

Do European citizens accept the use of insects for animal feed & human food?



Agenda



1. About PROteINSECT
2. The challenge of consumer acceptance
3. Media coverage monitoring:
 - why, how, what
4. The PROteINSECT survey:
 - why, how, what
5. Conclusion

What is PROteINSECT?



- A 3-year EU-funded project investigating the potential of insects as an alternative source of protein for **animal feed**.
- Focusing on the use of **fly larvae** in poultry, pig and fish feed.
- Evaluating the suitability of **organic waste materials**, including animal manure, as a substrate for rearing flies.
- Carrying out research into the following areas:
 - Sustainable insect production
 - Protein processing technologies
 - Quality and safety of insect protein
 - Life cycle analysis



*Musca
domestica*

Who is involved in PROteINSECT?



China, Ghana, Mali, Belgium,
United Kingdom, Austria, Switzerland

Developing a Pro-Insect Platform



- A primary objective of PROteINSECT
- Achieved by engaging and consulting with key stakeholder groups, including consumers, in order to promote acceptance of insects in feed.
- Consumer acceptance is essential to the success of the project.
- Consumer opinion on the use of insects in animal feed is being mapped and evaluated.

The Challenge of Consumer Acceptance



- The 'yuck' factor:
 - Lack of a cultural history of entomophagy in the west.
 - Negative perception of insects as pests or vectors of disease.
- Consumers increasingly interested in how their food is produced and want to be sure that it's what it says on the tin!
- Transparency is key – must take consumers with us every step of the way.



Media Coverage Monitoring



- An explosion of media coverage on the topic of insects in food and feed over the last year.
 - Media coverage can both reflect and shape consumer attitudes.
- 
- We have been monitoring media coverage since September 2013 and have recorded the **tone, topic, intended audience and source country** of each piece.
 - Some limitations e.g. mostly English language sources that are freely available online and accessible via search engines.

Targeted Publications



Target the curious: Bringing insect consumption to the mainstream



undercurrentnews
seafood business news from beneath the surface

Startup to push for insect feed development with €2m funding

AllAboutFeed.net
article

18 Oct 2013

EU law must adapt to allow insects in livestock production



Insect feedstock for pigs, chicken and fish production



Consumer Publications

The Telegraph

Insects to be turned into cakes and bread



MailOnline

Anyone for a locust pizza or worm taco?
Meet the student who eats INSECTS to stay healthy

Bugs: Coming To A Supermarket Near You?



