## HERE'S THE SGOOP?

## Valio \& Lipasu

Sweet cup o' mine

## The team

## What is ice cream?



Kirsti Kaila
MA IDBM Arts / 815091
kirsti.kaila@aalto.fi
Favourite ice cream flavours:
My favourite ice cream is plain frozen yogurt but can rarely find that in Finland. The second best thing s vanilla ice cream with mixed fresh berries. I prefer natural ingredients like, fruits, nuts and berries

Hanna Knaapi
MA IDBM Arts / 611295
hanna.knaapi@aalto.fi
Favourite ice cream flavours:
love salty caramel! Especially if it has chunks of fudge in it. With the over the top sweetness I always want something fresh, like lemon.

## Tuomo Kontinen

MSc IDBM Engineering / 878407 tuomo.kontinen@aalto.fi
Favourite ice cream flavours
My favorite is definitely salty liquorice ice cream. The sweetness of ice cream and the intensity of iquorice complement each other so well.

Yen Pham
MSc IDBM Economics \& Business Administration / 914536 yen.phamhoang@aalto.fi
avourite ice cream flavours
adore chocolate-mint and salty caramel. If they are in gelato format then nothing is better. A cup of two scope with a little waffle on the side can always make my day.

Phuoc Tho Doan MSc IDBM Economics \& Business Administration / 876548 tho.doan@aalto.fi

Favourite ice cream flavours:
love all of the ice cream flavours, except the salmiakki! Recently, I tried to eat more vegan ice creams to feel more sustainable.

Ice cream is a frozen dessert made most commonly from dairy. It contains aerated mixture of a dairy ingredient, sugars and flavours. Non-dairy ice creams replace the dairy product with milk or other proteins and vegetable fats. Other styles include e.g. gelato, sorbet, frozen yoghurt. What all different types of ice cream have in common is that they are sweetened, flavoured and contain ice and they all are eaten in frozen state. Earliest acknowledged contributions of similar products are either given to Roman Emperor Nero (AD 37-68) who has been said to have eaten frozen fruits chilled with snow from the mountains. Or to Mongolian horsemen whose milk froze while riding the horse which cause the milk to be stirred. Ice cream as it is now commonly known is mentioned in some cookbooks from 16th century.

[^0]
## Contents

## Overview

7 Ice Cream Market
Finland
International
10 Megatrends
Food Industry - Ice cream

## Company Introductions

12

## Valio

14
Härtelö / Lipasu
16
SWOT Analysis
18
Business Model Canvas

## Effectuation

20 The Five Principles Valio
Härtelö / Lipasu
Role and Value of Design
24 Definition of Design Thinking Valio Härtelö / Lipasu

## Future Perspective

30 The Innovation Ambition Matrix
32 What to Suggest for the Case Companies?
References

# IFOLLOWED MY HEART, IT LED ME TO THE FREEZER. 

## Ice Cream Market

Finland

## ICE CREAM IS CHEAPER Than THERAPY.

ice cream consumption in Finiand Finland consumes more ice cream per capita than any other European country. Ice cream consumption estimates range from 12 to 14 liters per capita annually (Chepkemoi 2020; Laakso 2020). Most of the sales take place during the summer months (Chepkemoi 2020) but Finns eat ice cream all year round.
The companies that have the biggest market share in Finland are multinational giants Nestlè and Unilever (Chepkemoi

## 2020).

Nestlè and Brittish R\&R have 50/50 ownership of Froneri Finland Oy which is the second biggest ice cream manufacturer in Europe and the third big gest in the world (Pingviini , n.d.). Froneri Finland Oy owns one of the oldest and
best known ice cream brands Pingviini which is already 85 years old (Pingviini 2, n.d.). The oldest ice cream manufacturer still operating in Finland is Helsingin Jäätelötehdas established in 1922 but their brand is only local to Helsinki (Helsingin Jaatelotehdas n.d.)
Unilever now owns the originally Finnish brand Ingman which is known for the popular one litre carton packaging of ice cream (2020). Those one litre packages are sold 11,6 million each yea (Ylä-Anttila 2020). Ingman was also the first company to introduce premium ice cream bars, paper wrapped ice cream cones and more recently soy based ice cream to the Finnish ma ket (Ingman n.d.)
There are several smaller independent companies in the market who have tried to find their
own niche by offering something special. Small artisan producers are popping up all around the country offering local small batch production and freshly made alternatives.

## The Finnish taste

According to Valio's recent customer survey the most popular ice cream flavours are choc olate, liquorice, caramel, vanilla, strawberry and mint. Quite many people also have some other special flavours that they prefer (Laakso 2020) Flavours like liquorice and especially the salty liquorice "salmiakki" are distinctly Finnish and distinguish our taste from other Europeans (Hintsala 2018)
Lactose intolerance is common in Finland and about $70 \%$ of the recipient in Vaio's survey said that they prefer lactose free products (Laakso 2020)
In a research commissioned by Nestlé Finland in $2013,41 \%$ of Finns regarded ice cream as their favourite dessert (Nestlé 2013). $50 \%$ of Finns think of it is a healthy option compared to other treats (Nestlé 2013).
According to Valio's customer survey the most popular way to enjoy ice cream is the take-home packages. More than $75 \%$ of the customers preferred this instead of individual cones or bars. The most popular package size is 0,5 litres and 0,7-1 litre packing comes second (Laakso 2020). Over 90\% of the respondents in this survey said that they buy ice cream mainly for pleasure and to give themselves a treat (Laakso 2020)

## Ice Cream Market

## The international

ce cream consumption
According to online statistics provider World Atas the world's biggest consumers of ice cream are New Zealand ( 28,4 liters per year), the United States ( 20,8 litres), and Australia ( 18 litres). Finland is not far behind in fourth place (Chepkemoi 2020).
The ice cream market consists of three main segments artisanal ice cream (both dairy and water-based), impulse ice cream (includes
single serve ice cream tubs, packaged cones ice cream sandwiches, and chocolate-coated ice creams) and take-home ice cream (includes multiple-serving ice cream tubs and, ice-cream cakes) (MarketLine 2019).
The Global ice cream market has grown strongly during the recent years (2014-2018) and the growth is expected to accelerate. The global ice cream market had total revenues of \$64,187.6m in 2018 (MarketLine 2019),
Europe accounts for the highest share in
the global market ( $35.8 \%$ in 2018), followed by Asia-pacific (31.9\%). Rising middle class population, increasing disposable income and rapid urbanization are the primary factors supporting the growth of this market. This rising purchasing power is creating increasing demand for premium products (MarketLine 2019).
The leading players in the global ice cream market are UK based multinationals Unilever accounting for $24.6 \%$ of the market value in 2018,

> 65,6\% of the markets' overall value comes from take-home and bulk ice cream.

