

The state of the European insect food production sector and future perspectives

IPIFF Survey: Main Findings Report

About this survey

This survey was conducted online in 2023, gathering responses from 19 EU insect farming companies.

Communication Objectives

This survey aims to update data on EU insect food production, feeding into the IPIFF 2020 Factsheet '*Edible Insects on the European Market*'.

Furthermore, the collected data complements the information provided in the document '*IPIFF Brochure: Perspectives on the Evolution of the European Insect sector towards 2030*', published in November 2023, which provides a general overview of the current state of development of the European insect sector, as well as insights into its regulatory status (i.e. existing opportunities and prospects for development).

After already collecting answers from its members through a questionnaire addressing the entire value chain of the sector, this new questionnaire intends to provide more accurate figures specifically addressing current and future insect food production market trends.

In addition, the answers to this survey will facilitate the development of complementary communication tools focusing on EU insect food production, to become available on the IPIFF webpage and support IPIFF's Secretariat outreach activities towards policymakers, media and other relevant stakeholders.

Policy objectives

The compiled data directly supports the policy, regulatory and advocacy activities pursued on behalf of the EU insect sector. The provision of updated and more accurate information is crucial to support the policy endeavours towards progress on novel food authorisations or towards promoting the recognition of insect food products as part of the EU's Protein Strategy, which is expected to be unveiled in 2026/2027.

Moreover, the provision of more information and knowledge about the current state of the sector's food production segment can improve our regular dialogue with EU institutions towards other advancements of critical relevance for insect food business operators in many other legislative and policy areas, such as food labelling, research opportunities on the allergenicity of insect food products, amongst others).

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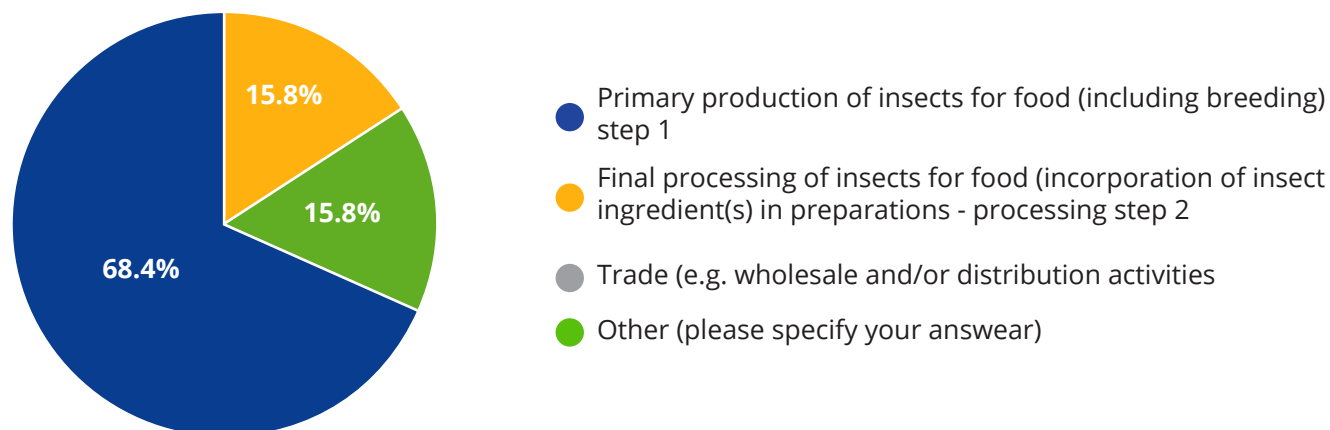
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CHAPTER I

GENERAL INFORMATION (production activities, markets targeted)

I. Main activities performed by EU insect food producers

What are the main activities performed by the company/organisation which you represent?



- **68,4% of respondents' main activity corresponds to primary production** (including insect breeding).
- **15,8% of respondents' main activity relates to final processing of insects for food** (incorporation of insect ingredients in preparations).
- Another **15,8%** of respondents replied that their main activity is others which do not correspond to primary or secondary production.

Most companies are dedicated to primary production (close to 70%), while almost 16% is dedicated to secondary production (incorporation of insect ingredients in preparations).

