A set of iterative excercises, simply known as the...

ECOSYSTEM TOOLKIT

v0.3 (December 2021)

The toolkit is largely based on and inspired by
Simone Cicero's Platform Design Toolkit* (CC 4.0 BY-SA).

Forked from Toolkit for Digital Ecosystem Design v0.1
by Ville Eloranta (CC 4.0 BY-SA)

Are you looking to understand the growing complexities in your business environment? Or simply planning for a brighter future? Here is a toolkit for you!

This toolkit contains a series of exercises to you to design your ecosystem with an open mind. It focuses on outlining the complex interlinkages among loosely-coupled actors, or ecosystem members. While the toolkit draws from the principles of platform economy and digital ecosystems, you can use the tool in any context. Moreover, using this tool may reveal that you don't need an ecosystem approach in your case!

The kit is based on the following principles:

- Ecosystems are based on complementarities and complex interlinkages among **loosely-coupled partners**.
- Ecosystem **allows new solutions to emerge through the reallocation of existing resources and capabilities in a business network**.
- An ecosystem designer must identify how **ecosystem interactions can be facilitated and steered to desirable directions**.

The toolkit focuses specifically on

1) mapping the ecosystem's mission, members and roles,
2) creating the ecosystem's member profiles,
3) understanding the different stakeholders' goals and needs,
4) exploring the actions that take place in the ecosystem,
5) identifying the different interactions and intermediaries,
6) defining the ecosystem's governance model, and
7) delineating the discreet signals for ecosystem participation.

Originally, the toolkit was made to support blockchain (and other DLT-based) projects. Among crypto-enthusiasts, there were a lot of ideological debates on how the next-level digital economy should be organized. While such ideological debates can be extremely interesting, they often shape people's opinions, also impacting ecosystem designs in uncontrolled ways. This toolkit is intended to offer unbiased approach to designing ecosystems for a variety of purposes. It builds on Simone Cicero's wonderful Platform Development Toolkit, which is slightly simplified and extended for a more general approach. There are also special components related to ecosystem governance design. And what is the best part? All this is tried and tested in dozens of projects!

CONTENTS

The Ecosystem Design Toolkit (EDT) has a series of assignments that are interlinked and partially build on top of each other.

However, it is very rare that any of the assignments will be perfected with one go – usually, multiple iterations using the different tools is necessary. If some of the exercises feel impossible to complete, it may be useful to take a step back and iterate one or more of the previous canvases. This suggestion is especially important on canvases that link directly to each other (e.g., Canvas 3 based on 1 & 2).

The following pages present suggestions for a path to follow with the exercises (grey boxes). The supporting aids (white boxes) provide tools for iterating and refining the analysis.

From the users:

Building an ecosystem starts with a value proposition and seeks to identify the set of actors that need to interact for the proposition to come about. As the ecosystem is based on common goals, beliefs and vision, **ecosystem members canvas** help us to identify who are members involved in our project and clarify the mission that members want to achieve together: providing and integrated healthcare services for citizens in the region. **Ecosystem member profiles** clarified the valuable assets and capabilities of members within this ecosystem. It is a way to better understand the characteristics of different members in the ecosystem and how could utilize capabilities to to achieve the ecosystem's mission**. Ecosystem motivation matrix** helps to identify potential value that ecosystem members bring to another member, giving insight into how members can exchange value. **Activities map** helps to identify the essential activity, necessary activities as well as supporting activities in the ecosystem. I feel this is the most valuable canvas because the most essential activities in the heart of the ecosystem are clarified – which of them are connected to the ecosystem's mission, or what other prerequisites or necessary activities are also vital to achieving goals, as well as for sustaining the ecosystem. Logical thinking is brought into the process to creating virtuous cycles and strengthen the operation, as a whole. We understand specific activities in the ecosystem and how relevant members collaborate. The last canvas **ecosystem interaction** identifies actors including intermediaries through which the interaction of each activity happens. Platforms create value by facilitating interactions. By doing this canvas, we understand the way members in the ecosystem interact and further generate marketing materials from both external and internal perspective.

Student in the Aalto Information Technology Program Aalto, Summer 2021

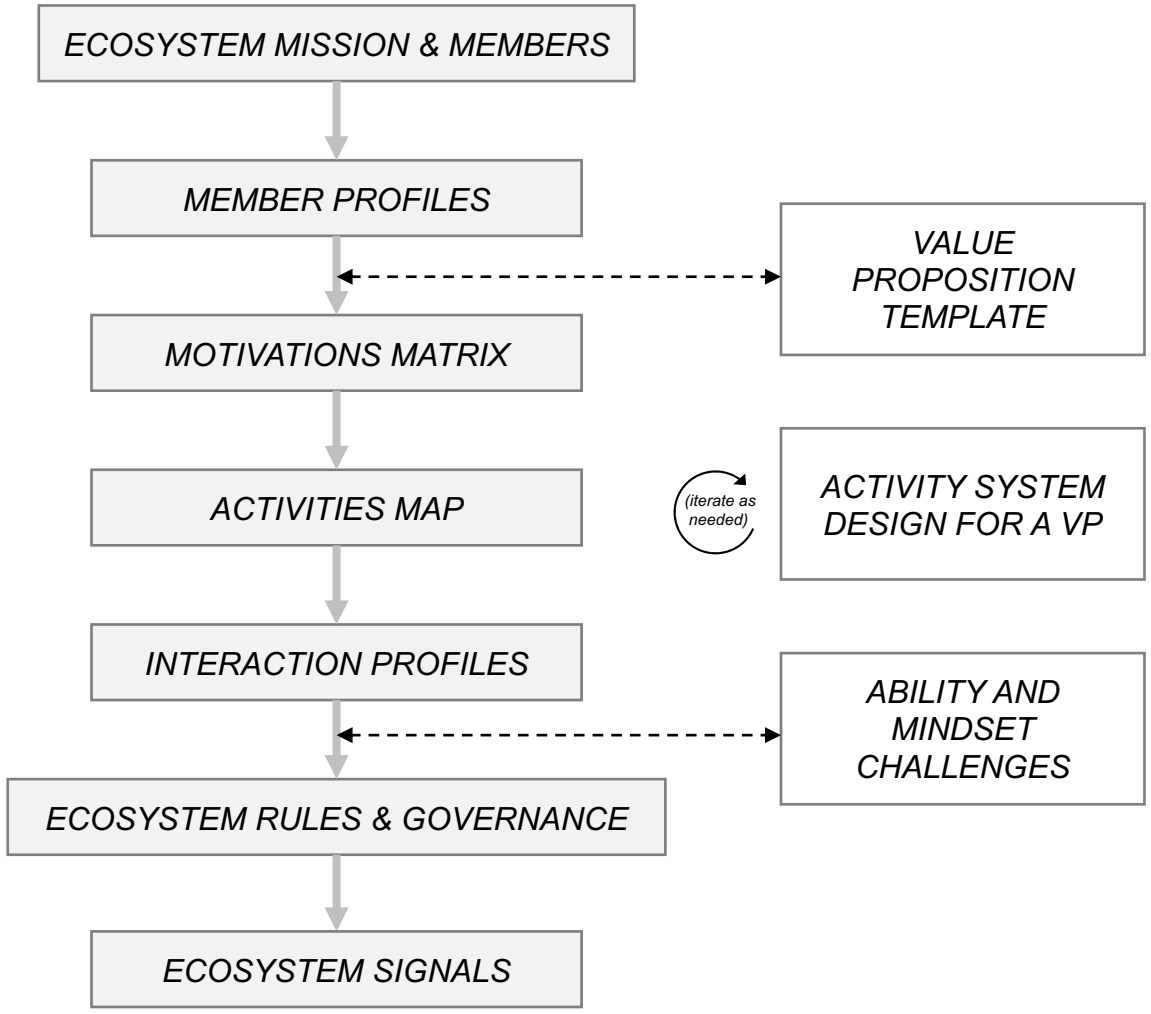
SUGGESTED STEPS AND ITERATIONS: ANALYZING AN EXISTING ECOSYSTEM

When you analyze an ”existing” ecosystem, you may benefit from a lot of existing (public) materials and knowledge, but also assumptions.

