



INNOVATION
sustainable islands' growth

INNOVATION
croissance durable des îles

The connectivity
between innovation,
collaboration and
funding models



Topics:

- Complexity of Innovation
- Innovation impact on business
- Private sector funding of innovation
- Public sector funding of innovation

Applied Innovation

Idea +

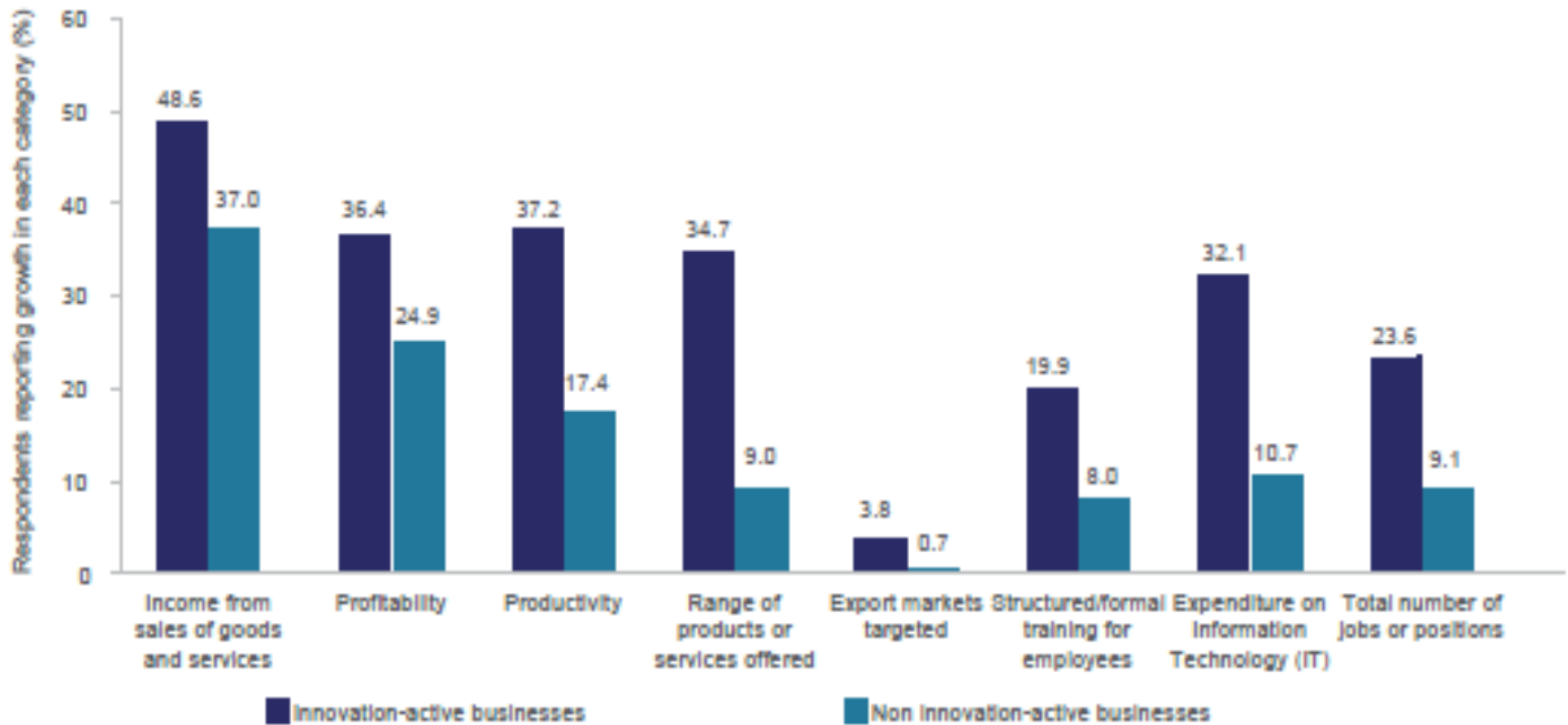
Resources & Effort

Leadership
Development process
Infrastructure
Internal Partners
External Partners
Funding models
IP
Business tools
etc

= value creation

Why do we need to innovate?

