

Smartoma

Smart Stoma care

SMARTOMA



Tamara, a 39 year old

Tamara has recently undergone ileostomy due to Crohn's disease. She's starting to experience the unrelenting impact of living with an ostomy bag. She is a person who is always keen to adopt new technologies and ways to improve her health.

A life with an ostomy bag:

- High output stoma (fluid dehydration)
- Hypokalemia (low potassium)

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Tamara, a 39 year old

- Impacts on life and career
- New worries added to her life
- Impact on sexual activities
- Sense of independence is reduced

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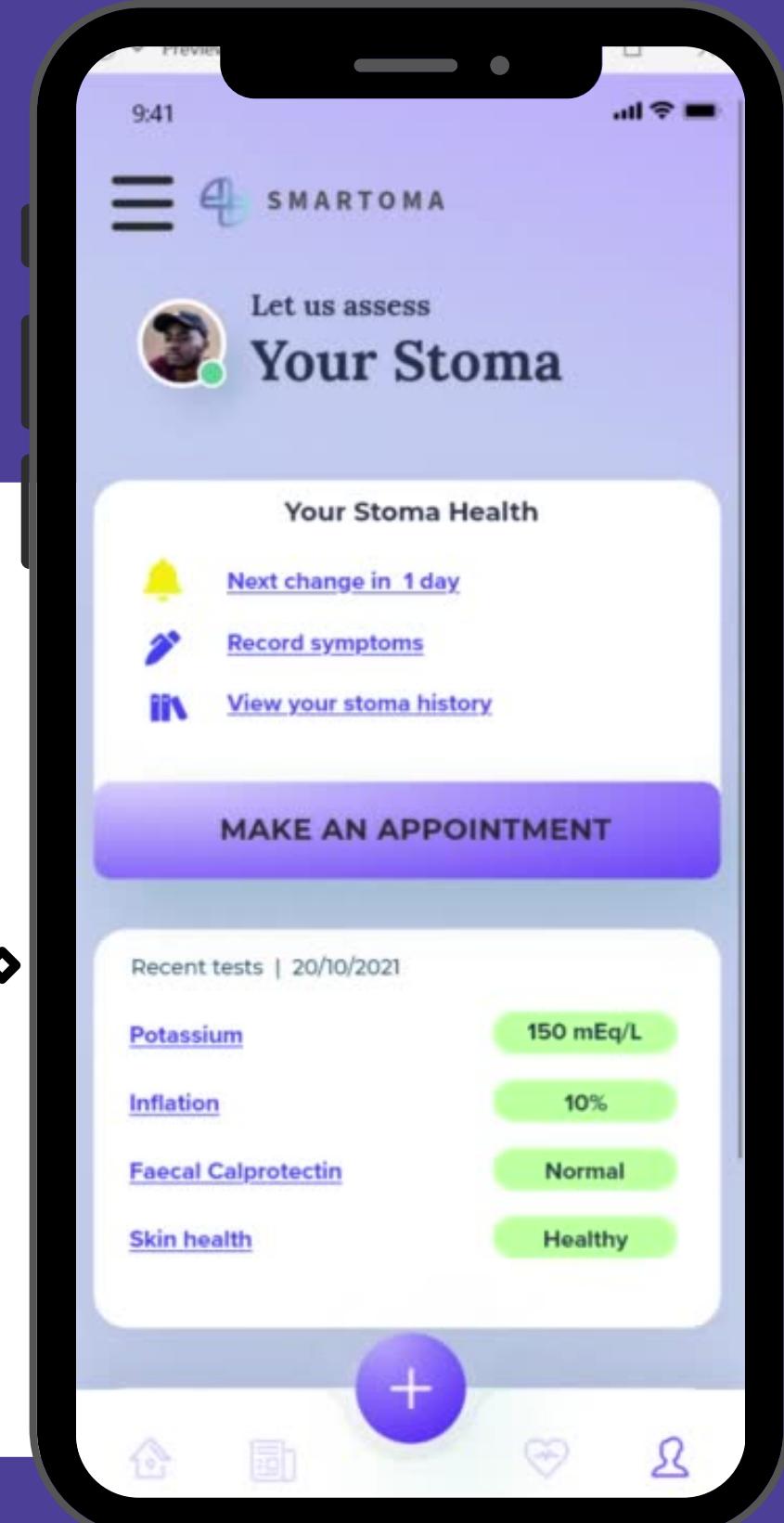
How can we help Tamara?



