

Designing Sustainable Startup Support for Rwanda and Kenya-

Appendices

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Appendix 1- Interview Guides

- Stakeholder Interview Guide (1)
- Entrepreneur Interview Guide (3)
 - Hub Experience
 - Venture Development
- Hub Interview Guide (2)

Stakeholder Interview

Introduction

This interview should last approximately 35min. Alternatively, you may respond to the process questions within this document and the Stakeholder interactions within either the PowerPoint or pdf files included.

Responses to this interview will be recorded anonymously and will only be used in relation to my graduation project titled "Designing Sustainable Startup Support in East Africa". If you consent to your company/organization name being used, please let me know. Otherwise, this information will also be kept anonymous. This project is part of the Master program in Strategic Product Design from the faculty of Industrial Design Engineering at the Technical University of Delft.

Process (5-8 min)

1. What are the ways that you come into contact with entrepreneurs?
2. What are the important metrics or characteristics when determining whether and how much to invest in a particular venture? How did you choose these?
3. How do you continue to interact with the venture throughout or after a funding round?
4. What are the types of financial support entrepreneurs generally get (equity, angel, impact investment, loan, etc)? Which ones are the most common?

Stakeholder Interactions (15 min)

These questions provide further guidance for the stakeholder interactions map provided.

For these stakeholders, consider the following questions for each one with whom you interact:

- | | |
|-----------------|-------------------------|
| - Entrepreneurs | - Society |
| - Investors | - Policy Makers |
| - Environment | - Academic Institutions |

Society could also be interpreted as the community or market.

Environment refers to nature and any source of natural resources i.e. land, air, water

5. What is the value you provide to the stakeholder?
6. What is the value they provide you?
7. What are the challenges you face within this interaction?
8. How do you feel this interaction might be facilitated or improved?
9. Is there any other information about your role as a funder/ investor that you would like to share?

Thank you for your time and participation in this interview.

Entrepreneur Interview Questions

Introduction

This interview should last approximately 60min.

Responses to this interview will be recorded anonymously and will only be used in relation to my graduation project titled "Designing Sustainable Startup Support in East Africa". All responses will be kept anonymous. This project is part of the Master program in Strategic Product Design from the faculty of Industrial Design Engineering at the Technical University of Delft.

Choosing a Path

1. Tell me about your idea / business. What is it?
2. How did you come up with the idea?

Hub Experience Interview (4)

Awareness/ Evaluation

3. How did you hear about the hub?
4. What was your initial perception?
5. What motivated you to apply?

Experience

6. When did you go through _____ program?
7. What was the first day/ week like?
8. What did you do once you were introduced to the program?
9. What did you learn? How did you incorporate this into your business?
10. What was the most helpful aspect of the program? Why?
11. What was the least helpful? Why?
12. Was anything very frustrating? Exciting? What was it?

Follow Up

13. Are you still in contact with anyone from the program?
14. In what ways did you interact with the hub after you completed the program?
15. What are your current challenges within your business?

Venture Development Interview (2)

Need finding / validation

16. How did you determine that this would be a good business idea? What steps did you take?
17. What resources did you use to help you validate the need?
18. Which stakeholders did you reach out to and interact with?

19. How did you hear about these resources?
20. What did using each resource require (steps, commitment, cost)? What value did you get from them?
21. How did you feel during this part of the process (focused, confused anxious, frustrated, excited...)
22. How would you evaluate their usefulness (1-5) now that you know more about the business? What makes you rate it that way?
23. If you were starting again would you follow the same path? Why?

Prototyping

24. Tell me about how you created your first prototype.
25. What was the refinement process from then until now?
26. What resources did you use? Which stakeholders did you reach out to and interact with?
27. Did you consider the environmental impact of your product, process, or business model?
28. How did you think about the impact or benefit to the communities?
29. How did you hear about these resources?
30. What did using each resource require (steps, commitment, cost)?
31. What value did you get from them?
32. How did you feel during this part of the process (focused, confused anxious, frustrated, excited...)
33. How would you evaluate their usefulness (1-5) now that you know more about the business? What makes you rate it that way?
34. If you were starting again would you follow the same path? Why?

Business Development / Scaling

35. When did you make your first sale/ implementation?
36. What was your reaction?
37. When did you realize it was time to grow (hire another person, include other locations, etc)?
38. What did you do? Who did you talk to (stakeholders)? How did they help (value exchange)?
 - a. Resources, stakeholders, value exchange, evaluation
39. Did you start to see or evaluate the environmental or community impact of your distribution and sales model?

Summary

40. Are there any points where you look back and say "if I were helping someone else, at this point I would do/ give / say...?"
41. What is that advice/ resource/ connection? Why is it important?

Conclusion (All entrepreneurs)

Environment

42. As you conduct your daily activities at work and home, do you consider about taking care of the environment?
43. How much do you know about ways to help the environment in your work? In your daily life?
 - a. How important is it to you? Why?

Community

44. How much do you know about community development?
45. How important is it to you? Why?
46. *Is there anything else I should ask you about your journey? Sustainability?*

Hub Interview

Introduction

This interview should last approximately 65min.

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Awareness

1. How do you do marketing?
2. How has this changed over time?
3. Are there any changes you're planning to make

Evaluation/ Selection

4. Walk me through the evaluation process
5. Can you give examples of selection criteria?
6. Do you have a fixed evaluation committee? How do you select these individuals?
7. Do you consider social factors in your evaluation (age, gender, residence, etc)?
8. How do you take into account the impact of the business on the environment?
9. How has the quality of applications changed over time?
10. What are the ways in which the applications or range of applicants could still improve (beyond the services you help with)?

Experience/Delivery

11. Walk me through the main elements of a cohort (introduction, any core or repeated elements, closing or graduation)
 - Product development
 - Business model testing
 - Market research and validation
 - Supply chain / distribution
 - Mentorship
 - Legal / Financial / technical expertise and mentorship
 - Exposure / Advertising / credibility
12. What are the elements that you consider unique or particular strengths of your program?
13. What kind of feedback do you receive on the program elements?
14. How do you inform investors or other potential funders of the opportunities they may have within your cohort?
15. Do you ever help businesses to exit? Under what circumstances?
16. How do you incorporate elements of environmental sustainability into your programs? Into your own operations?

17. How do you incorporate elements of social equity/ community development into your programs? Into your own operations?
18. What gaps would need to be filled to incorporate sustainability considerations within the context of your current programming?

Follow Up/ Reflection

19. How do you interact with alumni?
20. How do you assess the progress / performance of the startups you support?
21. How do you assess your own performance?

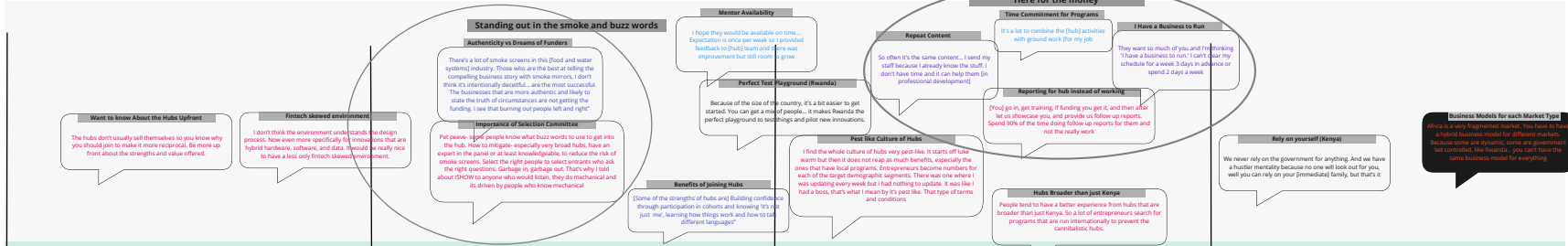
Conclusion

22. What is the vision for the next 5 years?
 - What do you need to get there?
23. If you could select and create any 3 partnerships, what would they be?

Appendix 2- Stakeholder Research

- Entrepreneur Clustering (1)
- Stakeholder Research Data Sources (3)
- Ecosystem Clustering with Quotes (1)
- Table of Statements, Clusters, and Themes (3)

