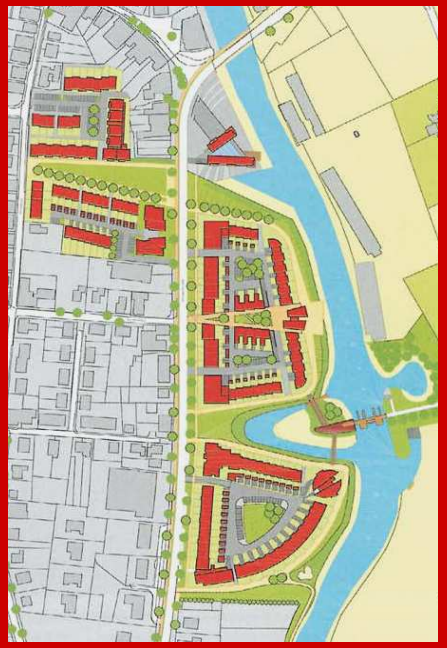
ISOCARP

Energy Transition and Sustainable Spatial Development in the Northern Netherlands

Martin Dubbeling (SAB) and Michaël Meijer (SAB)

REAL CORP

INTRODUCTION



Office for urban planning, urban design, landscape and ecology

ARNHEM
AMSTERDAM
EINDHOVEN

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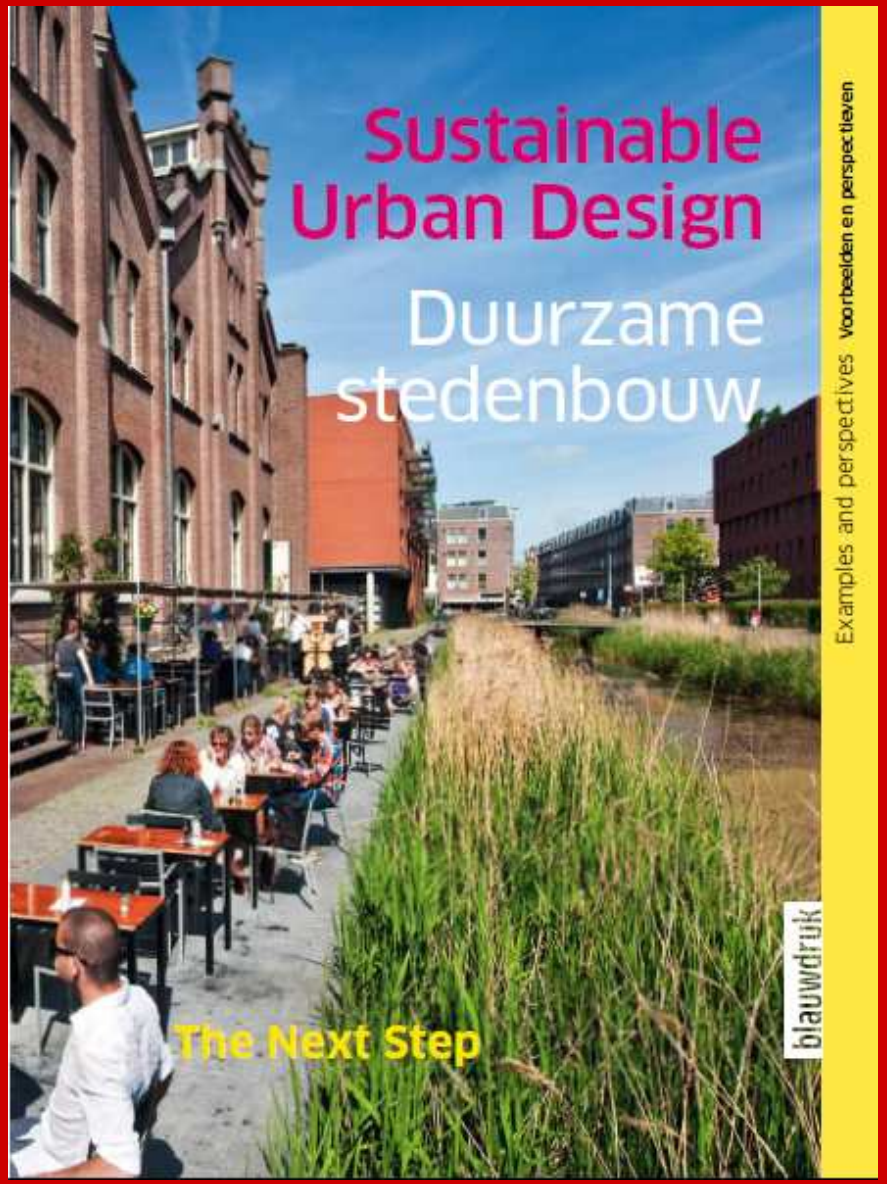

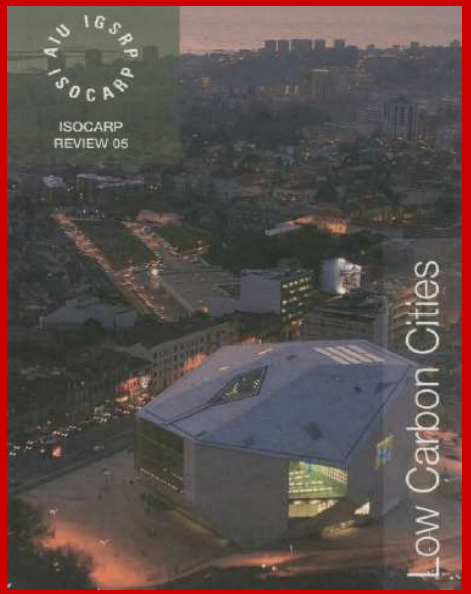

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INTRODUCTION

Knowledge for Better Cities
Events | Publications | Awards | Advisory

www.isocarp.org

The International Society of City and Regional Planners

THE HAGUE

ISOCARP

UPAT Urban Planning Advisory Team

International Society of City and Regional Planners

"Knowledge for Better Cities"

