gfi Europe

Country deep dive:

Netherlands

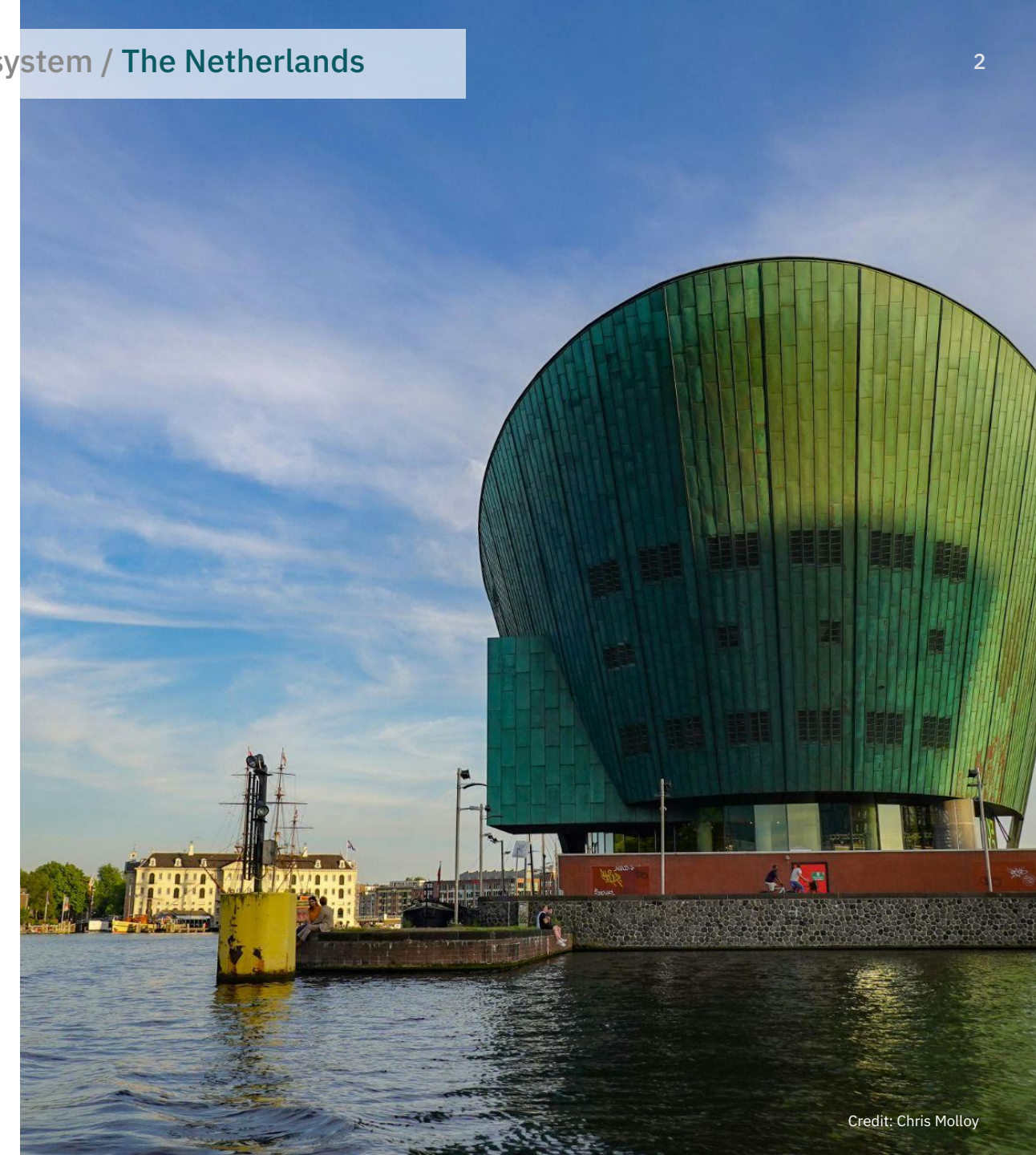
State of the European alternative protein research and innovation ecosystem

Dr David Hunt and Dr Stella Child

Alternative protein research in the Netherlands

The Netherlands holds a leading position in Europe due to the National Growth Fund investment into cellular agriculture in 2023.

Ranked second in Europe for both patent and publication output, the Netherlands is well positioned to continue leading the alternative protein industry into the future.

