



hello Goodness

An opportunity in vending for PepsiCo Benelux



Appendix

Appendix A

Graduation project brief

IDE Graduation Assignment (version 2017.09.21)
incl. the student's study progress (Appendix)



Please save your assignment as (format): IDE Graduation Assignment_family name, name_student number_dd-mm-yyyy
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To be completed by the student

	Name student	Amber Middelhoek		
	Student number	4209818		
	Address	Balthasar van der Polweg 654		
	Zip- code, City	2628ZH Delft		
	Telephone	0612142803		
	E-mail address	ambermiddelhoek@gmail.com		
	Start at IDE 2012		Start at TU Delft 2012	
	Bachelor <input checked="" type="checkbox"/> TUD Bachelor IO <input type="checkbox"/> TU/e or UT Bachelor IO <input type="checkbox"/> TU Delft non-IO BSc <input type="checkbox"/> Other Dutch University Bachelor <input type="checkbox"/> HBO Bachelor <input type="checkbox"/> Foreign Bachelor	Master <input type="checkbox"/> IPD <input type="checkbox"/> DfI <input checked="" type="checkbox"/> SPD <input type="checkbox"/> = 2nd non-IDE master <input type="checkbox"/> Individual programme, date of approval <input type="checkbox"/> Master Honours Programme	Specialisation <input type="checkbox"/> Medisign Annotation <input type="checkbox"/> Techn. in Sustainable Design <input type="checkbox"/> Entrepreneurship	
Name Chair	Pinar Cankuratan			
1. Check study progress <i>To be completed by the Shared Service Centre O&S after approval of the assignment by the chair. The study progress will be checked for a 2nd time just before the green light meeting.</i>				
Bachelor degree:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N.A.	
Missing 1 st year Master courses	1. 2. 3.	4. 5. 6.		
Master electives, no. of EC credits accumulated:				
Name:		Date: / / 20....	Signature:	
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IDE Graduation Assignment

GENERAL INFORMATION

Title Graduation Project	Hello Goodness – an opportunity in vending for PepsiCo Benelux		
Chair of Supervisory Team	Pinar Cankuratan		
Department / Section	PIM / MCB		
Mentor of Supervisory Team	Marielle Creusen		
Department / Section	PIM / MCB		
The chair and mentor are from the same department, but have different expertises that are in my opinion both necessary during my graduation assignment. Pinar is more marketing strategy oriented and therefore a good fit with this marketing-oriented assignment. On the other hand, a large part of my graduation project is consumer (behavioural) research, which is the expertise of Marielle.			
Project commissioned by	<input type="checkbox"/> Faculty	<input checked="" type="checkbox"/> Company	<input type="checkbox"/> Other, e.g. entrepreneurial
Project type	<input checked="" type="checkbox"/> Design	<input type="checkbox"/> Research	<input type="checkbox"/> Other, e.g. entrepreneurial
Company name, if applicable	PepsiCo Nederland		
City & Country	Utrecht, Nederland		
Company Mentor	Rogier de Vink		
Start date	15-10-2018		
End date	05-04-2018		

CONTENT

Introduction
Give a sketch of the context of your assignment. Historical developments, if applicable relevant published scientific research results, new trends, status quo; materials, technologies, usage, etc.

- In case of a faculty project: describe how your assignment reflects the research portfolio of the IDE Faculty.*
- In case of a company project: provide company information.*
- If other, e.g. entrepreneurial: describe the future enterprise and how your assignment will be of value to the enterprise.*

Include an illustration or visual which depicts the context of your assignment.
In case one or more extra parties are involved in your project, indicate which role they play.

PepsiCo is an American multinational specialised in food, snacks and beverages. The company is one of the top 5 companies worldwide in the fast-moving consumer goods industry. PepsiCo is well-known in the Netherlands for its brands such as Lay's, Doritos, Duyvis, Quaker and Pepsi. PepsiCo is formed in 1965, after Pepsi-Cola Company and Frito-Lay merged. Since then, multiple new brands were introduced, and other food companies were acquisitioned. The products of are sold in over 200 countries, resulting in a net revenue of 63.53 billion worldwide (PepsiCo 2017 Annual Report, 2018).

PepsiCo Nederland is part of PepsiCo Benelux in the ESSA division of PepsiCo. There are 16 brands sold in the Benelux in the product categories chips, snacks, nuts, oats, social drinks and juices. So, not all international brands are introduced here. In the Netherlands, PepsiCo belongs to the top 6 largest food companies in the country and has a market leading position in multiple categories. In Belgium and Luxembourg, PepsiCo is ranked number 8 in the food industry and is market leader in the snack and fruit juices category. In the Netherlands, PepsiCo collaborates with Vrumona for the bottling and selling of the social drinks, which are drinks as Pepsi and 7UP, while in Belgium and Luxembourg the social drinks and juices are sold by the company itself.

For my graduation assignment, I will join the Sales Away from Home department Benelux by supporting the New Channel Acquisition Manager Benelux (Rogier de Vink) with my project. Sales Away from Home is responsible for all the different channels where the assortment of PepsiCo is sold when the product is not consumed at home. In general, this means that all channels except retail and e-commerce are the responsibility of this department. In Away from Home, the products are sold to consumers through channels such as leisure, catering and on the move. The companies in these channels purchase their products through wholesalers. So a large responsibility of the Sales Away from Home department is the contact with wholesalers to get the PepsiCo products listed. The companies that sell their goods to the end-consumer are then able to purchase their goods at the wholesalers.

An important pillar of PepsiCo is Performance with Purpose, with the three focus areas products, planet and people. By focussing on transforming the current product portfolio towards a more sustainable and healthier food portfolio, the focus of the company is on delivering long-term growth of the company while having a positive impact on the society and environment. In the last years, new brands such as Naked, Tropicana and Sunbreaks that are focussed around bringing healthier products to the market are added to the product portfolio. In products from existing brands, innovations as sugar and salt reduction took place, next to portion control by introducing an assortment of smaller sized products.

In line with Performance with Purpose is the new business idea *Hello Goodness*. This is a project of PepsiCo to increase sales of the healthier assortment by offering a more nutritious solution for daily snacking. The out of home market is growing rapidly, and vending could be a strategic direction to benefit from this growth. PepsiCo Benelux does not own their own branded vending machines currently, but with Hello Goodness, they want to explore the opportunity to bring their own vending machines in the market. These vending machines are currently in use in the United States, but their business strategy cannot be copied to the Benelux, due to differences in local brands, market and consumer characteristics. The idea is to place the vending machines in the Away from Home channels, by optimizing the assortment to the demands of the consumer, to make it financially feasible.

There is interest for the Hello Goodness project in the Benelux, but for the last year the project is on hold. This results in little prior research and no business plan yet. When making the decision to focus on a new channel, market and consumer insights are necessary. These strategic decisions cannot be made only based on facts from other continents. For my graduation project, I will research the new business opportunity of Hello Goodness and provide an advice towards PepsiCo Benelux. On strategic level, the variables that will be the rationale behind the business advice to focus on a new channel can be used in future projects to evaluate if channels are worth investing in.

Problem definition

Indicate clearly, what should/could be improved compared to the present situation. When executing a research project: indicate the knowledge gap. What opportunities exist, what contradicting demands should be addressed, etc.

At the moment, PepsiCo is a retail-oriented company with around 90% of the items sold in this channel. The current product portfolio fits the retail channels well, because the products are designed to consume at home. But, the retail market is saturated and gaining market share is hard. On the other hand, away from home is a growing market, each year the overall spending in this market increase (Business Insider, 2017). There is a disbalance for PepsiCo, with much more focus at retail currently, while there are business opportunities available to increase the sales out of home. Because PepsiCo is retail-oriented, the current market insights and methods to evaluate propositions are not directly applicable to the away from home channel.

A strategy in away from home of which its potential is unknown is applying more focus on vending. In the vending industry, the unhealthy solutions for daily snacking are still the standard, resulting in an opportunity for nutritious snacks. The opportunity to focus on healthier solutions for daily snacking is an interesting approach for PepsiCo Benelux to increase their market share in away from home. As a result, the visibility of PepsiCo should increase in this channel.

In the company, the Hello Goodness project is currently still in the idea phase. The context and details on how to use the vending machines as a tool to bring the healthier assortment to the consumers is still unknown. With this graduation assignment, I will research the context around the vending machines and develop the idea towards a feasible business concept that solves the consumer needs. This will be done while making use of the existing retail-oriented models at PepsiCo to evaluate their applicability in away from home.

Assignment

Briefly and to the point, describe what you are going to design, create or generate to solve (part of) the problem. In case of a Specialisation and/or Annotation, address specifically how this is/these are included in the assignment.

Analyse the business opportunity of Hello Goodness by providing an advice on the right channel, target group(s), assortment and go-to-market strategy. In this process, use currently used models at PepsiCo and evaluate their applicability in the away from home market. Design a business plan to offer the healthier products to end-consumers through vending machines including an implementation plus marketing plan. Provide design recommendations regarding the design and presentation of the products.

Approach

What will be the approach to deal with the complexity of the assignment? What has to be done to meet the challenges? Indicate the main methodologies to be used. Indicate the same project phases as you distinguish in your planning. If one or more extra parties are involved in your project, indicate which role they play. In case of a Specialisation and/or Annotation, address specifically how this is/these are dealt with.

The project consists of four phases: discover, define, develop and deliver. A guideline during this process is the strategic planning phase of the world-class customer engagement model (WCCE) (figure 1), translated in the steps presented in figure 2. Each phase will be concluded with a report and a meeting with the supervisory team. The reports of phase 1, 2 and 3 together will form the thesis report.

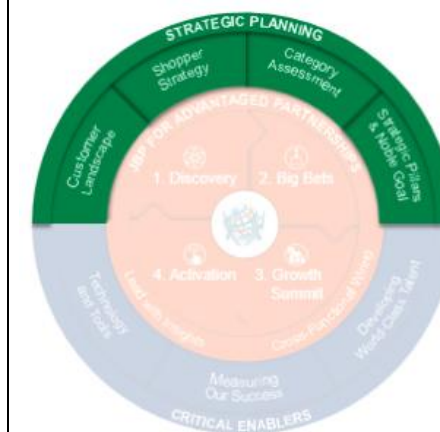


Figure 1: World-Class Customer Engagement Model



Figure 2: Steps in graduation process

Phase 1: Discover

The goal of this phase is to focus on the context in which the vending machines will be placed. This phase will end with a proposal of a combination of a channel and target group that are in line with the proposition of PepsiCo Benelux. In the WCCE model, this are step 1 and 2.

After exploring the design challenge, an internal analysis will be executed. This will be done by using the company resources to analyse the healthy product assortment in the Benelux and the execution of the Hello Goodness project in United States and UK (with other brands). In order to define the right channel, an overview of the competitive landscape in vending has to be created. Therefore, a competitor analysis in combination with field research in the market is planned. After narrowing down to one channel, possible target groups within this channel are analysed. The consumer characteristics and shopper strategy within a possible target group will be linked to trends. As a result, the most promising channel and related target group are chosen.

