

# **The Power of Interdisciplinary Research**

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# Agenda

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**Objective:** Show how interdisciplinary innovation comes from blending any relevant fields for a given problem, not just fixed STEM domains.

**01.** What is interdisciplinary Research?

**02.** Importance.

**03.** Examples of Landmark Innovations.

**04.** How Different Fields Combine.

**05.** Skillset Development.

**06.** Real-World Case

**07.** Common Challenges.

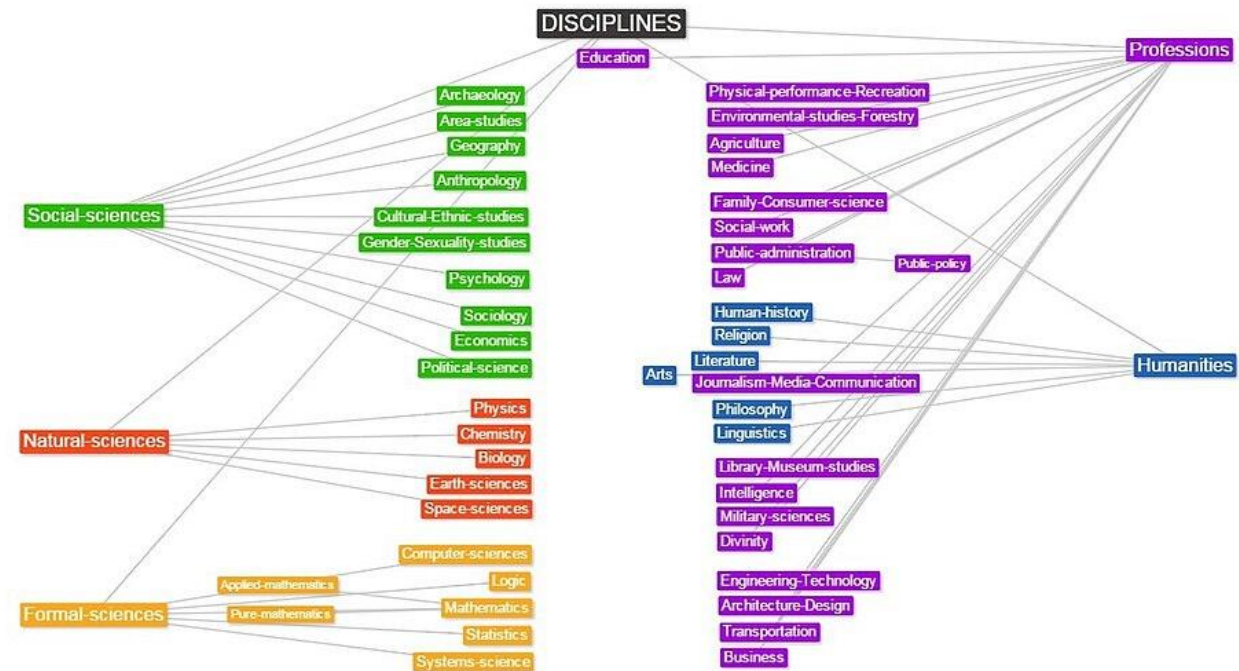
**08.** Summary.

