



# Intellectual Property & Technology Transfer

# About Me

## Experience



### Head of Technology Transfer Office

Teagasc

Apr 2017 – Present • 9 mos

Dublin

Teagasc is Ireland's national agency responsible for R&D, training and advisory services for the agri-food sector.



### Technology Transfer Case Manager

Trinity College Dublin

Sep 2015 – Mar 2017 • 1 yr 7 mos

I built industry collaborations between companies with a problem statement or innovation requirement and Trinity researchers in ICT and the lifesciences. Furthermore, I negotiated the licensing of Trinity inventions and technologies to industry.



### Commercialisation Specialist

Enterprise Ireland

Jan 2013 – Sep 2015 • 2 yrs 9 mos

Dublin

Bringing mHealth and other lifescience opportunities in the university from applied research to commercial implementation.



### Team Leader

ApeRunner

Apr 2011 – Oct 2011 • 7 mos

Dublin

ApeRunner is a social media based fundraising platform for charities and non-profits. See <http://www.apeworks.com/aperunner> and follow us on Twitter @ApeRunner for more details.

### Media (1)



ApeRunner in action



### Business Development Advisor

TriMod Therapeutics

May 2011 – Aug 2011 • 4 mos

Dublin, Ireland

TriMod Therapeutics is a biotechnology start-up focused on the development of a therapeutic cancer vaccine platform technology. See <http://www.trimodtherapeutics.com> for more information on TriMod.



### Director

Berand

Jan 2004 – Aug 2006 • 2 yrs 8 mos

I was a founder and director of Berand Ltd, a University College Dublin (UCD) spinout. Berand focused in high value collaborative research with large pharma and in house drug development directed against pervasive developmental disorders such as autism ([www.berand.ie](http://www.berand.ie)).



### Postdoctoral Researcher

University College Dublin

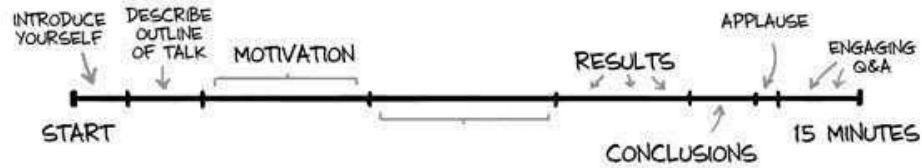
Oct 2003 – Aug 2006 • 2 yrs 11 mos

As a senior postdoctoral researcher in an SFI funded collaborative research programme between UCD, TCD and Wyeth, I investigated potential new drug targets to treat schizophrenia and other mental and neurological conditions.

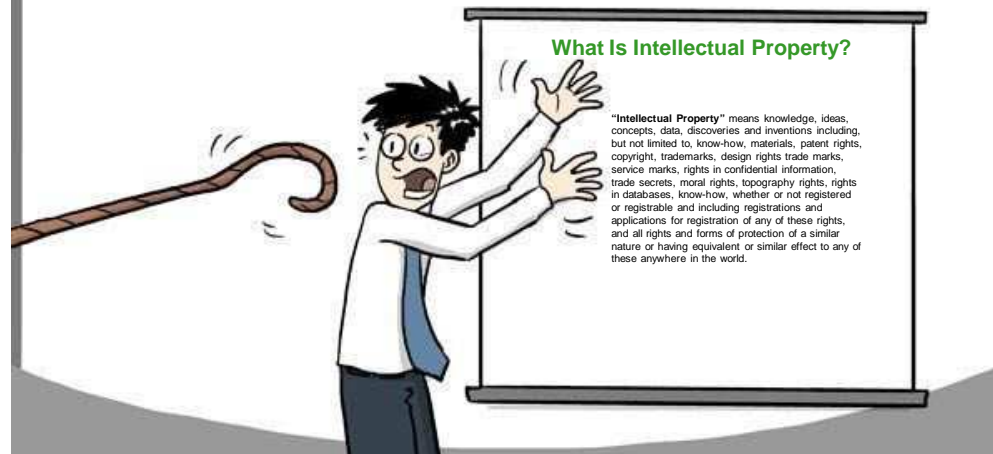
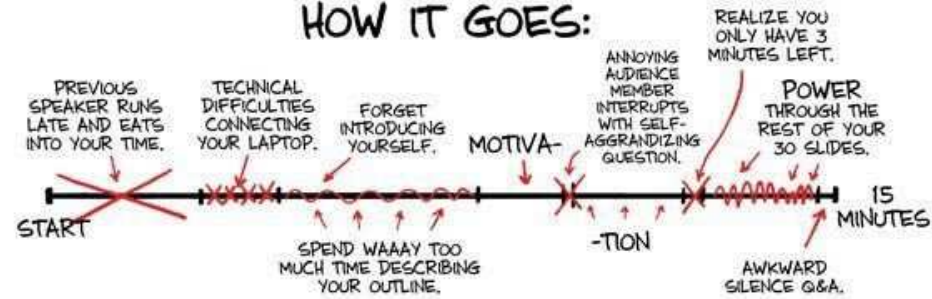
## HOW YOU PLANNED IT:



## HOW YOU PLANNED IT:



## HOW IT GOES:



# What Is Intellectual Property?

## RPO IP is

- a driver of innovation
- a crucial element of economic progress and prosperity
- a key element of an RPOs contribution back to the taxpayer and the economy



# What Is Impact?

**Trained Talent.** High quality graduates working for industry in Ireland.

**Increased industry competitiveness.** Partnering with industry in collaborative and solution driven research programmes that result in new knowledge – technology, processes, product information, trained people – which increases a companies chances of success.

**FDI.** Partnering to make Ireland more attractive for investment.

**Licensing.** Transferring our intellectual capital to industry.

**New company formation.** Supporting new companies.

# What Is Intellectual Property? Cont....

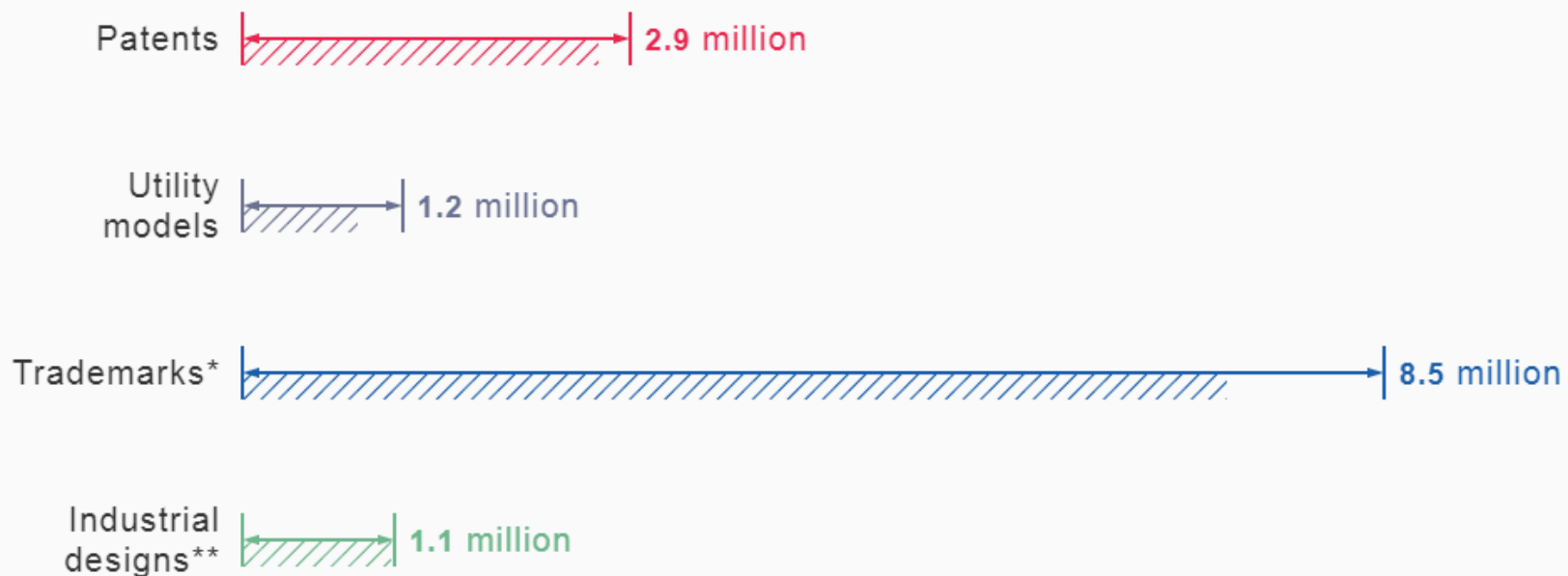
**“Intellectual Property”** means knowledge, ideas, concepts, data, discoveries and inventions including, but not limited to, know-how, materials, patent rights, copyright, trademarks, design rights trade marks, service marks, rights in confidential information, trade secrets, moral rights, topography rights, rights in databases, know-how, whether or not registered or registrable and including registrations and applications for registration of any of these rights, and all rights and forms of protection of a similar nature or having equivalent or similar effect to any of these anywhere in the world.