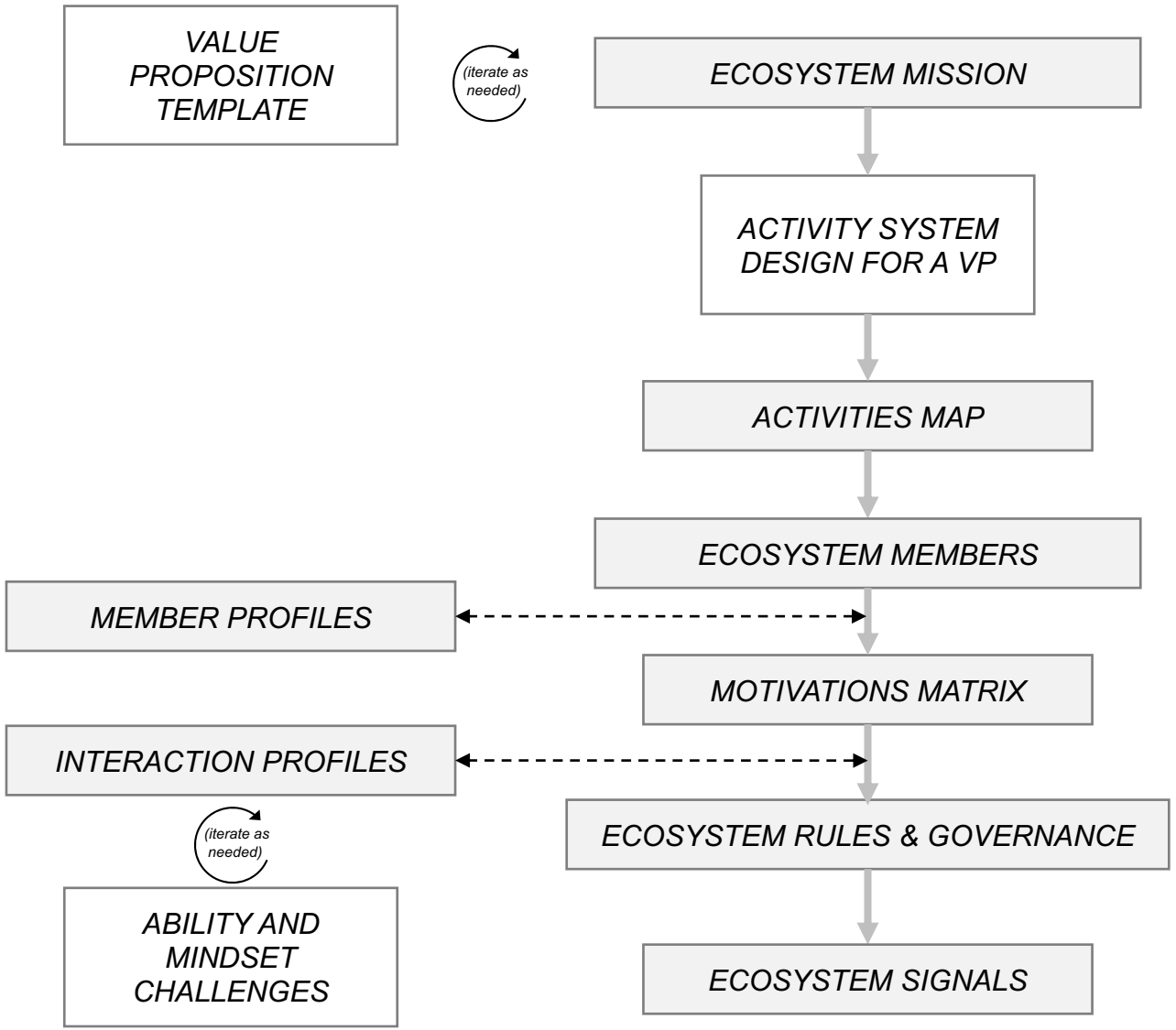
You can begin by defining the ecosystem mission and the known members. Delineate their profiles, and consider what each party could gain by partaking.

Activities mapping may help you to identify the ongoing interactions in the ecosystem and, hopefully, provide you with new insights that challenge the existing assumptions behind the ecosystem’s operation. Please be critical of your findings and consider how the activities are linked with the ecosystem’s mission and other sub-goals. Be ready to iterate your previous work based on your findings.

The final exercises will focus on understanding the rules and governance mechanisms of the ecosystem. These are important to facilitate fluid collaboration among the ecosystem members, which could be organized without centralized governance.



SUGGESTED STEPS AND ITERATIONS: DESIGNING A NEW ECOSYSTEM



When you are designing a completely new ecosystem from scratch, it is unlikely that you would know the different members and participants.

Thus, you should begin with the ecosystem's mission–what is the goal or purpose of the common activities? You can then take the idea further, and begin to consider how the mission could be divided into smaller segments, tasks, or sub-goals.

Based on these exercises, you can continue to mapping the different activities–which activities are needed to achieve the value, mission, or sub-goals of the ecosystem? Soon, you may also begin to identify some potential members of the ecosystem and their key characteristics (profiles).

Continue to map the members' motivations to participate and consider how the ecosystem rules and governance will be set. Also consider what signals the members will have to identify between participants and non-participants!

CANVAS 1
ECOSYSTEM MEMBERS
ADAPTED FROM SIMONE CICERO'S PLATFORM DESIGN TOOLKIT

To expand our focus beyond our direct customers, we need to map the space we operate in.

"Ecosystem Members" Canvas (Canvas 1) is used to map the members in the ecosystem you are working with. Fill the canvas using your case data.

1. **Write the ecosystem's mission to the center of the canvas**, if you are working with an ecosystem without strong a focal company. **Or** if you have a focal company-centric ecosystem case (like e.g., Uber), write here the **focal company's name** (and mission, if you know it)

2. **Identify the members of the ecosystem**: leaders & partners, contributors (members who provide something to the ecosystem), users (members who just use the services of the ecosystem), and other stakeholders (parties which have an interest to the success of the ecosystem but are not directly involved in it).

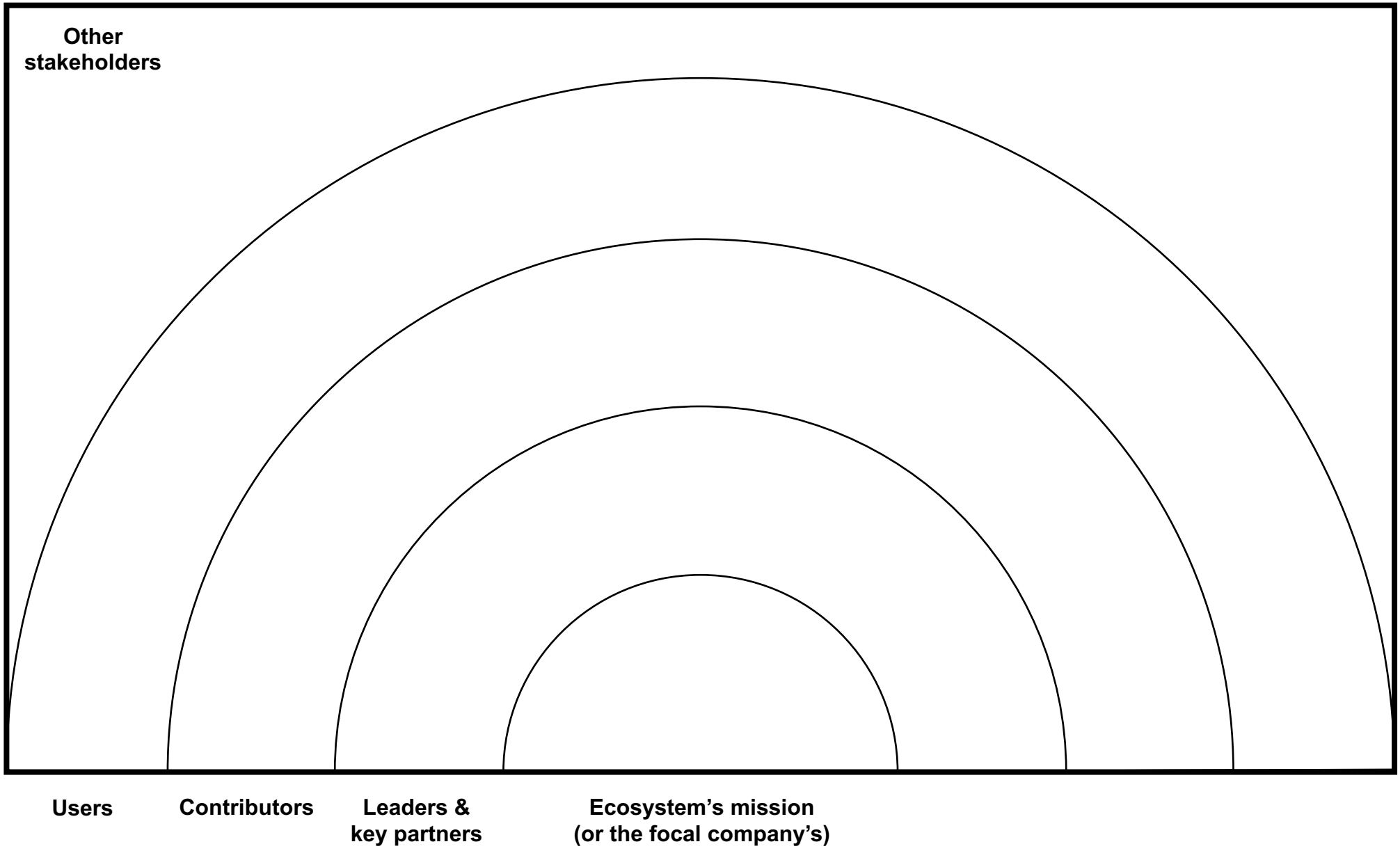
3. Then, **limit the number** of members **to 9**. Focus on the most influential but try to address all the relevant ideal types of the members in your ecosystem.

