

ECOLONIA, 1989

Developed by SenterNovem and Bouwfonds, with the support of the Netherlands Ministry of Housing, Spatial Planning and the Environment, and the Ministry of Economic Affairs

SenterNovem is an executive and advisory branch of the government that nevertheless is completely independent. It is an NGO that receives a large subsidy from the government that cannot easily be changed. It advises, subsidizes, creates and supports enterprise and independent research for sustainability and vital living environments.

Large scale project,
100+ houses, 9 types

CENTRAL IDEA: Not technological improvements but the transfer of knowledge.

**3 THEMES: QUALITY,
ENERGY & MATERIAL**

Alphen aan den Rijn, Netherlands

OBJECTIVE:

As part of an extension plan of Alphen a/d Rijn, SenterNovem developed a demonstration project for 'environmentally aware and energy efficient' building. It received much international attention and, even though old, is still used as an example of environmentally aware and vital living environments.

*SUSTAINABLE ENERGY, WATER SAVING & RE-USE, LONG LIFESPAN,
SOUND INSULATION, HEALTH & USER SAFETY, URBAN COMMUNITIES*

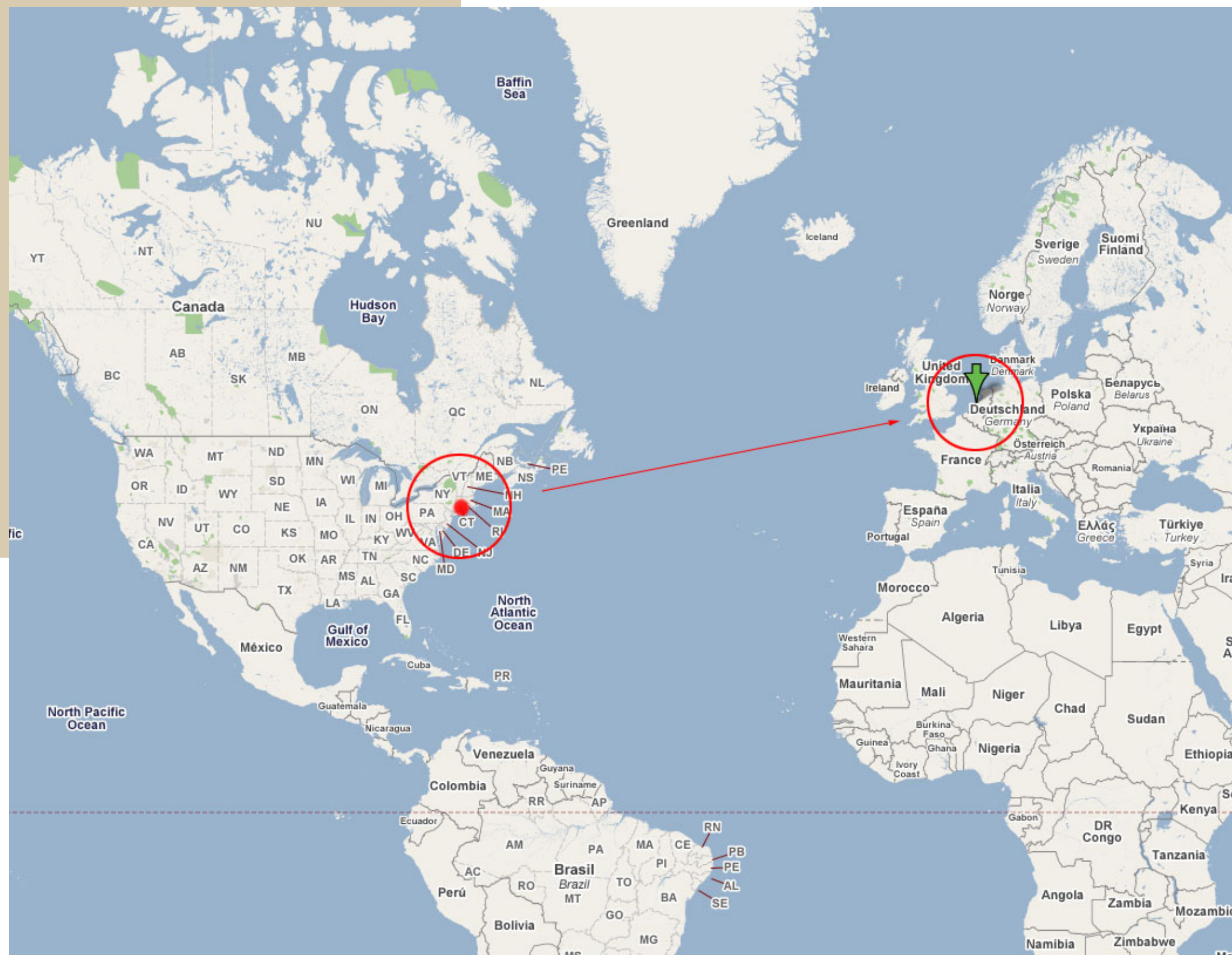


- ☺ 1987 Brundtland Commission
- ☺ 1988 Report 'Zorgen voor Morgen'
- ☺ 1989 NMP formed (National Environmental Policy Plan)
- ☺ 1989 Ecolonia part of an ongoing research and execution plan



EUROPE





NETHERLANDS



HOLLAND



ECOLONIA

Team Crazy Kitten



ALPHEN AAN DEN RIJN



ECOLONIA

Site and Land Use

Compact Cities (§1.1)

- ☺ Public transport-orientated designs
- ☺ Compact living
- ☺ Mixed land use
- ☺ Natural expansion