Froneri International Limited with $6.0 \%$ and Switzerland based multinational Nestle SA accounting for $4.4 \%$ of the market value (MarketLine 2019).

The take-home and bulk ice cream segmen was the market's most lucrative in 2018, with total revenues equivalent to $65.6 \%$ of the mar ket's overall value. The impulse ice cream - single serve segment was $27.4 \%$ and the artisanal ice cream 7\% of the market's value (MarketLine 2019). rorland based multinational Nostl SA account-

## ICE CREAMS, NICE DREAMS NICE DREAMS

In this case analysis we are focusing on two brands in the Finnish take-home ice cream market.

## Megatrends

Food Industry - Ice cream

## "One of the most dramatic changes in consumer behavior over the next several years is likely to be the change in the consumption of food."

## - Deloitte, 2020.

Health movemen
Consumer perceptions of macronutrients are evolving, perceiving sugar as the big demon (Innova Market Insights, 2019). Unfortunately, while ice cream is one of the people's most favorite treats, it often harbors a large quantity of added sugar (Healthline 2019). Sensing the call or less sugar/non-sugar supply, more guilt free products made their appearances on the shelves to satisfy this need.
In addition, to make icecream more approachable to $70 \%$ of the human popuation who are lactose-in olerant (Intermountain Healthcare, 2019), lac-tose-free, and non-dairy ice-cream appears as an emerging and viable trend (Mordor Intelligece, 2019).
Plant-based food is also gaining popularity, seeing products launched with a plant basedclaim witnessed a $68 \%$ average annual growth (Innova Market Insights, 2019).

## sustainable and ethica

The approach of winning with words is a powerful trend embraced by many sustainable and ethical food and beverage companies. Consumers are more focused on the experience now than ever, and they want to know the story behind the brand. Such a story does not only ell buyers more about the ingredients but also provides a glimpse of the local specialty, cultural celebrations, or the enterprise's social responsibility awareness (Innova Market Insights, 2019). Various businesses went viral worldwide doing so, for example, the Coolhaus ice-cream in the UK with their women supporting business model, eco-friendly, and sustainable manufacturing process. (Forbes, 2019)
Branding or not, sustainability is a no joke trend in any industry. In the food and bever-
age industry, the two most common issues are plastic waste and food waste (Innova Market insights, 2019). From small parlors to big companies, countless effort is spent on building an efficient supply chain management process and innovative packaging to cut down the business foot-prints. In New York, Haagen-Dazs ice cream will be delivered and collected in returnable metal container by Terracycle service pro vider "Loop" from mid-2019 onwards (Upakovka, 2019). Entrepreneur networking for SMEs is also important as the giants lending a hand for the growth of a healthy, purpose drive market like the Unilever's "Empowering small-scale retailers for growth" program.

The growth of taste
The Global Food World Life Magazine lists their Nro. 1 trend as "taste" (2020). The term is also frequent on many other food trends list of 2020. "The right bite" is the continuation of recent trends of holistic health, the mindful consumer where the food is not only good for the health but is also delicious. Exotic flavors like florals, zest, spices, and even smoke are on the rise (Food Processing, 2019).
More than ever, consumers pay extra attention to the feel of the bite hence texture becomes a crucial factor for the purchase motive, especially the young customers (Edlong, 2019). It is reported that millennials tend to care more for the texture than the ingredient list. This is a note-worthy insight for brands that own flagship products made of trending ingredients like ava beans, fiber, probiotics, charcoal, etc. With the right mix of flavor and texture, along with a good story-telling approach, they can build a much deeper connection with even the conservative buyers

## Valio

Established in 1905

Valio is a large Finnish dairy and food company which is owned jointly by 4700 dairy farmers. The company is known for a constantly developed product offering ranging from all kinds of dairy products to juices and grain based milk free consumables. Valio has also a service for institutiona kitchens which provides nearly all ingredients needed for operation (Valio l, n.d.).

## Innovation

Valio is known for it's innovativeness. One of it's Valio is known for it's innovativeness. One of it's
most known patents is one for AIV fodder, patented in 1933 which won the nobel price. (Valio 2, n.d.) The main principle of the technology is that formic acid is used to improve storage life of fodder. (AIV, n.d.). The technique is still widely used around the world especially in temperate and polar climates even though alternative methods to effect shelf life are available. Since then valio has accumulated large patent portfolio of over 350 patents in 50 countries. (Valio 2, n.d.) New patent applications are filed yearly. (Valio 2020)
Valio is the largest finnish exporter exporting about 60 countries. The share of Valios exports is $25 \%$ of Finlands all food exports. Valio's net sales were in 2019 1,8 billion of which 1 billion was from Finnish domestic market. Valio has been largely focusing in growth in international markets and it has subsidiaries in Russia, Sweden, Baltics, USA and China. (Valio l, n.d.)

## Responsibility \& Sustainability

Valio's pride is their zero tolerance for antibiotic residues in products. They also emphasize their efforts for improving sustainability and animal welfare. (Valio 2019) Valio releases an yearly report focusing on progress related to animal welfare and sustainability. Their target is to achieve carbon neutrality for dairy by 2035. (Valio 2019) Which is ambitious considering that bowines are a large producer of greenhouse gases.