4. *OPTIONAL: If you want to increase your challenge level, you can create many versions of this canvas: one for the initial stages of the ecosystem, one for the upscaling stage, and one for the mature ecosystem.*

ECOSYSTEM MEMBERS ECOSYSTEM TOOLKIT 0.3

ADAPTED FROM SIMONE CICERO'S PLATFORM DESIGN TOOLKIT

Case



CANVAS 2
ECOSYSTEM MEMBER PROFILES

Our ecosystem – it is our warehouse and our supply chain.

By using many copies of "The Ecosystem's Member Profile" (Canvas 2), you will explore all the members in detail, and identify the potential (valuable assets and capabilities) they provide to your ecosystem.

1. **Illustrate each identified ecosystem member with some details** (e.g., personal details, and the reasons why they would participate in the ecosystem). This helps you to understand the member's characteristics better.

2. For each member, **identify which assets** (e.g., cars, houses, other tangibles) and **capabilities** (e.g., skills, knowledge, other intangibles) the member has, which could be usable with regards to the ecosystem's (or focal company's) mission.

ECOSYSTEM MEMBER PROFILE

Case

Member name	
Characteristics	
Valuable assets	Valuable capabilities

Ville Eloranta, Aalto University (IDBM)

Inspired by of Simone Cicero (PDT)

CANVAS 3
ECOSYSTEM MOTIVATION MATRIX
ADAPTED FROM SIMONE CICERO'S PLATFORM DESIGN TOOLKIT

You cannot force anyone to cooperate with each other. You can only create attractors.

By using "The Ecosystem's Motivation Matrix" (Canvas 3), you will identify, what each member has potentially to give to the other entities.

1. **List the ecosystem members** to the **rows and columns** of the matrix (so that both row and column headings have the same entries in the same order).

2. For all cells of the matrix (all the connections between members) – identify what is the **potential value** the member can give to another member (if there is something). Remember, money is also valuable.

3. Then, you can **define the value propositions** for each ecosystem member. Put differently, what X gets from participating in the ecosystem? Based on the potential value each member can get from others (e.g., money, goods, services, etc.), fill out a **description that summarizes these benefits for each member on the highlighted diagonal**.
   Hint: Note the observations you made for each column and try to summarize them.

4. *OPTIONAL: In a similar way as with the ecosystem member canvas (1), if you want to increase your challenge level, you can create many versions of this matrix: one for the initial stages of the ecosystem, one for upscaling stage, and one for the mature ecosystem.*

ECOSYSTEM MOTIVATION MATRIX ECOSYSTEM TOOLKIT 0.3

ADAPTED FROM SIMONE CICERO'S PLATFORM DESIGN TOOLKIT

Case

gives to ↱									

This is an edited version of Simone Cicero's work (part of Platform Design Toolkit)

CANVAS 4
ECOSYSTEM ACTIVITIES AND INTERACTIONS MAP

Next, instead of actors, we'll look at the specific actions that take place in the ecosystem.

So far, the canvases have focused on the different member profiles and roles in the ecosystem. For the next canvas, put the personalities aside. So instead of *who* does something, focus simply on *what* is being done. You can utilize ideas you have generated so far, to figure out the different activities that take place in the ecosystem.

1. To start, focus on the **most essential activity** that is needed to **fulfill the ecosystem's mission**. Mark that to the middle balloon.
   Hint: this activity is most likely a direct enabler or facilitator of the ecosystem's mission. You can also use the motivations matrix to pinpoint one or two most important activities in your ecosystem. For example, if the mission is to provide more efficient travel accommodation to people, the essential activity may be to "rent a room".

2. Next, **identify and mark activities that are necessary** or prerequisites **for the essential activity** to happen. Mark the activity inside the balloon, and the form of interaction on the arrows between the bubbles (again, you can refer to the motivations matrix if needed). Feel free to list more activities and interactions (add balloons and arrows).

3. **Continue** the exercise, until you have **listed all activities that are needed** for a self-sustaining ecosystem, creating virtuous cycles that strengthen its operation.

Then, once you are happy with the created level of detail, take a moment to analyze your result.* Focus on the type of activities and interlinkages you have identified.

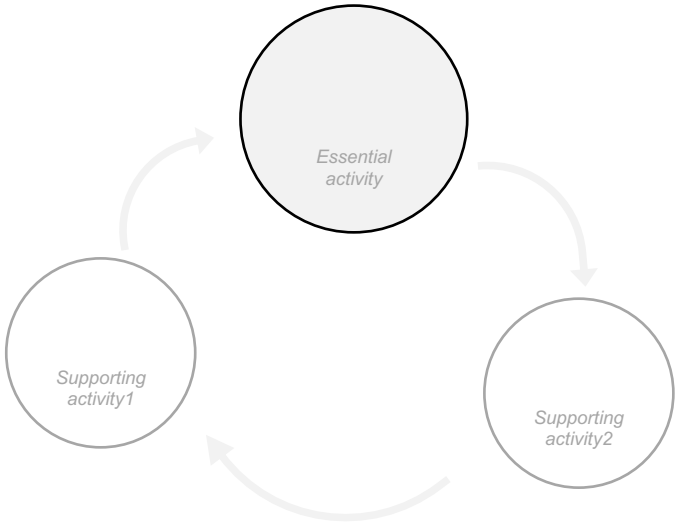
4. Which balloons have only arrows coming in to them? These are your **end points** and **likely an observable outcome** of your ecosystem. Mark them with a distinctive color (e.g., green).

5. Which balloons have only arrows coming out of them? These are your **starting points** and things that are **needed to facilitate all other actions**. Mark them with a different color (e.g., blue).

*Special thanks to Markku Nousiainen, Streamr/TX for this idea!

ECOSYSTEM ACTIVITIES MAP ECOSYSTEM TOOLKIT 0.3

Case



Esko Hakanen & Ville Eloranta, Aalto University (DIEM & IDBM)

Special thanks to Markku Nousiainen, Streamr/TX

CANVAS 5
ECOSYSTEM INTERACTION PROFILES

Let's bring back the actors. Use Canvas 5 to link back the different actors to each interaction that takes place in the ecosystem.

