Eggersmann Group

As service provider for complete solutions we share sustainable synergies over all companies in our group

Civil construction

- Industry
- Office Buildings
- Private homes
- Agricultural buildings
- Public Buildings

Production and storage hall

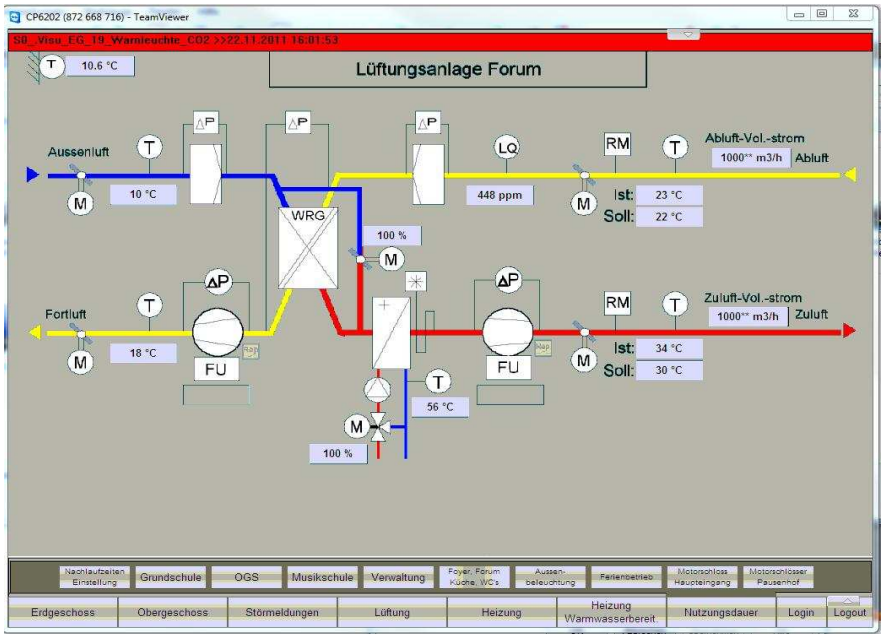
Eggersmann
Bauwesen

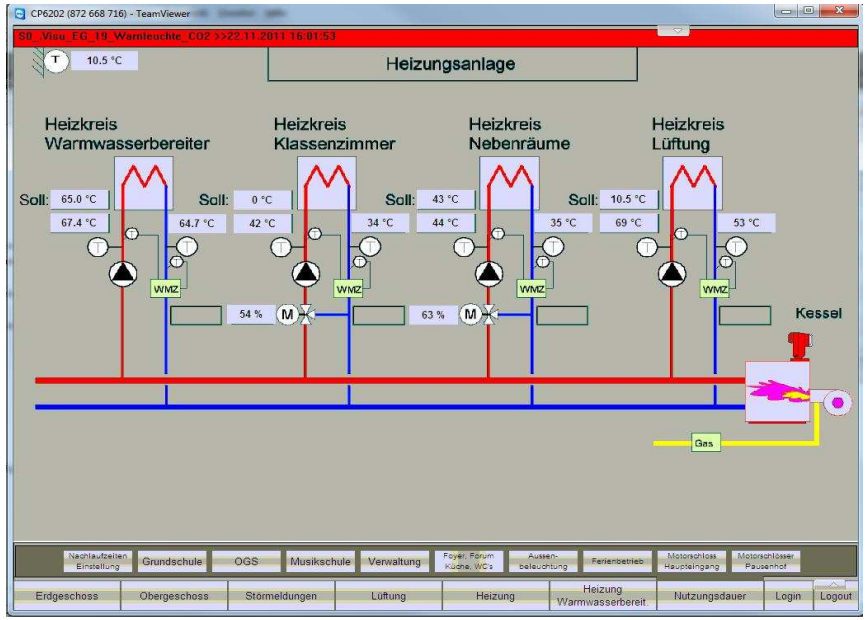
Theater Gütersloh

Object-Management

- Public enterprises
- Companies
- Investor

High School Mittelhaan





- Visualization and control of technical components via remote control

School and swim center, Rietberg

- Operation and maintainance

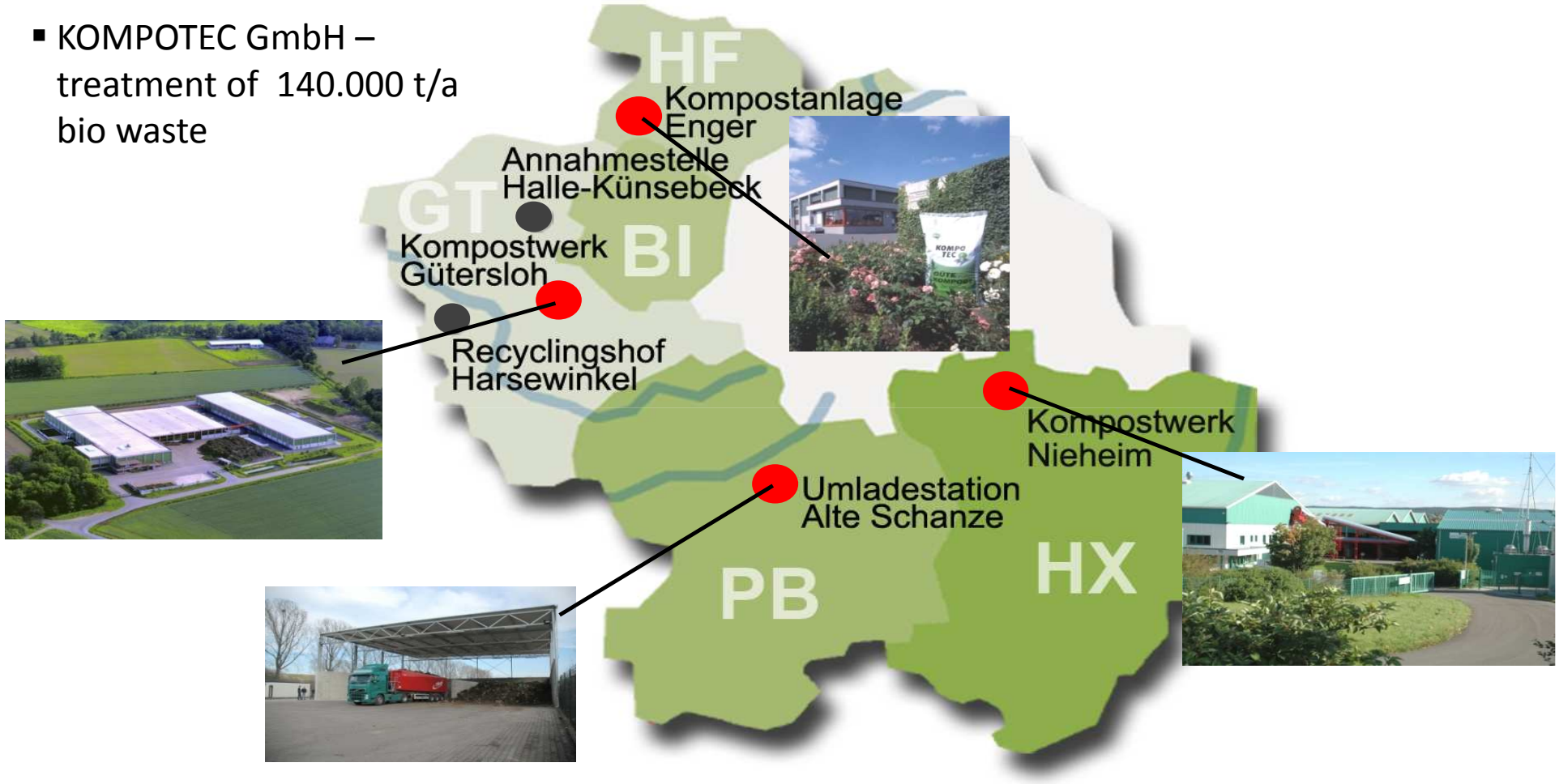
Eggersmann
Objekt-Management

Kompotec

- **since 1987 Enviromental technologies**
- **since 1992 operation of own Composting Plants**

