

Collaboration to Commercialisation

Betty Zhang
CEO, Melbourne Bioinnovation Student Initiative

Melbourne Bioinnovation Student Initiative

See our work

Sign up here!

Check out BioDesign 2022



MBSI

Melbourne Bioinn
Student Initia



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About me

Educational Background

- Bachelor of Science (Biotechnology specialising in Immunology)

Current Roles

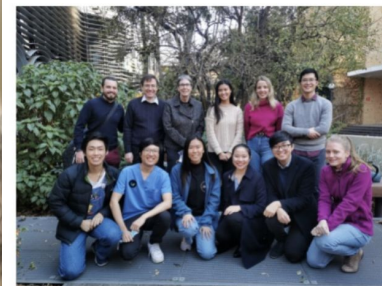
- CEO, Melbourne Bioinnovation Student Initiative
- Early Innovation Programs Lead, Medtech Actuator

Past Experiences

- Research Assistant, Walter & Eliza Hall Institute
- Biotech Equities Analyst, Churchill Asset Management
- Disabilities Officer, University of Melbourne Student Union



***For more information
about events,
projects and
opportunities,
JOIN US!***



BioDesign Initiative

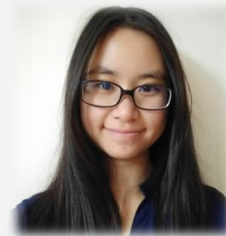
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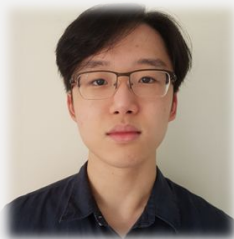
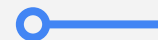
John Ertan
BioDesign
Team Leader



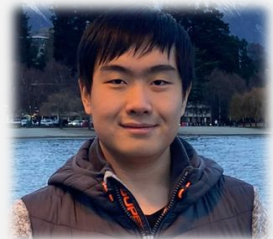
Anke Oatley
BioDesign
Officer



Shanna Lam
BioDesign
Officer



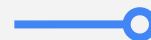
Daniel Gan
BioDesign
Officer



Tommy Li
BioDesign
Officer



Ryan-Lim Yip
Vice-Chair
Internal



Vinuri De Silva Biodesign Competition

- Pitch Night as part of the International Student Conference of IEEE Engineering in Medicine and Biology Society
- Prizes:
 - Vinuri De Silva BioDesign Competition Prize (\$2,500)
 - Graeme Clarke Institute Prize (\$2,500)
 - MedTech Actuator People's Choice Award (\$1,000)
- Sponsored by Graeme Clark Institute & MedTech Actuator





Enterprise SYSTEMS & SUPPORT

Platforms for healthcare systems, clinics, and other enterprise settings

- Clinical administration and management tools
- Predictive analytics
- Clinical trial management



Clinician SERVICES & SUPPORT

Platforms primarily for clinicians and clinical support staff

- Health Information technology
- Electronic medical record and prescribing systems
- Point of care and workflow enhancement tools
- Telehealth platforms
- Clinical decision support



Patient-Facing WELLNESS & SUPPORT

Products that capture, store, or transmit health data

- Lifestyle and wellness apps
- Activity and fitness trackers
- Medication reminder apps
- Wearables and sensors (non-clinical grade)
- Consumer health information



Patient-Facing DIAGNOSTIC & MONITORING

Products used to diagnose, guide diagnosis, or actively monitor patients

- Digital diagnostics
- Digital biomarkers
- Remote patient monitoring tools
- Wearables and biometric sensors (clinical grade)
- Medication ingestible sensors
- Connected drug delivery devices



Patient-Facing THERAPEUTIC INTERVENTIONS

Products that deliver medical interventions and therapies

- **Digital therapeutics**
Clinical interventions delivered directly to patients via software to treat, manage, or prevent a disease or disorder
- Non-DTx medical devices (e.g., insulin pump, artificial pancreas, pacemaker, CPAP)



