

COMPSYS/ELECTENG/SOFTENG 770 | 19 March 2024

# Specifying Client Requirements

Peter Rachor

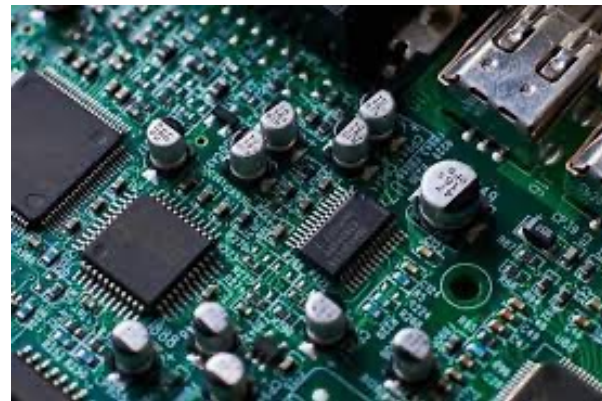


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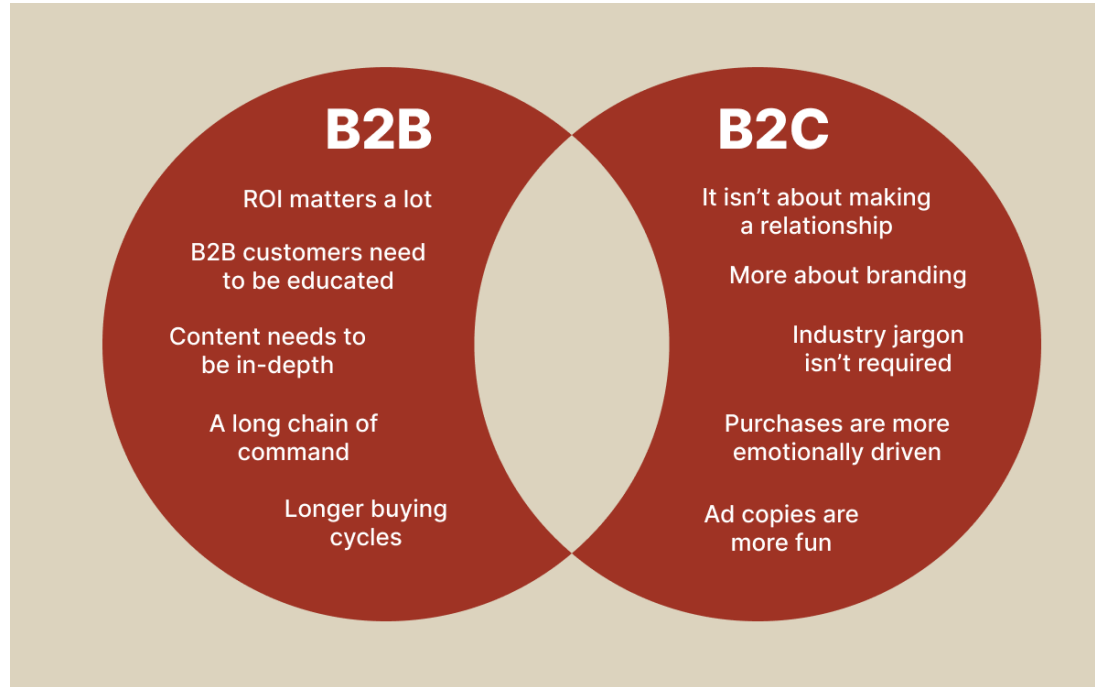
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“An engineering capstone course integrates the skills and competencies that students have learned in their engineering program. It attempts to balance technical, business, and interpersonal skills that will help students to immediately contribute to team efforts in today’s fast-paced business and technical environment. The engineering capstone course simulates as close as academically possible the activities in which an engineer is involved. The course challenges the student’s personal and professional skills. The nature of the course forces us to accept dimensions of professional practice that go beyond technology by also including societal considerations.”

