



## Stakeholder engagement based on Scottish & Irish experiences

Phos4You final conference, Essen & online, 22 – 23 September 2021,  
Tamsyn Kennedy, Scottish Water

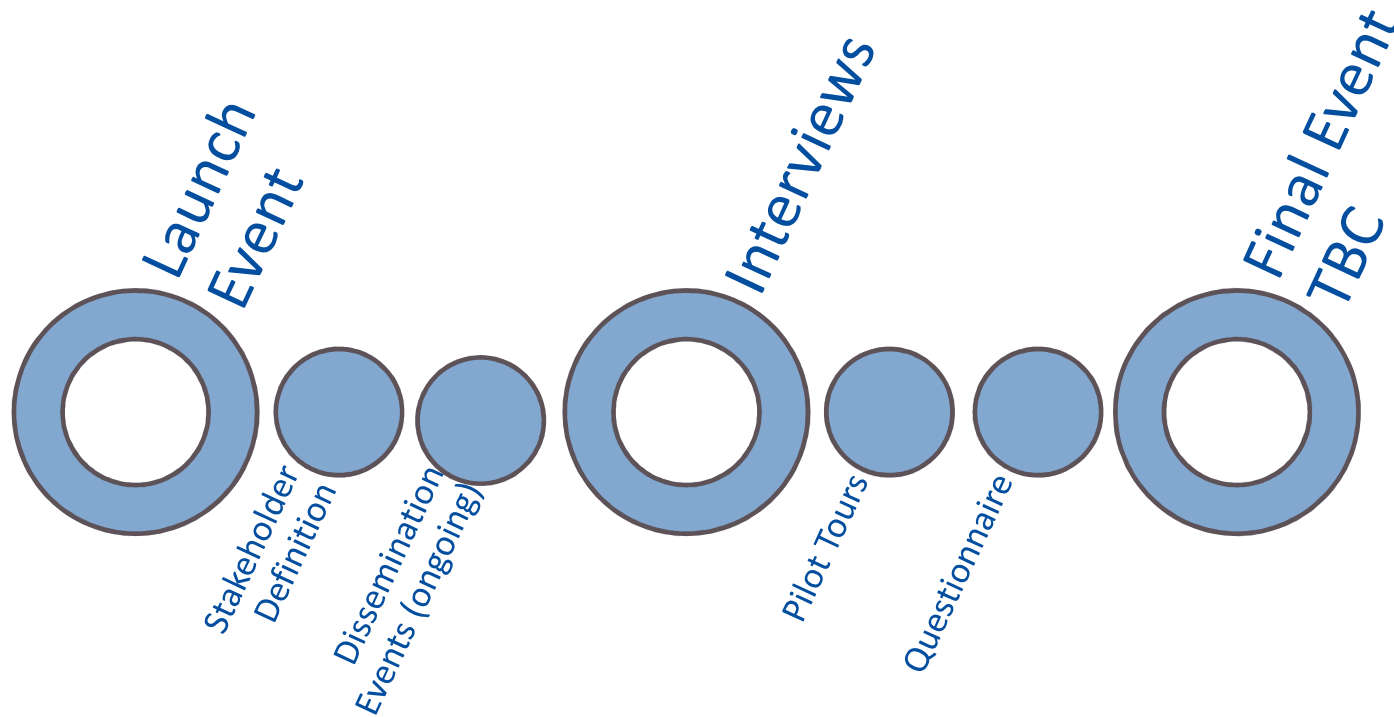
# Stakeholder Engagement

- Why is it important?
- Purpose:
  - Capture stakeholders' first thoughts on:
    - Issues
    - Benefits
    - Challenges
  - Opportunity for stakeholders to inform the agenda
  - Develop relationships for future engagement, as appropriate

# What about the pandemic?

- Halted individual face to face engagement
- Events were cancelled e.g. Royal Highland Show
- In person opportunities were limited e.g. Scottish Government showcase
- Had to alter activities – created the Questionnaire
- Might get better interactions virtually?
  - wider audience
  - time to consider opinions
  - more opportunities

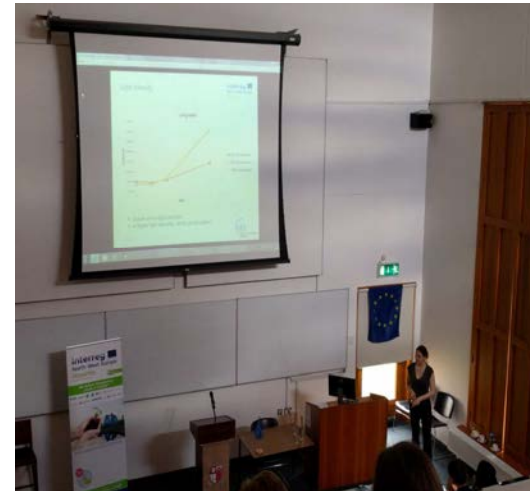
# Engagement Timeline



# Dissemination Events



Glasgow Science Festival June 2018



Environ 2018 Conference

- 10<sup>th</sup> International Conference on Biofilm Reactors, Dublin, Ireland, 2017
- 12th European Waste-Water Management Conference, Manchester, UK, 2018
- 16th IWA LED on Water and Wastewater technologies, Edinburgh, Scotland, 2019
- Smart STEM school events (2016, 2017, 2018 and 2019)
- Hyvolution 2020 (EMEC), Paris, France 2020

