

Linking production capacity data with crop production potentials

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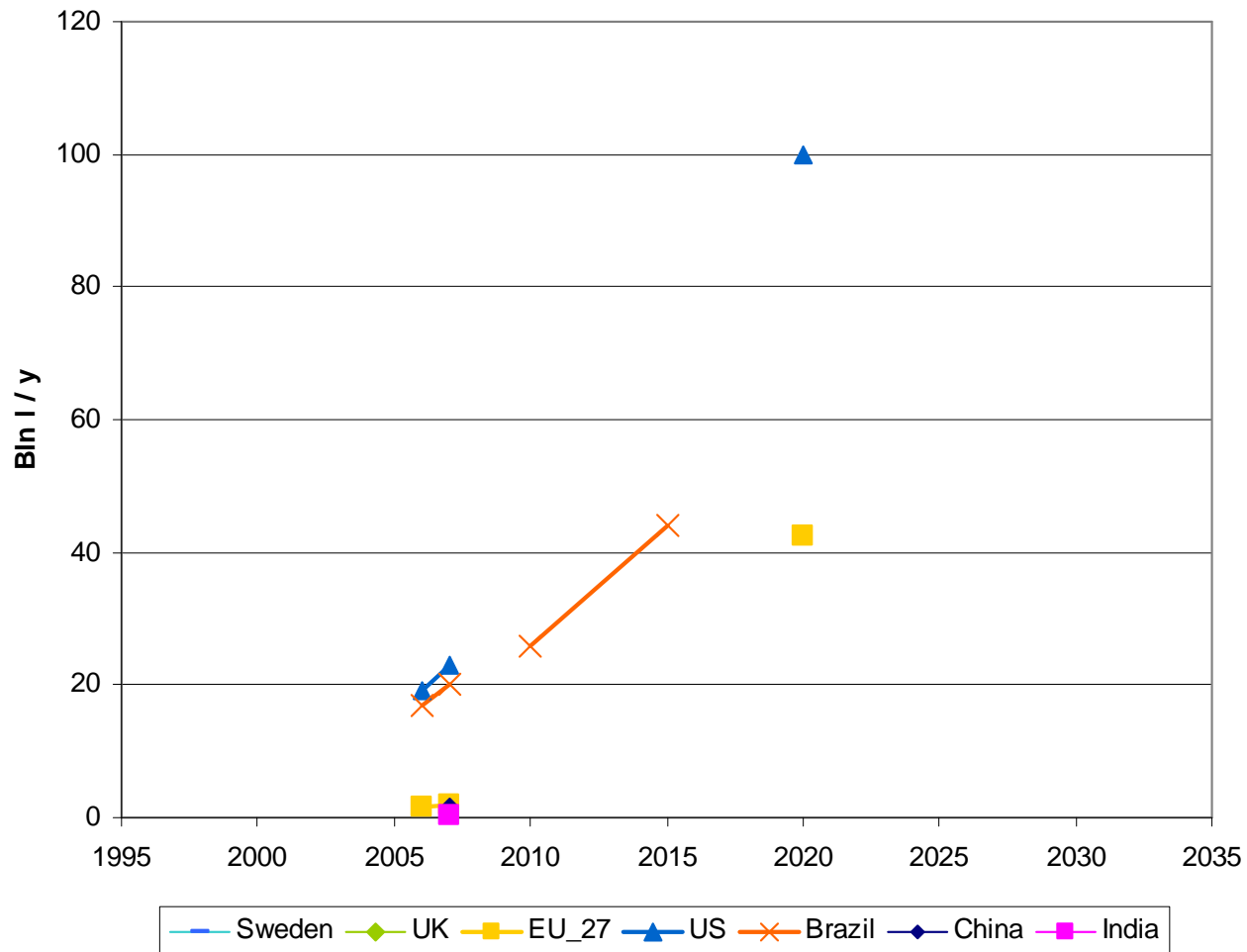
Linking production capacity data with crops..