Phase 2: Define

The goal of this phase is to focus on how PepsiCo can offer an interesting solution towards the target group, in the WCCE model step 3. Therefore, the conclusions about the healthy assortment of PepsiCo will be linked to the consumer needs. This phase will end with an advice on how to present the items in the vending machines towards the consumers (design a shelf plan), by recommendations about assortment, pricing, visibility and possible partnerships.

In this phase consumer research is planned to define the right assortment and pricing. The go-to-market strategy will be defined throughout this phase and a financial analysis will be executed to verify if the chosen assortment will generate enough revenue to be profitable.

Phase 3: Develop

The goal of this phase is to develop a business plan for Hello Goodness in the Benelux. This business plan will be evaluated in order to give a business advice towards the managers in Sales Away from Home.

<p>In this phase the business model canvas will be used to develop a business plan. The variables that are used to evaluate the business plan for this channel are listed, to be used in future projects as a guideline. After evaluating the proposal, a marketing plan will be formulated in combination with an implementation plan. Included in these plans are design recommendations about communication to the user and looks of the vending machine. Not likely, but if the project is not feasible, recommendations on how to use the lesson learned while executing the assignment in future projects will be provided.</p> <p>Phase 4: Deliver</p> <p>Throughout the graduation project, each phase will be concluded with a part of the thesis report. In the last phase, the report will be revised, and a summarizing poster will be created. The outcome of the project will be presented in a graduation presentation and in a business advice for the managers in Sales Away from Home. A summary of the applicability of the WCCE model in sales away from home will be provided, in addition to a checklist of variables that need to be tested to evaluate if new channels are worth investing in.</p>

<p>Graduation Project results</p> <p>1. Describe the expected results or outcome of your Graduation Project. For instance, a product, a product-service combination, a strategy illustrated through product or product-service combination ideas.</p> <p>2. Indicate the expected scientific and/or societal and/or commercial significance of the outcome of your project.</p> <p>3. In case of a Specialisation and/or Annotation, address specifically the relevant results to be expected.</p>
<p>The outcome of this graduation project will be a business advice for PepsiCo Benelux to use the Hello Goodness vending machines as a strategy to offer their healthier product lines to the market. In addition, a marketing plan will be added to illustrate how PepsiCo can gain market share in the chosen channels.</p> <p>This is of commercial interest for Pepsico Benelux, because if Hello Goodness is a feasible project, it will result in extra sales by stepping into the new market of healthy vending machines. In addition, it will help to increase the visibility of the healthier brands. As a societal benefit, with Hello Goodness more nutritious solutions for daily snacking will be offered in the market. Resulting in a higher probability a consumer will consume a healthy snack when being out of home, which is better for their health.</p> <p>In addition on business level, the outcome of this project will be an evaluation of the retail-oriented models and their applicability in away from home and a checklist of variables that determine if a new channel is promising.</p>
<p>Deliverables</p> <p>List the <u>extra</u> graduation deliverables, if any (apart from the mandatory deliverables being the thesis report, annexes if any, the poster and the representative pictures). For instance, a working prototype or a paper.</p>
<p>The extra deliverable for the Sales Away from Home department is:</p> <ul style="list-style-type: none">• A business advice on the execution of Hello Goodness.• A checklist of variables that can be used to evaluate new channel opportunities.

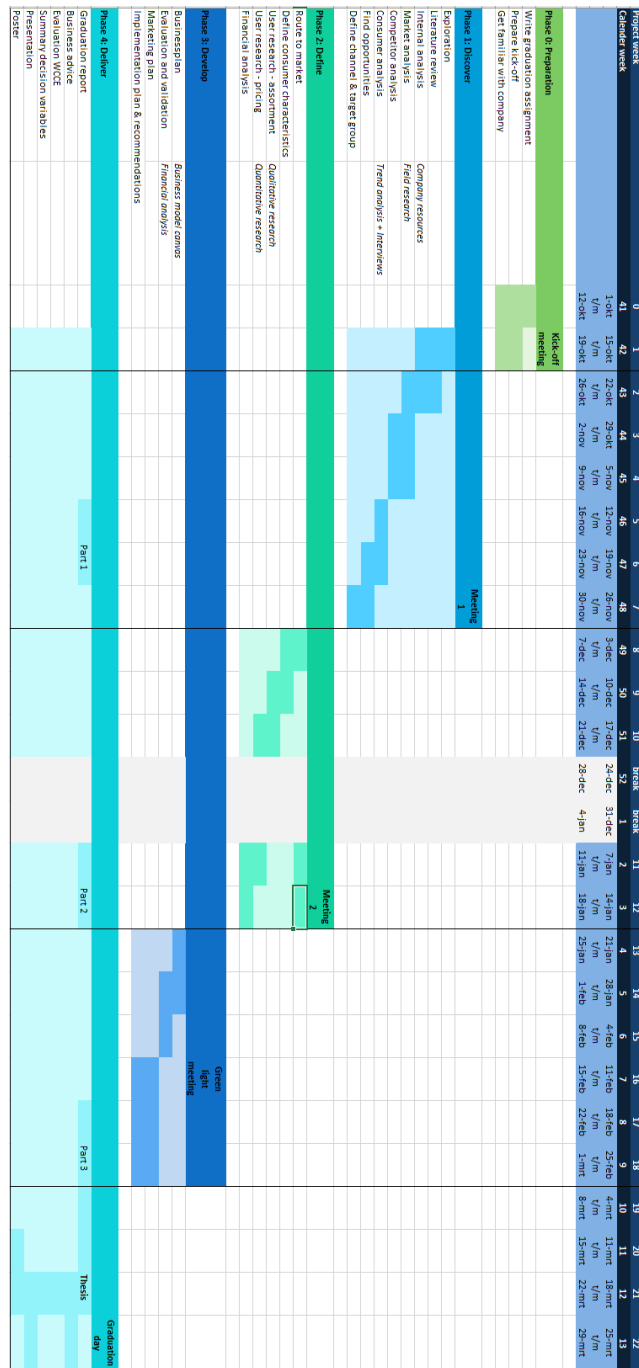


<p>Relation and relevance to the domain of Industrial Design Engineering, the chosen master direction and the IDE pillars</p> <p>Explain the relation of your project with the domain of Industrial Design Engineering and your master direction IPD, DfI or SPD.</p> <p>1. Relation of you project to the master IPD, DfI or SPD</p> <p>Furthermore describe the interface of your project with each of the IDE pillars:</p> <p>2. Business</p> <p>3. Human Interaction</p> <p>4. Technology</p>
<p>SPD</p> <p>This graduation assignment is relevant within the master of SPD, because the Hello Goodness vending machines are a strategic tool to create awareness around the healthy portfolio of PepsiCo. The project can only succeed when the business goals, consumer characteristics and context fit together perfectly. A large part of the assignment will be external analysis of the market, consumer research and linking the consumer needs to the company's strategy.</p> <p>The project is related to the methods taught in the master:</p> <ul style="list-style-type: none">• Internal and external analysis of the market before launching a new product (Brand and Product Commercialization)• Quantitative and qualitative research techniques: interviews, observations and questionnaires (SPD Research)• Financial feasibility analysis (New product Economics)• Business model canvas <p>Business</p> <p>The graduation assignment is set in the business context of PepsiCo Benelux. I will be working on a real project and provide a business advice in the end. This means that the outcome of this research will be valuable for the company to decide if they want to continue investing in the Hello Goodness project and in the end as a result it will benefit the net revenue by introducing a new sales opportunity. In the long term, the evaluation of the applicability of the WCCE model in the away from home channels can be used in optimizing future channel decisions.</p> <p>Human interaction</p> <p>A core element of Hello Goodness is the fact that is focusses around bringing healthier solutions for daily snacking. Therefore, having a good understanding of the consumers behaviour towards daily snacking and vending machines is necessary. The Hello Goodness machines will be optimized to meet the consumer needs, during phase 2 the project is human centred.</p> <p>Technology</p> <p>Although it is not a core element of my graduation project, technology is embedded in the project through the technological advanced features of the vending machine. A recommendation on how to effectively use the innovative technological features in improving the user experience will be given.</p>



Planning

Present your planning in a Gantt Chart, which can easily be made in Excel, see example underneath. Make sure a print in black and white is still readable. Mention the main phases of the project as described at Approach + number of weeks. Indicate only main activities, milestones, meetings. Take notice: 33 EC = 22 full-time weeks! Indicate periods of part-time graduation project activity and/or periods of not spending time on your graduation project, if any, for instance because of holidays.



Brief explanatory remarks on the planning, if any.

I already started at PepsiCo, so getting familiar with the company and preparation is listed in week 0. During this graduation assignment I will be working fulltime on this project at the office of PepsiCo.

During week 52 and 1, I will take a holiday break and therefore not work on this project.

Appendix B

MABA Analysis

Based on the steps by Vrielink and de Koning (2011), a MABA analysis is executed. All channels are rated on a scale of 1 to 5 for different criteria for channel attractiveness and competitiveness in the channel. The results are summarised in a scatterplot.

Criteria and weight

The criteria and corresponding weight are shown in the table below. For channel attractiveness, the power of the customer and the competitiveness of other vending operators in the selected channel are the most important, because these two determine if Hello Goodness is attractive. The availability of substitutes, is a little less important. Margins and market size are less important, as a high number of sales can lead to profit. The same accounts for market growth.

For the criteria of competitiveness, the perceived image and quality by the consumers are the most important, as these two criteria determine what the consumer purchases. The current market share and distribution abilities are related to the current situation: is it an attractive market for PepsiCo. If the market is innovative is the least important, as healthy vending is not an extremely innovative concept.

	Criteria	Weight	Based on
	Channel attractiveness		
	Market size	0,1	(FoodServiceXS, 2018)
	Market growth	0,05	(FoodServiceXS, 2018)
	Margins	0,1	Margins of 1 bag chips
	Competitive rivalry	0,25	See table 10
	Availability of substitutes	0,2	Observations on if there are healthy alternatives
	Power of customers	0,3	Based on if consumer has influence
	Market share	0,15	(Net revenues PepsiCo (confidential), 2018; FoodServixeXS, 2018)
	Competitiveness		
	Product quality	0,20	Do consumers care about quality or just want food
	Perceived image	0,25	Do consumers buy brands or products
	Innovativeness	0,10	Observations
	Distribution abilities	0,15	Internal knowledge on customers in channel

Rating per channel

For the rating: 1 is low or negative on the score. So, some factors are reverse coded (competitive rivalry, availability of substitutes and power of consumers). 5 is high or positive for the channel.

