

2018

Startup Muster Annual Report

Foreword

Startups play a vital role in bringing new products and services to market, ultimately opening up export opportunities, creating jobs and delivering economic prosperity for all Australians.

Startup Muster is the largest survey on the Australian startup ecosystem, and this year's report paints an encouraging picture of the sector, as well as our technological capability more broadly.

The Coalition Government is committed to supporting the growth of startups. Our Entrepreneurs' Programme is assisting businesses to commercialise and export their products and services, and has contributed to a number of successes for innovative startups.

In addition, the Australian Landing Pads, led by Austrade, are providing our startups with a short-term base in global innovation hotspots to access networks and investment opportunities that help them to grow.

I recently visited the Australian Landing Pad in Singapore to engage with the latest cohort of Australian startups, and hear about the emerging opportunities for our businesses to expand into Asia.

I am pleased the Coalition Government also provided support for this year's National Startup Policy Hack. The event brought together 160 startup industry and government representatives in Brisbane, and provided an invaluable opportunity to discuss the key challenges facing Australian startups.



The 2018 Startup Muster report finds that artificial intelligence is the biggest startup industry in Australia, having grown from 14.5 per cent of startups in 2017 to 20.6 per cent of startups in 2018.

The Coalition Government wants to capitalise on the enormous opportunity of artificial intelligence, and we are investing about \$30 million over four years to strengthen Australia's capabilities in this area.

More broadly, the Coalition Government is investing \$2.4 billion in our nation's research, science and technology capabilities, and this will have a substantial flow-on effect for the startup sector.

Startup Muster was founded to draw attention to the progress, opportunities and challenges for Australia's startup ecosystem. Since 2014, its reports and the

quality data sets that underpin them have helped us to paint a clearer picture of the strengths and weaknesses of this growing sector.

I congratulate Startup Muster on developing its 2018 report and am confident that startups will continue to create new jobs for Australians and boost our position in the global marketplace.

The Hon Karen Andrews MP Minister for Industry, Science and Technology



Message from Startup Muster

On behalf of the whole Startup Muster team, welcome to the fifth annual Startup Muster report.

We launched Startup Muster five years ago with a mission to measure and publish the progress, challenges and opportunities in the Australian startup ecosystem, in order to demonstrate and accelerate progress.

We couldn't be more proud of how far Startup Muster has come, and how much of our mission is being realised. We've grown from 975 participants in 2014 to 3,476 in 2018, setting a new record every year, and we think you'll be pleased with the increasing quality of how this data is presented. Good data needs to be both surprising and actionable. We're confident the contents of this report will surprise many of you, and point towards areas where effort can and should be focused to improve our ecosystem.

We collected 178 different data points in 2018, almost all of which have been the result of an organisation wishing to understand a particular attribute in order to provide better support to startups. Obviously not every data point has been represented in this report, and we're happy to engage in deeper analysis at the request of startup supporters. Startup Muster has been made possible by support from UTS, Atlassian, Google, the Department of Industry, Innovation and Science and MYOB. We look forward to adding to this incredible group of supporters for 2019.

The Startup Muster team:

Murray Hurps (chair, murray@startupmuster.com) Monica Wulff (director, monica@startupmuster.com) Kayla Medica (marketing) Michael Kedzierski (technology) Tim Paris (data) Visual Metrics (report design) Amit Shah (accounting)

Methodology

The Startup Muster 2018 online survey collection period for Australia was available to complete online via www.startupmuster.com from August 14th 2017 until August 13th of 2018, with particular promotion during the collection period from July 2nd 2018 to August 13th 2018, where 67% of our responses were received.

During this time the survey was available people to people engaged in a startup, people considering launching startups and businesses that provide support to startups. Supporters included, but were not limited to, accelerators, incubators, investors, mentors, educators, service providers, membership organisations, professional service providers and government.