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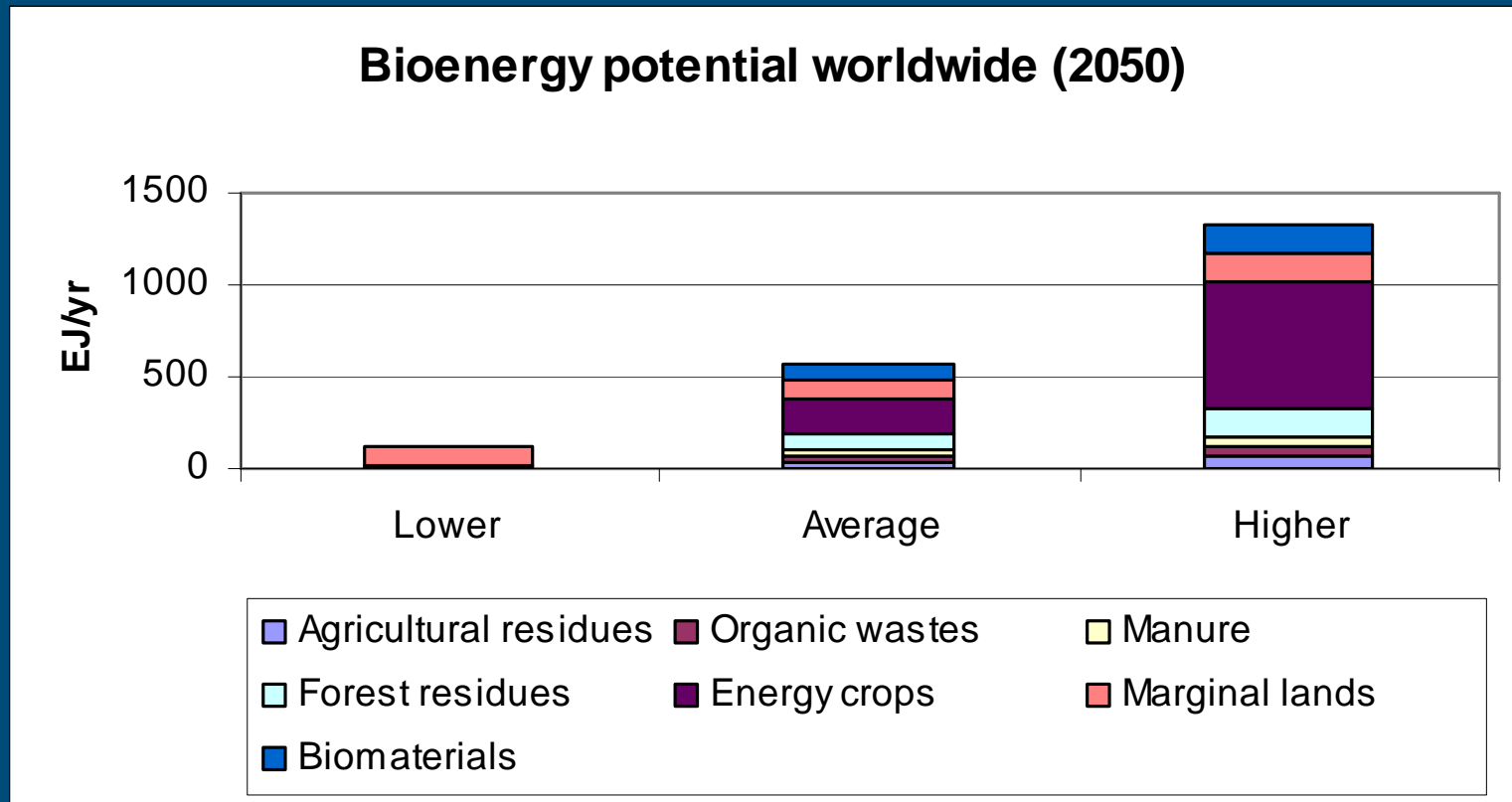
- Food versus fuel (feedstock limitations)
- Production capacity data
- Feedstock requirements
- Crop production potential
- Discussion & conclusion



Bioethanol production: policy



Linking production capacity data with crops..



Source: WWI (2006)



Linking production capacity data with crops..

Feedstock limitations

- Feedstocks, technology
- What crops?
- Where to get them?
- Logistics
- Sustainability
- Profitability



Linking production capacity data with crops..


Production capacity data

- High investment rates
- Long planning periods
- Production capacity
 - Realised, or planned
- World Bio Plants www.worldbioplants.com
- Linking capacity data



Linking production capacity data with crops..

Why link

- Biomass availability
- Availability  prices
- Security of supply
- Climate change
- Sustainability



Linking production capacity data with crops..

Crop production

- Theoretical studies
- Market studies
- Statistics
- Soil and land use maps

Information is the key..



Linking production capacity data with crops..

Linking to maps

- Requirements of succesful approach
 - Production capacity data
 - Land use data
 - Crop production potential data
 - Integrated approach
- Availability plus ability