Taking control of your health and preventing future admissions to hospital

Integration

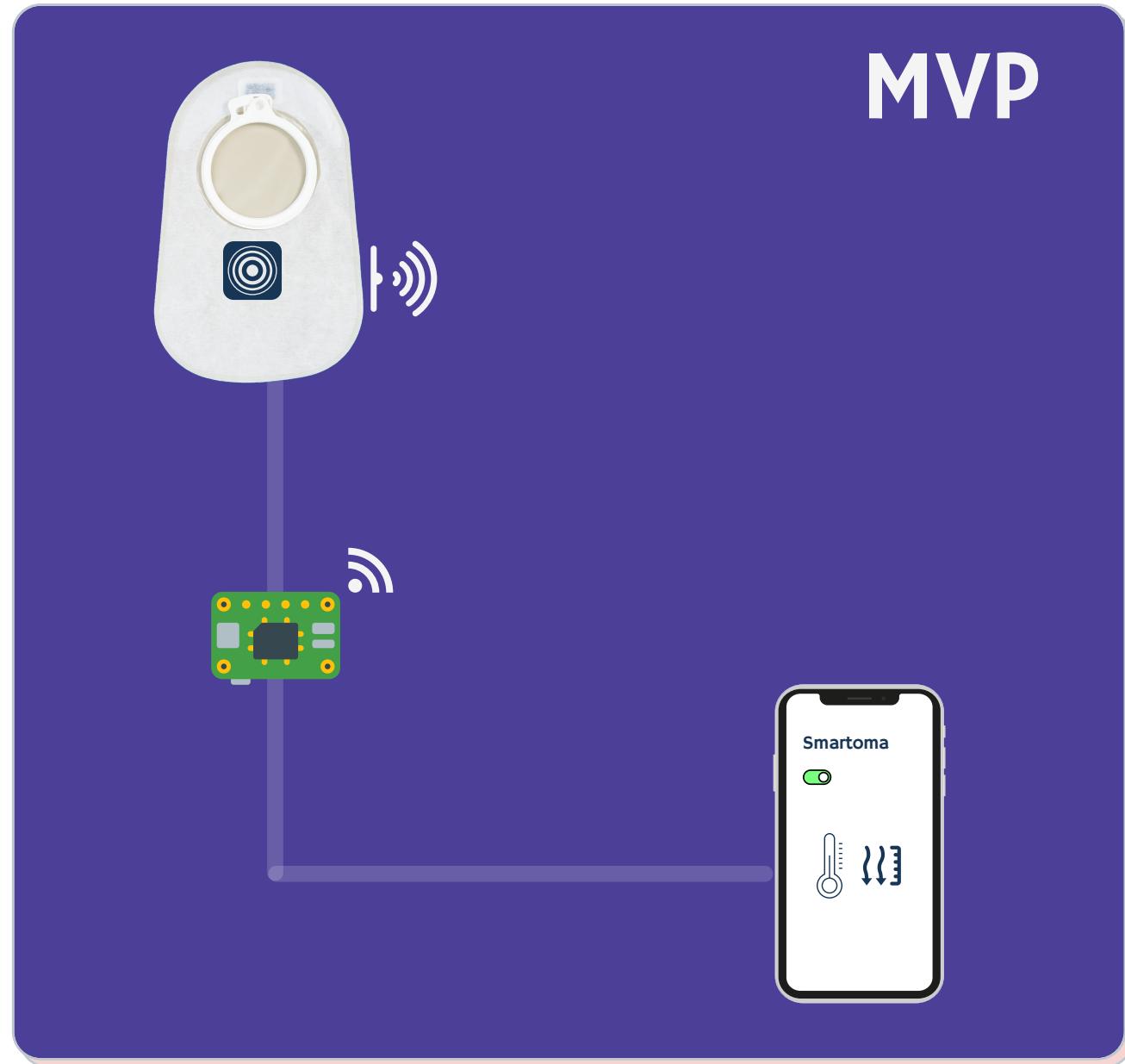
'SMARTOMA enables Tamara to get updates about his Crohn's disease activity as well as fluid output and electrolyte losses. She is less dependent on Stoma nurses.'



