



# AUSTRIAN COUNTRY REPORT

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# Status of Biogas in Austria

(R. Braun, 2008)



Substrate / Plant type	Number of plants	Mio. Nm <sup>3</sup> biogas per year	% Percentage
Landfill	62	45 - 100	21
Sewage sludge	134	75 - 100	26
Agricultural plants (including co-digestion)	350	121 - 182	45
Industry (including anaerobic wastewater pre-treatment)	25	9 - 14	3
Plants from municipalities and waste associations	15	15 - 18	5
<b>TOTAL</b>	<b>586</b>	<b>265 - 414</b>	<b>100</b>

# New „Green electricity law“ (Ökostromgesetz 2012)



- Official start: July 1, 2012
- Until 2020: 200 MW<sub>el</sub> increase in biomass and biogas (1.3 TWh)
- Biogas plant operators have to present a plan, where the substrates for the first 5 years of operation will come from
- Older biogas plant, where subsidies are running out, can apply for a longer subsidising period, in total 20 years
- As a supportive measure for existing plants (built before 2009), up to 4 cent/KW<sub>el</sub> can be granted for securing substrate provision – in 2013 it is 3 cent/KW<sub>el</sub>!

# Current feed-in tariffs (2013)



Plant size	Feed-in tariff
<250kW <sub>el</sub>	19,50 cent/kW <sub>el</sub>
250kW <sub>el</sub> to 500kW <sub>el</sub>	16,93 cent/kW <sub>el</sub>
500kW <sub>el</sub> to 750kW <sub>el</sub>	13,34 cent/kW <sub>el</sub>
>750kW <sub>el</sub>	12,93 cent/kW <sub>el</sub>

→ Minimum input of 30% manure

→ If organic wastes are used the feed-in tariff is reduced by 20%

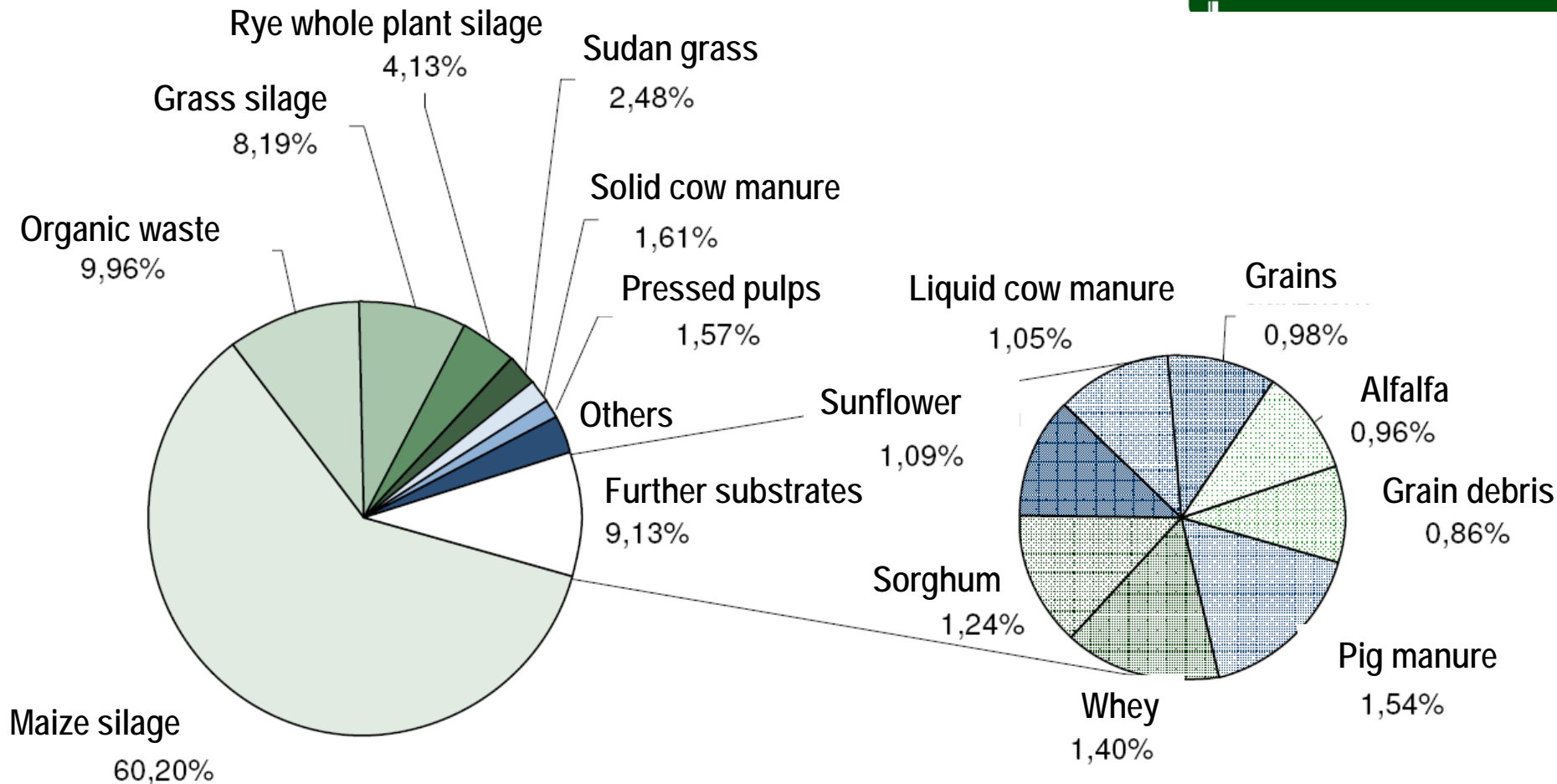
# Bonus system (Technology and heat utilisation bonus)



