



Virtual Innovation Hub Workshop 2020 Decarbonising the Aluminium value chain: Recycling, Hydrogen and Digitalisation as key enablers 22-23 September 2020

The [Innovation Hub](#) is an industrial platform established in 2016 which aims to boost innovation along the aluminium value chain through collaborative projects and initiatives. The Hub consists of 15 member companies and two of European Aluminium's market groups committed to cooperate and initiate projects that advance a sustainable future and tackle technological challenges.

Since 2016, the Innovation hub organised a yearly innovation workshop. The aim of this annual Workshop is to reinforce synergies and exchanges between aluminium users, RTOs and the European Aluminium industry, especially in the field of present priority R&D topics. The Innovation workshop 2020 was initially foreseen to take place at CEA (French Alternative Energies and Atomic Energy Commission) in Grenoble. However, considering the impact of COVID-19, it has been decided to go for an online set-up.

The focus of this virtual workshop will be on **recycling, digitalisation and hydrogen as key enablers for decarbonising the aluminium value chain.**

Any stakeholder is welcome to attend the workshop (go to the registration form). The detailed programme is reported in next pages. The registration will give access to all sessions of the workshop. The registration fee is 100€ + VAT. The access is free for the speakers and the members of the Innovation Hub.

The deadline for registration is 15 Sept. Only registered participants will have access to the workshop.

Members of the Innovation Hub:



Programme – Day I

Tuesday 22 September

10:30 - 12:00	Opening Session 1 - Decarbonising the industry: views of different stakeholders Moderator: Christian Leroy , Innovation Hub Manager, European Aluminium	
	Welcome and opening	Gerd Götz , Director General, European Aluminium
	Innovation Hub: an accelerator to circularity and decarbonisation	Luc Demange and Philippe Meyer , co-chairs of the Innovation Hub
	Processes4Planet, the process industry 2050 transformation roadmap	Angels Orduna , Executive Director, SPIRE
	Overview of CEA research activities in clean energy technologies and circular economy	Simon Perraud , Deputy director, research funding programmes, CEA/Liten
12:00 – 13:15 Lunch Break		
13:15 – 15:00	Session 2 – Boosting further aluminium recycling Moderator: Pierre-Yves Menet , Casting & Recycling Group Manager, Constellium	
	Highlights on the Circular Aluminium Action Plan of the European Aluminium Industry	Patrik Ragnarsson , Senior Automotive & Transport Manager, European Aluminium
	Aluminium recycling challenges – case studies from wrought alloys in automotive	Geoff Scamans , Chief Scientific Officer, Innoval - Brunel University
	Recycling Post Consumer Scrap in the Extrusion Value Chain	Stig Tjøtta , VP, Head of Technology, Hydro
	Surface performance of recycled alloys: anodizing appearance and filiform corrosion resistance	Iris De Graeve , Professor in the Faculty of Engineering of VUB
15:00 – 15:30 Coffee Break		
15:30 – 17:15	Session 3 – Addressing key technological challenges in aluminium recycling Moderator: Geoff Scamans , Chief Scientific Officer, Innoval - Brunel University	
	Aluminium recycling from ELV: views from Derichebourg company	Andrea Garbarini , R&D Operations Manager, Derichebourg
	Inventory and potentials of sorting technologies for aluminium scrap	Alexander Feil , Department of Processing and Recycling, RWTH Aachen University
	Sensor based sorting technologies for Aluminium scrap – from upgrading Zorba to sorting Aluminium	Frank van de Winkel , Business Development Manager, TOMRA
	Ideas of Future Collaborative Research Project for Improving Aluminium Remelting and Refining	Cong Li , Institute for Process Metallurgy and Metal Recycling, IME- RWTH Aachen University

Programme – Day II

Wednesday 23 September

9:00–10:45	Session 4 - Hydrogen as future fuel for the aluminium Industry in Europe	
	Moderator: Stephan Beaulieu , Process and Environment Consultant, Aughinish Alumina Ltd	
	EU strategies on clean Hydrogen and energy system efficiency: what role for Aluminium?	Emanuele Manigrassi , Public Affairs Manager, European Aluminium
	GHG emissions along the aluminium value chain in Europe: where are the hot spots?	Christian Leroy , Innovation Hub Manager, European Aluminium
	CEA Strategy on high temperature hydrogen production and conversion. Contribution to industry decarbonization	Marie-Noelle Dessinges , Hydrogen Program Manager at CEA
	H ₂ as a fuel for the Aluminium Industry: challenges and opportunities	Pierre Herben , Senior Advisor
10:45 – 11:15 Coffee Break		
11:15–12:45	Session 5 – Digitalisation and AI for aluminium manufacturing	
	Moderator: Philippe Meyer , Co-Chair of the Innovation Hub, Senior Vice President & Chief Technology Officer, Novelis	
	Pathways and cases for sustainable, smart and digital manufacturing	Chris Decubber , Technical Director, EFFRA
	Traceability for aluminium semi-finished products: the CoildNA project at AMAG	Werner Aumayr , CTO, AMAG
	Additive manufacturing and development of new aluminium alloys	Luc Aixala , Luc Aixala, Head of the advanced manufacturing processes & recycling program at CEA
12:45 – 14:00 Lunch Break		
14:00–15:45	Session 6 – Digitalisation and AI for primary aluminium	
	Moderator: Luc Demange , Co-Chair of the Innovation Hub, Innovation Director & HSE Business Partner, Aluminium Technology Solutions, Rio Tinto	
	Overview of digitalization challenges for primary production	Claude Vanvoren , Chairman of the Board, ICSOBA
	Towards fully digitized operations in an aluminium smelter: the experience from MONSOON project and proposed next steps	Claudio Pastrone , Head of Pervasive Technologies Research Area, LINKS Foundation
	Digitalisation and AI in smelters: some key challenges	Laith Al-Hindawi , Global Sales Manager, Digital Smelter, GE Digital and Ioannis Karnachoritis , Mytilineos
	Demonstrating use cases of digitalization to reduce smelters carbon footprint	Philippe Marc , Process Control Engineer, Rio Tinto
15:45-16:15 Coffee break		
16:15-17:30	Session 7 - Networking and collaborative projects & Concluding remarks	
	Moderator: Thymis Balomenos , Metallurgical Engineer – PhD, Mytilineos	
	ICSOBA activities and synergies with Innovation Hub activities	Claude Vanvoren , Chairman of the Board, ICSOBA
	Research & Innovation funding programs at European level: opportunities for the Aluminium industry – presentation of potential project ideas	Christian Leroy , Innovation Hub Manager, European Aluminium
	Concluding remarks	Luc Demange and Philippe Meyer , co-chairs of the Innovation Hub