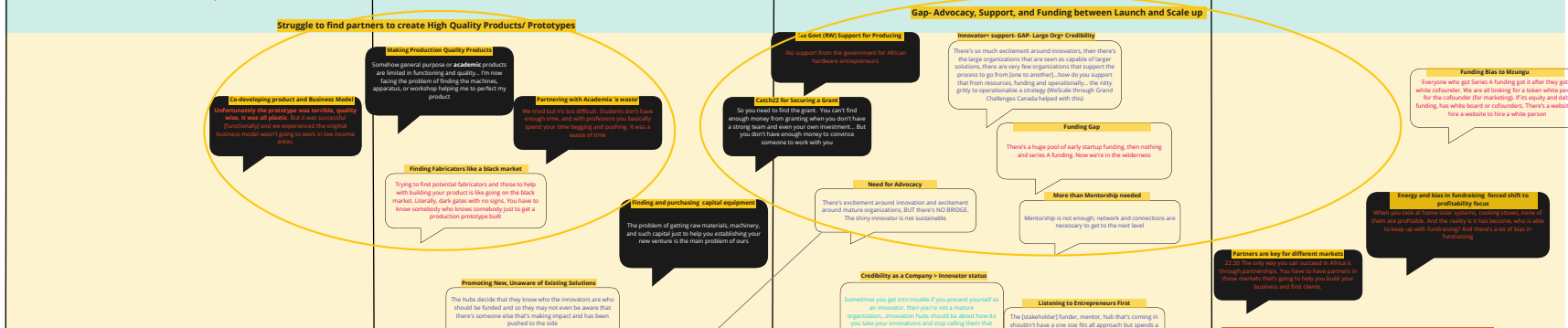
Cultural



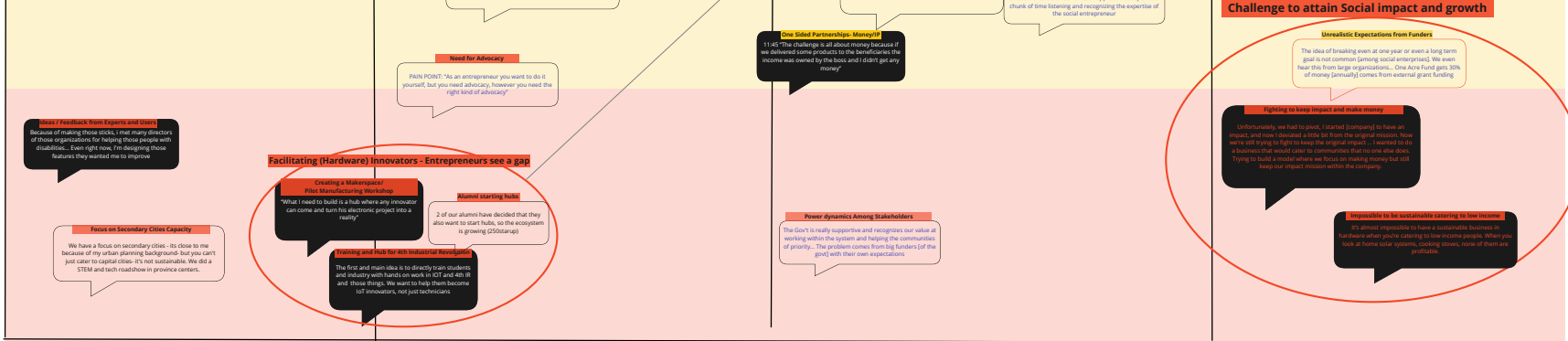
Environmental



Economic



Social



Idea/ Solution validation

Prototype

Product/Market Fit

Launch

Customer / Revenue Creation

Stable revenue

Maturity/ Market Expansion

Resources used for Stakeholder Research

Stakeholder Group

Location	Perspective (Occupation)	Data Source	Reference
Kenya	Government	STI Policy	Kenya Ministry Of Science And Technology. (2008). <i>Republic Of Kenya: Science, Technology And Innovation Policy And Strategy</i> .
Kenya	Government	Report	Kenya National Innovation Agency. (2021). <i>Kenya Innovation Week</i> .
Rwanda	Government	STI Policy	Rwanda National Council For Science And Technology. (2020). <i>Government of Rwanda: Science, Technology And Innovation Policy</i> .
Rwanda	Government	News Article	Laryoh, M. T. (2020, August 27). Here is why Rwanda is creating a Startup Act . <i>Business Insider Africa</i> . https://africa.businessinsider.com/local/markets/here-is-why-rwanda-is-creating-a-startup-act/yrg7p7e
Rwanda	Government	Entrepreneurship Policy	Rwanda Ministry Of Trade And Industry. (2020). <i>Entrepreneurship Development Policy Developing an effective entrepreneurship and MSME ecosystem in Rwanda</i> .
Rwanda	Government	Climate Strategy	Government of Rwanda. (2011). <i>Green Growth and Climate Resilience: National Strategy for Climate Change and Low Carbon Development Kigali</i> .
Kenya	Professor (1),	Interview	
Kenya	Student (1)	Interview, Website	About SU – Strathmore University. (n.d.). from https://strathmore.edu/about-strathmore/
Kenya		Website	University Industry Partnerships - Division of Technology, Innovation and Partnerships (TIP) - The Technical University of Kenya. (n.d.). Retrieved May 8, 2022, from http://tip.tukenya.ac.ke/index.php/directorates/university-industry-partnerships
Rwanda	Principal (1),	Interview	
Rwanda	Lecturer (1)	Interview	
Kenya	Kenya Airways	Innovation Workshop video	Kenya Airways. <i>KQ Aviation 101 Workshop</i> . YouTube. https://www.youtube.com/watch?v=dC-QZIZE4xw
Kenya	Kenya Airways	News Article	<i>Kenya Airways Launches Fahari Innovation Challenge</i> . - PAN AFRICAN VISIONS . (2021, July 1). Pan African Visions. https://panafricanvisions.com/2021/07/kenya-airways-launches-fahari-innovation-challenge/

Policy Makers

Academia

Industry	Kenya	SafariCom	News Article	Ndambuki, J. (2015, October 4). Safaricom and the Next Generation of Tech Entrepreneurs in Kenya Mobile for Development. GSMA Mobile for Development. https://www.gsma.com/mobilefordevelopment/country/kenya/safaricom-and-the-next-generation-of-tech-entrepreneurs-in-kenya/
	Kenya	SafariCom	Corporate Report	Safaricom. (2018). <i>ENVIRONMENTAL STEWARDSHIP</i> . https://www.safaricom.co.ke/sustainabilityreport_2018/our-material-topics/environmental-stewardship/
	Rwanda	Expert, Economic Development	Blog	White, S. P. (2019, August 21). <i>Supporting Public-Private Partnerships for Industry Development - Simon White</i> . https://simonwhite.com.au/2019/08/31/supporting-public-private-partnerships-for-industry-development/
	Rwanda	Company- Ampersand	Article	Adeyemi, D. (2021, April 12). Rwandan startup Ampersand raises \$3.5M, largest-ever e-mobility investment in sub-Saharan Africa. <i>TechCabal</i> . https://techcabal.com/2021/04/12/rwandan-startup-ampersand-raises-largest-ever-e-mobility-investment/
	Rwanda	International Development Specialist	Article	Gozel, S. (2022, April 6). <i>Opinion: How public-private partnerships boost health tech in Rwanda Devex</i> . Devex. https://www.devex.com/news/opinion-how-public-private-partnerships-boost-health-tech-in-rwanda-102883
Funders	Africa	Director, Social Innovation Johnson & Johnson	Interview	
	Kenya	GlobalX Investments, Founder	Interview	
	Africa	AfriLabs- Catalytic Africa	Slide Deck	Sent from AfriLabs
	Global	CC Investments, Founder	Interview	
Hub Network	Africa	AfriLabs	Report	Afrilabs, & Briter Bridges. (2019). <i>BUILDING A CONDUCIVE SETTING FOR INNOVATORS TO THRIVE: A QUALITATIVE AND QUANTITATIVE STUDY OF One HUNDRED HUBS ACROSS AFRICA</i> .
	Africa	AfriLabs	Report	Briter Bridges. (2021). <i>Bolstering innovators in Africa</i> . www.fmo.nl/venturesprogram .
	Kenya	ASSEK	Website	ASSEK. (2022). Our Constitution- Association of Startup and SMEs Enablers of Kenya. https://assek.ke/index.php/about-us/our-constitution

	Kenya	ASSEK	Conference Presentation	ASSEK. (2021, December 6). (4) ASSEK Annual Conference -Robert Karanja ,ASSEK Chairperson speaks on the Role of ESOs - YouTube. YouTube. https://www.youtube.com/watch?v=bx6iC_N8064
Hubs	Emerging Markets	Global Accelerator Learning Initiative	Report	Roberts, P. W., et al. (2017). <i>ACCELERATING STARTUPS IN EMERGING MARKETS: Insights from 43 Programs EXECUTIVE SUMMARY</i> . https://www.galidata.org/publications/accelerating-startups-in-emerging-markets/
	East Africa	Global Accelerator Learning Initiative	Report	Global Accelerator Learning Initiative. (2020). <i>Landscape Study of Accelerators and Incubators in East Africa</i> .
	Rwanda	AfriLabs Members	Report	AFRILABS & MOZILLA. (2020). <i>African Innovation Ecosystem Roundtables</i> . AfriLabs
	Kenya	AfriLabs Members	Report	
	World Food Program	IGNITE Innovation Advisor	Interview	
NGO	USAID		Official Blog	Langhorne, E. (2019, November 6). Charity vs. Investment: USAID's Journey to Self-Reliance and the INVEST Initiative. <i>Marketlinks</i> . https://www.marketlinks.org/blogs/charity-vs-investment-usaids-journey-self-reliance-and-invest-initiative
	Kenya	Manufacturing	Interview	
Entrepreneurs	Kenya	Medical Tech	Informal conversations	20min chat at Hub Networking Event
	Kenya	Clean Energy	Informal conversations	
	Rwanda	Medical Device	Interview	
	Regional	Digital Infrastructure	Interview	
	Rwanda	IoT	Interview	
	Rwanda	Medical Tech	Interview	

Statements	Clusters	Themes
<i>Rely on Yourself (Kenya)</i>	Society Culture sets the Stage for Entrepreneurship	Understanding and Creating Entrepreneurial Culture
<i>Innovative environment is key for Entrepreneurship</i>		
<i>Culture impacts risk tolerance</i>		
<i>Bridge gap on Culture and Communication</i>	Bridging Funding Culture	
<i>Lighthouses bring \$ and Resources</i>		
<i>Africa Creating Startup Acts</i>	Hubs Build Camraderie, Confidence, Communication	
<i>Hubs Build Camraderie, Confidence, Communication</i>		
<i>Building Secondary Cities Capacity</i>		
<i>Diversity in entrepreneurial culture facilitates entrepreneur diversity</i>		
<i>Perfect Test Playground (Rwanda)</i>		
<i>Fintech skewed environment</i>		
<i>Authenticity vs Dreams of Funders</i>	Bias in Funding	Generating and Finding Funding
<i>Energy and bias in fundraising</i>		
<i>Funding Bias to Mzungu</i>		
<i>Mismatch in Investor / Venture Expectations</i>	Challenges finding Funding	
<i>Catch22 for Securing a Grant</i>		
<i>No Govt (RW) Support for Producing</i>		
<i>Academia lacks funding and industry partnerships</i>		
<i>Funding Gap</i>	Hubs Struggle and Seek Funding	
<i>Hubs Need Funding</i>		
<i>No \$ Working in Hubs</i>		
<i>Hubs Need Funding and Alternate</i>		
<i>Hub Salary Gaps due to Funding Challenges</i>	How to Get Funds	Tensions Between Goal & Effect
<i>Lighthouses bring interest, \$ and Resources</i>		
<i>Teachers Work Extra Jobs for Income</i>	Stakeholders don't understand what exists	
<i>Funding- Cool kids vs Humble, Home Grown</i>		
<i>Promoting New, Unaware of Existing Solutions</i>		
<i>Govts & NGOs creating (RW) or partnering (K) with hubs</i>		
<i>Hubs operate w/o knowing each other and compete with parallel programs</i>	Hub Work Impeding Business Activities	
<i>High Time Commitment for Programs (2)</i>		
<i>Pest like Culture of Hubs</i>		
<i>Reporting for hub instead of working</i>	Need better support for Hub Alumni	
<i>Greater need for alumni support due to weaker networks in Global South</i>		
<i>Impossible to be sustainable catering to low income</i>		
<i>Knowledge Gap in Implementing Renewable Energy</i>		
<i>Clean Energy Priorities</i>		

