



Aalto University
School of Science

Department of Industrial Engineering and Management

Service ecosystems Workshop on ecosystem design

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and Design Factory, Department of Mechanical Engineering, School of Engineering*

Workshop instructions, overview

Next Wednesday a workshop on ecosystem design at 9-12 (note the time!)

To prepare for the session, please:

1. Read through the materials and **answer the quiz**
2. Assign yourself to a group (of 5 students) in MyCourses
3. Consider what could be **an interesting case** for the analysis (you can begin to discuss this with your group, if you like). Digital platforms are the easiest, but basically **anything goes!**

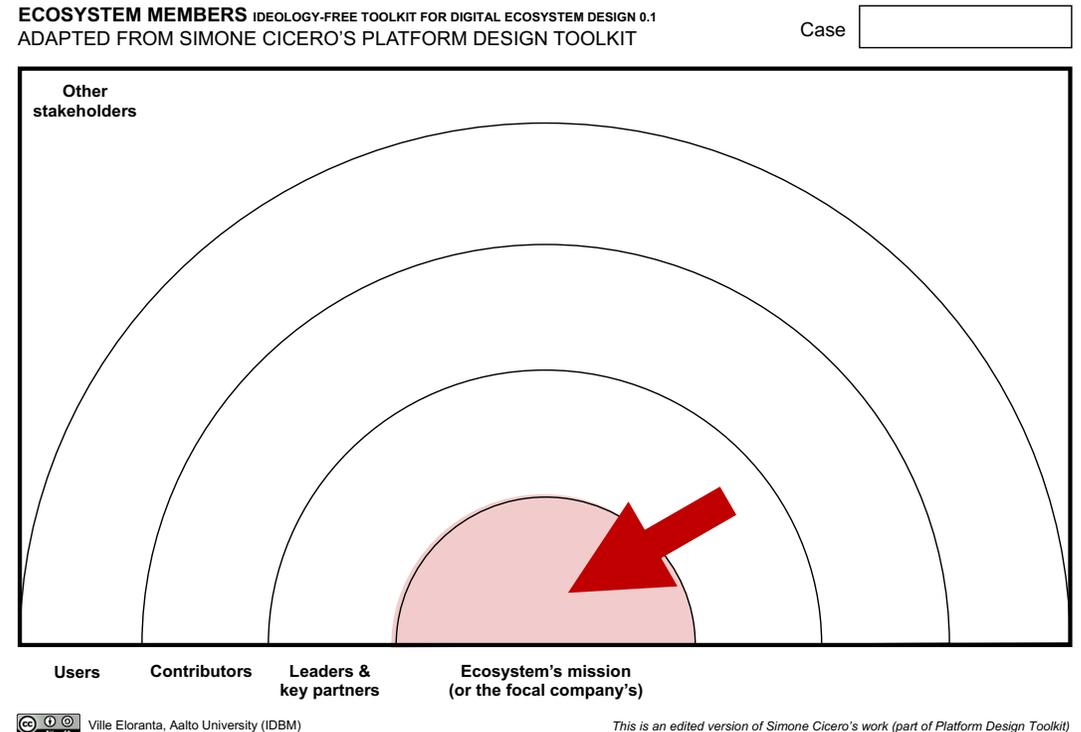
In the workshop, you will:

4. Get more detailed instructions
5. Get assigned to a group, if you haven't done that already
6. Decide your case (we can help you with suggestions if you haven't decided)
7. Working in groups, **filling the canvases** and preparing a **short presentation** of your key insights
8. We will **wrap up jointly** after the presentations

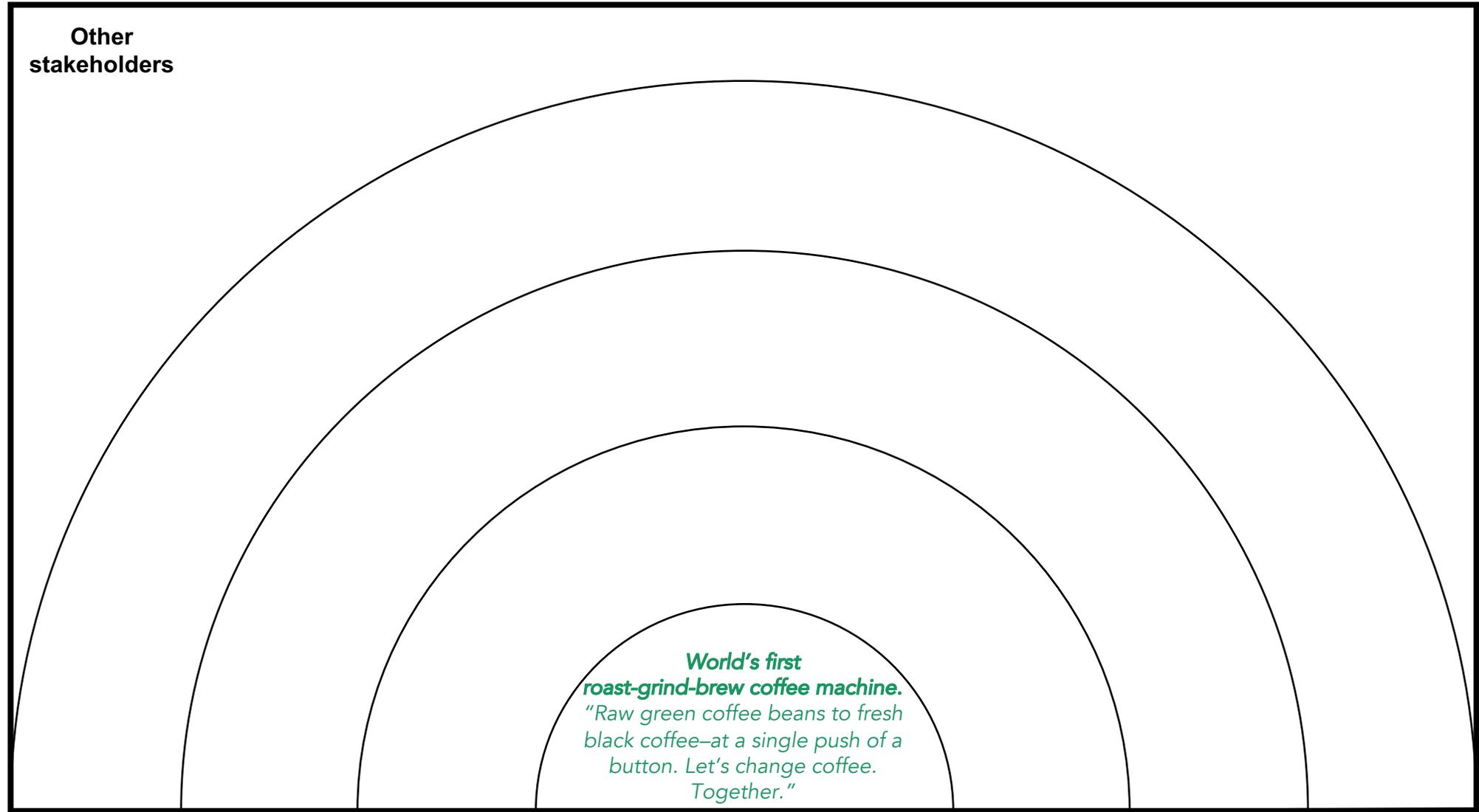
1. IDENTIFY THE MISSION OF YOUR ECOSYSTEM

Canvas 1: Define the purpose/mission of the platform. Why does it exist? Who does it benefit?

- For existing cases: How does the platform **describe the reason of its existence?**
- For new platforms: **formulate a short statement** describing the reason of existence for the platform.



When you are ready, **write the mission statement to the canvas**



Users

Contributors

**Leaders &
key partners**

**Ecosystem's mission
(or the focal company's)**

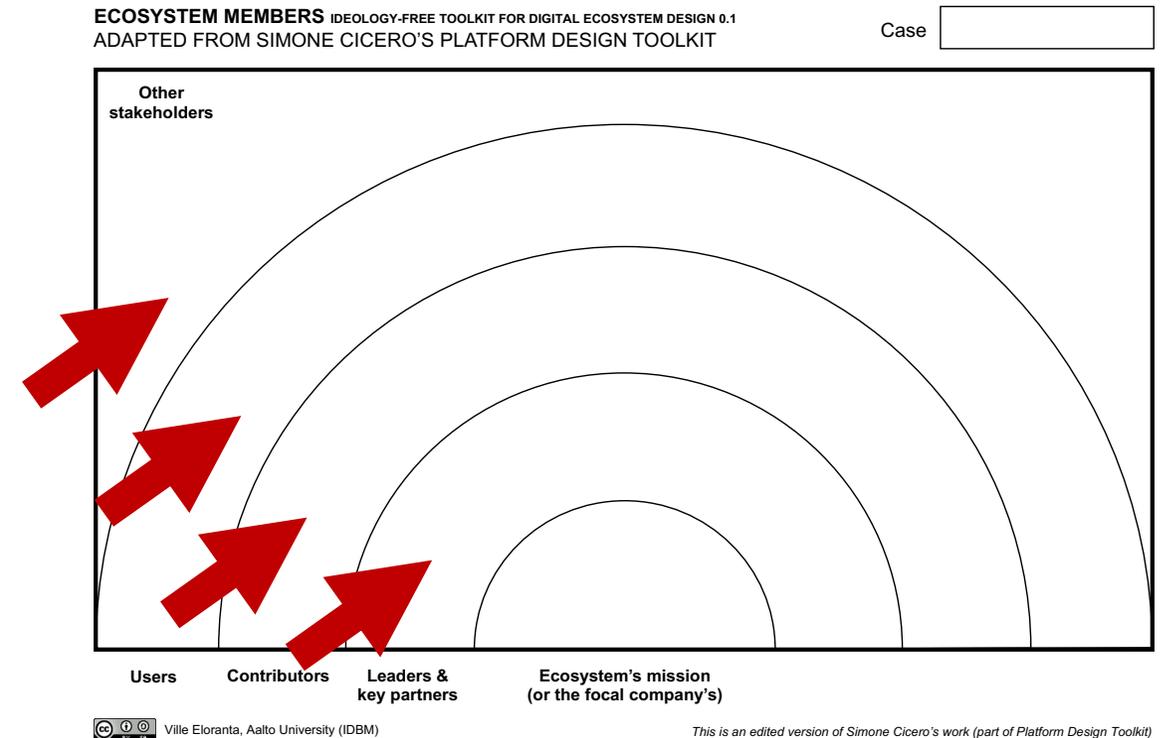


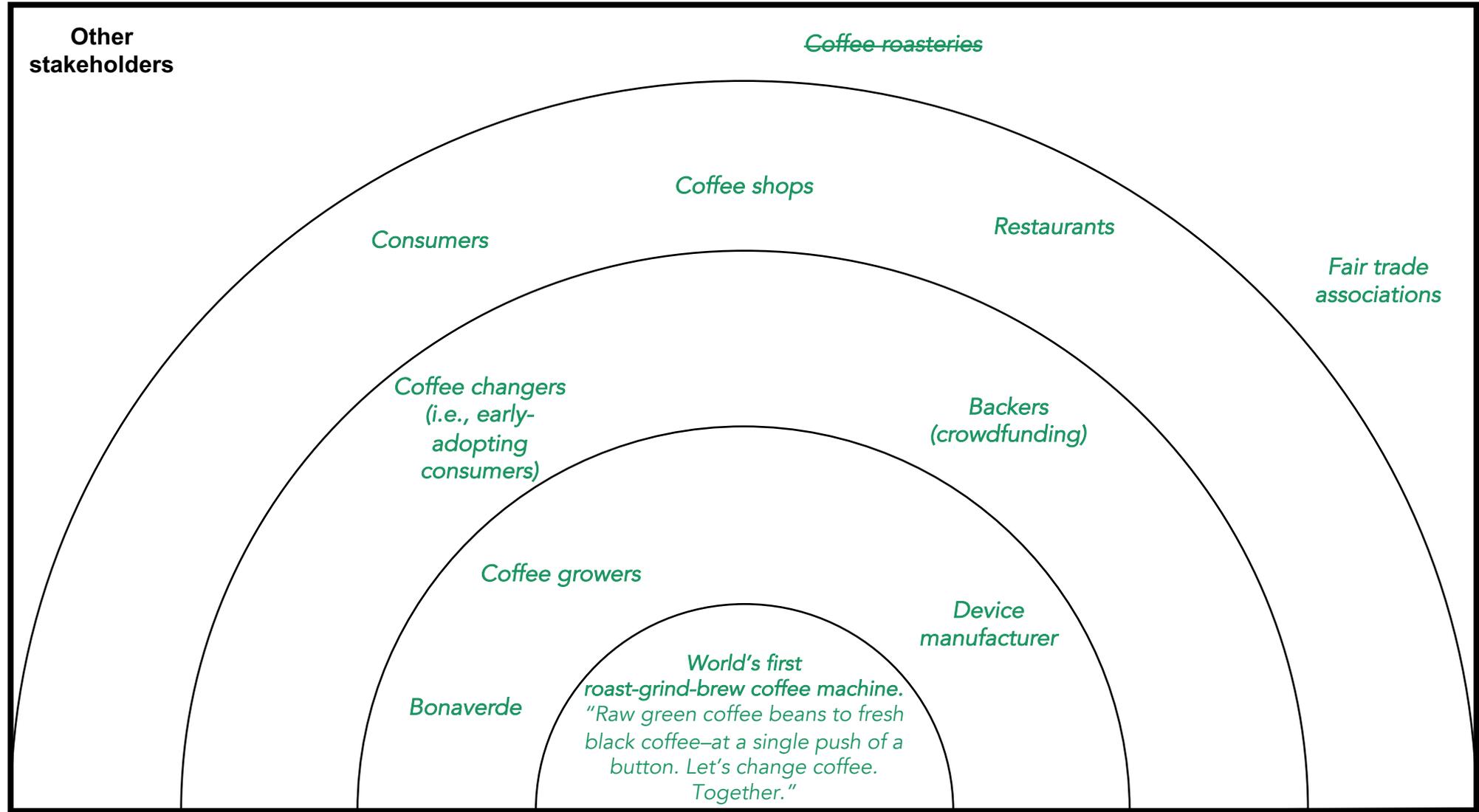
2. MAP THE MEMBERS OF YOUR ECOSYSTEM

Next, identify

- Who are the **leaders & partners** (members who are strongly connected to the platform), **contributors** (members who provide something to the platform), **users** (members who just use the services of the platform), and **other stakeholders** (parties which have an interest to the success of the platform but are not directly involved)?

Limit to or select **max 9 members** that are most relevant (for practical reasons)





Users

Contributors

Leaders & key partners

Ecosystem's mission (or the focal company's)



3. BUILD PLATFORM MEMBER PROFILES

Then, with Canvas 2, explore all the members in detail, and identify the potential they create to your ecosystem

- Illustrate **each with** some **details** that help you to understand the member's **characteristics** better.
- For each member, **identify which assets and capabilities** the member can provide to the ecosystem

ECOSYSTEM MEMBER PROFILE

Case

Member name	
Characteristics	
Valuable assets	Valuable capabilities

ECOSYSTEM MEMBER PROFILE

Case **Bonaverde'13**

<p>Member name <i>Bonaverde</i></p>	
<p>Characteristics <i>Provides the vision and design for a new type of product. Will run a platform for direct coffee trading. Needs and collects investments for facilitating these goals.</i></p>	
<p>Valuable assets <i>Trading platform Product IPR Connections for coffee sourcing</i></p>	<p>Valuable capabilities <i>Product design Manufacturing channel Value communication (engaging value proposition for the ecosystem)</i></p>



Ville Eloranta, Aalto University (IDBM)

Inspired by of Simone Cicero (PDT)

ECOSYSTEM MEMBER PROFILE

Case **Bonaverde'13**

<p>Member name <i>Coffee growers</i></p>	
<p>Characteristics <i>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.</i></p>	
<p>Valuable assets <i>Coffee plantation Agriculture machinery Beans</i></p>	<p>Valuable capabilities <i>Expertise on farming Roasting suggestions</i></p>



Ville Eloranta, Aalto University (IDBM)

Inspired by of Simone Cicero (PDT)

ECOSYSTEM MEMBER PROFILE

Case **Bonaverde'13**

<p>Member name <i>"Coffee changers" (early-adopting consumers)</i></p>	
<p>Characteristics <i>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).</i></p>	
<p>Valuable assets <i>Money (for crowdfunding) Bonaverde coffee machine Friends & social connections</i></p>	<p>Valuable capabilities <i>Social influence</i></p>



Ville Eloranta, Aalto University (IDBM)

Inspired by of Simone Cicero (PDT)

ECOSYSTEM MEMBER PROFILE

Case **Bonaverde'13**

<p>Member name <i>Device manufacturer</i></p>	
<p>Characteristics <i>Manufactures the devices based on Bonaverde's drawings. Chosen based on tendering process.</i></p>	
<p>Valuable assets <i>Employers Manufacturing line Factory</i></p>	<p>Valuable capabilities <i>Parts sourcing Manufacture design Distribution</i></p>



Ville Eloranta, Aalto University (IDBM)

Inspired by of Simone Cicero (PDT)

4. IDENTIFY THE MOTIVATIONS FOR INTERACTING

In Canvas 3, you will identify, what contribution or potential value each member has to give to the others?

- List the ecosystem members to the rows and columns of the matrix.
- For all cells of the matrix (between members) – identify **what is the potential value** the member can give to **another member** (if there is something). Remember, money is also valuable.

ECOSYSTEM MOTIVATION MATRIX IDEOLOGY-FREE TOOLKIT FOR DIGITAL ECOSYSTEM DESIGN 0.1
ADAPTED FROM SIMONE CICERO'S PLATFORM DESIGN TOOLKIT

Case

gives to ↗	A	B	C	...					
A		?							
B									
C									
...									

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" <i>(early adopters)</i>	Device manufacturer	Backers <i>(crowdfunding)</i>	Coffee shops	Consumers	Restaurants	Fair trade labels
Bonaverde		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.		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" <i>(early adopters)</i>	Money, first customers and (potential) social influence.	Money, loyal customers who believe in the cause.		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).		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 <i>(crowdfunding)</i>	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).			Support that enables a new consumer product.		
Coffee shops	Potential customers <i>(or competition)</i> .	Money (customer for beans).		Customer for devices.			Coffee, with or <i>without</i> 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 <i>without</i> using Bonaverde machine).		Money.	Base of (conscious) customers.
Restaurants	Potential customers.	Potential customers.		Customer for devices.		Competition.	Food (also coffee, with or <i>without</i> using Bonaverde machine).		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.	

5. DEFINE THE "VALUE PROPOSITIONS" FOR THE MEMBERS

Next, (still in Canvas 3), you will identify what contribution or potential value each member has to give to the others?

- What is **the benefit** that each ecosystem member gains from participating?
- By using the learnings in this course (or any other previous knowledge), and the contents of the motivation matrix, formulate a "value proposition" for each of the members. **What X gets from participating in the ecosystem?**

ECOSYSTEM MOTIVATION MATRIX IDEOLOGY-FREE TOOLKIT FOR DIGITAL ECOSYSTEM DESIGN 0.1
ADAPTED FROM SIMONE CICERO'S PLATFORM DESIGN TOOLKIT

Case

gives to ↙	A	B	C	...					
A									
B									
C									
...									

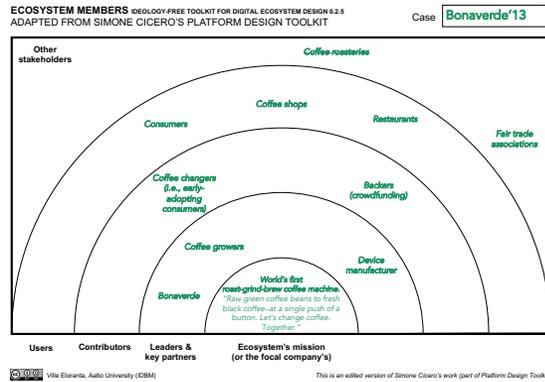
 Ville Eloranta, Aalto University (IDBM) *This is an edited version of Simone Cicero's work (part of Platform Design Toolkit)*

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 ↷	<i>Bonaverde</i>	<i>Coffee growers</i>	<i>"Coffee changers" (early adopters)</i>	<i>Device manufacturer</i>	<i>Backers (crowdfunding)</i>	<i>Coffee shops</i>	<i>Consumers</i>	<i>Restaurants</i>	<i>Fair trade labels</i>
<i>Bonaverde</i>	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.
<i>Coffee growers</i>	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.
<i>"Coffee changers" (early adopters)</i>	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.)
<i>Device manufacturer</i>	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.
<i>Backers (crowdfunding)</i>	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.		
<i>Coffee shops</i>	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?
<i>Consumers</i>	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.
<i>Restaurants</i>	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?
<i>Fair trade labels</i>	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.





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 facilitating these goals.	
Valuable assets Trading platform Product IP Connections for coffee sourcing	Valuable capabilities Product design Manufacturing channel Value communication (engaging value proposition for the ecosystem)

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. "Changem" (in sales terms).	
Valuable assets Money (for crowdfunding) Bonaverde coffee machine Friends & social connections	Valuable capabilities Social influence

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

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 Employment Manufacturing line Factory	Valuable capabilities Parts sourcing Manufacture design Distribution

ECOSYSTEM MOTIVATION MATRIX IDEOLOGY-FREE TOOLKIT FOR DIGITAL ECOSYSTEM DESIGN 2.2.5
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.	Feasibility for better income. Some support and low distribution channel for social influence.	Coffee machine. Some support and search for social influence.	Job order. New business.	Coffee machine. Low cost of production.	New type of coffee to serve.	Coffee machine.	New type of coffee for store.	New medium to increase social goals.
Coffee growers	Coffee beans to put the machine.	More money way of selling coffee but also meeting their customer.	Coffee beans to put the machine. Direct contact and support.	Green beans to put the machine.	Same beans to put the machine.	New type of product & sourcing channel.	Coffee. Both use on Bonaverde machine and in traditional chains.	More info. Sourcing of the coffee, new products to offer.	Wants to follow their agenda.
"Coffee changers"	Money, first customer and generated social long revenue.	Money, type customer who believe in the cause.	Community of like-minded coffee enthusiasts to change in industry.	First customers to put the machine. Feedback for improvements.	Advocates for their investment.	Community of coffee lovers.	Examples to follow and emulate.		Positive feedback and influence.
Device manufacturer	Manufacturing facilities, expertise and knowledge, capital.	Machine line enables new, more direct, and profitable product.		Production orders for a new product type.	Device funding reward, custom coin.		Devices that enables a new option for making and selling coffee.		A new tool to track and trace the coffee supply chain.
Backers (crowdfunding)	Money.	Free personal customer or sponsor.	Network supports enabling the device and the community to rise.	Device that meets their demands.	Customer for device.		Product that enables saving new type of coffee.		
Coffee shops	Special customers (for competitors).	Money customer (for team).		Some side network, partly under team (if network).	Customer for device.		Coffee, with or without Bonaverde machine.		Consumption starts?
Consumers	Money, wider base of customers.	Money, wider base of customers.		User base for device.			Product to get cheaper, better, healthier, and more ethical coffee.	Money.	Base of interested customers.
Restaurants	Personal customers.	Personal customers.		Customer for device.			Competitor.	Food plus coffee, gift or nothing using Bonaverde machine.	Product that enables saving of new type of coffee.
Fair trade labels	Certified, qualified and support for the system.	Higher income, ethical, support for a system.	Legitimacy and support making better decisions.	Useful only for promoting new type of a device.	Legitimacy and support making better decisions.		Certified info for sourcing coffee.	Certified calls for sourcing their coffee.	Certified coffee sourcing.

Vita Etoranta, Aalto University (DEIB) This is an edited version of Simone Cicero's work (part of Platform Design Toolkit)

You should have time for at least these three canvases.

And, if you have the time, you can continue to map the activities and interactions >>

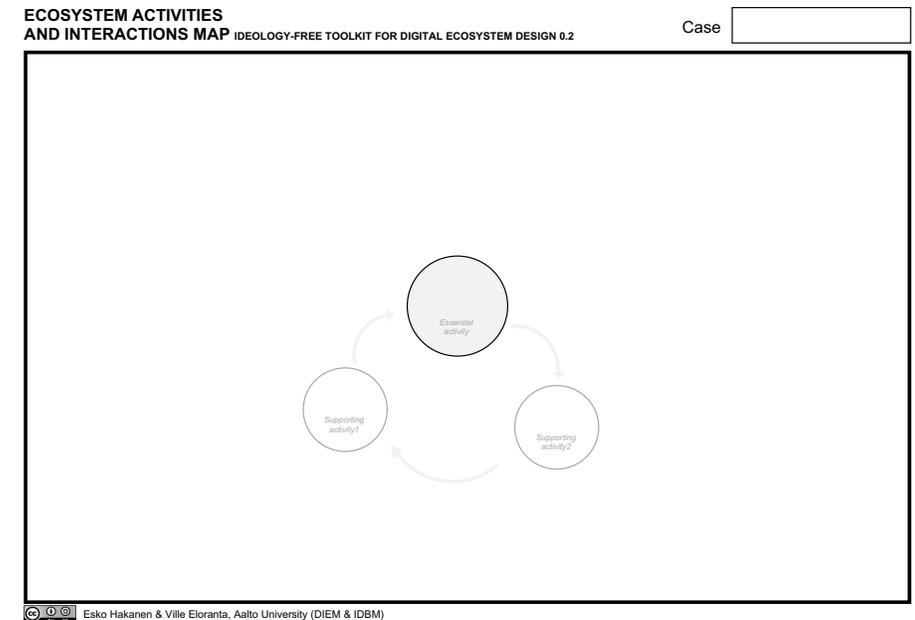
Extra task

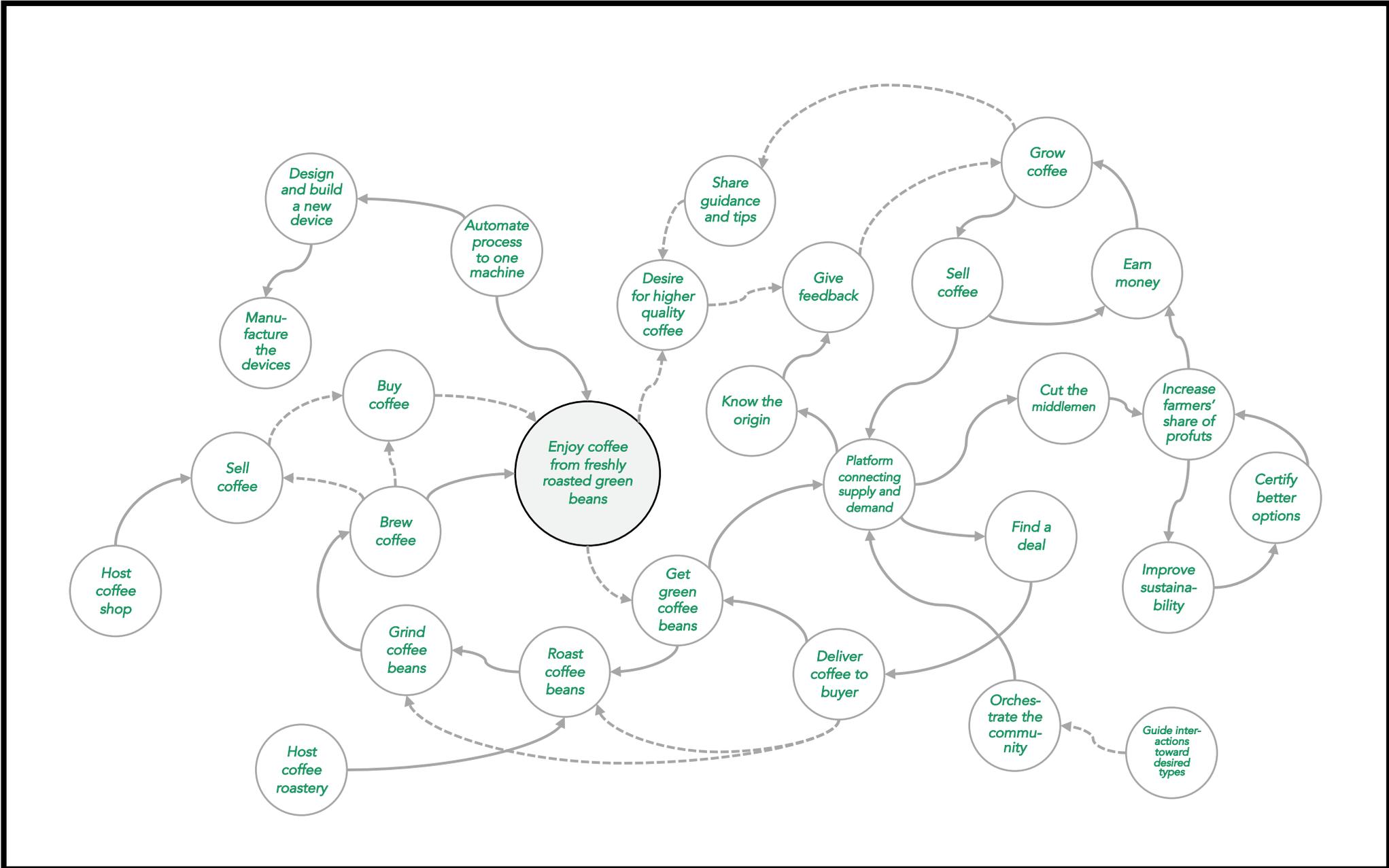
If you finish early

6. IDENTIFY THE ACTIONS THAT TAKE PLACE IN YOUR ECOSYSTEM

Canvas 4: Focus on the specific actions that take place in the ecosystem. Instead of *who* does something, focus simply on *what* is being done.

- To start, focus on the most **essential activity** that is in the **heart of the ecosystem**. Mark that to the middle circle.
- Next, mark activities that are **needed for the essential activity** to happen. Mark the activity and the interaction on the arrows between the circles (you can refer to the motivations matrix if needed).
- Continue the exercise, until you have listed all activities that are needed for a self-sustaining ecosystem, creating virtuous cycles that strengthen its operation





Extra task

If you finish early

7. DESCRIBE THE MEANS OF INTERACTION IN THE ECOSYSTEM

Next, in Canvas 5, we'll link different actors back to the activities.

- Place the activities from the map on the table. One activity (i.e. circle), one row.
- Consider, **who is interacting with whom**, through **which medium**? Are there external stakeholders involved?
- If you find a missing member (an external stakeholder) or a prerequisite for carrying out the activity, **make notes** of those.

Here, focus is on the means and medium of interaction. Who has the reigns?

ECOSYSTEM INTERACTION PROFILES IDEOLOGY-FREE TOOLKIT FOR DIGITAL ECOSYSTEM DESIGN 0.2.5 Case

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

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

AFTER FILLING THE CANVASES, PREPARE A SHORT PRESENTATION

For the presentation:

- ★ *3 mins* airtime (~*3 slides & 3 points*). Choose what to say!
- ★ We'll have 5-10 mins of Q&A. Please, make questions & comments on the other teams' efforts, choices or findings.
- ★ *Originality appreciated!* Focus on surprising, interesting, etc. insights.

GROUPS & CASES

(if you have already decided, use the chat)

1: Cousins, Thomas Koutaniemi, Katja Lampinen, Alvar Määttä, Arttu Pham Hoang, Yen	2: Haikonen, Juha Heikkilä, Juuso Jokivuori, Jani Koskinen, Niklas Lamprecht, David	3: Gennaro, Michele Kasper, Samuel Krüger, Madita Weinmann, Marc Zäch, Bolatito	4: Kidron, Martin Kuisma, Juho Ristola, Valtteri Tuovinen, Johanna	5: nn
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THE CANVASES can be found

as a pdf or pptx in MyCourses,

and as Miro-boards: https://miro.com/app/board/o9J_IOiErE=/

GROUPS & CASES

(if you have already decided, use the chat)

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THE CANVASES can be found

as a pdf or pptx in MyCourses,

and as Miro-boards: [https://miro.com/app/board/o9J_IOilErE=/
/](https://miro.com/app/board/o9J_IOilErE=/)

And if you are missing a case, consider:



Linux



You can start working now

~1,5h working time (until **11:00**)!

After filling the canvases, prepare a short presentation:

- ★ **3 mins** airtime (~**3 slides & 3 points**). Choose what to say!
- ★ We'll have 5-10 mins of Q&A. Please, make questions & comments on the other teams' efforts, choices or findings.
- ★ **Originality appreciated!** Focus on surprising, interesting, etc. insights.

We will make breakout rooms for each team.

We are here to help, you can reach us through Zoom.

We will also visit your groups to see how you are doing.

Remember to have breaks when needed!

Presentations

Wrap up >>



Aalto University
School of Science

Thank you!

Contact:
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