VDA6.3 Process Audit Webinar 1st April 2014

Paul Hardiman Qualified VDA6.3 trainer

Industry Forum
Business Excellence Through Inspired People

- **During presentations (11:00 – 11:30) everyone will be muted so that only the presenter will be heard.**

- **The presentation will be followed by a Q&A session. Click on the hand symbol to show that you have a question or type your question in the question box.**

- **If you are experiencing any technical problems please call us on 0207 344 1611 or 07881 316483.**

Agenda

- Structure of Automotive Quality Standards and link to VDA6.3
- Overview of the content of VDA6.3
- The assessment scoring methodology
- Analysis of results
- Auditing a new supplier
- Training and qualification
- Questions

Development of Automotive Quality Management Standards

1999 2000 2002 2008 2009

VDA 6.1

ISO/TS 16949

ISO/TS16949
2nd Ed.

ISO/TS16949
3rd Ed

QS-9000 3rd Edition

ISO 9000:1994

ISO 9000:2000

ISO 9001:2008

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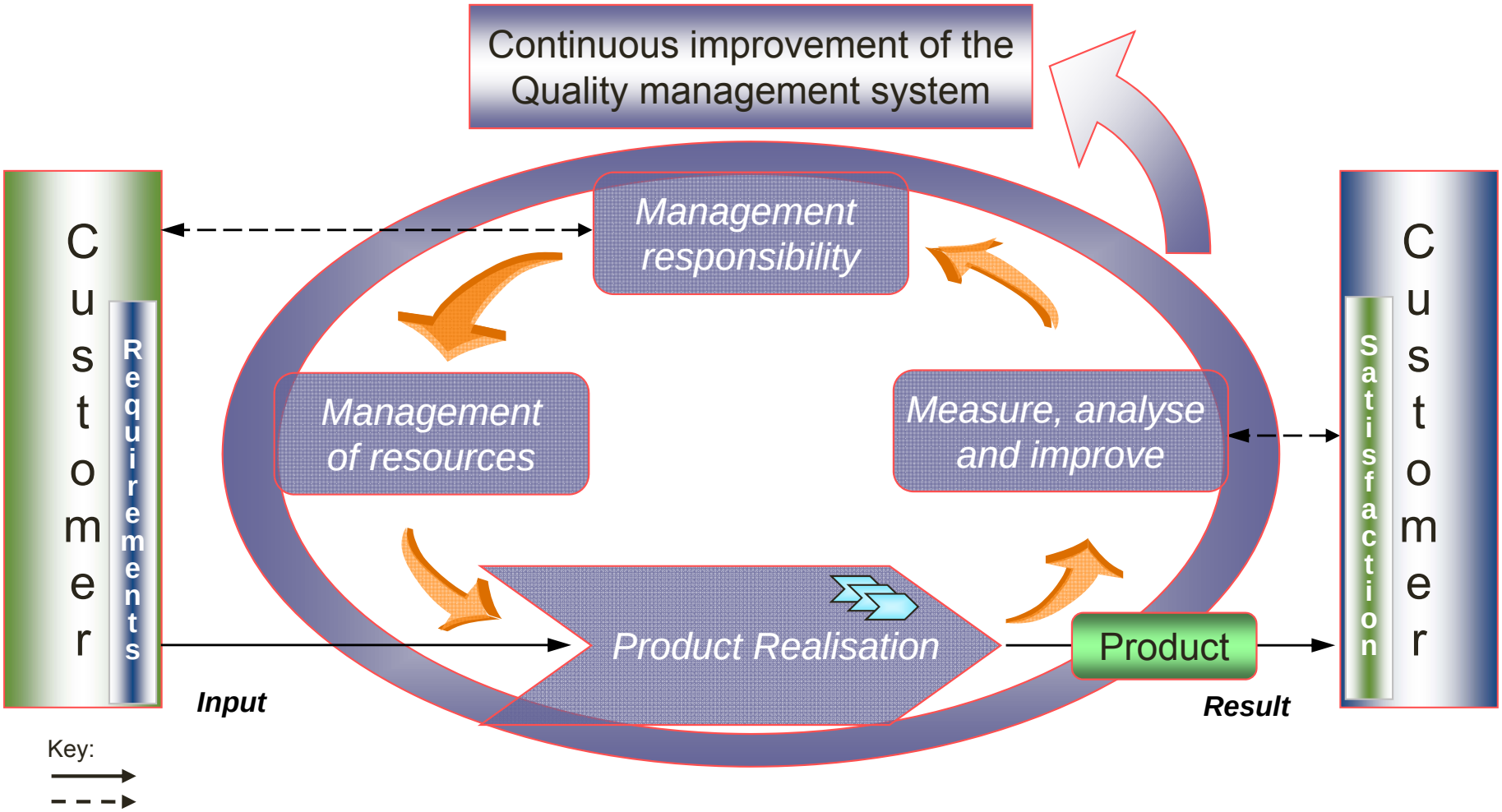
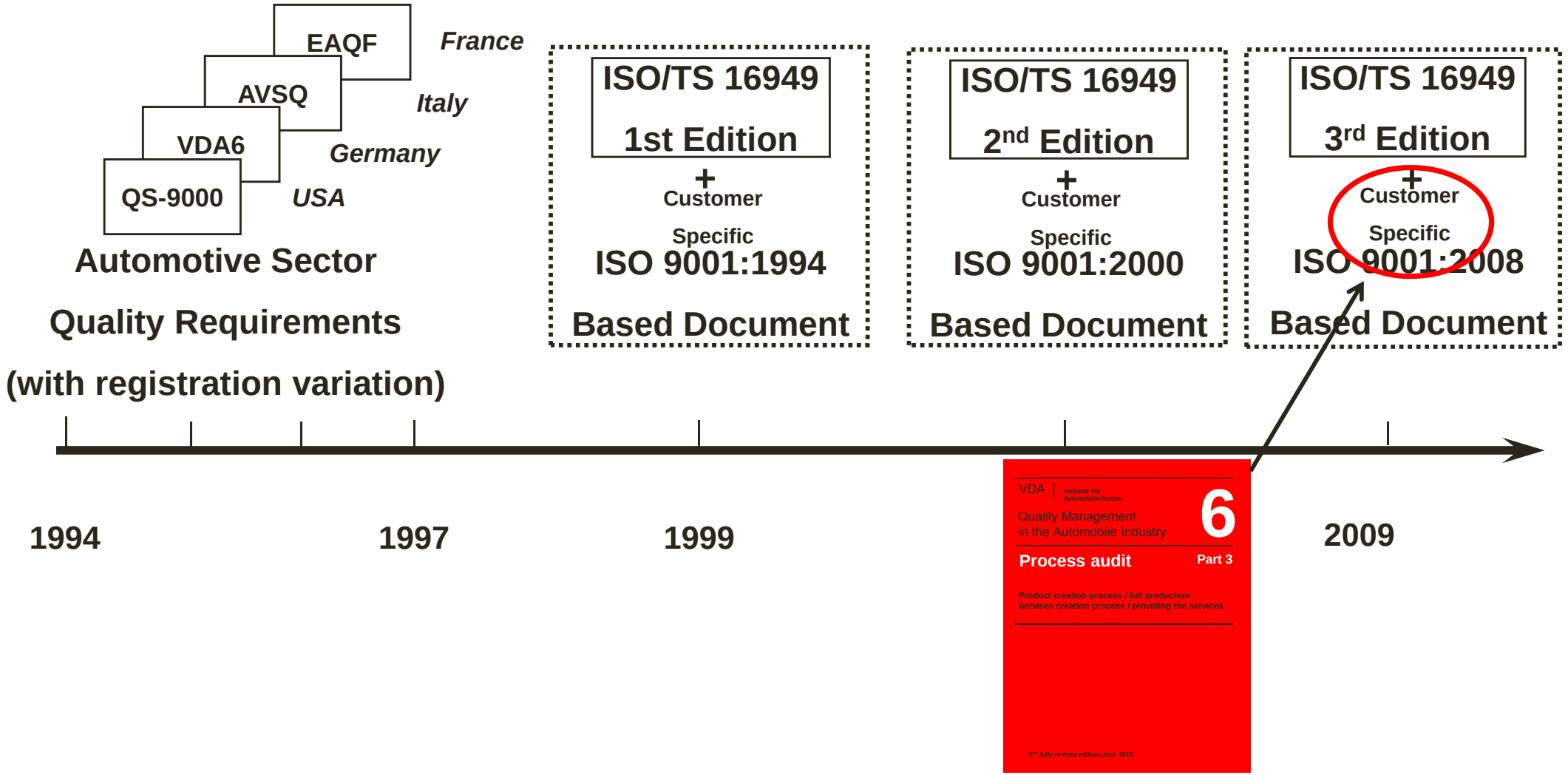
Process approach model



