

Business-to-Government Roundtable
Biogás: Desafíos y Oportunidades para la Transición Energética
21 de Octubre 2025, Chile



Biogás en Alemania - para una Economía Circular

Marc Reinhard

International Affairs

Fachverband Biogas e.V. - German Biogas Association



Agenda

The German Biogas Association (GBA)

German Biogas Development (+EU)

Advantages of Biogas

The Biogas Plant

Best Practice Examples

Conclusions & Trends



Fachverband Biogas e.V. – The German Biogas Association



- Operators of biogas plants
- Technology manufacturers
- Research institutions
- Public authorities
- Feedstock providers
- Interested individuals

> 4700 members

Objective: promotion of biogas for climate protection and a renewable energy transition

- ✓ Definition of legal frameworks, guidelines & standards
- ✓ Information exchange, knowledge transfer
- ✓ Advocating on EU-, national and regional levels

40 employees

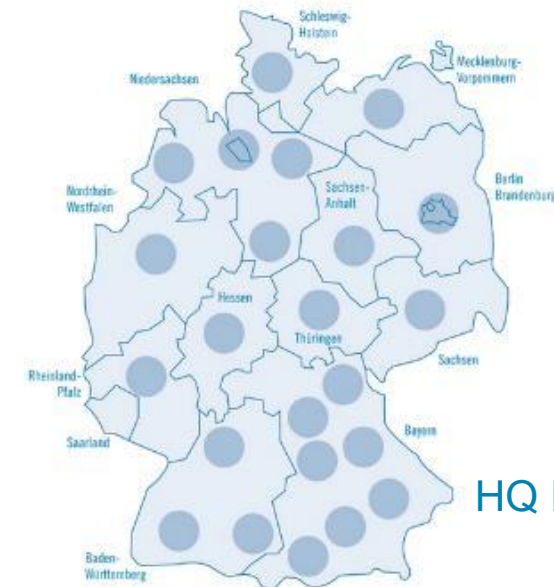
Member of...



