PLANT-BASED MEAT, REINVENTED
NOVAMEAT is the world’s first developer of plant-based micro-extruded fibrous meat.
CURRENT LIVESTOCK SYSTEM IS HIGHLY INEFFICIENT

83% OF EARTH’S AVAILABLE FARMLAND IS USED FOR LIVESTOCK

URGENT NEED FOR PLANT-BASED MEAT SUBSTITUTES

MAIN DRIVERS OF PLANT-BASED MEAT SUBSTITUTES

REGULATORY
PUSH

MARKET
PULL

COMMERCIAL
PUSH
EXPONENTIAL GROWTH OF PLANT-BASED MEAT SUBSTITUTES FOR FLEXITARIANS

2016 - “China’s plan to cut meat consumption in half by 2030”.

2017 - “China signs $300m deal to buy lab-grown meat from Israel in move welcomed by vegans”.

2017 - “Get ready for a meatless meat explosion, as Big Food (Tyson Foods, Cargill) gets on board”.

2017 - “Silicon Valley and the Search for Meatless Meat”.

2018 - “The subcategories with the highest increment were meat substitutes, with an amazing growth rate of 451% (2013-17)”.

2018 - “Unilever acquires The Vegetarian Butcher as diners cut meat”.

2019 - “Nestle goes vegan with meat-free burger range”.

2019 - “Burger King will roll out the Impossible Burger nationwide by end of the year”.

2019 - “Beyond Meat Makes History With the Biggest IPO Pop Since 2008 Crisis”.

2019 - “McDonald’s joins the meatless burger trend in one of its biggest markets”.
PLANT-BASED MEAT SUBSTITUTES - GLOBAL MARKET SIZE

4.63 BN$ 2018

6.43 BN$ 2023

6.8% CAGR

Source: MarketsAndMarkets (2018)
PLANT-BASED MEAT SUBSTITUTES - GLOBAL MARKET SIZE

4.63 BN$ 2018

6.43 BN$ 2023

6.8% CAGR

Source: MarketsAndMarkets (2018)
PLANT-BASED MEAT SUBSTITUTES - GLOBAL MARKET SIZE

- **2018:** 4.63 BN$
- **2019:** 12.1 BN$
- **2025:** 27.9 BN$

15% CAGR

Source: MarketsAndMarkets (2019)
## Plant-Based Meat Substitutes - Global Market Size

<table>
<thead>
<tr>
<th>Industry</th>
<th>2018 (in bn)</th>
<th>2030 (in bn)</th>
<th>CAGR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant-based meat</td>
<td>4.6</td>
<td>85</td>
<td>28%</td>
</tr>
<tr>
<td>Online food delivery</td>
<td>49.4</td>
<td>365</td>
<td>16%</td>
</tr>
<tr>
<td>Farming 4.0</td>
<td>15</td>
<td>90</td>
<td>16%</td>
</tr>
<tr>
<td>Seed science</td>
<td>60</td>
<td>135</td>
<td>9%</td>
</tr>
<tr>
<td>Seed treatment</td>
<td>6</td>
<td>25</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>135</td>
<td>700</td>
<td>15%</td>
</tr>
</tbody>
</table>

Sources: Company reports, Bloomberg Intelligence, UBS estimates, as of June 2019

The future of food and the challenges we face.
- PLANT-BASED MEAT ACCOUNTS FOR 2% OF RETAIL PACKAGED MEAT SALES
- REFRIGERATED PLANT-BASED MEAT IS DRIVING CATEGORY GROWTH WITH SALES UP AN IMPRESSIVE 37%
PLANT-BASED MEAT SUBSTITUTES - WESTERN EUROPE MARKET SIZE

Source: Euromonitor, Kerry (2018)

1.13 BN€
2017

9.7% CAGR

1.61 BN€
2023
CURRENT MAIN PLAYERS

**CELL-BASED MEAT:**
Limited by inefficient production.
- Time + Cost ✗
- Authenticity ✓

**PLANT-BASED MEAT:**
Not resembling animal fibrous meat.
- Time + Cost ✓
- Authenticity ✗
SCIENTISTS ARE PROTAGONISTS

CELL-BASED MEAT:

PLANT-BASED MEAT:
MARKET GAP

APPEARANCE (cell-based meat)

TASTE (plant-based ground meat)

TEXTURE (soy/wheat extrusion)
While low and high-moisture extrusion work well for some applications, these methods may not be ideal for mimicking all types of animal meat. NOVAMEAT’s biomimetic micro-extrusion tech gives plant-based meat manufacturers a wider array of tools to create different textures from a wide variety of ingredients, to mimic all types of meat and seafood.