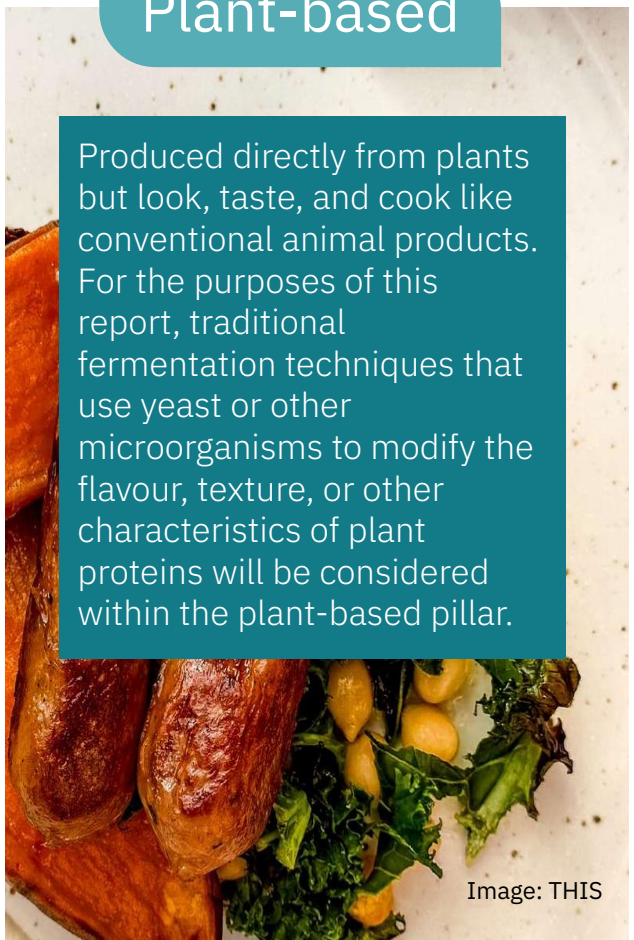


Credit: Chris Molloy

What do we mean by alternative protein pillars?

The fields of research that are the focus of this report are split into three main 'pillars', described below. In some instances, research projects combine techniques from across these disciplines. These are referred to as 'cross-cutting' throughout the report.

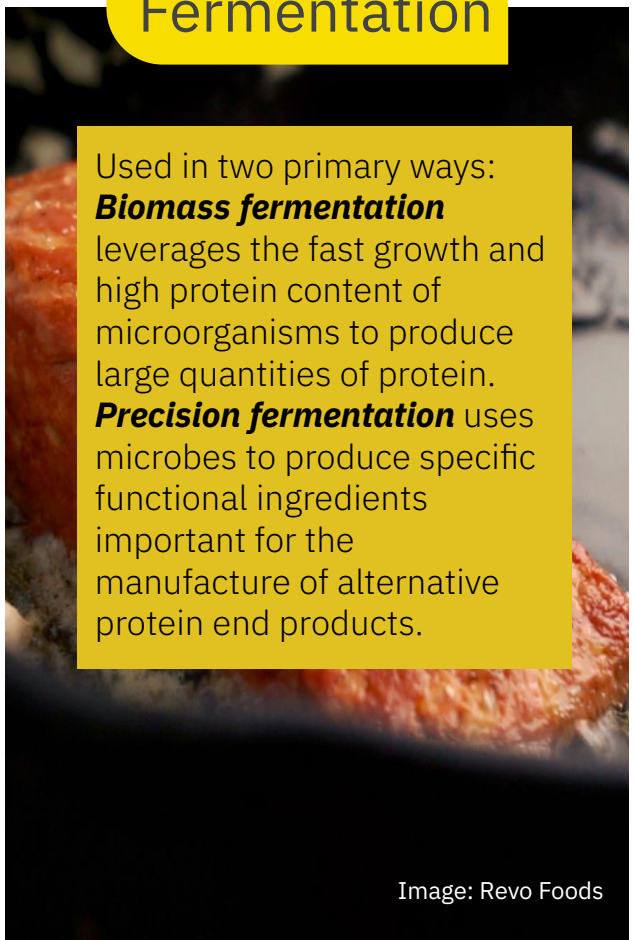
Plant-based



Produced directly from plants but look, taste, and cook like conventional animal products. For the purposes of this report, traditional fermentation techniques that use yeast or other microorganisms to modify the flavour, texture, or other characteristics of plant proteins will be considered within the plant-based pillar.

