

A photograph of a modern, multi-story building with a glass facade, illuminated from within at night. The building features several large solar panels mounted on its roof. The interior is visible through the glass, showing various rooms and furniture. The building is set against a dark blue sky, and other city lights are visible in the background.

Rapid Process Redesign with the NESTT

Michael Rosemann
Queensland University of Technology

5 September 2017

Shortcomings of Existing Approaches

- Exclusive focus on pain points (reactive)
- Time-consuming
- Methodology over outcomes
- Lack of ongoing interactivity and transparency
- Limited end-user engagement



When to run a NESTT?

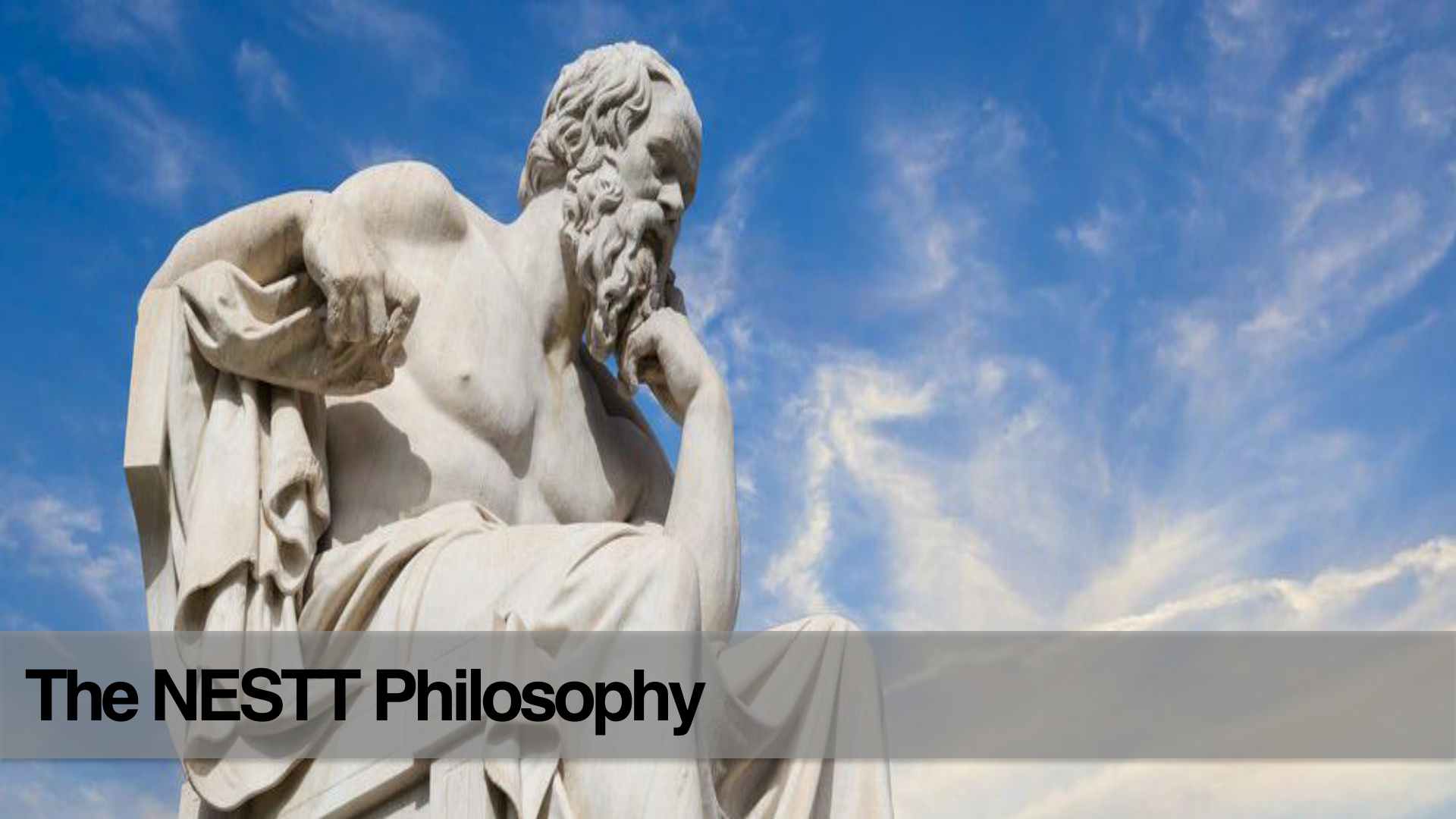
- Quick outcomes required
- Create momentum (NESTT as a kick-off)
- Be an accelerator within a large initiative
- Get over being stuck
- Target a difficult challenge
- Solution is not obvious



Agenda for today

- Philosophy
- Space
- Methodology
- Case Study
- Success Factors





The NESTT Philosophy

What characterizes the NESTT?

- Process-focused
- Future-driven
- Ambitious
- Principle-led
- People-centred



Future-oriented

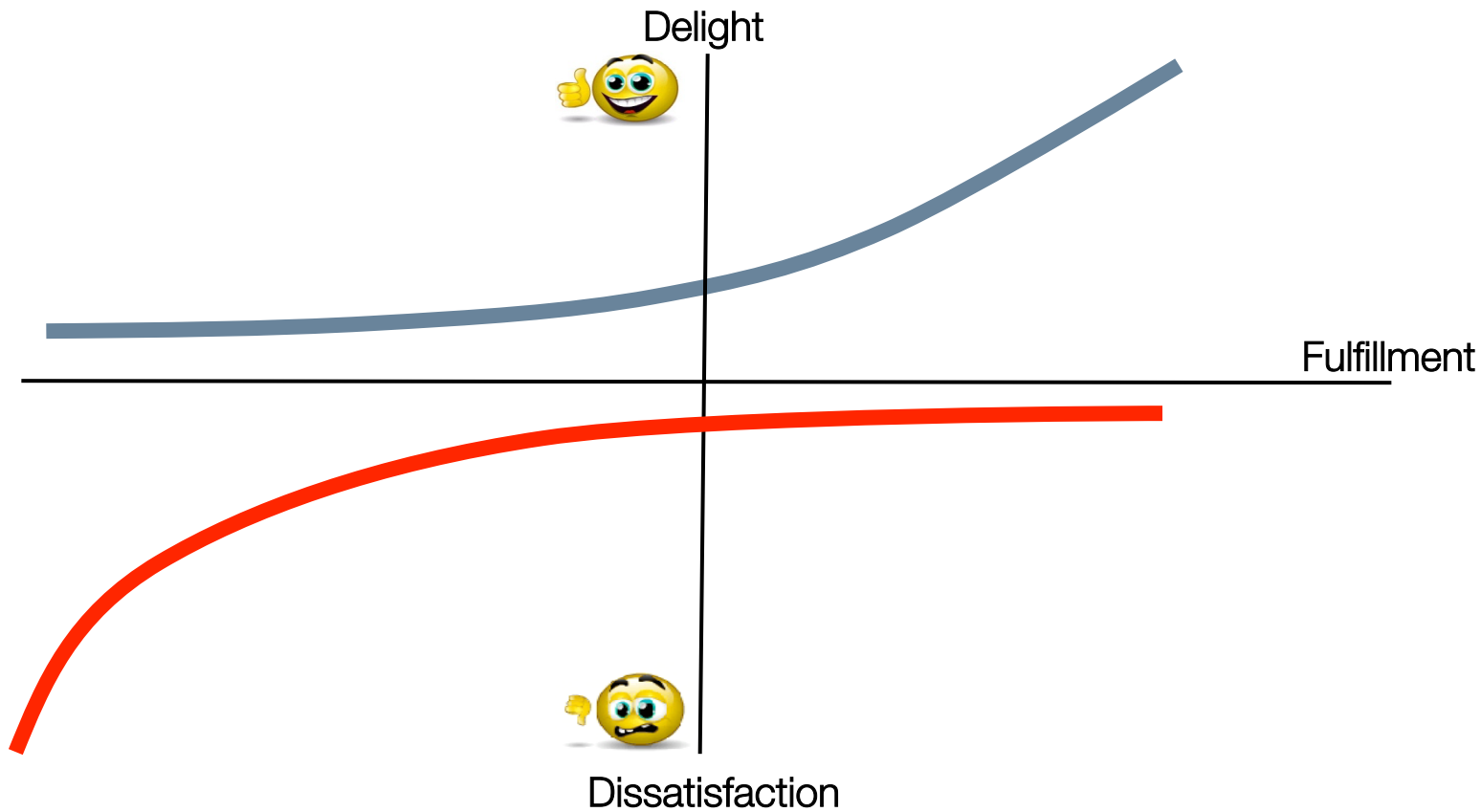
*Create a compelling future that
makes the current world obsolete.*