BuzzFeed

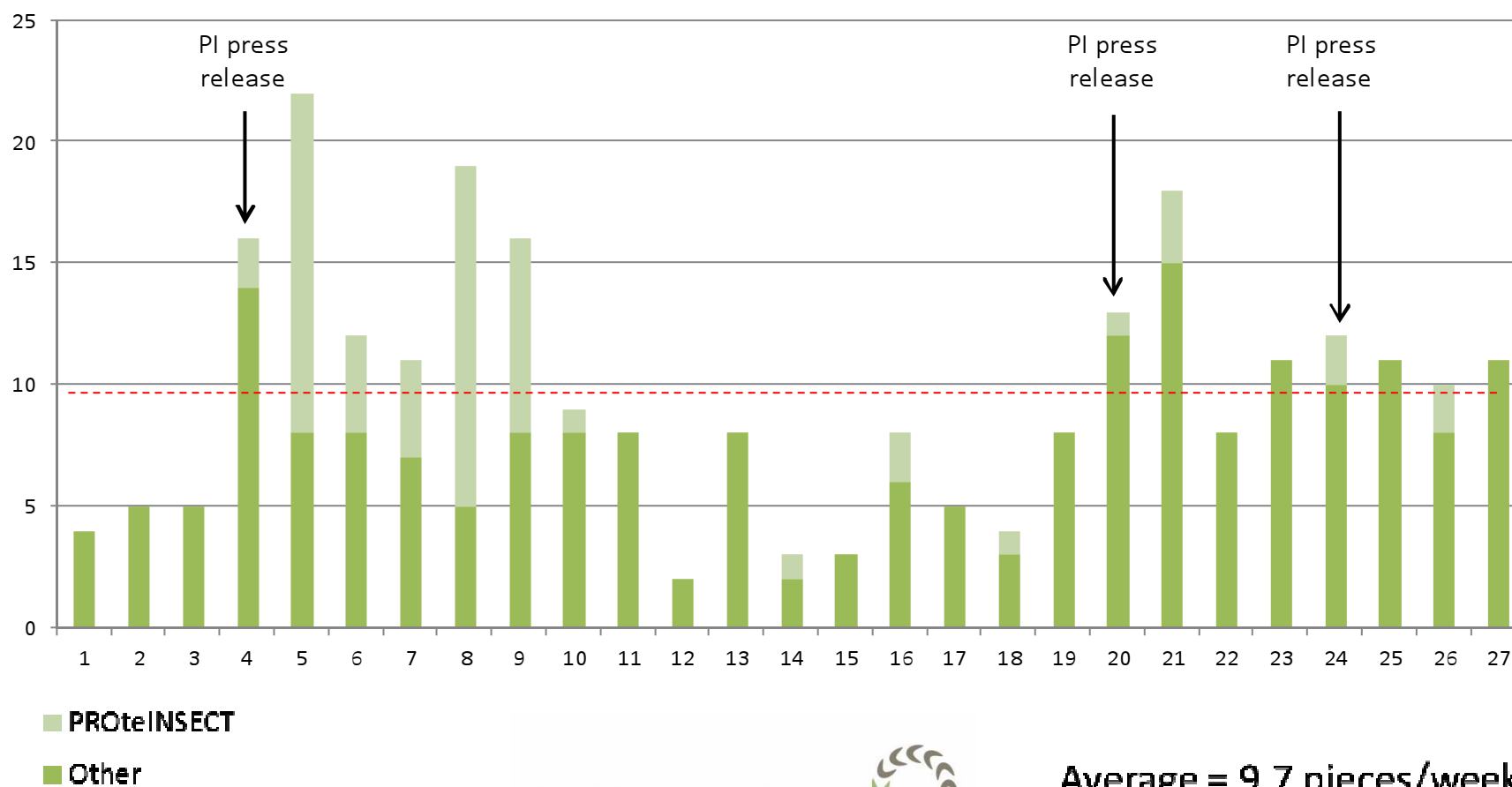
Why Eating Bugs Is The Future
We tried them

3D Printing Company Makes Edible Cricket and Dung Beetle “Treats”

Total Volume of Media Coverage

Total = 264 pieces

(Sept 19th 2013 – March 31 2014)