Innovation increases business performance, 2006–07 to 2011–12



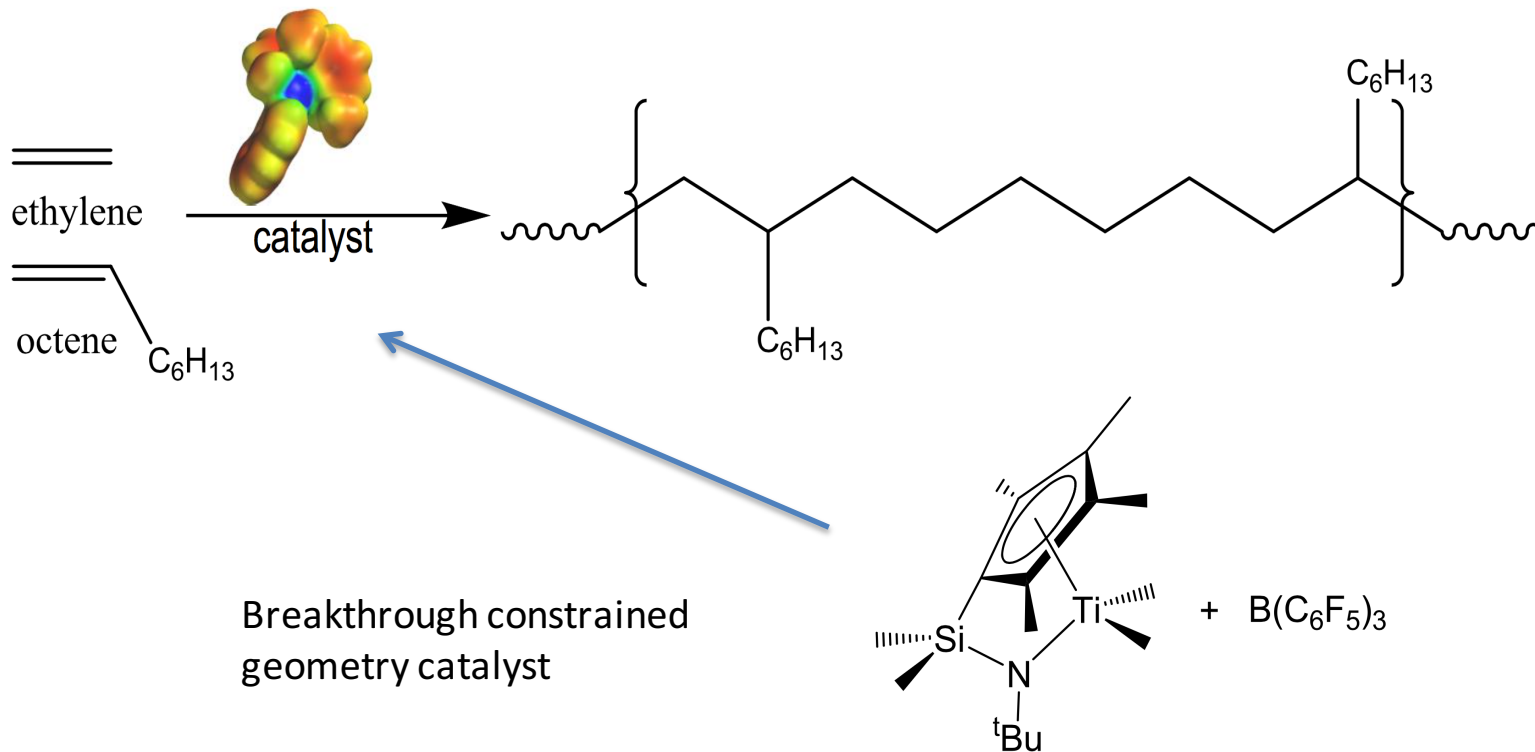
Source: ABS (various) Selected characteristics of Australian business, 2006–07 to 2011–12, cat. no. 8167.0, ABS, Canberra

Private sector Innovation funding

- Many misconceptions regarding private sector funding of innovation
- Successful approaches
 - Strong technology leadership and technology strategy alignment
 - Managing the right balance of expectations of returns
 - Compete for funding using business measures
 - Holistic approach to innovation – consumer insights to end of life
 - Portfolio and horizon mapping of innovation activities
 - Strategic partnering for large scale projects
 - Strategic technology out-sourcing for specific expertise

Industry Innovation Example

Dow Chemical - Catalyst breakthrough



Breakthrough constrained geometry catalyst

Technology driven innovation in plastics. Dr. Jim Stevens - <https://www.aau.edu/WorkArea/DownloadAsset.aspx?id=11352>

Product Platform

Custom Polyolefins

Polyolefin Products Launched Using New Catalysts



| | |
|---|------|
| AFFINITY* Polyolefin Plastomers | 1993 |
| ENGAGE* Polyolefin Elastomers | 1994 |
| ELITE* Enhanced Polyethylene | 1996 |
| NORDEL*IP EPDM (Solution Process EPDM) | 1996 |
| AFFINITY* Adhesives | 1998 |
| INDEX* Interpolymers | 1999 |
| Thermoplastic Polyolefins (TPO's) | 2000 |
| INSPIRE* Performance Polymers | 2000 |
| Gas Phase Polyethylene (Sold to BP) | 2001 |
| Slurry Phase Polyethylene (Sold to Univation) | 2001 |
| DOW XLA* Elastic Fibers | 2002 |
| NORDEL* MG EPDM (Gas Phase EPDM) | 2002 |
| VERSIFY* Propylene Plastomers and Elastomers | 2004 |
| INFUSE* Olefin Block Copolymers | 2007 |

Public Sector Innovation funding

- Clarity around the purpose of the funding
- Linked to strategy versus adhoc
- Behaviour based funding
 - TVP voucher: collaboration and use of research infrastructure
 - Procurement based funding e.g. market validation
 - Cluster/collaboration based funding e.g. Innovation network
 - Partnering based funding e.g. CAESIE priming grants
 - Funding supporting social impact programs – crowd funding

Funding of Collaborative innovation

The **Chemicals and Plastics Manufacturing Innovation Network and Training Program** is led by Monash University and the Plastics and Chemicals Industries Association (PACIA) and underpinned by support from the Victorian Government and 20 industry members that are a combination of multinationals and SMEs.



Summary

- There is no one-size fits all model of innovation
- Innovation funding can have many sources depending on scale, complexity and impact.
- Innovation funding is best when it takes into account desired behaviours as well as products and services
- Collaborations can play a significant role in innovation funding and innovation outcomes