

## NI Assembly

### Committee for the Environment

#### Visit to VITO and Metabolon 14-16 October 2014

The following members of the Committee joined with a visit organised by the ReNEW project to waste recycling and research facilities in North West Europe:

<b>Anna Lo</b>	Committee Chairperson (Alliance)
<b>Cathal Boylan</b>	Committee member (Sinn Fein)
<b>Sandra Overend</b>	Committee member (UUP)
<b>Peter Weir</b>	Committee member (DUP)

#### Background

ReNEW, 'Resource innovation Network for European Waste' is a €5 million project funded by Interreg IVB North West Europe programme. The project is being led by the Questor Centre at Queen's University with partners from across North West Europe<sup>1</sup>. It commenced in January 2013 and will run until June 2015. ([www.renewnetwork.eu](http://www.renewnetwork.eu))

ReNEW aims to drive innovation in the recovery of valuable resources, transforming the waste sector of North West Europe and building a trans-national, cross-sector innovation network. It will stimulate collaboration between researchers, SMEs and public bodies in North-West Europe, working to develop recovery processes and meet future market needs.

#### Participants

ReNEW organised a visit to research facilities in Belgium and Germany, and invited members of the Committee for the Environment to take part. The group also included a number of councillors and officials from Belfast City Council and Coleraine Borough Council; representatives of Invest NI and the Centre for Advanced Sustainable Energy (an Invest NI funded industry-led research centre); Departmental officials including Mr Chris Mills, newly appointed Director of Resource Efficiency, Northern Ireland Environment Agency, and author of the Mills Report on the Mobuoy site; the Director of the

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<sup>1</sup> Queen's University Belfast (QUESTOR Centre), Department of the Environment; Belfast City Council; Donegal County Council; University of Limerick (Technology Centre for Biorefining & Bioenergy, Ireland); AREBS (Seraing Basin Economical Redeployment Agency); VITO (Flemish institute for technological research) and University Université of Liège (Belgium); Universität Duisburg-Essen and Cologne University of Applied Sciences (Germany). WRAP (UK), NUI Galway (Ireland), CTP and VAL+ (Belgium) are sub-partners of the ReNEW project.

Waste Programme Delivery Support Unit, from the Strategic Investment Board; the Chairman of the B9 Energy Group; the Director of International Synergies Ltd; representatives of WRAP Northern Ireland involved in the delivery of the Rethink Waste Programme; as well as the project co-ordinators from Questor/ ReNEW.

### **The visit programme**

This visit offered members an opportunity to investigate an alternative approach, whereby waste is refined and reused, rather than simply being recycled – an approach which is formalised in the EC Communication 2014/0398, “Towards a circular economy: a zero waste programme for Europe”.

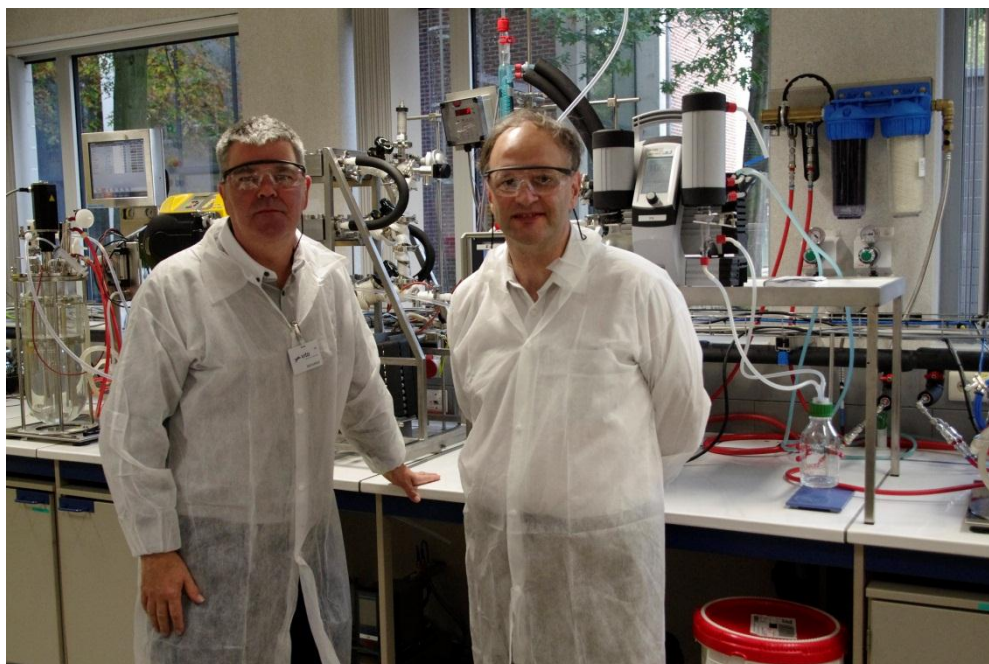
The first venue was the **Flemish institute for Technological Research (VITO)**, a research centre, located in Mol, Belgium. The institute performs contract research and develops products and processes in the fields of energy, environment and materials, for both the public and the private sector.



