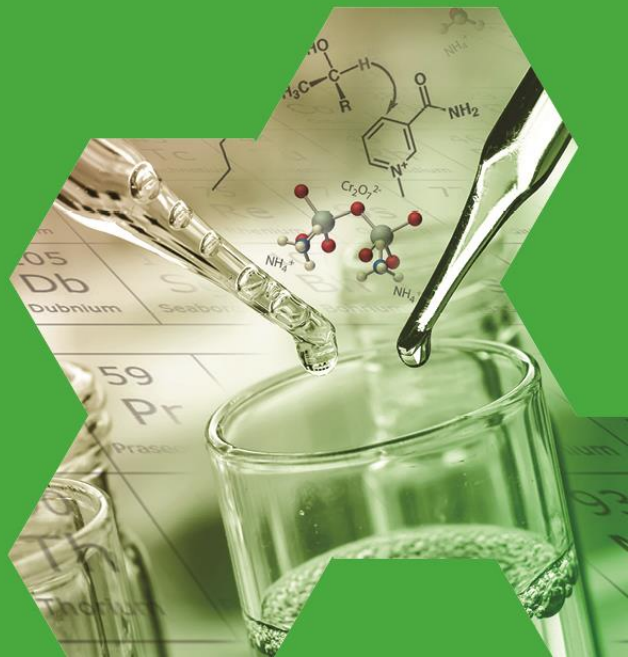
FoodWasteNet

@foodwastenet

Value from Food Waste & Co-products – application and funding summary

www.foodwastenet.org



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Agenda

- About FoodWasteNet
- Where waste comes from
- Supported projects
- Case studies

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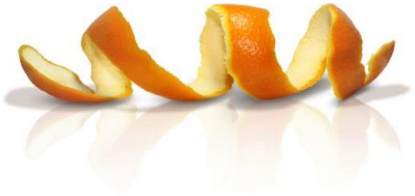
What is FoodWasteNet?

- An active community of industrial practitioners and academic scientists dedicated to creating economic value from pre-consumer food processing waste and by-products
- One of 13 Networks in Industrial Biotechnology & Bioenergy (NIBB), funded by BBSRC
- The Network runs for 5 years (2014-2019)



BBSRC
20 Years of Pioneering
Great British Bioscience

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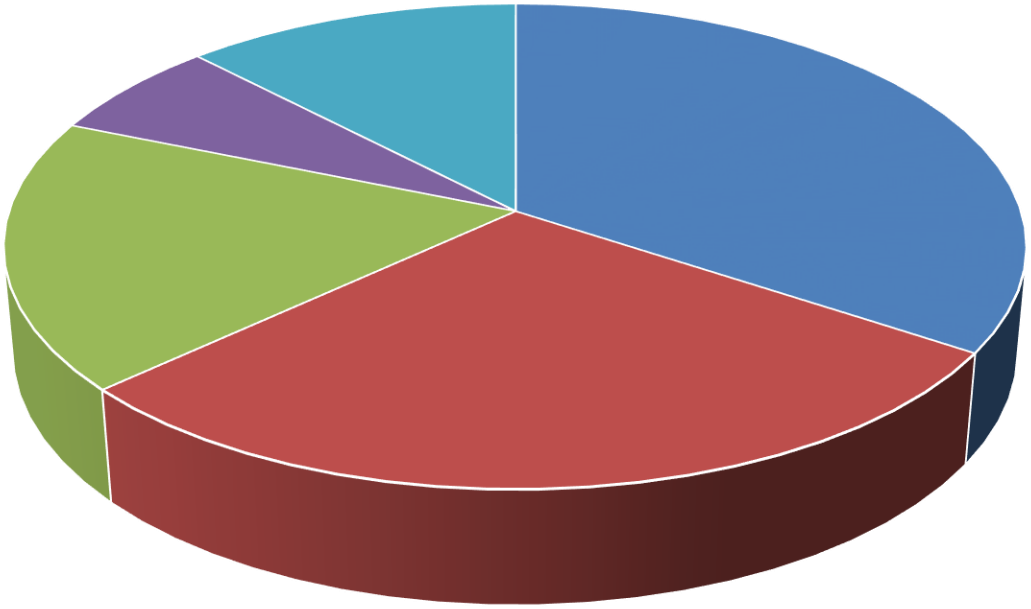
Membership