Respondents who had previously taken part in the collection period for 2017 did not have to complete the entire survey again, instead they were taken through an update process where they verified all responses and updated any that no longer reflected their current situation. In total 140,259 answers were provided by 1,617 startup founders, 803 future startup founders and 1,056 supporters. These responses then underwent an exhaustive post survey validation and cleaning process, including manual review of each participant to ensure compliance with our definitions. The final statistical sample for this report consists of 777 verified startup founders, 321 future startup founders and 654 startup supporters.

The total response rate for each question varies as all the survey responses were not compulsory, free written text responses were allowed and the relevancy of the questions varied between participants. The report estimates are cross sectional in nature, meaning that all figures for a given year are based on a responding sample representative of the broader population in that year.

Promotion of the survey was conducted via direct email, social media channels Facebook, Twitter and LinkedIn, word of mouth through a sharing function built into the survey upon completion, promotion by startup support organisations via social media and their email newsletters and media.

Startup Muster defines a startup as an early stage business that has a large addressable market that utilises technology to capture that market quickly. It focuses on the elements of scale, speed, timing and technology which are commonly associated with startups.

The population estimate was developed in partnership with Data61 using a catch and release method and 5 years of Startup Muster data. It is the first iteration which Startup Muster plans to build upon over time.

For detailed information on the treatment of data after submission, please contact info@startupmuster.com.

Total participation



How many startups are there in Australia?

For our fifth anniversary, Startup Muster has engaged Data61, world leaders in data science research, to create an estimate on the number of startups in Australia based on five years of Startup Muster data.

This number is by far the most common request we've received over the years, and we're pleased to finally present this estimate for the last four years below.

It's important to note that Startup Muster manually reviews each participant in our survey, and only accepts companies addressing a large market in a scalable way, which tends to remove a significant proportion of self-identified startups.

It's also important to note that a startup could be removed from our data either by its death, or by simply becoming too large to take part in our survey.

We expect this estimate will generate some vibrant conversations, and we look forward to continuing to track this estimate over time.

A description of the methodology used is available <u>here</u>. We have been honoured to work with the incredible people at Data61 to make this happen.



Estimated number of new startups launched, between each survey

95% confidence limit



Founder profile

Who is starting startups?

Skills founders consider themselves strong in



Founder profile

Who is starting startups?

Where founders come from



35.7% Startup founders were born outside Australia.



Years since moving to Australia

Where future founders come from



of future founders were born outside of

Most attended educational institutions



Future founders

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Who and what was their experience?



Startups with female founders

31.0%

Of startups have one or more women on the founding team

Number of people in founding team

1 founder	29.5%
2 founders	41.8%
3 founders	18.8%
4 founders	
5+ founders	4.7%

Events critical to founding a startup

Identifying a compelling opportunity	****************************** 72.1%
Solving a problem I was experiencing	*********************** *************
Having a supportive partner or spouse	************ 28.5%
Experience from founding a startup previously	****
Dissatisfaction with previous job	**** ********************************
Meeting my co-founders	*************
Circumstances made having my own business desirable	**** ********************************
Solving a problem I was not experiencing	******** 12.2%
Inspiration from direct contact with startups	** **********************************
Having an entrepreneurial father	* * * * * 11.5%
Inspiration from attending startup-related events	* * * * * 10.7%
A fun project that became a viable business	† † † † † 9.5%
Inspiration from online media about startups	* * * * 7.5%
Hackathon or startup weekend	* * * * 6.4%
Having an entrepreneurial mother	* * * 6.2%
A university-based entrepreneurial program	* * * 6.1%
Being single	* * * 5.7%
Redundancy	* * * 5.7%
Inspiration from a book	† †† 5.3%
A short educational course on startups	† † 4.7%
A commercial strategy for a research project	** 4%
Graduation from a school or university	1 3.5%
Innovation program in a large company	• 2.9%
Other responses	†† 5.1%

Who and what was their experience?



How founders met



Who and what was their experience?

