

Our Network

TU Bergakademie Freiberg (TUBAF) – Institute for Machine Elements, Engineering Design and Manufacturing (IMKF) – Chair of Additive Manufacturing
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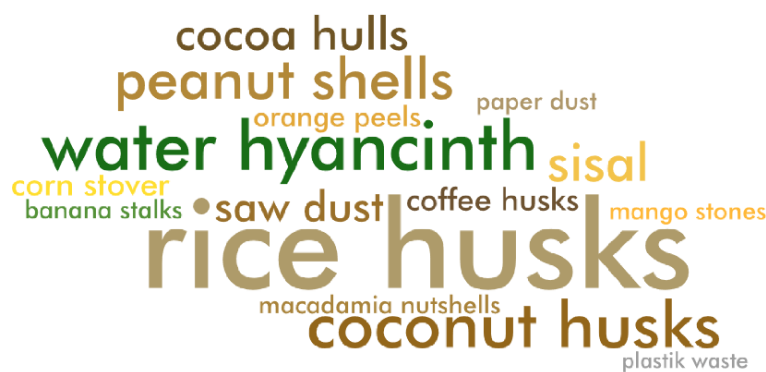
Circular economy

Challenges

- Environmental pollution by plastics
- Demand for new bio-based materials
- Demand for PhDs for higher education teaching in Kenya
- Demand for state-of-the-art equipment for Additive Manufacturing at Kenyan universities

Project Objectives

- Utilization of locally available, renewable and biocompatible resources for Additive Manufacturing (AM) technologies
- Postgraduate education to foster capacity development through training, circular economy and economic growth
- JKUAT-TUBAF center of excellence in AM



Good practices

- Procurement of equipment works best when it can be purchased directly from Kenya (but not always possible). Small items can be carried by project staff during travels.
- To coordinate jointly supervised student theses, online seminars are held every six months in which students present their work. These are open to all students and staff of both institutes.
- Practical skills sharing trainings during the two annual SustainAM schools enhance the academic practice at both universities.

Activities

- Close cooperation regarding ongoing research work
- Selected biobased materials are analysed at both universities with focus on different AM technologies
- Joint tendering and supervision of student theses (if possible with exchange activities)
- Annual project meetings in Freiberg and Juja in combination with joint teaching activities (SustainAM schools)
- Establishment of the AM Laboratory at JKUAT (Procurement and transport of equipment as a major challenge)