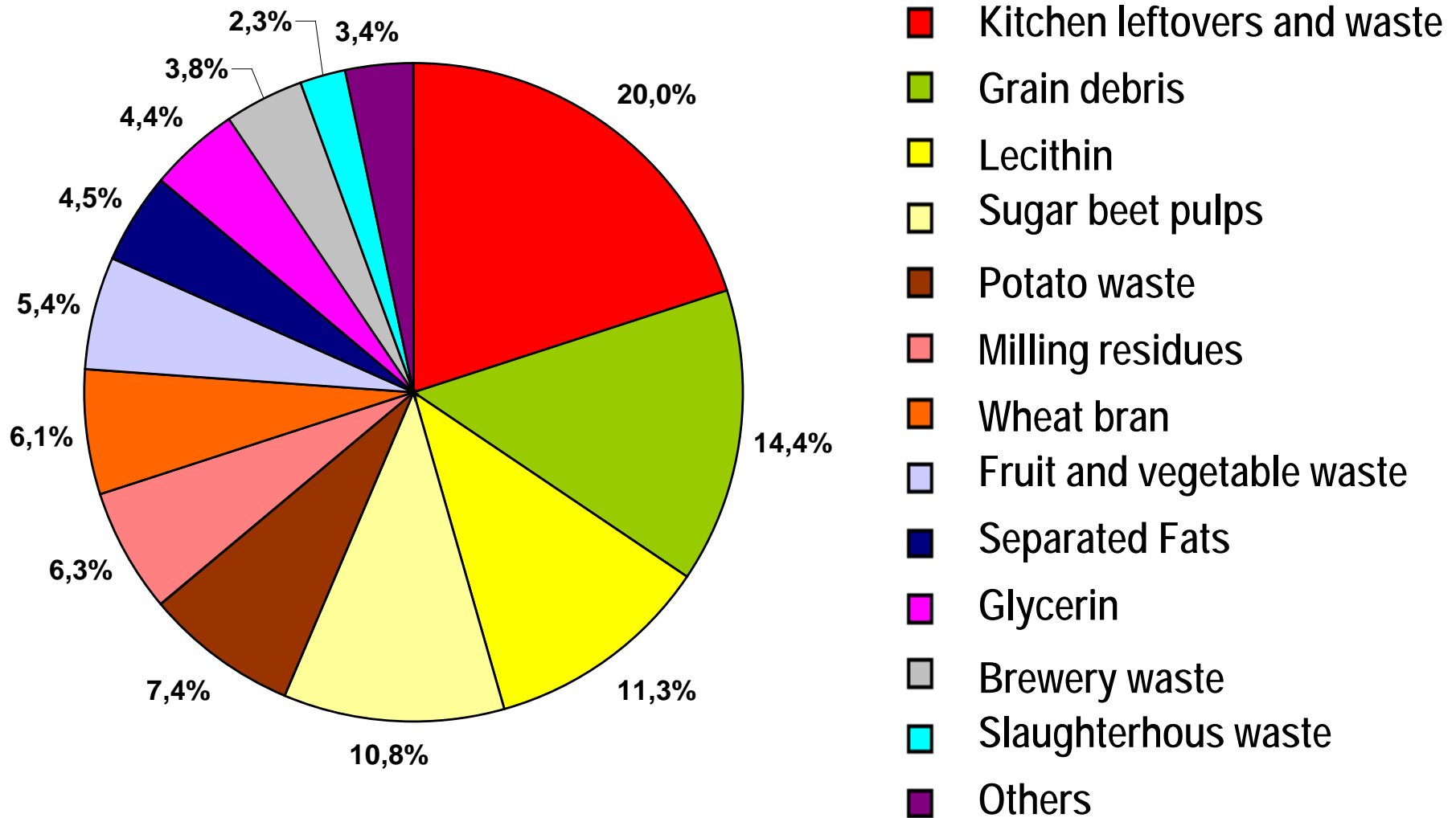
A bonus of 2 cent/kWh<sub>el</sub> is granted if

- Biogas is upgraded
- Up-graded biogas of at least 50% of the input is used for co-generation of electricity and heat
- The demanded criteria of efficiency are met
- Detailed identification and documentation of the utilisation of up-graded biogas

# Composition of the Substrates in 200 Biogas Plants Based on Energy Content (E-Control GmbH)



# Composition of the Organic Waste in 40 Austrian Biogas Plants Based on VS Content (Laaber et al. 2007)



# Political aims „Austrian Energy Strategy“ by Austrian Ministries of Economy and Environment



- In general: to limit Austrian energy demand to the value of 2005: 1.118 PJ
- By 2015: increase energy from biomass by 100 MW<sub>el</sub> (also no dependence on atomic energy imports is aimed at)

## Main issues concerning BIOGAS:

- Focus on bio-methane production from biogas
- Use of bio-methane as transportation fuel (Bio-CNG)
- Bio-methane shall replace 10% of natural gas consumption (800 Mn. Nm<sup>3</sup>/yr)
- Increasing focus on total energy efficiency
- Keep up the strategy to support efficient electricity and heat production
- Bio-methane → pushed by stimulating market demand and investment incentives
- Clear and comprehensible regulatory framework will be established



# „Energy Strategy 2050 Austria“

by Ministry of Transport, Innovation and Technology



- Reinforce strengths of Austrian Energy Technology
  - Biogas technology can be considered a strength
  
- Biogas helps to achieve the following aims:
  - Energy efficiency and renewable Energy in Industry
  - Biobased Industry
  
- Biogas contributes to the following topics:
  - Biofuels
  - Energetic utilisation of residues
  - Energyefficiency in agriculture and forestry

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# Thank you for your attention!

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