In this canvas, you will consider both the actors behind the activities and the intermediaries that facilitate their interaction.

1. Start with the most essential activity from the activities and interactions map. Place that on the first row. Then, **consider who needs to interact with whom** to realize that activity. In the middle column, you should **note the intermediaries** through which the interaction happens or is possible. These may be practically anything, from **actors** to **mediums** (i.e., people, firms, platforms, or technologies).

2. **Place each activity** that you identified in the activities and interactions map **on one row**. Continue the exercise, until you have placed all the identified activities in the table. If you have a detailed and complex map of activities (i.e., many bubbles), you may use more than one page.

3. When filling the table, consider the previously identified ecosystem members. These are most likely candidates for actors in the ecosystem.
   Hint: You can add new member profiles (in Canvas 2) as well. That only indicates you now comprehend your ecosystem and its members better than before.

4. Last column is reserved for **notes**. These can include anything that you find worthwhile (e.g., key network effects, new member profiles, impact of external stakeholders, risk for disintermediation, etc.).
   Hint: Desirably, this exercise will list many important prerequisites for the activities and interactions in your ecosystem.

ECOSYSTEM INTERACTION PROFILES ECOSYSTEM TOOLKIT 0.3

Case

ACTIVITY (refer the map)	FOR THAT ACTIVITY TO HAPPEN, WHO	INTERACTS THROUGH	WITH WHOM	NOTES (Missing member, control point, etc?)

Esko Hakanen & Ville Eloranta, Aalto University (DIEM & IDBM)

CANVAS 6
ECOSYSTEM RULES AND GOVERNANCE
ECOSYSTEM TOOLKIT 0.3

You now know how your ecosystem operates as an activity system. Next, Canvas 6 will help you to formalize these as key principles that shape the collaboration between the ecosystem members.

In this canvas, you will consider different statements regarding the ecosystem's rules and governance. You will decide which principles apply to your ecosystem and, then, describe how these can be seen or implemented in your ecosystem.

1. Go through the table **one row at a time**. The **left-most column** contains **statements** regarding your ecosystem's rules and governance. In turn, **at the top** of the table, you can find different **descriptions** that can help you to consider how the different statements might look in practice.
   Hint: These descriptions are structured in pairs; usually either one of the two descriptions will be easier to fit to your case.

2. Consider **which of the statements apply** to your ecosystem **and how**.

3. Fill in **short explanation** to all the **boxes which are applicable**. You can leave the rest empty.

4. For **each row**, there are one or two **descriptions** (i.e. boxes) **which have been highlighted** with a darker color. These indicate statements and descriptions which might be easier to identify.

5. In the end, you should have **filled in at least one** of the **highlighted** boxes **for each row**.

Hint: The explanations you will provide in this exercise should help you with the next canvas. So, please consider carefully about your ecosystem's rules and governance, and formalizing a concise explanation about how these principles will be implemented.

ECOSYSTEM RULES AND GOVERNANCE ECOSYSTEM TOOLKIT 0.3

Case

Rules and governance principles that shape the members' collaboration	How are the rules and principles seen or implemented in your ecosystem? What of the following statements fit, how? *No need to fill in all the boxes. Focus on the ones which seem most applicable but try at least fill in **one of the highlighted boxes for each row**.*							
	Rules will be set before the collaboration begins	No predefined rules and rather these can be only seen afterwards	Rules are clearly defined via formal contracts or agreements	No contracts, as the rules for collaboration are implied indirectly	Collaboration based on building long-term partnerships between members	All members actively search for the best partner for every collaborative action	Ecosystem tries to raise external barriers to protect against outside competition	Low internal and external barriers, making it easy for new members to join
The ecosystem has clear boundaries, and it is clear who is (or is not) a member in the ecosystem.								
There are clear rules on how members interact with each other. These rules are not likely to change over time.								
Any member can influence and participate in modifying the ecosystem rules.								
Only the ecosystem members can change the rules. External stakeholders cannot intervene the actions of the ecosystem.								
It is easy for all the members to monitor that others follow the rules and inform the community about any misbehaving actors.								
There are clear principles how to sanction members' misbehavior or deviance from the rules.								
The ecosystem has low-cost means to resolve any disputes (misbehaviors, sanctions).								
There are different layers and/or nested tiers for governing common outputs of the ecosystem, without any member having a full control.								

Esko Hakanen & Ville Eloranta, Aalto University

Drawing from the works of Adner; Kapoor; Ostrom; Shipilov & Gawer

CANVAS 7
ECOSYSTEM SIGNALS
ECOSYSTEM TOOLKIT 0.3

Are you one of us? Or are you with "the others"? How can I know?

Canvas 7 explores a tendency that is very natural to humans (and all other social creatures): we tend to seek companionship among our peers, forming bonds through which we feel belonging into the same social group. Since ecosystems–as defined in the extant literature–rely on complex, multidirectional interdependencies and investments (money, time or effort) toward a common goal, it may be necessary to know whether your peers share the goals.

1. Drawing on all the things you know of your ecosystem (also from the previous exercises), consider **how can you identify whether someone belongs to your ecosystem**? What kind of actions, outcomes, or signals could you identify? **Mark** these to the **top-left** box.

2. Conversely, what would be **indicators** that someone would **not** belong to your ecosystem? How can you know? Is there something that would indicate that the actor is not aligned with the ecosystem's mission? Mark these to **top-right** box.

Hint: You can casually write all things that come to your mind. However, you should pay special attention to any factor, which could be measured or identified objectively. For instance, is there a special application, solution, or technology which you would need to implement to partake in the ecosystem? Would you need to make a public statement to promote one and demote other options?

3. Then, evaluate the factors you have identified. What conclusions can you make? Have you found **objective indicators** for someone to being (or not being) a part of your ecosystem? Try to formulate these ideas into a **concise and concrete signal** (one or more) which you can use **to identify the ecosystem members** from non-members. Write the result to the last box.

Hint: Once you have completed the assignment, refer back to the ecosystem's mission. Are the mission and the signals aligned?

ECOSYSTEM SIGNALS ECOSYSTEM TOOLKIT 0.3

Case

*We know that someone **belongs to our ecosystem**, if/when…*

Someone **does not** belong to **our ecosystem**, if/when…

*We can identify the ecosystem membership based on **these signals, which are (actions, statements, investments, etc.)…***

Esko Hakanen, Aalto University

SUPPORTING AID A1:
VALUE PROPOSITION TEMPLATE

What are the common elements or building blocks of a value proposition?

The value proposition template is a formalized tool to define and communicate an offering between different parties. Since the following assignments will also investigate the value propositions of the different ecosystem members, this canvas will introduce you to basic template to constructing a value proposition.

1. For any value proposition, you can **identify a stakeholder** for which the value accrues.

2. What is **the goal of this stakeholder**? What would be important to them, or what do they wish to accomplish or achieve?

3. What is **your solution** (i.e. product, service, or perhaps an ecosystem's mission) that would the stakeholder in attaining their goal?

You should **write these three aspects to the first three rows**. Then, focus on explicating why your solution would be better than other alternatives. List different **benefits** that link to your solution.

4. Consider **how can you help the stakeholder**? What is unique to your offering? What are the key benefits you (or some other party) can provide to this stakeholder?

5. **List most important benefits** to the last three rows.

Hint: Traditionally, value propositions are defined and analyzed in a dyadic, supplier-customer relationships. In ecosystem settings that might not always be the case, but you should still be able to identify from who's perspective you are evaluating the situation. By completing this task will help you will learn to 1) structure a value proposition in a typical format, and 2) identify how stakeholder's goals and benefits link to value propositions.

VALUE PROPOSITION TEMPLATE

This tool summarizes elements of value communication: What goal do we believe the key stakeholder is striving for, what is our solution, and what benefits does the solution deliver?

_____, who wants
Key stakeholder

_____,
Stakeholder goal

_____
Our solution

helps

_____,
benefit

_____,
benefit

_____.
benefit

SUPPORTING AID A2:
ACTIVITY SYSTEM FOR A VALUE PROPOSITION

What is needed to realize the value proposition? Can you identify how your goals and benefits link together as an activity system?