<i>Community provides challenges but school can't deliver solutions</i>		
<i>Ideas / Feedback from Experts and Users</i>	Entrepreneurs Show Flexibility	
<i>Fighting to keep impact and make money</i>		
<i>Business Models for each Market Type</i>		
<i>Understanding of potential commercialization vs application of learning</i>	Entrepreneurs need self-awareness early on	Building Youth Entrepreneurial Capacity
<i>Early Stage need for Skill Development</i>		
<i>Entrepreneurs Unaware of Own Limitations</i>		
<i>Student Interest Follows Examples</i>		
<i>Partnering with Academia 'a waste'</i>	Partnership Opportunities	
<i>Governments promote academia-industry partnerships</i>		
<i>Need for cross-border infrastructure in Africa</i>		
<i>Interacting with Innovators boosts employee engagement</i>	Partnerships Add value	Opportunities to Add value with Partnerships
<i>Large programs can partner with local innovators for physical resources</i>		
<i>Partners are key for different market</i>		
<i>Hubs need to strengthen pipeline from idea to growth</i>		
<i>No Actionable Knowledge, No Daily Considerations</i>	Want to Know More	
<i>Doing all we know</i>		I want to know and do more Eco in my business
<i>I know and do a bit for the environment</i>		
<i>Clean Energy Priorities but Incomplete Knowledge</i>		
<i>Electronics for the Environment</i>	Ready to Do More	
<i>Eco Sustainability Offers Good PR and Money Savings</i>		
<i>Environment Conservation in Manufacturing</i>		
<i>Funders Redirect Otherwise Supportive Client</i>	Stakeholders Set Criteria for Each Other	
<i>Listening to Entrepreneurs First</i>		
<i>Unrealistic Expectations from Funders</i>		
<i>Funders Initiate Specific Green Programs</i>		
<i>RW Govt Goals for Local Production Jobs</i>		
<i>Funder Criteria Not Aligned to Reality</i>		
<i>Innovator+ support- GAP- Large Org+ Credibility</i>	Entrepreneurs seek Appropriate mentors	
<i>More than Mentorship needed</i>		
<i>Need for Advocacy</i>		
<i>Mentor Availability</i>		
<i>Hub / Management Certifications Available</i>	Building credibility	
<i>Lighthouses bring interest, \$ and Resources</i>		
<i>Hubs Branding and Selling their Methods</i>		
<i>Credibility Brings Follow on Investment</i>		
<i>Resources Limit Alumni Support</i>	Utilizing Hub Alumni	
<i>Alumni Support the Hubs they Graduate</i>		

<i>Alumni Examples Motivate Students</i>		
<i>Lighthouses bring interest, \$ and Resources</i>		
<i>Want to know About the Hubs Upfront</i>	Improving the hub process	
<i>Repeat Content</i>		
<i>Importance of Selection Committee</i>		
<i>One Sided Partnerships- Money/IP</i>	Picking Partners and Supply Chain	
<i>Finding Fabricators like a black market</i>		
<i>Finding and purchasing capital equipment</i>		
<i>Making Production Quality Products</i>		
<i>Co-developing product and Business Model</i>		
<i>Creating a Makerspace/ Pilot Manufacturing Workshop</i>	Facilitating (Electronics) Innovators - Entrepreneurs see a gap	
<i>Training and Hub for 4th Industrial Revolution</i>		
<i>Alumni starting hubs</i>		
<i>4th Industrial Rev Readiness in Kenya goals</i>		
<i>Hubs Focus on Unemployment</i>	Hub Trends & Priorities	
<i>Hubs need to strengthen pipeline</i>		
<i>Hub and Manager Accreditation Rising</i>		
<i>Hubs Impacting beyond Startups</i>		
<i>Solar as a means for Greater Social Impact</i>		
<i>Hubs Broader than just Kenya</i>		

Role

Priorities

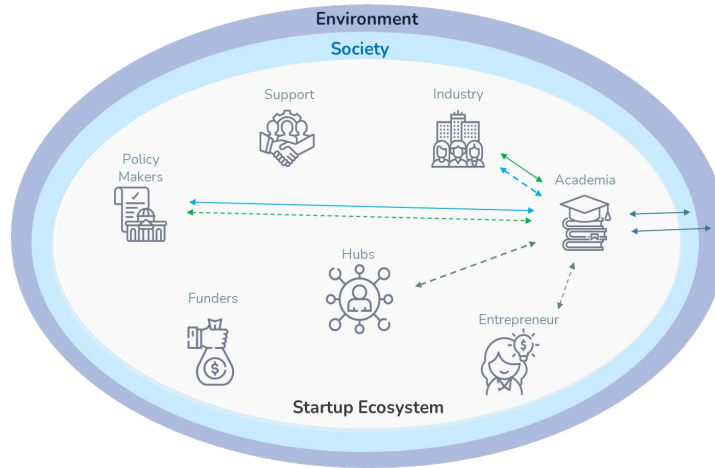
Interactions

Opportunities

Academia

Employ and develop competent and effective citizens

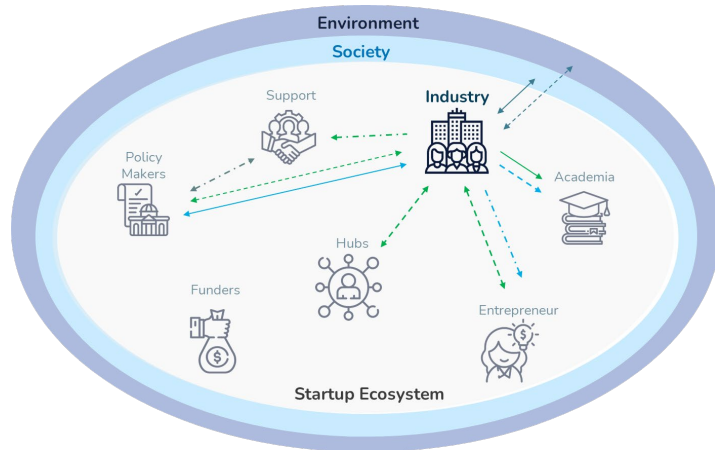
- Cultivate their reputation for doing so



- Create and formalize relationships to facilitate career pathways for students and drive interest in the school.
- Engage with entrepreneurs to expose students to new technology, to spark interest in entrepreneurship, and to support practical applied projects for students.

Industry

- Develop internal innovation processes
- Support ecosystem innovation in alignment with corporate social responsibility goals
 “By giving young girls an incentive to apply themselves to the issues they face using technology, we hope to nurture the next generation of home-grown innovators,”



- Medium and large companies focus more on economic efficiency and miss opportunities to utilize the ecosystem to inspire innovation, facilitate environmentally friendly value chains, and access a larger talent pool.
- Large companies have an opportunity to identify potential acquisition or co-development opportunities with hubs and entrepreneurs

Role

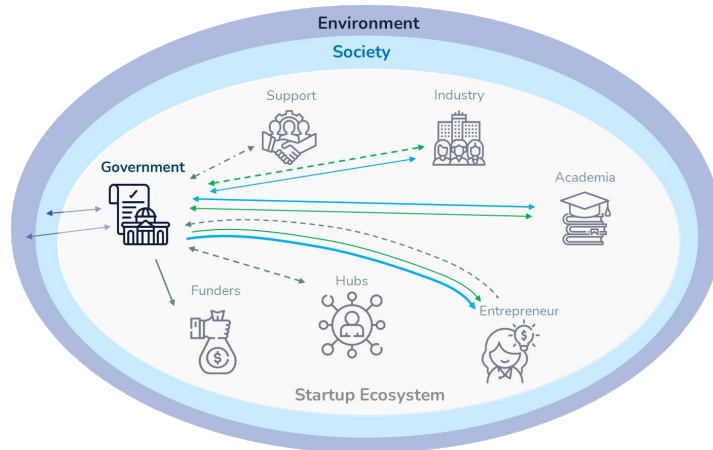
Priorities

Interactions

Opportunities

Policy Makers- Government

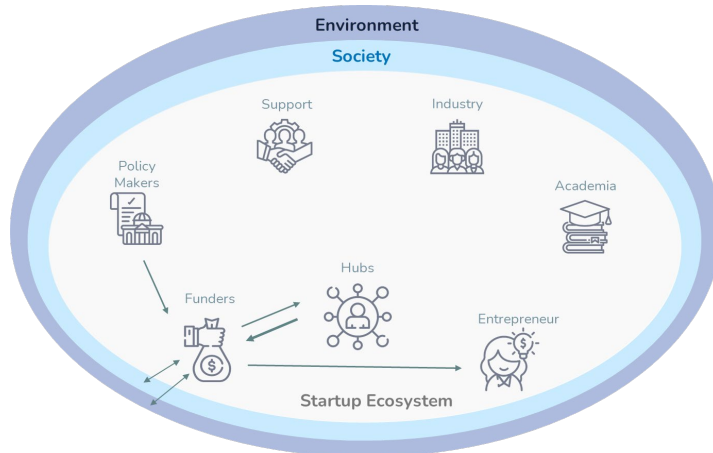
- Driving economic growth through innovation and entrepreneurship.
- Creating policies and programs to support entrepreneurship
Rwanda has a more hands on approach toward this than Kenya



- Improve the process of getting feedback from other stakeholders
- Set bold targets aimed at protecting the environment and promoting social equity

Funders

- Make the biggest impact
Investors value clear expectations , digestible company information, and a strong hub brand.
"Make it easy. Pack [company pitches and information] up nicely and more investors will come"



- Actively seek partners among government, hubs, universities or NGOs to structure appropriate financing with reduced bias