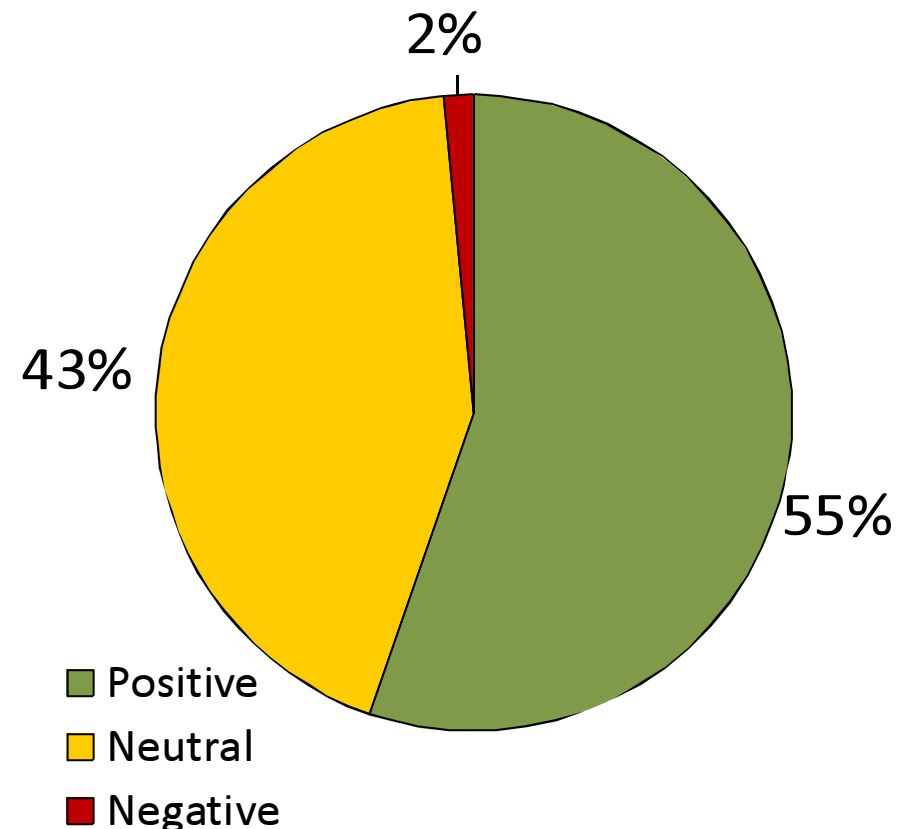
Tone of Media Coverage

Classification Examples:

Positive: Journalist describes the benefits associated with insects in feed/food or describes them as tasting nice.

Neutral: Journalist describing a recent event involving insects in feed/food using a detached style.

Negative: Journalist describes the taste of insects as unpleasant or criticises the use of insects in feed/food as a way of addressing food security