What are the **greatest opportunities** for
[*insert university*] us to **unlock value** and enhance
sustainability and performance of operations, systems and
customer experience

...in 20 days

Ambitious: Beyond Pain Relief



Principle-led: NESTT Design Principles

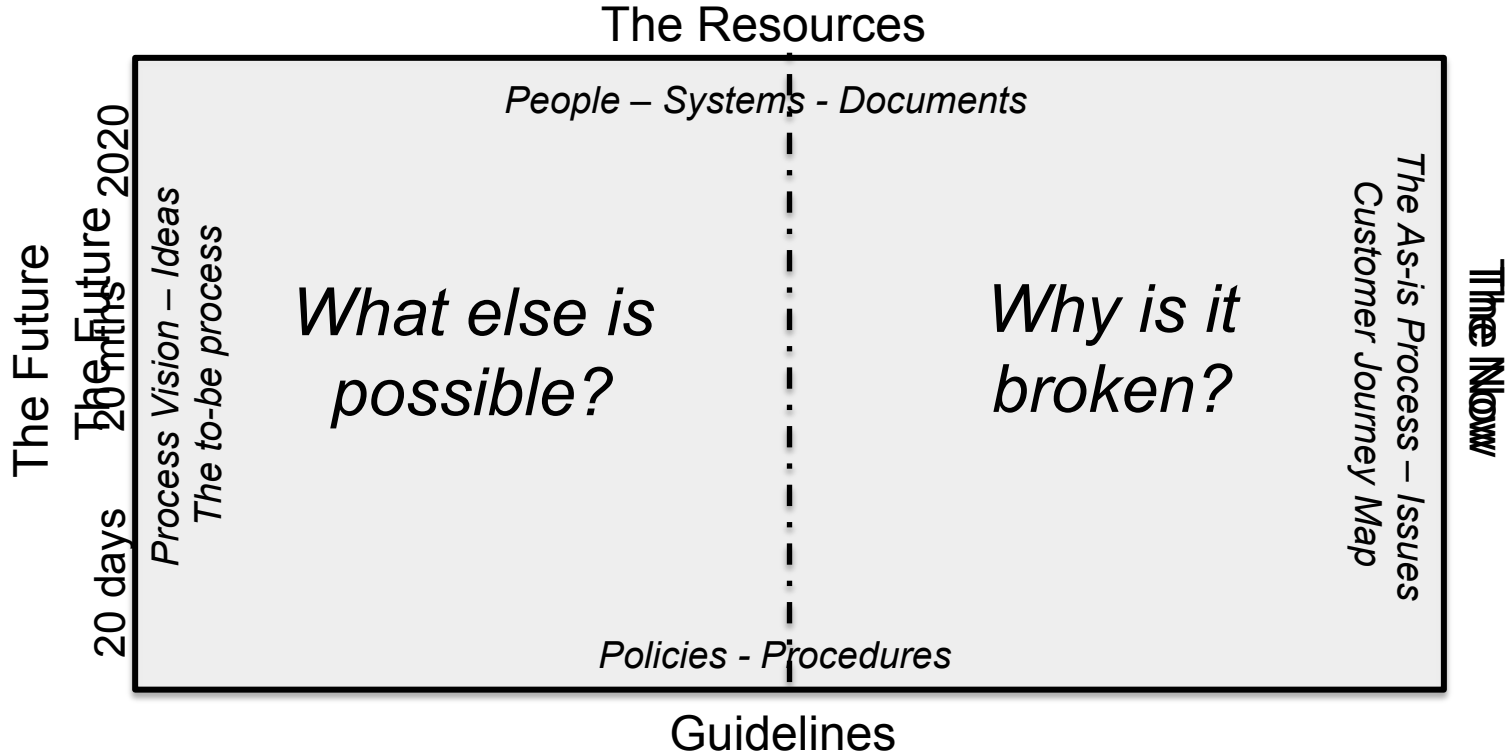
- Empower people
- Evidence over confidence
- Make decisions as late as possible
- Deploy thin-slicing
- Automate where possible
- Make decision rules explicit
- One process





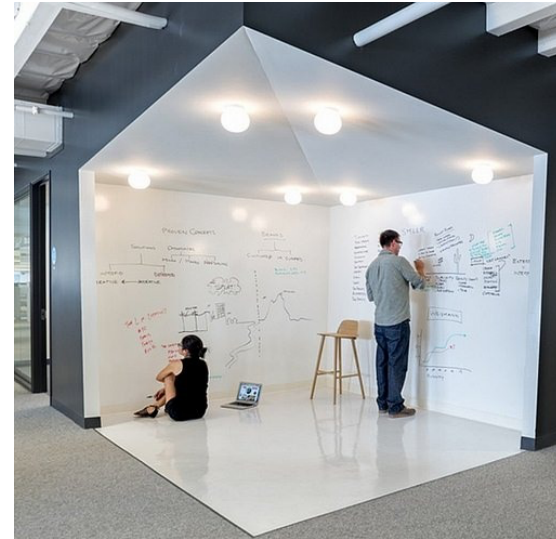
The NESTT Space

The Spatial Design of the NESTT



Further Space Considerations

- No table, but move chairs around
 - Make the room visible (glass walls)
 - Highlight the theme of the process
 - *...and Who am I? Flowers, Food*
-
- Use whiteboards for
 - Daily agenda / desired outcomes
 - ‘homework’
 - Parking of ideas / discussions





The NESTT Team

The Different Teams / Stakeholders

- The Senior Sponsor
- Facilitators
- The Innovation Team
- Further Stakeholders
 - Risk assessor, HR, Finance, legal
- The Panel
- The Transition Team



The Innovation Team

- Ideal size: 7-8 people
 - Innovation Champion
 - Service providers
 - Process expert
 - Two users
-
- Experiences, agile, passionate, team players, confident



Who is Not Part of the Team?

