



Break Through Innovation

Never Stand Still

UNSW Innovations

Dr Steve Brodie
Open Innovation Manager
UNSW Innovations

@InventorSteve



facebook.com/UNSW.Innovations



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UNSW
A U S T R A L I A

Innovations

The technology transfer and
innovation office of UNSW Australia

Innovate or Die!



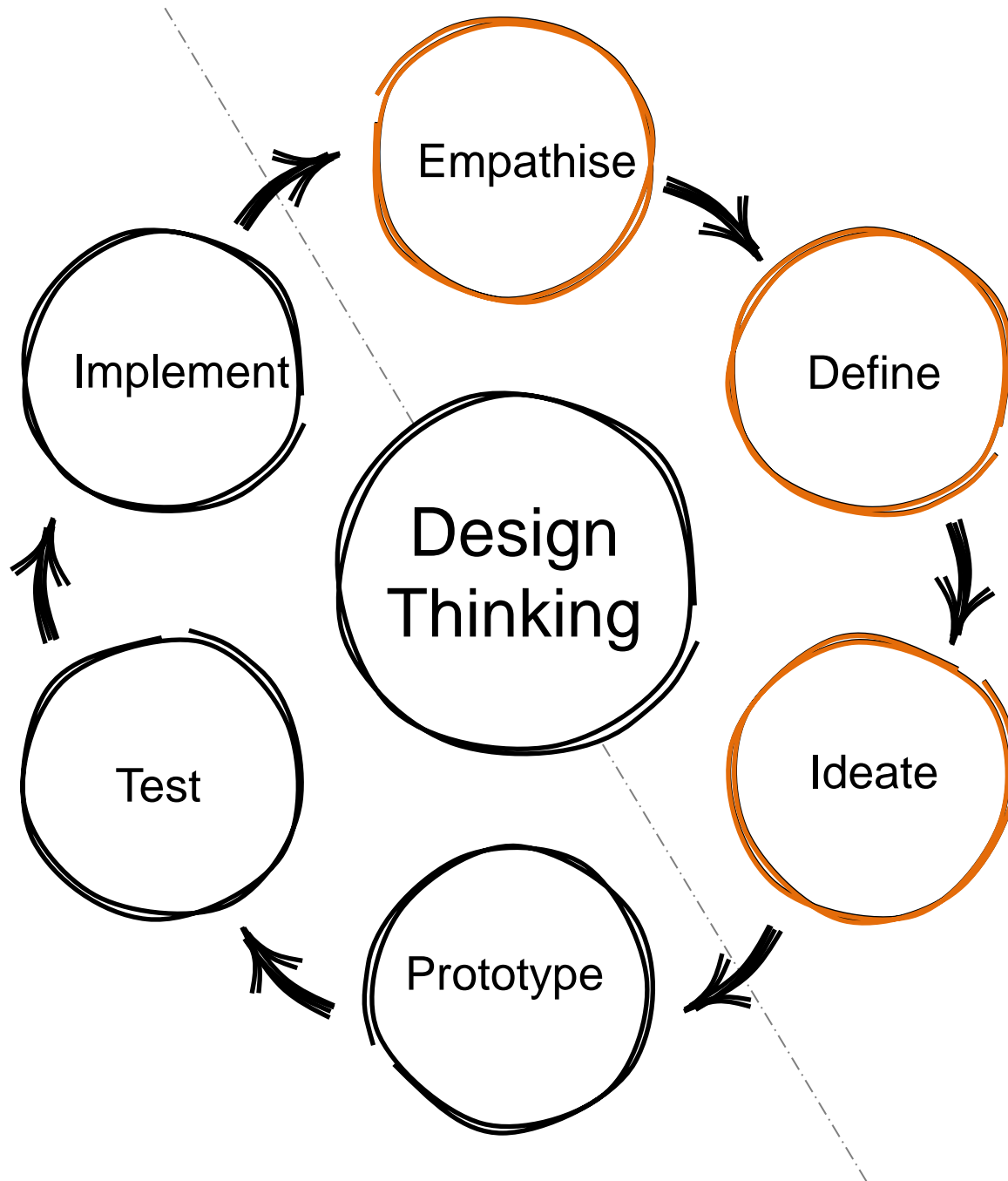
**“If you always do
what you always
did**

