



# IRIS ACADEMY

## ***The «HIGH» SCHOOL for INTERNAL IRIS AUDITORS***

### **AGENDA**

***The fastest track to truly understand the  
requirements of ISO 22163:2023 as well as the IRIS  
certification system.***

*(ISO 22163:2023 & IRIS Certification® Performance Assessment: 2023)*

**ENGLISH online-Version (August 2023)**

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Explanation of color codes:

*Red = exercises*

*Blue = process flow charts*

*Green = speeches*



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Each section (day) will be scheduled individually, and all participants will receive an individual ZOOM invitation via email.

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**Test run** approx. 1 week before start (max. 0:30')

to check that the ZOOM platform is running properly for all participants and to agree on the preparations / homework.

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## **Agenda**

### **Day 1:**

#### **Introduction**

Welcome, Introduction, training objectives, expectations,  
Mini Interview, expectations, seminar rules,  
the IRIS objectives, specific features of the railway sector,  
benefits and motivation to engage in IRIS  
IRIS history and statistics, Overview about IRIS Guidelines

#### **10' BREAK**

#### **IRIS ASSESSMENT METHODOLOGY**

##### **Quality Performance Levels**

*Thresholds for Quality Performance Levels*

##### **IRIS Evaluation Methodology**

##### **Knock-out items**

##### **IRIS scoring methodology**

###### **Enabler Evaluation: IRIS Assessment Sheet**

Assessment Scheme – 5 maturity levels

*Exercise 1: Assessment Scheme (15')*

Scoring principles

###### **Process Performance Evaluation (PPE)**

*Application of Process Performance Evaluation*

#### **5' BREAK**

##### **Evaluation of Customer Perception Performance**

*Application of Customer Perception*

*Exercise 2: Customer perception workshop (15')*

##### **Quality Performance Levels**

*Thresholds for Quality Performance Levels*

**short feedback at the end**

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**Day 2:**

**continue**

recap last session and outlook today

**Overview about the requirements for the rail industry**

IRIS elements integrated in ISO-structure

**Chapter 0: Introduction**

Process approach

*Definitions*

*The Customer- Supplier value chain*

*Process focus*

*Process representation*

Plan-Do-Check-Act cycle

*PDCA board*

*Action plan*

*Plan for counter actions*

Risk based thinking

*Classification of external provided products and services*

*Classification of external provider*

*Classification of projects*

**10' BREAK**

**Chapter 1-3: Scope, normative references, terms + abbreviations**

**Chapter 4: Context of the organization, Process Review (9.4),  
Management Review (9.3)**

**Understanding the organization and its context (4.1)**

*Social responsibility (4.1.2)*

*Stakeholderanalysis*

*business planning (4.1.1)*

*strategic (annual) business planning cycle*

**Process Reviews (9.4)**

**Management Review (9.3)**

**Determining the scope of the quality management system  
(4.3)**

**Quality management system and its processes (4.4)**

*Overview about mandatory and optional required processes*

*Hierarchical process structure and „Process landscape“*

**5' BREAK**

**Chapter 5: Leadership, Quality objectives (6.2), Awareness (7.3)**

**Quality policy (5.2.3)**

**Quality objectives and planning to achieve them (6.2)**

**Awareness (7.3)**

**Organizational roles, responsibilities, and authorities (5.3.1)**

*Exercise 3: Roles of process owner (15')*

## **Chapter 6: Planning**

**Actions to address risks and opportunities (6.1)**

*Speech about CC-Rail IRIS Guideline 1:2022 RISK- AND OPPORTUNITY MANAGEMENT*

*Examples of preventive, mitigation, containment & corrective actions*

**Risk and opportunity management process**

*Planning of risk responses*

*Relations between risk management and QDC*

*Risk management at four fields*

**Business risks**

*Business continuity (6.1.4)*

**short feedback at the end**

**Day 3: continue**

recap last session and outlook today

## **Chapter 7: Support**

**Resources (7.1)**

**Resource planning, approval & controlling process**

**Monitoring and measuring resources (7.1.5)**

**Process for monitoring and measuring resources & critical tools**

**Organizational knowledge (7.1.6)**

*Knowledge Obsolescence*

**15' BREAK**

**Competence (7.2)**

**Process for competence management**

*Skill matrix*

*technical, social and individual skills*

**Communication (7.4)**

Project communication management (8.1.3.8)