- Assess influence
- Assess impact of exclusion
- Consider alternative engagements
(have representative, invite on a regular base)
- Ensure reasons for non-participation are understood



The Panel

- Ultimate decision authority
- Sign of agile governance
- Made up of
 - CEO / VC
 - Senior executive
 - Transition champion (service owner)
 - Steering committee representative (if project)
 - External partner



The Transition Team

- Transition Champion (senior service owner)
- Change managers
- HR / IT support (where needed)
- Policy
- Communication
- Audit (to assess time, quality, cost of implementation)



Navigate

capture all dimensions of the web page approval process

Expand

ideation towards 20 days / 20 months / 2020

Strengthen

the merit of each idea via user testing and business cases

Tune and **T**ake-off

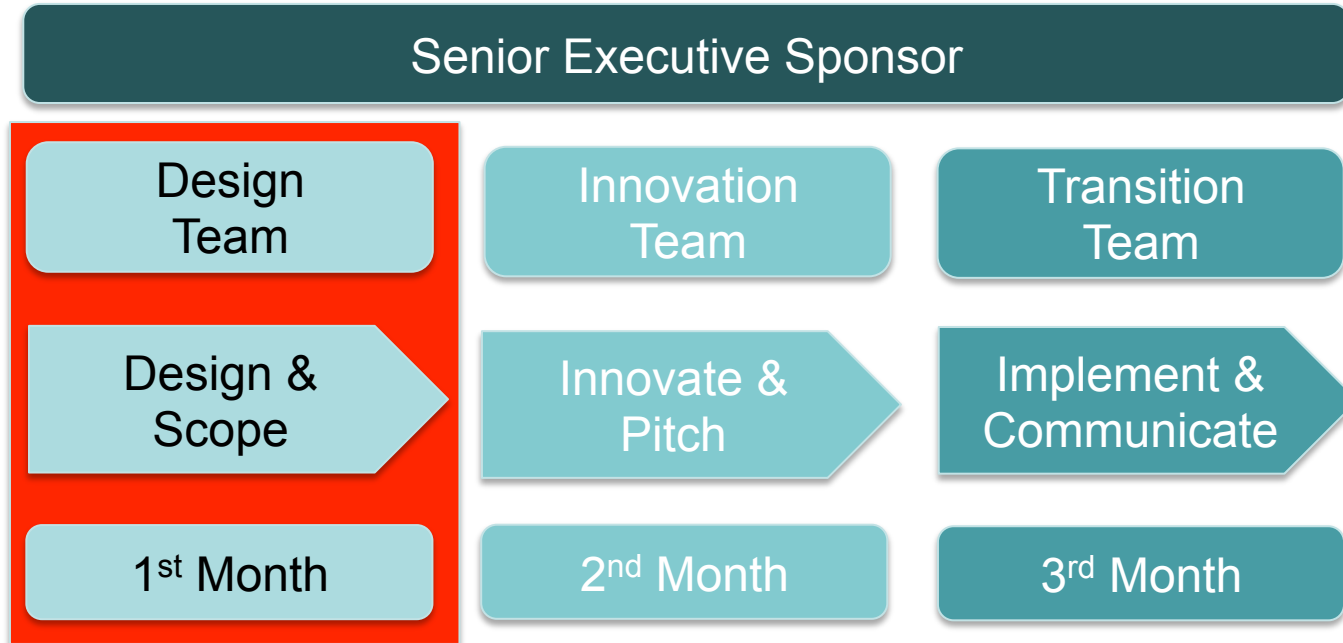
Risk assess, pitch and implement each idea

Confidential - not for circulation

Lecture Recording Notes - Laptops

The NESTT Methodology

The Three Stages of the NESTT

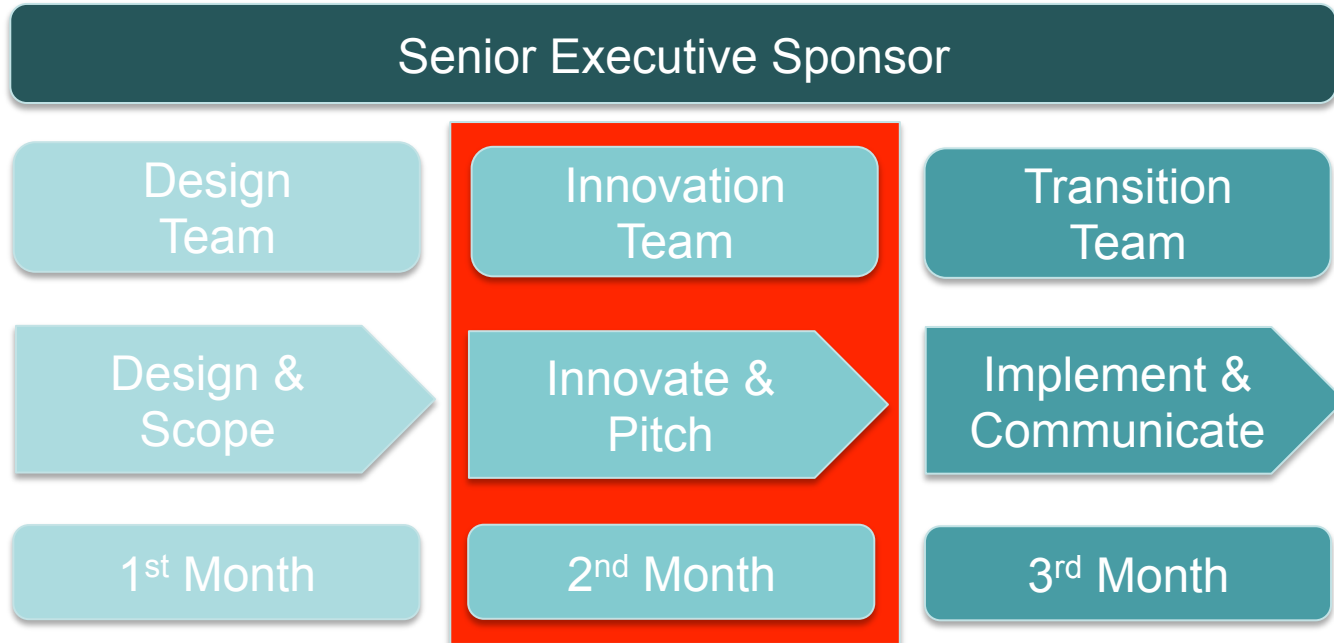


Tasks in the Design Stage

- Selecting the NESTT process (incl. scope)
- Selecting the team
- Identify relevant NESTT-external stakeholders
- Agree on expectations
- Gathering related information
 - Process model
 - Process aim and metrics
 - Previous improvement initiatives