- Principle investigator / senior researcher
- Industrial
- Early career researcher
- International
- Other NIBB, BBSRC, KTN, other

Join online at: **www.foodwastenet.org**
Enquiries to: Vicki Aldmington, Network Manager: v.f.aldmington@reading.ac.uk

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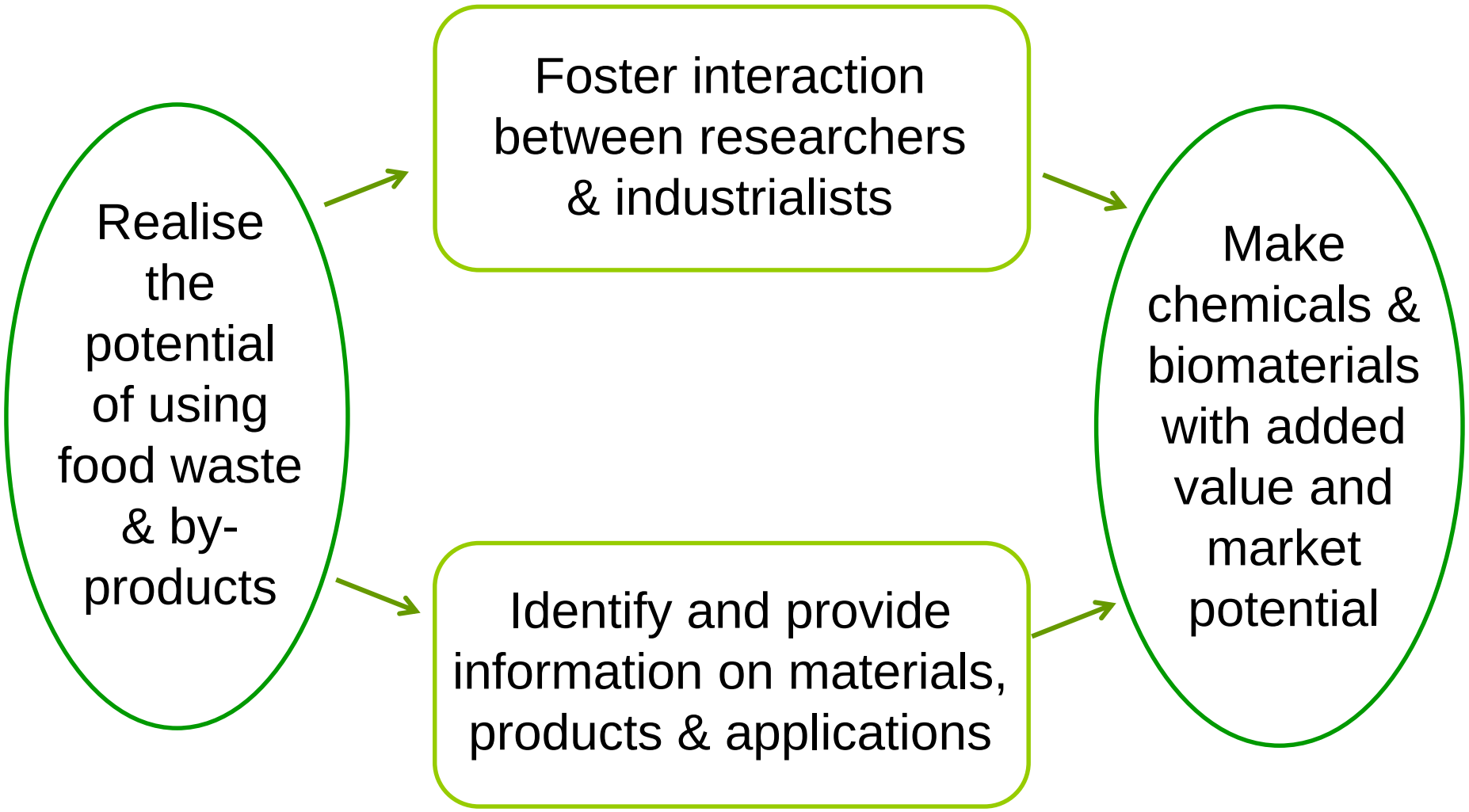
Network Aims