			On the go				Foodservice				Business & Institutions		
	Criteria	Weight	Convenience	Non-grocery	Forecourts	Travel	Accomodation	FSR + QSR	Café's, pubs and bars	Recreation	Workplace	Education	Other institutions
Channel attractiveness	Market size	0,1	1	2	3	3	3	5	4	3	3	1	2
	Market growth	0,05	2	4	2	3	3	4	3	4	2	2	1
	Margins	0,1	2	3	5	5	3	2	2	3	3	1	3
	Competitive rivalry	0,25	2	2	2	4	4	1	1	4	3	3	4
	Availability of substitutes	0,2	2	4	3	3	3	1	1	3	3	3	2
	Power of customers	0,3	2	2	2	2	2	4	5	3	4	4	3
Competitiveness	Market share	0,15	1	1	2	3	3	2	2	4	3	3	2
	Product quality	0,20	2	3	3	2	3	4	3	3	4	3	3
	Perceived image	0,25	4	3	4	4	4	3	3	4	3	4	3
	Innovativeness	0,10	3	3	1	2	4	3	3	4	4	4	4
	Distribution abilities	0,15	3	3	4	4	2	2	2	3	5	4	4
Total channel attractiveness			1,90	2,60	2,60	3,15	2,95	2,55	2,70	3,30	3,25	2,85	2,85
Total competitiveness			2,30	2,25	2,60	2,65	2,75	2,45	2,25	3,05	3,15	3,05	2,65

Results MABA analysis

The scores of each channel are summarised in a scatter plot. The higher the score, the more potential the channel has for PepsiCo and Hello Goodness.

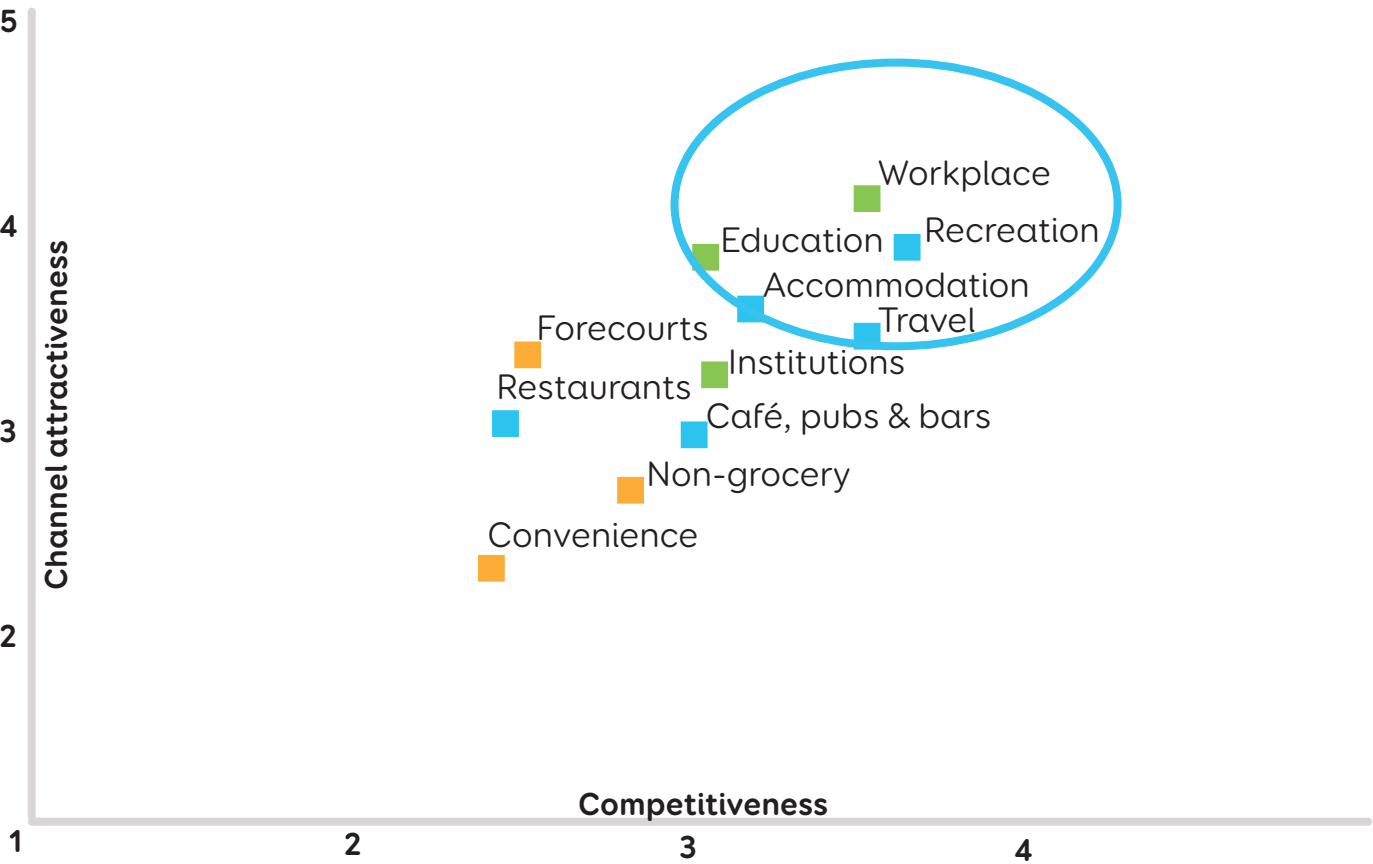


Figure 13. MABA analysis with attractiveness per channel

Appendix C

Research demand moments

A small qualitative research with customers within the target group (n = 5).

Approach:

- 1. Note down gender, age and type of day (working/study)
- 2. Ask participants to track their food for one day:
 - a. Time of consumption
 - b. Type of food
 - c. Location of consumption
 - d. In a few words why they consume it.
- 3. The researcher adds a label to every meal based on the demand moments of Ipsos Synovate (2012).
- 4. The main observations will be summarized in a timeline with typical moments during the day.

Data:

Participant 1: Female 22 (working at home)

Time	9.00	10.00	12.00	15.00	17.00	18.30	19.30	21.30
What	Banana	Yoghurt, fruit	Bread + eggs	Leftovers	Coffee + cookie	Fruit	Dinner	Chips
Location	Home	Home	Home	Home	Cafe	Home	Home	Home
Why	Energize before running	Refuel and enjoyment	Stop hunger	Enjoyment	Social with partner	For health	Social moment	Relaxation
Label	Activating	Health conscious	Functional	Sophistication	Bonding	Health conscious	Bonding	Pleasure

Participant 2: Male 24 (student)

Time	8.00	9.30	10.00	13.00	15.00	17.00	19.00	19.30	21.00
What	Breakfast muesli + yoghurt + coffee	Protein shake	Coffee	Lunch with bread	Chocolate	Muesli bar	Dinner: pasta	Muesli + yoghurt	Nuts
Location	Home	Sports club	University	Home	Home	Sports club	Home	Home	Home
Why	Start the day	Refuel after exercise	Keep energy level up	Fuel	Treat myself	Fuel before training	Social and relax moment	Stop hunger	Treat
Label	Activating	Functional	Activating	Functional	Indulgence	Activating	Bonding	Functional	Pleasure

Participant 3: Female 23 (working at office)

Time	7.30	10.00	12.00	15.00	18.30	20.00
What	Breakfast: Oatmeal	Fruit	Lunch: salad	Snack	Dinner: potatoes, vegetables, chicken	Chocolate
Location	Home	Work	Work	Work	Home	Home
Why	Energize for the day	Refuel	Bonding with colleague	Snack to relax and stop hunger	Refuel for evening	Indulgence
Label	Activating	Health conscious	Bonding	Withdrawal	Activating	Indulgence

Participant 4: Female 26 (working at office)

Time	7.30	10.30	12.30	17.30	18.30	20.30
What	Bread	Pie	Bread	Candy bar	Dinner	Chips
Location	Home	Work	Work	Supermarket	Home	Friends home
Why	Habit	Celebration, social	Quick meal, energize	Hungry, desire to sweet	Energize	Social, bonding
Label	Functional	Bonding	Activating	Indulgence	Activating	Bonding

Participant 5: Male 21 (student)

Time	8.00	9.30	12.30	15.00	18.00	20.00	22.00	21.30
What	Breakfast: smoothie	Cookies	Lunch: bread	Candy bar	Dinner	Protein shake	Chocolate	Chips
Location	Train	University	Canteen	University	Home	Gym	Home	Home
Why	Quick energizing	Break from studying	Social break	Need new energy	Social	Necessity	Treat myself	Relaxation
Label	Activating	Withdrawal	Bonding	Activating	Bonding	Functional	Indulgence	Pleasure

Summary:

Time	Breakfast	Morning snack	Lunch	Afternoon snack	Potential second afternoon snack	Dinner	Healthy evening snack	Evening snack
Where	Home, on the go	Home, OOH	Home, Work	Home, OOH		Home	Home, OOH	Home
Label	Activating, functional	Health conscious, functional, bonding, withdrawal	Functional, Bonding, activating	Bonding, Activating, indulgence, withdrawal		Bonding, activating	Functional	Bonding, indulgence, pleasure

Appendix D

Interview guide

Note: the questions are translated to Dutch for the execution of the interviews

Research question

What do busy millennials consume during the day and what are the motivations behind these food choices?

Checklist for start:

Ask the interviewee if he/she gives permission for being recorded.

State the interviewees name, age, gender and category (business/education/other institutions) carefully.

Briefly go through the purpose and topics of this interview.

Opening

Thank interviewee for being interviewed.

Introduce topic: What food do you consume during the day and why?

Introduce sub-topics: the different meals and snacks during the day.

Focus on weekdays, weekends not included when not working.

Expected duration: 30 minutes.

Pre-questions

What do you see as a meal?

And what do you consider a snack?

Topic 1: Breakfast

Opening question:

Describe your typical moment of the day when you consume breakfast.

Follow-up:

What do you usually eat and drink during breakfast?

Why do you consume this type of food?

Where do you usually consume your breakfast?

Why do you consume your breakfast here?

If out of home: where do you buy your breakfast?

Why do you buy your breakfast here?

Can you describe your ideal breakfast?

Topic 2: Morning snack

Opening question:

Do you consume something between breakfast and lunch in the morning?

Follow-up if yes:

Why do you eat a snack in the morning?

What do you usually consume as a morning snack?

Why do you consume these types of food?

Where do you usually consume your morning snack(s)?

Why do you consume your morning snack(s) here?

Where do you usually buy your morning snack(s)?

Why here? Or Why bring it from home?

Follow-up if no:

Why don't you consume a morning snack?

Can you describe your ideal morning snack?

Topic 3: Lunch

Opening question:

Describe your typical moment of the day when you consume lunch.

Follow-up:

What do you usually eat and drink during lunch?

Why do you consume this type of food?

Where do you usually consume your lunch?

Why do you consume your lunch here?

If out of home: where do you buy your lunch?

Why do you buy your lunch here?

Can you describe your ideal lunch?