## IP Facts and Figures

# Total applications and growth in applications

STRONG GROWTH IN DEMAND FOR IP RIGHTS

▨ 2014 |→| 2015





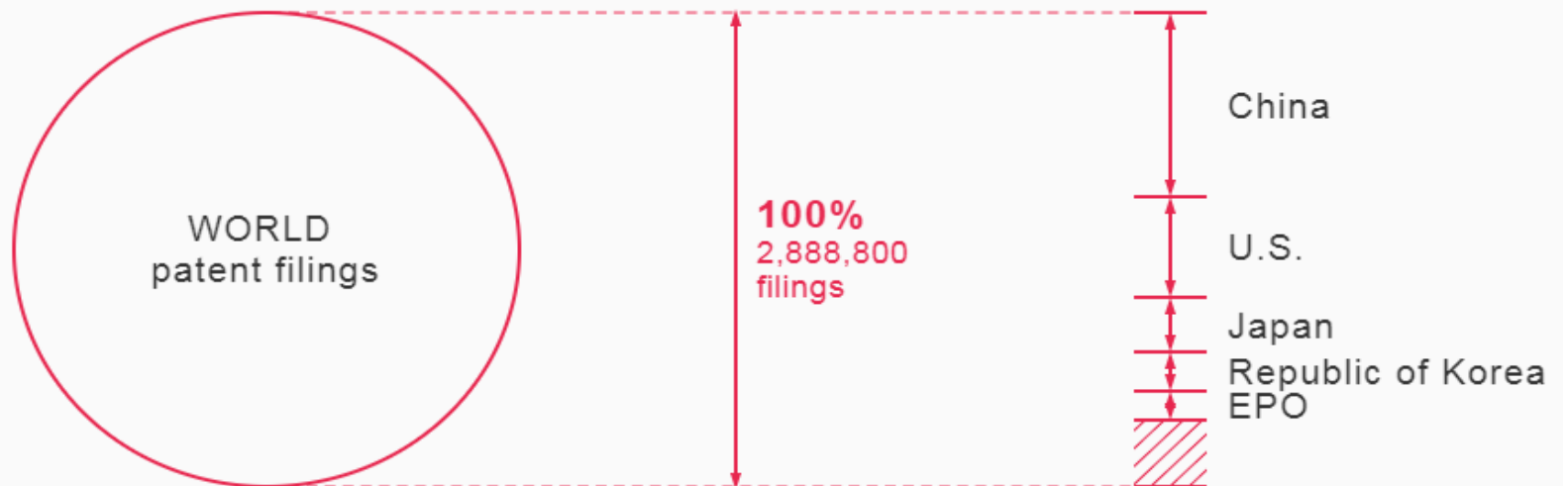
# IP Facts and Figures

PATENTS AND UTILITY MODELS ▾

## Total patent applications

JUST FIVE IP OFFICES ACCOUNT FOR MORE THAN FOUR-FIFTHS OF ALL PATENT FILINGS

▨ Other regions

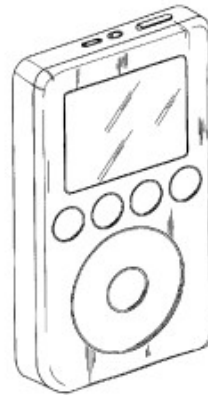


# Some Examples



Brand worth  
€27bn

Coca-Cola®



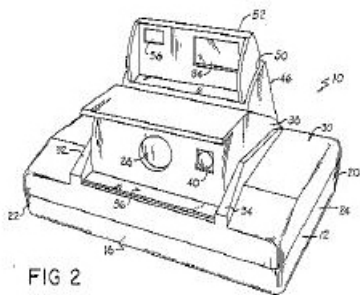
>100M  
sold

Apple® iPod®



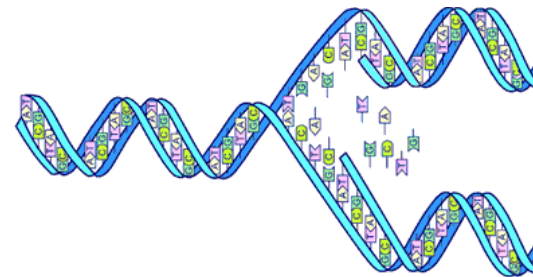
Copyright >  
€750M

Harry Potter



Instant camera

Kodak had to pay €550M to Polaroid for illegal use of Polaroid's IP



Patent sold for €190 Million

DNA copying process

# Intellectual Property Rights

Patents \*

Trade Marks\*

Designs\*

Plant Variety Rights\*

\* Must be registered

Copyright°

Database Rights°

Secret Know-how°

° Formalities not required

# Venetian Patent Statute, 1474

M ccc lxxiiii. die domini Martij. .32.

Sap Consily. v. r.  
 p Marcus Coz mil  
 p Ludomus fustar doctor  
 p paulus namocena  
 p Bernardus Justin mil  
 p Vital' lardo doctor mil.  
 Sap tre firme.  
 p Anton' di prudis  
 p Lodomus fustar  
 p zachar Barbaro mil  
 p Benedictus t'z misano.

Sono i questa Cita / et anche ala zornada / p la grandeza et bonta sua  
 Concorre homeri da diverse bande / et acutissima fragegni / apti ad excogitar  
 et trouar varij Ingegnosi artificij . Et sel fosse promisto / che le opere et artificij  
 trouade da loro . altri viste che le haneffeno / no podesseno farle se tuoz honor  
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 et Ingegnoso artificio / no facto p'anti nel dno nro / Reducto chel fara a  
