Circular Economy European Summit

On the road to a low carbon, resource efficient future

Report 2017
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#RawMaterials #ProductDesign #Re-Manufacturing #Use #Reuse #Re-Repair #WasteManagement #Recycling
Circular Economy European Summit (CEES): A cross-cutting approach to circular economy

The circular economy is no longer an abstract concept. Looking beyond the ‘take, make, dispose’ economic model, which relies on huge quantities of cheap and easily accessible materials and energy, redesigning the way our economy works has become an imperative necessity.

Growing pressure on resources and the exposure to risks due to volatile prices and supply disruptions are not the only reason. In Europe alone, adopting circular economy principles could also generate a net economic benefit of €1.8 trillion by 2030. According to some reports, this would translate into a GDP increase of as much as seven percentage points, with an additional positive impact on employment.

Yet renewing industrial capacities in a world of finite resources and demonstrating the economic and environmental feasibility of the circular model requires a cross-cutting approach involving various stakeholders and a combination of different technologies. Accordingly, the Circular Economy European Summit (CEES) has been revamped to become a cornerstone of several Fira de Barcelona events that recognizes sustainable development as a key issue for the future of industry.

Barcelona Building Construmat, held in May; Expoquimia/Eurosurfaces/Equiplast, which took place in early October; and Smart City Expo World Congress, held in November, have paved the way for this organizational change in 2017 with great success.

These shows have displayed several initiatives and programs proving that business, institutions and users can benefit from circularity by increasing resource productivity, creating jobs and significantly reducing greenhouse gas emissions even if some frictions between the existing linear system and circular approaches are still to be overcome.
In 2018, additional Fira de Barcelona events will join this project to venture down this necessary road to a **low carbon, resource efficient future** together. These include the above-mentioned **Smart City Expo World Congress**, but also some shows related to the water sector (**Iwater**), the food sector and the packaging, process and logistics sector (**Hispack 2018**), a key issue included in the EU action plan for the Circular Economy, aimed at recycling 75% of packaging waste by 2030.

All of them are committed to continue pushing to offer companies, institutions and other stakeholders innovative high-tech solutions that effectively address circular challenges and help create the big shift towards a sustainable future.

“Adopting circular economy principles could generate a net economic benefit of €1.8 trillion by 2030.”
2. **CEES at Barcelona Building Construmat**

*23-26 May, 2017*

Barcelona Building Construmat is a biennial conference focusing on innovation, business, networking and knowledge, and showcasing the proposals from the best and most innovative companies in the field of construction.

In this sense, the circular economy model promotes reducing the amount of material used, as well as repairing, reusing, recycling, and returning to nature.

Understanding how to apply these principles to the construction sector was the main goal of the *2017 Circular Economy Congress*, developed within the scope of Barcelona Building Construmat.

In several round-table discussions and presentations linked to Innovation and Social Housing, leading national and international speakers highlighted the fact that achieving a circular economy in the construction sector will require a cost-effective combination of industry dedication and legislative structures.
The major themes of the 2017 edition were:

- Circular economy as a generator of employment
- Design of ‘products’ to be deconstructed
- New opportunities for economic growth and innovation promotion
- Improving economic results while reducing the consumption of resources
- Climate change and the environmental impact of resource usage
- How to integrate environmental impacts from the conception of a product through its entire lifecycle
- The three Rs (3R): Reduce, Reuse and Recycle

In addition, prominent speakers elaborated on the EU policy on Circular Economy applied to the construction sector, showcased several Innovative Circular Projects for recovering raw materials or using recycled plastics, and reflected on how to incorporate the principles of the circular economy in the construction sector.

All the sessions were curated by:

David García Estévez
Senior Researcher
Tecnalia, Bizkaia Science and Technology Park

Begoña Leyva Gómez
Head of Environment and Communication
National Confederation of Construction

Michael Moradiellos del Molino
Managing Director
Lateral Thinking Factory

José Joaquín Jiménez Portilla
President
Spanish Federation of Construction and Demolition Waste Recovery Associations

CIRCULAR ECONOMY
european summit
One of Barcelona Building Construmat’s aims is to work towards creating a sustainable construction industry by reducing the generation of waste and increasing the efficient use of resources, thus working on a strategic plan to make cities more efficient, inclusive and resilient.