Hindrances to founding a startup

The biggest barrier



Who and what was their experience?

Help benefited from since founding the startup



Who and what was their experience?

How equity was split amongst founding team

43.3%				
Equal split				
8.1%	6.5%	Time in / dedicated to business		
	6.5%	Based on previous work / expected workload		
Based on financial investment	5.3%	3.3% Negotiation		
7.3%	5.3%	Open discussion	2.5% Experience	
Based on contribution to business	4.8%	IP contributed	2.5% Founder skills	

Current team profile

Who's running startups today?



Current team profile

Who's running startups today?

Employees with equity



Number of people outsourced to in the past 12 months





Primary country of outsourcing



Current team profile

Who's running startups today?

Reasons for outsourcing * Other responses: 19.3% 34.7% Skills/Expertise 24.8% 4.2% Challenge finding people locally Ease 3.4% Short term solution 2.7%

Key functions of contractors



What are they doing?



What are they doing?



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What are they doing?

Industries strongly related to the startup

Industries in 2018
Industries in 2017



What are they doing?

Business themes related to the startup





How are they being funded?



Total funds raised







How are they being funded?

Startups that have at least one investor	Amount of e	equity held by invest	tors		
	16.4%	24.3%	20.1%	14.3%	11.1%
33.8%					
of startups have secured at least 1 investor	1% - 10%	10% - 20%	20% - 30%	30% - 40%	40% - 50%

Startups that have approached investors

41%

1 investor

41% of startups have approached at least

Location of investors



46.2%20.5%18.5%14.8%Image: 1 mageImage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mageIn my stateIn another stateImage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mage: 1 mage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mage: 1 mage: 1 mage: 1 mage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mageImage: 1 mage: 1

6.9%

50% - 99%

6.9%

100%



How are they being funded?



Future of startups

What's coming up?



What startups need in the next six months

Future of startups

What's coming up?

Founders' plans for the next 12 months



Founders' plans beyond the next 12 months



Future of startups

Who's supporting startups?

