

“Plans for a Biomethane Plant in Graz”

**EUROPEAN WORKSHOP ON BIOMETHANE:
MARKETS, VALUE CHAINS AND APPLICATIONS**

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The city of Graz



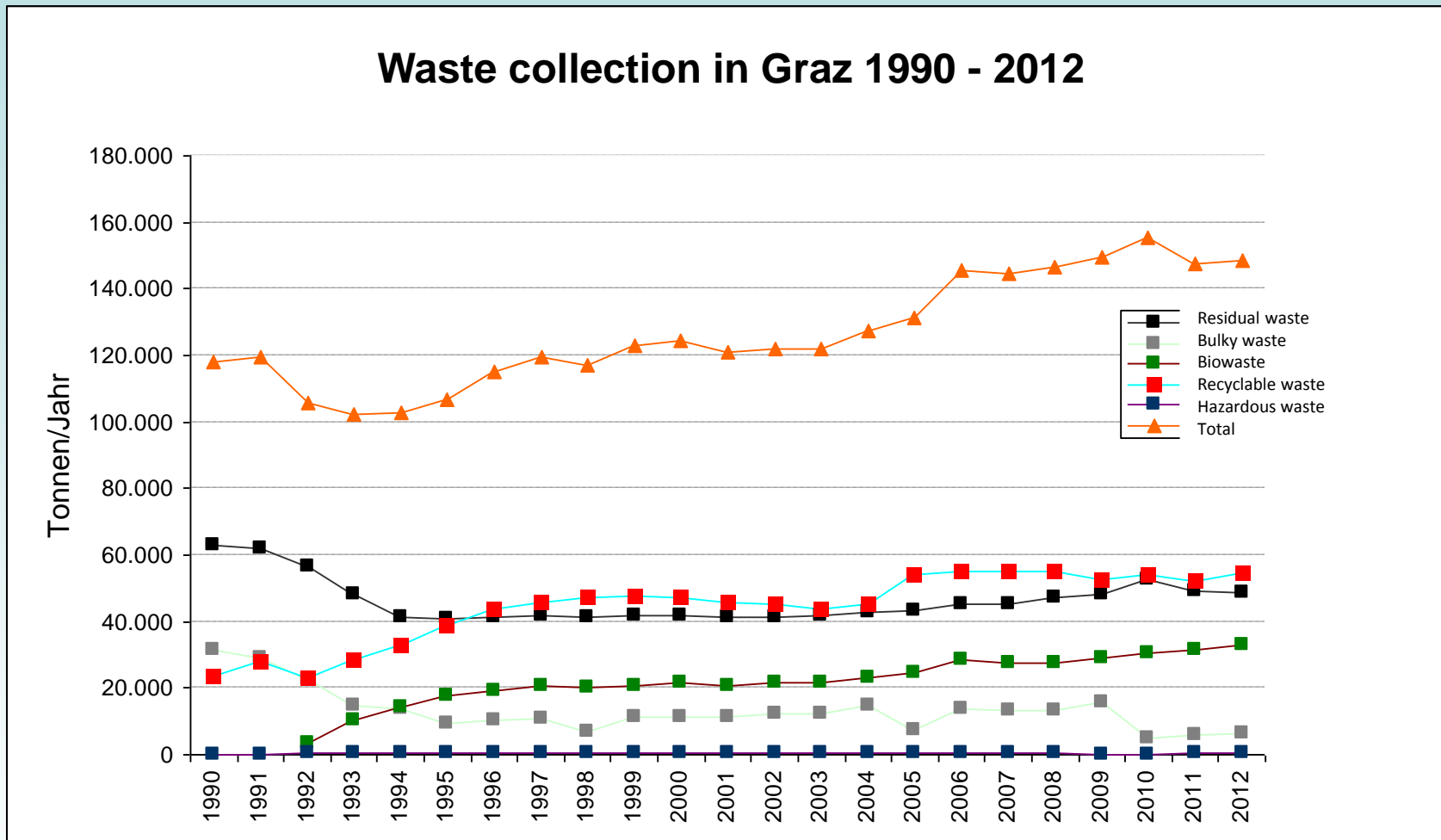
source: Meißner

- 270.000 primary residences and 30.000 secondary residences
- about 128 square kilometres with 40 % green spaces
- About 57.000 buildings with 110.000 households



