

FORBRUGERADFÆRD - RESULTATER FRA PLANTPRO-PROJEKT

Funded by Innovation Fund Denmark
grant nr 0224-00044B



-
1. The project in short
 2. First consumer results from 'benchmark' survey
 3. Ongoing and planned research

PROJECT PLANTPRO – FUNDING, PARTNERS

- ✓ **8.4 mill DKK investment by IFD**
- ✓ **April 2021- March 2024**
- ✓ **18 partners:**
MAPP Centre / Aarhus University, Food Science / University of Copenhagen, Copenhagen Business School, Plantebranchen, Dansk Vegetarisk Forening, Simple Feast, Beyond Coffee, Thinktank OneThird, Circular Food Technology, Møllerup Brands, Food Innovation House, Orkla, Naturli, Planteslagterne, Upfield, Eachthing, Rema 1000 and Fair Trees

<https://mgmt.au.dk/plantpro/>

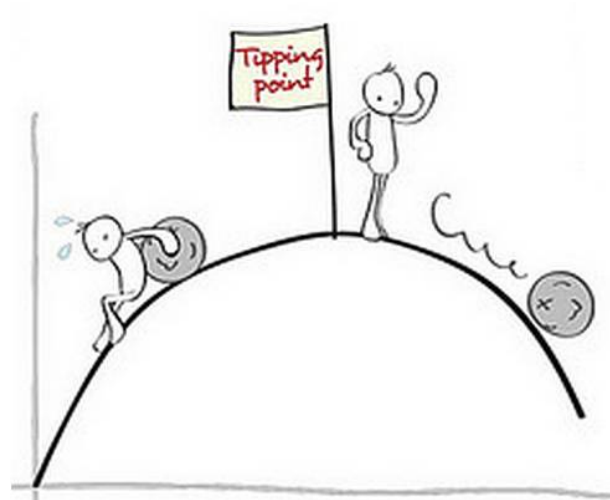


Nyt stort projekt kobler plante-baserede fødevarer og madspild for at styrke Danmark i den grønne omstilling

PROJECT PLANTPRO – WHY



1 - Accelerate:
Invest while there
is momentum.



2 - Scale up:
Push towards the
tipping point.



3 - Synergy:
Mutual support of
investments.

PROJECT PLANTPRO - WHAT



Plant-Rich diets

Reduced food waste



Technology acceptance

PROJECT PLANTPRO - HOW

1 - Industry:

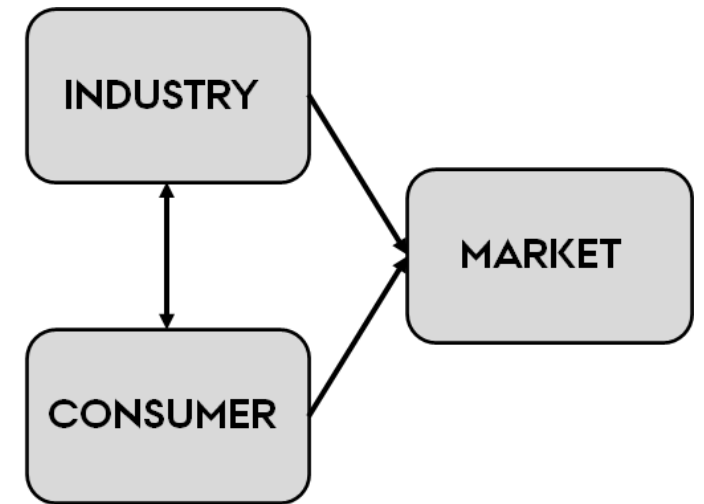
- Key success factors and barriers through company interviews
- Transition processes through transition cases

2 - Consumers:

- Consumer segment differences via various survey data
- Dietary change through intervention study
- Environmental impact comparison through LCA

3 - Market:

- Nudges and policy recommendations through experiments in retail & canteen, meal and product sensory testing, peer influence effect





Benchmark survey

Consumer survey before and after – how do brands perform, and perception and behaviour change.



Communication

The project results in short and in videos – and the project in the media and in publications.



Implementation

Marketing and policy actions in to accelerate the green transition.



Industry

What are the key success factors of the plant-based industry and the major drivers of green societal transitions?



Consumers

Which consumer factors determine acceptance and behaviour across different consumer lifestyle groups? What is the environmental impact of plant-based diets and upcycled food?



Markets

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BENCHMARK SURVEY – AIM AND DATA

Aim:

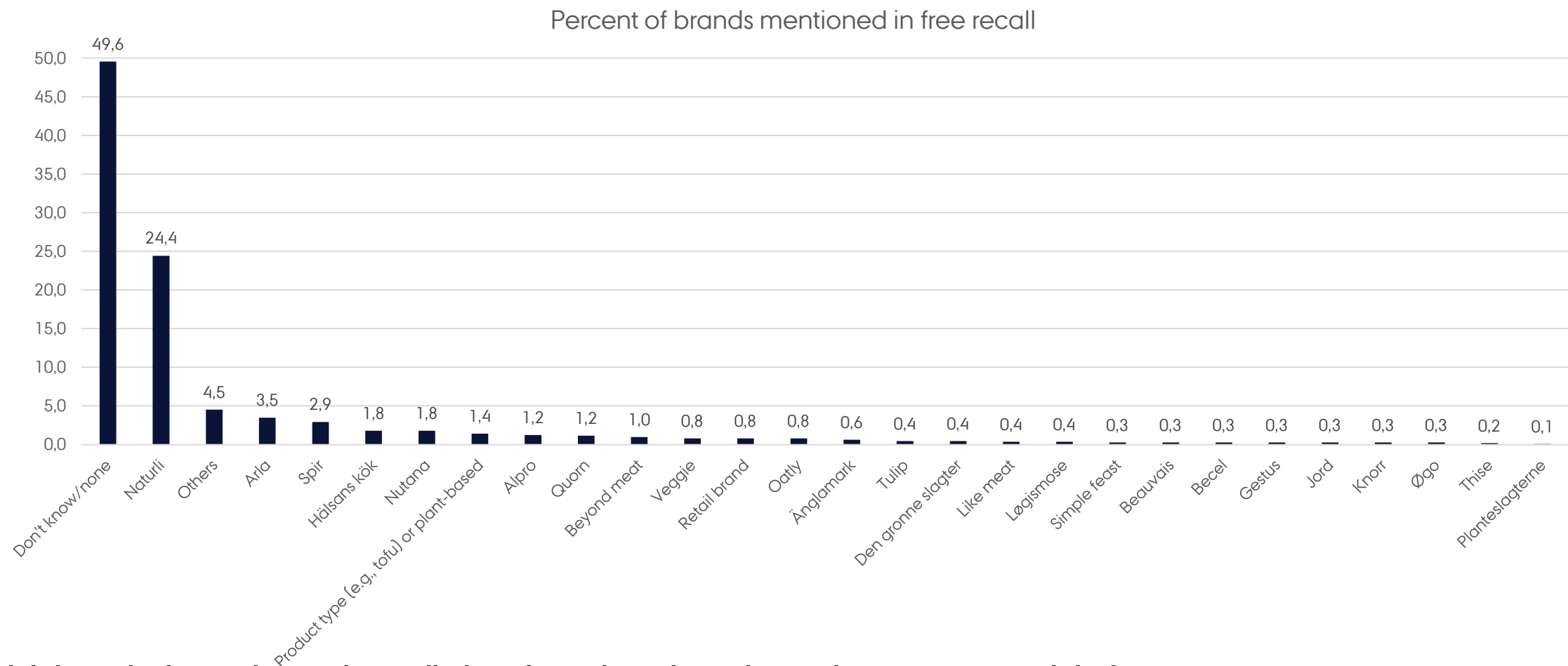
- ☐ benchmark the KPI at project start and project end to be able to *measure progress* in terms of the objectives of the project.
- ☐ explore consumer perceptions and behaviour towards the plant-based food and diets and the discussion around this trend, and how this *changes over time*.

Data:

- ☐ Representative Danish consumer sample
- ☐ 1126 responses (after data cleaning)

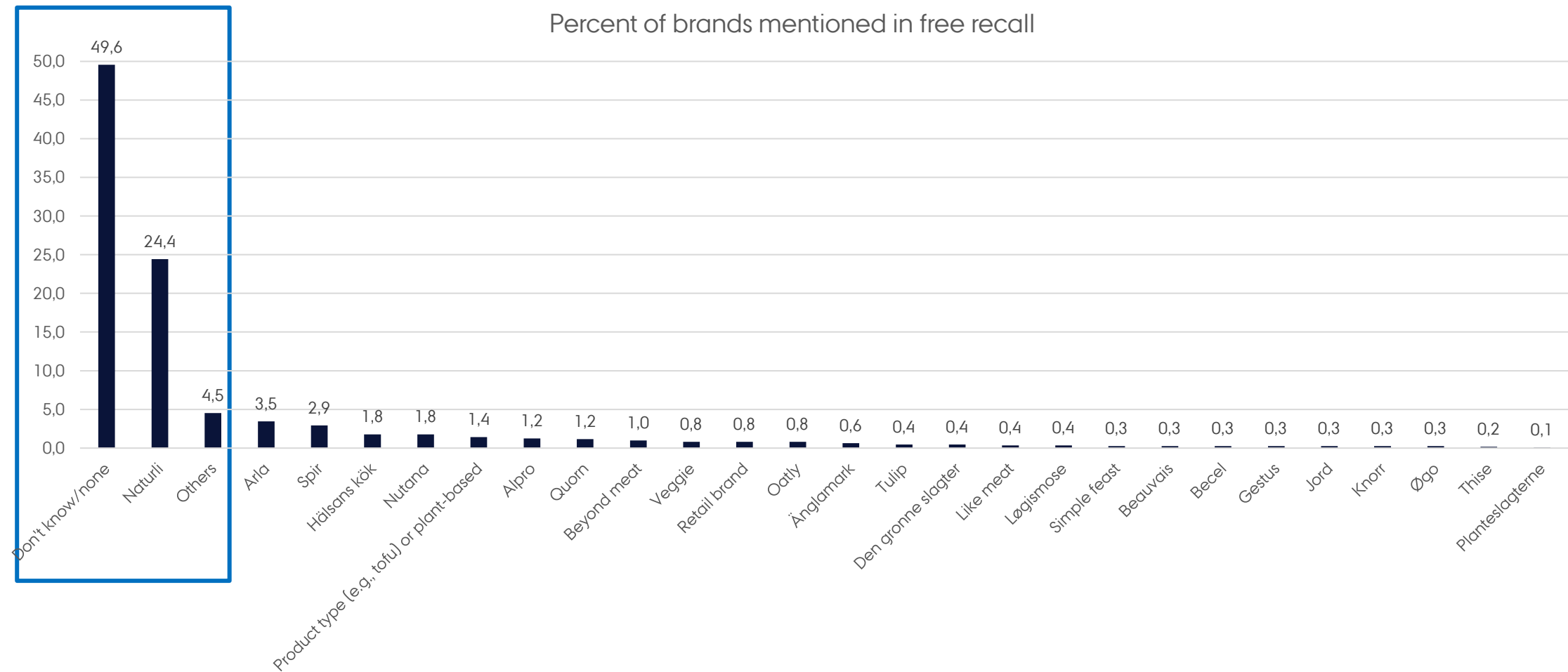


BRAND AWARENESS (UN-AIDED)



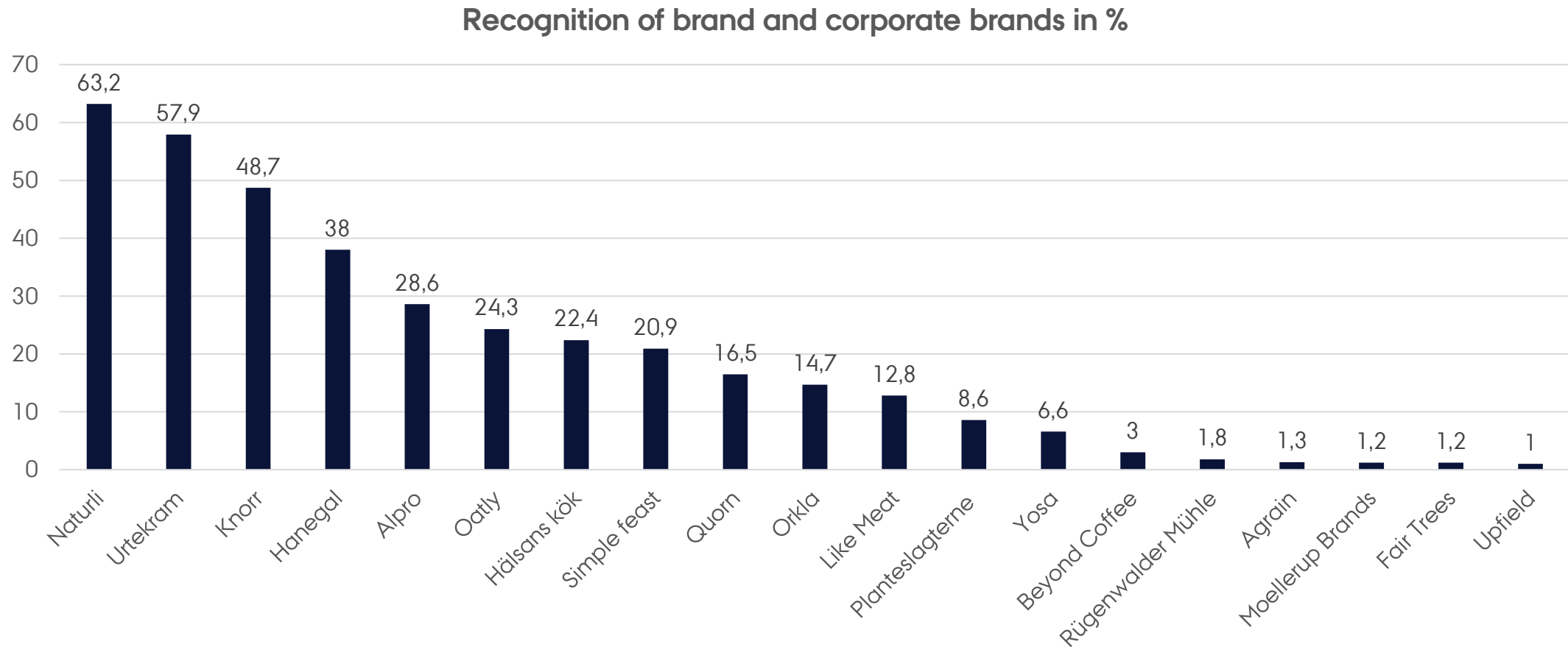
“Which brands do you know that sell plant-based product alternatives to meat or dairy?
Please name as many as you can think of!”