Typical Process

Week	Activity & Responsibility
1	Identify Project & Local Coordinator Local Representatives
2	Submit Letter of Interest ISOCARP Local Coordinator
3	Review & Approve Programme Proposal ISOCARP Programme Committee
4	Assign Team Leader UPAT VP & Local Coordinator
5	Publish "Call for Experts" Programme Manager
6	
7	Review & Select Senior Planners ISOCARP Programme Committee
8	Determine Agenda Local Coordinator & Team Leader
9	Select Young Planners Local Coordinator
10	Distribute & Study Project Materials Programme Manager & UPAT
11	Coordinate UPAT Transportation Programme Manager
12	
13	
14	Conduct Program Urban Planning Advisory Team
15	Day 1. Site Visit Clarify Issues & Gather Data
16	Day 2. Technical Presentations/Interviews Gather & Assess Data
17	Day 3. Analysis & Scenario Generation Development & Evaluate Alternatives
18	Day 4. Synthesis & Scenario Development Select Alternative Plan(s)
19	Day 5. Scenario Refinement Review & Refine Alternative Plan(s)
20	Day 6. Final Proposal Prepare Optimal Plan(s)
21	Day 7. Presentation Present Recommended Plan(s)
22	Prepare & Distribute Media Programme Mgr & Local Coordinator
23	
24	Compile & Edit Draft UPAT Report Team Leader & Local Coordinator
	Approve & Publish UPAT Workbook ISOCARP Program Committee

Contact

International Society of City and Regional Planners

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Gaby Kurth
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2011-03-21 Draft

ISOCARP

International Society of City and Regional Planners

ISOCARP is a global, non-governmental organisation; a network of professional planners recognised by the United Nations, UNESCO and the Council of Europe. Members are planners and other stakeholders involved in the development and maintenance of the built environment.

The objectives of ISOCARP are to improve cities and territories through planning practice, training, education and research. ISOCARP promotes the planning profession in all its aspects. ISOCARP keeps its focus on being a politically and commercially independent network of professional planners.

UPAT

Urban Planning Advisory Team

The objective of an ISOCARP Urban Planning Advisory Team (UPAT) is to offer the extensive planning knowledge and experience of ISOCARP members to provide expert and independent advice to local and regional authorities and communities in a particular urban or regional topic.

Projects

15 International UPATs Since 2008

Topics

Environmental Design

Capacity Building
Community Character & Identity
City and Regional Planning
Disaster Preparedness & Recovery
Energy Management
Environmental Planning
Heritage Conservation
Housing & Urban Renewal
Landscape Design

Mobility & Transport
Parks & Open Space
Research & Education
Community Revitalisation
Sustainable Development
Tourism Planning
Urban Design
Urban Services
Visioning

Team Members

ISOCARP VP for UPATs, Local Coordinator, Team Leader, Programme Mgr, 10 Planners, Young Planners

UPAT VP: ISOCARP's Vice President is in charge of the program and represents the Executive Committee (EXCO) to the local / regional authorities and all interested parties. The VP helps define the scope of the programme and coordinates with the EXCO, Local Coordinator, Programme Manager and Team Leader.

UPAT Programme Manager: The PM provides logistics support throughout the process. The PM prepares the calendar; coordinates the search for candidates; assists with travel plans and project documentation. The Programme Manager also formats the final report for publication as an ISOCARP Workbook.

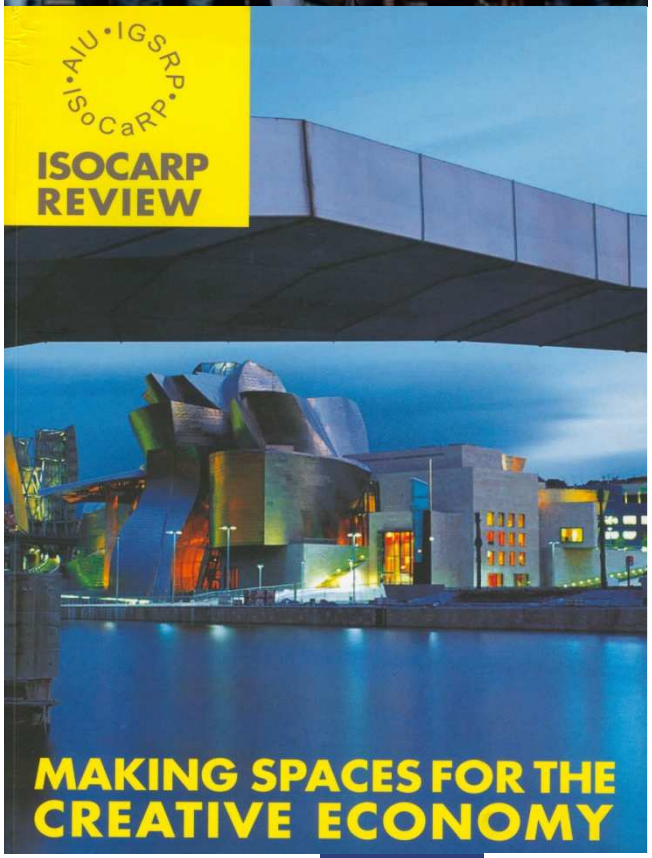
UPAT Local Coordinator: The ISOCARP member that is proposing the UPAT will usually be in charge of the general coordination of the process, before and during the exercise. A Local Organising Committee (LOC) includes local counterparts.