Image: THIS

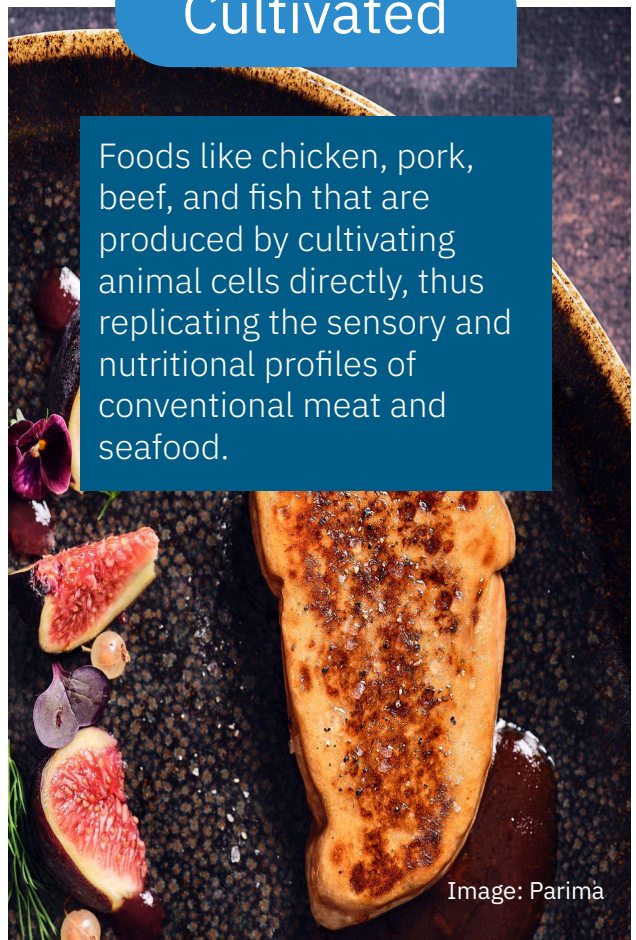
Fermentation



Used in two primary ways: ***Biomass fermentation*** leverages the fast growth and high protein content of microorganisms to produce large quantities of protein. ***Precision fermentation*** uses microbes to produce specific functional ingredients important for the manufacture of alternative protein end products.

Image: Revo Foods

Cultivated



Foods like chicken, pork, beef, and fish that are produced by cultivating animal cells directly, thus replicating the sensory and nutritional profiles of conventional meat and seafood.

