.

Quick access: www.gsi.de/qua → Information page of Quality Assurance

Employees

Team values of QUA

QUA Glossary

QUA Training Modules

Procedures and Templ…

Management of Test E…

Directives and Standar…

QUA Instruction with …

Procedures, Templates and Quick Guides

Particularly relevant for milestone	Document designation	Description	Link to EDMS
	↗ Procedures (VA)		
M3, M4	F-VA-QUA-en-0003	Control of documented information	edms.cern.ch/document/12
M6, M7	F-VA-QUA-en-0006	Design Reviews	edms.cern.ch/document/15
M10, M11, M12	F-VA-QUA-en-0022	Management of Test Equipment	edms.cern.ch/document/17
M9, M10, M11, M12	F-VA-QUA-en-0025	FAT or SAT	edms.cern.ch/document/15
all Milestones	F-VA-QUA-en-0030	Dealing with Non-Conformities	edms.cern.ch/document/15
M8, M9, M10, M11, M12	F-VA-QUA-en-0031	Capability of Measuring Equipment	edms.cern.ch/document/18
M10-P	F-VA-QUA-en-0038	Pre-assembly of Components	edms.cern.ch/document/22

News & Achievements: Updates in the QUA FAIR team for CR project

Name / Email	WPL / SPL	Work Package
Herbert Schwarz until 31.05.2021 H.Schwarz@gsi.de		
Ron Mändl R.Maendl@gsi.de	A. Starostenko	CR Magnets
Strahinja Lucic S.Lucic@gsi.de	A. Krasnov	Vacuum
Florian Gressier F.Gressier@gsi.de	Dr. Christina Dimopoulou	Stochastic Cooling
	S. Kolmogorov	Power Converters
	Dr. Ulrich Laier	RF-Systems
	P. Shatunov	Injection/Extraction
David Freire D.Freire@gsi.de	Thorsten Ziglasch	Special Installations
Focal Point - Olga Ritscher O.Ritscher@gsi.de	Y. Rogovsky	Beam Instrumentation
	Dr. Oleksandr Chorniy	
	Dimitri Shwartz	System Design, Beam Dynamics
	Ina Schurig	DMU

News & Achievements: My function in the CR project

Project contact person between SPL, WPL, coordinator, departments, BINP Quality Assurance department etc.

FAIR QUA internal information exchange for all CR related topics

Support decision making process regarding quality aspects to find solutions for problems and avoid similar problems in the future.

PMO QUA BINP-FAIR monthly meeting
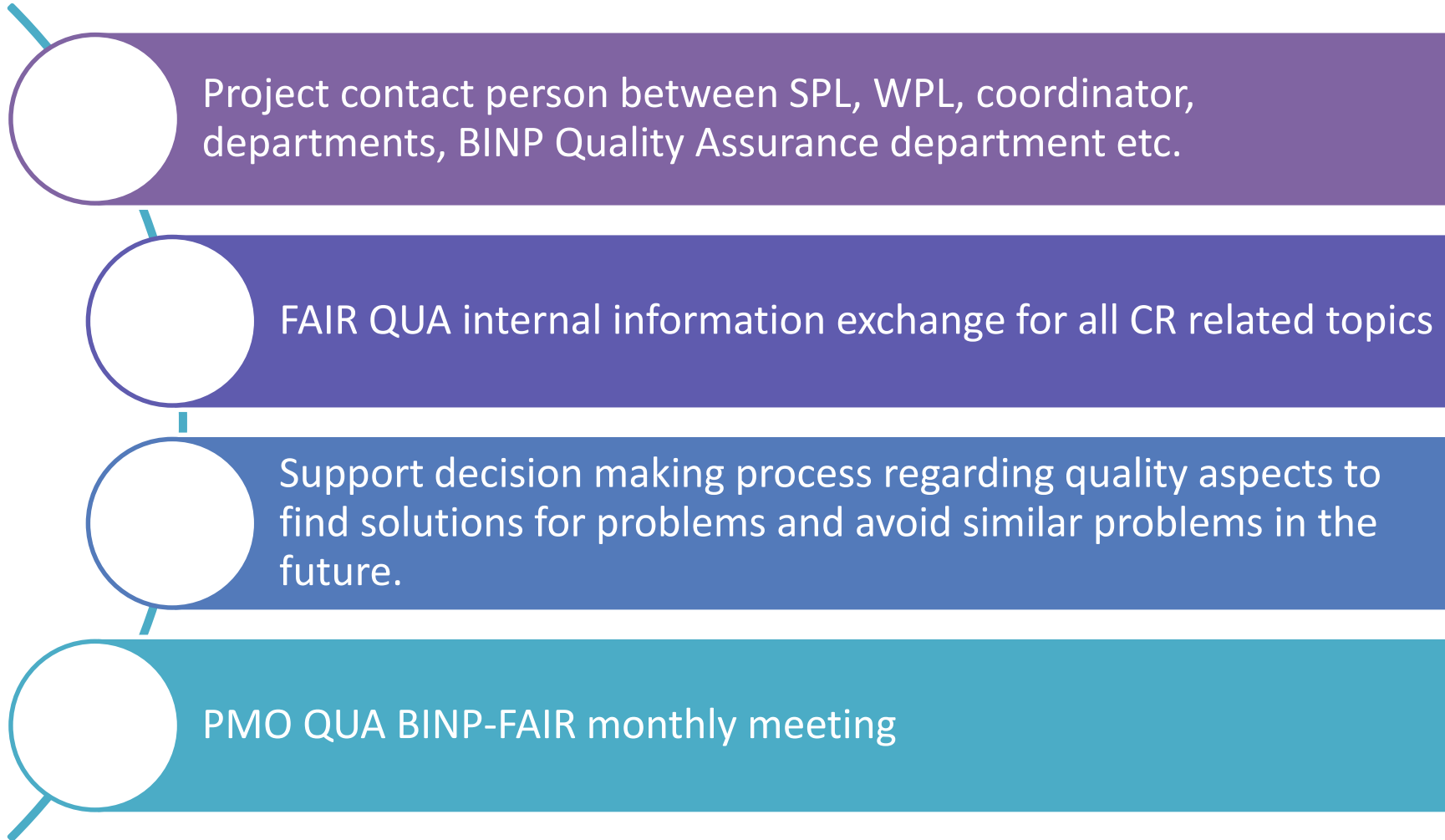
Lessons Learned (1/2)

