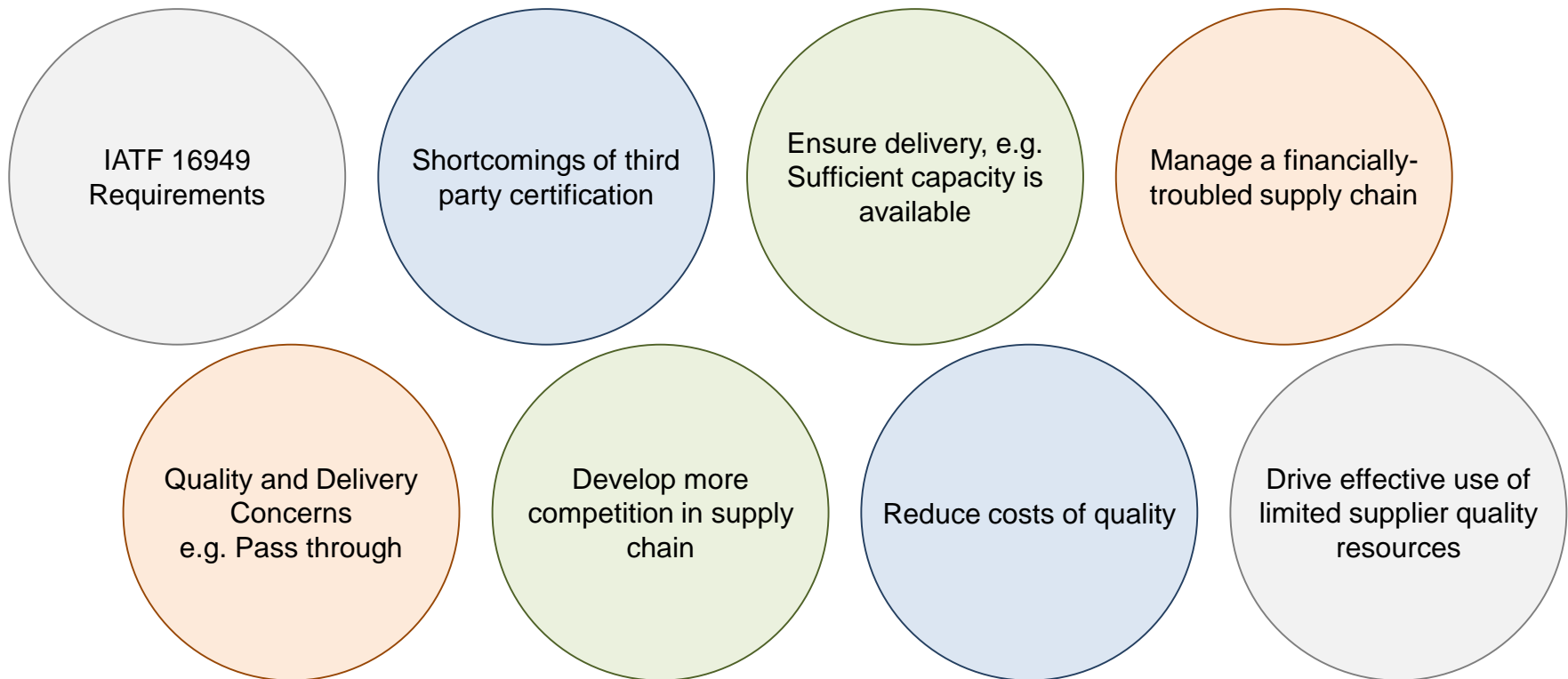


Sub-tier Supplier Management Process

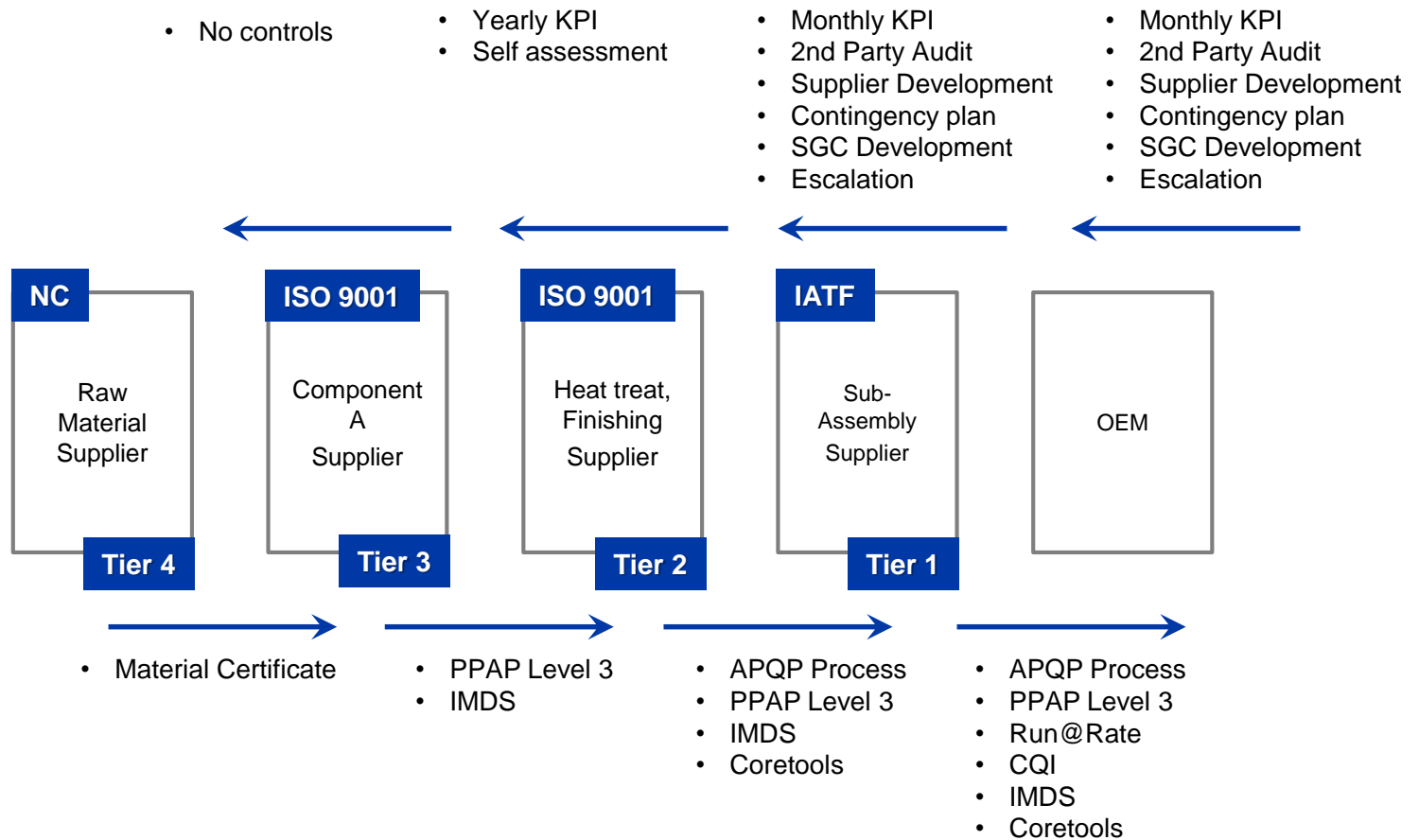
- Automotive Industry Challenges
- Sub-tier Supplier Requirements
 - Pre-selection Phase
 - Selection Phase
 - APQP/ PPAP Phase
 - Performance Monitoring, Development and/ or Escalation Phase
- Questions

- Human impact, safety/care strategy
- **Business Continuity**
 - Economic: cash flows, debt levels, sales, forecast, automotive market trends, savings and cost reduction strategies, etc.
 - **Contingency Plans: Organization context, Stakeholders, systemic approach (Power, Machines, Tools & Equipment, Raw Material Availability, Potential bankruptcy from key suppliers, alternate sources of supply, Customer´s requirements)**
 - **Assure Operative Discipline: Quality, Deliveries**
 - **Sub-supplier Management**

Why Supplier Management?



