

**The mycelium  
revolution**

**15/11/22** GIRONA

FÓRUM CÀRNICO  
Y DE LA PROTEÍNA  
ALTERNATIVA

TECNO  
**CARNE**  
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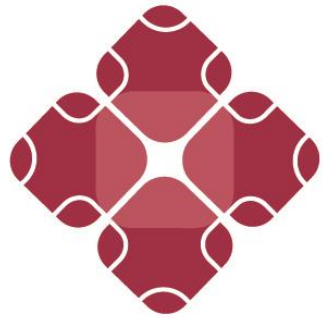
**IRTA**<sup>®</sup>

  
**INNOVACC**  
CLÚSTER CATALÀ DE LA CARN  
I LA PROTEÍNA ALTERNATIVA



**ESTEVE ESPUÑA**

**PRESIDENT CLÚSTER INNOVACC**  
**CEO ESTEBAN ESPUÑA**



# INNOVACC

CATALAN MEAT AND  
ALTERNATIVE PROTEIN CLUSTER

**The wave of alternative proteins: changes, challenges and opportunities for the agri-food sector**

**FÓRUM CÁRNICO  
Y DE LA PROTEÍNA  
ALTERNATIVA**

Esteve Espuña



**The Mycellium Revolution**

**Girona, 15 de Novembre 2022**



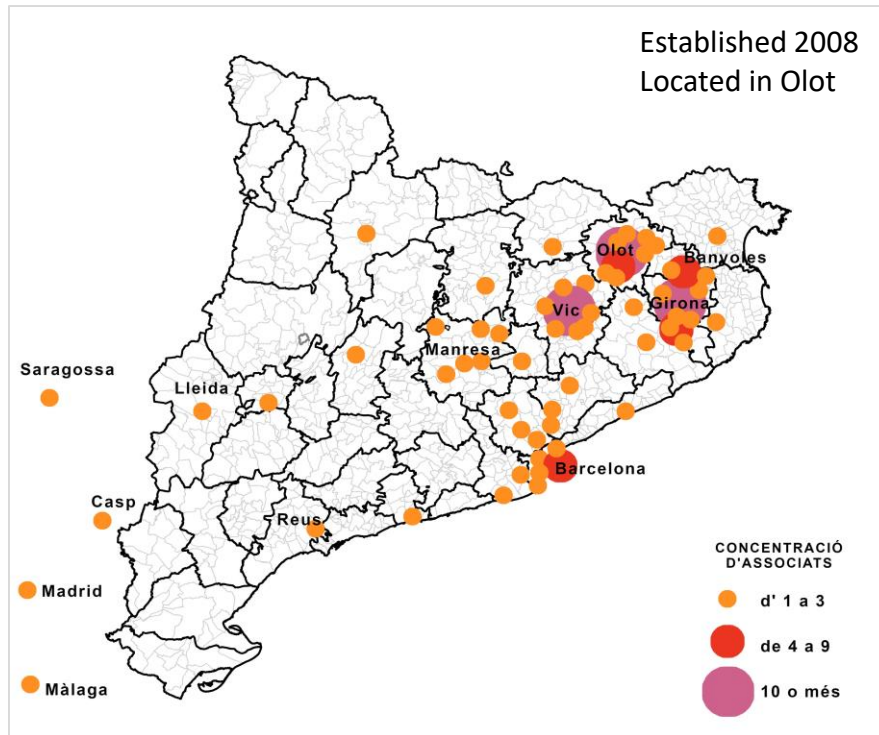


# Agenda

- **INNOVACC**
- **Innovation applied to the alternative protein**
- **Challenges**

# What is INNOVACC ?

INNOVACC is the Catalan cluster for the meat and alternative protein. Our objective is to strengthen the competitiveness of the sector through innovation and cooperation.