Digitising stoma care

A stoma bag with a number of sensors that monitors and notifies through an app. No regular checking needed.

- 01 Notifies user for a change
- 02 Predicts when care is needed
- 03 Provides update when requested



Sensors & Tech

- Bluetooth
- Ballooning sensor
- Electrolyte Concentration sensor
- Mobile Application (with cloud storage)

How does it work?

- Sensors relay data to the Bluetooth dongle
- Dongle relays data to the phone to be analysed and stored

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**1 in 500 people use a
stoma bag**

Market Size

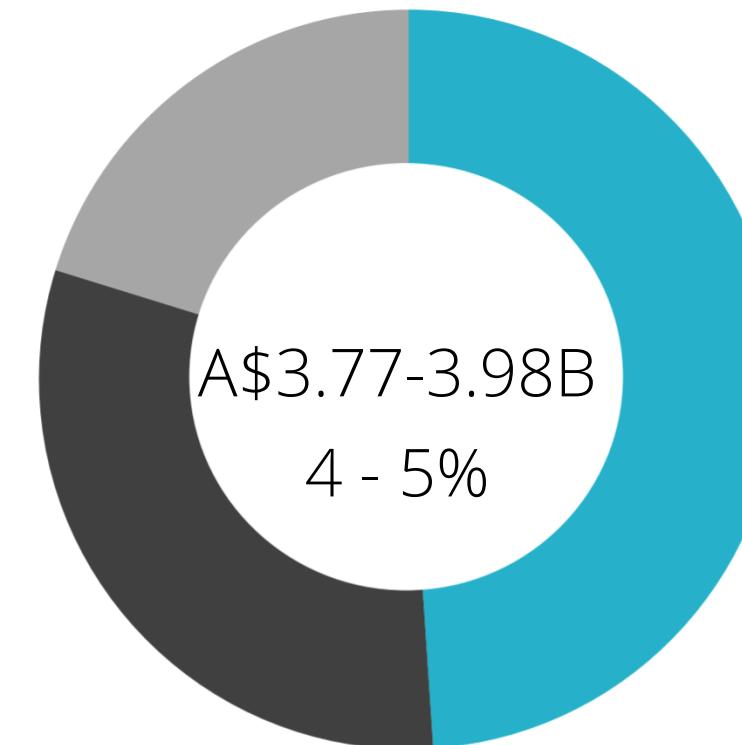
Target Market

A\$754-796M p.a.

