Department of Civil and Environmental Engineering





Seminars organized by the DICA Scientific Commission VI cycle – Academic Year 2018/19

Tuesday, February 12, 2019
Castigliano Room (Building 5), 11.00 a.m.

Mario Grosso

From waste treatment to resources management: strengths and weaknesses of the circular economy concept

After a short introduction to the AWARE (Assessment on Waste and REsources) research group, the approach of the European Union to the integrated waste management is discussed, with a focus on the most recent Circular Economy Package (May 2018).

Then insights from recent research are discussed, climbing the ladder of the waste hierarch with a special focus on waste prevention, packaging re-use, material recovery from waste. The controversial role of energy recovery is then introduced, addressing its crucial integration within advanced waste management concepts. The recent impressive trend of anaerobic digestion for treating food waste paves the way to some interesting integration with the transport sector, since it provides biomethane as a bio-fuel. On the other hand, the advanced processing of waste incineration bottom ash allows to recover valuable metals and inert materials that would otherwise be lost.

Building on the previous concepts, a final proposal of an alternative view of the circular economy is introduced and discussed.