126 members

111 companies

15 institutions

7.073 M€ revenue

21.639 employees

34 Active projects (27 as coordinator),  
204 projects since 2008. ( Most with grants )



**INNOVACC connects the sector's value chain through its members. Facilitating the cooperation among the different players of this extensive chain.**





# INNOVACC and the alternative protein

In the mid 2021 following our members INNOVACC started a strategic shift. We enlarged the scope of the cluster from pork to meat and alternative protein.

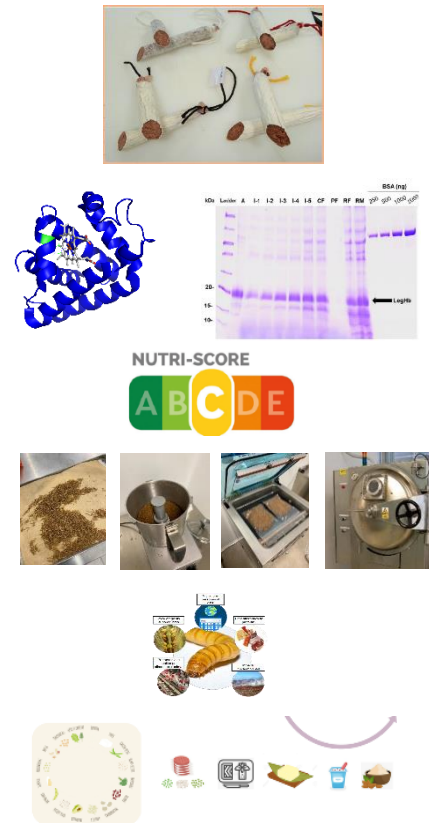
## Name Change



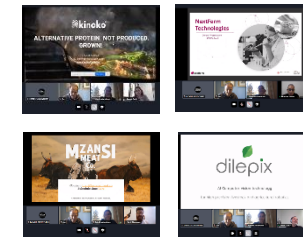
CARN I PROTEÏNA ALTERNATIVA



## Projects



## Activities



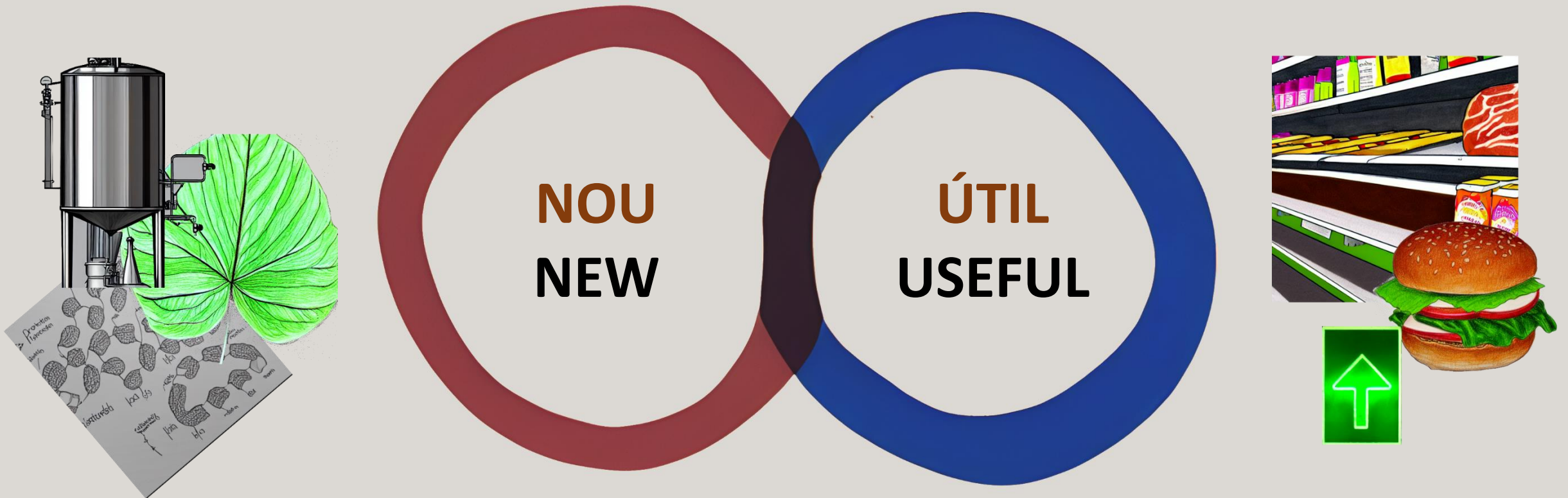