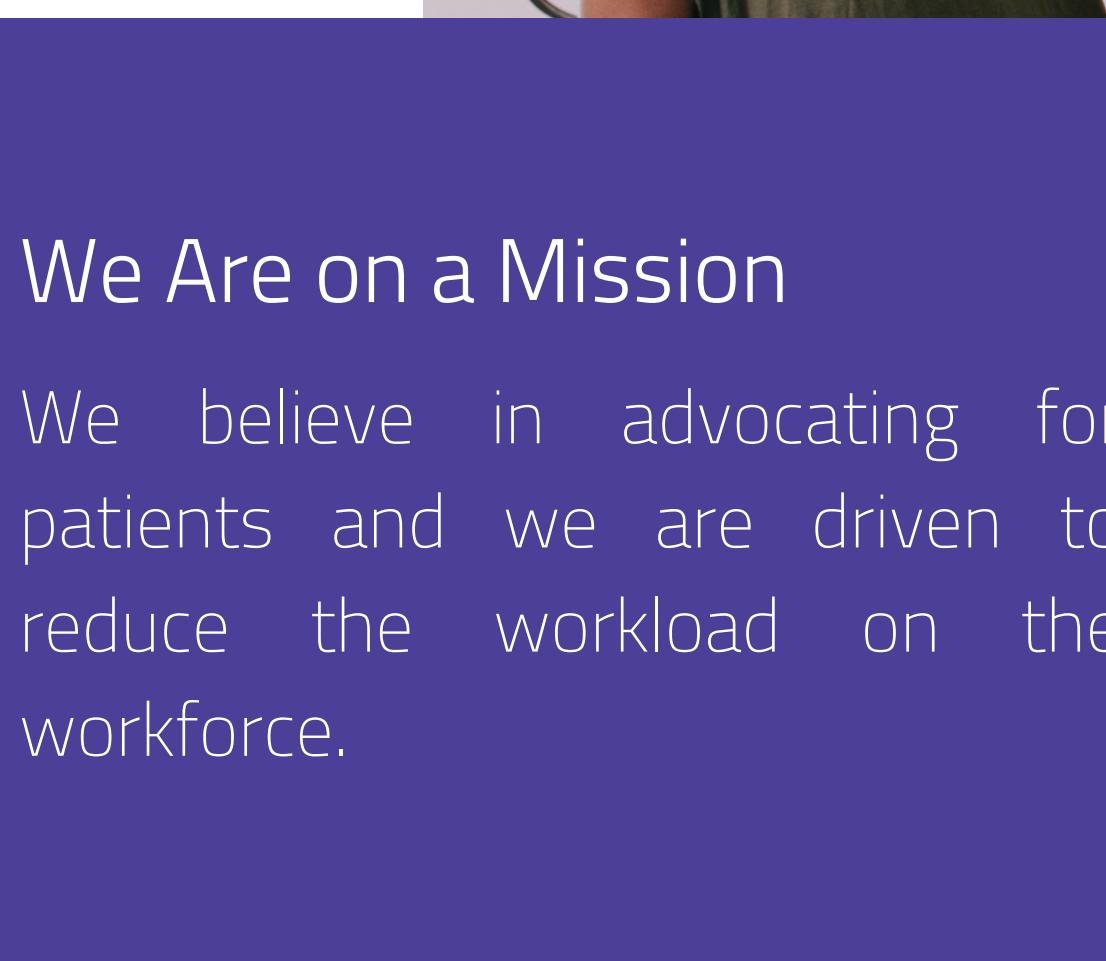
Emerging market

Total Addressable Market

A\$3.77-3.98B p.a.



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Our Team



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Master of Engineering (Biomedical)