Customer communication (8.2.1.1)

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*Communication concept*

**Documented information (7.5)**

**Process for control of documented information**

*Hierarchy of documented information*

*Record retention schedule*

**short feedback at the end**

**Day 4: continue**

recap last session and outlook today

**Chapter 8: Operation**

**Innovation Management (8.1.1.1)**

**Planning of the transfer of processes (8.1.1.2)**

**Process for planning of the transfer of processes**

**Requirement management (8.2)**

*Subordinate concept of requirements for products and services*

*Operational- and Integration Maturity*

*Quality Engineering – maturity model*

*Exercise 4: QA-Methods (15')*

*Planning of QA methods for product, (manufacturing) process & purchased parts approvals (PPPA)*

*Application of requirements management*

**Process to manage requirements**

*Requirements traceability matrix*

*critical product characteristics*

**5' BREAK**

**Tender management (8.1.2)**

**Process for tender management**

Project risks: monetary analysis of risks

*Introduction to the homework Exercise 5: case study - Project FMEA*

**short feedback at the end**

**Day 5: continue**

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recap last session and outlook today

*Review and discussion of individual results of Exercise 5: Project FMEA*

## **Chapter 8: Operation (cont')**

### **Project management (8.1.3)**

*Speech about IRIS Guideline 10:2021 Project management*

*Project management scopes*

*Definitions*

*Project-driven organization*

**Process for project initiation & planning**

*Harmonized functional planning*

### **5' BREAK**

**Process for project execution & closure**

*Project phases, applicable processes & and gates*

*Gate acceptance criteria*

*Exercise 6: Workshop - Gate checklist (15')*

### **10' BREAK**

## **Chapter 8: Operation (cont')**

### **Configuration management (8.1.4.1)**

*Definitions and Error-notice*

*Product breakdown structure*

*Speech about GUIDELINE 8:2016*

**CONFIGURATION AND CHANGE MANAGEMENT**

*Determination of Configuration Units*

*Configuration control*

**Configuration management process**

### **Change control (8.1.4.2)**

**Change control process**

### **Identification and traceability (8.5.2)**

*Exercise 8: Workshop - configuration management (20')*

**short feedback at the end**

**Day 6: continue**

recap last session and outlook today

## **Chapter 8: Operation (cont')**

### **Design and development of products and services (8.3)**

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## **Design and development process**