Accordingly, the event has launched the Sustainable Barcelona Building Construmat initiative targeted at reducing on-site residual waste and ensuring the utmost sustainability.

This initiative is based on the three pillars to generate less waste in line with the European Commission’s strategy on the Circular Economy:

- Cutting down on the use of materials
- Reusing and recycling products
- Preventing the generation of food waste
CEES at Expoquimia / Eurosurfas / Equiplast

2-6 October 2017

Expoquimia, Eurosurfas, and Equiplast are the largest chemical industry tradeshows in Spain and Southern Europe. In addition to the latest developments in the chemical industry, the 18th edition of Expoquimia welcomed the 10th World Congress of Chemical Engineering (10th WCCE), as well as the corporate project Smart Chemistry, Smart Future spearheaded by the Spanish Chemical Industries Association (FEIQUE).

Moreover, the first World Chemical Summit, held within the Expoquimia framework, turned into a benchmark discussion forum for the applied chemical industry to discuss pioneering solutions for six major future challenges: food, energy, health, water and air, the digital society and industry.

In parallel, the 18th edition of Equiplast, the international plastics and rubber event, and the 26th Eurosurfas, the international surface treatment event, brought together the leading companies in these sectors.

These three tradeshows and their respective congresses attracted over 35,000 visitors, more than 714 companies in the sector and 590 internationally renowned speakers.

The 3Es trade shows showed a firm commitment to circular economy. Accordingly, each of the three events featured several seminars and conferences focusing on disseminating this new economic model promoted in different sectors through the Circular Economy European Summit (CEES).

CEES organized the seminar on Industrial Biotechnology (Expoquimia), the discussion board of Plastic in the Circular Economy (Equiplast) and the Environmental Seminars (Eurosurfas) which focused on the implementation of the Sustainable Development Goals in the sector through circular economy principles.
In this regard, Hugo-Maria Schally, Head of Sustainable Production, Products and Consumption Unit at the European Commission, pointed out that the sector must design products with a long useful life at the end of which they can be recycled and thus comply with the precepts of the circular economy, minimizing the impact on their surroundings.

“We need all levels of government and of civil society to move towards circular economy.”

Hugo-Maria Schally, Head of Sustainable Production, Products and Consumption Unit at the European Commission

**Congresses**

1. **Industrial Biotechnology** is reshaping the future by creating new innovative products and providing more efficient and sustainable processes for the food, chemical, cosmetics, pharma, plastics and energy industries, as well as offering novel solutions for waste management and pollution reduction.

The program of this congress addressed scientific, technological, economic and political aspects of the development of industrial biotechnology. The conference highlighted the need for sustainability, new life for industrial and organic waste and the circular economy.

“Industrial biotechnology favours the circular economy.”

Francesc Gòdia, Professor of Chemical Engineering at Universitat Autònoma de Barcelona (UAB)
2. Plastics in the Circular Economy
The event gave an overview on the European initiatives in the Circular Economy, how they affect plastic materials and companies of the sector as well as the strategies some firms are introducing for the circular economy transition.

The EU Circular Economy Action Package proposes raising the recycling target for plastic packaging to 55%, and reducing landfilling to no more than 10% by 2030.

3. Environmental Seminars
The Environmental Seminars, held within the Eurosurbas 2017 framework, dealt with the impact of climate change in the industry sector and showcased various solutions to promote the construction of resilient infrastructure and sustainable growth.

Renowned experts explained the legal framework to shift to a circular economy, delved into the possibilities of eco-design and a new way of managing industrial waste. Several success stories illustrated that adopting the circular economy is not only possible but necessary.

There is great potential for the circular economy and chemicals sector to boost sustainable recycling, with safe and long-lasting products.
CEES at Smart City Expo World Congress
14-16 November 2017

Smart City Expo World Congress is the leading international event on smart urban solutions, aimed at giving cities a powerful global voice coupled with an innovative platform for common action.