The Three Stages of the NESTT



DIVERGENCE

Navigate

contextualise the process

Expand

ideation towards 20 days / 20 months / 2020

Strengthen

user testing and business cases

Tune and **T**ake-off

Detail, pitch, implement

CONVERGENCE

Navigate

Ambition – Ideas - Issues



Week 1 - Overview

Day	Activity
1	Context, vision, success definition
2	Initial ideation
3	Process model, customer journey map, pain points
4	Reactive ideation, policies, procedures, systems, people
5	consolidate

Set the Context (by Executive Sponsor)

- Why do we run this NESTT?
- What are relevant strategy elements?
- What are constraints?
- What is the desired focus?
- What would success look like?

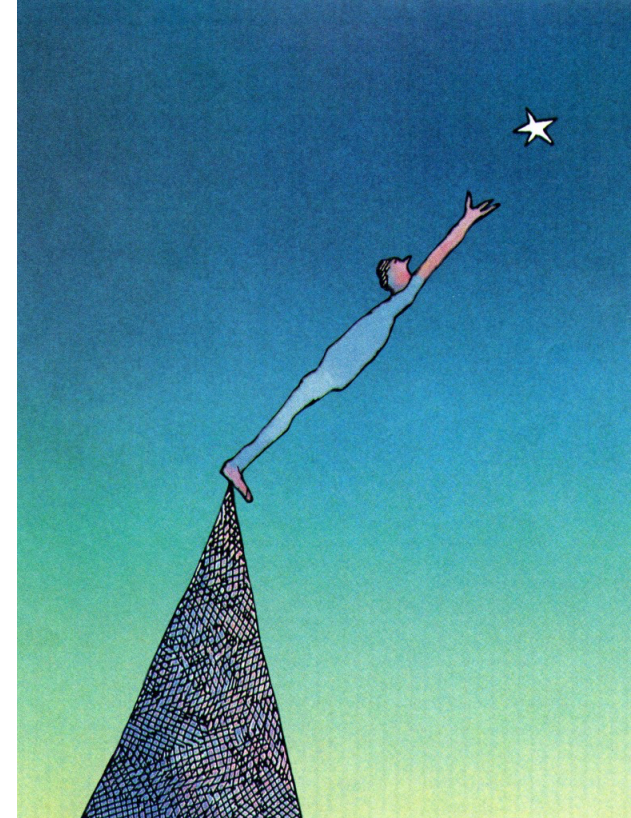


**First we create a vision,
than we create ideas.**



Selected Process Visions

- The 24hr mortgage process
- The straight-through claims engine
- Run the office like a dry cleaner
- Every applicant gets a job
- 24 hrs utilisation
- Enabling business
 - for everybody, anywhere



Forms of Ideation

- **Brainstorming**
- **Reactive Ideation**
- **Learn from previous attempts**
- Acting out
- Systemic (proactive) ideation
 - Enhancing (innovation patterns)
 - Utilisation (idle assets)
 - Derivation (learning from others)
 - Design thinking (ideating with customers)



*Your
initial
Idea*

Legendary experience waits for you

20 days

PR	LE
<p>... ..</p>	<p>... ..</p>
<p>... ..</p>	<p>... ..</p>
<p>... ..</p>	<p>... ..</p>
<p>... ..</p>	<p>... ..</p>
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<p>... ..</p>	<p>... ..</p>
<p>... ..</p>	<p>... ..</p>
<p>... ..</p>	<p>... ..</p>

20 months

PR	LE
<p>... ..</p>	<p>HANGING RESTAURANT</p>
<p>... ..</p>	<p>SKY DIVING EXPERIENCE</p>
<p>... ..</p>	<p>... ..</p>
<p>... ..</p>	<p>... ..</p>
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<p>... ..</p>	<p>... ..</p>
<p>... ..</p>	<p>... ..</p>

2020

PR	LE
<p>... ..</p>	<p>... ..</p>

Facilitator: Assess and categorise ideas

- Is there a shared understanding of the meaning of the idea?
 - Has the idea already been mentioned, i.e. is it redundant?
 - In scope, i.e. does it contribute to the process vision?
-
- *At this stage, do not assess*
 - *Desirability*
 - *Feasibility*
 - *Viability*



Creating the Process Model

- Design high level value chain (3-4 steps)
- Design detailed swim lane process model
 - Approx. 10-15 steps
 - 3-5 stakeholders
- Map customer experience (journey mapping)
- Map staff experience



The Pain Wall

PAIN WALL

CONCEIVE

Timeline - unrealistic	Partners are hard to find	Resources are subject to change	Researchers looking for partners do not get grants
Unclear process or goals	Partners are not "aligned"	Quality of research proposals, teams, collaborations weak	Capacity to deliver
Unclear roles and responsibilities	Weakness	Lack of understanding of what funders want	Where are other agencies
Process development not clear enough	Academic culture not the funding	Lack of understanding of what funders want	Where are other agencies

• Detailed process map
 • Summary review?
 • Link with Review of R&I
 • Link y review of R.M.

Risk

- Multiple projects → co-ordinate
- Academic review + monitoring → quality
- Clarity of roles & responsibilities → who steps in?
- No change in culture
- Risk of lost opportunity

DESIGN

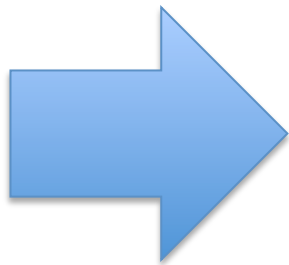
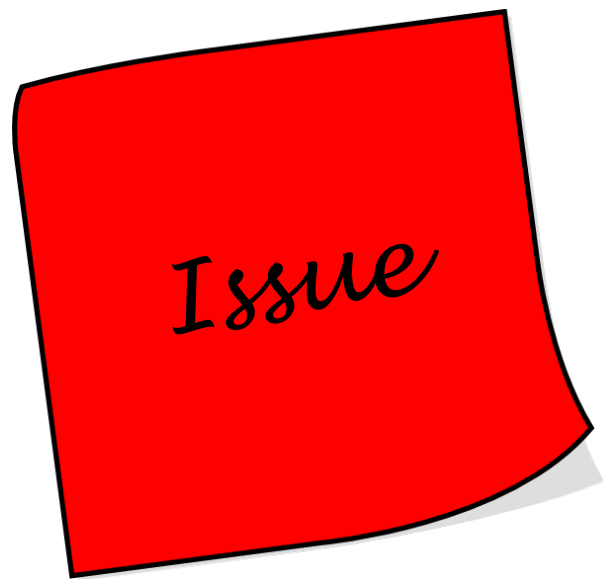
Proposals are not successful	Lack of discipline engagement	No consistency in grant applications (formatting, letters etc)	Disconnect between DfE/HE
Partnering issues	Lack of support (training in case etc)	Capacity to design	Sharing knowledge not possible or
Role of faculty research support	Lack of	No research support	Quality of support varies
Role of ED, DfE, HE, DfE, HE	Too many small	Complex funding rules and significant barriers	What does it ask for?
With practice	Access to research grant	Regulation of research support	Assessment process is often hard to understand
How to make it work	Communication from top	Further research support - who does what?	Too many deadlines
Academic don't use the feedback	Communication from top	Further research support - who does what?	Too many deadlines

