

Inventing for profit

An inventor's guide

This guide was written by the team at Innovate

to help individuals and startups

commercialise their ideas

Vital information



“Genius is one percent inspiration, ninety-nine percent perspiration.”

Thomas Edison — Inventor of the electric light bulb



Each year, thousands of new consumer products are introduced to the marketplace, many of them developed by individual inventors and small firms.

This guide aims to introduce the ways an inventor can make money from a new idea or invention. It begins by looking at how to protect your idea, explains the concept development process, and explores the different routes to financially benefit from your product.

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Available forms of protection

Utility patents

A utility patent may be described to protect the ‘functionality’ of your invention, in terms of how it works and its application. If granted, the patent gives you the right to prevent others from producing, importing or selling your invention, within the geographical jurisdiction (which will be the United States for a US patent) without prior permission.

Design patents

A design patent protects the overall appearance of the invention. A granted design patent gives you the right to prevent copying of any new, original ornamental design within the geographical jurisdiction (which will be the United States for a US patent) without prior permission.

Copyright

Copyright is applicable to forms of written work, artwork or audio (written or recorded). The Library of Congress registers copyrights which last for the life of the author plus 70 years.

Trademark

A word, phrase, logo, graphic symbol, or other non-functional device that is used to identify the source of a product or service and to distinguish it from competitors. Protection is renewable indefinitely as long as the trademark is being ‘used in commerce’.

The best method of protection depends on individual product

A photograph showing a row of five connected blue tepee tents in a grassy field. The tents are made of a dark blue material and have a conical shape with a small opening at the top. They are connected by a horizontal tube. The background shows a line of green trees.

Gigwam

Gigwam is a connectable tepee tent system

Client: Dustin Toland

What is a utility patent?

A utility patent protects product ideas that are new and original. It protects functionality, how things work, what they do and how they do it. A utility patent allows the owner to prevent anyone else from producing, importing or selling their invention in the geographical jurisdiction of the granted patent. Protection usually lasts for 20 years.

There are 4 main categories of invention for which we can help:

- 1 New technology
- 2 A new process
- 3 A novel use of known or existing technology
- 4 An inventive improvement on an existing product

*Your idea need only fall under one of these categories

To succeed with a utility patent, at least some parts of your idea

must be:

- 1 Novel
- 2 Not obvious
- 3 Able to meet a 'utility' requirement

*Your idea must fulfill all of these categories

The patent application will need to demonstrate and describe these requirements.

Your idea must not be:

- A perpetual motion device
- An abstract idea
- A law of nature
- A naturally occurring substance
- An invention that has been publicly disclosed more than 12 months ago

To find out if your idea contains sufficient commercial matter and what monopoly claims you can try to make, it is often wise to conduct a [worldwide patent background search](#) before spending time and wasting money developing your invention.

What does a utility patent involve?

A **(non-provisional) application** for a utility patent is a legal and technically complex document. Although you are not legally obliged to use a trained professional to write the application, it is typically advisable as the wording is of utmost importance.

There are typically 4 main parts to a utility patent application:

The Drawings: Pictorial representations of an embodiment of your invention to support the wording of the application

The Description: A detailed description of how the invention works including background information relating to other relevant patents.

The Claims: What you are claiming is unique about your idea; this is the most important part of the application and is the part the patent examiner will use to determine whether your patent will be granted, and what protection it offers.

The Abstract: A short synopsis of the application.

The federal body tasked with patent matters, the United States Patent and Trademark Office (USPTO) provides a procedure for filing a provisional application for a utility patent. Filing a provisional application for a patent gives 'patent pending' status. Therefore you can file a patent application to receive "global" patent pending for under \$100. If a full or non-provisional application is not filed within 12 months the provisional application will be abandoned and the inventions disclosed in that period may never be capable of patent protection.

The 12-month 'pendency' for a provisional application is not counted toward the 20-year term of a US patent granted on the basis of the provisional application filing date. However the provisional filing date does count towards the 20 year foreign patent term under the Paris Convention if it is later claimed.

