

# Innovation Management

**Innovation is the introduction of an idea that is new to the world or simply new to the organisation that is successfully leveraged to deliver value.**

**It involves creativity and implementation and is only realised through careful and sometimes subtle management.**

**Innovation is absolutely essential to organisational progress and sustainable competitive advantage.**

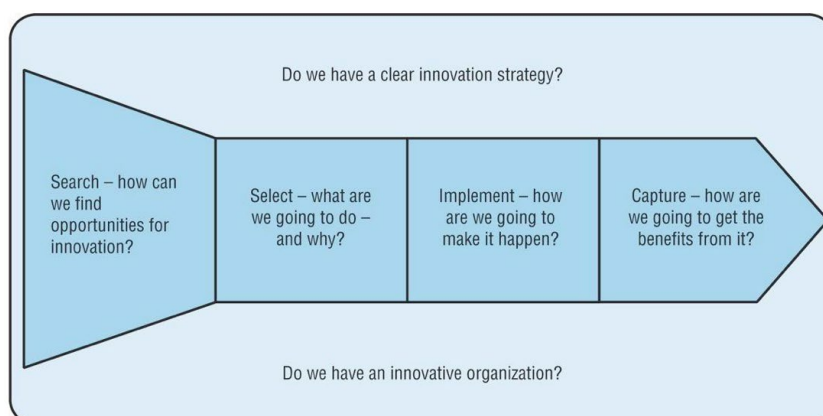
## What is it?

*"We cannot solve our problems with the same thinking we used when we created them."* Albert Einstein

Managing innovation: targeting and fostering it, requires specific inputs and strategic commitment.

It is a good idea to consider it in stages. But don't let this make you think it is formulaic. Innovation is iterative, messy and unpredictable. That's why supportive, mature and strategic management is essential.

## The Innovation Process



(diagram source Tidd and Bessant 2013)

Start by nominating an innovation champion in your organisation, then progress to building a team and allocating time and resources to solving

the questions illustrated above.

Management of innovation can be visualised as a value chain that must have strong links in order to be efficient.

The right environment for **idea generation** must be nurtured in your business (open, experimental, non-judgemental).

Groups and diversity must be leveraged to enable powerful **cross pollination** of thoughts.

**External sourcing** should be involved to broaden perspectives. This may be intra-industry such as through the Institute of Quarrying or even cross industry.

**Selection** of ideas to pursue is not a simple task, as the most powerful and disruptive are often counter-intuitive to begin with. A multi-disciplined decision process is required.

**Development** and **diffusion** of the idea must be well supported to ensure the full effect seeps through the organisation.

### Important concepts

**Exploitation** is the engine of the organisation that drives short to medium term results and profit through maximising on current operations and strategies.

**Exploration** is the learning, research, testing and experimentation that can lead to innovative shifts in the business.

The best strategy for longevity involves some degree of **ambidexterity** – developing capacity and efficiency in both exploitation and exploration to achieve an appropriate balance.

**Disruption** eventually occurs in all industries. New entrants or innovating incumbents alter the market landscape, or create new ways of delivering and capturing value. Organisations which have not developed their exploration capacity will see disappearing margins.

### Types of innovation

Innovation can be **incremental** – improvements to existing products,

services or processes; **modular** – changes to components or concepts in a system; **architectural** – changes to the linkages between components; or **radical** – encompassing transformation that has deep and wide effect. All can have significant impact.

Product	Changing what the organisation offers – tangible or intangible products and services
Process	Changing how the organisation sources, manufactures or delivers its products
Position	Changing how products are presented to customers and their context
Paradigm	Changing the fundamental function and mental model of the organisation

So - it's not just R+D, product design, or lean improvements. Innovation is all of these and more. More holistic, more challenging, more influential in the long run. And it's not a finite step: the best organisations develop innovation skill and keep doing it to maintain their lead.

### Why is it important to me?

*"It takes all the running you can do to keep in the same place. If you want to get somewhere else, you must run at least twice as fast."*  
Lewis Carroll

Innovation is essential. If you don't do it, others will.

The "**competency trap**" refers to the natural prevalence for an organisation to continue doing what it is good at. Eventually this means the organisation will be unable to lead or adapt to alterations in the strategic landscape.

For good reason, quarrying organisations often focus on tightly controlled operations management. To target innovation, leaders need to adapt their approach – but this only happens with support and strategic commitment.

Sustainability issues, for example in a low carbon or circular economy, will be an increasing driver of innovation in the industry. And long term return consideration is becoming more important as the world recovers

from a financial crisis brought on by short-termism.

IQ believes innovation is crucial to the future of the quarrying industry, which is highlighted by the “Innovation and Knowledge” section on the IQ Skills Wheel.

## Where Next?

*“Innovate or die.”* Peter Drucker

It is best to begin with the executive team and managers - ensure everyone is comfortable with and strategically committed to the notions around innovation management. Training and workshops can help fill in any gaps.

The innovation engine must then be developed to involve a broad spectrum of the workforce and be managed carefully to ensure continuous improvement and evolution.

## Research

Starting points for independent research:

Christensen, C. M. (1997) *The Innovator’s Dilemma: When New Technologies Cause Great Firms to Fail*, Harvard Business School Press, Boston, MA.

Govindarajan, V. (2011) *Innovation’s Nine Critical Success Factors*, Harvard Business Review, available online:  
<https://hbr.org/2011/07/innovations-9-critical-success>

Tidd, J. and Bessant, J. (2013) *Managing Innovation: Integrating Technological, Market and Organizational Change* (5th edn), Chichester: Wiley

## Institute of Quarrying

IQ supports professionals working within the quarrying and minerals products industry through membership and training. These factsheets are produced across a range of topics to share ideas and best practice.

Further information can be found via the careers section on the IQ website <https://www.quarrying.org/careers>

Resources, ideas and best practice are shared through the skills wheel  
<https://www.quarrying.org/members/iq-skills-wheel>

The IQ offers various training courses aimed toward specific management skills

<https://www.quarrying.org/careers/iq-academy-training>

## **Innovation Factors**

A boutique management consultancy focussed on helping organisations build their innovation capacity with free online innovation quick-diagnostic tool available [www.innovationfactors.co.uk](http://www.innovationfactors.co.uk)

This factsheet was produced by Innovation Factors in conjunction with the IQ.