Team Leader: Considering the area of expertise of the UPAT subject, the UPAT VP and the Local Coordinator will assign an expert in the field as a Team Leader. The Team Leader is responsible for team coordination and final report presentation.

Senior Planner: Experts on relevant subjects will be selected to collaborate with the Team Leader, Local Coordinator, fellow Senior Planners and Young Planners to complete a report during the project visit. UPATs usually include five or more Senior Planners.

YPP: Young Professional Planners are selected from local universities by the Local Organising Committee. Education in a planning-related discipline and IT skills are desirable. UPATs usually include five or more YPPs.

For more information on ISOCARP and UPATs, please visit the website at
www.isocarp.org



Energy Transition and Sustainable Spatial Development in the Northern Netherlands

Martin Dubbeling (SAB) and Michaël Meijer (SAB)

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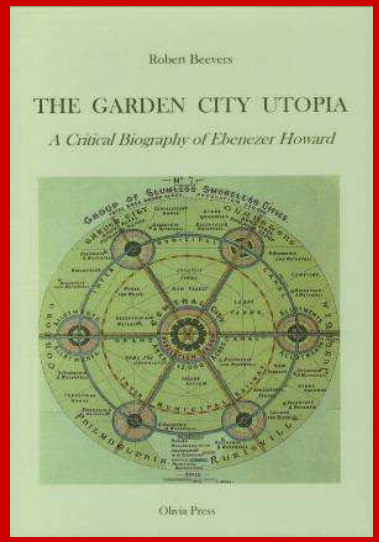
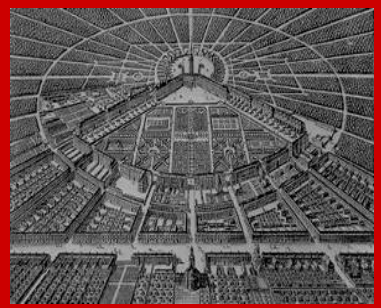
REAL CORP

CENTURIES OF EXPERIENCE

Designing and constructing livable and sustainable cities and city concepts is not new

- Jaipur (1731)
- Barcelona (1859)
- Garden City Movement (1898)
- Cité Industrielle (1918)
- Chandigarh (1953)
- Louvain-la-Neuve (1968)
- …





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CENTURIES OF EXPERIENCE

Designing and constructing livable and sustainable cities and city concepts is not new

We have centuries of experience in making energy landscapes

Beemster polder

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Beemster polder

(Amsterdam)

IN SHORT, MY EXPERIENCES AND IDEAS

- **The infrastructure and ICT in houses, residential areas and cities are old fashioned**
- **Innovation in bicycles goes faster and deeper than in the build environment**
- **A cruise ship is technically much more sophisticated than a residential area**
- **We have to switch from energy saving buildings to energy producing cities**
- **Going energy of climate neutral (and monitoring it) is quite demanding**

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Energy Transition and Sustainable Spatial Development in the Northern Netherlands

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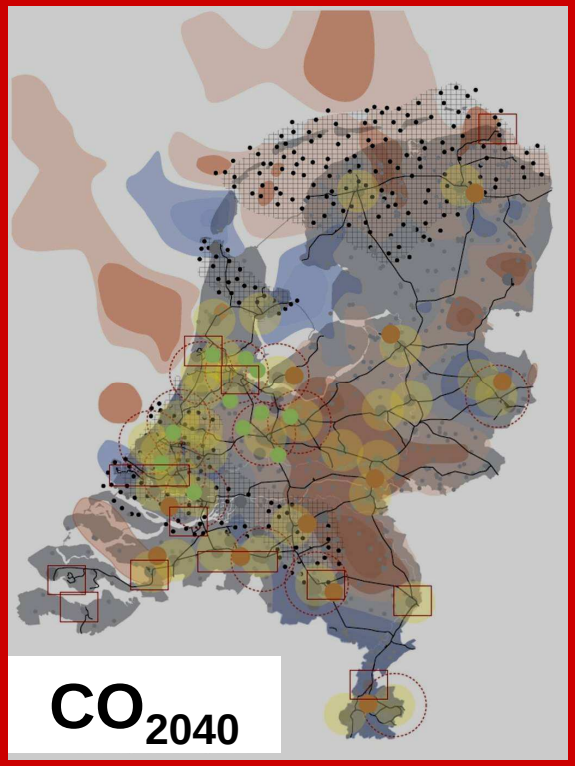
HOW TO BECOME A CARBON NEUTRAL COUNTRY IN 2040 ?