Although it is possible to file many documents as provisional application any 'matter' not covered in the provisional application may not be able to rely on the provisional filing date. We provide help with this if needed.

How much does a utility patent cost?

Official fees: Claiming 'small entity' status, current filing fees (March 2020 / Fees are subject to change) for a provisional application for a utility patent are \$125. Non-provisional applications are more expensive.

US utility patents typically last 20 years from non-provisional filing date and maintenance fees are due 3 ½, 7 ½ and 11 ½ years from the date of the original patent grant.

Professional fees: You are not obliged to use a patent attorney or agent; however you may find it useful to consult with one when considering drafting the application. We can advise on finding a suitable patent attorney or agent.

Mobile Applications

These days mobiles account for around half of all world internet traffic! This has created a huge market for new apps with mobile apps expected to generate around \$200billion in 2020. There is tough competition in the field but with the right approach it is possible to tap into the success the market is having.



Mobile App Prototype

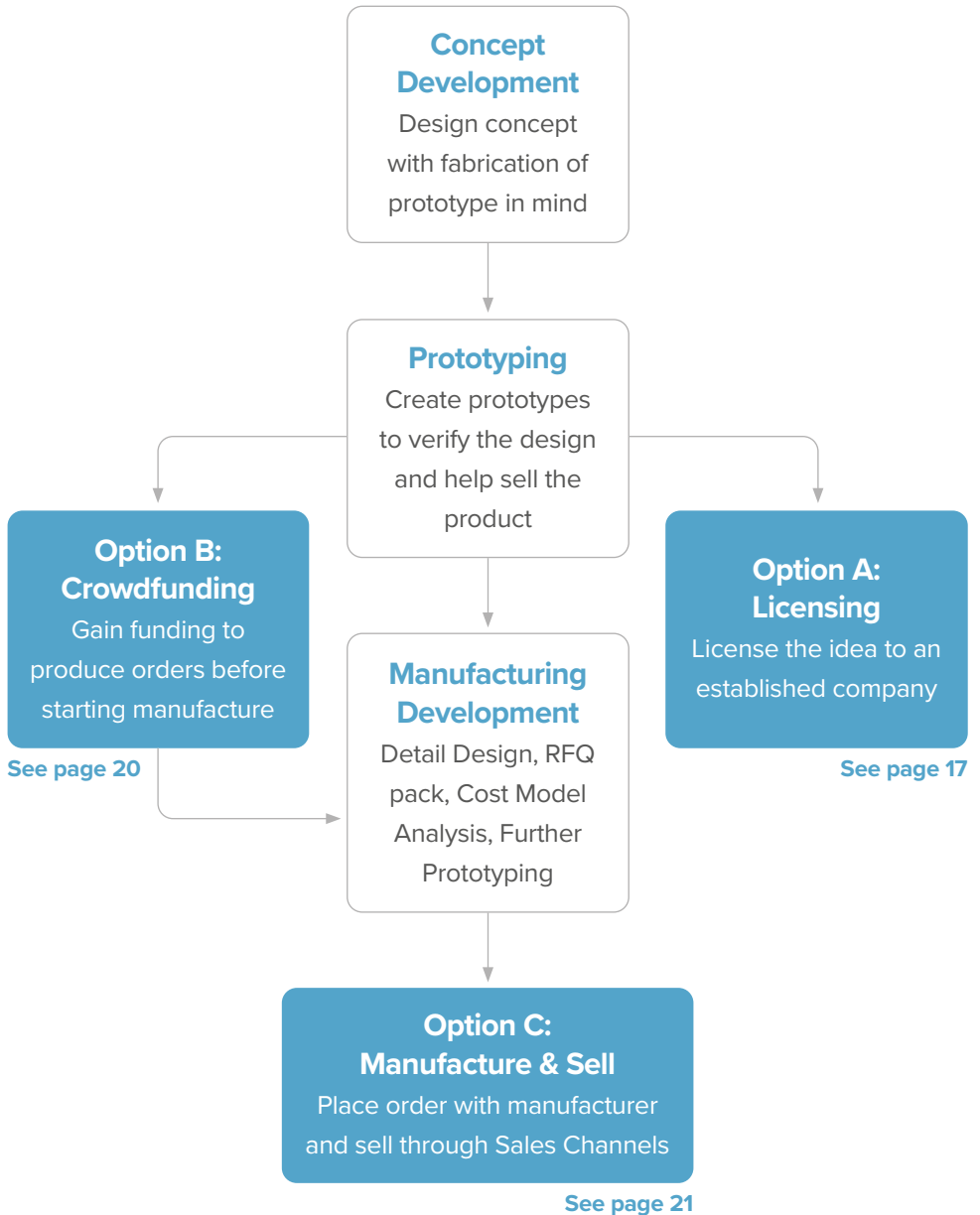
A cost-effective technique when developing a new app idea is to visualize the app early on which can include mocking up a basic visual prototype. A visual prototype of the app allows innovators to finalize their concept and plan out the functionality and user journey through the app. These prototypes do not have the full functionality of the final app but cost a lot less to develop. You can use this basic prototype to gain feedback on the idea and find investment for further development. It will be used as the framework to develop the software in App Development.