Places and operation areas

- KOMPOTEC GmbH – treatment of 140.000 t/a bio waste



Eggersmann Kompotec

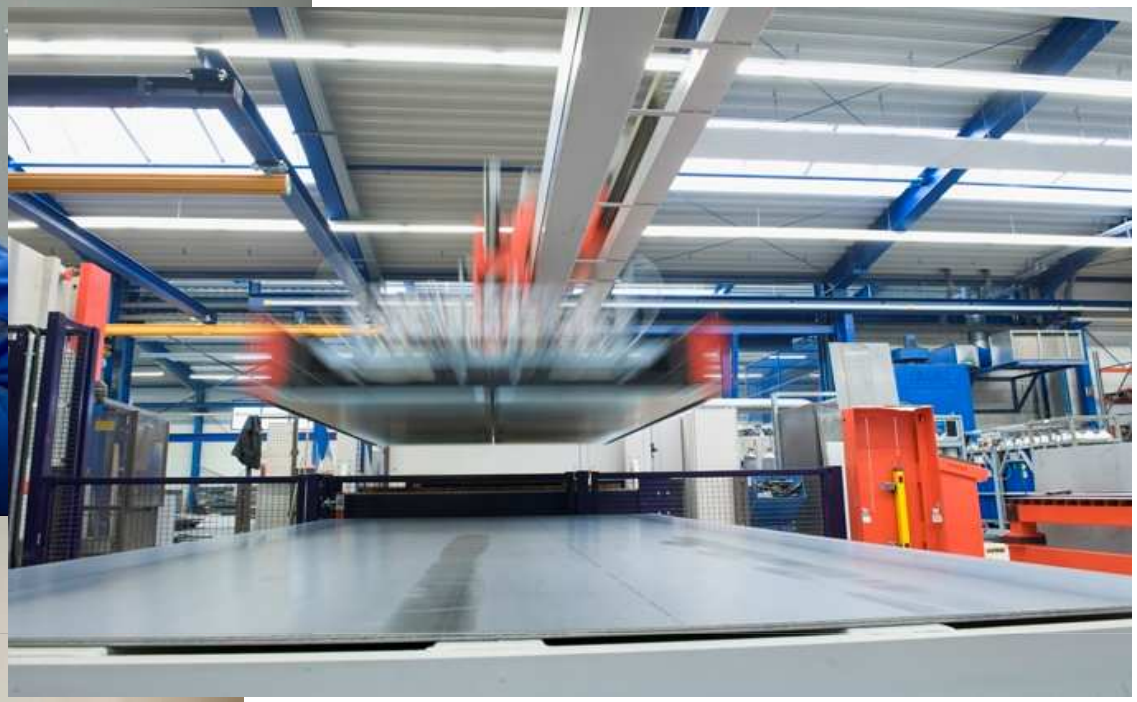
Compost facility Nieheim

Compost facility Gütersloh

Anlagenbau

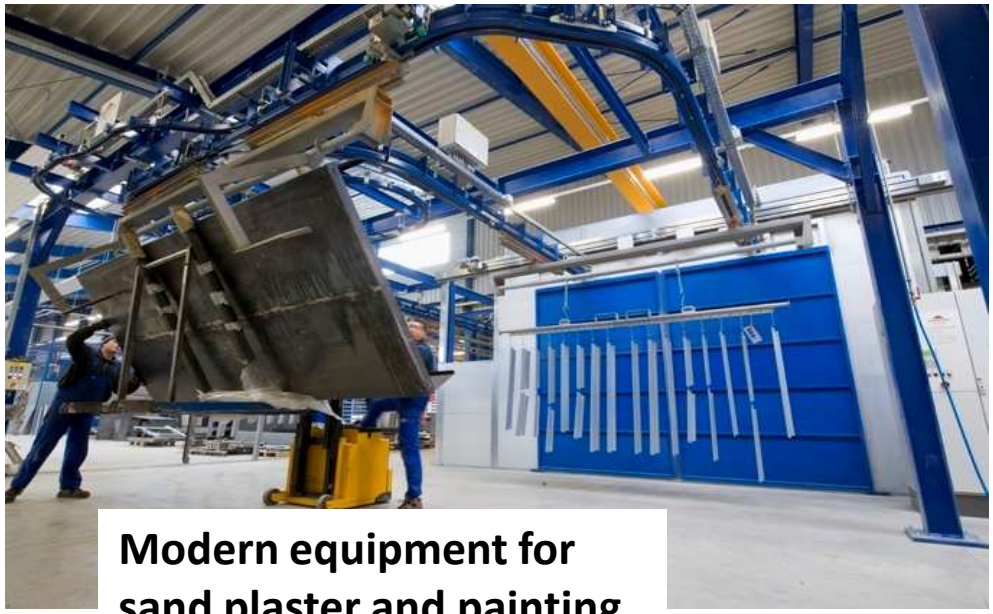
Eggersmann
Anlagenbau

- Mechanical treatment
- Biological treatment

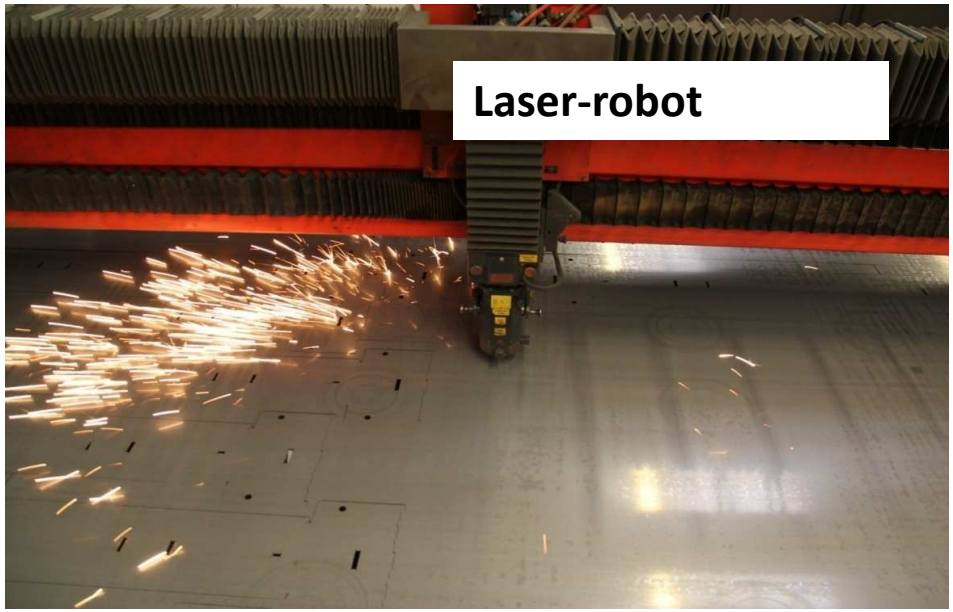


Acquisition, Planning, Engineering and own Production

Eggersmann Anlagenbau



Modern equipment for
sand plaster and painting



Laser-robot

CNC-press and automatic
high level storage

Plant services - worldwide

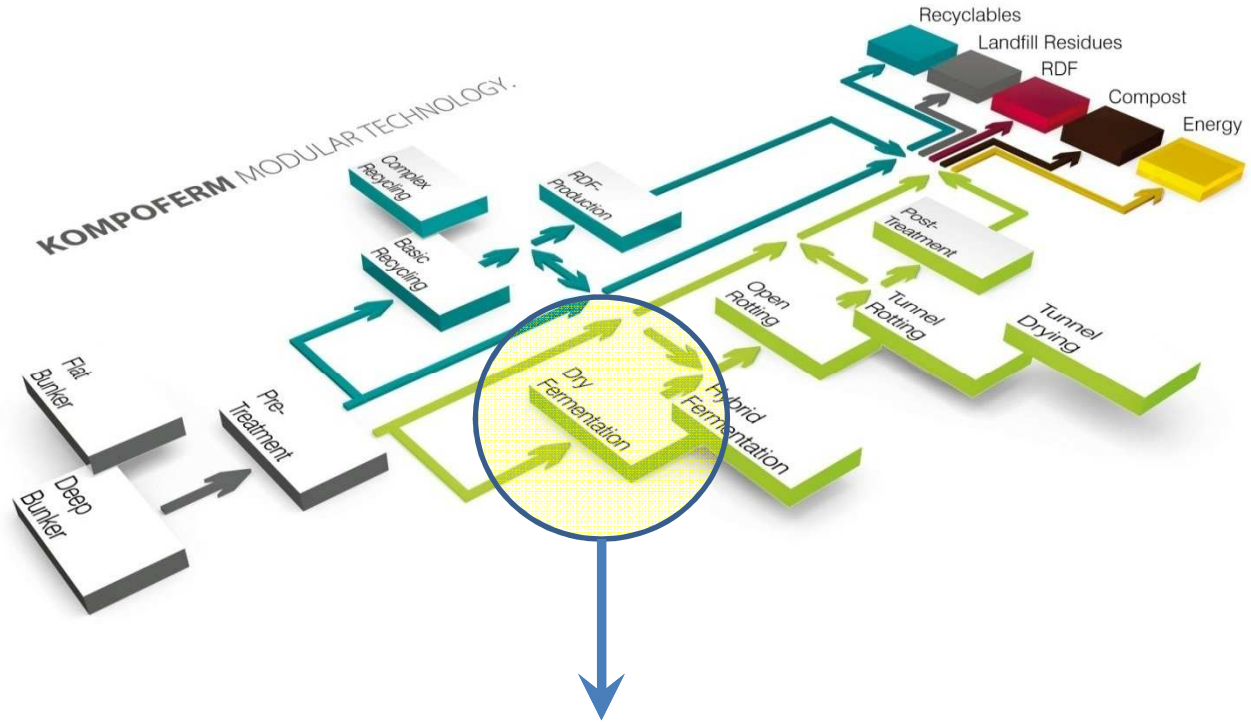
Maintenance

Service

Parts

The KOMPOFERM Process-Modules

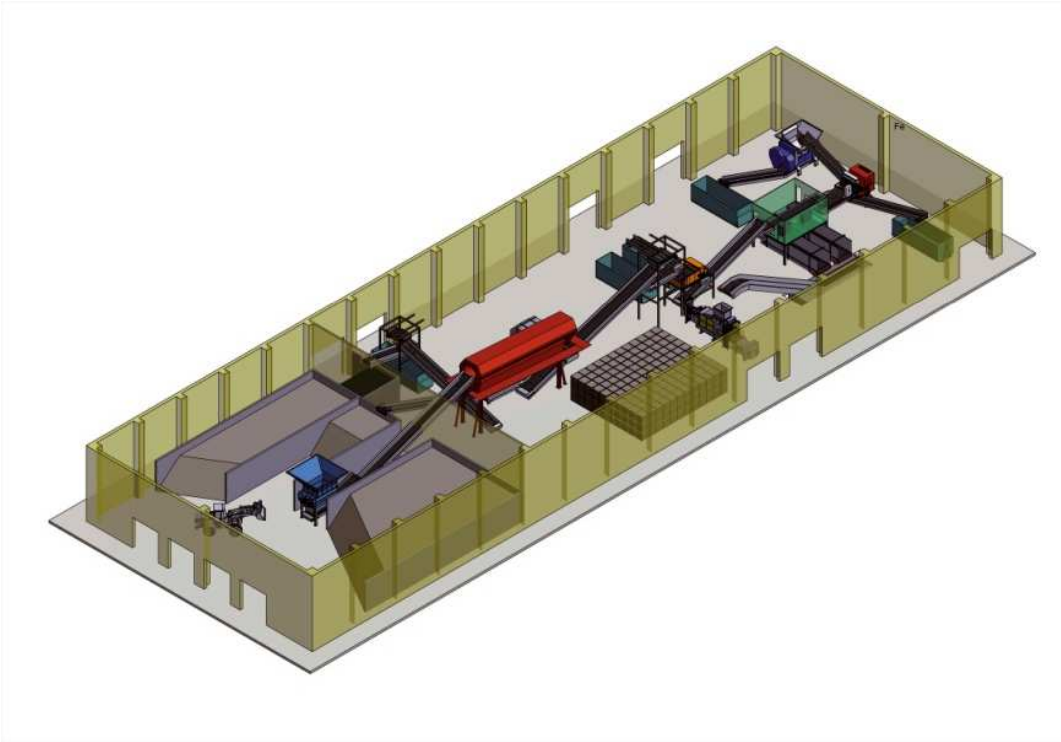
4 **Dry Fermentation – Location in the KOMPOFERM System**

