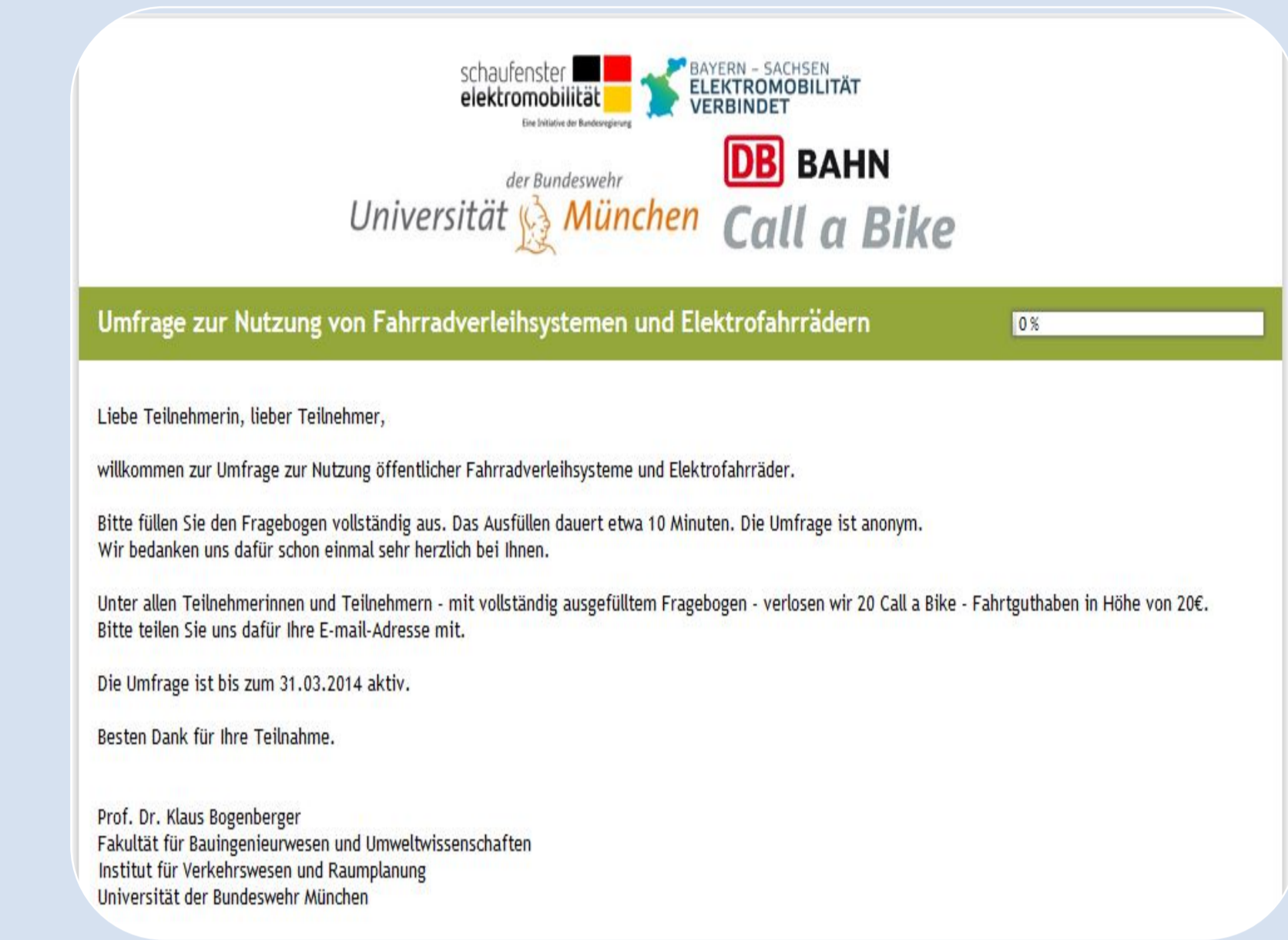
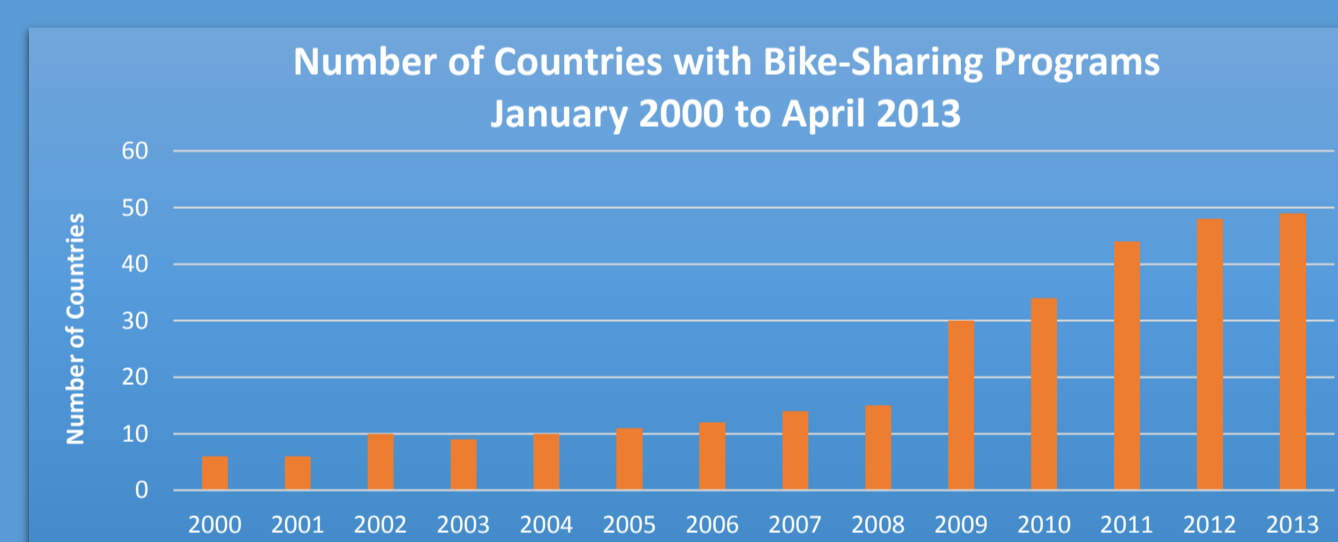