- Better dessimination of information
- Bridging the enormous gap between policies and practice
- It needs a complete different mindset of the inhabitants
- Revolution in public transport
- Rebuilding (not retrofitting) 80% of the built environment
- Combination of wind energy, geothermal energy, connecting networks to store and exchange energy
- Large scale investments in infrastructure and planning
- Towards ‘plug, play and deliver’ energy infrastucture

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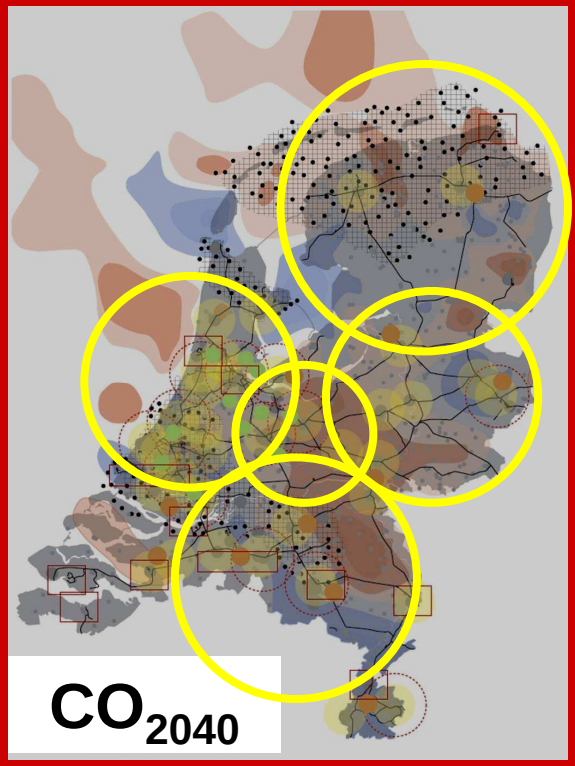

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- **Analyses of five regions in The Netherlands**

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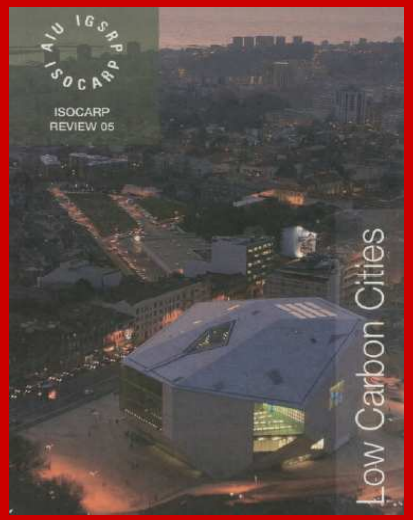
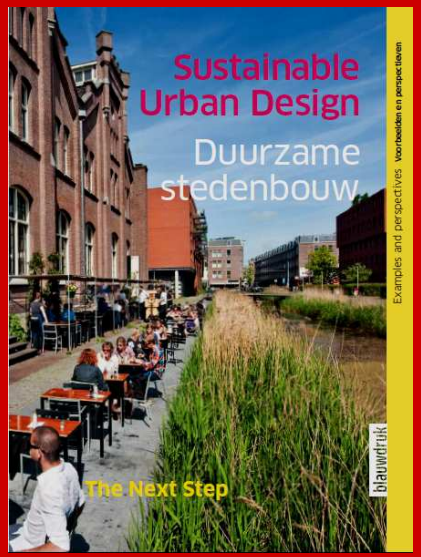
AMSTERDAM, THE HAGUE, ROTTERDAM





- **‘Smart City Amsterdam’: new housing projects climate neutral in 2015**
- **‘World Capital’ The Hague: climate neutral city in 2050**
- **‘Energy Port’ Rotterdam: built environment climate neutral in 2025**
- **Different ambitions, horizons, methodology, definitions**
- **International focus and situated in an international network of cities**
- **Hardly any fundamental choices or strategies**
- **Hardly any spatial translation towards city planning and infrastructure**
- **Hardly any cooperation with planners, urban designers or landscape architects or even between the cities**

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SERIOUS BUSINESS OR WINDOW DRESSING ?

Rotterdam
August 2009

Bavaria City Racing

SERIOUS BUSINESS OR WINDOW DRESSING ?

Rotterdam
August 2009

Urban Heath Island

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ENERGY TRANSITION AND SUSTAINABLE SPATIAL DEVELOPMENT IN THE NOTHERN NETHERLANDS