BRAND AWARENESS (UN-AIDED)



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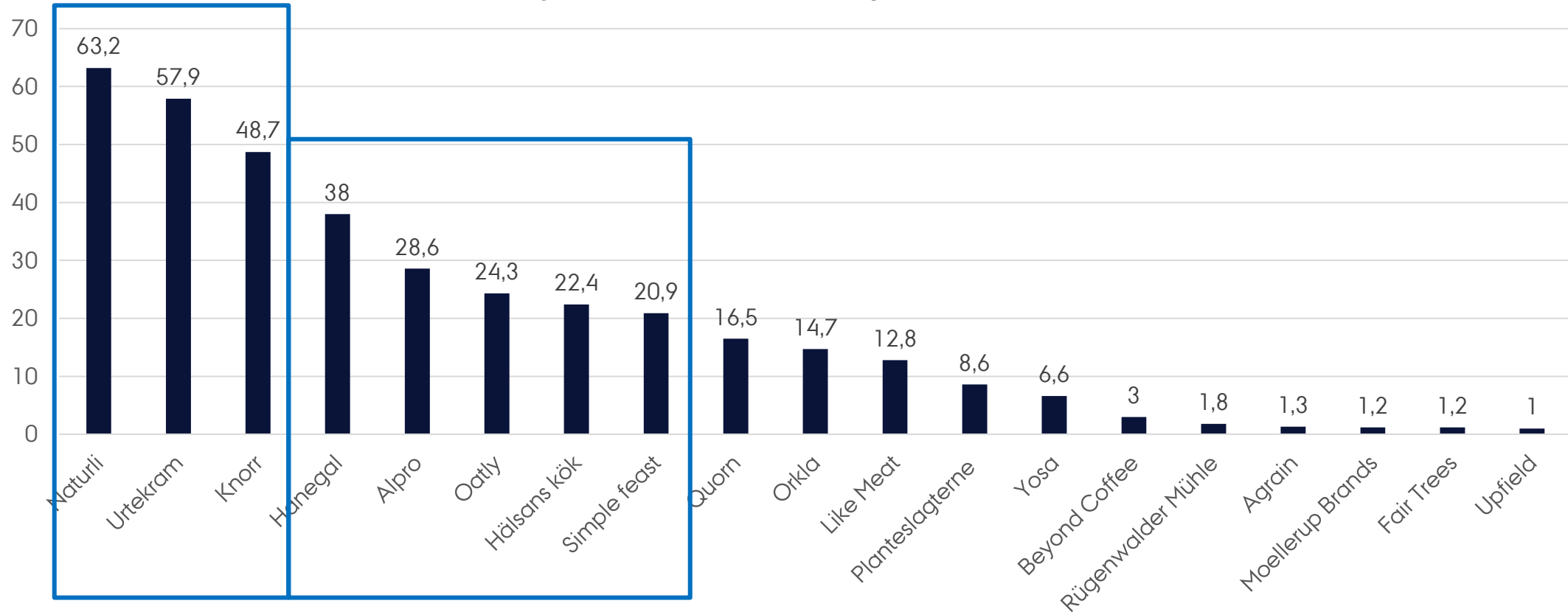
BRAND AWARENESS (AIDED)



“Which of the following brands and producers that sell plant-based product alternatives to meat or dairy products do you recognize having seen or heard of?
Please tick as many as you recognize!”

BRAND AWARENESS (AIDED)

Recognition of brand and corporate brands in %



“Which of the following brands and producers that sell plant-based product alternatives to meat or dairy products do you recognize having seen or heard of?
Please tick as many as you recognize!”

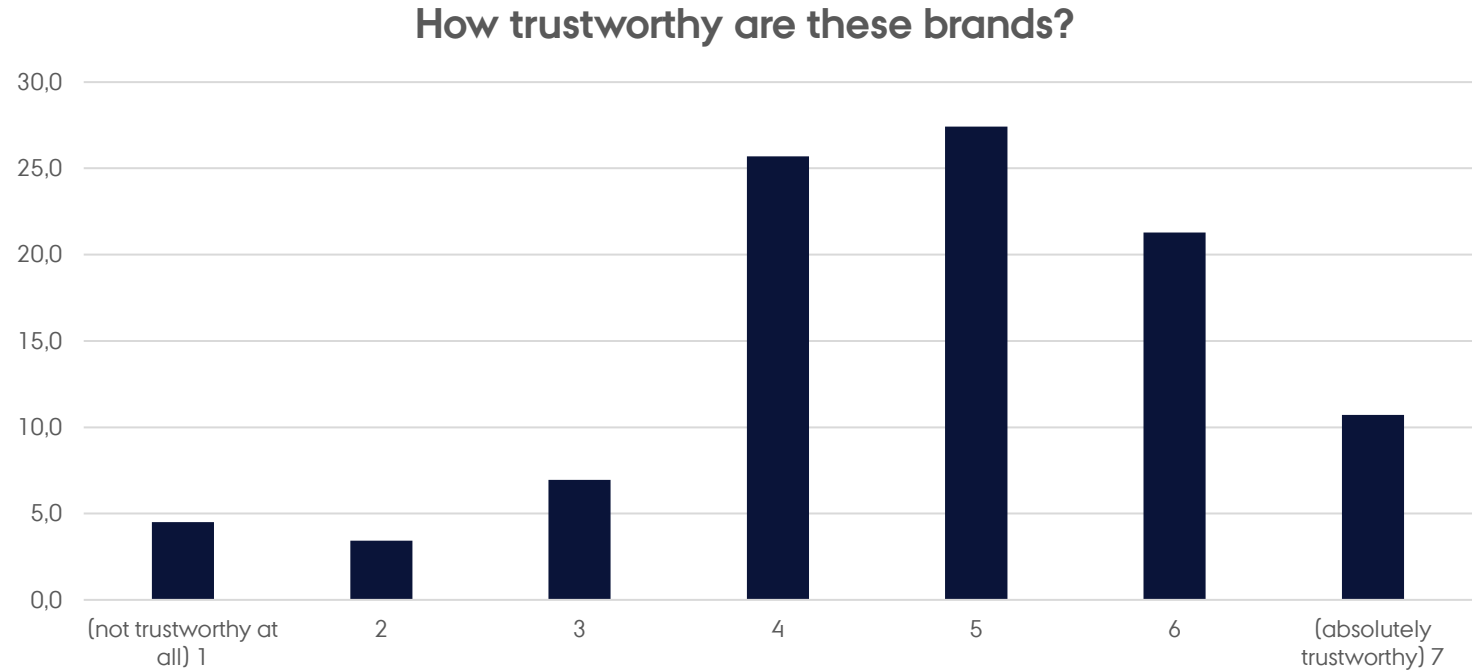
TRUST IN PLANT-BASED BRANDS

Mean= 4.72, SD= 1.46

15.1% negative

26.5% neutral

58.4% positive



“How trustworthy do you think are these brands that you have just seen?”



TRUST IN PLANT-BASED BRANDS

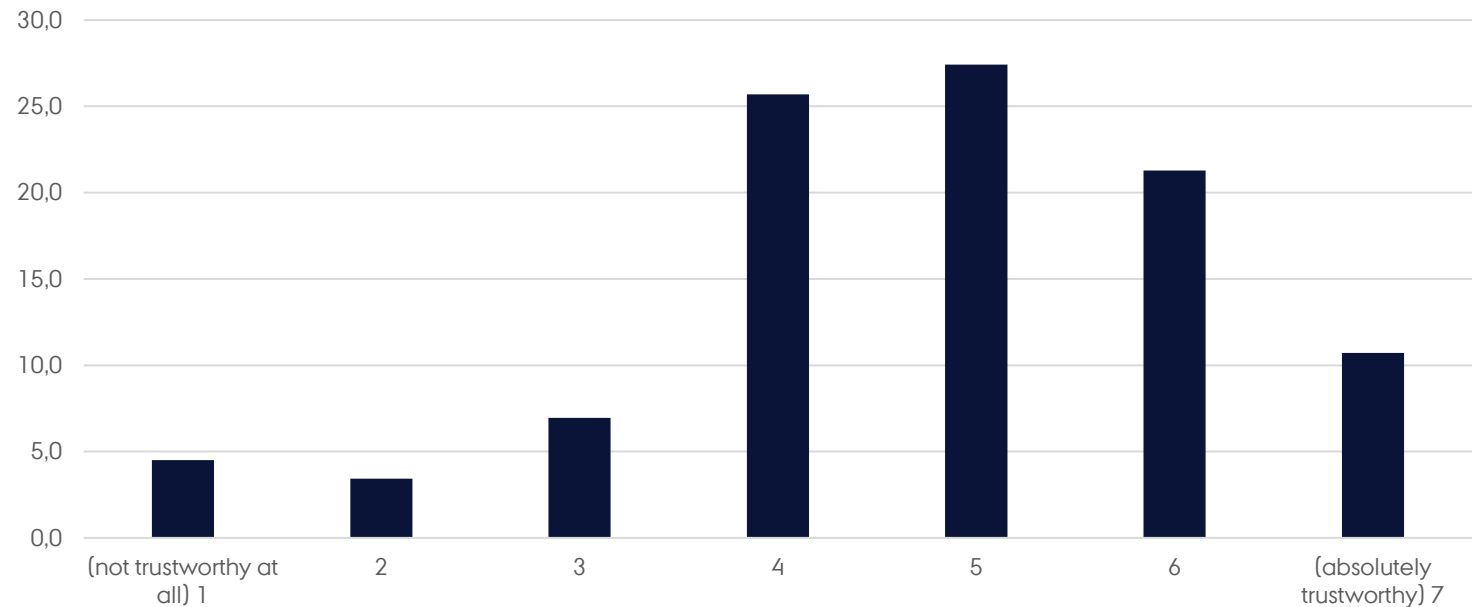
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26.5% neutral

58.4% positive

How trustworthy are these brands?



“How trustworthy do you think are these brands that you have just seen?”

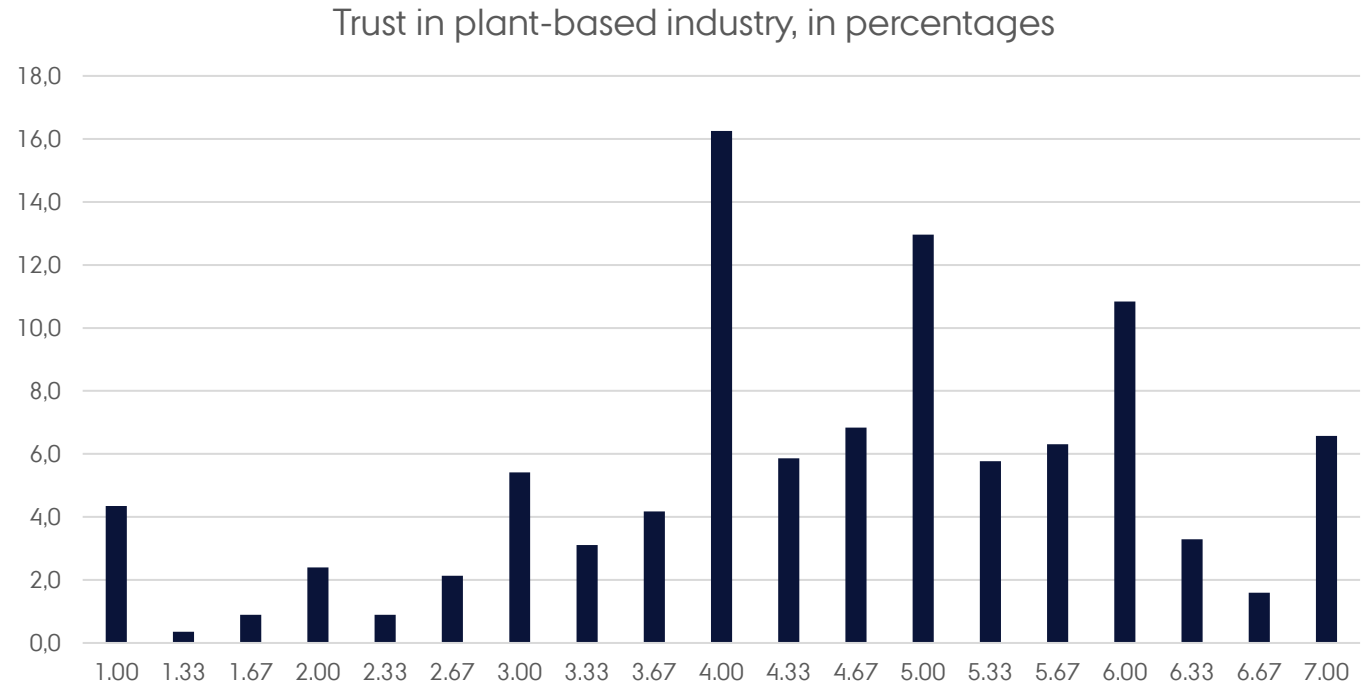
TRUST IN PLANT-BASED INDUSTRY

Mean= 4.57, SD=1.46

23.7% negative

40% neutral

36.3% positive



“To what extent do you generally agree or disagree with the following statements about manufacturers of plant-based product alternatives to meat or dairy products?”

