APQP DEPLOYMENT

KARL EVANS
APQP TECHNICAL PROJECT MANAGER
ROLLS-ROYCE

AS13100/9145 APQP and PPAP

Higher quality is synonymous with **increased product safety**.

The primary objective is to **improve quality and reduce cost.**

A common process up and down the supply chain removing wasted effort and mis-communications.

STANDARDS

Products reach faster maturity with fewer engineering changes and defects in the early stages of production and product use.

Proactive toolbox to focus cross-functional teams on risk identification and mitigation early in the process.

Provides a foundation for successful ongoing change management

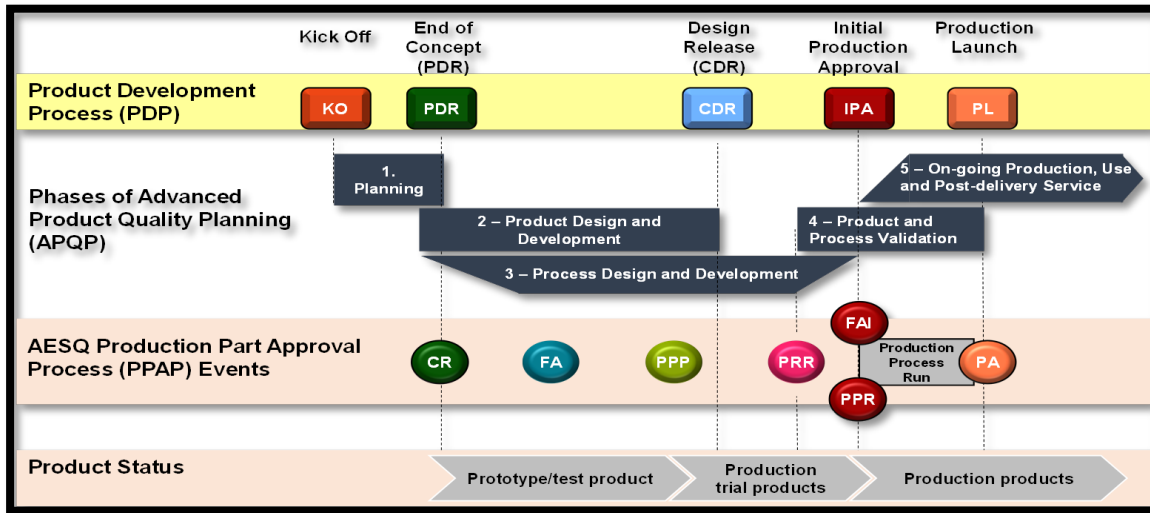– design modification, works transfers, changes to manufacturing method

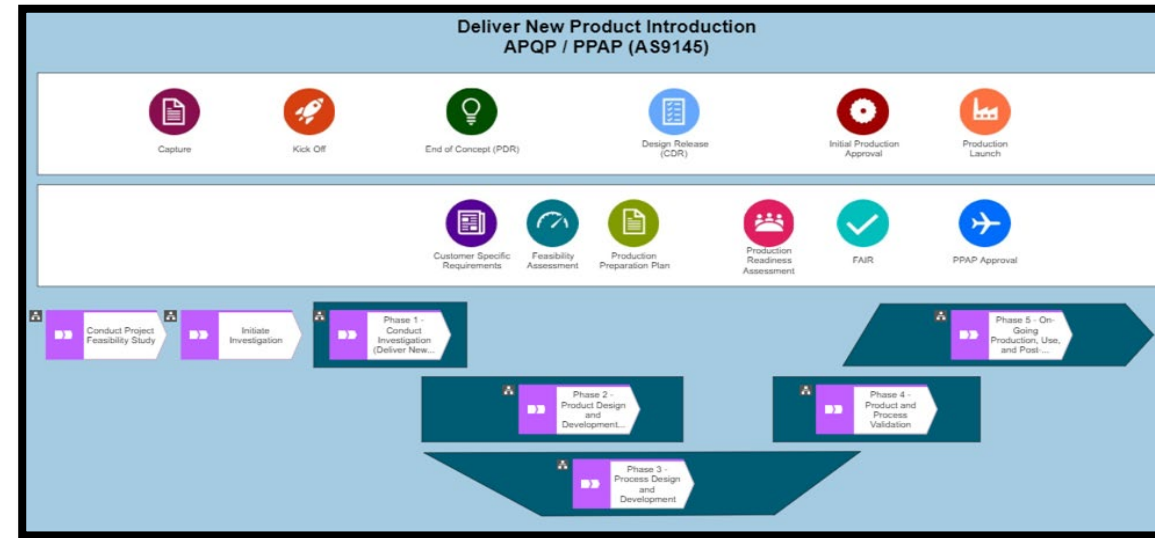# Application within Rolls-Royce of AS13100/9145 APQP and PPAP

Ourselves…Rolls-Royce Civil Aerospace is fully committed to APQP, PPAP and Cross functional working.
Our Customers…they are asking for this.
Our Suppliers…AS13100 APQP and PPAP means we have significantly reduced our Customer Specific Requirements.

