

IATF 16949 quality management system in Valmet Automotive and Valmet Automotive expectations/requirements for potential suppliers

10.9.2021 Mikko Sauren / Supplier Quality Manager / Valmet Automotive EV Power Oy



VALMET AUTOMOTIVE

VALMET AUTOMOTIVE – OUR HISTORIC LANDMARKS



2,4 BEUR
Turnover (2020)



4500
Employees



3
Countries



3
Shareholders
(Pontos, Tesi, CATL)

Competence in building electric vehicles since 2009



50
1968-2018

VALMET AUTOMOTIVE

1968

1969

1986

1992

1995

1997

2009

2010

2011

2013

2017

2018

2019

Founded as **Saab-Valmet Joint Venture** between Saab-Scania and Valmet

To become **independent from Saab**, fully owned by Valmet

Renamed to **Valmet Automotive**

Pontos and Tesi stepped in as new shareholders

Acquisition of Karmann Convertible Roof Systems

CATL as a new shareholder

New SALO plant SOP of high-volume battery systems



THINK

NISSAN



BENTLEY



OUR DELIVERABLES – WE MAKE [ELECTRIC] VEHICLES HAPPEN

E-Mobility



VEHICLE
CONTRACT
MANUFACTURING

Existing & new vehicle
concepts



EV BATTERY
SYSTEM

Engineering &
Production



ROOF &
KINEMATIC
SYSTEMS

Existing &
new customers





IMS, INTEGRATED MANAGEMENT SYSTEM

Basic idea: IMS is for EVBL business (not for auditors)

Purpose:

A) Company's objectives will be achieved by following agreed practices

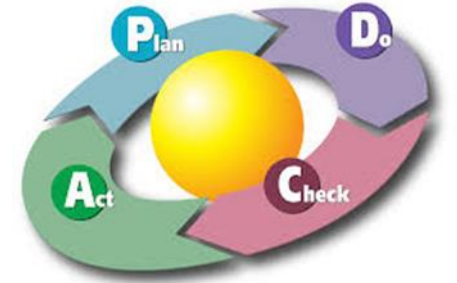
⇒ **Agree how to do and do as agreed.**

B) Fulfillment of standard requirements

- IATF 16949
- ISO 14001
- ISO 45001



WHAT IS IATF OFFERING



Development of a quality management system that provides:

- Continual improvement.
- Emphasizing defect prevention.
- Reduction of variation and waste in the supply chain.
- Risk management.



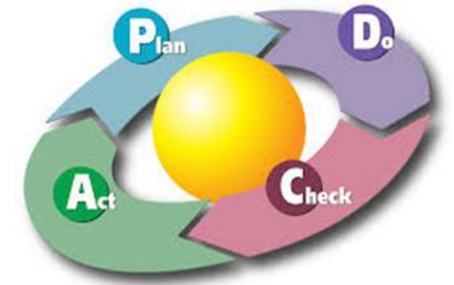
IATF QUALITY MANAGEMENT PRINCIPLES:



- **Customer focus** => Customer satisfaction
- **Leadership**
- **Engagement of people**
- **Process approach** with focus on risk based thinking
- **Improvement** => Plan-Do-Check-Act cycle
- **Evidence-based decision making** => Facts
- **Relationship management**



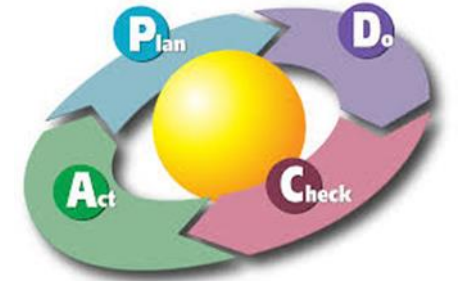
RISK-BASED THINKING



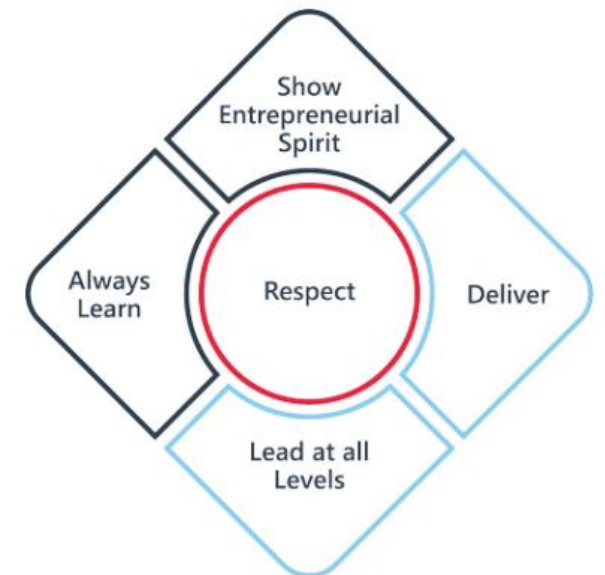
- Organization needs to plan and implement actions to address risks and opportunities.
- Addressing both risks and opportunities establishes a basis for increasing the effectiveness of the quality management system, achieving improved results and **preventing** negative effects.
- Risk-based thinking is essential for achieving an effective quality management system.
- FMEA's, SWOT, Audits, risk assessments, safety walk, contingency plan...