# Interviews

Aim was to build:

- Full picture of current industry / regulatory context from their position
- Potential opportunities now and in the future
- Known barriers and challenges
- What was their demand – production and use
- Emerging trends e.g. policy
- Any other stakeholders we have missed



# Bo'ness Development Centre



Located on a live, operational treatment works, Scottish Water's Waste-Water Development Centre is located at Bo'ness in the central belt of Scotland.

During the Phos4You project it hosted three of the pilot plants – Microalgae, Filtraphos and PULSe.

Engagement in the project was boosted by having them here because:

- Tours by interested parties could be easily arranged
- Development centre is part of European Water Test Network
- Regular information events for the centre included promoting the Phos4You pilots

# Questionnaire

- Used Survey Monkey, open for 2 months
- 16 questions with 109 participants: 66% from a rural setting
- Quantitative closed-questions: multiple choice, Likert scale and rating scale
- Qualitative open-ended questions: unprompted responses
- Asked reasons for P recovery, concerns regarding wastewater effluent, P recovery technologies and the future use of P.
- Poor response in Scotland, no report produced

## Different experience in Ireland:

- Excellent response with a wide range of stakeholder groups
- Extensive report of results published



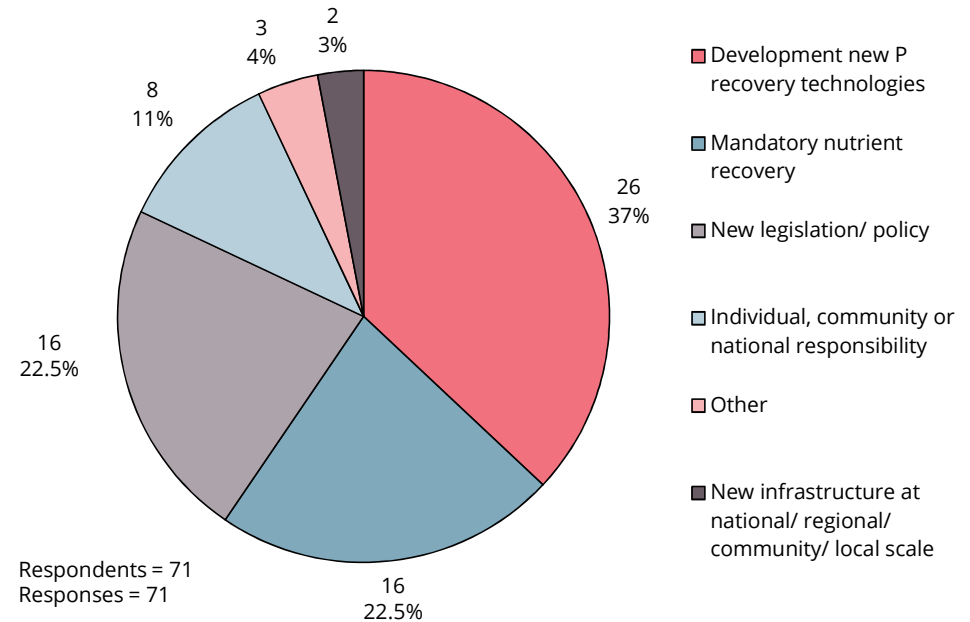
# Survey Results Highlights

## Main Concerns Regarding Wastewater Effluent



- 31% Contamination
- 30% Impact on water quality
- 25% WWTP capacity/ technology

