



The role of open innovation in SMEs

Professor Nuran ACUR

INSPIRING
PEOPLE

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Innovation = The successful exploitation of new ideas



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INVENTION ≠ INNOVATION

Innovation is not synonymous with invention, although invention may be part of the innovation process.

INVENTION- **To conceive** the idea

INNOVATION - **To use** - the process by which an invention or idea is translated into the economy and social benefits



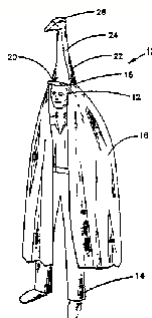
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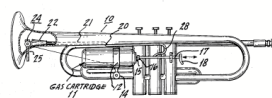
Invention is not enough.....



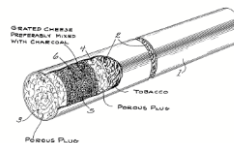
Gas-filled umbrella



Decoy ducks & stay dry!



Musical flamethrower



Cheese-flavoured cigarette

Idea: John Bessant, MMT lecture, Aalborg University Febr. 2006

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InterTradelreland



Steve Jobs

Sewing Machine, any brand name?

“Inventions [...] do not necessarily lead to technical innovation. In fact the majority do not.”

An innovation in the economic sense is accomplished only with the first commercial transaction.”

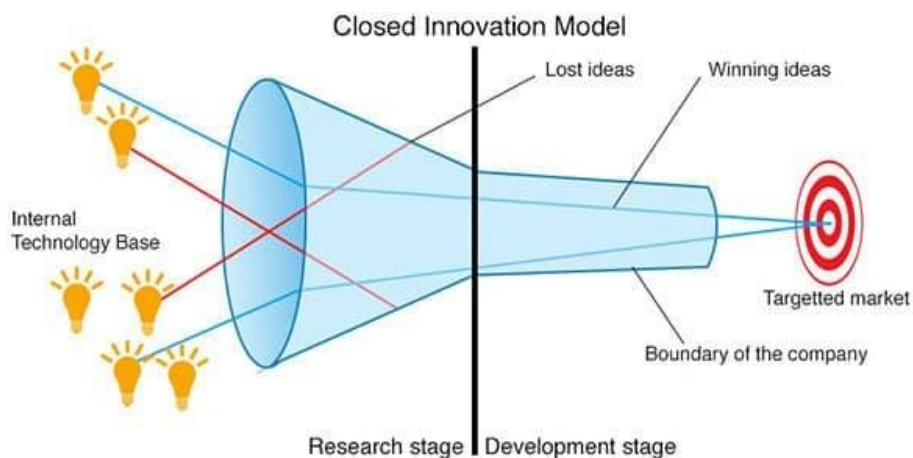
Christopher Freeman

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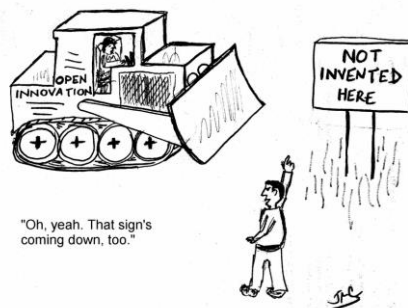
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Today's Story



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It used to be that innovation was something that happened deep in the bowels of corporate R&D departments. Secretive folks lurked there and lived by the code of NIH or “Not Invented Here” –



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Innovation in SMEs?

- Many SMEs face severe **commoditization** pressure in their markets
- Innovation => **new ways to create value** for customers



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How limited is it?

- unreached ideas
- limited knowledge of what the users want or how they want it
- missed opportunities and markets
- sticky information, company biased



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Why is it important?

“No matter who you are, most of the smartest people work for someone else.”

Look outside of your organization’s walls to innovate!!

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What is Open Innovation?