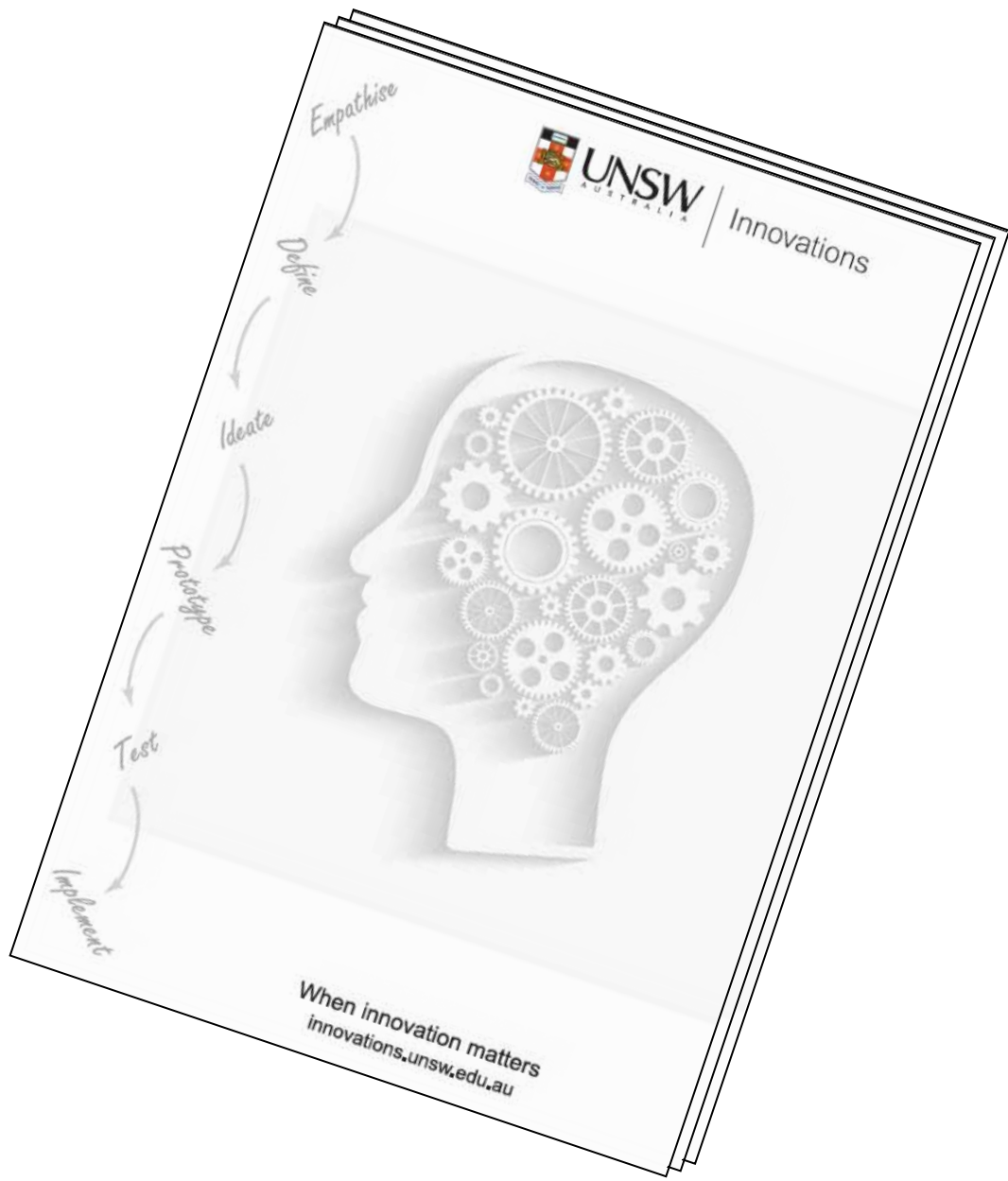
**You will always
get what you
always got”**

Definition

“Creativity is **thinking of new and appropriate ideas** whereas innovation is the **successful implementation** of those ideas...”

