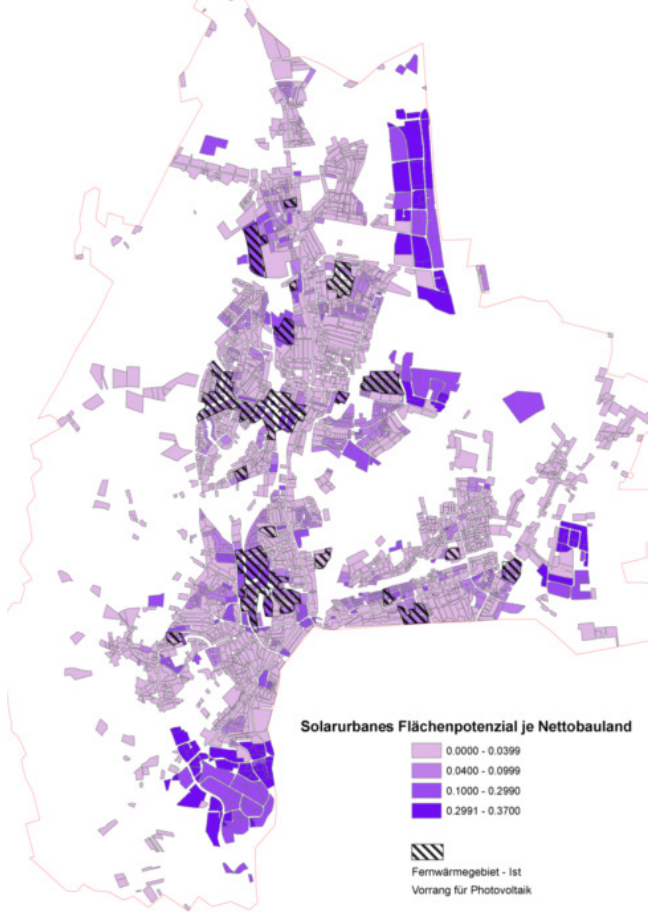




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| Name of project: | GIS based energy concept for CO₂-reduction by town planning | COUNTRY |
| | | GERMANY |
| City of project: | City of Norderstedt (74.000 inhabitants), Germany | |
| Size/ region affected | Local | |
| Type of project [theoretical / practical]: | Category 1: Identification of the solar potential | |
| Targeted technique PV/Solar thermal/Passive Solar | All renewable energies for heating and photovoltaics | |
| Period/ starting date | Concept: January 2009 – December 2009 Implementation: starting 2010 | |
| Contact institution with Internet links (if available) | Stadt Norderstedt, Fachbereich Umwelt, Birgit Farnsteiner, Rathausallee 50, 22846 Norderstedt, www.norderstedt.de/klimaschutz birgit.farnsteiner@norderstedt.de | |
| Photo / drawings / overview |  <p>Solarurbanes Flächenpotenzial je Nettobauland</p> <ul style="list-style-type: none"> 0.0000 - 0.0399 0.0400 - 0.0999 0.1000 - 0.2990 0.2991 - 0.3700 <p> Fernwärmegebiet - Ist Vorrang für Photovoltaik</p> <p><i>Solar potentials per city quarter (incl. district heat areas)</i></p> | |

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| <p>General Project Description</p> | <p>Energy Concept for CO₂-reduction by town planning, refurbishment, efficient energy supply and the use of renewable energies (including solar energy).</p> <p>With the objective to reduce the CO₂-emissions from heating, the energy concept analyses the building stock and the public energy supply. Based on this analysis the concept defines options for refurbishment measures including the use of renewable energies all over the city of Norderstedt. Substantial for the benchmark of measures is their cost efficiency. The GIS based methodology represents the possibility to map generated information and therewith to define priorities.</p> <p>Methodology: GIS based analysis of the building structure, energy demand und the potentials of renewable energy use. The analysis is based on the definition of 21 urban fabric types. The localization of the respective information is important for a strategic planning.</p> |
| <p>Initiator/project idea</p> | <p>City of Norderstedt, Climate Coordination</p> |
| <p>Preparation/necessary data</p> | <p>GIS based information on the building stock like age of buildings, type of use and structure of energy supply.</p> |
| <p>Municipal resolution required</p> | <p>Local politics has to decide how to handle the results of the concept, especially in concern with town planning measures</p> |
| <p>Duration of project</p> | <p>The implementation of the measures presented by the concept will start in 2010 with long-term focus whereas CO₂ mitigation targets are set for 2030.</p> |
| <p>Costs of project</p> | <p>About 60.000 – 70.000 Euro incl. VAT About 80% Encouragement</p> |
| <p>Financing Investor</p> | <p>City of Norderstedt, encouragement by Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit.</p> |
| <p>Service Provider</p> | <p>Ecofys Germany GmbH, Köln</p> |
| <p>Other parties involved (e. g. departments)</p> | <p>Stadtwerke Norderstedt (municipal utility), planning department, environmental department, municipal business development</p> |
| <p>Partner responsible for Best Practice description</p> | <p>ECOFYS, Germany </p> |

SWOT Analysis

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| <p>Strengths</p> | <p>The concept represents a basis for strategic planning and economical argumentation. It supports the enhancement of refurbishment activities and the use of renewable energies through campaigns or in discussion with the target group of investors.</p> |
| <p>Weakness</p> | <p>For specific building projects the results have to be reviewed. (not on single building level)</p> |
| <p>Opportunities</p> | <p>Motivation of the target group leads to CO₂-reduction by showing economical advantage</p> |

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| | through refurbishment measures. More chances in legal process for CO2-reduction measures in town planning |
| Threats | Unexpected development of the energy costs and therefore long term liability |
| Improvements | Improved database of the energy provider |