



CPQP

CONSTRUCTION PRODUCT  
QUALITY PLANNING

Exploring how we will create  
a future built on quality

**#FutureQuality**

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# Inside CPQP

The CPQP Framework has been developed to ensure consistency of quality and safety across the future of UK construction manufacturing.

Through this 5-part series 'Inside CPQP' we will explore some of the key technical tools that are at the core of the CPQP Framework and how they can benefit enterprises that design, manufacture and use construction products through manufacturing-led approaches.

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# Explore CPQP

#1. Quality Function Deployment (QFD)

#2. Failure Mode Effect Analysis (FMEA)

**#3. Control Plan**

#4. 8 Disciplines of Problem Solving (8D)

#5. Verification & Validation Guide (VV)

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#3

## CONTROL PLAN

### What is it?

Control Plans provide a structured approach to define control actions throughout a product's development, helping to ensure successful outcomes.

1. QFD

2. FMEA

3. Control Plan

4. 8D

5. VV

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# Why do we need it?

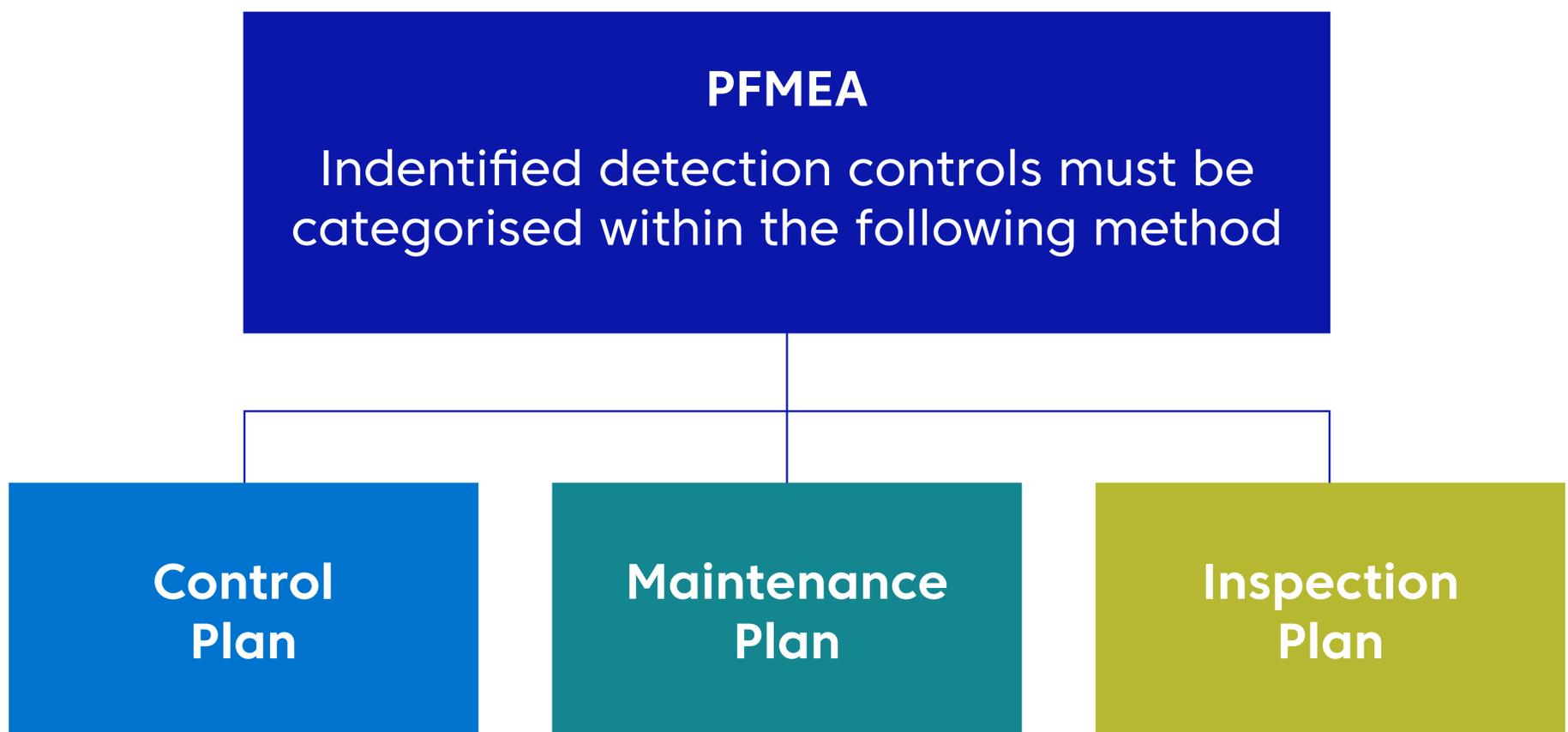
Control plans, already well established across industries such as aerospace and automotive, help to ensure product quality standards are met by minimising product and process variation.

Once risks are identified through the Process Failure Mode & Effect Analysis (PFMEA - #2) a Control Plan monitors and controls the process quality by providing actionable control methods which help to reduce the highlighted risks.

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# Why do we need it?

Actionable control methods: assure any process improvements are maintained over the lifecycle of the part and that the risk of producing defective or non-conforming products are mitigated.