• Link to Strengths + Priorities?
 • Link to BluePrint?
 • Where do \$ come from?
 • Ted Smith: Common Practices for WIL

ASSESS

Partnership working is more complex	Faculty ownership of peer review is required	One partner does most work is needed	Transdisciplinary research is difficult to deliver as a PhD test likely to be funded by ARC
Dissemination in writing skills & writing	Clear ownership of research support tasks of faculty team	Use internal resources	

7 net promoter score?
 How do you measure added value?
 • engagement, visibility



Take Time to Reflect

- Are we heading in the right direction?
- Are we comfortable with the speed of progression?
- Are we comfortable as a team and with our behavior?
- What will happen next week?



Status at the End of Week 1

- Shared understanding and visualisation of
 - Context, vision, success definition
 - Customer journey map incl. employee perspective
 - Pain wall and reactive ideas
 - Initial brainstorming outcomes
 - Policies and procedures
 - Systems and people
 - Speakers and users for coming weeks have been invited



Expand

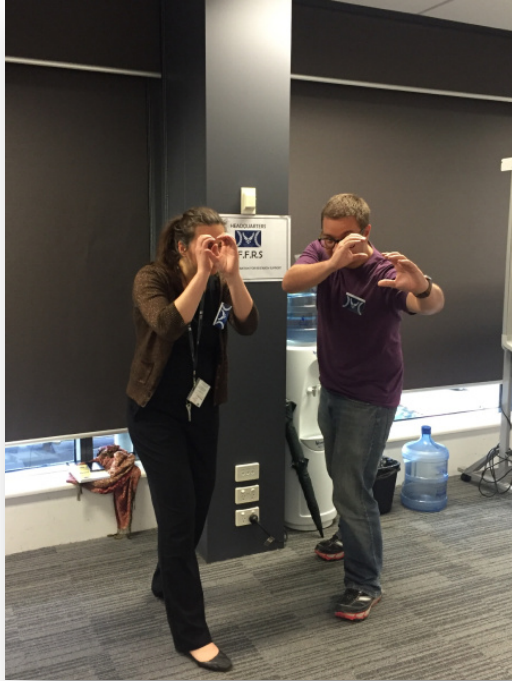
Broaden the Design Space



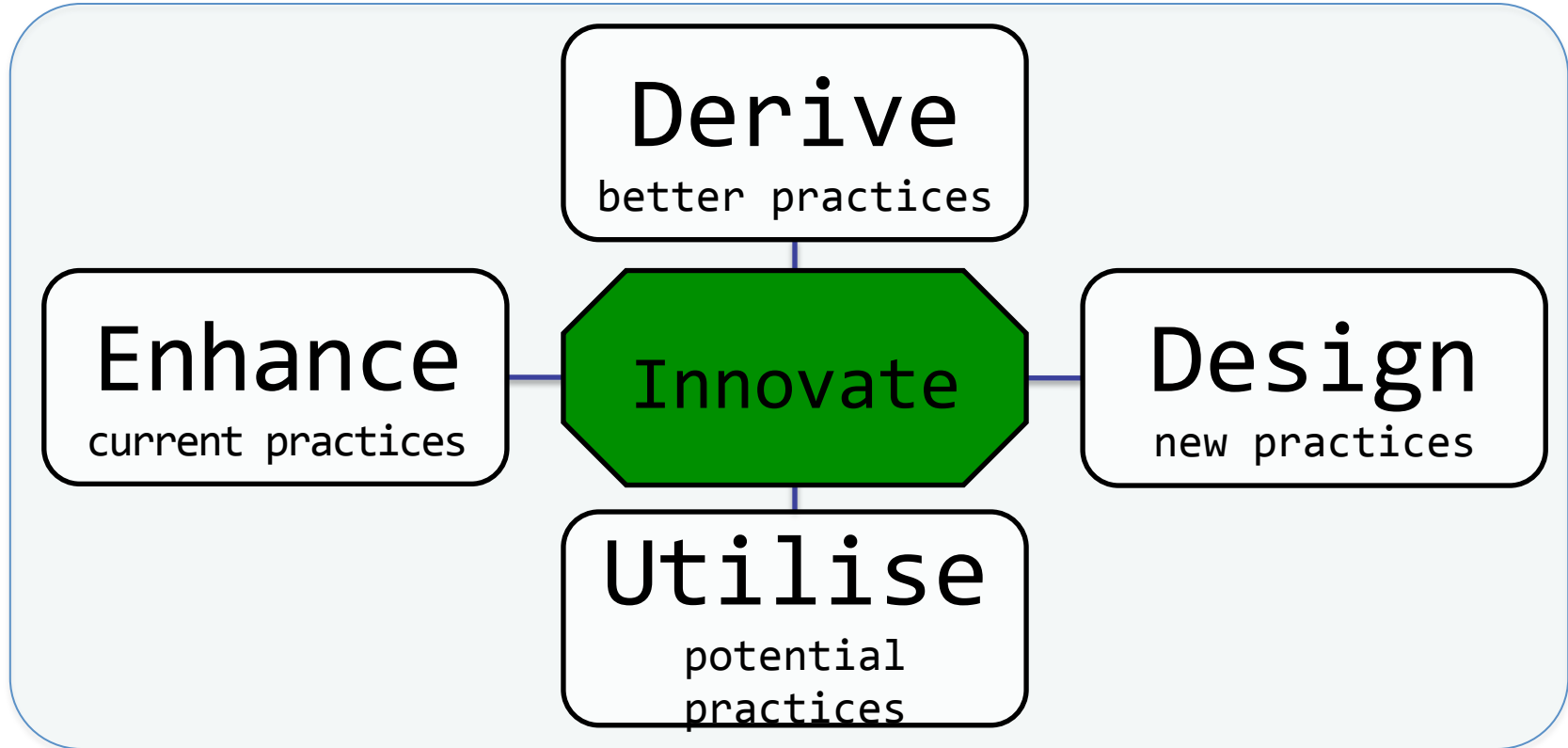
Week 2 - Overview

Day	Activity
1	Ideate via acting out
2	Ideate via process enhancement
3	Ideate via derivation and utilisation
4	Ideate via design-led innovation
5	Cluster ideas and assign champions

Ideation via Acting Out



Systemic Process Innovation: *Four Thinking Styles*



Enhancement: Deploy Patterns

Cheat Sheet – Process Improvement

Process Improvement Procedure

Process Improvement deals with the identification of recommendations for improved business processes. It is concerned with improving the performance of existing processes. Process Improvement does so by generating improved or new ideas for an organization's processes, thereby improving process performance and achieving identified business goals.

