Press Release

Solvay, ArcelorMittal, Evonik and LafargeHolcim investigate trans-sector technological potential to reduce carbon emissions under a new "Low Carbon Technology Partnerships Initiative (LCTPi) (*)"

Marrakech, November 17, 2016 --- Solvay, ArcelorMittal, Evonik and LafargeHolcim today announce the formation of a new Low Carbon Technology Partnerships Initiative across the steel, cement and chemicals industries.

This new partnership will look at the potential synergies that exist between the manufacturing processes of these three energy intensive sectors, and how these synergies could be harnessed to reducing CO2 emissions.

As a first step, and following preliminary research, the innovative partnership will produce a study (**) with the technical support of Arthur D. Little to identify potential ways to valorise industrial off-gases and other by-products from their manufacturing processes to produce goods with a lower carbon footprint than through the fossil path. The preliminary research already allowed identifying significant potential in selected trans-sector pathways.

The study is aimed at bringing a fact-based overview of carbon and energy sources from industrial off-gases (first at a European level), and evaluating the technical, environmental and economic feasibility of different Carbon Capture and Usage (CCU) pathways and their potential.

Initial findings from the first step already underway suggest that:

- Deploying cross-sector carbon capture and reuse opportunities on an industrial scale - something that does not happen today - could reduce up to 3 GT/y or 7% of global anthropogenic CO_2 emissions.
- Existing conversion technologies that could be deployed across the three sectors could utilise by-products in the off-gases to create building materials, organic chemicals and fuel. As an example, up to 1-2% (0.4-0.7 Gt/y) of global anthropogenic CO_2 could be reduced with the production of ethanol/methanol alone.
- Increased availability and greater access to renewable energy sources, would significantly boost net carbon reduction efforts by those three sectors, within a supportive legislative framework.
- Cross sector carbon capture and reuse should also result in job creation, to be further investigated.

The study, carried out at European level, is building the ground for similar investigation extended at global level and paves the way for identifying and assessing industrial scale projects on CCU at the interface between the sectors.

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Speaking in Marrakech, Michel Bande, Corporate Sustainability Officer and Liaison Delegate WBCSD of Solvay, said “The potential to reduce carbon emissions through better collaboration between the chemicals, steel and cement industries looks promising. European energy-intensive industries could, with new and innovative ways to work together, ultimately produce large volumes of final goods with a reduced carbon footprint. In this arena, the chemical industry is key thanks to its enabling technologies. Indeed, linking large sources of carbon with the expertise and processes of the chemical industry could become crucial to develop ground-breaking solutions helping to reach the 2°C goal. The World Business Council for Sustainable Development is instrumental in supporting the emergence of such partnerships that require long term cooperation and vision shared between industry and society”.

Carl de Maré, Vice President Head of Technology Strategy of ArcelorMittal, said: “We are excited to build a partnership that demonstrates our commitment to developing a low-carbon, circular economy steel business and explores the numerous efficiency opportunities across other energy intensive industries. We believe that steel is a perfect material for the circular economy, but key to exploiting our potential is establishing innovative cross-sector partnerships such as this. This will help us to develop and industrialise carbon re-use technologies, ensuring that waste products created from the steelmaking process are effectively harnessed and re-used, reducing our direct carbon footprint, but also creating commercially valuable products that have a lower carbon footprint than currently available alternatives.”

Stefan Haver, Senior Vice President Corporate Responsibility of Evonik, said: “Cross-sector initiatives like this offer great opportunities to steer our economies towards improved sustainability and more circularity. That's why Evonik strongly supports joined actions in low carbon technologies."

Bernard Mathieu, Head Group Sustainable Development of LafargeHolcim, said: “Concrete offers the highest level of life-cycle sustainability performance and we are continuously developing new products and solutions for a low carbon society. This new ambitious partnership will support our mission to cut our net emissions per ton of cement by 40% towards 2030 (versus 1990) and to develop and further deploy low carbon solutions for the construction sector. But to make this a reality, we will need an enabling regulatory framework and support to innovation.”

(*) LCTPi is a set of programs, gathering 150 global businesses and 70 partners under the auspices of the World Business Council for Sustainable Development, to accelerate the development of low-carbon technology solutions to stay below the 2°C ceiling,

(**) The study is carried out in the framework of a trans-sector LCTPi on CCU that takes places under the auspices of the World Business Council for Sustainable Development (WBCSD) and is supported by technical expertise of the European Chemical Industry Council (CEFIC).

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An international chemical and advanced materials company, Solvay assists its customers in innovating, developing and delivering high-value, sustainable products and solutions which consume less energy and reduce CO2 emissions, optimize the use of resources and improve the quality of life. Solvay serves diversified global end markets, including automotive and aerospace, consumer goods and healthcare, energy and environment, electricity and electronics, building and construction as well as industrial applications. Solvay is headquartered in Brussels with about 30,900 employees spread across 53 countries. It generated pro forma net sales of € 12.4 bn in 2015, with 90% made from activities where it ranks among the world's top 3 players. Solvay SA (**SOLB.BE**) is listed on Euronext in Brussels and Paris (Bloomberg: **SOLB.BB** - Reuters: **SOLB.BR**).

ArcelorMittal is the world's leading steel and mining company, with a presence in 60 countries and an industrial footprint in 19 countries. Guided by a philosophy to produce safe, sustainable steel, we are the leading supplier of quality steel in the major global steel markets including automotive, construction, household appliances and packaging, with world-class research and development and outstanding distribution networks. Through our core values of sustainability, quality and leadership, we operate responsibly with respect to the health, safety and wellbeing of our employees, contractors and the communities in which we operate. For us, steel is the fabric of life, as it is at the heart of the modern world from railways to cars and washing machines. We are actively researching and producing steel-based technologies and solutions that make many of the products and components people use in their everyday lives more energy efficient.
We are one of the world's five largest producers of iron ore and metallurgical coal and our mining business is an essential part of our growth strategy. With a geographically diversified portfolio of iron ore and coal assets, we are strategically positioned to serve our network of steel plants and the external global market. While our steel operations are important customers, our supply to the external market is increasing as we grow.
In 2015, ArcelorMittal had revenues of US$63.6 billion and crude steel production of 92.5 million tonnes, while own iron ore production reached 62.8 million tonnes. ArcelorMittal is listed on the stock exchanges of New York (MT), Amsterdam (MT), Paris (MT), Luxembourg (MT) and on the Spanish stock exchanges of Barcelona, Bilbao, Madrid and Valencia (MTS).
For more information about ArcelorMittal please visit: http://corporate.arcelormittal.com/

Evonik is one of the world leaders in specialty chemicals. Profitable growth and a sustained increase in the value of the company form the heart of Evonik's corporate strategy. Its activities focus on the key megatrends health, nutrition, resource efficiency and globalization. Evonik benefits specifically from its innovative prowess and integrated technology platforms. Evonik is active in over 100 countries around the world. In fiscal 2015 more than 33,500 employees generated sales of around €13.5 billion and an operating profit (adjusted EBITDA) of about €2.47 billion.

With a well-balanced presence in 90 countries and a focus on cement, aggregates and concrete, LafargeHolcim (SIX Swiss Exchange, Euronext Paris: LHN) is the world leader in the building materials industry. The Group has 100,000 employees around the world and combined net sales of CHF 29.5 billion in 2015. LafargeHolcim is the industry benchmark in R&D and serves from the individual homebuilder to the largest and most complex project with the widest range of value-adding products, innovative services and comprehensive building solutions. With a commitment to drive sustainable solutions for better building and infrastructure and to contribute to a higher quality of life, the Group is best positioned to meet the challenges of increasing urbanization.