Topic 4: Afternoon snack

Opening question:

Do you consume something in the afternoon?

Follow-up if yes:

Why do you eat a snack in the afternoon?

What do you usually consume as an afternoon snack?

Why do you consume these types of food?

Where do you usually consume your afternoon snack(s)?

Why do you consume your afternoon snack(s) here?

Where do you usually buy your afternoon snack(s)?

Why here? Or Why bring it from home?

Follow-up if no:

Why don't you consume an afternoon snack?

Can you describe your ideal afternoon snack?

Topic 5: Dinner

Opening question:

Where do you consume your dinner?

Finish if "at home"

Follow-up if "OOH location = work or education"

Why do you consume your dinner here?

What do you consume as dinner?

Why do you consume these types of food?

Closure

Thank interviewee for participating.

Note that everything will stay confidential.

Healthcare interview questions

Do you eat or drink something while waiting at the hospital?

Why do you consume something?

Do you bring it with you or buy it here? Why?

What would be the ideal food or drink at the hospital while waiting?

Appendix E

Qualitative Motivations

Interviews workplace and education

Sample size: 12 millennials, with 6 students and 6 at workplace. 50% female and 50% male in each category. Age between 19 and 28.

The relevant quotes are summarised in a visual overview per meal.

#	Category	Age	Gender
W1	Workplace	27	Male
W2	Workplace	22	Male
W3	Workplace	26	Female
W4	Workplace	25	Male
W5	Workplace	24	Female
W6	Workplace	28	Female
E1	Education	22	Male
E2	Education	19	Female
E3	Education	20	Male
E4	Education	23	Male
E5	Education	19	Female
E6	Education	21	Female

Interviews healthcare

Sample size: 6 hospital visitors

#	Category	Age	Gender
H1	Healthcare	36	Male
H2	Healthcare	29	Male
H3	Healthcare	22	Female
H4	Healthcare	27	Female
H5	Healthcare	23	Male
H6	Healthcare	28	Female

Food and drinks

H1: “I don’t consume something while waiting, I rather have it after the visit.”

H1: “I often purchase coffee and a piece of pie, as a treat to make the hospital experience somewhat better.”

H2: “Usually not, because the visits are short and the often start on the scheduled time.”

H3: “I only consume something from the free coffee machines. If it wasn’t offered for free, I wouldn’t miss it.”

H3: “It’s just to have something to do while waiting.”

H5: “I don’t consume something that often, but the last time I had lunch while waiting for my appointment.”

H4: “Because I’m nervous, I can’t eat or drink something at the hospital.”

H6: “Depends on how long the waiting time is, if it is more than 15 minutes I usually buy something to drink.”

H6: “Getting a drink gives some distraction, because waiting for the appointment can be stressful.”

Where do they buy it

H1: “I never bring something with me, I always purchase it at the hospital.”

H1: “When I pay I’m always wondering why the prices are so high, but it’s convenient.”

H1: “It is often based on an impulse, I do not plan to buy something in advance.”

H2: “Sometimes I bring a bottle of water with me, but it is not on purpose.”

H2: “I think it’s a waste of money to buy something here.”

H3: “I don’t bring something with me, except for a bottle of water.”

H3: “I don’t purchase it, because it’s offered for free.”

H3: “The last time I spent more time here, an afternoon, I purchased something to eat and drink. I was hungry.”

H4: “For me there is no need to buy something, maybe only some water when I get thirsty.”

H5: “I brought it with me, because I knew I would spend my time waiting during lunch hours.”

H5: “I like to be prepared.”

H6: “From the coffee machine where I can choose between multiple hot drinks.”

Ideal situation

H1: “I like to have some free hot drinks, some tea and coffee and cold water to be available in the waiting room.”

H2: “Having a water cooler and free coffee is nice to have. In my opinion, it is an appreciated free service.”

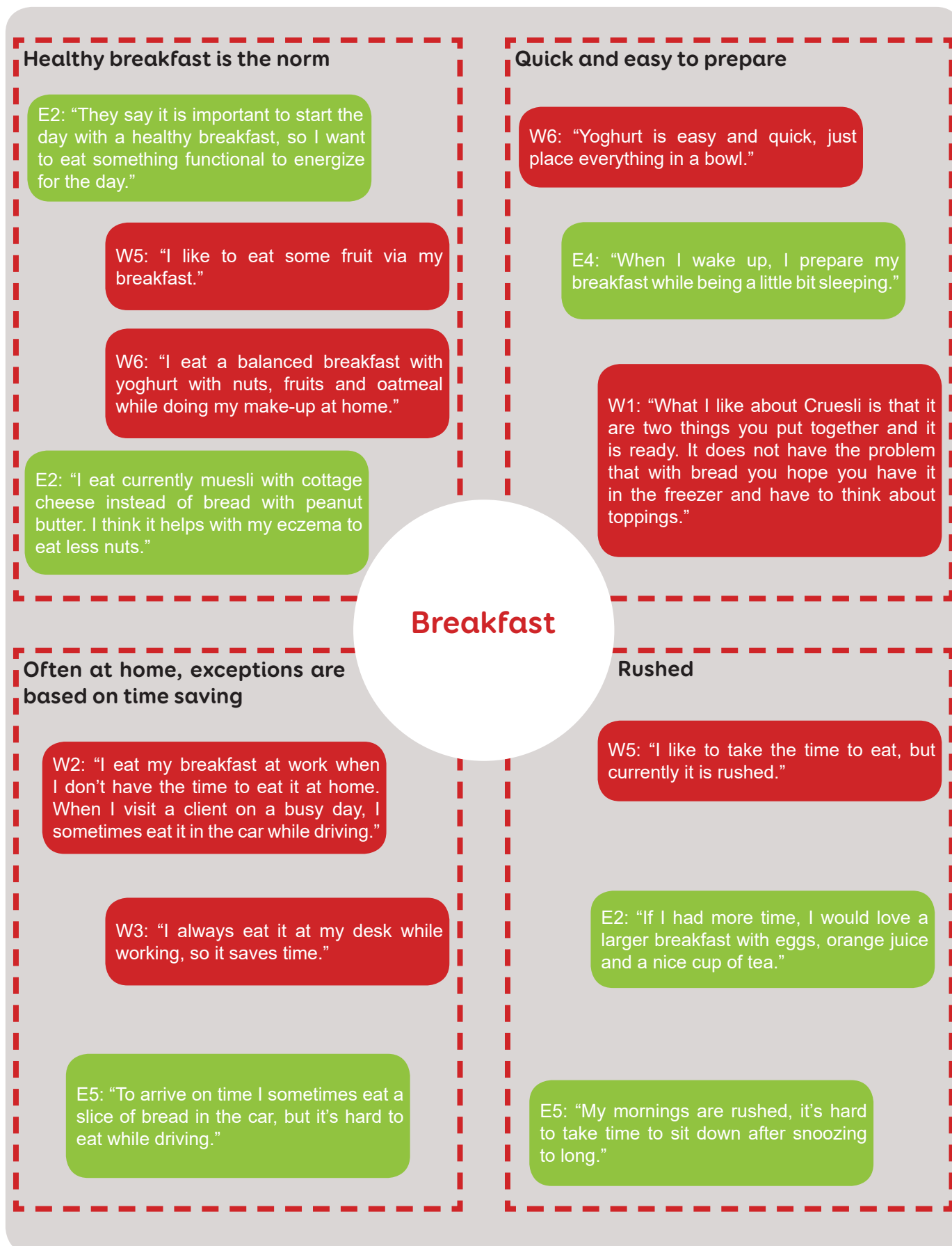
H3: “Some drinks, especially coffee!”