# Fòrum Carni

In previous editions of this congress we went deep in the plant-based and cultivated meat. In this edition we will focus in industry wide topics and dive into the world of fermentation.

Previous Editions	2019	2022
2016 Meat sector	 	   
2017 Meat sector	 	 
2018 Meat sector Carn sense carn	  	   

# What is innovation ?

In broad terms we define innovation as something new and useful.

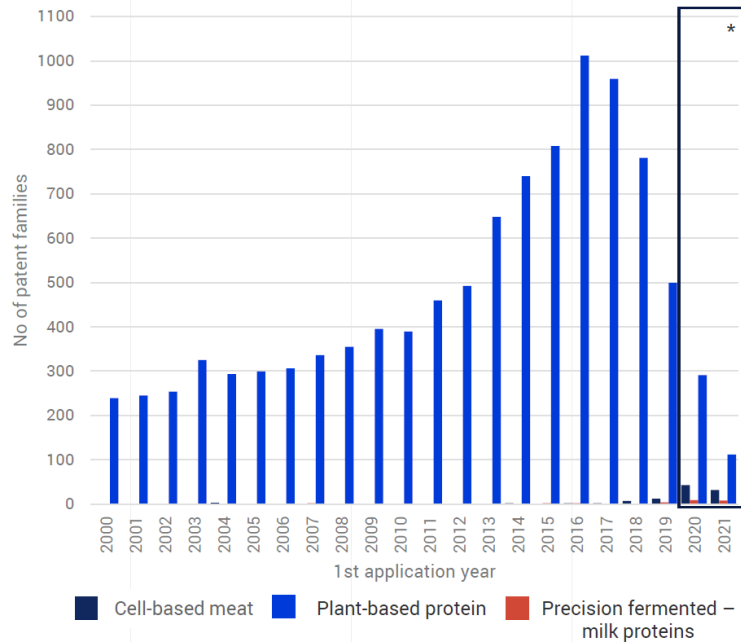




# Patents and transactions

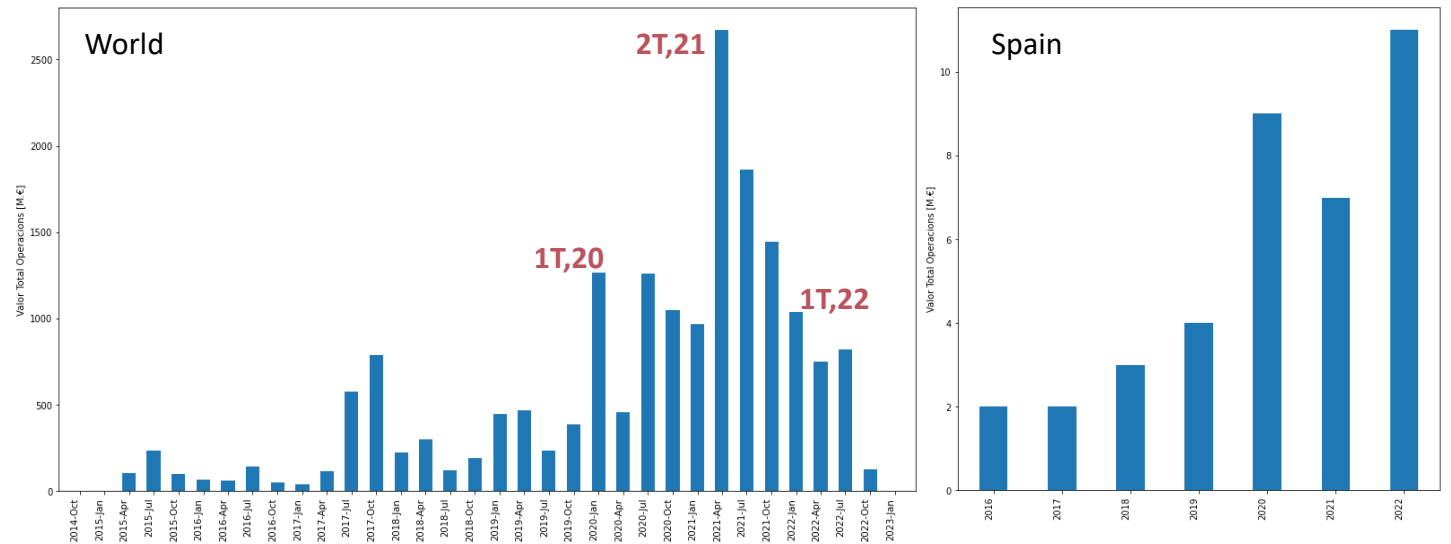
Patents and financial transactions are a good leading indicator for the future of a sector. The market puts resources in innovations with the expectation that they'll reach the consumer.