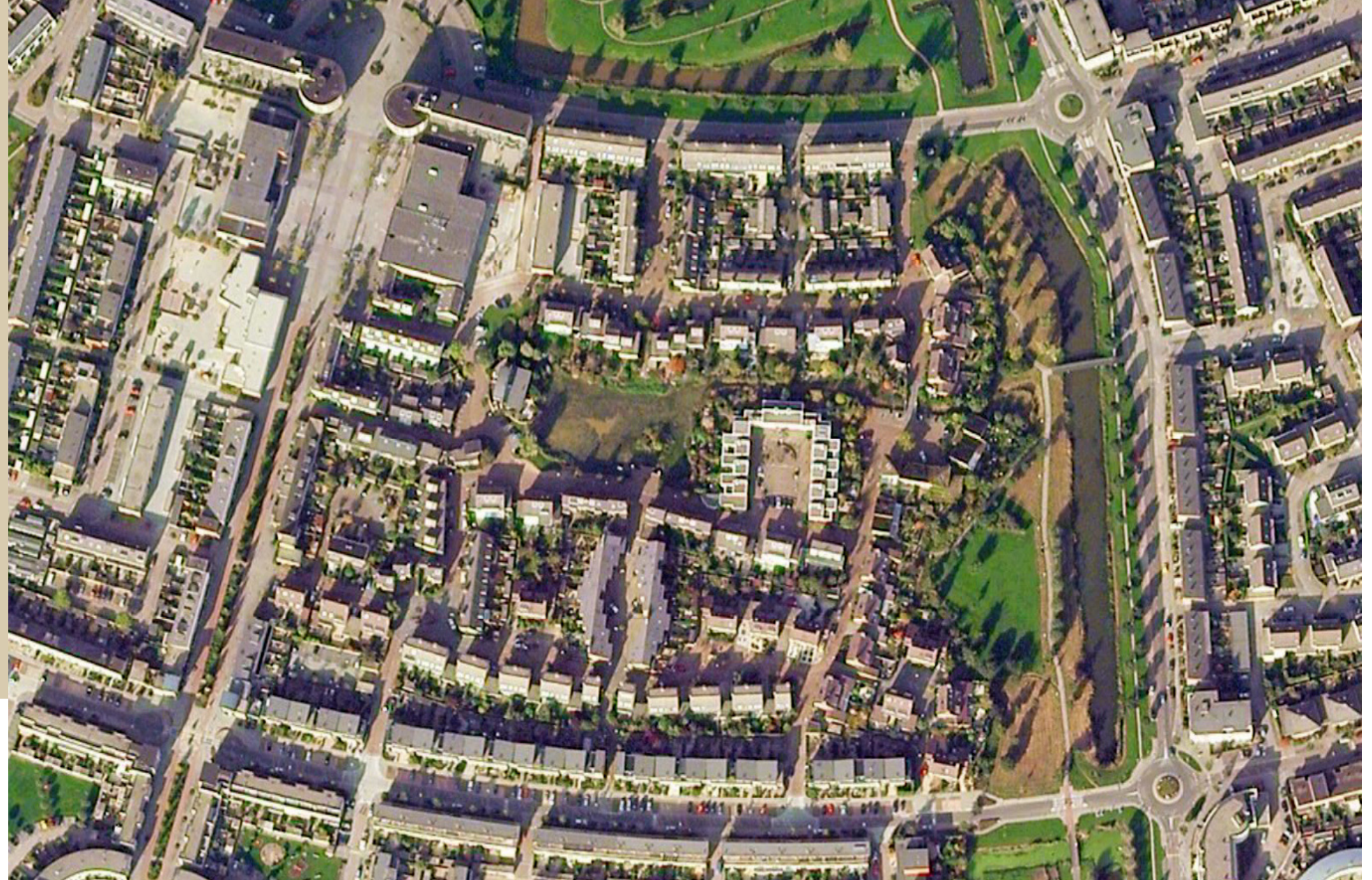


ECOLONIA

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ECOLONIA

Site and Land Use

Compact Cities (§1.1)

- ☺ Pedestrian-friendly streets
- ☺ Well defined public spaces
Designed around a central pond that acts as cultural and community center
- ☺ Integration of nature in developments
*Includes a pond that is designed as a wetland
Foster relationships between residents and the environment*
- ☺ Developments based on walking & cycling distances



Site and Land Use

Reducing Transport Impacts (§1.2)

- ☺ Close to shops (10 minute walk)
- ☺ Close to city center
- ☺ Close to train station (5 minute walk)
- ☺ Slow speed vehicular routes
- ☺ No pavement borders between road use (play, cycle, walk, car)



Community

Enhancing the Quality of Life (§2.2)

- ☺ Focal spaces for community
Squares forming social functions
- ☺ Green leisure spaces
a central pond
- ☺ Culture centers
- ☺ Human scale



Community

Promoting Sustainability (§2.5)

- ☺ No reduction of normal ease or quality of use
- ☺ Economically attractive
- ☺ Demonstration/Exemplary project
- ☺ 9 separate building types focusing on unique sustainable design solutions





Architecture focus on three elements:

- ☺ 9 different architecture firms for diversity and creativity
- ☺ Maximize Solar Collection using sun-orientation
- ☺ Insulation improvement through building envelope design
- ☺ High-efficiency, environmental heating systems
- ☺ Rainwater collection & water saving features
- ☺ Solar collectors, efficient appliances, recycled materials

and um... central vacuum cleaners



EVALUATION

Ecolonia still serves today as a model for the building industry and cooperation between state and private industry

Difficulties during the process brought to light important administrative and coordination issues on both sides, but paved the way for changes smoothing out these difficulties.

Ecological performance:

1993 Measurements:

- ☺ 40% reduction of gas usage (heating/cooking)
- ☺ 20% reduction in water usage
- ☺ 10% reduction of electricity usage

Usage information was provided too late in the process, curbing actual efficiency.

Local ordinances inhibited the implementation of certain instruments, lowering the ecological standards.