*Committee members with Saskia Manshoven and Dr Kris Broos from VITO*

The group heard from Gerrit Jan Schaeffer, Research Director, and Peter Vercaemst, Unit Manager Sustainable Materials Management, how policy transition must precede and accompany any technological transition in waste management. John Wante, Head of Service Policy Innovation, OVAM (the Public Waste Agency of Flanders), and Saskia Manshoven and Dr Kris Broos from VITO, outlined how waste could be transformed into materials management.

This was followed by a tour of the laboratories where the participants were able to view ongoing research projects. Dr Elaine Groom, from QUB/ Questor,



*Cahal Boylan and Peter Weir in one of the VITO research laboratories.*

also provided a practical demonstration of her collaborative working with VITO with an example of the depolymerisation of low value biomass (milled bark) as well as an overview of how this type of technology can move into the commercial sphere.

The group then travelled to the second research facility at the **Waste Disposal Centre, at Leppe**, near Cologne. This is one of the most modern waste disposal sites in Europe and a reference facility for international experts, and where the **Metabolon** project is based. Since the 1980s, Leppe had been the central landfill waste site for the surrounding districts, extending to more than 100 acres. In 2010 the local authorities agreed to a new strategy which recognises the need for an efficient management of waste materials and reuses resources; this gave the area a new value and a new appearance.

The appearance was transformed by extracting materials from the site which it had not been possible previously to recycle or reuse, and to store other materials for potential future processing. The site itself was extensively landscaped to provide a range of outdoor recreational facilities open to the public, including a children's play area and skateboard park.





*Committee members on the landscaped leisure path to the summit at Leppe*

The main building is used for a place of learning: both for regular visits from school groups (environmental education is an integral element in the German curriculum), and also as an Education and Research Centre of the Cologne University of Applied Sciences.



*Members at the 'Waste Wall' at Metabolon*

In addition, the Metabolon project aims to redevelop this Waste Disposal Centre by turning it into a competence, learning and innovation site for material conversion and location-related environmental technology and techniques. Metabolon provides a technology facility with state-of-the-art pilot plants and laboratory equipment with which it is possible to transfer research results into industrial practice; it also participates in a broad international network of research partners collaborating on innovative technical and structural solutions.

The group had an extensive tour of all these facilities, ranging from summit-top trampolines to experimental wood pellet fuels. Professor Michael Bongards, from the University of Cologne, gave a very useful presentation on the history and funding of the site, and on its close relationship with researchers based in the University. Mr Tim Schuurman and Ms Sabrina Wodrich, outlined the role of Zenit, the German equivalent of Invest NI, in bringing together potential partners from industry and science to collaborate in helping small and medium-sized businesses bring new technology to the market.



*Committee Chairperson, Anna Lo, with Professor Michael Bongards*

The visit also included a significant opportunity for members to engage with the range of interest groups represented in the party, particularly those who are involved in both the local and central government waste management sector. Overall, the visit provided much food for thought, particularly how:

- EU Innovation Support mechanisms can be improved and targeted to relevant sector areas;
- Knowledge on regional policies on material/waste management, and the implementation of EU Materials/Waste legislation in member states, can be disseminated and utilised;
- Areas where cooperation with other EU regions can accelerate change for economic benefit in NI.





*Members of the party at Leppe*

*Photograph courtesy of ReNEW*