Role

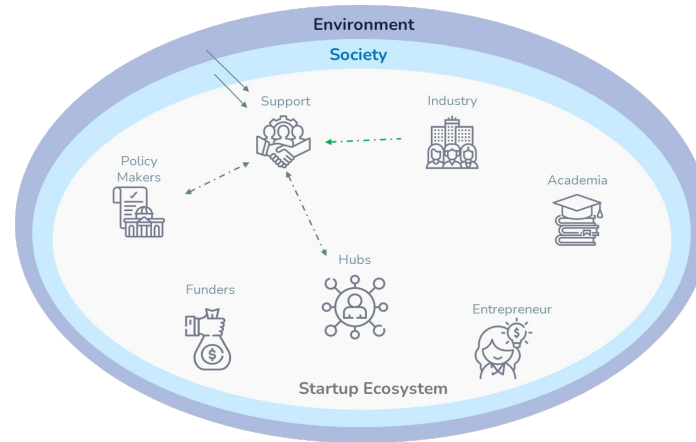
Priorities

Interactions

Opportunities

Hub Support

- Organize, build capacity, and capabilities of innovation hubs.
- Serve entrepreneurs better by improving communication among hubs
- Bring in funders for the hub community



- Pool resources for hubs and present hub strengths to other ecosystem players

Appendix 3- Hub Journey Map

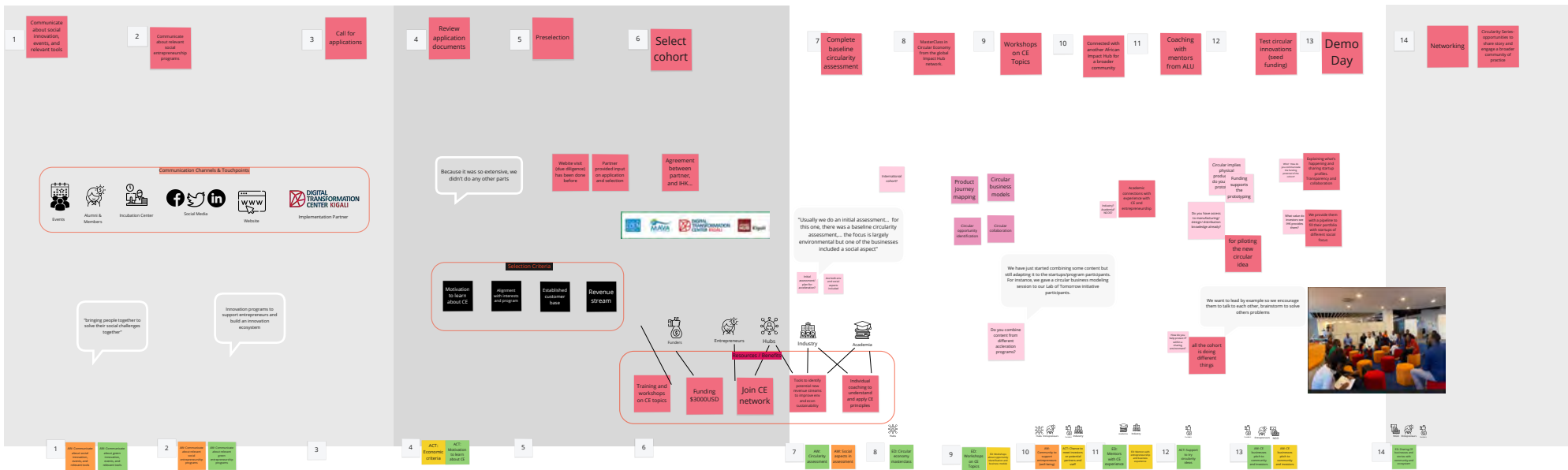
- Completed Journey Map (1)

Awareness

Evaluation / Selection

Experience

Follow Up



5/14

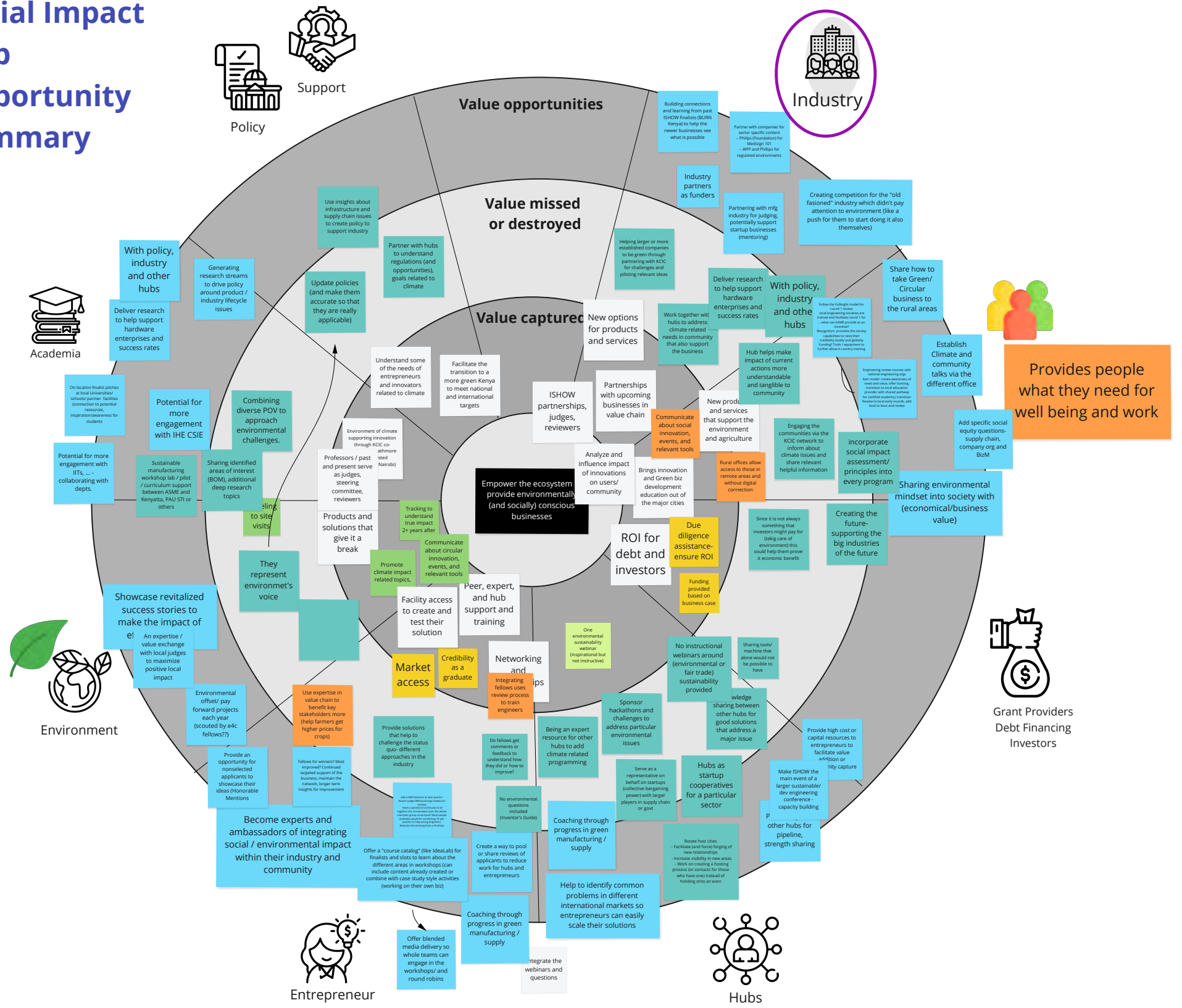
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Appendix 4- Value Maps

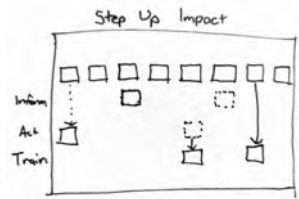
- Social Impact Hub Opportunity Summary (1)
- Tech Hub Opportunity Summary (1)
- Academia Hub Value Map (1)

Social Impact Hub Opportunity Summary



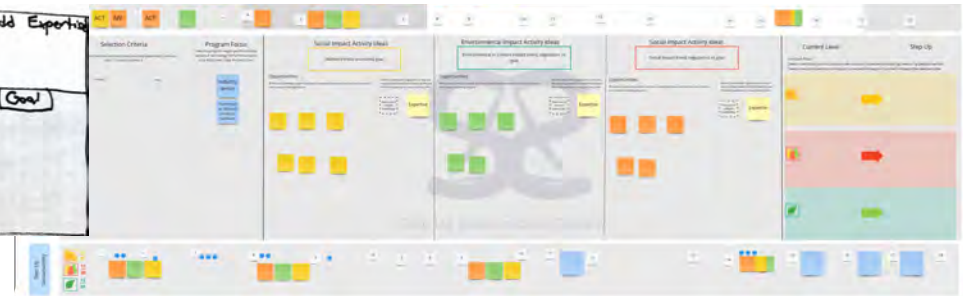
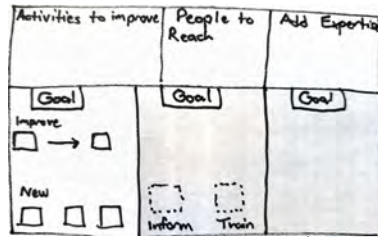
Appendix 5- Ideation

- Second Round of Ideation for Journey design (1)

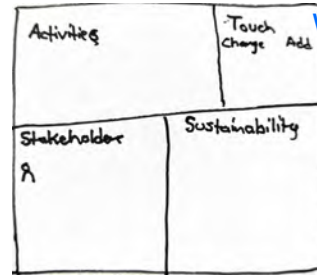


Ideation 2

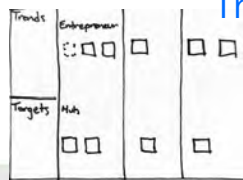
Impact Level increase



Walking through the Reflections



Trend Driven



Building Relationships with Existing Partners

Appendix 6- Sustainability Journey Iterations

- Reflection Questions for Workshop session (1)
- Sustainability Journey Version 1 (1)
- Sustainability Journey Version 2 (1)
- Final Sustainability Journey (3)

Reflection Questions Revision 1

Activities

- If there are Selection criteria in the Evaluation phase, are there activities aimed at influencing each of these criteria? Place a star next to any selection criteria without activities.
- How do we help uncover entrepreneur's "unknown unknowns"?
- Do we allow for custom support for entrepreneurs based on their needs?
- Are there missed opportunities to use our or our partner's expertise?
- Are there any choices made in operations that provide an example of sustainable impact for the entrepreneurs? Add these Action level activities to the experience phase under the main program activities
 - le Social- Do you actively consider hiring staff from different parts of the country, gender, and previous experience? Do you engage in volunteer activities (umuganda) as a organization
 - Environmental- Do you conserve electricity, recycle? Do you use refillable water jugs instead of bottles?
 - Economic- How do you update your own business model? How do you determine which programs, resources, and benefits to offer?
 - Do you call attention to any of these operational choices? Do they influence what you teach, how you teach, or what resources you provide for entrepreneurs?