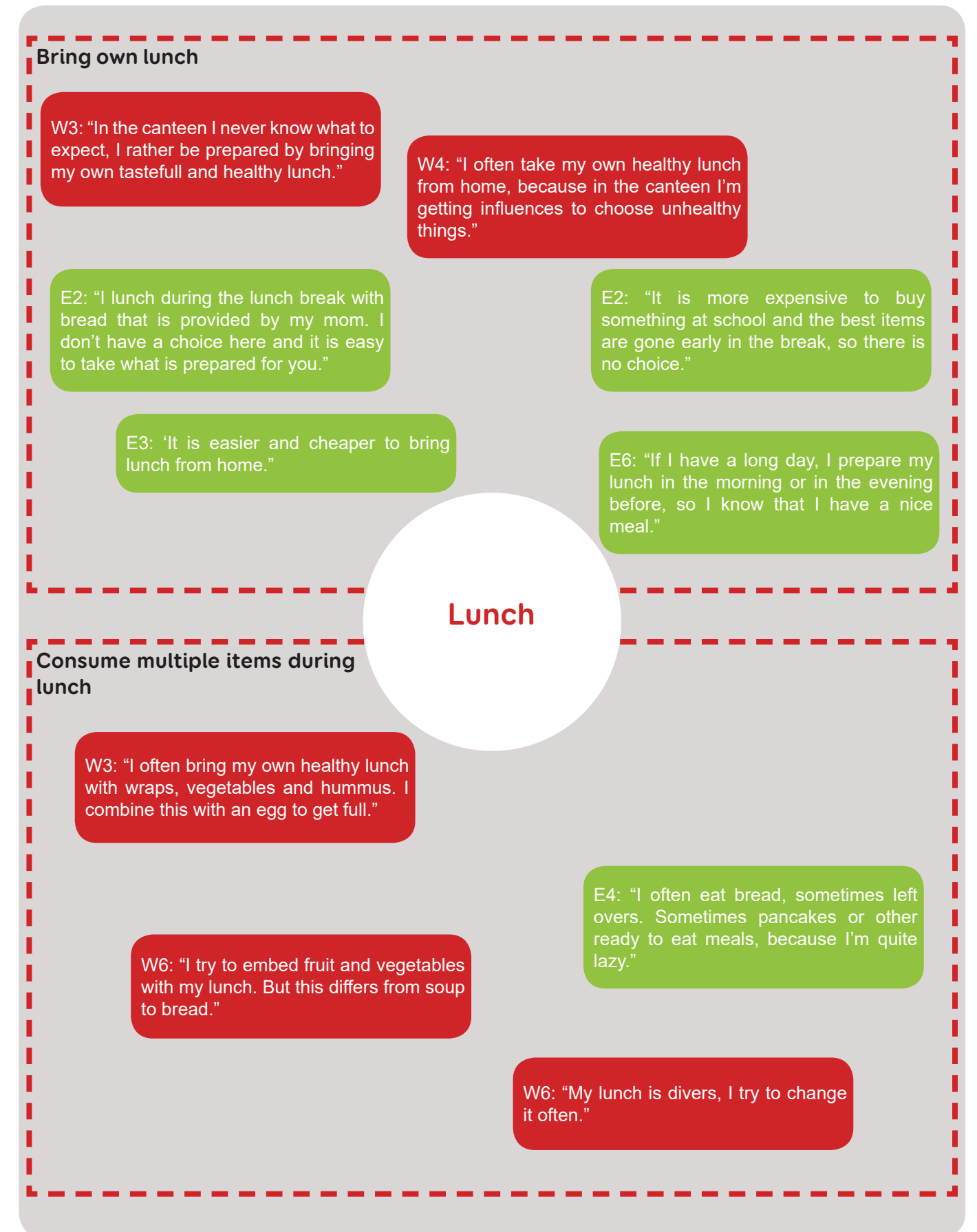
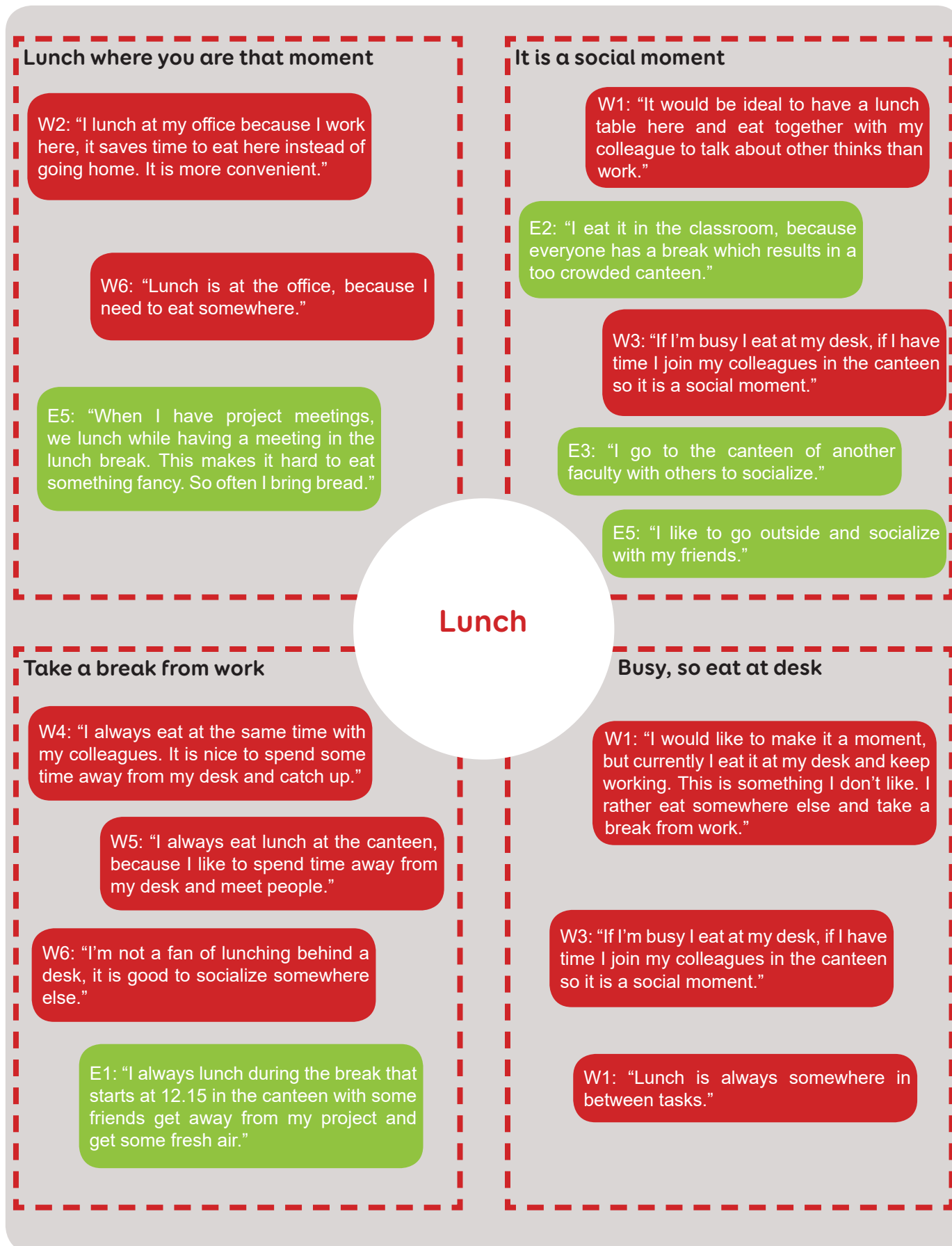
H3: “I don’t expect much, but some vegetarian sandwiches would be nice.”

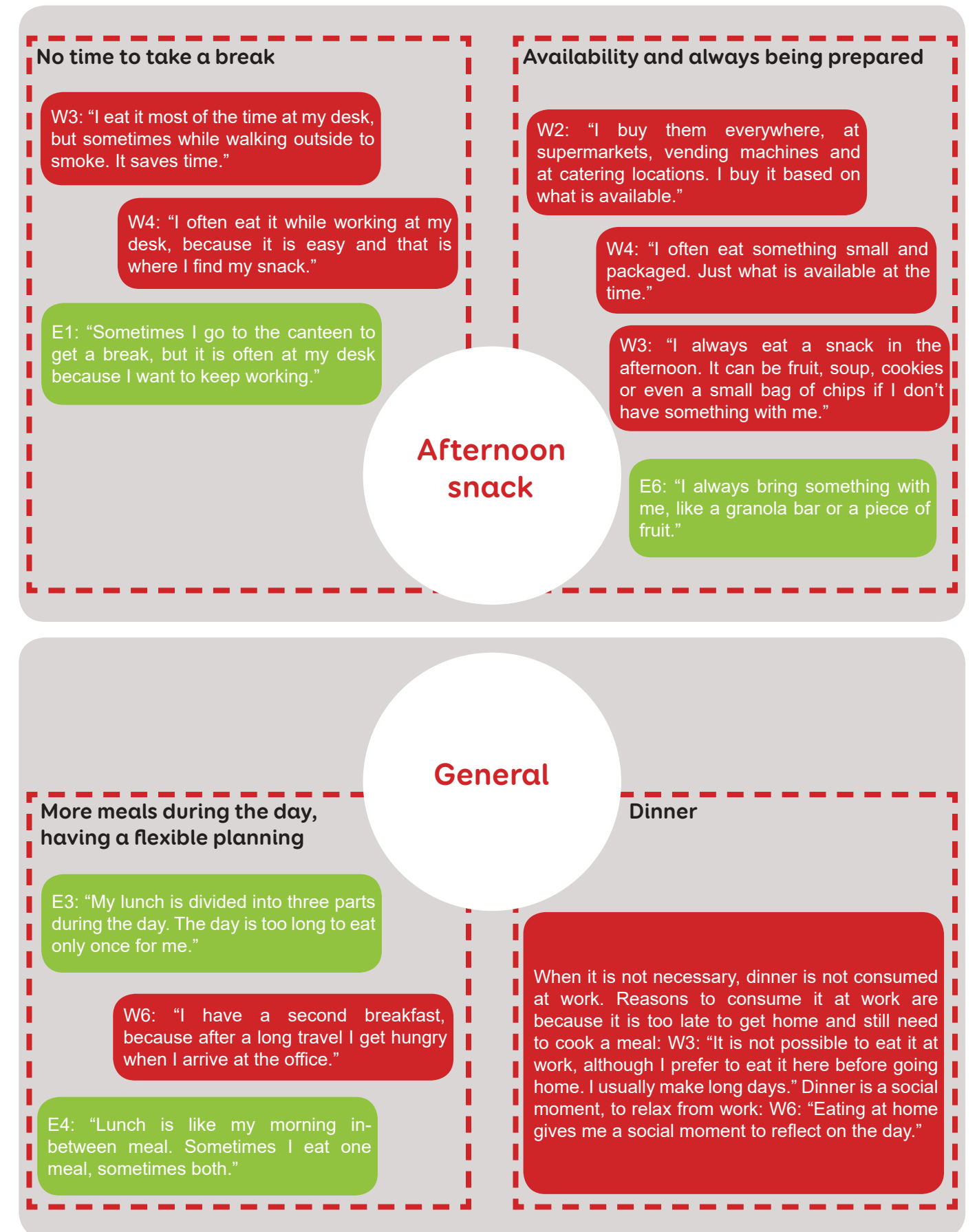
H4: “I don’t need anything.”

H5: “With this weather, I would buy some soup!”

H6: “I like a cup of tea, so the current situation is fine.”







Appendix F

Case study Hello Goodchoices

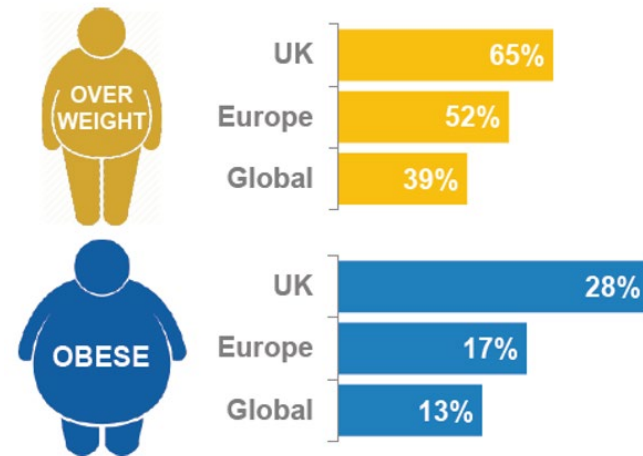
Context

Globally the UK's Adult health record is one of the poorest and it is forecasted to worsen. The obesity rates are the highest of Europe. Therefore, the government takes actions to stop this 'epidemic'. With potential future legislation, colour coded nutrition labels are introduced and the communication on health effects of food is increased. The problem is that vending, which is often used in the UK, is still focused on the 5% products that are the cause of the obesity problems. For example, a Mars and bottle of Coke are the most purchased items in vending nowadays.

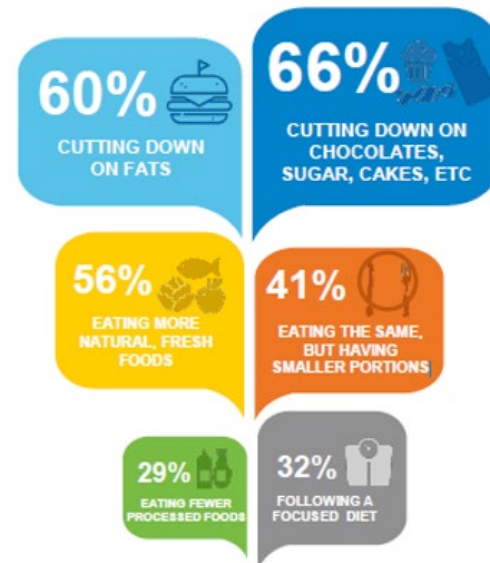
Consumers are taking action:

- 90% says often take into account the healthiness of food they buy
- 39% cite Health as one of their top 3 drivers when choosing lunch out of home
- 31% avoid some outlets because they don't offer healthy enough food and drinks
- 62% of consumers want brands to help them eat healthier

Key elements for healthy food are: low sugar, low fat and low calorie.