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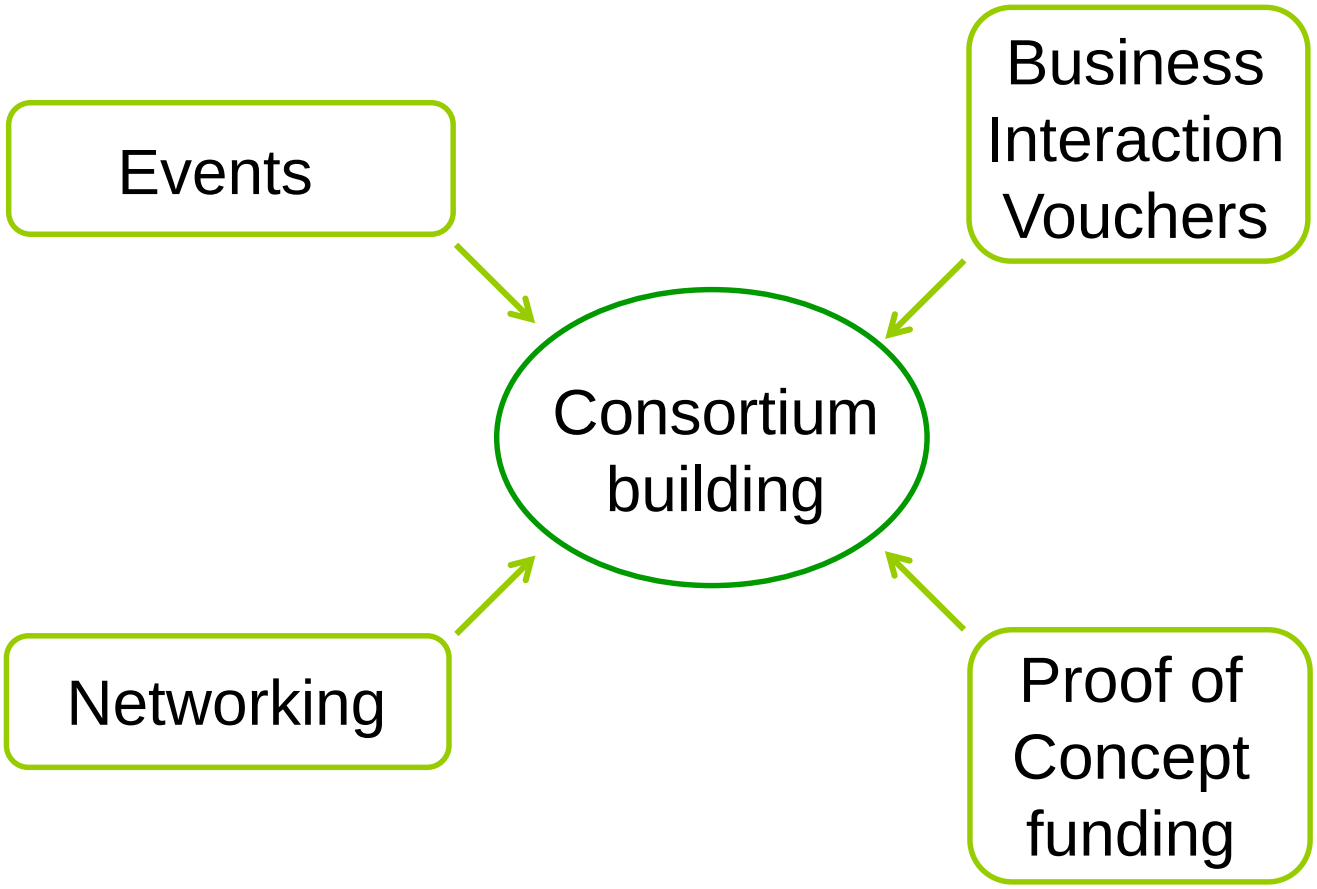
Network Activities