- *William Coyne, senior vice president for R&D at 3M*





A background of red curtains with a gold tassel on the left side. The text is centered on the curtains.

Act 1

Empathise

Opportunity Hunting



Systematic search for innovation opportunities

- ∅ The Unexpected
- ∅ The Existing
- ∅ Incongruity
- ∅ Industry Change
- ∅ Demographic Shifts
- ∅ Altered Perceptions
- ∅ New Knowledge



<http://www.entrepreneurmag.co.za/advice/growing-a-business/how-to-guides-growing-a-business/how-to-identify-opportunity-and-innovate/>

Challenge the Status Quo



1993- BHP asked a BIG Question!



http://www.ucl.ac.uk/EarthSci/people/lidunka/GEOL2014/Geophysics2%20-%20Gravity/gravity_files/image078.jpg

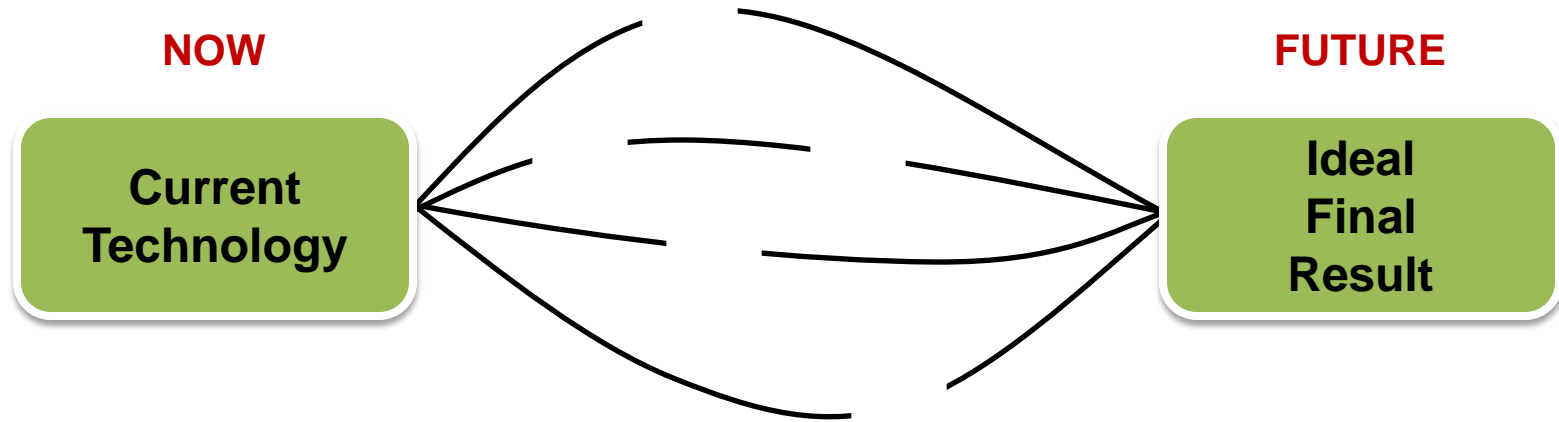
A background of red curtains with a gold tassel on the left side. The text "Act 2 Define" is centered in white.

