

Recycling of Construction and Demolition Waste an overview of RILEM achievements and state of the art in the EU

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RILEM is the Union of Laboratories and Experts in Construction Materials, Systems and Structures. It endeavours especially to advance scientific knowledge related to the use of concrete, masonry, wood, asphalt, and other construction materials, and to encourage transfer and application of this knowledge world-wide. The essential work of RILEM is done in Technical Committees (TC's) which are set up in a Bottom-Up approach, i.e. it are the corporate members and individual members who bring forward the proposals for action. Those are then evaluated on their merits by a technical advisory committee who also provides in monitoring of the progress of the TC's.

Work on recycling started in RILEM back in 1981 in the TC 37-DRC chaired by Torben Hansen. The initial theoretical work on Demolition and Recycling of Concrete was quickly followed by industry driven actions as the interest in the topic was growing in practise. TC 121-DRG undertook under the leadership of Erik Lauritzen to come up with Guidelines for Demolition and Reuse of concrete in 1989. A conference was held in Denmark in 1993 and a State of the art Report, and later also a RILEM recommendation were issued as final work of this TC. Further work in RILEM was taken forward amongst others in the TC's 165-SRM "Sustainable Raw Materials - construction and demolition waste" chaired by Charles Hendriks and 198-URM "Use of Recycled Materials" chaired by Charles Hendriks and Enric Vázquez. Today work is still continuing....

A Memorandum of Cooperation (MoC) was signed recently at the RILEM general council in Melbourne between RILEM and *fib*, the main aim is to develop further synergy in the field of concrete and especially to set up joint committees. It is nice to see that the TC on "structural behaviour and innovation of Recycled Aggregate Concrete" RAC chaired by Jianzhuang XIAO will be one of the first committees putting this RILEM-*fib* MoC in practise.

Environmental legislation in Europe has also been putting the topic of Construction and Demolition waste high on the agenda especially under impetus of northern Europe where now up to 90% of all the C&D waste is being recycled as part of a focus on sustainable construction. Most recently in its communication on 'Resource Efficiency Opportunities in the Building Sector' COM (2014)445 the commission focusses on the establishment of a common European approach to assess the environmental performance of buildings throughout their lifecycle, taking into account the use of resources such as energy, materials and water. The Commission announces in this context to support projects in H2020, COSME and Life+ related to research, innovation and demonstration showcasing how collaboration between public authorities and the private sector can create viable markets with recycled materials.