- A) Plant-based food producers have the competencies to control the quality of the food they produce.
- B) Plant-based food producers have sufficient knowledge to guarantee the quality of food products.
- C) Plant-based food producers are honest about the quality of the food.”



TRUST IN PLANT-BASED INDUSTRY

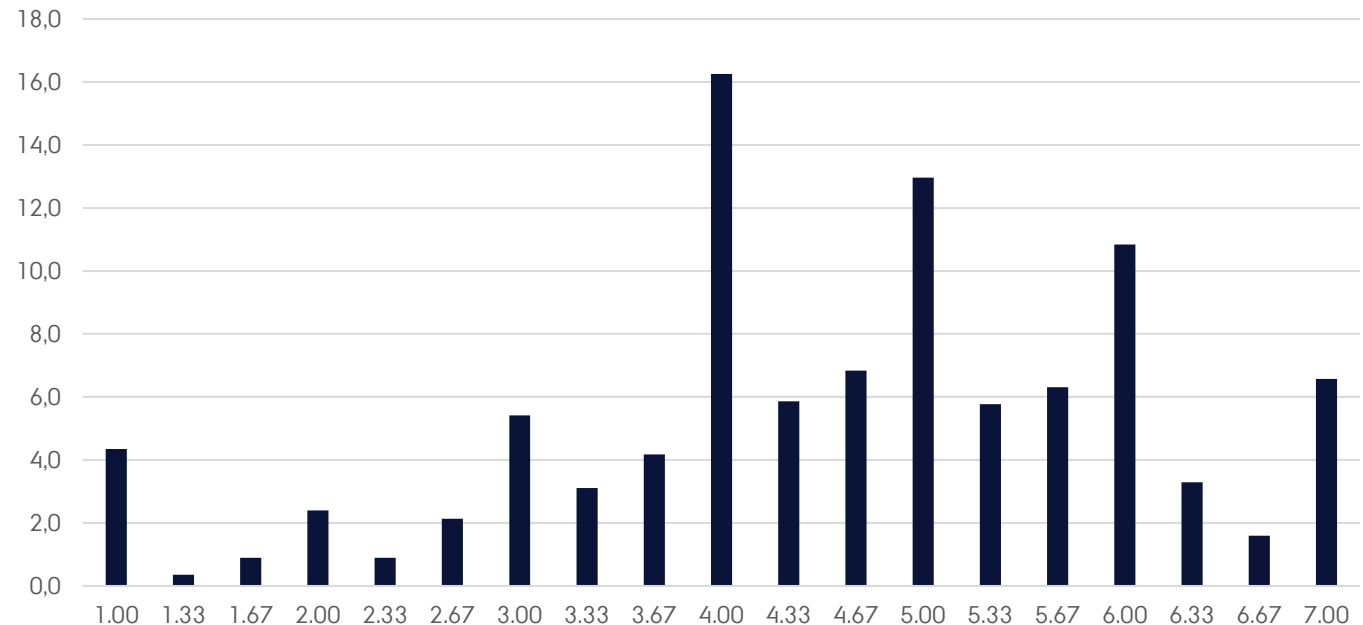
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Trust in plant-based industry, in percentages



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- C) Plant-based food producers are honest about the quality of the food.”

UPCYCLED FOOD – ATTITUDE

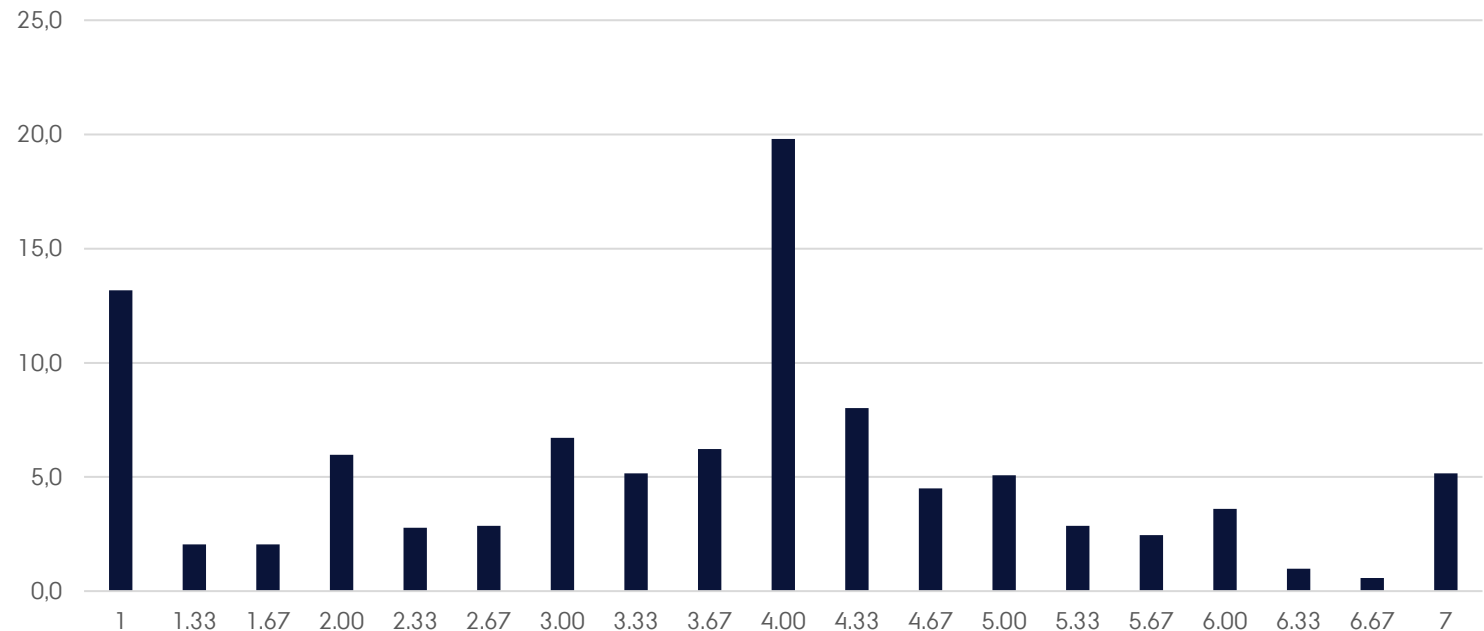
Mean= 3.61, SD= 1.65

47.0% negative

19.8% neutral

33.2% positive

Average attitudinal score towards upcycled foods



“Upcycled foods use ingredients that otherwise would not have gone to human consumption. This reduces food waste.

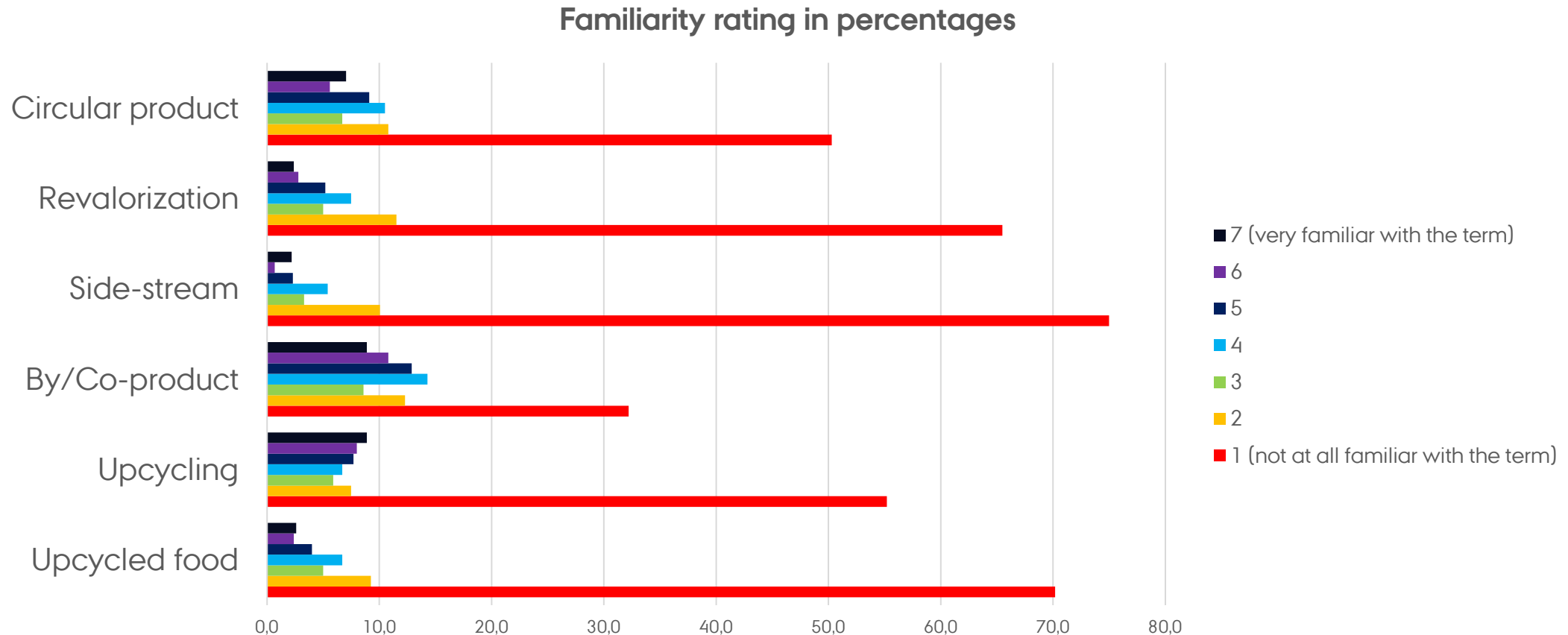
What are your thoughts about upcycled food?

A) Eating/drinking these products is [extremely bad / extremely good].

B) I am [strongly against / strongly for] eating/drinking these products.

C) I [dislike / like] eating/drinking these products.”

