

Entrepreneurship

Paul Dagger & Kris Bubendorfer

ENGR 401 Professional Practice

Class Announcement || 2024 Tech Careers Expo

2024 Tech Careers Expo | Alan MacDiarmid Foyer | Wed 1 **MAY** 12p to 2pm

Amongst the organisations currently booked to attend (more expected to confirm):

Accenture, Atlassian, Aurecon, Booster Financial Services, Contact Energy, Datacom, Deloitte, Eagle Technology, EY, Faster Enterprises, Grant Thornton, IMC Trading, Jane Street, KiwiRail, KPMG, New Zealand Defence Force, NZTA – Waka Kotahi, OpenStar Technologies, Sharesies, Stantec New Zealand, Summer of Tech, Te Herenga Waka – Victoria University of Wellington, Tik Tok, Transpower NZ Ltd, Trimble, Tui Technology

These organisations will be offering internships and graduate programmes as well as broader professional insights and looking to connect with students.

Paul Dagger's Day at Work || Super Summarised

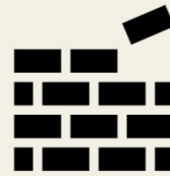
- Every day for me is some combination of these three activities



Create It



Sell It



Build It

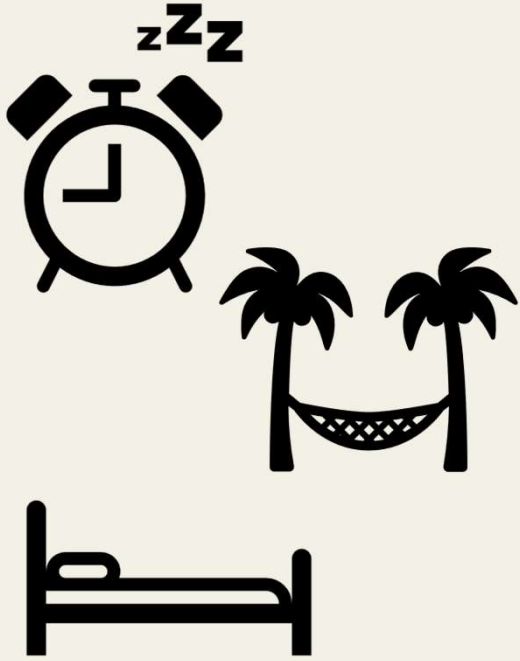
Entrepreneurship & Entrepreneurs

- “Entrepreneurship is the creation or extraction of economic value in ways that generally entail beyond the minimal amount of risk (assumed by a traditional business), and potentially involving values besides simply economic ones.”
- “An Entrepreneur is an individual who creates and/or invests in one or more businesses, bearing most of the risks and enjoying most of the rewards”
- The Entrepreneur is commonly seen as an innovator, a source of new ideas, goods, services, and business/or procedures”

- *Wikipedia* (<https://en.wikipedia.org/wiki/Entrepreneurship>)

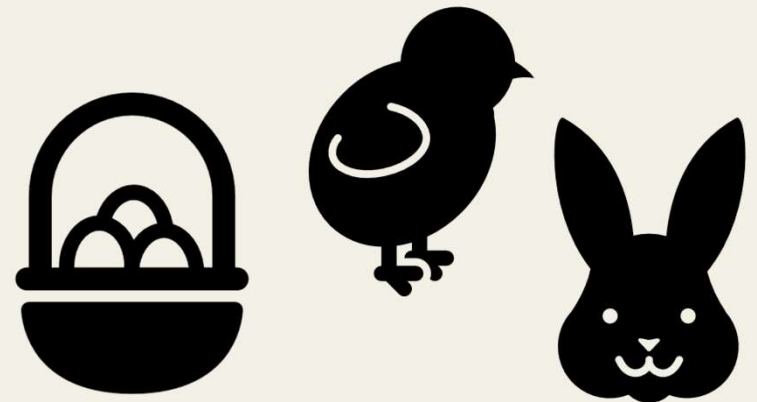
Entrepreneurship, Innovation, & Products

- There is a relationship between Entrepreneurship & Innovation
 - *Innovation can be a source of new ideas*
 - *Entrepreneurship is about aligning new ideas to a market to realise value*
- Realising value in a market requires ideas to become products
- Products are packaged standardised offerings (not necessarily physical goods) that can be easily sold and supported at a profit.

