

27-30  
April 2021

RESEARCH & INNOVATION

**EU Knowledge Valorisation**  
WEEK

#EURResearchArea

#valorisation



**Using Knowledge to Generate Value:  
A company approach to partnerships**

<p><b>Vision and Aims</b></p>	<p>Innovation is one of the main driving tools to reach true sustainability in a Green environment. In this respect, Atlantic Copper dedicates important resources on R&amp;D projects and talent management to generate knowledge that is subsequently applied to generate value for the company and its ecosystems through innovation.</p>
<p><b>Target Audience</b></p>	<p>All sides of the Knowledge Triangle</p>
<p><b>Key Features</b></p>	<p>The knowledge-based link between R&amp;D and innovation has played an important role in helping Atlantic Copper achieve excellent operational results, especially in the areas of optimal and efficient plant performance, and has helped identify technological improvement opportunities, particularly focusing on a sustainable and competitive operation and new business opportunities, especially in relation to circular economy.</p> <p>Atlantic Copper maintains close R&amp;D relations with many leading universities:</p> <ul style="list-style-type: none"> <li>• Spain: Technical University of Madrid (Madrid School of Mines, Gómez Pardo Foundation); University of Barcelona; University of Seville; University of Huelva.</li> <li>• Germany: RWTH Aachen University; University of Freiberg</li> <li>• Austria: Montanuniversität Leoben</li> <li>• Finland: Aalto University</li> </ul> <p>Annual R&amp;D budget is approximately 1.5 million euros.</p> <p>Examples of R&amp;D projects channelled through the Huelva University metallurgical studies program: Flash smelting thermodynamic fundamentals; Copper tank house electrolyte performance study; Waste streams valuation; Tank house wireless voltage sensors; New SO<sub>2</sub> sorbent materials.</p> <p>Taking Industry to the Academia:</p> <ul style="list-style-type: none"> <li>• Atlantic Copper sponsored on-site Industrial PhDs</li> <li>• Sponsored metallurgical student training and research programs in three different universities in Spain</li> <li>• Vocational training and internships</li> </ul> <p>Sponsored on-site Industrial PhDs:</p> <ul style="list-style-type: none"> <li>• University of Huelva postgraduate completing his doctorate in collaboration with the Queensland University on the PS Converter impurities modelling</li> </ul>

	<ul style="list-style-type: none"> <li>• University of Huelva postgraduate, in this case in conjunction with both the Missouri University and Aquisgran (Aachen) university, is writing his thesis on electrolyte chemical balances</li> <li>• Seville University postgraduate completing his thesis on Sb and Bi waste stream valuation</li> </ul> <p>Students Studies Programs:</p> <ul style="list-style-type: none"> <li>• Since 2014 Atlantic Copper sponsors a specialized metallurgical studies course at the school of mines in the Technical University of Madrid:</li> <li>• Atlantic Copper also sponsors a metallurgical program at the Huelva University</li> <li>• The Atlantic Copper Foundation sponsors a student program in the Andalucía International University</li> </ul> <p>Vocational trainings</p> <ul style="list-style-type: none"> <li>• Through regional Polytechnic Colleges, Atlantic Copper runs four Dual Vocational training courses: Industrial Chemistry; Occupational Health &amp; Safety; Transport &amp; Logistics; Course covering Mechanical, electronic &amp; instrumentation</li> <li>• Annual internship program typically takes on some 50 students each summer</li> <li>• University student activities with support from the EIT Raw Materials</li> </ul> <p>Importance of wider society learning:</p> <ul style="list-style-type: none"> <li>• The Atlantic Copper Foundation <ul style="list-style-type: none"> <li>○ Social arm of Atlantic Copper that focuses on the human, economic, social and cultural development and wellbeing of the Huelva Province with an emphasis on the tuition and professional training of adversity affected young people</li> <li>○ Since its commencement 11 years ago, the Foundation has invested over 4.8 million euros, 60% of which has been dedicated to educational activities (Universities, internships, environmental education programs)</li> </ul> </li> <li>• The SISTEM Project <ul style="list-style-type: none"> <li>○ The Foundation is currently leading the SISTEM Project which centers on Wider Society Learning and Educational Programmes directed at the general public to gauge and stimulate increased awareness of the growing co-existence between sustainable extractive metallurgy industries and natural ecosystems</li> <li>○ Supported by EIT Raw Materials, the project consortium comprises Atlantic Copper, Magnesitas Navarra, National Technical University of Athens, OUTOTEC, Delft University of Technology, Consiglio Nazionale delle Ricerche</li> </ul> </li> </ul>
<p><b>Further Information</b></p>	<p>Atlantic Copper is a Spanish Company whose sole shareholder is the US global conglomerate Freeport-McMoran, one of the leading natural resources companies in the United States. Atlantic Copper operates a World-class copper smelter &amp; refinery in the port of Huelva, south-west Spain, which processes concentrated metallic ores and recycled metallic materials to produce refined copper, sulphuric acid, precious metals in</p>

	the form of electrolytic sands and iron silicate.
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