## History \& product portfolio

Valio was established in 1905. Valio was founded by seventeen co-operative dairies to export butter. Valio expanded product offering from butter to other dairy products in 1909. In 1916 a laboratory was established by valio to develop products and technologies. (Valio l, n.d.)
Many products which are still widely available were developed in 1930s. During second world war Valio was in important role in supplying frontline with food supplies and ensuring availability of consumer milk. After the war AIV technology was necessary in ensuring food availability to finnish people during the recession. (Valio 3, n.d.) In 1950s Valio developed milk powders to consumers. A product which served consumers well as fridgeration technology was not commonly in use in every household. At the same time industrial grade production was established and packed milk found it's way to market. (Valio 3, n.d.)
During 1960s dairy process technologies developed fast and focus was on liquid product development. For example ultra-high-temperature (UHT) process was taken in use to extend the self life of products tenfold. During the time carton packaging came also to wide use and replaced plastic milk bags. (Valio 3, n.d.)
Product offering extended to include semiskimmed and low fat milks and vegetable oil based products in the 1970s. Systematic sensory evaluation was established as a standard practice to ensure uniform product quality of liquid Valio products. (Valio 3, n.d.)
During 1980s and 1990s focus shifted towards light products and healthier products following common trend. lighter product options were orought to market along with low lactose content products. R\&D focus shifted in development and studying of lactic acid bacteria which make production of multiple dairy products possible. (Valio 3, n.d.)


After millenia multiple lactose free products were developed and released which were widely accepted by market. One of these product families is Valio Eilarm which has an established position in many finnish consumers households. Valio has also widely licenced the lactose free technologies for partner use (Valio 4, n.d.)

## Ice Cream Business

Ice cream business is a fraction of Valio's offering and it has always been. Valio's main portfolio consists of Fresh dairy products, butters and spreads, cheeses and powdered ingredients, which make $95 \%$ of all sales, leaving the ice cream in the last 5\% of total sales (Valio 2020). Valio re-established ice cream manufacturing in 2018 after they had sold their earlier Ice cream production to Nestlé company in 2004. (Valio 5, n.d.)

Valio targets a specific consumer segment with their Valio jäälelöfabriikki ice cream product line. The Jäätelöfabriikki products represent the market's ice cream offerings most expensive end, which targets customers looking for experiences with consumables. The product line has been branded with a joyful outlook referring to merry-go-around, a swir of colours.
Consumers are attracted by tastes ranging from ever classic premium chocolate to more extreme ones which change seasonally. For example a blue cheese tasting ice cream could ee lately found on market shelves. The size and newness of Valio's Ice cream business means that there is less risk in trying out things which are otherwise not possible with Valio's more established products.

## Härtelö / Lipasu

Established in 2018

Härtelö is Lipasu company's sole product Härtelö is a plant-based ice cream that was originally developed as a food science course project in the University of Helsinki. Härtelö combines a new, sustainable base ingredient with traditional ice cream making methods.
The Helsinki-based start-up is owned and ran by a team of seven students and entrepreneurs: Francesca Åström, Kaisa Andersson, Annika Ikonen, Hilma Koskinen, Roosa Kukkonen, Anni Niskakoski and Mirva Sorsila. In 2018 they founded a company named Lipasu. Based on the financial statements in 2020, the company's turnover was 46000 euros and revenue 72 000 euros. The turnover grew by $1522,2 \%$ and the gains grew $62,3 \%$ compared to last year. Since fall 2019 the Hartelo ice cream products have been sold in selected stores across Finland.
t all started as a trial
The group of students were given a challenge to create a plant based food product as part of a ood innovation course. The base ingredient o Härtelö is Finnish fava beans. Härtelö is the first fava bean based ice cream in Finland. The fava bean is a very rich in nutrients and contains as much as $30 \%$ of protein and lots of fibres. It is considered to be a part of a healthy diet with its slow burning carbs and vitamin B. It's an important plant from biodiversity point of view Its beautiful flowers attract pollinators and the plant releases lots of nitrogen to the soil so that there's no need to use fertilizers for the next crop

Fava beans have been used for different savory food products but the students wanted to try if it would work as a basic ingredient for something sweet. The ice cream was a curious trial, and blew them all by a surprice with it's delicious taste. The timing was also right - the team made three different flavours (pas-sion-lime, raspberry-rosmary and mocha-chocolate) to be sold at Restaurant day (Ravintolapäivä) and it was a huge success. After this, the idea of a company was born.

## ECTS credits made

 Härtelö happen.Collaboration
In quite the early stages the new entreprenerus got con-
tacted by Valio. The company was eager to meet with the creators of the new plant based ice cream. They started discussions, which led to a licencing contract between Lipasu and Valio. Lipasu Oy still owns the Härtelö brand and recipes but collaborates with Valio in testing. At the moment, three Härtelö flavours are sold through Valio's distribution channels: Lime-Passion, Chocolate and Mint.

Colourful and playful
The visual identity was also created as a student work. The Härtelö team was gaining some momentum by attending different fairs and telling their story on social media. Graphic designer Mervi Koistinen contacted them, and asked if she could desing the visual brand identity for Härtelöä as part of her school project. The pink boxes were born, and the collaboration still continues.