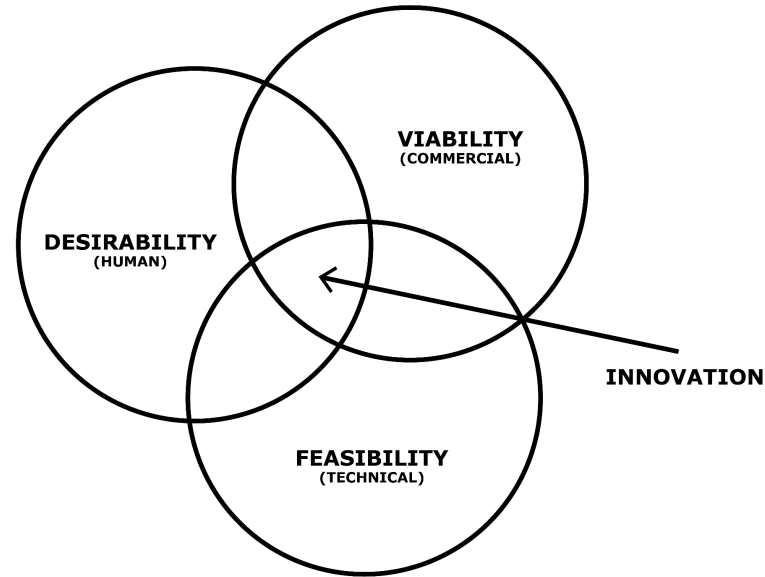
# Working With Clients



# B2C/B2B/B2G



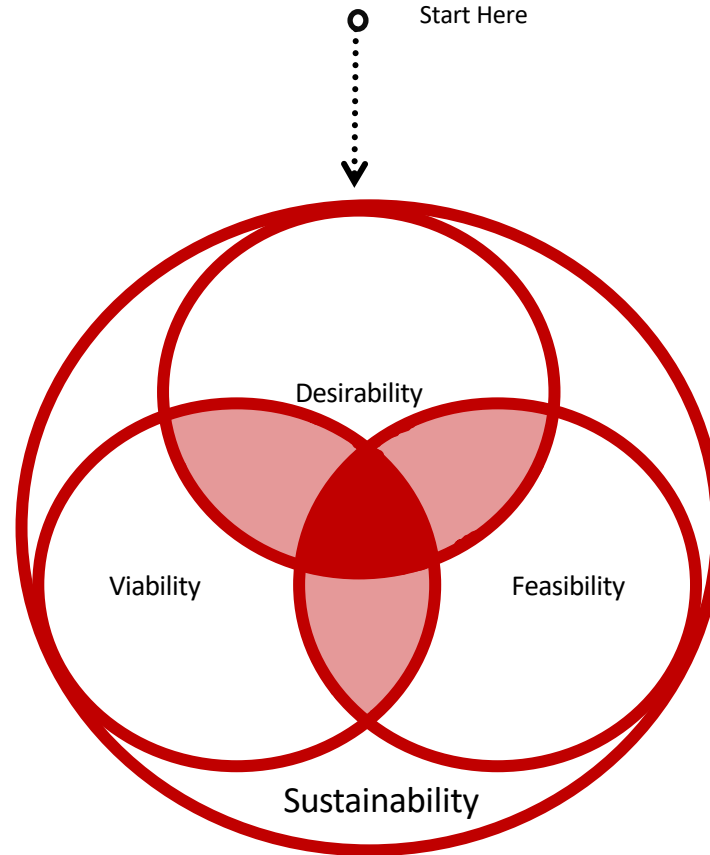
# Innovation



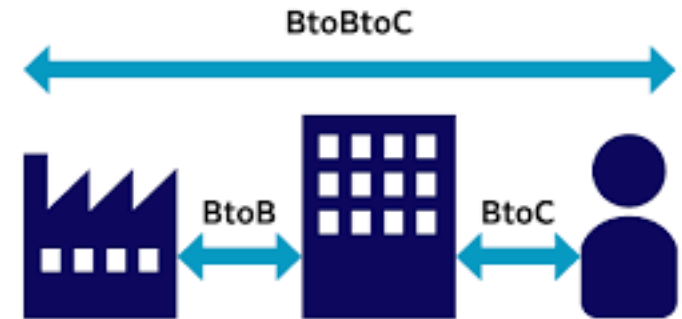
IDEO/Stanford d.school

# Sustainability

- People
- Planet
- Profit
- Access
- Equity
- Inclusion



- “Proxy” empathy
- Opportunity to interact with end users
- More or less constraints?
- Same objectives?
- Role of Sustainability?