II. Location of the companies

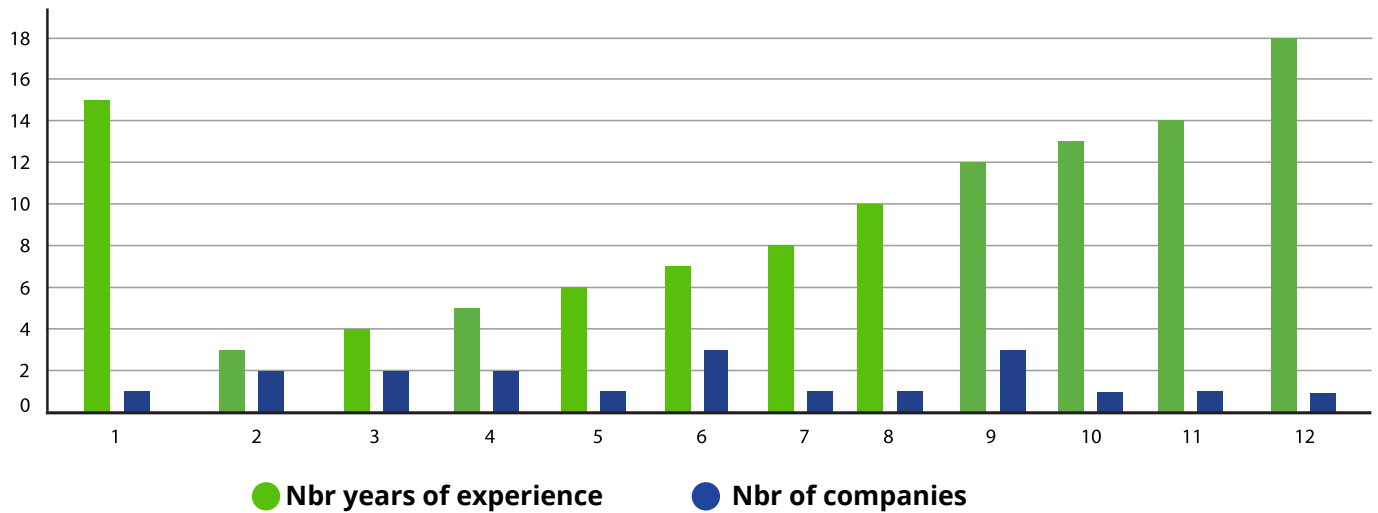
In which country(ies) is/are your production facility(ies) located?

Most of the respondent companies are located in Europe, with a few exceptions of companies located in Asia (Thailand or Vietnam).



III. Years of experience of the companies

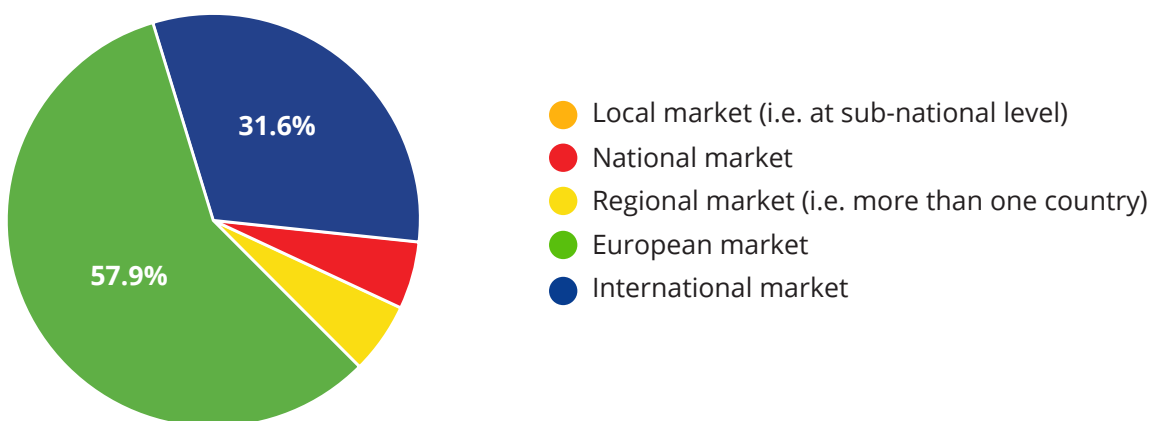
How many years of experience does your company have in the field of insect production/processing activities?



While the **most established companies** have been **on the market for 10 to 18 years**, the **newer entrants have between 3 and 8 years of experience**. On average, companies have approximately **9.5 years of industry experience**.

IV. Key markets

What is/are your main geographic market(s) for the products commercialised by your company?