Image: Parima

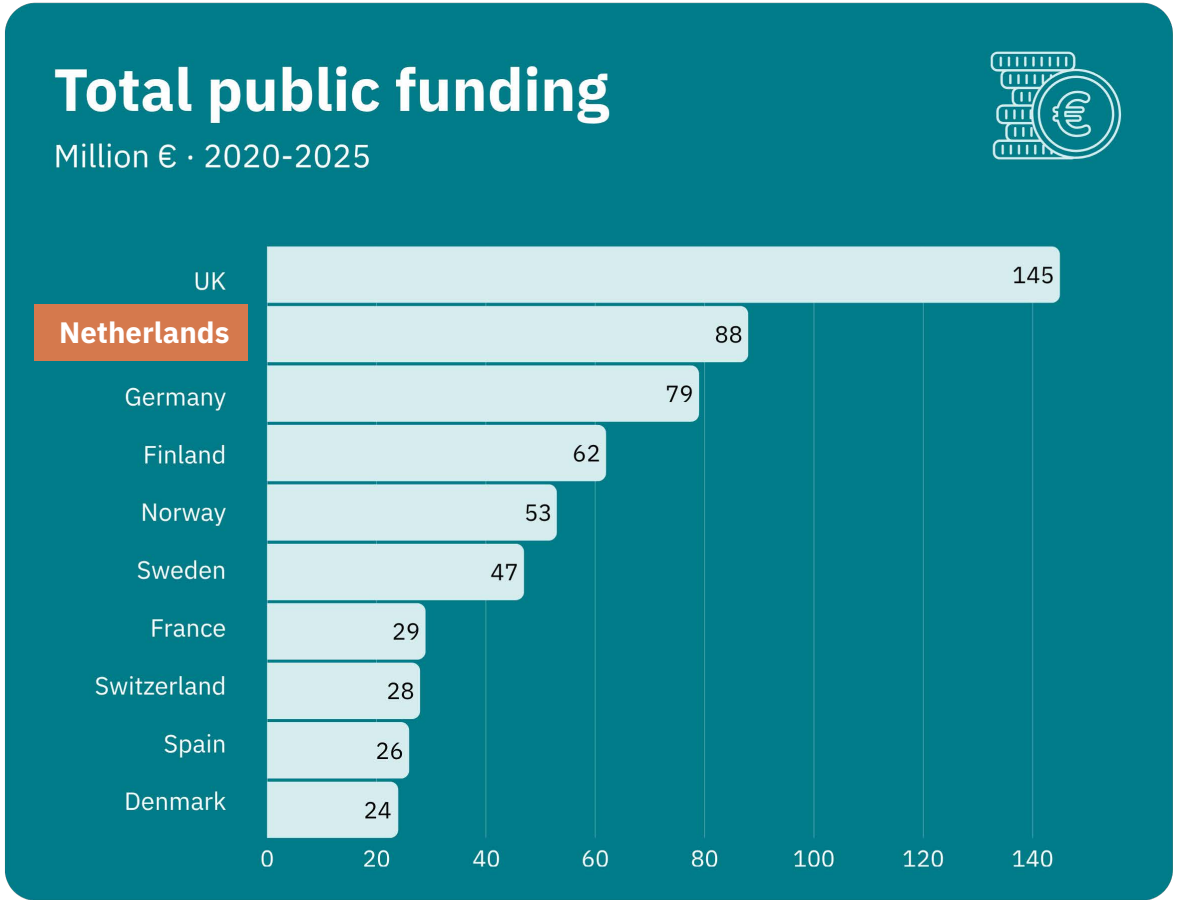
Cross-cutting

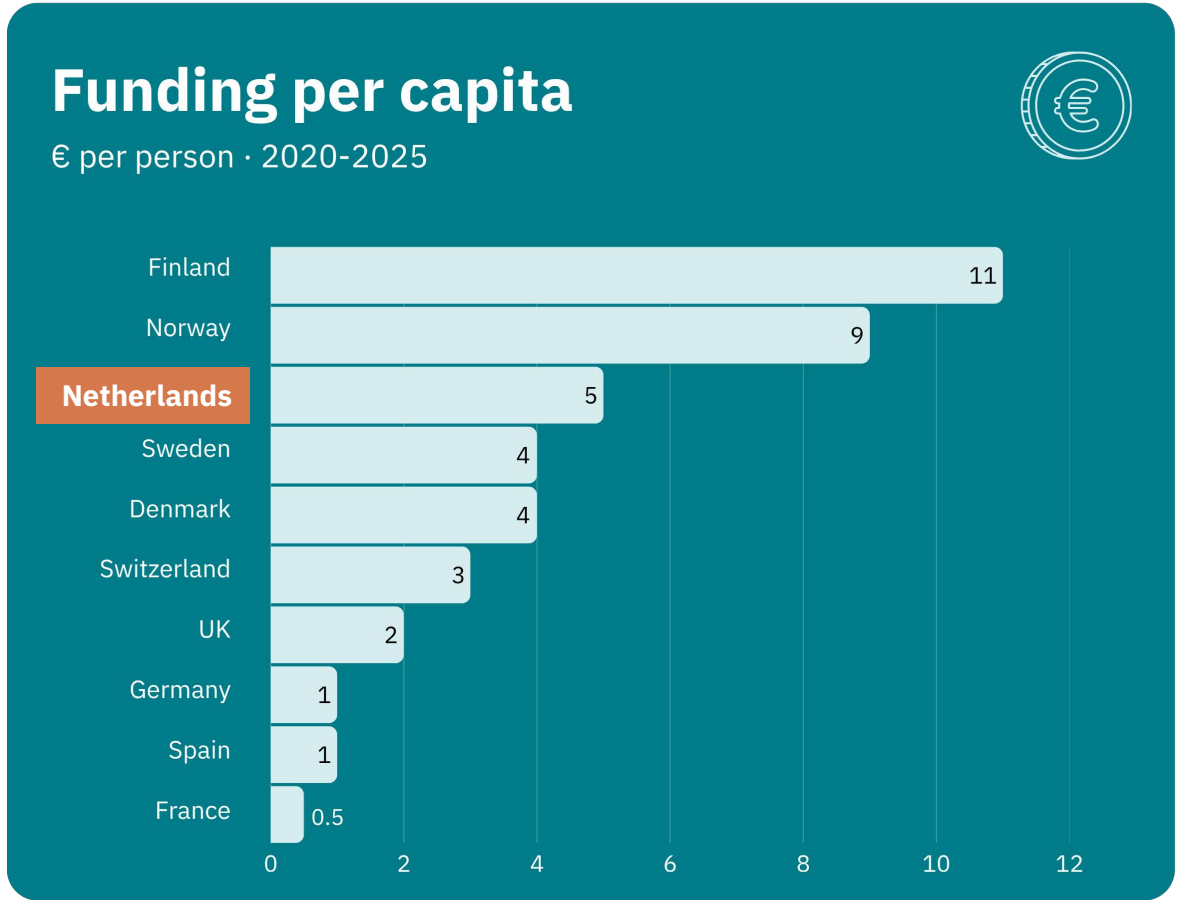
In some instances, research projects combine techniques from across these disciplines. For example, research projects on cellular agriculture, the combined approaches of precision fermentation and cultivated meat development, or research on an aspect of the entirety of the alternative protein field, such as a social science question.

Dutch funding compared with governments across Europe

Investment from the top 10 governments funding alternative proteins in Europe, 2020-2025, showing total public funding* (excluding nonprofit contributions) and funding per capita.**

Despite available figures from the Netherlands likely representing an underestimate of the available funding, the Netherlands still ranks second in Europe for total funding, and third on a per capita basis.

