

WASTE FEW ULL

WASTE: FOOD - ENERGY - WATER URBAN LIVING LABs

Bristol ULL

Planning final 4-8+ months activities

International ULL / WP Lead e-Meeting, 19th Jan 2021



Evidence so far...

- **Micro-economic valuation:** reinforces waste hierarchy (socio-enviro benefits of upstream reduction)
- **Macro-economic valuation:** potential 'economic' contraction through reduced food waste
- **Mapping out of systems through engagement:** essential context, but limited application for practitioners? [ongoing]

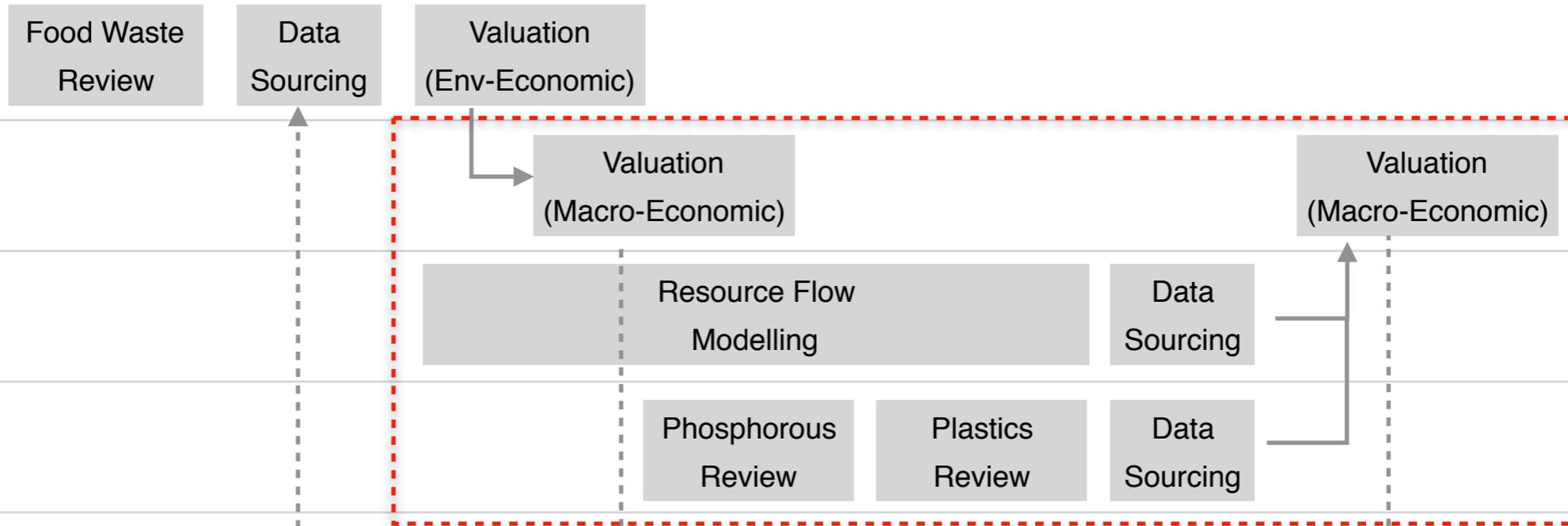
Next steps...

- **Staggered deadlines:**
 - May '21 (commercial partners finish)
 - Sept '21 (UK academics finish)
 - Dec '21 (economics finish)
 - May '22 (final report/outputs / dissemination finish)
- **New focus areas - next steps in relation to food waste:**
 - Plastics - residential (compostable 'caddy' bags), commercial (supermarkets)
 - Phosphorous - new Water UK drive