WAYS WE ARE CHANGING OUR DIETS TO LOSE WEIGHT



Snacking in the UK

With busy lifestyles, 'Convenience' is the #1 driver for consumers using a Vending machine. 58% of European consumer use a vending machine at least once a week, which shows how popular it is. This is due to shifting eating patterns with more mini-meals. Still, health is top of mind when snacking out of home, which happens often with 69% of the consumers who eats out of home.

The main channels for vending are workplace and education which covers 75% of the vending sales. Vending delivers 21% of all Workplace Traffic and 17% of all Workplace Sales. For education this is 18.2% of the traffic and 14.7% of education sales. The most purchased item is a bottle of water.

Hello GoodChoices

The business model of Hello GoodChoices in the UK based on Hello GoodChoices (2018a).

Why: The Consumer and Trade Need

Enabling consumers to make a choice between 'treat and 'healthier' snacks



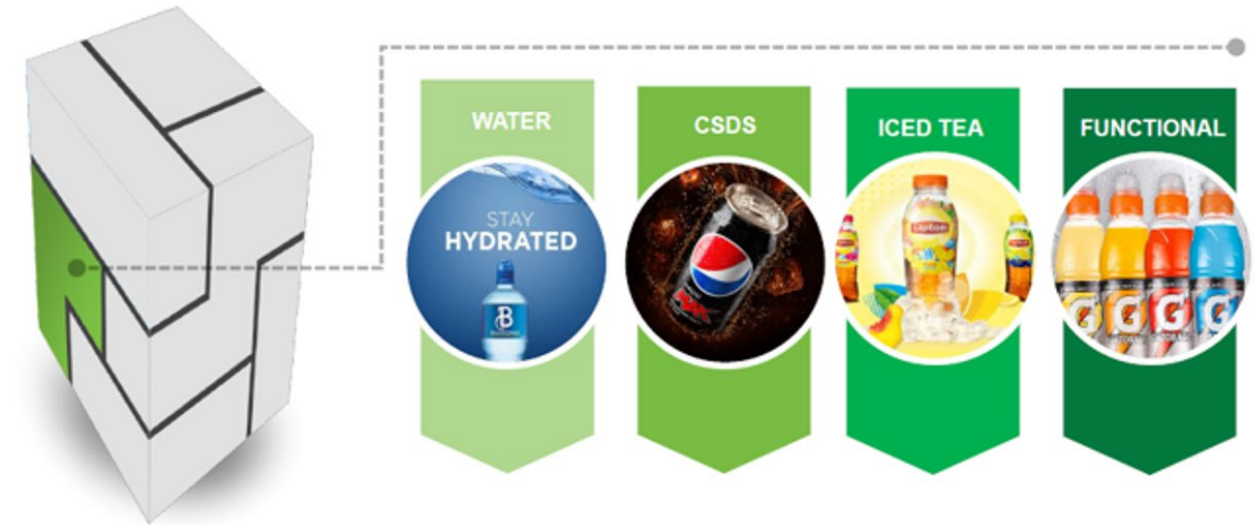
What: products

Leverage a Multi-Category portfolio and trusted market leading Brands that resonate and appeal throughout the day and deliver against consumer needs



What: portfolio partnerships

Leverage a Multi-Beverage portfolio, in collaboration with our Franchise partners, that resonates delivers against consumer needs



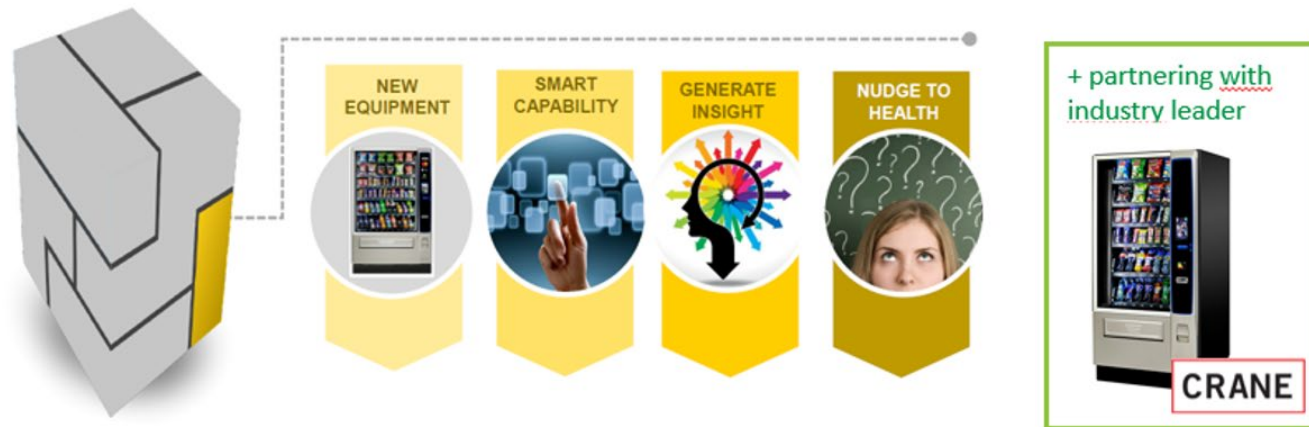
Where: Placement

Placement in high footfall channels and locations, where snacking is prevalent and consumers crave or struggle to access Healthier choices

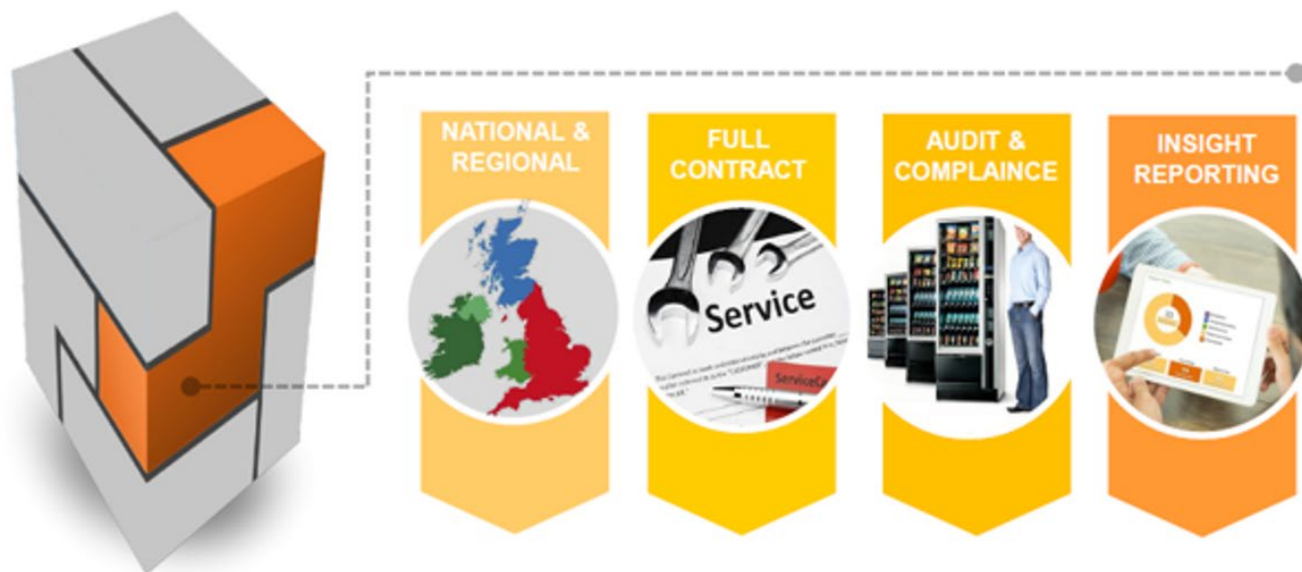


How: Investment

Bringing Vending into the 20th Century with infrastructure investment

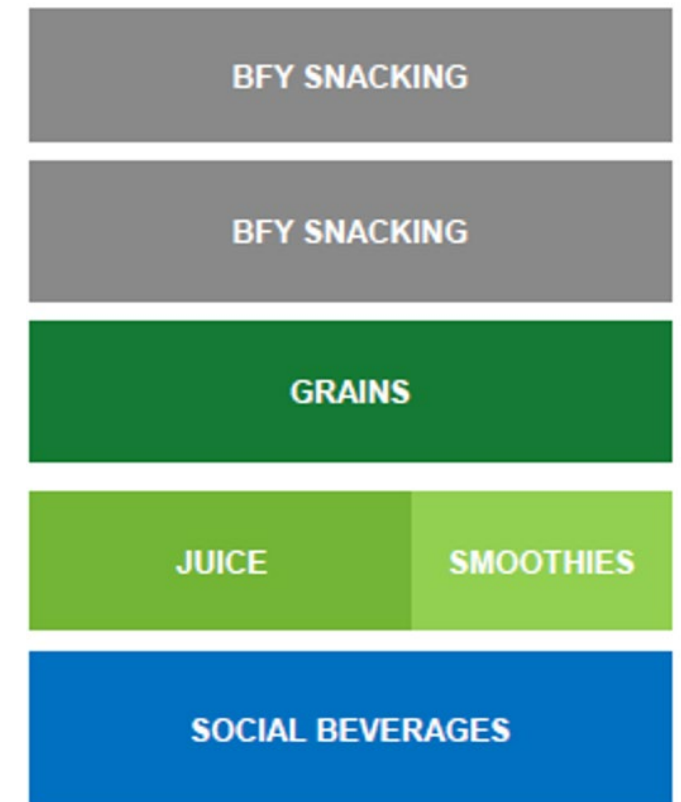
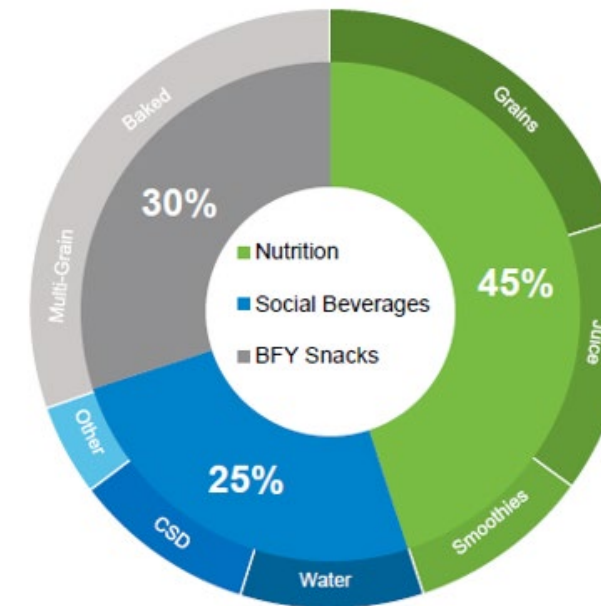


Collaborating with Health forward 3rd party Vending specialists



Assortment

The assortment consists of 50% drinkable products such as juices and smoothies. The main brands in the UK are Tropicana, Naked and Quaker. Other products are for example apple juice, SunBites (SunBreaks) and Oven Baked chips.