source: Google Maps

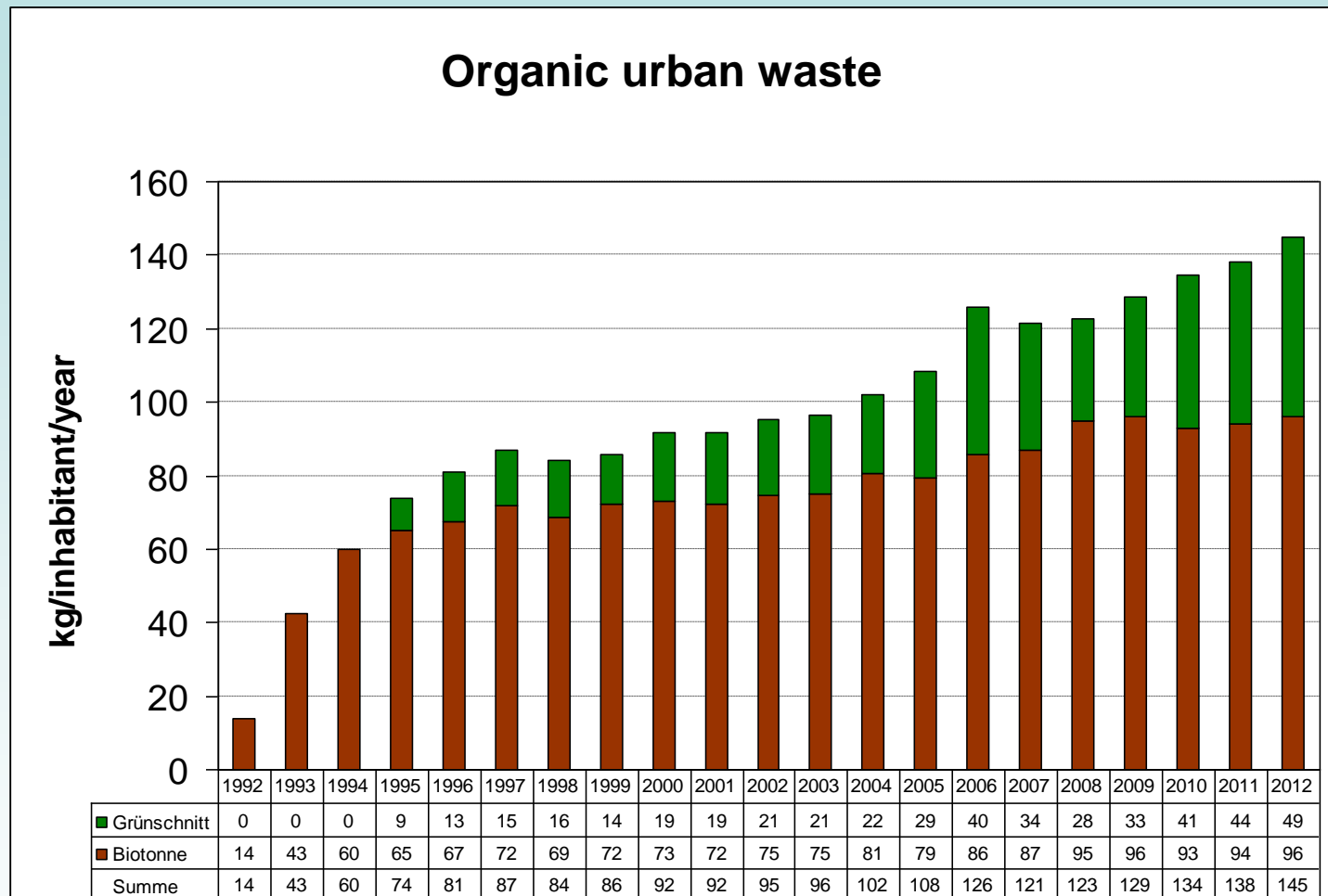
Waste collection in the city of Graz



Source: Stadt Graz Umweltamt

- 34.000 sites with separated collection
- Organic and green waste are mixed and treated in a composting plant nearby Graz (two CHP plants)