Total number of patents



\* Incomplete years due to the 18-month delay between filing and publication

Absolute value of transactions in the alternative protein market



Font: Questel, Dealroom.co (dades recollides, anàlisi intern)

# What does “new” mean ?

We understand as “new” those developments that are not existent in the market. In the field of alternative protein these developments are increasingly technological.

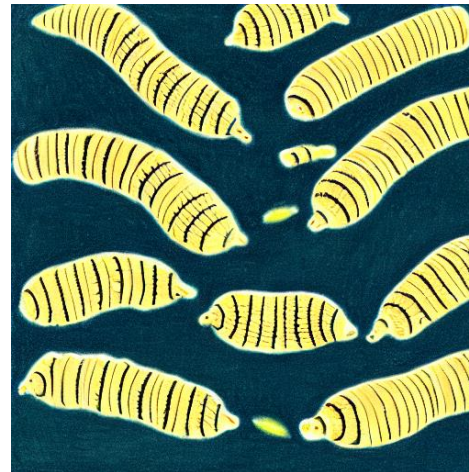
**Plant-Based**



**Cultivated meat**



**Insects**



**Fermentation**



# What does useful mean ?

In the alternative protein usefulness is key. The innovations will be useful as long as they help us reach the goal of sustainably feeding a growing population with healthy food.

## Useful

Hygienic Factors

Market / Distribution

Consumer

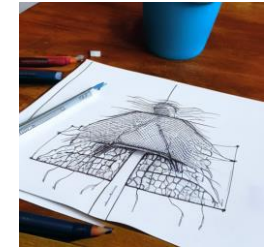


## Challenges

- Food safety
- Regulations (Novel Foods) / Certifications
- Allergenic reactions
- Scale and availability

- Market size : Segment x Velocity
- Shelf placement / Naming / Category
- Category Perception
- Shelf life and packaging