Why Supplier Management?



Quality Management System Basis

8.4 – Control of externally provided processes, products and services

ISO 9001

8.4.1 – General

8.4.2 – Type and extent of control

8.4.3 – Information for external providers

8.3.4 – Design and development controls

IATF 16949

8.4.1.1 – *Supplemental*
8.4.1.2 – *Supplier selection Process*
8.4.1.3 – *Customer-directed sources (also known as “Directed-Buy”)*

8.4.2.1 – *Supplemental*
8.4.2.2 – *Statutory and regulatory requirements*
8.4.2.3 – *Supplier quality management system development*
8.4.2.3.1 – *Automotive product-related software or automotive products with embedded software*
8.4.2.4 – *Supplier monitoring*
8.4.2.4.1 – *Second-party audits*
8.4.2.5 – *Supplier development*

8.4.3.1 – *Supplemental*

8.3.4.4 – *Product approval process*

AIAG CQI-19

Pre-selection/ selection phases

Performance monitoring phase
Pre-selection phase
Performance monitoring phase

Pre-selection phase

Performance monitoring phase
Performance monitoring phase
Performance monitoring phase

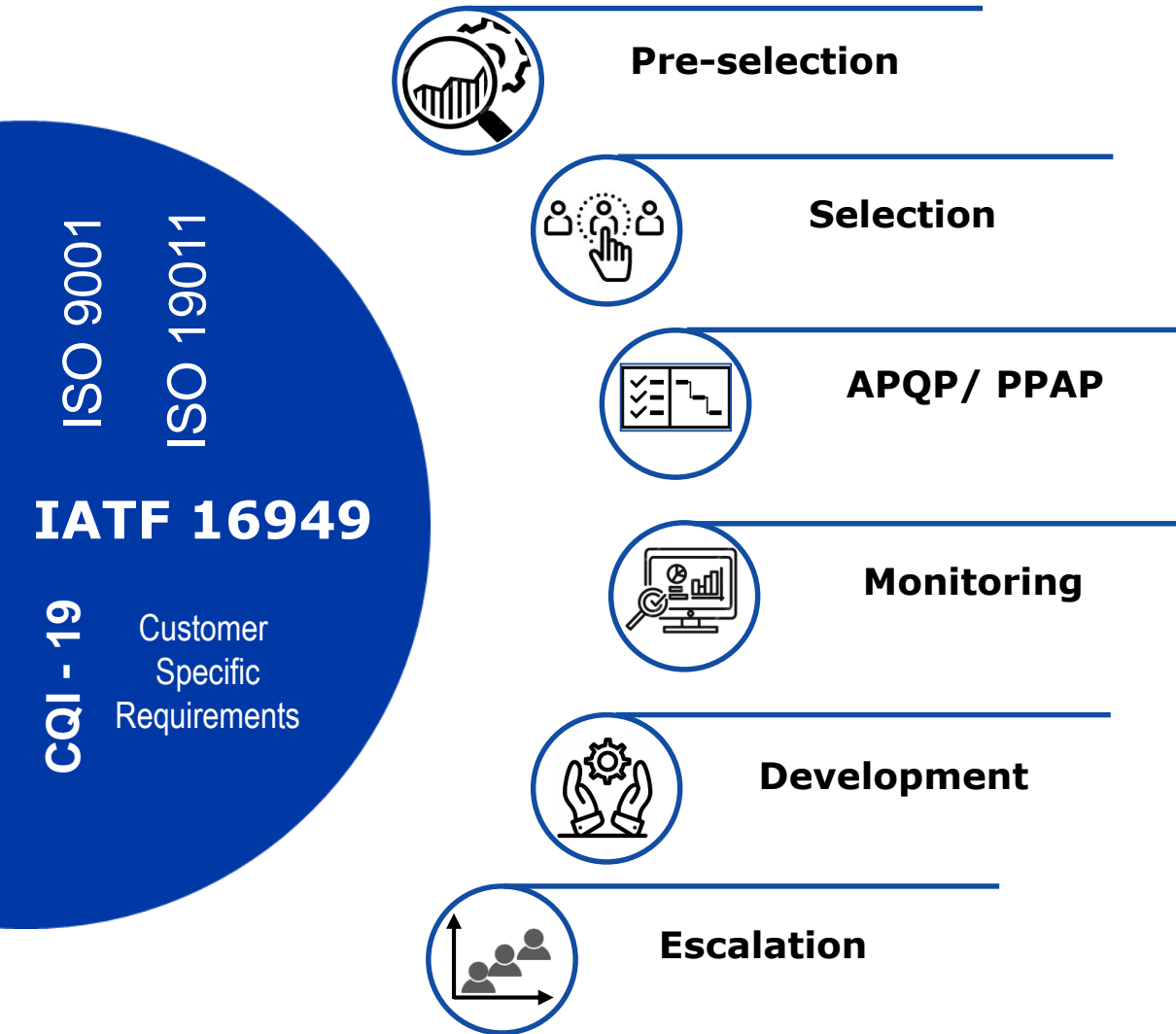
APQP/ PPAP phase

All products and services that affect Customer requirements

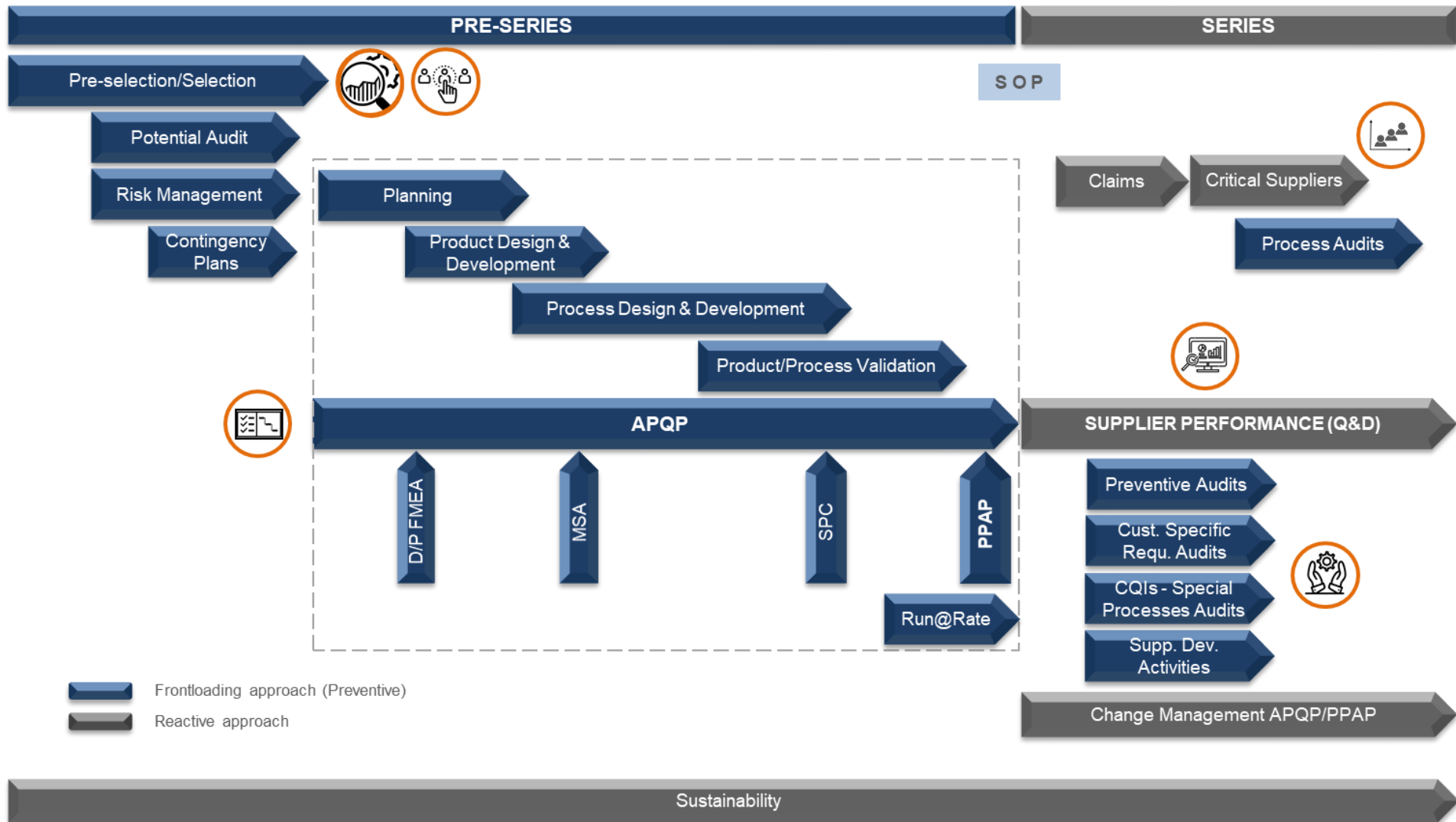
Direct materials

- Automotive Industry Challenges
- Sub-tier Supplier Management Process