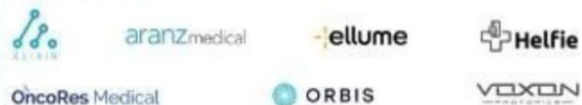
PREVENTION



RESEARCH



DIAGNOSIS



FINANCE



WORKFORCE



SYSTEMS



TREATMENT



HARDWARE



CARE



SUPPLY CHAIN



2022 AUSTRALIA &
NEW ZEALAND
HEALTH TECH



100

Holon IQ

Team Size

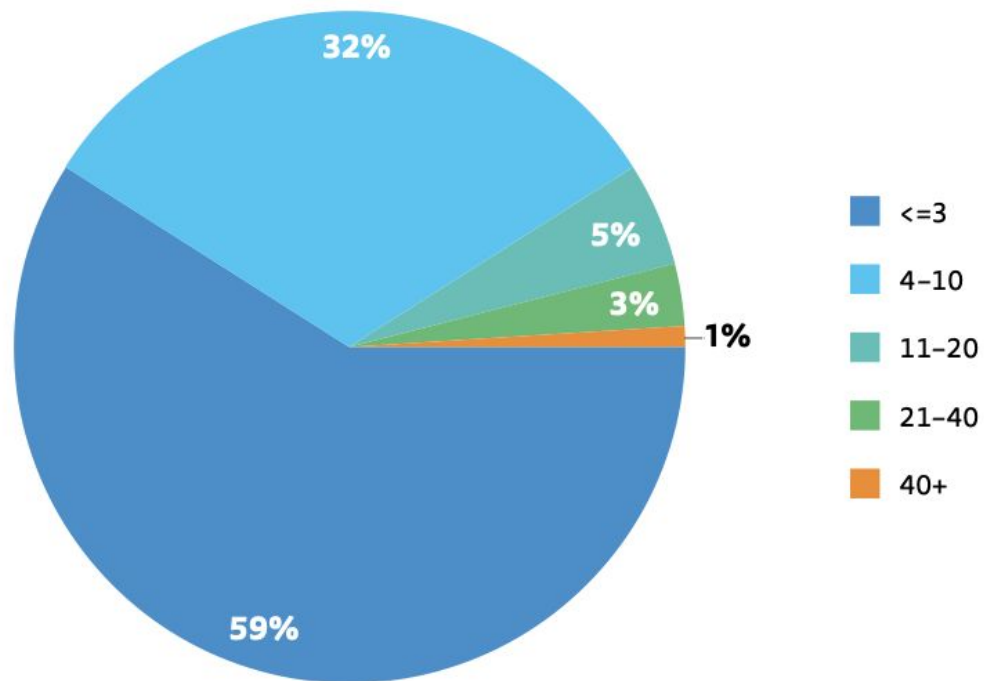


Figure 7.4: Australian Digital Health companies & technologies screened by ANDHealth | July 2017–31 Mar 2022 (n=557).

Funding schemes and stages of development

Technology readiness level (TRL)

TRL 1	TRL 2	TRL 3	TRL 4	TRL 5	TRL 6	TRL 7	TRL 8	TRL 9
Basic idea	Concept developed	Experimental Proof of Concept	Lab demonstration	Lab scale validation (early prototype)	Prototype system verified (Minimum viable product)	Integrated system verified in relevant setting	System incorporated into commercial design	System ready for commercial deployment
Basic research		Early stage preclinical research		Preclinical studies	Phase I Trial	Phase II Trial	Phase III Trial	Phase IV Trial
ARC and NHMRC PoC Funds DIG, IAP, Industry programs		Medtech Actuator Bridgetech Neobionica TRaM SPARK		NHMRC Development Grant Biomedical Translation Accelerating Commercialisation Melbourne Research Commercialisation Fund				

Investors (Venture capital, angels, etc)