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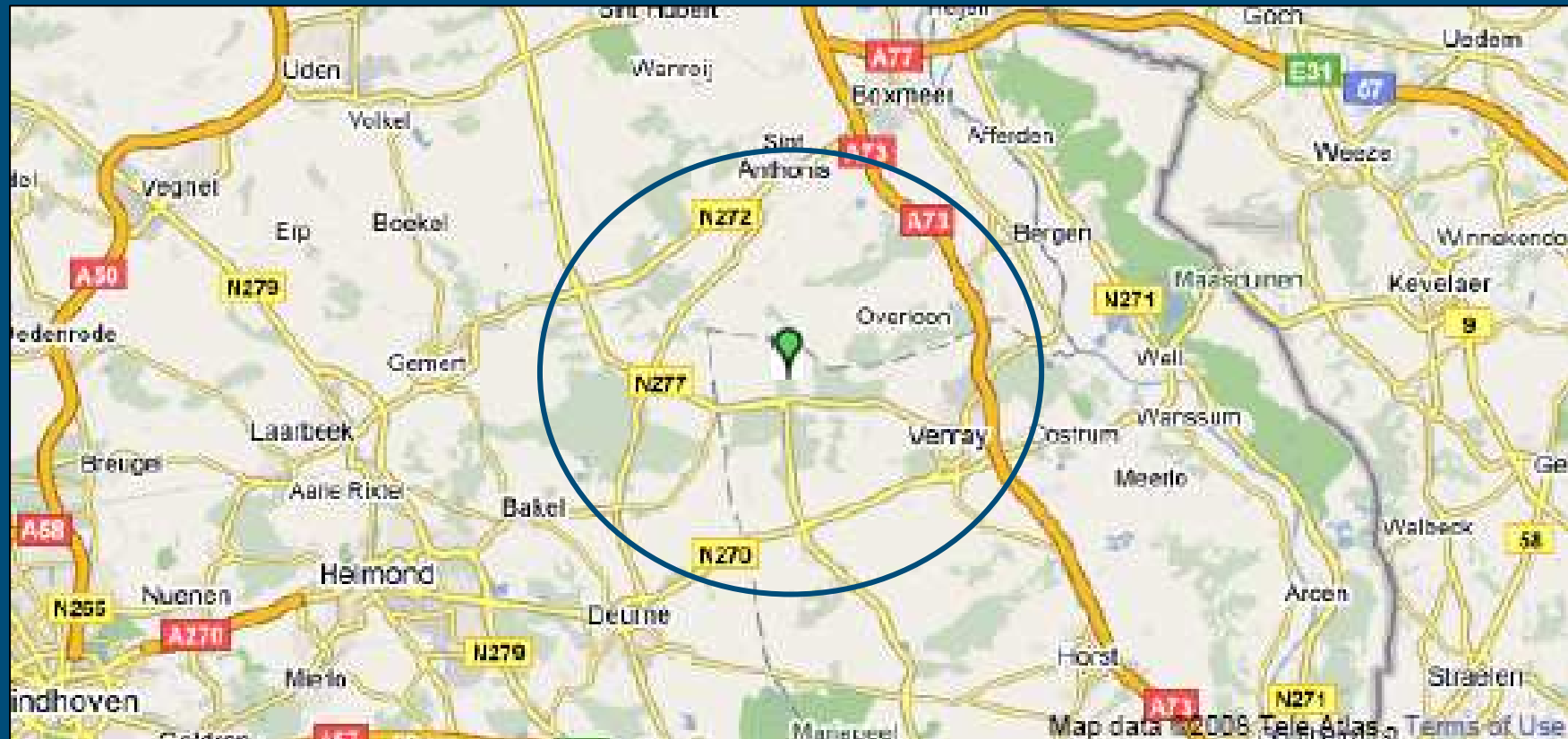
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