 pfection / Et che el se possi vsar / et exercitar / sia tenuto darlo i nota al officio  
 di nri prouedotori de Communi . Siando prohibito a chadany altro i alcuna terra  
 e luogo nro / far alcun altro artificio / ad imagine et similitudine & quello senza  
 consentimeto et licentia del auctor / fino ad ani . x . Et tamen se alcun el fesse /  
 L auctor et truentor predico / habra liberta poderlo citar achadany officio de  
 questa Cita / dal qual officio el dicto / che hanesse cotrafatto / sia astreto apagarli  
 dno Cento / et lartificio subito sia desfatto . Siando po i liberta de la nra signor  
 ad ogni suo praxer / tuoz et vsar nel suo bisogni chadany di dicti artificij / et  
 instrumeti / Cum questa po condition / che altri cha l auctori no li possi exercitar .

de parte \_\_\_\_\_ 116  
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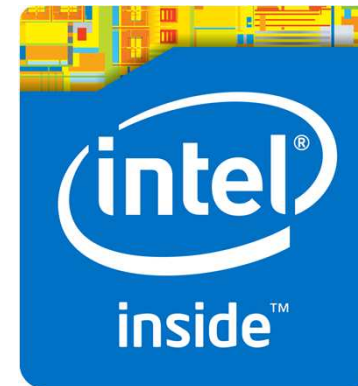
# The Importance of Data

- Data is mainly required for:
  - sufficiency (reproducibility)
  - inventive step
- The description of a patent application must disclose the invention in sufficient detail for it to be reproduced by a person skilled in the art
- Data may be needed in this regard
  - NMR, SEM, TEM data to characterise a final product
- The inventive step requirement is normally met by showing a “technical effect”
  - the advantage that the invention has over the art
- At the EPO it is necessary to make this technical effect plausible in the application on filing
- **IMPORTANT TO KEEP AND MAINTAIN GOOD LAB-BOOKS**



# Trademarks

Word, name, symbol or device to identify or distinguish a good or product from those manufactured or provided by others.