Act 2

Define

and tasks
for the
focus
his new
of

TRIZ – Ideal Final Result



Work back from IFR to identify “Gaps”

BHP - Project Falcon - focus

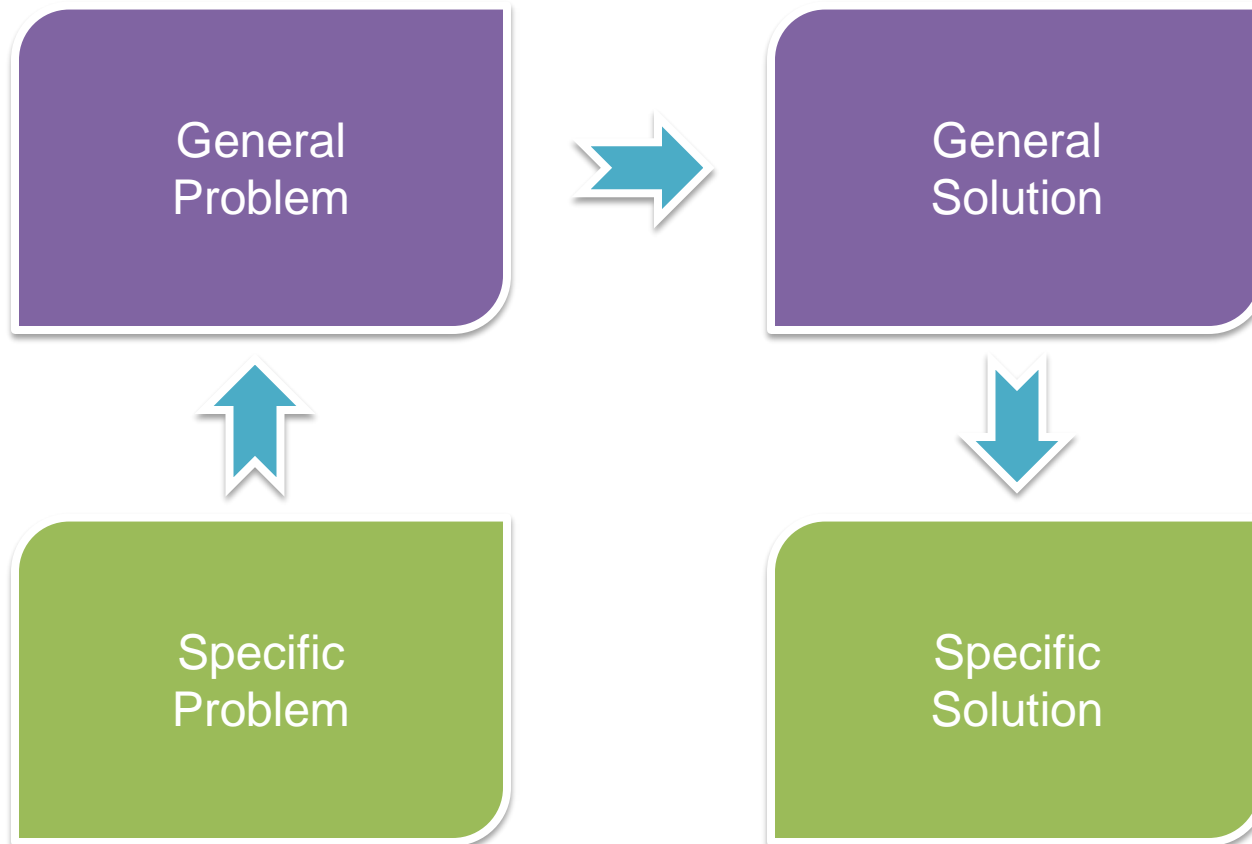


Define the requirements/specs of an
airborne gravity gradiometer
technical solution

A background of red curtains with a gold tassel on the left side. The text "Act 3" and "Ideate" is centered in white.