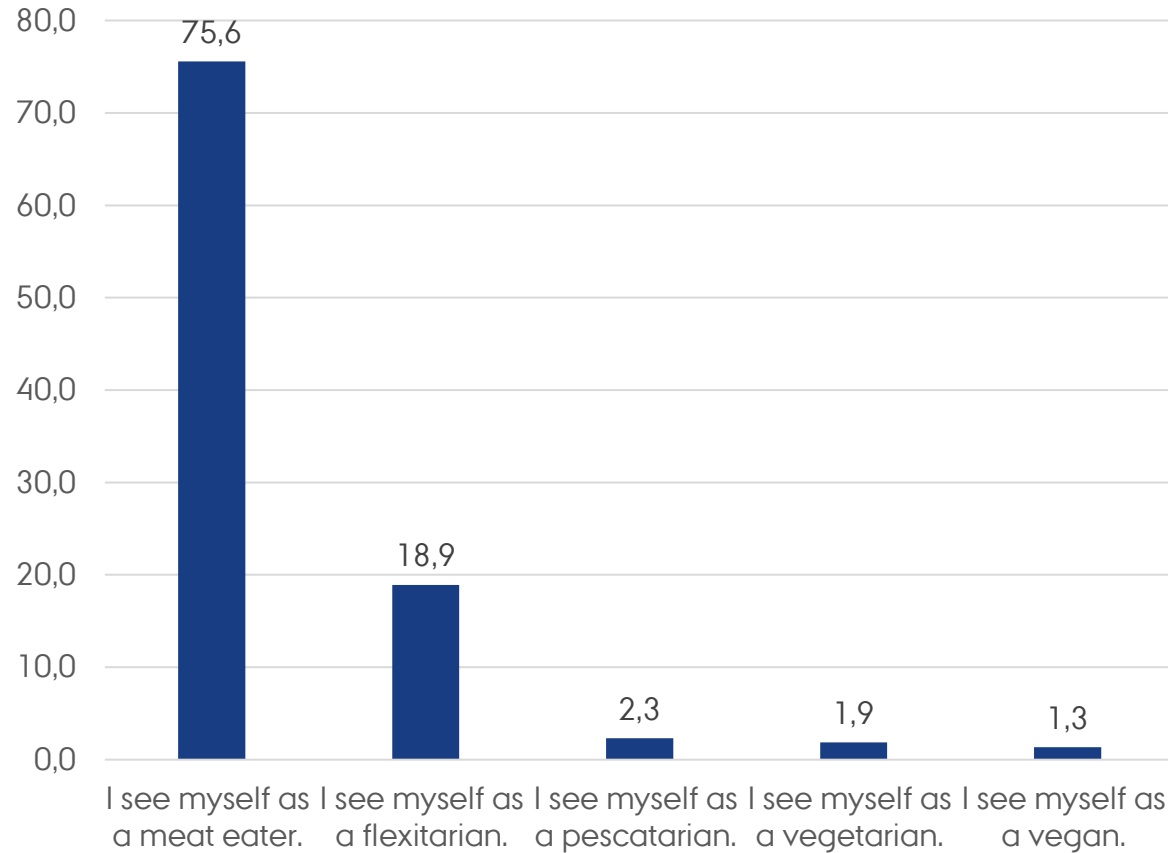
UPCYCLED FOOD – AWARENESS



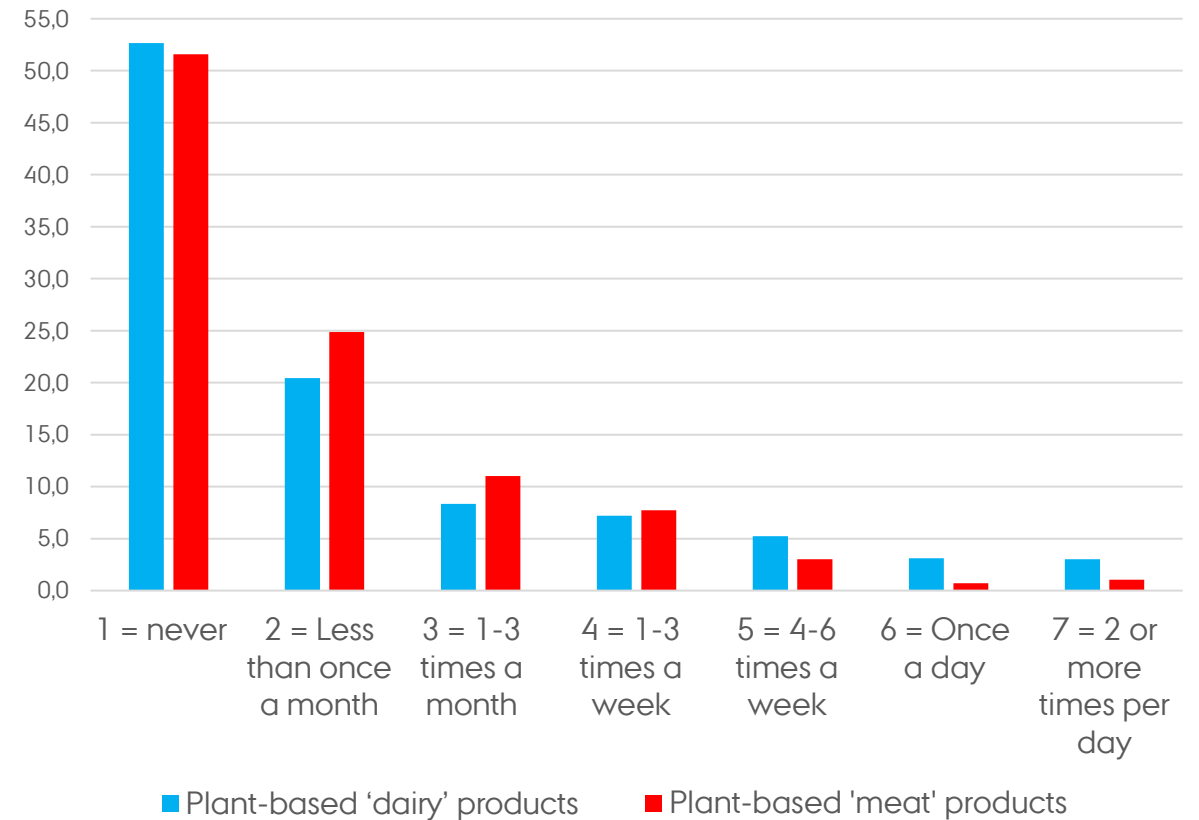
“How familiar are you with the following terms? (meaning; you have heard the term and have an idea about what it stands for)”

SELF-PERCEPTION AND CONSUMPTION

Choose the statement that best describes you:

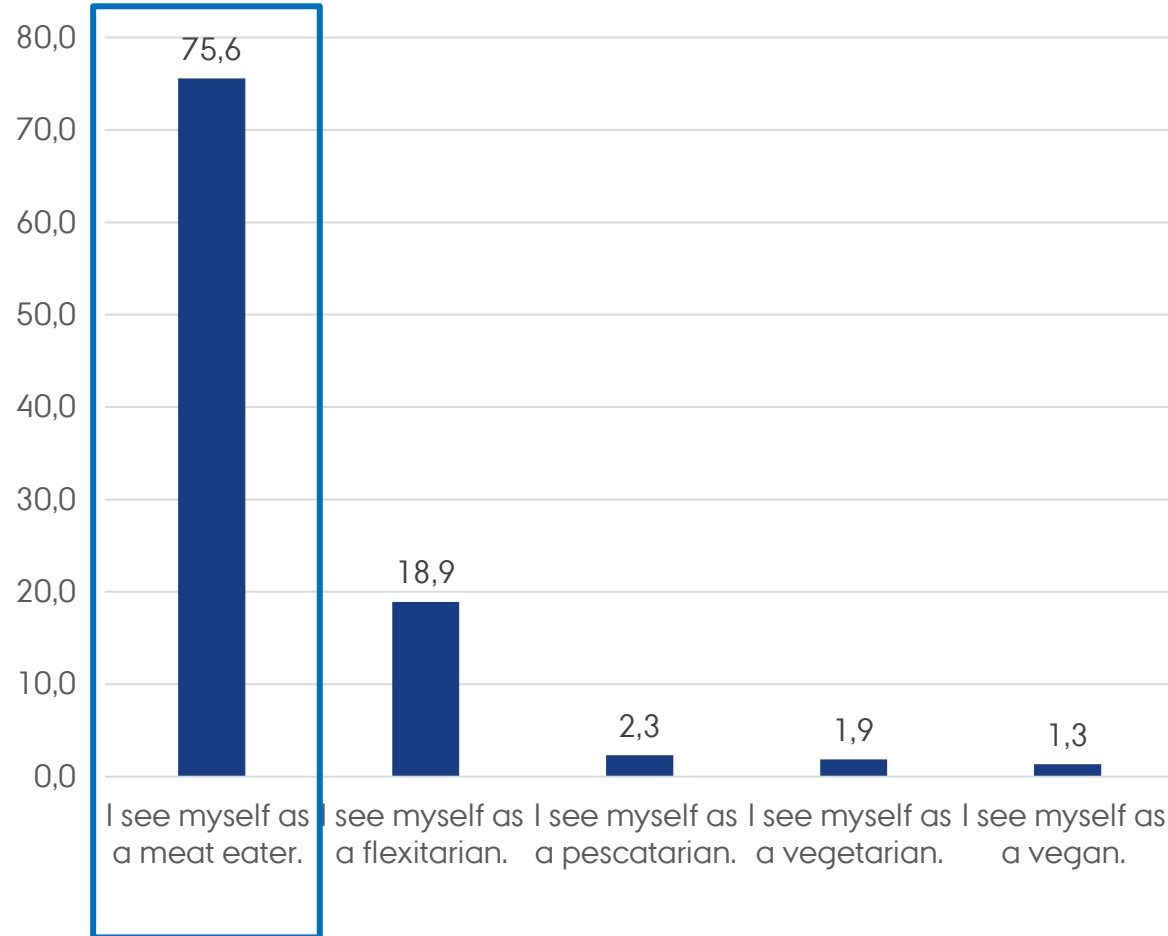


Frequency of current consumption of 'plant-based' replacement products:

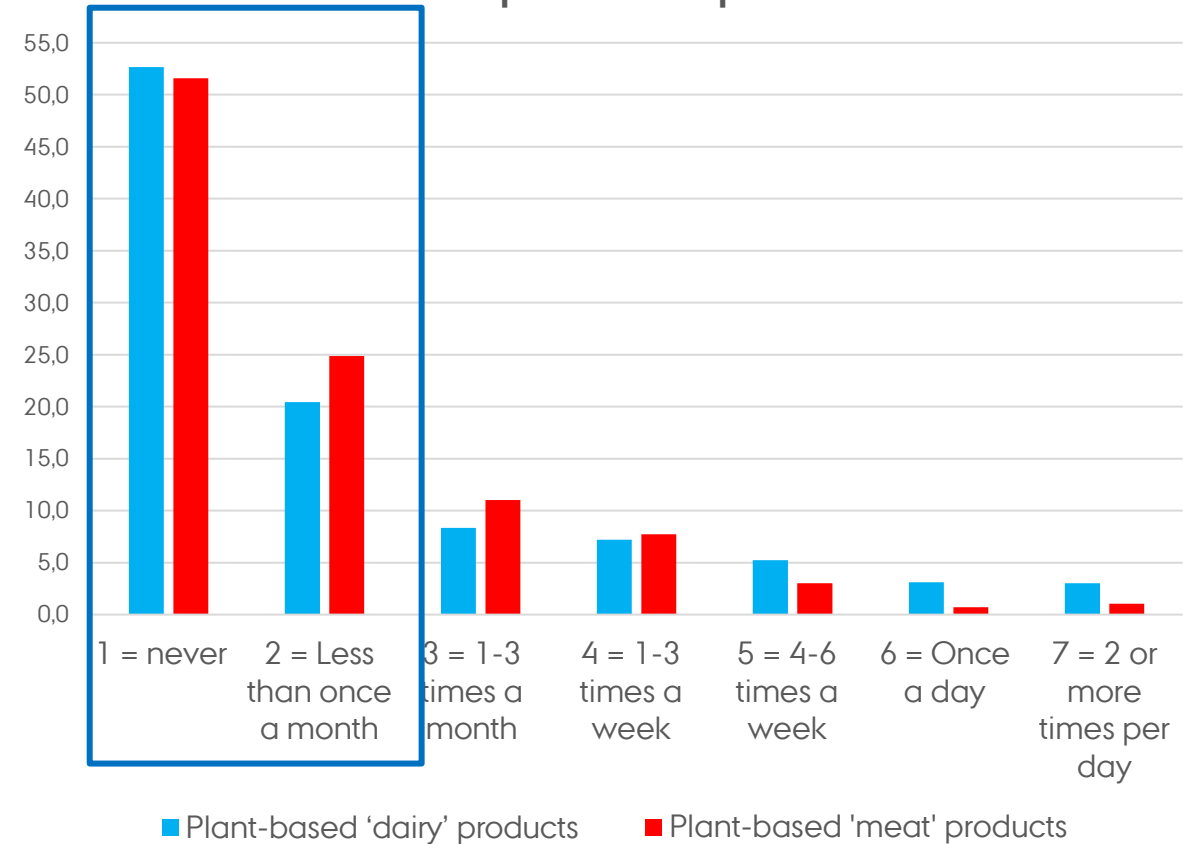


SELF-PERCEPTION AND CONSUMPTION

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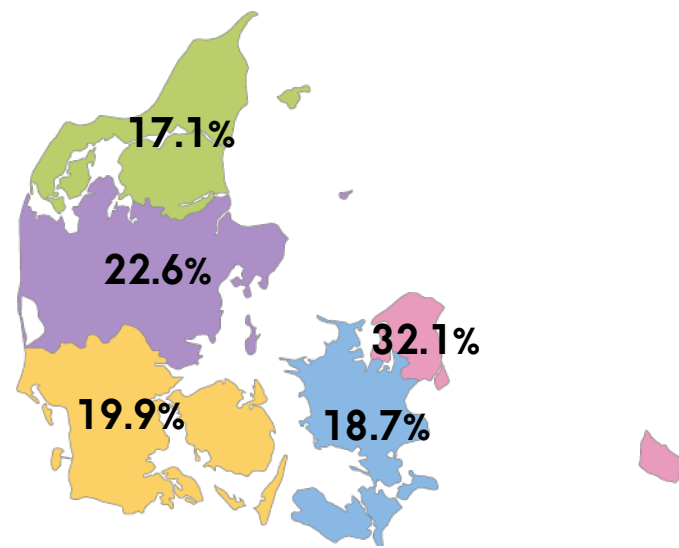
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SELF-PERCEPTION AND CONSUMPTION - 2

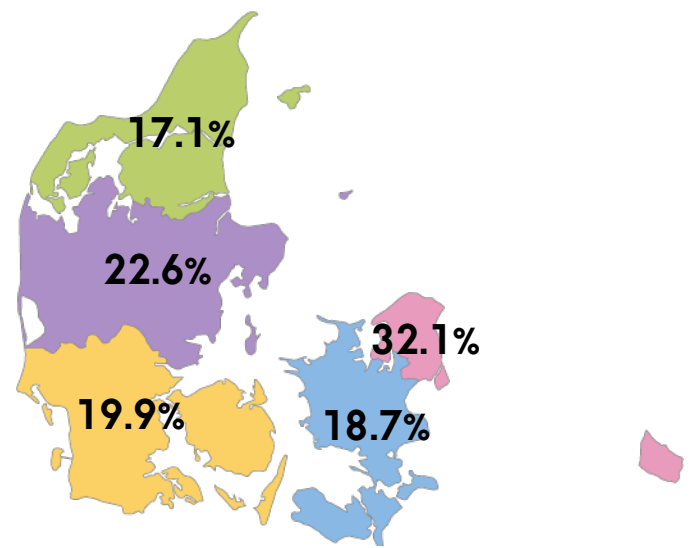
Choose the statement that best

describes you: **non meat-eaters (all together)**

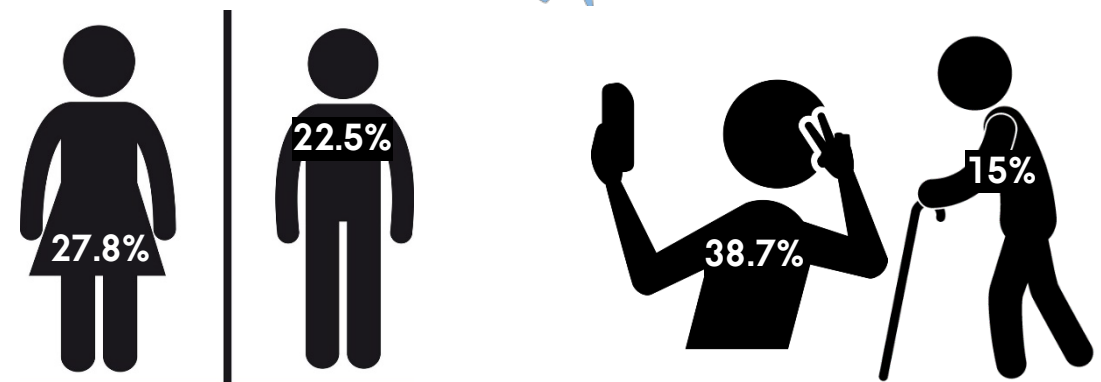
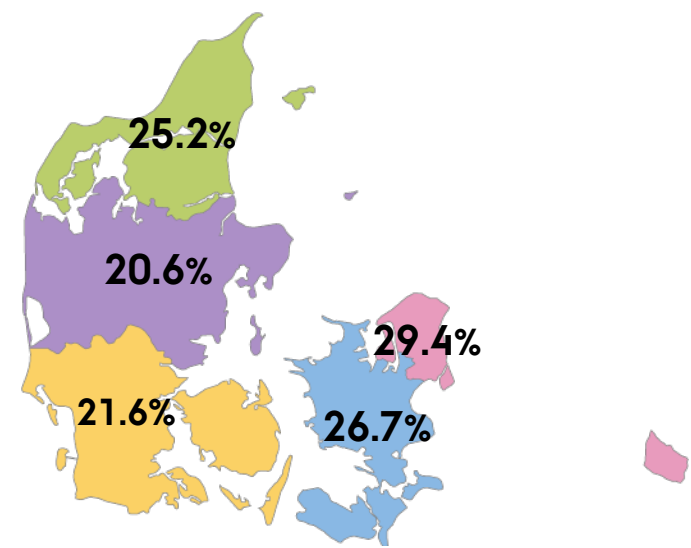


