



A Second LIFE for Critical Raw Materials

Final Conference for the Critical Raw Material
Closed Loop Recovery project

Royal Society, London,
20th February 2019



**CRITICAL
RAW
MATERIAL**

The LIFE 2014 CRM Recovery
project has received funding
from the LIFE Programme of
the European Union



Agenda

	Session	Speakers
09:00-09:30	Registration	
	Welcome & Opening	
09:30-10:00	This session sets the scene for the day and provides the context for the Conference.	Carl Nichols, Head of WRAP Cymru. Conference Host. Julie Hill, Chair, WRAP.
	Collect More, Collect Better	
10:00-11:15	Presentations from CRM Recovery projects trial partners across Europe who have developed innovative methods to collect WEEE and recover CRMs.	Mick Claes, Associate Consultant, Axion Recycling (UK). Petr Smutny, R&D Centre Manager, ASEKOL (Czech Republic). Luca Campadello, Projects & Research Manager, Ecodom (Italy). Dr. Sven Grieger, Manager WEEE Services, EARN (Germany). Professor Andrew Hursthouse, Assistant Dean (Research & Enterprise), University of the West of Scotland (UK).

Coordinator



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Innovate UK



Project Partners



CRM Recovery
Critical Raw Material Closed Loop Recovery

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	Session	Speakers
11:15-11:45	Networking – refreshment break	
	Whose Responsibility Is It Anyway?	PANEL SESSION
11:45-13:00	Discussion around the role that consumers, producers, recyclers, trade bodies and governments can play to enable improvements in WEEE collection and CRM recovery. How can all parties best work together?	<p>Pascal Leroy, Secretary General, WEEE Forum.</p> <p>Dr. Rhys Charles, Project Coordinator, Materials and Manufacturing Academy, Swansea University.</p> <p>Susanne Baker, Head of Programme, Environment & Compliance, Tech UK.</p> <p>Karen O'Donoghue, Head of Retail Partnerships, British Heart Foundation.</p>
13:00-14:00	Networking – lunch	
	Impact & Policy	
14:00-14:45	Presentations summarising project impacts and policy recommendations.	<p>Dr. Henning Wilts, Director Division Circular Economy, Wuppertal Institute.</p> <p>Peter Sainsbury, Economist, WRAP.</p> <p>Norah Lewis, Technical Specialist, WRAP.</p>
	What Next?	PANEL SESSION
14:45-15:45	What needs to happen now to increase the collection of WEEE and improve recovery of CRM? How can we foster collaboration and stimulate innovation?	<p>Libby Peake, Senior Policy Adviser, Green Alliance.</p> <p>Matt Manning, Compliance & Recycling Operations Manager, Dixons Carphone.</p> <p>Nick Cliffe, Head of Materials, Innovate UK.</p>
	Closing Remarks	
15:45-16:00		Julie Hill, Chair, WRAP.



Speakers



Carl Nichols

Head of WRAP Cymru. Conference Host.

Carl joined circular economy experts WRAP in 2004 and held several senior roles before being appointed Head of WRAP Cymru in April 2014. He is responsible for developing and delivering WRAP's ambitious multi-million pound work programme in Wales, managing the relationship with the Welsh Government and leading the WRAP Cymru team. His extensive leadership experience includes management positions at Royal Mail, RAC and Severn Trent Water, and as an interim manager working with high profile multi-nationals.

Carl holds an MBA from Warwick Business School and an MSc in Environmental Engineering from the University of Newcastle. He is also Chair of Cardiff Food Council and is a Trustee of a multi-academy trust.



Julie Hill

Chair, WRAP.

Julie Hill has worked on environmental policy for over twenty five years. Her areas of particular expertise are waste and resources policy, biotechnology and sustainable buildings. As Director, and then an Associate of Green Alliance, she has developed the resources theme over a period of fifteen years, most recently chairing the Circular Economy Task Force.

Julie has held a number of senior advisory posts in government and in commercial organisations. She has also served terms as Non-Executive Director of the Environment Agency for England and Wales, and of the Eden Project in Cornwall, and is presently an Independent Board Member of the Consumer Council for Water.

Her publications include 'The Secret Life of Stuff' (Vintage, 2011) and the influential reports 'Reinventing the Wheel' (Green Alliance 2011) and 'A Zero Waste UK' (IPPR/Green Alliance 2006).