# Users – Personas

## Persona 1: Rachel

Rachel is a **Plunket** nurse in Auckland. She really loves her job and caring for young children. She wants the best for all the children that she sees. Her job is to visit different **Plunket** clinics around Auckland and perform Well Child Tamariki Ora health checks and provide advice and support to families (mostly mothers.) Her day is evenly split between spending time with families and performing administration. For a family visit, she will perform the Well Child checks, including weighing the children, record the information, and provide guidance and support to the family. She really enjoys this part of the job, as she gets to interact with people and babies. The other half involves updating the information in **Plunket**'s online system. This time is necessary to provide statistics and other information that **Plunket** passes onto their funders and the government. While Rachel doesn't like it, she knows it is a necessary part of her work. However, she would really love it if these tasks could be reduced.





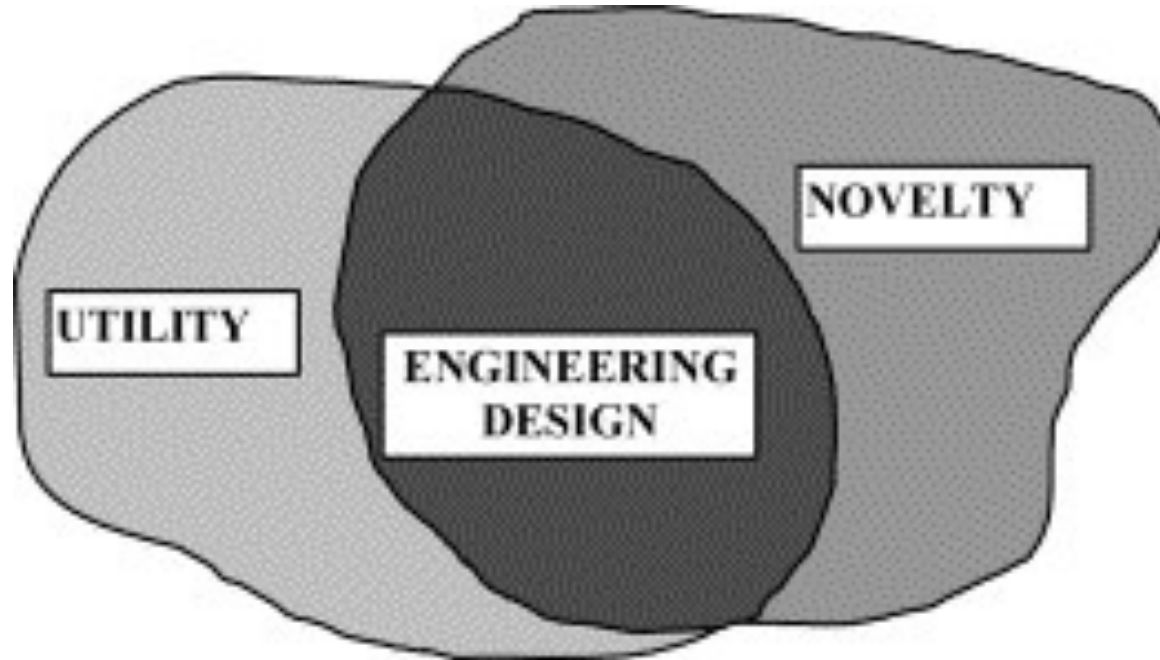
# Stakeholders



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- Plunket Staff
- Plunket Parents
- Plunket Kids
- Regulation
- Plunket Funders
- Others?

# Focus on Feasible Solutions



2003 - Shah, Smith, Vargas-Hernandez

- To what extent are user needs specified?
- Are all stakeholders clear?
- Is there a cost constraint?
- ROI constraint?
  - Tangible
  - Intangible
- Time? Scope?