*Design Reviews (8.3.4.2)*

*Selection criteria for Design Reviews*

*Verification and validation of requirements*

*Design Verification & Validation Tests (8.3.4.5)*

*Design and development outputs (8.3.5.1)*

### **5' BREAK**

#### **Control of externally provided processes, products and services (8.4)**

*Purchasing Process Landscape*

*Speech about UNIFE commitment for the supply chain 2013*

**Sub-process: targeting of external Key Provider**

**Process for externally provided processes, products and services**

*Supplier selection*

*Parts approval*

*Incoming goods and incoming goods inspections*

*Management of non-conforming parts*

*Monitoring of delivery performance*

*Supplier development*

### **5' BREAK**

#### **Production and service provision (8.5)**

*Controlled conditions in production and service provision*

*Production scheduling/ resource /capacity planning*

*Deferred work*

*Control of production equipment*

*Identification &. Traceability (see also configuration control)*

*Process validation*

*Handling of third-party property*

*Product preservation*

*Production change control*

**Process for production and service provision**

*Preventive Maintenance of Infrastructure (Chapter 7.1.3)*

*Concessions vs. deviation permits*

**short feedback at the end**

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**Day 7:** continue

recap last session and outlook today

**Chapter 8: Operation (cont')**

**Special Processes (8.5.1.3)**

Speech about Guideline 6: 2020 SPECIAL PROCESSES

**Management of special processes**

**Process Risk**

*Process FMEA: foundry process of track pads for excavators*

*Process FMEA template & inputs*

*Manufacturing process flow chart*

*SIPOC*

*Cause / effect diagram (Fishbone / Ishikawa)*

*Risk evaluation scheme*

*Process-FMEA- results*

**5' BREAK**

**Chapter 8: Operation (cont')**

**Post-delivery activities (8.5.5)**

**Process for post-delivery activities**

**Release of products and services (8.6)**

*Inspection and test planning*

**Control of nonconforming outputs (8.7)**

**Control of nonconforming outputs**

*Customer Concession*

*Overview: Non-conformity*

**5' BREAK**

**Chapter 8: Operation (cont')**

**Reliability, Availability, Maintainability, Safety & Life Cycle Cost (8.8)**

Speech about Guideline 4: 2016 RAMS / LCC

*RAMS / LCC – activities*

*RAM Life Cycle*

*Bathtub curve*

*Availability*

*FRACAS*

*FRACAS – Lessons Learned*

*Maintenance Measures*

*Maintenance Types*



*Conditioned Based Maintenance*

*Maintainability*

*Product safety – the V-model (EN 50126)*

*General safety rules to be considered by Engineers*

*Life Cycle Cost Definition; LCC cost elements*

*Life cycle costing*

**Process to manage RAM / LCC - activities**

**Process to manage product safety – activities**

*Product safety – the V-model (EN 50126)*

*General safety rules to be considered by Engineers*

**short feedback at the end**

**Day 8: continue**

recap last session and outlook today

**First Article Inspection (8.9)**

*Speech about Guideline 2: 2022 FIRST ARTICLE INSPECTION*

**Process for first article inspection (FAI)**

*FAI – Report (example)*

**Obsolescence management (8.10)**

*Speech about Guideline 5: 2012 OBSOLESCENCE MANAGEMENT*

**Process for obsolescence management**

**5' BREAK**

**Chapter 9: Performance evaluation**

*Definition Performance Indicators*

*Speech about Guideline 1: 2020 KPIs*

*Balanced Indicators*

***Exercise 9: workshop - Balance of PIs (15')***

*How to define the right PIs?*

*SMART PIs – Criteria*

*Principles of PI measurement*

*Overview: mandatory and optional PIs with associated processes*

*Annex C Performance indicators,*

*PI profiles*

**5' BREAK**

**Quality Deficiency Cost – QDC**

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QDC representation

QDC analysis

short feedback at the end

**Day 9:** continue

recap last session and outlook today

**Chapter 9: Performance evaluation (cont')**

**Customer satisfaction (9.1.2)**

*Customer focus (chapter 5.1.2)*

*Handling of customer complaints*

*Customer satisfaction analysis in a project*

**Analysis and evaluation of Information and Data (9.1.3)**

15' BREAK

**Internal audit (9.2)**

**Process for internal audits**

*Evaluation scheme for internal auditor's performance*

**Chapter 10: Improvement**

**Nonconformity and corrective action (10.2)**

**Process for managing nonconformities and corrective actions**

*Effectiveness of corrective action*

*Introduction to the homework Exercise 10: QDC case study!*

short feedback at the end

**Day 10:** continue

recap last session and outlook today

*Review and discussion of individual results of Exercise 10: QDC*

**Auditor behavior**

*The Audit Zoo*

**Communication skills**

*Fundamental communication rules*

*The Sender – Receiver Model*

*The four sides of communication by Friedemann Schulz von Thun*

*Active listening*

*Approaches to speaking*

*Questioning techniques*

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*Phases of an audit*

**Good auditing behavior**

**Bad auditing behavior**

**my 10 golden rules**

**Bonus: 13 behavioral rules for auditees**

**10' BREAK**

*questions and answers and seminar wrap up*

**10' BREAK**

Seminar closure

*Our Services*

*IRIS Learning (IRIS Academy)*

*IRIS Coaching & mentoring*

*IRIS Improvement Projects*

*Expectations met?*

*Course evaluation*

*Error analysis ISO 22163 (findings, reasons, suggestions to correct errors)*

*Conclusions*

**Farewell**