- 57,8% of companies responded that their main market is the European.
- 31,6% identified the international market as the main one
- 5,3% of companies responded that the national market to be the target one.
- Another 5,3% identified regional market (more than 1 country) as the main one.

Almost 60% of insect food producing companies have identified Europe as their main market, while a bit over 30% identified the international market as the main one.

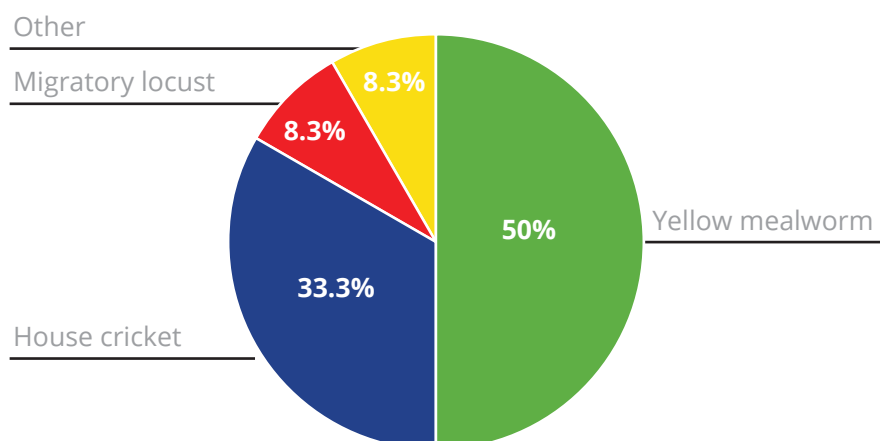
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CHAPTER II

PRODUCTION AND MARKETS

I. Species produced

Which species does your company produce?



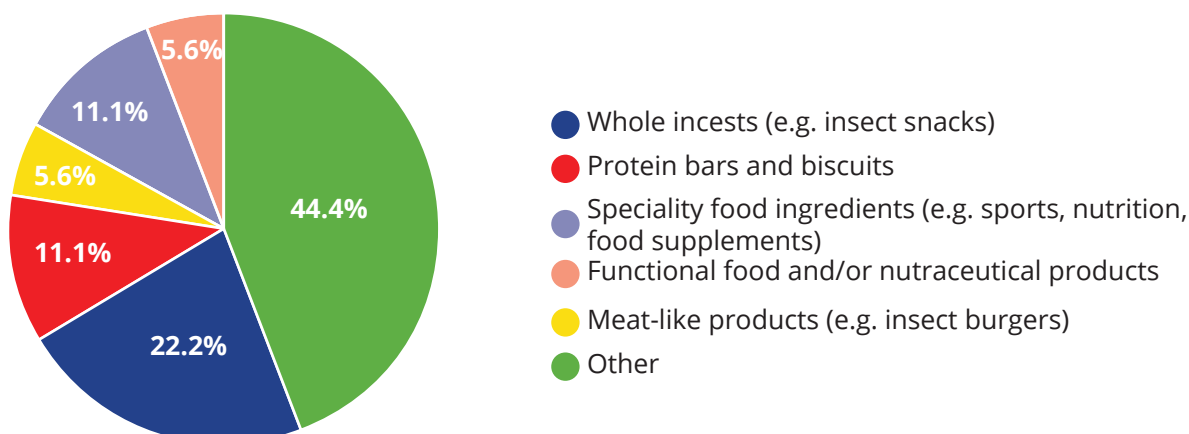
Most insect food companies produce yellow mealworm (50%), followed by house cricket (33,4%), and migratory locust (8,3%) or other species (8,3%). Notwithstanding to note that increased forecast production by companies take into consideration ongoing Novel food applications covering other insect species which so far are not authorised to be commercialised in the EU (e.g. black soldier fly).

II. Insect food production in 2022

The total collective production of insects for human consumption (whole, powder and lipids) in 2022 was 328,27 tonnes.

III. Intended end-use products in 2022

What was (were) the intended end-use/market(s) targeted by your company during the year 2022?



