

**Conclusions from Heat and Steam from Waste: Linking Energy Union and Circular Economy, 18/06/2015, Vanya Veras**

It is clear from the presentations and questions asked that Europe needs to take a clear and balanced approach to waste management, clearly recognising that we have one waste stream and that in order to achieve a circular economy we need to optimise the recovery of both materials and energy. For an optimal outcome, legislation on waste and energy must be developed together so as to enable complementary and not conflicting policies to be adopted at European level. If European Policy gets the balance right, implementation at the national level will be far simpler, enabling correct planning for legislative target achievement and the win-win use of adapted available techniques.

Recovering the latent energy in residual waste is clearly a better option than losing it to landfilling, both in terms of resource-efficiency and environmental impact. Resistance from citizens to incineration plants can be very high, however this can be mitigated if those same citizens can clearly see the results of separate collection and material recovery including the separate treatment of food and green waste, making plans for incineration a treatment for the residual waste fraction and the avoidance of landfill. This would be an integrated waste management system that takes account of maximising both material and energy recovery, in line with the Waste Framework Directive and the aims of a Circular Economy.

It is also clear that as a European Union we need to become more self-sufficient in our energy supply as well as in raw materials. Relying on volatile energy suppliers is not good long-term planning, so we need to find our own energy sources. As a human race, we cannot afford to use even the currently known stores of fossil fuels if we truly intend to limit global warming to 2°C by 2050. Recovering the heat and power from our residual waste can replace a proportion of fossil fuels and replace the dispersed emissions from individual fossil fuel home heating with one, more easily controlled source of heat and emissions.

Waste is one low-carbon fuel, but energy recovery is not the only waste treatment. We must aim at the most efficient use of the resources in our waste stream, which achieves quality recycling (the result of good separate collection at source followed by sorting) and uses clean technologies for energy recovery. Today was about incineration technology, but we must not forget that anaerobic digestion is an economically viable and increasingly used technology and others such as pyrolysis and gasification are now also viable.