**Mick Claes**

Associate Consultant, Axion Recycling (UK).

Mick is an Associate Consultant at Axion Recycling and has a decade's experience in the waste and recycling sector, during which time he has been involved in multiple projects on behalf of public and private clients as well as operating an independent household waste collection and recycling business. Within the CRM Recovery Project, Mick was heavily involved in the collection activity for the Axion-led UK trial, managing collections at retail sites and collating data from the trials.

**Petr Smutný**

R&D Centre Manager, ASEKOL (Czech Republic).

Petr Smutný is manager of R&D center with laboratory at Asekol company. His team is focused on testing of innovative processes and procedures in WEEE treatment, WEEE waste samples preparation and analyzation by different kind of spectroscopy (especially precious and elementary metals content). Petr graduated on Institute of Chemical Technology in Prague and has longtime working experiences in pharmaceutical technology and processes, validation and verification methodology and analysis of medicinal products. Within the projects, Petr also participated in the design of

production area and technology in pharma plant, design and testing of control computer systems and development of analytical methods for the determination of different types of analytes.

**Luca Campadello**

Projects & Research Manager, Ecodom (Italy).

Luca is the Project Manager responsible for coordinating projects and researches (CEwaste, CRM Closed Loop Recovery, SCRREEN, WEEELABEX, ProSUM) that involves the Consortium. He earned his Mechanical MSc from Politecnico di Milano University. Since 2008 he worked in ECODOM managing the supplier, performing WEEELABEX audits and actively participating to European technical tables for the development of CENELEC Standards focused on the recycling of WEEE.



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**Dr. Sven Grieger**

Manager WEEE Services, EARN (Germany).

Sven Grieger has been developing take-back and recycling solutions for electrical and electronic appliances for more than 20 years. He held managerial positions in different industries such as consultancy, consumer electronics, waste management and recycling as well as applied research. Since 2014, he is responsible for WEEE services at EARN and business development as well as project management at the German research organisation Fraunhofer. His background is mechanical engineering and did his PhD on integrating Design for Recycling aspects into the product development process.

**Professor Andrew S Hursthouse**

Assistant Dean (Research & Enterprise), University of the West of Scotland (UK).

Prof Hursthouse is an environmental geochemist and a Fellow of the Royal Society of Chemistry. His Research focus on the transport of pollutants in environmental systems has applications in their risk assessment applied to human and wider environmental health. Applications in the remediation of contaminated land, treatment of wastes, local air quality management, bioaccumulation assessment in estuaries, impacts of mining and metal processing wastes. Environmental policy work: NGOs, Local authorities, the Scottish and UK government and European Commission; work with industry

on regulatory issues surrounding e.g. air and soil environmental policy and the implications of REACH. He holds a High End Expert Scholarship in Hunan University of Science & Technology, China where he is establishing research on the treatment of environmental pollution from resource exploitation. He has led a number of highly successful KTP projects including recent work on metal recovery from wastes. He is vice Chair of the COST Action ES1407 RECREEW on critical metal recovery from WEEE.

**Pascal Leroy**

Pascal Leroy, Secretary General, WEEE Forum.

In 2007, Pascal Leroy became Secretary General of the WEEE Forum, a European association of 33 electrical and electronic waste collection and recovery systems. The WEEE Forum provides a platform for producer responsibility organisations to take on the challenge of electrical and electronic waste in Europe by fostering ideas and sharing best practices whilst optimising environmental performance through a proper management of WEEE. Pascal was the Project Manager of 'WEEELABEX', the four-year project, co-financed by the European Community, that has laid down a harmonised set

of standards on collection, logistics and treatment of WEEE, and a set of conformity verification rules. He has also previously worked at CECED, the association of household appliance manufacturers in Europe. He joined CECED in 2000 and was in charge of an advocacy programme on WEEE. He prepared the ground for the set-up of WEEE producer responsibility organisations in a number of new member states.

**Dr Rhys Charles**

MRSC – SPECIFIC IKC, Swansea University, College of Engineering.

Rhys is a research officer on the ACCEPTED project which aims to create printable PV with optimised design for circular economy and remanufacturing processes. He is co-opted to the RSC ESED Council to support its activities in areas related to mitigation of materials criticality for green-technologies and resource efficiency issues in future WEEE. His research investigates processes to enhance materials recovery efficiencies from WEEE and retain CRMs within a circular economy. Rhys has worked in waste management for local government and is a member of the Circular Economy Research and Innovation Group (CERIG) for Wales.