SELF-PERCEPTION AND CONSUMPTION - 2

Choose the statement that best describes you: **non meat-eaters (all together)**



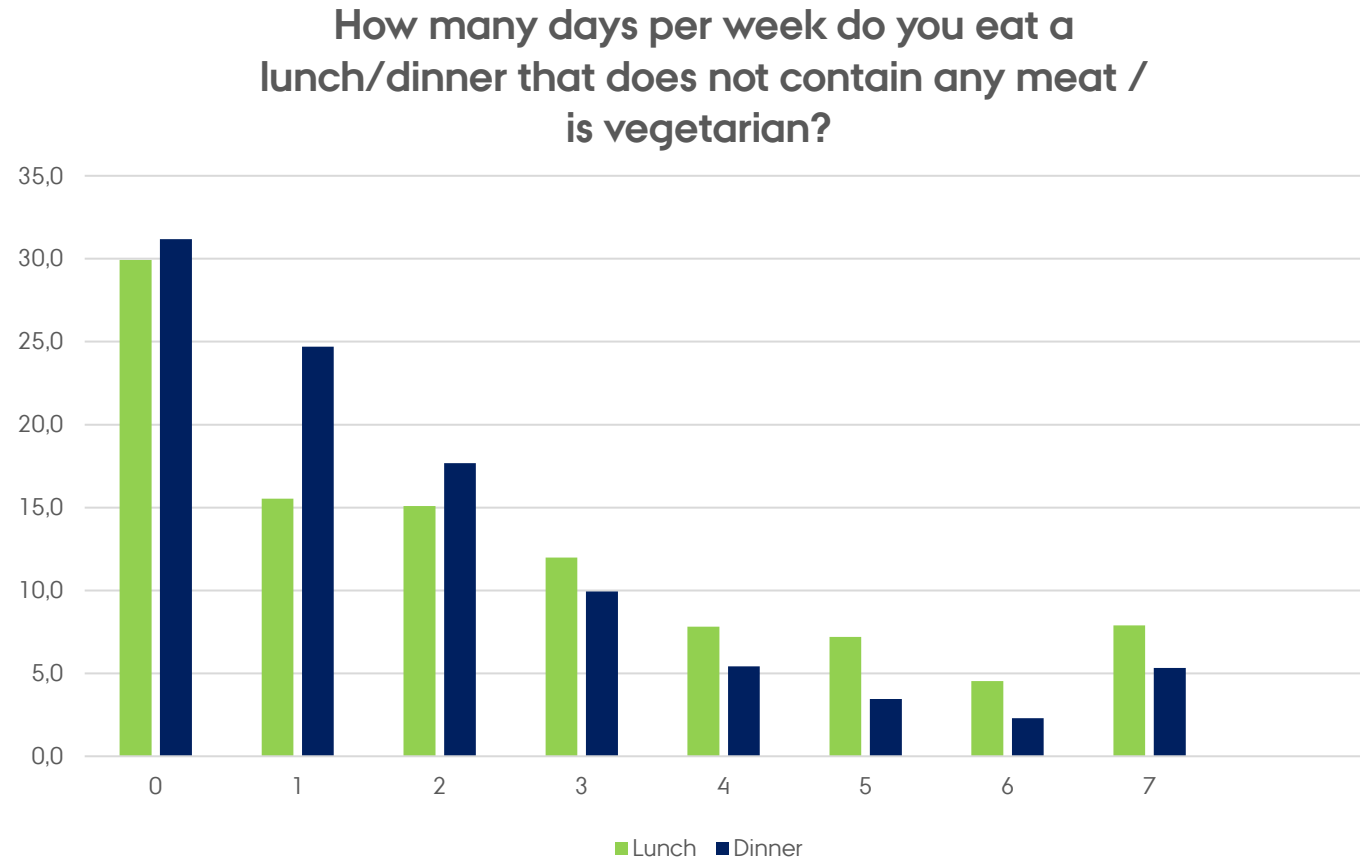
Frequency of current consumption of 'plant-based' replacement products: **more than once a month**



LUNCH OR DINNER WITHOUT MEAT

Lunch 27.4% 4 or more days out of the week

Dinner 16.5% 4 or more days out of the week

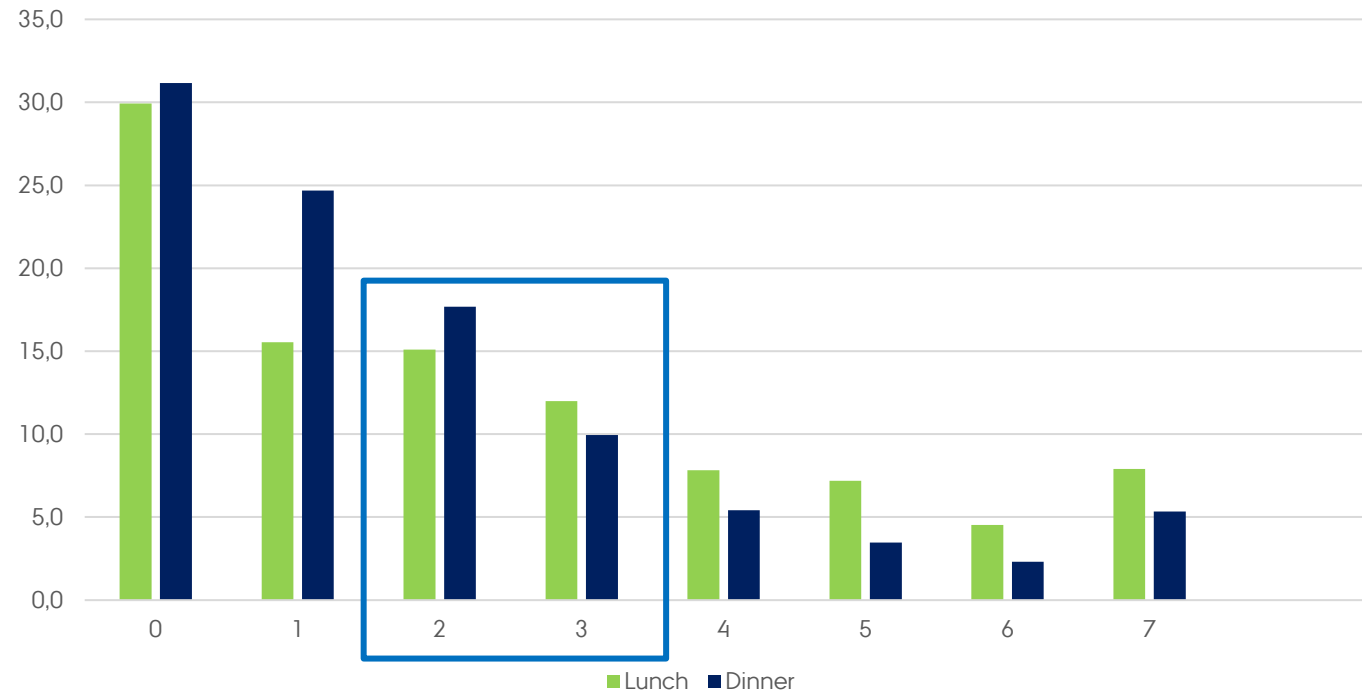


LUNCH OR DINNER WITHOUT MEAT

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Dinner 16.5% 4 or more days out of the week

How many days per week do you eat a lunch/dinner that does not contain any meat / is vegetarian?



BELIEFS ABOUT MEAT REDUCTION / MEAT

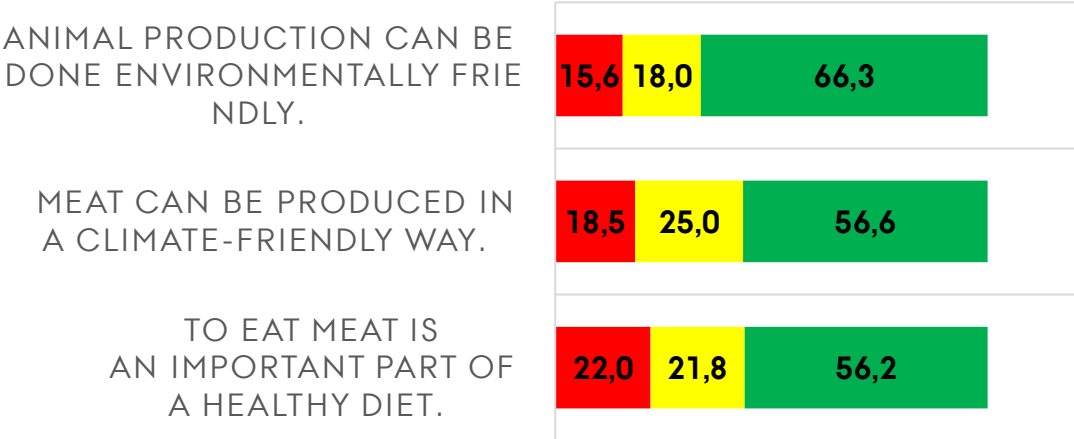
PERCEPTIONS OF MEAT REDUCTION

■ Negative ■ Neutral ■ Positive



PERCEPTIONS OF MEAT (PRODUCTION)

■ Negative ■ Neutral ■ Positive



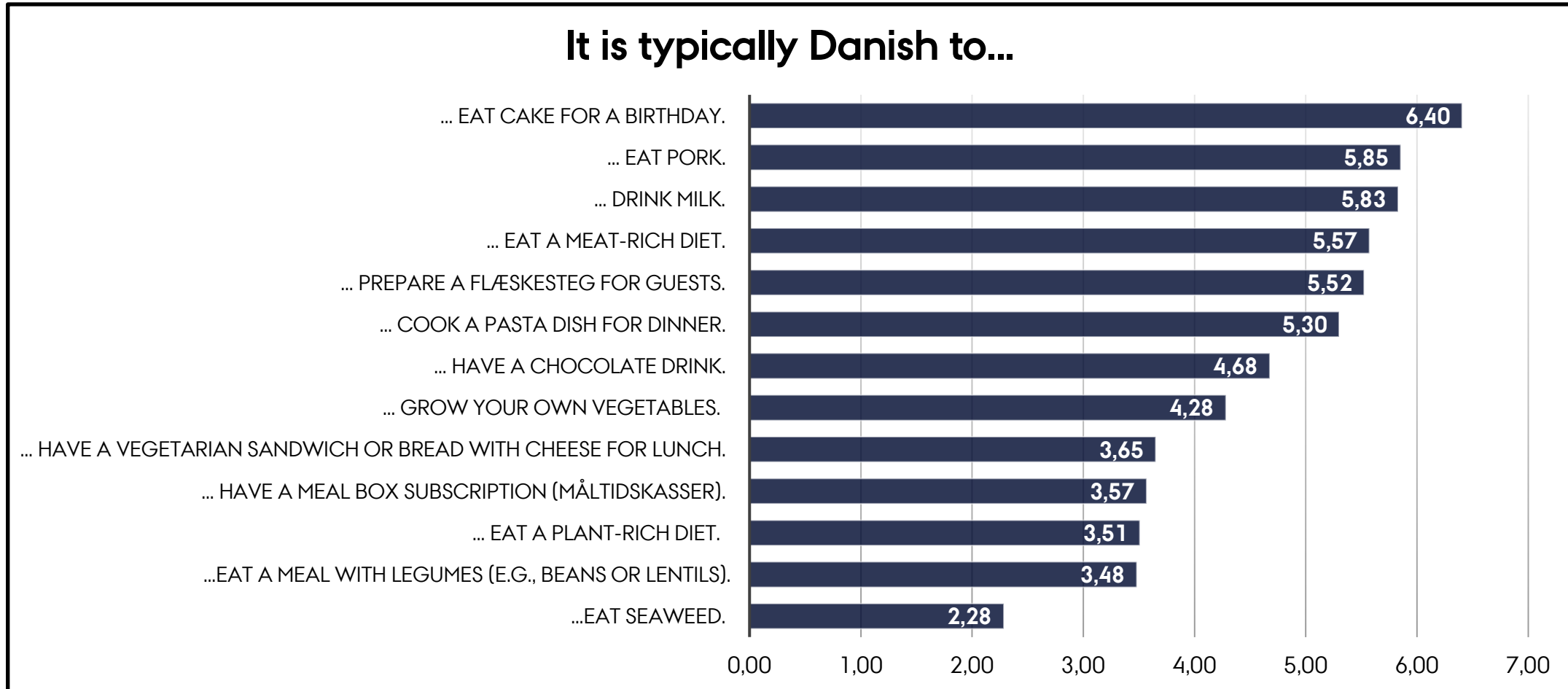
CONFLICT 'PLANT VS MEAT' ?

