

# IGL 2019

## Global Conference

### Improving research productivity, collaboration, commercialisation and impact

**Felicity Jones**, European Research Development Manager, The University of Melbourne, Europe Office, Berlin (Germany)

**Charlie Day**, CEO, Innovation and Science Australia (Australia)

**Rembrand Koning**, Assistant Professor, Harvard Business School (US)

**Henry Sauermann**, Associate Professor of Strategy and POK Pühringer PS Chair in Entrepreneurship, ESMT Berlin (Germany)





# Improving research productivity, collaboration, commercialization and impact

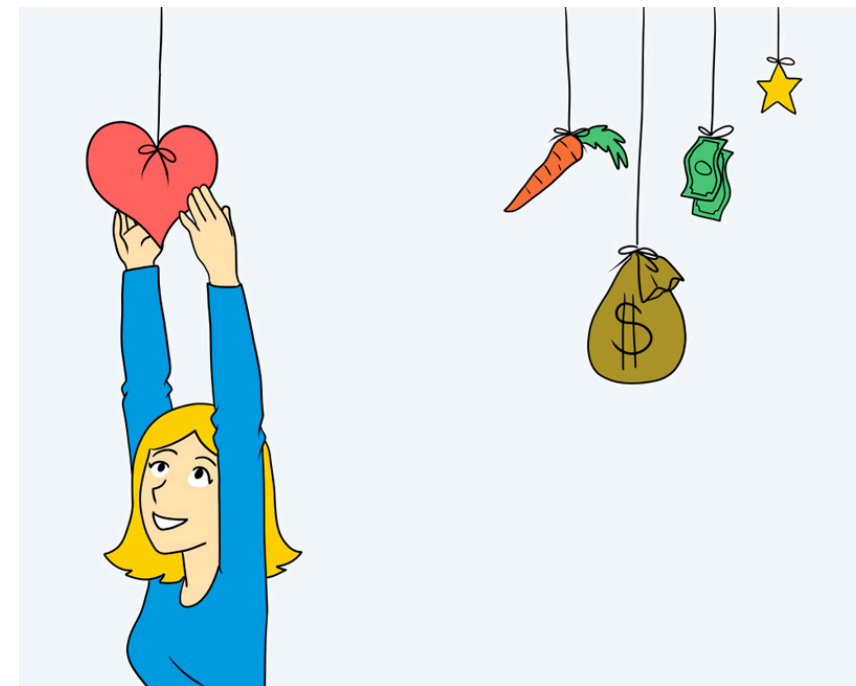
Innovation Growth Lab 2019  
Henry Sauermann, ESMT Berlin

# What makes scientists and engineers tick?

- Economic vs. psychological perspectives
- Motivation crowding out?
- Links to creativity and productivity

## Our research

- 1,700 PhD scientists and engineers in firms
- Patent applications over 5 years
- Findings
  - Motives related to challenge, independence, (money) → positive
  - Motives related to security and responsibility → negative
  - Stronger effects in basic/applied research (vs. development)
  - Not mediated by levels of effort – quality of effort?



# Academics' motives to engage in commercial activities

- Academic entrepreneurship: Concerns and hopes
- What are the underlying motives? 2 Simplistic stereotypes

## Our research

- 2,000 academics at 160 U.S. institutions
- Patent applications over 5 years

	Life sciences	Physical sciences	Engineering
Money		+	
Challenge			+
Career Advancement		-	
Contrib. to Society	+	+	