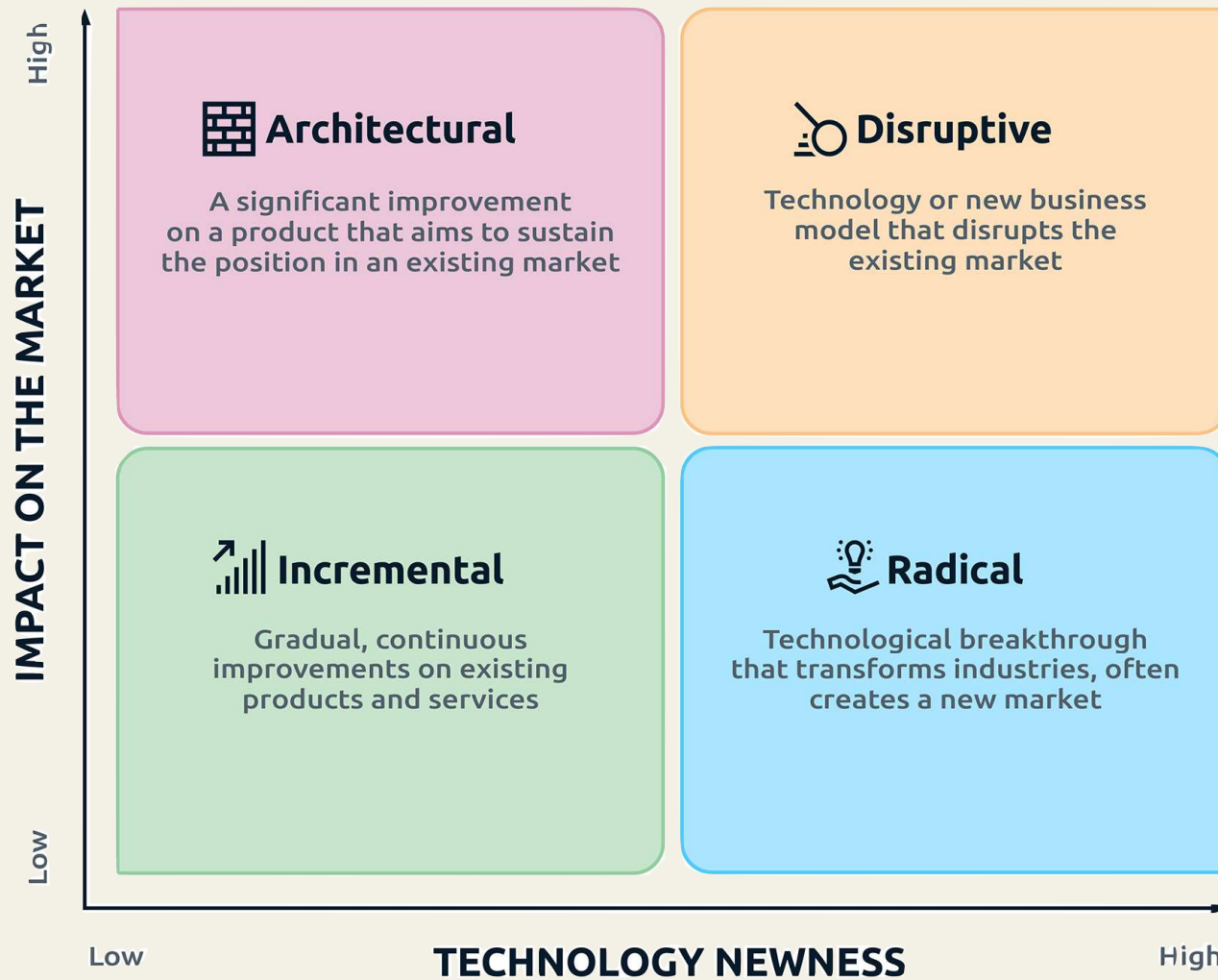


Innovation – A quick reminder

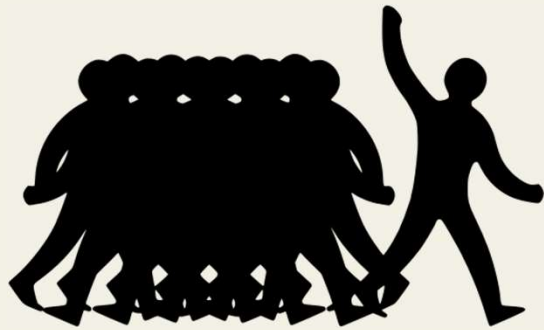
(ENGR401 2024 BE – Before Easter)



...Innovation is, at its core, about solving problems — and there are as many ways to innovate as there are types of problems to solve. There is no one “true” path to innovation — Greg Satell, in HBR.