**RFI**  
Request  
for information

Educates



**RFQ**  
Request  
for quotation

Quantifies

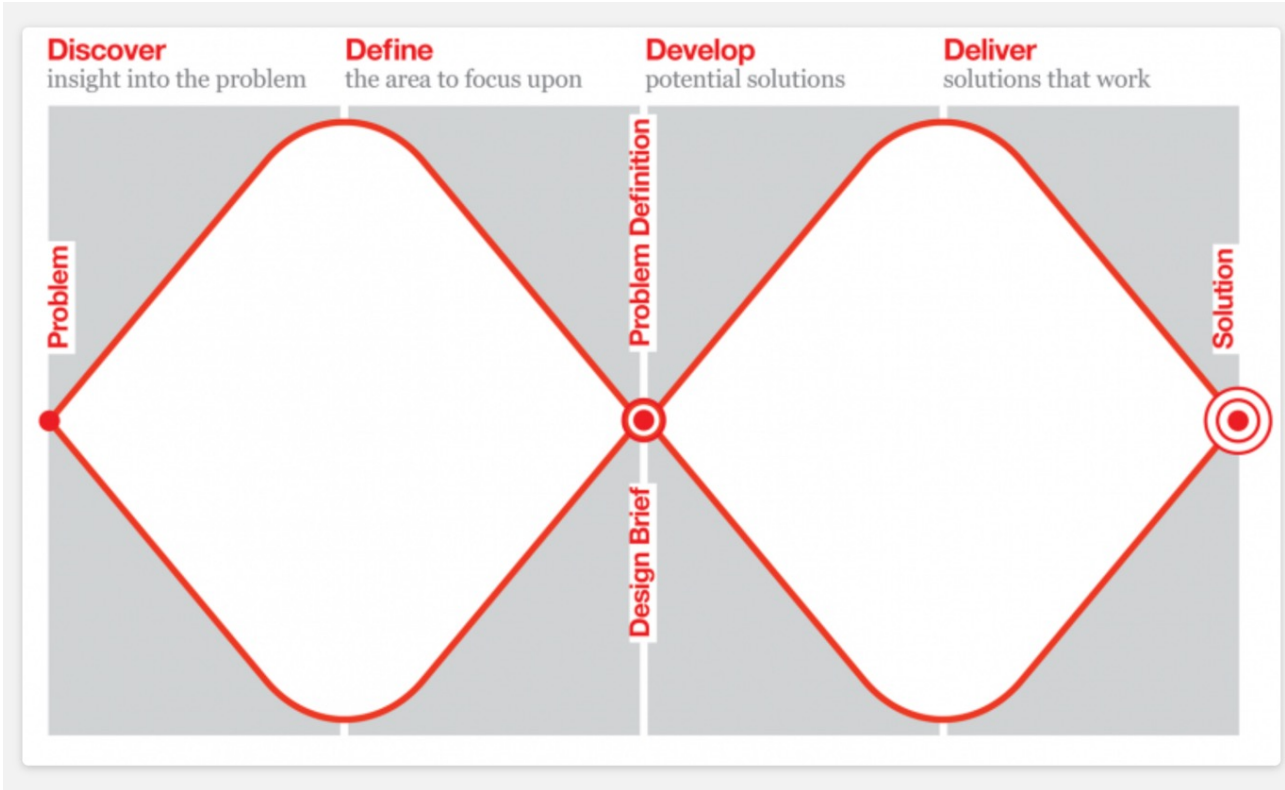


**RFP**  
Request  
for proposal

Compares



# Focusing in - Double Diamonds



Source: Double Diamond, Design Council,  
<https://www.designcouncil.org.uk/>

# Good Problem Statement

A problem statement is a clear, concise explanation of the problem or challenge you intend to solve. It is meant to give you, your team, and any other stakeholders clarity and focus around the problem.

- Who are we solving for (the user, customer, beneficiary, or protagonist)?
- What and where is the specific problem they are having?
- What is the value or benefit to the client and their users of solving the problem or improving the situation?