% of supporters focused on specific industry





Internet of things	40.0%	ار جار جار جار جار جار جار جار جار جار ج	والجوار بجرا بجرا بجرا بجرا بجرا بجرا بجرا بج	ا شر شر شر شر شر ش
Medtech, healthtech or biotech	38.3%	ر مار مار مار مار مار مار مار مار مار ما	و مار	ا شر شر شر شر شر ش
Fintech	35.6%	ر مار مار مار مار مار مار مار مار مار ما	ر جار جار جار جار جار جار جار جار جار جا	
Artificial intelligence	35.0%	ر مار مار مار مار مار مار مار مار مار ما	ر مار مار مار مار مار مار مار مار مار ما	
Agriculture	33.3%	ر مار مار مار مار مار مار مار مار مار ما	و شار مار مار مار مار مار مار مار مار مار م	
Other responses	30.0%	, 1961 1961 1961 1961 1961 1961 1961 196	e nie nie nie nie nie nie nie nie nie ni	
Greentech	27.2%	, 1961 1961 1961 1961 1961 1961 1961 196	e nie nie nie nie nie nie nie nie nie ni	
Block chain	26.1%	ر مار مار مار مار مار مار مار مار مار ما	و مانو مانو مانو مانو مانو مانو مانو مان	
Virtual / augmented reality	25.6%	ر مار مار مار مار مار مار مار مار مار ما	و مانو مانو مانو مانو مانو مانو مانو مان	
Education	22.2%	, 1961 1961 1961 1961 1961 1961 1961 196	e nên sên sên sên sên sên sên sên sên sên	
Drones	22.2%	e nde nde nde nde nde nde nde nde nde nd	e nie nie nie nie nie nie nie nie nie ni	
Robotics	21.1%	ر مار مار مار مار مار مار مار مار مار ما	و مانو مانو مانو مانو مانو مانو مانو مان	
Advanced manufacturing	20.6%	, 1961 1961 1961 1961 1961 1961 1961 196	و مار	
Logistics	20.0%	e nas	ر مار مار مار مار مار مار مار مار مار ما	
Wearables	18.9%	e nas	e alle alle alle alle alle alle alle al	
Cyber security	18.3%	i yên	ر مار مار مار مار مار مار مار مار مار ما	
Fitness or wellness	17.8%	e inte inte inte inte inte inte inte int	e alle alle alle alle alle alle alle al	
Health	17.2%	e nde nde nde nde nde nde nde nde nde nd	e alle alle alle alle alle alle alle al	
Food and beverage	16.7%	, and	و مادر مادر مادر مادر مادر مادر مادر مادر	
Mining	15.6%	e nde nde nde nde nde nde nde nde nde nd	ر مار مار مار مار مار مار مار مار مار ما	
Real estate	15.0%	e inte inte inte inte inte inte inte int	ر مار مار مار مار مار مار مار مار مار ما	
Content / media	15.0%	e nde nde nde nde nde nde nde nde nde nd	ر مار مار مار مار مار مار مار مار مار ما	
Consulting	15.0%	, and	ر مار مار مار مار مار مار مار مار مار ما	
Defence	14.4%	, 1966 1966 1966 1966 1966 1966 1966 196	ر مار مار مار مار مار مار مار مار مار ما	
Construction		, 1966 1967 1967 1967 1967 1967 1967 1967	ر مار مار مار مار مار مار مار مار مار ما	
3D printing	13.9%	e ale ale ale ale ale ale ale ale ale al	ر مار مار مار مار مار مار مار مار مار ما	
Space	13.3%	e nên nên nên nên nên nên nên nên nên nê		
Gaming	13.3%	e nên nên nên nên nên nên nên nên nên nê		
Travel		e nër		
Marketing		e nên nên nên nên nên nên nên nên nên nê		
Online retail		e nên nên nên nên nên nên nên nên nên nê		
Environmental services		, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		
HR / recruitment		, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		
Fashion	11.1%	i alle alle alle alle alle alle alle all		



What could have been?

Skills founders wish they had in the founding team





What could have been?

What future founders expect to like about being a founder vs. What founders actually enjoyed



What did founders not expect about running a company?

Amount of time **Challenge and hard work** Supportive community Ups and downs **Personal realisation Constant grind Realisation about customers Costs involved** Need to do many things at once How enjoyable it can be **Isolating experience Realisation about funding** Lack of support Stress Realisation about startup Learnina



What could have been?

Top 5 things that keep founders awake at night









Where to find help

Top news sources



Most recommended books

Resources

Where to find help

Online resources used and recommended by founders



Accelerators and incubators used and recommended by founders







Resources

Where to find help

Membership organisations and meetups recommended by founders



Average number of events attended per month by founders



54.9% of founders attend 2 or more events per

month

Inspiring and supporting our future founders

UTS is proud to play its part alongside Startup Muster in measuring and supporting the progress of Australia's startup ecosystem. Having worked with Startup Muster for the past five years, we've seen firsthand how crucial it is to get under the skin of what's driving Australian startup growth, so we can apply those insights to how UTS is developing the next generation of founders.

We recognise the potential of entrepreneurship and are committed to supporting our students so they can soon take their place in the ecosystem. Over the next five years, UTS has committed to reach over 50% of our students with entrepreneurial experiences.

Not just another university accelerator program, our UTS Startups program is designed to inspire every student at UTS, and support every startup at UTS, through connections between each startup and connections to the vibrant Sydney startup ecosystem, a stone's throw from our campus.

We believe the startup ecosystem of the future will be shaped by the ingenuity and innovation of our graduates, and what we're offering is designed to deliver on that promise.

Want to work with us to inspire and support startups at UTS? Drop us a note at startups@uts.edu.au. We look forward to hearing from you!



Margaret Maile Petty Executive Director, Innovation and Entrepreneurship, UTS