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Timeline

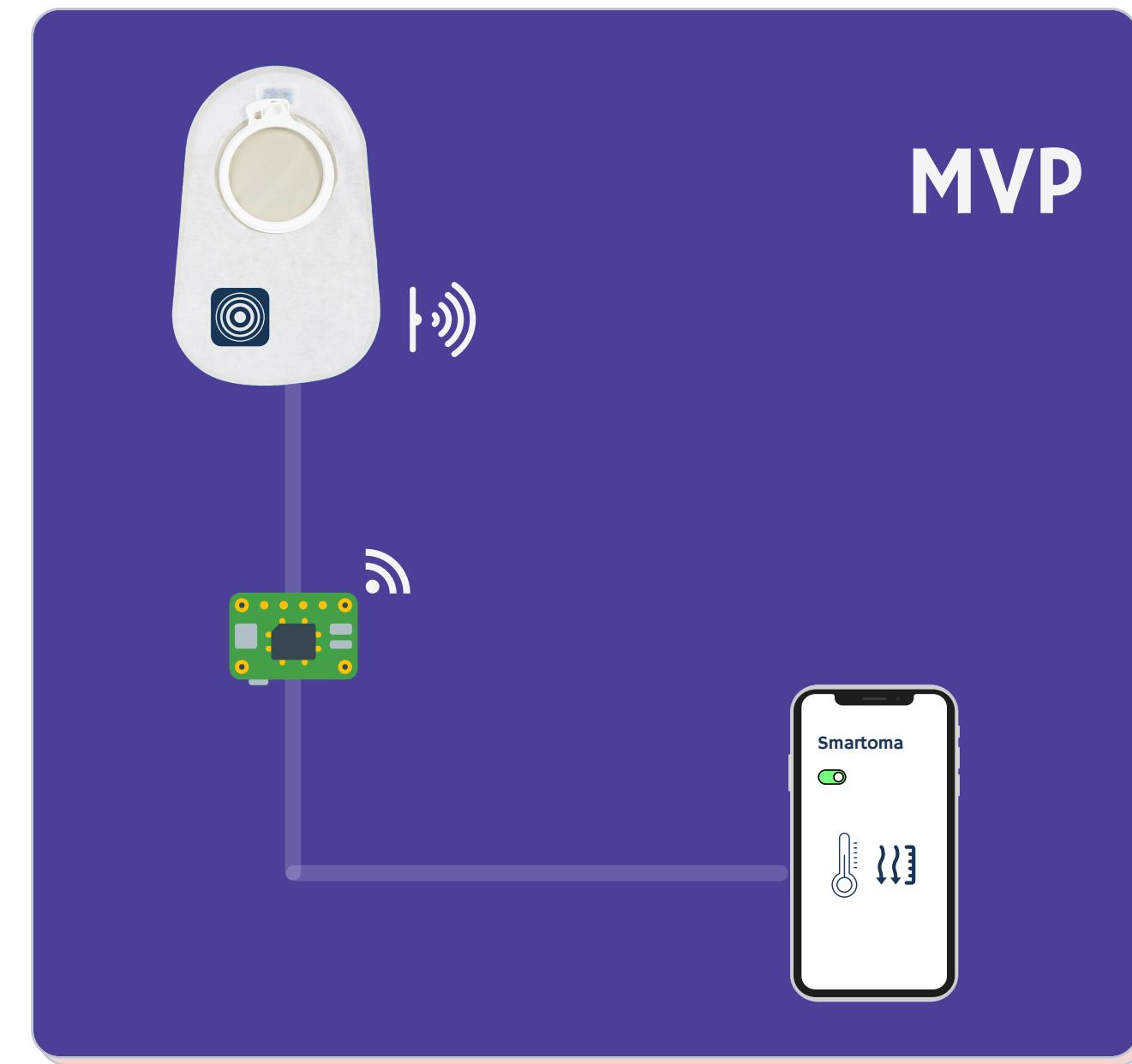
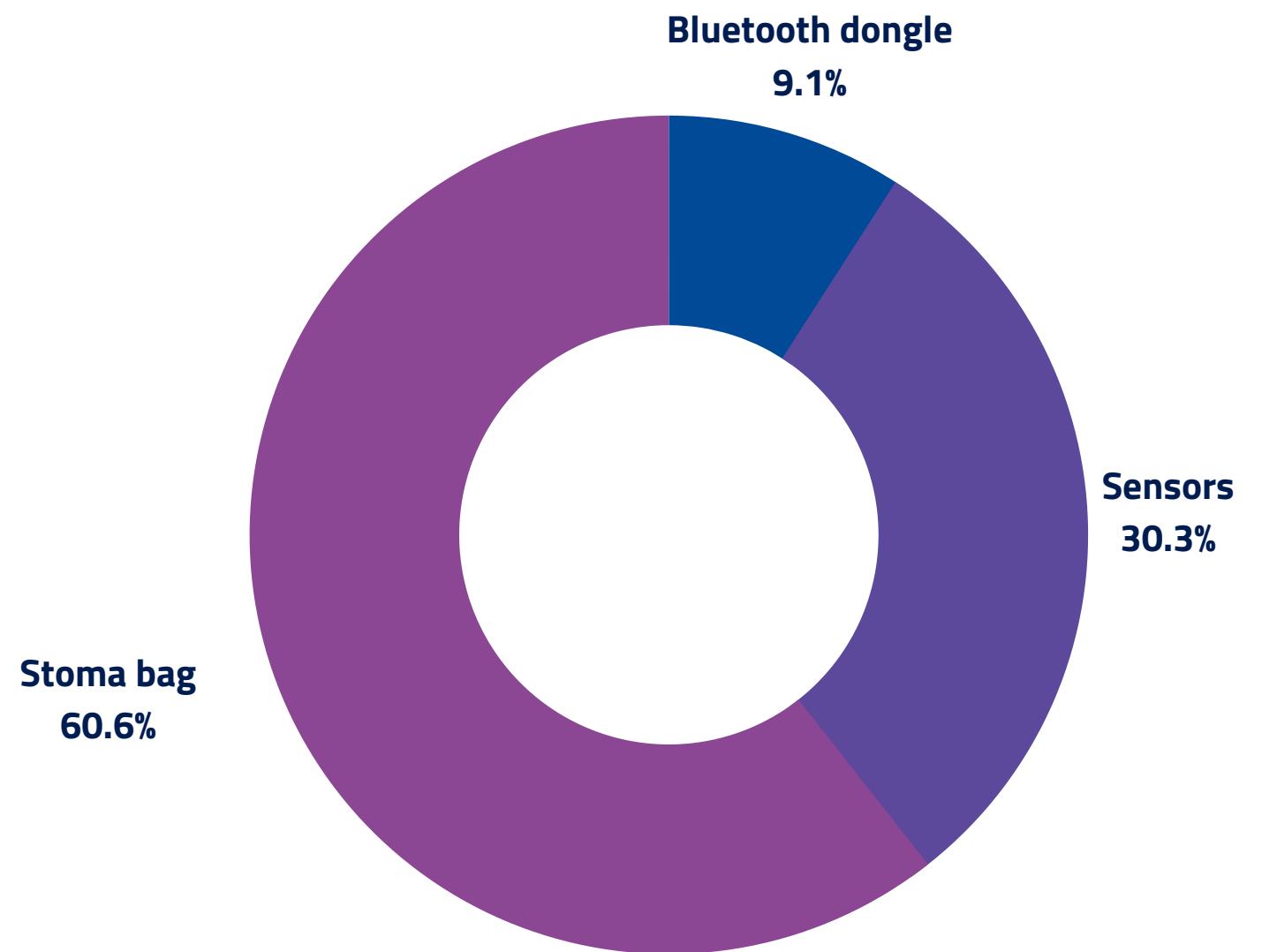
Present