“Valuable ideas can come from inside or outside the company and can go to market from inside or outside the company as well” (Chesbrough, 2003)

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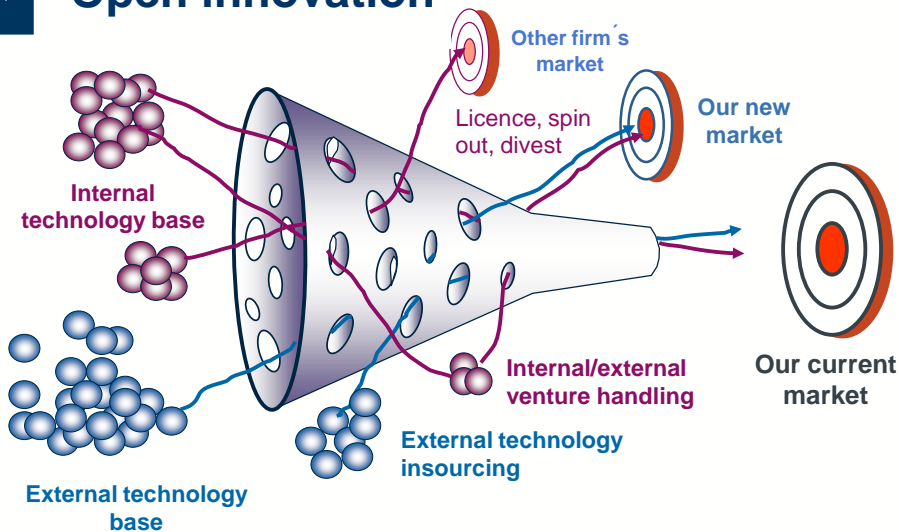
Closed vs. Open Innovation

Closed Innovation	Open Innovation
Most of the smart people in our field work for us	Not all of the smart people work for us, so we must find and tap into the knowledge and expertise of bright individuals outside our company
To profit from R&D, we must discover, develop and ship ourselves	External R&D can create significant value; internal R&D is needed to claim some portion of that value
If we discover it, we will get it to market first	We don't have to originate the research in order to profit from it
If we are the first to commercialize we will win	Building a better business model is better than getting to market first
If we create the most and the best ideas in the industry, we will win	If we make the best use of internal and external ideas we will win
We should control our intellectual property (IP) so that our competitors don't profit from our ideas	We should profit from others' use of our IP, and we should buy others' IP whenever it advances our own business model

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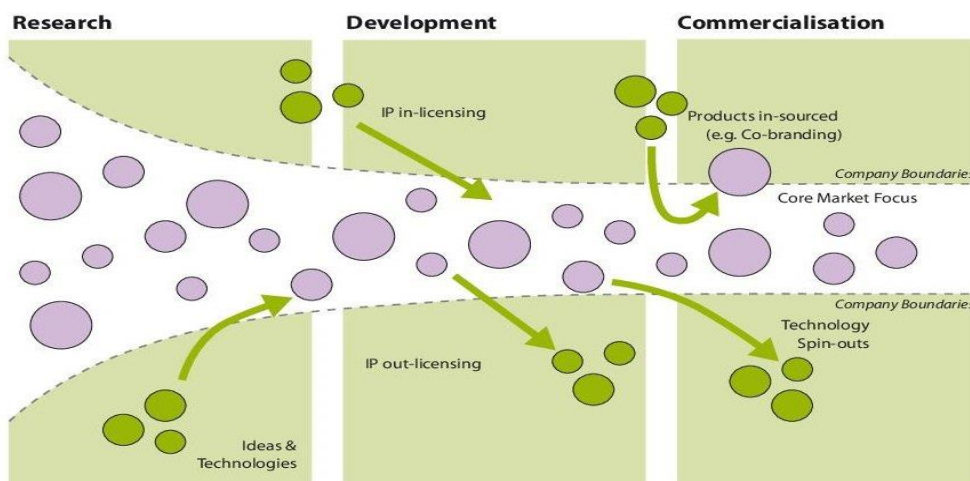
Open innovation



Stolen with pride from Prof Henry Chesbrough UC Berkeley, Open Innovation: Renewing Growth from Industrial R&D, 10th Annual Innovation Convergence, Minneapolis Sept 27, 2004

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<https://www.rndtoday.co.uk/open-innovation/open-innovation/>

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Example: Philips Open Innovation

“We engage in two kinds of Open Innovation.