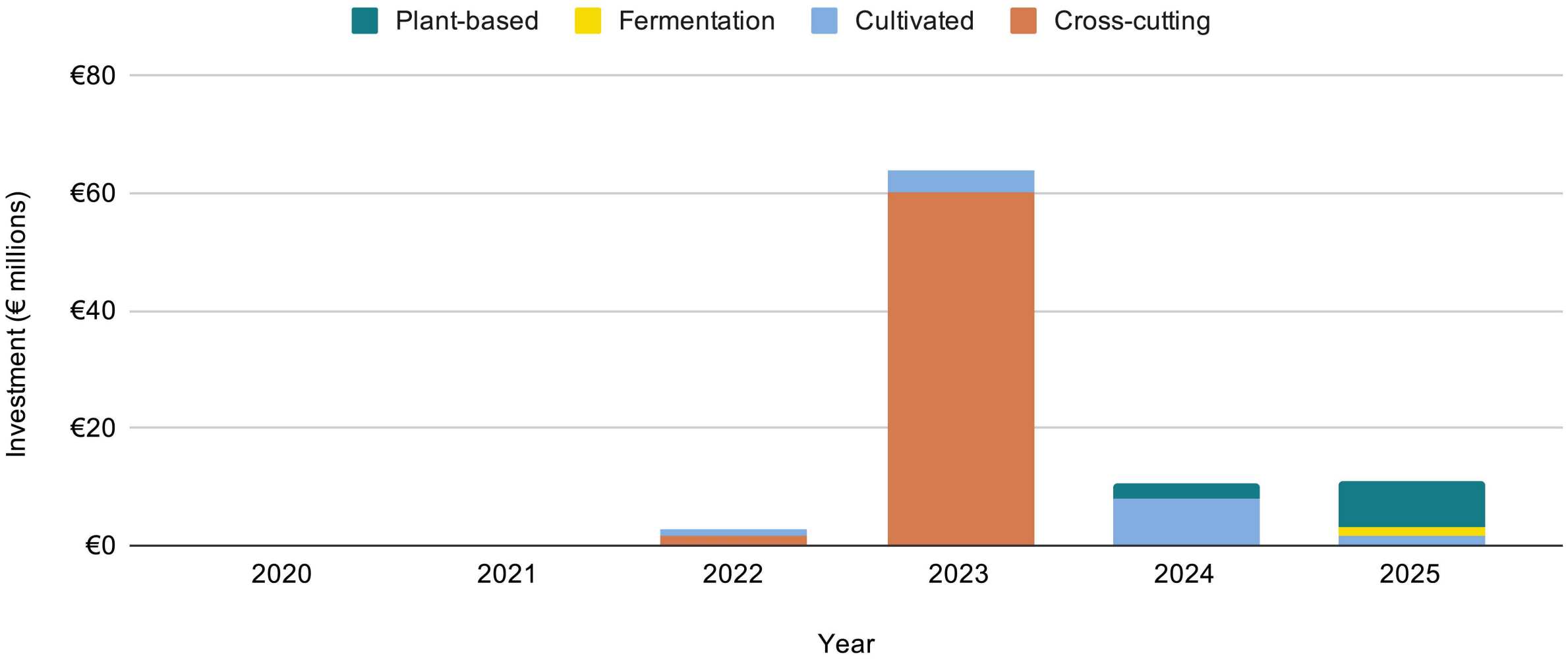




*Funding for some countries, such as the Netherlands, France, and Belgium, is likely an underestimate. **Per capita spending is only shown for the top 10 countries by total public research funding. Note that this is not a ranking of the top 10 by per capita spending, and that some countries in the top 10 by per capita spending are not displayed.

Dutch funding landscape

Investment in the Netherlands, by research pillar, 2020-2025. *Available funding information for the Netherlands is likely incomplete.*
The National Growth Fund investment dwarfs the investments made since, but in reality is being delivered gradually over a number of years.



