



Newsletter – May 2017

Partner news

RRfW Annual Conference 2017

This year's RRfW annual conference will be organised in collaboration with the [European Biosolids and Organic Resources Conference](#) with our project partner AquaEnviro. Please note the following dates for your diary

- **20-21st November:** European Biosolids and Organic Resources Conference to be held in Leeds. On Tuesday 21st November a specialist RRfW session will be run as part of AquaEnviro's conference; followed by a networking event in the evening hosted by RRfW.
- **22nd November:** RRfW Annual Conference to be held in Leeds

RRfW Writing Retreat

A RRfW writing retreat is planned for the autumn to bring together RRfW partners to develop shared publications, further integrating and strengthening the RRfW network. Among the expected outcomes are chapters for a Resource Recovery from Waste book, to be published by the Royal Society of Chemistry, and developing a call for special issue on Resource Recovery from Waste with a relevant journal. For further details and updates, please see the [mini-project page on our website](#). To get involved, please get in touch with Alfonso Lag Brotons: a.lagbrotons@lancaster.ac.uk

New Head of Communication for RRfW

Juliet Jopson has joined the RRfW team at the University of Leeds to support RRfW programme coordinator Anne Velenturf. In particular, Juliet will lead on the communication side of the programme, including looking after the website, social media and newsletter. Please feel free to contact her at s.j.jopson@leeds.ac.uk Tel: 0113 34 32325.

New funding as R3AW atmospheric carbon sequestration looks to slag heaps

The work of R3AW on atmospheric carbon sequestration in wastes is being taken forward in a new project

led by Phil Renforth (Cardiff University) in collaboration with Will Mayes (Hull University, R3AW). This new three-year project, awarded a £300,000 grant by the Natural Environment Research Council (NERC), aims to test the feasibility of using iron and steel slag deposits to remove carbon dioxide from the atmosphere, with test sites in Consett, County Durham, and Port Talbot, south Wales. The project has been highlighted in The Guardian, and you can read the full article [here](#).

Three new RRfW open-access papers for 2017

Two new open-access papers have been released by the R3AW team at the University of Hull (links below). The first, published in the journal *Geoforum*, analyses emerging techniques for recovery of metals from highly alkaline industrial residues such as steel slag, and considers their regulatory implications in the light of potential environmental impacts. The second, in the *Journal of Environmental Management*, demonstrates that vanadium can be effectively removed and recovered from alkaline steel slag leachates with anionic exchange resins in both batch and column tests.

- Deutz, P., Baxter, H., Gibbs, D., Mayes, W. M., & Gomes, H. I. (in press) [Resource recovery and remediation of highly alkaline residues: A political-industrial ecology approach to building a circular economy](#). *Geoforum*. doi:<http://doi.org/10.1016/j.geoforum.2017.03.021>
- Gomes, H.I., Jones, A., Rogerson, M., Greenway, G.M., Lisbona, D.F., Burke, I.T., Mayes, W.M., (2017) [Removal and recovery of vanadium from alkaline steel slag leachates with anion exchange resins](#). *Journal of Environmental Management*, 187, 384-392.

A third open access paper has been provided by the INSPIRE team, published in the *Journal of Sustainable Metallurgy* (below), which outlines some of the key wastes where *in situ* leaching and related technologies could be applicable for recovery of metals from mining and contaminated land. The paper also looks at the similarities with existing processes and their geochemistry, and outlines the continuum of concepts between remediation and metal recovery and how this fits in with concepts of sustainable remediation.

- Sapsford, D., Cleall, P., Harbottle, M. (2017) [In Situ Resource Recovery from Waste Repositories: Exploring the Potential for Mobilization and Capture of Metals from Anthropogenic Ores](#). *Journal of Sustainable Metallurgy*, June 2017, Volume 3, Issue 2, pp 375–392

AVAnD attends the EGU 2017 General Assembly

The “Adding Value to Ash and Digestate” (AVAnD) project team put in a strong representation at the EGU General Assembly 2017 (23–28 April) in Vienna, with three abstracts (open access links below). Results were presented on the impacts of using waste materials from the bioenergy industry on soil fertility, wheat crop yields and soil health. It was demonstrated that ash and digestate mixes provide a suitable alternative to inorganic fertilisers, allowing us to utilise this valuable source of plant nutrients.