Stakeholders

- Are there stakeholders who are participating in only the Awareness, Evaluation, or Follow Up phases?
- If there is one stakeholder closely involved with the program, who can be added to provide a different perspective for the entrepreneurs?
- Are there missing stakeholders who could add value to the program?
- Are there relationships based on informal or personal connections that could be strengthened?
 - Ex. Hub manager has a neighbor at the local University. If the hub needs mentors or judges, his neighbor usually gathers 3 or 4 volunteers → The local university has the hub on its calendar and coordinates judges and mentors in partnership with the hub

- Touchpoints
 - Are there groups who are excluded from certain parts of the process because of the touchpoints used? (Equal access → social impact, Action)
 - ie. Is the program application downloadable or offered in paper? Is the website/ program application mobile friendly?

Evaluating Sustainability Impact

- Can we, as a hub, take actions to lead by example?
- Do our activities and impact align with where the technology, industry, or country are going?
 - How can we adjust our activities to better prepare entrepreneurs for this?

Targets and Comments

- Consider the stakeholders identified by stars in the previous reflections. How do they view and interact with innovators? What is their expertise? How can this help entrepreneurs? Do they have any goals or aspirations to engage more in innovation or sustainable development?
- Consider the activities and criteria identified by stars in the previous reflections. What are the goals and initiatives relating to these topics?
- Whose perspective do we have little knowledge of?

Sustainability of Actions

- Is the purpose and value proposition clearly visible in the areas of sustainability impact?
- How can we increase the level of impact of each activity or interaction?

Stepped up Sustainability

- Are there at least 2 pillars represented in the improvements?
- Are there a mix of short and long term improvements?
- What are ways we positively impact 2 sustainability pillars while ensuring no negative impact on the third?

Journey Revision 1

Add a quote from a partner, team member, or entrepreneur about why they appreciate the program

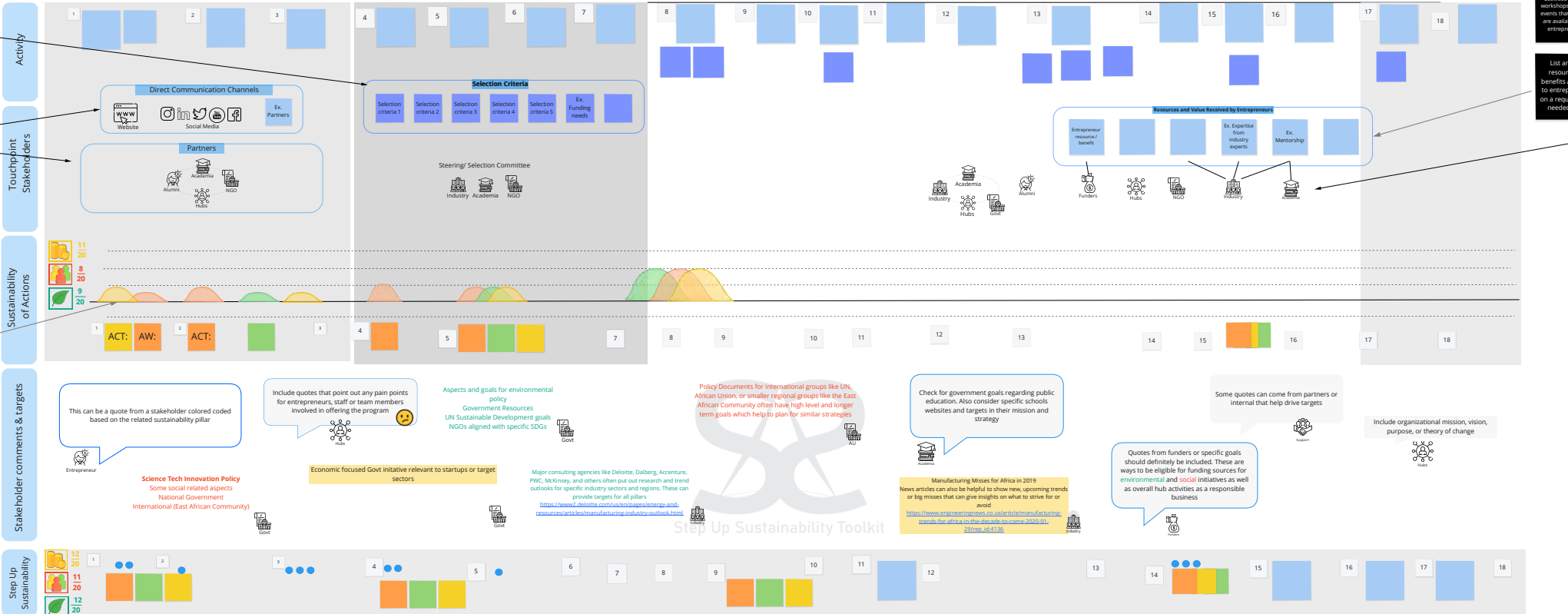
Fill in the ESO mission and
Insert the triple bottom line value proposition

Awareness

Evaluation / Selection

Experience

Follow Up



In experience, activities refer to workshops, seminars, events that apply or are available to all entrepreneurs.

List any key resources or benefits available to entrepreneurs on a request or as needed basis

We care about "social innovation," that is, solving social and environmental issues through enterprise. We believe a focus on users and customers ensures sustainable and scalable solutions. We are a global network of engineers, makers, dreamers, designers, investors and entrepreneurs.

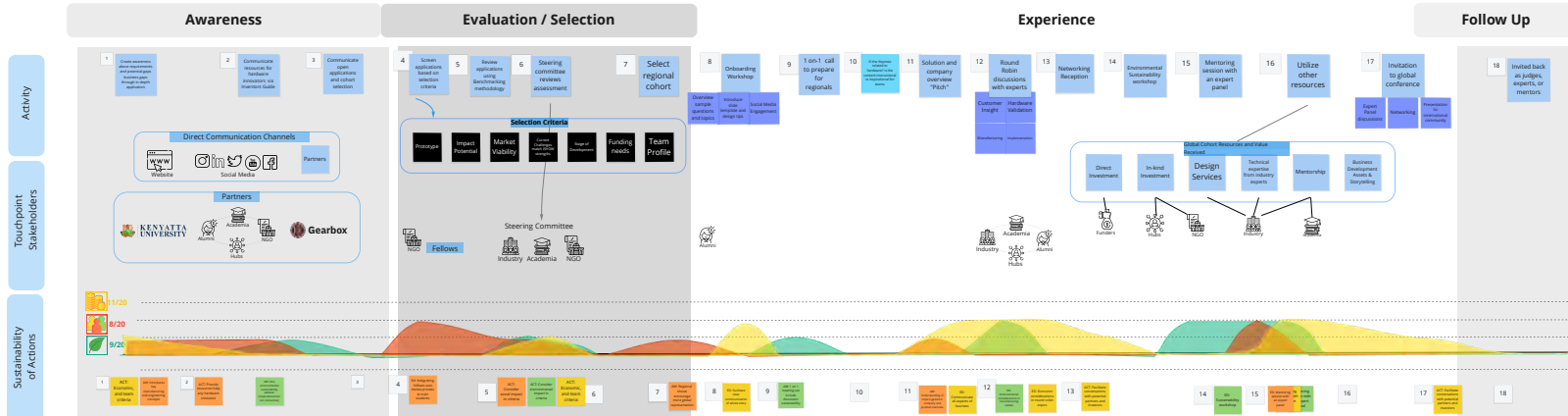
Vision: Social empowerment via improved engineering engagement & scalable, suitable solutions

What is your environmental impact goal?

What is your social impact goal?

What is your economic impact goal?

Brainstorm trends



5

Selection Criteria

Each criteria that does not clearly have an activity supporting it, come up with 1-2 ideas to address it

Criteria	Met	Not Met
Propriety	James	
Impact Potential	Iana	<input checked="" type="checkbox"/>
Market Viability	Andrew	
Team Profile	Jonathan	<input checked="" type="checkbox"/>
Legal	Adam	
Funding Needs	Leah	

Program Focus

Does the program target specific industry sectors or technology? Write the sectors on an sticky note. Copy into each row.

Technology: physical product / hardware

Agriculture WASH

Health / Safety

Economic Impact Activity Ideas

Market trends/ economic goal (Gov, AU, UN)

Opportunities

Identify stakeholder organizations that are also working toward addressing the goal. Write the expertise or resources they offer.

Expertise

Environmental Impact Activity Ideas

Environmental or climate impact trend, regulation, or goal

Opportunities

Identify stakeholder organizations that are also working toward addressing the goal. Write the expertise or resources they offer.

Expertise

Social Impact Activity Ideas

Social impact trend, regulation, or goal

Opportunities

Identify stakeholder organizations that are also working toward addressing the goal. Write the expertise or resources they offer.

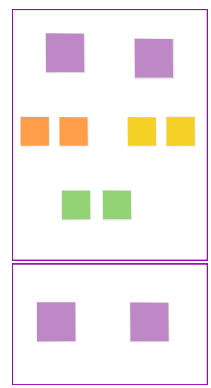
Expertise

Current Level 7

Step Up

For Each Pillar:
Select one impact activity and consider a way to increase its impact by level or by people reached
Select one activity without an impact score and reimagine it so that it impacts the selected pillar

→ → →



Reflection

Activities

- What are the developments or trends impacting the industries, technologies, or markets that include our entrepreneurs? List 2
- Are there any choices made in operations that provide an example of sustainable impact for the entrepreneurs? → Action Write down 1-3ub action that directly impacts each pillar.
- Are there activities aimed at influencing each of the Selection criteria in the Evaluation phase?

Touchpoints

Are there groups who are excluded from certain parts of the process because of the touchpoints used? (ie. Is the program application downloadable or offered in paper?)

Stakeholders

- Are there missing stakeholders who could add value to the program?
- Identify organizations within these stakeholder groups whose goals align with their relationships based on informal or personal connections that could be strengthened?