LEADERSHIP AND COMMITMENT



- How does top management demonstrate leadership and commitment to the QMS?
- Take a leading role and understand their duties in promoting and supporting the QMS?
- Taking responsibility of the effectiveness of the QMS
- Connection to strategic direction
- Integration of requirements into the organization's business processes
- Promoting awareness of process approach and risk-based thinking
- Engaging, directing and supporting persons to contribute to the QMS



Valmet Automotive 5 Commitments



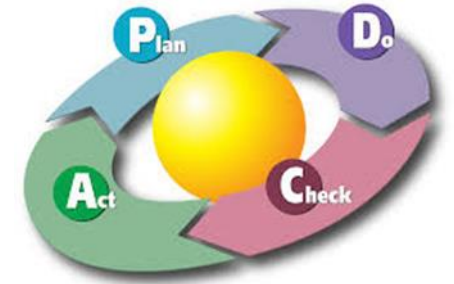
PLANNING



- **Actions to address risks and opportunities**
 - risk analysis, preventive actions, contingency plans
- **Quality objectives and planning to achieve them**
 - consistent with the quality policy, measurable, relevant, monitored, communicated
- **Planning of changes**
 - purpose of the change and their potential consequences, resources, reallocation of responsibilities and authorities



SUPPORT



- **Resources**
 - Plant, facility and equipment, Environment for the operation of processes, measurement system, calibration, laboratory requirements, Organizational knowledge
- **Competence**
 - Process for competence/ training, on-the-job training, auditor competency
- **Awareness**
 - Policy
 - All employees are aware of their impact on product quality
 - Process for motivation & empowerment
- **Communication**
 - What, when, with whom, how, who
- **Documented information**
 - Documented process for QMS documentation, creating and updating, control of documented information

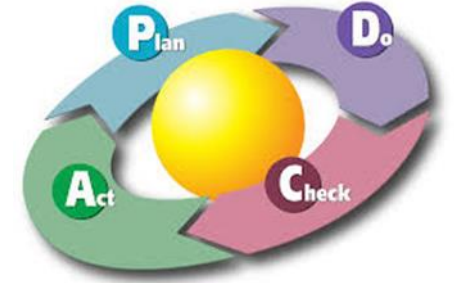


OPERATION

- **Control of externally provided processes, products and services**
 - The organization shall ensure that externally provided processes, products and services conform to requirements
 - Requirements for supplier selection, outsourced processes, statutory req. , supplier monitoring..
- **Production and service provision**
 - The organization shall implement production and services under controlled conditions
 - Product specification, monitoring and measuring resources, infrastructure, competence, CP, TQM...
- **Release of products and services**
 - Verification process that product fulfils requirements
- **Control of nonconforming outputs**
 - Non-conforming outputs are identified and controlled to prevent their unintended use or delivery
 - Customer req., suspected, reworked, repaired product, customer info, scrapping on NOK



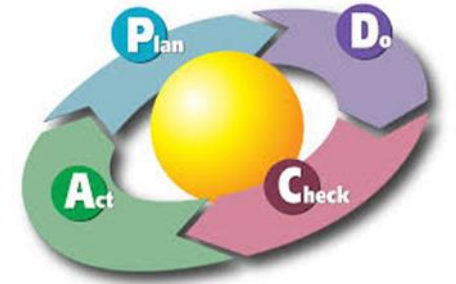
PERFORMANCE EVALUATION



- **Monitoring, measurement, analysis and evaluation**
 - Define what, methods, when, analysing the results, customer satisfaction
- **Internal audit**
 - Audit program; quality management system audits, manufacturing process audits, and product audits
- **Management review**
 - Review the organization's quality management system to ensure its continuing suitability, adequacy, effectiveness and alignment with the strategic direction of the organization.



IMPROVEMENT



The organization shall determine and select opportunities for improvement and implement any necessary actions to meet customer requirements and enhance customer satisfaction.