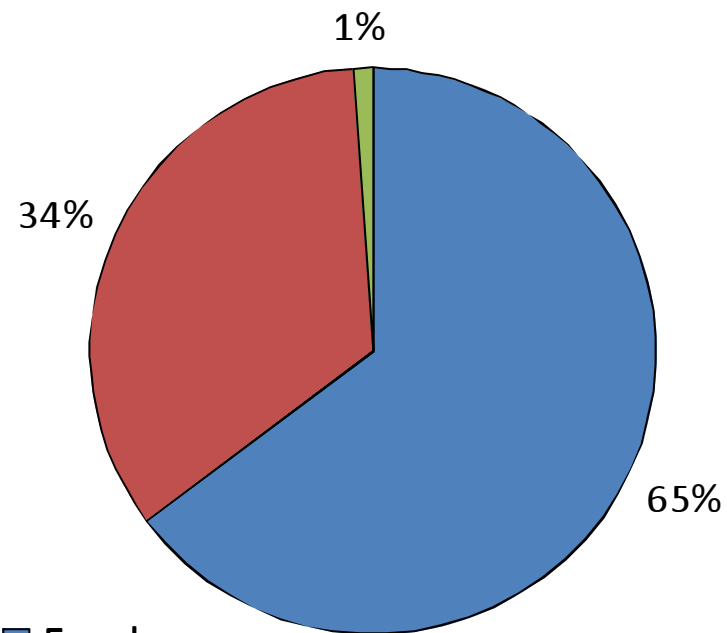


Breakdown

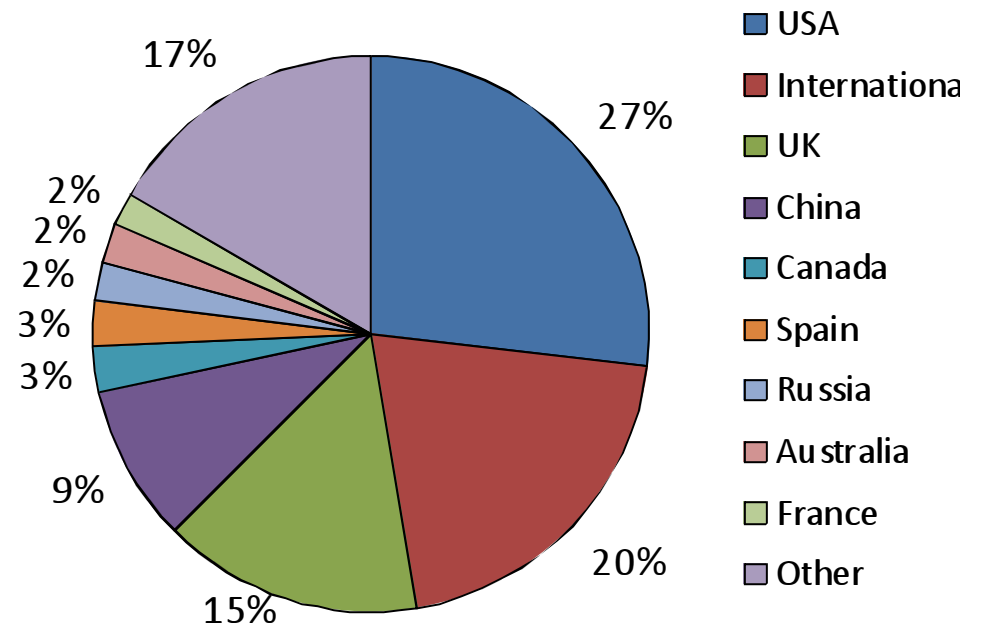


Topic:

Source Country:



■ Food
■ Feed
■ Food and Feed



Sources from 37
different countries
in total

Media: Summary points

- We are tracking & monitoring on an on-going basis.
- Robust volume of media coverage on insects in food and feed continues.
- Appropriate trade & consumer coverage increasingly important as the 'evidence base' builds to ensure industry take-up & improve consumer understanding/acceptance.

www.commnet.eu



The PROteINSECT Survey

- Baseline exercise launched on website in October 2013; closed on 31 March 2014.
- Available in English, French and German.
- To discover whether people would be accepting of insects in animal feed and food – and if not, what objections they raised.
- Promoted using different channels e.g. via our social networks, at conferences, via press releases published in newspapers and trade publications.
- Project partners in China and Mali also distributed copies in their respective countries.