## Strengths

- A strong and valued brand in the Finnish market
Ranked the most sustainable brand in Finland
A large company and product portfolio
Good customer \& trend knowledge
Dedicated Insight study team
- Visually appealing packaging Strong consumer customer base Strong technological knowledge in dairy production
- Sufficient resources for production, R\&D and marketing \& sales activities - Sub-brands with different identities, room for experimentation


## Weaknesses

- Products are old with strong emotional connection to customers Changes to those cannot be easily made
Organizationally relatively heavy, core business is milk production and distribution which cannot be easily altered
Too safe and boring, there's not a lot of novelty
Brand image is more of family friendly, not trendy food for the soul of millenials
Less flexible to adapt to the trends: large corporate system with scattered sub-companies


## Strengths

- Fun and appealing brand identity - On-trend enterprise and product Storytelling approach, vegan options, sustainable and locally produced base ingredient Beautiful packaging - a clash with subtle Scandinavian design style
- Unique innovative product
- Agile start-up company
- The product is suitable for most people's diets and allergies
- Appealing, authentic founder story

A personal and empathetic approach to marketing Product appeals to ecologically sensible customers

## Weaknesses

- New, inexperienced entrepreneurs

No own large scale production
No own distribution network

- Only one main product

Weak market identification
Poor online presence

- Some customers might be reluctant
to even try the product (fava bean)
Small budgets for operational activities
Small team
Fava bean ice cream is new to the market, compared to milk ice cream; not regular ice cream pushes away non-vegan people? Only three flavours at the moment not enough variety


## Opportunities

Possibility to expand product offering further beyond milk within current network

- Possibility to shift product development further to plant based products
Possibility to use dairy production techniques with other products, e.g lactic acid bacteria
- Use strong financial advantage to test the water via buying small or lean start-up
To network and collab with small, trendy company like Härtelö Flagship in the F\&B industry in creating sustainability values
- Extending business more to B2B field


## Threats

- Inconsistency in group identity due to so many sub brands and products
Product range becomes too scattered and isn't recognizable anymore
The controversy of dairy products Competitive market with a lot of offerings


## Opportunities

Partnership synergies from the Valio collaboration

- 7 female founderers working together, possibility to leverage collaboration with other female entrepreneurs
Possibility that company is bought by a bigger player
Expanding the product line beyond fava bean based plant based products
A Finnish ice cream innovation for export
Starting a movement (Social responsibility)
- Impressive and trendy packaging
-> Instagram worthy, possibility to collab with influencers


## Threats

## Diet trends come and go

- Signature flavor can be copied
- Limited production facilities
- Big companies will rule over
- New types of vegan ice cream, made from other base ingredients, enter the market
Dependability to Valio may limit further growth
Competitive market with a lot of offerings
A small company (running out of money, internal conflict...)


## Business Model Canvas

## Valio

Valio's position within the Finnish business environment is strong with a presence supported by a strong historic brand image and emphasis on R\&D of new production technologies and products. Valio has heavy infrastructure on dairy production and distribution to serve consumers and business customers. It's operations require precise control to keep long term profitability on wanted level and radical shifts from core business are challenging to make.


## Business Model Canvas Härtelö / Lipasu

For a young start-up Lipasu has an impressive product which answers to wants of environmentally conscious customers. They manufacture their products with licence under Valio which enables market entry with relatively low risk. Their brand image is distinctive and playful which suits their product well. Their growth may be anyhow limited by their narrow scope of product offering and their relatively small presence. Consumers may not be aware of their existence. For their growth wider awareness would be needed.


## Effectuation

The Five Principles


Dr. Saras Sarasvathy found in her research that the most successful entrepreneurs use a common logic or thinking process, to solve entrepreneurial problems and she calls this effectuation (Effectuation n.d.). The entrepreneurs focus on what they have in hand (bird in hand principle) and manage what they can control. They set an acceptable downside (affordable loss principle) before doing business, then just focus on what they are doing. New means and opportunities
can appear in the future. At that time, entrepreneurs can catch those uncertainties and convert them to new goals (lemonade principle). They can even expand their business by forming partnerships with people and organizations that are willing to make real commitments for creating future products and markets (crazy quilt principle). They also believe that the future is not predicted but created through our actions (pilot in plane principle) (OsloNAP, 2014).

| PRINCIPLE | WHAT IT MEANS |
| :--- | :--- |
| 1. Bird-in-Hand | Start with your means. Who I am, what I know, and whom I know. |
| 2. Affordable loss | Focus on the downside risk. Understand what you can afford to lose. |
| 3. Lemonade | Leverage contingencies. Surprises as potential to create new markets. |
| 4. Crazy quilt | Form partnerships. Co-create the new market. |
| 5. Pilot in plane | Focus on activities within your control instead of trying to predict the future. |

## Effectuation

## Valio

1 Valio's core is milk and it's refinement, it's the main ingredient upon which everything has been procedurally built on from the start. Most of Valio's business consists of the ogistics and processing of milk and therefore the milk needs to bring in the revenue to justify the existence of that mechanism. Thus it's rational that most of their products are milk based. Expanding to non-milk products poses an increased risk profile in Valio's case, and thus those can be seen as outliers within Valio's portfolio.

2 Valio is capable of testing easily new products in the market which can be manufactured within their current production systems, which are large and flexible. This can be perceived to be the case as Valio introduces over a hundred new products annually (Valio 2020), some of which do not thrive for long, but pose only a marginal effect on Valio's profitability.

3 The larger a company is, the harder for it is to utilize happy accidents or sudden market shifts. Valio is a large company and changes for its core operations are hard and slow to make. There are no apparent examples of utilization of surprises within Valio, even though those might exist.

4 cooperation with different companies is not a new thing to Valio, but it's not in the core of how they operate. A great example of this is the cooperation with Lipasu. pasu has licenced manufacturing and supply of their product. Valio's existing production and logistics are so established that further expansion with other consumable startups could be a viable business expansion method.


5 Even though Valio tries to answer upcoming trends by designing new products against consumer insights, their main profitability comes from highly optimized milk production. They constantly develop their milk processing technologies and follow profitability with their own KPI "Milk margin." Valio tries to master their own field while working to ensure that it doesn't become obsolete if markets shift.

## Effectuction <br> Härtelö / Lipasu

1 Härtelö's origin comes from a food science project at the University of Helsinki involving the ingredient of fava bean. The students started with available means and developed the product together with their peers. They introduced the product to the ocal market through offering it at Helsinki Restaurant Day where anyone can start a restaurant for one day.

