

## **PureStep™ - tackling challenges on converting plastic pyrolysis oil into drop-in renewable naphtha**

Many positive developments characterize the petrochemical industry's transition into circularity. Chemical recycling is one example, with a number of large players moving towards delivering on brand owners' pledges for recycled content through utilizing in the steam crackers renewable naphtha produced, for example, via pyrolysis of plastic waste.

Though chemical recycling is seen as a solution both helping with plastic waste management and contributing to decrease GHG emissions, several challenges are standing in the way of a successful and large-scale implementation of such solutions.

Challenges come from inherent plastic properties (such as chlorine in PVC) as well as impurities from municipal solid waste – both incompatible with steam crackers. Furthermore, steam crackers can have very different feedstock specifications when it comes to end boiling point, nitrogen content, concentration of halogens, etc. This presentation will address typical technical challenges when upgrading pyrolysis oils and how to solve them through tailored solution approach deployed commercially.