- Through “*inside-out*” *innovation*, we make our skills and resources available to the outside world. For example, we regularly undertake contract research for external parties, provide technical facilities and support, and assist with IP licensing.
- Through “*outside-in*” *innovation*, we draw on the capacities of individuals, organizations, and even small start-ups from around the globe. By providing a broader window on the world of health and wellbeing, these strategic partners help us gain new insights and access to new technologies.”

<https://www.philips.com/a-w/research/home>

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Philips Innovation and business ecosystem: High Tech Campus



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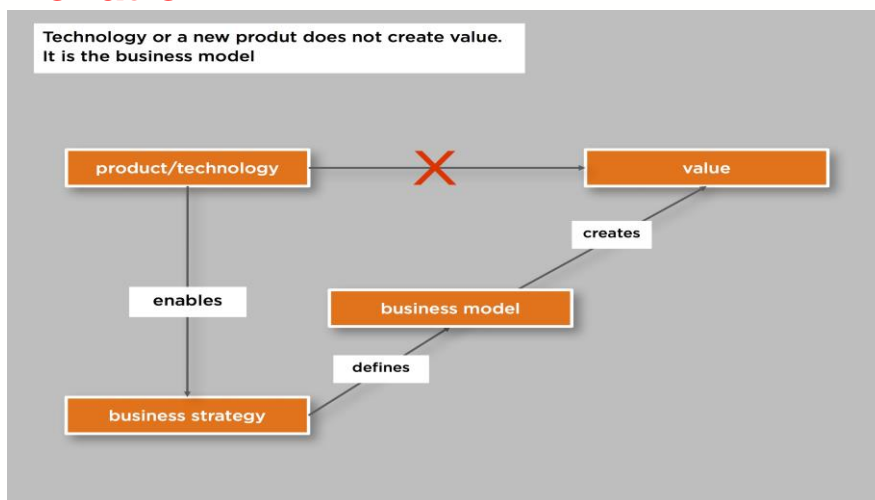
Open Innovation Definition

“A **distributed innovation process** based on **purposively managed knowledge flows** across **organizational boundaries**, using pecuniary and non-pecuniary **mechanisms** in line with the organization’s **business model**.”

Chesbrough & Bogers (2014)

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Business model innovation allows to capture the value of technology/product or service innovation



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A business model explains how a company creates and captures value



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*is business model
innovation important?*

*What advantages could it bring
to your organization?*

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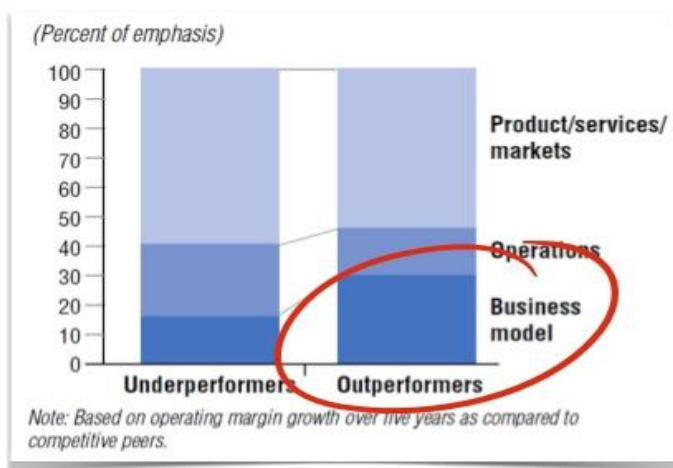
Example of a failed business models



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Business Model Innovators outperform competition.