Mobile App Development

In app development, the fully working version of the app can be developed ready to launch. This gives you time to find any bugs which may still remain in the app. It's important to remember that app projects are an ongoing process. It is generally a good idea to start simple, launch soon and keep improving as you gain insights from your customers.

New Product Development (NPD)

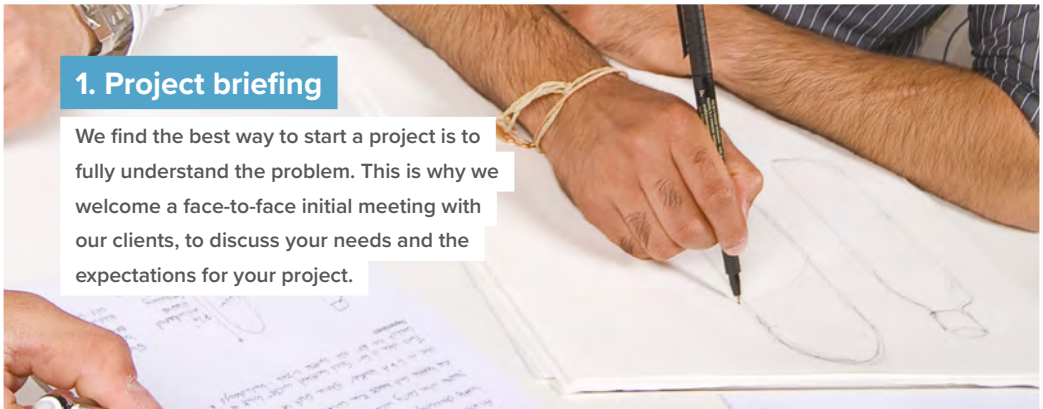
The flowchart below illustrates the stages typically involved for individuals and startups.



Concept Development process

It is important to develop the idea, looking at materials, manufacturing methods, functionality and aesthetic form. The process will also help to resolve principle technical issues. This will help the product gain credibility and inspire confidence in the product. Having an idea developed can also:

- Further define the intellectual property to strengthen your patent application,
- Provide you with patent drawings and define the novel features of a design,
- Create additional intellectual property that could also be patentable.



1. Project briefing

We find the best way to start a project is to fully understand the problem. This is why we welcome a face-to-face initial meeting with our clients, to discuss your needs and the expectations for your project.