AS13100 APQP & PPAP Timing Chart

Rolls-Royce Management System

Our Journey to APQP

2010   **2017**   **2021**   **2022**

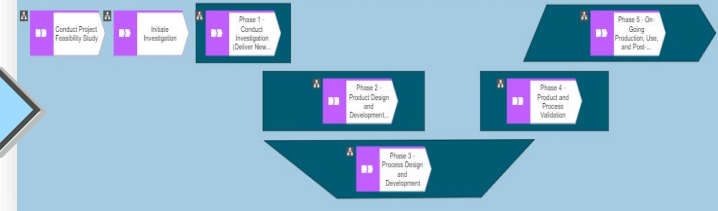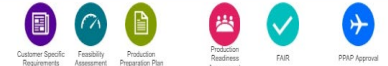**Quality Improvement drivers**

Build in Quality

Zero Defects

APQP Early trials

APQP and PPAP

Quality Management Processes

PPAP   **IPPR**

Quality Planning Activities

Adoption of Industry Standards

| SPC | CCF > KCF | PFMEA | DFMEA | KPC/CI |

SABRe

#1   **#2**   **#3**   **Adoption of Industry Standards**   **#4**

#1
- NPI Requirements
- No industry std
- RR Specifics (extensive)

#2
- APQP & PPAP
- No industry std
- RR Specifics (lots)

#3
- APQP & PPAP
- AS9145
- RR Specifics (fewer)

#4
- APQP & PPAP
- AS13100/ AS9145
- RR Specifics (min.)

Self reflection on our APQP implementation

Pillars of success:

1. **Leadership** engagement, organisational commitment and management support

2. **Cross-functional teams** – it's a team sport of more than one function/department

3. **Effective project planning and Managing** the project to ensure on-time completion of defined deliverables and outputs

Leadership
- Senior Sponsorship & engagement in concepts
- Business Plan Deployment alignment
- Novel learning practices:
  - APQP Games & simulations
  - Video bite size learning

Cross Functional Teams
- Launch framework
- Define RACI for activities and Elements
- Building "User Case" value streams (network diagram)
- Functional coaches (DE, ME, PM, Purchase)
- Adopting AS13100 (RM13145) tools:
  - APQP / PPAP Timing Plan
  - Application Matrix

Project Planning & Management
- Alignment of APQP and PPAP Events to business change management decisions
- RAPID Decision making for Events
- Visual Management / Kanban Boards for the teams.

Foundations

Sponsor (right shadow), Champions (remove barriers), Function Leaders (develop their people) and Core Team (right practices & tools)

Your Winning Cards – Steps to Successful Deployment

Project Planning & Management

Confirm decision makers – RAPID for each APQP & PPAP Event.

Define practices for concern management

It's a Team Sport

Clear cross functional accountability – RACI for each Planning Deliverable and APQP Element.

People Process

Availability of capable people – Maintain Training plan and people planning process

Develop Leaders of Change

Est. Deployment Champion(s) – to remove barriers to success. **Est. Functional Leads – to** develop their people capability. **Est. Core team –** to ensure the right practices and tools are available.

Each time you start

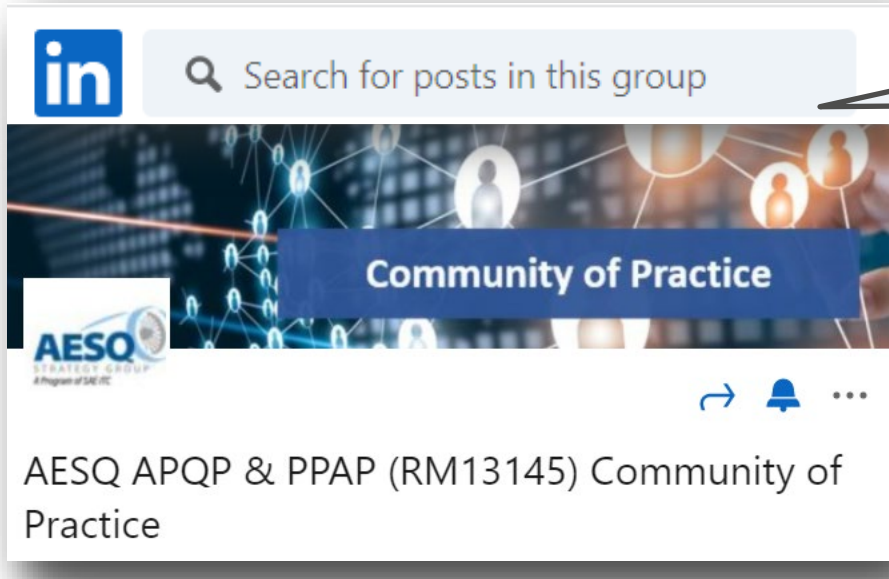**Upfront requirements capture** – Establish and confirm these as early as possible with Customers & stakeholders

Progress with a Plan

Utilise RM13145 – Applications matrix act as your menu… Events, deliverables & Elements

APQP & PPAP Timing Plan gives you a Planning template.

Let's Grow our Community

Search LinkedIn **"AESQ Community of Practice"**

✓ **APQP & PPAP**
✓ Zero Defects Tools
✓ Measurement System Analysis
✓ Problem Solving
✓ Human Factors
✓ Etc

Use "RM13145" it contains a volume of good practices

Raise questions, share ideas & good practices