

# New product introduction

We can help you bring a new product from initial concept to mass production.

New product introduction (NPI) is the step-by-step process that takes an idea from concept through detailed design, prototyping and manufacturing scale-up, into volume production. NPI is widely used across many high value manufacturing sectors, particularly in mass production. We specialise in products for nuclear and other quality-critical sectors.

## Your challenge

An NPI study can add value if:


- You are in the early stages of developing a new component, system or sub-system, and require guidance on best practice.
- You have won a new manufacturing contract and want to ramp up production in a controlled manner.

## Our service

- We review your organisational requirements as a designer or a manufacturer to understand your role in the NPI process.
- We work with you to understand and deliver the required outputs. We typically use advanced process and quality planning (APQP) and production part approval process (PPAP) to guide our analysis.
- We present our findings with conclusions, underpinning evidence and recommendations.

## Benefits

An NPI study can help you:

- Bring your products to market faster.
  - Enhance your product quality.
  - Improve manufacturing efficiency.
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## Our expertise & capabilities

The Nuclear AMRC includes manufacturing engineers, research engineers and project managers, delivering multi-disciplinary programmes for industry customers of all sizes. Our manufacturing engineers have vast experience of shopfloor production, new product introduction (NPI) and design for manufacturing.

We have extensive experience of working with manufacturers to deploy NPI principles, or to deliver the outputs required by the NPI process. This includes helping organisations to deploy advanced process and quality planning (APQP) and production part approval process (PPAP) techniques.

For more information, contact

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The Nuclear Advanced Manufacturing Research Centre, part of the High Value Manufacturing Catapult, helps UK companies improve their capabilities and performance for nuclear and other high-value industries. We focus on large-scale high-precision manufacturing processes for quality-critical applications.

### Nuclear AMRC

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## Process

A typical NPI study includes the following steps:



### 1 Scoping and planning

We work with you to scope the project and develop a delivery plan. We will provide a statement of work detailing our scope, costs and timescales. A typical NPI study will take at least six weeks.



### 2 Understanding your needs and drivers

We work with you to understand your organisation's maturity in NPI processes and tools, and identify where we can add value.



### 3 Process development

If you require support in developing an NPI process for your business, we will work with you to develop, document and embed the process within your organisation. This may be through process mapping, guidance documentation or direct support.



### 4 Process delivery

If you need support in delivering elements of the NPI process, we will work with your team to complete this. We can also help develop your team's capabilities for completing an NPI process yourselves.



### 5 Present findings

We present our findings with underpinning evidence and recommendations.