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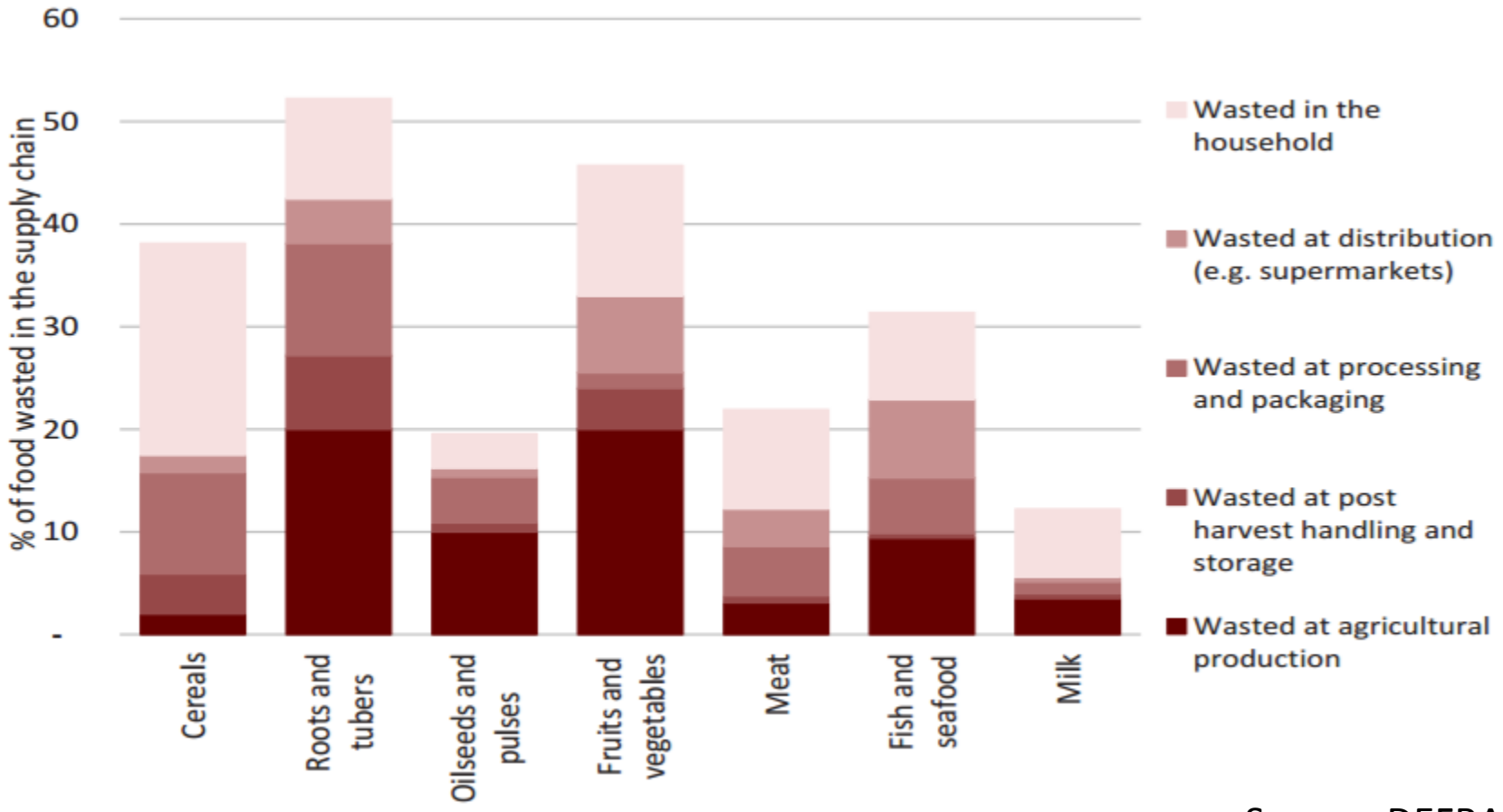
Ca 7Mt pre-household waste pa