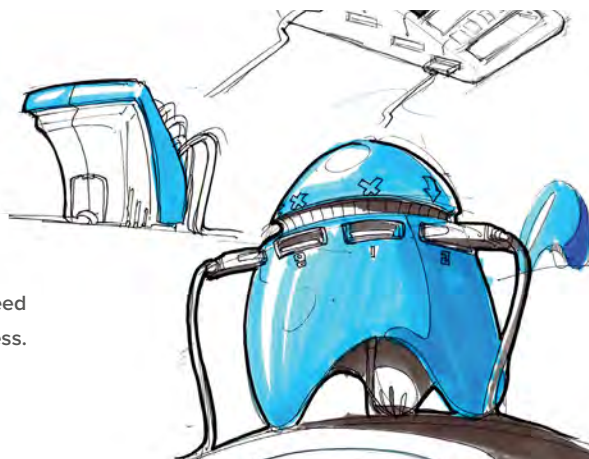


2. Research & analysis

We investigate the key issues that may influence the design: from market analysis to the usage cycle, we explore the core factors that will help shape your product.

3. Concept design

We work together to produce suitable concept design. This is then presented to you in an interim design review, allowing you to ensure that we are agreed on the direction your project will progress.



4. CAD development

Once the form and function are confirmed, we can develop the technical details of your product. This includes validating the manufacturing feasibility of the product, the system design and the internal component integration.



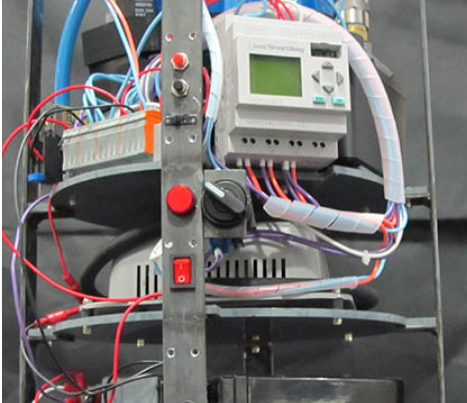
5. Product visualization

We produce photorealistic images, professionally illustrating the design and function of your product. This is delivered as a high quality visualization package, providing you with professional presentation material with which to approach industry.



Prototyping your concept

Different types of prototypes suit different needs.



Proof of Concept

A rough prototype used to test the idea and its key functionality. It is experimental and it will involve making a test rig.

Testing functionality early will save you time and money in the long run.



Functional Prototype

It explores the functionality of the intended final product with initial consideration of shape.

Avoid wasting money on too many features at this stage, design it for maximum learning and minimum cost. This is a type of Minimum Viable Product (MPV).



Appearance Prototype

This will look like the final product but does not usually function.

Try to avoid making an appearance prototype before establishing that your concept functions as intended. A more cost-effective way to visualize a final version of your product is to create photo-realistic images using CAD modelling.

Final Design Prototype

This will look and function as if it was the final product, but the component parts will most likely be made using different processes and materials.

Make sure that consideration has been given to final manufacturing processes before the prototype is built.



Production Prototype

It can be used as a “Golden Sample” to show factories the quality standard required. The prototype appearance, function, materials and manufacturing process are the same as the final product.

Failing to test the prototype thoroughly can be a very expensive mistake if you receive a shipping container full of faulty goods.

Case study: BoginaBag®

As seen on
Dragon' Den

Client: Kate Castle, www.boginabag.com

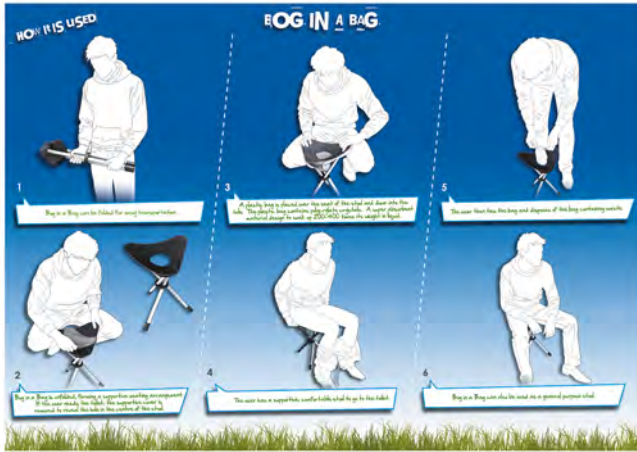
BoginaBag is a unique portable toilet which is lightweight and extremely robust. It provides the owner with a solution to that age-old question of needing to go and having nowhere to go!

