

A deep dive into plant-based “meat” burgers

Why are ingredients and production process so important?

Webinar – February 9th at 4 PM CET.

As providers of food solutions, Budenheim offers a full range of innovative solutions to meet different consumer needs.





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Sustainability & animal welfare

52%

of Americans confirm that knowing that food manufacturers have committed to producing in an environmentally sustainable way is important.

Health & wellness

41%

of UK processed meat eaters agree that health concerns have caused them to reduce the amount of processed meat they consume.

Gastronomic experience

58%

of German consumers think meat substitutes should resemble meat products as closely as possible.

Most consumers will reduce their animal-based consumption

Over the next year, I will replace ___ of my animal-based meat consumption with plant-based alternatives

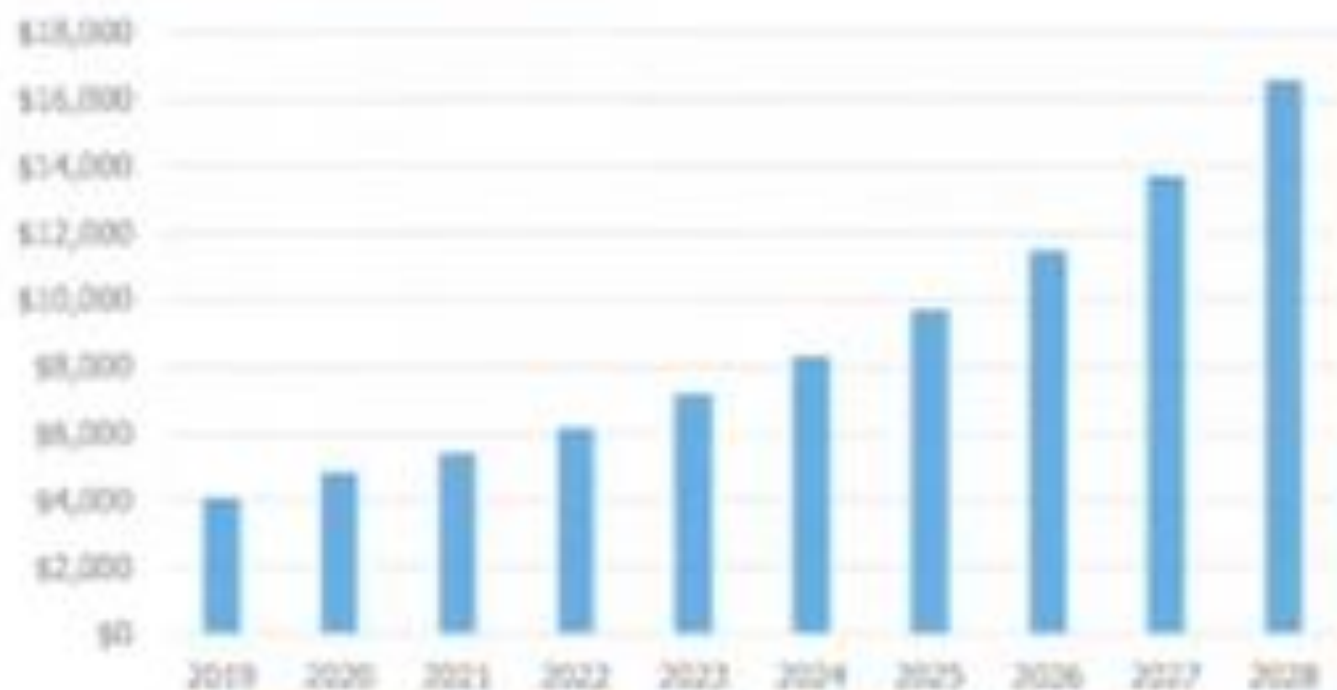


At least **80%** of consumers will replace some of their animal-based consumption.


Global plant-based meat market share by region based on value, 2020



Global plant-based meat market value (US\$ million), 2019 – 2028



Trends – North America



Regarding the plant-based meat category

79%

of the North American market is dominated by the USA.

Growing demand of vegan food in Canada,

53%

of Canadians eat plant-based meat.

In Mexico,

20%

of adults have reduced or completely eliminated the consumption of meat or foods derived from animals.

Trends – Europe



UK dominates Europe
with a market share of

28%

In regard to plant-based meat
market.

In Germany,

12,8%

is the expected CAGR for plant-
based meat market during the
forecast period.

Veganism is becoming
popular in France

30%

of the consumers making efforts
to reduce their meat consumption.

Trends – Asia Pacific



Asia Pacific is growing
at the fastest CAGR of

23,7%

during the forecast period 2021 -
2028.

Chinese government
aims to reduce by

50%

meat consumption in the country
by 2030.

Japan held market
revenue share of

18%

In the year 2020.

Market drivers and restraints



DRIVERS

- Rapid growth of plant-based meat supply chain.
- Covid pandemic helped push the market to new heights.
- Strategic initiatives by plant-based meat and new product launches.



RESTRAINTS

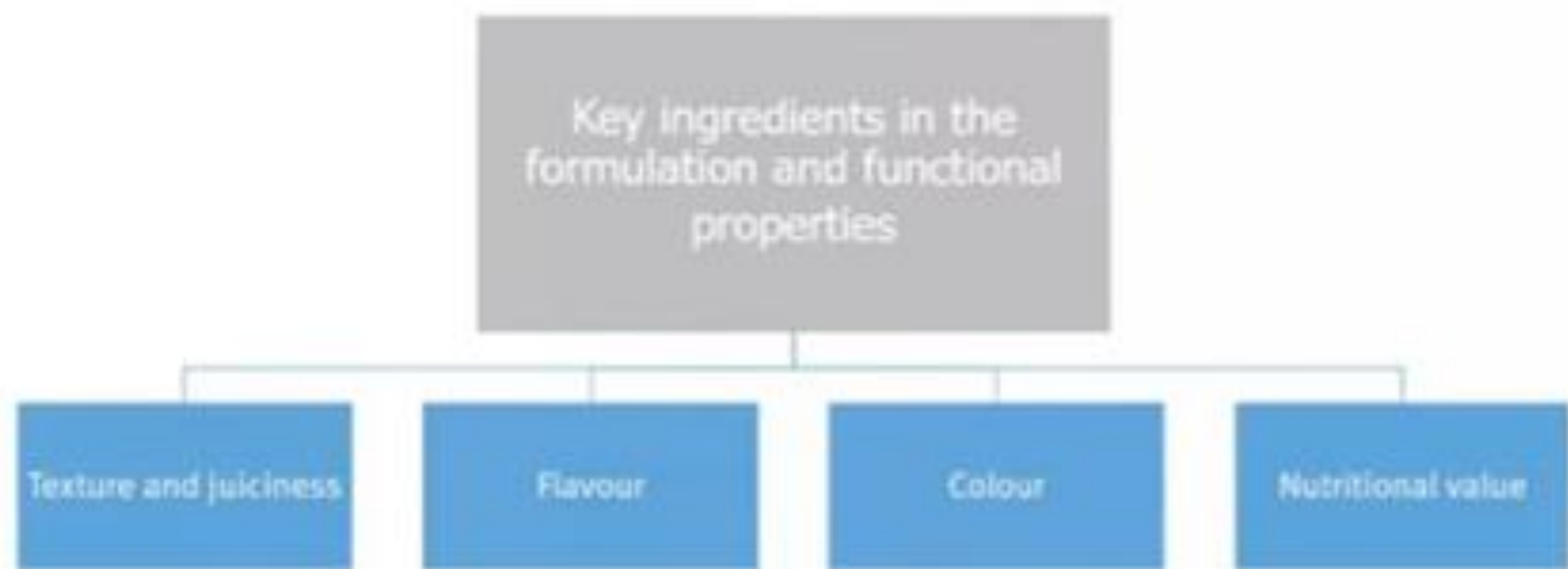
- High cost involved in the production of plant-based meat.
- Perception about the taste of plant-based meat products.

