

KEYNOTE

MONTHLY

LECTURES



Food  
for  
Brain

EVERY MONTH...

ONE HOUR LECTURE...

ONE SPECIALIST...

ONE HOT TOPIC...

More information is available at

- IWWG website [www.iwwg.eu](http://www.iwwg.eu)
- IWWG Secretariat [info@iwwg.eu](mailto:info@iwwg.eu)

## ROLE OF LANDFILLING IN CIRCULAR ECONOMY STRATEGIES

The passage from a linear to a circular approach is characterizing the modern waste management strategies.

The circular approach primarily arises from a growing need for primary raw material, as a consequence of global economic development. Attention is shifting from the limited and fixed stocks of raw materials to the increasing anthropogenic stocks of materials. This creates the base for the development of different strategies for recovering of resources from waste (urban mining, circular economy, etc.).

The linear traditional approach (Take-Make-Waste) based on the extraction of raw materials, production, use, wasting and landfilling of untreated waste is obsolete and progressively abandoned all over the world.

Several waste materials, further to reusables and the traditional fractions of MSW which are normally considered in source segregation programs (plastics, paper, cardboard, glass containers, cans, putrescibles, etc.), are being increasingly considered for recovery, reuse or recycling as urban resources. But waste which cannot be recycled, or materials after several recycling loops, still need to be disposed in a sustainable way and should find a safe sink, where contaminants should be immobilized and controlled. Sustainable landfilling can play this important role, allowing to close the material loops in Circular Economy, as it happens in any biogeochemical circle.

A sustainable landfill should be properly designed including pretreatment and in situ treatment, aimed to reach a Final Quality Standards which guarantee the environmental sustainability. This goal should be supported by appropriate EU and national regulations.

Without Sustainable Landfilling Circular Economy would fail.



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Raffaello Cossu, retired in 2018, is Emeritus Professor of Environmental Engineering at the University of Padova (IT).

He is Chairman of "Sardinia" International Symposia on Waste Management and Sustainable Landfilling, and "Venice" International Symposia on Biomass and Waste to Energy.

He carried out intensive scientific research on landfilling and designed more than 20 landfills in Italy and abroad.

President of IWWG (International Waste Working Group) from 2004 to 2009. From 2009 to 2017 he was Editor in Chief of Waste Management, the international scientific journal published by Elsevier. Since 2018 he is Editor in Chief of DETRITUS, the new IWWG multidisciplinary journal for Waste Resources and Residues.

In 2017 he was recipient of the IWWG "A Life for Waste" Award.

He has given a series of talks and presentations in conferences on Waste Management and Landfilling throughout the world.

He has authored more than 200 articles and conference papers and co-edited five international books on waste management and landfilling technology, published by Academic Press, Elsevier, EF and Spon.

Lecture #3



13:00 CET

