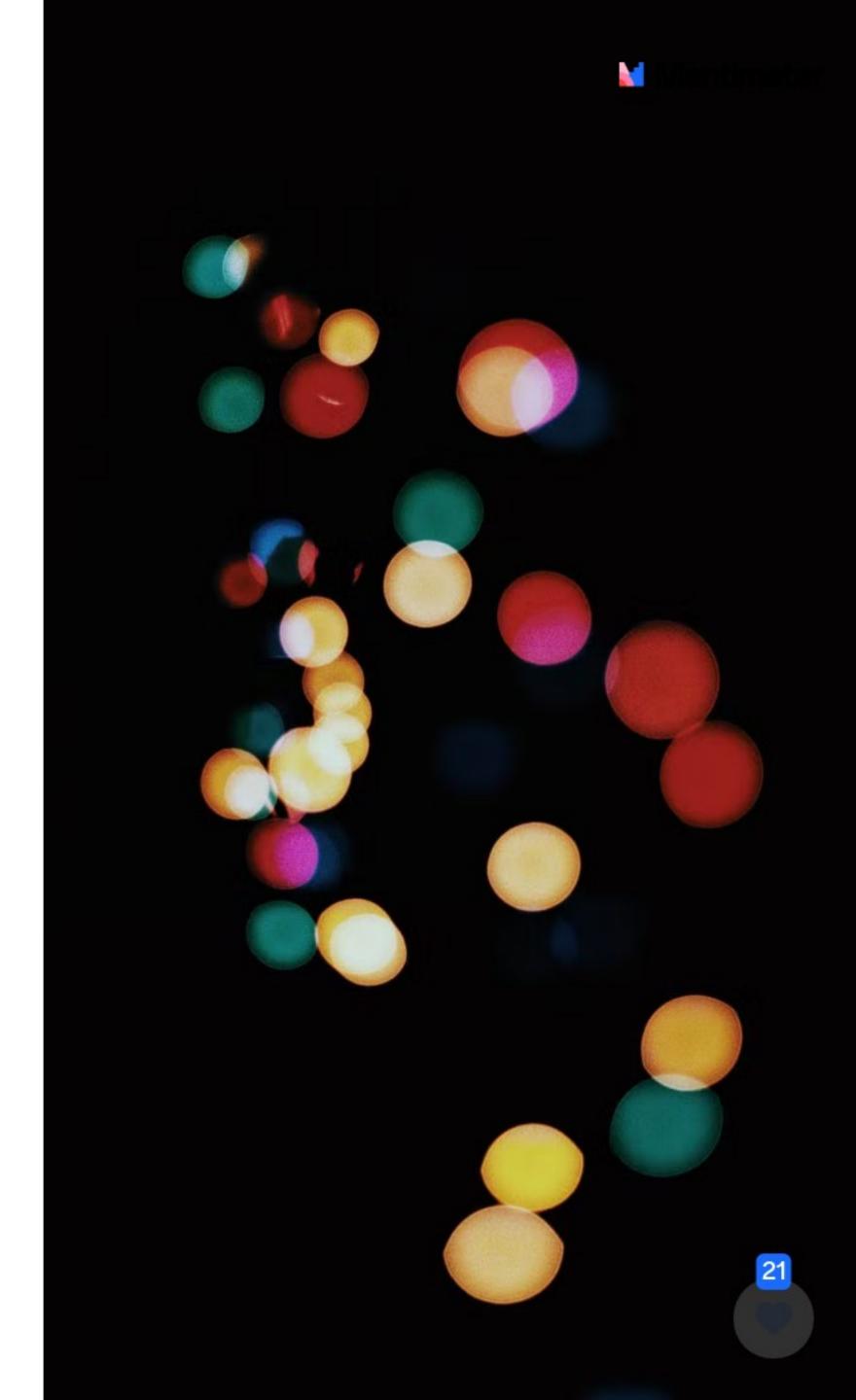
### Applied Innovation Lab

- → What is innovation?
- Innovation Lab activities
- Call out for involvement



### How would you describe innovation?





### what are examples of innovation?

 Nespresso
 Mcguyver
 Fast trains

 All modern technology
 Novel Analysis Techniques
 Hot water bottles

 New phone
 smart phones
 Vaccine for Covid-19



### what are examples of innovation?

SABRE

SABRE

The wheel

Cygnus

Video conferencing

internet

Optomechanics for dark matter searches

Solving problems

Berocca



## what are examples of innovation?

SABRE

Mac

Finding a new solution to existing problem

Using sheep to keep grass down around solar research farms

Zoom

Sliced bread

Sliced bread



## what are examples of innovation?

Sliced bread coconut jelly New stories, e.g. books

Synergy Smart TV, Phones Canning

Lightbulb/lightbulb moments ANAIS Screws



## what are examples of innovation?

DRIFT

Organ

sabre





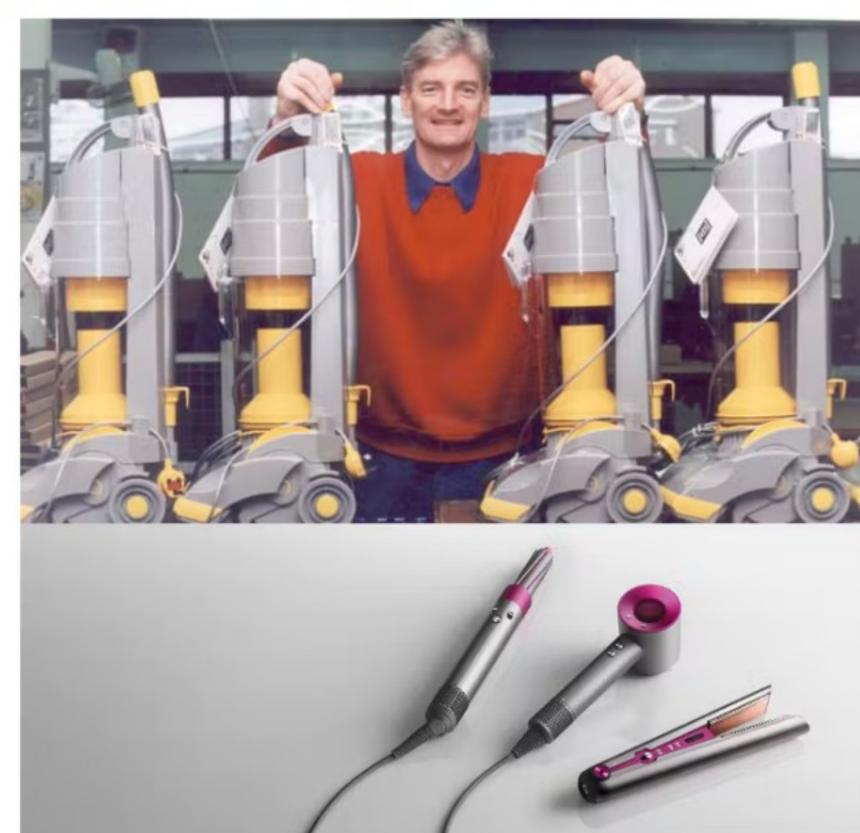














#### **4 Types of Innovation**

**BREAKTHROUGH INNOVATION** SUSTAINING INNOVATION Mavericks Roadmapping **Skunk Works** R&D labs Open innovation/prizes Design thinking Acquisitions **HOW WELL IS THE** PROBLEM DEFINED? **BASIC RESEARCH DISRUPTIVE INNOVATION** Not we Research divisions VC model Academic partnerships Journals and conferences Innovation labs 15%/20% rule Lean launchpad Not well Well

**HOW WELL IS THE DOMAIN DEFINED?** 

•



# INNOVATION: the introduction of new things, ideas or ways of doing something

- → Technological innovations designed to save energy
- → Too strict a regulatory system will stifle innovation.
- Industries where constant product innovation is a criterion for survival

->