Global plant-based meat market share by product type 2020



■ Burgers ■ Nuggets ■ Sausages ■ Meatballs ■ Crumbles ■ Others

Plant-based meat-like challenges



Texture and juiciness

TVP
texturized vegetable protein

Binder

Particle size



Small

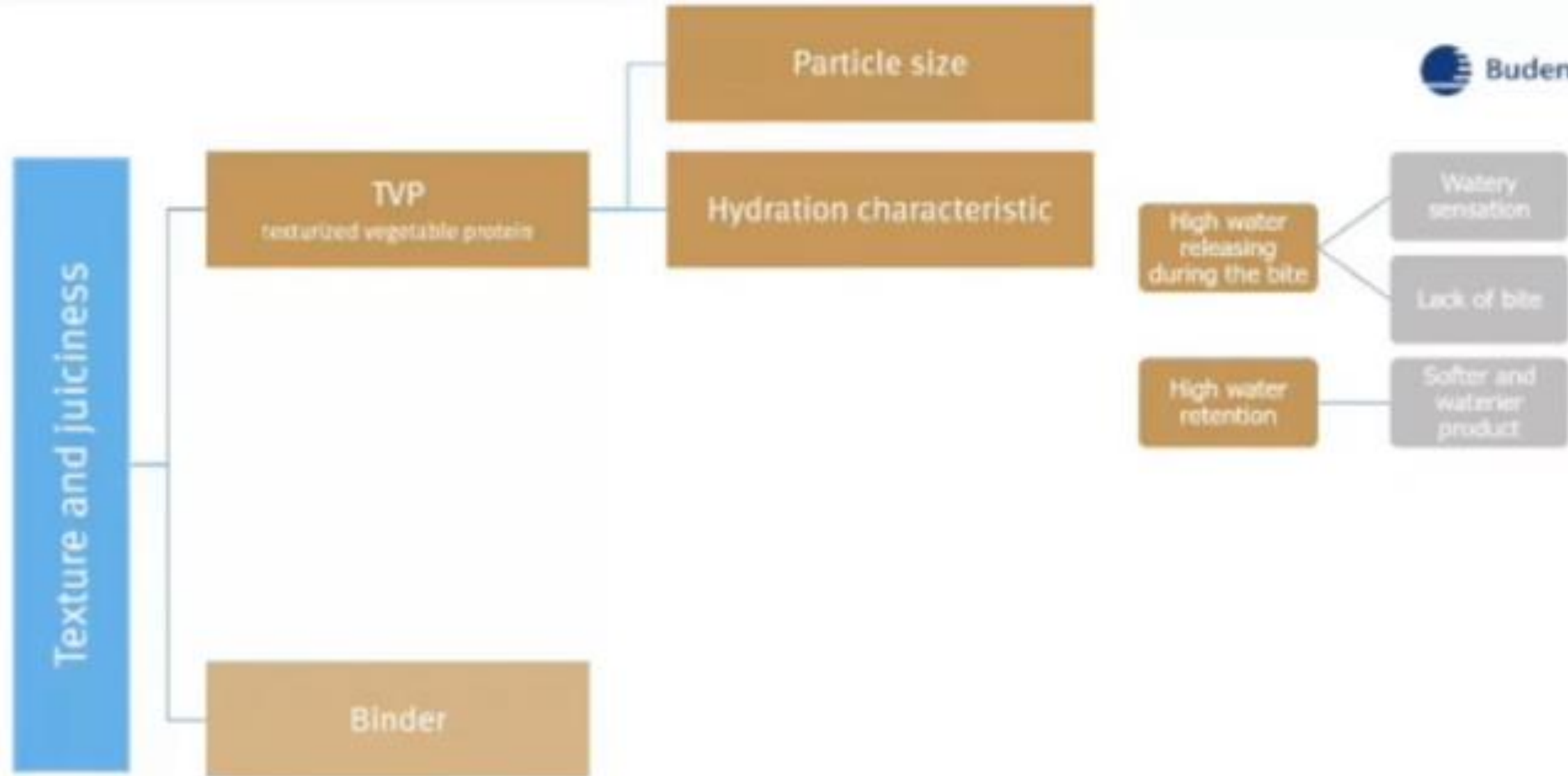
Lack of texture

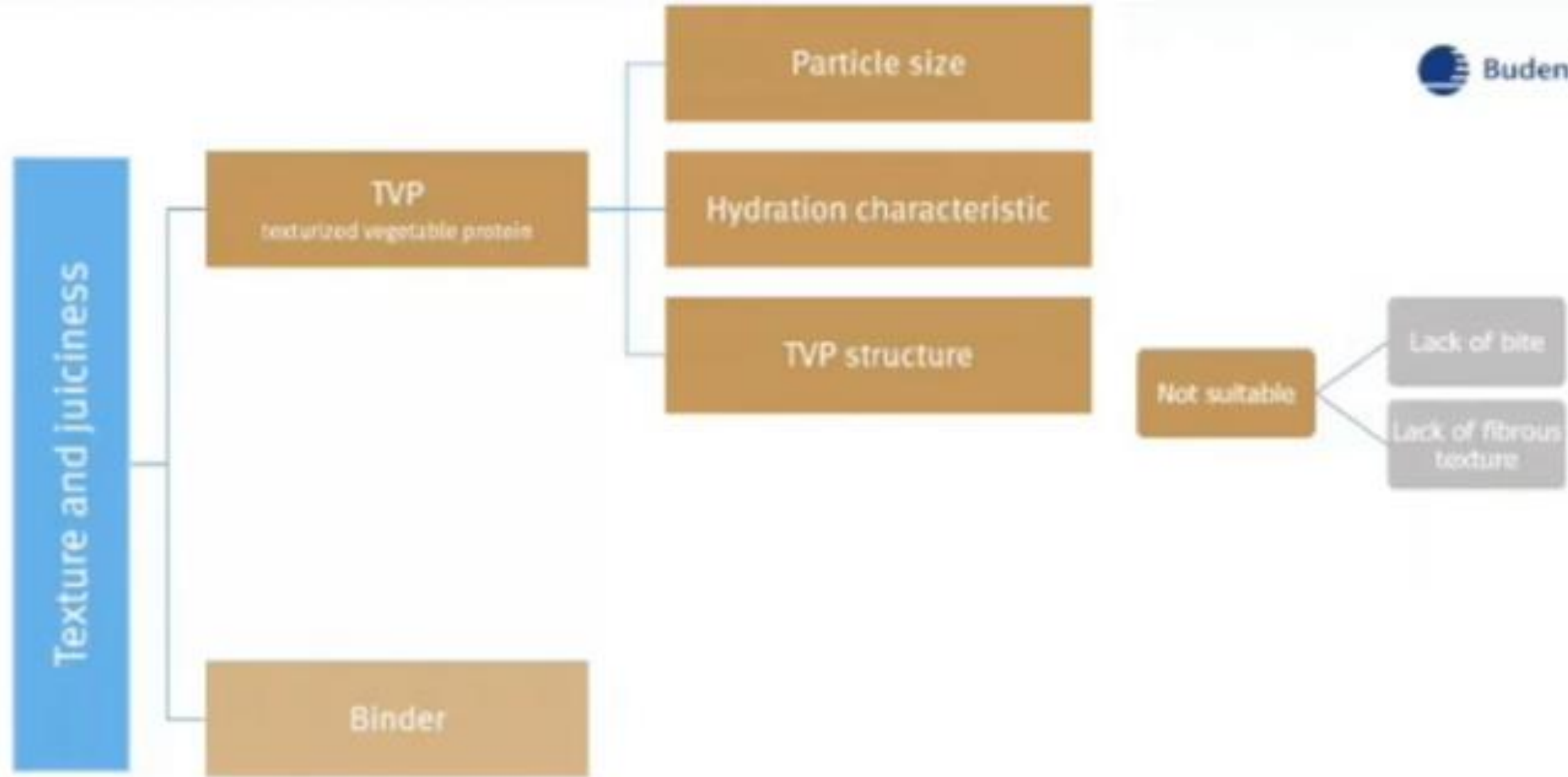
Large