2 The Lipasu company was founded with the means of the students and there was very little risk of making financial losses. The primary sources of Lipasu's innital capital were from student loans. Ever since the start of the journey, they have been trying hard to maintain the cost margin at bay through contract manufacturing and low cash flow.


3 Lipasu founders have embraced the surprises that have come their way. The 2020 pandemic affected their plans to further collaborate with restaurants but it is yet to be seen if they can leverage this new situation somehow.

4 Early on their journey Lipasu was approached by a graphic designer who wanted to collaborate on the brand identity and packaging and the founders were open to the idea. That collaboration is still going on today. Lipasu founders were also approached by Valio to discuss a potential collaboration and again the founders were willing to find a way to do that. This is how Härtelö found its way to the supermarkets.

5 For a new player Lipasu is focusing on solving current weaknesses that affect their flagship mass market entry, instead of expanding the product category or production scale, but keeping international markets in mind. Taking the weak online presence and low market identity for example, Härtelö product is well received by he tasters from the early stage. They also might expand their portfolio to other plant based products.

## Role and value of design

Definition of Design Thinking


Design thinking is an iterative process, a way of thinking and a collection of hands-on methods to solve problems (Dam, R. \& Siang, T. 2020). Tim Brown, executive chair of IDEO, has stated that design thinking is a human-centred approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.
Companies nowadays can apply many variants of the design thinking process. In our project, we decided to examine how the companies utilize design on the five-phase model proposed
by the Hasso-Plattner Institute of Design at stanford, which is also known as d.school.

The five stages of a non-linear process are the following:

1. Empathise with the users
2. Define the users' needs and their problem
3. Ideate ideas for innovative solutions
4. Prototype to communicate solutions visually to stakeholders
5. Test solutions with users to see if the solutions solve users' problems

Point of Sale: Packaging
Packaging plays a crucial role in the food industry and product development. Firstly, it has a functional purpose to keep the food fresh and safe during transportation and storage. When it reaches the store shelf, the visual appearance starts to impact. It has been estimated that ove three-quarters of food and drink purchase decisions are made at the point of sale; $90 \%$ of consumers make a purchase after only examining the front of pack, and $85 \%$ of consumers make a purchase without having picked up an alternative product (Simmonds, G., \& Spence, C. 2017).

## The size does matter

Packaging in 2020 is not just a fight for branding but also a challenge of meeting the consumer's new expectation of customization and easiness. The ice-cream industry has always relied on the sale of bulk buying segments to make the bread. However, this good old business habit may soon vanish as buyers are now seeking healthier alternatives with functional benefits due to the busy lifestyles. Single-serve snacks like granola bars are leading this category phenomenon (Edlong, 2020).
speaking of the ice-cream industry, rising demand for small-portion snacks leads to the growth of the impulse ice-cream market and makes a change to the take-home segment as well. The market witnessed a significant systematic reduction in the packaging capacity of family ice creams. A container of 0.5 liters and less is more likely to be sold than that of $1-1.5$ iters (Bełżecka, 2013).
As stated in the Valio Trend Map 2020, modern consumers produce a strong sense of connection between food and expression of identity. The clean labels trend promotes differ ent dietary and food brand tribes ranging from organics, GMO-free, gluten-free to preserva-tive-free.

> 90\% of consumers make a purchase after only examining the front of pack.

## Judging a book by its cover

Usually, without pre-planned marketing activities, the customers don't get to sample the food or drink products in-store before making the purchase decision. According to Simmonds et al. (2017) it is important for designers and marketers to:

## 1. Grab the consumer's attention

2. Create positive associations and expectations in their minds (such as the expectation of a great taste/flavour experience) in order to ensure the longterm commercial success of a product.

Of course, if the expectations aren't filled by the actual taste of the product, the appealing visual identity of the packaging can easily lose its value. The inside of the ice cream box has to be well-defined first. In the case companies' products, Härtelö packaging and Valio's Jäätelöfabriikki both have regognizable and playfull appearance. Usually, the packaging colours are based on the flavour (brown for chocolate, red for strawberry etc.) like in Jäätelöfabriikki, but in Härtelö the main colour pink is seen in each package despite the fla-

## Design Thinking <br> Valio

## Empathise \& Define

Having a large customer base and sufficient resources, Valio uses different methods to gain customers' understandings. Then, the company will use these insights to form new product concepts that meet the market demand. Therefore, before initiating any product concept, Valio has to conduct extensive user research and market research.
Unlike typical start-ups' products, Valio's new products don't initially arise from the customers' or users' problems. As one of the largest dairy manufacturers in the Nordics, Valio has the pressure to serve the majority of the market to maintain and increase the company's revenue. Valio's products can't focus on particular niche customer segments. As a result, market trends are the primary drivers behind Valio's innovations.
Valio has a specific team for insight study (Valio 6, n.d.), and the team is continually studying trends to stay competitive in an evolving market (Valio 7, n.d.). Valio's sustainability report (Valio 2019) shows how they have so far answered different emerging trends such as healthiness and wellbeing or need for options of plant-based and lactose-free products. Valio also collaborates with many agencies to help Valio involve the users during the product development process
Besides studying market trends, Valio is currently collecting tons of customer feedback to
support decision-making. Some of the channels to collect feedback are social media channels, phone calls to customer services, and a dedicated page on Valio's website to receive information on the faulty product and new product development ideas.

Ideate \& Prototype
Valio uses three approaches to ideate and to produce a first version of the new product.
First, with a broad portfolio of products, Valio creates a new product concept by levelling their existing ones to meet the recent trends and demand, for instance, through using val-ue-adding ingredients. The usage of such ingredients does not lessen the taste or texture of the product. It gives Valio's customers alternative options to the original one, which is now against the trend.
One prominent example is the creation of Valio Eila™ NUTRI F+ lactose-free formulated milk protein powder. This milk protein powder is the result of a trend-adapting development process. After recognising the demand for healthier products and delicious eating experience, Valio funded more than 100 scientists and experts to produce the materials. In practice, this powder can replace the sugar to achieve a $30 \%$ sugar reduction when making chocolate. With such an application, this value-adding component helps to create a new line of product as lactose-free, sugar-free or less-sugar.