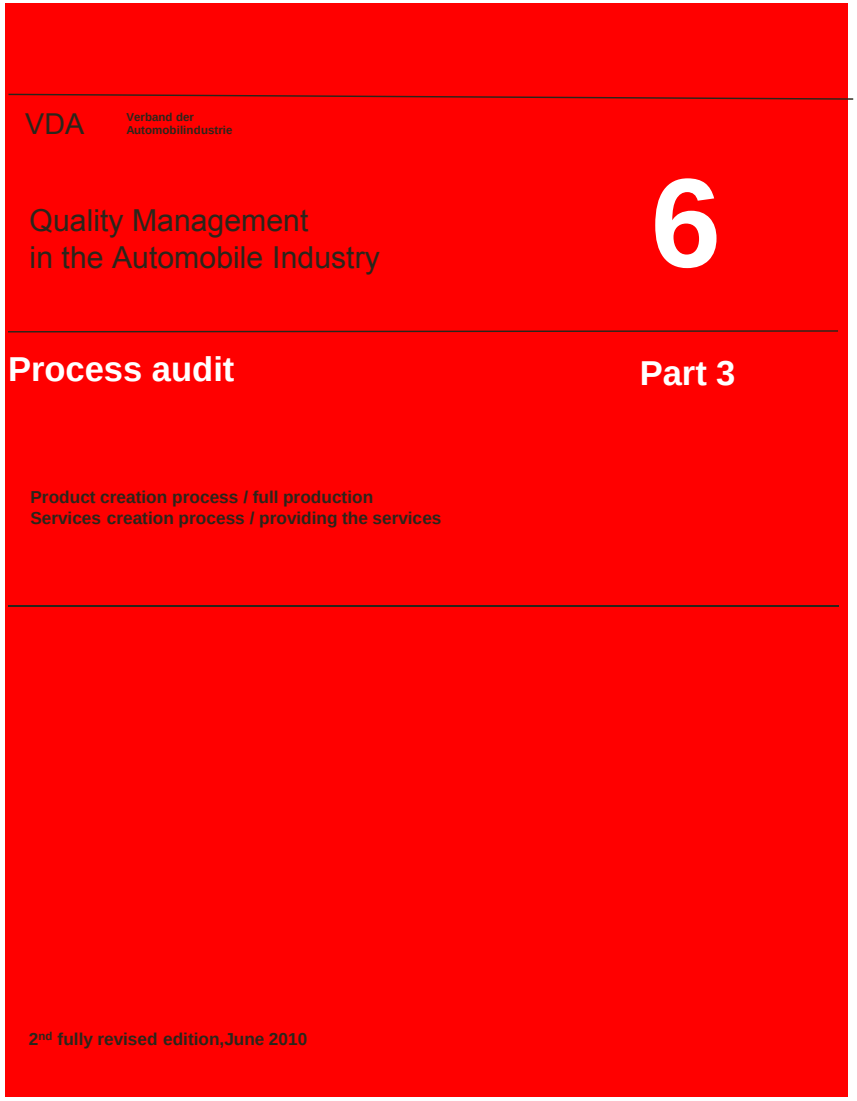
Link to Customer Specific Requirements



VDA6.3 second edition 2010

Completely restructured to align with process approach thinking of ISO9001 and ISO/TS16949

Can be used by any organisation, not limited to automotive



VDA range of publications
Procedures, operations & Q techniques

VDA 1
Documentation and providing evidence

VDA 2
Securing the quality of supplies

VDA 3 (Parts 1 & 2)
Ensuring reliability with automobile manufacturers and suppliers

VDA 4 ring binder & VDA 4.3
Securing quality before the start of full production

VDA 5
Suitability of test & inspection planning

VDA 6
Fundamentals for quality audits

VDA 6.3
Process audit

VDA 6.4
QM system audit, production facilities

VDA 6.5
Product audit

VDA 6.7
Process audit – single production

VDA 10
Customer satisfaction

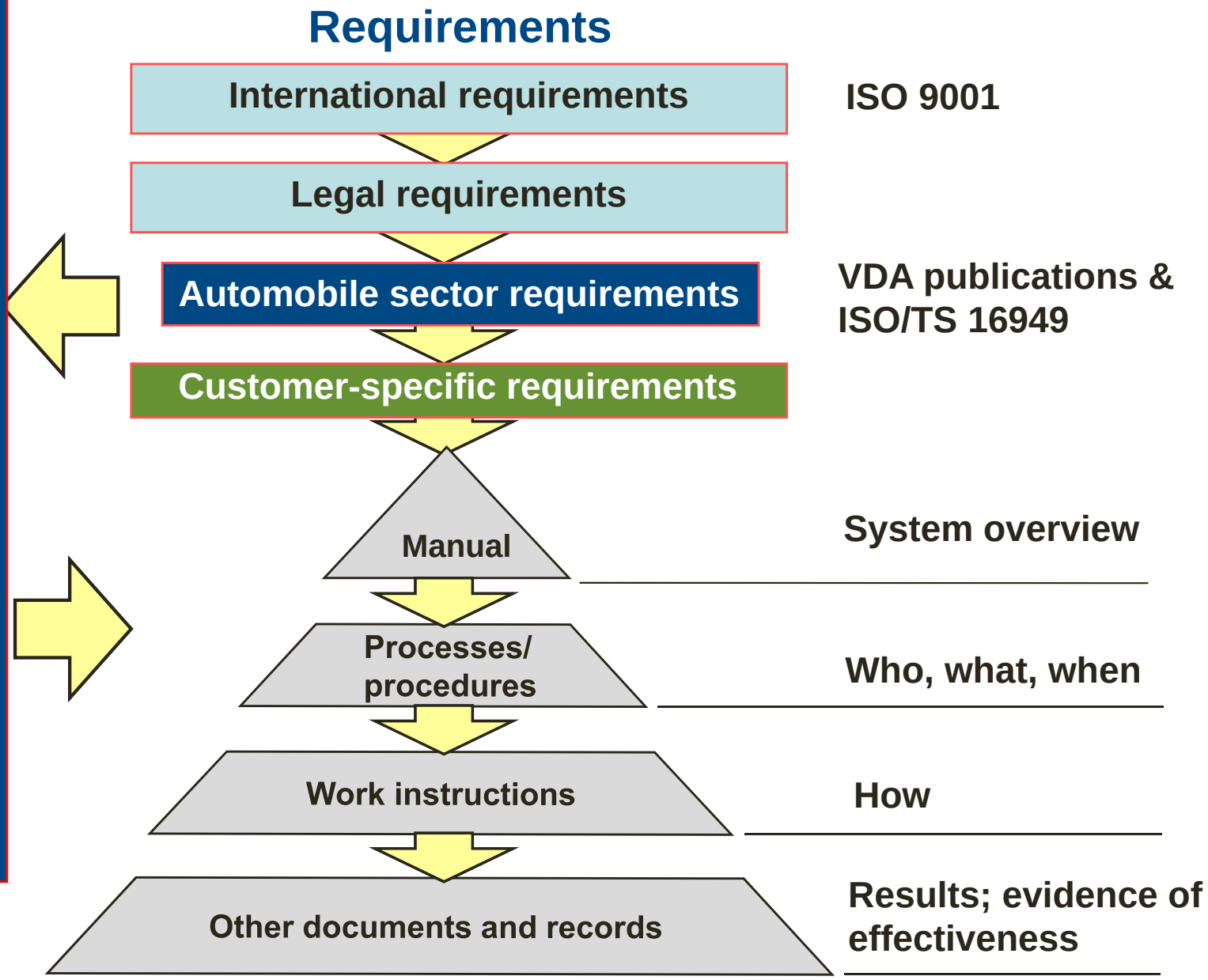
VDA 13
Development of software-based systems