Kate Castle's idea for BoginaBag® came to her when she was desperate for a toilet in the middle of the night whilst camping and couldn't face walking across a dark campsite to the toilet block. She started to research portable toilets and after dismissing bulky chemical based options, she decided it was time to come up with a better alternative. From idea submission to finalized design, the process with Innovate took about three months.

"I was very pleased with the final product design and the presentation boards that were produced." — Kate Castle



Innovate provides professional presentation boards to help gain interest and investment for your product idea.



Left: the 'storyboard', showing how the product is to be used in simple steps.

Below: the detail boards - these boards show the finer details of the product, which can include materials, mechanisms, and key functionality of the design.

After completing a full budget planner and getting an investor on board, Kate then applied for a patent and registered design images. Once those were done she approached UK and Chinese manufacturers directly.

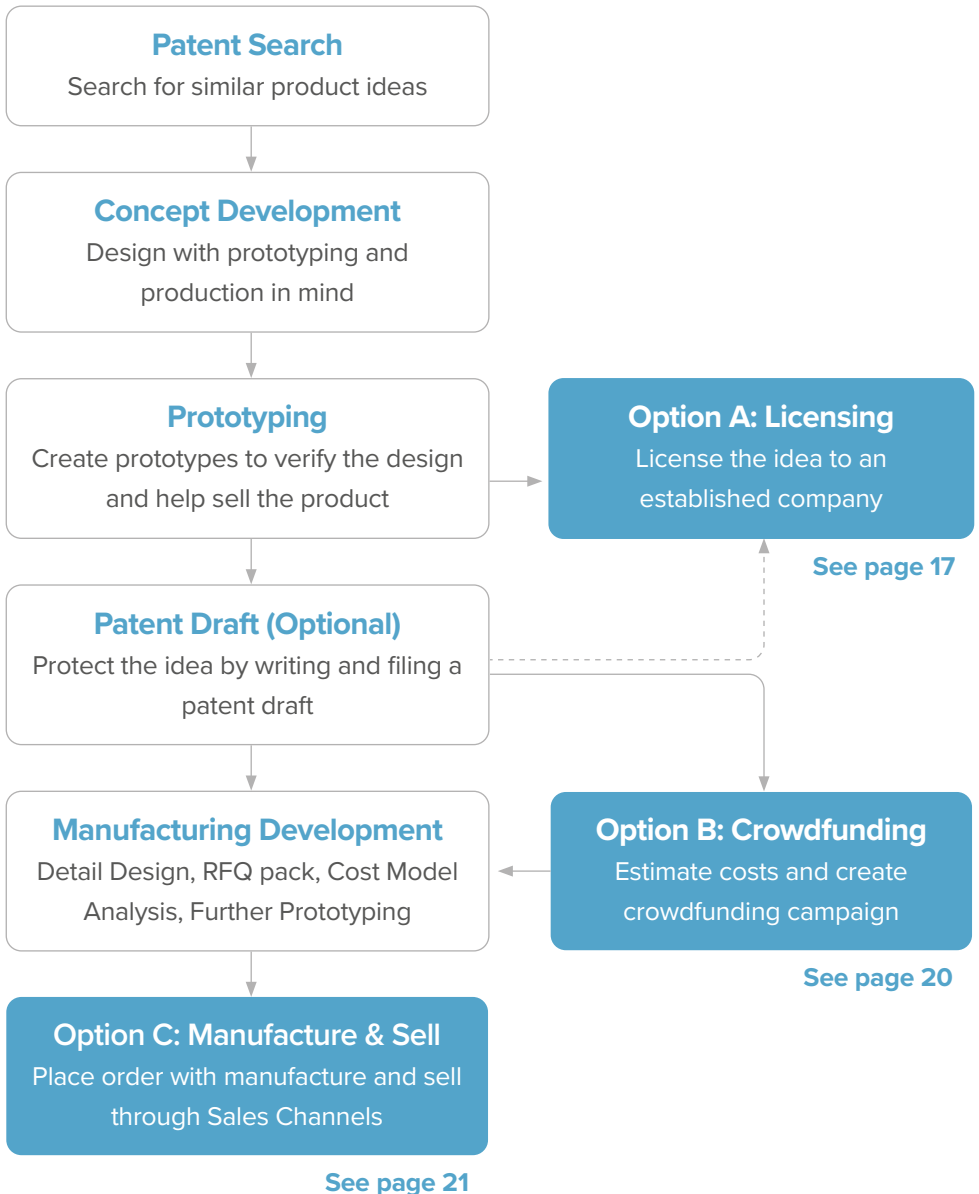
Since launching in April 2010 Kate has appeared on Dragon's Den and won £50,000 of investment from Theo Paphitis.