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Sub-tier Supplier Management Process



Sub-tier Supplier Management Process



ISO 9001
ISO 19011
IATF 16949
CQI - 19
Customer
Specific
Requirements

ISO 9001

8.4 – Control of externally provided processes, products and services

- The organization shall determine and apply criteria for the evaluation, selection, monitoring of performance, and re-evaluation of external providers, based on their ability to provide processes or products and services in accordance with requirements. The organization shall retain documented information of these activities and any necessary actions arising from the evaluations.

IATF 16949

8.4.1.1 – Supplemental

- The organization shall include all products and services that affect Customer requirements such as sub-assembly, sequencing, sorting, rework, and calibration services in the scope of their definition of externally provided products, processes and services.

- Automotive Industry Challenges
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Pre-selection Phase

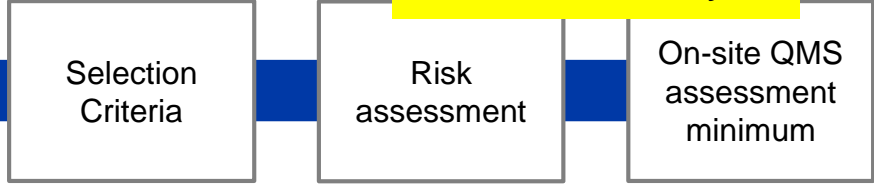


1. Pre-selection

Cross functional team approach



VDA 6.3 Potential analysis



ISO 9001
ISO 19011
IATF 16949
CQI - 19
Customer Specific Requirements

- Volume/ Annual forecast
- Timing
- Quality
- Logistics
- Technical/ Technology
- Process requirements
- Special processes
- Material requirements
- Product traceability
- Customer Specific Requirements

- Financial stability
- Historical performance
- Business Continuity Planning (Contingency planning)
- Resources availability (Facilities, locations, equipment, people, technical competency, experience with product)
- Certifications (Quality, environmental, health & safety)
- New Projects and change management
- Manufacturing feasibility
- Sustainability
- Capacity
- Sub-tier supplier management process
- Organization review (Management commitment, continual improvement strategies)



1. Pre-selection



IATF 16949 – 8.4.1.2 – Supplier selection Process

The organization shall have a documented supplier selection process. The selection process shall include:

- a) An assessment of the selected supplier's risk to product conformity and uninterrupted supply of the organization's products to their customers
- b) Relevant quality and delivery performance
- c) An evaluation of the supplier's quality management system
- d) Multidisciplinary decision making
- e) An assessment of software development capabilities, if applicable.



Is a documented Process for this topic requested by IATF 16949?