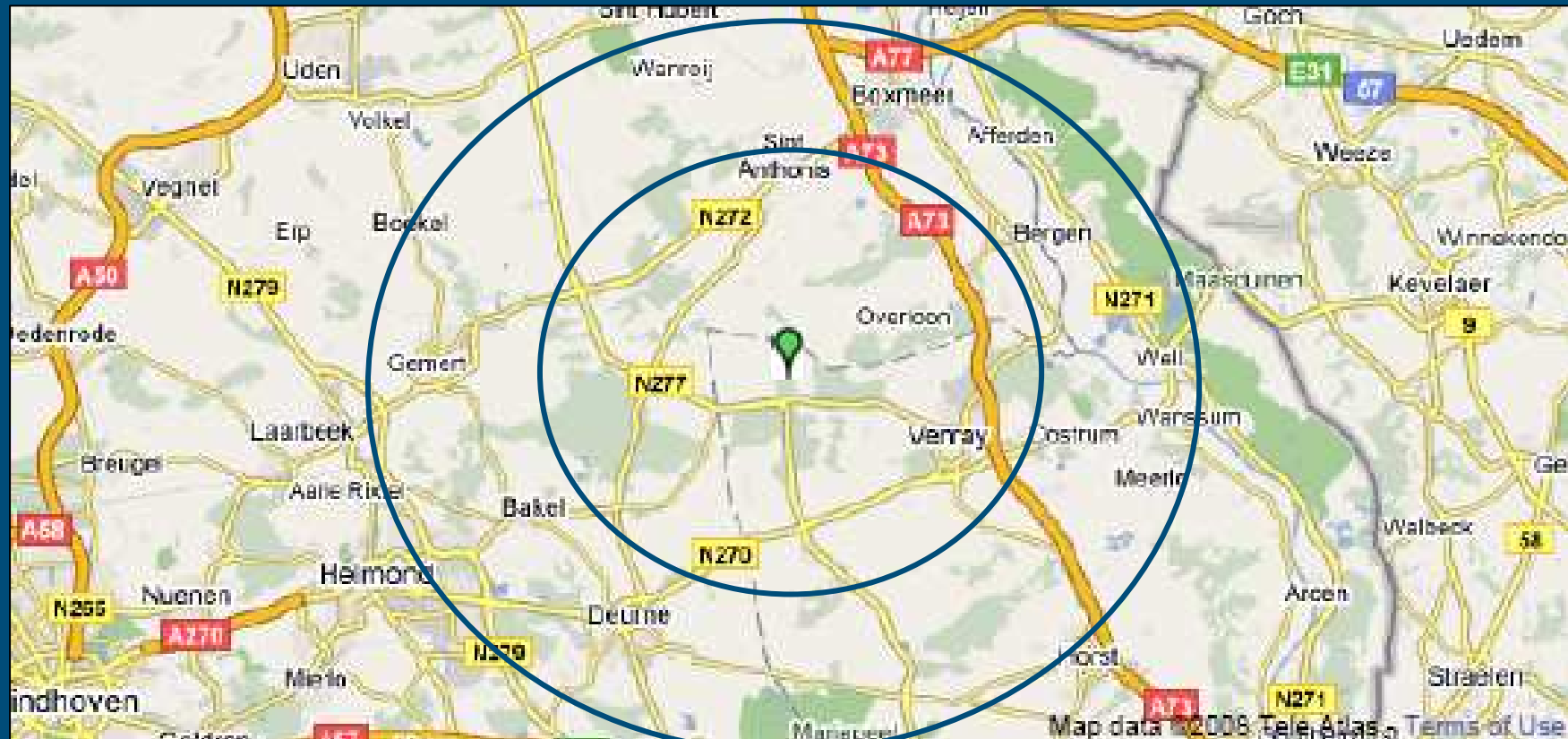
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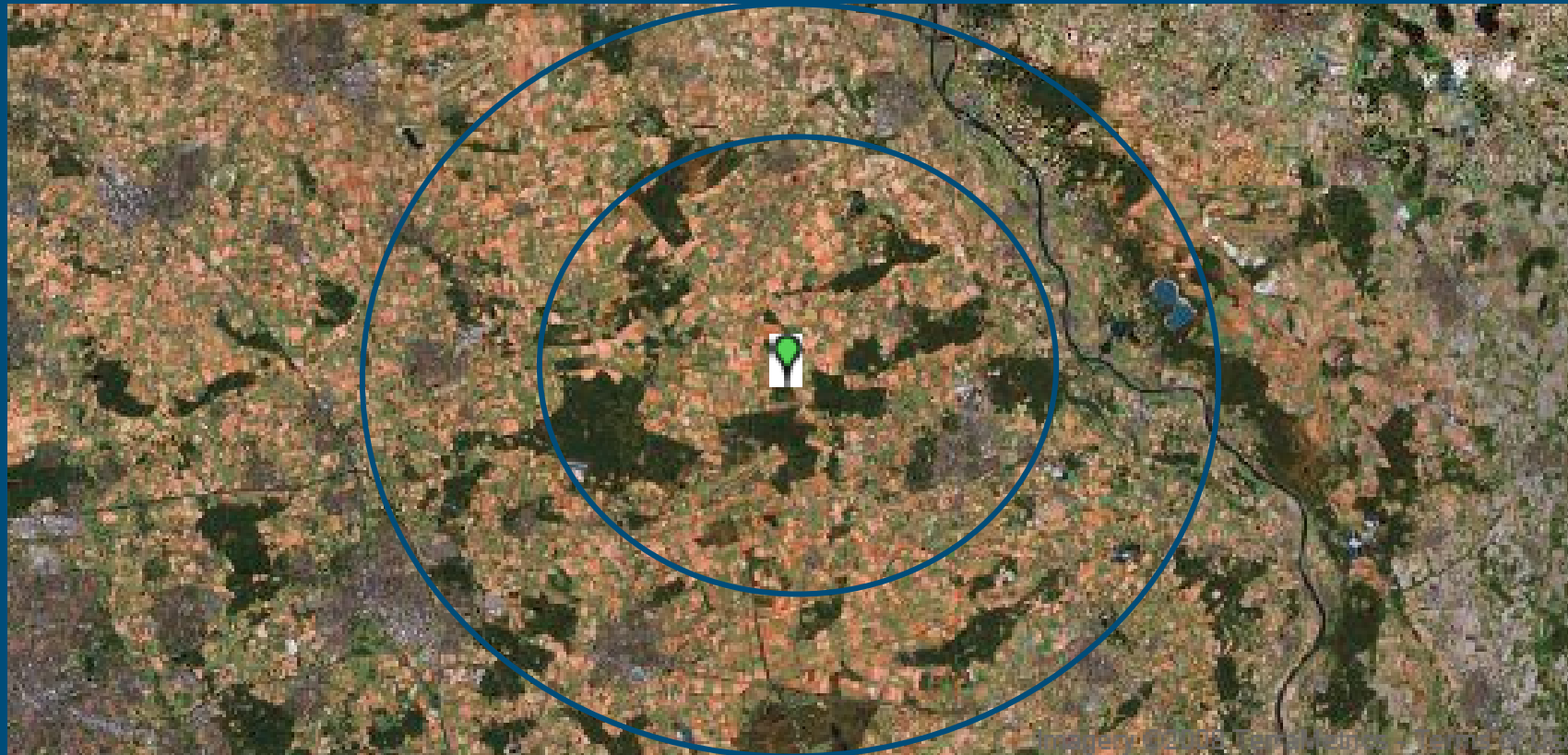