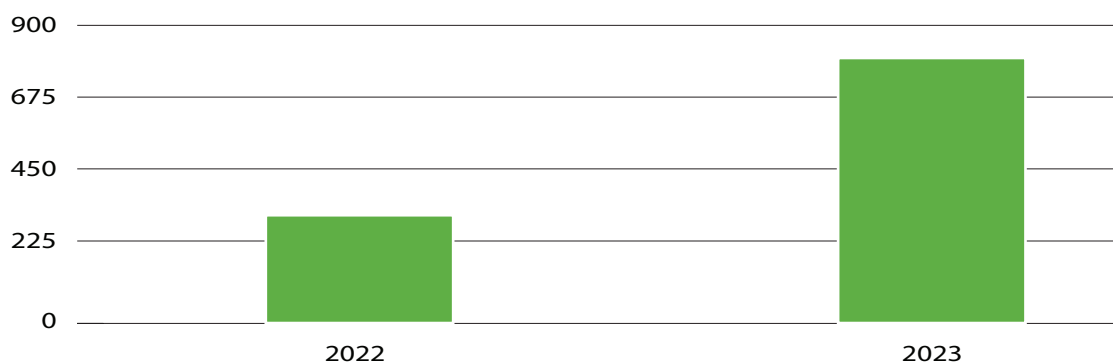
- **44,4%** indicated that their main end-use production corresponded to **different types of products** (e.g. beer and other food products).
- **22,2%** of companies indicated **whole insects** (e.g. insect snacks) as their main end-use market.
- **11,1%** of respondents indicated that **protein bars and biscuits are their main outputs**.
- Another **11,1%** of respondents indicated that their main end-use production is corresponding to **speciality food ingredients** (e.g. sports, nutrition, food supplements).
- **5,6%** of companies indicated that their main target market was for **meat-like products** (e.g. insect burgers).
- Another **5,6%** of respondents indicated their main end-use production corresponds to **functional food and/or nutraceutical products**.

Most of the companies produce diverse type of end-use products (44,4%), followed by whole insects (22,2%) and protein bars and biscuits (11,1%) or specialty food ingredients (11,1%).

IV. Total insect food production in 2023

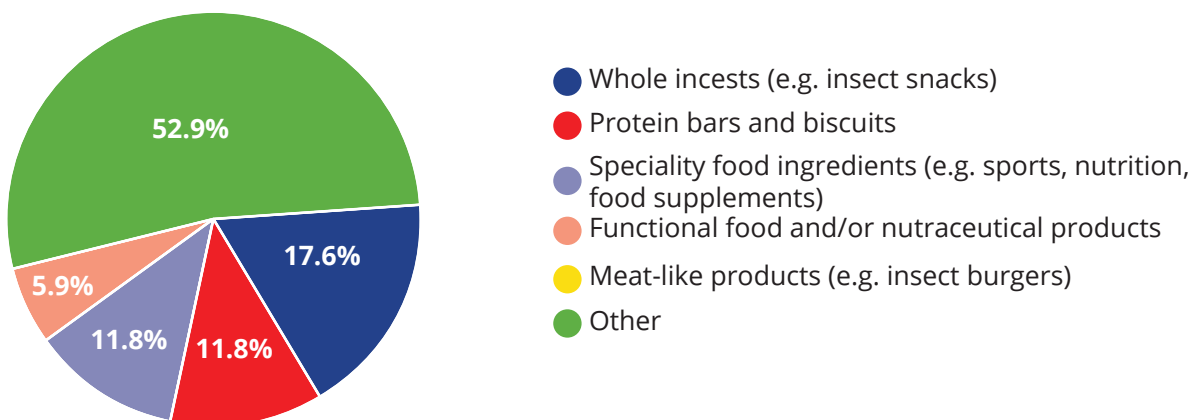
The total production of insects for human consumption in 2023 was 802,65 tonnes. This marks a substantial increase when compared to 2022 (over 474,38 tonnes produced).

Insect food production from 2022 to 2023



V. Intended end use products in 2023

What was (were) the intended end-use/market(s) targeted by your company during the year 2023?



- **52,9%** indicated that their main end-use production corresponded to **different types of products** (e.g. beer and other food products).
- **17,6%** of companies indicated **whole insects** (e.g. insect snacks) to their main end-use market.
- **11,8%** of respondents indicated that **protein bars and biscuits to be their main outputs**.
- Another **11,8%** of respondents indicated that their main end-use production was corresponding to **speciality food ingredients** (e.g. sports, nutrition, food supplements).
- **5,9%** of companies indicated that their main target market was for **meat-like products** (e.g. insect burgers).

Most of the companies produce diverse type of end-use products (52,9%), followed by **whole insects** (17,6%) and **protein bars and biscuits** (11,8%) or **specialty food ingredients** (11,8%). Compared to 2022, insect food producers seem to aim to specialize in food products rather than whole insects.