You can purchase BoginaBag® from www.boginabag.com as well as from stockists nationwide.

Routes to market

There are three main ways to make money from an idea; Licensing, Crowdfunding and Self Manufacture.



Option A: Licensing

A licensing agreement for a new product idea is a contract between yourself, as the inventor, and the manufacturer to manufacture, distribute and advertise your product as their own while you receive a royalty payment.

The agreement contains several terms and conditions dependent on those negotiated between you and the individual company or companies. These terms can include the length of the contract, the exclusivity of the contract, the royalties' structure and details of their intellectual property involvement.

The inventor receives a percentage of the profits as their reward. Sometimes an upfront lump sum is provided and other times the inventor receives set bonuses at certain sales targets. These types of additional payment will be dependent on the type of contract drawn up between you and the company or companies. Regardless of this, most deals will include a minimum payment that the company must make to the inventor, irrelevant of sales.

PROS:

- Total investment for production, and therefore total risk is provided by the company or companies to whom you are licensing your product.
- Licensing to an expert in the industry means that a company with the relevant networks and means already in place can get your product to market more quickly and successfully than if you took on the manufacturing, distribution, sales and marketing yourself.
- Minimum capital outlay.

CONS:

- Although you receive royalties, the return you make per unit sold will be a lot less than if you manufactured the product yourself.
- It is often difficult to acquire licensing deals: you have to undertake a significant amount of background work in order to professionally present the idea to industry.

Licensing continued

The likelihood of success and the financial rewards are often greater if more work has been completed by the inventor, prior to meeting with industry. Developed products always appear more attractive to potential manufacturers.

There are 3 main types of license:

An exclusive license: whereby only one company has the rights to produce your product.

A sole license: whereby only one company and yourself have the rights to produce your product.

A non-exclusive license: whereby any number of companies and yourself can produce your product.

A license agreement should typically address:

Exclusivity and Scope

- Duration and termination of the contract
- Standard terms: breach and insolvency
- Other termination rights: non-payment, failure to exploit, challenging the patent

Obligations to exploit (to stop a licensee from 'sitting' on an idea)

- Minimum royalties
- Contractual commitments
- Break clauses
- Consequences: termination / conversion to a non-exclusive license

Royalty structures

- Running royalties, signing fees, milestones
- Are the royalties payable on net sales value of products sold?
- Does it include VAT / tax?
- Is it calculated as a percentage or fixed amount?

Patent Enforcement

- Who is responsible for enforcing the patent?
- Who will bear the costs?

Each licensing deal is unique and depends on the perceived value of the invention and its stage of development. Below is a very rough approximation of the royalty payment paid to the inventor at the different stages.

Idea only

0.5 - 1% of production price (very hard to license)

Prototype + Patent pending / granted

3 - 4% of production price

Product design + Prototype + Patent pending / granted

4 - 10% of production price



TopKase

An iPhone case with a unique sliding shutter to prevent scratches and scrapes. Innovate helped client Aswan Ali successfully license her design to TopKase in 2012

Option B. Crowdfunding

Crowdfunding offers a relatively new and exciting way to launch your product. Crowdfunding platforms such as Kickstarter and Indiegogo give entrepreneurs the opportunity to raise money which can help pay for production. With crowdfunding, rather than “selling” a product and a customer “buying” it, you offer “rewards” in exchange for “pledges” from supporters of the project. For example, you could offer an early release version of your product in return for a monetary pledge which would cover the cost to make the product and a contribution towards any setup costs. I.e. you receive the money before you’ve started production.