All available information about the current processes and their pain points, the existing constraints and available resources and the available best practice data and reference models, need to be considered.



Process Improvement Approaches

Each process looks different and there is no general answer to how a process can be improved. Nevertheless, it is possible to at least list some procedures typically applied for improving processes. Typically, four dimensions of process improvement are differentiated:

- Process Enhancement examines analytically an existing process model and applies process enhancement patterns to change existing practices.
- Process Definition gathers available data about other, potentially better practices from reference models, study tours, benchmarks and other sources and contrasts existing practices against benchmark practices to derive improvement opportunities.
- Process Utilization analyzes the contextual environment of a process (e.g., its data, resources, organizational context, culture and so on) to identify available assets that could be leveraged for process improvement.
- Process Innovation looks beyond available practices and strives to identify and implement previously unavailable, new practices.

analytical

better practices

Derivation

Enhancement

current practices

New Process

Innovation

new practices

Utilisation

potential practices

creative

Process Enhancement Patterns

In process improvement scenarios, typically a number of recommendations keep re-occurring, independent of the given domain. In the following, a number of these so-called process enhancement patterns are described to suggest potential changes to a process model. As part of process enhancement, the following 15 process enhancement patterns have to be checked regarding their applicability in improving a given as-is model. The use and depiction of these process enhancement patterns is optional.

Name	Representation	Description
Eliminate		Eliminate a non-value adding task
Replace		Replace task with a more adequate task
Insert		Insert a new task (e.g. for quality reasons)
Improve		Improve a single task (e.g. improve user friendliness)
Delay		Delay activity to gain time and avoid early individualisation
Pull instead of Push		Implement the pull principle
Re-sequence		Change the sequence of tasks
Consolidate		Consolidate multiple process instances into one
Individualise		Break up one process into multiple instances
Decouple (horizontally)		Split a task into two subsequent tasks
Decouple (vertically)		Split a task into two parallel tasks
Integration		Integrate two subsequent tasks (e.g. a job enlargement)
Specialise		Create two (or more) variants for one task
Parallel Order		Parallelize two subsequent tasks
Optional		Make a task optional

Derivation: Learn from others

What is the nature of the problem?

Who else has solved this?