Valio came back to the ice cream business with playfull Jäätelöfabriikki.

Second, Valio encourages radical innovation in creating new product concepts. Valio jäätelöfabriikki product line is an excellent example of this. Playfulness is in the core of Jäätelöfabrikki brand, which has been branded in cooperation with SEK marketing and branding office ( $\mathrm{Be}-$ hance n.d.). The teams at Valio Jäätelöfabriikki are not afraid of combining distinctive tastes like gorgonzola cheese and gingerbread cookies, or basil and strawberries.
Third, Valio is known to tackle complex problems through open-sourcing of ideas in hackathons. For example, Valio has hosted a hackathon to solve problems related to emissions of farming (Ultrahack n.d.).

## Test

As a reputable brand, Valio faces constant pressure to make the products flawless before selling them in the market. In the final phase of product development, the company often examines three areas of the new product, includ-

> Valio has dedicated teams of tasters to ensure the company is creating planned flavours.

ing the taste, the quality, and the package. In detail, Valio has dedicated teams of tasters to ensure the company is creating planned flavours. Besides, Valio has to follow strict regulations during the product development process (Duunitori 6.9.2019) to make sure the products are safe to consume. Finally, Valio and design agencies have to make sure that the packages are convenient to put on the supermarket's shells and able to attract target customers.

## Design Thinking <br> Härtelö /Lipasu

Empathise \& Define
One aspect of empathising with the customers is understanding the need for allergen free options. Härtelö ice cream is dairy-, lactose- and gluten free and suitable for vegans. Even though this was not the basis for starting the company there is a need in the market for options that are suitable for everyone since a lot of people have special diets. This also connects to empathising with potential restauran customers who can offer this ice cream as a desert to anyone needing such alternatives and it keeps very well in the freezer reducing potential waste.
Attending food related fairs has allowed the Lipasu founders to connect directly with the consumers and get their feedback, suggestions and reactions when they taste the ice cream flavours. The development of new flavours in collaboration with Valio now allows them to use customer insights that Valio gathers through their channels.

## Ideate \& Prototype

The Härtelö packaging is colourful and playful. The main colour pink was chosen through market research by the company founders. They iked the colour, and noticed that it is not commonly used in ice cream packaging in Finland. According to our interview with the Härtelö entrepreneurs they didn't want the packaging to emphasize too much the main ingredient, fava
bean. The simplified form of the bean can be seen in the Härtelö logo and the colour combination of pink and green balances the visuality. The round shapes also represent the softness of ice cream.
After the Härtelö visual identity and packaging was designed by Graphic designer Mervi Koistinen (who also was a student at the time and asked if she could design the packaging for Härtelö as part of her studies) the visual appearance in Härtelo's social media started to look more unified and planned. The entrepreneurs behind Härtelö have been very open and transparent in heir communication since day one. They've eagerly been sharing their test lab results and describing the study project on social media. This felt natural to them, and was not initialy a planned strategy. Now, the latest posts on Instagram introduce the seven women behind the start-up - pictured in front of a pink canvas. the colours are present throughout the different touchpoints and storytelling layers. When you look at the packaging at the store and might search for more info, the visuality continues and adds a sympathetic layer to the product. This might have a positive effect on the purchase decision.

Test
The Härtelö ice cream was initially tested by the inventors of the recipe together with their fellow students. Eventually they offered the product

The Härtelö ice cream was initially tested by the inventors of the recipe together with their fellow students.

o more and more people through the Restaurant Day and fairs for example. This has been a possibility to test the product on a small scale with low risk and get instant \& direct feedback. Currently the founding team and Valio product development team first test the new flavors together. The views and perceptions of the distributing supermarkets need to be taken into con-
sideration when deciding on the flavours that will end up in the supermarket freezers. If Lipasu is able to offer another type of ice cream product to restaurants then the process of testing and getting feedback is again a bit different. It is possible to start with just one restaurant and offer even more innovative flavours that you might not find in the grocery store.

## Future perspective

The Innovation Ambition Matrix

Firms that excel at total innovation management simultaneously invest at three levels of ambition, carefully managing the balance among them.


## Lipasu \& Valio collaboration

## Incremental:

- New ice cream related products \& new Härtelö flavours
- New product type(-s) under the Härtelö brand


## Mid-level:

- "Fava bean milk" -based full range of products (ref. Oddly Good)
- Increase collaboration with Valio farmers producing fava bean and connect with the zero carbon 2035


## Future perspective <br> In the case companies

## Valio on its own

## Incremental:

- New flavours and products
under the Fabriikki brand
- New products using existing well-known Valio brands
- New products for the B-2-B
market
- Valio could start using their know-how of fermentation and lactic acid bacteria to make beverages, such as tea or beer.

Mid level:
New collaborations between Valio and other Finnish companies
Increasing collaboration between Valio and smal startups like Härtelö

Transformational:

- Innovation kitchen -type of platform for startups to collaborate with Valio



## Lipasu on its own

## Incremental

- Develop collaboration with a restaurant
- Produce small batch of special flavours and gather feedback
- Produce different flavours for different restaurants
- Produce a product
specifically for the fast-food sector (Hesburger doesn't yet have vegan ice cream.) Maybe soft serve in 11 carton.
- Develop new products for the sweet sector
- Find new partners for manufacturing new products for example


## Mid level

Creating innovative lupin bean products (requires educating the public about this variety that is healthy to eat and the difference to the toxic weed plant)
Offer product development services to other companies

Transformational:

- Creating a strong community movement around the company \& product bringing people together over ice cream


## Future perspective

What to suggest for the case companies?