- Automotive Industry Challenges
- Sub-tier Supplier Management Process
 - Pre-selection Phase
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ISO 9001
ISO 19011
IATF 16949
CQI - 19
Customer Specific Requirements



BOCAR GROUP Tech Review

Sourcing decision

Cross functional team approach

Minimum requirements for use with sub-tier suppliers:

- ISO 9001 Certification
- AIAG Core tools implemented and special process
- Special Characteristics determination
- Quality function
- Financial stability
- Accredited laboratories
- Capacity and operating plan verification
- Supplier metrics

- No risks identified, if so mitigation plan should be agreed and negotiated
- On-site assessment should be approved as per the audit criteria and scope (e.g. VDA 6.3 minimum yellow)

Suppliers should not be selected on price alone



2. Selection



What defines IATF for Directed-Buy?

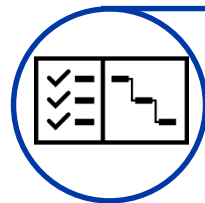
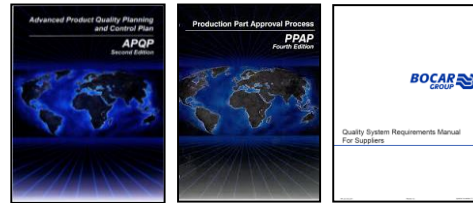
IATF 16949 – 8.4.1.3 – Customer-directed sources (also known as “Directed-Buy”)

When specified by the customer, the organization shall purchase products, material, or services from customer-directed sources.

All requirements of section 8.4 (except the requirements in IATF 16949, Section 8.4.1.2) are applicable to the organization’s control of customer-directed sources unless specific agreements are otherwise defined by the contact between the organization and the customer.

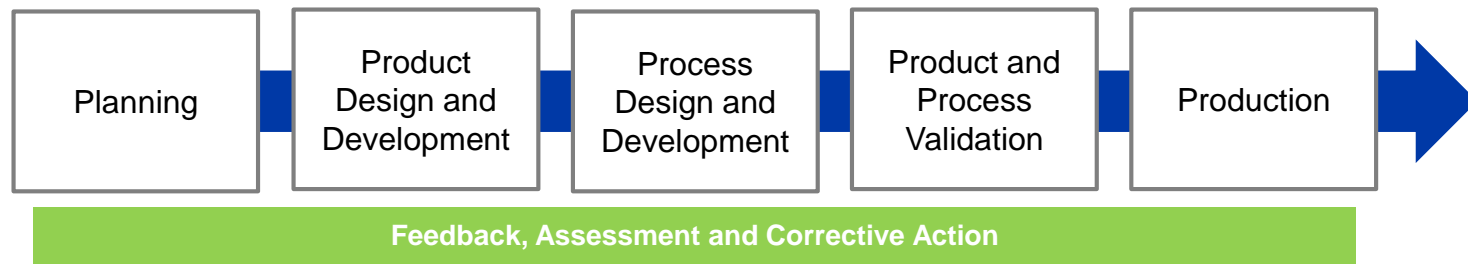
- Automotive Industry Challenges
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ISO 9001
ISO 19011
IATF 16949
CQI - 19
Customer Specific Requirements



3. APQP/ PPAP

- a) FC → PFMEA → CP
- b) Special characteristics and PTCs
- c) Error proofing
- d) Capacity Verification
- e) Customer Specific Requirements



- Automotive Industry Challenges
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ISO 9001
ISO 19011
IATF 16949
CQI - 19
Customer Specific Requirements

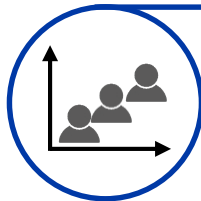
IATF 16949 – 8.4.2.1 – Type and extent of control - supplemental

The organization shall have a documented process to identify outsourced processes and to select the types and extent of controls used to verify conformity of externally provided products, processes, and services to internal (organizational) and external customer requirements.