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CHAPTER III

PRODUCTION AND MARKETS

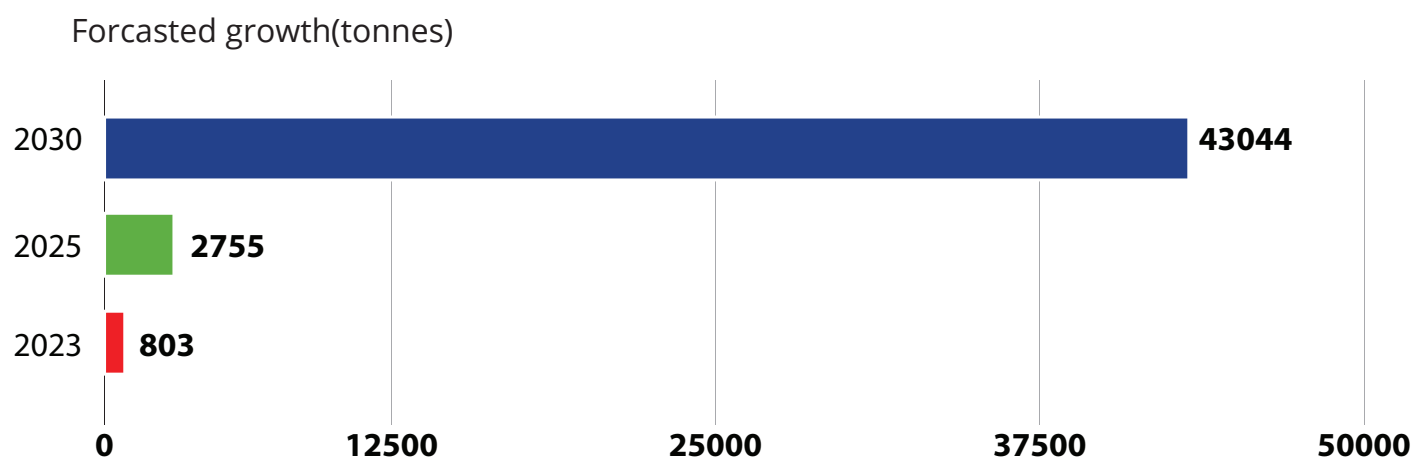
VI. Total forecasted insect food production in 2025

The total production of insects for human consumption foreseen for 2025 is of 2 755,44 tonnes.

VII. Total forecasted insect food production in 2030

The total forecasted insect food production in 2030 is of 43 044,2 tonnes.