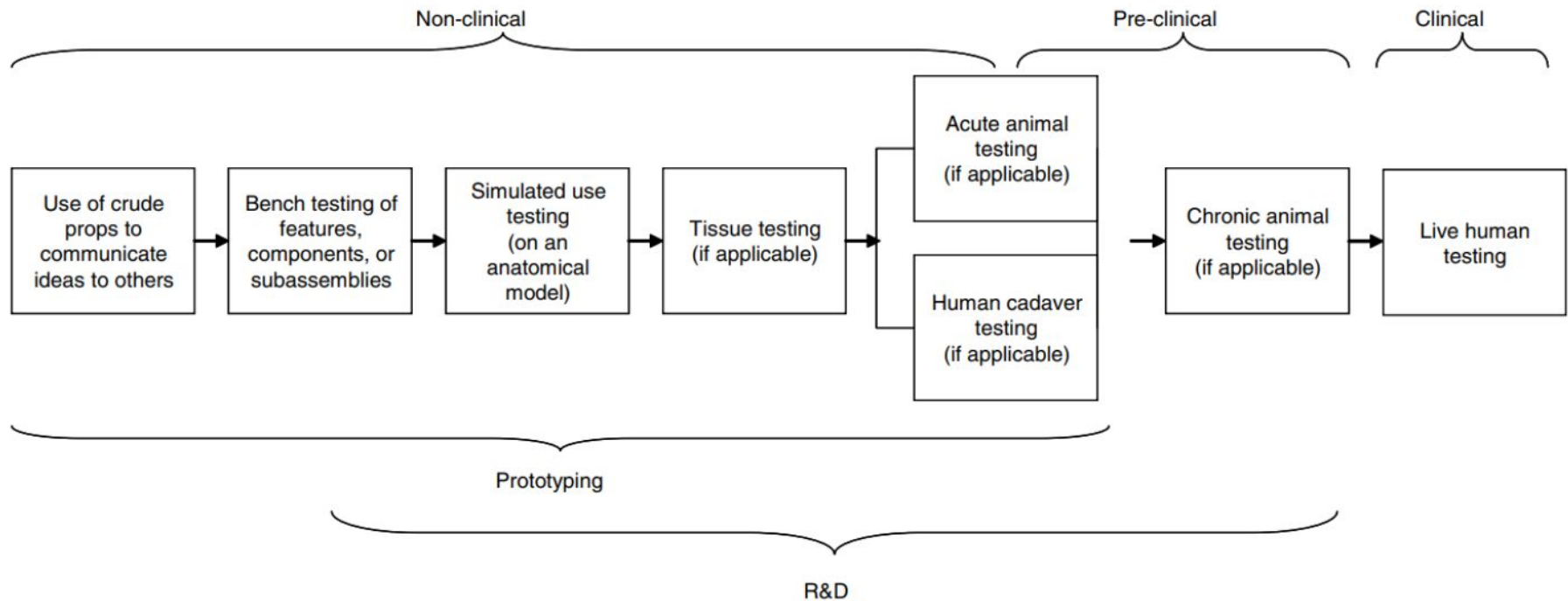


FIGURE 4.5.3

The biodesign testing continuum spans non-clinical, pre-clinical, and clinical testing, with prototyping playing a key role in non-clinical studies.