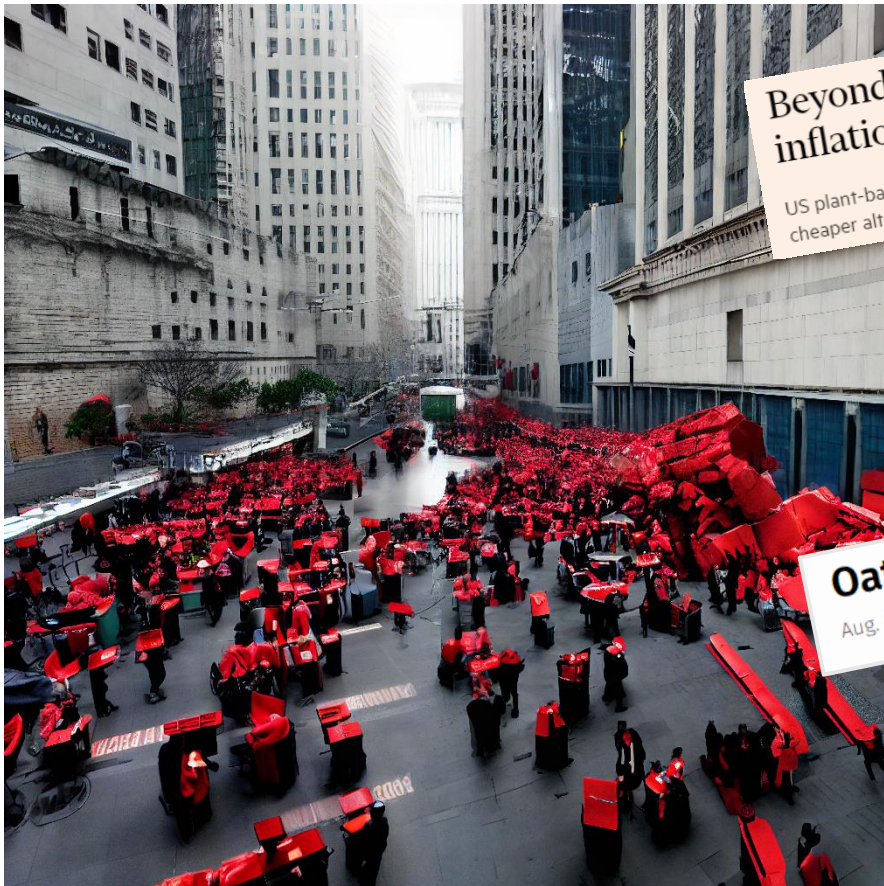
- Flavor, texture and color
- Cost
- Short labels / Nutritional quality
- Ease of use and tradition
- Origen / Local / Traceability





# Have we reached the peak ?

The last few months have been filled with negative news regarding the alternative protein market. Specially among American public companies. But hey, what sector hasn't!



**Beyond Meat cuts jobs and sales forecast as inflation takes toll**

US plant-based meat group to reduce workforce by almost a fifth as consumers seek cheaper alternatives  
Emiko Terazono in London OCTOBER 14 2022

**After billions in investment, plant-based meat is a branding catastrophe**

October 11, 2022 Adam Hanft

**Oatly Cuts Capital Spending in Half**

Aug. 5, 2022

**Plant-based meat sales declining, industry possibly suffering 'perception problem'**

Saturation of market, perception problem being blamed for declining sales

CHICAGO — A handful of plant-based categories are seeing an uptick in adoption, but a much larger portion are seeing declines in penetration, according to data from the Brightfield Group.

The company's consumer insights platform found the portion of shoppers purchasing plant-based creamers fell 25% in the second quarter of 2022, while those purchasing plant-based sausage and fish alternatives fell 17%. Penetration also declined for dairy-free yogurt (down 9%), dairy-free cheese (down 8%), burger alternatives (down 7%), chicken alternatives (down 6%) and dairy-free ice cream (down 3%). Only plant-based frozen meals and plant-based bacon saw modest gains, up 5% and 1%, respectively.

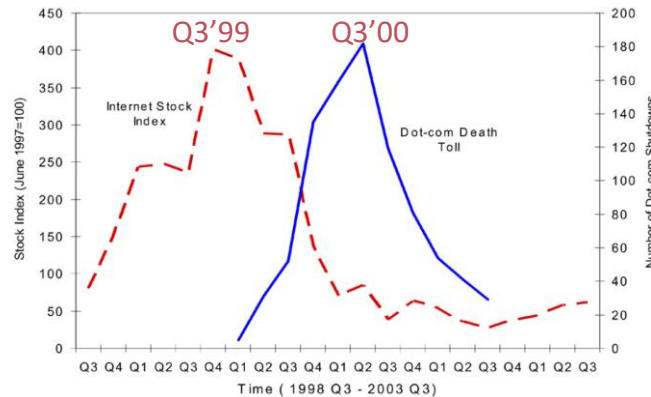
## Is The Plant-Based Meat Trend On The Decline?