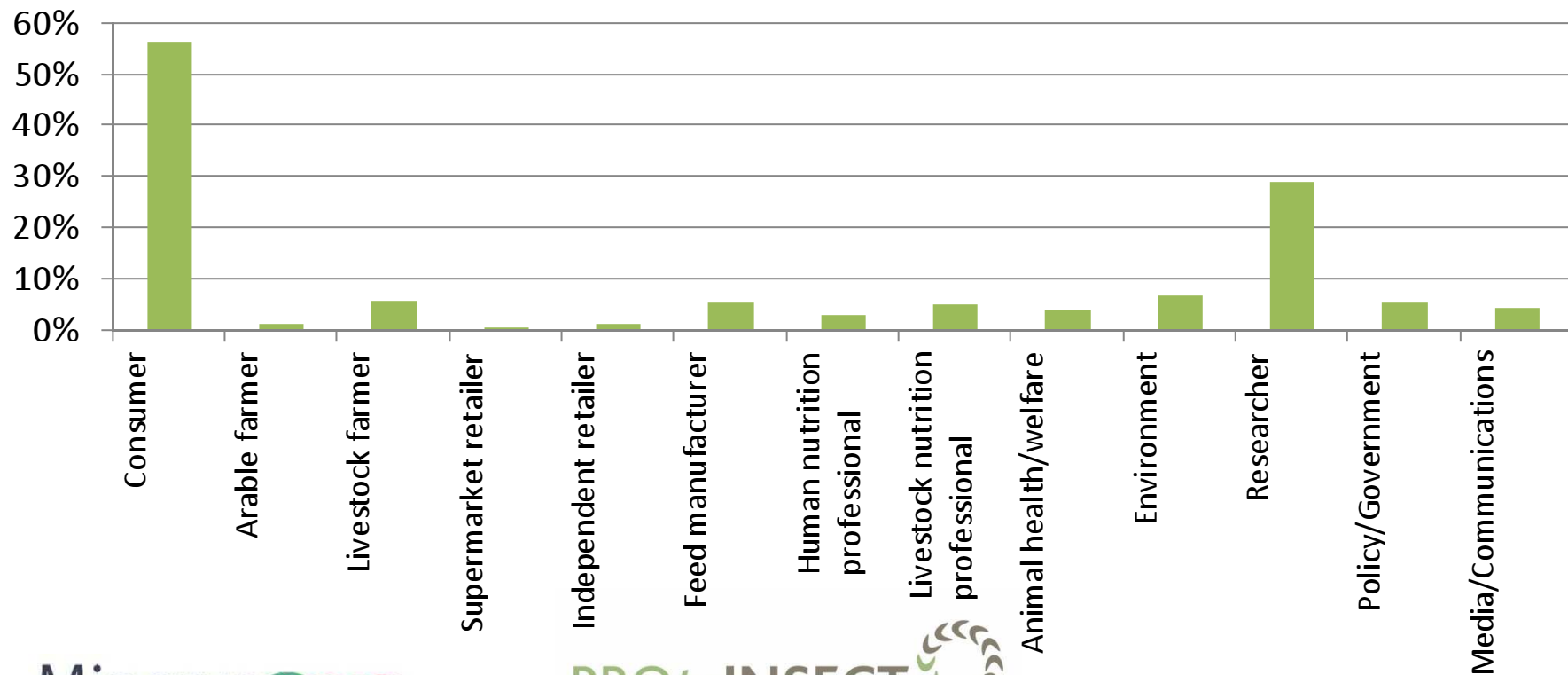
Demographics

Total no. of replies:
1302

Gender:
Male = 55.9%
Female = 43.7%
Other = 0.4%

Age:
50+ = 22.4%
30-50 = 49.9%
18-30 = 25.7%
Under 18 = 2.0%

Country of residence (Top 5):
UK = 27.3%
Mali = 8.5%
China = 8.2%
Poland = 6.7%
France = 6.3%
Replies from **71** countries in total





Insects in Animal Feed



1) *Would you eat fish, chicken, or pork that have been fed on a diet containing protein from insects?*

Yes = 72.6%

No = 6.5%

Maybe = 13.8%

Don't know = 7.0%

2) *Do you think that the larvae of flies are a suitable source of protein for use in animal feed?*

Yes = 65.8%

No = 6.1%

Maybe = 16.8%

Don't know = 11.3%

3) *Should chicken, fish and pork, for sale for humans, and fed on protein from insects state that clearly on the food label?*