	Disagree (1/2/3)	Neutral (4)	Agree (5/6/7)
I perceive the public discussion around food as highly polarized.	12.8%	30.3%	56.9%
I would like people to be more tolerant towards different dietary choices.	11.9%	19.6%	68.4%
I feel judged for my food choices.	59.8%	17.7%	22.6%
I think food consumption is a matter of personal freedom.	11.4%	17.5%	71.1%
When someone appears to lecture me about which food to eat, I have found myself reacting with the opposite.	40.8%	25.6%	33.7%
I perceive there is a narrative based on 'us' versus 'them' when it comes to eating meat or plant-based foods.	18.0%	20.6%	61.4%

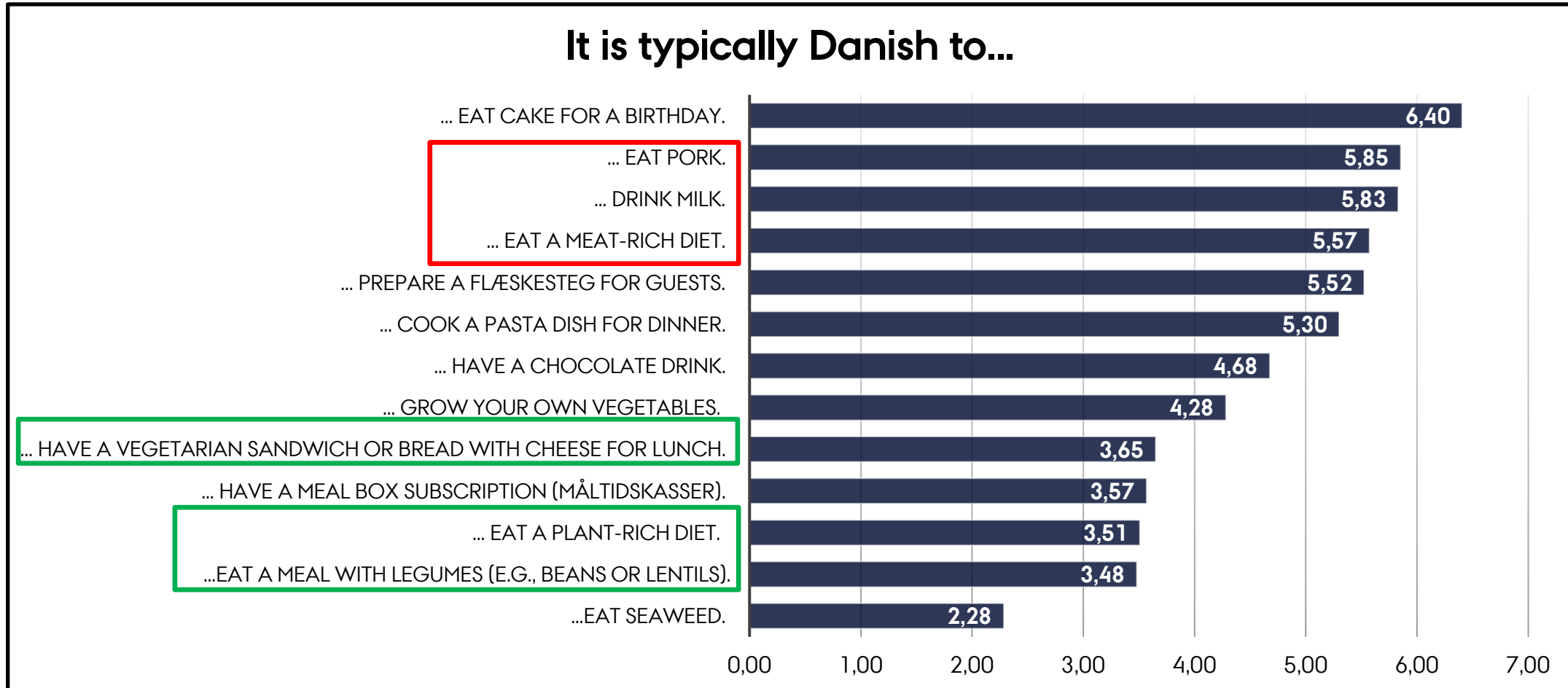
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PLANT-BASED & DANISH CULTURE?

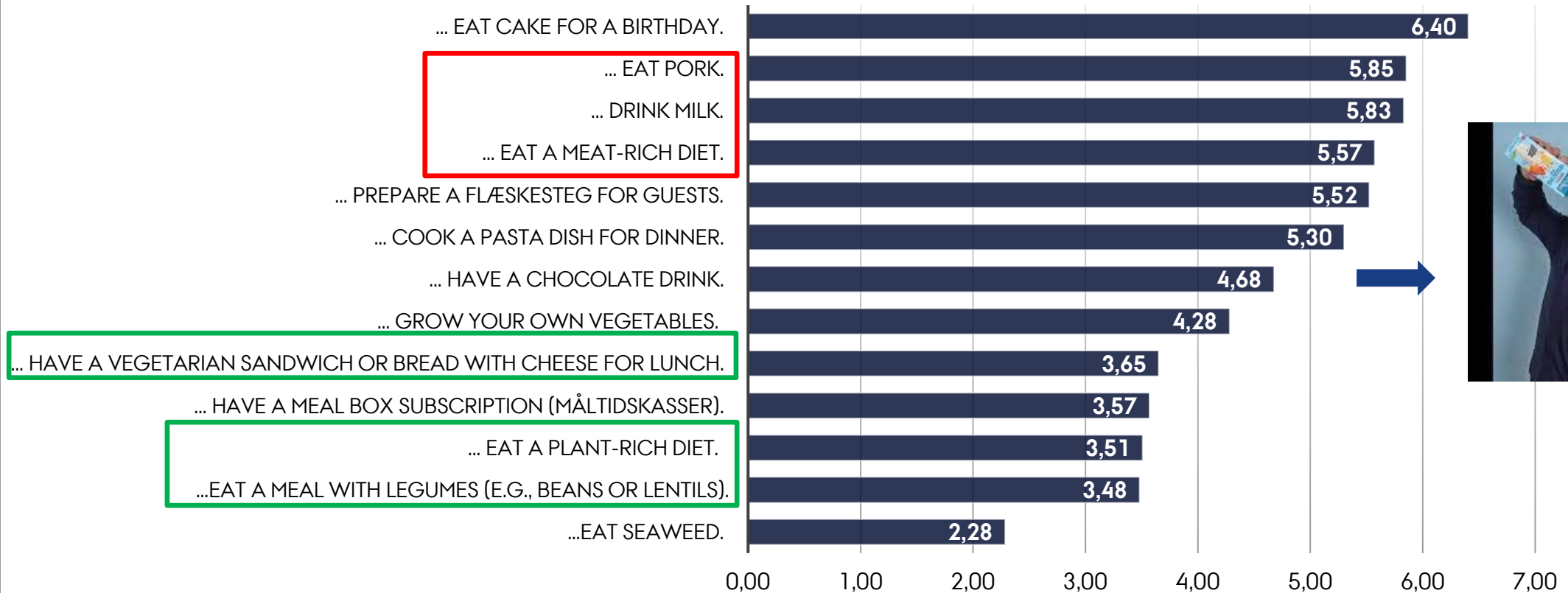


PLANT-BASED & DANISH CULTURE?



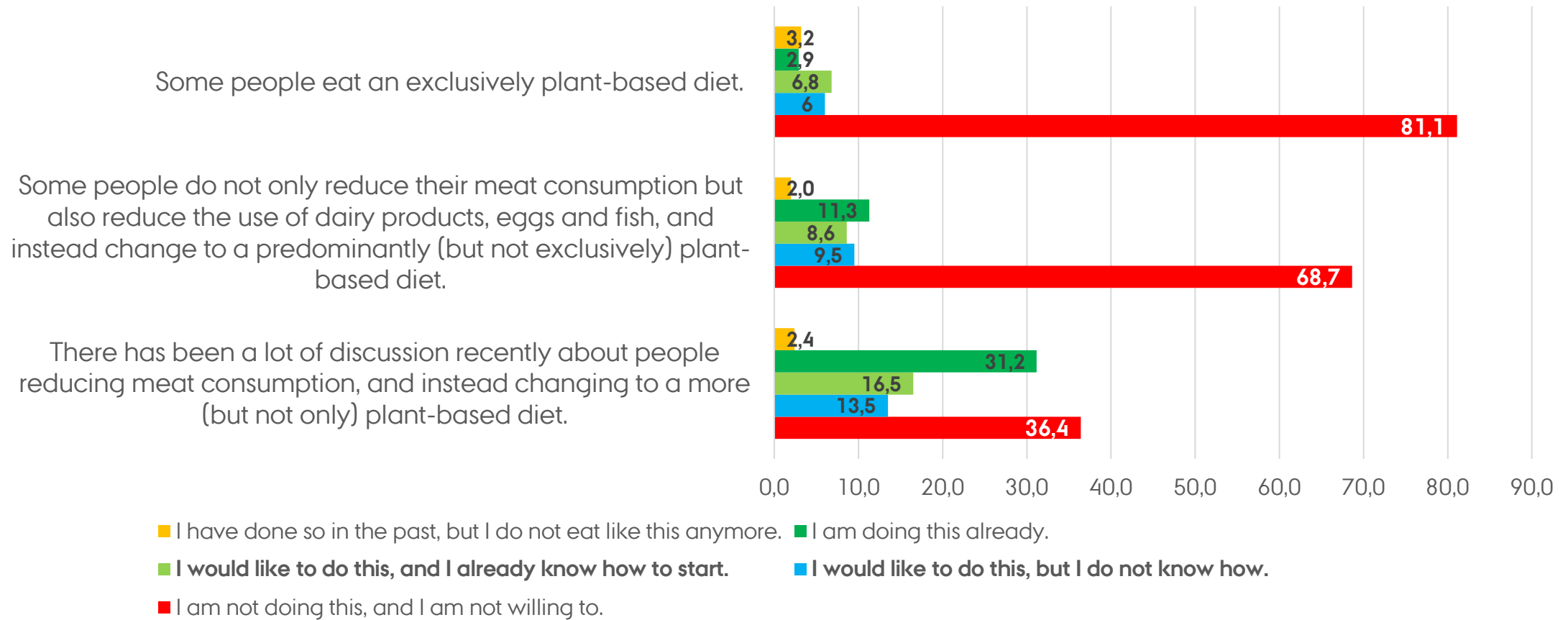
PLANT-BASED & DANISH CULTURE?

It is typically Danish to...



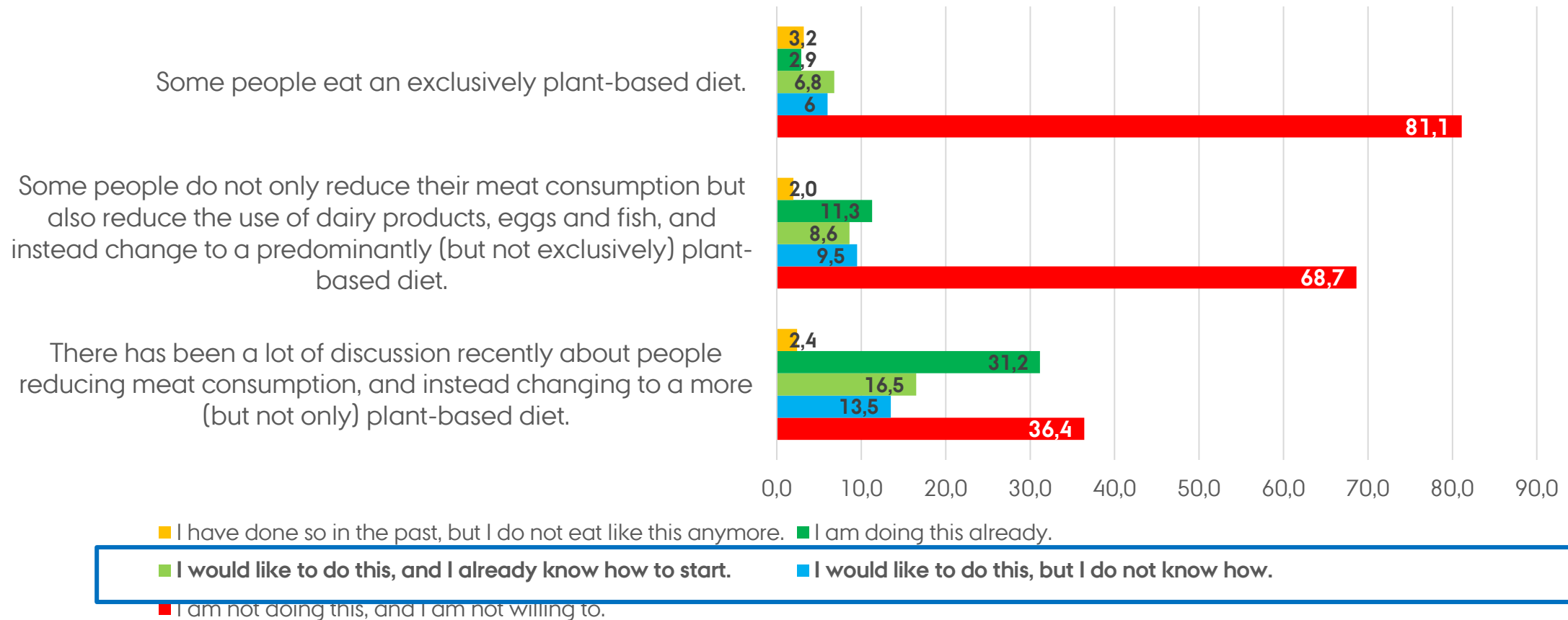
INTENTION TO CHANGE DIET

What is your stance on this?



