



Introducing the Rail Manufacturing CRC

METRONET Rollingstock Procurement – Industry Engagement

Presented by **Dr Stuart Thomson**, CEO – Rail Manufacturing CRC

About the Rail Manufacturing Cooperative Research Centre (CRC)

Working to foster, sponsor and direct collaborative research and commercialisation partnerships in rail manufacturing

- We facilitate university engagement, co-fund projects (50:50) and manage projects
- Established in 2014, the Centre will operate for six years, funded by the Business Cooperative Research Centres Programme of the Federal Government's Department of Industry, Innovation and Science



Australian Government
Department of Industry,
Innovation and Science

Business
Cooperative Research
Centres Programme

www.rmccrc.com.au/register-your-project



Centre Participants include



Global Synthetics

Centre research themes

01

Power and Propulsion

Energy and cost efficiency and improved competitive performance in advanced rail manufacturing through research, development and commercialisation in:

- **Energy Regeneration and Storage**
- **Advanced Braking Systems**
- **Electronic Motor and Systems**

02

Materials and Manufacturing

Competitive cost, durability and performance in advanced rail manufacturing through research, development and commercialisation in:

- **High Performance Materials for Heavy Haul**
- **Advanced Manufacturing**
- **Advanced Lightweight Materials**
- **Low Cost Manufacturing Systems**

03

Design, Modelling and Simulation

Safety and efficiency in advanced rail manufacturing to enhance industry competitiveness through research, development and commercialisation in:

- **Advanced Design and Simulation**
- **Automated Health Monitoring**
- **Advanced Data Analysis and Information Systems**
- **Advanced Operations Management Systems**
- **Energy Use Management Tools**

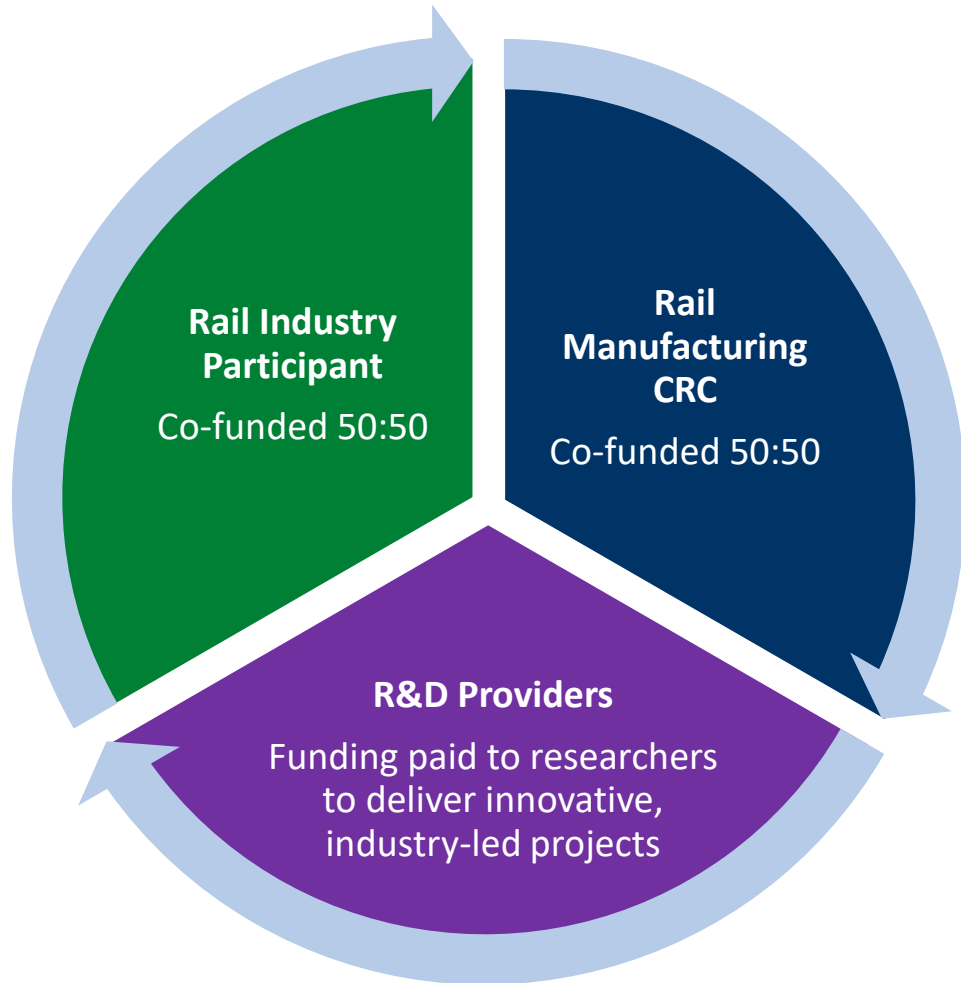
Innovative project ideas

- Condition monitoring
- Internet of things and digital manufacturing
- Virtual and augmented reality
- Digital design and planning
- Lightweight and more durable components
- Responsive passenger information systems
- Improved energy systems
- Improved materials and processes
- Process improvement and innovation