Publications: overall trends

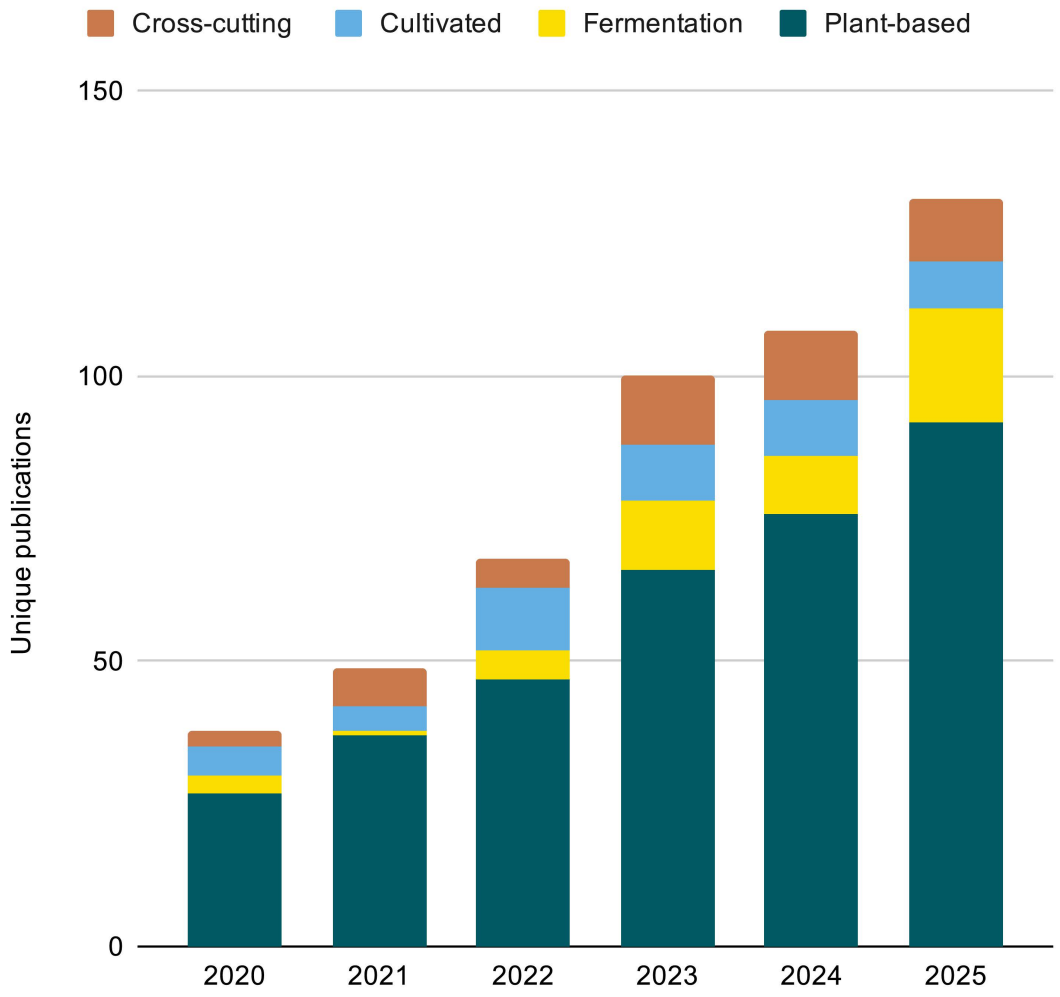
This chart shows the overall trends in academic publications in peer-reviewed journals on topics related to alternative proteins in the period 2020-2025.

The Netherlands has contributed to 494 publications on topics related to alternative proteins in the period 2020-2025 and ranks second overall in Europe.

Publication outputs grew by 29% per year on average but fluctuated over time. There were 131 research publications in 2025 compared with 38 in 2020 – a 245% increase.

Breakdown of publications by alternative protein pillar:

- 70% plant-based proteins
- 10% fermentation-made proteins and ingredients
- 10% cultivated meat and seafood
- 10% cross-cutting topics



