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**CHALLENGES IN THE ESTABLISHMENT  
OF CLEAN MATERIAL CYCLES IN THE  
CONSTRUCTION SECTOR –  
EXPERIENCES FROM AUSTRIA**

The construction sector is one of the main contributors regarding waste arisings on the globe. Scientific publications report the share of Construction & Demolition (C&D) waste at around 30 - 40 % of the total waste generation. However, this very much depends on whether excavated soil is considered as waste as well and whether it is included in the statistics presented. In Austria, the C&D waste makes up around 75% of the overall waste according to recent figures presented in the Federal Waste Management Plan of Austria. These figures include excavated soils and reflect a comparably strict approach of authorities with regard to waste regulations.

As a matter of the high quantity of C&D waste this material stream has been considered as one of the priorities in the Austrian Circular Economy Strategy as published in 2023. We also see that C&D waste and its reuse and recycling is considered as an important criterion of the implementation of the EU taxonomy (EU 2020/852) regarding the classification of sustainable activities as defined in the respective delegated acts (EU 2021/2139 and EU 2023/2486) and as requested to be reported through the Levels-indicator 2.2. So, there are drivers to increase reuse and recycling of C&D waste in place already. However, the challenge we face for C&D waste especially is the variety of construction products used in the past as well as the long lifetime of these products. As we used substances in the past that are meanwhile banned from use as they are for example classified as POP (persistent organic pollutants) we also need to establish procedures to secure that these substances are excluded from reuse and recycling to fulfill international conventions as well as to keep material cycles clean.

The main challenge hereby is the identification of C&D waste that cannot be reused / recycled and its separation during the demolition process. In Austria, the directive on recycling construction material, enacted in 2015 and effective as of January 2016, as well as the Austrian Standard B3151 "Selective Demolition as a Standard Procedure" are the key elements of implementing respective procedures. On the European level there is the "EU Construction & Demolition Waste Management Protocol" that has been updated in 2024.

This conference contribution will focus on an assessment of the implementation of respective procedures in Austria and discuss the challenges and limitations faced by the stakeholders in the practice.