VIII. Overview: Current and forecasted insect food production

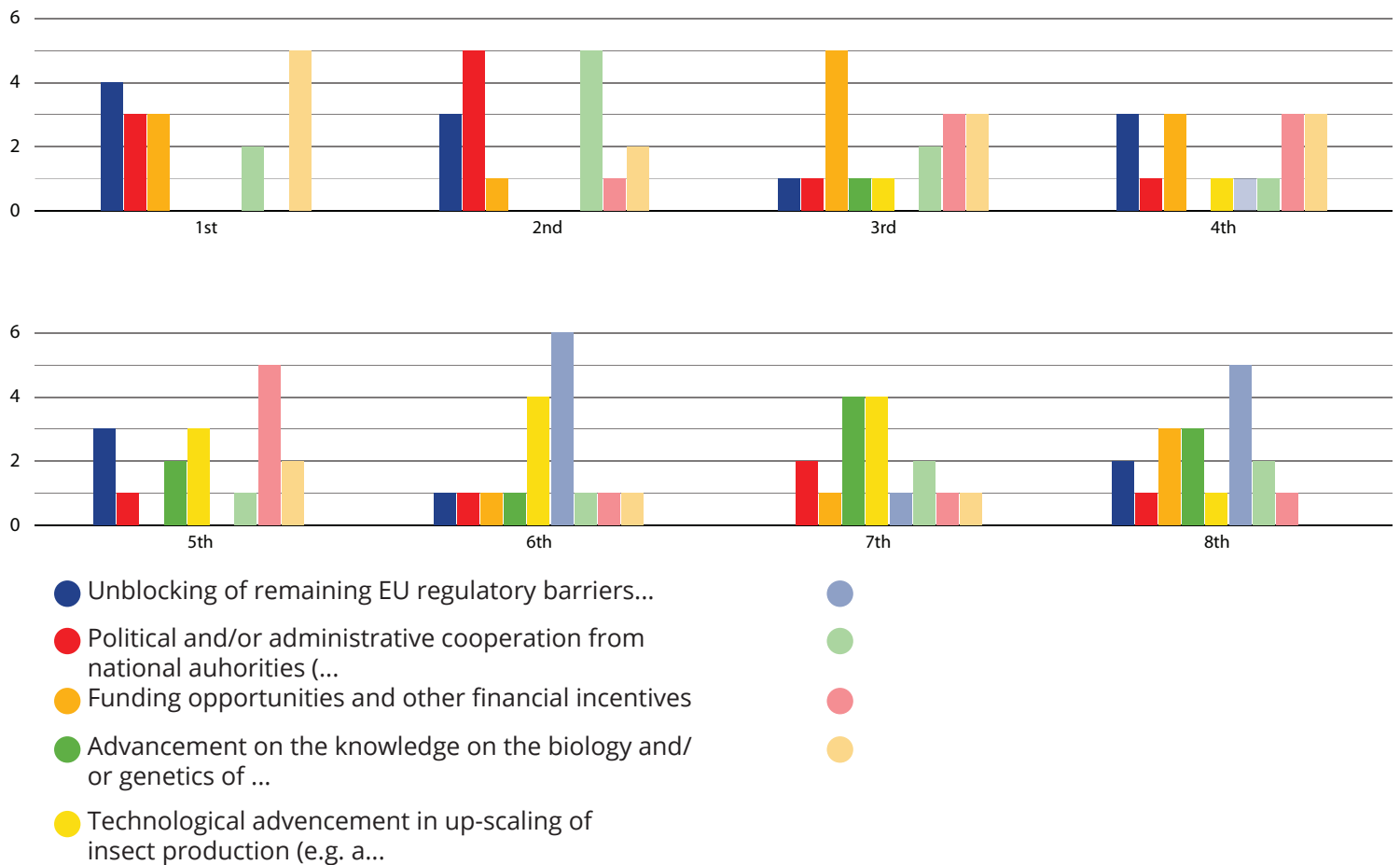


IX. Most promising market segments

- When asked to identify the **most promising market segments for 2025**, respondents indicated that food products such as **protein bars and biscuits** are considered the **most promising**. Additionally, segments like bread and similar baked goods, functional foods, and meat-like products are viewed as quite promising.
- In 2023, insect food producers **tended to focus on product specialization rather than selling whole insects**, despite the latter maintaining a strong position as a market segment in the near future.
- By 2030, **emerging market segments such as specialty food ingredients** (e.g., sports nutrition and food supplements) and meat-like food products are expected to gain increasing importance.

X. Main factors for business growth

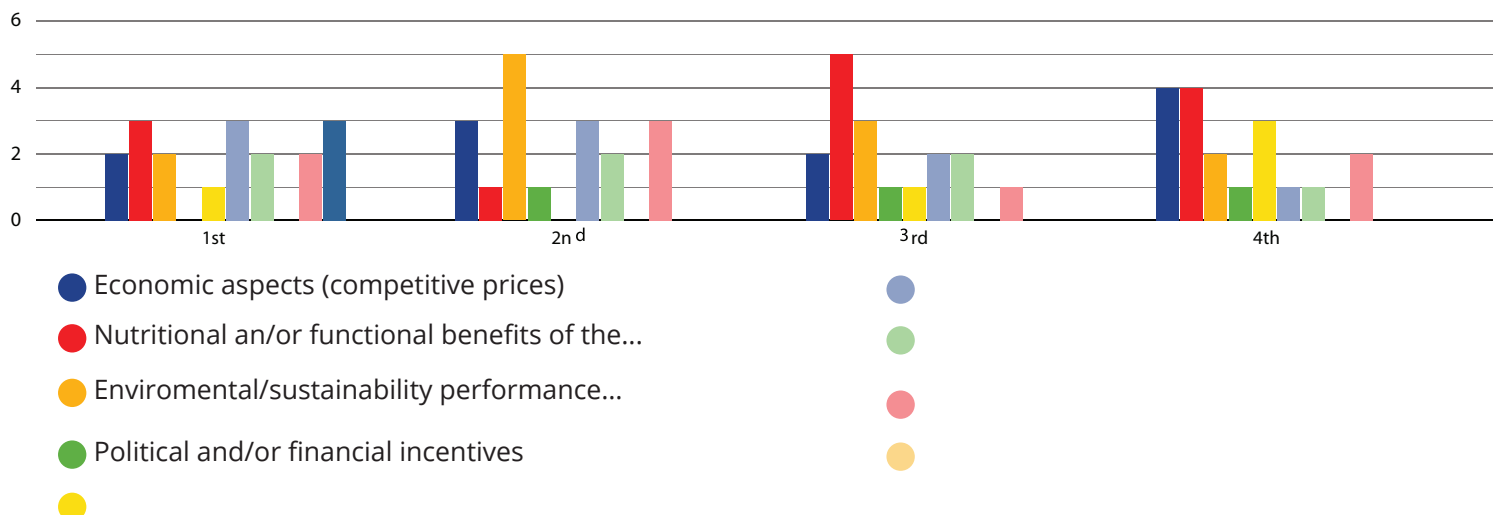
Could you rank by order of importance 'positive factors' which would contribute to support the growth of the European sector over the next few years?