Sustainability of Activities

- Is our hub purpose clearly visible in the areas of sustainability impact?
- How can we increase the level of impact of each activity or interaction?
- How can we increase the level of impact of each activity or interaction? For each activity without a Sustainability impact, come up with a modification of the activity to make it more impactful.

Stakeholder Targets and Comments

- Consider the stakeholders identified by you in the previous reflections. How do they view and interact with innovators?
- What is their expertise? How can this help entrepreneurs? Do they have any goals or aspirations to engage more in innovation or sustainable development?

Stepped up Sustainability

- Can we, as a hub, take actions to lead by example and increase our impact in key areas?
- Are there at least 2 pillars represented in the improvements?
- Are there a mix of short and long term improvements?
- What are ways we positively impact 2 sustainability pillars while ensuring no negative impact on the third?

Sustainability Journey

Journey Board

Place logo here

Mission:

1.1) Write down the impact goal for each sustainability pillar

Program goal related to social impact

Program goal related to economic impact

Program goal related to environmental impact

Program Journey (2-6)

Awareness <small>How the hub tells people who they are, what they do, when to apply</small>	Evaluation / Selection <small>How the hub determines which applicants will become participants</small>	Experience <small>How the hub supports and interacts with participants</small>	Follow Up <small>How the hub interacts with alumni</small>
---	--	--	--

Activity

2.1) What does the hub do to prepare and execute the program? Write the activities in each phase on a sticky note. List any resources in Experience

Activity Impact

3) How do the activities help reach an impact goal? Write this down on a sticky color corresponding to the impact goal.

Touchpoints & Locations

4.1) Where do you connect with people? Place an icon to show the touchpoints/ locations that match each activity.

Stakeholders

5.1) Who provides expertise or connections? Place an icon to show the stakeholder groups that support each activity.

Visualizing Impact

6) Place the Impact Level indicators on the axis to visualize the impact of each activity. Align each indicator under the corresponding activity above

Social

Economic

Environmental

Next Steps

8.2) Place the three ideas to test first from 10.2 in the appropriate box. Identify stakeholders who may provide resources needed

1

2

3

Place other ideas to incorporate into the program here

Reflecting on Goals

1.2) Write down the goals and trends affecting innovation and your industry?

Ecosystem goals/ trends related to social impact

Ecosystem goals/ trends related to social impact

Ecosystem goal / trend related to environment

Reflecting on Journey (3, 4, 5)

3.1) Are there any activities that can be changed to better address the goal? Copy them here
Write one way to modify each activity to better address an impact goal.

3.2) Are there any activities that don't align with an impact goal? Copy them here
Discuss and write 1 way to complete each activity that addresses an impact goal

4.2) Are there any groups excluded by the choice of location / touchpoint?
Write them here. Write 1 idea to reach each group

5.2) Are there stakeholders who can provide more value (network, expertise)? Place the stakeholder icon and list a specific organization or person. Write down the additional value.

Creating Ideas for Impact (7)

Program goal related to social impact

Social Impact Activity Ideas

7.2) What are **new ideas for activities** to address the goal above?
Consider the touchpoints and stakeholders in 4.2 and 5.2. Discuss and write them below.
Make sure to have at least one idea per impact level

Inform	Act	Train

Program goal related to economic impact

Economic Impact Activity Ideas

7.2) What are **new ideas for activities** to address the goal above?
Consider the touchpoints and stakeholders in 4.2 and 5.2. Discuss and write them below.
Make sure to have at least one idea per impact level

Inform	Act	Train

Program goal related to environmental impact

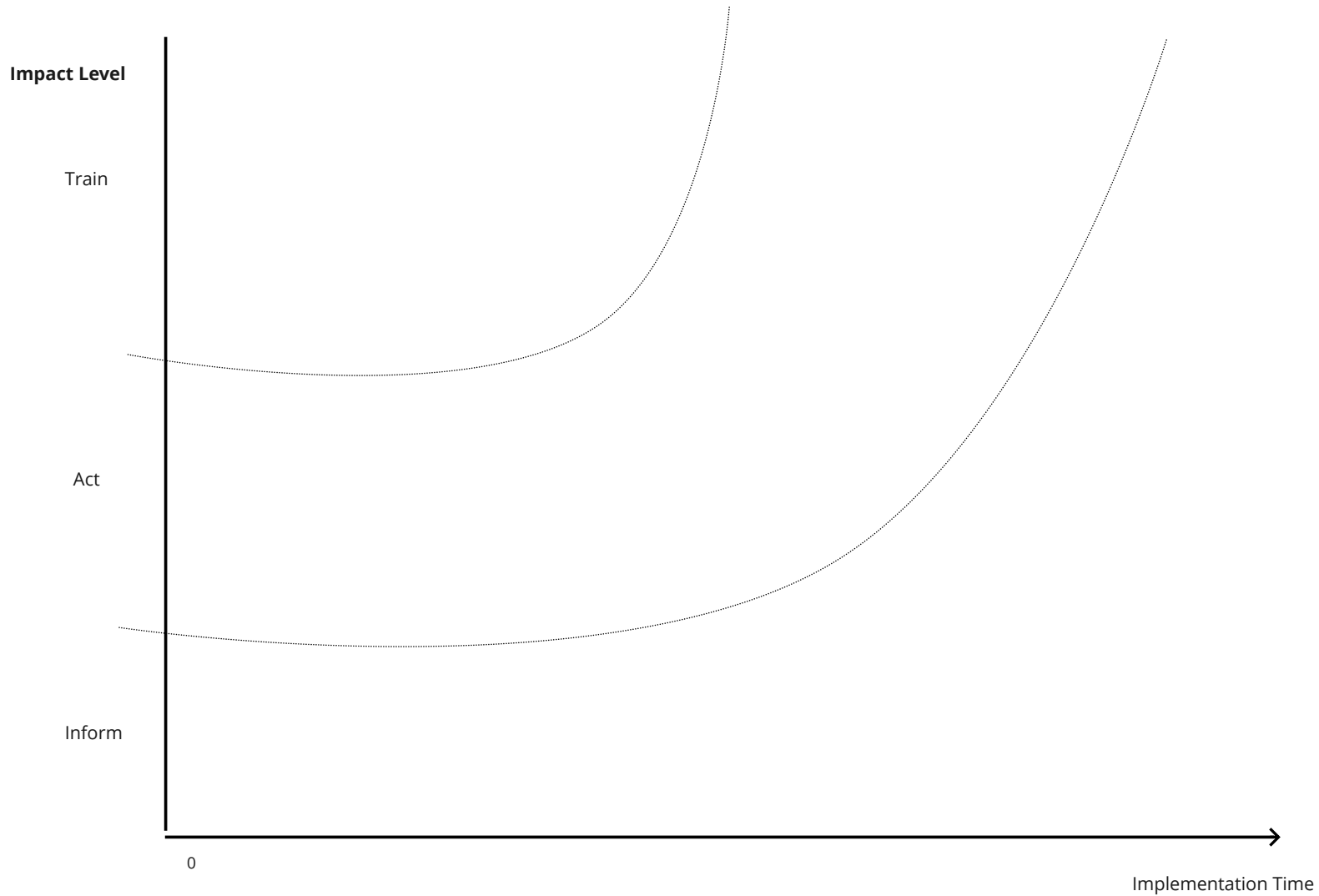
Environmental Impact Activity Ideas

7.3) What are **new ideas for activities** to address the goal above?
Consider the touchpoints and stakeholders in 4.2 and 5.2. Discuss and write them below.
Make sure to have at least one idea per impact level

Inform	Act	Train

Prioritizing Ideas (8)

8.1) Copy the activity ideas from parts 3, 4, and 7. Discuss the potential implementation time for each activity. Place the appropriate sticker on each activity to show approximate time to implement. Arrange the ideas according to the implementation time and the impact level. Select three ideas to pilot and implement first.



Appendix 7- Pilot Canvas Iterations

- Original Pilot Canvas for workshop sessions (1)
- Final Pilot canvas (1)



Sustainable Business Model Pilot Canvas

Define a plan to execute a small-scale pilot. And if you can't make it work right now, change it.

Answer the prompt at the top of each box on the sticky note. Add more if needed

WHAT IS THE IDEA?		
Idea for a small-scale pilot Describe the basic idea for a small-scale pilot around new sustainable product / service that you can quickly execute with available resources	User / Customer Define who will be the user / customer of the product / service provided in the small-scale pilot	Reason to buy / use Explain why the user / customer wants the product / service put forward by the pilot

WHY IS IT SUSTAINABLE?		
Sustainability impact Explain how the small-scale pilot is going to generate a sustainability impact and what is the business case related to this impact	Sustainability metrics Define one or more indicators to measure the sustainability impact generated by the small-scale pilot	Impact assessment For each indicator, note down the actual result after executing the small-scale pilot

HOW DO YOU MAKE MONEY?	
Costs Define all the costs needed to execute the small-scale pilot and how such costs are shared across stakeholders	Revenues Define all the revenues deriving from executing the small-scale pilot and how such revenues are shared across stakeholders

HOW DO YOU MAKE IT HAPPEN?		Small-scale pilot Date _____
People List the people / organizations involved in setting up and executing the small-scale pilot. You can assign them a different color here	Available resources Next to each person / organization, define what resources he / it brings to the table (e.g., knowledge, expertise, network and infrastructure). You can assign to each item the same color of the related person / organization	Building actions Next to each person / organization, list all the actions it has to perform. You can assign to each action the same color of the related person / organization. Assign a deadline to each action and mark it with a sign when it is completed
Partner 1 Partner 2 Internal Resource Internal Resource Other human resource		

HOW DOES IT WORK?	
User / Customer journey On this timeline, plot the sequence of actions that a user / customer has to do during the small-scale pilot	
Delivery actions On this timeline, plot the sequence of actions that the people / organizations working on delivering the small-scale pilot have to do in order to support each step of the user / customer journey. You can assign to each action the same color of the related person / organization	

More about the tool

This tool is a redesigned form of the sustainable business model canvas created by Baldassarre et al (2020) specifically to plan pilot activities in order to drive action after planning. The goal is to get quick feedback on an idea to allow improvement as needed as opposed to detailed planning and cost for an untested idea.