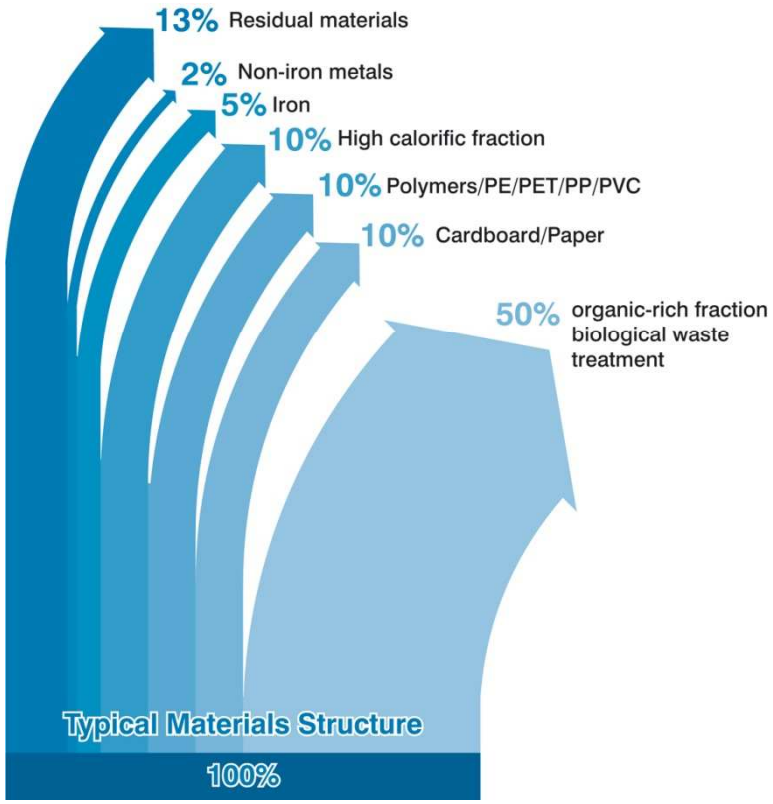


The next step to the maximum of energy

The KOMPOFERM Process-Modules

4 **Dry Fermentation – Typical Input: <u>Organic from household waste</u>**





The KOMPOFERM Process-Modules

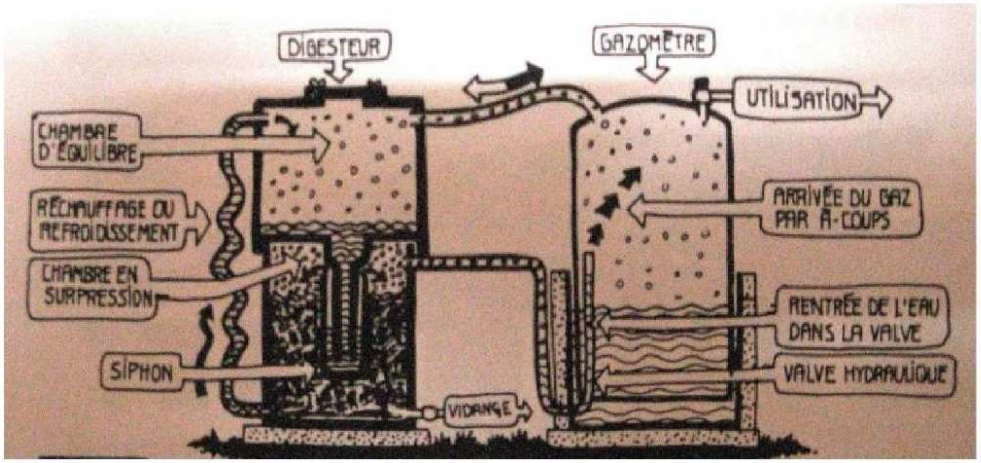
4

Dry Fermentation – Typical Input: <u>Separate collected organic</u>

The KOMPOFERM Process-Modules

4 **Dry Fermentation – The first ideas**

Ecole Nationale d'Agricole d'Alger, 1937

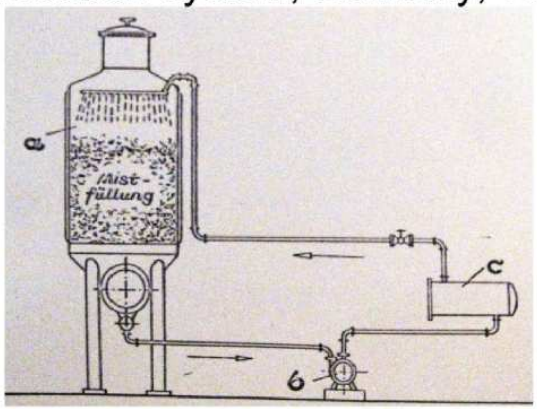


The first full-scale (approx. 10 m3) agricultural biogas installation developed in 1938 by GILBERT-LEON-RENE DUCELLIER and MARCEL-ALBERT ISMAN in Algeria was operated on solid waste, patent: FR893767 A - 1944-10-30.

Dry fermentation, Burkina Faso

1982-1988

Percolation-system, Germany, 1953

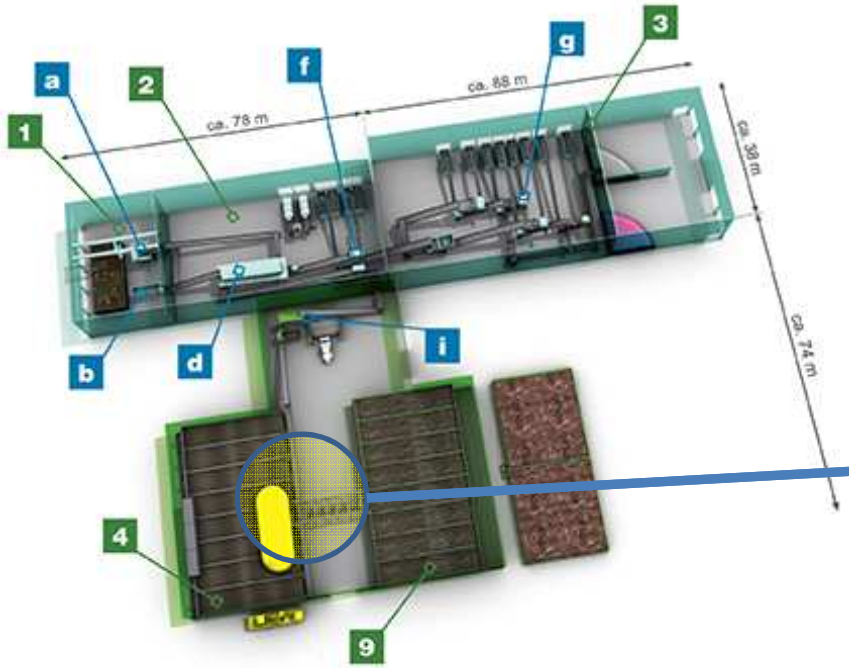


Developed by Martin Strell, Hans Liebmann and Georg Goetz, Patent St 7634 IVc/85 c

The KOMPOFERM Process-Modules

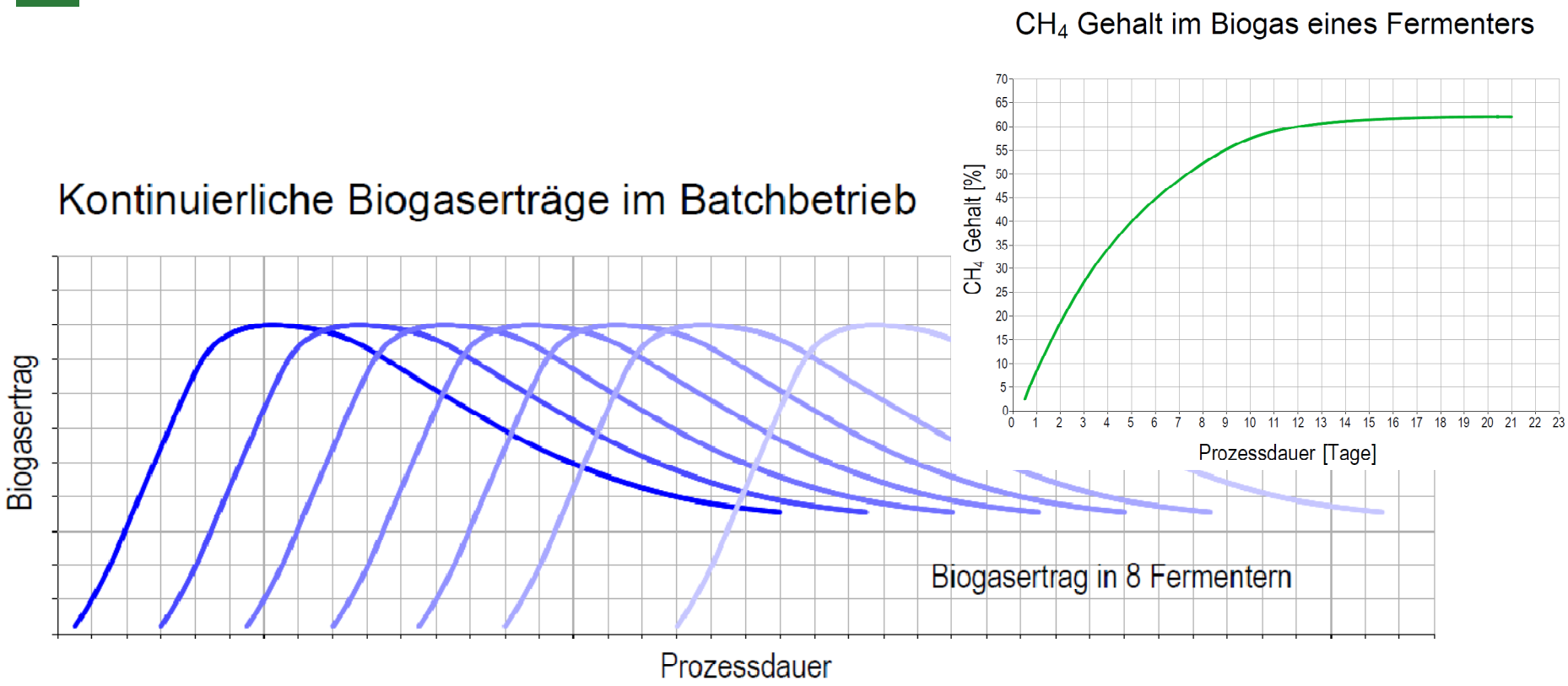
4 Dry Fermentation - KOMPOFERM plus method

The dry fermentation is build in modules of 5 to 8 structurally identical dry digesters tunnels and a percolate fermenter with upstream sand trap below the digester tunnels.