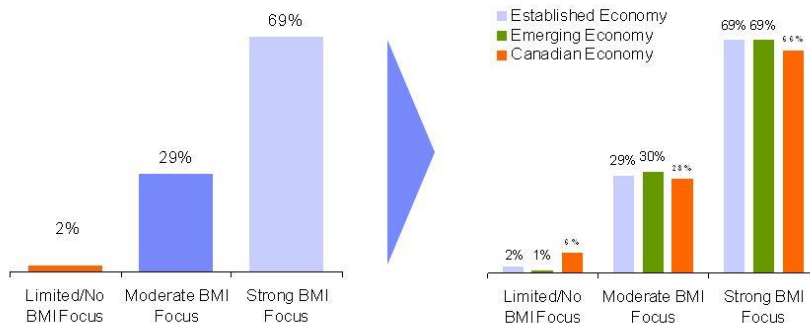


Source: IBM Global CEO Study 2006

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Across the globe, a full two-thirds of all CEOs plan to be engaged in some form of business model innovation over the next 3 years

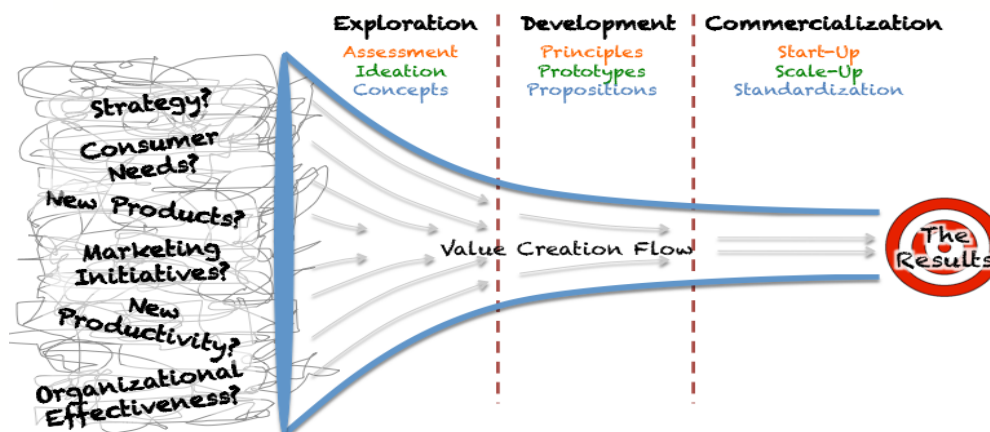
"When the business model is innovative, operations and the product will follow automatically."
 Ronald de Jong, CEO, Philips Germany



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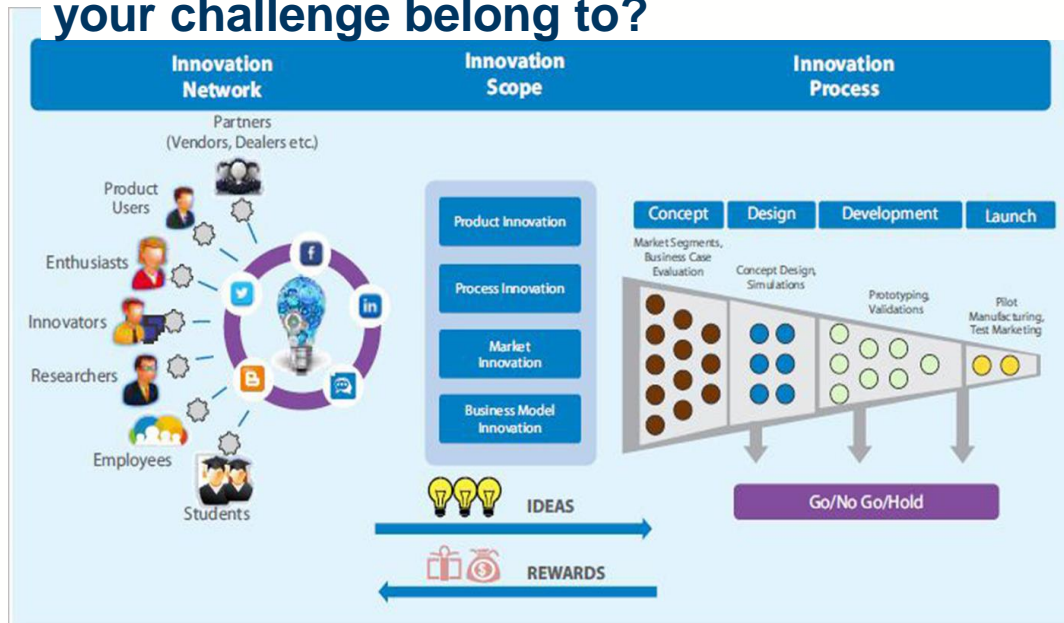
What stage of the innovation journey does your challenge belong to?



