# WASTE MANAGEMENT INNOVATION LAB – MARCH 2016



#### **Innovation Lab NI**

The Northern Ireland Public Sector Innovation Lab, within the Department of Finance (DoF), aims to improve public services by creating a safe space to formulate and test ideas, make mistakes and learn from them. Developing refined, added-value solutions to complex challenges.

# The Challenge

The EU Waste Framework Directive has set out targets on how waste should be managed in the EU.

In order to comply with the objectives of this Directive, Northern Ireland is to achieve the following target:

• 'by 2020, the preparing for re-use and the recycling of waste materials such as at least paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar to waste from households, shall be increased to a minimum of overall 50 % by weight'1



Achieving the EU target remains a considerable challenge and the Department of Agriculture, Environment and Rural Affairs (DAERA) commissioned the Innovation Lab to take a fresh look at improving the quality and quantity of household kerbside recycling.

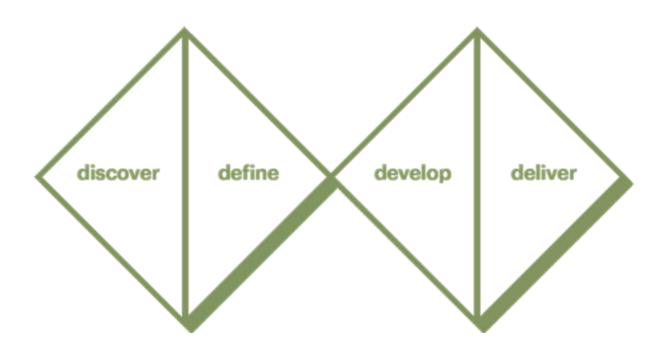
Much work has been completed to date to maximise efforts to increase recycling rates and to continue the momentum the Innovation Lab prepared a workshop to facilitate the development of innovative ideas with DAERA and the Northern Ireland councils.

<sup>&</sup>lt;sup>1</sup> Article 11(2) - Commission Decision 2011/753/EU



## The Approach

The Innovation Lab uses the double diamond approach as the lab structure. The approach begins with behavioural insights gathering (discover) followed by the definition of the challenge (define). The design lab involves storytelling and idea generation (develop), before the final idea evaluation workshop with the Lab Team (deliver).



The waste management lab was held over two days in March 2016. The lab participants included representatives from central government, Welsh government, all NI local councils, experts from the NI and UK voluntary sector, industry and academia.

The participants were taken through a number of exercises based on the insights gathered during the research and citizen engagement phase. We displayed the information in several ways including posters, facts and figures graphs and personas.

The lab was fun and interactive bringing in expertise from different sources to ensure a multi-disciplinary collaborative approach to solving the challenge.

#### **Outcomes**

During the research and citizen engagement phase three elements of the recycling system were identified which helped shape the discussion during the lab.

Infrastructure - the built environment, products and objects

**Service** – the system providers and enablers that allow people to participate in a particular environmental practice

**Behaviour** – relates to people, who we are and our disposition towards the environmental practice

Ideas were generated based on the elements identified and these ideas were shortlisted following a 'thinking hats' discussion and voting session. The lab concluded with a broad consensus on 17 ideas and on their priority order for implementation.



#### **Ideas Selected**

The 17 ideas selected to move into design, prototyping and testing were arranged into 8 priority groupings by the lab participants.



#### Priority 1

- Reduce the frequency of collection of landfill bin
- Reduce the size of the landfill bin

## Priority 2

- Provide food caddies and liners for guaranteed recycling (food waste)
- Provide stickers on the inside of householder's bins
- Develop a council owned and run processor

#### **Priority 3**

- Clear visual communication only words or images
- Apps, instant access to information

#### **Priority 4**

- Link recycling to community benefits for a range of groups
- Establish a government/council fund to refurbish items
- Promote effective uses for ratepayer's money if more is recycled
- Create 'incentive' schemes to demonstrate the individual or community benefit from recycling

#### **Priority 5**

- Use power of producers and link to societal/environmental objectives
- Partnership/sponsor events get the interest of global companies