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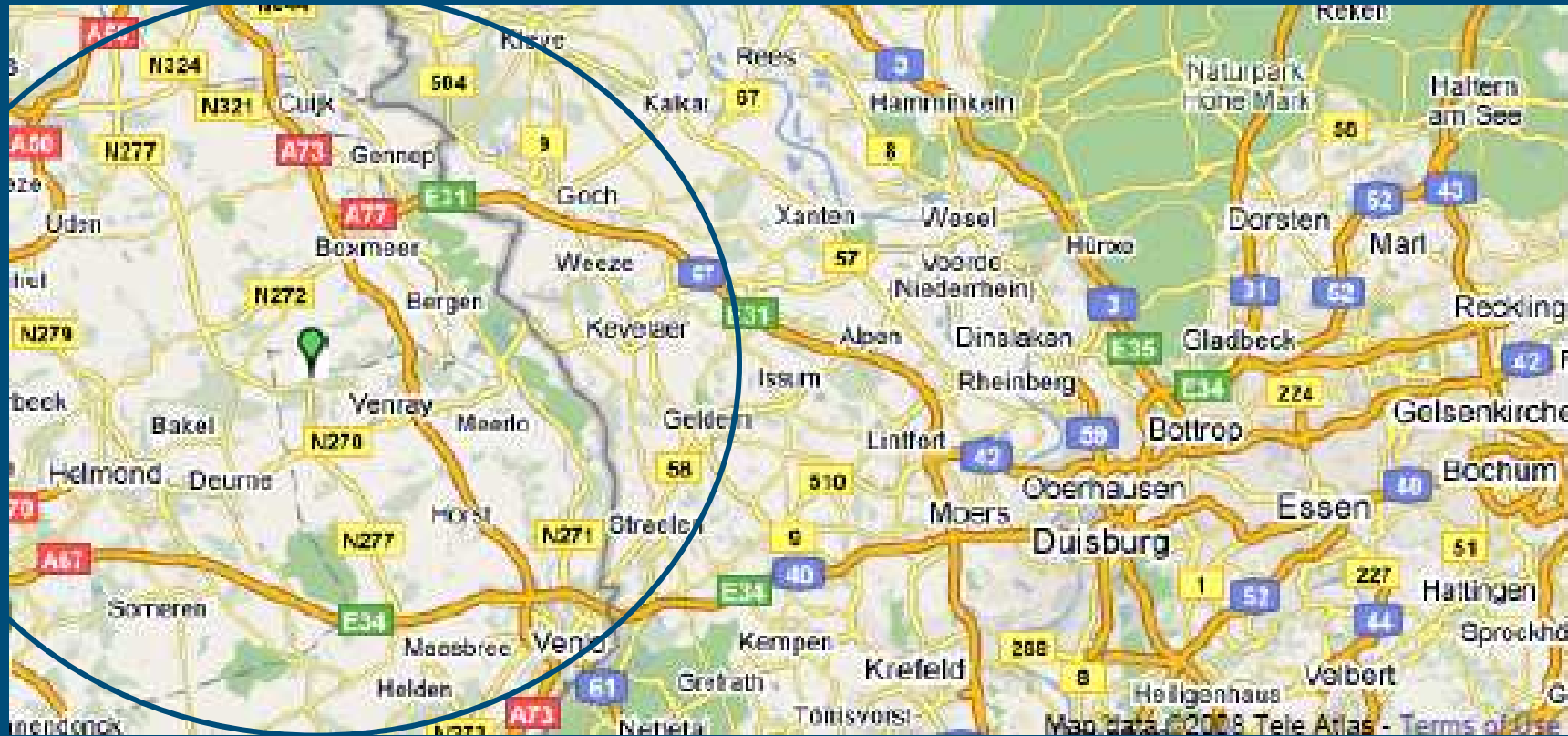
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