# Trademarks Cont..

To qualify:

- must be used in business/commerce
- be distinctive, visible and consistent
- can't be a functional attribute

Your\_Trademark™

Don't need to be registered to be used though registration makes enforcement easier (renewal 5/10 yearly)

Trademarks don't expire – as long as they continue to be used

Intellectual property [+ Add to myFT](#)

## Nestlé loses EU trademark protection for four-fingered KitKat

Intellectual Property Office revokes registration in case brought by Mondelez



The KitKat shape was not deemed to be recognised across all EU states at the time when the trademark was registered © Bloomberg

DECEMBER 15, 2016 **John Murray Brown**

14 comments

The shape of Nestlé's four-fingered KitKat bar is no longer protected after a European court called on Thursday for the trademark awarded to the Swiss company to be annulled.



FINANCIAL TIMES

WORLD US COMPANIES MARKETS OPINION WORK & CAREERS LIFE & ARTS

fastFT **Nestlé S.A.** [+ Add to myFT](#)

## Nestlé bid to trademark KitKat foiled by UK court



MAY 17, 2017 **Scheherazade Daneshkhu**

Nestlé has been foiled once again in its long-running bid to trademark the

*Copyright of Financial Times*

## Toblerone shape not distinctive enough for trademark, Poundland claims

Defending its right to launch Twin Peaks bar, budget chain cites Toblerone version with fewer chunks brought out last year



**i** A Toblerone bar behind a Twin Peaks bar, which Poundland has delayed launching due to a legal battle.  
Photograph: David Parry/PA

[Poundland](#) has claimed Toblerone's shape is no longer distinctive enough to be a

## Rubik's Cube loses EU trademark battle

Ruling paving way for copycats 'sets damaging precedent', says toymaker



© Dreamstime

NOVEMBER 10, 2016 **Scheherazade Daneshkhu** in London and **Andrew Byrne** in Budapest

 4 comments

Rubik's Cube has lost a decade-long [legal battle](#) after the European Court of Justice ruled on Thursday that the shape of the distinctive, multicoloured toy did not qualify for trademark protection, opening the way for copycat imitations.

The company that oversees the intellectual property rights of the world's most

# Trade Secrets

Wide variety including plans, patterns, methods, techniques, processes, codes, etc

Must take reasonable steps to keep the information secret

The information within the Trade Secret gives independent economic value through being kept a secret



## Evidence in Uber self-driving car case referred to prosecutors

Google's self-driving car division accuses rival of stealing trade secrets



Waymo has accused Uber of intellectual property theft © Reuters

MAY 12, 2017 **Richard Waters** in San Francisco

 2 comments

The judge overseeing the legal battle between Uber and the self-driving car unit of Google's parent [Alphabet](#) has taken the unusual step of referring evidence against Uber in the case to criminal prosecutors.

In a brief order issued late on Thursday, Judge William Alsup said he had asked for the evidence presented by Waymo, Alphabet's driverless car business, to be passed on to the US attorney "for investigation of possible theft of trade

*Copyright of Financial Times*



# Trade Secrets & Universities

Researchers disseminate through publication and disclosure

Universities do not typically retain trade secrets

Companies may wish to share their trade secrets in a collaboration. However, confidentiality for trade secrets is potentially forever. Onerous obligation on university and researchers. Accept with extreme caution.