- Lag-Brotons et al (2017) [Adding value to ash and digestate \(AVAnD\): An integrated overview of the effects of ash and digestate blends on the soil-plant system](#)
- Marshall et al (2017) [Digestate and ash as alternatives to conventional fertilisers: Benefits and threats to soil biota](#)

- Lag-Brotons et al (2017) [Adding value to ash and digestate \(AVAnD\): Performance of novel soil amendments on the soil-plant system under glasshouse conditions](#)

AVAnD to present at N8 Agrifood Conference in July

Dr. Rachel Marshall will be presenting the most recent advances on the AVAnD project at the N8 Agrifood Conference "Food production for the future" in Durham (11-13 July 2017). The title of her talk is "Adding value to ash and digestate: An overview of the effects of ash and digestate blends on the soil-plant system" and it will be part of the "Stream C Sustainability" session at 09:45 -13:00, Wednesday 12th July.

RRfW represented at ISDRS 2017 in June

Dr. Anne Velenturf will represent RRfW at the [International Sustainable Development Research Society](#) (ISDRS) annual conference to be held on **June 14-16** in **Bogotá**, Colombia. She will present the on-going work on the [co-creation of a vision and approach](#) for realising a circular economy in the UK, through two conference papers: "Participation Processes for Social Learning in the Transition towards a Sustainable Circular Economy: The Case of the Resource Recovery from Waste Programme" in a session on the role of academia-education in sustainable development science. The second paper, co-authored by 11 government partners, "Co-producing a Vision and Approach for the Transition towards a Circular Economy: Perspectives from Government Partners" will be presented in the conference track on collaborative governance for sustainable development.

RRfW launches its own Research Gate profile

In order to create a long-term repository for the publications coming out of the RRfW programme and its constituent projects, a new Research Gate profile has now been launched. All project researchers are encouraged to link as collaborators in order to add their publications. For anyone else wanting just to view publications, it is possible to register on the site for free as a non-scientist in order to get full access: <https://www.researchgate.net/project/Resource-Recovery-from-Waste-2>

RRfW and CVORR websites refreshed

Work is underway to refresh both the RRfW and CVORR websites in order to make their content more accessible and engaging. Please note, the CVORR website moved to: <https://leedsplus.wpengine.com/cvorr/>. The RRfW web address remains the same: <https://rrfw.org.uk/> If you have any comments about the changes or suggestions for further improvement on the RRfW website, please contact Juliet Jopson on s.j.jopson@leeds.ac.uk

CVORR engages with workshops on plastic pollution, recycling and waste minimisation

CVORR joined the 'Marine and Riverine Plastic Pollution - Academic/NGO Joint Workshop' organised by Thames21 in collaboration with the University of Leeds on the 3rd March in London, which aimed to bring together academic researchers and NGO representatives who are interested in increasing understanding of the issue of aquatic plastic litter. CVORR project contributed to the workshop based on its capability to uncover hidden aspects associated with marine litter with specific relevance to the (a) improvement in understanding of plastic waste on land, (b) the methods of quantifying the amount of waste entering in aquatic environments from different sources.

The project also led a workshop in collaboration with the International Solid Waste Association Working

Groups (ISWA WG) on Recycling and Waste Minimisation on 21st April 2017 in Edinburgh. This workshop aimed at getting the insights, expert opinions and views of practitioners, policy-makers and academics on the plastic waste material flow analysis in the UK and the extent that this is affected by inconsistencies in the recycling rate definition, the outcomes of this and the resultant exports. The participants had the opportunity to be involved in the metrics selection process for the post-consumer plastic packaging case study, indicating and discussing metrics that are important to be included in the CVORR analysis.

Funding Calls

Global Challenges Research Fund

We have several interested partners to contribute and/or lead on GCRF proposals – visit the [GCRF website](#) for further information funding scope and calls. Please [contact us](#) for further details on interested partners.

NERC ideas for strategic research

NERC is seeking ideas for research challenges that should be priorities for strategic research investment through strategic programme areas. NERC would welcome ideas from both researchers and those who use environmental science research. Ideas for new strategic programme areas should be submitted by 7 September 2017. Guidance to explain what they are looking for, how to submit ideas, and how NERC staff can help, can be found on the call for [ideas for strategic research page](#).

POST fellowships

The [Parliamentary Office for Science and Technology](#) (POST) runs various fellowship schemes – visit their website for the current open- and upcoming calls. The next [Academic Fellowship Scheme](#) deadline for outline applications closes midnight 30 June 2017.