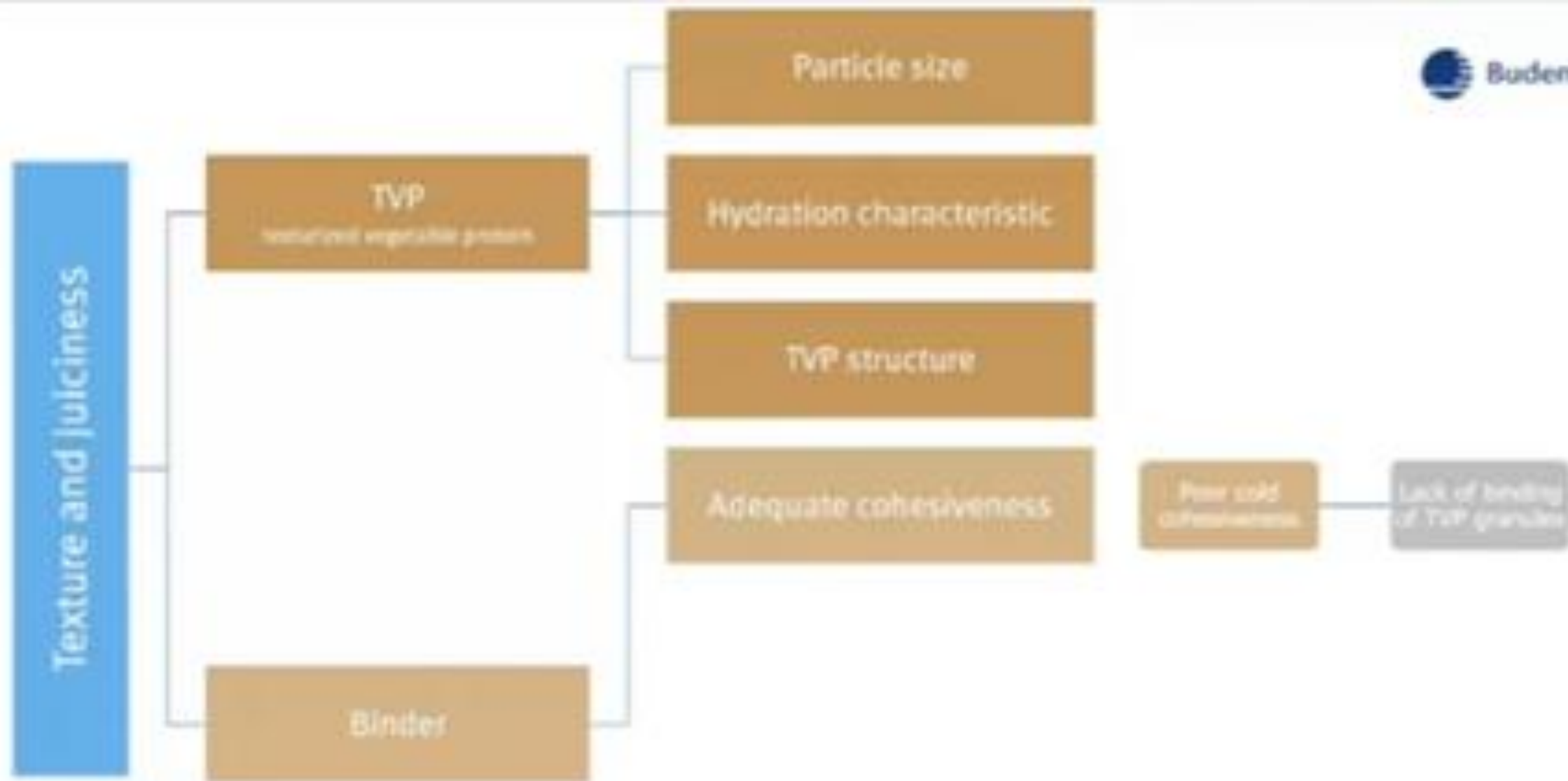
Lack of binding

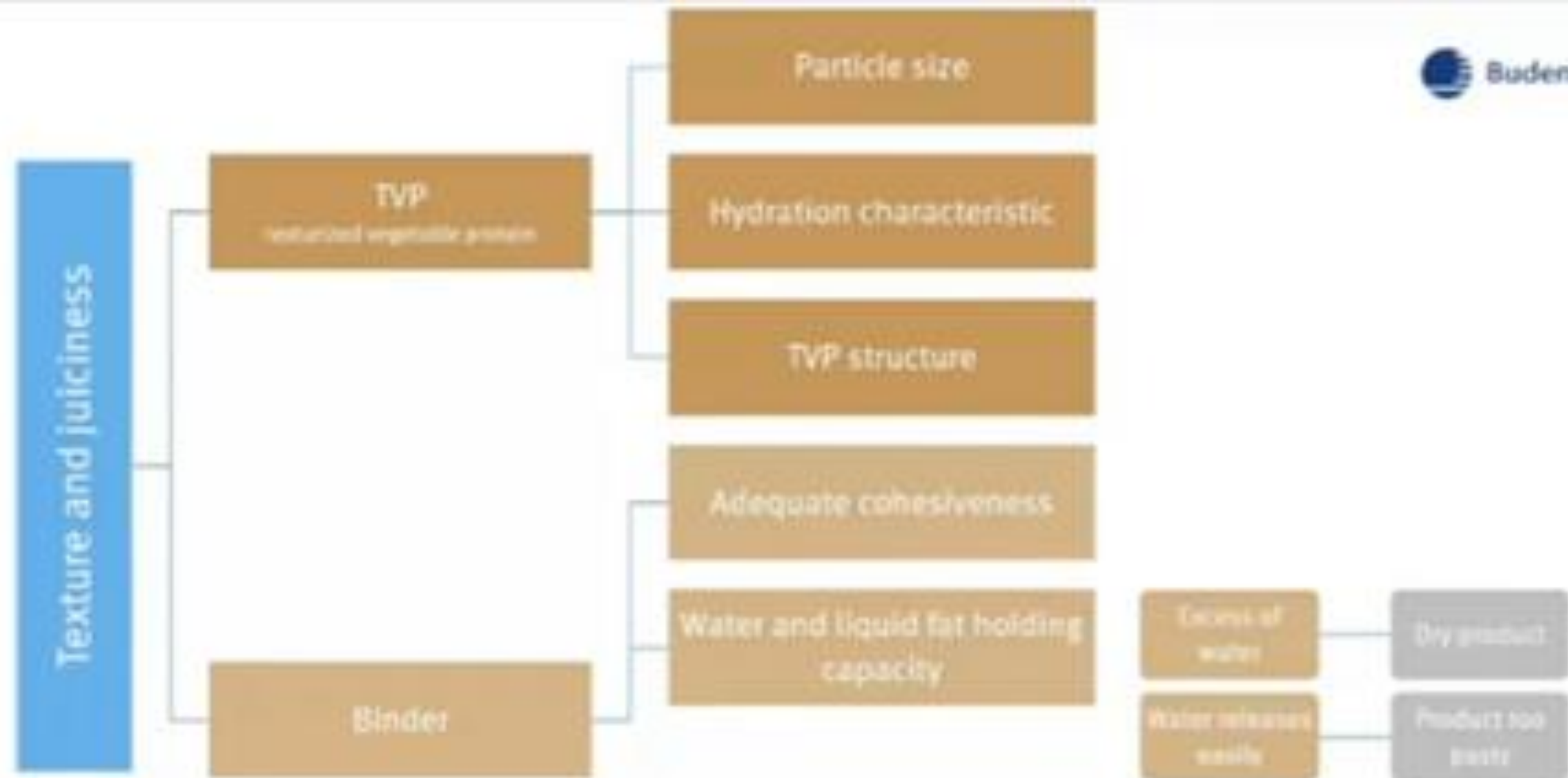
The granules as isolated entities

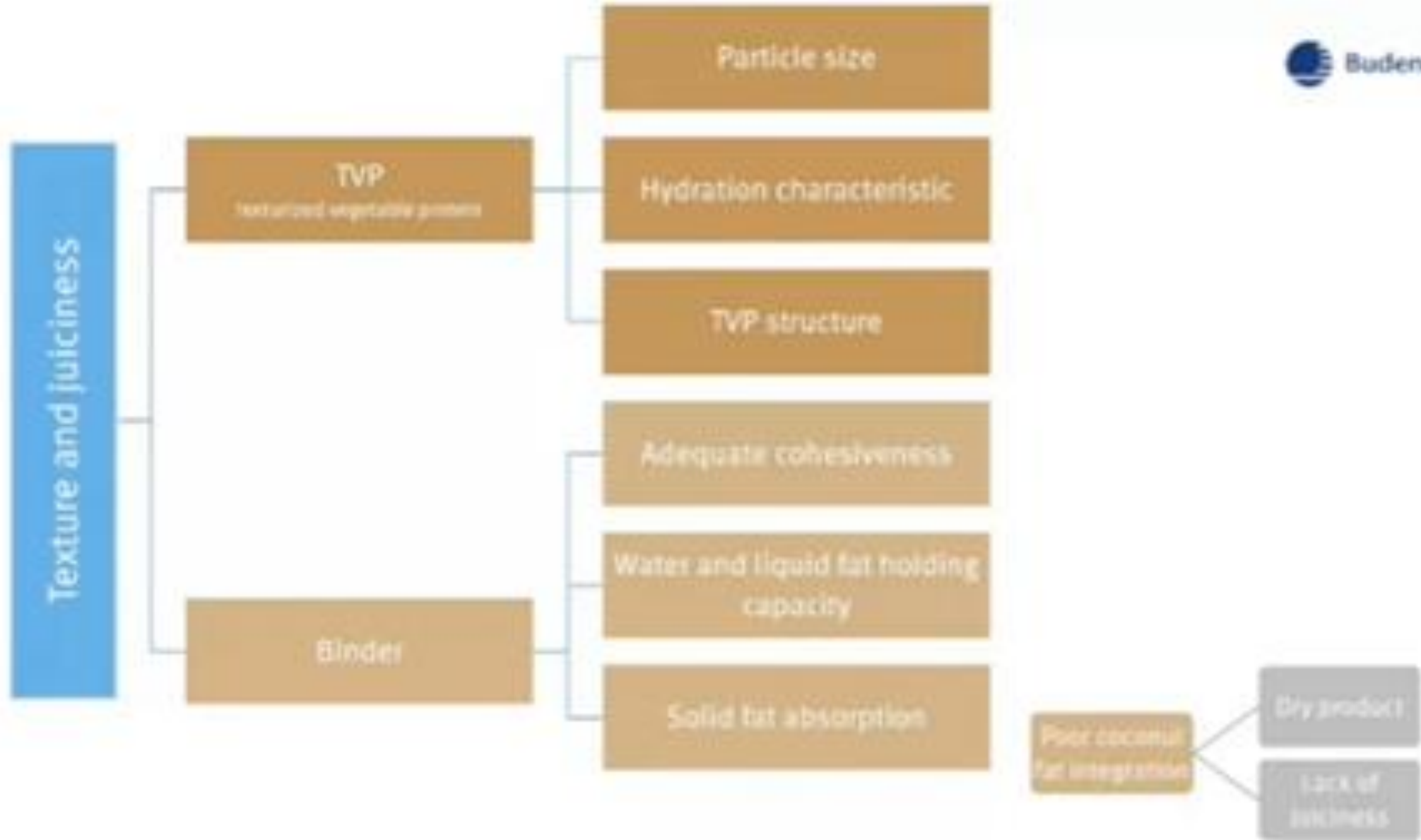


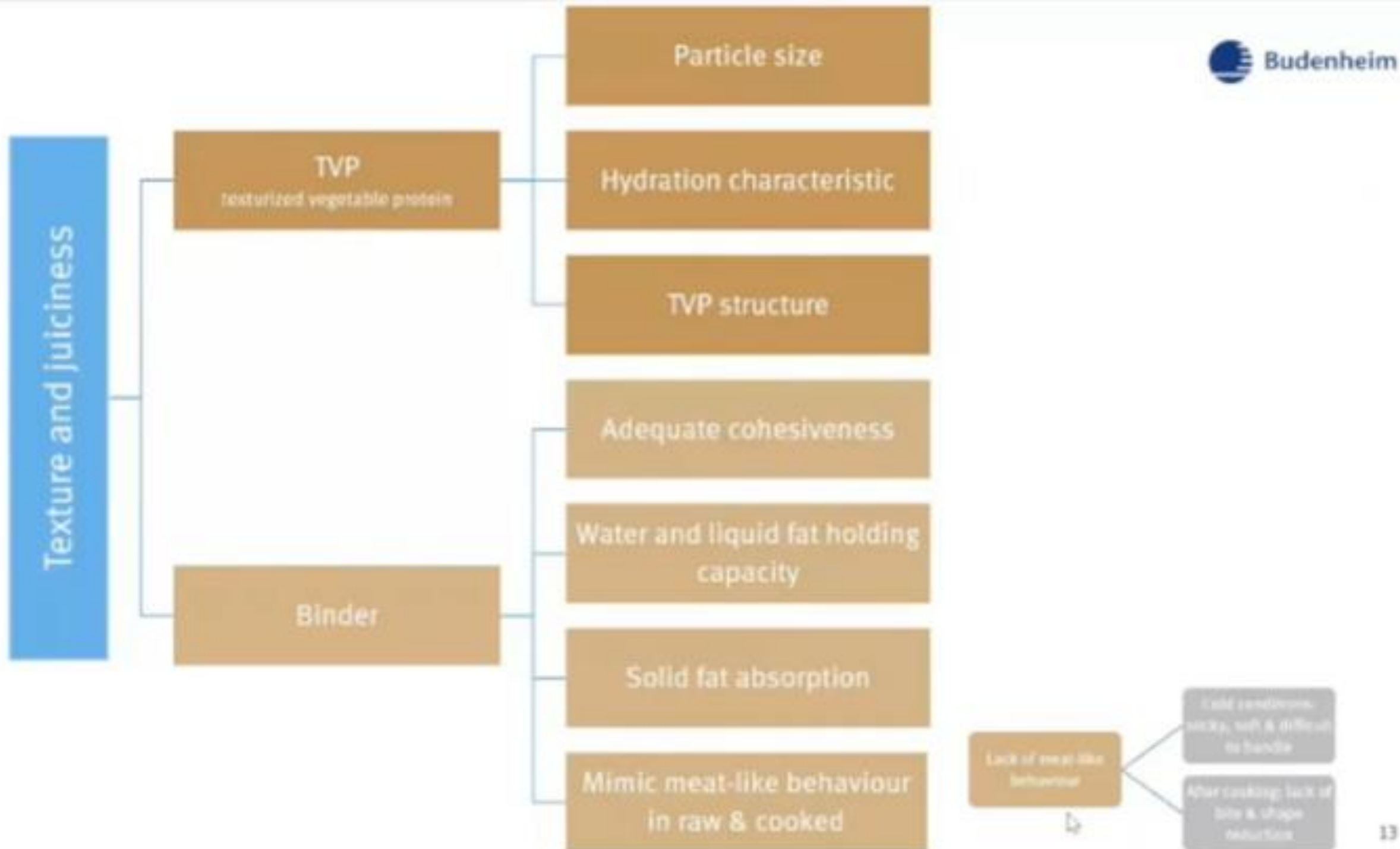


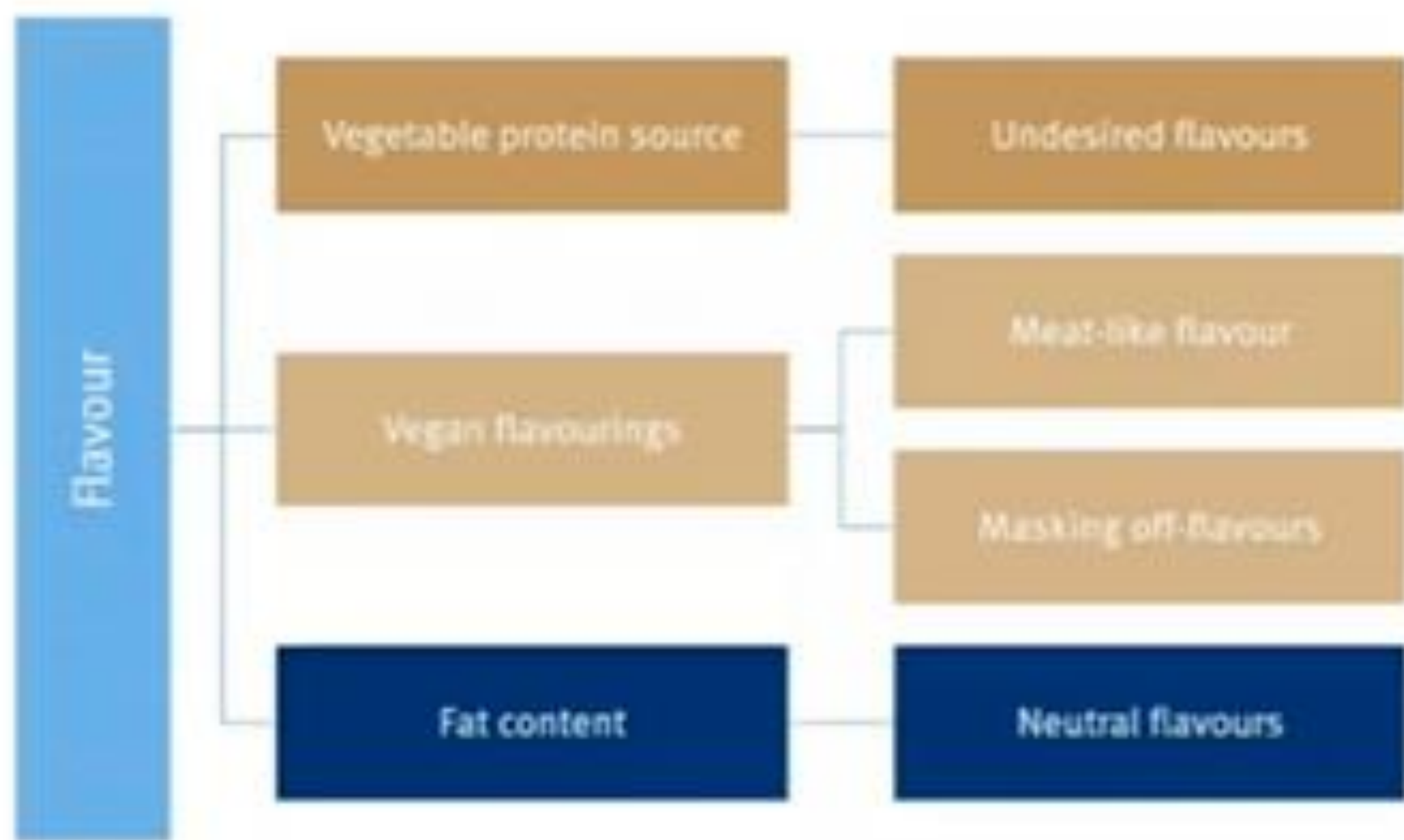


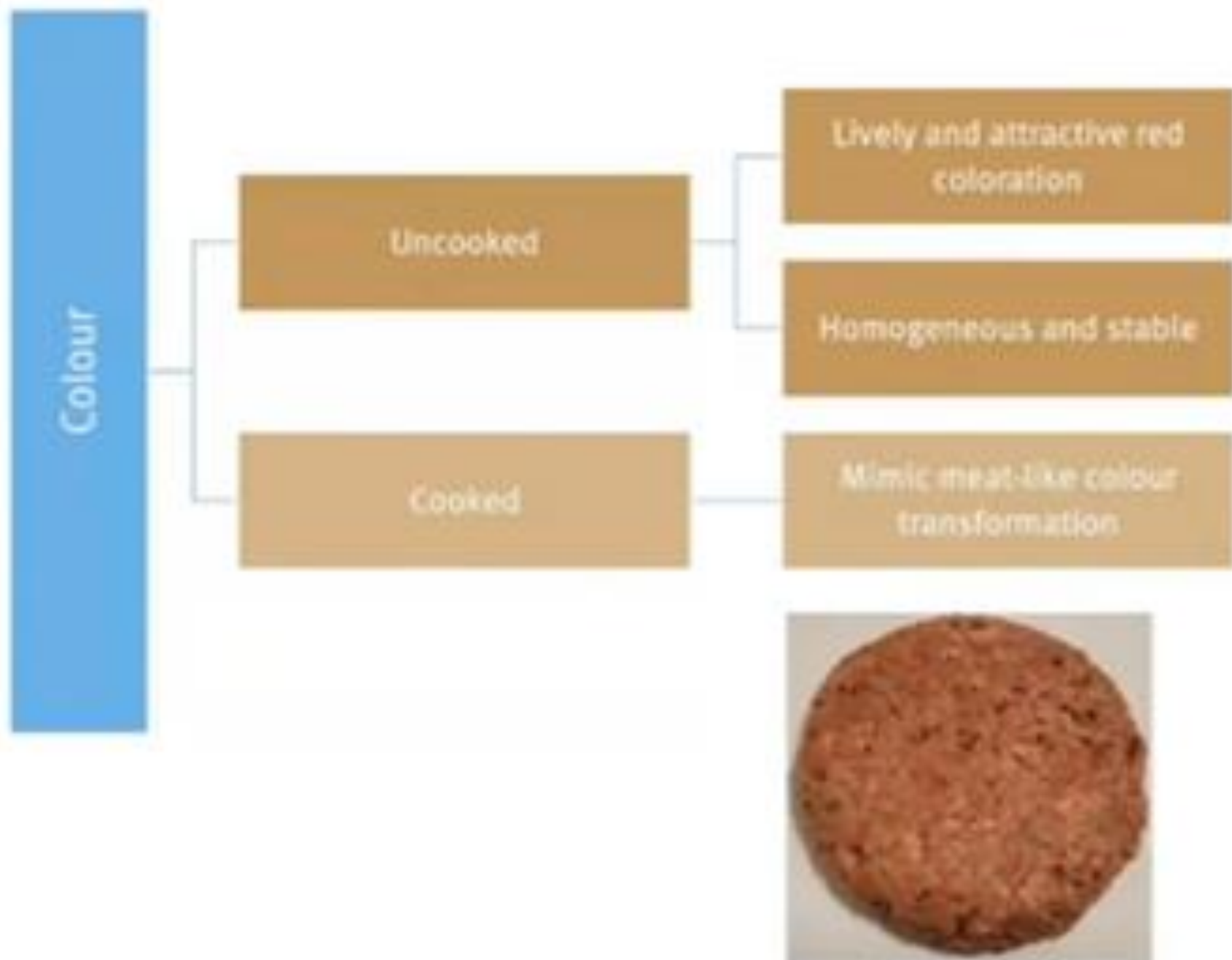


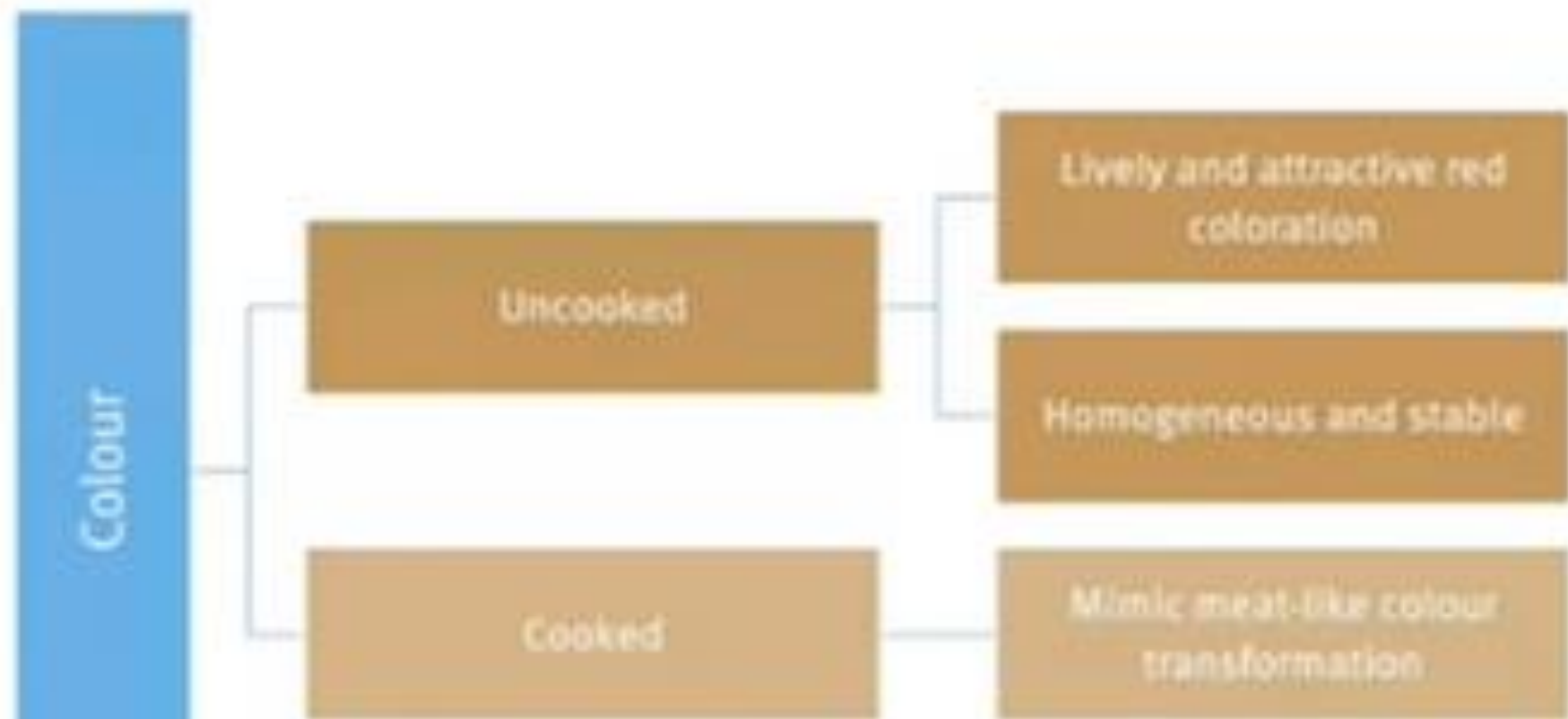












Colour