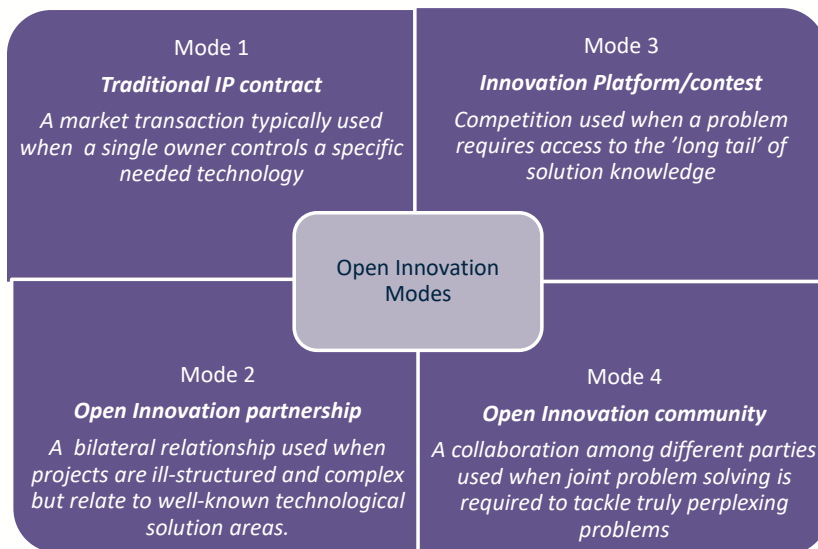
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What stage of the innovation journey does your challenge belong to?



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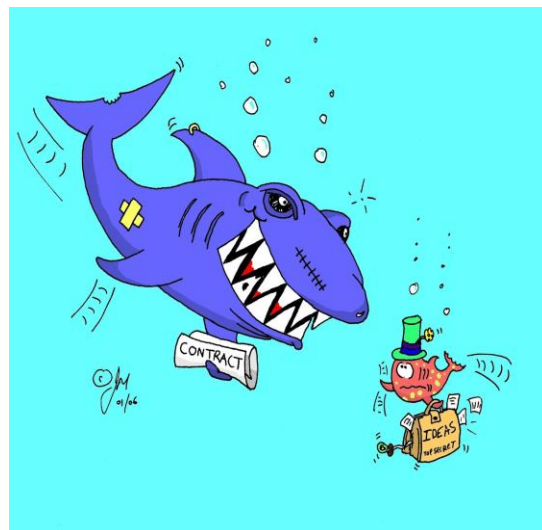
Adapted from Bagherzadeh, M., Brunswicker, S. et al (2015). Mix and Match: Open Innovation Project Attributes and Optimal Governance Modes. 2nd Annual World Open Innovation Conference. Santa Clara, University of California, Berkeley.

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Traditional IP contract

Managing OI via IP contract (i.e. licensing agreement) between a large company and a start-up...