# Copyright

Protects works of authorship in any tangible medium of expression

- Musical recordings
- Literary works
- Sound recordings
- Motion pictures
- Computer Software
- Pictures/paintings/sculpture

# Copyright Cont..

An automatic right (once it is rendered tangible)

Rights include

- Reproduction of the work
- Derivatives
- Distribution
- Public display

Rights are only for the authors expression not the underlying concept and ideas

Copyright duration is during the lifetime of the author plus 70 years

# Copyright Cont..

Copyrights can be licensed or assigned

Assignment = transfer of ownership

License = confer certain rights but retain ownership

May be exclusive, non-exclusive, country by country

# Copyright Exceptions

- photographic reproductions on paper or any similar medium of works (excluding sheet music) provided that the rightholders receives fair compensation
- reproductions on any medium made by a natural person for private use which is non-commercial provided that the rightholders receives fair compensation
- reproduction made by libraries, educational establishments, museums or archives, which are non-commercial
- archival reproductions of broadcasts

# The story of St. Columba: A modern copyright battle in sixth century Ireland



09 Jun 2011 | Ruth Suehle (Red Hat) | 111 👍 | 7 comments



Image by : [opensource.com](http://opensource.com)



Philip Delves Broughton · Vivendi SA [+ Add to myFT](#)

## Spinal Tap star turns it up to 11 in fight for royalties

The artist's law suit comes at a time of deepening suspicion of platform owners



© Reuters

OCTOBER 22, 2016 Philip Delves Broughton

 2 comments

There can only be one winner in [the case](#) of the actor Harry Shearer v Vivendi, the French media group, over royalties from the 1984 film, This is Spinal Tap. And it's bad news, I'm afraid, for the French.

Mr Shearer, who plays pipe-smoking bassist Derek Smalls in the spoof rock documentary, alleges he earned \$81 over 22 years on merchandising income

*Copyright of Financial Times*

# Database Rights

Related to copyright and last 15 years from completion

Prevent:

- temporary or permanent reproduction by any means and in any form, in whole or in part;
- translation, adaptation, arrangement and any other alteration;
- any form of distribution to the public of the database or of copies thereof,
- any communication, display or performance to the public;
- any reproduction, distribution, communication, display or performance to the public of a translation, adaptation, etc.

# Software

Source code versus Object code

Source code protected by copyright – not underlying approach/algorithm/ideas

Copyleft versus copyright (eg. GPL)  
use of libraries and the code of others

Apache v2 Licence (NERF)

## Jury orders Facebook to pay \$500m in Oculus tech theft case

Updated / Wednesday, 1 Feb 2017 23:58



Facebook acquired Oculus in 2014 for more than \$2bn

A US jury has ordered Facebook and creators of its Oculus Rift to pay \$500m to gaming software firm ZeniMax in a lawsuit that claimed the virtual reality technology was stolen.

The Texas jury made the award in a trial in which Oculus was accused of basing its Rift headset on technology stolen from ZeniMax's virtual reality software, court documents showed.

The lawsuit claimed Oculus founder Palmer Luckey developed the virtual

# Plant Breeders Rights

UPOV convention – Paris 1961 framework

Plant varieties must be:

- distinct
- stable
- uniform
- novel

Application includes the deposit of seed

Breeders can use protected varieties to create new varieties in turn – without authorisation

# Rooster





# Commercialisation Paths

3 broad channels for commercialisation:

1. Sell/assign ownership of IP to an existing company
2. License technology to an existing company
  - allow them to use your IP, they pay a royalty fee in return (1-10% of revenue)
3. Spin out New Company

# What Is Technology Transfer?

Supports the capture, protection and commercialisation of Teagasc's innovative research results

Promotes the creation of collaborative linkages between Teagasc and the world of industry, in order to help researchers to find commercial opportunities for their ideas and inventions and to attract companies towards new areas of Teagasc's research.