All value propositions need discrete actions to realize them. Thus, you should consider how to achieve the different goals and other intermediary targets in the way toward the overarching goal or the focal value proposition. This assignment will help you to identify what kind of sub-goals can be identified and what kind of structures–or goal hierarchies–the different activities and sub-goals will establish for creating the value.

1. Begin by writing the **key stakeholder** and **the goal** to the **top** of the page.
   Hint: This box should be rather concise and easy to analyze further. Your goal should be abstract enough to support various sub-goals but concrete enough to limit your scope to a specific interest or problem space. If you have filled in the "Value proposition canvas" for your case, you can refer to the identified "Stakeholder goal" to this box.

2. Then, consider **how the** identified **goal could be reached**. What would help you to the right direction? **Mark each** of these **activities or sub-goals** to their **individual boxes** and **link** them to the goal at the top.
   Hint: If you have filled in the "Value proposition canvas", refer to the identified "Benefits".

3. Next, think **how to reach the sub-goals**. Mark different activities or sub-goals below the previous ones. Create separate boxes for all the activities and options you identify,

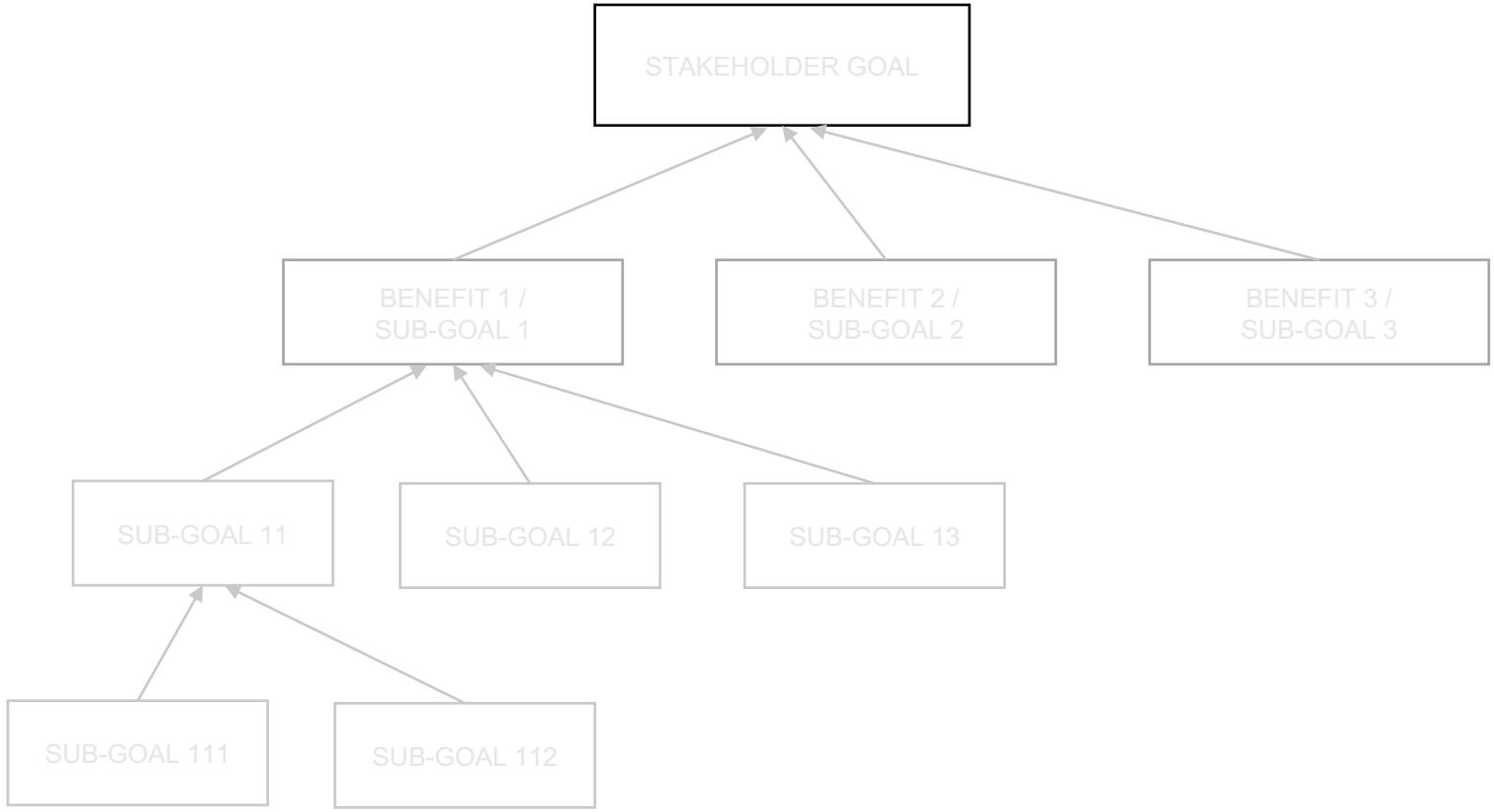
4. **Continue** the exercise to build a **tree-like structure** and **repeat** the steps until you are **satisfied** with the achieved level of detail.

Please note that this exercise might lead you to revise your previously defined value proposition(s). If that happens, take a moment to consider what were the main reasons for it. Most likely those are valuable insights for later.

ACTIVITY SYSTEM FOR A VALUE PROPOSITION

ECOSYSTEM TOOLKIT 0.3

Case



SUPPORTING AID A3:
ABILITY AND MINDSET CHALLENGES

EXTRA TASK FOR CANVAS 5:

In the next page, you will find an alternative version of Canvas 5. You can simply augment your previously filled canvas, or copy (or revise) your assignment to the extended version of the canvas.

1. Consider each interaction, focusing on especially the ones that involve changes to established ways of operation. *Can you identify* **ability** *or* **mindset challenges** *that might hinder or prevent your ecosystem?*

2. Mark the identified challenges next to the notes box on each row. Remember to use visuals to differentiate between the challenge types, e.g., different colors for ability and mindset.

3. It is okay to leave the row empty, if you cannot identify any challenges regarding that activity.

ECOSYSTEM INTERACTION PROFILES AND CHALLENGES ECOSYSTEM TOOLKIT 0.3

Case

ACTIVITY (refer the map)	FOR THAT ACTIVITY TO HAPPEN, WHO	INTERACTS THROUGH	WITH WHOM	NOTES (Missing member, control point, etc?)	MINDSET CHALLENGES	ABILITY CHALLENGES

Esko Hakanen, Pekka Töytäri & Ville Eloranta, Aalto University (DIEM & IDBM)