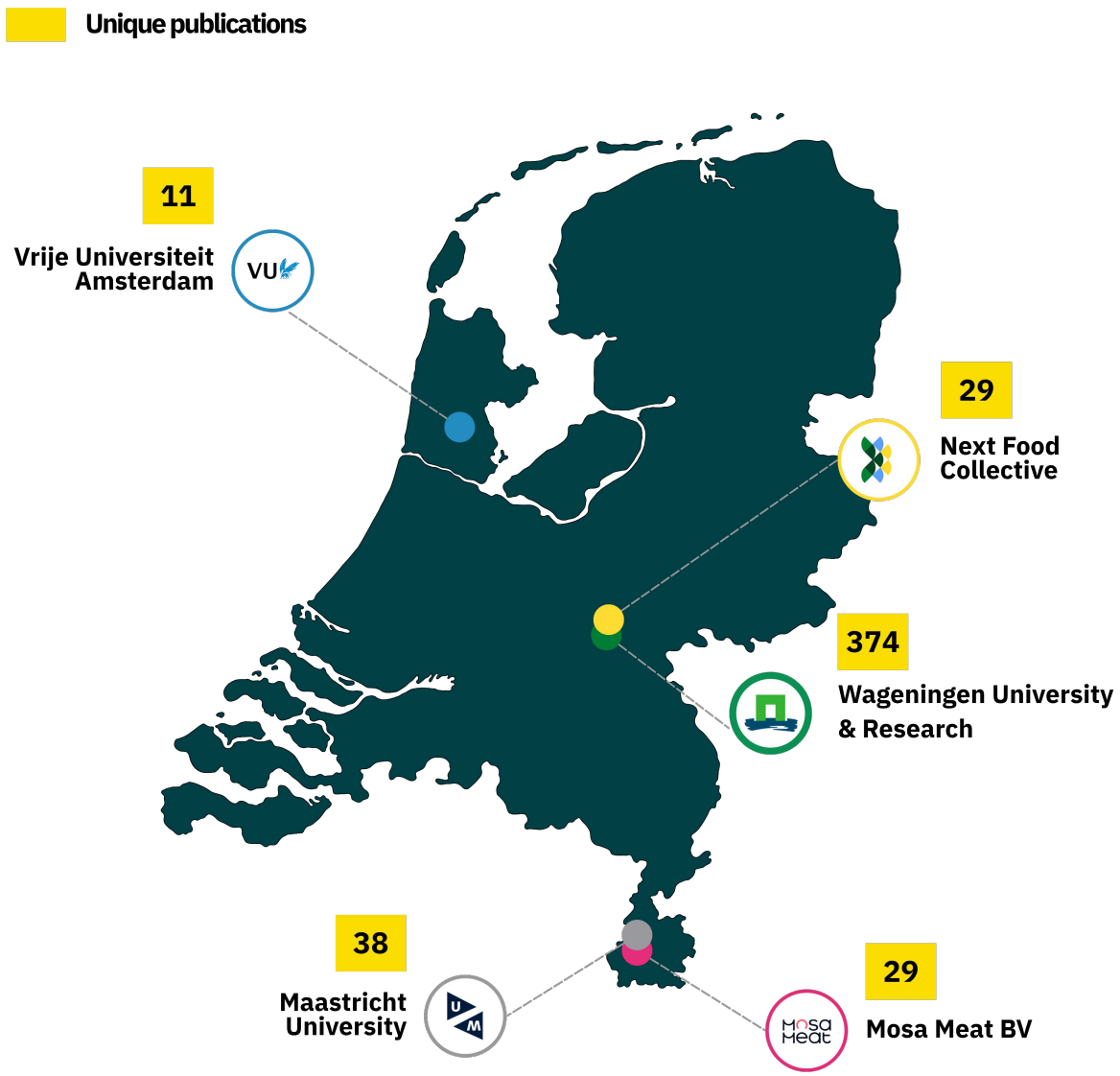
Leading research performing organisations

This map shows the leading institutions and companies for alternative protein research in the Netherlands on the basis of unique publications in the period 2020-2025.

Wageningen University & Research is the dominant European institution in the field of alternative proteins.

With 374 publications since 2020 – more than double that of the next most productive institution – it has held the top spot in Europe for research output every year since 2020.

The Netherlands is competitive across all three alternative protein pillars, ranking first for total plant-based publications, seventh for fermentation, and fourth for cultivated meat and seafood.



For a breakdown of the methodology used in this analysis, see the appendix

Deep-dive: Plant-based

This section breaks down funding, publications, and patent trends, using research categories to explore strengths and weaknesses in the field of plant-based meat, seafood, eggs and dairy in the Netherlands.

Research categories:
Plant-based

Crop development

Breeding of crops and increased use of underutilised protein crops for higher protein yields and functionality.

Strain development

Screening and optimisation of novel strains to identify the most efficient pathways for producing targets or modifying substrates.

Ingredient optimisation

Improved protein fractionation and functionalisation for higher-quality ingredients with less processing, and development of novel ingredients to augment nutritional profiles and enhance sensory experience.

Texturisation methods

Process innovations, including (but not limited to) novel texturisation methods such as extrusion, electrospinning, 3D printing, and enzymatic processing to match the texture of animal protein.

End product formulation

Formulation and product design, including fat integration, shelf life, stability, sensory quality, and nutritional assessment and fortification.

Food safety and quality

Toxicological and safety assessments, regulatory improvements, such as assay development or validation.

Health and nutrition

Dietary impacts of alternative proteins including population-wide studies, systematic reviews, and in vitro studies on health impacts such as bioavailability.