source: Oxford learners dictionary



## Any example/s of when you have been innovative or seen others innovate (professionally)

Seeing people fix broken equipment in the lab with duct tape and hope

Debugging code

Automation of complete in the lab with duct tape and hope

qdm road trip

I come up with new ways to break computers (I claim it's code testing)

going to page 2 of google search

Rather than doing a whole bunch of integrations I realised I could interpolate between two integrations

Automation of complicated calibration tasks

SABRE

Purposely "misusing" telescope to image better



## Any example/s of when you have been innovative or seen others innovate (professionally)

Take methods from industry into science	Using catering trolleys to store lab equipment	Stack overflow
Integrating new tools in the workflow	Making a theory specifically to escape all experimental bounds	PYRATE
Measure ultralow concentrations of radiocontaminants	Running a Mathematica notebook inside another  Mathematica notebook	iphone



## Any example/s of when you have been innovative or seen others innovate (professionally)

Lumirror stencil for sabre	I created the remote shift organization for my experiment	When we got new funding
ORGAN	Machine learning	When having a meeting and we were asked to be innovative
DOOM	Extracting uranium using ionic liquids.	GEANT4



## Any example/s of when you have been innovative or seen others innovate (professionally)

using fundamental research technology for applied purposes

I invented a new dance called 'the slurp', it took the nation by storm and I was eventually arrested for inciting a riot when 2000 teens slurped together on the parliament steps ROOT

Ignoring what the supervisor says