Act 3
Ideate

80% of technological solutions already exist



TRIZ Altshuller, The Innovation Algorithm

BHP - Project Falcon



Systematic GLOBAL search

Not field limited

Deal with Lockheed-Martin in 1996

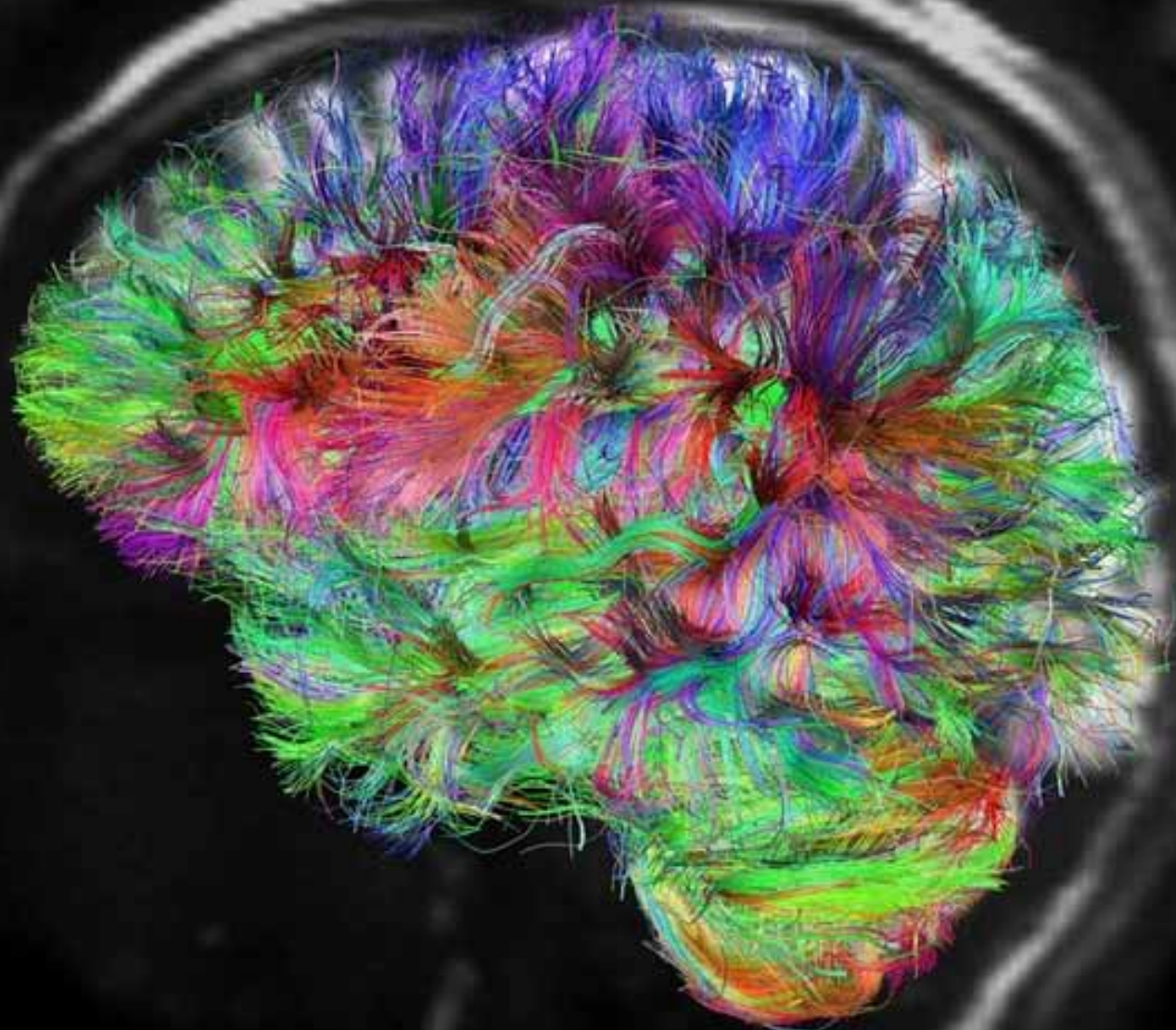


Do we need
new ideas?

A glowing network of neurons. A central cell body is bright yellow, with numerous branching processes extending outwards, some appearing as thin cyan lines and others as more complex, filamentary structures. The background is dark, making the glowing elements stand out.

How do we think?