How it works

On some crowdfunding platforms, you set a target amount of money that must be raised for the project to go ahead. If this amount is reached within a set time, then the campaign’s creators receive the money and those who pledged are charged. It is then up to the campaign creators to start production and deliver the products which they promised in return for their pledges.

Benefits

In a commercial world where retailers will sometime require 90 day invoicing (they pay you 90 days after receipt of your stock!), crowdfunding can be an exciting option for new products.

If your crowdfunding campaign is successful it gives you a strong position when negotiating with buyers. You can expect lots of direct feedback from the crowdfunding community which can help to make your product even better.

Typical requirements

- A fully functioning prototype
- Presentation material
- Video demonstrating the product
- Public relations to attract people’s attention to your particular campaign

 Click Here

Option C: Manufacture & sell

Even if you are looking to manufacture the product yourself it is still important to develop presentation material for the purpose of gaining investment or interest from industry to secure deals. It is also necessary to have CAD (Computer Aided Designs) developed before looking to prototype.

By choosing to take on the project yourself you would be responsible for the manufacture, distribution and advertising of your product. There are lots of different options involved within this: whether you choose to manufacture abroad or in the UK; whether you distribute through your own retail outlet or through a distribution or merchandising centre; whether to choose press releases, editorial, or media channels to advertise. A lot of these choices will be based on investment means and finances.

Although this process requires 100% investment there are numerous ways to obtain investment for your project to help move it forward: whether this be through venture capitalists, business loans or competitions.

PROS:

- Receiving 100% of the profits.
- Having total control over the venture and its exploitation.

CONS:

- There is a larger element of risk when taking on a project yourself.
- It can often take some time to get to market.
- High capital outlay.

Combining options

You do not have to definitively choose between these avenues for progressing your project. It is possible to change path at any point and sometimes even combine these options.

However, before you think about choosing the right path for you it is important to show that you have invested a small amount in the project yourself to professionally develop the idea. Innovate's design team specialises in creating product presentations to demonstrate the viability of new concepts.

Product sales

Once you have product stock, there are many ways you can sell it. They all vary in terms of potential sales volumes and the amount of margin you must give away to third parties. The sales channel best for you will depend on the type of product you have developed. Generally speaking, Party plans and Webshops can be a low-cost way to start selling.

Sales channels

Door to door

Selling from door to door. A good way to get direct feedback.

Catalogues

Add your product to a collection of other products. Examples: Airlines, ferries

Webshop

Make your own website which people can buy your product from.

Telly Sales

Demonstrate your product on shopping channels to win orders. Example: QVC

Party plan

Find a group of likely customers and organise a get-together where people can try the product and make orders. Great for feedback. Examples: Ann Summer's and Tupperware parties



Online Market

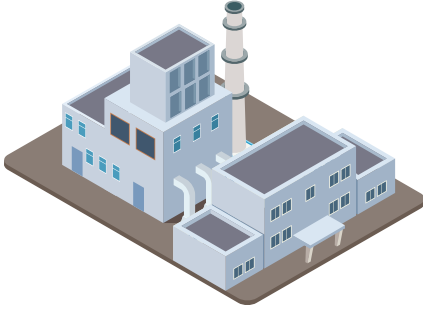
Places

Sell through large online marketplaces. Examples: Amazon, Ebay

Distribution (Wholesale)

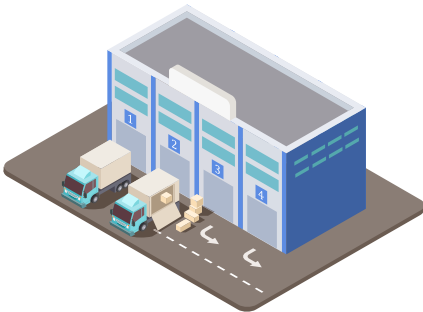
Selling into retail shops via distributors. Examples: **Walmart**, **Target**, **Bed Bath & Beyond**