Promotes the creation of companies and job creation, for overall socio-economic benefits

# TT Principles

- **Open Innovation** – we want the IP to be used.
- **Not profit motivated** – knowledge transfer for socio- economic return.
- **Flexible** – Teagasc is open to a range of models for licensing/ownership of IP
- **User-friendly** – Systems in place to support and encourage engagement
- **Practical** – we want to do fair deals quickly

# Regional and National Context



## Bridge Network

TECHNOLOGY TRANSFER CONSORTIUM



# Some Metrics

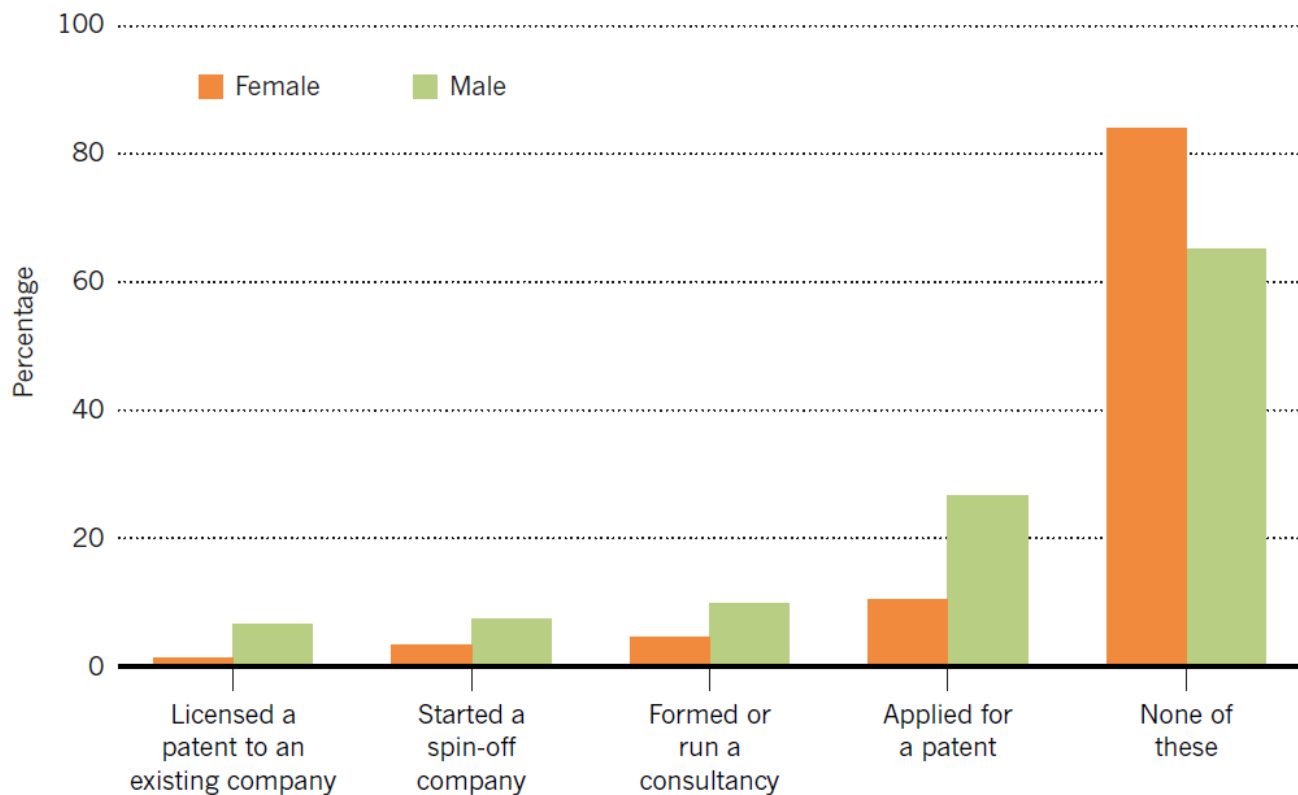
Teagasc Performance 2013-2016							
Licenses	Spin Outs		Research Agreements	Research Agreements	Research Agreements	Invention disclosure forms	Patents filed
			<25k	>25k	>500k		Priority
36	3		11	53	8	65	15

# Patent Applications & Start Ups

## SAMPLING THE SPIN-OFF SPIRIT

In March, a *Nature* start-up survey asked visitors to Nature.com about their attitude towards entrepreneurship. More than 1,400 people responded. The results are summarized below. For full data, see [go.nature.com/2r0dzgr](http://go.nature.com/2r0dzgr)