70% of companies innovate by pairing traditional IP contracts and competitions



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Mode 2: Open Innovation Partnership: Example: Features of the Atlas Nano Carpet

60% of companies

combine competitions with partnership to solve complex problems



Nano Carpet - The carpet will clean itself even when there is no stain! cleaning itself even if there is no visible stain on it, and keep off invisible stains such as smoke, fume and foot dirt.

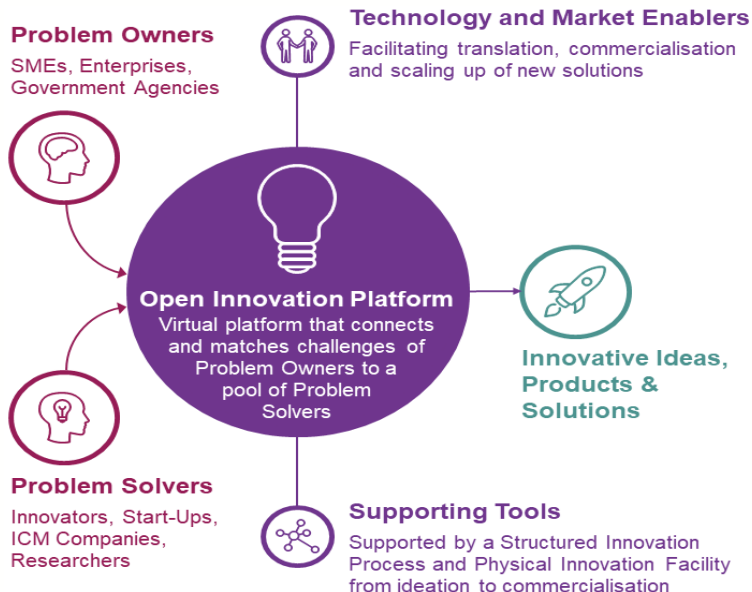
It does not keep bacteria, fungus and mites!

By its nature, it contributes to the cleaning of room air. As long as it receives light, the carpet will break up toxic gases and unpleasant odors.

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Mode 3: Innovation Platform/Contest: Example: Nine Sigma, Innocentive etc.



Source: Imda gov

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Mode 3: Innovation Platform/Contest: Example: Nine Sigma, Innocentive etc.



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Mode 3: Innovation Contest

Based on Scottish Enterprise open innovation programme (from Big Companies perspectives). Managers stated that:

- *'The IP concerns are discussed right at the start'*
- *'I think the reason we put it in is because we want to show that we're not just looking to acquire IP. We're looking to actually work with the people who have invented the idea to help them make their idea better. I think it's important to make sure that's quite clear when you're writing it and putting forward that agreement type'.*

Mazzola, E., Acur, N., Piazza, M. and Perrone, G. (2018) 'To own or not to own?' A study on the determinants and consequences of alternative intellectual property rights arrangements in crowdsourcing for innovation contests. *Journal of Product Innovation Management*, 25(6), pp. 908-929. (doi:10.1111/jpim.12467)

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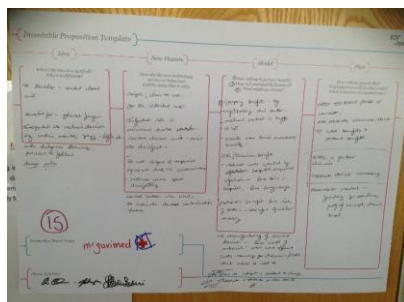
Open Innovation in SMEs

How do you innovate and commercialize successfully?

Which external and internal ideas to commercialize your technology/service/product should you focus on?

How will your SME stay ahead?

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Mode 3: Innovation Contest- SME's perspective

Using online platforms to obtain external ideas from crowd

'So ideas were pretty much a way of capturing unprotected, non-confidential thoughts into the company. So this could be done through open platforms, through outsourcing, or through speaking with customers, suppliers, innovators, you know in an open forum.'