- **Nonconformity and corrective action**
- **Problem solving**
 - Proper root cause analysis and systematic approach on problem solving.
 - Every new problem is an opportunity for improvement.
- **Continual improvement**
 - The organization shall continually improve the suitability, adequacy and effectiveness of the quality management system.



**VALMET AUTOMOTIVE REQUIREMENTS AND EXPECTATIONS
FOR POTENTIAL SUPPLIERS**



VALMET AUTOMOTIVE

ELECTRIFYING

ELECTRIC VEHICLES (EV) SYSTEMS

BATTERY MODULES AND SYSTEMS

- 48 Volt & High-Voltage (All Cell Formats)
- Automotive & Off-Highway Applications
- Components – Junction Box, CMC & BMU

PRODUCTION

- Manufacturing Engineering
- Module & Battery Pack Assembly
- Prototypes, Small Series & High-Volume Series

BUSINESS MODELS

- System Supply & Contract Manuf.
- Tier-1 & Tier-2
- Engineering & Testing Services



**VISIONARY
PARTNER.**



REQUIREMENTS FOR SUPPLIERS

MINIMUM REQUIREMENT FOR ALL SUPPLIERS IS TO HAVE AT LEAST ISO 9001 CERTIFICATION AND WILLING TO DRIVE FOR IATF 16949 CERTIFICATION.

- **IATF 16949** is a global Quality Management System Standard for the Automotive industry.
- **IATF 16949:2016** incorporates the structure and requirements of the **ISO 9001:2015** quality management system standard with additional automotive customer-specific requirements.
- It was developed by the **INTERNATIONAL AUTOMOTIVE TASK FORCE (IATF)**, with support from **AUTOMOTIVE INDUSTRY ACTION GROUP (AIAG)**. This standard requires certification by a 3rd party auditor.
- Here are some key areas of focus:
 - Continuous improvement.
 - Defect prevention.
 - Reducing waste.
 - Product safety.
 - Risk management.
 - Contingency planning.
 - Requirements for embedded software.
 - Change and warranty management.
 - Management of sub-tier suppliers.



International
Automotive
Task Force



WHERE DOES IT APPLY?

- **IATF 16949 can be used by any supplier, large or small, and should be applied throughout the whole automotive supply chain.**
 - There is over 65,000 suppliers worldwide which are currently certified to IATF 16949.
- **In order to be able to get the IATF 16949 certificate the company need to have an automotive product in production.**
 - Usually when first applied, IATF certification is obtained whilst the production for the first automotive parts is already ongoing.
- **IATF 16949 is mandatory to be used for all automotive products.**
 - NOTE! vehicles that are permitted to drive on highways. e.g. all cars and trucks. →
- **IATF 16949 does not apply for any vehicles that are restricted from highways.**
 - E.g. tractors, and harvesters. → If a company only providing parts / assemblies to a off-highway vehicle, then they are not entitled to get the IATF certificate.
- **In our business, all new suppliers needs to have the IATF 16949 certificate.**
 - If it is not yet available, then they need to have the ISO 9001 certificate and means to obtain the IATF 16949 certificate. →
- **ISO 14001 is an advantage since it shows at least some intentions to sustainability.**
 - This is coming very quickly as requirement with increased customer requirement on sustainability.
 - Additionally, to control and measure Co2 emissions, waste management, recycling, energy consumption, etc.



WHAT IS VALMET AUTOMOTIVE LOOKING FOR?

- **Valmet Automotive EV Power Oy is looking for long term supplier relationships for our supplier portfolio.**
 - Supplier whose strategic goals are aligned with VA-EV and is going in the same direction.
 - International presence to support VA-EV on all locations now and in the future.
 - Willing to invest and grow together with electric vehicle business.
 - Having innovative products, technology, process and/or capability.
 - Is willing to commit to automotive industry quality critical level of performance.
 - Commitment to [Valmet Automotive Supplier Code of Conduct \(SCoC\)](#)
 - Labor and human rights, freedom to organize and collective bargaining, HSE,
 - Environment and sustainability, responsible sourcing of raw materials, business conduct
- **When supplier is meeting the portfolio criteria and is defined as accepted supplier**
 - Get possibility to compete for project participation in portfolio.
 - Cooperation and mutual product and process development with new technologies
 - Get possibility to compete for serial production deliveries to VA-EV factories.
 - Mass produce parts with several years of product life cycle. Even decades...



THE FAST LANE TO FUTURE VEHICLES



VALMET AUTOMOTIVE