Innovation || Building an Innovation Culture to Get Ideas



LEAD BY EXAMPLE



ENCOURAGE COLLABORATION



ENCOURAGE
ENTREPRENEURSHIP



MEASURE & ADAPT



CELEBRATE SUCCESS – REWARD INNOVATION – CREATE A
SAFE ENVIRONMENT FOR RISK TAKING

Measuring Innovation?

- **R&D Expenditure:** One straightforward metric is to measure the investment in research and development (R&D) activities. This includes expenditures on personnel, equipment, and facilities dedicated to innovation projects. R&D spending is often used as a proxy for the level of innovation within an organisation or country.
- **Number of Patents:** Patents are legal protections granted to inventors for their novel and non-obvious inventions. Counting the number of patents filed and granted can provide insights into the quantity of innovative activity occurring within a given entity or jurisdiction. However, it's essential to note that patents alone do not necessarily equate to impactful innovation.
- **Innovation Surveys and Indices:** Various surveys and indices, such as the Global Innovation Index (GII) and the European Innovation Scoreboard (EIS), provide comprehensive assessments of innovation performance across countries, regions, or industries. These indices consider factors such as human capital, research infrastructure, business sophistication, and knowledge transfer.
- **New Product Introductions:** Tracking the number of new products introduced to the market can be an indicator of innovation within a company. This metric evaluates the organisation's ability to develop and commercialise novel products or services that meet customer needs or create new market opportunities.

Measuring Innovation?

- **Revenue from New Products:** Assessing the revenue generated from new products or services can gauge the financial impact of innovation. This metric considers not only the quantity but also the market success and profitability of innovative offerings.
- **Employee Engagement and Ideation:** Employee engagement in innovation activities, such as idea generation, problem-solving workshops, and innovation challenges, can be measured through surveys, participation rates, and qualitative feedback. Engaged employees are more likely to contribute creative ideas and drive innovation within an organisation.
- **Partnerships and Collaborations:** Assessing the number and quality of partnerships, collaborations, and co-creation initiatives with external stakeholders, such as research institutions, startups, and industry partners, can indicate the organisation's openness to external innovation and its ability to leverage external expertise and resources.
- **Social and Environmental Impact:** Finally, measuring the social and environmental impact of innovation, such as contributions to sustainability, social equity, and community development, is increasingly important. Metrics such as carbon footprint reduction, social value creation, and community engagement can quantify the broader societal benefits of innovation efforts.

Innovation - Case Studies

- Digital Photography (1990s-present):
 - The transition from film to digital photography democratised photography, making it more accessible and affordable. The introduction of digital cameras and smartphone cameras, along with image-sharing platforms like Instagram, transformed how people capture, share, and consume visual content.