## Valio

In the ice cream sector we feel there is untapped potential in the frozen yogurt style of ce cream since no-one has taken that as their specialty. We feel that Valio's strong brands in yoghurt could be developed into healthy and delicious ice creams. At the very least that could be a new variety for the Fabriikki range. If Valio would focus more on the fava bean products they could also develop products for their B2B customers. Right now Valio is exporting milk in powdered form but they could also make fava bean powder for food production. This powder could be used to increase plant based protein content in different foods. One example could be to use it in just-add-water type of cake or pancake mixes
Valio has extensive know-how of fermentation and lactic acid bacteria. Fermented food is known to be beneficial to the gut bacteria and has become more trendy in recent years. They could further leverage this know-how to make new types of products such as beverages like tea or even beer

> Innovation kitchen -type of platform provided by Valio.

Valio has now gained some experience in mentoring and working together with the startup entrepreneurs of Lipasu. We believe this kind of collaboration could be taken further. As more transformational future direction we suggest that Valio would build a kind of platform to bring together students, startup companies and possibly even individuals who want to develop their food product idea. Together they could work in an Innovation kitchen -type f platform provided by Valio. Valio product development could get new innovative product
deas from outside the company which they could also choose to licence. The main idea would be the support of the professionals for the newcomers, working together with likeminded people, even playing around a bit while building community and possible new brands and companies. Including a possibility for the consumers to test the products or even be involved in the product development would take this idea to a more user centered direction. This would enable Valio to use the design thinking method more systematically. This idea would be in line with Valio values: consumer and customer focus, responsibility, renewal and collaboration as well as match with their vision to be the most innovative dairy and food company in the world (Valio 2019)

## Lipasu Oy

As a small startup company Lipasu has multiple directions they could take their business in he future. We can see that the way they have worked so far is in line with the effectuation principles. It is important to keep innovating to stay competitive with so many bigger players in the market, At the same time they should try to tackle their current problems. From the SWOT analysis, we identify lack of product diversity and low branding as the two crucial weaknesses of Lipasu company
For the past two years, Lipasu relies solely on the fava beans - the "bird in hand" for production. However, during the interview, the founders mentioned a potentially interesting ingredient which was lupin bean. We agree that bringing an innovative lupin based food product to market would be sure to get attention and as it is not widely used or recognized yet there is the potential to be the first to market especially in the sweet foods sector that Lipasu is interested in. Performance marketing and traditional multimedia branding methods are costly and often harbor more risks than benefits. For a young start-up like Lipasu with a trending flag-ship product and a "winning by telling" approach,
it would be wise to use partnerships and affilation systems. For example, building a strong engaged community of customers, support network and focus on the business partner
ships that bring mutual value. According to the crazy quilt principle expert entrepreneurs build partnerships with self-selecting stakeholders. By obtaining pre-commitments from these key partners early on in the venture, expert entrepreneurs reduce risk and co-create the new market with its interested participants (Effecuation n.d.). This is a potential future direction that we recommend for the brand.

> A strong, known and engaged
> Lipasu community

One prominent company to collaborate with could be Hesburger. They have profiled themselves to be a responsible fast food chain and the CEO is especially concerned with climate change and environmental issues (Salmela 2020). Currently Hesburger offers only milk based soft serve ice cream (Hesburger 2020) Fava bean based ice cream could be consid ered a more sustainable option. Developing a one litre carton of ready-made Härtelo soft serve mix could increase the likelihood of this collaboration.
Transformational future direction we suggest for Lipasu is to build a soft, sweet and pink movement based on their values. One idea for branding in the Ten Types of Innovation framework is values alignment meaning make your brand stand for a big idea or a set of values and express them consistently in all aspects of your company (Doblin 2013).
Ice cream could be used as something that brings people together. "Ice cream as ice
breaker" could be a concept that extends to many functions. It would be natural for seven female entrepreneurs to connect and identify with other female entrepreneurs in Finland so ce cream break or speed dating over ice cream at a female entrepreneurship event comes to mind. This could be a starting point to test the concept with an audience that is likely to be upportive. Ultimately the ice cream meetups could include lonely or elderly people and strangers meeting and engaging in a conversion together for as long as it takes to eat ice cream.

## Valio and Lipasu together

We were initially quite impressed that Valio wanted to support Lipasu to get their product to the market and offered to collaborate. As a mainly milk based food company they have still taken an interest to broaden their own offering to plant based alternatives like oats and now support the fava bean based innovation. We suppose that the crops that can be grown in Finland and possibly at the milk producers farms would e interesting to Valio. We think there is potential o increase the fava bean production and innovative food products based on this crop
Together with the Härtelö brand they could make for example "Härtelö Pirtelö" which means Härtelö Shake. As the name Härtelö is derived from the word jäätelö (ice cream) the use of that name is somewhat limited to that cate gory. The "Hartelo Pirtelo" could be a ready made shake that would fit into the Valio produc portfolio as a plant based option either as their healthy protein shake (ref. Valio PRO-feel) or an alternative to a sweet (chocolate) milk shake (ref. Valio Play). Another kind of incrementa product development idea would be to add to Valio's existing Fabriikki protein ice cream ange a plant based protein alternative with the Härtelö ice cream and fava bean based chocolate brownie crumbs on top. The current toppings contain wheat so this would also be a gluten free option.