VDA 19
Technical cleanliness

VDA RGA
Ensuring maturity for new parts

VDA RPP
Robust production processes

Note: This list is not exhaustive ! (see VDA QMC Webshop)



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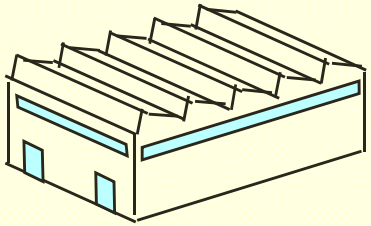
Types of audits

System audit

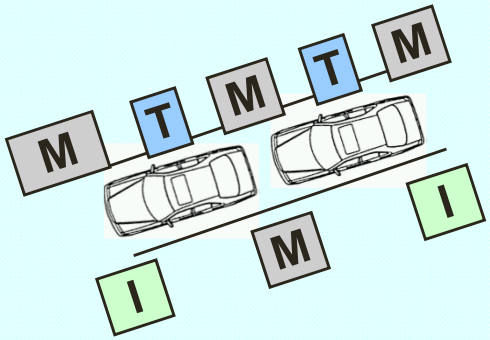
To verify the overall effectiveness of the Management System



ISO/TS16949 or VDA6.1

Process audit

To verify the effectiveness of the product realisation processes

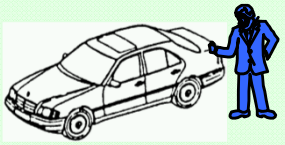


M = Material
T = Tool
I = Inspect:
• gauges
• measure

VDA6.3

Product audit

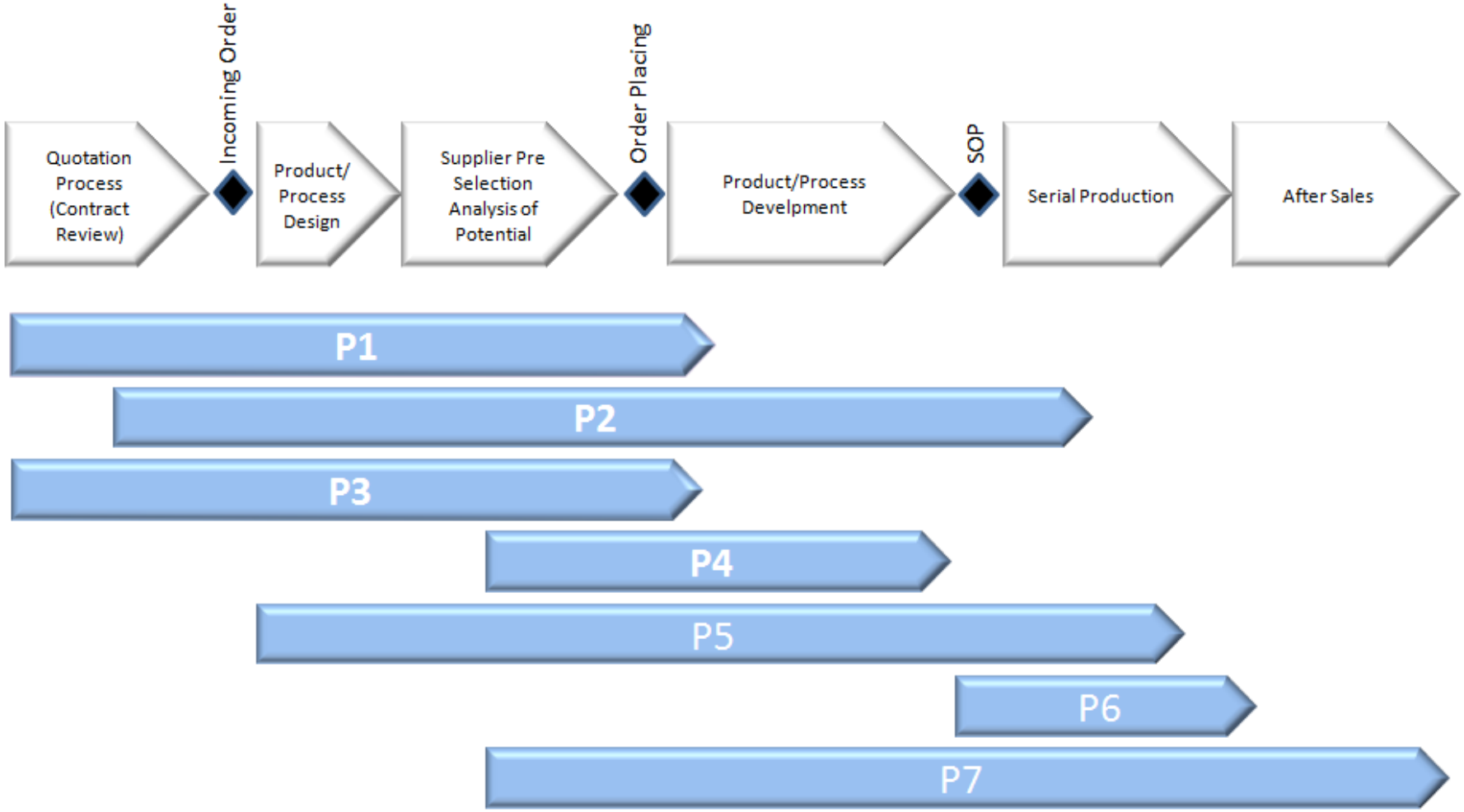
To verify that product conforms to defined specification throughout the manufacturing and dispatch processes