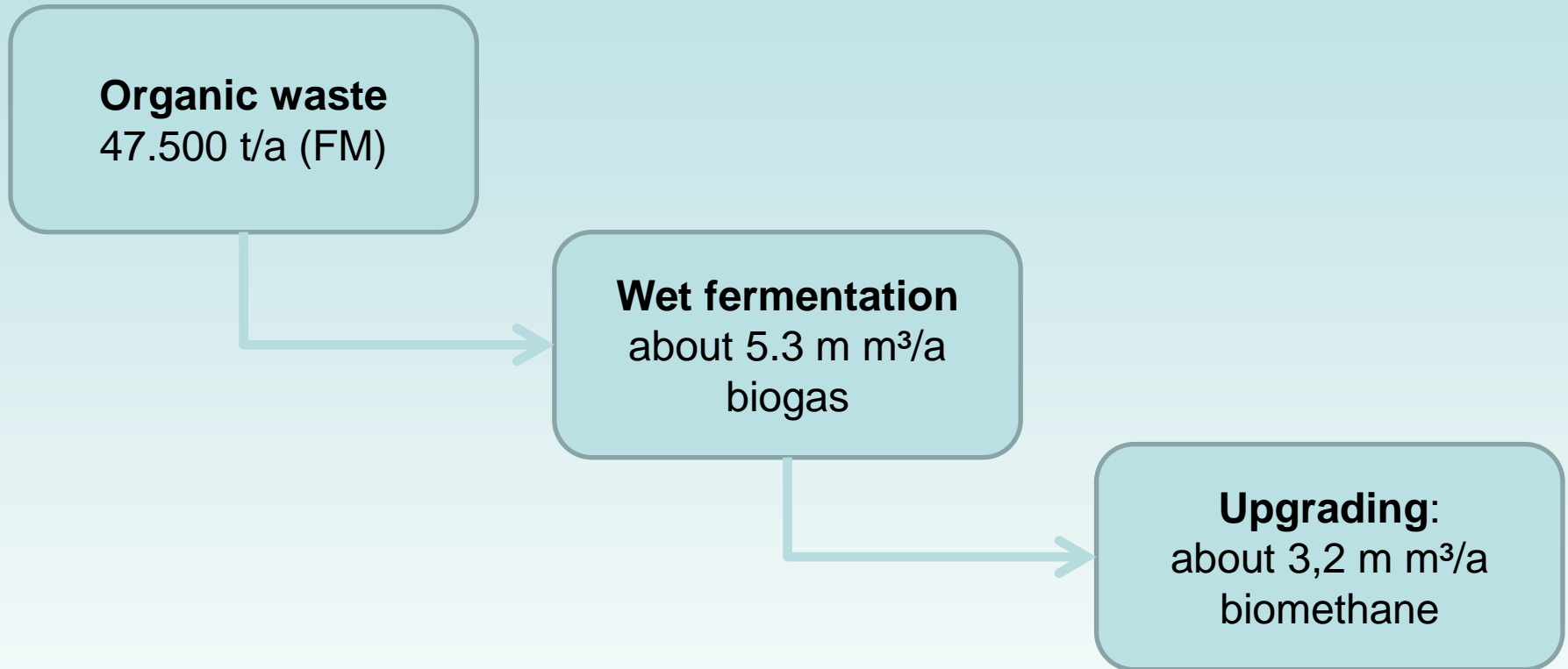
Waste collection in the city of Graz



Source: Stadt Graz Umweltamt

- 145 kg collected biowaste/inhabitant and year (2012)
- About 8% of the population of Graz are composting their biowaste in their garden

Biogas/Biomethane concept for Graz



Connection to gas grid
on level 3 (<10 bar)

Biogas/Biomethane concept for Graz

Stakeholders

- City of Graz/Holding Graz
- Local Energy Supplier
- Waste disposal company/companies

Sales and utilisation concept for biomethane in Graz

- For public transport in Graz (busses, taxi, etc.)
- For the fleet of the waste collecting trucks, the company cars of the involved companies/stakeholders and in general for corporate fleets
- Product “Naturgas” for industry and households – attractive feed-in tariffs for green electricity

Biogas/Biomethane concept for Graz

Main obstacles



- Neighborhoods often show problems with accepting biogas/biomethane plants near cities
- Finding a plant location which is accepted by the neighborhood and policy and which has short transport distances and connection to natural gas grid
- High investment costs
- Long term contracts with fixed prices for substrates
- Economy: At the moment biomethane is available at the Austrian market, but the market price is too high compared to natural gas (mainly from NAWARO-substrates)
- Acceptance of CNG cars/busses

Biogas/Biomethane concept for Graz

Milestones and next steps

- Mid 2013: tender for the planning works
- Decision about the location of the plant is the most critical one
- End 2013: One commune gave a positive signal
- Q3/Q4 2014: Scheduled start for the detailed planning

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------------|------|--------------|------|------|------------|------|------|------|------|------|------|
| <i>UrbanBiogas</i> | | <i>Start</i> | | | <i>End</i> | | | | | | |
| Graz (AT) | | | | | Tender | | | | | | |

 Development of AD plant
 Development of waste collection

Thank you for your attention!



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