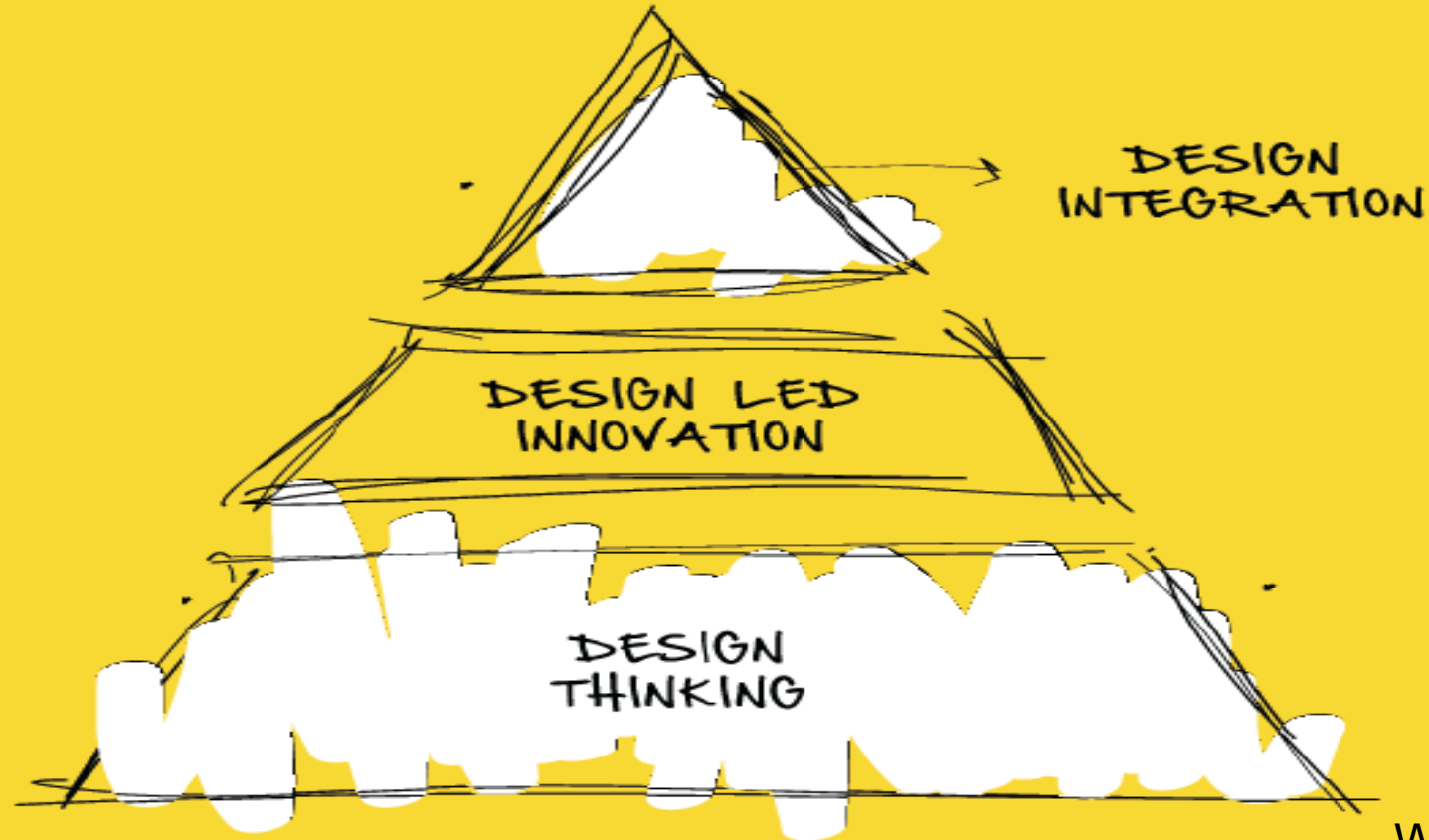


Utilisation: Explore under-utilised assets



**Find the To-be
in the As-is**

Design: Co-develop with your customers



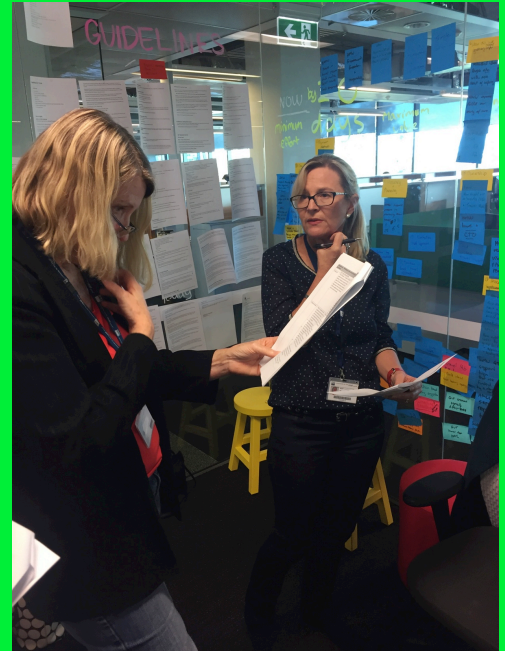
Status at the End of Week 2

- Comprehensive and finalised ideation
- Idea components are classified according to 20 days, 20 months, 2020
- Ideas are clustered to 6-10 ideas
- First version of idea map
- **Ideas champions** are identified



Strengthen

Detail – Test – Revise



Week 3 - Overview

Day	Activity
1	Conduct user validation
2	Interview further process experts
3	Conduct risk assessment
4	Work out implementation requirements
5	Start developing business case

User Validation

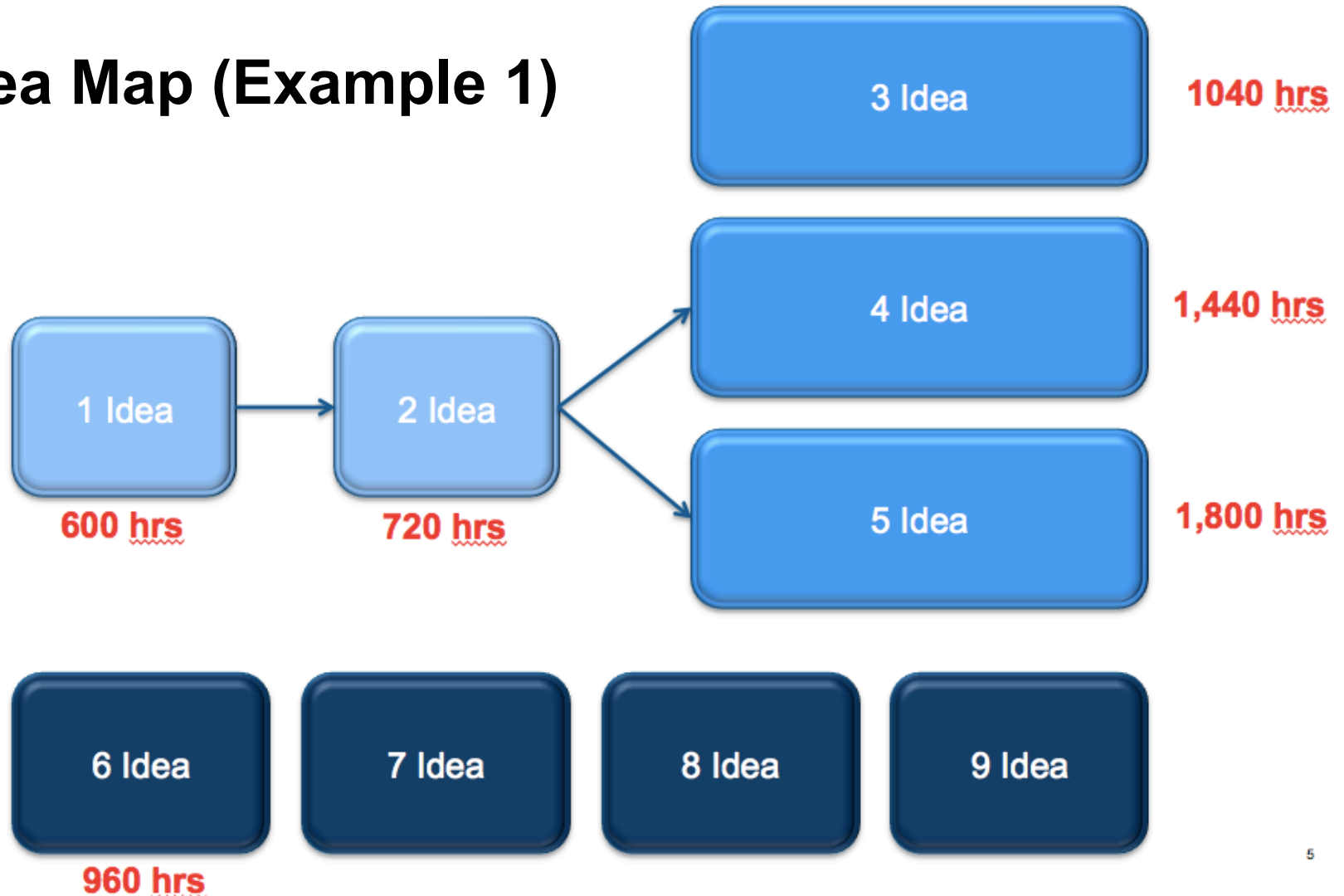


Conduct Risk Assessment

1. Invite corporate risk manager
2. Assess relevant types of risk, e.g,
financial, operational, reputational risk
 1. Impact
 2. Likelihood
3. Develop risk mitigation plan



Idea Map (Example 1)



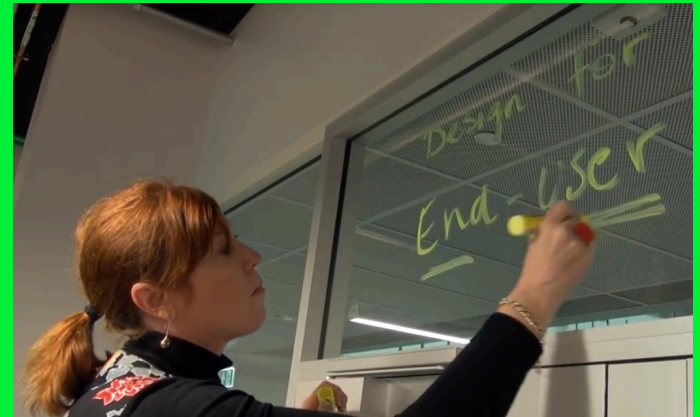
Status at the End of Week 3

- Reduced set of (better) ideas
- Ideas on a page in solid draft
- Ideas map finalised
- Ideas have been risk assessed
- Deeper understanding for implementation efforts



Tune

Finalise & Polish



Week 4 - Overview

Day	Activity
1	Finalise business case per idea
2	Finalise ideas on a page documents
3	Work on the 'sales' pitch
4	Test remaining assumptions
5	Finalise and practice presentation