When asked to rank the most important factors for business growth, respondents identified the **removal of remaining EU regulatory barriers, consumer acceptance, funding opportunities, and staff training** as the most critical determinants.

XI. Main incentives for consumers

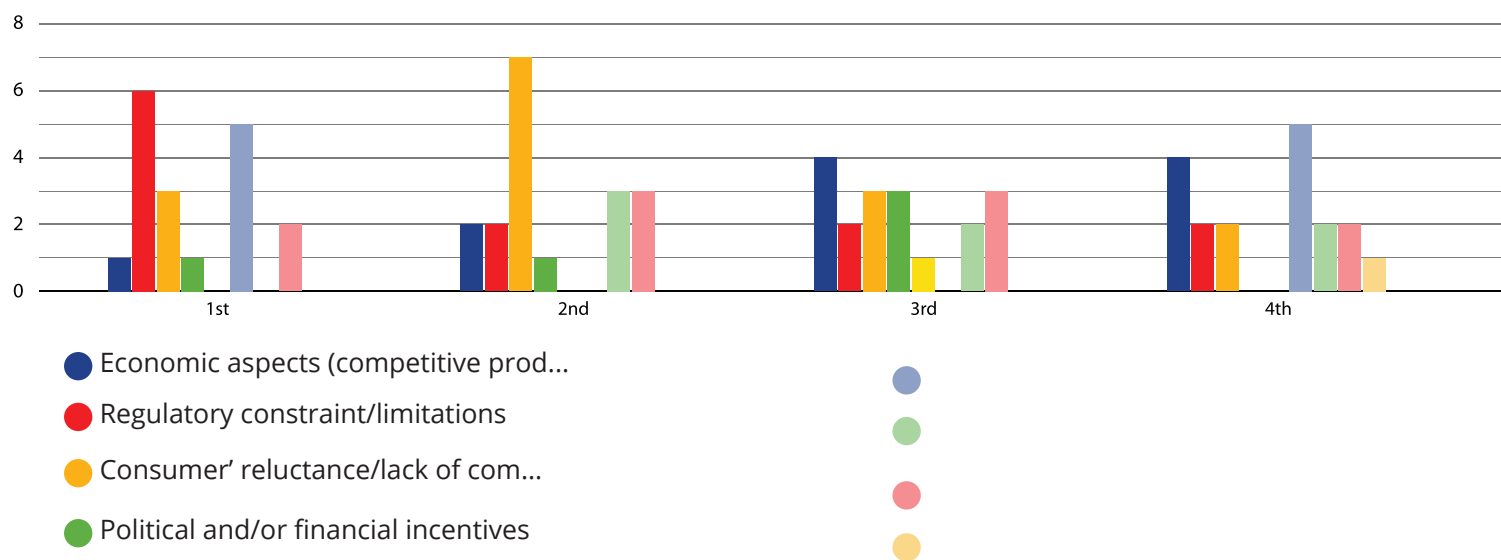
Could you rank by order of importance the main incentives for customers or final consumers to purchase insects food products?



When asked to rank the main incentives for customers to purchase their products, respondents identified **environmental sustainability, nutritional and functional benefits, and economic factors** as the most influential drivers.

XI. Main incentives for consumers

Could you rank by order of importance the possible main 'limiting factors' for development of insect food in Europe?



When asked to rank the factors limiting the growth of insect food production in Europe, companies identified consumer **reluctance, regulatory constraints, and limited availability in major retailers** as the primary obstacles.



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