

CSIRO ON Prime 15 Program

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The Hypersocks Team



Hello, I'm Inna. I'm currently a PhD student at Macquarie University. My research interests include:

- ▶ natural hydrogen exploration
- ▶ CO₂ capturing
- ▶ petroleum system modeling
- ▶ geochemistry



Hello, I'm Lorenzo. I'm currently a researcher at the University of Melbourne. My research interests include:

- ▶ hypersonics
- ▶ turbulence
- ▶ machine learning

ON Prime 15 Matrix

Interviews

82

Mentoring

6 hours

Coaching

4 hours

ON Prime

100 hours

Hypotheses

9

Validated

5

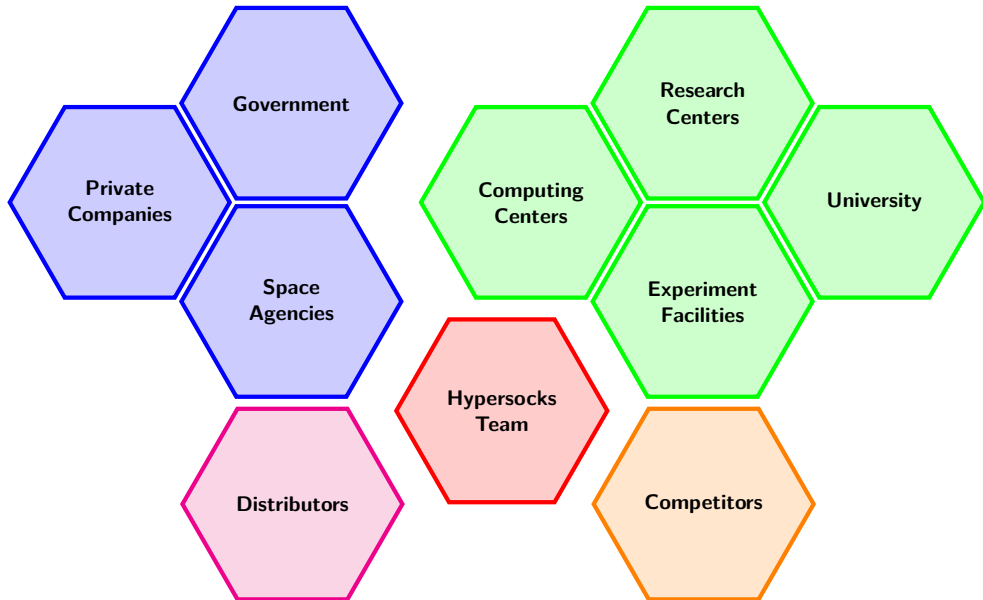
Invalidated

4

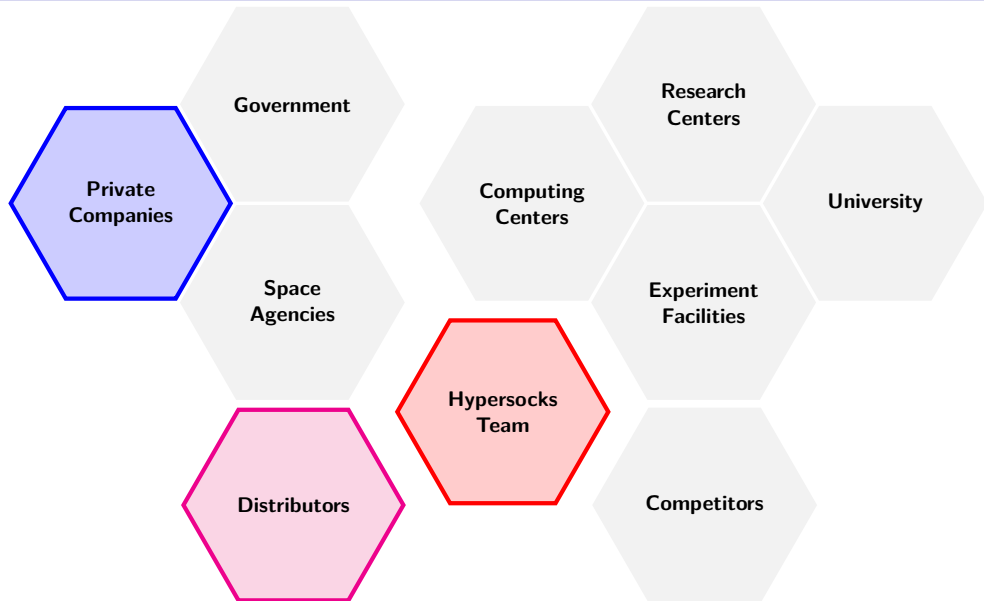
Insights

3

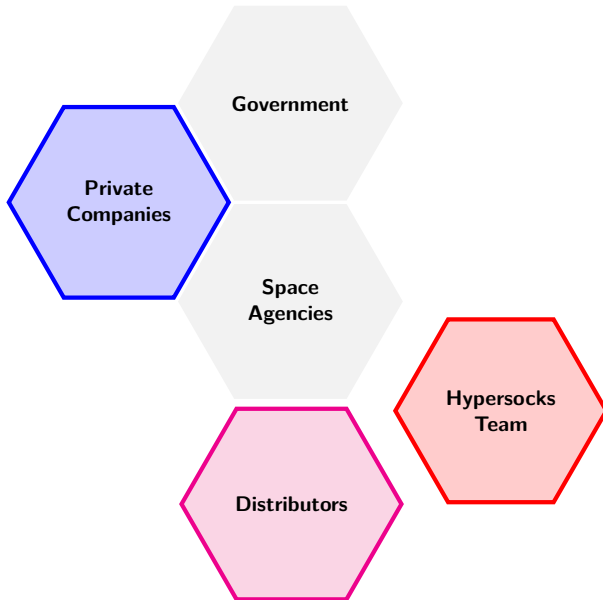
What we learned about the customers: **Ecosystem Map**



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Blue Origin

Boeing

General Electric

Dassault Systèmes

Lockheed Martin

Pratt & Whitney

Collins Aerospace

Northrop Grumman

Raytheon

Honeywell

Destinus

Reaction Engines