Evaluation-Method for a station based Urban-Pedelec Sharing System

Dipl.- Geogr. Florian Paul, Prof. Dr. - Ing. Klaus Bogenberger – Universität der Bundeswehr München

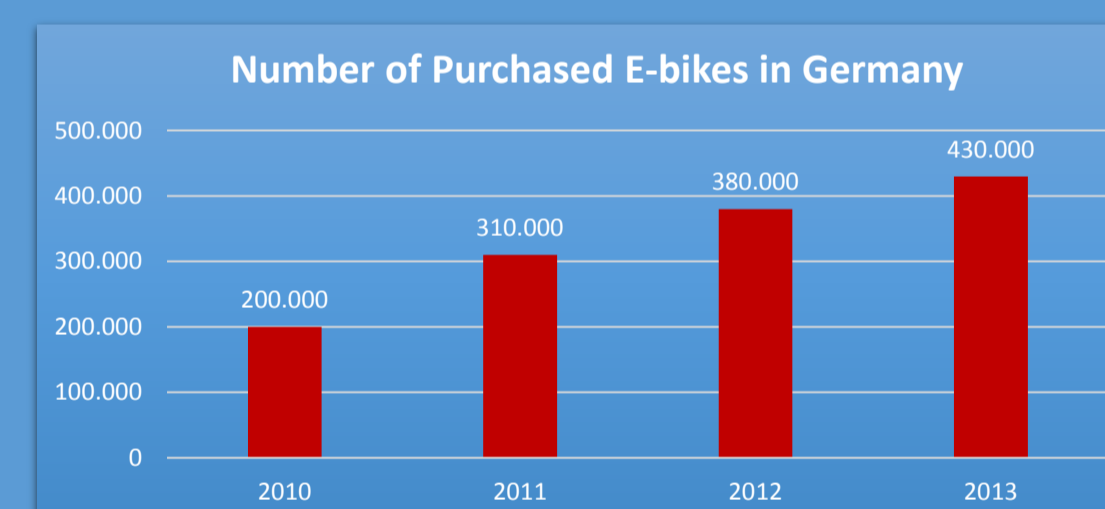


Rise of Public Bike Sharing



- Increasing number of Bike Sharing Systems from 68 in 2007 to over 675 in 2013
- 700.000 shared bikes at 33.000 stations worldwide
- Bike Sharing Benefits:
 - Transportation benefits e.g. reduce of congestion and improve of air quality
 - Economic benefits e.g. job creation and investments in local industry
 - Health benefits e.g. prevention of diseases
 - City image benefits e.g. attraction of new cyclists and improvement of cycle infrastructure