Uncooked

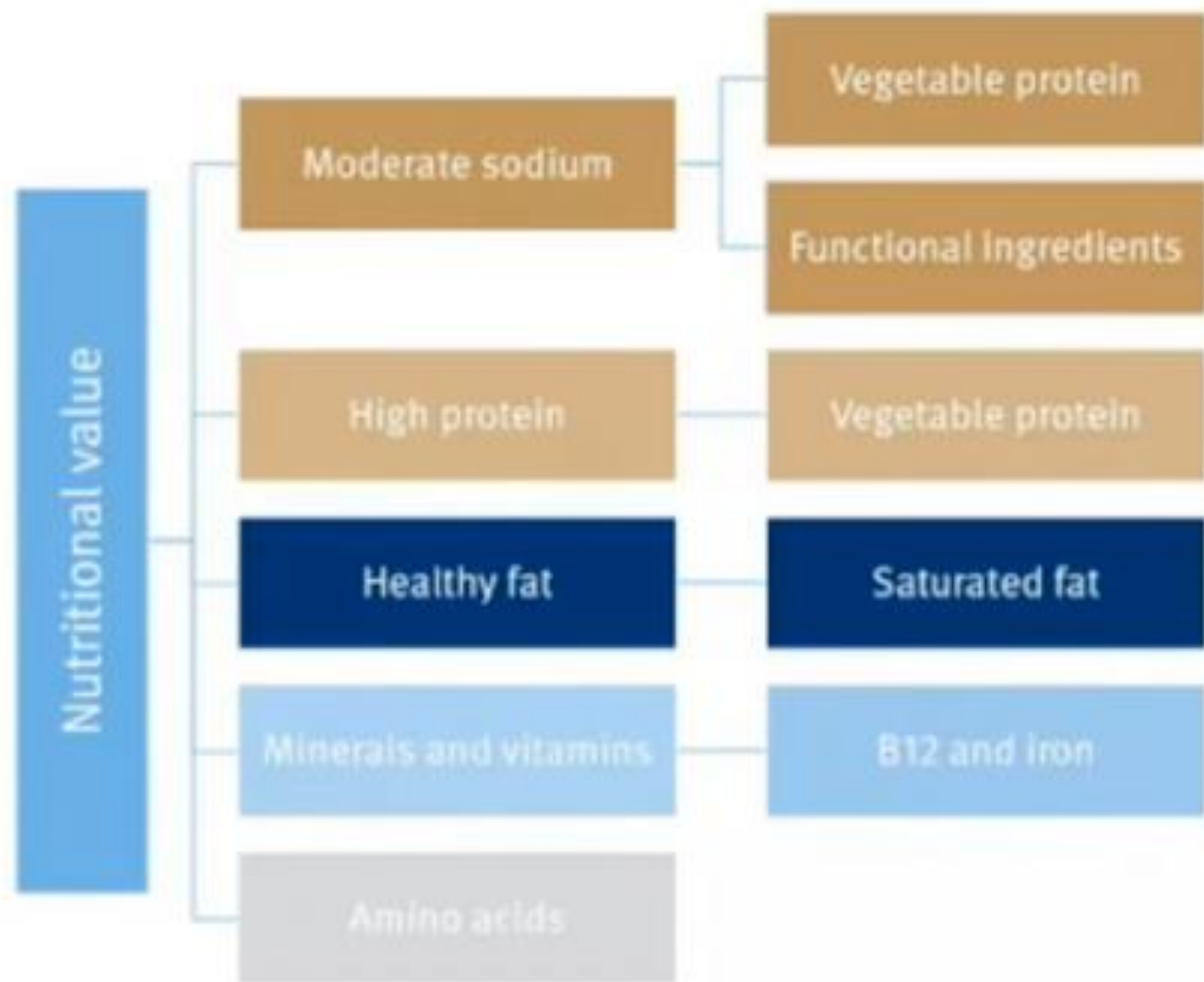
Lively and attractive red coloration

Homogeneous and stable

Cooked

Mimic meat-like colour transformation





Example of a typical plant-based meat burger nutritional value

Energy	Fat	Saturates	Sugars	Salt
815kJ 195kcal	7.8g	4.4g	2.1g	1.9g
10%	11%	22%	2%	32%

of the reference intake*

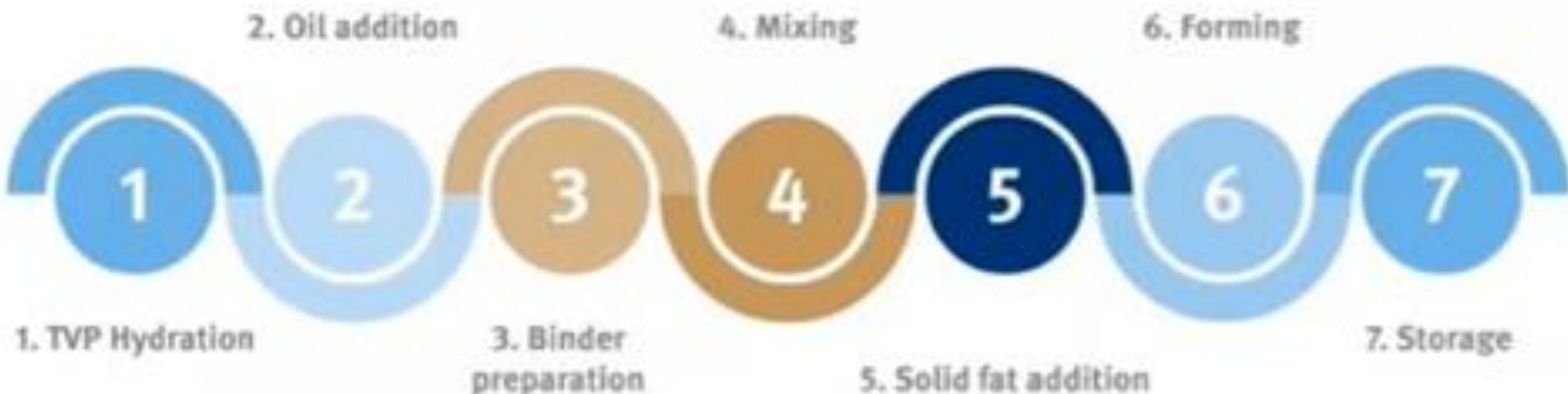
Typical values per 100g Energy 777kJ / 185kcal

INGREDIENTS: Water, Textured Pea Protein (10%), Rapeseed Oil, Pea Protein (7%), White Onion, Rice Flour, Maple Syrup, Pea Fibre, Flavouring, Dextrose, Stabiliser (Methyl Cellulose), Maize Flour, Salt, Colours (Plain Caramel, Beetroot Red), Thyme, Sage, Black Pepper, Maize Starch, Sunflower Oil.