Baldassarre, B., Konietzko, J., Brown, P., Calabretta, G., Bocken, N., Karpen, I. O., & Hultink, E. J. (2020). Addressing the design-implementation gap of sustainable business models by prototyping: A tool for planning and executing small-scale pilots. *Journal of Cleaner Production*, 255. <https://doi.org/10.1016/j.jclepro.2020.120295> https://www.researchgate.net/publication/338860454_Addressing_the_design-implementation_gap_of_sustainable_business_models_by_prototyping_A_tool_for_planning_and_executing_small-scale_pilots

Pilot Canvas

Based on the Sustainable Business Model Pilot Canvas

Define a plan to execute a small scale pilot. If you can't make it work right now, change it

What is the idea?		
Idea for small scale pilot Describe the basic idea for a small-scale pilot around the new more sustainable activity/ program that you can quickly execute with available resources.	User / Customer Define who will be the user / customer of the activity / program provided in the small scale pilot.	Reason to attend / use Explain why the user / customer wants the activity / program put forward by the pilot

Why is it sustainable?		
Sustainability Impact Explain how the pilot is going to create a sustainability impact and what is the business case related to this impact.	Sustainability Metrics Define one or more indicators to measure the sustainability impact created by the pilot.	Impact Assessment For each indicator, write down the actual result after finishing the pilot.

How do you make money?	
Costs Define all the costs needed to execute the pilot and how such costs are shared across stakeholders	Revenue Define all the revenues coming from executing the pilot and how such revenues are shared across stakeholders

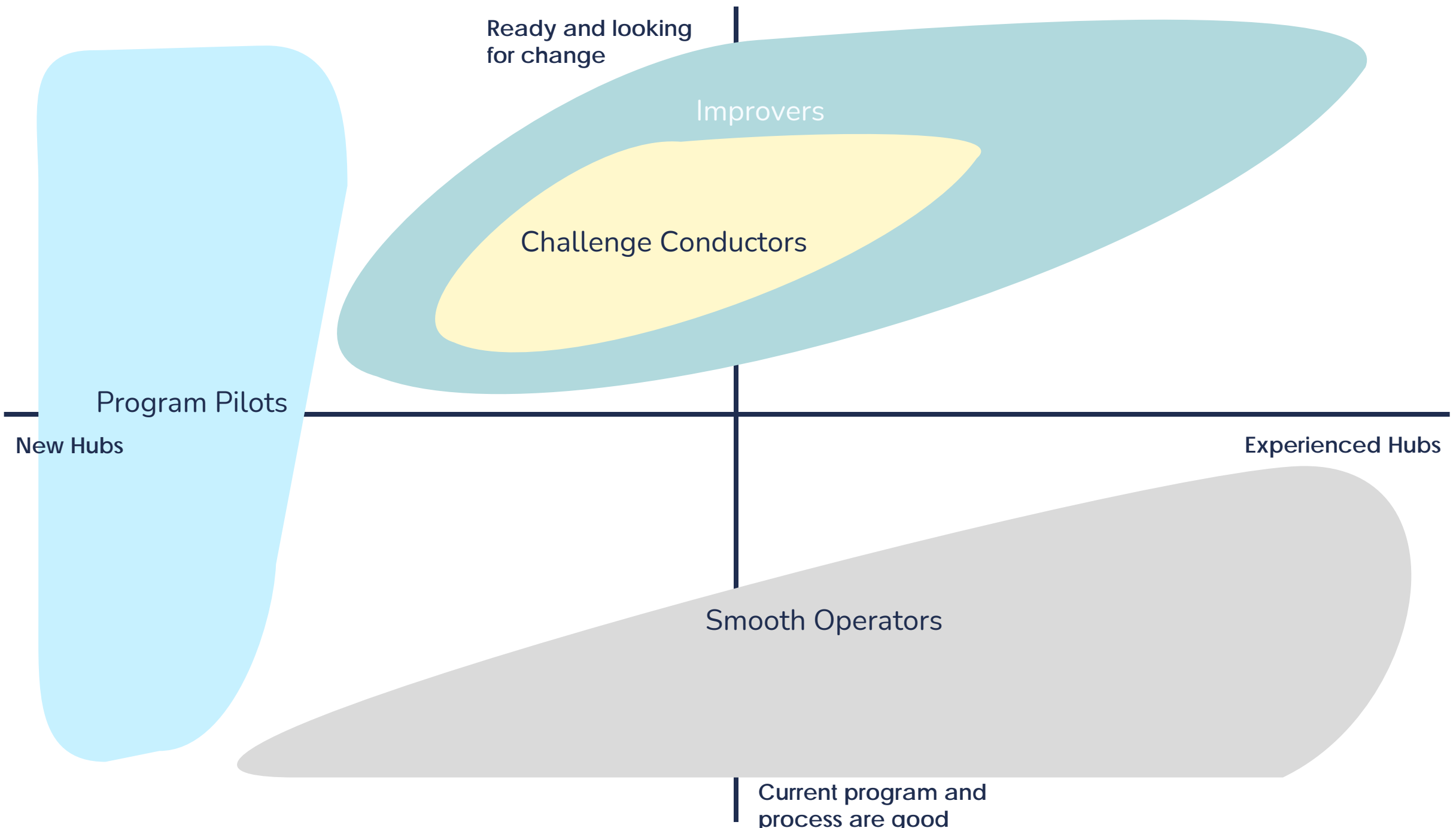
How does it fit with other activities?	
Requirements Define any changes to criteria or skills requirements needed for the idea	Activities Define any changes needed to activities as a result of the idea. Consider activities occurring before and after the idea.

How does it work?
<p>User/ Customer Journey On this timeline, plot the sequence of actions that the user / customer has to do during the pilot</p>
<p>Delivery Actions On this timeline, plot the sequence of actions that the people / organizations working on delivering the pilot have to do in order to support each step of the user / customer journey. You can assign to each action the same color of the related person organization. Also consider any changes to planning or program preparation needed to deliver the pilot before the program</p>

How do you make it happen?		
Small Scale Pilot Date :		
People List the people / organizations involved in setting up and executing the pilot. Consider existing stakeholder relationships that may offer value. You can assign each person a different color here	Available Resources Next to each person / organization, define what resources they / it brings to the pilot (Ex. Knowledge, expertise, network, and infrastructure) You can assign to each item the same color of the related person / organization	Building Actions Next to each person / organization, list all the actions it has to perform. You can assign to each action the same color of the related person / organization. Assign a deadline to each action and mark it with a sign when it is completed.

Appendix 8- Target Group

- Segmentation axes (1)
- Persona- Program Pilots (1)
- Persona- Smooth Operators (1)
- Persona- Improvers (1)
- Persona- Challenge Conductors (1)



Ready and looking
for change

Improvers

Challenge Conductors

Program Pilots

New Hubs

Experienced Hubs

Smooth Operators

Current program and
process are good

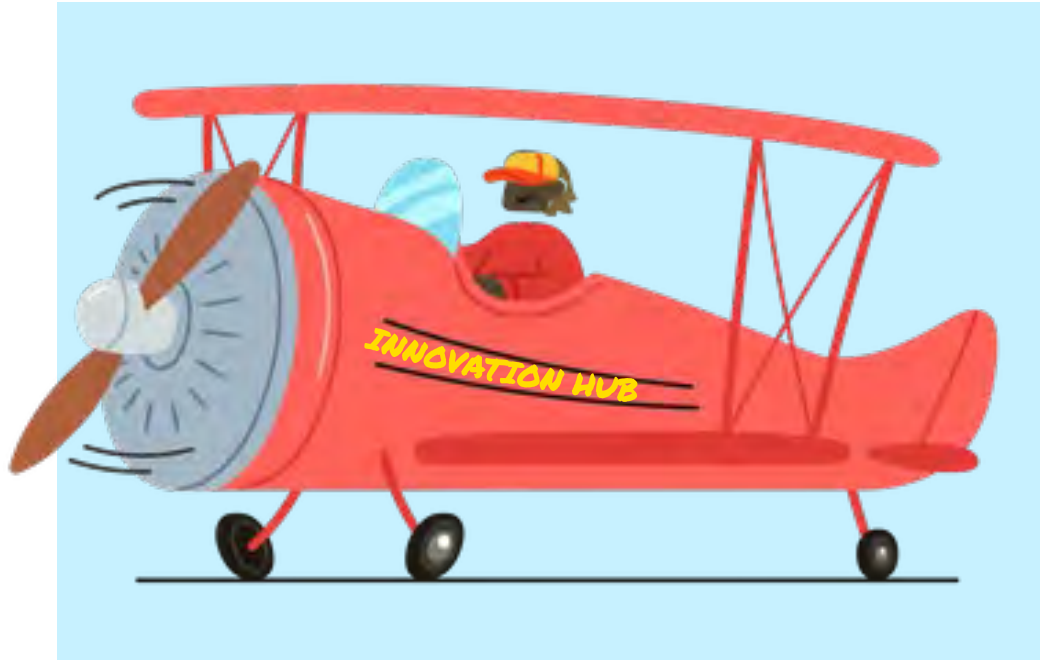
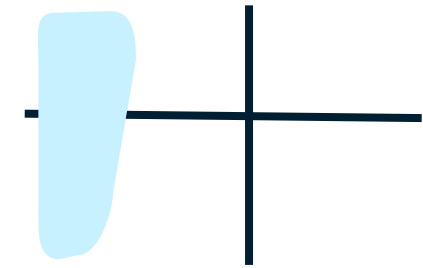
“Program Pilots”

New

Funding driven

Sustainability conscious

“Lean”



“We understand the frustrations and dreams of students to become IT innovators “

Program Pilots

They are new hubs and innovation programs. In line with the entrepreneurial spirit, they focus on designing and executing their pilot. They are likely to be 3BL sustainability conscious due to its prominence in the innovation space. However, **their expertise, the ecosystem needs, and funding availability may lead them in a variety of directions** if they don't understand incorporate sustainability as an approach.