VDA6.5

Overview of the structure and content of VDA6.3

Scope of VDA 6.3



P1	Potential Analysis	P5	Supplier Management
P2	Project Management	P6	Process Analysis/Production
P3	Planning of Product/Process Development	P7	Customer Service/Satisfaction
P4	Realisation of Product/Process Development		

High level question structure example
P2 Project Management

P2	Project management	PR	TO	CO	RI
2.1	Is the project organisation (project management) established and are tasks & authorities specified for the team leader and team members ?	X			X
2.2*	Are the r… development planned and available an…			X	X
2.3	…n the customer ?		X	X	
2.4	Is chang… gement in the project ensured by the project c… ation ?				X
2.5*	Ar… responsible personnel within the organisation … customer's company involved in the change control …	X			X
2.6	Is there a QM plan for t… regularly for compliar…		X		X
2.7*	Is there an established esc… effectively ?			X	X

High risk questions

Generic launchpad

Total questions P2-P7: 60

Generic launchpad

- There must be a person responsible for the process (process responsibility : PR)
- Processes must be directed toward targets based on the customer's requirements (target-oriented : TO)
- Important information (e.g., quality, problems, …) must be communicated promptly and comprehensively to the necessary persons (communication : CO)
- Risks in the processes must be appropriately identified and taken into account (risk identification : RI)

Structure of the questions

Process element P6 : Process analysis / production P 6.4 Material resources		
Minimum requirements / assessment-relevant :	**Possible examples of requirements and evidence, depending on product risk**	**Notes (input-output)**
P6.4.1 Are the maintenance and overhaul of production facilities / tools controlled ?		
Plant, equipment, machines and tools required for the problem-free operation of key processes are identified and appropriate preventive maintenance intervals are allocated to them. Resources to carry out essential maintenance work are available. Essential maintenance work is systematically planned and carried out. Preventive maintenance of machines, plant and tools is carried out, documented and controlled (maintenance systems). Availability is assured for spares for production facilities, particularly for key processes reflecting the critical path. Clean working surroundings and work-places are integral to an overall care for the facilities (GAB). A process has been effectively implemented to analyse and optimize down-times, machine loadings and the life of tools	- planned/periodic maintenance activities - availability of spares/replacement parts for production equipment covering key processes - comply with specified maintenance intervals - Planned and actual amount of work are the same - Documentation of maintenance work completed - Qualifications of employees involved - Archiving of work certificates - Regular plausibility checks on planned maintenance intervals - Scheduling and availability of spares -Contracts to external companies to carry out maintenance work -Availability/use of relevant technical documents -Appropriate facilities for maintenance departments -Preventive tool replacement program for items subject to wear -Quality of execution of maintenance work -Log, assess & develop maintenance objectives -SOS -Stores machinery etc. for storage and transport	Methods in standardised production systems: -Check-lists & checks -Qualification -Qualification matrix -Overall equipment maintenance (GAB,TPM) - VDA vol. 4 - VDA vol. : "Robust Production Process" - VDA vol. 19

