

# What's Shaping Agriculture

## The outlook for innovation & investment

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INNOVATION  
[www.csiro.au](http://www.csiro.au)



# We do the extraordinary every day

**5300**

talented staff

**2800+**

Industry  
Partners

Working with  
**1200+**  
SMEs every  
year

**\$1billion+**  
budget

Australia's  
largest patent  
holder (1862)

**Top 1%**  
of global  
research  
agencies

Each year  
**6 CSIRO**  
technologies  
contribute  
\$5 billion to  
the economy

**159**  
Aussie companies  
started from  
CSIRO technology

# Big ideas start here



## Fast WLAN

Wireless Local  
Area Network



## POLYMER BANKNOTES



## AEROGARD



## BARLEYmax™



## RELENZA FLU TREATMENT



## TOTAL WELLBEING DIET



## HENDRA VACCINE



## EXTENDED WEAR CONTACTS



## SOFTLY WASHING LIQUID



## SELF TWISTING YARN



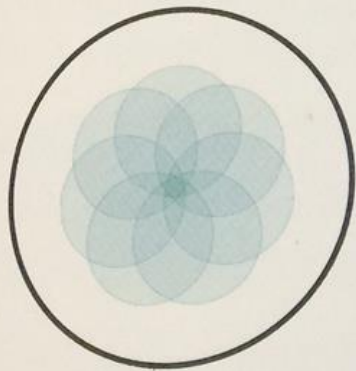
## RAFT POLYMERISATION



## NOVACQ™ PRAWN FEED

# Australia 2030

## Scenario inputs



CSIRO 2015  
Megatrends



CSIRO Australian  
National Outlook 2015



CSIRO sector-specific  
forecasting reports



Consultation with  
CSIRO researchers and  
industry experts

# The Scenarios

## Digital DNA

Australia experiences a dramatic shift towards a digital services and knowledge-driven economy made possible by the exponential growth of computing power, an increasingly connected world, and the wide range of new technologies this enables.

### Underlying global trends

- Increasing computing power
- Increasing resource efficiency
- Increasing productivity
- Increasing levels of international trade
- Disruptive business models

### National impact

- Much **stronger** economic growth
- **Positive** social impact
- **Positive** environmental impact
- **Bold and new** industries

## Mining and dining

Australia's economy benefits from a second wave of the resources boom driven by growth and urbanisation in developing economies. Minerals, energy and food represent the majority of Australian exports and are the underpinning wealth generators for the economy.

### Underlying global trends

- Resource efficiency follows current trends
- Moderate carbon abatement efforts
- Increasing global energy demand and material consumption
- Increasing and changing food demand
- Asian economic growth and urbanisation

### National impact

- **Stronger** economic growth
- **Neutral** social impact
- **Neutral to negative** environmental impact
- **Tried and tested** industries

## Clean and lean

Decoupling of economic growth and environmental sustainability has lead countries to simultaneously pursue both objectives. Consumers seek out healthier lifestyles and Australia works with other advanced economies to address carbon abatement, resource efficiency and sustainability.

### Underlying global trends

- Declining material consumption Moderate carbon abatement efforts
- Increased focus on health Increasing and changing food demand
- Strong carbon abatement efforts
- Increasing resource efficiency

### National impact

- **Neutral** economic growth
- **Positive** social impact
- **Positive** environmental impact
- Both **new and traditional** industries

## Weathering the storm

Global geopolitical instability increases, driven by climate change and regional conflicts over access to land, food and water. Tensions threaten to destabilise trade alliances and disrupt global supply chains, leading to prolonged global economic stagnation.

### Underlying global trends

- Increasing water scarcity and limited natural resources
- Growing impacts of antimicrobial resistance
- Severe weather events
- Decline in available agricultural land
- Global trade disruption

### National impact

- **Weaker** economic growth
- **Negative** social impact
- **Negative** environmental impact
- **Tried and tested** industries