Motivations

- Giving back to their communities and helping the next generations
- Filling a gap in the ecosystem to make the road easier for those following

Needs and Challenges

- Finding or raising funding
- Establishing their credibility
- Unclear guidance or path to creating a hub
 - Existing support costs money they don't have

“How can I convince someone of my ability? Even if I'm an innovator myself, it's not easy”

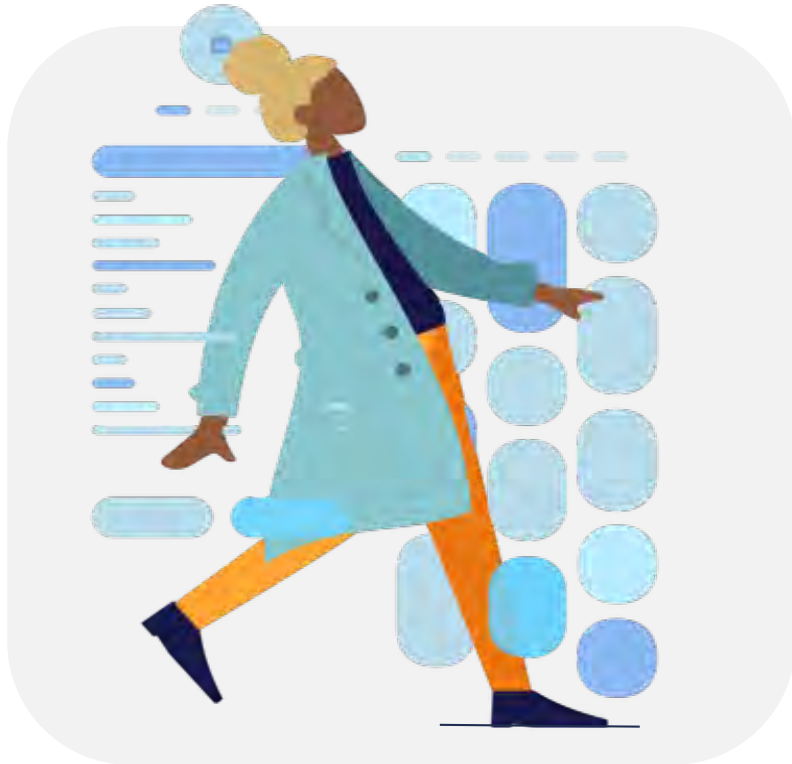
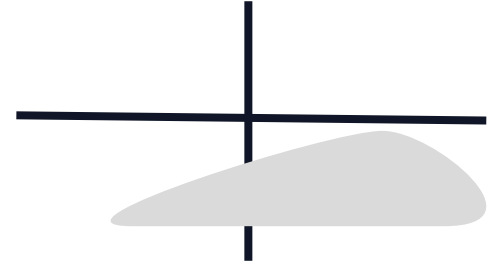
“Smooth Operators”

Veterans

Confident

Efficient

Pragmatic



“We have a set of tools we use and teach to design programs for hubs“

Smooth Operators

Goal: Execute their program with efficiency and service

They are the veterans. They know their mission and their program well and execute on both with efficiency. They may also have a program review process and schedule. These hubs may be part of larger franchises. They are sensitive to shifts, but not easily tossed by them. They consider new opportunities and methods carefully for strategic alignment

“We currently work toward social impact and prosperity while striving not to harm environment”

Motivations

- Providing high quality services and programs
- Becoming leaders in their physical locations and area of focus

Needs and Challenges

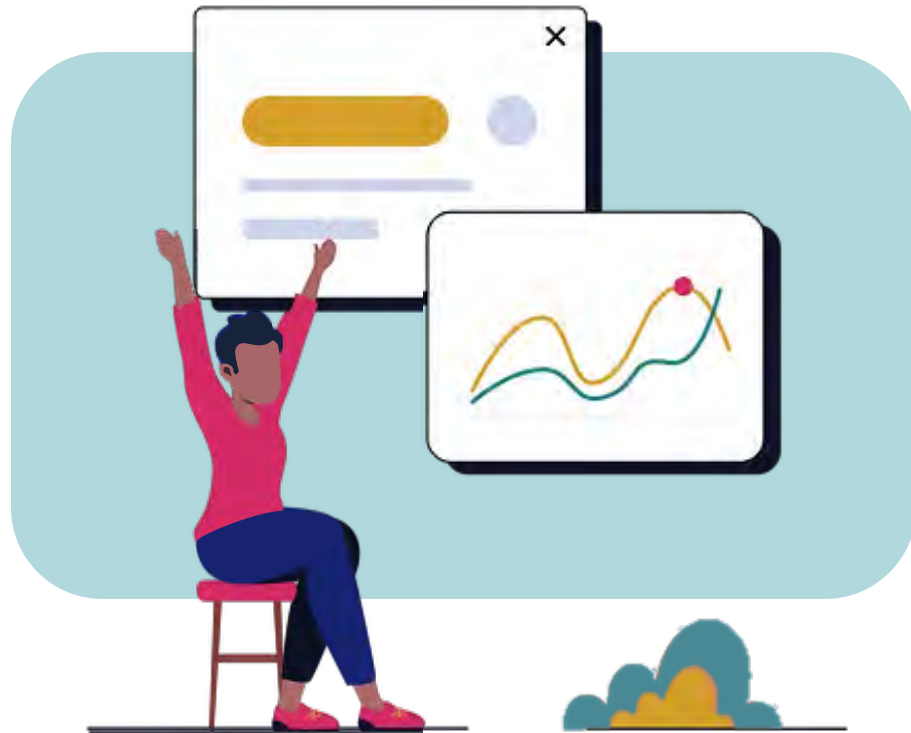
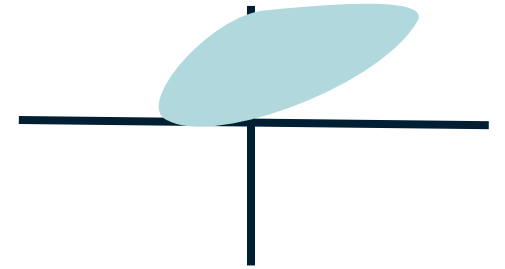
- Increasing credibility

“Improvers”

Moderate Experience

Growth Mindset

Curious



Improvers and Sustainability

Goal: Create more impact with their resources

They are hubs actively seeking ways to improve, and grow their impact beyond economic development. They may have been working for years or just finished their first program.

“The best part is interacting with brilliant people and hearing their stories”

Motivations

- Doing more for the communities and entrepreneurs they support
- Reaching new people and locations

Needs and Challenges

- Optimizing current hub resources
- Growing and scaling current programs to reach more people
- Addressing new needs in areas related to their current program

“We’ve seen the need across Africa, the question is how do we scale to meet that need effectively?”

Persona- Challenge Conductors

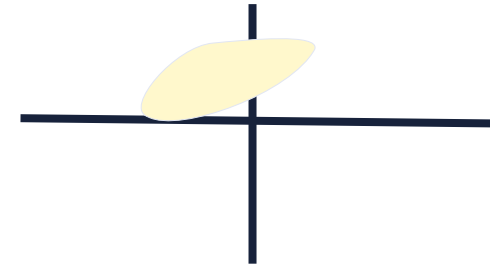
Big Picture Oriented

Multitaskers

Well funded



“One of our goals is to ensure we support the local hubs. That’s why we work with implementing partners“



Challenge Conductors

Goal: Use their unique expertise and resources to build capacity
These are larger programs and organizations with a presence in multiple countries. They are often experts in a particular industry sector or focus area. This size and expertise gives these organizations unique resources to share, but they also have less understanding of context and on the ground resources.

“I have a waiting list of colleagues excited to work with entrepreneurs in Africa”

Motivations

- Supporting smaller, and growing ecosystems
- Connecting entrepreneurs with unique support opportunities
- Supporting their organization’s CSR / impact mission

Needs and Challenges

- Finding and coordinating with implementing partners
- Conducting due diligence with large applicant pools
- Balancing challenge consistency for funders with flexibility for implementing partners

Appendix 9- Roadmap

- Final Roadmap (1)
- Table of Behavior Change Interventions and Application in Clink (1)

ASME cultivates sustainability of innovation ecosystems by setting the standard for programs and platforms for impact. ASME leverages expertise in innovation and sustainable development to achieve these goals.

Horizon 1 FY 2023

Facilitating sustainability culture one hub at a time



Positive sustainable impact through hubs and entrepreneurs

Horizon 2 FY 2025

Growing impact ecosystem capacity through collaboration



A community of sustainability experts and practitioners support innovation, starting with climate action

Horizon 3 FY 2027

Driving sustainability for all through innovation pipeline building



Sustainability approaches spread from impact focused stakeholders to all

Table of Current and Clink Interventions to Support Sustainable Business Behavior

The highlighted cells indicate key interventions for Clink to provide value to hubs and increase the positive impact to entrepreneur skills and behavior areas

	Intervention	Definition	Current Hub Interventions	Clink Interventions for Hubs & Entrepreneurs
Capabilities	Educate	Increasing knowledge or understanding	(Inform) Blog posts, pre/post assessment, application, mentoring Conferences for ecosystem	Clink chats and information resources increase knowledge for hubs; Information and Connector can do this for entrepreneurs also
	Train	Imparting skills	(Education) Workshops within a program, mentoring	Clink chats or Connector (likely for \$) can help train hubs/ staff or identify trainers Connector facilitates workshops in new areas for entrepreneurs.
	Model	Providing an example for people to aspire to or imitate	Supply mentorship / alumni speakers	Toolkit encourages hubs to make current actions visible and purposeful to model for entrepreneurs Hubs, academia & industry model for each other through Information Sources, Connector, and Clink Chats
	Enable	Increasing means or reducing barriers to increasing a capability or opportunity	Funding for various direct (ex. pilot test costs) and indirect (ex. travel to conference)	Toolkit facilitates identifying opportunities for entrepreneurs/ hub Connector reduces barriers to increasing capability by finding resources
	Incentivize	Creating expectation of reward	Funding, in kind investment, benefits for challenges and program acceptance	Toolkit (Targets) helps identify resources (capacity and \$) for hubs and entrepreneurs incorporating certain sustainability elements
	Coerce	Creating expectation of punishment or cost		
Opportunity	Restrict	Reduce/ increase the target behavior by using rules to reduce the opportunity to engage in the target / competing behaviors		
	Restructure Environment	Changing the physical or social context	Placing hubs in school class areas; Sharing entrepreneur success stories	Clink chats bringing social and environment into otherwise funding focused conversations; Toolkit guiding hubs to consider who to partner, impact of operations on social context / culture of hub
	Enable	see above		
Motivation	Persuade	Using communication to induce positive or negative feelings or stimulate action	Bringing in guest speakers and alumni to promote entrepreneurship, perseverance, etc	*Clink Chats
	Model	see above		
	Incentivize	see above		