Another SME manager said, *'So we do crowd-sourcing for employees, or with employees, that's one way of enabling the open innovation culture to happen, or open innovation happens inside organisations. And then they work together to help both parties come closer towards a picture or proposition that meets the company's needs, but also exploits intellectual property in the other company.'*

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Mode 4: Open Innovation Community

Communities that support innovation have been referred to as communities of innovation (CoI)



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Open Innovation Typology (Phillips, 2011)



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It will not work



TV

Television won't be able to hold on to any market it captures after the first six months. People will soon get tired of staring at a plywood box every night.

- Darryl F. Zanuck, Head of 20th Century-Fox, 1946.



Computers

There is no reason for any individual to have a computer in their home.

- Ken Olson, President of Digital Corporation, 1977

... and there are numerous other examples

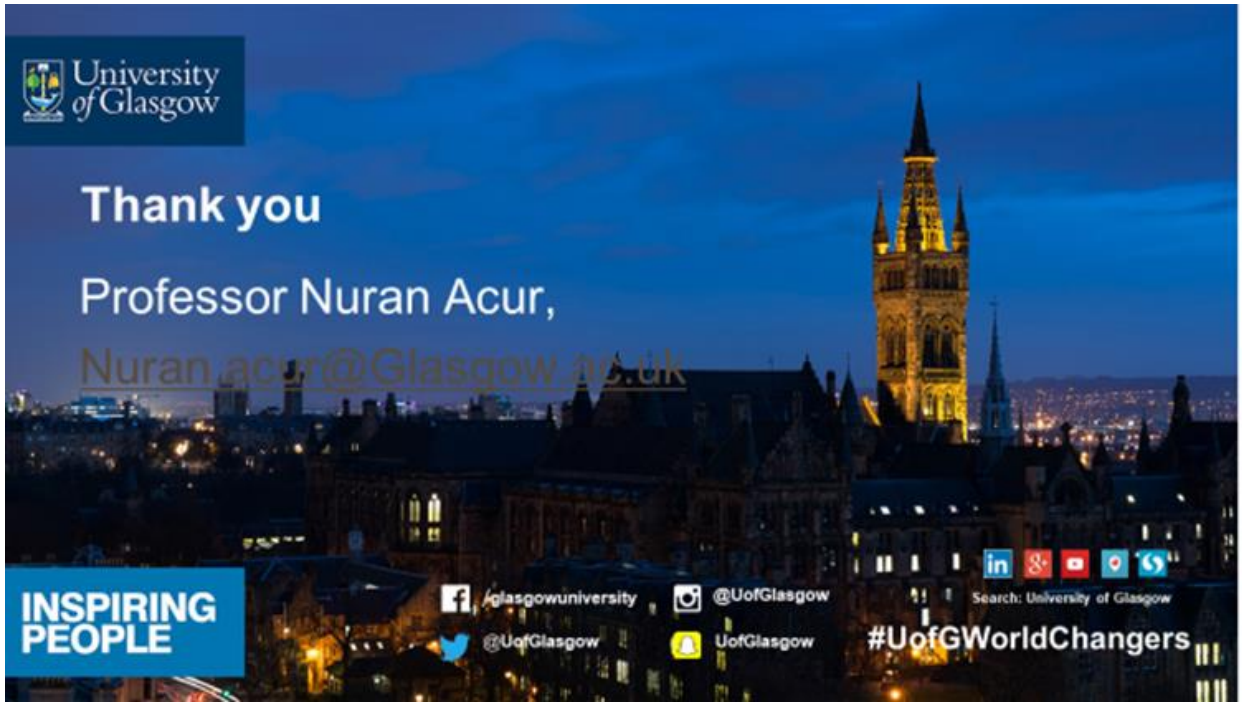
1943: "I think there is a world market of maybe five computers." - Thomas Watson, then Chairman, IBM.

1981: "640 K (internal memory) ought to be enough for anybody." - Bill Gates

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Thank you

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