The process shall include the criteria and actions to escalate or reduce the types and extent of controls and development activities based on supplier performance and assessment of product, material or service risks.



4.1 Monitoring



4.2 Escalation

Performance, Monitoring, Development and/ or Escalation Phase

ISO 9001
ISO 19011
IATF 16949
CQI - 19
Customer Specific Requirements

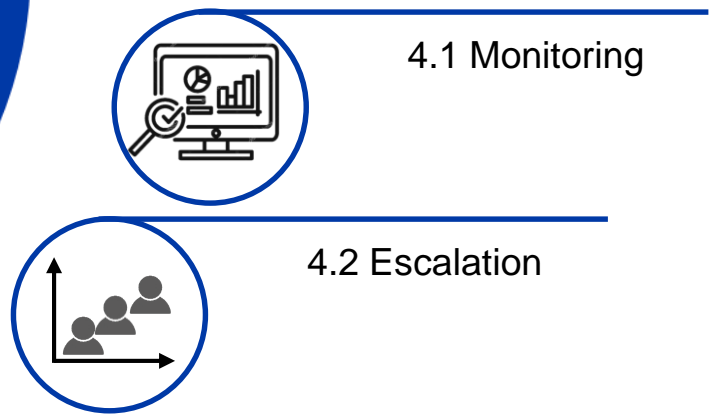


IATF 8.4.2.4 – Supplier Monitoring

KPI's

- Delivered product conformity
- Customer disruptions
- Delivery Schedule performance
- Premium freight occurrences
- Returns, warranty, recalls, field
- Capacity monitoring
- Change Management

- Special Status notifications
- Top low performance
- Development
- Re-sourcing



ISO 9001

ISO 19011

IATF 16949

CQI - 19

Customer
Specific
Requirements



IATF 16949 – 8.4.2.5 – Supplier development

The organization shall determine the priority, type, extent, and timing of required supplier development actions for its active suppliers. Determination inputs shall include but are not limited to the following:

- a) Performance issues identified through supplier monitoring
- b) Second-party audit findings
- c) Third-party quality management system certification status
- d) Risk analysis

The organization shall implement actions necessary to resolve open (unsatisfactory) performance issues and pursue opportunities for continual improvement.

4.3 Development

Performance, Monitoring, Development and/ or Escalation Phase

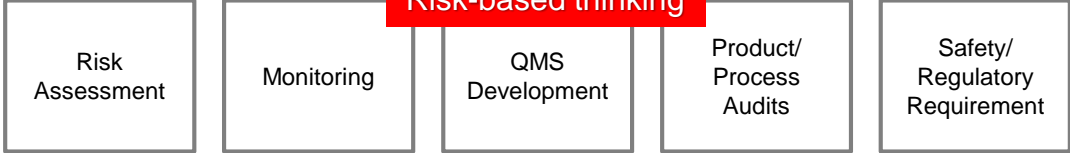
ISO 9001
ISO 19011
IATF 16949
CQI - 19
Customer Specific Requirements



2nd Party Audit

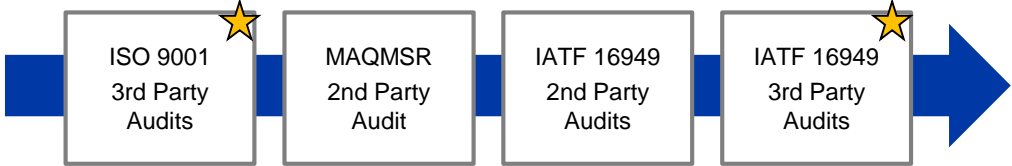
IATF 8.4.2.4.1 – Second-party Audits

Risk-based thinking



QMS

IATF 8.4.2.3 - Supplier Quality Management System Development



Business Continuity

Contingency Plan



4.3 Development

- Automotive Industry Challenges
- Sub-tier Supplier Management Process
 - Pre-selection Phase
 - Selection Phase
 - APQP/ PPAP Phase
 - Performance Monitoring, Development and/ or Escalation Phase
- Questions