**Susanne Baker**

Head of Programme | Environment & Compliance, Tech UK.

Susanne Baker is Head of Programme, Environment and Compliance at techUK, the business organisation for the UK's technology sector. She is a board member of the High Speed Sustainable Manufacturing Institute and is the current chair the JTA, the group of trade associations representing producers of electrical and electronic products that work together on issues relating to producer responsibility legislation. Before joining techUK, Susanne worked for EEF, the manufacturers association and the environmental business journal, The ENDS Report. She is a Fellow of the RSA and a graduate of Kings College London.

**Karen O'Donoghue**

Head of Retail Partnerships, British Heart Foundation.

Karen is a dedicated third sector professional with 18 years of charity sector experience at a senior level. She is skilled at developing strategic and corporate partnerships, developing new campaigns and products. Most recently, having spent the last 8 years in charity retail focussing on generating unwanted items for re-use in a network of over 750 shops, achieved through excellent account management and a longer term strategic view of the industry. Prior to this, Karen spent 13 years in the commercial world in Sales and Marketing, most notably working in a Global and European Brand Management role for a haircare brand at Procter & Gamble.



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**Dr. Henning Wilts**

Director Division Circular Economy, Wuppertal Institute for Climate, Environment and Energy.

Master's degree in economics, PhD in waste infrastructure planning, lecturer for resource economics at the Schumpeter School of Economics in Wuppertal. He coordinates several research projects on transition processes towards a circular economy, waste prevention and sustainable waste management, inter alia for the European Commission, the European Environment Agency and the OECD.

**Peter Sainsbury**

Economist, WRAP.

Peter Sainsbury is an economist at WRAP and specialises in research and analysis of recovered material end markets. Peter works across the landscape of areas WRAP works in including packaging, food redistribution, circular economy business models and end markets for recovered materials. provides high quality economic analysis in support of among other things; developing a compelling business case for market intervention market based solutions to delivering a circular economy.

**Norah Lewis**

Technical Specialist, WRAP.

Norah is the lead electricals Technical Specialist for WRAP Global, specialising in resource-efficient business models and circular product design. She works with numerous organisations to ensure they remain resilient in a volatile and uncertain landscape, address real challenges and create substantial changes in the way circular economy business models are adopted. Norah has contributed to major reports for WRAP, including the latest UK WEEE Guides for Producers and Retailers. She is the technical lead for the EU Life funded CRM Project, which aims to find new and innovative technologies that increase the recovery of critical raw materials from electrical waste.



**Libby Peake**

Senior Policy Adviser, Green Alliance.

Libby Peake is senior policy adviser on resource stewardship at Green Alliance, a UK based charity and think tank focused on achieving ambitious leadership for the environment. There, she works closely with other NGOs, academics and businesses to promote better use of resources throughout the economy. This includes managing the Circular Economy Task Force, a forum for policy, innovation and business thinking on efficient resource use. She is an expert and trusted commentator on resources and waste topics including: plastic; ecodesign; chemicals regulation; resource efficiency; and recycling. Before

joining Green Alliance, Libby spent ten years at environmental publishing house Resource Media.

**Matt Manning**

Compliance & Recycling Operations Manager, Dixons Carphone.

Matt has an experienced background in UK producer compliance and recycling industry. Matthew's current role as Compliance and Recycling Operations Manager at Dixons Carphone plc (Europe's largest electrical retailer) sees him cover all elements regarding recycling and reuse across UK and Ireland stores and supply chain, along with responsibility for the business's requirements under the producer compliance regulations. He drives continuous environmental and financial improvement through value-add projects and new initiatives for the group.

**Nick Cliffe**

Head of Materials, Innovate UK.