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# The benefits of a Control Plan

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## 1

Provides a process for defect prevention

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## 2

Enables more efficient use of resources

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## 3

Provides cost savings in development

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## 4

Increases customer satisfaction

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## 5

Enables effective communication

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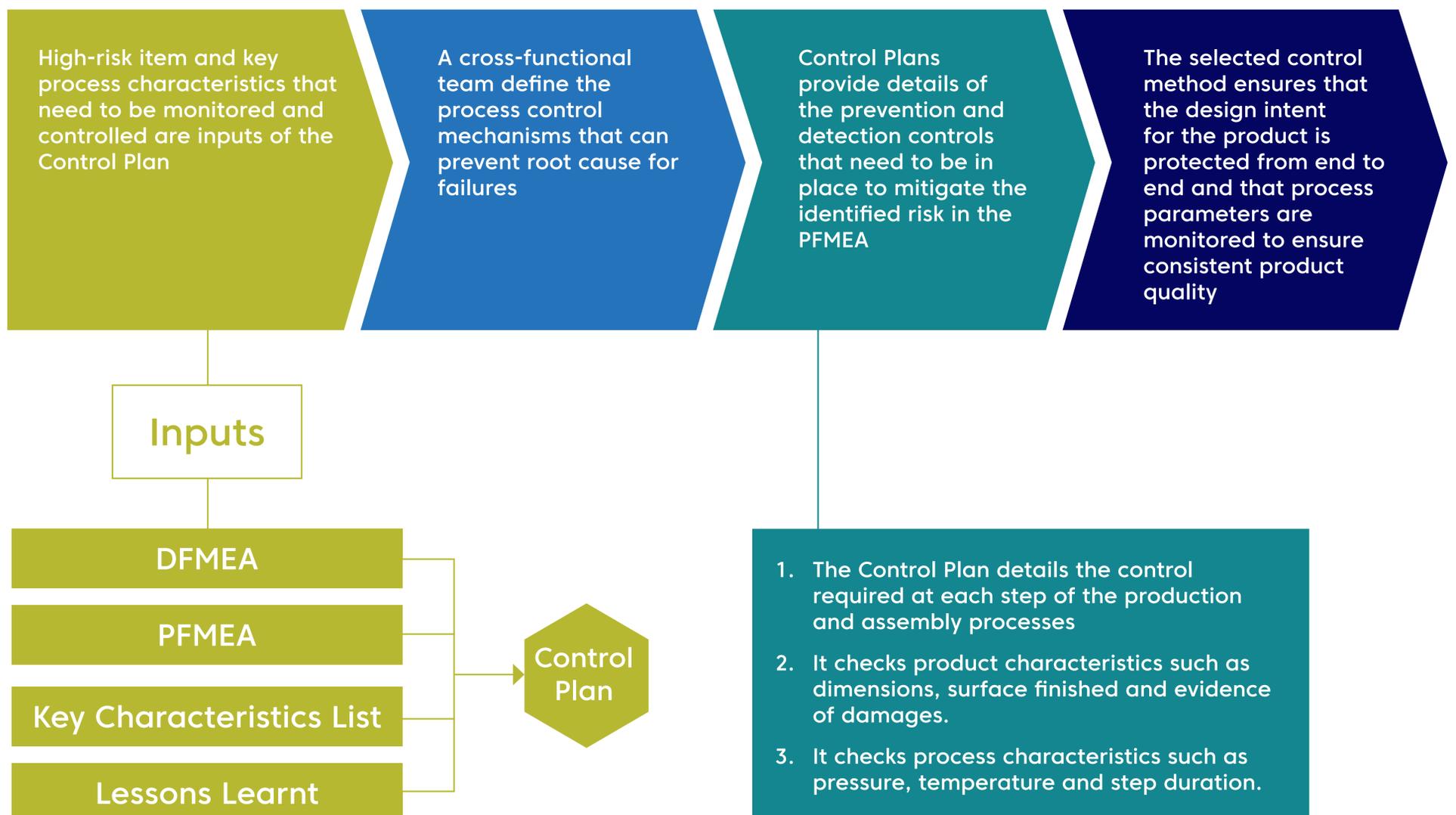
## 6

Enhances team engagement through driving collaboration

# How does it work?

The Control Plan details the controls required at each step of the production and assembly processes. It includes checking product characteristics (e.g. dimensions, surface finishes, evidence of damages) as well as process characteristics (e.g. pressures, temperatures, step duration).

## Control Plan Methodology



# What does it look like in practice?

The Control Plan tool provides the production team with a description of the process control mechanisms to assure that quality requirements and standards are met throughout the production and assembly processes.

## Project Information

Project .....			Manufacturer (FMEA Owner) .....		Location .....	Process/ Operations Covered .....	PFMEA Number .....
Project Description .....			Customer .....		Location .....	Process Flow Chart References .....	Date .....
			Team				
Part Name	Part Number	Rev	Name	Position	Email	Summary ..... ..... .....	Revision Notes ..... ..... .....

## Control Plan

Process/Op Number	Process/ Operation Description	Process Revision	Key Characteristic	Failure Mode	Tool/ Machine Used	Control Method	Tolerance	Evaluation Technique	Reaction Plan

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By pairing Control Plans and the PFMEA together, within the CPQP process, we can ensure delivery of quality that meets customer needs and improves overall satisfaction.

Get in touch with the Construction Innovation Hub to learn more about how the CPQP Framework and Control Plans can help your business.

Please contact:

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Up next in the Inside CPQP series...

Problem solving with  
**8D**

1. QFD

2. FMEA

3. Control Plan

4. 8D

5. VV