Category	Mandated	Optional	Excluded
Nutrition	Tropicana, Naked, Quaker	Cocella, Alvalle	
Snacks		Baked, SunBites, SunBreaks, Eaten Path	Waddies, Doritos, Sensations, Deli, MAX, Garden of Eatin', etc.
Social Beverages	LIFE WTR, Alternative: Local Franchise Water Brand (e.g. Springwater)	MAX, 70, G, V, Lipton, KEVITA	Pepsi, 70, etc.

Appendix G

Product details

Product	Content	Dimensions (depth x height x width) [mm]	Spirals	Minimum product life span [days]	Temperature [°C]	Units in trade unit	Why Hello Goodness
Lay's Oven Baked Roasted Paprika	35gr	45x180x140	2	147	6 - 21	20	50% less fat than normal potato chips
Lay's Oven Baked Naturel	35gr	45x180x140	2	147	6 - 21	20	50% less fat than normal potato chips
Off the Eaten Path Caramelized Onion & balsamic vinegar	23gr	45x130x135	2	65	6 - 21	8	Snacks made from beans ans peas
Off the Eaten Path Sea Salt	23gr	45x130x135	2	65	6 - 21	8	Snacks made from beans ans peas
Snack-a-Jacks BBQ Paprika	30gr	45x210x155	2	182	6 - 21	8	Low in fat and calories
Snack-a-Jacks Cheese	30gr	45x210x155	2	182	6 - 21	8	Low in fat and calories
Snack-a-Jacks Multi grain cakes Sundried Tomato & herbs	16gr	45x100x100	2	182	6 - 21	4	Low in fat and calories
Snack-a-Jacks Multi grain cakes Savoury	16gr	45x100x100	2	182	6 - 21	4	Low in fat and calories
Sunbreaks Wavy grains Sweet Chili Flavour	28gr	45x155x140	2	56	6 - 21		Multigrain and 33% less fat than normal potato chips
Quaker Havermout reep Golden Syrup	35gr	15x45x85	1	91	6 - 21	24	Source of fibres (oats)
Quaker Havermout reep Chocolate	35gr	15x45x85	1	91	6 - 21	6x5	Source of fibres (oats)
Quaker Breaks Banana Pecan	27gr	11x64x64	1	91	6 - 21	26	Source of fibres and contains multigrain oats
Quaker Breaks Cranberry Almond	27gr	11x64x64	1	91	6 - 21	26	Source of fibres and contains multigrain oats
Duyvis Unsalted Nutmix Cranberry	30gr	25x121x85	1	121	6 - 21	8x4	Part of "Schijf van vijf", A portion of nuts is perceived as a healthy snack
Duyvis Unsalted Almonds	30gr	25x121x85	1	121	6 - 21	8x4	A portion of nuts is perceived as a healthy snack

Product	Content	Dimensions (depth x height x width) [mm]	Spirals	Minimum product life span [days]	Temperature [°C]	Units in trade unit	Why Hello Goodness
Naked Green Machine	360ml	56x169x56	1	42	2 - 7	8	Smoothie with fruit and vitamins.
Naked Blue Machine	360ml	56x169x56	1	42	2 - 7	8	Smoothie with fruit and vitamins.
Naked Mango Machine	360ml	56x169x56	1	42	2 - 7	8	Smoothie with fruit and vitamins.
Tropicana Pure Premium Orange Juice with pulp	500ml	65x168x65	1	30	2 - 7		Fruit juice
Tropicana Essentials Antioxidant	330ml	58x168x58	1	30	2 - 7	8	Fruit and vegetable juice with vitamins
Tropicana Essentials Vitality	330ml	58x168x58	1	30	2 - 7	8	Fruit and vegetable juice with vitamins
Tropicana Cloude Apple Pure Premium	250ml	53x148x53	1	24	2 - 7	8	Fruit juice
Alvalle Original Gazpacho	250ml	55x148x55	1	26	2 - 7	12	Gazpacho made from vegetables
Sourcy Water	500ml	65x229x65	1	244	2 - 30	6	Water for hydration
Vitaminwater Framboos - Granaatappel	500ml	66x198x66	1	122	2 - 30	6	Water with added vitamins
Vitaminwater Mango - Guave	500ml	66x198x66	1	122	2 - 30	6	Water with added vitamins
Vitaminwater Citroen - Cactus	500ml	66x198x66	1	122	2 - 30	6	Water with added vitamins
Pepsi Max	500ml	65x235x65	1	124	2 - 30	6	Soft drink without added sugar and low calories
7UP Free	500ml	65x235x65	1	124	2 - 30	6	Soft drink without added sugar and low calories
Lipton Original	500ml	65x218x65	1	120	5 - 25	6	Low calorie soft drink
Lipton Green	500ml	65x218x65	1	120	5 - 25	6	Low calorie soft drink

Appendix H

Quantitative research assortment

A qualitative research with customers within the target group (n = 32).

Questions before start

1. How often do you buy something at a vending machine? [Multiple choice]

Multiple times a day

Every day

Multiple times a week

Once a week

Once a month

Once a year

Never

2. Which meals do you usually not consume at home? [Select options]

Breakfast

Morning snack

Lunch

Afternoon snack

Dinner

Evening snack

Preferences

1. What do you prefer to eat and drink for breakfast? [Open question]

2. What do you prefer to eat and drink as a morning snack? [Open question]

3. What do you prefer to eat and drink for lunch? [Open question]

4. What do you prefer to eat and drink as an afternoon snack? [Open question]

Pick from vending machine

Same questions for breakfast, morning snack, lunch and afternoon snack

Categorie	1	2	3	4	5	6	7	8
Chips								
Snacks								
Nutrition								
Sappen								
Dranken								

1. Select the items from the vending machine that you would purchase at the selected moment if it was a vending machine you used at this moment. [Select options from machine]

2. How much does this suit your preferred meal and drink choices for this moment? [Rate 1-7]

3. How much would you pay for the selected items in total? [Open question]

Questions before ending

1. How healthy do you rate your lifestyle? [Rate 1-7]

2. How important is it for you to buy healthy products if you are not at home? [Rate 1-7]

3. In which category do you fit? [Multiple choice]

Student

Employee

Other

4. What is your gender? [Multiple choice]

Male

Female

Rather not say

5. What is your age? [Open question]

Results validation assortment

How often do you use a vending machine?

Multiple times a day	6%
Daily	3%
Multiple times a week	16%
Once a week	6%
Once a month	16%
Multiple times a year	38%
Never	16%

Which meals are consumed away from home?

Breakfast	19%
Morning snack	63%
Lunch	69%
Afternoon snack	72%
Dinner	6%
Evening snack	3%

Preferred products per consumption moment

Breakfast	Morning snack	Lunch	Afternoon
bread	cookies	bread	salty snack
fruit	fruit	bread	fruit
yoghurt	healthy	cheese	fruit
eggs	apple	orange juice	yoghurt
bread	fruit	bread	yoghurt
muesli	fruit	soup	fruit
yoghurt	apple	cola	cookies
dairy	banana	salad	cracker
dairy	fruit	smoothie	cookies
tea	grains	cracker	muffin
muesli	fruit	bread	candy bar
bread	fruit	salad	salty snack
cheese	cookies	vegetables	salty snack
breakfast drink	fruit	soup	salty snack
smoothie	tea	bread	cola
grains	fruit	tea	chocolate milk
tea	coffee	hot meal	cookies
coffee	fruit	hot meal	chocolate
bread	fruit	salad	cookies
eggs	fruit	juice	coffee
oatmeal	fruit	bread	fruit
coffee	rice waffle	tosti	snack
smoothie	peanut butter	bread	chocolate
crueli	apple syrup	lemonade	chips
yoghurt	gingerbread	bread	muesli bar
milk	banana	healthy	cookies
bread	water	salad	fruit
orange juice	tea	bread	cracker
croissant	fruit	bread	cookies
eggs	coffee	bread	banana
fruit	coffee	healthy	tea
yoghurt	bread	wrap	chocolate milk
yoghurt	cookies	bread	fruit
muesli	cookies	soup	coffee
bread	croissant	salad	bread
yoghurt	tea	bread	fruit
muesli	fruit	hot meal	pie
oatmeal	coffee	bread	cola
bread	cookies	coffee	snack
wrap		bread	candy bar
tea		bread	tea
gingerbread		salad	cookies
banana		water	healthy
water		milk	cola
tea		bread	salty snack
bread		cola	
oatmeal		coffee	
bread		snack	
coffee		bread	
bread		tea	
coffee		bread	
croissant		soup	
smoothie		water	
matzes			
croissant			
coffee			
smoothie			
bread			
croissant			
orange juice			

Breakfast

	1	2	3	4	5	6	7	8
Chips		1						
Snacks		4	1					
Nutrition	7	5	9	5	5	4	2	1
Juices	4	8	4	11	3	3	1	
Beverages	7	2	2	2	3	1		

Top 5
Tropicana Orange Juice
Quaker Havermout Golden Syrup
Naked Blue Machine
Quaker Havermout To Go Red Fruit
Sourcy

Meet needs: 3,38
Average: € 3,40

Morning snack

	1	2	3	4	5	6	7	8
Chips	2	1	1	1	1			
Snacks	3	2	3	5				
Nutrition	4	3	9	11	3	4	4	3
Juices	1	2	3	2				
Beverages	7	4	3	2				

Top 4
Tropicana Orange Juice
Naked Mango Machine
Sourcy
Snack-a-Jack Multigrain cakes Tomato & Herbs

Meet needs: 4,00
Average: € 2,40

Lunch

	1	2	3	4	5	6	7	8
Chips	3	1						
Snacks	1	3	1	2				
Nutrition	5	5	2	2	3	5	3	1
Juices	3	1	1	3	2		2	
Beverages	9	3	6	4	1			

Top 5
Sourcy
Lipton Green
Quaker Breaks Banana Pecan
Oatmeal To Go Red Fruit
Oatmeal To Go Golden Syrup

Meet needs: 2,41
Average: € 3,03

Afternoon snack

	1	2	3	4	5	6	7	8
Chips	9	7	6	2	2			
Snacks	5	5	3	6				
Nutrition	1	2	5	4	2	3	2	1
Juices	1	1	2	2	2	1		
Beverages	4	8	6	11	2			

Top 4
Pepsi Max
Lay's Oven Baked Naturel
Lipton Green
Lay's Oven Baked Roasted Paprika

Meet needs: 4,53
Average: € 2,56

Overall scores

	1	2	3	4	5	6	7	8
Chips	14	10	7	3	3			
Snacks	9	14	8	13				
Nutrition	17	15	25	22	13	16	11	6
Juices	9	12	10	18	7	4	3	
Beverages	27	17	17	19	6	1		