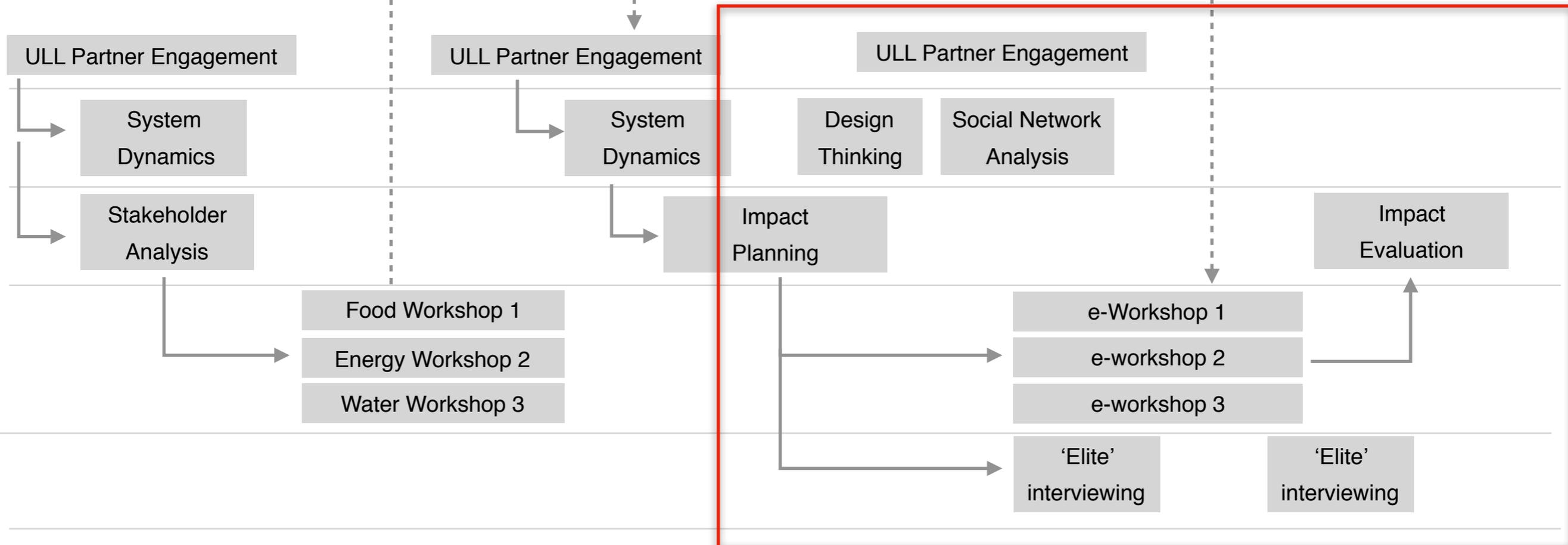


"The sector could look to engage with the agricultural sector and Defra to develop the evidence base of the true value of P for the UK, particularly as it becomes increasingly scarce globally. This could be used to drive up the market price or introduce incentives for P recovery..."