INTENTION TO CHANGE DIET

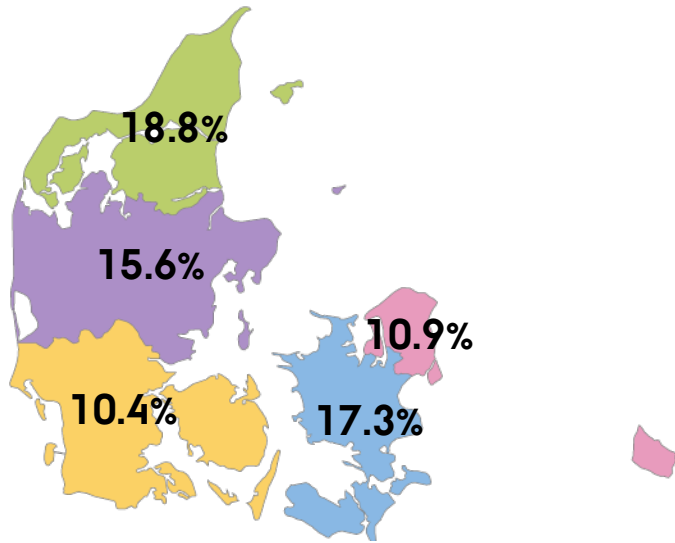
What is your stance on this?



INTENTION TO CHANGE DIET:

REDUCING MEAT CONSUMPTION, AND INSTEAD CHANGING TO A MORE (BUT NOT ONLY) PLANT-BASED DIET.

I would like to, but I don't know how:

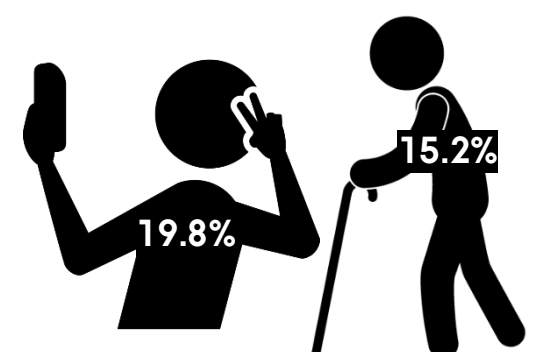
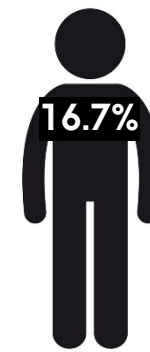
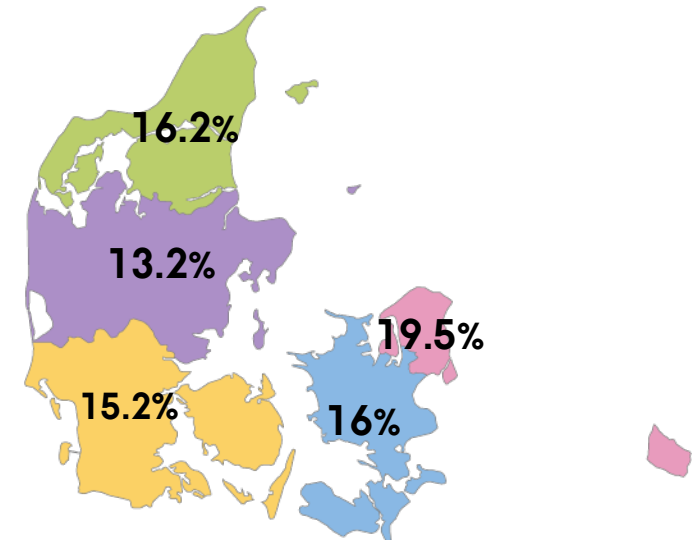
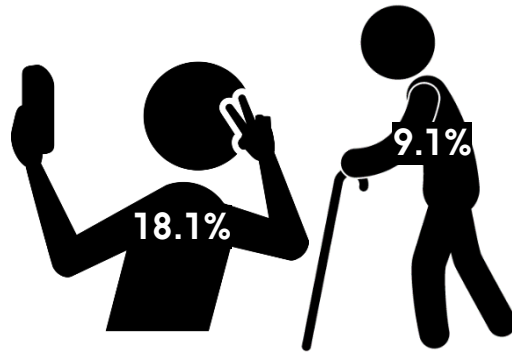
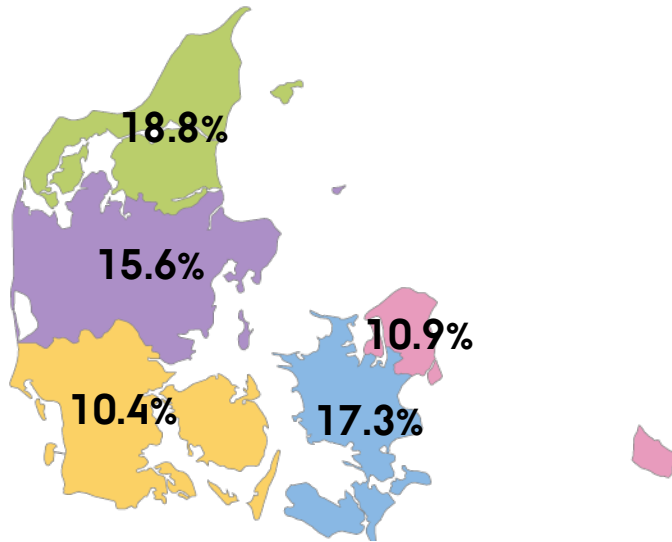


INTENTION TO CHANGE DIET:

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I would like to, but I don't know how:

I would like to, and already know how to do this:



15.2%



Benchmark survey

Consumer survey before and after – how do brands perform, and perception and behaviour change.



Communication

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Implementation

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Industry

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INDUSTRY CASE STUDIES – AIM AND DATA

Aim:

- ❑ Identification of major drivers and triggers of the market trend, and of strategic *key success* factors of early plant-based innovators.
- ❑ E.g. internal drivers, external triggers, key competences, communication approaches

Data:

- ❑ 8 (12) interviews Danish food producer start-ups / companies, 2 (5) European
- ❑ (5-6) Danish and European market experts
- ❑ Market data



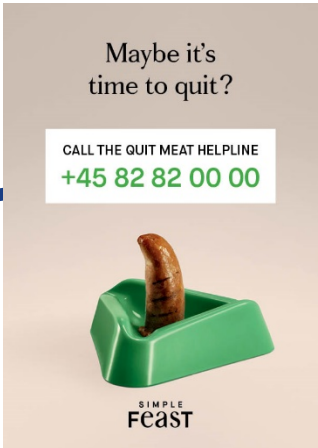
Occurrences
&
Factors of
influence



Barriers
&
Drivers

2026?

2021





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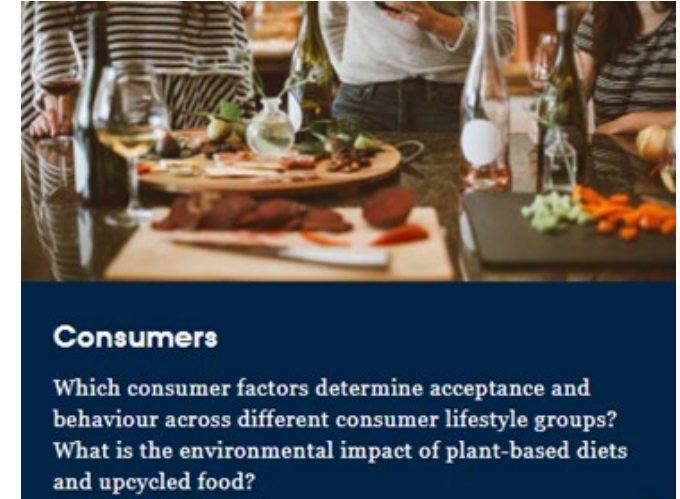
CONSUMER INTERVENTION – AIM AND DATA

Aim:

- ☐ understand the *change* of consumer behaviour and *product perception* under real-life conditions
- ☐ Plant-based products / diets as well as the effect of such diets on food waste

Data:

- ☐ 100 *average* consumer households commit to eating primarily (not fully) plant-based during 4 weeks (start mid-Jan 2022, kommune XY)
- ☐ Receive 'starter packs' of product examples for week 1 and 3 (partners, further?) + background info, practice tips & recipes
- ☐ Survey before, during, after (dietary and food waste patterns and attitudes/perceptions; December, week 2, March) – direct feedback on products




THANK YOU!



PlantPro contributes to accelerating an **efficient green consumer behaviour transition** towards more plant-rich diets and reduced food waste.

We aim to fill a knowledge gap on factors that drive consumer behaviour change towards more sustainable plant-rich diets and upcycled foods and greater acceptance of sustainable food technologies.

Funded by Innovation Fund Denmark grant nr 0224-00044B  **nnovationsfonden**



**MAPP CENTRE – RESEARCH ON VALUE
CREATION IN THE FOOD SECTOR
DEPARTMENT OF MANAGEMENT
AARHUS UNIVERSITY**

PERCEIVED CONFLICT AND PERCEPTION OF OTHERS



MAPP CENTRE – RESEARCH ON VALUE CREATION
IN THE FOOD SECTOR
DEPARTMENT OF MANAGEMENT
AARHUS UNIVERSITY

2021

JESSICA ASCHEMANN-WITZEL
PROF. DR. HABIL.

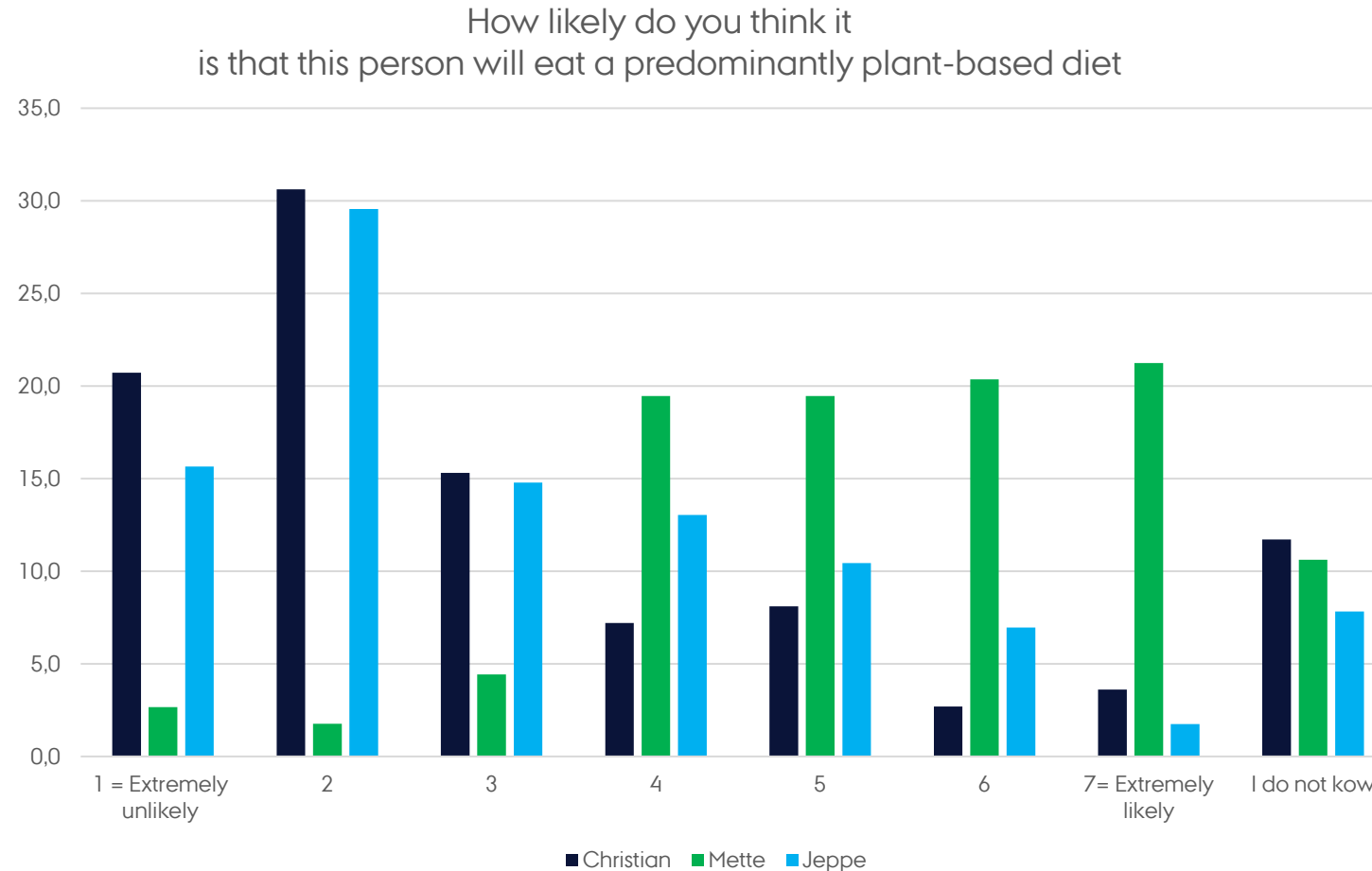


RESULTS OF BENCHMARK TEST: PERCEPTION OF OTHERS (1)

- Vignettes:
 - How likely do you think it is that this person will eat a predominantly plant-based diet?
 - Randomly shown 1 out of 10 participants

- Examples:
 - Christian is 31 years old and self-employed, living in Randers. He spends the majority of his time at his office. He eats take-away more often than not. When he is off from work he stays active at boxing practice or goes to town with his friends
 - Mette is 47 years old, works as a theatre instructor and a mother of three. She lives in an apartment on Frederiksberg. Mette enjoys cooking her own meals and in her spare time, she practices yoga and meets up with her friends at the local cafes.
 - Jeppe is 61 years and early retiree from working as a DSB technician. He lives with his wife in their common house in Viborg. He enjoys growing his own vegetables in their garden.