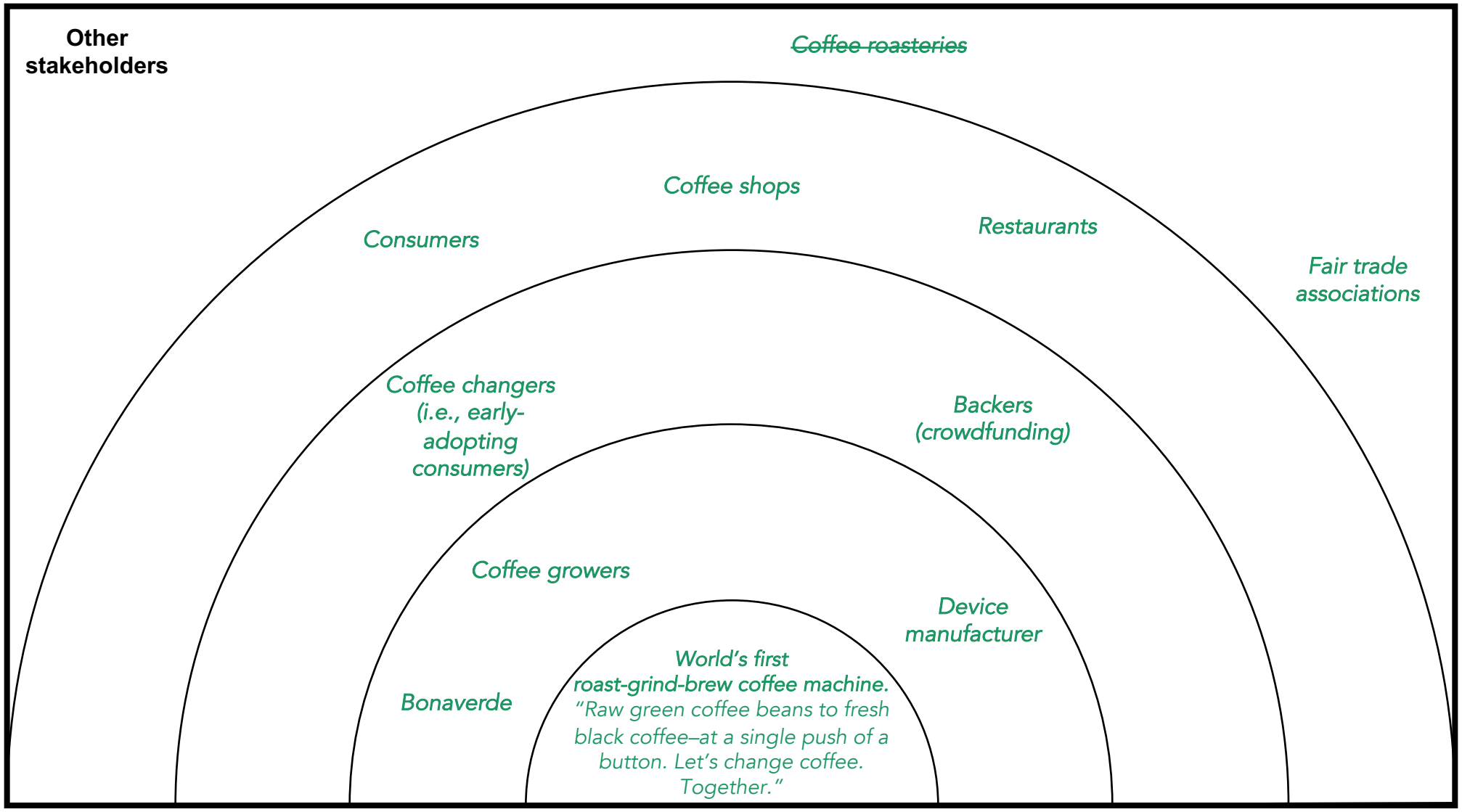
EXAMPLES WITH BONAVERDE

(FILLABLE SHEETS FOR THE WORKSHOP)

ECOSYSTEM MEMBERS IDEOLOGY-FREE TOOLKIT FOR DIGITAL ECOSYSTEM DESIGN 0.2.5

ADAPTED FROM SIMONE CICERO'S PLATFORM DESIGN TOOLKIT

Case **Bonaverde'13**



ECOSYSTEM MEMBER PROFILE

Case Bonaverde'13

Member name

Bonaverde

Characteristics

Provides the vision and design for a new type of product.
Will run a platform for direct coffee trading.
Needs and collects investments for faclitating these goals.

Valuable assets	Valuable capabilities
Trading platform *Product IPR* *Connections for coffee sourcing*	*Product design* *Manufacturing channel* *Value communication (engaging value proposition for the ecosystem)*

 Ville Eloranta, Aalto University (IDBM) *Inspired by of Simone Cicero (PDT)*

ECOSYSTEM MEMBER PROFILE

Case Bonaverde'13

Member name

***Coffee** growers*

Characteristics

Coffee farmers who would like to have a new distribution channel, interested in bigger profits and potentially in higher impact on the quality of their end products.

Valuable assets	Valuable capabilities
Coffee plantation *Agriculture machinery* *Beans*	*Expertise on farming* *Roasting suggestions*

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ECOSYSTEM MEMBER PROFILE

Case Bonaverde'13

Member name

"Coffee changers" (early-adopting consumers)

Characteristics

Consumers who appreciate quality coffee and social responsibility in the coffee value chain.
Active consumers who can spark positive network effects and/or feedback loops.
"Champion" (in sales terms).

Valuable assets	Valuable capabilities
Money (for crowfunding) *Bonaverde coffee machine* *Friends & social connections*	*Social influence*

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ECOSYSTEM MEMBER PROFILE

Case Bonaverde'13

Member name

Device manufacturer

Characteristics

Manufactures the devices based on Bonaverde's drawings.
Chosen based on tendering process.

Valuable assets	Valuable capabilities
Enmplyorers *Manufacturing line* *Factory*	*Parts sourcing* *Manufacture design* *Distribution*

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ECOSYSTEM MEMBER PROFILE

Case Bonaverde'13

Member name

Backers (crowdfunding)

Characteristics

Investor in a crowdfunding campaign.
Investment rewarded with a (beta) machine and other perks.
Has interest in seeing Bonaverde success.

Valuable assets	Valuable capabilities
Money (investment)	*Social influence*

 Ville Eloranta, Aalto University (IDBM) *Inspired by of Simone Cicero (PDT)*

ECOSYSTEM MEMBER PROFILE

Case Bonaverde'13

Member name

Coffee shops

Characteristics

Coffee shops who serve coffee to customers.
Potential clients to use Bonaverde's machine.
Most likely posing competition to the system, should they prefer upholding existing systems and devices.

Valuable assets	Valuable capabilities
Coffee *Venue* *Regulars* *Existing supply chains*	*Baristas' experience & knowledge on quality coffee.* *(Potentially the consumer's first touch point to the system.)*

 Ville Eloranta, Aalto University (IDBM) *Inspired by of Simone Cicero (PDT)*

ECOSYSTEM MEMBER PROFILE

Case Bonaverde'13

Member name

Consumers

Characteristics

Anyone who drinks coffee, ever

Valuable assets	Valuable capabilities
Money *Other coffee makers* *Coffee*	*Preference for fresh, high-quality, and cheap coffee.*

 Ville Eloranta, Aalto University (IDBM) *Inspired by of Simone Cicero (PDT)*

ECOSYSTEM MEMBER PROFILE

Case Bonaverde'13

Member name

Restaurants

Characteristics

Serve food but also coffee to consumers.
Potential clients to use Bonaverde's machine.

Valuable assets	Valuable capabilities
Food *Coffee* *Venue* *Regulars*	*Can provide a memorable experience to consumers.*

 Ville Eloranta, Aalto University (IDBM) *Inspired by of Simone Cicero (PDT)*

ECOSYSTEM MEMBER PROFILE

Case: Bonaverde'13

Member name

Fair trade associations

Characteristics

Associations dedicated to endorsing and ensuring fair trade of goods and consumables.
Assign labels to indicate "better" options.
(While not clearly engaged in the current setup, notable synergies with the planned system.)

Valuable assets	Valuable capabilities
Credibility *Labels & certificates* *Social relevance & acceptance*	*Expertise on the industry and its main issues* *Potential to influence*

Inspired by of Simone Cicero (PDT)

ECOSYSTEM MEMBER PROFILE

Case: Bonaverde'13

Member name

Coffee roasteries

Characteristics

Roasts green coffee beans and delivers them to the consumers (directly or via grocery stores)

Not currently part of the system, but rather pose competition

Valuable assets	Valuable capabilities
Sourcing & distribution channels *Roasting machinery* *Brand value*	*Expertise on the industry* *Potential to influence*

Inspired by of Simone Cicero (PDT)

ECOSYSTEM MEMBER PROFILE

Case:

Member name

Characteristics

Valuable assets	Valuable capabilities

Inspired by of Simone Cicero (PDT)

ECOSYSTEM MEMBER PROFILE

Case:

Member name

Characteristics

Valuable assets	Valuable capabilities

Inspired by of Simone Cicero (PDT)

ECOSYSTEM MOTIVATION MATRIX IDEOLOGY-FREE TOOLKIT FOR DIGITAL ECOSYSTEM DESIGN 0.2.5

ADAPTED FROM SIMONE CICERO'S PLATFORM DESIGN TOOLKIT

Case **Bonaverde'13**

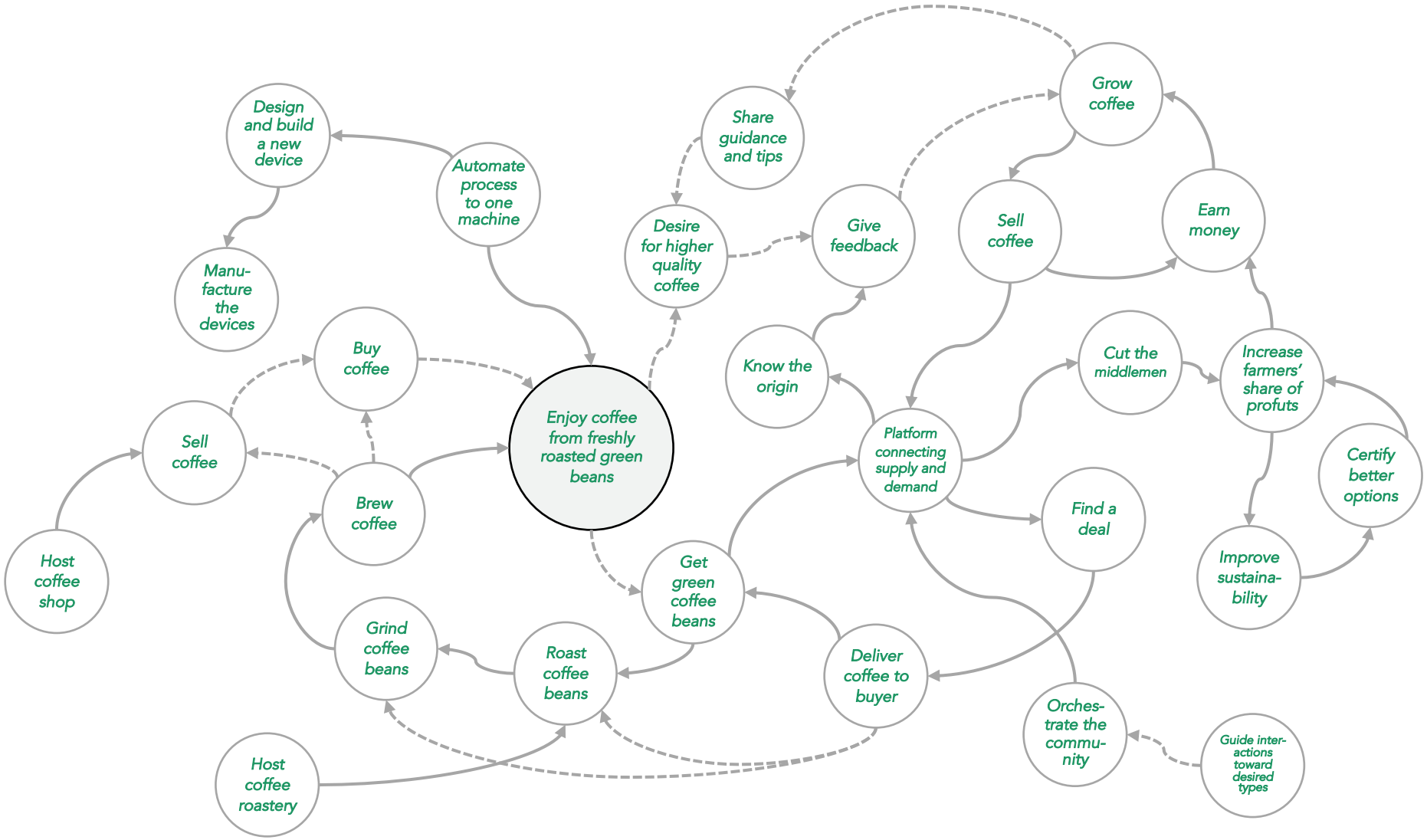
gives to →	Bonaverde	Coffee growers	"Coffee changers" (early adopters)	Device manufacturer	Backers (crowdfunding)	Coffee shops	Consumers	Restaurants	Fair trade labels
Bonaverde	**A community to support the launch of a new product.**	*Possibility for better income. New distribution channel.*	*Coffee machine. Gives support and agenda for social influence.*	*Job order. New business.*	*Coffee machine, first units of production.*	*New type of coffee to serve.*	*Coffee machine.*	*New type of coffee to serve.*	*New medium to increase social goals.*
Coffee growers	Coffee beans to use the machine.	**New, better way of selling coffee but also reaching their customers.**	*Coffee beans to use the machine. Direct contact and support.*		*Green beans to use the machine.*	*New type of product & sourcing channel.*	*Coffee, both to use on Bonaverde machine and in traditional chains.*	*More info on sourcing of the coffee, new products to offer.*	*Inputs to follow their agenda.*
"Coffee changers" (early adopters)	Money, first customers and (potential) social influence.	*Money, loyal customers who believe in the cause.*	**Community of like-minded coffee enthusiasts to disrupt an industry.**	First customers for product orders. Feedback for improvements.	Advocates for their investment.	Potentially declining customer base.	Examples to follow and emulate.		(Positive feedback and influence.)
Device manufacturer	Manufacturing facilities, expertise and knowhow. Devices.	Machine that enables new, more direct revenue stream.	Device (that meets their demands).	**Production orders for a new product type.**	Device. (Funding reward, "return on investment")		Machine that enables a new option for making and buying coffee.		A new tool to track and trace the coffee supply chain.
Backers (crowdfunding)	Money.	First potential customers or sponsors.	Monetary support, enabling the device and the community to rise.	Money (indirectly as sponsors or directly through product orders).	**Crowdfunding element for jointly funding their cause.**		Support that enables a new consumer product.		
Coffee shops	Potential customers (or competition).	Money (customer for beans).		Customer for devices.		**Product that enables serving new type of coffee.**	Coffee, with or without using Bonaverde machine.		Consumption data?
Consumers	Money, wider base of customers.	Money, wider base of customers.	Same-side network effects (wider base of customers).	User base for devices.		Money (with or without using Bonaverde machine).	**Product to get cheaper, better, fresher, and more ethical coffee.**	Money.	Base of (conscious) customers.
Restaurants	Potential customers.	Potential customers.		Customer for devices.		Competition.	Food (also coffee, with or without using Bonaverde machine).	**Product that enables serving of new type of coffee.**	Consumption data?
Fair trade labels	Certificate, credibility and support for the system.	Higher income, education, support for a sustainable livelihood.	Legitimacy and support making better decisions.	Useful ally for promoting new type of a device.	Legitimacy and support making better decisions.	Certified info for sourcing coffee.	Certified info for selecting their coffee.	Certified coffee sourcing.	**Product that enables cheaper, fresher, and more ethical coffee.**

This is an edited version of Simone Cicero's work (part of Platform Design Toolkit)

ECOSYSTEM ACTIVITIES AND INTERACTIONS MAP

IDEOLOGY-FREE TOOLKIT FOR DIGITAL ECOSYSTEM DESIGN 0.2.5

Case **Bonaverde'13**



Esko Hakanen & Ville Eloranta, Aalto University (DIEM & IDBM)

ECOSYSTEM INTERACTION PROFILES

IDEOLOGY-FREE TOOLKIT FOR DIGITAL ECOSYSTEM DESIGN 0.2.6

Case: Bonaverde'13

ACTIVITY (refer the map)	FOR THAT ACTIVITY TO HAPPEN, WHO INTERACTS	WITH WHOM	THROUGH WHAT?	NOTES (Missing member, control point, etc?)
Enjoy coffee from freshly roasted green beans	Consumer	ingredients (coffee beans)	machinery and recipes	
Roast coffee beans	?	green beans	roasting machine	Bonaverde's machine could handle this, otherwise dedicated process at a roastery.
Grind coffee beans	?	roasted beans	grinder	Bonaverde's machine could handle this, otherwise grinding at home or buying ground coffee.
Brew coffee	Consumer	ground coffee	coffee maker	
Get green coffee beans	Roaster	coffee growers (or intermediaries)	coffee traders or using Bonaverde's platform	Difficult for consumers in a normal setting
Platform connecting supply and demand	Consumer	coffee farmer	Bonaverde's platform	
Orchestrate the community	Bonaverde	consumers, farmers and other users	by mediating interactions that take place in the platform	
Guide interactions toward desired ones	Bonaverde	platform users	rules and tools of the platform	
Grow coffee	Farmer	land?	?	
Sell coffee	Farmer	local distributors or consumers	local channels or Bonaverde's platform	
Cut the middlemen	Consumer	farmers	Bonaverde's platform	Considerable potential for disintermediating traditional coffee value chains.