Problem Space



Solutions Space

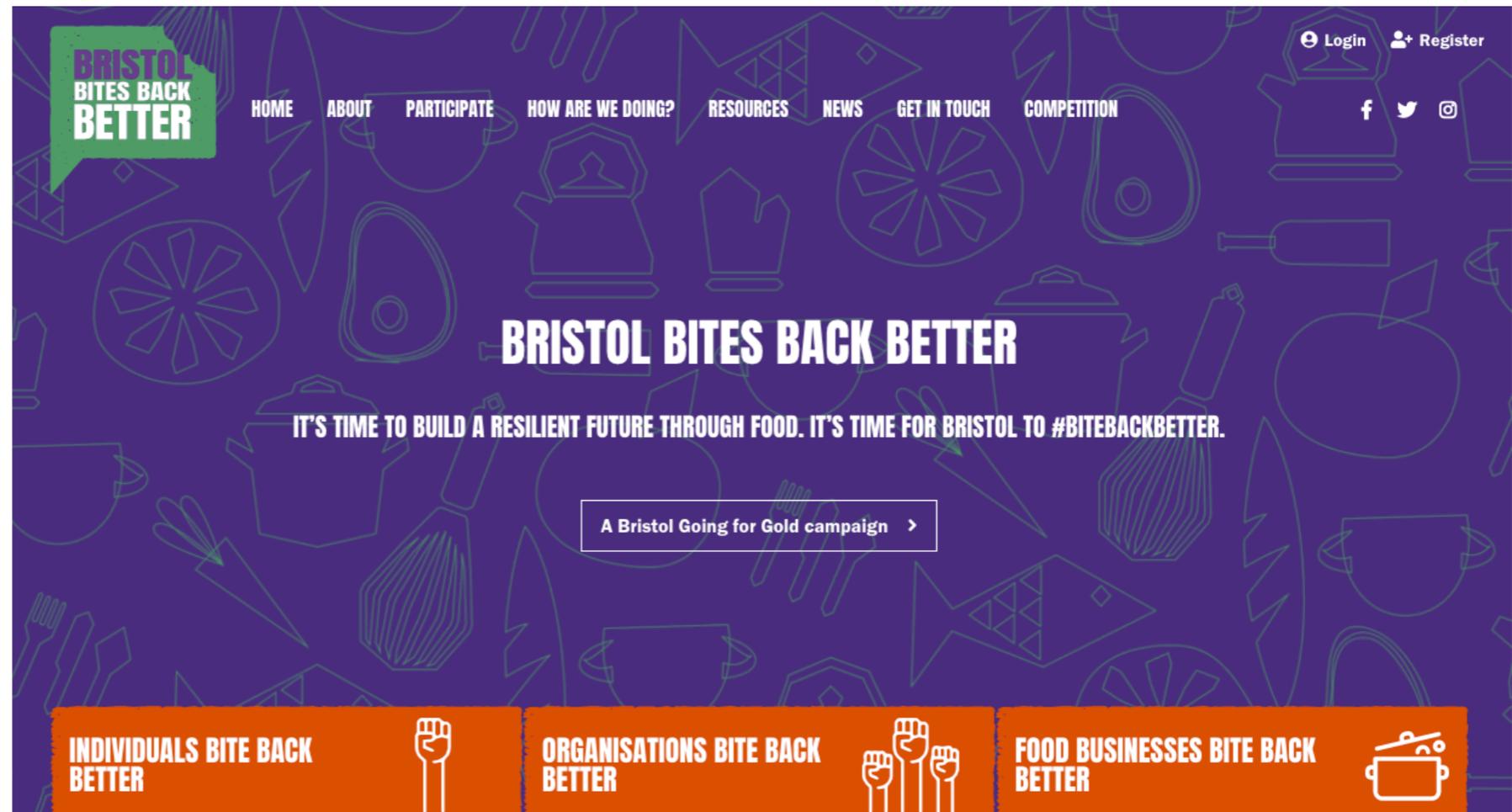


Final phase engagement - dates still moving...

When?	What?	Who leads?	Who contributes (and supports)?	What is the proposed format?
January/ February	2.b(i) Resource flow and agent-based modelling	Ali and Matt	(Marco, Jana, Richard, Ian)	Online interviews
Early February	1.a) Economic valuation of food waste interventions	Ian	Dan, Taoyuan, <i>maybe Richard</i> (Jana, Jen)	Online workshop (1,5h-2h)
End of February	2.a) Introduction to design-based thinking and decision-making in the FEW nexus	Richard	Rachel (Jana, Jen)	Online workshop (2h)
Mid-March	1.b) The local and global challenges of nutrient loss	Ian	Bingzi, Dan, Francis, Taoyuan, Ulrich (Jana, Jen) <i>maybe Joy</i>	Online workshop (1,5h-2h)
End of April	1.c) Reducing food waste stream contaminations (plastic)	Ian	Bingzi, Dan, Francis, Taoyuan, Ulrich (Jana, Jen)	Online workshop (1,5h-2h)
End of May	2.b(ii) Resource flow and agent-based modelling	Marco	Ali, Matt (Jana, Richard, Jen)	Online workshop (1,5h-2h)
September	3) Final results and way forward	Dan	Adina, Ian, Jana (Sue, Jen, all involved)	3h face-to-face celebration of results in Bristol

- Resource flow modelling
- Design thinking / decision-tree model testing
- Valuation, policy and impact
- Final presentations / integration

A focus on food, food waste and compost



“To achieve Gold, in addition to providing further evidence on these six themes, Bristol will also need to demonstrate ‘excellence’ in two areas:

Reducing Food Waste and Building a Good Food Movement.”