GRONINGEN
FRIESLAND
DRENTHE

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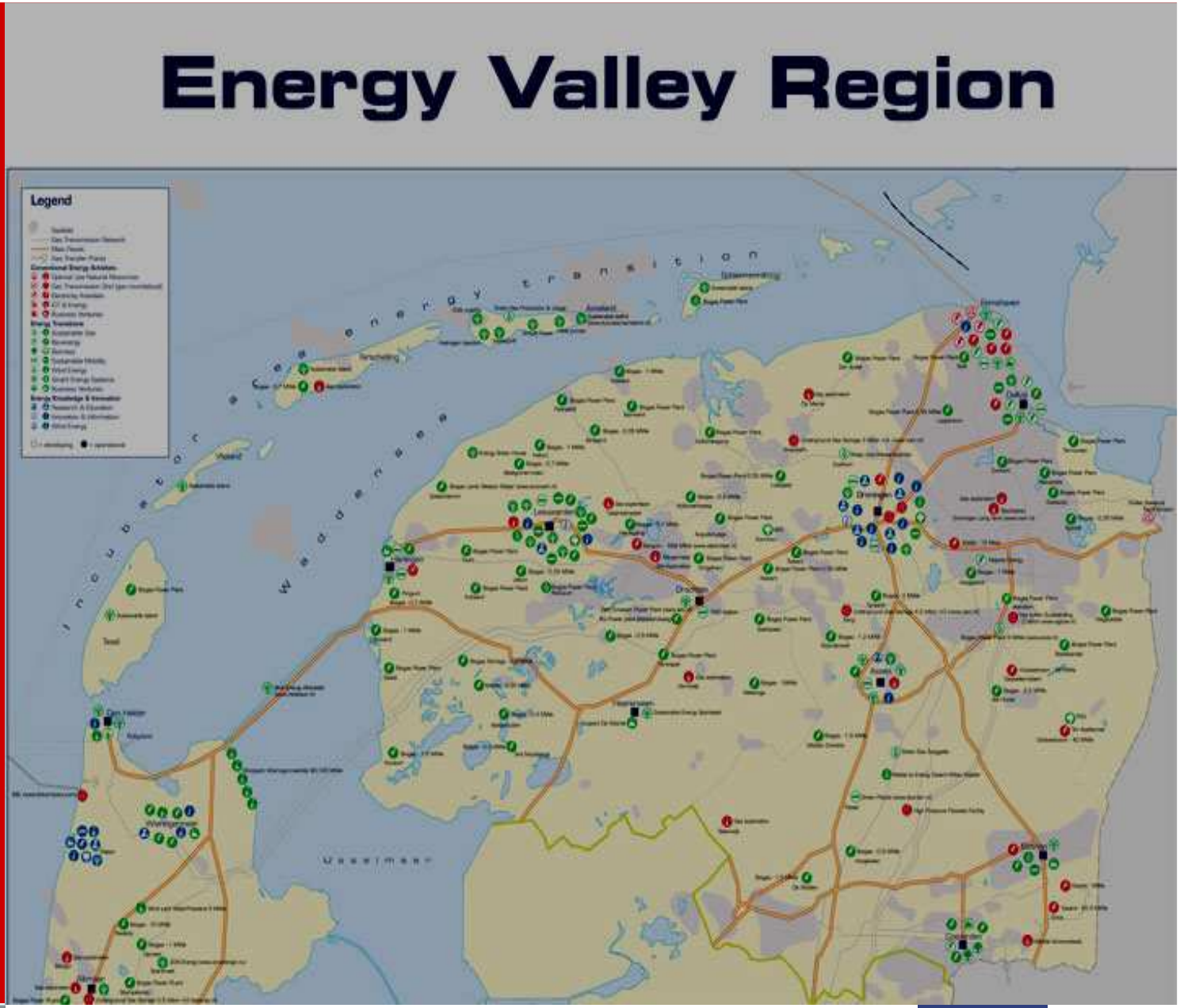
INVESTMENTS IN THE ENERGY VALLEY REGION

Conventional energy
€ 15.240.000.000,-

Energy transition, sustainable energy production
€ 6.480.000.000,-

Research and innovation
€ 556.000.000,-



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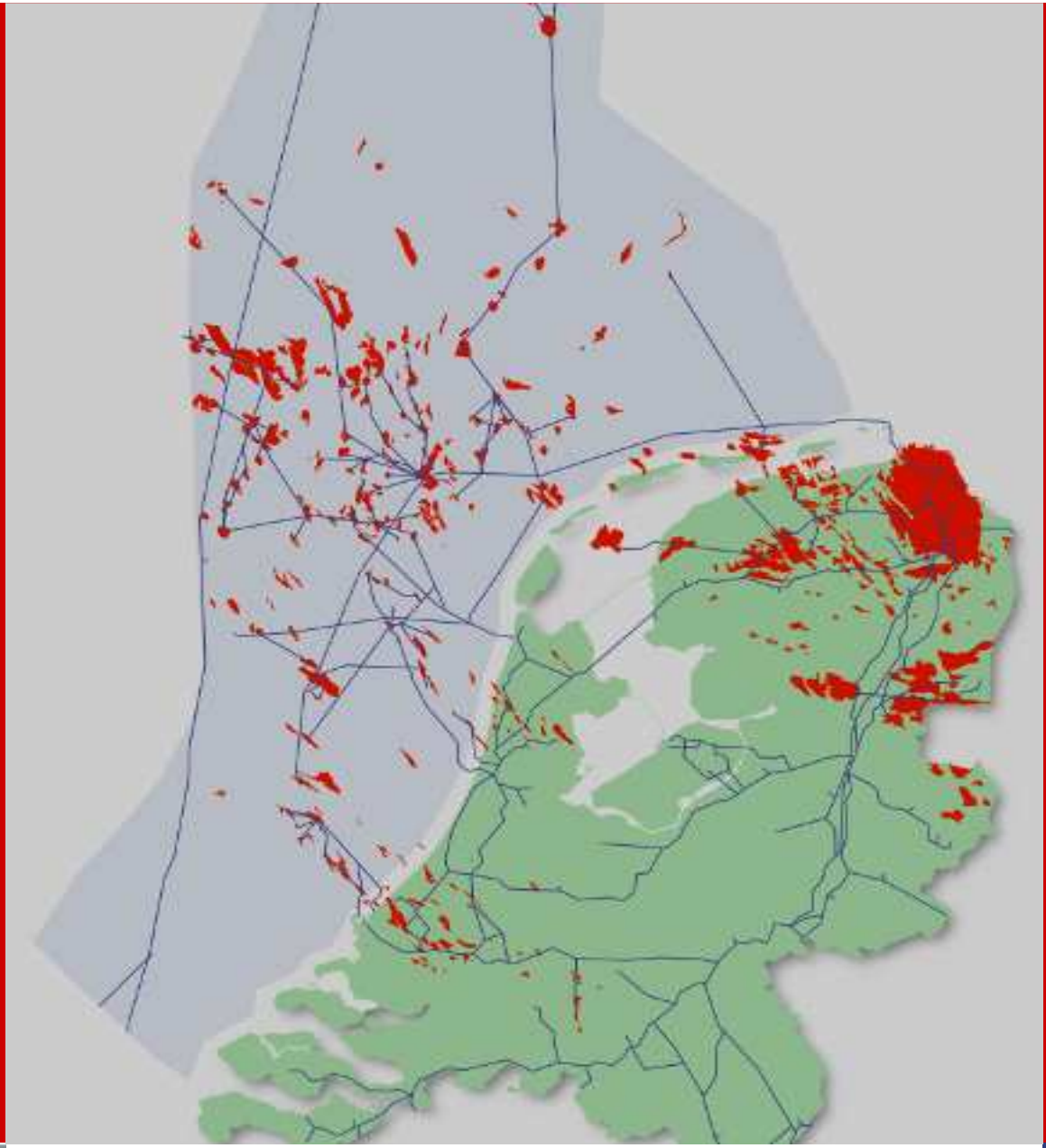