**09.** Q&A.

# Interdisciplinary Research.

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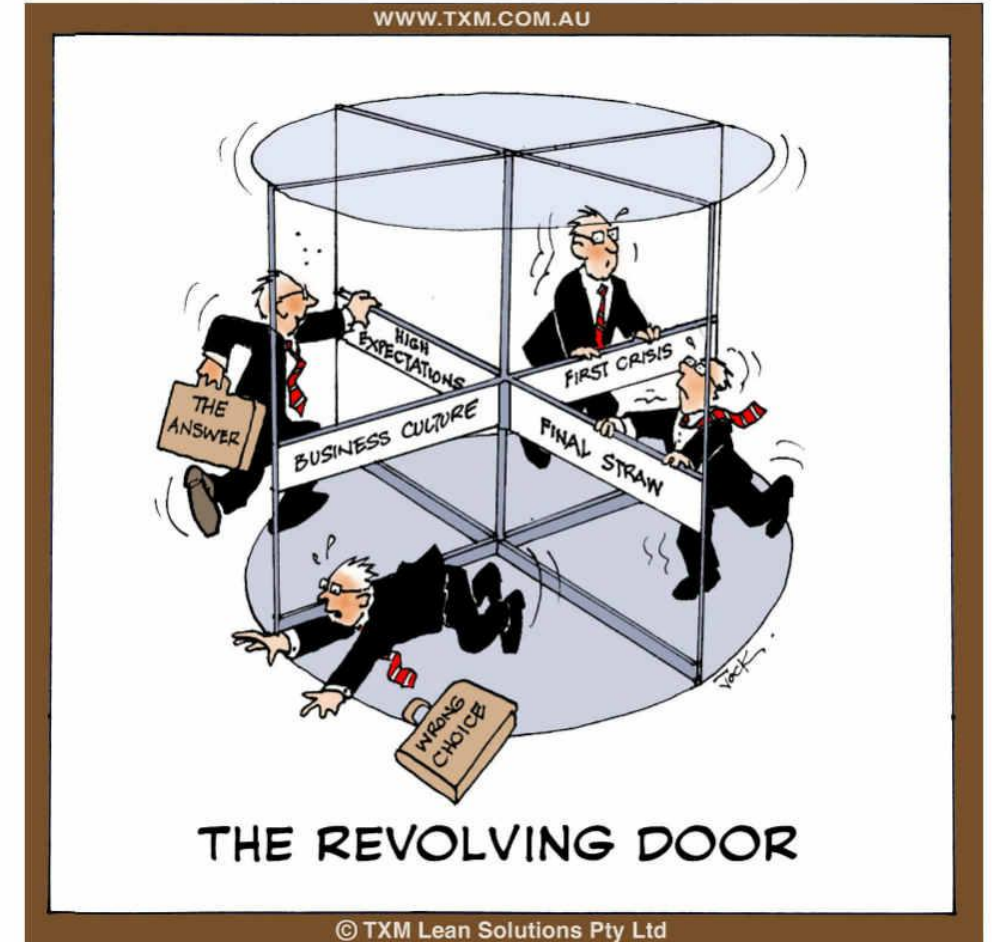
- Inter = between ; disciplinary = fields of study
- **Integrates** knowledge, methods, and perspectives from multiple fields.
- **Tackles** complex questions that are **too broad for one discipline**.
- **Fosters** collaboration and new approaches.



# Importance.

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- Solves real-world, **multifaceted** problems (e.g., climate change, public health).
- **Drives** creativity and **breakthrough** solutions.
- Prepares researchers for today's **interconnected** world.