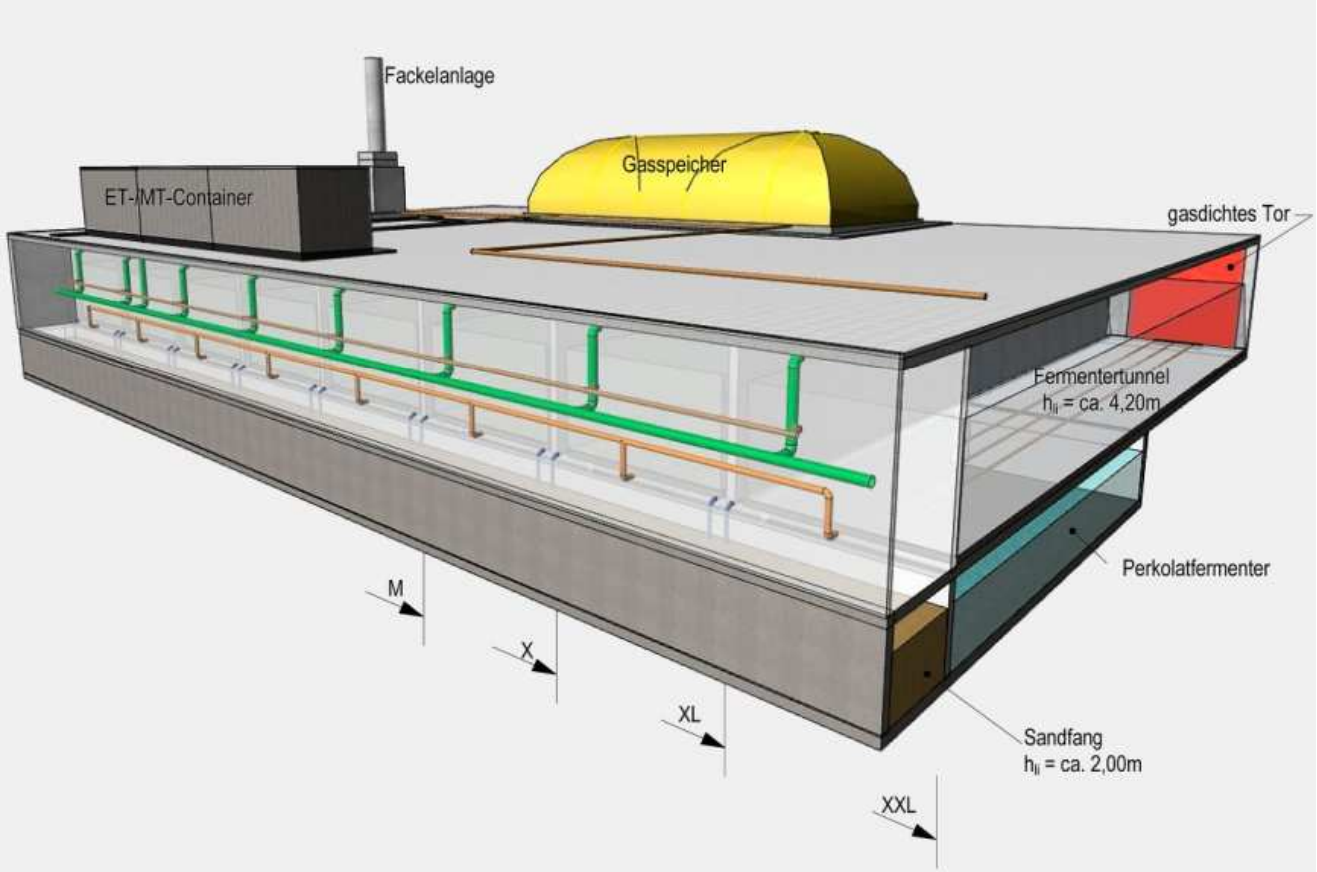
The KOMPOFERM Process-Modules

4 **Dry Fermentation – The batch process**



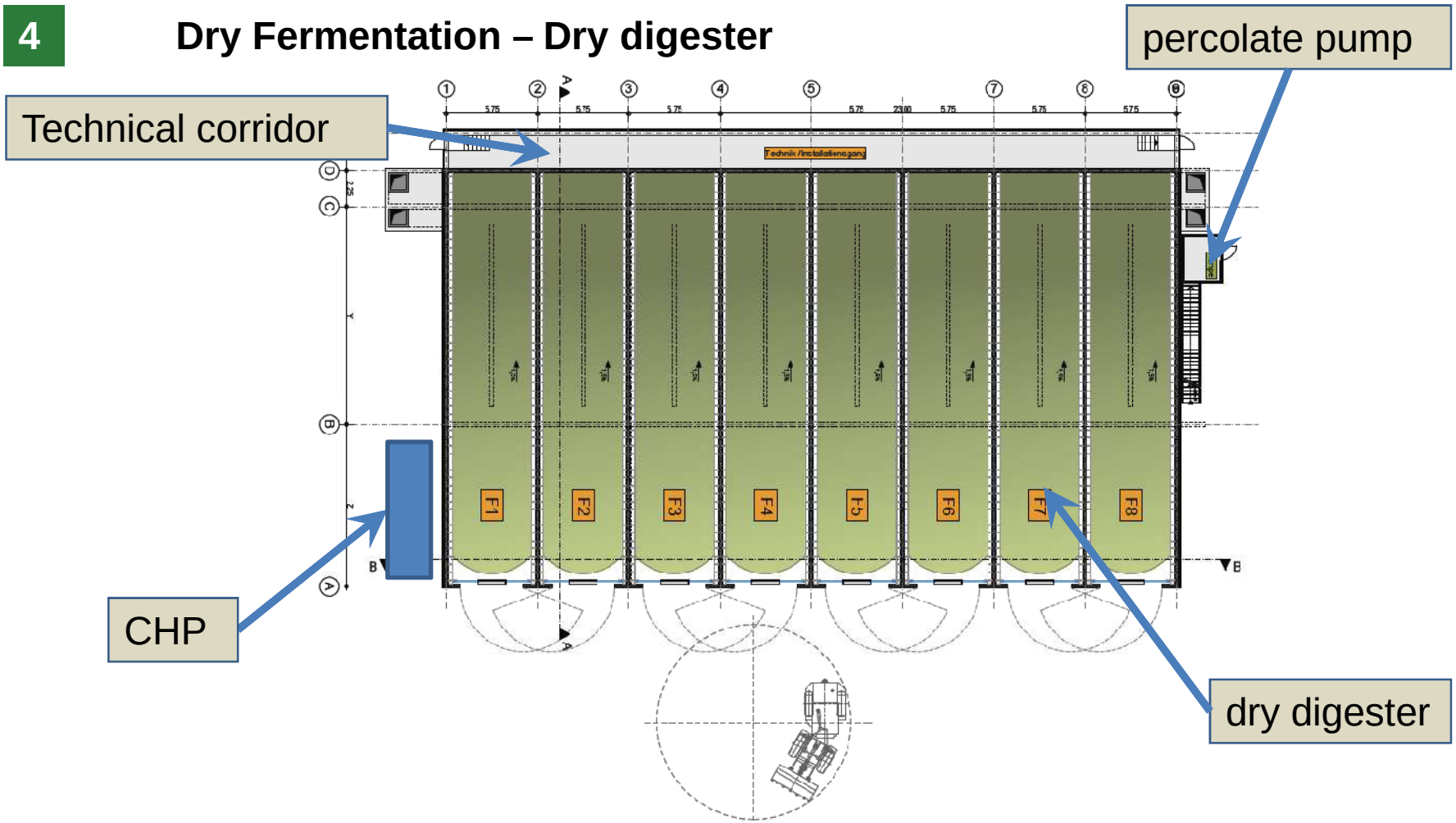
The KOMPOFERM Process-Modules

4 **Dry Fermentation – Principale components**



The KOMPOFERM Process-Modules

4 **Dry Fermentation – Dry digester**



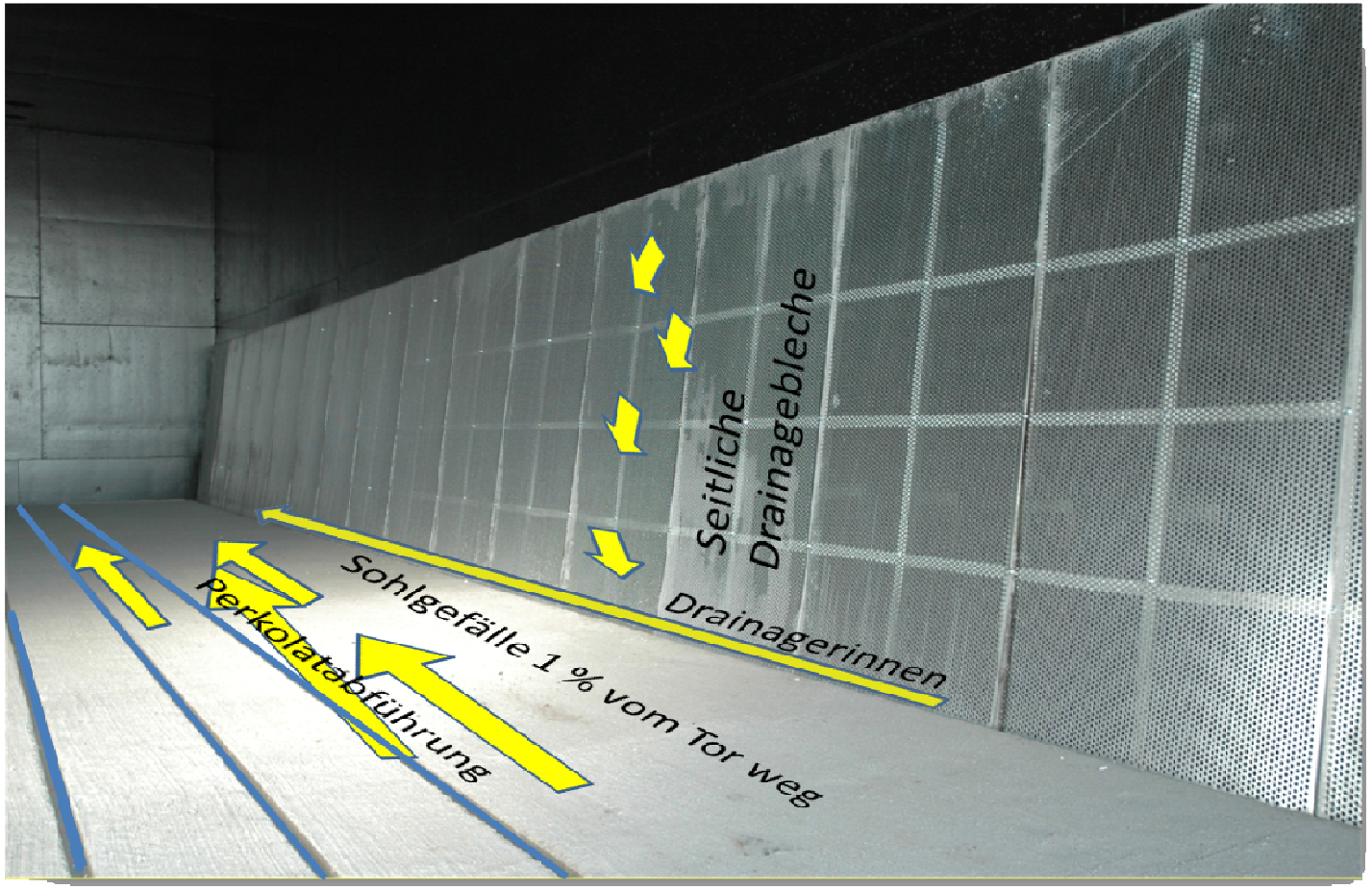