1

2

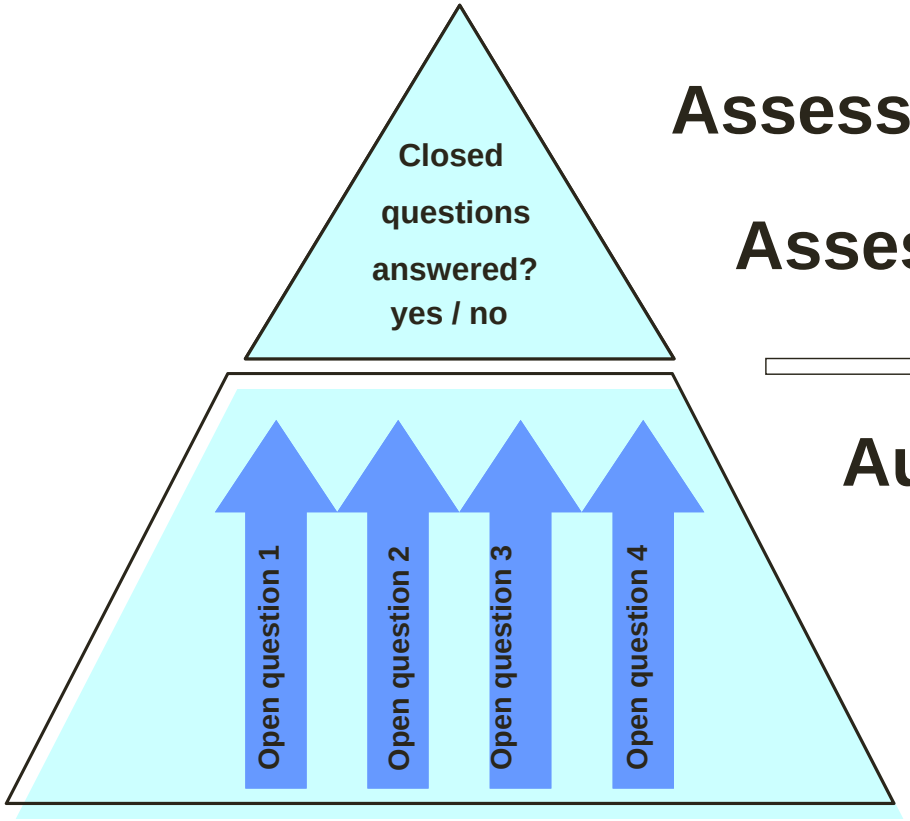
3

4

5

6

VDA 6.3 approach to the auditing



Assessment questions

Assessed by auditor alone

Audit questions

Open questions asked during the audit

Scoring

- **Assessing the individual questions:**

Points	Assessment of compliance with individual requirements
10	Full compliance with requirements
8	Requirements mainly* satisfied; minor deviations
6	Requirements partially satisfied; significant deviations
4	Requirements inadequately satisfied; major deviations
0	Requirements not satisfied

Scoring

- **Guidelines for assessments in accordance with VDA 6.3**

Points	Product risks	Process risks	QM system relevance
10	Product is free from complaints and meets the technical requirements	Technical requirements / specifications regarding the product and process are satisfied	Records show that the QM system is implemented in practice Target requirements are met
8	Complaints regarding the product (no influence on function, usage or further processing in the production chain). Improvements are necessary	Slight problems in the course of production. Process weaknesses are present but these are immediately detected and eliminated	Requirements/documentation of results have loop holes in individual points Corrections required to individual test/inspection requirements/production parameters Target requirements not met in individual cases

See pages 170 - 171 of VDA6.3

Overall level of achievement

Classification	Overall level of achievement	Description of the classification
A	≥ 90%	Quality Capable
B	80- 89%	Conditionally quality capable
C	< 80%	Not quality capable

Rules for downgrading

Downgrade from A to B, despite an achievement level of $E_G \geq 90\%$

- Process elements P2- P7 or process stage $E_1 – E_n$ →achievement level < 80%
- Sub-elements process analysis, production $E_{U1} – E_{U7}$ →achievement level < 80%
- At least one * question assessed as 4 points
- At least one question assessed as 0 points
- Sub-elements in generic launch-pad $E_{PV} – E_{RI}$ → achievement level < 70%

The rules for down-grading are used by the audit team.
The audit report must state the down-grading rule which has been used.

Rules for downgrading

Downgrade from A or B to C, despite an achievement level of $E_G \geq 80\%$

- Process element P2- P7 or process stage $E_1 - E_n$ →achievement level < 70%
- Sub-elements process analysis production $E_{U1} - E_{U7}$→achievement level < 70%
- At least one * question assessed as 0 points