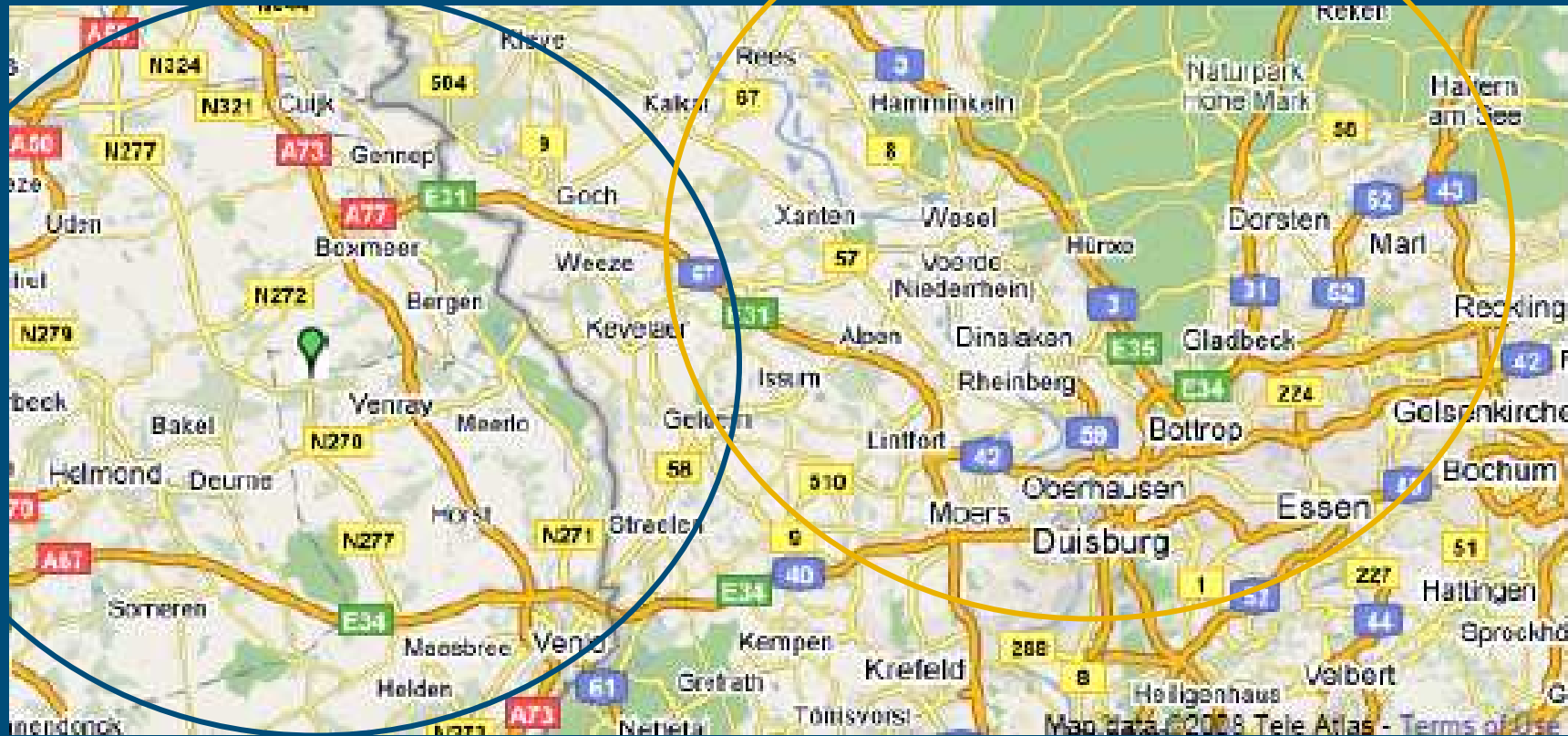
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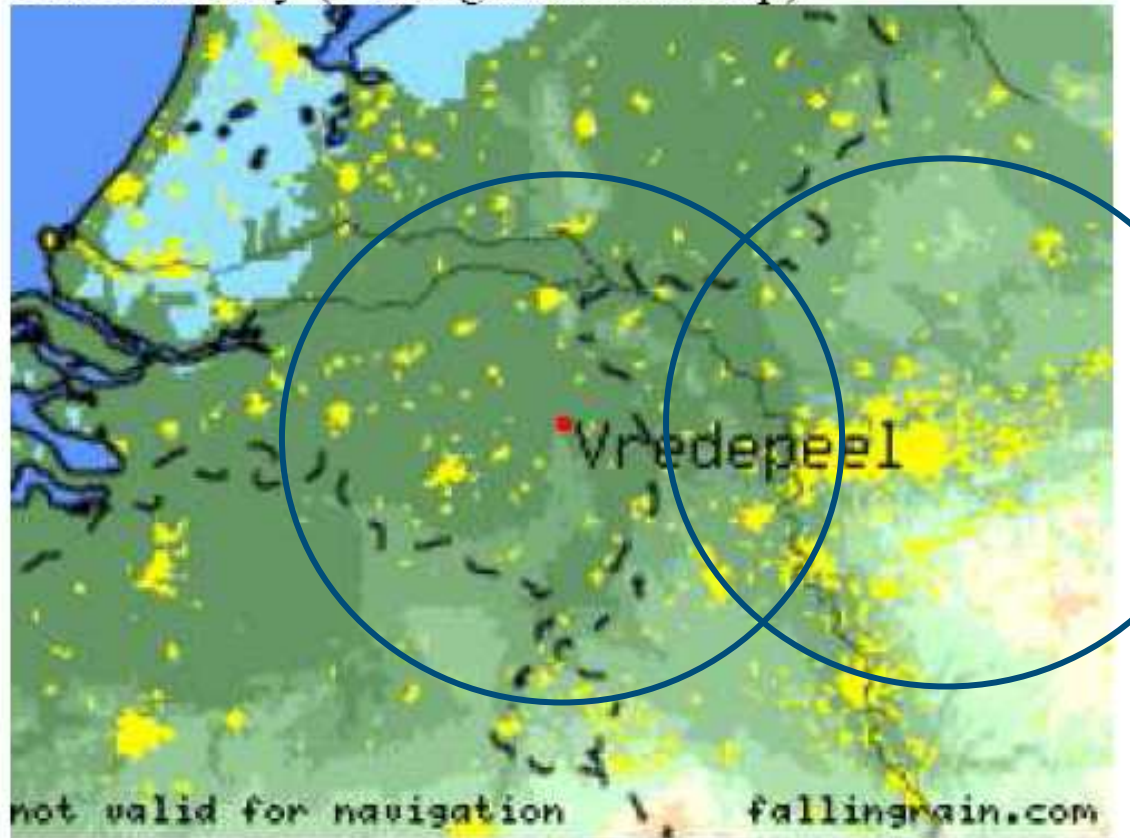