Thanks to: David Welch (GFI Director of Science and Technology)
NOVAMEAT'S MAIN FEATURES
NOVAMEAT'S MAIN FEATURES
NOVAMEAT’S PROPRIETARY TECHNOLOGY

INTERNATIONAL PATENT

PLANT-BASED FORMULATION

MICROEXTRUSION PROCESS

PRODUCT COMPOSITION
TEAM

GIUSEPPE SCIONTI, PHD  
FOUNDER & CEO

JOAN SOLOMANDO  
FOOD ENGINEER

KRISTEN ROCCA  
MANAGER, STRATEGY & OPERATIONS

OSCAR ALEGRE  
PARTNER

DAN ALTSCHULER MALEK  
PARTNER STRATEGIC ADVISOR

COLLABORATIONS

NEW CROP CAPITAL

Unovis Partners

eit Food

CIM UPC

RCD

165 TECH FACTORY
MVP ROADMAP: DIRECT CHANNEL BUSINESS MODEL (3D PRINTING)

**MVP**
100 GRAMS: 0.88 € * 10 MINUTES

**PROOF OF CONCEPT**
100 GRAMS: 1.75 € * 40 MINUTES

- **VERSION 1.0** - TEXTURE
- **FUNDING** - UNDISCLOSED AMOUNT
- **MVP PROJECT LAUNCH**

- **VERSION 2.0** - TEXTURE
- **APPEARANCE**

- **VERSION 3.0** - TEXTURE
- **APPEARANCE**
- **TASTE**

- **MVP**
- **TEXTURE**
- **APPEARANCE**
- **TASTE**
- **NUTRITIONAL VALUES**

- **TEAM GROWTH**
- **PRODUCT DEV.**
- **FOOD SCIENTIST**
- **BUSINESS DEV.**

- **ROBUST FOOD PRINTER**

- **CONSUMERS FEEDBACK**
- **FOOD SAFETY & QUALITY**

- **CAPSULES PACKAGING**

- **PARTNERSHIPS**
- **RESTAURANTS**
- **RESEARCH INST.**
- **FOOD PRODUCERS**
- **SUPERMARKETS**

- **SCALE-UP PROJECT LAUNCH**

- **FUNDING**

2019 2020
SCALE-UP ROADMAP: MASS-PRODUCTION BUSINESS MODEL (INDUSTRIAL MICRO-EXTRUSION)

**PROTOTYPING**

- **MVP VERSION 1.0**
  - MICROEXTRUSION MACHINE
    - 1.500.000
  - PROTOTYPING
    - 250.000€

- **MVP VERSION 2.0**
  - PROOF OF SCALING-UP
    - 250.000€
  - SCALED-UP PRODUCT
    - 250.000€
  - LICENSING OPTION

**PILOT PLANT**

- PRODUCTION OPTIMIZATION
  - 1.000.000 / 3.000.000

- PILOT PLANT LAUNCH
  - 250.000€

**SCALING-UP PROCESS**

- 2021
- 2022
Barcelona researcher develops 3D printer that makes ‘steaks’

Italian researcher on 3D printing tech for plant-based meat: 'We're bio-hacking plant protein structure at micro- and nano-scale'

Italian Bioengineer Spins Plants into Meat with 3D Printer
BROAD IMPACT

SUSTAINABLE DEVELOPMENT GOALS

1. NO POVERTY
2. ZERO HUNGER
3. GOOD HEALTH AND WELL-BEING
4. QUALITY EDUCATION
5. GENDER EQUALITY
6. CLEAN WATER AND SANITATION

7. AFFORDABLE AND CLEAN ENERGY
8. DECENT WORK AND ECONOMIC GROWTH
9. INDUSTRY, INNOVATION AND INFRASTRUCTURE
10. REDUCED INEQUALITIES
11. SUSTAINABLE CITIES AND COMMUNITIES
12. RESPONSIBLE CONSUMPTION AND PRODUCTION

13. CLIMATE ACTION
14. LIFE BELOW WATER
15. LIFE ON LAND
16. PEACE, JUSTICE AND STRONG INSTITUTIONS
17. PARTNERSHIPS FOR THE GOALS
Contact me to know more about:

- Business model
- How we apply our tech to cell-based meat
- Next investment round

gs@novameat.com