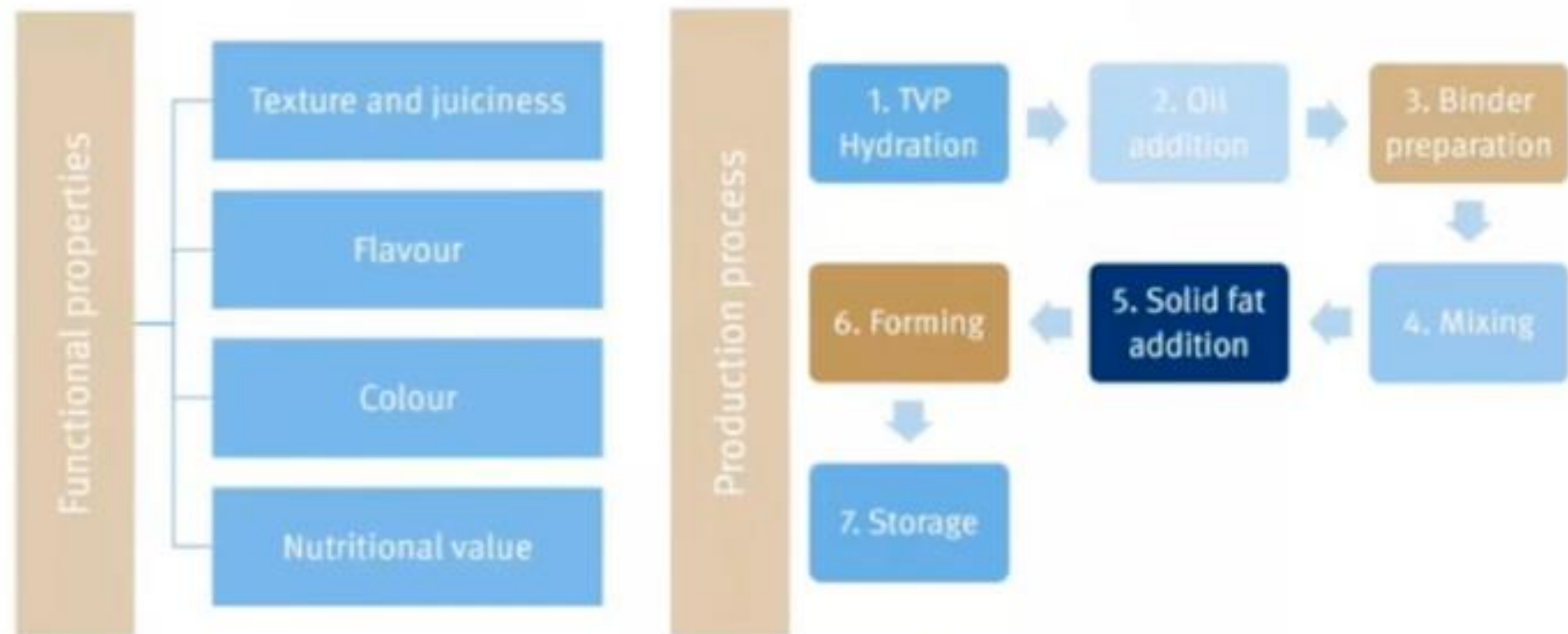
The importance of the process



Processing steps



Recap of plant-based meat-like challenges



ABASTOL® VEG

Meat alternative plant-based burger that mimic the look, feel and taste of beef.

Optimal performance in the most common vegetable proteins.

Meat-like functionality that replicate colour, texture and bite.

Stabilizes and preserves for an extended shelf-life.

Flavorful, juicy and appetizing meatless experience.

Photograph of a plant based burger prepared with our solution ABASTOL® VEG.

ABASTOL[®] VEG Range

Product range*	Application	Meat-like colour behaviour	Extended antimicrobial protection	Rapid binding effect	Freeze-thaw stability	Masks off flavours	Improves texture and juiciness
ABASTOL [®] VEG 6001	Plant-based meat alternative raw minced products.	●				●	
ABASTOL [®] VEG 6503	Plant-based meat alternative raw minced products.	●		●	●	●	●
ABASTOL [®] VEG 6504	Refrigerated plant-based meat alternative raw minced products.	●	●	●	●	●	●



Appearance?

Organoleptic properties?

Nutritional values?

What else?

Tell us what you need, and we will adjust the ingredients for your recipe and recommend the process steps that best suits your needs.

Nutrition Facts

Serving size (100g)

Amount per serving

Calories 162

Total Fat 9,7g

Saturated Fat 4,2g

Salt 1,3g

Total Carbohydrate 5,2g

Total Sugars 0,4g

Fibre 1,9g

Protein 15,4g

Typical recipe for plant-based meat burgers

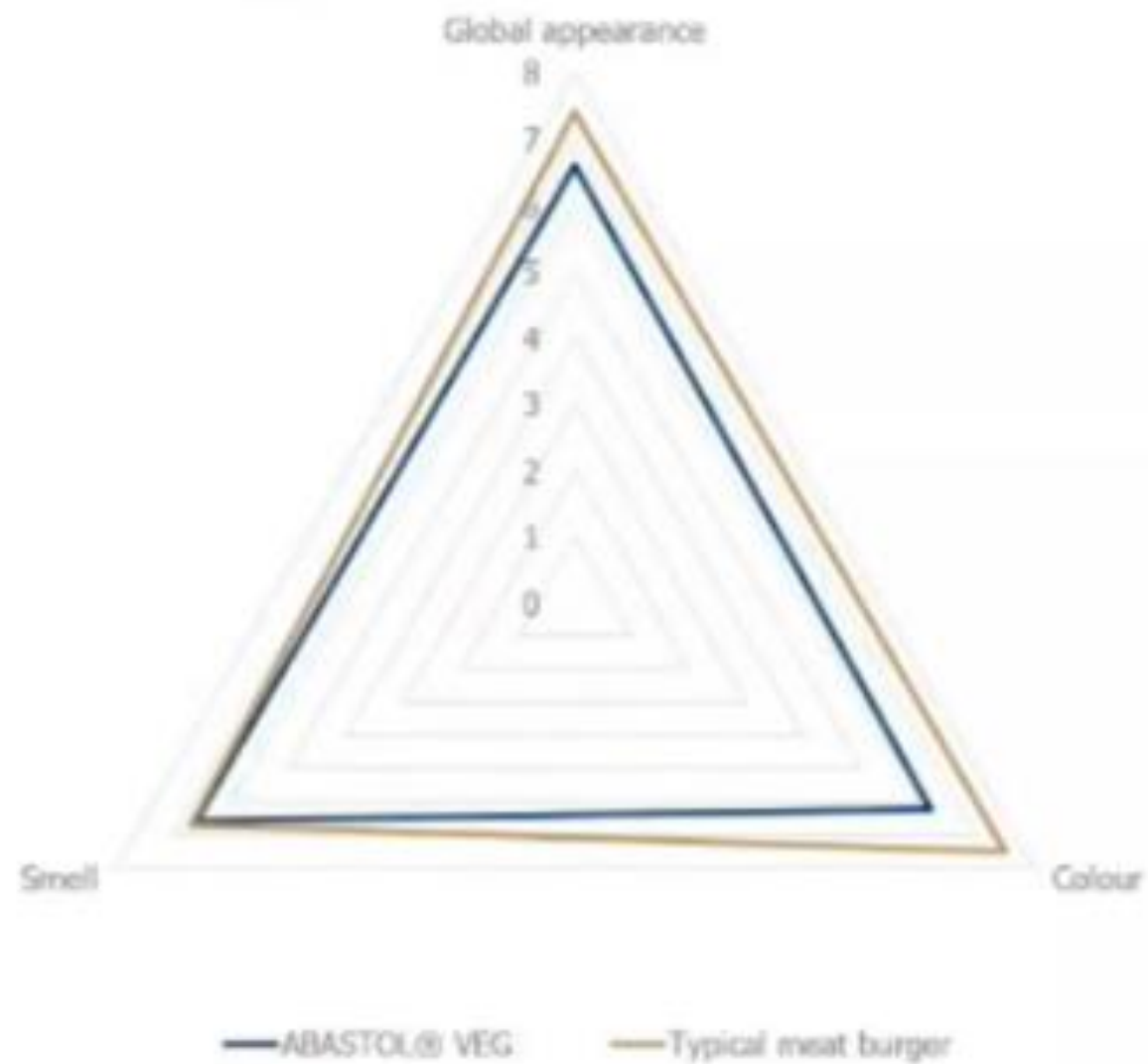
Ingredients

- Water
- Texturized pea protein
- **ABASTOL® VEG 6503**
- Sunflower oil
- Coconut fat
- **ABASTOL® VEG 6001**

Processing steps

1. Dissolve **ABASTOL® VEG 6001** in cold water.
2. Mix in the blender the TVP and the previous colored solution.
3. Then add sunflower oil.
4. In the cutter, add **ABASTOL® VEG 6503** and cold water and mix.
5. Add the emulsion formed in the cutter into the blender with the colored TVP.
6. Add the coconut fat.
7. Form the vegan patties and store in the fridge or freeze immediately.