The KOMPOFERM Process-Modules

4 **Dry Fermentation – Gas tight doors**

The KOMPOFERM Process-Modules

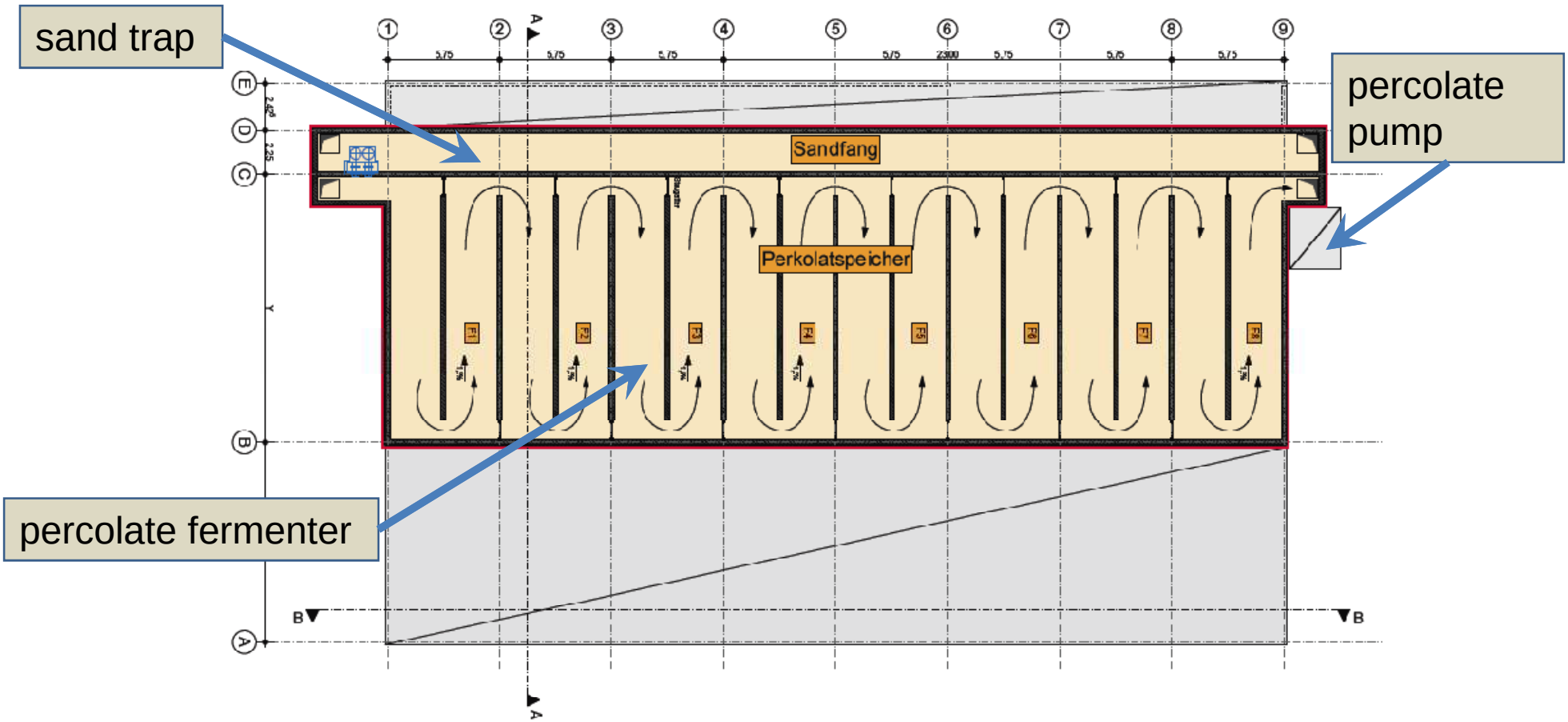
4

Dry Fermentation – The digester tunnel



The KOMPOFERM Process-Modules

4 **Dry Fermentation – The sand trap and percolate fermenter**

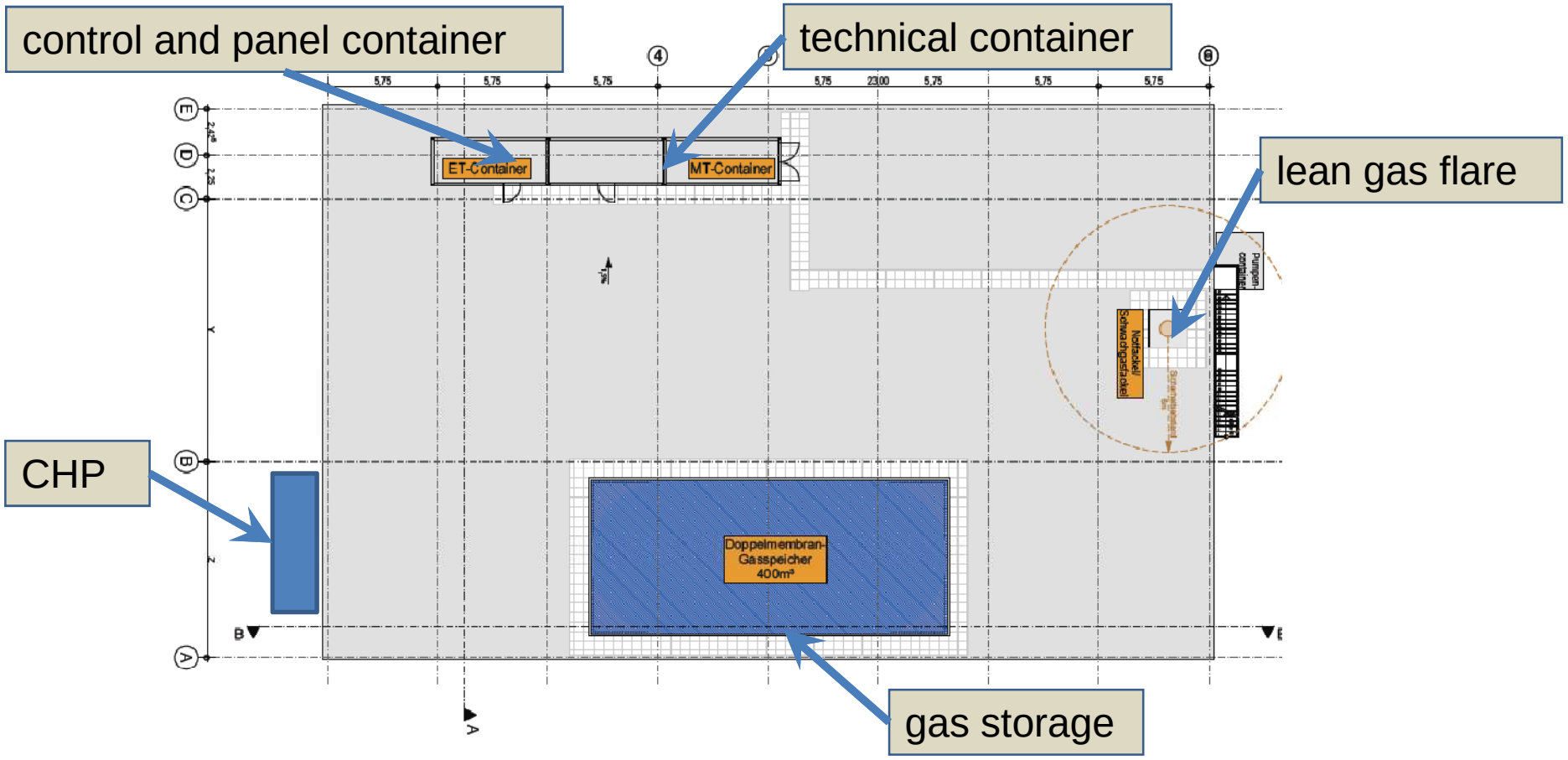


The KOMPOFERM Process-Modules

4 **Dry Fermentation – The technical corridor**

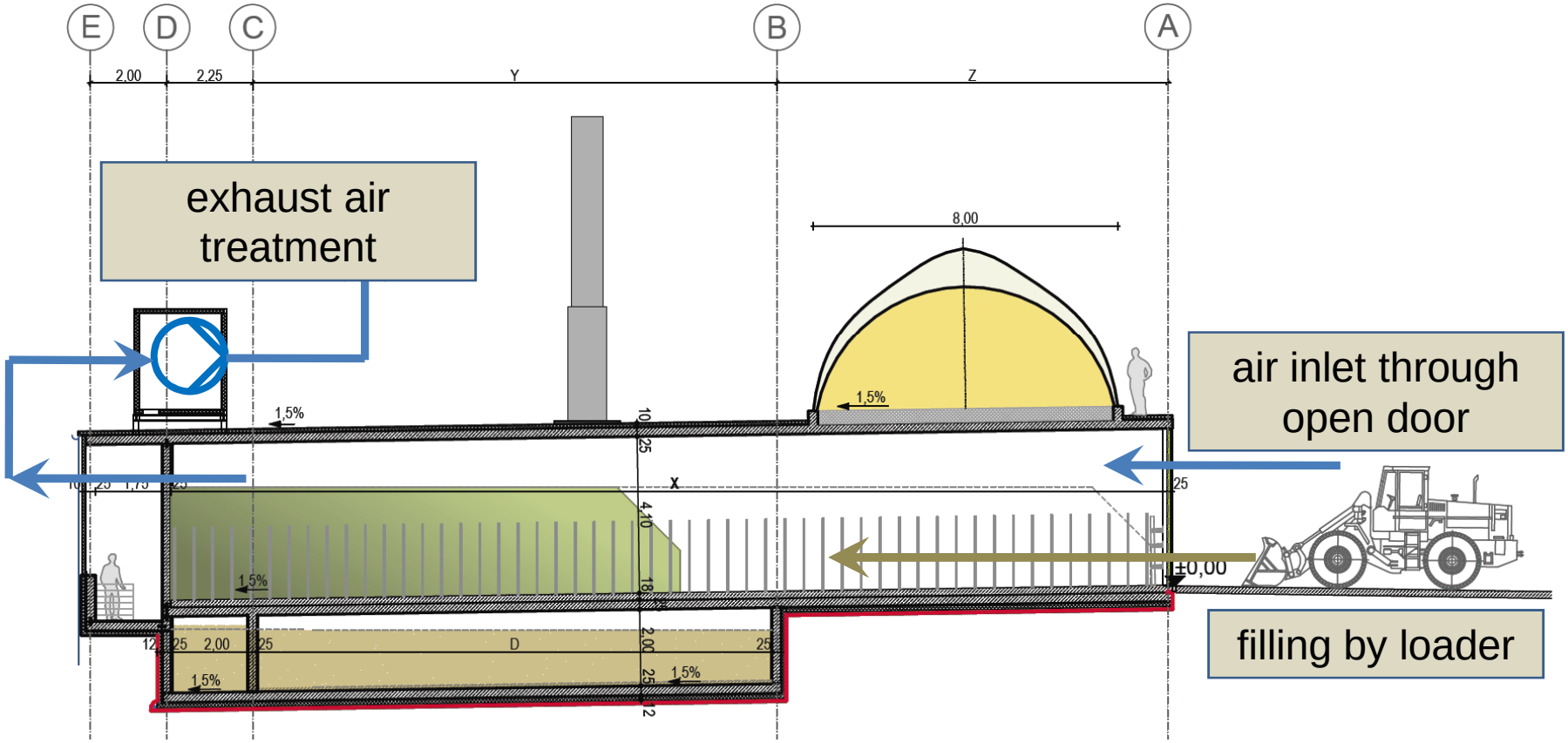
The KOMPOFERM Process-Modules

4 **Dry Fermentation – The sand trap and percolate fermenter**



The KOMPOFERM Process-Modules

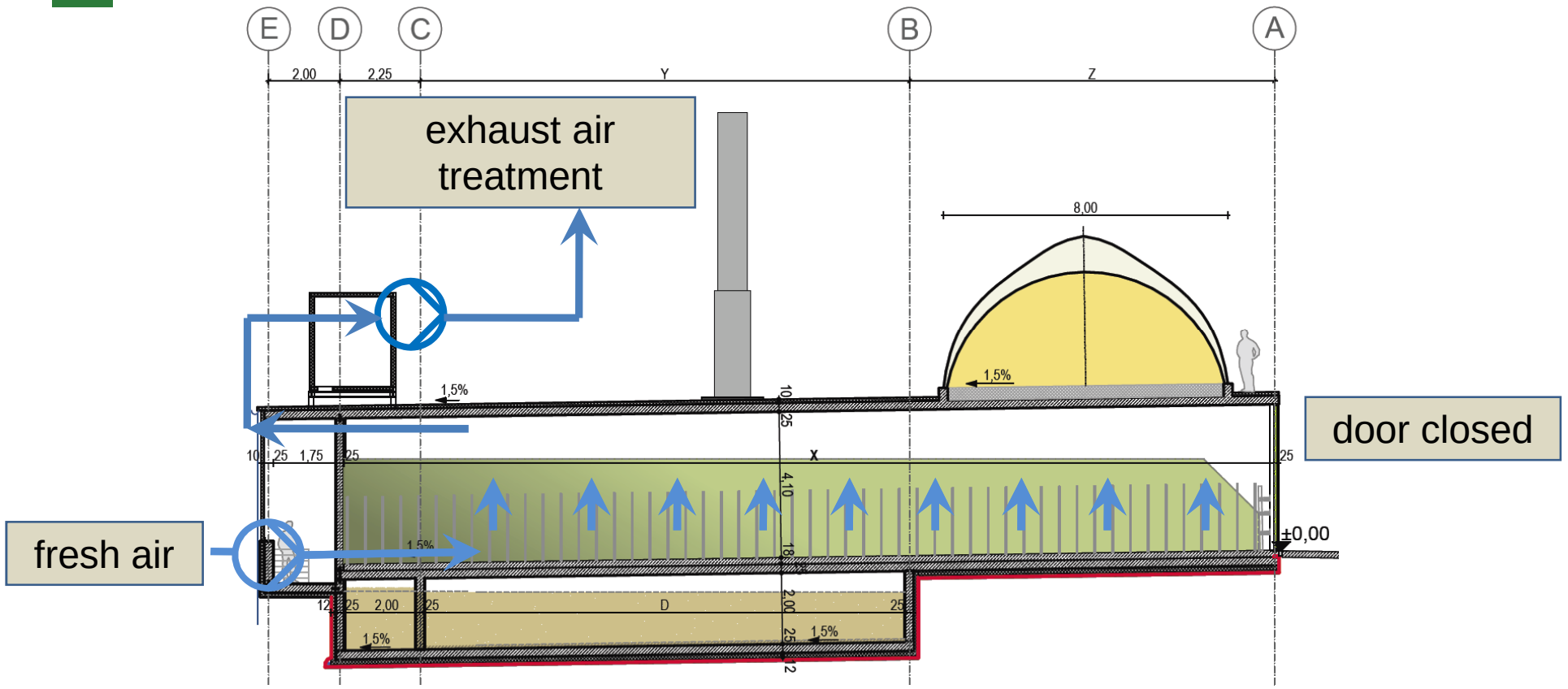
4 **Dry Fermentation – Phase of filling**



The KOMPOFERM Process-Modules

4

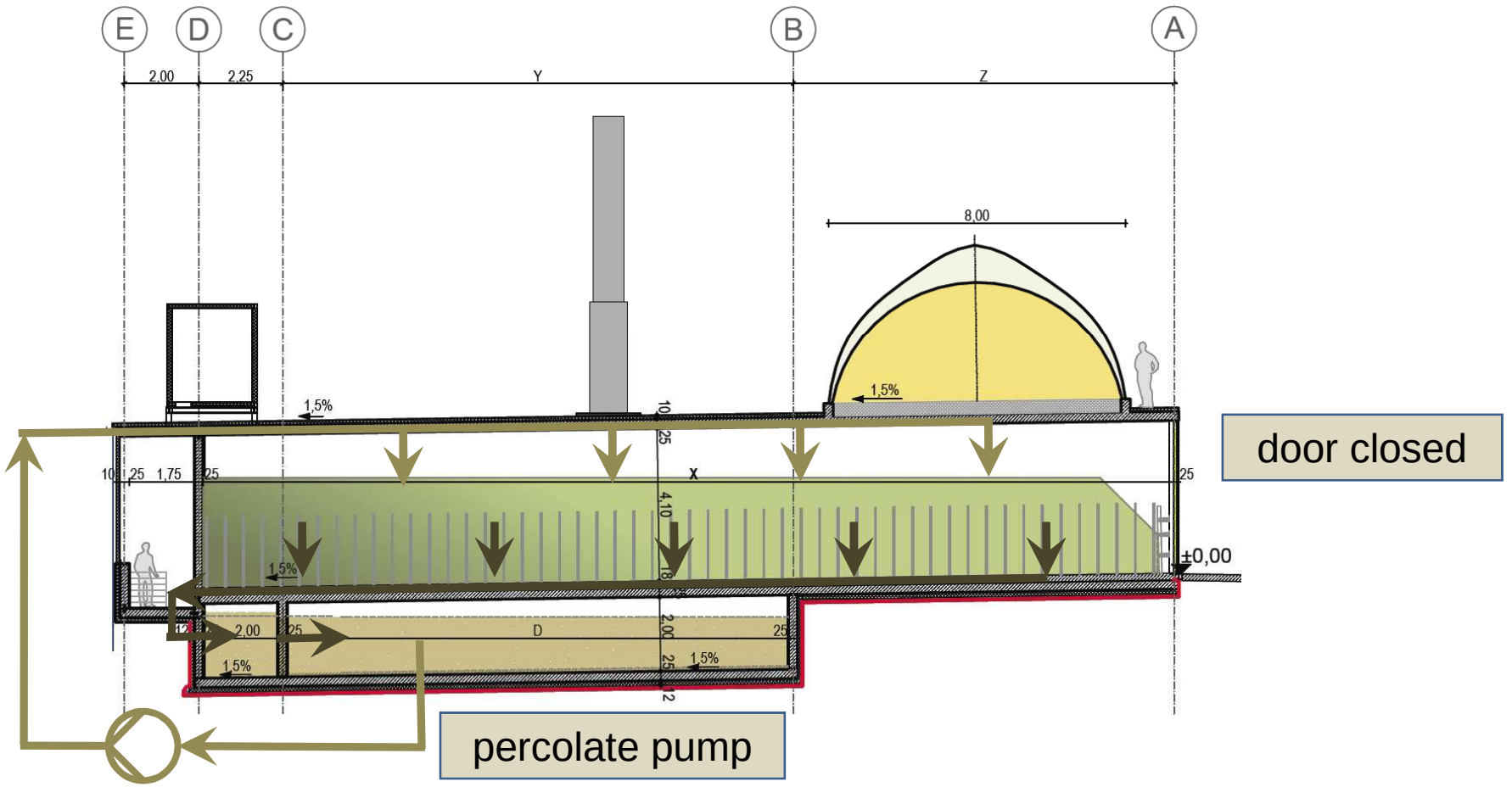
Dry Fermentation – Phase of aeration



The KOMPOFERM Process-Modules

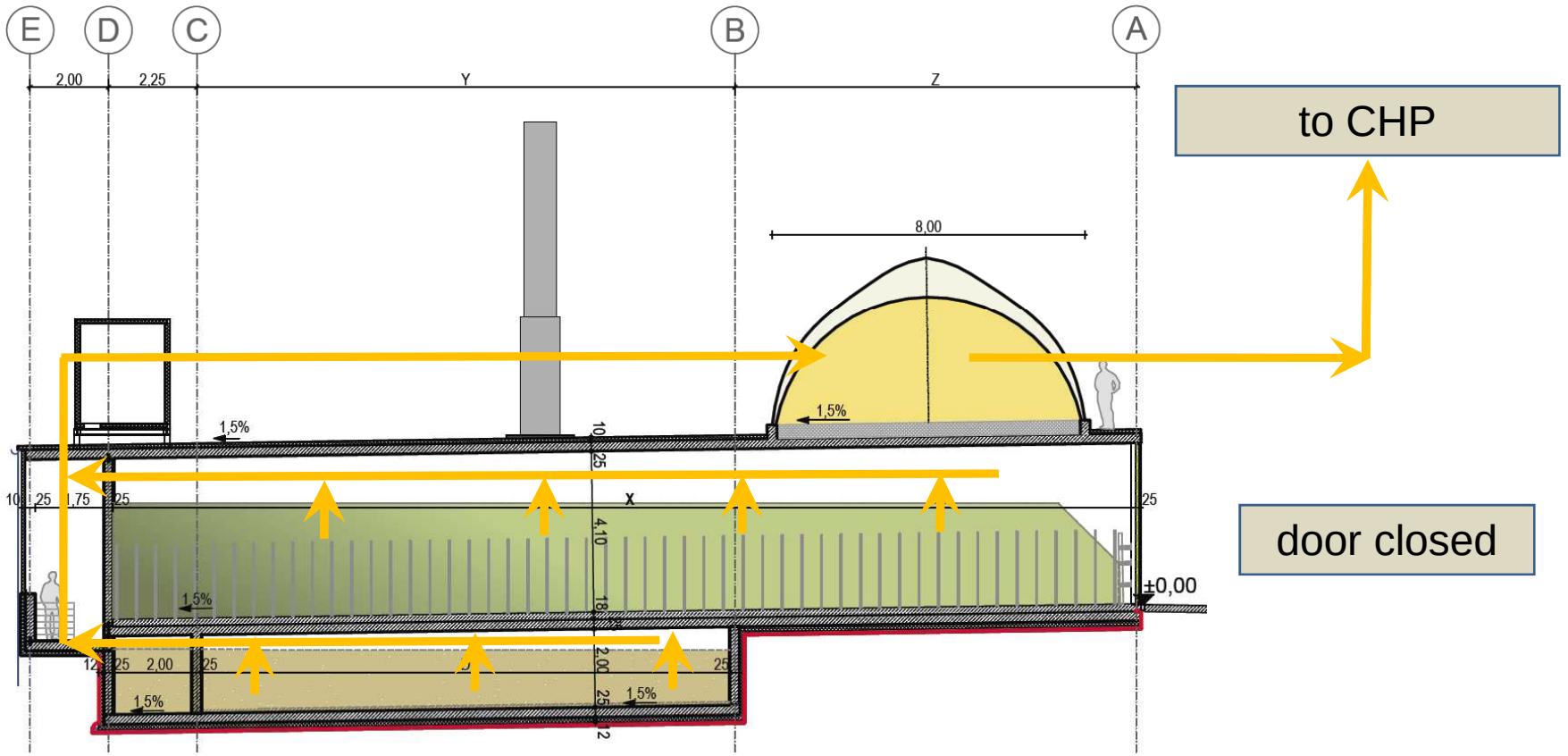
4

Dry Fermentation – Phase of fermentation / percolate cycle



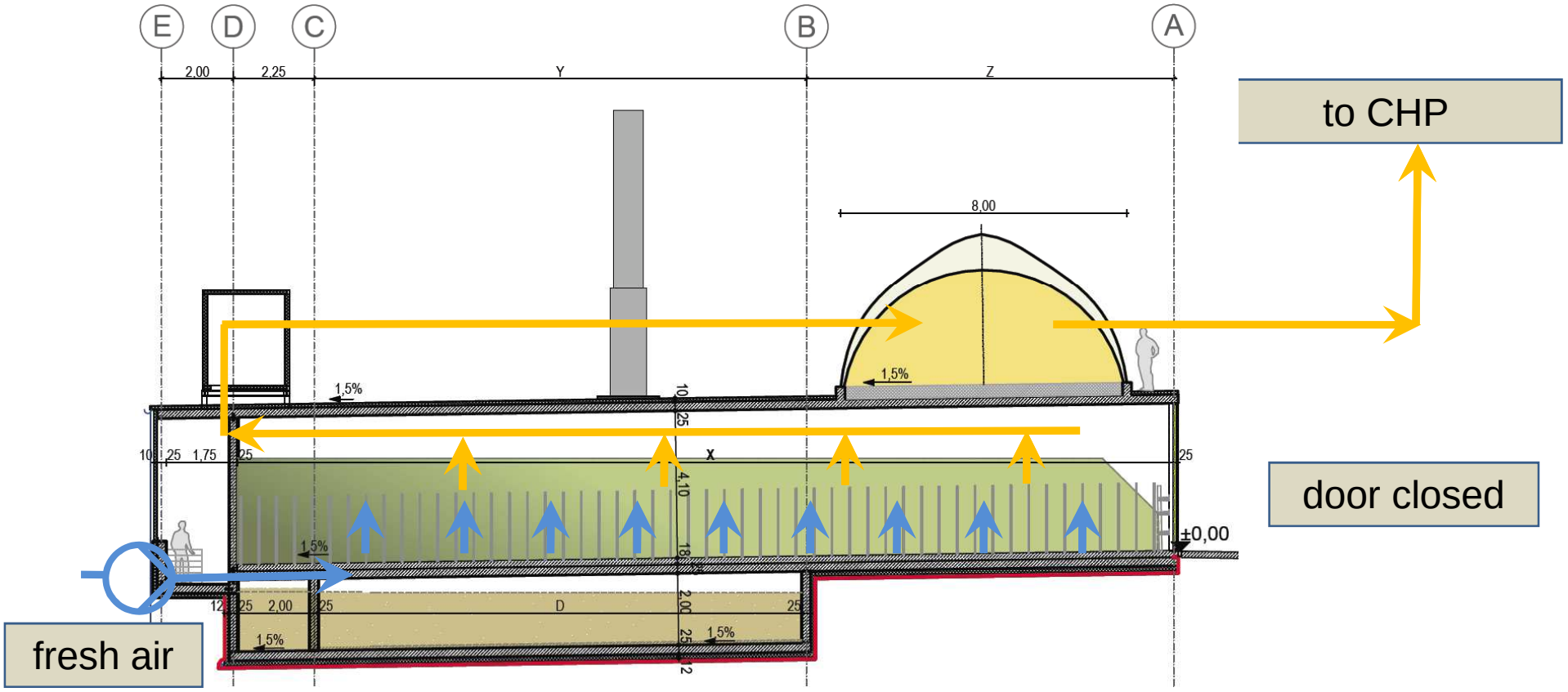
The KOMPOFERM Process-Modules

4 **Dry Fermentation – Phase of fermentation / biogas production**



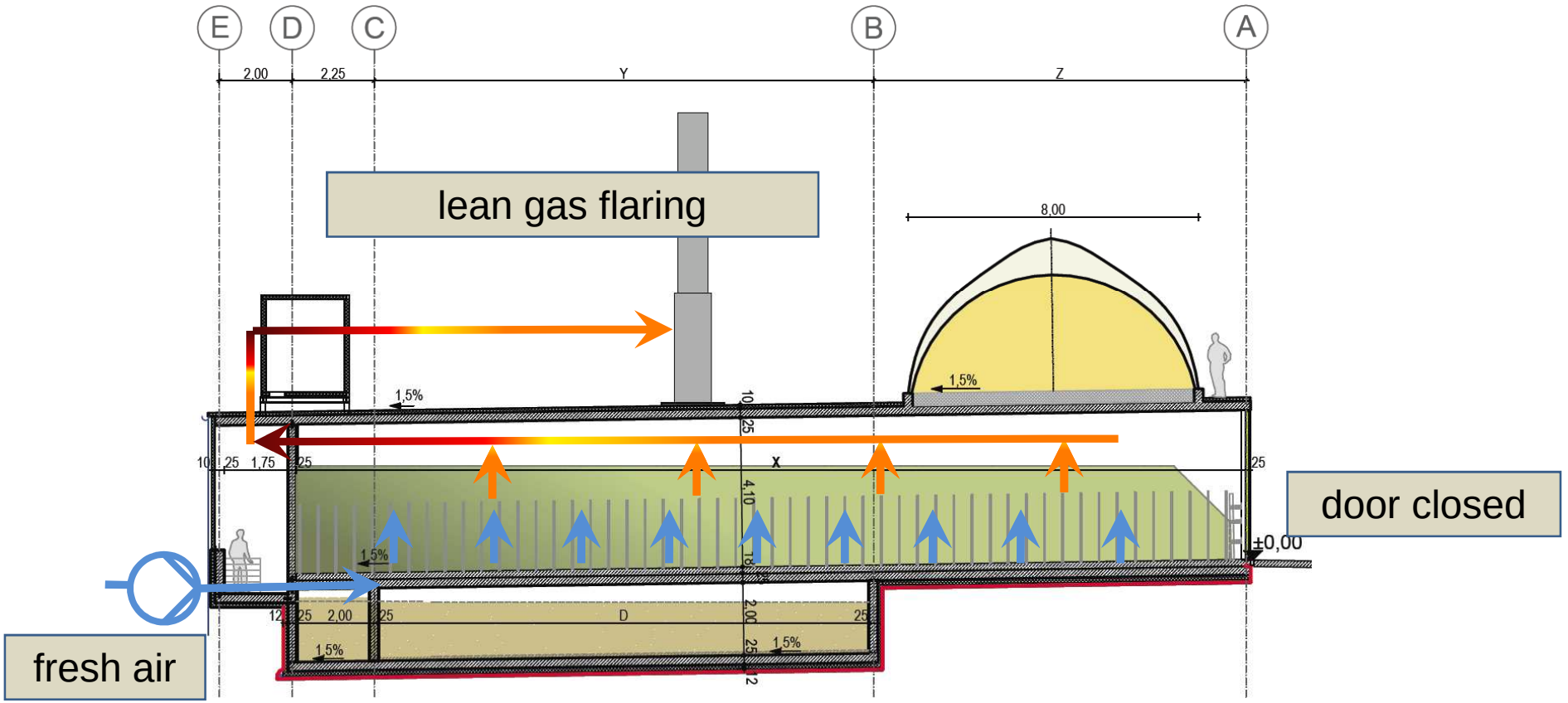
The KOMPOFERM Process-Modules

4 **Dry Fermentation – Phase of stopping the biogas production**



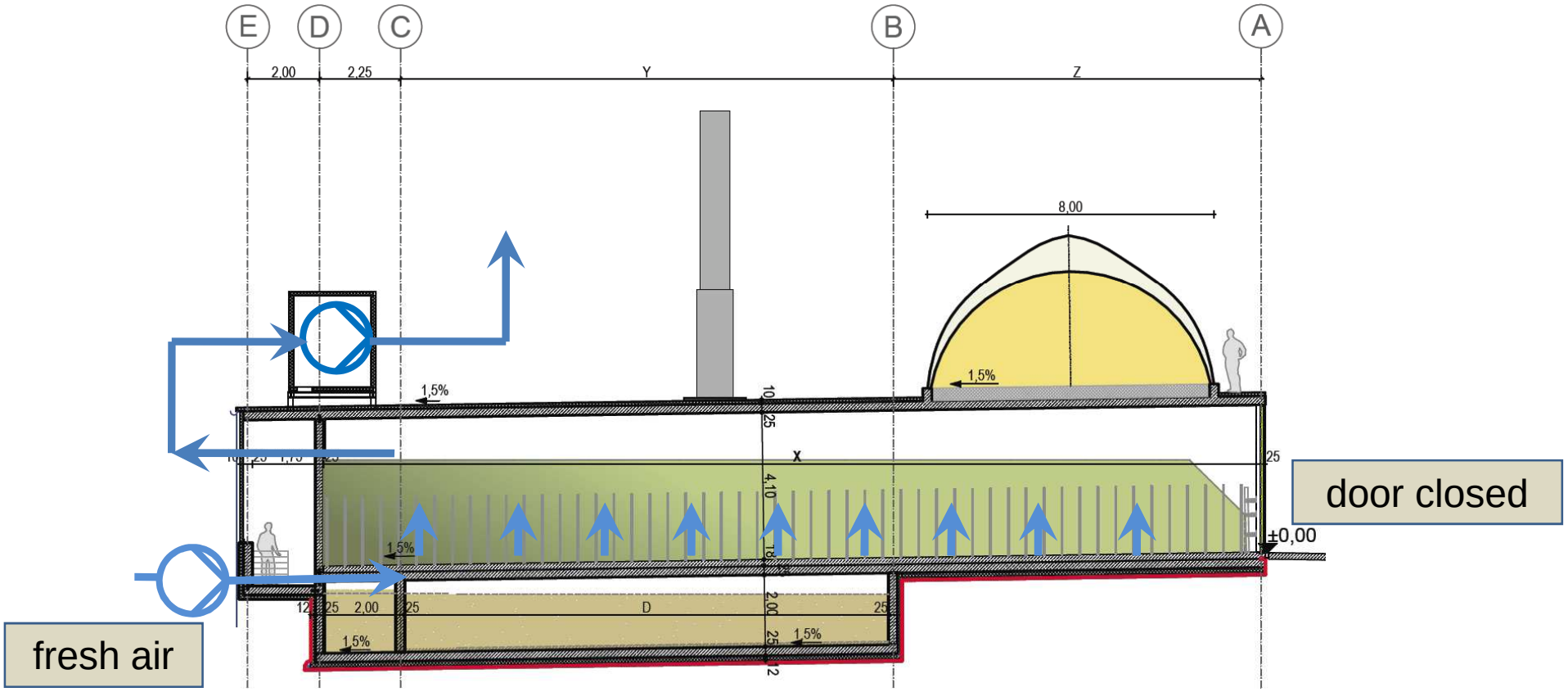
The KOMPOFERM Process-Modules

4 **Dry Fermentation – Phase of shut down / lean gas flare**



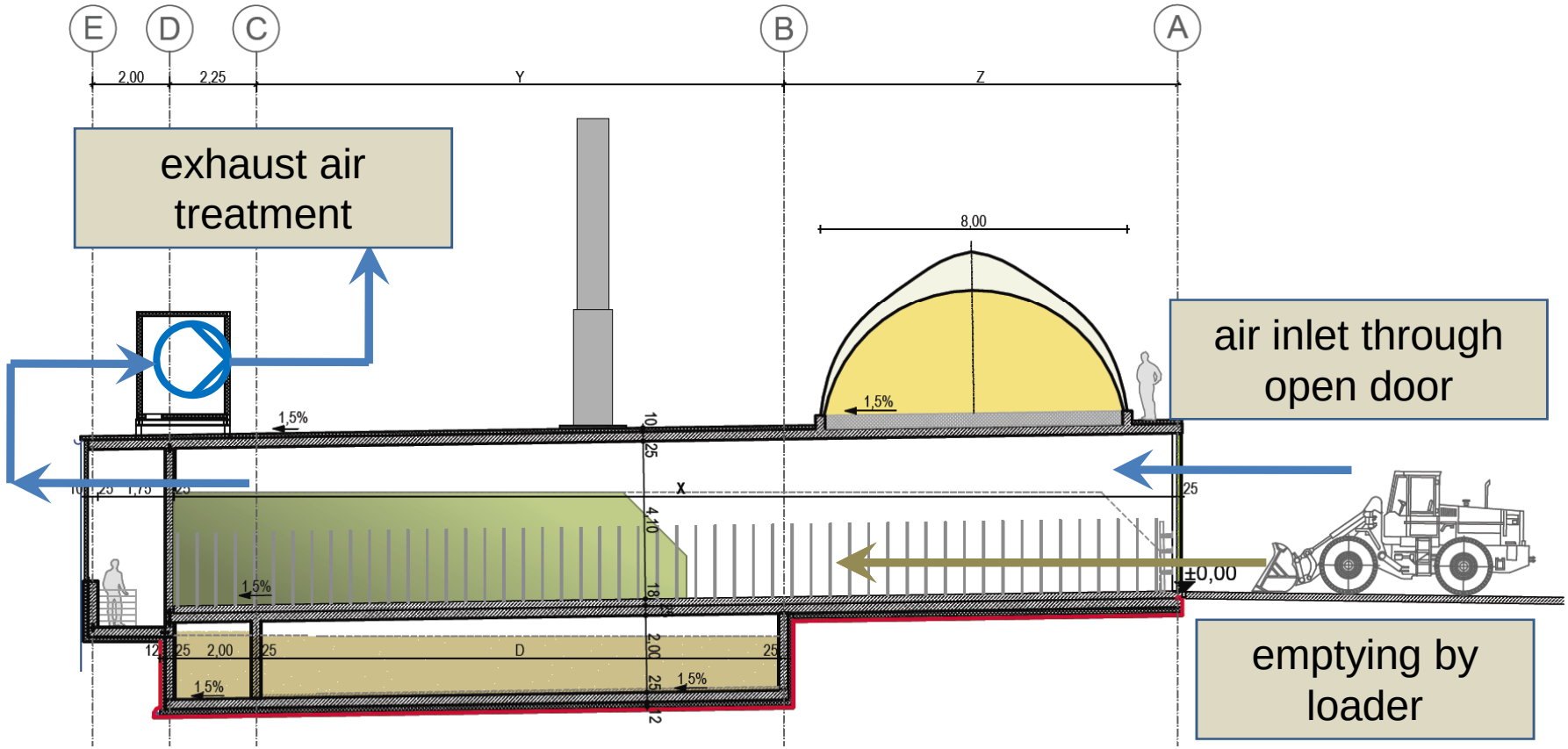
The KOMPOFERM Process-Modules

4 **Dry Fermentation – Phase of shut down exhaust air treatment**



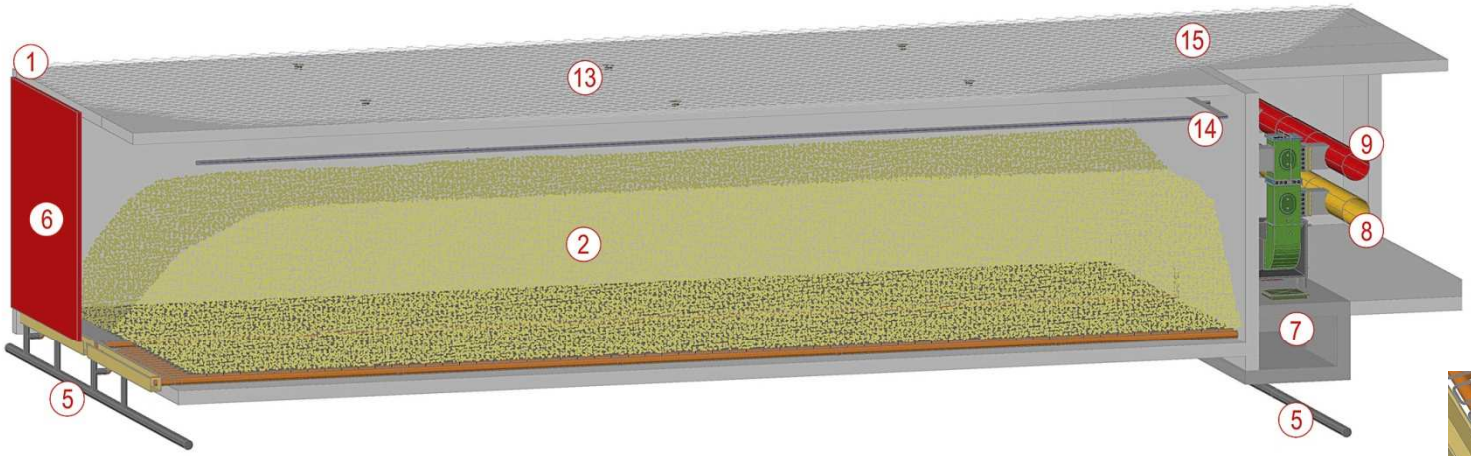