Figure 4: Biodesign testing process summary

ANDHealth Pipeline Stage of Development

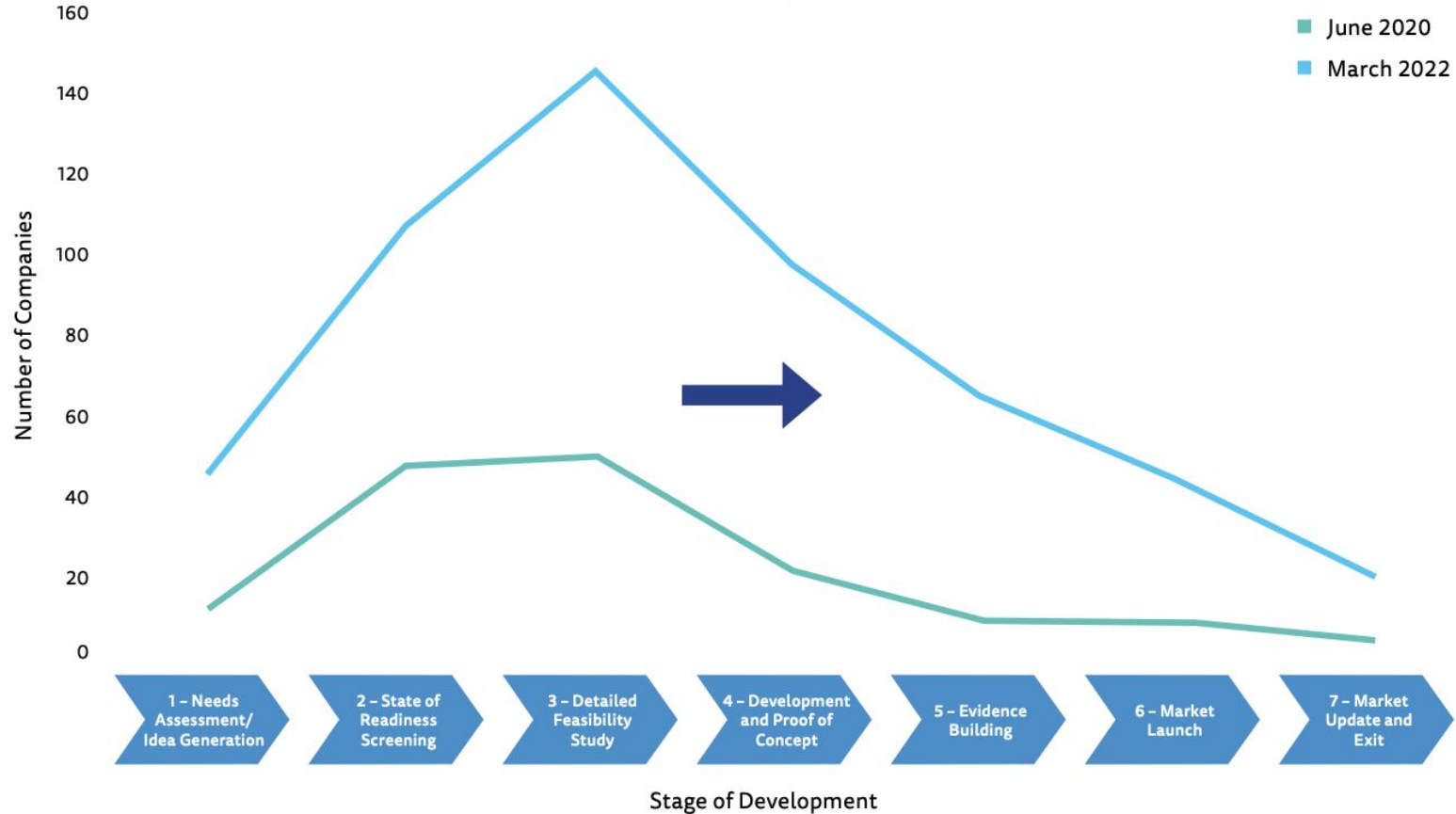
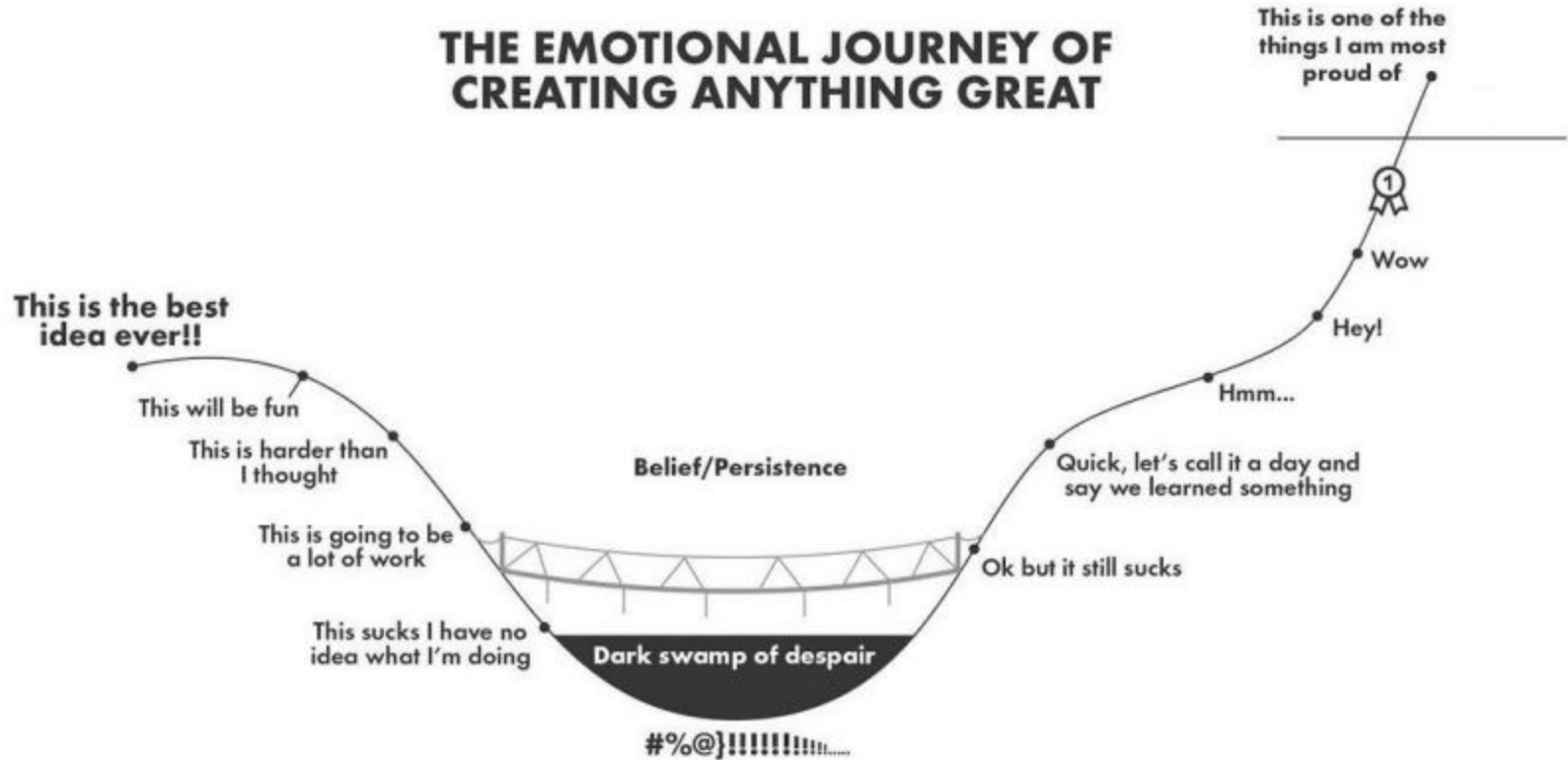