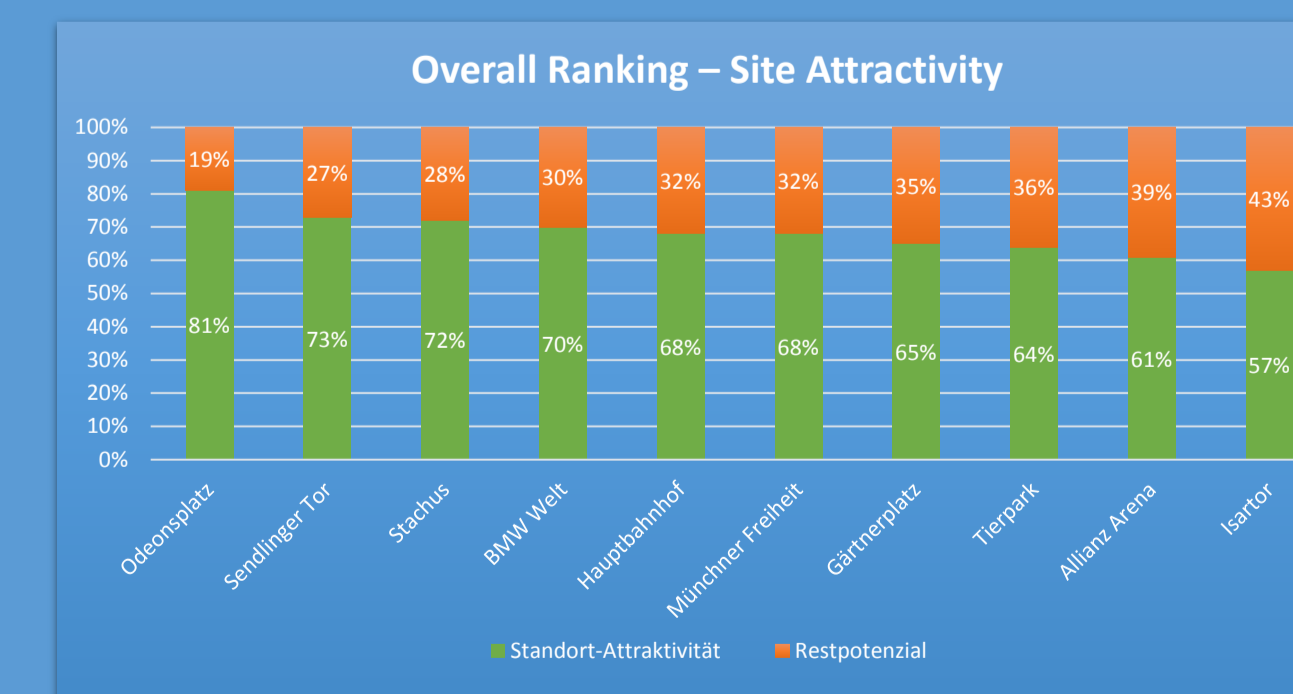
Integrating Pedelecs into Bike Sharing Systems



- E-Bikes currently at 11% market share to the total market in Germany
- More than 1.6 Million E-Bikes on the roads in Germany
- Competition for innovative public bike rental systems in 2009:
 - Implementation of electric assist bicycles - so-called pedelecs - into bike sharing systems in Stuttgart and Aachen
 - 100 Pedelecs at 45 charging stations in Stuttgart to cover longer distances and hilly areas
 - Enabling customers to test and try electric powered vehicles without having financial or technological risks

Evaluation method for distribution and assessment of stations

- On-site inspection and analyzation of 20 locations in Munich
- Classification by different attributes:
 - Target groups: tourists (non-local), visitors (familiar with places), students, occasional riders and commuters
 - Trip Purpose: leisure or recreational time, sightseeings, trip to/from work, trip to/from university/school, E-Bike trial ride
 - Transport Connectivity: availability of underground-, tram-, bus- or s-train stations, proximity to main cycle routes, existence of park and ride facilities close by
- Final assessment by five-stage scale and output of overall ranking of most attractive sites:



Results of Online-Survey among bike sharing users

- 27 questions about usage and experience of bike sharing and pedelecs
- 454 participants (addressed via Call a Bike Newsletter) between 19 and 75 years
- Location preferences:

