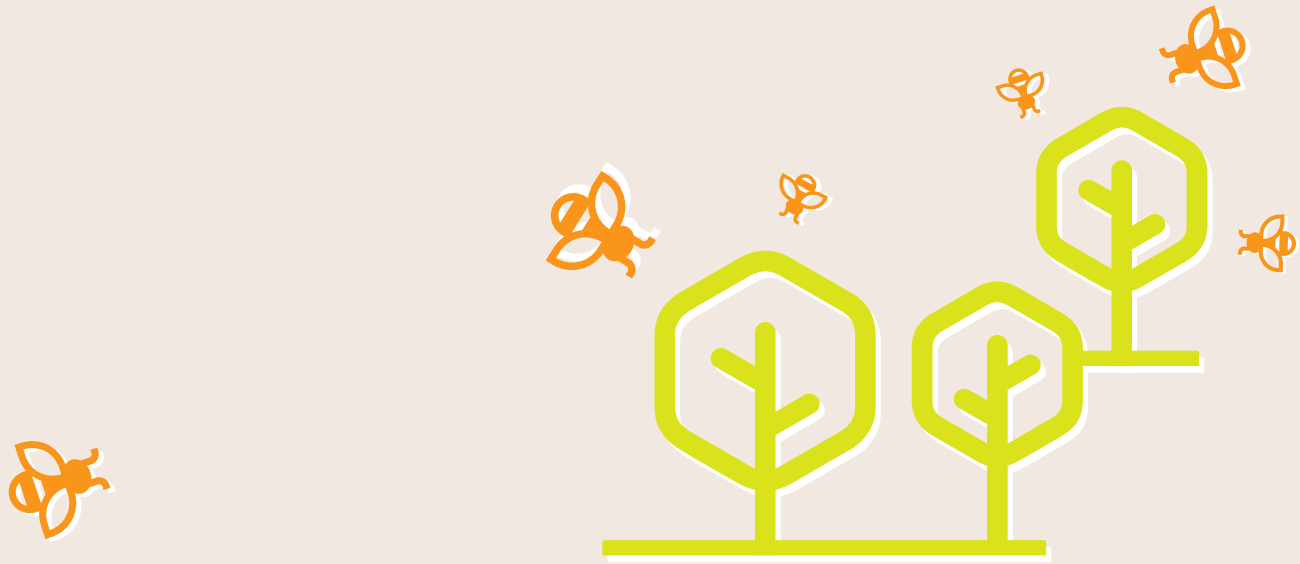
PELOTON



BEES AND TREES

Unique Partnerships to Co-create Sustainable Business

DEMOS HELSINKI

Aalto University
School of Business

The Bees and the Trees project is coordinated by think tank Demos Helsinki and carried out in collaboration with Aalto University School of Business. The project is funded by the Business Finland Cleanweb programme and the business partners.

The project is part of Demos Helsinki's Peloton Club concept. For more information about Peloton, please visit www.pelotonclub.me or contact the authors.

ISBN 978-952-5844-30-6 (printed)
ISBN 978-952-5844-31-3 (pdf)

Bees and Trees
– Unique Partnerships to Co-create Sustainable Business

2018

DEMOS HELSINKI

Aalto University School of Business

PELOTON

BUSINESS FINLAND

Granlund

GO FAR DAY

BONAVA

FOURDEG

COOR

NOMENAL

S-RYHMÄ

RESQ CLUB

BEES AND TREES

Unique Partnerships to Co-create Sustainable Business

REPORT AUTHORS
Mika Kuisma
Tyyra Linko
Satu Lähteenoja
Armi Temmes

RESEARCH TEAM
Satu Lähteenoja
Roope Mokka
Johannes Nuutinen
Kati Vuks
Tyyra Linko
Antti Lippo
Katja Lairikko
Armi Temmes
Mika Kuisma

REPORT LAYOUT
Kirmo Kivelä

PHOTOGRAPHS
Meela Leino & Sameli Sivonen

BUSINESS PARTNERS
Bonava
Coor Service Management
Granlund
S-Group

Contents

Foreword

IN 2017, IKEA, Unilever and many other big players in the consumer business launched their startup collaboration programmes. They invest millions of dollars in venture funds to help finance startups related to their field. At the same time in Finland, OP financial group went into mobility-as-a-service business by bringing Drive Now to Finland and Amazon to brick-and-mortar services by Whole Foods acquisition. Why are companies doing this?

This report explains the importance and business opportunities rising from the big transformation our societies are going through at the moment. The shift to a digital, post-industrial and post-carbon world opens a lot of doors for new business models – and makes many of the old business models obsolete.

When looking at the new areas and the latest innovation, large companies are getting more and more interested in working together with startups. When we started this work two years ago, there were not many guidelines existing for large company – startup collaboration. Now the situation is totally different, just google the topic and you will get dozens of guidelines on how to organise such collaboration in a systematic way.

This report serves as a beginner's guide to an experimental collaboration between large companies and startups. The model does not require heavy investments or previous knowledge about the topic. The thematic focus is on consumer cleantech: new business models changing the way we live, eat, use energy and move around. The report is part of a research project called Bees and Trees. It demonstrates and develops collaboration models between small companies (bees) and large companies (trees) in the field of consumer cleantech.

This report consists of three sections. The first section provides an overview on business renewal, new business models of consumer cleantech and the rationale behind the idea. The second section describes the project flow and presents the four experimental collaboration cases we conducted during the project. The third section gathers lessons learned from the process and introduces the suggested Bees and Trees partnerships model with do's and don'ts for both large and small companies.

Warm thanks to the highly skilled advisory board for your valuable comments and contribution throughout the project: Lea Rankinen from S-Group as the chair of the advisory board, Matti Kuronen from Bonava, Johan Mild from Coor, Ken Dooley from Granlund, Tarja Teppo from Loudspring, Teemu Mäkitalo from Avanto Ventures and Ella Kylmäaho and Sanna Piiroinen from Business Finland.

In Helsinki, April 2018

Satu Lähteenoja and **Tyyra Linko**
Demos Helsinki

Armi Temmes and **Mika Kuisma**
Aalto University

SECTION 1:
RENEWAL OF BUSINESS NEEDS PARTNERSHIPS

Renewal of businesses is imperative

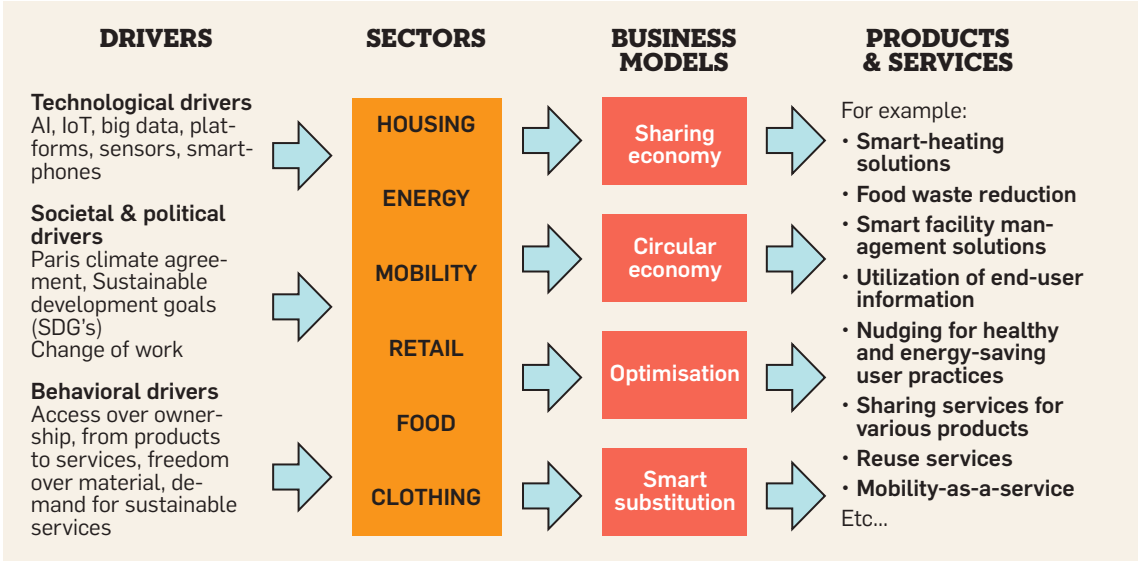
WE ARE LIVING AN ERA of big changes that are shaping all our societies. *Megatrends* such as digitalisation, climate change and scarce resources, global economy and the age of community-driven individuals are forcing businesses towards an unprecedented demand for renewal. Emerging trends and drivers opening space for new markets can be divided into three groups (See figure 1). **Technological drivers** such as artificial intelligence, internet of things, big data as well as the development of platforms, sensors and smart devices are using digitalisation to create new value.

Societal and political drivers such as regulations related to climate change, growing interest and demand for corporate social responsibility, and the global sustainable development goals of Agenda 2030 are further augmenting the call for new innovation and solutions. **Behavioural drivers** such as the growing demand for access over ownership, the value of freedom over material savings and the deepening appeal of sustainable services are visible all over the Western world.

A myriad of economists see huge business potential in the combination of these drivers. E.g. MIT Sloan Management Review (2018) names the convergence between digitalization and sustainability as the "perfect transformative storm in the global economy". According to them, this convergence in business and society offers executives both opportunities and challenges, within and across organisational boundaries. One of the prevalent trends is that traditional product and production oriented business models are substituted by an increasing service orientation.

The most common mistake of businesses is to think that on-going change does not affect their field of operating – a mistake made by many before, for example the media, taxi and hotel industries. In 2016, six of the top ten list of the largest companies were oil and gas companies. Recognising the sway of the Paris Agreement and the global fight against climate change, we predict that the list of the largest companies will look very different by 2030. Thus, an interesting question remains: how and from where do new top-performing businesses emerge?

FIGURE 1. Technological, societal and behavioral drivers lead to creation of new business models as well as products and services in the fields of e.g. housing, energy and retail.



Where do new businesses come from?

NEW BUSINESS SPHERES may arise in highly diverse and unexpected areas. Often they are the result of unexpected career changes or partnerships. They can sweep away entire fields of industry, but they may just as well arise as new ventures of established companies. More often than not they are, however, new entrants to the field. That's why it is beneficial to be open and experiment boldly, also with companies that are not working in the same field.

Potential candidates for the next large global companies are the so-called unicorn companies. Unicorns are new ventures whose valuation exceeds a billion dollars. In 2016, the list of the biggest unicorn companies included companies like Uber, Airbnb, Snapchat and Wework. Six of the top ten list of unicorn companies operate in the fields of on-demand services and online market platforms. Nearly all work with consumer-oriented digital services.

New businesses are also created by smartups. These refer to companies disrupting our lifestyles and creating new business models around our daily lives. Smartups are startups and small companies that make use of the convergence of the change drivers in figure 1. Smartups bring about innovations related to activities that consume most of our natural resources, as well as household budgets: housing, mobility, energy and food. The growing market created by the drivers mentioned in Figure 1 is called consumer cleantech. Consumer cleantech products and services save natural resources by creating new, more flexible, cheaper, and better forms of living, eating and mobility.

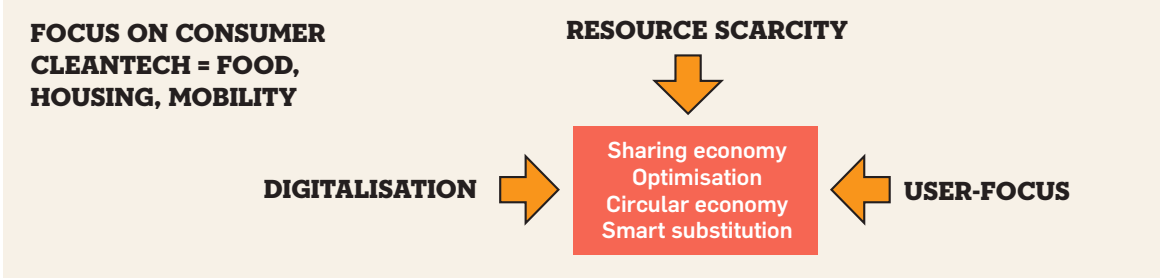
In recent decades, high growth companies have largely focused on areas like communications and entertainment, where people spend about 10% of their annual income. In the EU, for example, people spend more than a third of their income on housing, a tenth on transportation and nearly a fifth on food. This translates into tens of thousands of euros per year per person. Similarly, these three sectors together consume over 70% of the natural resources we use – and produce the greatest CO_2 emissions, as well.

THE SMARTUP VALUE PROPOSITION is to make our everyday life easier and more affordable. In order to deliver this, they utilise real-time digital communication to optimise the use of physical resources. This way, smartups facilitate a shift away from resource-heavy consumption patterns and towards sustainable lifestyles.

There are four ways in which smartups circumvent natural resource scarcity (see figure 2):

1. Through **sharing**, more value can be created with the same amount of resources.
2. Applications can be used to **optimise** the use of a resource.
3. **Upcycling** and other **circular economy** solutions can reduce waste and increase the level of reusing materials.
4. Existing products and services can be **dematerialised** and **substituted** with more efficient ones.

FIGURE 2. Four typical business models of smartups.



SMARTUPS TYPICALLY OPT for experimentation. In their search for scalable business models, smartups experiment with product or service concepts, which may or may not break through.

Smartups will, when successful, change the way we use products and services. They can either disrupt old services and business models or add to and enhance them. Due to their examinatory nature, smartups constitute highly intriguing types of organisations in regard to collaboration. At the same time, they are in a need of support from large companies and public organisations. The business models they work on are novel and they are the ones creating totally new markets, which is often time-consuming. Smartups also often need help in solving legislative challenges, as legislation in their field of operation may be inadequate.

THE PRODUCTS AND SERVICES developed by smartups aim to free their users from inefficient use of resources by providing smarter ways of living, moving about, and consumption of energy, thus reforming the very core of our everyday lives.

Forerunner companies have societal targets

BASED ON THE DRIVERS described in Figure 1, a clear conclusion is that the next major wave of technologies and business models is driven by sustainable development. Therefore pioneering companies will not let green initiatives and social responsibility remain at the margin of their business activities. They don't consider corporate responsibility as an added cost either. On the contrary, they see ecological and social challenges as grand opportunities to stay ahead of the competition. Forerunner companies have understood that massive global sustainability challenges require radical innovations and solutions that also disrupt existing old business models, and, concurrently with this, require changes in the managerial mindset. Most importantly, they are able to transform big challenges into business opportunities before their competitors.

Regardless of industry, in best practice businesses sustainability factors are incorporated into business decisions at every point along the life cycle of all products and services. Instead of forming niches that develop in isolation of mainstream business, environmental and social considerations have become mainstream in forerunner companies. Thus, ecological and social factors are treated systemically, preferably in terms of zero harm and positive societal impacts. The challenge is to translate the rhetoric into everyday practice.

Until quite recently, the market needs related to e.g. climate issues or customer potential at the base of the pyramid were largely ignored in most companies. Political decision-making has similarly remained sluggish in introducing efficient solutions to global sustainability challenges. However, these challenges urgently demand solutions, i.e. product-service systems and innovations that are able to remediate them. Stakeholders of companies, such as consumers, employees, investors, and sustainability professionals, are expecting win-win solutions from businesses concerning common global sustainability challenges. New market forces reward companies which create value for society and the environment. Forerunner companies have realised this, and they are reformulating their strategies and goals with the aim of transforming their core business to be better able to lithely meet changing stakeholder demands.

Why forerunners work with smartups

ESTABLISHED COMPANIES TEND to be path dependent, tied to their past decisions and investment histories in one way or another. There are various mechanisms that cause this stickiness, including the founding conditions of the company, earlier successes that are repeated, assumptions of the success factors of the business model and competences developed in the company. These may lead to serious lock-in-situations when the business environment evolves in a new direction.

Additionally, it is often unappealing for large companies to launch new initiatives if they seem small in scale. They look like "chicken food" - a term introduced by the former head of Intel Andy Grove for new business ideas. "Chicken food" -initiatives are often refused in the decision-making processes of large companies. Integration of new ventures in the management systems of large companies is difficult as their logics of operation are so distinctive from the norm.

Successful companies are aware of the risks of stickiness and implement for example the following strategies: careful observation of even the weakest signals of the business environment, continuous experimentation and consciously flexible strategy. In the two first tasks collaboration with smartups is a very good tool. Especially early stage smartups are lucrative sources in understanding new trends, ideas and values in the society. Common experimentation may require a somewhat more developed situation in the smartup company. Experimentation also requires flexibility of the large company and its strategy.

A startup's entry to the market is often costly, and due to the high entrance cost, they may favour the option of partnership with a large company. This will enable the large company to make use of external smartup innovation that will be positive for its development. The collaboration between large and small companies is especially relevant in the field of consumer cleantech, where markets are often small in the beginning. Large companies can help startups to reach the lead users and, at the same time, mainstream new services.

A solution for the problems of integration of new ventures is strategic collaboration where the independence of the "new venture" is maintained. The established company gets new ideas and initiatives, which otherwise would be difficult to initiate. The startup company gets access to the resources of the established company especially in the spheres of networking and marketing, in some cases also production. The benefits of collaboration are summarized in Table 1.

TABLE 1. Benefits of collaboration for large companies and startups (Based on e.g. Schättgen & Mur 2017)

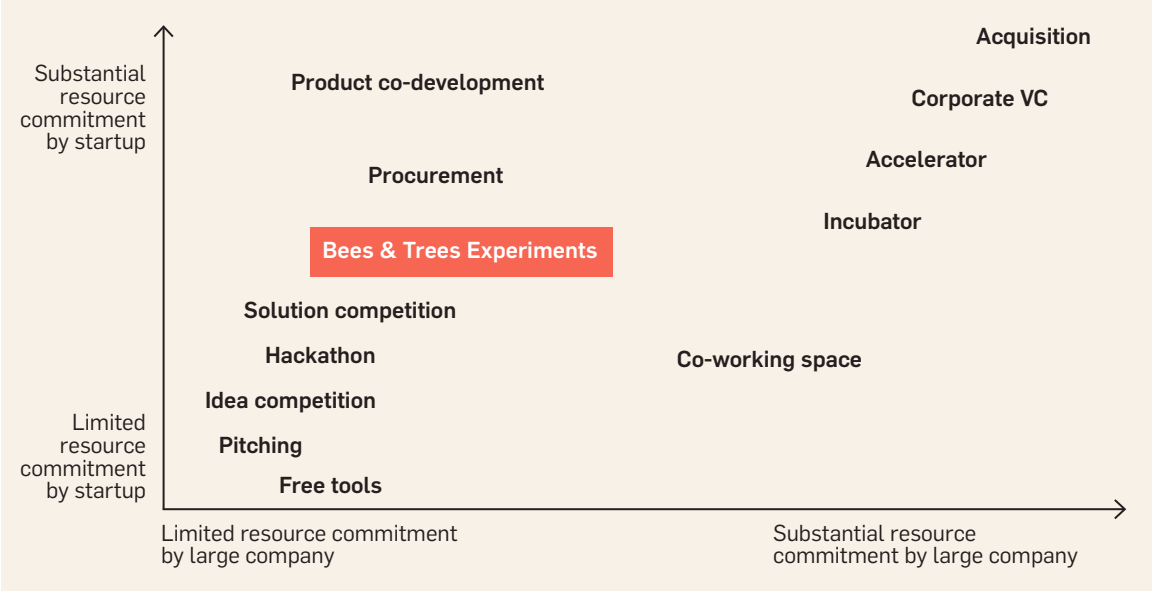
Benefits for large companies in working together with startups	Benefits for startups in working together with large companies
• Agility and adaptation to technological change	• Access to large companies' contact network and client potential
• Faster access to new market opportunities	• Testing new ideas by using industry experts of the large company and pilots in real-life experiments
• New ideas and co-innovation opportunities	• Creating references and getting additional (international) visibility in the market (commercialization)
• Potential for new products and services complementing the existing business models	• Scaling up new business model faster (large company's marketing channels, and also manufacturing network)
• Fostering relevant business ecosystem growth to support corporate vision of the future	• Investment opportunities (later, if successful)
• Improvements in industry performance	

Hockerts and Wüstenhagen (2010) presented a view of industry transformation, where the initial phase is characterized by sustainability initiatives of small firms, Davids. However, the sustainable transformation of industries is not going to be brought about by either small Davids or large firms, Goliaths, alone. Instead, inter-firm cooperation between large companies (established companies, trees) and new entrants (smartups, bees) is considered as one way through which large companies can adapt to radical (technological) change. Achieving the sustainable transformation of an industry requires a mix of disruptive and incremental innovation from the interplay of Emerging Davids and Greening Goliaths. Thus, interaction between large and small is essential.

What collaboration modes are available?

FROM SIMPLE TRANSACTIONS to cocreation to mergers and acquisitions, there are several complementary methods available that increase the ability of the large company to support startups and also benefit from the potential of specific startups. The large company can organise or its staff can participate in matchmaking events, hackathons or challenge competitions. Depending on the resource commitment by both companies, there are various options available for continuing or digging deeper after initial experimentation (see Figure 3). Many of these options extend beyond the scope of this handbook, which focuses mainly on the initiating, establishing and first progressing steps of an experiment between corporate and startup. It is important to understand that the main activities and challenges to collaboration vary at different levels.

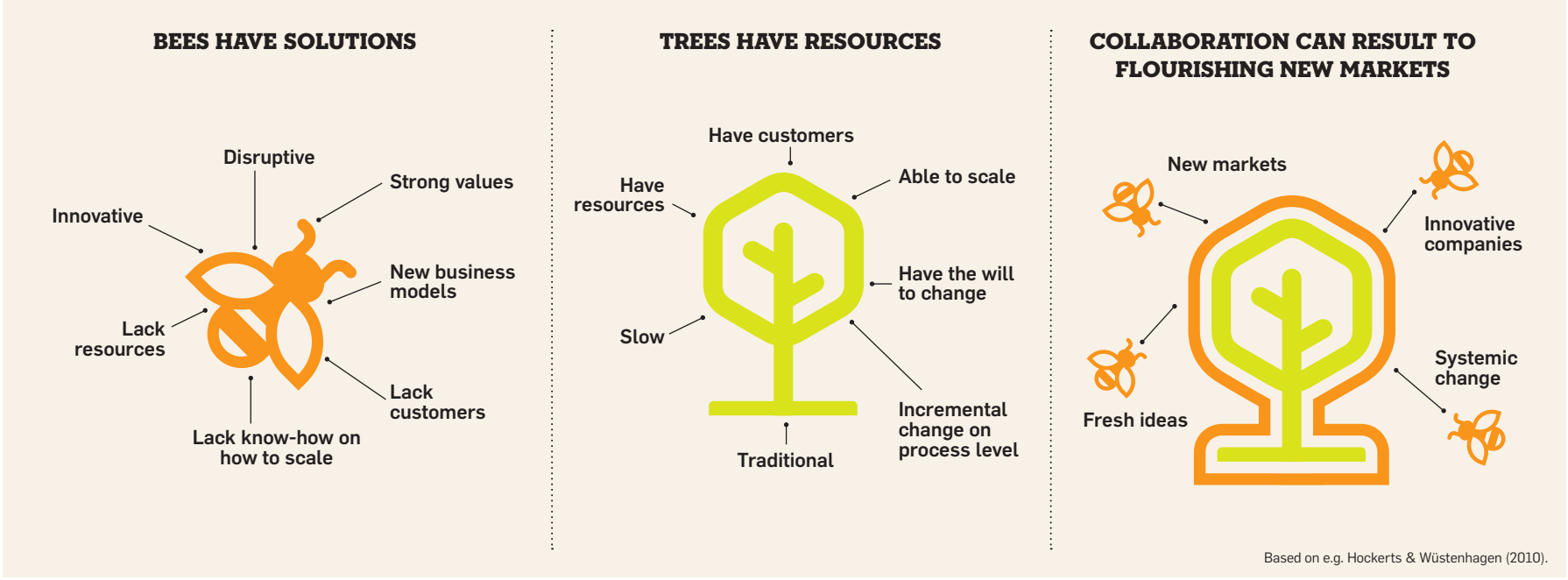
FIGURE 3. Potential modes of corporate startup collaboration (modified from Bannerjee et al. 2016 and EK & Tekes 2016). Bees and Trees type of collaboration goes somewhere between Hackathon and Procurement.



What is Bees and Trees?

THE NAME OF THE RESEARCH PROJECT – Bees and Trees – comes from research on social innovations. According to the model 'trees' are large organisations such as governments, NGO's or companies, which have an established position, resilience and wide networks, but lack creativity. 'Bees' are small organisations, groups or individuals, which have new creative ideas, are agile and energetic, but lack the resources to achieve impact. Social change depends on alliances between 'bees' and 'trees' as these different actors play different roles. Effective innovation also requires 'cross-pollination': applying ideas from one area to the problems of another. The idea of complementary assets in collaboration and societal impact is central to the Bees and Trees model.

FIGURE 4. Complementary characteristics of Bees and Trees.



Based on e.g. Hockerts & Wüstenhagen (2010).

SECTION 2:
THE BEES & TREES PROCESS AND FOUR BUSINESS EXPERIMENTS

THE IDEA AND NEED to develop a new "Bees and Trees model" came from the long-term work Demos Helsinki has contributed to under the concept of Peloton. Under Peloton Club, Demos Helsinki has organised dozens of co-creation workshops for large companies as well as more than ten innovation camps and acceleration programmes for consumer cleantech startups. After working in excess with both large and small companies and witnessing how they work and what they are missing, we wanted to create a model that brings them together in an experimental way. In the Bees and Trees model development we tested two things that have not been done in the earlier Peloton programmes:

1. Facilitated business experiments between one big and one small company
2. The scaleup camp after the experimentation phase

Structure of the Bees and Trees process

FOR THE PARTICIPATING large companies and startups, Bees & Trees was a one year project that aimed at learning about business collaboration based on experimentation and co-creation. The project team facilitated the process by bringing the companies together and helping in the design of the experimentation. The project consisted of the five phases summarized in Figure 5, which are further explained in the following text.

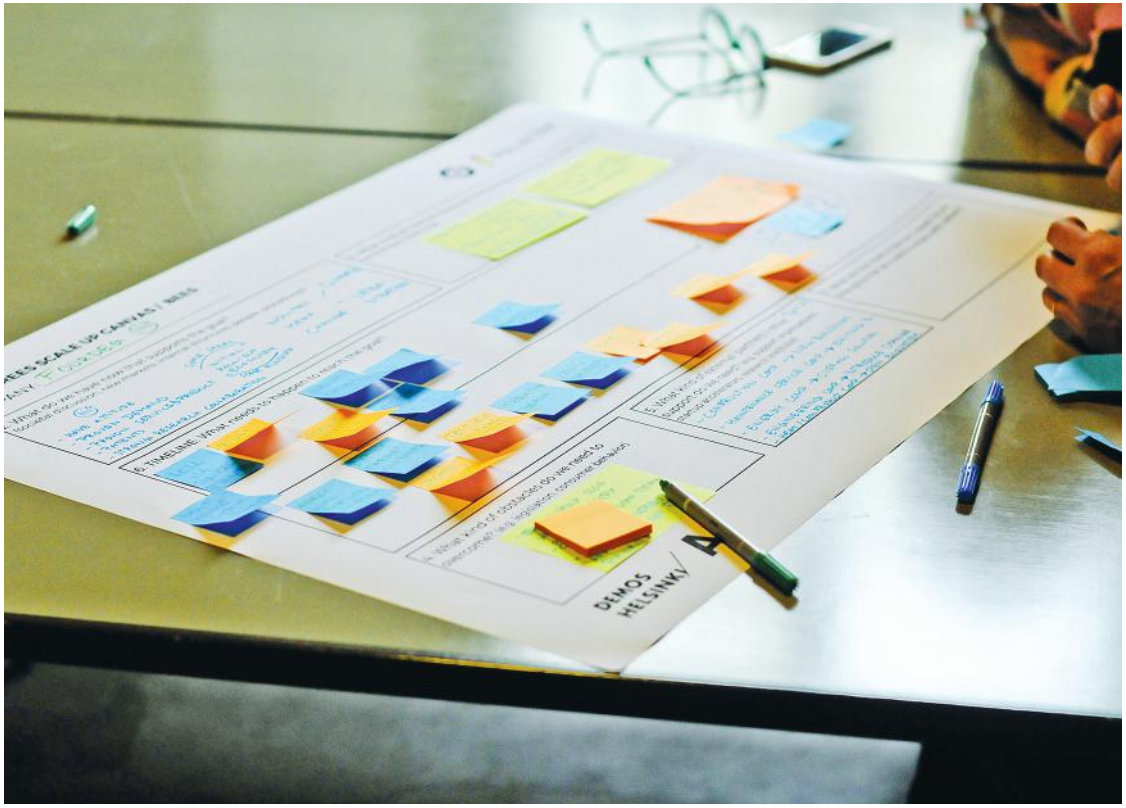
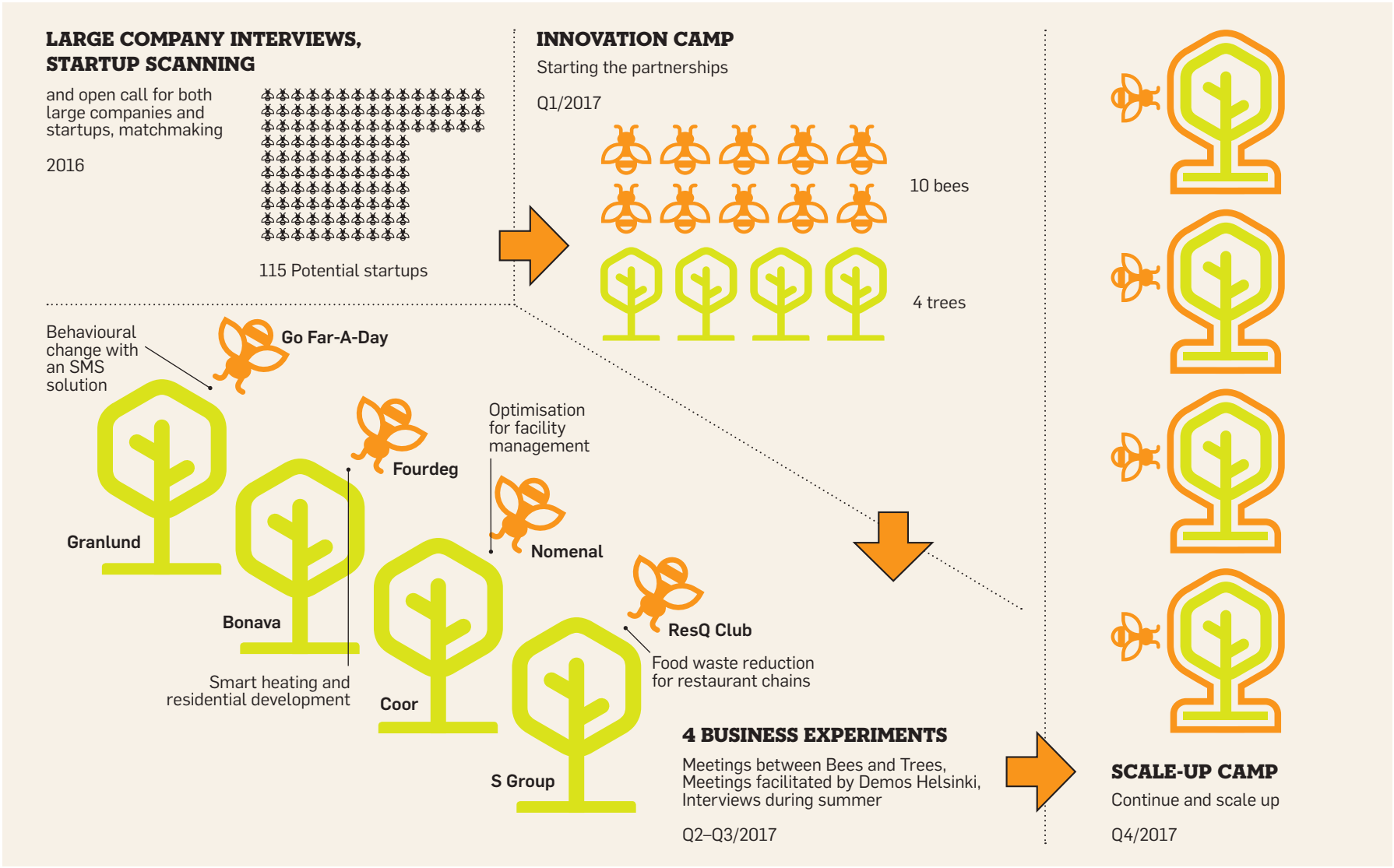


FIGURE 5. The Bees and Trees process.



1. Startup scanning

BASED ON THE NEEDS of the participating large companies, hundreds of startups were scanned. Results about the scanning and about the most interesting prospects were shared and discussed with each of the large companies. These startups were also invited to the matchmaking event. Examples of the scanned startups are listed in Table 2 (page 16).

TABLE 2. Examples of smartups scanned for the Bees and Trees process

ENERGY	Smart home energy optimisation	Fourdeg
		Greenely
		There Corporation
		Ensavetec
	Smart feedback from buildings	Nomenal
	Smart lightning	Houm.io
		Valtavalo
	Smart home appliances	Cosify
	Solar energy as a service	Solarcity
	Temperature as a service	Optiwatti
FOOD	Waste food utilization	ResQ Club
		From Waste to Taste ry
	Waste food minimization	Foller
	Resource smart food	Entocube
		Helsieni
		Särkifood
	Smart harvesting	Urban Food Initiative
		Grow the Planet
	Local food	Benjamin's Maatilatori
		FarmDrop
MOBILITY	Mobility as a service	Whim
		MaaS Global
	Mobility optimisation	Mobinet
	Vehicle automation systems	Sensible4
	Shared taxi rides	Kyyti
	Vehicle sharing	City Car Club
		Lådcyklar
		Ekorent
	Peer-to-peer delivery	Piggybaggy
		Bringbee
	Vehicle upcycling	Suomen Bioauto
	Smart energy for mobility	Parkkisähkö
BUILT ENVIRONMENT	Smart building site documentation	Vizibler (Digiraksa)
		Sowellus (Raksamittari)
	Air purification	Naava
	Indoor positioning	Indoor Atlas
		Proximi.io
	Waste collection optimisation	Enevo
	Building data visualisation	3odel
RETAIL	Smart shopping	SnipSnap
	Peer-to-peer secondhand	Remarket
	Clothing as a service	Nurmi Clothing
	Online marketplace platform	Sharetribe
	Online bartering	Yerdle
		Swap.com
	Reusable delivery packaging	Repack
COMMUNITY	Neighbourhood community application	Represent
		Meido
		Yhteismaa
	Community information gathering	ChaosArchitects
	Community planning	Community PlanIT
	Crowdfunding	WeShareSolar
		Spacehive
		Joukon Voima
	Rental matchmaking	Village coliving
WORK	Co-working space	Impact Agency
	Local microwork	Generation Ungdom
		GoWorkABit
	Home office	Hoffice

2. Matchmaking

THE KICK-OFF for the collaborations was an informal matchmaking event organised by the research team in September 2016. The aim of the event was increase the possibilities for a successful start of the collaborations at the upcoming Innovation Camp. The large companies, as project partners, had a chance to get to know ten potential startups in the field of consumer cleantech. Both the startups and the large companies had the opportunity to pitch their solutions and needs. Some large companies found potential partners for the collaboration experiments already in this event, but some continued search. All large companies met many startups before the Innovation Camp.

3. Innovation Camp

THE FIRST INNOVATION CAMP of the Bees and Trees project took place in Helsinki in January 2017. The aim of it was to create a common understanding between potential partnering companies and to plan the collaborations. The first day's thematics revolved around possible expectations and concerns, and the formulation of initial goals of collaboration. The large companies shared knowledge about their industries, and startups explained their business models and ways of working. If the interests were not matched, it was possible for a startup to leave the camp at the end of the first day. The second day focused on planning the collaboration experiments, in which the companies were expected to test a solution or concept which would combine their expertise. The role of the research team was to facilitate the work and support the communication between the corporate-startup pairs.

WHAT WAS CRITICAL FOR THE FINAL STARTUP CHOICES BY THE LARGE COMPANIES?

- Not selling their idea but being ready for co-creation
- Not too early-stage, some business already
- Proactive attitude towards managing collaboration
- Trust and personal chemistry

4. Experimentation

THE EXPERIMENTATION PHASE began after the Innovation Camp. During the time between March and October 2017 the partnering companies continued the projects in pairs. The facilitators from Demos Helsinki were in contact with the companies and organised meetings to discuss the progress and plans for next steps. One of the four cases was developed into a two-week experiment validating a solution in the large company's premises. For two collaboration pairs, the practical experiment during this time was formulating a mutual concept and beginning to sell it to potential customers. For one case, the experiment was focused on internal development within the large company. These experiments are further described in the next sections.

WHAT IS A BUSINESS EXPERIMENT?

Experiment means trying out or testing an idea, solution, concept or technology on a small scale – and using the learnings of the experiment when implementing it on a large scale.

CHARACTERISTICS OF AN EXPERIMENT

- It is aimed at testing the real-life potential – either business potential or societal potential of a practice.
- It is quick and cheap and reversible – it does not lead to irreversible commitments.
- It is done with actual people connected to the practice and involves the stakeholders necessary for understanding the potential tested.
- It is based on a hypothesis of how the practice works. It needs to be sufficiently concrete and falsifiable. It is based on clear assumptions.
- It is based on a shared commitment. It is not mere selling of a product or service.
- It creates learning of the practice. It is not only doing.

5. Scale-up Camp

IN OCTOBER 2017 the research team organised a scale-up camp to sum up lessons learnt from the experimentation phase. The purpose for the companies was also to either plan how the collaboration would continue or reach agreement on finishing it. With the help of a scale-up canvas, all large companies started drafting more systematic processes for future collaboration based on the lessons learned from the Bees & Trees experiments. The startups worked on their strategies for the next three years from the perspective of what kind of partnerships they would require.

Ken Dooley, Granlund

Ken Dooley is in charge of digitalisation related issues at the innovation and development department of Granlund. His professional background also includes lengthy expertise in the sphere of sustainable consulting. Ken has a particular interest in new change-makers among startups as he thinks that large companies could attain considerable success through integration of startups' technologies in their business models.

"Startups are bringing discrete, separate kind of isolated changes, and then the really big players are bringing these super well-connected solutions. Both scales are needed."

Granlund has extensive goals for business growth and the company has strived to develop a favourable culture for startup screening and experimentation. Based on Granlund's experiences, in terms of the maturity of the startup, attitude and skills matter more than the timing of the experiment.

"I don't think there is any time too early to start working with a startup, because it's a mindset thing and a skill set thing. Go-Far-A-Day is a perfect example of enthusiastic people who have a relevant skill set."

According to Ken setting short term goals and deadlines is crucial for a successful experiment. The experiment benefited from implementing it in the Bees & Trees context with specific project schedules and facilitation.

"It was really nice to have that kind of formal hand-holding, writing down the meeting minutes and setting deadlines. The facilitation has been really important. I believe these experiments need good project management."

Granlund & Go Far-a-Day: **Behavioural change with an SMS solution**

GRANLUND FOCUSES ON innovation and development of new energy solutions, information technology and integrated design. It has ambitious international growth targets, and thus it needs to create new business solutions to serve its present and potential customers. Granlund's numerous project activities aim at affecting the environmental and social impact of building users. From this perspective, Granlund wanted to experiment on what they could learn about their employees and company, should they collect data from a specific building and its users. This was put into test in collaboration between Granlund and a pre-startup stage team Go-Far-A-Day which had previously attended Granlund's hackathon. For Granlund, it was thus a low risk to invite them to the experiment.

GRANLUND (2016)
Field: Design, consultancy and software services in energy efficiency
Revenue: 61,7 M€
Number of employees: 706
Countries: 4 (Offices in Finland, Sweden, Dubai, China)

Go-Far-A-Day wanted to test an SMS-based service for an easy way for people to interact with the building and to explore ways for people to give feedback. Their longer term plan is to help companies and offices to become more eco-efficient and nudge people to make healthier, more sustainable decision in their everyday life - change their behaviour. Consequently, the service in testing did not require uploading any smartphone apps to take part of the experiment. Users simply had to click "Yes" or "No", and at the end of the month, reports were provided on whether the experiment was successful or not.

In the experiment, Granlund challenged its own employees to avoid using the elevator at corporate headquarters for one month. Go-Far-A-Day provided Granlund with statistics about the progress of the challenge. At the same time the two companies explored what they

could learn from each other. From Granlund's perspective, that kind of a service offered by a startup could constitute a nice, easy-to-use complement to some other services that their customers had been interested in. For Go-Far-A-Day the experiment offered a possibility to test the viability of setting up an SMS getaway to host such a challenge and a good reference case on successful collaboration with a corporate partner. The challenge was sent by SMS to 391 people and in the end about 250 people joined the challenge. Granlund got some good data on which department and what percentage of people got involved. They also got feedback that because of the challenge, people started using the stairs more often, so the hypothesis of achieving change by nudging people to change their behaviour got support.

CHALLENGES:

- How to sell the idea internally among the employees (also e.g. in the client company)?
- What to do and how to proceed after the experiment?

ACHIEVEMENTS:

- Clear and rapid experiment with simple, easy-to-use, and well-known technology
- Proof of possibilities for behaviour change among users

GO FAR-A-DAY
Product: SMS-notification-based tool for behavioral change
Revenue: -
Size of team: 3
Countries: 1 (Finland)
Founded in: Pre-startup team formed in Granlund hackathon 2016

Lucia Nazzaro, Go Far-A-Day

Lucia Nazzaro, a software engineer, started the project Go-Far-A-Day in a hackathon arranged by Granlund. Two original members of the team invited her to join the project in order to improve their idea of an app built around the gamification of office activities. Thus, GFAD could be considered a team at a pre-startup stage. The team shares a vision of promoting sustainability in the society through solutions such as theirs. However, the business model itself remains less lucid, mostly revolving around the idea of implementing their first experiment.

"We have not really thought about collaborating with other companies. I think we still need to think it through. We're glad that the project with Granlund went through without any problems."

She was extremely pleased about the way the experiment demonstrated that the latest technology or the most cutting edge smartphone were not preconditions for performing such a function. Futurewise, she was the most concerned about how the resources available to her team could be best mobilised.

"I would like them to be more involved, but of course it's not their fault, if it's only IT-related tasks to be done. It's just a matter of who can do what."

In terms of the number of replies from the challenge, the experiment went better than the team even dared to imagine. The experiment provided the startup team with a great reference case and the positive experience of working with a large company. The team is looking forward to figuring out new solutions that would involve all the team members.

Matti Kuronen, Bonava

Matti Kuronen, the region manager of Bonava, believes startups to be key actors in the businesses of housing and construction as they bring in fresh ideas to an industry where most players exhibit a certain level of traditionality.

"When you talk with people, I think there is a genuine enthusiasm and interest towards sustainable innovations inside the industry. Nevertheless, it's so difficult to start doing something else than what you've always done and what is required."

The biggest challenges according to Kuronen arise from the project time scales in the field, which might be too long for startups.

"We had this working hypothesis that for example the time scale is very different. If we would like to bring something new to the next housing project we are planning, or to the future residents, the project would be ready then in 2,5 or 3 years. In that time the startup could have lived and died many times or their service might have changed a lot."

Even though time and resources for collaboration projects can sometimes be challenging to find, Kuronen emphasizes that there should be enough space for learning.

"Whether it in practice works or not, the people working with these kinds of projects will in any case learn a lot. We want to learn the best ways how to bring new ideas to our planning processes, ideas that we have observed or heard of. And it's also important to say no when it's the right thing to say. If there is an obstacle, then we can continue next time if we now already can think of a way to overcome the obstacle in the future."

Bonava & Fourdeg: **Smart heating and residential development**

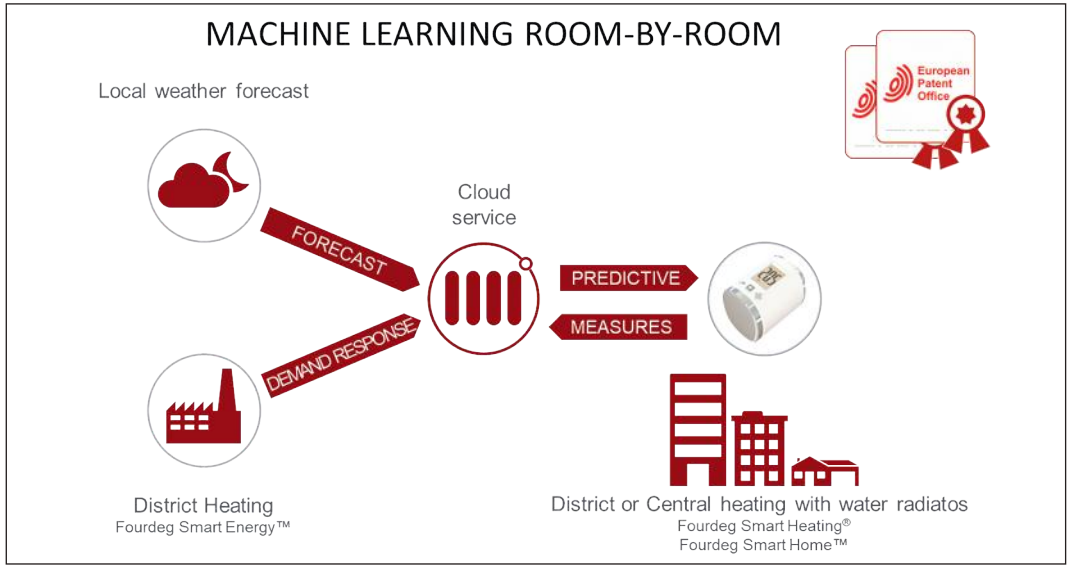
INTRODUCING NEW, smart solutions to the residential development field is quite a challenge. New buildings are a heavily regulated area and the majority of actors in the field are traditional in regards to the business they operate in. The major housing developer in Northern Europe, Bonava, wanted to join the Bees & Trees project in order to enhance their capabilities on smart innovation and learn how to work with innovative startups. Bonava found a common ground quickly with the smart-heating startup Fourdeg, which was searching for a large company interested in distributing their product. Starting from the initial discussions of the first camp, systematic trust-building was key in the collaboration.

In their meetings during the spring Bonava and Fourdeg came up with several ways of experimentative collaboration: taking part in an area development competition together and testing Fourdeg's solution in one of Bonava's existing buildings. The first experiment to test the new service through the whole chain starting from the building owner (Bonava's primary customer), through the building management company and finally to the tenants/consumers was conducted late spring 2017. The companies formed a consortium with other companies for a planning competition of a residential area in Jätkäsaari.

Both partners learned that if the collaboration is initially based on personal interest in the strategic level of the large company, it might be difficult to convince other people to work on the project with the same drive and find enough time for it. In Bonava this led to the realization that a more systematic process with clear roles and allocated resources would be necessary for startup collaboration. At the point where the collaboration focus in the large company shifts down from the strategic level it is crucial to keep the enthusiasm up at the operational level as well.

BONAVA (2016)
Field: Construction industry
Revenue: 1400 M€
Number of employees: 1600
Countries: 8 (Sweden, Germany, Finland, Denmark, Norway, Russia, Estonia, Latvia)

FIGURE. Fourdeg operating principle



CHALLENGES

- How to keep excitement up when responsibilities change?
- How to overcome challenges with a different operational time span?

ACHIEVEMENTS

- Mutual understanding and good communication in every phase
- Bonava's realization that a systematic process for startup collaboration is needed

FOURDEG (2016)
Field: Building energy efficiency
Revenue: 26 000€
Number of employees: 4
Countries: Finland
Founded in: 2012

Markku Makkonen, Fourdeg

Markku Makkonen, CEO of Fourdeg, is an enthusiastic advocate of the transition to sustainable energy systems. Fourdeg's smart-heating solution improves living and working conditions in buildings and lowers their energy consumption by 10–35% by optimizing indoor heating. For Fourdeg, collaboration with big players is essential for business, but equally vital for achieving desired impact.

"All of those big things we want to achieve are only possible if some bigger actors want to do it in mass production. We wish that we wouldn't have to sell or supply everything ourselves which goes through our company, but to create a product that also someone else wants to distribute and sell forward. The impact comes from scaling up the solutions."

Makkonen thinks that the best collaboration can be achieved when the partnering companies and people share the same values. This was the case with Bonava from the very beginning. If the same enthusiasm and impact-driven attitude of a startup can be found in a large company, the chances of successful collaboration are much higher.

"Better energy and also achievements are created when collaborating with companies that somehow share the same values. If we start talking about building a cleantech revolution, then we can achieve the most."

Johan Mild, Coor

For Johan Mild, Coor's CEO with entrepreneurial background, the corporate-startup collaboration was an interesting opportunity to increase efficiency in the daily operations of the company. The startups could bring IT know-how and fresh out-of-the-box thinking to the organisation that had only limited resources for development work. Coor was very open to new ideas in the beginning of the project, showing interest in e.g. the potential of insect food in catering services.

"In a traditional industry, there are these certain ways how things are done. It surely requires some stimulation to start doing something new."

In the absence of dedicated development resources, Coor would appreciate startups that are able to contribute to new concepts, and participate in the development process with Coor's professionals. Mild emphasizes the need to establish trust in the very beginning. In order to earn trust already before the experiment, it's vital to develop strong working relationships e.g. in form of one-on-one meetings - just to feel whether there is "love in the air".

In addition to motivation and an openness for new ideas, the people involved in the experiment need business and customer relevant expertise and experience. Identifying the right person to be involved in the experiment from the side of the large company is very important. In Coor's case, this proved challenging in the beginning.

"We don't have employees who could work with something like this full-time, so it has been challenging to pinch time from the part-time resources."

During the experiment, Coor has learnt a lot about collaborating with startups, and it has encouraged the company to start new business relationships with other startups as well.

Coor & Nomenal: Optimisation for facility management

COOR IS A MAJOR facility service provider in the Nordics specialized in workplace services, real estate services and strategic advisory services. Interest in how people feel about spaces and services was the connecting element between Coor and the startup Nomenal. Nomenal is a software development startup specialized in three main themes: feelings, real estate and energy. The collaboration started around the startup service Vibemetrics, which tracks for example employees' feelings and collects real-time feedback.

In the Bees & Trees project Coor and Nomenal realized quickly that collaboration could benefit both. Coor's projects in workplace and real estate services lacked the in-depth knowledge of the people using the spaces, which Nomenal was able to provide. For Nomenal, attaching Vibemetrics to facility services offered an interesting new angle as well as new potential customers. After drafting the idea of a common concept, the companies began selling it to potential customers and found a common customer.

According to both companies the collaboration started well. Trust-building was systematic and successful from the very beginning, and thus a clear idea of a mutual project was achieved. However, communication and role-setting in Coor proved challenging in the process before a committed professional was identified in the company to implement the project in practice. In addition to the implementation process in the corporate, the communication about the roles of different partners towards the customer need still to be crystallised.

COOR (2016)
Business sector: Facility management and strategic advisory services
Revenue: 757 M€ (7500 MSEK)
Number of employees: 6500
Countries: 8 (Sweden, Denmark, Finland, Belgium, Estonia, Hungary, Poland, Norway)

CHALLENGES

- Internal and external communication
- Roles and mandate in different levels

ACHIEVEMENTS

- Clarification of the idea for mutual project
- Finding several potential mutual clients

NOMENAL

Business sector: Web services and software development
Revenue: 181 000 €
Number of employees: 6
Countries: 1 (Finland)
Founded in: 2014

Mikko Ruokojoki, Nomenal

The CEO of Nomenal, Mikko Ruokojoki, decided to take part in Bees and trees project because there were large companies in the fields of buildings and real estates involved. The startup aims to change the way people are heard in buildings and spaces, and there is quite a lot of demand for the knowledge.

"We have realized that it's quite an important knowledge that what people are doing in the real estates and what they think of services in them. Most of the actors in the field of real estates actually don't know it."

Ruokojoki sees collaboration, instead of only sub-contracting, with large companies as an appealing way to scale up business. However, challenges quite often occur due to more complex structures and slower decision-making in bigger organisations.

"The problem is often the hierarchies of decision making. Even a small budgetary decision might require opinions from several people. This could be overcome by providing the responsible persons more space to make decisions, including budgetary decisions, without the pressure of achieving immediate success."

Ruokojoki emphasizes that it is especially important to understand that collaboration happens between people, not faceless companies. It is important to get to know the people working in the partner company. Especially when meeting with potential customers together, the companies need to act as a team: trust each other and have a mutual understanding. Otherwise the lack of will shows to the customer. In the collaboration with Coor this was especially successful, according to Ruokojoki.

"Even though companies do business with each other, in the end it's all about trust between the people who you do the business with. So even the biggest corporations you can't see as faceless, but you have to find the right person who can influence the case."

Anna-Leena Teppo, S Group

Anna-Leena Teppo works as a corporate responsibility manager at SOK in a unit which supports and provides services for all the business areas of S Group. While the focus of SOK's sustainability work is increasingly shifting from internal activities towards offering more sustainable options for customers, collaboration with startups providing sustainable solutions is crucial.

"We are a big actor, not necessarily always that agile. From the startups we get new ideas, more agile ways to bring them further and then the kind of good spirit related to consumer cleantech. We also see that we can provide the market place. So if we have small innovative companies who bring these consumer cleantech products and services, we can then bring them together with our customer-owners and act there as a middleman."

The biggest challenge in an experimentative startup collaboration project was to find the right people and the right organisational levels for taking the collaboration further. According to Teppo, clearer roles and responsibilities should be set in similar projects in the future. Otherwise, trying to involve people who are busy and have their own priorities may prove difficult.

"I learned the importance of planning, timing, internal conversations, resourcing, all of this. I also learned the importance of having a team to carry this kind of projects."

During the experiment, S Group has learned a lot about the critical factors in the collaboration between companies of very different cultures and sizes in practice. Innovative experimentation has started to become part of the organizational culture and practices in the group. Even though there were some hard moments during the experiment, Teppo is looking forward to new projects to solve sustainability challenges with startups.

S Group & ResQ Club:
Food waste reduction for restaurant chains

S GROUP, the Finnish network of regional cooperatives, had set the reduction of food waste as one of the top priorities in its sustainability agenda. As the food waste treatment in supermarket trade is more constrained by specific regulation, the introduction of new approaches in terms of food waste reduction in hospitality business became an interesting focus of an experiment. What if over 650 restaurants in S Group could radically reduce their footprints by cutting the amount of service waste they produce by a simple, easy to implement and use app? For this reason they were curious about getting to know and collaborate with the Finnish startup ResQ Club. With the app developed by ResQ Club consumers could buy at reduced prices the excess food that otherwise would go to waste from restaurants and cafés included in the service. In general, S Group also aims at liaising innovative consumer cleantech startups with its businesses and customers.

S GROUP (2017)
Business sector: Retail and hospitality
Revenue: 11020 M€
Number of employees: 37300
Countries: 5 (Finland, Russia, Estonia, Latvia, Lithuania)

ResQ Club, with its App, already had clear international growth targets, but in order to scale up the business faster it obviously was extremely interested in launching more systematic collaboration with one of the food service giants at the domestic market of Finland. The startup and its app were not completely unknown to S Group prior to the experiment. Some regional S Group's cooperatives and individual restaurants had already ResQ Club's service in use. In Bees & Trees the companies were willing to look for possibilities for more strategic collaboration and leveraging impact through the S Group Corporation level. In addition to minimizing waste from excess food in e.g. buffet services, the tool could make the reduction of food waste more concrete to S Group's personnel.

Despite of cultural and functional differences due to firm size, the discussion between partners started well. The startup realized that for a big corporate partner, the startup's core competence and related offer-

ing represented in practice a small added value service. During the first camp, however, the large company and the startup were able to agree on the next steps of the experiment. The concept or the app of ResQ Club was already available at the start of the experiment, and thus the actual co-creation could take place after the experiences collected from S Group's restaurants would be available. During the experiment, the partners updated the roadmap created in the first camp, and the collaboration continued in a rather informal way.

CHALLENGES

- How to efficiently mobilise commitment and relevant resources inside a big corporation?
- How to speed up progress in the collaboration?

ACHIEVEMENTS

- Good communication and mutual understanding and good relationship for cooperation
- Developing more agility and flexibility to promote emerging issues in the corporate

RESQ CLUB

Product: Resource-smart mobile app that connects consumers and restaurants etc. offering waste food
Revenue: 1,5 M €
Number of employees: 28
Countries: 4 (Finland, Sweden, Germany, Netherlands)
Founded in: 2016

Mikko Evinen, ResQ Club

Mikko Evinen is the country manager for Finland and member of the Global Management team at ResQ Club. Their mission is to make the everyday life of the users of their service easier. The common societal will to radically decrease foodwaste will increase business potential of actors such as ResQ Club. Experimentation and collaboration to tackle specific sustainability challenges such as food waste is an example of voluntary measures that prevent excessive regulation. In practice, the planning of the start of the experiment benefited notably from the participation of an experienced expert from the operational level of the Tree.

"We could have struggled with some details much longer, but then a restaurant manager who had used our service, happened to join the camp. The restaurant manager could just say: "No, it doesn't work like that, we can easily do it like this" and then those things got forward."

Evinen believes that collaboration could pave the way for a more encouraged experimentative culture and processes in large companies. However, a certain precautionary mindset and formal decision process easily slow down the progress of new ideas.

"It's like you don't really want to buy anything from a salesman, but from an expert you will buy everything they sell. Here we are kind of in the salesman's position, even though we're doing things together. When we try to suggest something, they [in the large company] have always a small filter there before the ideas get through."

Summary of the learnings

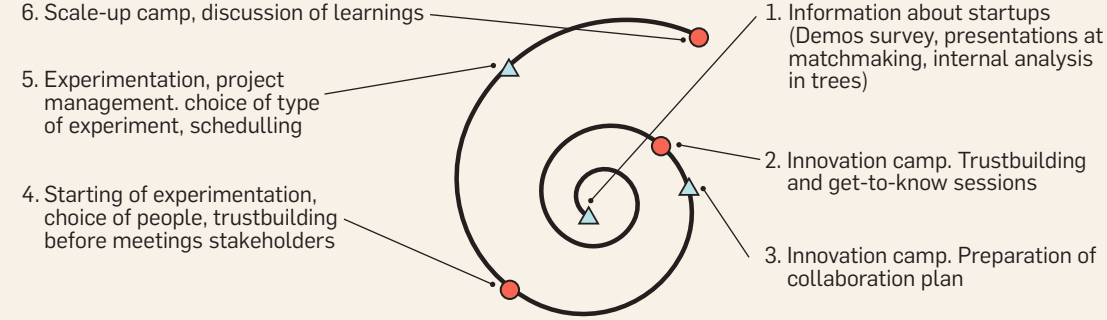
THE PROCESS in the collaboration cases of the Bees and Trees project can be described using the model of Yves Doz (1996) in a simplified form. The model describes the roles of equity, adaptability and expectations in strategic alliances (Figure 6). The numbered elements (in chronological order) were identified in the process, some more indisputably than others.

The first selection of partners by the Trees was based on previously collected data. These were produced both by the survey of potential startups by Demos Helsinki and in the matchmaking event where the companies presented themselves (element 1). In addition, the Trees carried out internal analyses on the suitability of the Bees concerning their needs and goals. The Trees considered that this internal analysis could have been more profound.

The first innovation camp was designed to enhance mutual trust and provide both sides with the opportunity to get to know one another (element 2). This possibility was utilized by some Bees and Trees more effectively than others. The effective discussions included attempts to understand the basis of each others' businesses, as well as motivations and backgrounds for the collaboration. For some participants this felt in the beginning like a delay to the actual business discussions. Ultimately it was, however, considered beneficial for example for the practical discussions. "*I was expecting that we could proceed towards a more concrete level than we actually did, but I was also surprised how far we got.*" The main problem for some pairs in this stage was to end up in "buying and selling discussions" rather than giving time to trust-building and being open to co-creation. "One of the startups considered they had a complete product, that we could just take in use. In a way it would be easy but perhaps that attitude will end the co-creation process." Similarly some of the Trees' representatives dug deeply in technical details of the solution rather than being open to various opportunities.

Towards the end of the first innovation camp the participants were requested to prepare an outline for collaboration. All were able to prepare a plan and pitch it to the audience (element 3). In addition, some of the pairs prepared concrete to-do-lists for the experiments.

FIGURE 6. Development of collaboration in the Bees and Trees project through six elements.



Modified from: Yves Doz (1996): Development of strategic alliance

AFTER THE CAMP the Trees selected the partners with whom they started the experimentation. It was notable that the criteria of the selection were mostly based on the development of trust during the first innovation camp. The pairs that developed a good understanding of each other's businesses and motivations forged sufficient trust in order to continue to the experimentation phase. The actual concrete collaboration plan was not notably decisive in regard to the decision.

The next step (element 4) is about launching the experimentation phase. At the scale-up camp, all Bees and Trees had the opportunity to comment on the people chosen to represent the Tree companies, on the excitement-levels needed, and on the personal relations between the actors. This emphasizes the trust-building part of the actual experimentation, which perhaps was paid too little attention to during project experiments. The comment "there should be love in the air" became a near slogan for the project partners. The actors involved from the side of the Trees varied between top management and technical experts. Optimal participants fall somewhere between these types – holding a decision-making mandate and still having the possibility of allocating time for experimenting. The people involved need enthusiasm for new things rather than characteristics for optimizing details of the present operations. Understanding the needs of the customers of Trees is crucial for building the business case.

The experimenting is also about concrete and rational doing (element 5), where project management, concrete goals and a certain flexibility in carrying out the tasks were called for by the participants. The active role of the intermediary was considered useful in keeping up with the activities and schedule.

There were four different types of experiments during this project: 1) light, rapid experiment within the Tree, 2) preparations for a long-term experiment of the Tree, 3) rapid experimentation involving a customer of the Tree, 4) preparations of experimentation involving a complicated Tree organization. All these require different preparations and particular project management. A rapid experiment is simple enough to carry out within a Tree, but the next steps for a business opportunity may be difficult. Involving a customer, the long time frame of operations or a complicated organization of the Tree adds to the challenge of launching the experiment, but after these complications have been overcome, next steps may be smoother.

The scale-up camp was a new introduction to the Peloton model. It was utilised as a thorough discussion platform of learnings and for planning the next stages of experimentation (element 6). All partners agreed that the first round of experimentation was a learning experience and expected that next efforts would be easier. An evaluation phase always requires a lot of trust and openness from participants.

SECTION 3

BEES AND TREES BUSINESS EXPERIMENTING – HOW TO DO IT?

BASED ON LESSONS learnt from the Bees & Trees business experiments we created a model involving the basic elements for launching a successful collaboration project between a startup and a large company. This model is based on co-creation and experimentation.

BEES AND TREES MODEL is designed for **LARGE COMPANIES** that:

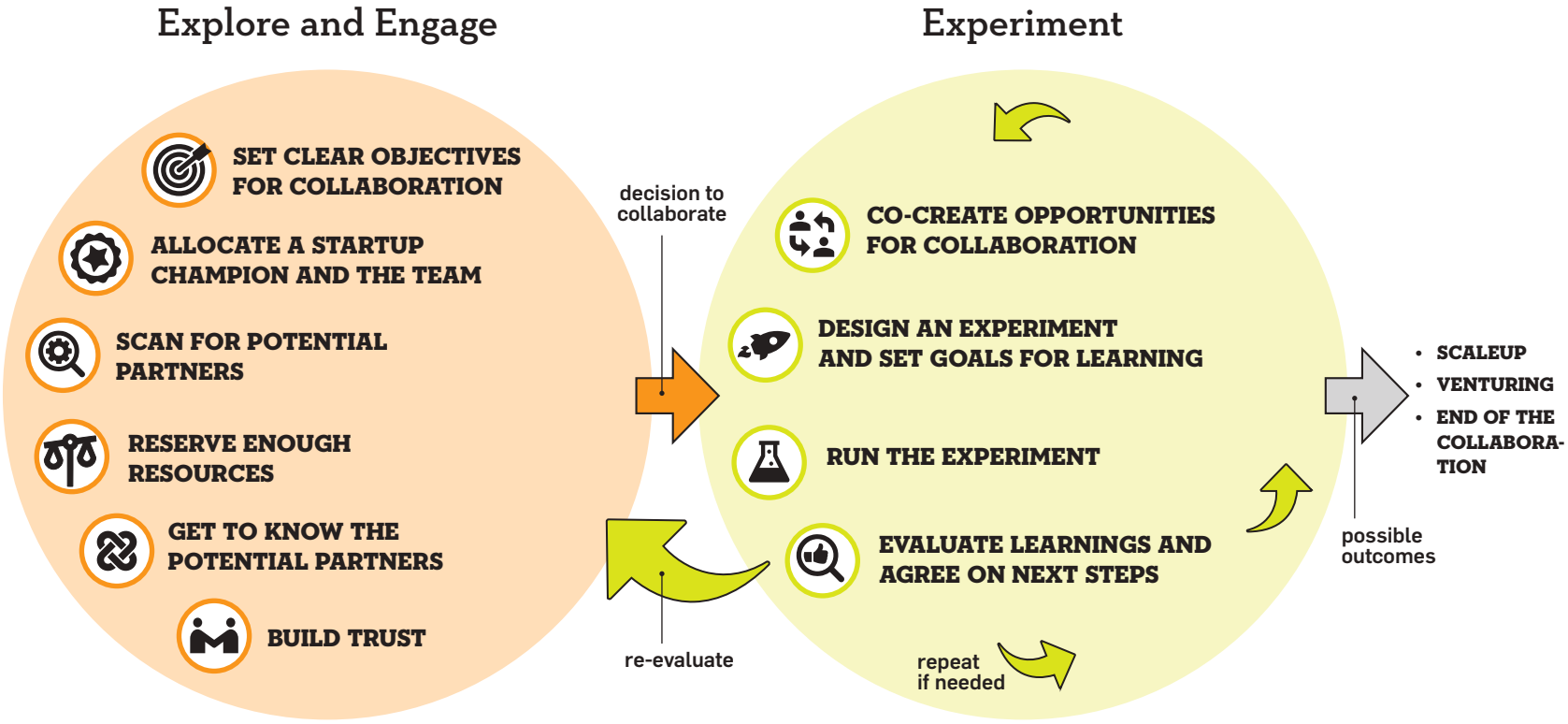
- are willing to work together with startups
- Do not yet have much experience on startup collaboration
- wish to test startup collaboration before making heavy investments into it

BEES AND TREES MODEL is designed for **STARTUPS** that:

- already have a product or service
- are willing to further develop it together with a large company
- are looking for customers and resources to test the product or service

The focus of this work has been on smartups: startups who work in the field of consumer cleantech. This model, however, can be utilised among startups and large companies at almost any sector.

FIGURE 7. The Bees and Trees model.



Explore for Trees

SET CLEAR OBJECTIVES FOR COLLABORATION

Clarifying the goals and potential outcomes of the process should be the starting point for any collaboration between large companies and startups. It is crucial to recognize both why it is you want to collaborate and what it is you aim to achieve through this collaboration. Objectives can be set in several stages: first more general and during the process the more specific ones. It is good to involve also employees and end users at this stage. Involving the ideas of the client e.g. through inquiring on their expectations before launching collaboration may prove a worthwhile starting point. Large company readiness to collaborate also includes aligning and linking collaboration objectives to strategy and action plans, and ensuring top management level commitment to objectives as well. When defining goals, ambition levels should be high and clear enough, avoiding excessively broad formulations, such as "We would like to do something with waste elimination". However, the outcomes may differ from the objectives and still be useful and positive.

CASE: Bonava wanted to find partners with whom to offer new services that ease the phase of moving in to a new apartment and neighbourhood. They did a survey to find out what kind of services the residents would like to have.

ALLOCATE A STARTUP CHAMPION AND THE TEAM

The large company needs professional(s) with an entrepreneurial mindset to lead and implement the collaboration project. Allocating enough time and other necessary resources to these people is fundamental for successful collaboration. The company should also provide these people with enough mandate to make the decisions necessary for implementation of collaboration. Make sure that communication about planned or ongoing collaboration flows smoothly both inside the team and outside of it - after all, collaboration is an inter-departmental activity.

CASE: Granlund defined a team of two people, one of them knowing and understanding startups very well through own experience. This team was able to take decisions quickly, which made the collaboration easy for the startups.

SCAN FOR POTENTIAL PARTNERS

The collaboration team of the large company should first get immersed in the local startup ecosystem. However, scouting for potential partners may soon continue also abroad in order to attract the best startups and technology out there. From the very beginning, the large company should consider the maturity of each startup and how they might complement the company's own business. They should be prepared to find interesting partners also outside of the "usual suspects". Concerning strategic collaboration, startups who already have a product, but are still willing to develop it together are the most fruitful ones. It's good to remember that there are experts available who can screen and pick up potential partners from the vast startup scene. For startups, scanning is about following the potential client or partner companies as part of the customer management process.

CASE: Demos Helsinki scanned more than 100 startups for large companies in the Bees and Trees project, based on the targets and interest areas the companies set in the first phase.

Explore for Bees

SET CLEAR OBJECTIVES FOR COLLABORATION

Just as with the large company side, the startup should first identify its primary motivations and reasons for searching collaboration with a large company. Co-creation is not about selling a product to the large company. Thus, considering what the startup could do with the large company is important, instead of primarily concentrating on income flow. This includes trying to understand the large company's needs and objectives, and trying to outline where it aims to go in the future. Imagining the outcomes reciprocally desired may help align the targets of the collaboration with the capabilities and needs of both the startup and the large company.

CASE: ResQ Club wanted to find a retail partner to develop and test their totally new business idea together with the retailer.

RESERVE ENOUGH RESOURCES

There are numerous opportunities and initiatives available for startups that are looking for collaboration with large companies. In certain areas, such as data driven business and digital technologies, there is a growing number of hackathons, corporate venture accelerator programmes and other initiatives available. In addition to these, direct contacts are also possible. For direct contacts, try to recognise the startup champions in the large companies and contact them directly. Readiness to learn and flexibility to adapt to the processes of the large company are crucial skills for collaboration.

Remain realistic about time needed when planning for large company collaboration. Large companies will seldom adapt as swiftly as startups, and even the best performing corporations can be slow. Especially in the beginning, avoid extensive dependency and exclusivity towards one specific partnership only. Similarly, to save time, prepare yourself to give up early collaboration opportunities which do not work out.

CASE: Fourdeg was continuously seeking for several collaboration discussions and experiments, to avoid being solely dependent on one.

Engage

GET TO KNOW THE POTENTIAL PARTNERS

In order to identify potential partners and understand what startups think and what kind of reservations they might have, the large company team should personally meet with as many startups as possible. The large company can promote a positive culture in relation to startups by encouraging its employees to mingle with startups in relevant fields. For advice and inspiration, it is also worth talking to peers in other companies who already work with startups. There are several complementary methods available for increasing the insight of the large company on the potential of specific startups. The company can organise or participate in matchmaking events, hackathons or challenge competitions.

CASE: Granlund has organised several energy hackathons in order to find new interesting teams and to boost the latest innovation related to the topics of its interest.

BUILD TRUST

The fastest way to test how the partnership works is to conduct a business experiment together. In order to successfully implement an experiment, the mindset and trust between key persons from both the large company and the startup side should be factually and even emotionally on a compatible level. Thus, organising face-to-face meetings and investing effort in learning about the other company and people behind is important to check whether chemistry and real interest exist in the collaboration before committing to further progress. Communicating clearly and honestly about preliminary goals and the availability of time and other resources required for reaching the desired outcome helps to avoid misunderstandings and cuts off unreasonably high expectations. Ultimately, they all contribute to building mutual trust.

CASE: In the Bees and Trees project, all large companies met several startups. After that, each company invited two to four startups to a two-day Innovation camp. The initial trust building was one of the main targets of the camp.

Experiment

These are the steps for experimentation-based collaboration for both startups and corporates.

CO-CREATE OPPORTUNITIES FOR COLLABORATION

Even if it is easy to pick up limitations and challenges, the collaboration experiment should preferably start with thinking positively about opportunities instead of potential restrictions as these can be solved later. The people involved should be creative and open, and try to avoid getting stuck for example on specific technological issues. In case there are various ways to reach the desired outcome, the partners may choose the most interesting way to collaborate.

CASE: In the Bees and Trees project, the research team designed the process and facilitated the co-creation in the two-day Innovation camp. The most important phase was to find common interests and win-win goals for collaboration.

DESIGN AN EXPERIMENT AND SET GOALS FOR LEARNING

When designing especially the first experiment, design it to be as simple as possible. The partners can basically choose between implementing it internally or with a mutual customer. Internal implementation without a third party may be easier and less complicated, but involving a common customer might offer more opportunities to learn e.g. from user experience. Most importantly, the partners need to have clear vision of the challenge they will start solving in order to set goals and organise the experiment. Setting a commonly agreed and clear timeline with checkups and milestones is necessary for the outcome of the experiment, but at the same time the partnership should be agile enough to update the schedule when necessary. Making a contract, including agreement on the allocation of resources, costs, benefits and IPRs is important also in fast experiments.

CASE: Coor and Nomenal tested the potential of their idea by selling the experiment directly to a corporate customer.

EXPERIMENT

Successful experiment is built upon keeping the established and agreed timelines. The partners must keep regular check's to ensure the progress and continuity of the collaboration. For the same reason, both parties should also involve several people in the experiment. Involving also end users is important to get user experience. The partners should also agree on the key indicators of success to be able to learn and make decisions on the project. Learning from points of failure can be essential for the future and success of the experiment. A "fast fail - fast learn" attitude requires agility from both partners, and an external facilitator (intermediary) may improve the agility and learning speed of the experiment process. Experiments and learnings from them can form a continuous flow, the next experiment starting with the lessons learned from the previous experiments.

CASE: To involve the end users, ResQ Club sent a feedback questionnaire and discussed with several restaurants of S-group who were already using their service.

EVALUATE LEARNINGS AND AGREE ON NEXT STEPS

At the end of each experiment, the partners assess the success and failures of the project, and agree on the future of it. Often failures are found to be successes after all. Basically, there are three options available. Firstly, in case the experiment experience was not successful enough, they may go back to the Stage I of this process or design a new experiment with the same partner. Secondly, if the experiment proved successful and promising enough, the partners may decide to scale-up, multiply or mainstream the experiment. Thirdly, a conclusion from the experiment might be to pull the plug and end the collaboration if it cannot be considered successful.

CASE: Even if there was no direct business case in each experiment, each partner found it very beneficial to evaluate and analyse them together in the Scaleup camp.

Intermediary organisations can have valuable role in collaboration processes

IN THE FIRST BEES & TREES EXPERIMENTS, Demos Helsinki acted as an intermediary organisation organising the collaboration project, connecting the actors and facilitating the innovation camps. Following activities and functions were either used in the project or identified as beneficial. The three categories of intermediation are based on the work by Batouk (2015).

1. CONNECTING ACTORS

- Scanning potential startup partners for corporates and vice versa
- Organising events where companies meet
- Facilitating the initial trust-building

2. FACILITATING COLLABORATION

- Articulating needs and requirements between the companies
- Advice in creating shared rules and setting goals between and within companies
- Help in finding the right people inside the companies
- Supporting the partner which might be in a weaker position due to differing power balance (usually the startup)

3. PROVIDING SERVICES

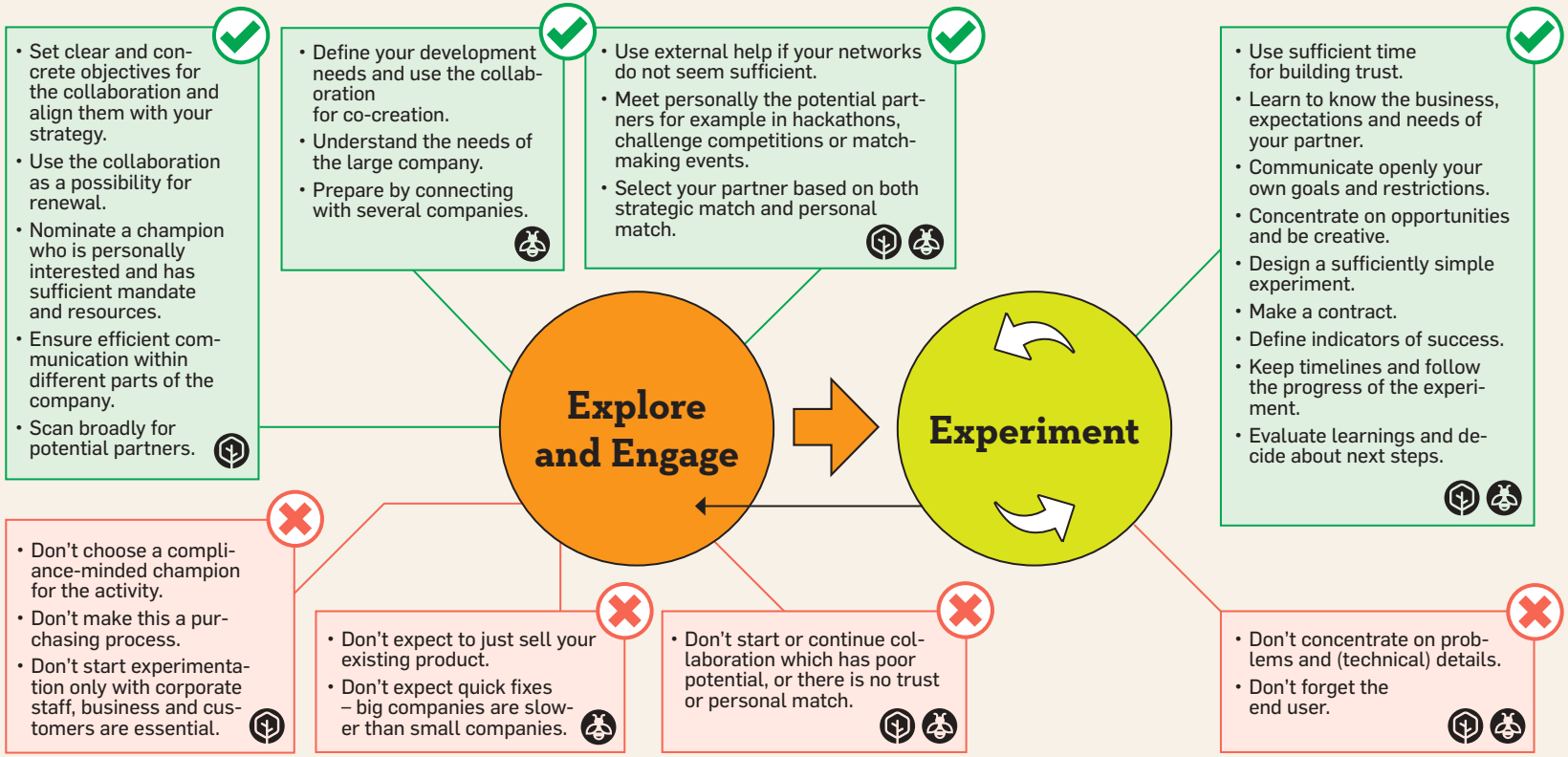
- Providing concrete toolkits for designing experiments and contracts regarding collaboration and IPR's
- Project management support by finding ways forward (recommending milestones and deadlines, pushing with meetings) and ensuring progress (not letting timelines slip)
- Organising events where experiences and learnings are shared
- In principle, the activities of the intermediary may also include other value adding services for the project, such as organising funding

Recommendations

BUSINESS EXPERIMENTATION in the collaboration of a large company and a startup is not a silver bullet for all situations. Usually collaboration is a viable solution when the large company aspires to gain major renewal and the startup already has a product, which needs further development and market adjustment.

In the Bees and Trees project a number of general do's and don'ts were identified for an early stage business collaboration between a large company and a startup. Figure 8 summarizes these recommendations for both established companies and startups.

FIGURE 8. Recommendations for Bees and Trees for strategic experimentation



THE UNIQUENESS of the Bees and Trees process is based on two aspects. Firstly Peloton Club has been working extensively with startups, but a collaboration with large companies is a new element that gives new opportunities to both startups and large companies. Secondly Bees and Trees approach amends significantly the many newly appeared approaches for collaboration of large companies and startups by containing facilitation for the establishment of collaboration, carrying out the experimentation and especially the evaluation of the learnings of the collaboration. Therefore the Bees and Trees model is positioned in an area between the quick ideation events and the long-term collaboration models as illustrated in Figure 3.

How to support Bees and Trees experimentation?

1. **FINDING SUITABLE PARTNERS** may be difficult for both established companies and start-ups, especially if they would like to look for "non-usual suspects". Organising pitch & match events for companies can help to tackle this challenge.

2. **EXPERIMENTS** are not expensive, but still funding may be an issue especially for start-ups. It is said that "A quick experiment costs 5000 euros", and more complicated experiments somewhat more. A low-threshold funding instrument for these is necessary. The funding should depend on a proper plan for learning from the experiments.

3. **SOMETIMES EXPERIMENTATION NEEDS** temporary exemptions from regulations, for example in the areas of licensing of businesses, product standards or taxation. A flexible process for handling such exemptions should be available.

4. **EXPERIMENTATION NEEDS** continuous general support in the society. At the moment, however, there is a slight tendency in the present "experimentation culture" approach to make experimentation a hype or a simple "tick-the-box-exercise". Thus, a balanced and ambitious approach for experimentation is necessary to enhance learning and utilization of results.

Literature

Ahonen, S. 2017. *Suuryrityksen askeleet menestyksekkääseen yhteistyöhön startup-yritysten kanssa.* Haaga-Helia ammattikorkeakoulu. Liiketalouden koulutusohjelma.

Bannerjee, S., S. Bielli & C. Haley. 2016. *Scaling together: Overcoming Barriers in Corporate-Startup Collaboration.* Nesta.

Batouk, M. 2015. *Toward Increased Understanding of Innovation Intermediaries.* Doctoral Thesis. University of Waterloo.

Chesbrough, H. 2011. *Open Services Innovation. Rethinking Your Business to Grow and Compete in a New Era.* Jossey-Bass / Wiley.

Das, T.K. (ed.) 2015. *Strategic Alliances for SME Development.* Information Age Publishing.

Doz, Y. 1996. T*he evolution of cooperation in strategic alliances: Initial conditions or learning processes?* Strategic Management Journal 17:55-83.

EK (The Confederation of Finnish Industries) & Tekes. 2015. *Different: The Experiences of Finnish Large Companies with Startups.*

EK (The Confederation of Finnish Industries) & Tekes. 2016. *Uudistajat: Polkuja pk-yritysten ja startupien yhteistyöhön.*

Hockerts, K. & R. Wüstenhagen. 2010. *Greening Goliaths versus emerging Davids – Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship*. Journal of Business Venturing 25, 481-492.

Howells, J. 2006. *Intermediation and the role of intermediaries in innovation.* Research Policy, 35, 715–728.

Imaginatik® & MasschallengeTM. 2016. The State of Startup/Corporate Collaboration 2016.

Klewitz, J., A. Zeyen & E.G. Hansen. 2012. *Intermediaries driving eco-innovation in SMEs: a qualitative investigation*, European Journal of Innovation Management, 15, 442-467.

Kohler, T. 2016. *Corporate accelerators: Building bridges between corporations and startups.* Business Horizons (2016) 59, 347-357.

Kollman, T. et al. 2016. *European Startup Monitor.* German Startups Association.

KPMG. 2015. *On the road to corporate startup collaboration.* NEW HORIZONS 2015.

Laszlo, C. & N. Zhexembayeva. 2011. *Embedded Sustainability: The Next Big Competitive Advantage.* Greenleaf Publishing.

MIT Sloan Management Review (2018). *"Winds of change blowing from two different directions are converging into a perfect transformative storm in the global economy."* https://sloanreview.mit.edu/article/the-convergence-of-digitalization-and-sustainability/ visited 26.1.2018

Mocker, V., S. Bielli & C. Haley. 2015. *Winning Together: A Guide to Successful Corporate-Startup Collaborations.* Nesta.

Mokka, R. (toim.) (2013). *Peloton – 17 tapaa luoda uusia markkinoita.* Demos Helsinki, Helsinki.

Prats, J. & P. Amigó. 2017. *Why Corporations Need to Collaborate with Startups?* Entrepreneurship blog Network, IESE Business School. http://blog.iese.edu/entrepreneurship/2017/03/23/why-corporations-need-to-collaborate-with-startups/

Ritola M., Annala M., Hulkkonen S., Lahtinen V., Lätti R., Noponen E, Mäkelä K., Mizera R., Neuvonen A., Hietaniemi J., Mokka R. (2015) *Cleantech takes over consumer markets.* Demos Helsinki, Helsinki. Solved.

Schättgen, N. & S. Mur. 2017. *The age of collaboration: Startups and Corporates need each other!* Match-Maker Ventures & Arthur D Little.

Startupbootcamp. 2017. *Collaborate to Innovate: How can startups and corporates partner for success?*

SustainAbility. 2016. *Orchestrating Change. Catalyzing the Next Generation of Multi-Stakeholder Collaboration for Sustainability.*

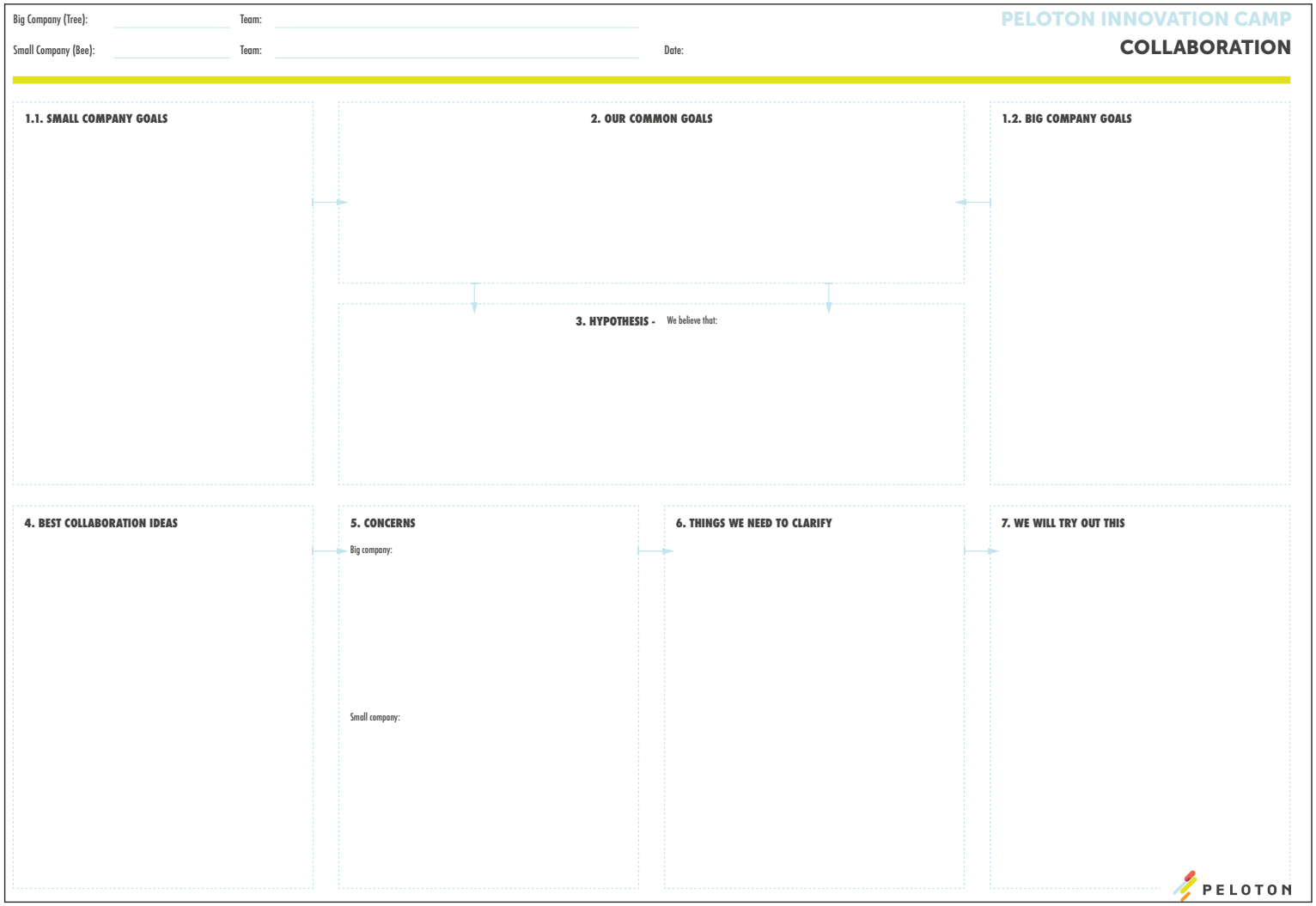
Temmes, A. & L.Välikangas. 2010. *Strateginen ajautuminen.* WSOY Pro.

Triguero, A., L. Moreno-Mondéjar & M.A. Davia 2013. *Drivers of different types of eco-innovation in European SMEs.* Ecological economics, 92, 25-33.

Weiblen, T. & H.W. Chesbrough. 2015. *Engaging with Startups to Enhance Corporate Innovation.* California Management Review, 57(2), Winter 2015, 66-90.

Yarahmadi, M. & P.G. Higgins. 2012. *Motivations towards environmental innovation. A conceptual framework for multiparty cooperation.* European Journal of Innovation Management, 15, 400-420.

Appendix: Canvases created and used in the innovation camp



Big Company (Tree): Team:

Small Company (Bee): Team: Date:

PELOTON INNOVATION CAMP

COLLABORATION

1.1. SMALL COMPANY GOALS

2. OUR COMMON GOALS

1.2. BIG COMPANY GOALS

3. HYPOTHESIS - We believe that:

4. BEST COLLABORATION IDEAS

5. CONCERNS

Big company:

Small company:

6. THINGS WE NEED TO CLARIFY

7. WE WILL TRY OUT THIS

PELOTON

Big Company (Tree): _____ Team: _____

Small Company (Bee): _____ Team: _____ Date:

PELOTON INNOVATION CAMP

DESIGNING THE EXPERIMENT

8. WE WANT TO TEST:

9. GOALS FOR THE EXPERIMENT:

10. THE EXPERIMENT IS A SUCCESS WHEN:

10.1. HOW TO COLLECT FEEDBACK DURING THE EXPERIMENT:

10.2. MATERIALS/PROTOTYPES NEEDED:

11. TARGET GROUP:
(with who and where the experiment will be done)

13. COSTS STRUCTURE:
(how do we share the costs?)

14. WE NEED TO AGREE ON:

15. KEY ACTIVITIES AND RESPONSIBILITIES:
(who is doing what?)

12. TIMELINE / MILESTONES:

16. TO-DO LIST / NEXT STEPS

PELOTON

BEES & TREES SCALE UP CANVAS / TREES COMPANY:_____

PELOTON

2. What do we have now that support the goal? (societal discussion, new markets, internal structures, people, procedures)?

3. What kind of internal resources and competencies do we need? (people, technologies, financing)

6. TIMELINE: What happened to reach the goal?

4. Which structures or procedures will need to change in the future? (e.g. decision making processes, ability to run experiments, contracting processes)

5. What kind of external partners do we need? (e.g. support organisations, startup accelerators, research institutes, external funding)

7. What are the most important ideas/ future thoughts that you want to share with others?

DEMOS HELSINKI / A!

BEES & TREES SCALE UP CANVAS / BEES COMPANY:_____

PELOTON

2. What do we have now that support the goal? (societal discussion, new markets, internal structures, people, procedures)?

3. What kind of internal resources and competencies do we need? (people, technologies, financing)

6. TIMELINE: What happened to reach the goal?

4. What kind of obstacles do we need to overcome? (e.g. legislation, consumer behavior)

5. What kind of external partners / other support do we need? (e.g. support organisations, startup accelerators, research institutes)

7. What are the most important ideas/ future thoughts that you want to share with others?

DEMOS HELSINKI A!