Figure 6.2: Australian Digital Health companies & technologies assessed against ANDHealth's proprietary stage of development matrix | Companies assessed at June 2020 (n=146) and at March 2022 (n=520).



THE EMOTIONAL JOURNEY OF CREATING ANYTHING GREAT



THE EMOTIONAL JOURNEY IS INEVITABLE AND PERHAPS NECESSARY

Global Digital Health Investment Funding

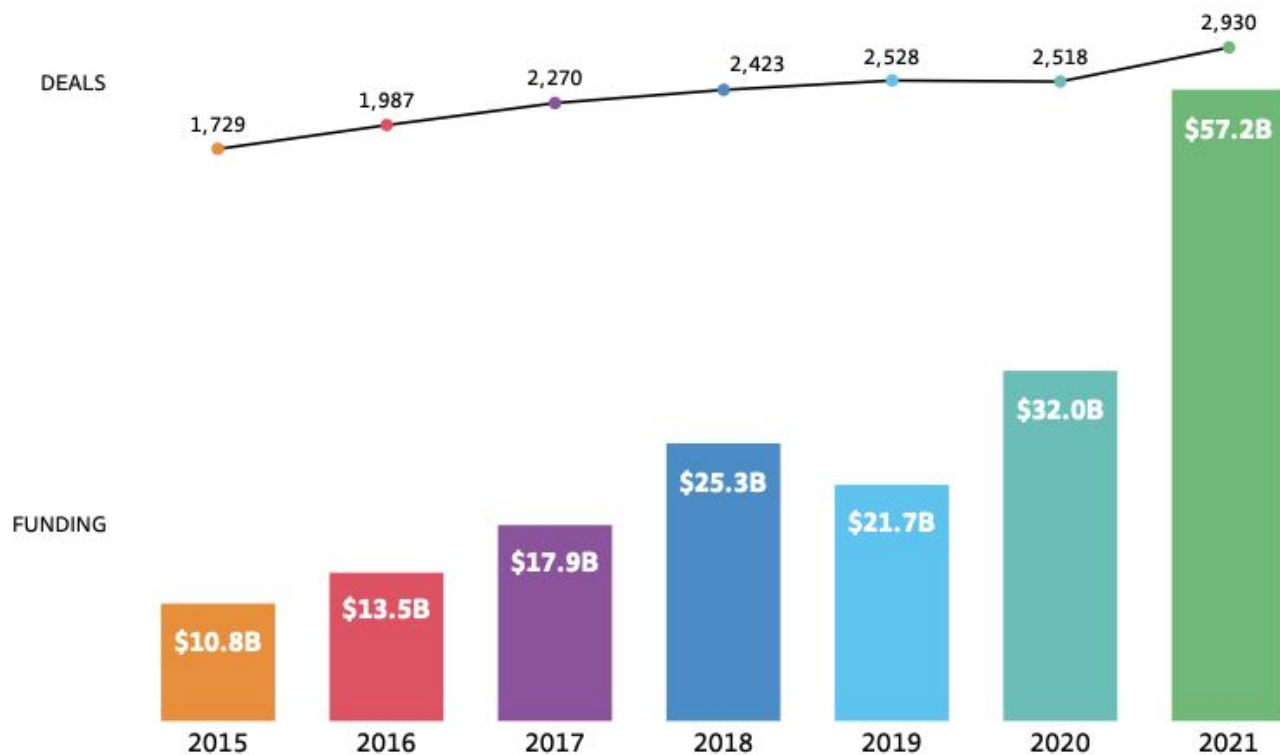


Figure 3.1: Global Digital Health Investment funding (In USD). Adapted from CB Insights 2021 State of Digital Health Report.¹⁹