Sensorial analysis - raw



ABASTOL® VEG

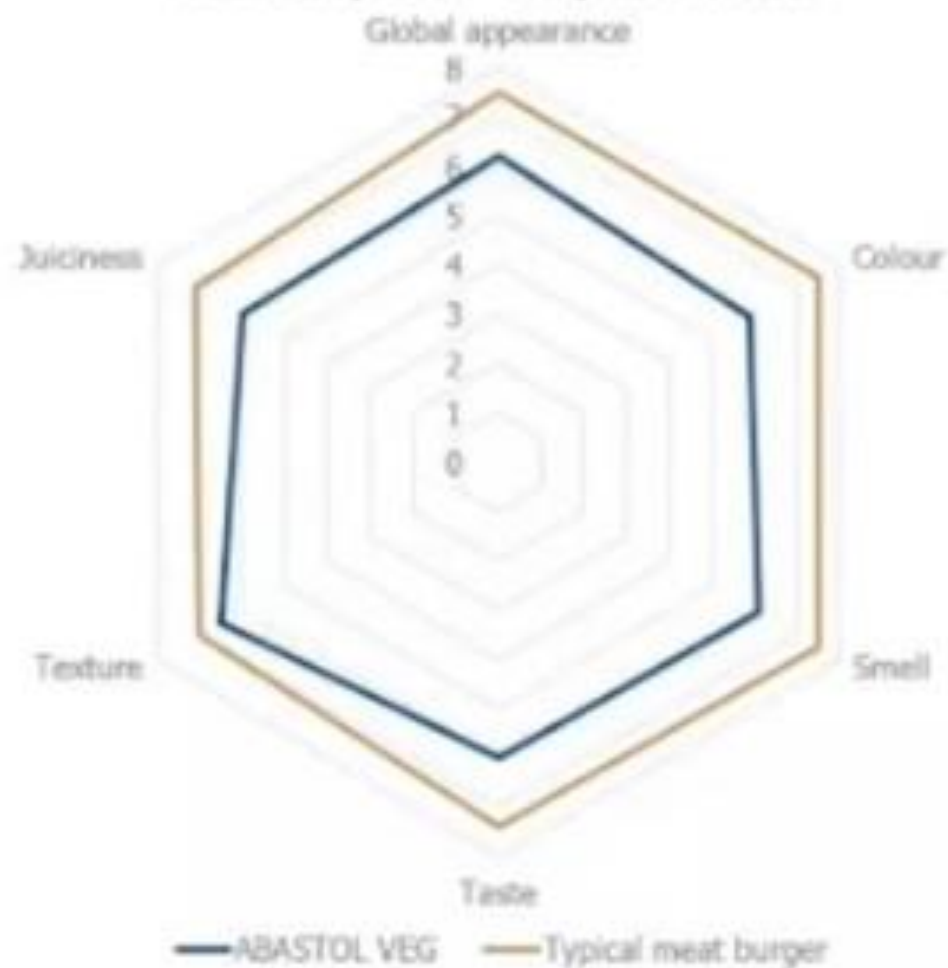


Typical meat burger

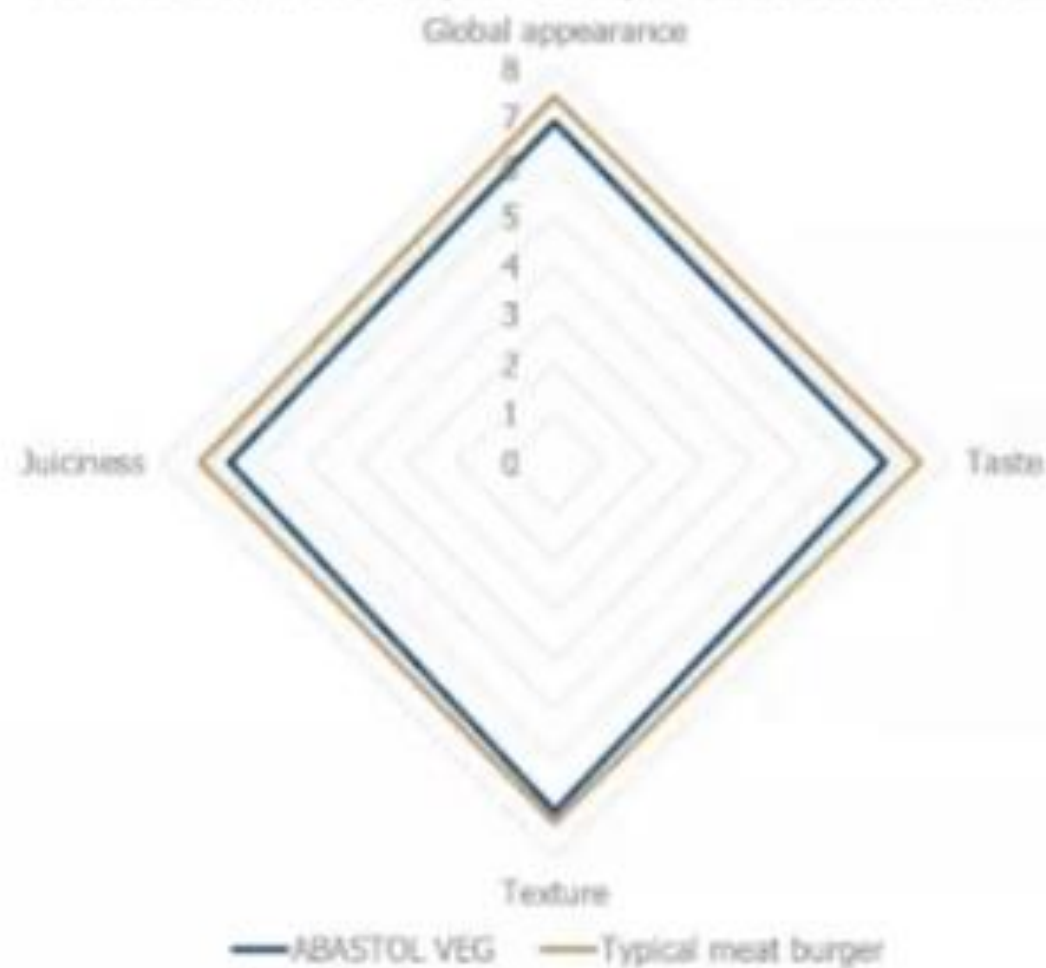


Sensorial analysis - cooked

Served plain - only the meat

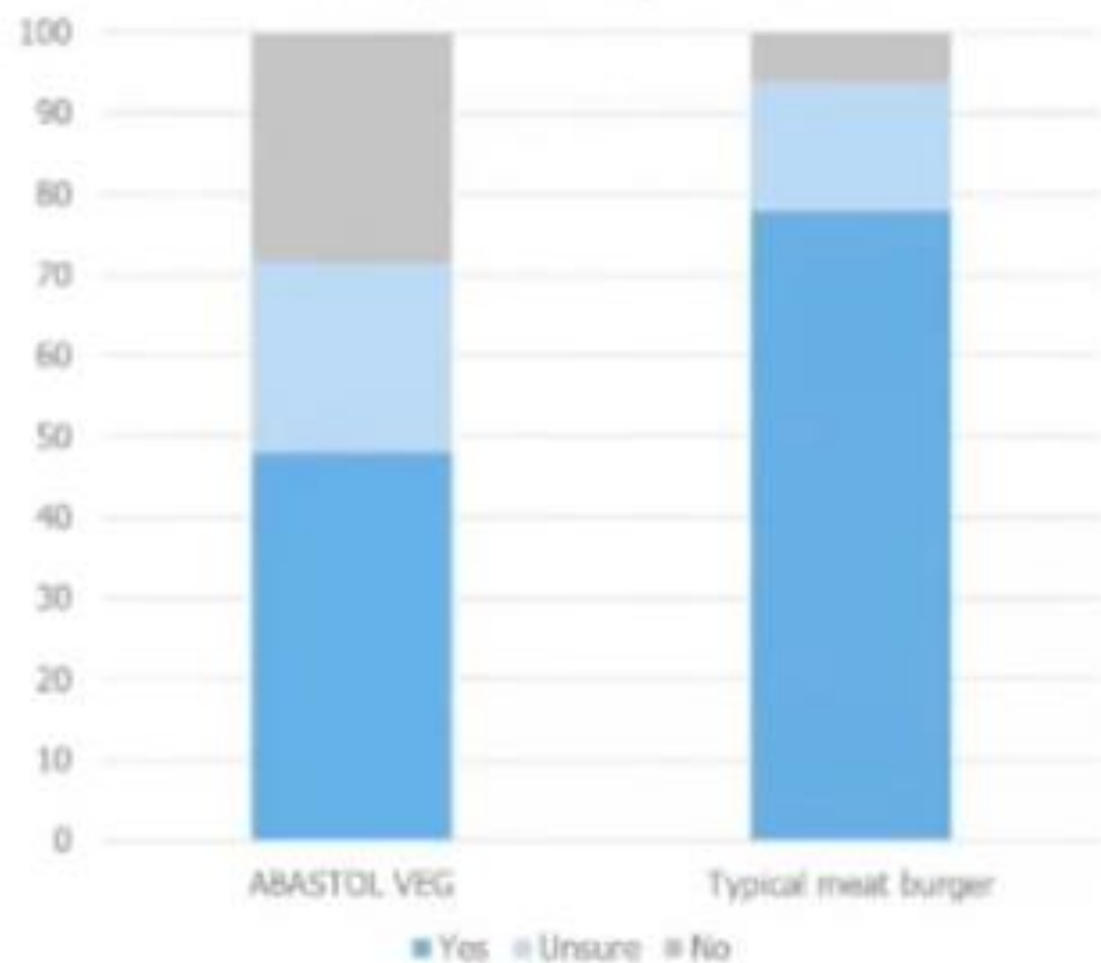


Served with bread, lettuce, cheese and sauces

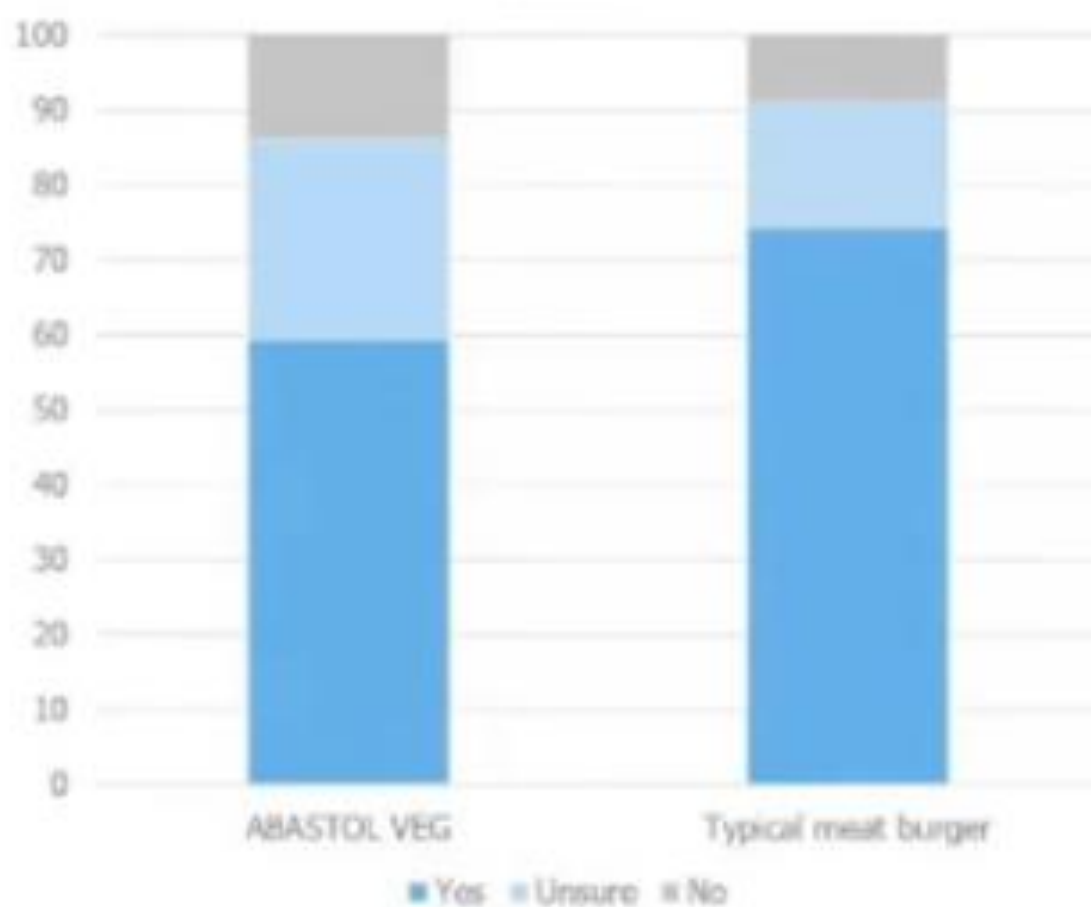


Sensorial analysis – purchase intention

Served plain - only the meat

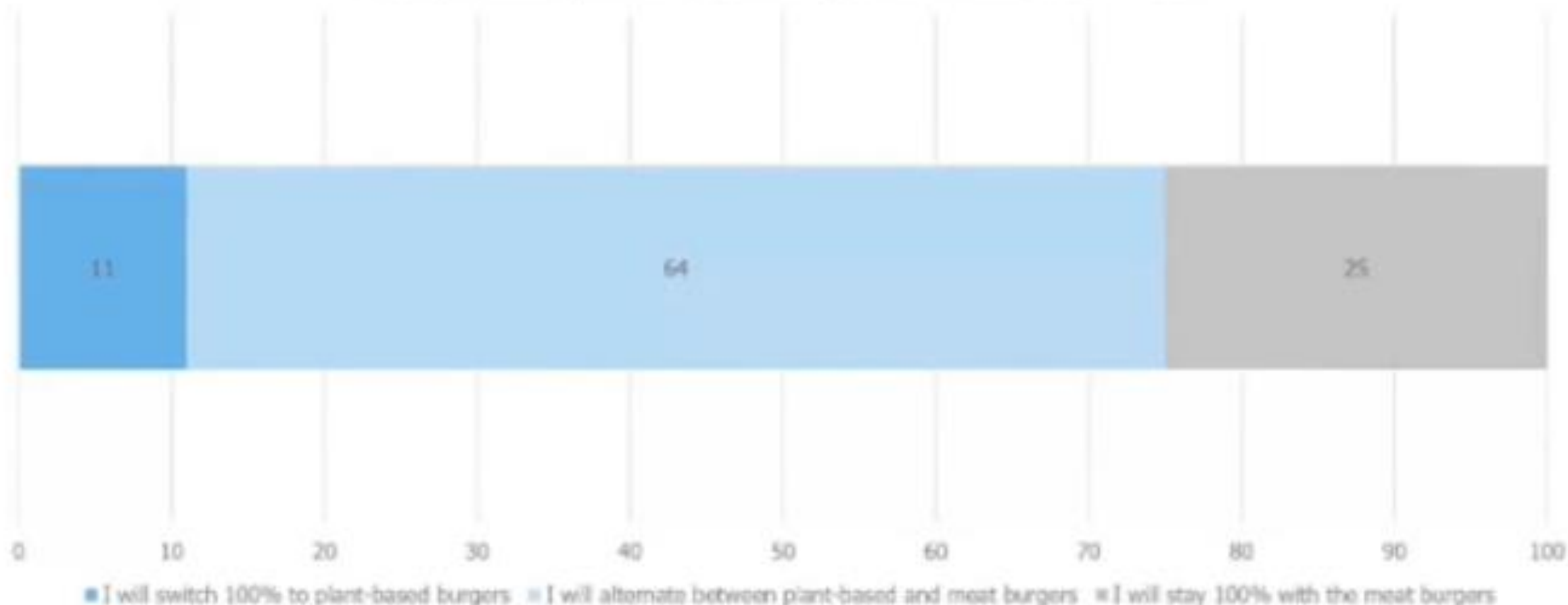