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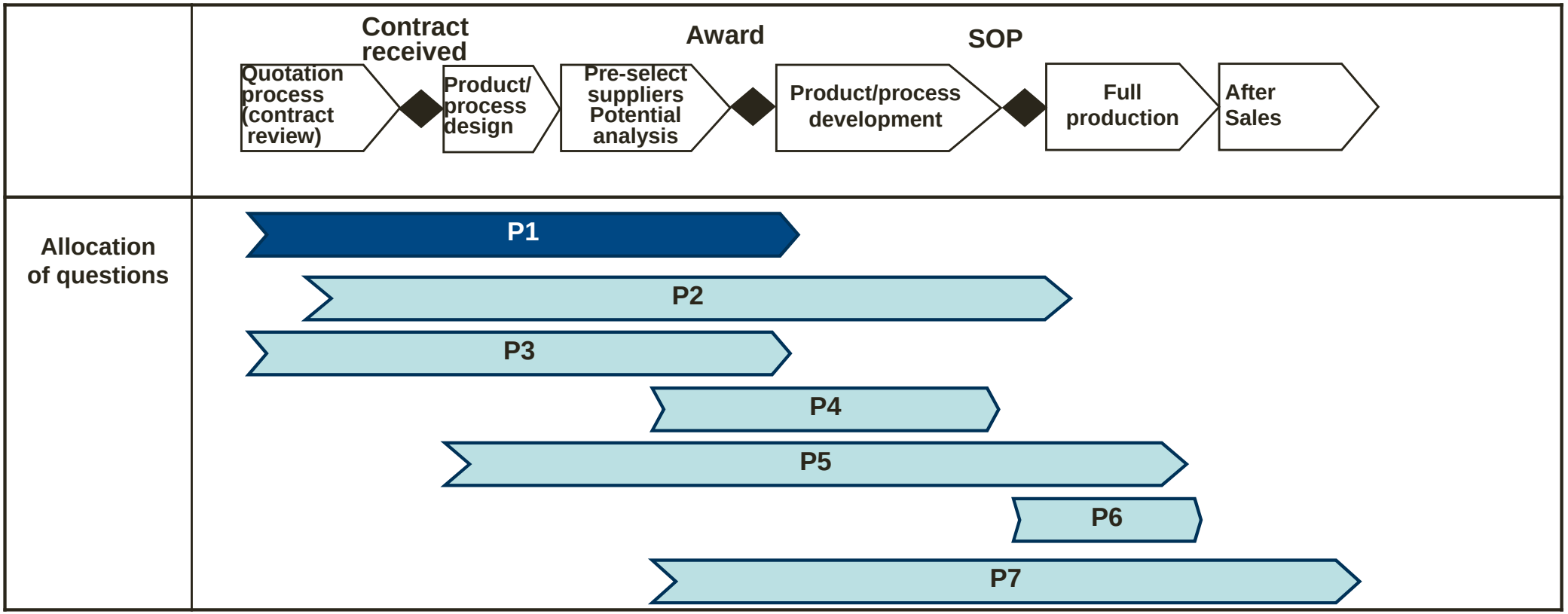
The audit report must state the down-grading rule which has been used.

Improvement program

P7		Customer support / Customer satisfaction / Service	Generally		
7.1	x	Are the customer's requirements satisfied regarding QM system, product (on delivery) and process?	6		Delivery performance target not being met. Contingency plan not effective in the event of machine breakdown.
7.2		Is customer support ensured?	10		no weakness identified
7.3	x	Is the supply of parts ensured?	10		no weakness identified
7.4		If there are deviations from quality requirements, are failure analyses carried out and corrective actions implemented effectively?	8		Out of the 4 complaints sampled, 3 have been effectively closed. Complaint A45679, the root cause analysis had not been effectively completed
7.5		Is there a process which ensures that analysis of defective parts is carried out?	10		no weakness identified
7.6		Are personnel qualified for the various tasks and are responsibilities defined?	10		no weakness identified

to be completed by auditor				to be completed by organization			
Pos.	Ques. No.	Weaknesses / recommended activities, finding	Points	Actions and root cause analysis	Timing	Respon-sibility	Effectivenes
	P7	Customer support / Customer satisfaction / Service					
	7.1	Delivery performance target not being met. Contingency plan not effective in the event of machine breakdown.	6				
	7.2	no weakness identified	10				
	7.3	no weakness identified	10				
	7.4	Out of the 4 complaints sampled, 3 have been effectively closed. Complaint A45679, the root cause analysis had not been effectively completed	8				
	7.5	no weakness identified	10				
	7.6	no weakness identified	10				

P1 – Potential analysis



Uses 35 questions from P2-P7

Purpose of the potential analysis

- The potential analysis acts as an assessment of new, unknown suppliers locations and technologies and, where appropriate, the development and process potential of the company as preparation for a decision on awarding a contract.

- The result of a potential analysis serves as a provisional quality capability classification for the company in question.

- In addition a forecast should be created, with a risk assessment, as a basis for the project, if the contract is awarded.