BBE



Regional groups



Berlin Office

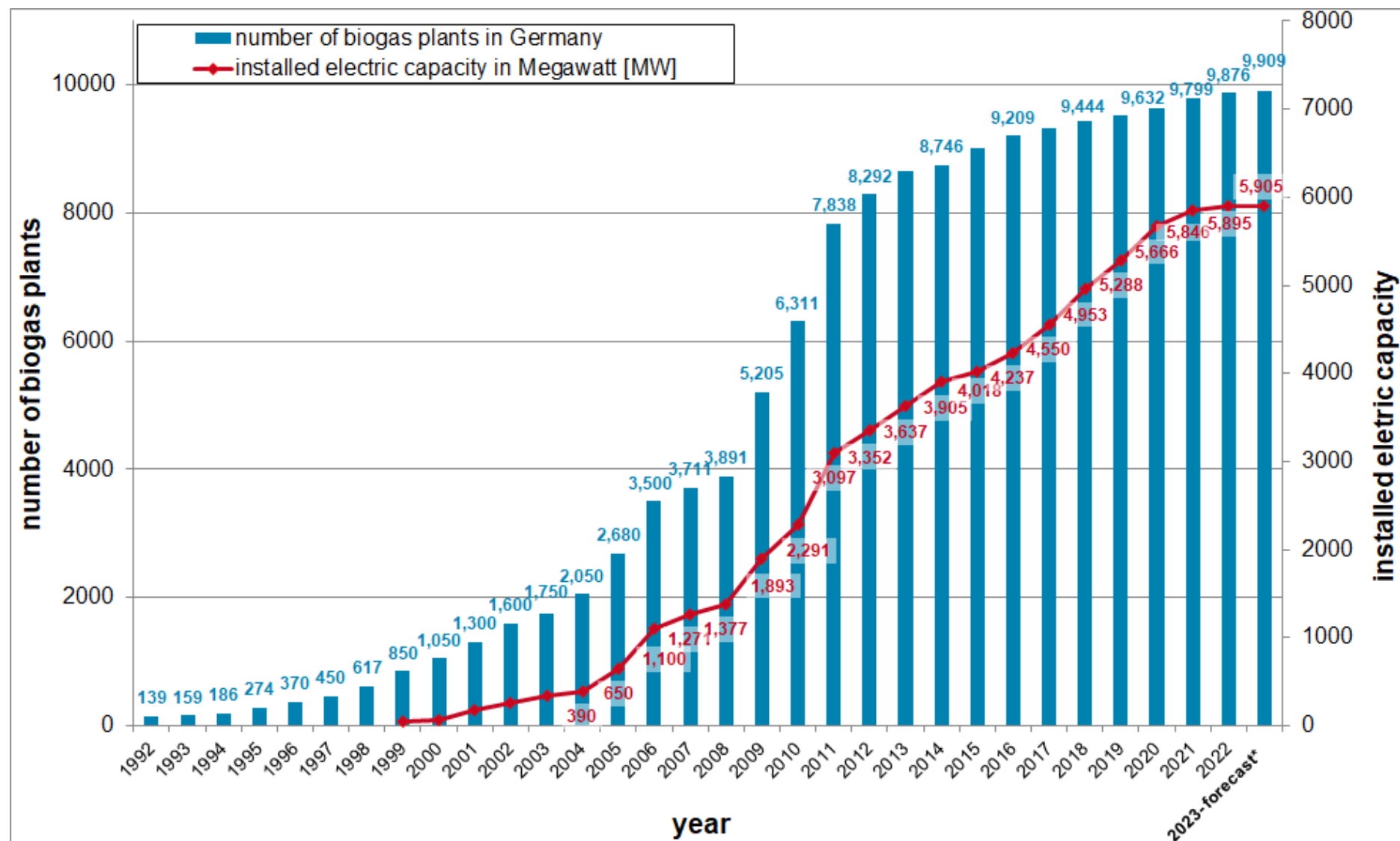
HQ Freising

International activities of GBA

- International affairs department has 7 staff members
- Supporting members with information about the international biogas markets
- Implementation of international projects
- Consulting services for the promotion of the biogas technology in new markets
- Supporting Biogas Associations, Biogas Know-How and Trainings worldwide
- Cooperation with international organizations