# Landmark Innovations.

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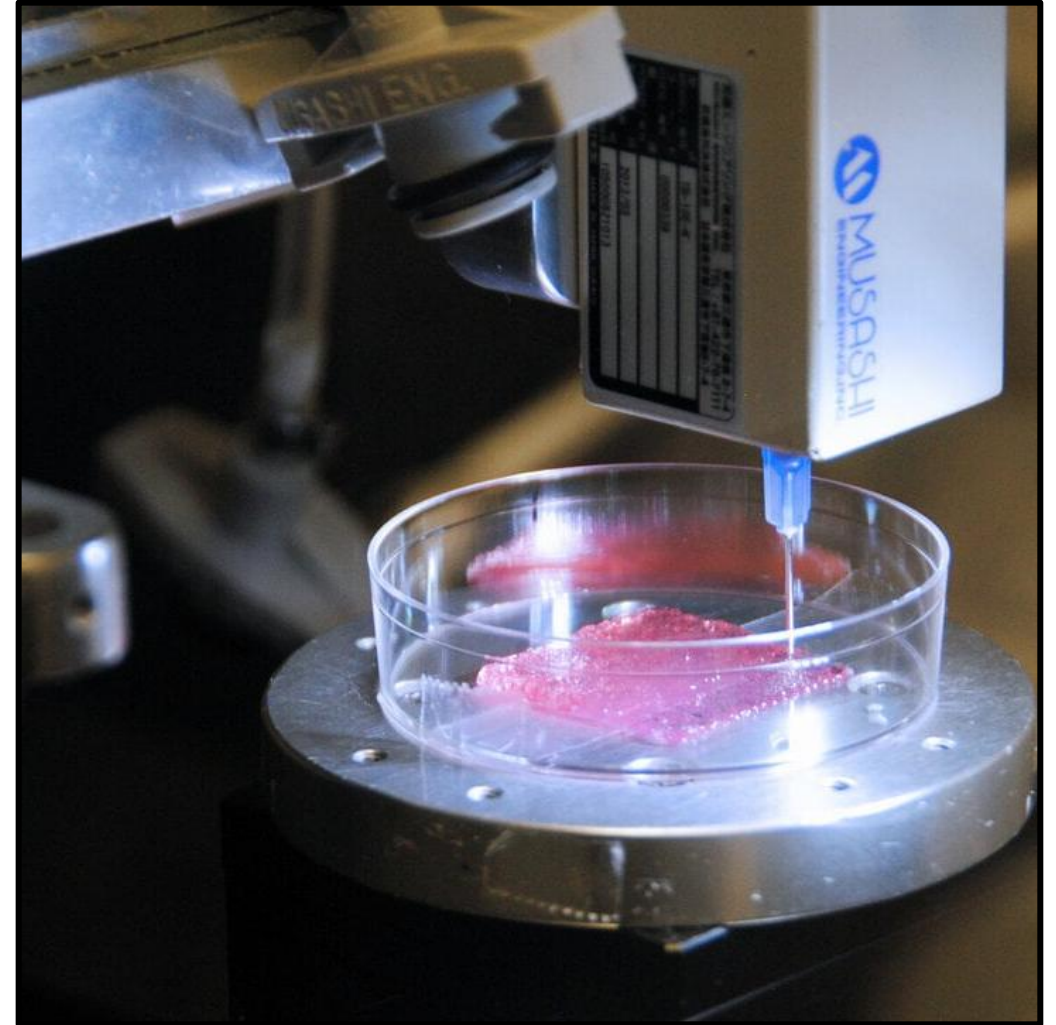
- COVID-19 vaccines: medicine + data science + manufacturing + policy.
- Smart cities: engineering + environmental science + design + public administration.
- Digital art: computing + visual arts + storytelling.



## How Different Fields Combine.

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- Science & Engineering: e.g., bioprinting organs.
- Humanities & Technology: e.g., tackling misinformation with linguistics + computer science.
- Economics & Sustainability: e.g., green finance for climate solutions.



# Skillset Development.

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- Flexibility **and** adaptability.
- Communication **across** specialties.
- Systems thinking and seeing the “**big picture.**”





# Real-World Case Study.

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- **Example:** Disaster recovery involving engineers, social workers, city planners, public health experts.
- Highlight how combining insights led to better outcomes.

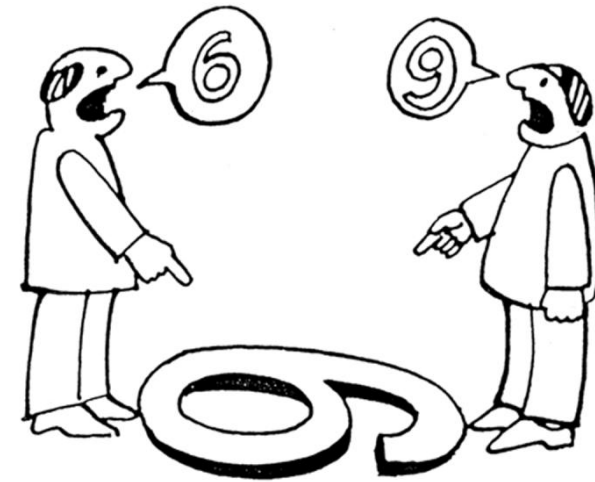




# Challenges.

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- **Different** jargon and perspectives.
- Conflicting methodologies.
- **Tips:** Open communication, shared goals, respect for all fields.



# Summary.

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- Interdisciplinary research brings together diverse expertise to spark innovation.
- Advances in healthcare, technology, environment, society.
- Collaboration is key for facing future challenges.



# Q&A.

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- Invite questions and interaction.
- Have any ideas of interest?