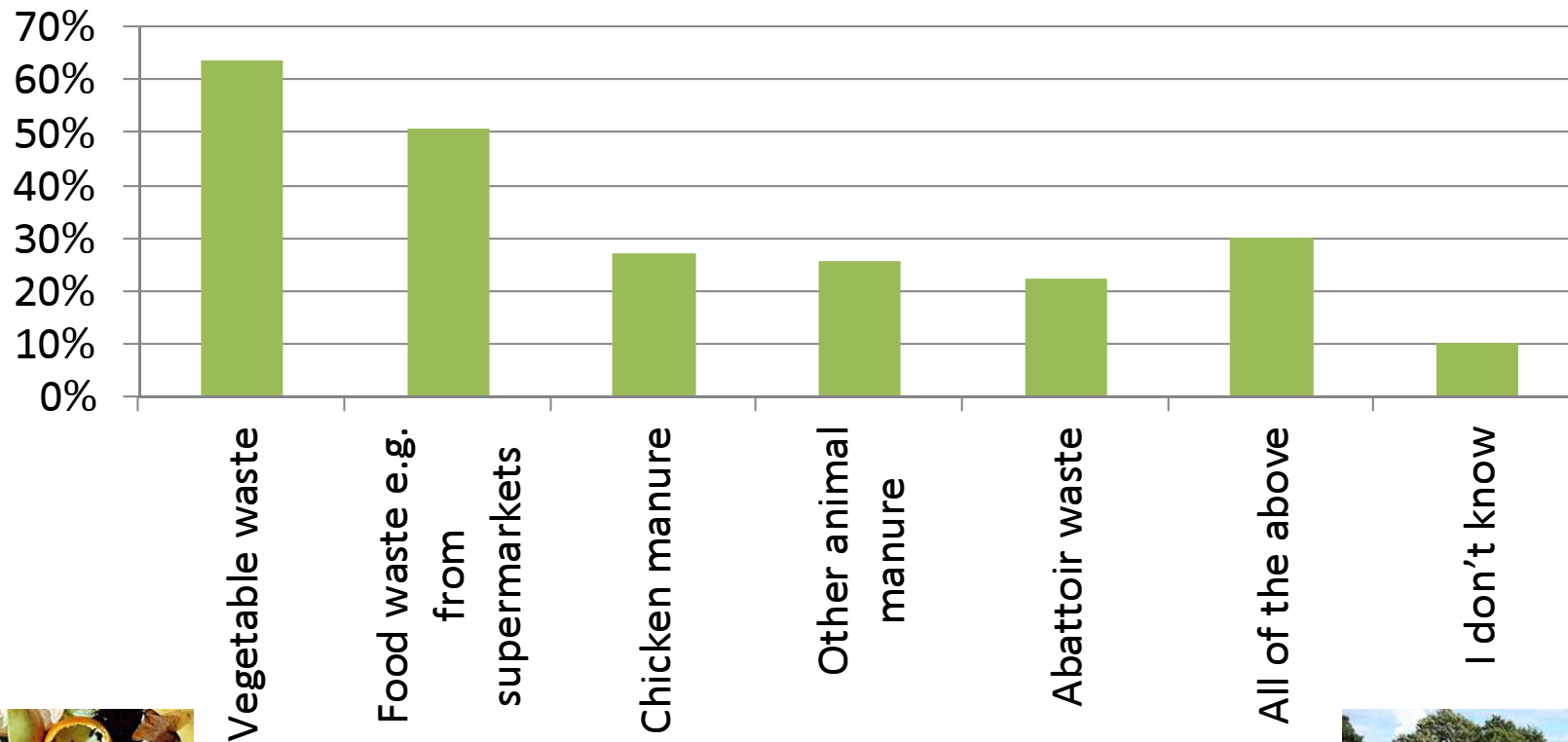
Yes = 57.2%

No = 30.1%

Don't know = 12.7%

Substrate used to rear insects

Insect larvae to be processed for use in animal feed can be raised on a range of waste materials listed below. Tick the waste materials you think are suitable to be used.