Development of the German biogas sector



German Biogas Sector: Statistics at a Glance

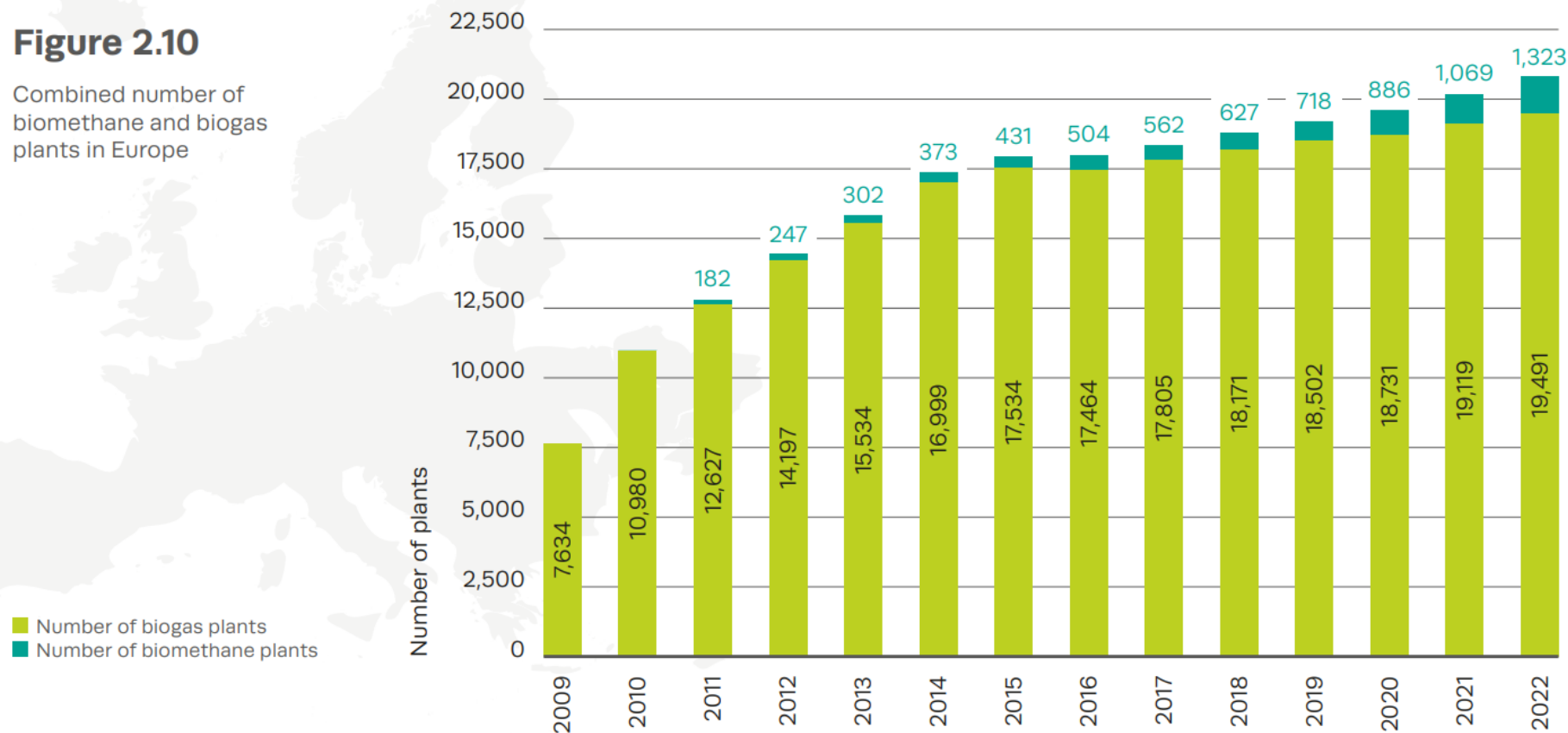
(as of 08/2023)

	2022*	Forecast 2023**
Number of biogas plants (biogas plants with biomethane injection)	9,876 (242)	9,909 (248)
Installed electric capacity in MW	5,895	5,905
Gross electricity production in TWh per year	33.54	33.89
Total amount of biogas and biomethane in m³/a (bcm)	9.13	9.22
Households supplied with biogas-based electricity in millions	9.58	9.68
CO ₂ reduction by biogas in million tonnes	21.2	21.4
Turnover in Germany in Euro	13.2 Billion	13.1 Billion
Turnover in Germany from exports in Euro	2.5 Billion	2.5 Billion
Jobs in the biogas sector	52,000	50,000