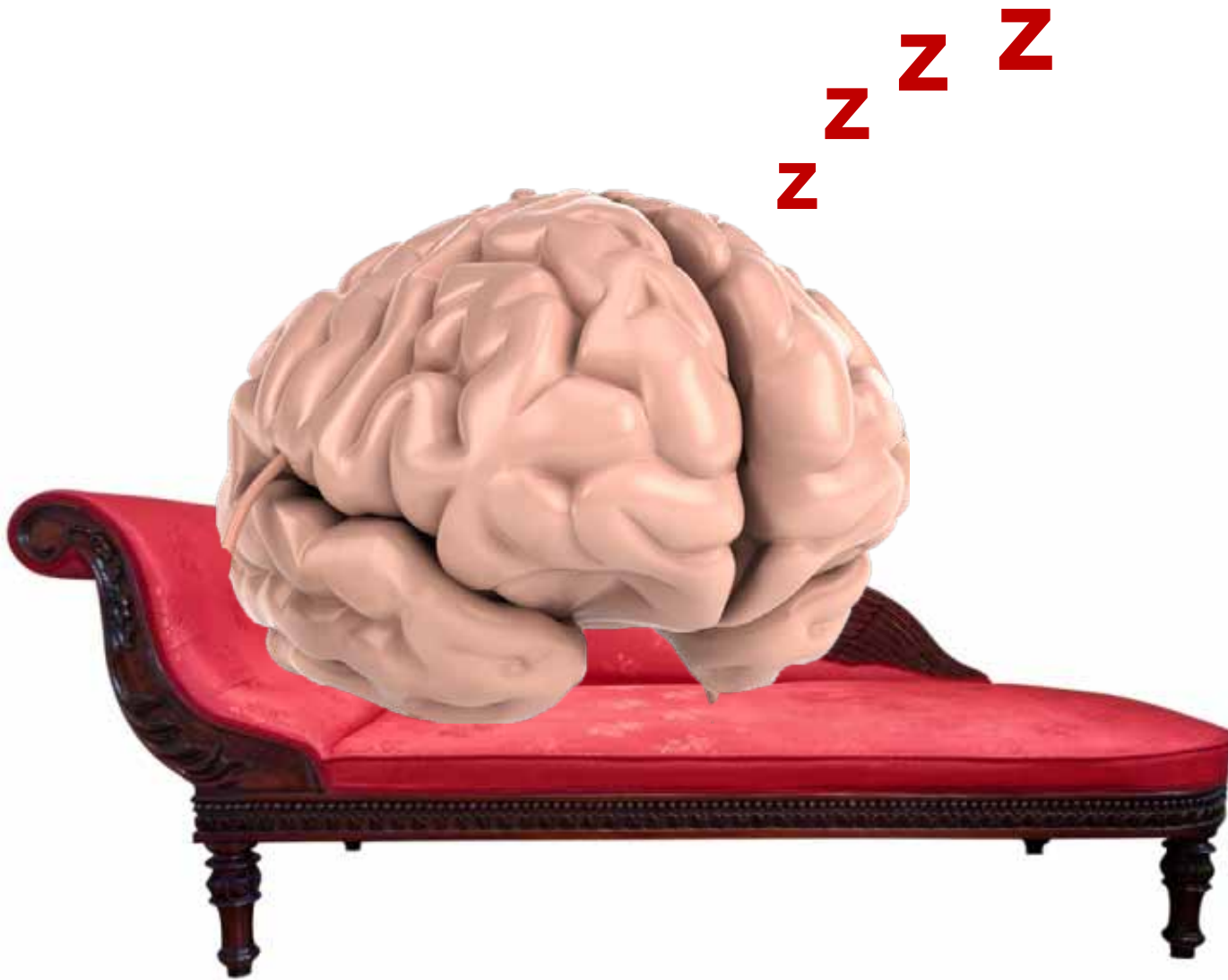
~80 Billion

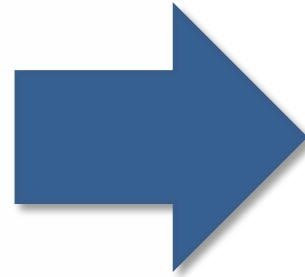


A network of networks

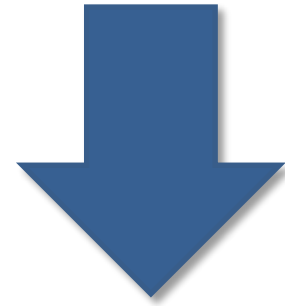
Sign here