NEW: Potential analysis assessment

VDA 6.3
2nd edition 2010

RED: The requirement is not met

YELLOW: The requirement is met only conditionally

GREEN: The requirement is met

Illustration of a P1 report

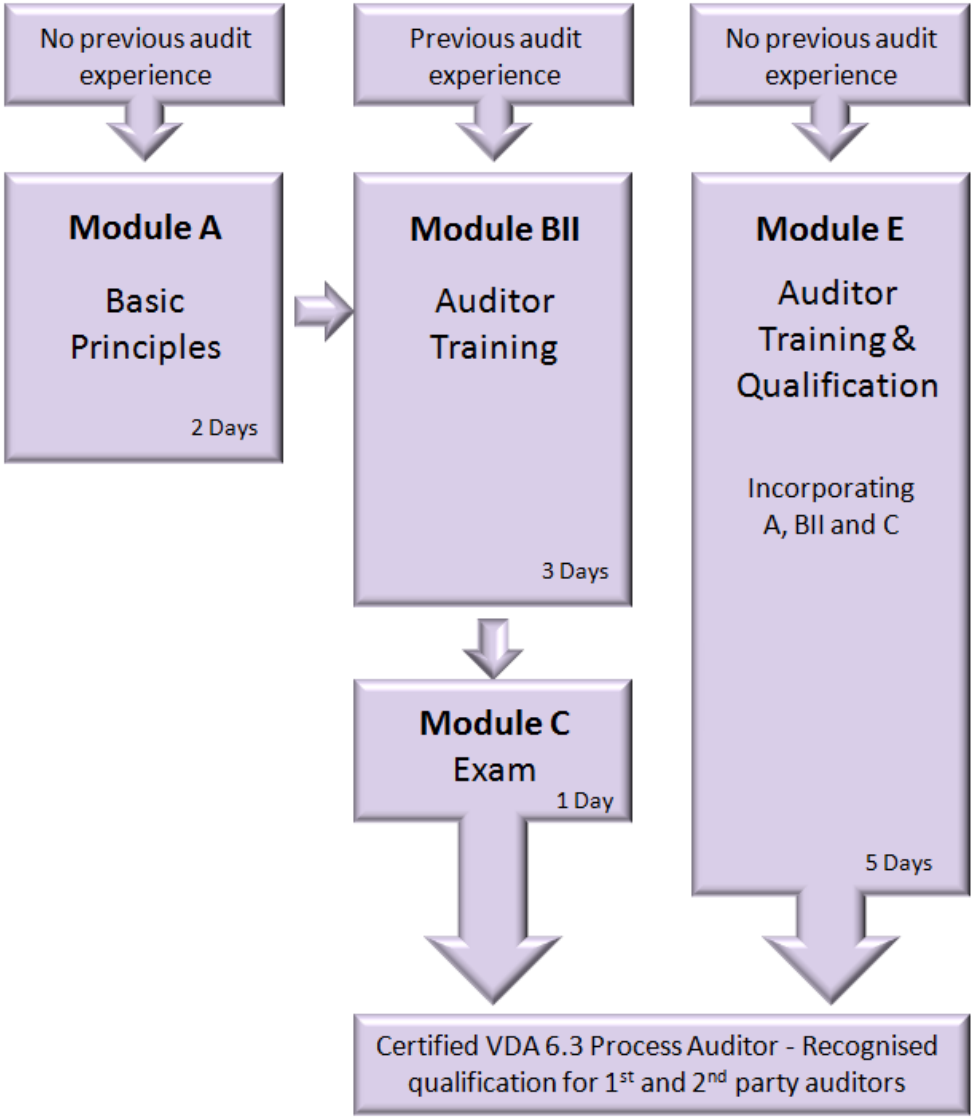
VDA 6.3*	Questionaire potenzial analysis (P1)	0	Assessment	Remarks: Entry box

		Assessment question	Requirements		
		Project management			
2.1	1.1	Is the project organisation (project management) established and are tasks and authorities specified for the project management and team members?	The project management is in a position to meet the customer's requirements. A process for establishing the project management exists. The authority of the project leaders and team members is specified, together with links to the organisation. All the expertise required for implementation is established. The suppliers are engaged in the project management.	x	1.1
2.2	1.2	Are the necessary resources planned and available for the development of the project and are changes highlighted?	Resource planning takes account of the customer's requirements, based on the contract covering the project. Resource planning (a cross functional, interdisciplinary team) for project management is established and implemented. The necessary project budget is planned and released. The technical personnel, with the relevant qualifications, are provided at the right time by the specialist departments. The work load on personnel must be taken into account in the planning. Changes in the project must be notified at an early stage and agreed with the customer before they are implemented. If changes occur in the project (timings, extent of development, etc.) a check is made on resource planning and changes are made if necessary. This applies to changes caused by the customer, to in house changes and changes by suppliers. Resource planning also takes account of suppliers. In particular the critical path is taken into account when planning resources.	x	1.2
2.3	1.3	Is there a project plan and has this been agreed with the customer?	The project plan meets the customer's specific requirements. All in house and customer milestones are fully included in the project plan and are regularly adjusted to take account of changes. A specified distribution system is in place to ensure that changes in the project plan are communicated internally. Changes to the project plan not initiated by the customer are discussed and agreed with the customer. The project takes account of critical delivery items. The critical path is generated from the project plan. The QM plan must be part of the project. A review is carried out at the milestones defined in the project plan to check that all planned activities are carried out and that the level of maturity required is achieved.	x	1.3
2.4	1.4	Is change management within the project ensured by the project manager?	Change management within the project meets the customer's specific requirements. Manufacturing feasibility checks on changes are carried out and documented. Changes are highlighted at the right time and agreed with the customer. All changes are documented using a defined process. Changes not initiated by the customer are discussed and agreed with the customer. Where changes have an influence on product quality the risks must be assessed with the customer. Suppliers are actively involved in change management (for critical aspects). Timings for changes to stop are defined and complied with. Any deviations from this rule are agreed in writing between customer and supplier. The period for changes before SOP does not jeopardize product quality. The implementation of changes must be assessed jointly, depending on the time remaining before SOP.	To be assessed!	1.4
2.5	1.5	Are the responsible people in the organisation and in he	Persons responsible for change management and their representatives, in the organisation, in the customer's organisation and at the suppliers are defined. There is a regulation covering dealing with changes (distribution, time permitted for		

Overall result

Classification		Assessment by questionnaire	
		Yellow	Red
Barred supplier		More than 14	One question
Conditionally approved		max. 14	None
Fully approved supplier		max. 7	None

Training and Qualification Modules



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- **Open courses held in IF Learning Centre in UK**
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Thank you for attending