Served with bread, lettuce, cheese and sauces

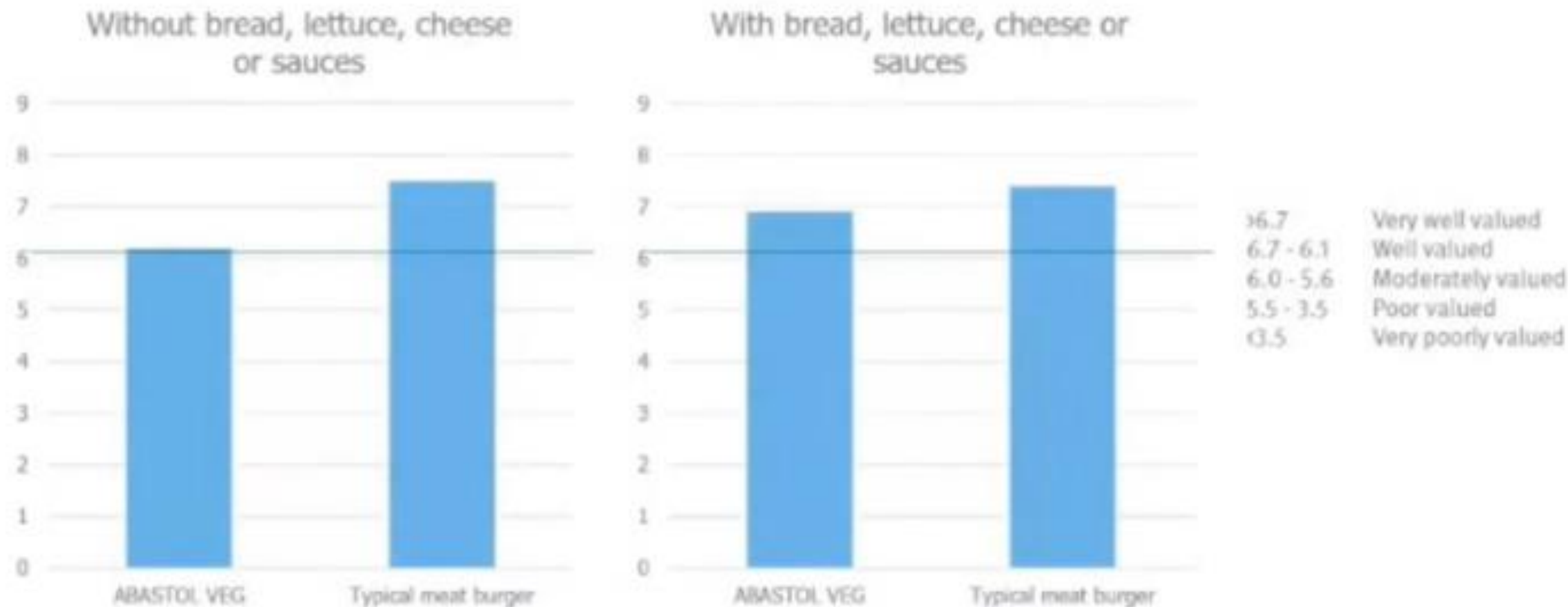


Sensorial analysis – purchase intention

After knowing the list of ingredients, nutritional values and sensory characteristics of both products, which of these options would you choose?



Sensorial analysis – AINIA consumer benchmark







**Take a bite &
try it yourselves!**

Photograph of a plant-based burger prepared with our solutions AB45713, * 100.