Investment Source and Size

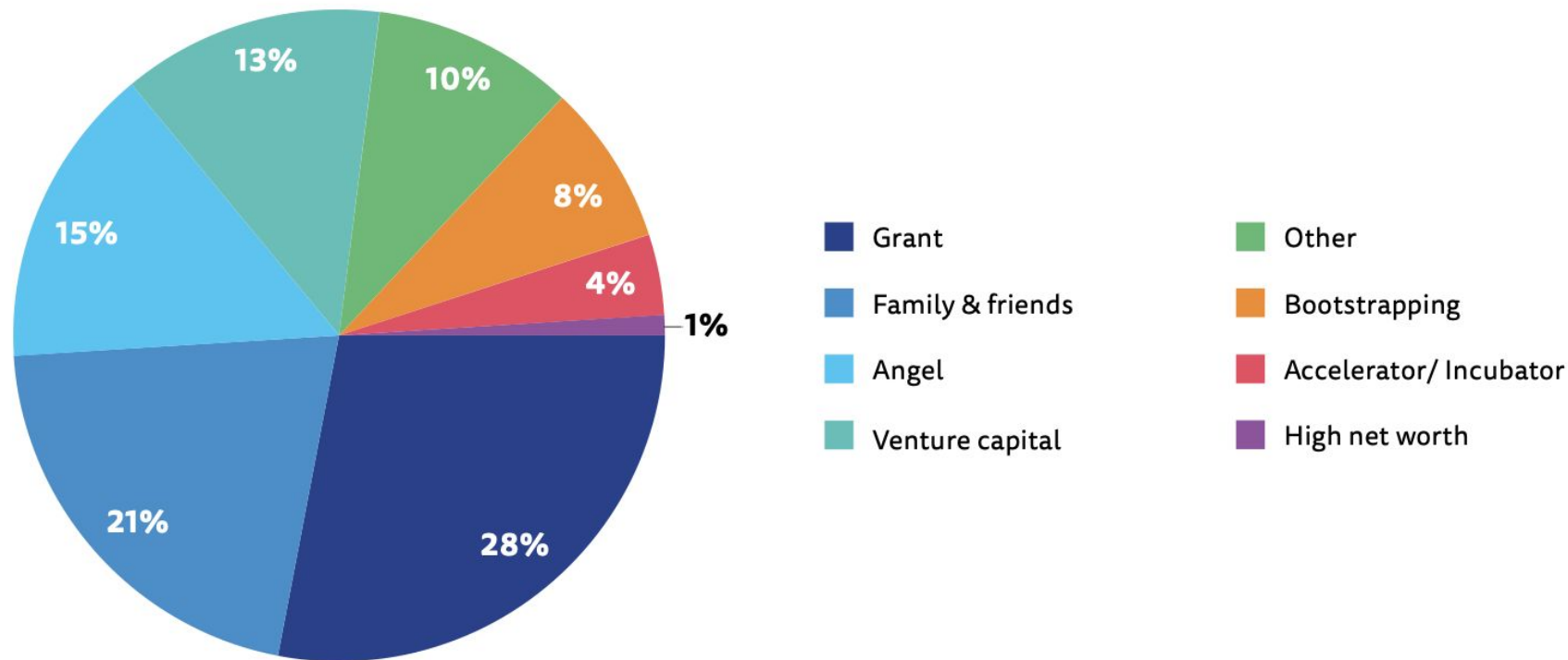


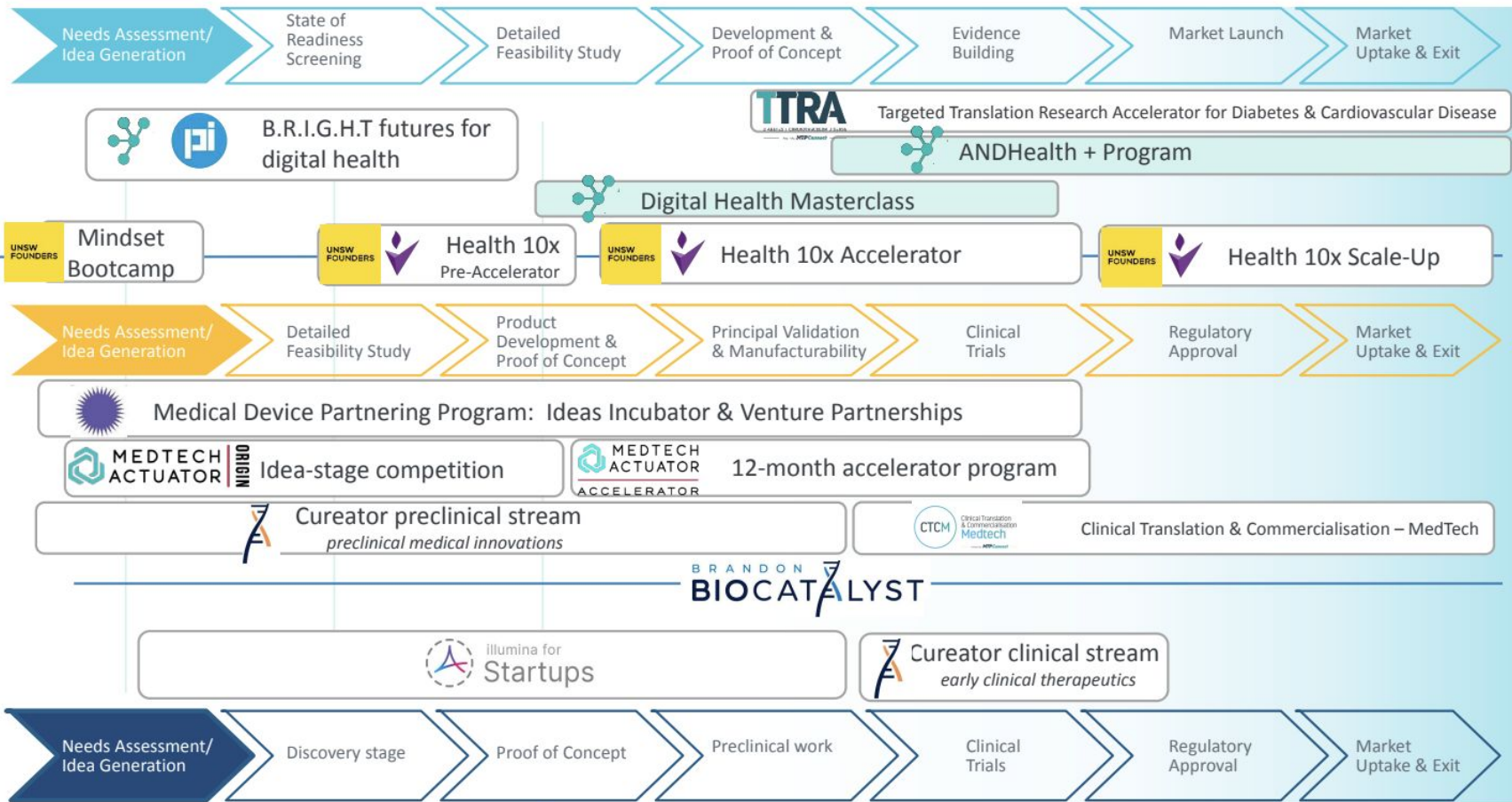
Figure 7.1: Australian Digital Health companies & technologies screened by ANDHealth | July 2017–31 Mar 2022 (n=449 funding sources reported). Other: public investment, debt, trade, RTO, self-funding, crowd funding.