BRISTOL
waste

resourcefutures

Wessex Water
YTL GROUP

GENECO
Sustainable Solutions

- 16% increase in the amount of food waste collected in the month following the launch of the campaign.
- 290.5 tonnes of additional food waste collected.
- 174.3 tonnes of CO2e saved by diverting food waste from landfill (the equivalent to taking 55 cars off the road for a year).
- Enough additional biogas created in one year to power an extra 180 households for a whole year.

Councillor Kye Dudd, Cabinet Member with responsibility for Waste and Recycling, said:

“I am really pleased that, following a successful pilot, this campaign has captured the imagination of the city and helped us to increase our recycling rates.”

“Slim My Waste – Feed my Face has also been recognised by the wider waste industry, which shows that Bristol is coming up with innovative ideas to try and increase the levels of recycling in the city.”

Emerging impact strategy

Estimated likelihood of interest



Decision-Makers
Lay public
Partners
Researchers

Evidence	By when?	Who's interested and why?	Researchers	Partners	Lay public	Decision-Makers
So far						
Non-market valuation (of food waste): reinforces waste hierarchy (socio-enviro benefits of upstream reduction)		<ul style="list-style-type: none"> Policy-makers (BCC) - Zero Carbon 2030 BFN/RF - Going for Gold Bristol Waste - Slim my Waste WW/GENeco - Infrastructure provider/Innovator 	High	High	Low	Med (unsure)
Macro-economic valuation: potential 'economic' contraction through reduced food waste		<ul style="list-style-type: none"> Policy-makers (DEFRA) - maybe later? Partners and stakeholders (essential for understanding potential barriers to pathways to impact?) 	High	High	Low	High
Mapping out of systems through engagement: essential context, but limited application for practitioners?		<ul style="list-style-type: none"> Essential for framing of economic valuation - e.g. <ul style="list-style-type: none"> Partners and stakeholders to develop / validate pathways to impact External others? (depends on what is known by key decision-makers) 	High	High	Med (unsure)	Med (unsure)
To come						
Plastics/Phosphorous 'state of the art': giving group a working knowledge	End Nov/Dec '20?	<ul style="list-style-type: none"> <i>Internal? (For group: systems understanding and helping source data for economic valuation)</i> 	High	Med (unsure)	Low	Med (unsure)
Flows modelled through WW plant - essential for economic valuation?	Spring '21?	<ul style="list-style-type: none"> <i>Internal? (For economic valuation)</i> 	High	Med (unsure)	Low	Med (unsure)
Market and non-market economic valuation (of plastics and P): likely high level numbers, but giving order of magnitude value comparison between upstream reduction vs downstream recapture	Spring '21?	<ul style="list-style-type: none"> As above, but for plastics and P - e.g: NATIONAL <ul style="list-style-type: none"> Plastics: WRAP? INCPEN? DEFRA? P: NFU, EA, DEFRA LOCAL <ul style="list-style-type: none"> Local control? (e.g. Supermarkets?) Local residents (Going for Gold) 	High	High	Med (unsure)	High
Social Return on Investment (of food waste, plastics and P): high level, qualitative	Spring '21	<ul style="list-style-type: none"> Bristol City Council (given Labour Govt and focus on equality?) 	High	Med (unsure)	Med (unsure)	Med (unsure)
Systems analysis: context to provide impact strategy, valuation, wider factors at play, etc. (Spring '21)	Spring '21	<ul style="list-style-type: none"> As above - testing pathways to impact 	High	High	Low	High

Outputs...



Final Report / 'Toolkit'

Lessons learned from
four ULLs

WP5 Paper / Report

**Comparing approaches
to societal impact planning and evaluation
across four urban living labs**

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- Comparison matrix