Source: Thinxtra

How Rail Manufacturing CRC funding works



Providing opportunity for:

- Collaboration
- Innovation
- Integration
- Globalisation

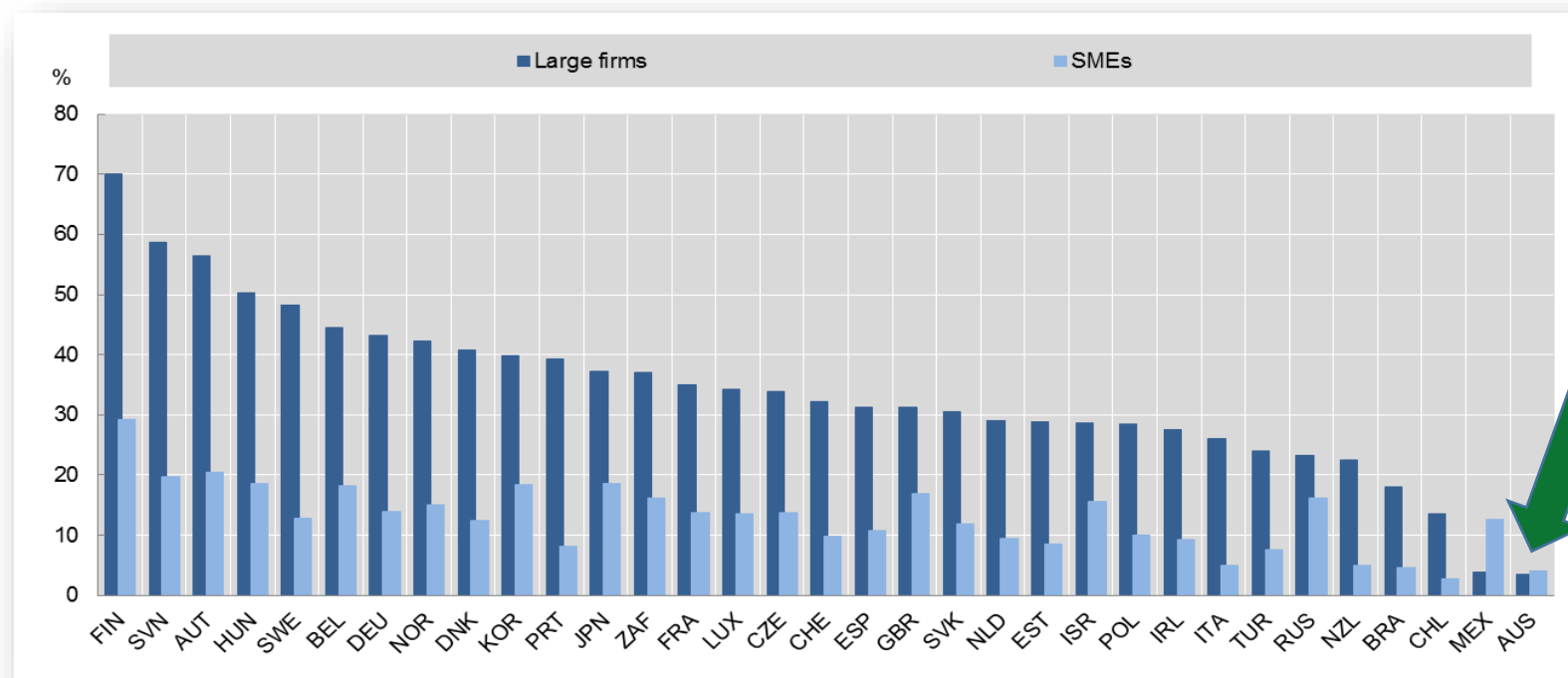
Industry determines whether to compete **on price** or **on value**

www.rmcr.com.au/register-your-project



The challenge facing manufacturing

- Australian businesses ranked **lowest in the OECD** for collaboration on innovation with public research institutions
- Less than 1% of those working in rail have R&D or science expertise
- Many rail businesses lack dedicated in-house R&D resources



Source: OECD Science, Technology and Industry Scoreboard 2013

The benefits of innovation and collaboration

- It's key to **production efficiency** and wealth creation
- Status quo is not an option - manufacturing is **rapidly changing**
- **Globalisation** is both a threat and an opportunity