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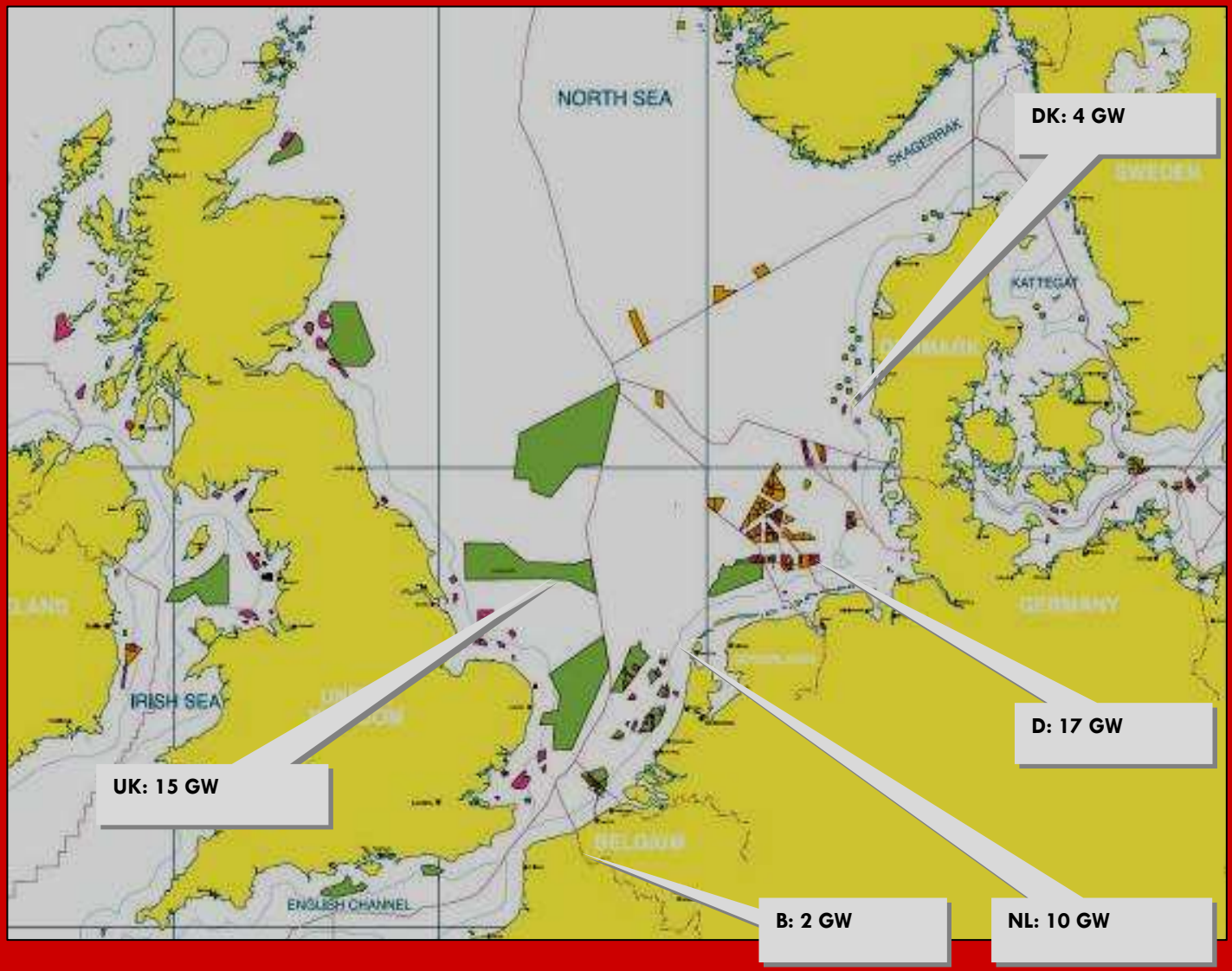