Runs well

➢ Templates for project documentation

➢ Uploading documents to the appropriate EDMS containers

➢ Norms and standards are taken into account

➢ Early planning of the operating manual & declaration of conformity

➢ The project documents for vacuum and schottky pickup were improved

➢ The check list "Control of documentation" for the milestone M6,M7

➢ ...and many more!!!

Control of documentation

Check list for FAIR/GSI documentation for the milestones M6, M7 (CDR, FDR)

1. Set of documents for the milestones M6, M7 (CDR, FDR)

2. General identifiers of the component (CID, AID, PSP) in accordance with the PLM-table

3. General attributes of the first page

- Title of the document in accordance with the nomenclature

- Version of the document in accordance with the Document history

- Document history

- Header/Footer for logotype, CC number, title, version, date, pages

4. General attributes of the whole document

- Content

- Numbering of pages

- Numbering of pictures, tables, etc

- Names of pictures, tables, etc

- Cyrillic letters

5. Compliance with Detailed Specification (DS)

- General identifiers of the component

- Name of the component

- Quantity of the component in accordance with the Collaboration Contract (CC)

- Main parameters

6. Required EU Directives

7. Quality plan (in cooperation with WPL)

8. Risk assessment (in cooperation with WPL)

9. Remarks specified in EDMS/letters during CDR/FDR reviewing process

10. English spelling, translation

11. Return to WPL for revision

12. Uploading to EDMS after final approval from BINP QA

Source: BINP

Lessons Learned (2/2)

Still some potential for improvement

European standards must be used (where required by law / contract)

Templates for project documentation
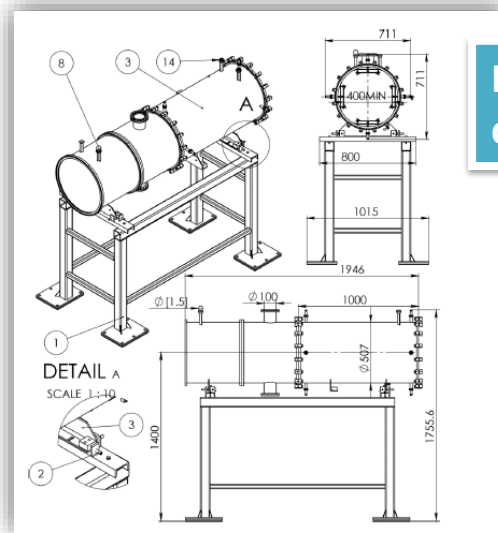
Share with subcontractors and external suppliers

The check list "Control of documentation" for the milestone M6,M7

Implement for all milestones and share with subcontractors and external suppliers

Harmonization of the quality assurance approach across all BINP departments

Documentation is just as important as component!

Responsible for quality

Every employee

Summary

News & Achievements

- QUA Online training via Zoom in English enabled larger group of participants

- New Quick Guides incl. Screencasts

- New template for Kick-off Meetings

- Updated pre-assembly procedure, template for nonconformities and the General Specification

- Digital Acceptance Record without physical signatures

- Monthly QUA BINP-FAIR meetings enables to discuss and improve some quality aspects, e.g. regarding project documentation

Lessons Learned

- Many topics work very well and have been improved over the past few years

- Adherence to project milestones is a prerequisite for project success

- Harmonization of quality assurance processes across all BINP departments could be helpful

- Suppliers must be well involved in the quality assurance measures

Thank you very much!

Спасибо большое!

Danke schön!