Number of biogas and biomethane plants in Europe

Figure 2.10

Combined number of
biomethane and biogas
plants in Europe



Advantages of biogas

Production of **Renewable Energy**

- Electricity
- Heat
- Vehicle fuel

Storable and
flexible energy
source

Waste
Management &
Circular Economy

Business & Job Creation

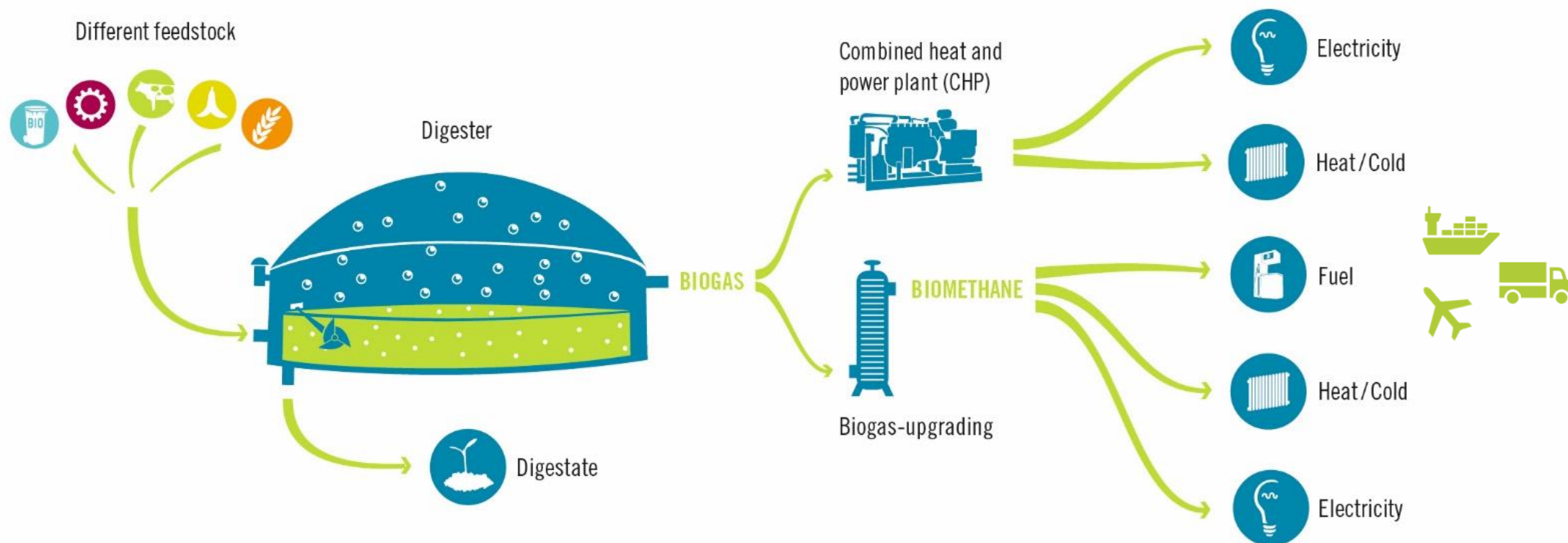
- Planning
- Operation
- Maintenance

(Bio)Fertilizer
production

Climate and Environment protection

- Avoidance of methane emissions (GHG)
- Substitution of fossil fuels
- Substitution of mineral fertilizer
- Nutrient recycling
- Odor reduction

The biogas plant



Why biogas from biowaste?

