Food Loss – Creating Social Impact

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The cost of feeding the world today

- 24% of global GHG emissions is from agriculture
- 69% of total Water usage come from agriculture
- 1/3 of global energy goes into food production from field to table
- 1/3 of all food produced is waste
Our Target for Sustainable Value Chains

30% less
How to feed over 9 billion people by 2050?
30% of all food produced gets lost from ‘the field to fork’.

Bühler can intervene in the handling and storage as well as in the processing. Focus on sustainable value chains drives our innovation.

Dr. Peter C. Böhni / Bühler AG
Amount of food lost and wasted is regionally different.

Unlike consumer-driven waste in the developed world, over 90% of all wastage in developing Asia and Africa occurs during production, postharvest, processing, and distribution.

- **Europe**: 80 Mmt loss, 62 Mmt waste
- **Industrialized Asia**: 317 Mmt loss, 141 Mmt waste
- **North America & Oceania**: 63 Mmt loss, 110 Mmt waste
- **North Africa, West & Central Asia**: 66 Mmt loss, 13 Mmt waste
- **Sub-Saharan Africa**: 123 Mmt loss, 5 Mmt waste
- **South & Southeast Asia**: 327 Mmt loss, 28 Mmt waste

**Mmt** = million metric tonnes

Source: (1) FAO “Global Food Losses and Food Waste,” 2011; Dalberg analysis

Food loss: food intended for human consumption that is wasted during production, postharvest, processing, and distribution.

Food waste: food that is discarded by consumers.
Food waste as key greenhouse gas emitter
Countries vs. food waste, 2005:

If Food Waste was a country, it would be the worlds 3rd biggest CO2 emitter.

Bühler’s Part in the Food Value Chain

Bühler provides processing solutions from post harvest storage to manufactured consumer goods

40% of industrially made pasta is produced using Bühler technology.

60% of all chocolate is produced on Bühler plants. 4 million tons of cocoa beans are harvested every year.

30% of global rice production is covered by Bühler solutions. Rice is the staple food for 3 billion people.

65% of global wheat production is covered by Bühler milling solutions. 4.5 billion people live on wheat.

50% of industrially processed maize.

20% of industrially processed animal feed.
Drying & safe storage of grain to prevent fungal growth.

High risk of spoilage and contamination
Food Loss and Food Waste
The Challenge and the Task

Challenge
1. How to stop losses?
2. How do we aggregate easily and efficiently to give a leverage on price to smallholder farmers?

Task
1. Design a low cost storage facility for smallholder farmers in Africa <50 USD
2. Wireless communication of temperature, humidity, time, date, location, farmers name, crop type, harvest time, quantity, amount, filling level of silo, etc.

2 teams of 3-4 students

funded by NGO
Good business doing good.

Innovations for a better world.