Business Case for Change

- Key assumptions
- Costs per process (ABC-costing)
- Total volume of work eliminated
- Proposed re-investment of work
- Proposed success metrics and benefit realisation plan
- Investments required (one-off / ongoing)

Ideas on a Page Document

- The essential summary of each idea
- Title (catchy)
- Description (linked to process vision and design principles)
- Current efforts
- Future efforts
- Risk assessment
- Interrelationships
- Implementation requirements

Status at the End of Week 4

- All data gather, analysed and integrated
- All ideas are developed and documented
- Panel received ideas of a page documents
- Presentation is finalised
- Relevant further stakeholders have been sufficiently informed



Take-off

Pitch your Idea



The Presentation

- Context setting by innovation champion
 - Team introduction
 - Vision and objectives
 - Scope definition
 - Stakeholders consulted
- Each idea champion present his/her idea
- Idea map, alignment with principles, impact assessment
- Implementation plan



NESTT Implementation Plan

- Innovation Champion -> Implementation Champion
- Follow up by audit
- Under responsibility of senior sponsor

Implementing NESTT Innovations

The NESTT is QUT's rapid process redesign capability. Within a four-week timeframe, a dedicated innovation team derived proposals for process improvements with a focus on a 20 days timeframe, but also expanding to ideas for 20 months and by 2020.

This document confirms QUT's approval to implement innovations resulting from the NESTT - to be completed during the panel session.

Process: Travel Management

Executive Sponsor: _____

Ideas approved / Implementation date:

Number and name the ideas as approved the NESTT panel.

_____/_____
_____/_____

Comments from the Panel:

Elaborate on any further ideas assessments needed before implementation can be considered.

Implementation Champion: _____

(Name, Position, Signature, Date)

The implementation champion accepts responsibility for the overall implementation. The implementation champion will have the support of relevant stakeholders (e.g., Head of Schools, Directors, etc.), the innovation champion, relevant change management expertise in HR, and the Executive Sponsor. Should support not be readily available, the implementation champion will raise this in the implementation progress report to the Executive Sponsor to allow any necessary adjustments to support, timing and/or resources.

Next Steps:

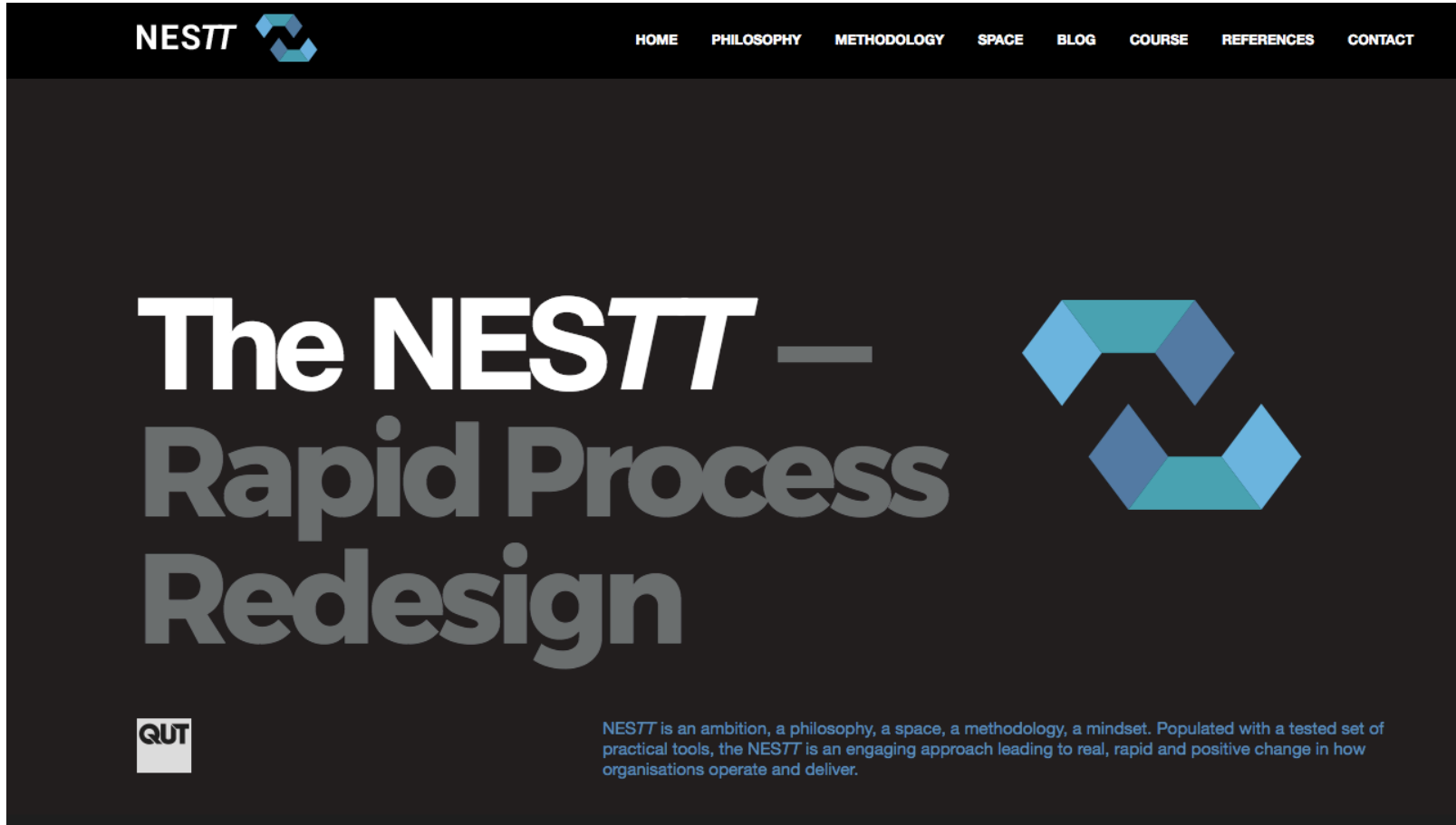
- Transition team to be established
- Change and communications plan to be developed

Success Factors

- Sense of Urgency
- Decisive Governance
- Ambitious Facilitation
- Agile Team Members



Related Webpage: the-nestt.com



Related Material: Video and Article



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The NESTT

Rapid Process Redesign at Queensland University of Technology

Michael Rosemann, Queensland University of Technology

Abstract

(a) **Situation faced:** The higher education sector faces like most information-intensive industries an opportunity-rich, digital future. Nowadays, students demand contemporary, multi-channel learning experiences and fast evolving digital affordances provide universities with a growing design space for their future processes. Legislative changes, a globalizing market of learners and educational providers, and the emergence of new technology-based business models (EduTech) and legislative changes are further features of the current situation in this sector. In order to prepare for and to capitalize on this changing environment the Queensland University of Technology (QUT), like any university, needs to ensure operational efficiency in the development of the educational process.



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Podcast: DigitalWeek

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