Zero Waste Scotland

The [Circular Economy Investment Fund](#) is open to businesses and organisations in Scotland working in all business and social economy sectors.

Innovation funding calls

[Innovation placements](#): Call opened 13 April and closes 29 June 2017: Placements will work within a host organisation. Researchers will explore how partner organisations can make use of scientific knowledge, data, models or other tools to understand and manage their impacts and/or dependencies on the environment.

[Innovation UK Manufacturing and materials call](#): Opens 8 May, and closes 12 July 2017. We will look to fund projects that focus on identified technical or commercial challenges. Projects must involve at least one SME, working alone or in collaboration with other organisations.

Bio-Based Industries – Joint Undertaking

[2017 Call for proposals](#) opened on 11th April, with a deadline for submission on 7 September 2017. BBI JU initiative is a public-private partnership with the public funding coming from Horizon 2020. The 2017 Call will refocus on the need to better integrate biomass feedstock suppliers on the front end of the chain to create a demand for biomass feedstock from biorefining processes. Similarly, the Call will stimulate the

formation of partnerships with end market actors to create a 'market pull' for bio-based products for identified applications. Strategic orientations for 2017 include: Feedstock, Process, Products, and Market uptake.

Events

European Biomass Conference and Exhibition EUBCE 2017, [Stockholm 12-15 June](#)

23rd ISDRS Conference – Inclusive Sustainability for Development, how to engage academia, government, communities and business, [Bogota 14-16 June 2017](#)

Waste and Resource Management Conference, [Milton Keynes 20 June 2017](#)

13th International Mine Water Association Congress – Mine Water & Circular Economy – A Green Congress, [Rauha 25-30 June 2017](#)

9th ISIE and 25th ISSST conference – Science in support of sustainable and resilient communities, [Chicago 25-29 June 2017](#)

AquaConSoil 2017 - Sustainable Use and Management of Soil, Sediment and Water Resources, [Lyon 26-30 June 2017](#)

CIWM Resourcing the Future Conference & Exhibition 2017, [London 27-28 June 2017](#)

Robots for Resilient Infrastructure Challenge 2017, [Leeds 27-28 June 2017](#)

Policy on waste in Wales - next steps for management, energy generation and the circular economy, [Cardiff 4 July 2017](#)

AD Network Early Career Researcher (ECR) free 2-day mini-conference, [Birmingham 4-5 July 2017](#)

N8 Agrifood Conference "Food production for the future", [Durham 11-13 July 2017](#)

Walk for Waste 2017, [Scafell Pike 15 July 2017](#). *Organised by Waste Aid UK, this hike will raise awareness and funds for waste management and recycling skills with communities around the globe.*

Goldschmidt 2017, international conference on geochemistry and related subjects, organised by the European Association of Geochemistry and the Geochemical Society, [Paris 13-18 August](#)

Policy-UK forum: Reuse, Remanufacture and Recycle - The Future for Circular Economy, Reducing Food Waste and Improving Resource Efficiency, [London 7 September 2017](#)

2nd International Symposium on Coupled Phenomena in Environmental Geotechnics, [Leeds 6-7 September 2017](#)

RWM – Resource and Waste Management exhibition – building a resource efficient future, [Birmingham 12-14 September](#)

Chemistry & Industrial Biotechnology Showcase 2017 [York, 20th-21st September 2017](#), including [Optional Networking Breakfast: Value from Unavoidable Food Waste](#)

European Biosolids and Organic Resources Conference, [20-21 November, Leeds](#)

Resource Recovery from Waste Annual Conference, 22nd November, Leeds

International Biohydrometallurgy Symposium, [Freiburg 24-27 September 2017](#)

ISWA World Congress, [Baltimore 25-27 September 2017](#)

18th ERSCP Conference, [Sporades 1-5 October 2017](#)

Sardinia 2017 – 16th International Waste Management and Landfill Symposium, [Forte Village 2-6 October 2017](#)

International Society for Microbial Electrochemistry and Technology (ISMET) International Meeting, [Lisbon 3-6 October 2017](#)

Manchester Science Festival, [Manchester 19-29 October 2017](#)



Any news, events or funding calls to include in our next newsletter in August 2017? Email S.J.Jopson@leeds.ac.uk

Join our network on [LinkedIn](#) and [Twitter](#) to get the latest news!