Landfills

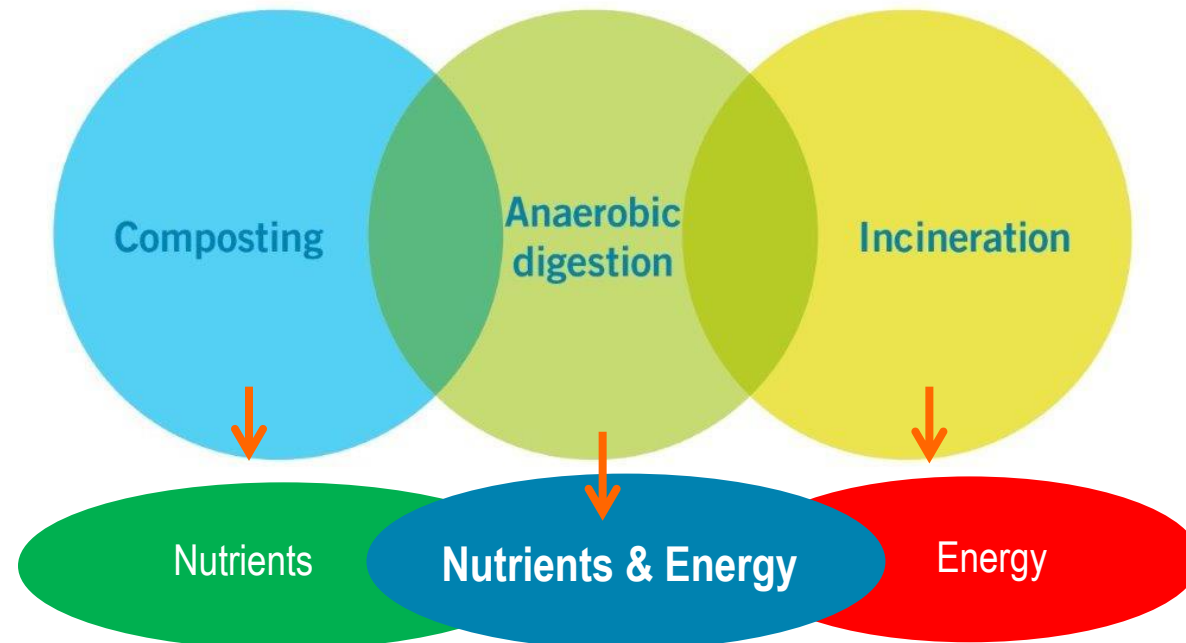
methane and
other
emissions

sanitisation
problems

loss of
nutrients
(no recycling)