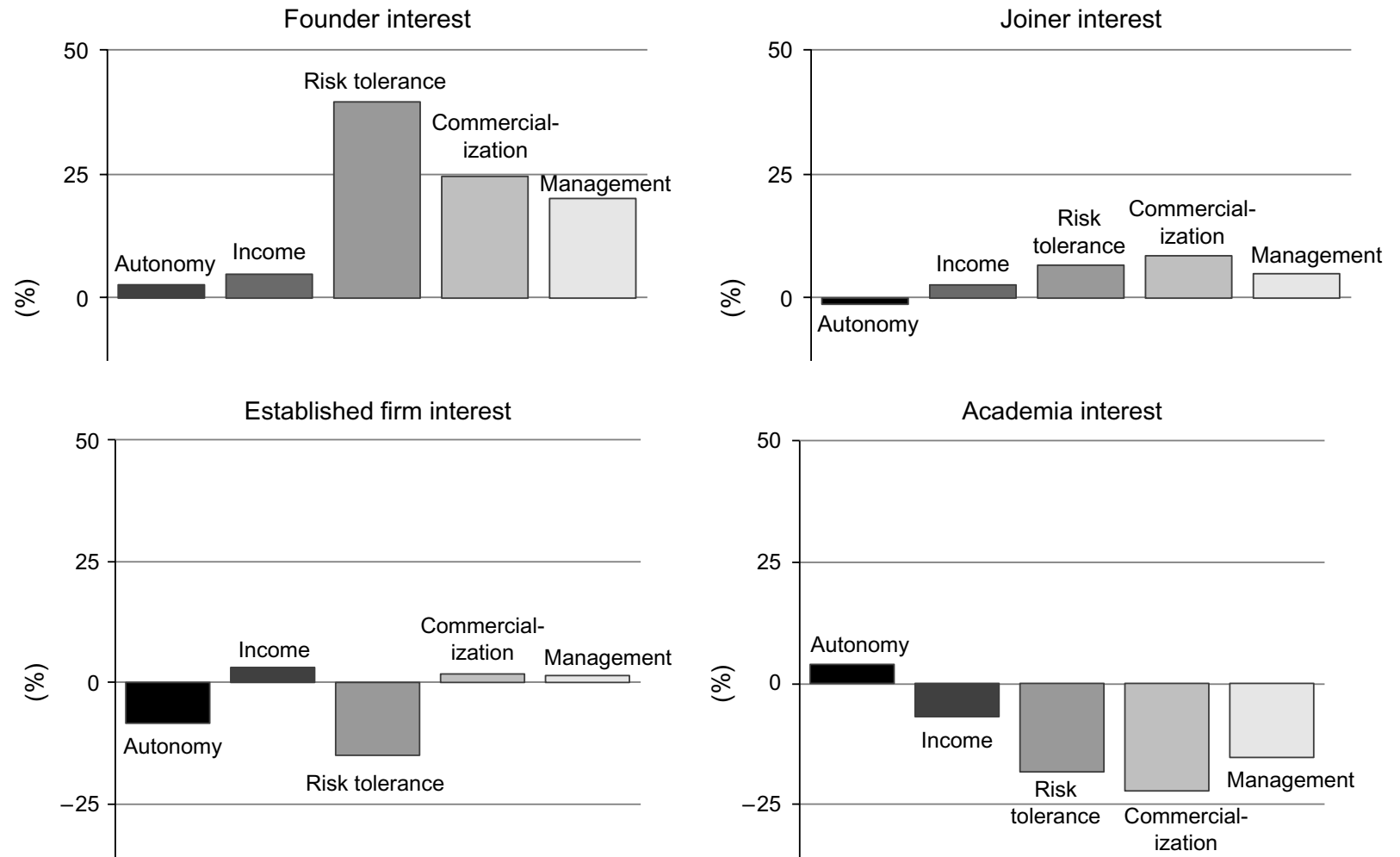
# PhD career transitions from academia to startups

- Knowledge wrapped up in a person
- Diverse STEM careers, including entrepreneurship

## Our research

- 4,100 STEM PhDs in U.S.
- Motives related to founding or joining startups
- Currently analyzing what happens 3/6 years later

Percentage Difference from Sample Mean by Entrepreneurial Interest



# Diversity, motivations, and outcomes

Rem Koning - Assistant Professor, Harvard Business School



HARVARD | BUSINESS | SCHOOL

# Key Points:

1. Women/minorities bring talent and different types of innovation to the table
2. Barriers that female and minorities researchers face in commercialization
3. Potential solutions?
4. Short case studies on how some innovators have overcome these barriers



**Australian Government**



Innovation and  
Science Australia

## **Lessons from the trenches of academic tech transfer**

Charlie Day – CEO, Innovation and Science Australia



## Key Points:

1. Understand the many layers of incentives your researchers face: reputational, financial, career (locally & globally) etc
2. Take the time to educate researchers about the process of commercialising an idea
3. Emphasise the role of teamwork, and invest in assembling strong teams

### Small Group Discussion:

Divide into smaller groups around a flipchart.

Over the next 20 minutes, discuss the following topics:

- Interventions and incentives your organisation/agency could deploy to get more women/minorities in the innovation pipeline
- Ways to assemble and support strong teams
- Actions your organisation/agency could take to improve research impact given the motivations might drive its scientists/researchers

At **15:15**, be prepared to report your group's ideas. Each group will get **2 minutes** to present.

# IGL 2019

## Global Conference

For more on technology commercialization process,  
check out this free online course from the  
**Laboratory for Innovation Science at Harvard**

### *Launching Breakthrough Technologies*

<https://www.edx.org/course/launching-breakthrough-technologies>