Consumer and market research

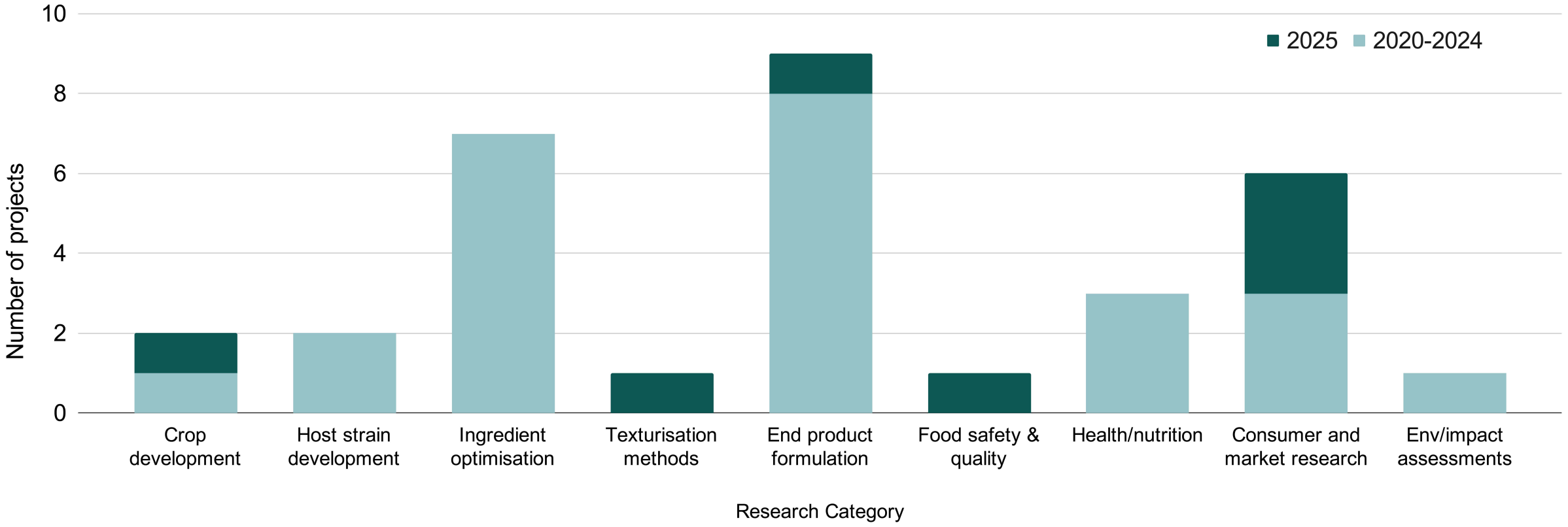
Consumer behaviour research including nomenclature studies, purchasing intent across retail and food environments, and market scoping and brand development.

Impact assessments

Includes life cycle, techno-economic, environmental, social, and geopolitical impact analyses.

Dutch investment in plant-based research categories

Plant-based investment in the Netherlands, by number of projects, 2020-2025. Information on the amount of funding for research projects in the Netherlands is often unavailable, so this graph displays the number of projects funded. Downstream aspects such as health and consumer impact are a strength of the region.



Appendix and methods

Methodology

For full methods including search terms, inclusion and exclusion criteria and other technical details, please see the full technical appendix **here.**

Funding

Data
Data sourced from GFI's publicly available global research funding database, the GFI Research Grants Tracker, which houses information published by funders and research conductors globally. Kernel Science contributed to data retrieval. Funding information was also retrieved from Dimensions.ai.

Time period
2010-2025. Data retrieved in February 2026.

Country focus
EU27 + Norway + Switzerland + UK.

Search strategy
A list of search terms was developed and Dimensions.ai results screened against predefined inclusion/exclusion criteria to identify those in scope for the study.

Grants focusing plant-based, fermentation-made, or cultivated proteins and ingredients meeting these criteria were analysed by title, recipient, funder country, pillar categorisation, end product and research sub-category.

Publications

Data
Data sourced from Dimensions, an interlinked research information system provided by Digital Science (https://www.dimensions.ai).

Time period
2020-2025. Data retrieved January 2026.

Country focus
EU27 + Norway + Switzerland + UK.

Search strategy
Complex search terms were devised that allowed us to trigger numerous publications that may be relevant to our analysis.

Search returns were screened against predefined inclusion/exclusion criteria to identify those in scope for the study.

Publications relevant to plant-based, fermentation-made, or cultivated proteins and ingredients meeting these criteria were analysed in the Dimensions Landscape & Discovery application and in spreadsheet format.

Patents

Data
Data sourced from Dimensions, an interlinked research information system provided by Digital Science (https://www.dimensions.ai).

Time period
2015-2025. Data retrieved February 2026.

Country focus
EU27 + Norway + Switzerland + UK.

Search strategy
Complex search terms were devised that allowed us to trigger numerous patents that may be relevant to our analysis.

Search returns were screened against predefined inclusion/exclusion criteria to identify those in scope for the study.

Patents relevant to plant-based, fermentation-made, or cultivated proteins and ingredients meeting these criteria were analysed in the Dimensions Landscape & Discovery application and in spreadsheet format.

About this report

Authors
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About GFI Europe
The Good Food Institute Europe is a nonprofit think tank helping to build a more sustainable, secure and just food system by diversifying protein production.