Source: DEFRA 2016

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Waste categories

Source: Google images

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BIV funding

Assessment criteria	Weighting
Idea, problem addressed, background	20
Outline of proposal	25
Milestones/deliverables	10
Value to industrial partner	25
Potential for building longer-term relationship	10
Funding justification	10

Each criterion is marked on a scale from 1-6. Alignment of the proposal with BBSRC IBBE strategy and FoodWasteNet Aims & Themes is necessary for inclusion in the assessment process.

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BIV applications

Year	2014	2015	2016
Rounds	1	2	3
Applications	4	7	27
Max award value	£5,000	£5,000	£10,000
Awards made	4	5	7*
Av award value	£4,791	£4,999	£8,849

* Two projects were withdrawn from the third round

Successful BIV partners

Academic	Industrial
Aberystwyth, Bangor (2), Bath, Glasgow, Greenwich, IFR, Lincoln, Nottingham (2), Reading (2), Rothamstead, Sheffield, Southampton, York	A&R House (2), bio-bean, Branston, Celbius, Cellucomp (2), Coop, Entomics (2), Fiberight, Greencore, Monahan Mushrooms, Muntons, Roil Foods, Stainswick Farms, Unilever, WJFG

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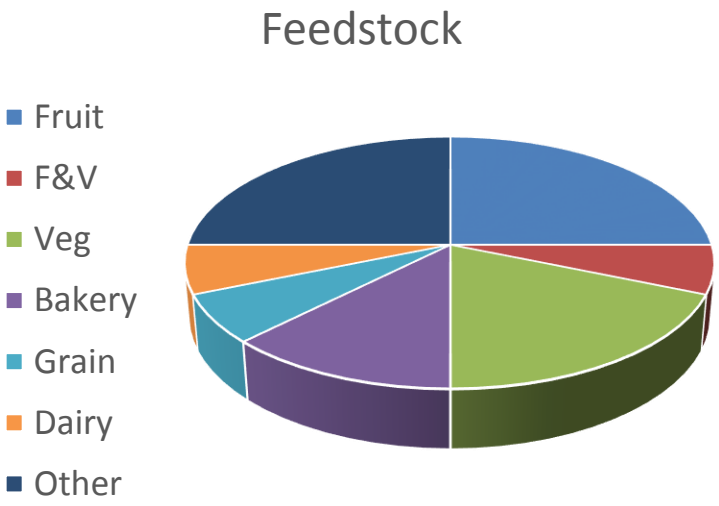
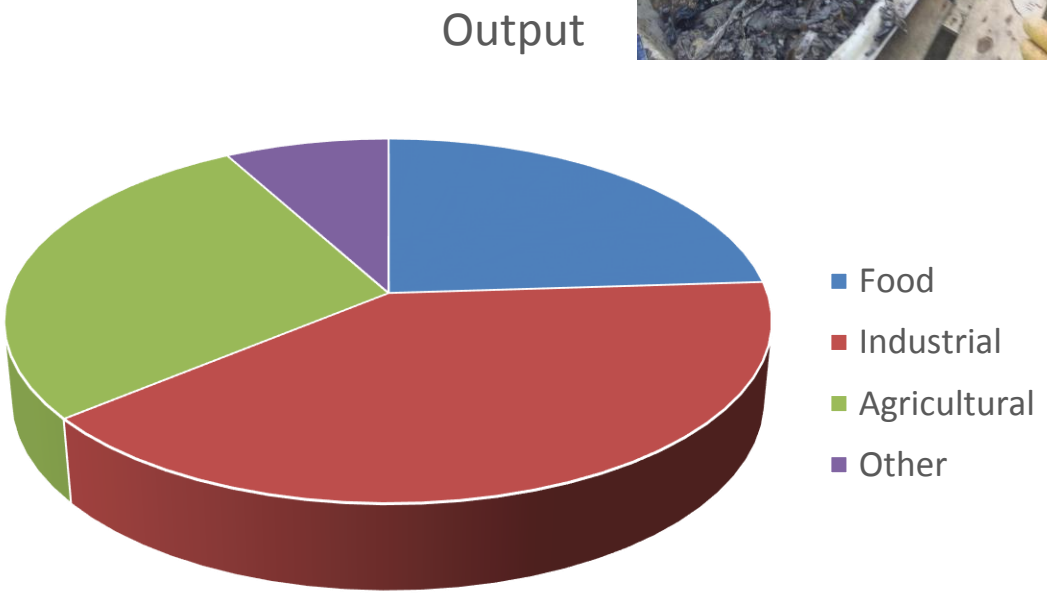
BIV project summary