Top 5
Sourcy
Quaker Havermout Golden Syrup
Quaker Havermout Chocolate
Pepsi Max
Tropicana Orange

Meet needs: 3,58
Average: € 2,85

Closing questions

How healthy is the overall lifestyle: 4.75
How important to buy healthy products away from home: 4.66

Male: 46,9%
Female: 53,1%

Working: 43,8%
Student: 53,1%

Average age: 27

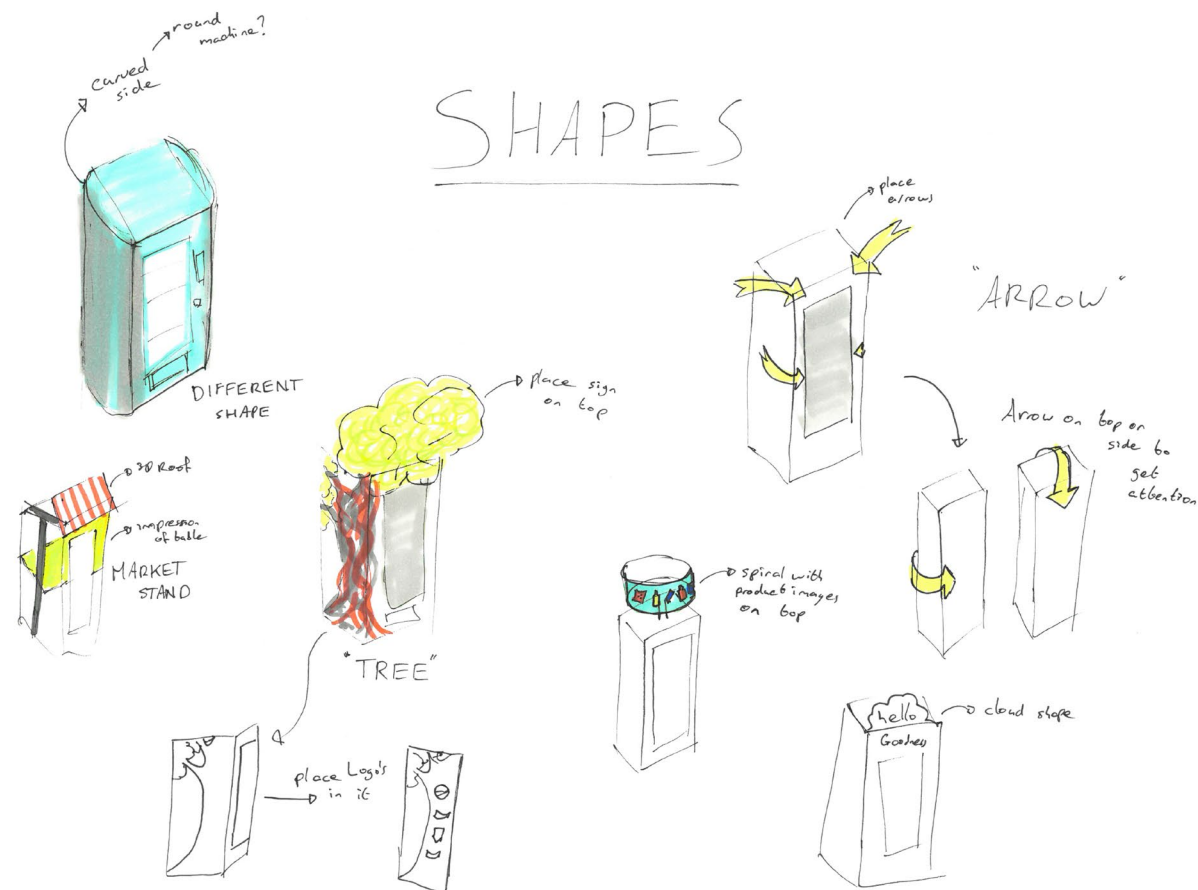
Appendix J

Ideation design

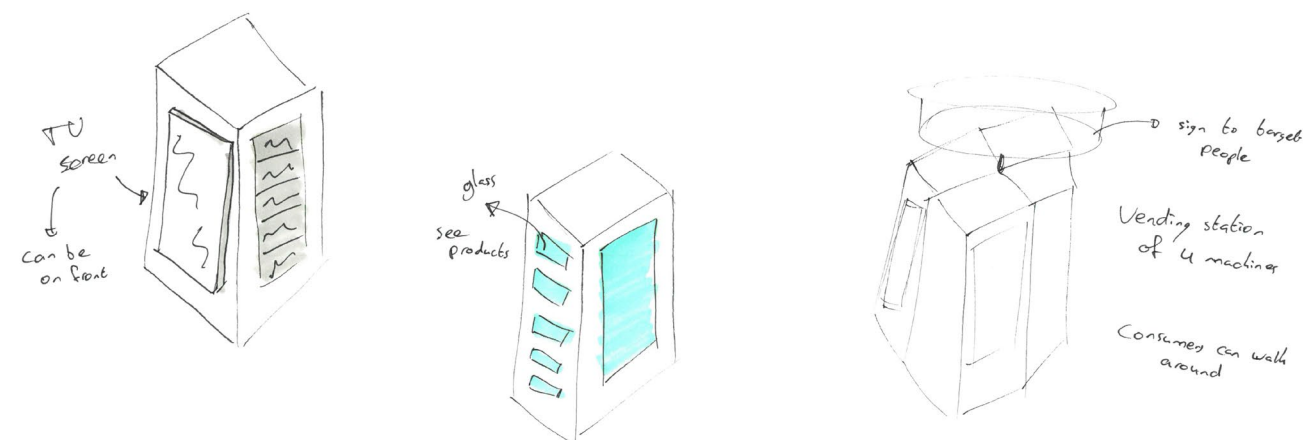
Mind map on how to show key values



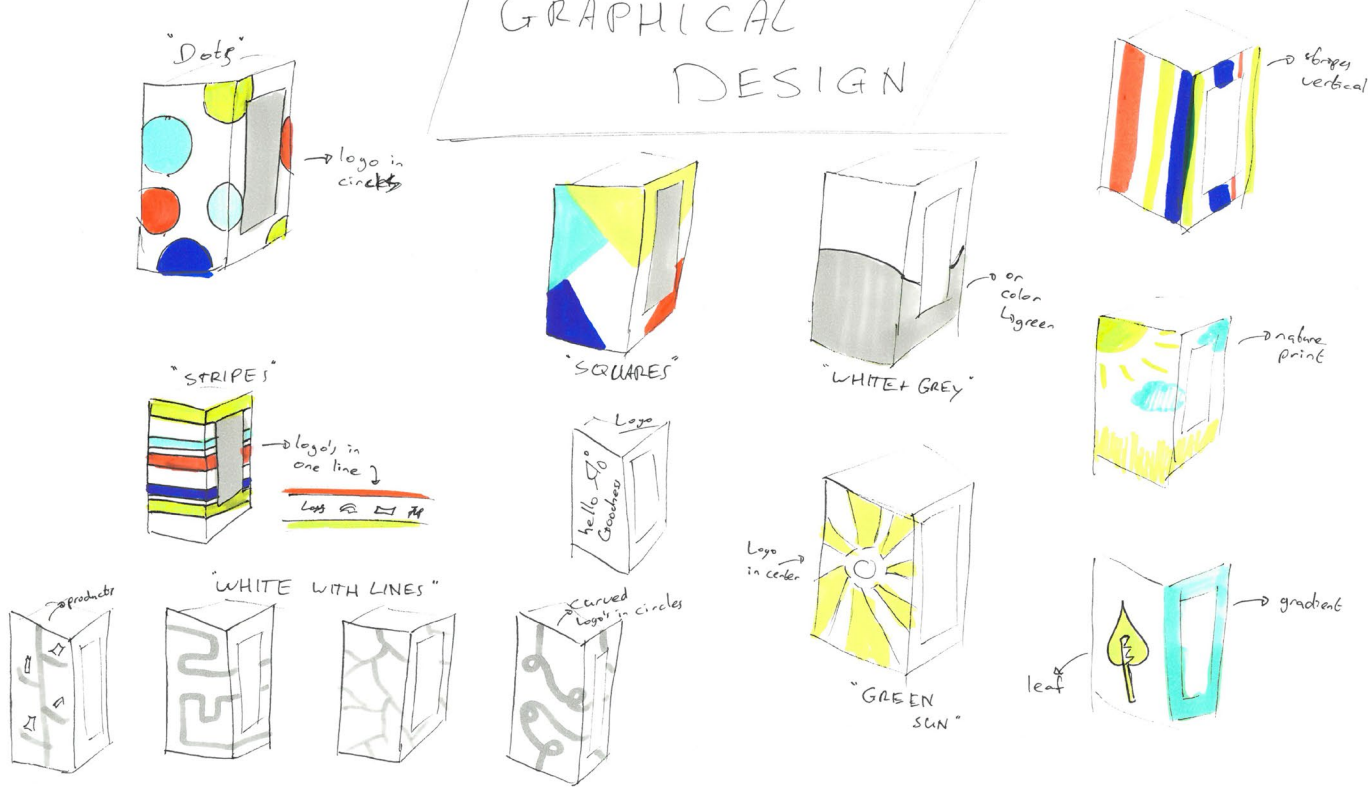
SHAPES



INNOVATIVE IDEAS



GRAPHICAL DESIGN



Appendix K

Validation design survey

A qualitative research with customers within the target group (n = 36) to validate the different concepts.

Approach

- 1. Rate each concept on the 5 values [rate 1 - 7]
- Modern
- Trust
- Healthy appearance
- Convenient and recognizable
- Appealing



2. Select which machine is the most appealing. [multiple choice]

3. In which category do you fit? [multiple choice]

- Employee
- Student
- Other

4. What is your gender? [multiple choice]

- Male
- Female
- Rather not say

Appendix L

Results validation design

The results of the quantitative research (n = 36) are summarised below. For each value, the average score (1-7) is calculated and the percentage that prefers a specific design is added.

Value/Concept	1 - Traditional	2 - Current	3 - Cloud	4 - Stripes	5 - Planes
Modern	2,53	3,53	3,69	3,64	4,42
Trust	2,97	3,39	3,39	3,08	3,86
Healthy	2,19	3,47	3,81	3,11	3,78
Convenient	2,78	3,83	4,36	4,64	4,92
Appealing	2,14	3,75	3,72	3,44	4,56
Average	2,52	3,59	3,79	3,58	4,31
Preferred by %	0%	28%	20%	8%	44%
Students (n = 20)	0%	20%	15%	10%	55%
Employees (n = 16)	0%	38%	25%	6%	31%
Male (n = 17)	0%	24%	18%	12%	47%
Female (n = 19)	0%	32%	21%	5%	42%