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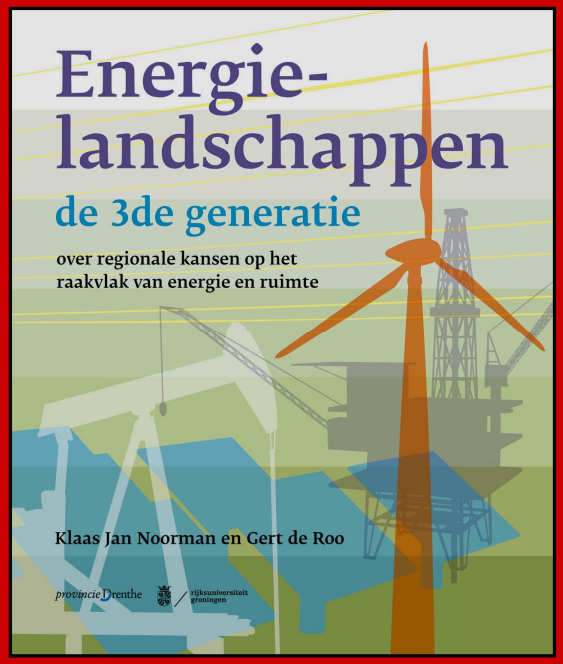
3RD GENERATION ENERGY LANDSCAPES



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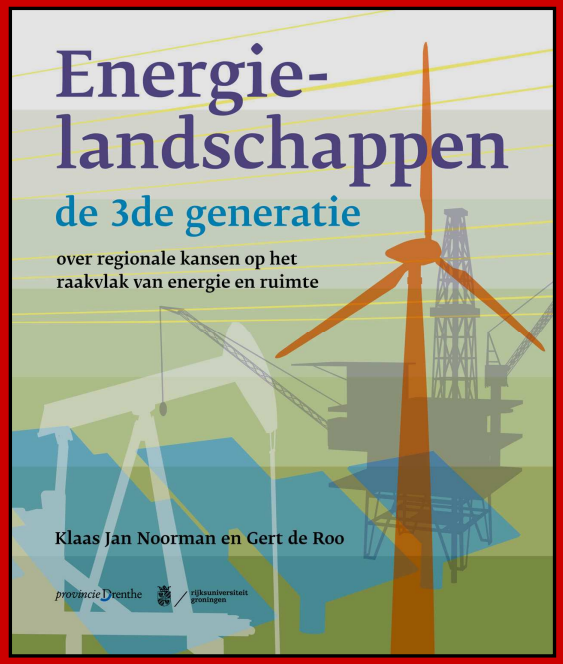

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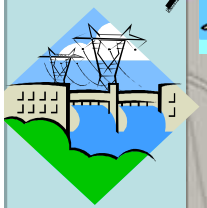
Mogelijke Duurzaamheidskaart Hoogeveen; diverse projectmogelijkheden!

Biomassa 1

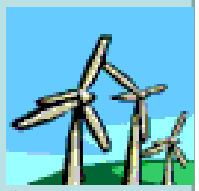
Biomassa 2

Biomassa 3

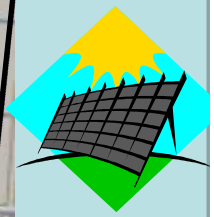
Water



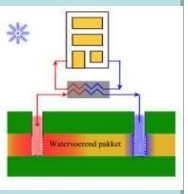
Wind



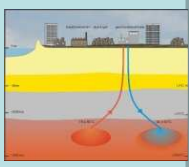
Zon



WKO



Geo-thermie



Warmtenetten

Restwarmte/ORC

Wind in stad en regio

- 28 windmolens binnen de stadsgrenzen en in regio (70 MW) die 40.000 huishoudens van elektriciteit kunnen voorzien