Font: Varis diaris, recopilat Octubre 2022

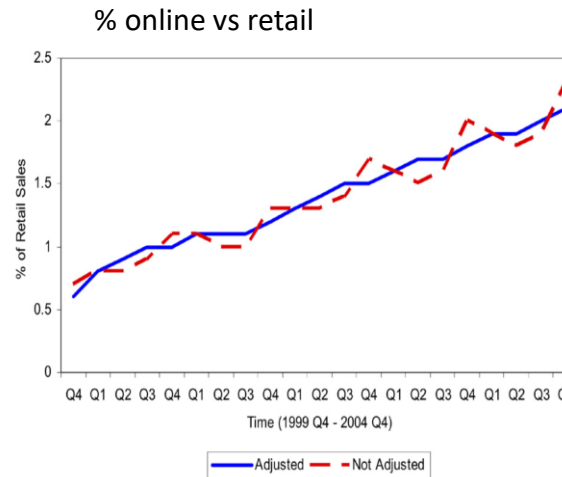
# Boom and bust of the .Com sector

Highly technological sectors are rarely peaceful. Not unlike what we see in the alternative protein market .com suffered major market turbulences in the 2000s.

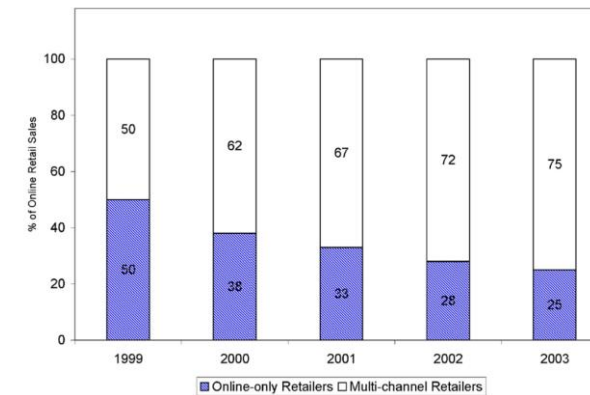
Boom and bust of the .coms



An alternative theory



% mutichannel vs pure online



What was behind it ?

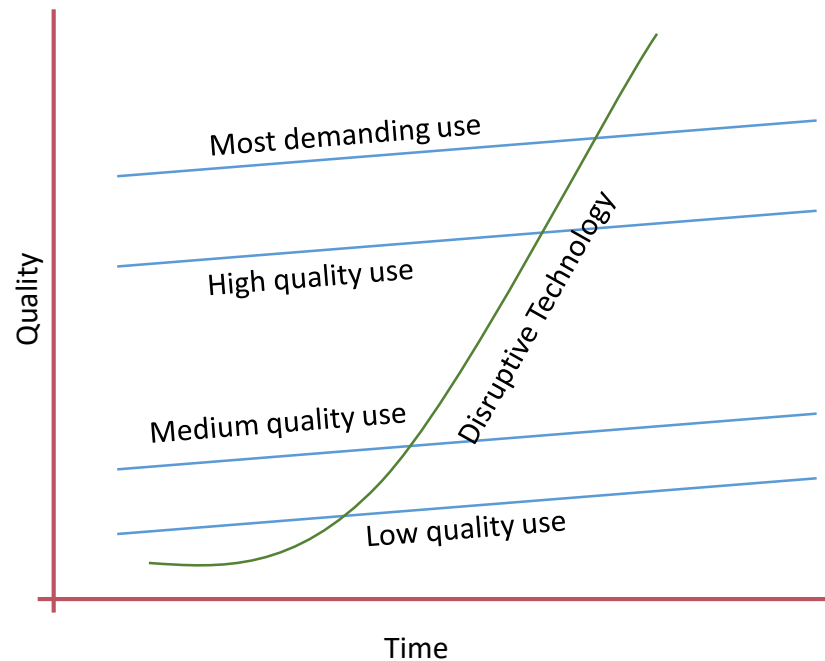
- Bubble ?
- Predictable margins ?
- Market size ?

