Scientific Research
Cyclists Data Analysis
Navigation & Data Collection
Evaluate Cycle Networks
Cycling Master Plans
National Goals & Funding
SCIENTIFIC RESEARCH
enabling safe, comfortable cycling & green, efficient logistics

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CYCLING RESEARCH @ AIT

• Logistics & Tour Planning
  • Parcel delivery
  • Redistribution in bike-sharing systems
CYCLING RESEARCH @ AIT

- Human Factors & Route Choice
  - Analysis of potential
    - Active mobility
    - Behaviour changes
  - Routing
    - Intermodal (one route can consist of several modes)
    - Tailored to needs of target groups
    - Alternative routes
CYCLING RESEARCH @ AIT

- Urban Planning
  - Survey and analysis of bicycle traffic
  - Location planning for bike-sharing systems
  - Impact assessment
LOGISTICS & TOUR PLANNING

two-stage parcel delivery with city hubs & cargo bikes

http://www.emilia-project.at
tour planning for cargo bike fleets
optimal routes respecting battery capacity
BICYCLE DESIGN

custom bicycles for logistics, families with children, the elderly,...
tilting cargo tricycle for parcel delivery
tilting cargo tricycle concept for families with children

project flexiTrike, https://www2.ffg.at/verkehr/projekte.php?id=1258
URBAN PLANNING

location planning for bike sharing systems

https://bit.do/planbiss
raw
street graph
planner defines maximum extent of bike-sharing system
extraction of junctions
planner defines barriers
(areas without stations)
7140
planning cells
input data: population density
input data
shopping POIs
demand model (estimated with historical trips)
estimate demand between stations

30 most important connections
estimate demand between stations

300 most important connections
expert planning tool
SCIENTIFIC RESEARCH
enabling safe, comfortable cycling & green, efficient logistics…
one equation at a time