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Waste Avoidance Management

Main challenges for a sustainable life on earth are Climate Change, Global Pollution and saving Natural Resources. Worldwide – including industrial countries – waste is mainly disposed by landfilling and - at a significant lower rate - by incineration. The general accepted waste management goal is to further implement circular economy mainly by using waste recycling. Significant progress has been made in this regard, but globally waste production rates have not changed; this also true in countries with statistically high recycling rates. The worldwide average waste production amounts to 1,2 kg/person and day and – as predicted by World Bank – will reach 1,42 kg/person and day in 2025. Of course recycling shall be further developed and expanded but in view of the authors there are limits how much waste can be recycled. As a consequence we have to concentrate more on waste avoidance, which is the most effective “tool” in reduction of emissions and saving resources. Waste avoidance has always the highest priority in Waste Management, WM, hierarchy. But much more has to be done to promote and realise this strategy.

A new approach is needed where all residues have to be put on the test bench in order to develop new ways of waste avoidance. Of course dependent on the kind of residue measures for avoidance will be different. Industrialized countries with their abundant consumption should be frontrunners. Such an approach cannot be realised from one day to the other and needs a longer-term perspective.

There are different tools that may be used: prohibitions and regulations, cost, change of habits, new inventions, new developments/modification of products, substitution of materials, new ways of used product utilisation, more leasing, decentralised systems, modified separate collection, better recycling/reuse of products due to change in construction, etc.

If new approaches for waste avoidance shall be implemented, questions arise in regard to necessary pre-requisites and emerging consequences in life style, in cost, social life, on-line trade, shops, etc. Many aspects have to be respected: technical, social, economical, logistical, etc. and the effects on emissions, used resources, consumption of energy, WM have to be validated. This subject becomes a rather complex system and - in view of the authors – needs to be and will be urgently approached.