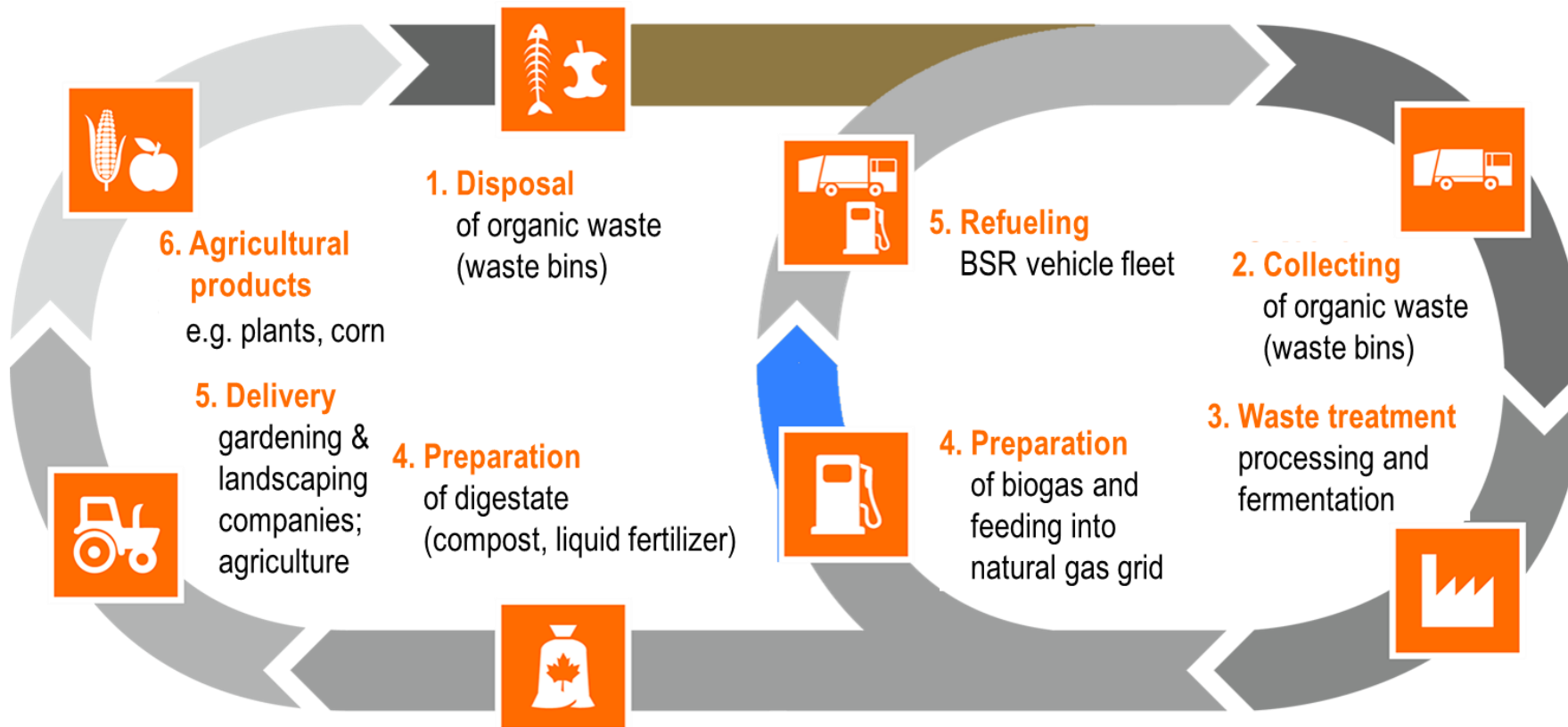
no energy
generation

Better options to use organic waste



Example: Circular Economy in Berlin

Bio-CNG from organic waste for garbage trucks



- Local waste handling provider BSR
- 80,000 t/a sorted waste from households are transferred to 31 GWh/a energy
- Biogas is upgraded to biomethane
- 160 garbage trucks run on Bio-CNG

Biogás – para una economía circular



Español

giz

Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH



Fachverband
BIOGAS
German Biogas Association
www.biogas.org

MR BIOGAS ENERGY



Planta de Biogas MR BIOGAS ENERGY



Fabricante de la planta de biogás:
ABT Advanced Biogas Technologies
GmbH / bwe Energiesysteme

Puesta en marcha: 2022

Capacidad de tratamiento de residuos (t/a):
38 000 t/a

Capacidad instalada (kW_{el}): 800

Volumen de inversión: 6 Mio. Euro

Biodigestor CIISA (El Arreo)



Biodigestor CIISA (El Arreo) – Fermentador con tanque de almacenamiento de gas externo



Fabricante de la planta de biogás:
AD Solutions GmbH

Puesta en marcha: 2016

Capacidad de tratamiento de residuos (t/a):
25 500 t/a

Volumen de inversión:
2,25 Mio USD

Cargill



Biodigestores como parte de la planta de producción de pectina de la empresa Cargill



Fabricante de la planta de biogás:
LIPP GmbH

Puesta en marcha: 2021

Capacidad de tratamiento de residuos (t/a):
675 000 t/a

Capacidad instalada (kW_{el}):
1200

Capacidad de procesamiento
de gas: 642 Nm³/h

Volumen de inversión: N/A



Villa Avocado



Obras de construcción de la planta de biogás de Villa Avocado, México



Fabricante de la planta de biogás:
Fitec Environmental Technologies INC.

Puesta en marcha: Operativo desde otoño de 2023

Capacidad de tratamiento de residuos (t/a):
45 000 t/a

Capacidad instalada (kW_{el}):
633 kW_{el}

Capacidad de procesamiento de gas:
450 Nm³/h

Volumen de inversión: 4 mio CAD



Conclusions & Trends

- Biogas in an approved state of the art technology
- Decades of experience with around 10,000 biogas plants in Germany
- Germany is the global market leader
- Biogas is a renewable energy: Electricity, heat, sustainable transport fuel
- Biomethane production (Bio-LNG/CNG)
- Digestate use as organic fertilizer
- Biogas is circular economy & climate protection (GHG emission reduction)
- Feedstock is key
- Bioeconomy

Meet our Biogas know-how series

AVAILABLE ONLINE



www.biowaste-to-biogas.com



www.biogas-safety.com



www.biogas-to-biomethane.com



www.digestate-as-fertilizer.com

Marc Reinhard
International Affairs
Fachverband Biogas e.V.
German Biogas Association
marc.reinhard@biogas.org
www.biogas.org