

Examining the enablers and barriers of plastic waste valorisation processes and practices in Norway and South Africa



Introduction

This poster presents the research findings from Group 3C of the SANO Exchange. This research focused on understanding the enablers and barriers of plastic waste valorisation processes and practices. A case study approach was adopted, where the Natural Building Collective from South Africa and Ogoori from Norway were selected. Both organisations are involved in plastic waste valorisation, and encourage sustainability in design. This research was funded by the Norwegian Retailers Environmental Fund.

Plastic waste has become a significant global problem due to its persistence in the environment and adverse impacts on ecosystems and human health. International concerns about plastic waste continues to grow, and the valorisation of plastic waste has emerged as an attractive solution to this complex challenge. Waste valorisation refers to industrial processes aimed at reusing, recycling or transforming waste into a resource.

Literature Review

- There is very little literature on the enablers and barriers of plastic waste valorisation
- Most of the literature was focused on technical aspects of waste valorisation
- The literature review revealed that there are generally four types of enablers and barriers: technical, financial, regulatory and socio-cultural



Methodology

- Qualitative research design
- Case study approach
- Data collection through interviews with key actors, partners and beneficiaries of the two case study organisations
- Data collected through document review
- Thematic analysis to identify key themes associated with the enablers and barriers of plastic waste valorisation processes and practices



Results

- A systemic and holistic perspective is required when considering plastic waste valorisation
- The local development context shapes how plastic waste valorisation processes play out in reality
- Barriers and enablers of plastic waste valorisation processes and practices should not be viewed as binary, but rather there is a continuum of enablers and barriers
- Something can be an enabler, but can then transition into being a barrier, and vice versa
- There are complex interrelationships existing between the different types of barriers and enablers

Results

- Partnerships and networks are required when attempting to change the status quo. One organisation cannot do everything.
- Funders need to incorporate flexibility into their funding arrangements
- Targeted communication strategies are required for different actors
- Understand perceptions
- Education and awareness to change behaviour

Technical

- Quality of recycled plastic against virgin plastic
- Issues of toxicology and contamination

Financial

- The high cost of recycling makes other options more attractive
- Using economics to change behaviour through taxes
- Appears to be an inverse relationship between funding and creativity
- Environmental, Social and Governance Reporting

Legislation/Regulatory

- Use of pre-existing relationships and personal networks to navigate the regulatory and legislative system
- Environmental, social and governance reporting and other legislative requirements can drive change

Socio-cultural

- Understanding perceptions is critical
- Perceptions of the quality of recycled plastic
- Social pressures are key for driving change
- Making the problem visible and communication strategies are important for driving change
- A multicultural perspective is required when holistically addressing global issues



Conclusion

- Research outputs include: 4 posters, 1 pamphlet for the school, 1 video
- **Intended activities with SANO funds** include academic research paper, an impact assessment for Natural Building Collective, compilation of funder and organisation guidelines, participate in recycling month activities at Ulwazi Educare Centre