Insects as Food



1) *Have you eaten insects directly yourself?*

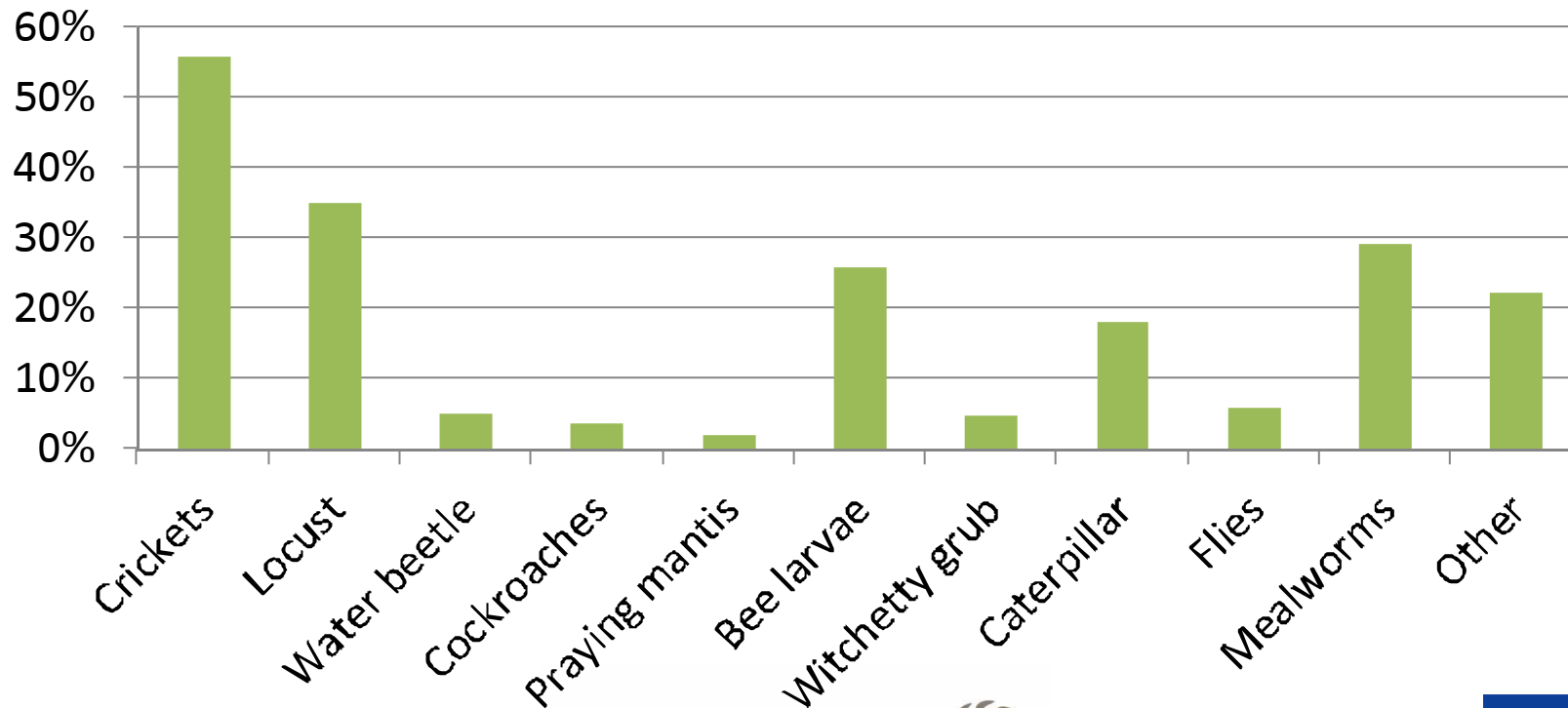
Yes = 38.8%

No = 43.2%

By mistake! = 14.3%

Don't know = 3.7%

2) *Which insects have you eaten?*



Selected Comments



- If the practice is safe, then I have no problems with it
- I don't feel ready to eat insects even though it is food, but I really like the idea of using larvae or insects to raise chicken or fish or pork, or even shrimps
- It seems like a very "natural" way to go about this, which is appealing
- If meat fed on insects did not taste any different, then I would not have a problem eating meat raised on insect feed
- I don't like interfering with our food chain in this way
- The costs of processing and making 'safe' may be prohibitive
- Does not seem ethical
- Regulatory topics need to be urgently clarified!
- I personally think the idea is disgusting
- People should be provided with significantly more information

Need for More Information

1) *Do you think there should be more information available on the use of insects as a food source for animals and humans?*

Yes = 88.2%

No = 1.8%

Maybe = 7.8%

Don't know = 2.2%

2) Out of the people that did not say yes to this question:

Would you eat fish, chicken, or pork that have been fed on a diet containing protein from insects?

52.4% said it was because they don't have enough information.

3) Out of the people that did not select 'all of the above' for the substrate options:

39.5% said it was because they don't have enough information.

Survey: Concluding remarks



- Exercise results suggest that perhaps people are more accepting of the idea of insects in food and feed than we might have predicted.
- There is a clear desire for more information on this topic to be made available— need continued public engagement to increase awareness.
- PROteINSECT will be carrying out a 2nd consumer information gathering exercise to track public perception in early 2015.
- PROteINSECT will also be carrying out information gathering exercises with targeted umbrella trade & industry groups over the next 12 months.
- Full reports on media coverage and our survey will be available on our website: www.proteinsect.eu.

Engineering Competition

PROteINSECT is looking for engineering solutions for the most pressing bottlenecks.

An engineering competition for Master Students will be launched in September 2014.

[More info at: www.proteinsect.eu/](http://www.proteinsect.eu/)



The research leading to these results has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n° 312084

Further Information

- Come and see the PROteINSECT Team at our stand in the bar/refreshment area for more information
- Contribute your voice to our on-going efforts to capture/reflect current perception & support increased understanding

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Questions

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Minerva



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