# AUSTRALIA'S INNOVATION CATALYST

CSIRO Strategy 2020

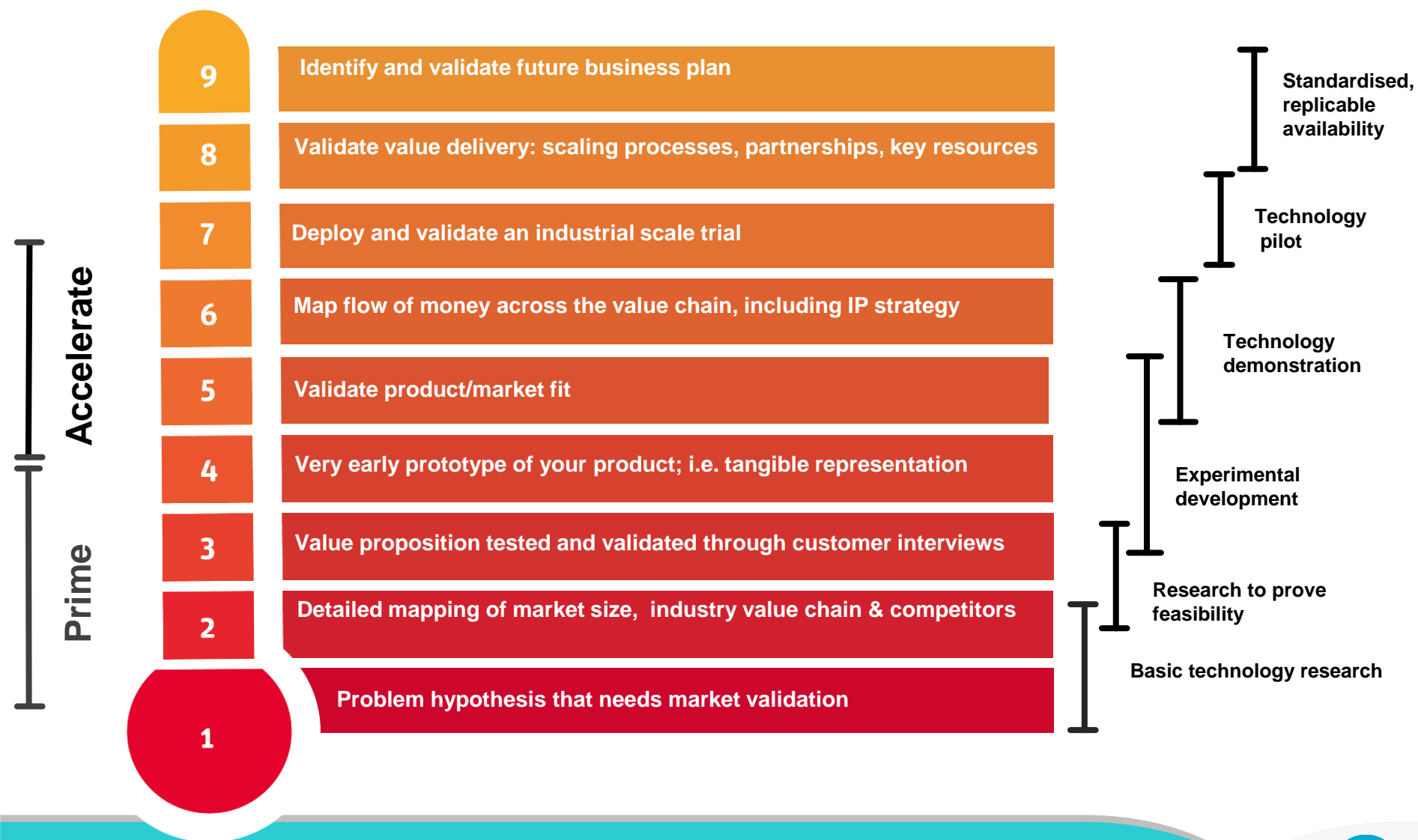


# ON

## Accelerating Australian Science & Technology Innovation for Real World Outcomes



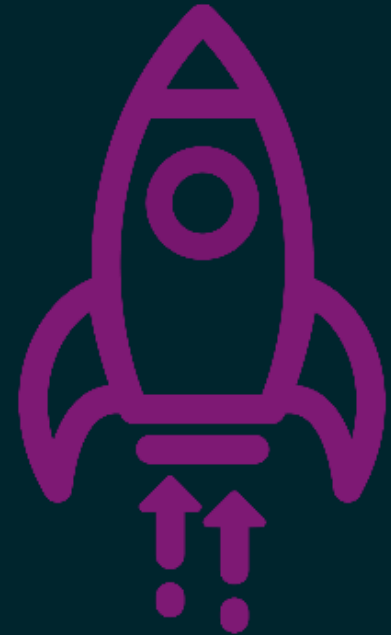
# ON Program Offerings





# ON PRIME -> PROBLEM/PROPOSITION FIT

- Part-time experience
- Intro Lean Methodologies in a SciTech context
- Skill Development in
  - Market Discovery
  - IP Strategy
  - Business Model
- Access to Mentors
- Themed by high-growth opportunities
- Culminate in a Learnings Presentation
- Invite to ON Accelerate for eligible teams



# ON ACCELERATE -> PRODUCT/MARKET FIT

- Full-time for 12 weeks
- Builds on PRIME
- New skill development in
  - Commercialisation Strategies
  - Storytelling & Pitching
  - Business Planning
- Access to Mentors AND Entrepreneur in Residence Program
- Pre-Seed Funding



**ON2 DEMO DAY JULY 7th**

# ON1 Kebari

The world's first gluten free  
barley grain.

# ON1 Transpirational

A sprayable biodegradable  
polymer membrane to support  
farmers get more from less

## ON2: FutureFeed

A natural feed ingredient that could reduce Australia's agricultural carbon footprint by 90%

## ON2: RapidAim

Automated fruit fly monitoring and surveillance solution

## ON2: Meals By Design

Utilising world first processing innovation to deliver premium, chilled long-lasting convenience foods that look great & are healthy.



# Thank you

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