Esko Hakanen & Ville Eloranta, Aalto University (DIEM & IDBM)

ECOSYSTEM INTERACTION PROFILES

IDEOLOGY-FREE TOOLKIT FOR DIGITAL ECOSYSTEM DESIGN 0.2.6

Case: Bonaverde'13

ACTIVITY (refer the map)	FOR THAT ACTIVITY TO HAPPEN, WHO INTERACTS	WITH WHOM	THROUGH WHAT?	NOTES (Missing member, control point, etc?)
Certify better options	Fair trade label	consumers	certificates and labels that guide selections	
Share guidance and tips	Farmer	consumer	Bonaverde's platform	New opportunity to give tips on handling their beans.
Desire for higher quality coffee	Consumer	coffee ingredients	machinery	Feeds the system for more feedback and instructions
Give feedback	Consumer	farmer	Bonaverde's platform	
Know the origin	Coffee pack & Bonaverde	consumer	Bonaverde's plafrom & other digital mediums	
Increase farmers' share of profuts	Buyer (consumers)	farmers	Bonaverde's platform	
Improve sustainability	Fair trade label	farmer		Farmers get education on better practices
Deliver coffee to buyer	Farmer/coffee label/grocery store	consumer	"typical" logistics & choices	Different alternatives suit different scenarios.
Automate process to one machine	…	…	…	New type of device
…				

Esko Hakanen & Ville Eloranta, Aalto University (DIEM & IDBM)

ECOSYSTEM GOVERNANCE IDEOLOGY-FREE TOOLKIT FOR DIGITAL ECOSYSTEM DESIGN 0.2.5

Case **Bonaverde'13**

Question	Your ecosystem	*Theory-based check: Decentralized governance is possible it...*
How (precisely) it is defined who is ecosystem's member and who is not?	*Relatively vs. strictly? How, why?* *Platform for trading coffee and its membership as a distinctive feature, same for owning the machine which allows to utilize the system.*	*Group boundaries are clearly defined.*
How generic or localized / customized are the rules governing the actions in the ecosystem?	*Very customized vs. very generic? How? Why?* *Generic rules shaping the actions (coffee maker, supply chain for green beans), but possibility for local adjustments later (e.g., different supplier tiers, etc.)*	*Rules governing the use of community resources are matched to local needs and conditions.*
Who can participate in modifying the rules?	*Only one member vs. all members? Who? How?* *Limited possibilities for members. Yet, in contrast to conventional coffee supply chain, more options for direct communication between different sides.*	*It is ensured that those affected by the rules can participate in modifying the rules.*
What is the ecosystems legitimacy / authority toward external stakeholders/regulators?	*Not respected vs. very respected? By whom, how, why?* *Likely to gain goodwill from fair trade labels and other certificate agencies.*	*It can be made sure that the rule-making rights of community members are respected by outside authorities.*
How ecosystem member behavior and rule compliance is monitored?	*By whom? How?* *Only members who follow the platform's rules can join. Decreased information asymmetry (linking farmers and customers) should limit fraudulent behavior.*	*Community members can sustain a system for monitoring member's behavior.*
How are member misbehaviors sanctioned?	*By whom? How?* *Bonaverde can prevent the access to trading platform. No direct sanctions.*	*There are graduated sanctions for rule violators*
How are disputes (misbehaviors, sanctions) resolved in the ecosystem?	*By whom? How?* *Client-supplier relationships common to trading through direct communication and supported by Bonaverde as the platform provider.*	*There are low-cost means for dispute resolution.*
What kind of (community resource) governance layers there are in the ecosystem?	*Who are operating in which layers? Why? what is the interplay of the layers?* *Resembles a multisided market with distinct sides (growers and consumers), but more options to expand the system and introduce complementary offerings.*	*The ecosystem can maintain responsibilities for governing common resources in nested tiers from the lowest level up the entire interconnected system.*

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Based on the work of Elinor Ostrom

ECOSYSTEM RULES AND GOVERNANCE ECOSYSTEM TOOLKIT 0.3

Case **Bonaverde'13**

Rules and governance principles that shape the members' collaboration	How are the rules and principles seen or implemented in your ecosystem? What of the following statements fit, how? *No need to fill in all the boxes. Focus on the ones which seem most applicable but try at least fill in **one of the highlighted boxes for each row**.*							
	Rules will be set before the collaboration begins	No predefined rules and rather these can be only seen afterwards	Rules are clearly defined via formal contracts or agreements	No contracts, as the rules for collaboration are implied indirectly	Collaboration based on building long-term partnerships between members	All members actively search for the best partner for every collaborative action	Ecosystem tries to raise external barriers to protect against outside competition	Low internal and external barriers, making it easy for new members to join
The ecosystem has clear boundaries, and it is clear who is (or is not) a member in the ecosystem.		Open platform, which is easy to join and leave. Difficult to know who will be active and relevant beforehand.			Consumers need the coffee machine. Farmers join & sell beans in the Bonaverde platform	One-off transactions for the beans.		Open platform
There are clear rules on how members interact with each other. These rules are not likely to change over time.	Consumers need the coffee machine. Farmers join & sell beans in the Bonaverde platform			Consumers need the coffee machine. Farmers join & sell beans in the Bonaverde platform		New interaction mechanisms may emerge		
Any member can influence and participate in modifying the ecosystem rules.			Bonaverde controls the machine production and the beans platform	New interaction mechanisms may emerge				
Only the ecosystem members can change the rules. External stakeholders cannot intervene the actions of the ecosystem.								Open platform to encourage new stakeholders
It is easy for all the members to monitor that others follow the rules and inform the community about any misbehaving actors.			Beans sold and delivered through Bonaverde platform. Users make purchase orders with farmers(?).	Feedback & complaints through the system				
There are clear principles how to sanction members' misbehavior or deviance from the rules.	Bonaverde may block users/providers from the platform					Possibility to find other sources for green beans (platform disintermediation)		
The ecosystem has low-cost means to resolve any disputes (misbehaviors, sanctions).			User/provider agreements	Feedback & complaints through the system		Platform disintermediation possible		
There are different layers and/or nested tiers for governing common outputs of the ecosystem, without any member having a full control.	User/provider agreements						Bonaverde platform	

Esko Hakanen & Ville Eloranta, Aalto University

Drawing from the works of Adner; Kapoor; Ostrom; Shipilov & Gawer

ECOSYSTEM SIGNALS ECOSYSTEM TOOLKIT 0.3

Case **Bonaverde'13**

*We know that someone **belongs to our ecosystem**, if/when…*

- A user orders beans through Bonaverde platform
- They buy/own the coffee machine
- They try to recruit new members to the ecosystem
- They place value on knowing the origin of their coffee beans and having increased transparency
- A farmer sells beans in the platform
- They want to buy the coffee directly from the farmer
- They interact with other members (via the platform or other means)

Someone **does not** belong to **our ecosystem**, if/when…

- They don't have the machine
- They only buy ground (or instant) coffee
- They always choose products by the (cheapest) price
- They don't drink coffee
- They are not interested in ways to know the origin or interact with the farmer of their coffee beans
- They look for alternative providers for green coffee beans
- They never buy coffee beans through the platform
- They want to buy their (coffee) products from local retailers
- They argue that coffee should not be brewed right after roasting ("degassing")

*We can identify the ecosystem membership based on **these signals, which are (actions, statements, investments, etc.)…***

An individual should be considered as a **coffee changer** and an **active member** of the ecosystem, if they

- own and want to use the machine
- make transactions repeatedly through the Bonaverde platform
- actively interact with other members (via the platform or other means)
- are looking for ways to know the origin of their coffee and have increased transparency

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