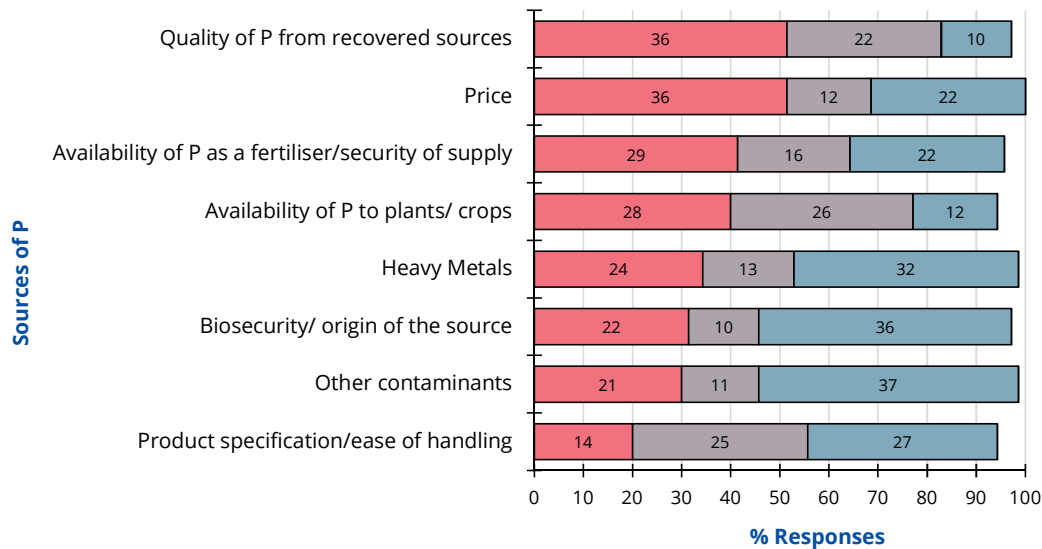
## Preferred Solution for Urban/ Rural P Recovery



- 37% Development of new P recovery technologies
- 22.5% Mandatory nutrient recovery
- 22.5% New legislation/policy

# Survey Results Highlights

## Conditions to Consider when using P from Recovered Sources



Respondents = 70  
Responses = 543

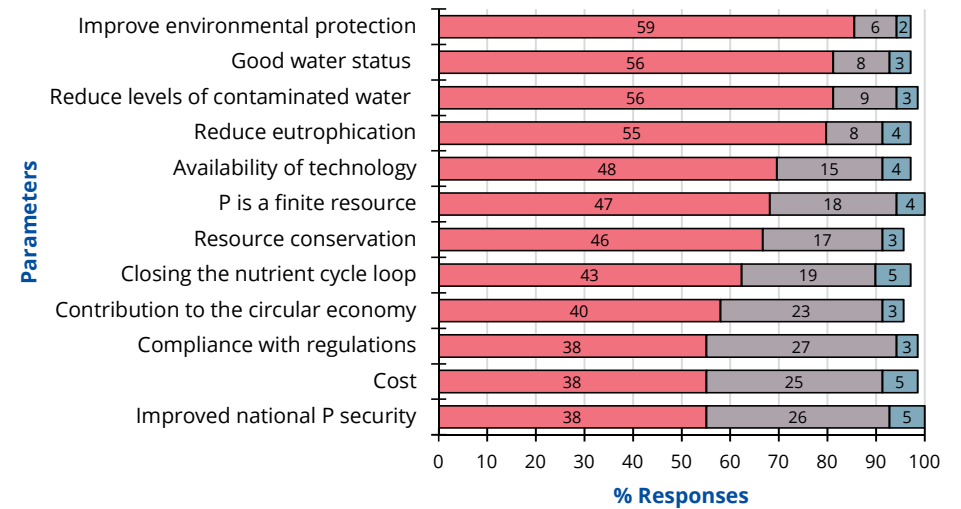
### Most important:

51% Quality of P

41% Price

40% Availability of supply

## Parameters to Consider in the Decision-Making Process When Recovering P from a Rural Wastewater Source



Respondents = 69  
Responses = 809

### Extremely important:

86% Improve environmental protection

81% Good water status

80% Reduce levels of contaminated water

# Survey Conclusion and Recommendations

## Conclusions:

- P-recovery Stakeholder Survey was successful
- 109 survey participants from Ireland with 66% identifying as from a rural setting.
- Contamination was their main concerns regarding wastewater effluent.
- Development of new P recovery technologies was their preferred solution for urban/ rural P recovery.
- Quality of P, price and availability were the conditions to consider when using P from recovered sources.
- Improving environmental protection should be considered in the Decision-Making Process When Recovering P from a Rural Wastewater Source.

## Recommendations:

- Wastewater industry and fertiliser industry need to develop a recovered P product that is affordable, free from contaminants, is good quality and readily available for the end-user
- Increased funding and investment
  - Modernise Irish WWTPs
  - Provide increased capacity to treat wastewater
  - Potential for greater P-recovery
- Agricultural advisors can inform the farmers of the many benefits, not just agronomically but also environmentally of using P-recovered from wastewater sources.

# What did we learn about the process?

- Variable awareness and sense of urgency in stakeholders must be accounted for
- Plans can be interrupted, have back up ideas
- Timing is important
- Site selection can have engagement benefits
- Raising awareness has wider implications
- Always more to be done!

# Next Steps

- Hold a final dissemination event at end of November to present all the project's findings and display the obtained P products
- Publicise the report summary with Stakeholders, within our organisations and with our working partners
- Monitor of economic and legal situation for changes to Stakeholder opinions

# Engagement is a vital part of product development and the process should start much before availability

