

Supporting Risk-Aware Research

The Taxonomy of Risk

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The Taxonomy of Risk

- **Transformative risk**
 - Risk of not having a new idea accepted/developed
- **Capacity risk**
 - Insufficient / inappropriate resources
- **Failure risk**
 - Dead ends
- **Precedence risk**
 - Being beaten to the punch
- **Regulatory risk**
 - Risk of breaching regulatory constraints
- **Others**

Application to ARC DP projects

- **Proposals assessed by peer review**
 - 40% to investigator
 - 30% to significance and innovation
 - 20% to approach and methodology
 - 10% to national benefit
- **3 - 5 year timeframe**
- **Average grant ~ \$100K**

Transformative risk

- **Bold new idea vs. conservative assessment process**
 - Game system by putting up work “in the bag”
 - Then try out the bold new idea under the same grant
 - Unintended behaviour mitigates against risk aversion
 - Better to change policy than rely on unintended gaming



ALTERNATIVE:

- **“Dial up” assessment for established researchers**
 - Choose weighting of investigators vs. project in a range between 20 - 80%

Capacity risk

- Underfunding projects to provide acceptable success rates may risk outcomes
- Underfunding the true cost of research compounds the underfunding of projects

Failure risk

- Common to all research activity
- Can't do much about this!
- But not a complete failure - provides information on other lines of research

Precedence risk

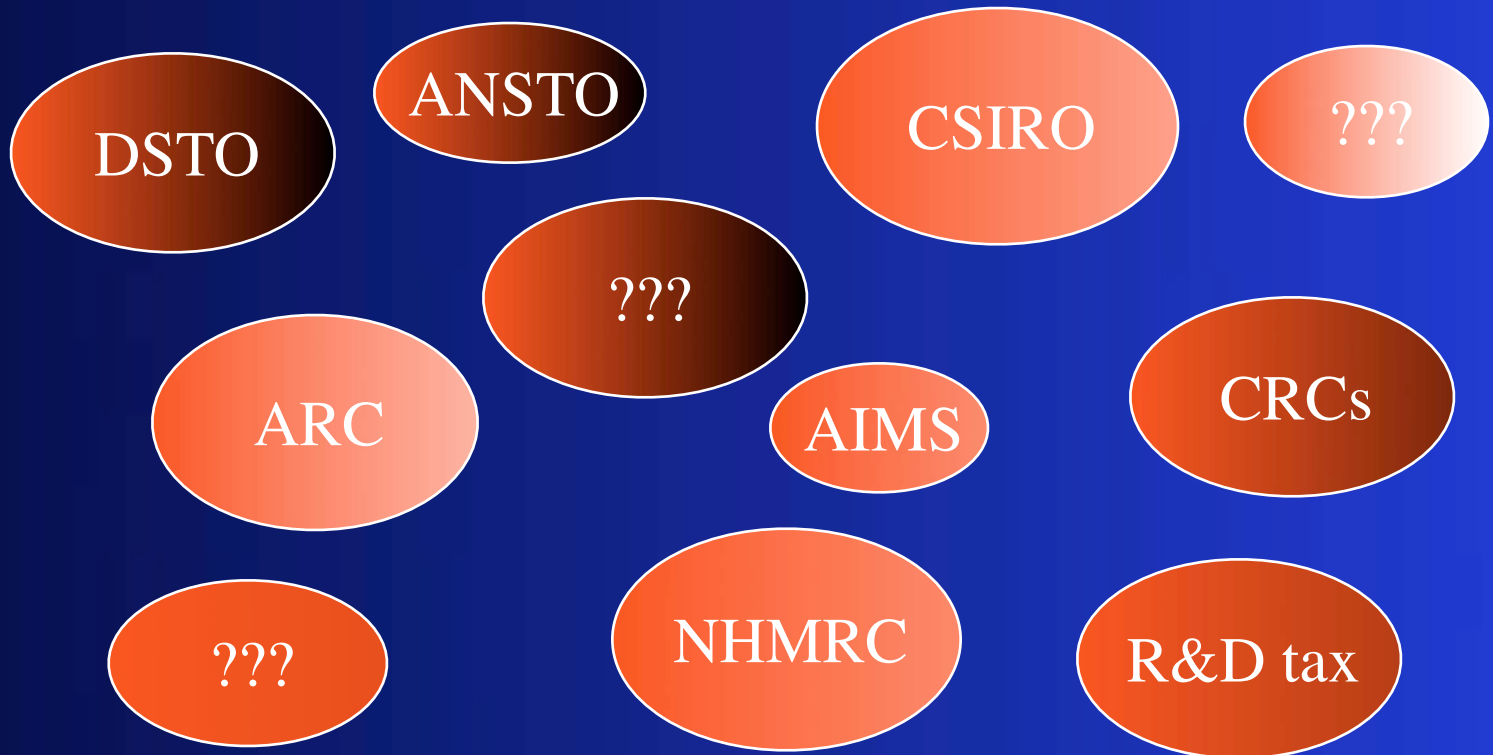
- Timeliness of research is important
- Risk of being beaten
- Ensure timeliness and precedence risk are explicitly part of the proposal and the assessment process

Regulatory risk

- Embed ethical, commercial and regulatory awareness into research institutions
- Have measures in place to ensure compliance

Risk Portfolio Approach

- Provide a spectrum of research risk within and across funding sources



Agility: scale and timeframe

- Empower researchers to make risk choices
 - Centres of Excellence *vs.* DP grants
- Give them scale
 - Enable the spread of risk across portfolios
- Give them time
 - Enable them to try different things out
- Both give the researchers agility to address risk



Risk Forum Outcomes

- **New Taxonomy of Risk:**
 - Transformative risk
 - Capacity risk
 - Failure risk
 - Precedence risk
 - Regulatory risk
 - Others

A Portfolio Approach to Risk

- Within agencies
- Across agencies
- A diversity of risk profiles
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How do we create agility?

- Provide a choice of risk
- Provide aggregation and scale
 - At what level?
- Provide long timeframes
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