#### **Priority 6**

• Have consistent recycling system at home, work and on the go

#### Priority 7

Single waste authority

### Priority 8

- Standardisation of bin colour
- Mark the bins with exactly what it should hold





#### **Conclusions**

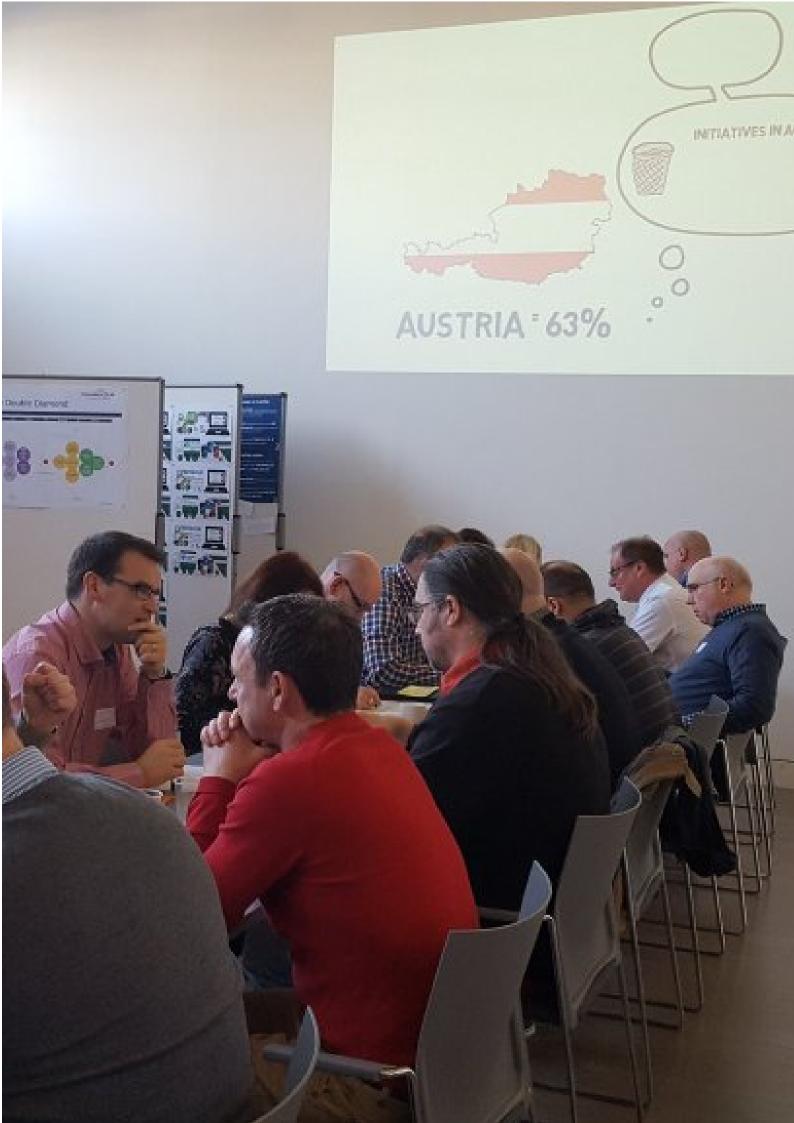
Following further review and refinement, five ideas have been selected for further development:

- Reduce the size of the landfill bin and the frequency of collection;
- Provide stickers on the inside of householder's bins and stickers on the bins with what it should hold:
- Apps, instant access to information;
- Create incentive schemes to demonstrate the individual or community benefit from recycling;
- Have consistent recycling system at home, work and on the go.

The Innovation Lab will continue to facilitate the development of these ideas by running design and prototyping workshops. The team will support and mentor the councils through the testing of the ideas in the council areas.

The lab team are excited about the opportunities that this design process will bring to help councils with this problem and we will continue to support councils after these design workshops.





## Thank-you!

We would like to thank Lab participants for their attendance and enthusiastic input to the process.

- Owen Lyttle, DAERA
- Lisa Mayne, Antrim & N'abbey
- Nigel Martin, Ards & North Down
- Barry Patience, Armagh, Banbridge, Craigavon
- Tim Walker, Belfast
- Nigel McKeown, Causeway Coast & Glens
- Conor Canning, Derry City & Strabane
- John McCullagh, Fermanagh & Omagh
- Noleen O'Malley, Lisburn & Castlereagh
- Stephen Holgate, Mid & East Antrim
- Mark McAdoo, Mid Ulster
- Colette O'Rourke, Newry Mourne & Down
- Russ Jones, DNR, Welsh Government
- Prof Ian Williams, Southampton University
- Andy Dick, Zero Waste Scotland
- Ricky Burnett, Arc 21
- Roisin Jones, WRAP
- Eamon Molloy, North West RWMG
- Kevin McLaughlin, Huhtamaki
- Mary McGuigan, Zero Waste North West
- Mark Donaghy, Lisburn & Castlereagh
- Nick Fleming, Innovation Lab
- Geralyn Quinn, Innovation Lab
- Pauline Wilson, Innovation Lab
- Christopher Farrington, Innovation Lab
- Christo McConnell, Innovation Lab
- Victoria Trimble, Innovation Lab
- Rebecca Walsh, Innovation Lab

