Adding Value to Maize Products.

- Instant Maize Meal
- Cereal Based Porridge

Stefan Lutz
Agenda

1. Instant Maize Meal
2. Cereal Based Porridge
### Agenda

<table>
<thead>
<tr>
<th></th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Instant Maize Meal</td>
</tr>
<tr>
<td>2</td>
<td>Cereal Based Porridge</td>
</tr>
</tbody>
</table>
**Instant Maize Meal.**
*Consumer expectations.*

- Reduction of cooking time
- Authentically texture and elasticity
- Taste and mouth feel must be the same as traditionally produced maize meal
**Instant Maize Meal. Facts.**

- Maize meal is a staple food in Sub-Saharan Africa
- It is eaten up to three times per day
- Today’s maize meal is processed in traditional maize mills
- Traditional maize meal cooking time is around 25 – 35 minutes
- The total consumption is ~16 mio. t / year
**Instant Maize Meal. Solution - Process flow**

1. Maize cleaning
2. Degerminator
3. Grits conditioning
4. Tempering
5. Steaming
6. Flaking
7. Drying + cooling
8. Final grinding
9. Packing

**Back pack solution for existing mills**
**Instant Maize Meal.**
*Back pack Solution.*

before

after
Instant Maize Meal. Flaker.
Instant Maize Meal.
Control system.
**Instant Maize Meal.**

*Summary.*

- Instant Maize Meal has a cooking time of two to five minutes.
- Texture and elasticity is very similar to traditional product.
- Instant Maize Meal has an identical taste and mouth feel as the traditional cooked.
- Accepted by Consumers

**Consumer benefits:**

- Easy to prepare
- Less preparation time = more free time
## Agenda

1. Instant Maize Meal
2. Cereal Based Porridge
Cereal Based Porridge.  
Market Demand.

- Wide spread staple food in Sub-Saharan Africa.
- Other applications possible.
- Different variations on the market with maize, soya, sorghum, millet…
- Flavored products commercially available.
- Fortified products for various food programs and school feeding.
Cereal Based Porridge.
Market Opportunity.

Maize Mill

Maize

Grits 70-80%

Grits, Semolina, Flour

Germ Flour 10-20%

Bran 5-10%

Feed

Soya, Maize, Sorghum …

Single Screw Extruder Plant

Vitamin, Minerals, etc.

Cereal Based Porridge

Maize Mill

Maize
Cereal Based Porridge.
Key Machines.

Single Screw Extruder AHSF

Hammer Mill AHZC-655-F

Fluid-Bed Dryer-Cooler OTW-Z

High-Speed Batch Mixer AHML
Cereal Based Porridge.

Trials.

- Trials done at Buhler.
- Positive Feedback of Consumer Tasting Session
- Texture and structure adaptable to regional food preferences and eating habits
Cereal Based Porridge.
Customer Benefit.

- Production of highly nutritious foods for human consumption
- Use of local grains and by-products from maize mill
- Improve economics and adding value for maize mills

Alternative pictures see following slide
One step ahead.