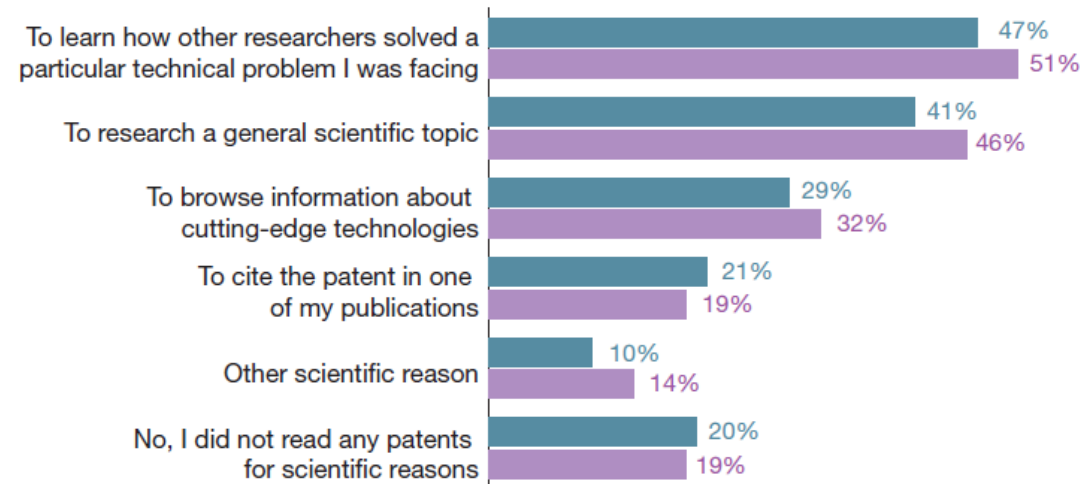
Q1. Which of the below entrepreneurial activities have you ever undertaken? (Select all that apply)



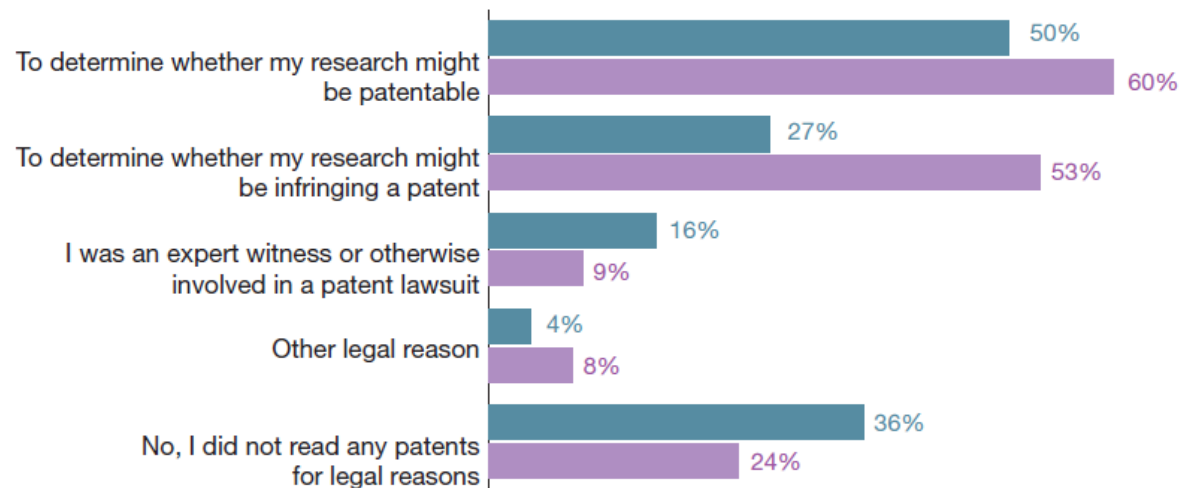
# Patent Searches

Espacenet  
Google Patent

## a Scientific reasons for reading patents



## b Legal reasons for reading patents



Academic, government or nonprofit Industry

*Oulette, Nature Vol 35, 421-424 (2017)*



Thank You

Questions?