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PoC funding

Category	Scoring criteria	Max score
Project summary	• Relevant IB challenges & how the project will meet them • Innovation • Prior experimental/technical evidence • Technical approaches, milestones & deliverables	30
Funding & added value	• Details of how this PoC funding will add value for the industrial partner and/or lead to further funding applications • Explanation of why POC funding is required	10
Consortium	• Nature of the consortium and how this adds value to the application • Details of industrial partner's financial contribution	10

NB: minimum 60% score required in each category for inclusion at evaluation panel

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PoC applications

Year	2014	2015	2017
Rounds	1	1	1
Applications	8	18	18
Max award value	£50,000	£50,000	£50,000
Awards made	3	4	3*
Av award value	£46,659	£47,373	Tbc

* Provisional pending on outcome of review process

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Successful PoC consortia

Academic	Industrial
Nottingham University	Green Pea Company
Glyndwr University	Larchwood Foods & Croda International
Aston University & IFR	Hovis & Chemoxy International
Harper Adams & Bangor University	Freshtime
York University	Unilever
Nottingham Trent University	Avgo Biotech
York University	Croda International

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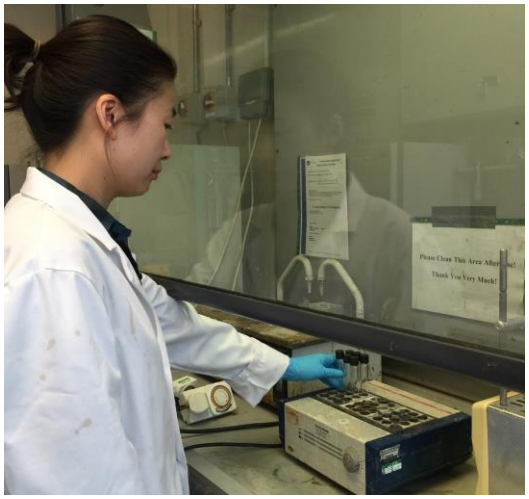
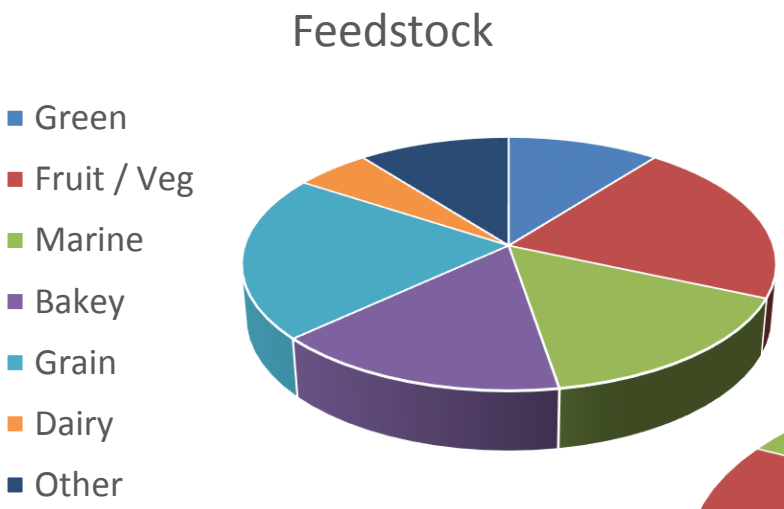
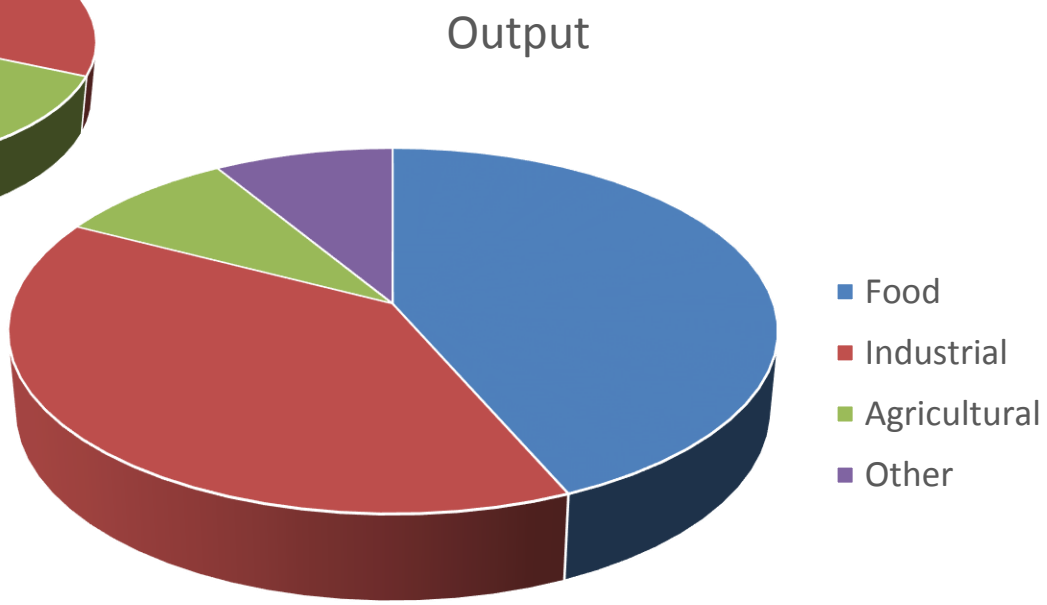
PoC project summary







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Isolation, characterisation and functional properties of rape seed proteins

- Glyndwr University, Larchwood Foods Ltd & Croda International
- Post oil-extraction, rapeseed meal contains ~40% protein
- Developed a protocol for protein extraction
- Characterised amino acid composition & molar mass
- Functionalisation by hydrolysis & acylation
- Evaluated protein performance as foaming and emulsifying agents in personal care and cosmetics

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Leaf waxes from brassica waste to produce novel film anti-transpirants

- Harper Adams University, Bangor University & Freshtime
- Extracted and enzyme-modified brassica leaf waxes & characterise chemical and physical properties
- Compared water vapour and CO2 transmission with existing commercially-available terpenes
- Assessed spray deposition pattern and responses in vivo
- Determined efficacy in drought
- Estimated cost of production.

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Thank you for your attention

Images from FWN partners, Wikipedia & The Sunday Times