Modular and Connected Organic Waste digester

Real time remote monitory
Adaptive control strategy

Organic Waste

Directly on the waste production site

Energy
Fertilizer
Auchan China Supermarket in Haimen

Energy
18,000 kwh/day

4% of total energy

Hot Water
700 kwh/day

Waste
1 t/day

Organics
>85%

Other Waste
<15%

Partner Farm

Organic food

Fertilizer
600 kg/day
Is there a big problem to solve?

- 30-50% of municipal waste are organic

**Incineration**

- Air pollution
- Hashes

<table>
<thead>
<tr>
<th>Organics</th>
<th>Hashes</th>
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<tbody>
<tr>
<td>1 ton</td>
<td>100 kg</td>
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- Organics do not burn very well

<table>
<thead>
<tr>
<th>Organics</th>
<th>Required</th>
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<tbody>
<tr>
<td>200 kwh/t</td>
<td>1700 kwh/t</td>
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- High overhaul cost
  - ~ 800 CNY/ton (120 us$)
Why modular?

<table>
<thead>
<tr>
<th>Organic waste Recycling</th>
<th>Centralized</th>
<th>Modular</th>
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<tbody>
<tr>
<td>Waste Transport</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Sorting</td>
<td>Mechanical Sorting</td>
<td>On the fly</td>
</tr>
<tr>
<td>Use of energy</td>
<td>Injection on the grid</td>
<td>Local use</td>
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<td>Land usage</td>
<td>Creation of a “waste” zone</td>
<td>Minimal land footprint</td>
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Traditional centralized processing
Refrains the development of recycling!
Why Connected?

- Modular, Distributed processing
  - Impossible to have expert knowledge on each site

- Environment technology
  - Unpredictable inputs
  - Harsh conditions

- Need to
  - Monitor the real status of the equipment
  - Adapt control strategy
  - Provide pertinent maintenance actions
  - Gather and consolidate operational knowledge
Enwise your waste

Internet of thing technology

Real time monitoring and adaptive control

Modular, distributed waste processing

More efficient recycling strategy

Better usage of our waste!