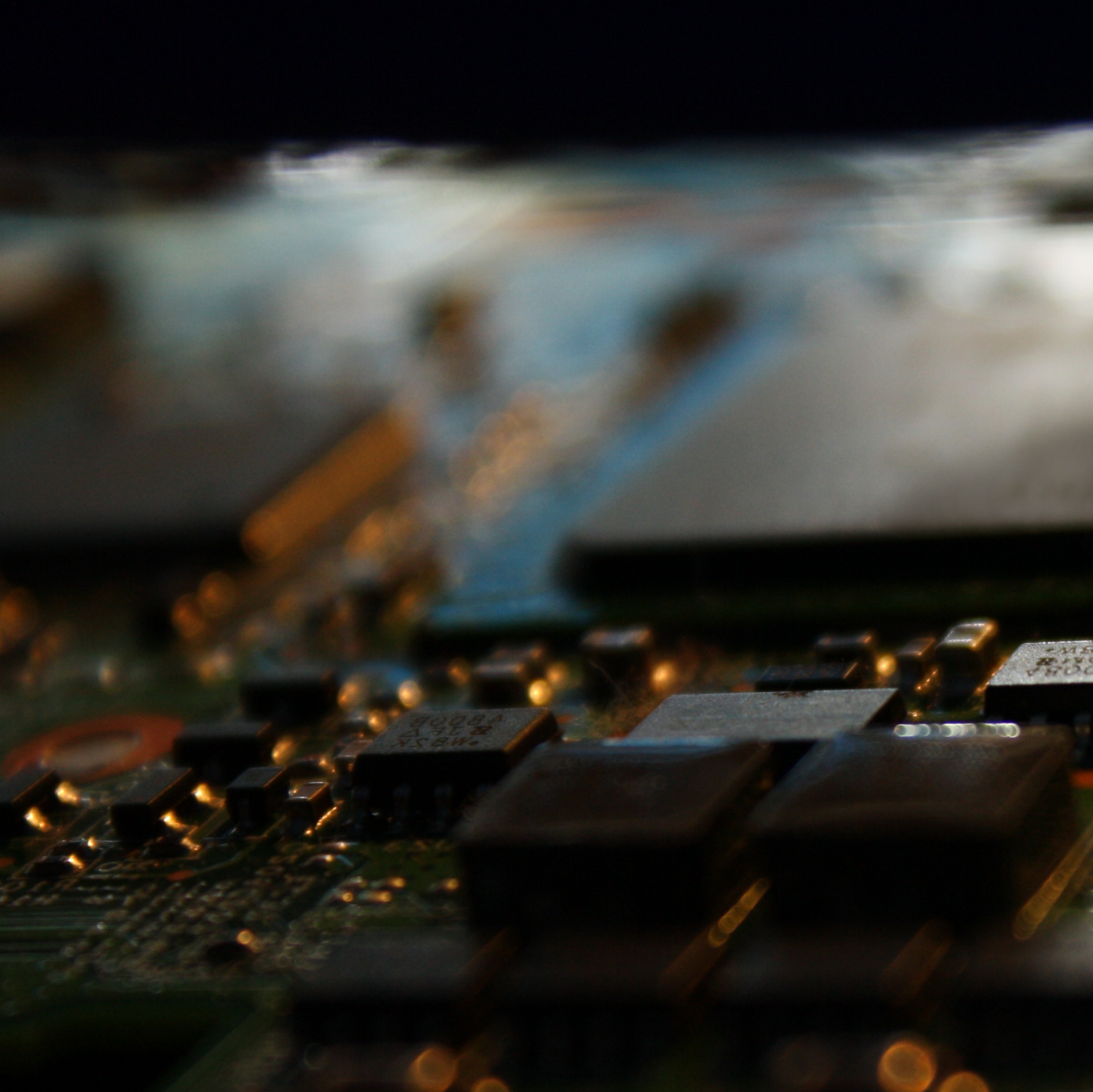
Nick is Head of Advanced Materials at Innovate UK, the team de-risks commercialisation of materials of the future on behalf of the UK Government. This includes the most cutting-edge ceramics, metals, glass, polymers, nanomaterials and functional materials. He has a particular focus on resource efficiency, circular economy and sustainability - embedding these themes across Innovate UK strategy and competitions, helping innovators consider the wider environmental and societal drivers of their markets and supporting UK businesses in exploring new manufacturing methods and business models.

Nick's background in resource efficiency and circular economy was gained across 15 years in industry, he worked for Closed Loop Recycling, a large plastic bottle recycling business based in Dagenham, East London, where he managed various projects, including a project to create the first commercial plastic bottle made from recovered marine plastic waste. Nick also worked for a spin-off consultancy business, Closed Loop Environmental Solutions, managing projects such as launching a range of on-site food composting machines in the UK and a large waste auditing program for Heathrow Airport and various airlines to develop recycling options for both terminal and cabin waste.



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