- As the market grows technological complexity increases and established companies might gain advantages.
- During this cycles a lot of new technologies are created. And these will serve as the base for the next cycle.

# Disruptive innovation

The emergence of technologies that are seen as lower quality presents a dilemma to established companies.  
Will this be the technology that will change our industry ?

Emergence of a disruptive technology



## Does this apply to us ?

Initial phase :

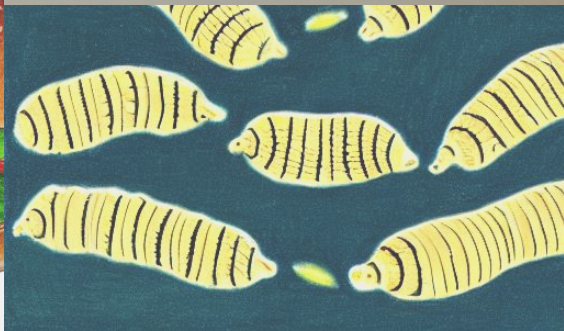
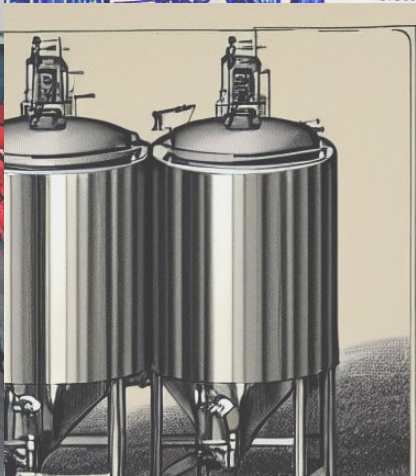
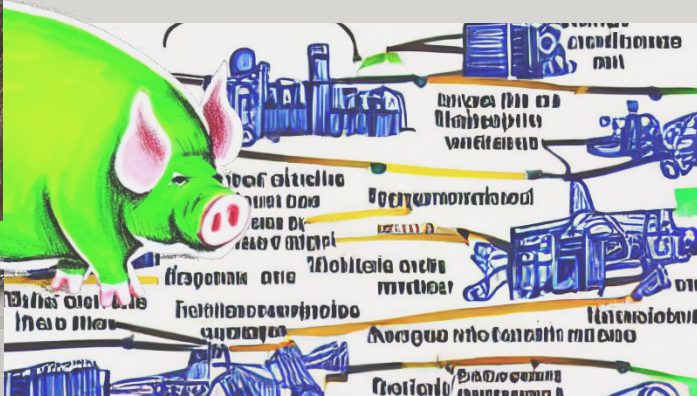
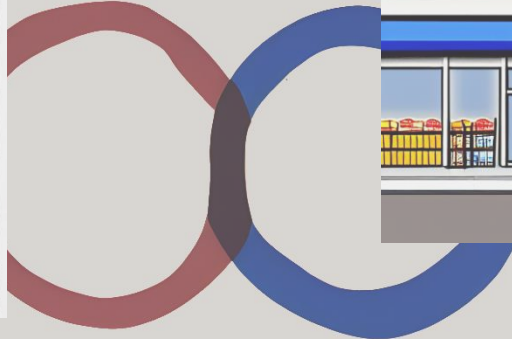
- Identify experts
- Wait !
- Experiment

What next ?

- From food to technology
- Still early, but a lot of research already happened
- Consumer is getting familiar with the idea
- Opportunity for existing companies

Font: The Innovator's Dilemma. Clayton M. Christensen









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CATALAN MEAT AND  
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## Thank you !

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Esteve Espuña