# Clients - Social & Commercial

- Context of collaboration
- Communications and capability
- Requirements definitions
- Boundaries and ethics





# Project Management



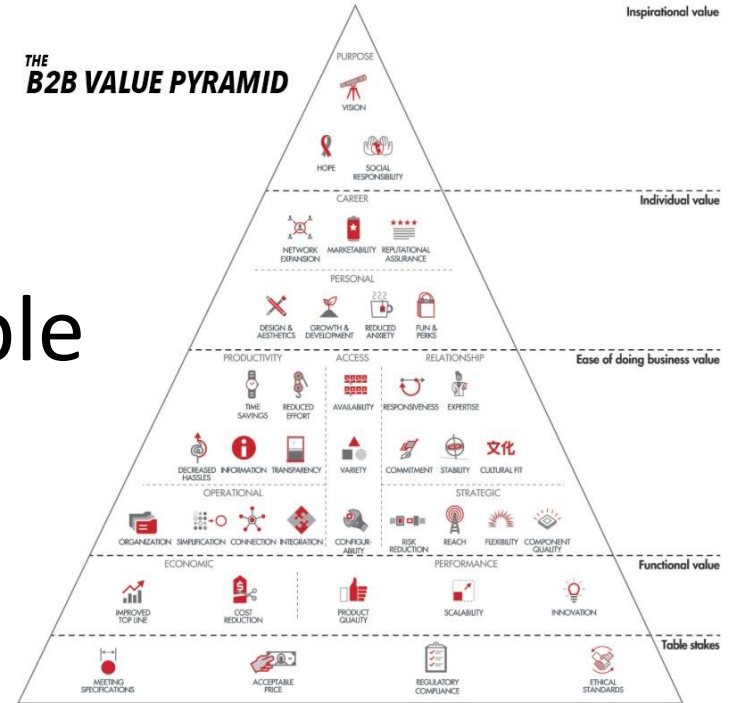
# Managing a Project

- Identifying Project Requirements
- Addressing Stakeholder's needs, concerns, and expectations
- Communication with Stakeholders
- Management of Resources

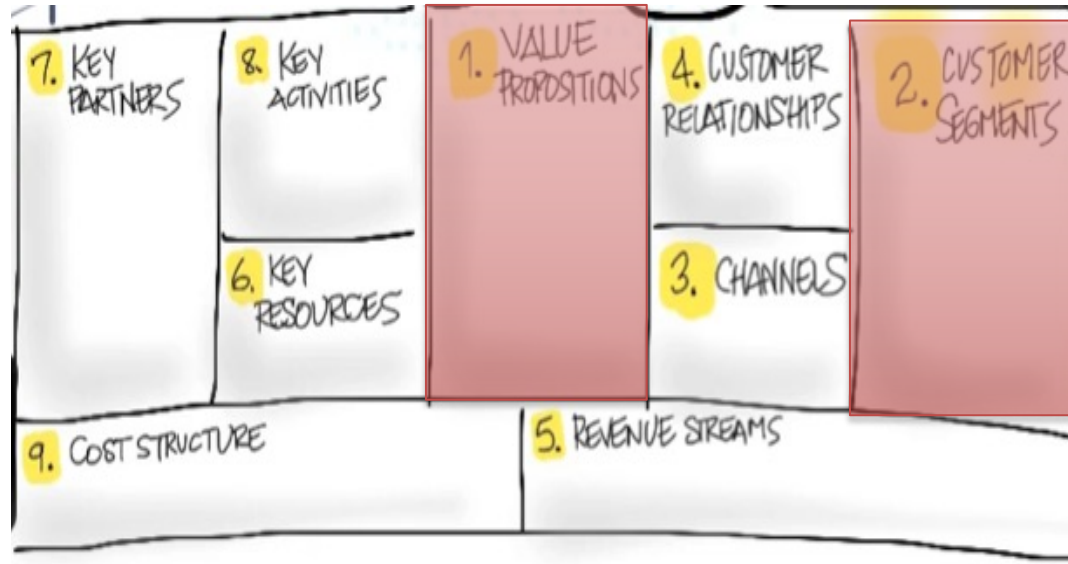


# The Client's Business Case

- Value Proposition
- Tangible and Intangible
- ROI
- Consider in the Context of Your Firm



# Value Creation



What Value to The ***Client***?

# Summary

- Responding to client request necessitates a good understanding of their problem and intended outcomes
- Working with clients calls upon many of the communications, innovation, design, collaboration and project management skills developed in previous courses
- Partnering with clients mixes rigour in disciplines, project management, and solutions development with people skills, cultural sensitivity and
- Developing solutions for others requires a good understanding of what creates value in their organization



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# Questions and Discussion