**Open
Innovation**



**Collaborative
Innovation**

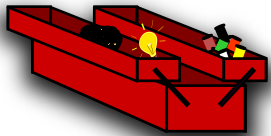
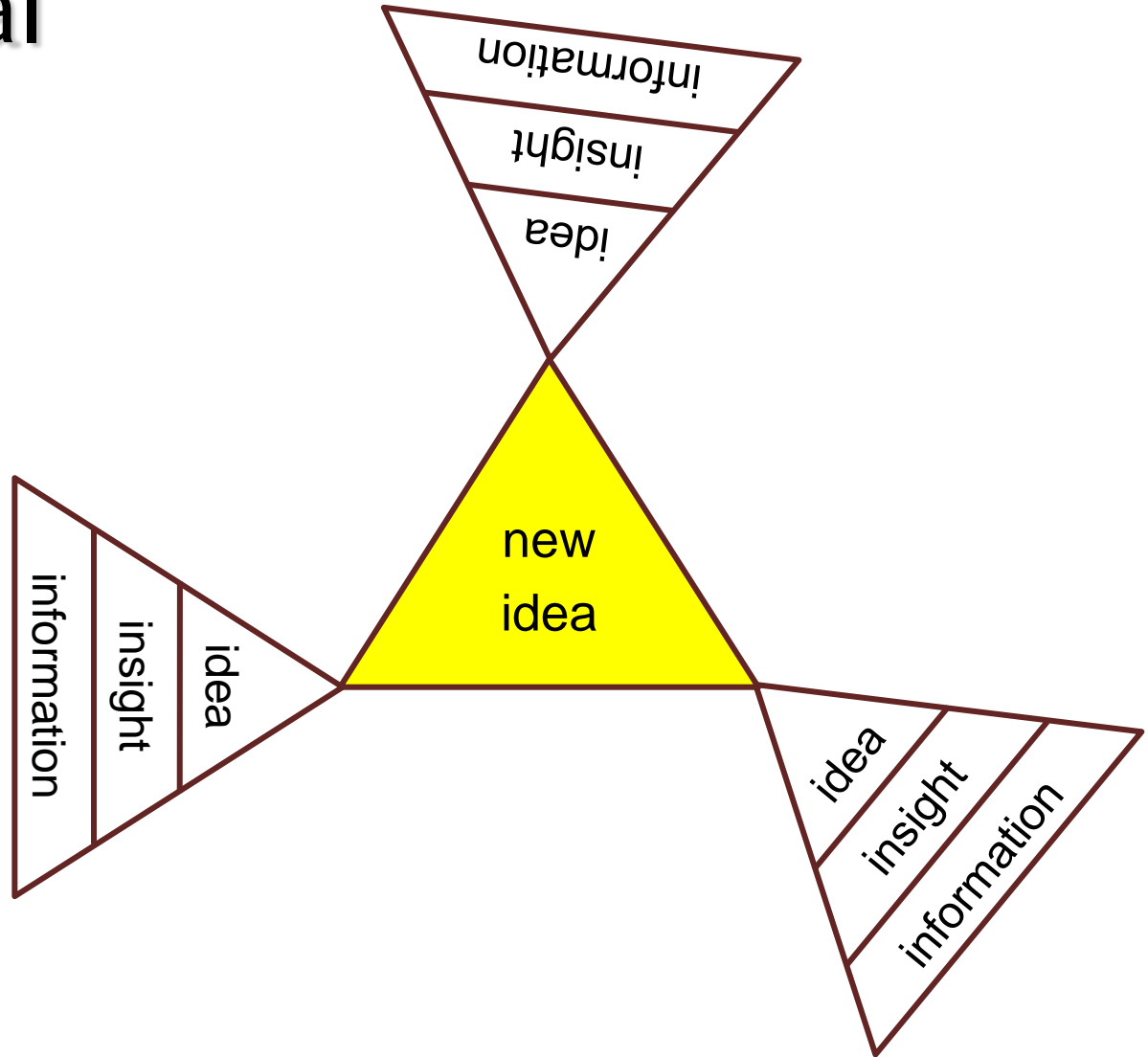
**“Not all the smart
people work for you”**