The event is the meeting point for different stakeholders, such as governments, companies, entrepreneurs and research centers, and represents a unique business and networking platform to connect people working with cities around the world tackling similar challenges, and to generate opportunities for action.

Under the theme Empower Cities, Empower People, the 2017 edition gathered more than 18,750 attendees, over 700 cities, 675 exhibitors and 420 speakers, who debated on citizen empowerment and what good governance really means today; technology as a key element in the service of people, how disruptive technologies are reshaping cities and how to make our cities safer; as well as how to enhance urban mobility while reducing congestion, accidents and pollution. On this issue, the event also hosted the first Smart Mobility World Congress, a smart transport expo and conference showcasing the most innovative advances in urban and inter-city mobility.

2017 Edition Key Figures

18,754 attendees
675 exhibitors
420 speakers
+ 700 cities
+ 120 countries
+ 50 side events
Taking transformative actions to a circular future

Cities can benefit from ‘circularity’ by increasing resource productivity, creating jobs and significantly reducing greenhouse gas emissions. Yet this new model requires fundamental changes throughout the value chain, from product design and production processes to new business models and consumption patterns, as highlighted in the Blue Economy report drafted by a working group of United Nations entities.

The challenges are considerable and frictions between the existing linear system and circular approaches have already arisen. The Circular Economy European Summit held within the Smart City Expo World Congress framework reflected on how urban managers can smooth the transition to a circular economy to provide cities with opportunities for a new source of wealth.

Eminent speakers explained how cities are adopting the circular economy as a strategy and explored the new “Circular City” agenda.

Sessions

- New Economies Changing Cities and Regions
- Towards a Circular Economy: Catalysing Action
- Building Efficient Circular Urban Systems
- Circularity in the City: Opportunities and Challenges
- Boosting Collaborative, Sharing and Circular Cities

“Circular economy is about a system change. We cannot develop circular projects unless we find a solution to hack the existing system.”

Sladjana Mijatovic, Circular Innovation Officer, City of Amsterdam

“We are experiencing a change of era, not an era of change.”

Jordi Oliver-Solà, CEO, Inèdit

“Symbiotic collaboration rarely appears spontaneously. A proactive promotor or facilitator, such as a municipality, is essential to make things happen.”

Veronica Kuchinow, Founder & CEO, Simbiosy
Smart City Expo World Congress is fully committed to the objectives of creating efficient, sustainable and economically viable cities, and the event is leading by example. For the third year running, it prompted the **Towards Zero Waste** initiative, aimed at reducing residual waste, saving resources and ensuring maximum sustainability on-site. And it proved to be a phenomenal success.

**Towards Zero Waste**

Environmental Awareness
- The event was carbon neutral and participants were informed on how to offset their own carbon footprint.
  - CO₂ compensation: 178 tons.
  - 178 carbon credits gained for Andra Pradesh project to produce wind energy in India, an initiative certified by the Verified Carbon Stand.
- Solar panels were installed on the roof of the venue, meaning a large percentage of the energy for the events came from renewable sources.
- During assembly and dismantling exhibitors were constantly informed on how to manage hazardous waste.

Paperless
- All the paper used at the stands was collected at the end of the event.
- The event app of the event was downloaded 3,907 times, helping to save 56 kg of paper.

**Attendee Involvement**
- Attendees were able to use the recycling bins distributed throughout the venue.
- Visitors could also return their badges, made of recycled plastic, at the return point.
  - 3,000 accreditations were returned, helping to save 45 kg of material.

Recycling
- 4,470 kg of material from several booths was re-used after the event.
- 19,100 m² of carpet from the passageways as well as 912 m² of stand carpeting were re-used.
- Other materials, such as plants, were donated to several local associations.

No Food Waste
- 664 kg of leftover food was donated to the NGO Nutrition Without Borders, to be distributed and used by community kitchens.
5. Upcoming Events

Hispack
8-11 May 2018

Organized by Fira de Barcelona in collaboration with the Graphispack Association, Hispack is the biggest packaging trade show in Spain, offering a comprehensive overview of the lifecycle of packaging for every sphere of activity: materials, design and manufacture of packaging, containers and labelling, production processes, handling, storage and transport, point of purchase, retail, reuse, recovery and recycling.