The retail supply chain



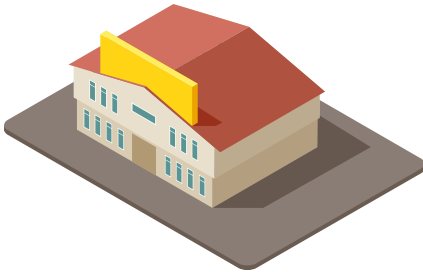
Manufacturers

Products are produced from raw materials by technicians and machines.



Distributors (Wholesalers)

Products are collected from manufacturers and sold to retailers in bulk quantities.



Retailers

Products are sold to the consumer in small quantities.



Consumer

Buys the product from retail shops for personal use.

Marketing & business planning

Innovate are on hand to provide advice the whole way through the process, whether you choose to license or to manufacture yourself.

Although invention promotion and marketing companies exist, there are often considerable fees with no guarantee of success. Innovate can provide you with all the tools and information to market the idea yourself, keeping your costs to a minimum. With your full background knowledge and the passion to drive your project forward, an investor or licensee is going to be more interested in your story than that of a third party marketeer.

There are other services that Innovate provide in moving your project forward including website design for promoting or selling your product, logo and graphic design for packaging or marketing and trademark searching and application help to strengthen the branding of your project.



About Innovate Product Design

Innovate is comprised of award-winning design engineers, researchers, business development professionals and Intellectual Property experts, with experience in all areas of IP, product design and manufacture. We provide a complete service from protecting your product, through design and prototyping, to advice on marketing. With in-house expertise, we can take your idea from paper to product, providing you with the best chance of success at market.

“Innovate helped me to bring my idea to life, by taking my very own homemade model, made from sticky tape, foam pads, bits of plastic and stainless steel, transforming it into an impressive marketable product made from a special type of nylon. This enabled me to show my product to potential customers with total confidence for the first time. Looking back at the Topster journey, working with Innovate and making a prototype was, without doubt, one of the best decisions I ever made.”

Steve Thomas, Topster™ | www.topster.co.uk

“It was a huge relief to meet a company that was able to translate my ideas into reality, in a practical and cost-effective way. The process felt quite low risk, I gained some sound business advice and it was great to have our initial meeting surrounded by examples of their previous clients successes”

Sian Ellingworth, Buddies | www.buddiestoothpaste.com

“Sourced the team through the internet and wanted to visit your office as quickly as I could , I was blown away with the knowledge and enthusiasm the team had, they got my idea straight away and probably exceeded my expectations in the design that was delivered.”

Mike Leslie, Tub It Safely | www.tubitsafely.com

Submit your idea: Free Project Review

Why not take the opportunity of having your idea reviewed by our team of experts free of charge?

Innovate offer an idea review to work out if we are able to help you with your idea, and also to help you understand all the options available to protect and profit from your idea.

The best form of protection

In order to take any new product to market, you first need to protect the idea. There are different ways of protecting different ideas and this is why we need to evaluate the best form for you.

Next Stages

A review of the options available and recommendations on how to proceed.

Viability

We will assess any technical aspects of the project and whether the concept would be viable within the market place.

Marketability

We will undertake market research, looking into the potential size of the market in which your product may be successful.

 [Click Here](#)

Innovate can help you every step of the way,
from concept and protection through to production and
business advice.



Protection

Patent advice Intellectual Property (IP) advice
Worldwide patent search Patent drafting

Concept Development

Product design Design engineering
Design for manufacture Mobile Applications

Prototyping

Proof of concept Functional Production

Business & Marketing

Promotional web site design Logo design
Packaging design Crowdfunding
Business advice Business start-up advice

Tel: (727) 205-3089

Web: innovate-design.com

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