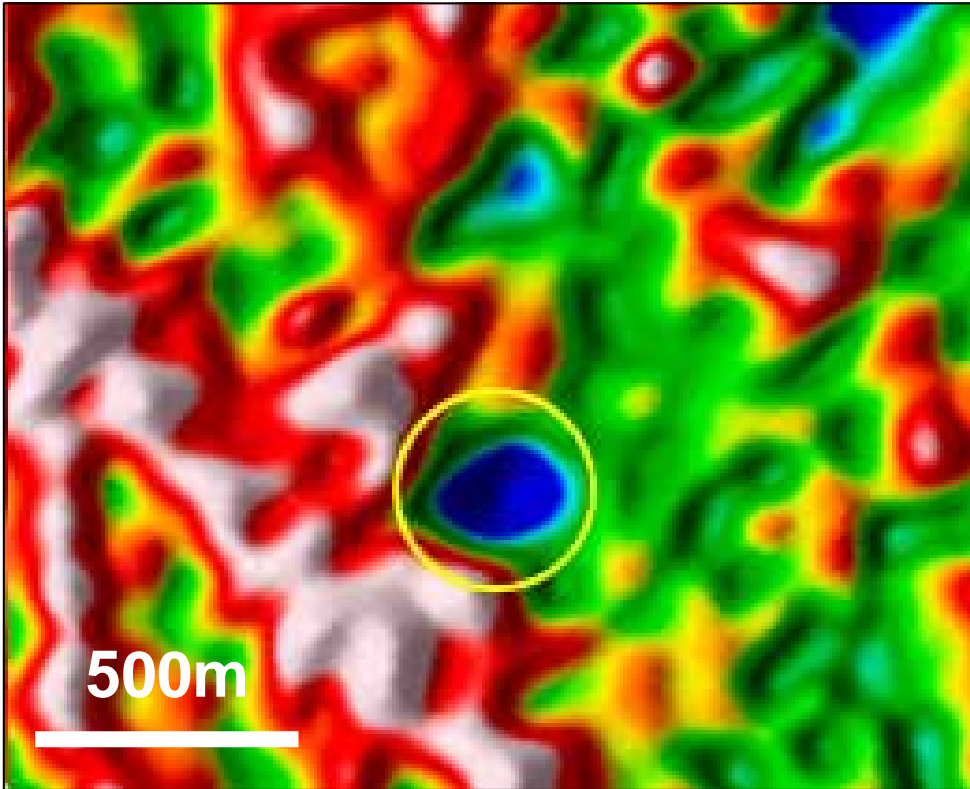
**“Creativity is just
connecting things”**

- Steve Jobs

Combinatorial Creativity

When ideas
have sex





**DIAMONDS
in them there hills!**

Fugro Airborne Surveys

Project Flacon - success factors



- ü **BHP Corporate** Research program

- ü Systematic search for innovation opportunities

- ü Appetite for “blue sky” research with high-level support

- ü High performance team and “Skunkworks” approach

Summary

- ∅ Systematically search for opportunities
- ∅ **Carefully** define the problem/opportunity
- ∅ Consider collaborating to innovate



Take Time To ThinkTM



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Thanks for listening

Dr Steve Brodie

Open Innovation Manager

UNSW Innovations

UNSW Australia

s.brodie@unsw.edu.au

www.innovations.unsw.edu.au

@InventorSteve