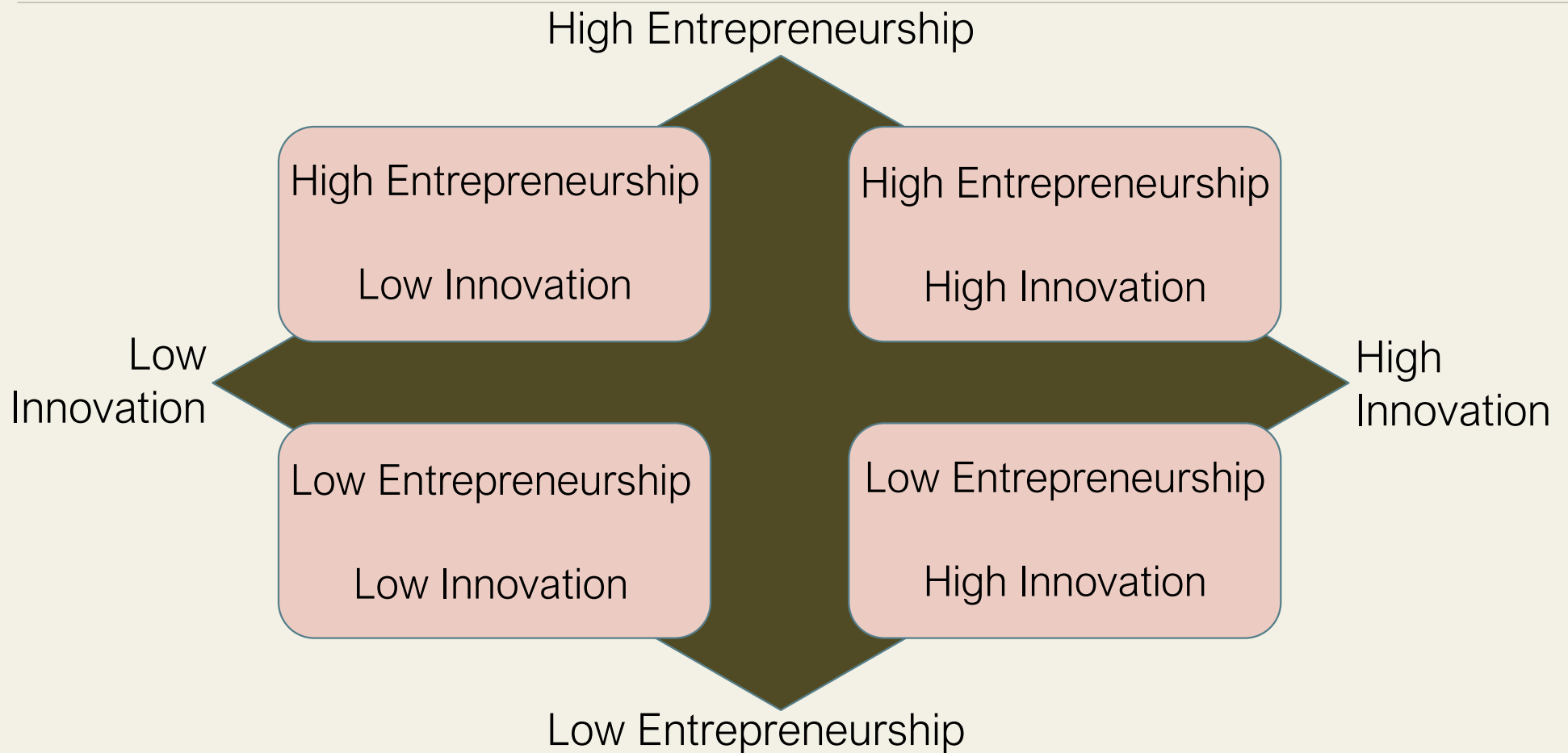
Innovation - Case Studies

- Cloud Computing (2000s-present):
 - Cloud computing technology has revolutionised data storage, processing, and software delivery. Cloud services, offered by companies like Amazon Web Services (AWS) and Microsoft Azure, enable scalable and flexible IT infrastructure, powering countless online services and applications.

Innovation - Case Studies

- Streaming Services (2000s-present):
 - The rise of streaming services such as Netflix, Spotify, and YouTube has revolutionised how people consume entertainment and media content.
 - Streaming platforms offer on-demand access to a vast array of movies, TV shows, music, and user-generated content, challenging and changing traditional media distribution channels.
- Enabled in some cases by Cloud - Netflix, a disruptive innovation relied on a radical innovation (cloud)

Innovation & Entrepreneurship Matrix



Innovation & Entrepreneurship Matrix

High Entrepreneurship



Low Innovation



High Innovation

Low Entrepreneurship

Productisation || What is a product?

- Productisation is the process of turning your new ideas, prototypes, etc into a complete product
- *'Products'* need to be
 - Tailored for the right market and meet any legislative requirements
 - Able to be advertised and promoted
 - Able to be sold and delivered to customers (whether through a store, a warehouse, an online software distribution site, etc)
 - Able to be supported and maintained (warranty replacements, customer support & questions, updates, etc)

Productisation || What do I need to think about?

- Turning an idea into a 'product' requires thinking about a number of areas;
 - Standardisation – Create standard offerings you can supply and support
 - Scalability – Ensure you have predicted the demand and are able to meet it
 - Market Focus – Identify your specific market's needs and abilities
 - Branding, Packaging, Sales Model – Look & appeal, subscription or retail
 - Logistics & Retail Experience – Being able to take customer funds & get them your product
 - Product support – Install guides and training, user guides and training, support guides and training, etc
 - Product development – Capture customer & market/sales feedback, continuous improvement and tuning



Entrepreneurship Cycle – A Combination of Viewpoints