AUSTRALIA MEDTECH, HEALTHTECH AND BIOTECH STARTUP ECOSYSTEM

Digital Health

MedTech

Life sciences



ANDHealth



Medical Device
Partnering Program



MEDTECH ACTUATOR
ORIGIN
Accelerator program



BRANDON
BIOCATALYST
Fund
Incubator



Illumina for
Startups

Accelerator (US, UK)
Non-dilutive grants (Aus)



UNSW
FOUNDERS

Health 10x by UNSW & The George
Institute for Global Health



MTPConnect
MedTech and Pharma Growth Centre

TTRA and CTC-M
programs



ENHANCING COLLABORATION TO DEVELOP CUTTING-EDGE MEDICAL DEVICES

120
PROJECTS

1049
PRODUCT IDEAS

193
WORKSHOPS

0

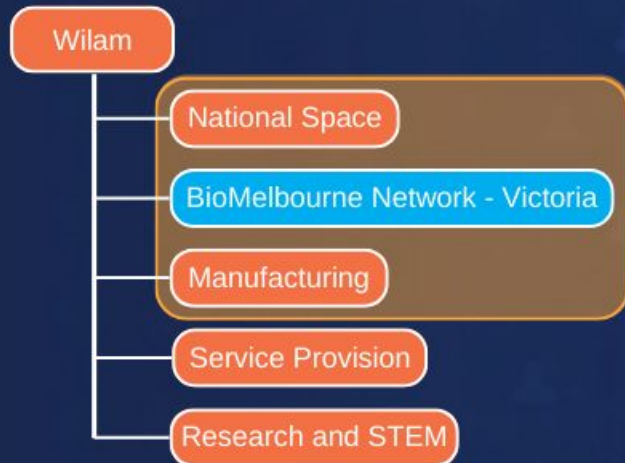
CAPABILITY DIRECTORY 

CONNECT WITH US 



Wilam

Life Sciences Industry Community



FOR EXAMPLE

If you want to discuss life sciences manufacturing... join the Manufacturing community.

Your feed will show posts from **National Space**, **BioMelbourne Network** and **Manufacturing** communities.

No matter how many communities you join, your feed will show posts and contributions from all of them.



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WHERE ARE THEY NOW?

Julie Dao

Menzies Foundation Alumni
2021 Meditech Actuator Menzies Scholar



MBSI

Medtech Actuator - The Accelerator

65+

Startups in the
Accelerator portfolio

~\$100M

Raised by portfolio
startups

150+

Mentors and
industry experts

15

Startups raising
Series A/B funding
rounds

50/50

Founder gender
equity

100+

Global ecosystem
partners

16

Products on market

1

Exclusive funding
partner