## References

nterview with three Härtelö entrepreneurs: Roosa Kukkonen, Hilma Koskinen and Anni Niskakoski, 8.10.2020

AIV (n.d). Säilörehu. Available from: https://aiv.fi/sailo-oikein sailorehu/ [Accessed on 6.10.2020]

Behance . (n.d) Valio Jäätelöfabriikki Available from: https:// www.behance.net/gallery/75467139/Valio-Jaeaeteloefabriikki [Accessed on 6.10.2020]

Bobtherobot. (n.d.) Joulumiitti vaikuttaja. Available from: https://www.bobtherobot.fi/case-2020/19/joulumiitti-vaikuttaja [Accessed on 6.10.2020]

Chepkemoi, J. (2020) Which Country Eats the Most Ice Cream? World Atlas. Available from: https://www.worldatlas com/articles/the-top-ice-cream-consuming-countries-of-the-world.html [Accessed on 2.10.2020]

Clarke, C. (2012). Science of Ice Cream (2nd Edition) - 1.1 What is Ice Cream?. Royal Society of Chemistry pp. 1-2; 4; 6

Doblin (2013). Ten types of Innovation, Tactics Overview Available at:
https://doblin.com/dist/images/uploads/TenTypesInnovation.pdf [Accessed on 13.10.2020]

Duunitori 06.09.2019. Tuotekehittaja on myos maistaja Available from: https://duunitori.if/tyoelama/tuotekehitta-a-on-myos-maistaja [Accessed on 6.10.2020]

Effectuation.org (n.d.) Society for Effectual Action. Available from: https://www.effectuation.org [Accessed on 8.10.2020]

Helsingin Jäätelötehdas (n.d.) Available from: http://www. helsinginjaatelotehdas.fi/yrityksesta.htm|
[Accessed on 2.10.2020]

Hesburger (2020). Product assortment. Available at https://www.hesburger.com/products/?categories[] =des serts [Accessed on 13.10.2020]

Hintsala, J. (2018) Yläluokan jälkiruoasta tuli koko kansan herkku - jäätelön suosio ei osoita hiipumisen merkkejä. Available from: https://yle.fi/uutiset/3-10329476
[Accessed on 2.10.2020]
Ingman (n.d.) Historiaa. Available from: https://www.ingman fi/tietoa/walls-history.html [Accessed on 2.10.2020]
nnoman. (n.d) Valio. Available from: https://www.innoman fi/asiakkaat/valio/ [Accessed on 6.10.2020]

Laakso, A. (2020) Jäätelökansa on puhunut. Available from: https://www.valio.fi/ruoka/jaatelokansa-on-puhunut/ [Accessed on 2.10.2020]

MarketLine (2019) Ice Cream Industry Profile: Global. Dec 2019, pl-35. 35 p.

Nestlé (2013) Tutkimus: 60 \% suomalaisista nauttii jäätelöà kesällä vähintään kerran viikossa. Available from: https:// www.nestle.fi/media/pressreleases/tutkimus-60--suoma-laisista-nauttii-j\�\�\�\�tel\�\�\�\�-kes\�\�\|\�\�-v\�\�hint\�\�\�\�n-ker-an-viikossa [Accessed on 2.10.2020]

OsloNAP (2014) Effectuation framework. Available from https://oslonap.com/effectuation/ [Accessed on 8.10.2020]

Pingviini 1 (n.d.) Tietoa meistä. Available from: https://www. pingviini.fi/froneri-finland/tietoa-meista/
[Accessed on 2.10.2020]
Pingviini 2 (n.d.) Pingviinin tarina. Available from: https:// www.pingviini.f/pingviinin-tarina/ [Accessed on 2.10.2020] simmonds, G., \& Spence, C. (2017). Thinking inside the box How seeing products on, or through, the packaging influences consumer perceptions and purchase behaviour. Food Quality and Preference, 62, 340-351.

Salmela, Kari (2020) Interview Kari Salmela CEO. Available t. https///wwwhesburger.com/about-hesburger/respon sibility/responsible-choices/interview--kari-salmela--ce [Accessed on 13.10.2020]

Ultrahack. (n.d.) Milk Farm Methane hack Available from. https://ultrahack.org/milkfarmmethanehack [Accessed on 6.10.2020]

Valio (2020) Board of Directors' Report and Financial Statements 1 Jan. - 31 Dec. 2019. Helsinki: Valio Oy pp. 2-3; 18

Valio (2019) Valio Sustainability report 2019. Helsinki: Valio Oy pp. 14; 21-22; 28

Valio ו. (n.d). We are valio. Available from: https://www.valio. com/we-are-valio/ [Accessed on 6.10.2020]

Valio 2. (n.d). Innovations. Available from: https://www.valio. com/food-solutions-for-companies/why-choose-valio/innovations/ [Accessed on 6.10.2020]

Valio 3. (n.d). valio-ajan-hermolla-jo-vuodestal905. Available from: https://www.valio.fi/yritys/artikkelit/valio-ajan-her-molla-jo-vuodestal905/ [Accessed on 6.10.2020]

Valio 4. (n.d). valio eila lactose free for the dairy industry. Available from: https://www.valio.com/food-solu-ions-for-companies/business-opportunities/valio-eila-lac-tose-free-for-the-dairy-industry/ [Accessed on 6.10.2020]

Valio 5. (n.d). Valio to re-enter the ice cream markets. Available from: https://www.valio.com/news/valio-to-re-enter-the-ice-cream-markets/ [Accessed on 6.10.2020]

Valio 6. (n.d). Bringing insight to the data. Available from: https://www.valio.com/articles/bringing-insight-to-the-data/ [Accessed on 6.10.2020]

Valio 7. (n.d). Trendikartta 2020 - mihin olemme matkalla?. Available from: https://www.valio.fi/yritys/artikkelit/ rendikartta-2020-mihin-olemme-matkallal
[Accessed on 6.10.2020]

Valio 8. (n.d). Valio Jäätelöfabriikki. Available from: https:// www.valio.fi/tuotteet/valio-jaatelofabriikki/
(Accessed on 6.10.2020]

Ylä-Anttila, A. (2020) Suomalaiset syövät eniten jäätelöä maciilmassa - ja nyt myös ympäristöystävällisemmin. Avail able from: https://www.marmai.fi/uutiset/suomalaiset-syo-vat-eniten-jaateloa-maailmassa-ja-nyt-myos-ymparis-toystavallisemmin/7c24376b-ad4l-4b87-9eb0-ce0le827a af4 [Accessed on 2.10.2020]

# "When I'm no longer rapping, I want to open up an ice cream parlor and call myself Scoop Dogg." 


[^0]:    Clarke, Chris. (2012). Science of Ice Cream (2nd Edition)
    -1.1 What is Ice Cream?. Royal Society of Chemistry.

