# Innovations addressing global challenges

International Conference on Innovation for Inclusive Growth

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CSIRO: Who we are

People 5500

Flagships 9

Sites 56

Programs 500

Budget \$1B+



**Top 10** applied research agency globally

**Top 1%** of global institutions in 14 of 22 research fields

2000 doctorates 500 masters, Hosting 839 postgraduate research students

**3111** publications, **3400** patents, work with

**2000** companies every year

### CSIRO'S Research Flagships and Lines

#### Flagships – Impact Science









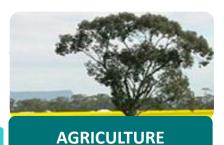
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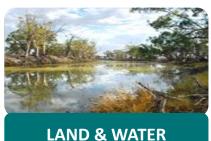












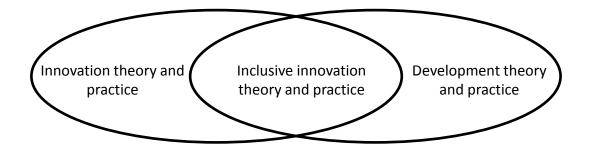


A different type of innovation

## INCLUSIVE INNOVATION



#### Inclusive innovation is ...



The creation, acquisition, absorption and distribution of knowledge that is focused on meeting the needs of those in need, regardless of access to resources. It:

- Engages with end users;
- Builds the <u>capabilities</u> of the users to ensure <u>sustainability</u>;
- Is <u>affordable</u>, to ensure that costs do not prohibit engagement of those in need;
- Is focused on developing <u>high quality</u> products and services; and
- Is focused on delivering <u>wide spread</u> positive impact.



## How we operate

We work with industry companies to help them apply, and realise results



We create solutions and inventions

We look at company, industry, or end user challenges:

- Productivity
- Safety
- Competitiveness



### We find partners to help undertake the research:

- Government
- Universities
- Research institutes
- Industry companies
- Local providers and businesses

#### **CSIRO** contributes:

- Scientific experts in relevant fields
- Research centres and facilities
- Equipment
- Networks
- · Capacity building



## CASE STUDIES



## Similar goals, different partners

- All projects are focused on fundamental improvement to the base of the pyramid but are taking different approaches to getting there.
  - Case study 1: Community engagement and partnership
  - Case study 2: Supply chain engagement
  - Case study 3: Policy makers and development partner engagement



## Case study 1: Safe water for the Future through the Indo-Oz network

With funding from the Australian Department of Foreign Affairs and Trade, CSIRO scientists are working across India to help solve this challenge. We are providing locals with:

- The tools and techniques needed to assess and address the impacts of water pollution;
- The tools and techniques needed to understand the likely impacts of climate change and the risks posed by cocktails of contaminants in water and sediments; and
- Education on environmental pollution issues. For instance, the team recently took a group of rural school kids to the local Ganga Aquarium to teach them about the importance of water safety, pollution and human health.







Case study 2: Applied Research and Innovation Systems in Agriculture

#### Goal:

At least 10,000 smallholders in eastern Indonesia increase their incomes from agriculture by at least 30% by December 2018.

#### **Objective:**

Through incentives, education, and capacity building encourage research institutions and private firms to increasingly invest in and collaborate to adapt and produce commercially applicable agricultural innovations that benefit farmers in Indonesia.





## Case study 3: Food systems innovation

#### Goal:

All people, at all times, have physical, social and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

Meeting our future food demands sustainably will require innovation along the entire supply chain: in production, markets, distribution and consumption.



#### **Objectives:**

- 1. Markets and partnerships: Developing market-driven approaches to agricultural development that are inclusive and leverage private sector investment for maximum impact.
- 2. Agriculture linkages: Strengthening the linkages between agriculture and other development priorities, including women's economic empowerment, nutrition, water and infrastructure.
- 3. Managing for Impact: Supporting agriculture projects to have sound theories of change, good management and robust monitoring and evaluation.



## THANK YOU

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