

WPI Projects With Impact

Achieved through the discipline of value creation

Definitions

- **Value creation** – the process of solving an important unmet stakeholder need better than any alternative
- **Innovation** – value creation with sustainable impact
- **Value** – benefits/costs as perceived by the stakeholders
- **Stakeholders** – end-users, sponsors, and other affected parties
- **Key insights** – the few issues that most define the problem and solution

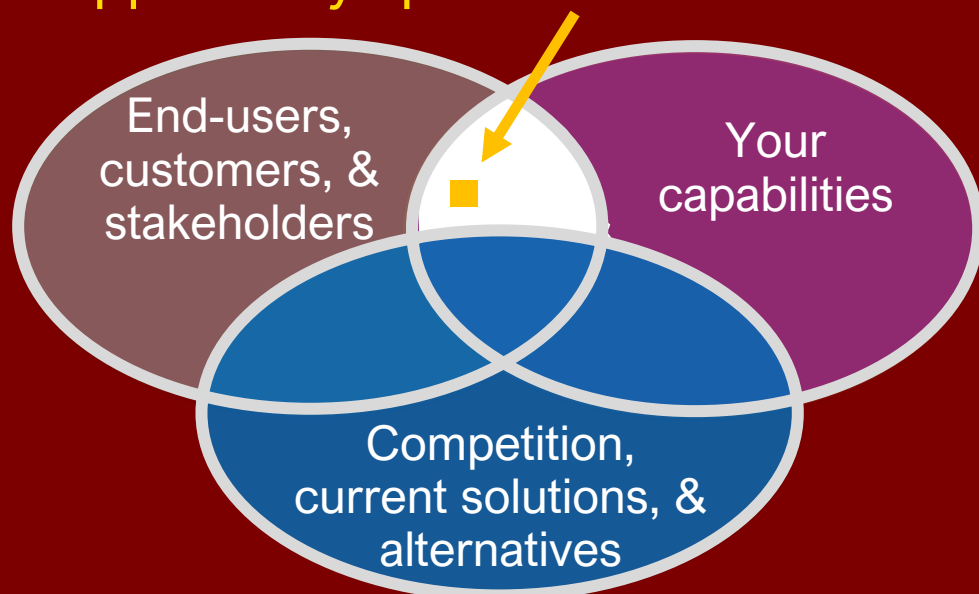
5-What's for understanding important stakeholder needs

- What is the situation in the ecosystem?
- What is the problem/opportunity resulting from the situation?
- What is the reason the problem/opportunity has not been solved?
- What is your key insight into the actual stakeholder need to be addressed?
- What is your key insight into a compelling solution that addresses the need?

Tools

Project Assessment

Opportunity space & first end-users



$$\text{Value Factor} = \frac{\text{Quality} \times \text{Convenience}}{\text{Costs}}$$

Example Value Factor Analysis (VFA)

Problem	Broken ceramic pottery				
Need	Transparent, quick drying glue				
Our solution	Zip Grip				
Quality Features	User need	Elmers		Our solution	
	Importance	Satisfaction	Total	Satisfaction	Total
1 Bonding	5	1	5	5	25
2 Types of ceramics	2	2	4	4	8
3 Color (transparent)	3	3	9	4	12
Total			18		45
Convenience Features	User need	Elmers		Our solution	
	Importance	Satisfaction	Total	Satisfaction	Total
1 Quick drying	5	2	10	5	25
2 Applicator	3	4	12	3	9
3 Clean up	4	4	16	2	8
Total			38		42
Cost Components	User need	Elmers		Our solution	
	Importance	Expense	Total	Expense	Total
1 Per application	2	\$	2	\$\$\$\$	8
2 Storage lifetime	3	\$\$	6	\$\$\$\$\$	15
3 Removing extra glue	5	\$\$	10	\$\$\$\$	20
Total			18		43
			38		44



WPI Value-Creation Initiative

Innovation and Entrepreneurship
Worcester Polytechnic Institute
Worcester, Massachusetts



Innovation for Impact: i4i

Action Plans (NABC)

Hook

- What is the purpose and focus of your initiative?
- Briefly, what is the situation in the ecosystem that gets attention?

Need

- What is the important unmet stakeholder problem/opportunity?
- What do they wish they could do but can't today – their actual need?
- Remember to quantify – no bigger, better, faster, cheaper

Approach

- How do you plan on addressing the stakeholder's actual need?
- What do you have or can do that is special and sustainable?
- What are your risks or limitations and how will you mitigate them?
- How do you plan on providing your solution to the stakeholders?
- Do you have a development plan with milestones?

Benefits/costs (value)

- How will the different stakeholders gain from your solution?
- Remember to quantify

Competition, current solutions, and alternatives

- Can you name them, now and in the future?
- Have you conducted a Value Factor Analysis?

Action

- What are the next key steps to move your project forward?
 - What is required to take these next steps?
-

Value-Creation Forums – Feedback & Iteration

Format

- Presenter gives a 3 to 5-minute NABC Action Plan presentation to multidisciplinary peers
- Peers give 1-2-minute feedback and iterations
- Presenter listens to feedback without responding

Feedback

- Always respectful and helpful – the goal is improvement
- Multiple perspectives – what was good, improvements, and eyes of the end-user, sponsor, and other stakeholders
- Presenter uses the feedback to improve their NABC Action Plan

Intense iteration with teammates, sponsors, end-users, & others