Linking production capacity data with crops..



Linking production capacity data with crops..

Cities nearby (Fallingrain.com map):

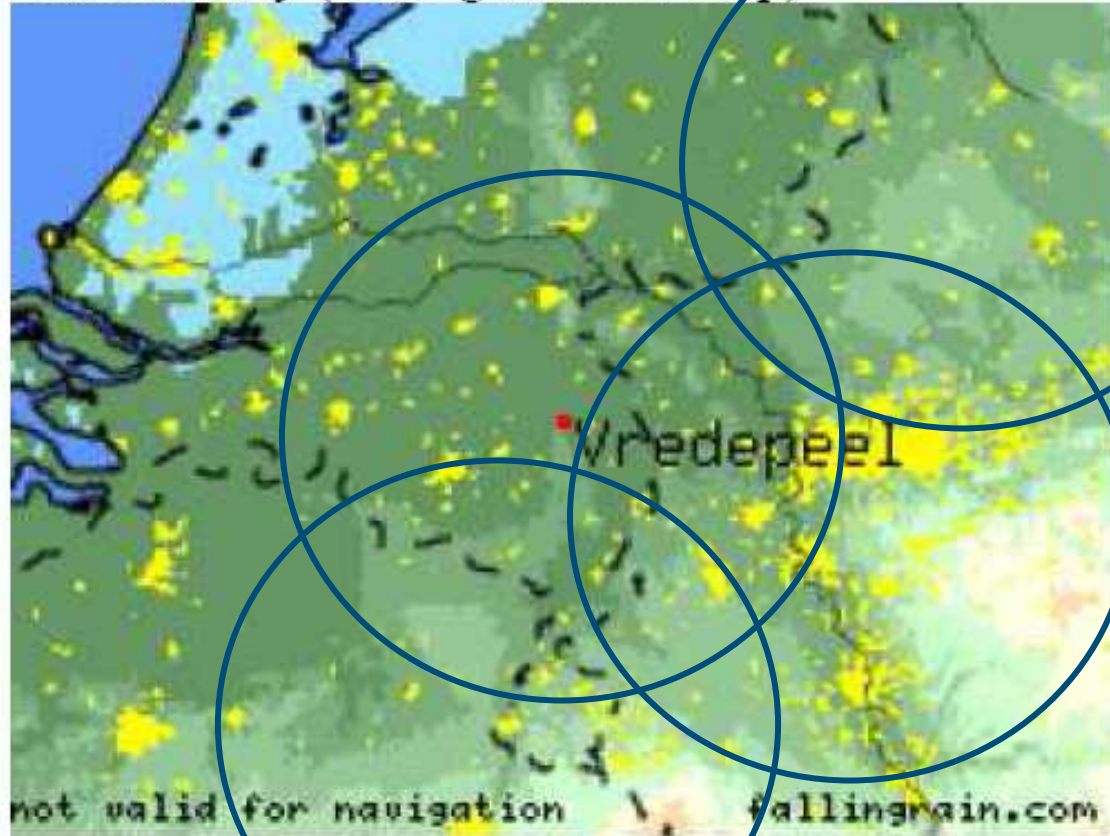


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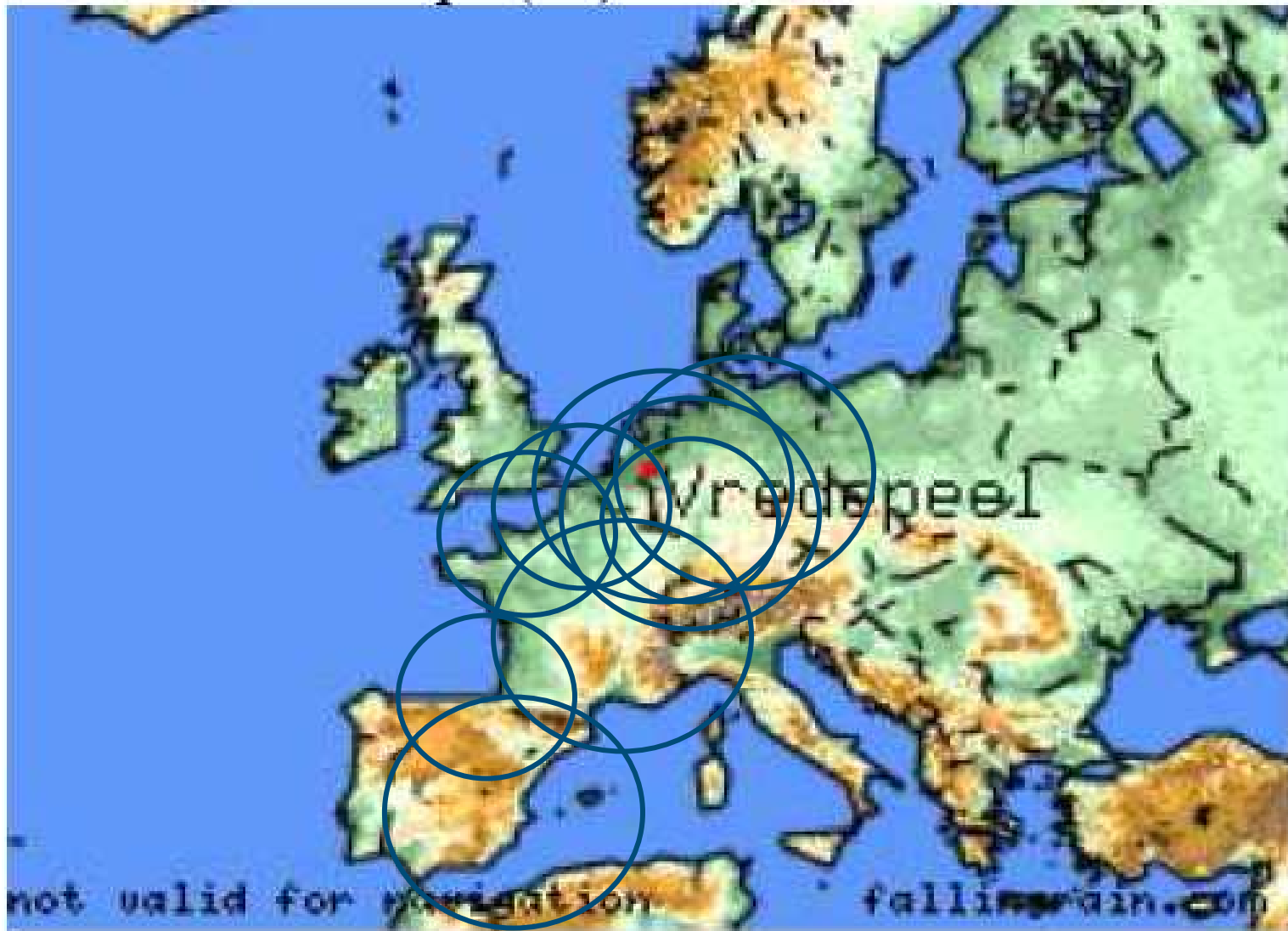
Cities nearby (Fallingrain.com map):



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Location in Europe (id.):



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Biomass sustainability and availability

Phases of bioenergy production and use

Phase	Activities
<i>Pre-cultivation</i>	Opening of land, preparation
<i>Cultivation</i>	Crop production / feedstock production
<i>Transportation</i>	Transport from field to factory / plant
<i>Conversion</i>	Transformation of feedstock
<i>Distribution</i>	Transport to users
<i>Application</i>	End use of bioenergy products



Perception of bioenergy

Phase	Activities
<i>Pre-cultivation</i>	Primary forest, grassland High biodiversity valued area
<i>Cultivation</i>	High input use, emissions Energy intensive, low yields Highly mechanised
<i>Transportation</i>	High energy use, emissions Coal, heavy fossil oil, kerosine Poor employment, development
<i>Conversion</i>	High energy use, emissions Coal, heavy fossil oil Poor employment, development
<i>Distribution</i>	High energy use, emissions Coal, heavy fossil oil, kerosine No employment, development
<i>Application</i>	Large scale exports / imports Inefficient application



Alternative options for bioenergy

Phase	Activities
<i>Pre-cultivation</i>	Degradated lands Redundant agricultural land
<i>Cultivation</i>	High input efficiency High yields, low emissions Small scale farmers, local labour
<i>Transportation</i>	Efficient energy use, low emissions Biofuels Local employment, development
<i>Conversion</i>	Low energy use, emissions Waste, by-products Local employment, development
<i>Distribution</i>	Efficient energy use, low emissions Biofuels Local employment, development
<i>Application</i>	Replace fossil fuels Combat hunger / poverty



Bioenergy ambitions and potentials in EU

Discussion

- Biomass availability is the issue
- Information is the asset
- Information should be geo-referenced
- Link to capacity infrastructure
- Sustainability criteria



Bioenergy ambitions and potentials in EU

Conclusion

- Availability
- Sustainability
- Mapping information
- Linking information

Information is the key...!!



More information:

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