Zon in de stad

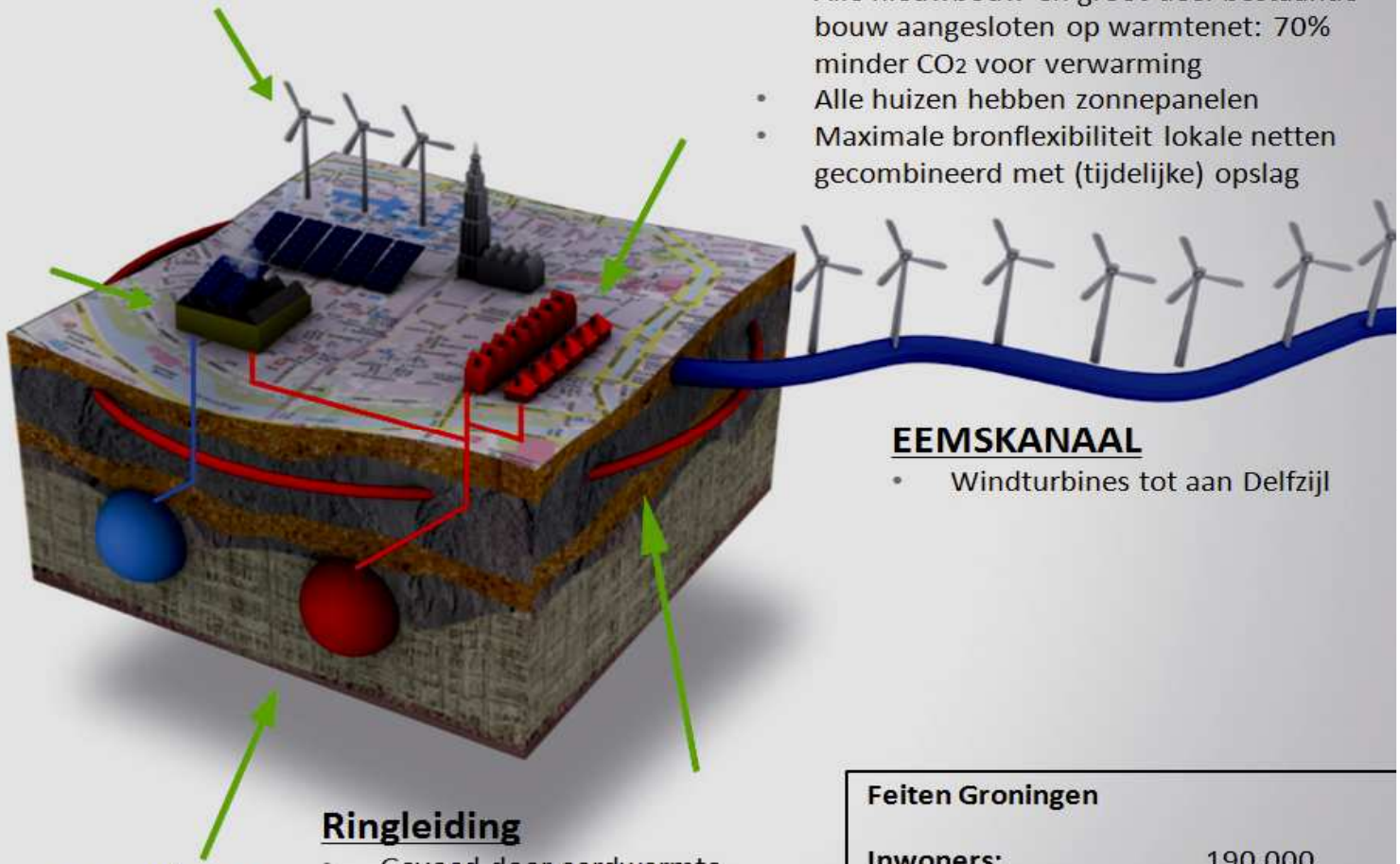
- Groningen heeft 150 mW aan zonnepanelen, goed voor 38.000 huishoudens

DUURZAME WIJK

- Bouwverordening: Energieneutrale huizen
- Alle nieuwbouw en groot deel bestaande bouw aangesloten op warmtenet: 70% minder CO_2 voor verwarming
- Alle huizen hebben zonnepanelen
- Maximale bronflexibiliteit lokale netten gecombineerd met (tijdelijke) opslag

Bedrijventerrein

- Voorzien van windmolens en zonnepanelen
- Aangesloten aan warmtenet voor levering of vraag.



Restwarmte

- Restwarmte van UMCG, Suikerunie en andere locaties
- 24.000 huishoudens worden voorzien van restwarmte in plaats van gas voor verwarming

EEMSKANAAL

- Windturbines tot aan Delfzijl

Aardwarmte

- Meerdere bronnen geven warmte voor bedrijven en huishoudens.
- Genoeg voor 47.000 huishoudens
- Voeding voor het warmtenet

Ringleiding

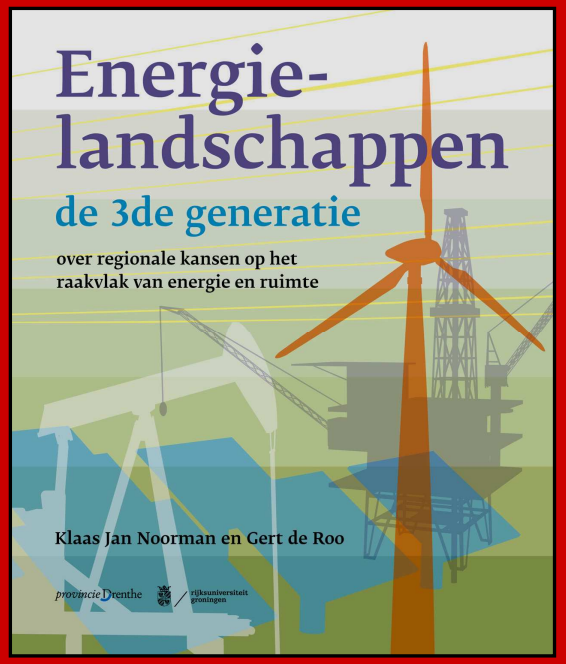
- Gevoed door aardwarmte, restwarmte en bio WKK en afnemers.
- Nieuwe warmtebronnen kunnen worden toegevoegd

Feiten Groningen

Inwoners:	190.000
Huishoudens:	89.000
Oppervlakte:	78 km^2
Elektriciteitsverbruik:	8.117.000 GJ
per inwoner:	43 GJ
Gasverbruik:	9.684.000 GJ
Per inwoner:	52 GJ

3RD GENERATION ENERGY LANDSCAPES

GRONINGEN, FRIESLAND, DRENTHE



- Patchwork of small and innovative projects
- High ambitions, connected to long term (restructuring) keyprojects
- Unorganised, introvert, relatively unknown
- No complete overview of projects and initiatives
- The Energy Valley initiative is not involved in or connected to spatial or urban planning
- Groningen en Hoogeveen: first serious attempts to address climate and energy ambitions in spatial planning and spatial policies
- Cities in the North are networking with other smaller cities in The Netherlands
- A beautiful beginning and a long way to go

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… to be continued …

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