Australian businesses that collaborate are:

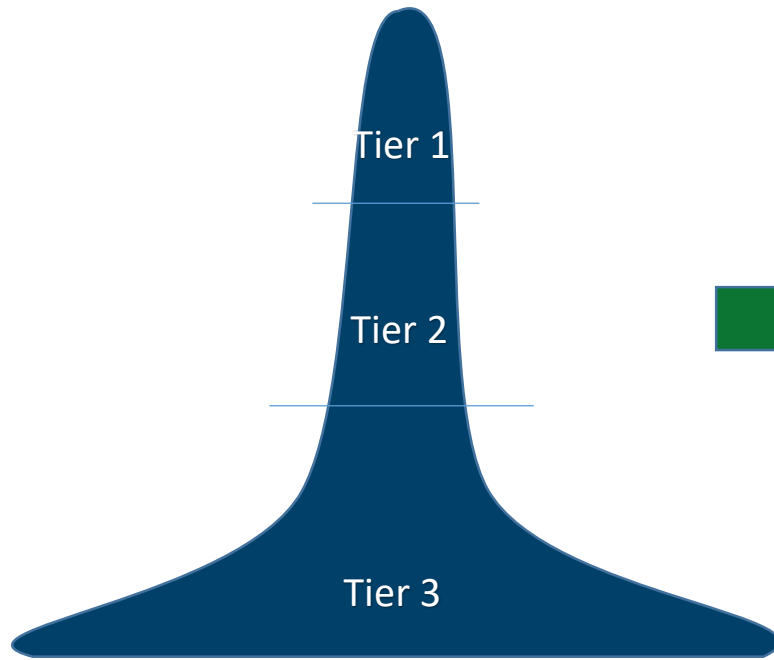
23% more likely to report **increased productivity**

24% more likely to report **increased profitability**

24% more likely to **employ more people**

Source: Australian Innovation System Report 2015

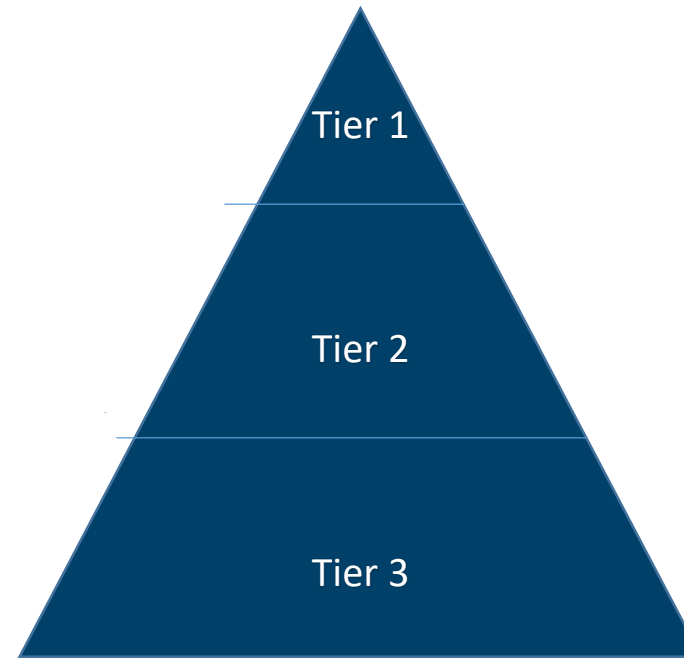
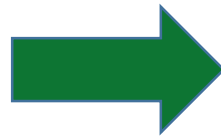
Opportunities



Rail Manufacturing (current)

ca. **88% of revenue** = Tier 1

ca. **90% of total businesses**
exist in Tier 3



Opportunities (future)

Golden era = constant demand

**Prime opportunity for local
companies to invest in the future
via innovation**

Speak with us today



Stuart Thomson
CEO
stuart@rmcrc.com.au



Larry Jordan
Research Director
larry@rmcrc.com.au



Finding research solutions to your innovation challenges

The Rail Manufacturing CRC is looking for research project proposals from businesses working in rail or with the potential to do so.

The Centre will co-fund approved projects with the industry partner, with contributions paid to a leading Australian Research Institution to deliver in partnership.

To register your interest, go to rmcrc.com.au/register-your-project

Project proposals must address a key priority area:

01
Power and Propulsion

02
Materials and Manufacturing

03
Design, Modelling and Simulation

The Rail Manufacturing CRC is working to foster, sponsor and direct collaborative research and commercialisation partnerships in rail manufacturing.

 Australian Government
Department of Industry,
Innovation and Science

Business
Cooperative Research
Centres Programme

