Operational excellence

APQP — Product Quality Planning

Two days to run a new product or change project according to the product quality planning expected by automotive manufacturers and equipment suppliers. Participants go through the five phases, from programme definition to lessons learned, with their deliverables: feasibility, FMEA, control plan, process validation, approval. The workshop builds the APQP plan of a project at your site, milestone by milestone.

Duration : 2 days

Objectives

1. Explain the logic of APQP and its five phases, from planning to lessons learned
2. Identify the deliverables of each phase and the review milestones with the customer
3. Link APQP to the other tools: FMEA, control plan, MSA, SPC, PPAP
4. Build the APQP schedule of a project with its owners and milestone gate criteria
5. Assess a project's progress and the quality risks before series start-up

Programme

Day 1 — morning

• Why plan product quality: a defect found late is harder to correct

• Project organisation: multidisciplinary team, customer input data, special characteristics

• Phase 1: planning and programme definition; quality and reliability objectives, preliminary list of characteristics

• Contract review and feasibility commitment

Day 1 — afternoon

• Phase 2: product design and development; product FMEA, design reviews, prototypes

• Phase 3: process design and development; flow, process FMEA, pre-launch control plan

• Exercise: from the special characteristic to the control plan

• Mid-course quiz on the first three phases

Day 2 — morning

• Phase 4: product and process validation; tests, measurement studies, preliminary capability, production trial run

• Part approval: preparing the PPAP file and submitting it to the customer

• Phase 5: feedback, assessment and corrective action; reducing variation, lessons learned

• The control plan at three stages: prototype, pre-launch, production

Day 2 — afternoon (workshop)

• Workshop: the APQP plan of a project at your site, with deliverables, milestones and owners

• Simulated milestone review: status of deliverables, risks, decisions

• Managing changes during the project and after series start-up

• Knowledge test and presentation of the APQP plan

Teaching methods

• Common thread: a real or recent project at your site, from request for quotation to series start-up
• Deliverable templates to adapt: schedule, list of characteristics, control plan, milestone review
• Course led by IATF 16949:2016 auditors
• Milestone review played out in a group, one participant taking the customer's role
• Mid-course quiz and knowledge test at the end of the session

Assessment and documents

Mid-course quiz and knowledge test, end-of-course evaluation at D+1. Numbered training certificate, verifiable online, for each participant; the company receives the training report and the APQP plan built in the workshop.

Bilingual materials for every participant; each classroom course comes with its digital twin on OmniLearn.

Good to know

APQP ends with approval: the course « PPAP — Part Approval » details the file and the submission. The requirements of the automotive quality system are covered in « IATF 16949:2016 — Automotive Quality ».

Practical information

Duration	2 days
Audience	Project managers, product and process engineers, project quality and supplier quality, purchasing
Prerequisites	Experience of an industrial project; quality basics
Group size	Groups of 6 to 12 participants, in-company
Format	In-company, face to face on your site
Language	French, Darija or English; bilingual materials
Funding	OFPPT special training contracts (TFP), GIAC, Maroc PME: we prepare the applications with you, at no extra cost.
Programme customisation	Programme adapted to your procedures, your equipment and your audience

Frequently asked questions

Is APQP required by our customers?
Automotive customers generally expect quality planning of this kind, often with their own formats and specific requirements. Outside automotive, the same approach usefully structures any product launch.

Do we need to know FMEA before the course?
Not necessarily: FMEA is presented in its role within the project. To run one yourself, the course « Product and Process FMEA » details the method.

Are the reference manuals provided?
No. The automotive industry's reference manuals are publications that your company obtains from their publishers. The course explains the approach and provides ACG's own deliverable templates.

Who should attend?
Project managers, product and process engineering, project quality, purchasing and production. APQP is teamwork: training a single function leaves the interfaces without an owner.