At its forthcoming edition, the show plans to increase its size, international scope and pulling power by providing specific answers to the challenges and needs expressed by the various industrial and consumer sectors that purchase packaging.

In line with the economic recovery and the increased demand for packaging, Hispack 2018 will focus on materials, logistics and automation. On this issue, the event aims to create a unique ecosystem in which innovation, industry and demand come together around the entire value chain of packaging with the objective of promoting it as the economic engine and key element in the transformation towards Industry 4.0.

The event will be held simultaneously with FoodTech Barcelona, the new name for the food technologies trade fair that will be showcasing every aspect of food manufacturing, including the way to achieve zero waste.

The president of Hispack’s organizing committee, Javier Riera-Marsá, highlights the qualitative leap made by this edition through its presentation of supply and content commensurate with the strategic and economic importance that packaging is acquiring.

“Our event will demonstrate that packaging is essential to respond to sustainability. Throughout the entire lifecycle of packaging there are many aspects that can be considered: the interdependence with logistics; automation and digitalization of processes; and new experiences in the use of packaging.”

Javier Riera-Marsá, President of Hispack’s organizing committee
**Food Sector**

A circular economy for the food and drink industry means preserving the value of resources, such as raw materials, water and energy that go into producing food and drink products for as long as possible, whilst also paying attention to farming, manufacturing and consumers. That means working with suppliers to keep ingredients fresher for longer, preserving the value of resources that go into producing food and drink products, and helping consumers prevent food waste by raising awareness and providing information.

Fira de Barcelona is committed to ongoing debate and to showcasing solutions on every aspect of food manufacturing to achieve zero waste and working together for a sustainable future.

**Smart City Expo World Congress**

13-15 November 2018

There is a growing belief that cities can take the place of nations as the dominant economic and political entities of our times. Yet with great power comes great responsibility. The challenges facing cities, for example transport, energy or pollution, have been thoroughly explored but there doesn’t seem to be a cohesive vision of how they will be addressed. If cities are to remain livable and competitive, their leaders will need to develop new approaches that account for the current context.

In this sense, Smart City Expo World Congress 2018 will continue to promote an in-depth debate encouraging cities to apply innovation so that the quality of life of their citizens improves. Innovation can be technological, but not strictly so. It must be a new process, a new way of doing things, as in the circular economy, which presents a huge opportunity for both businesses and cities.

“Because of the huge success of the Smart City Expo World Congress and the number of cities participating in the 2017’s event, we believe we have the responsibility to continue the discussion on important issues like the circular economy to inspire cities to start applying these processes and ideas in the mainstream.”

**Ugo Valenti**, director of Smart City Expo World Congress
Water is becoming an increasingly scarce resource on our planet. Climate change, global warming and the increased demand for water, amongst other factors, will reduce our hydric resources by almost half, turning the water crisis into humanity’s greatest threat. Globally, the picture is bleak: on current trends, demand for water will exceed supply by 40% by 2030.

On this issue, the prevailing linear model is economically and environmentally unsustainable. The best approach is to circulate water in closed loops. In this model, water is re-used time and again, retaining full value. It is also possible to recover a wide variety of substances from water, reducing both waste and costs. This is the definition of circularity in the water sector.

With its global vision, Iwater is intended as an international meeting point for all stakeholders who will define the evolution of the water sector, offering innovative high-tech solutions that effectively address the above-mentioned challenges in the prevailing context as well as new models of public-private collaboration.

Iwater will be attended by companies that provide solutions for water extraction, treatment, distribution, storage, recycling, reuse and irrigation, and the agricultural, industrial and domestic consumption and management of water, amongst others.
Why smart future buildings are to be circular

How the packaging industry can support the circular economy

Applying the circular economy lens to water

The contribution by chemical innovation to sustainable development

Embedding the circular economy into urban operations