RESULTS OF BENCHMARK TEST: PERCEPTION OF OTHERS (2)



RESULTS OF BENCHMARK TEST: PERCEPTION OF OTHERS (3)

Christian:

- Convenience
- Exercise

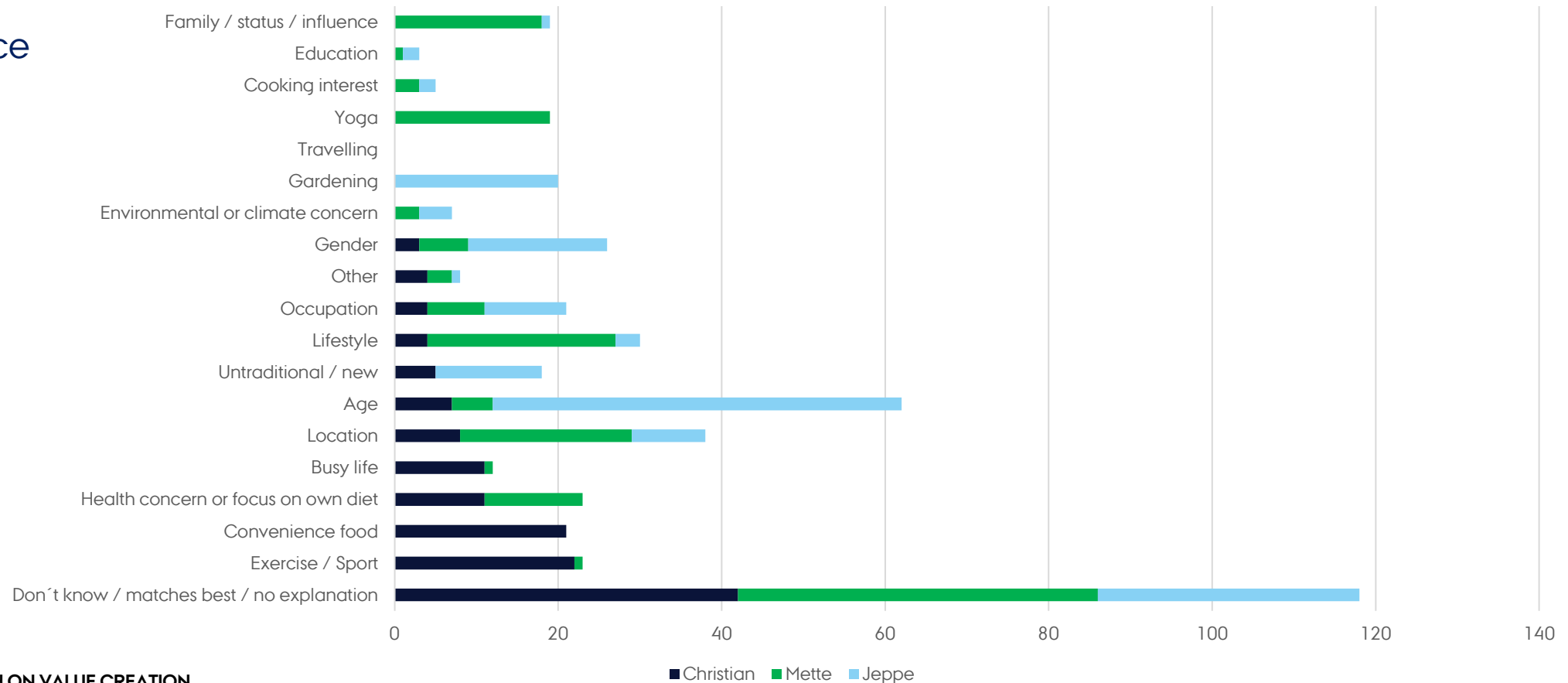
Mette

- Status
- Yoga
- Lifestyle

Jeppe

- Age
- Gender
- Gardening

Reasoning why this value was chosen



CURRENT SELF-REPORTED CONSUMER BEHAVIOR



MAPP CENTRE – RESEARCH ON VALUE CREATION
IN THE FOOD SECTOR
DEPARTMENT OF MANAGEMENT
AARHUS UNIVERSITY

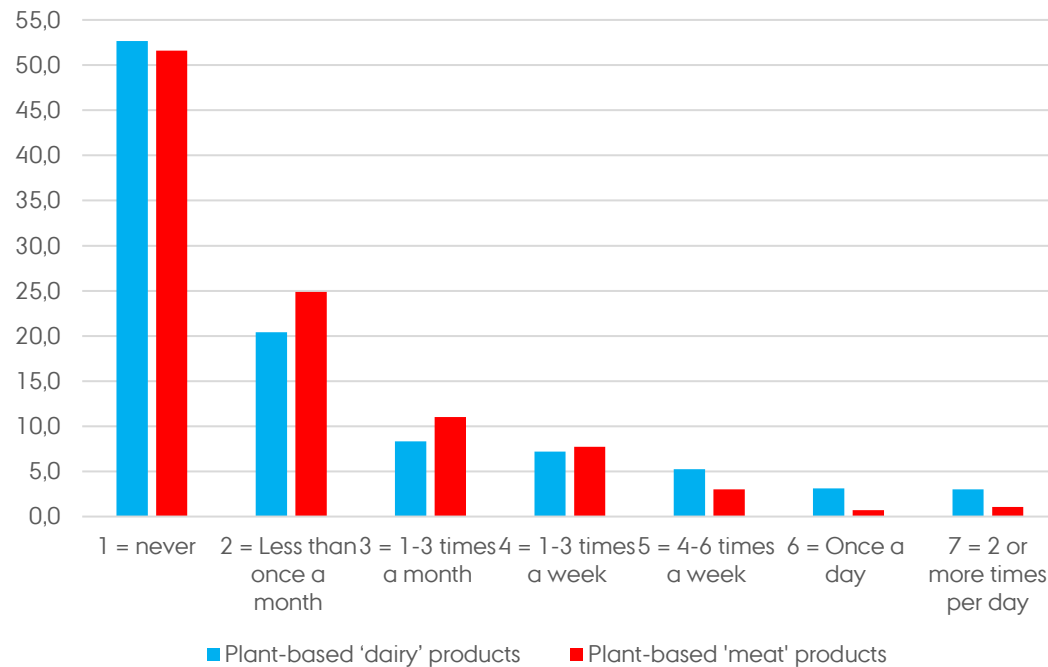
2021

JESSICA ASCHEMANN-WITZEL
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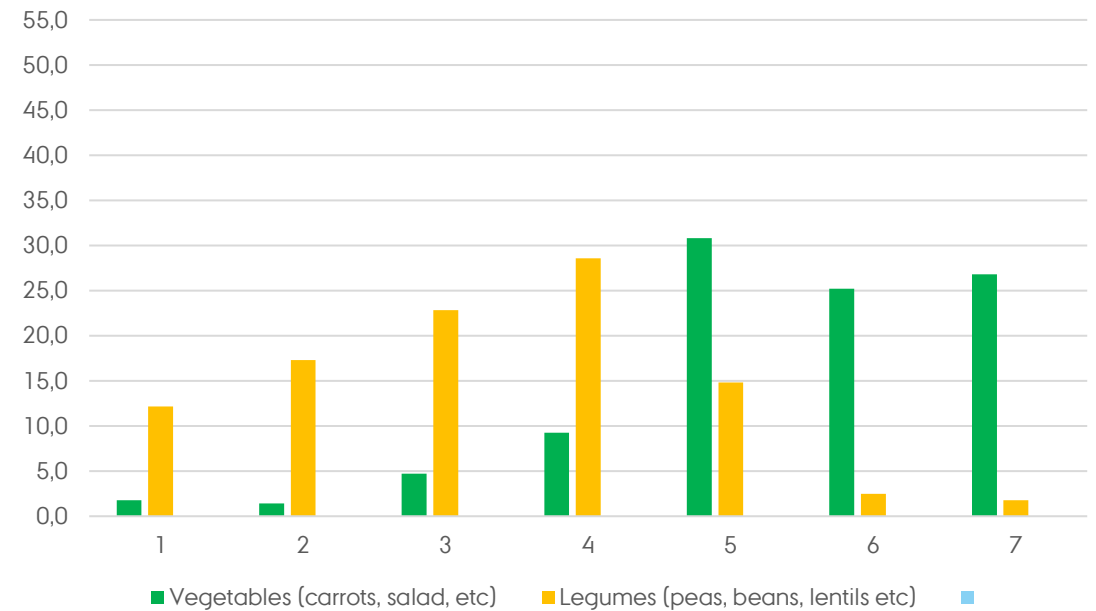


RESULTS OF BENCHMARK TEST: CONSUMER BEHAVIORS (5)

Frequency of current consumption of 'plant-based' replacement products



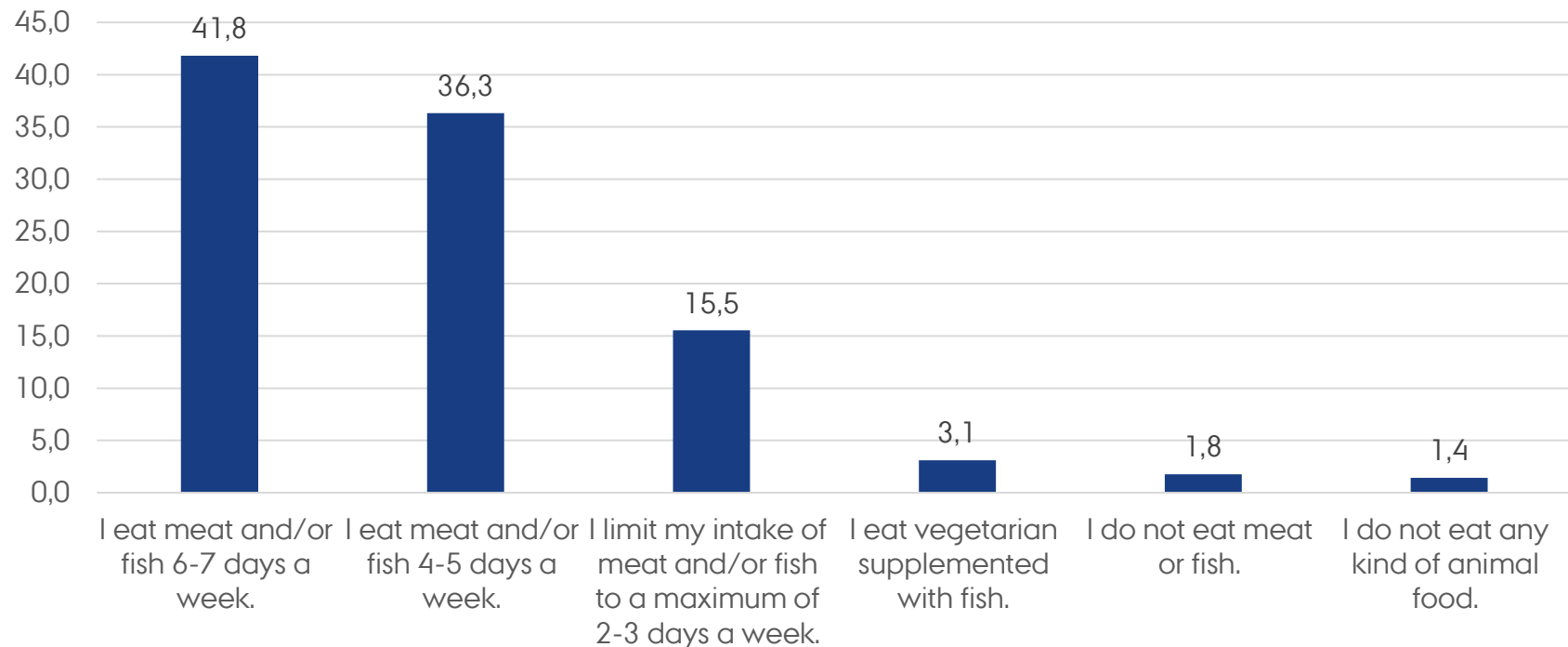
Frequency of current consumption of plant-based foods



RESULTS OF BENCHMARK TEST: CONSUMER BEHAVIORS (3)

- Frequency of own meat consumption (M=1.91, SD=1.04)

Which description do you think best suits with what you eat?



RESULTS OF BENCHMARK TEST: CONSUMER BEHAVIORS (1)

- Meat reduction amongst people they know ($M=2.78$, $SD=1.56$)

How many people do you know who have reduced their meat consumption, or who do not eat much meat?