Stratolaunch Systems

Hypersonix Launch Systems

SNC

SpaceX

Gilmour Space Technologies

Hylmpulse, Hermeus

Varda Space Industries

Venus Aerospace

LEAP, Dassault, Ansys

Metacomp, Siemens

What we learned about our product

Assumptions

Validated:

- ▶ High vs low level user interface
- ▶ Mesh adaptation bottleneck
- ▶ Data confidentiality
- ▶ Regulatory restrictions
- ▶ Competition among companies

Invalidated:

- ▶ FAIR principle
- ▶ Accuracy vs Speed vs Cost
- ▶ ML/AI vs "Good 'ol skool"

Insights

- ▶ Flight test model validation
- ▶ (Automatic) Mesh adaptation is painful

Business Model

Software Package Product

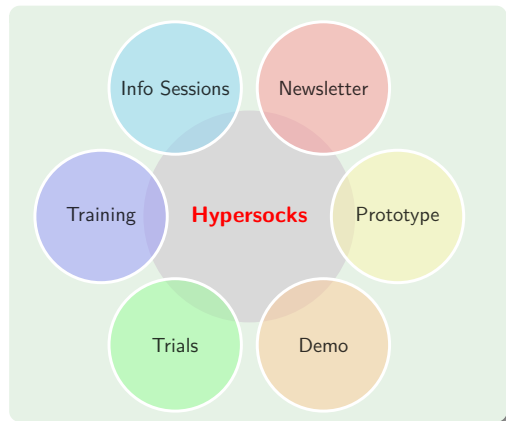
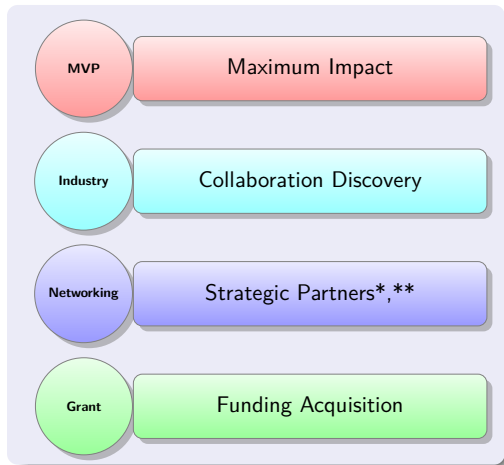


Interoperable Module Library



SaaS

Next steps



*Ongoing Uptake Project with Pawsey Supercomputing Research Centre, Australia

**Presentation at Institute of Physical and Chemical Research (RIKEN), Japan



Hypersocks Team

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Thanks for your attention!