The KOMPOFERM Process-Modules

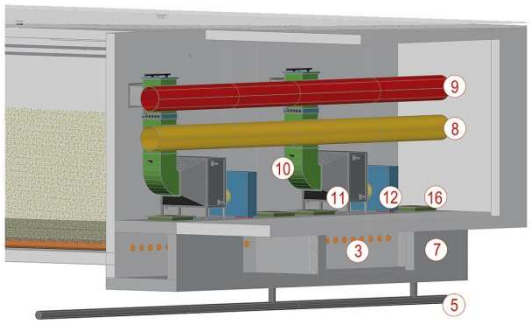
4 **Dry Fermentation – Phase of emptying**

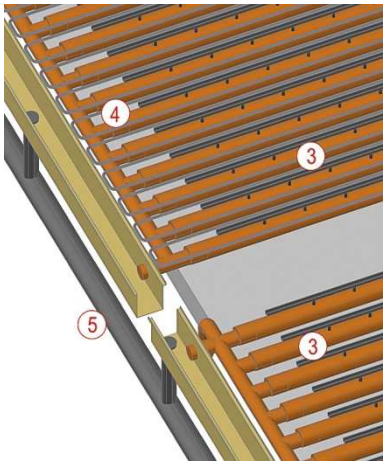


The KOMPOFERM Process-Modules

9 **Aerobic treatment – Treatment of digestate in rotting tunnel**







The KOMPOFERM Process-Modules

6 Aerobic treatment – Open windrow composting

Aerobic treatment of the organic material after the intensive tunnel composting. Open windrow composting for the production of a compost due to the quality requirements.

The KOMPOFERM Process-Modules

10 Post-treatment / Fine Treatment

Precision treatment is the post-treatment of fractions that were already treated during the mechanical and biological treatment stage. The main objective is the purification of a given compost fraction in order to rid it of contaminants.