- Conceptual solution realised
- Feedback received from colorectal surgeon to improve solution fit



First Milestone - AUD \$400 Funding

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Support from MBSI BioDesign Community



Subject Mentorship

Collaboration with subject matter experts to help guide the development of MVPs

Prototype User Acceptance Testing

Establishing contact with potential users of the product in order to test and provide feedback

Navigating Regulations

Workshops to assist with navigating the world of regulations



Bringing prototype to life

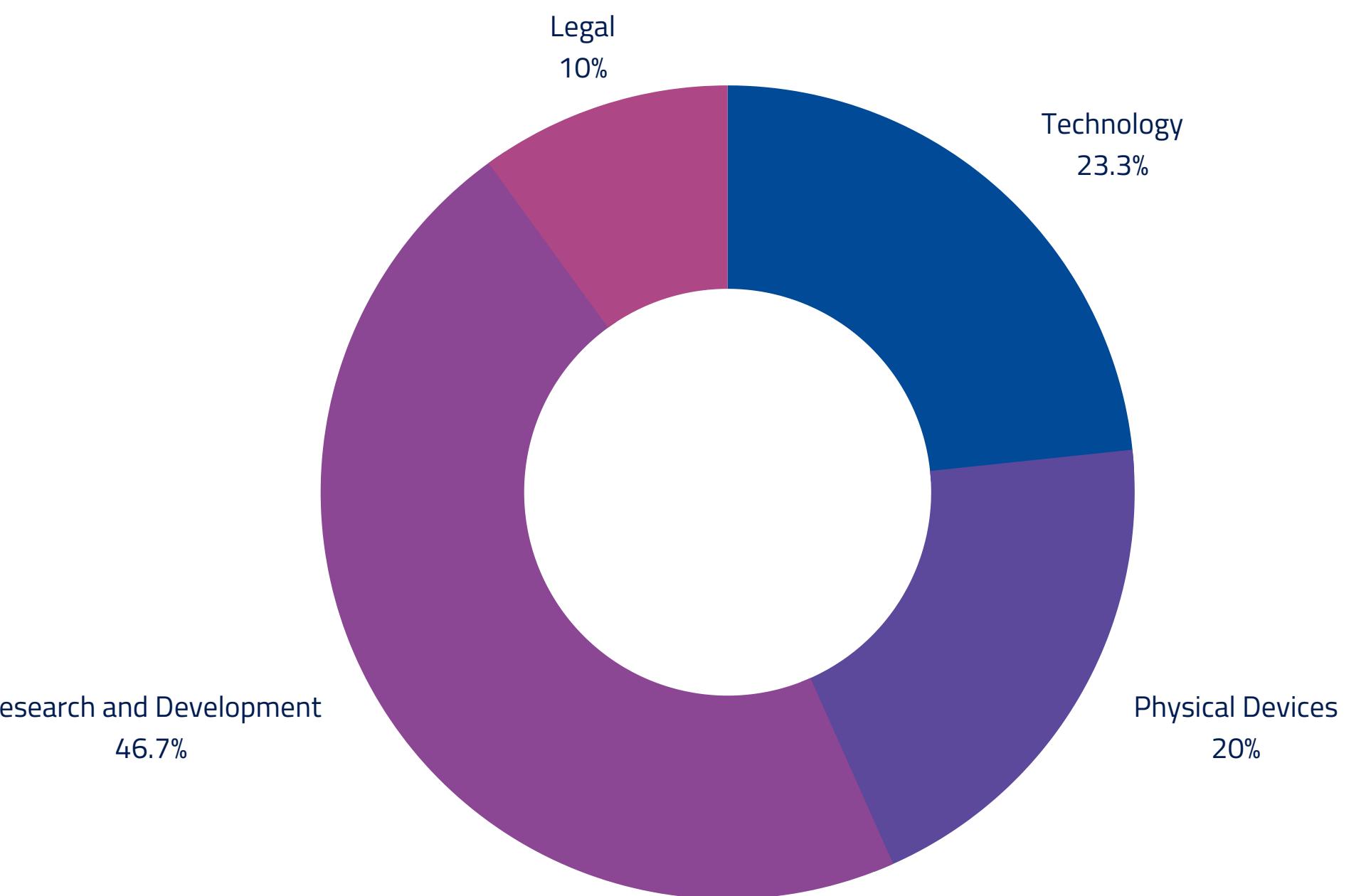
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AUD \$3000

A minimalistic approach to redesigning the prototype
into a durable and usable version

Item	Funds
Technology Infrastructure	\$ 400
Stoma Bags	\$ 600
Sensors	\$ 300
Research and Development	\$ 1400
Legal	\$ 300

R&D cost include experimenting different sensors
Legal costs include collaborating with IP consultants



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QnA

Many thanks for the amazing mentors at MBSI.