TRASHH: Mindset and corporate culture needed to encourage street cleaners to use cargo bikes

Velo-city 2019, Session 6B - Cargo Bikes - Reshaping Cities
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Research project:

- TRASHH: Technological and economic analysis of the application possibilities of cargo-bikes in communal companies through the example of Stadtreinigung Hamburg (SRH)
- The project is funded by the German Federal Ministry of Transport and Digital Infrastructure within the National Cycling Plan 2020 (NRVP)
- Implemented in cooperation with the German Aerospace Centre’s (DLR) Institute of Transport Research
- Timeframe: 2016 to 2020
TRASHH: Opportunities for E-Cargo Bikes in Municipal Waste and Cleaning Services

DLR analysis prior to pilot testing:
- 12 out of 23 analysed cleaning processes have high potential for use of cargo bikes
- Approx. 62 platform trucks could be substituted by e-cargo bikes
- Substitution of platform truck by three cargo bikes is cheaper (annual total cost of ownership) & can transport same weight and volume

- Pilot testing of seven e-cargo bikes in different work processes / SRH cleaning operations
- Main interest: is upscaling useful?
Challenges

- Cargo-bike market is still in its infancy
- Technical challenges with one bike

Personnel
- After a few months on the cargo bike one out of two drivers switched back to the platform truck
- Finding new drivers for additional bikes has proven to be rather difficult
- Most team leaders were not enthusiastic about the e-cargo bikes as they required change of work flows
From pickup trucks to e-cargo bikes?

- How to encourage people to use e-cargo bikes for their daily work or **what type of person** is needed for commercial e-cargo bike operations?
- How do **identities and status** need to change in a public company with more than 3,000 employees to give bike operations a realistic chance?
- Can **incentives** help to encourage workers to use bikes instead of pickup trucks?
- And what does it take to get **supervisors** on board even if efficiency as measured today decreases using e-cargo bikes?

> Qualitative interviews with e-cargo bike drivers, supervisors, colleagues and those who didn’t want to use the bikes
Cargo-bike drivers

- 5 out of 8 drivers have no driving license
- 6 drivers are using bicycles as main mode of transport in private life
- 5 voluntarily decided to participate in the pilot
- Advantages: independence and possibility to organize time and work freely
- Disadvantages: weather-dependency, cycling infrastructure for cargo-bikes
- All drivers have daily contact to their colleagues and feel supported by them
Required personalities

Factors supporting willingness to use e-cargo bikes

Person/ driver
- Sense of responsibility
- Own initiative
- Self-organisation
- Motivation
- Interested in mobility increase
- Identification with bicycles

Organisation
- Change and innovation are company objectives
- SRH sustainability strategy and climate change objectives
- Opportunity to increase mobility options
- Visibility
- Change Agents

Technology
- Technology task fit
- Bike design
- Bike features
- Bike storage close to point of use
Required personalities

Factors hindering willingness to use e-cargo bikes

Person/ driver
- Convenience
- Weather dependency
- More visibility of individual work performance
- Missing willingness to change
- Own advantage not visible
- Fear to loose vested rights and privacy

Organisation
- Point of introduction
- Voluntary basis
- Missing integration into hierarchy

Technology
- Technical defects with introduction
- Size of cargo bikes
- Apprehension about technology
Supervisors as change agents

- Authority: employees trust supervisor takes the right decision
- Rationality: supervisor explains importance and rightness of change to potential drivers
- Process management supports change and offers assistance in change management
- Catalogue of possible applications for e-cargo bikes
- Adjustment of performance evaluation
- Leading by example: company bicycles for supervisors
  - Control trips
  - Meetings within proximity to work place

Workshop with supervisors and drivers @ Stadtreinigung Hamburg
Corporate mindset & culture

- Current culture is built on directions from above, bottom-up process is weak
- Freedom of decision making leads to perception of lower legitimisation and importance
  - Change needs to be introduced and led from the top
  - With time acceptance grows
  - Incentives can support change

”New is always stupid, until new becomes old, then it’s cool.”

We heard this statement several times with regards to culture change at SRH, mainly from supervisors and colleagues of cargo-bike drivers.
Incentives supporting change

Innovators of first phase:

- Small individual incentives – possible due to small number of e-cargo bikes in use, for instance
  - Taking the cargo bike home after work
  - Overnight storage of e-cargo bikes close to point of use > shorter commuting travels
  - Participation in publicity events
  - Stories on SRH Intranet, employee’s magazine, etc.
Incentives supporting change

Ideas for incentives in case of upscaling:

▪ Equating e-cargo bikes to other motorized vehicles
  ▪ Daily set-up time
  ▪ Driver contracts for cargo-bikes incl. small extra pay
  ▪ Extra pay if others with a lower pay level drive the bike

▪ CO2 account per region
  ▪ Credit for days when cargo bikes are used – in line with SRH goals to reduce fuel consumption and minimise inner-city traffic
Preliminary findings

An increasing number of our employees only have a driving license for passenger cars or no driving license at all, for them e-cargo bikes

- are a mobility increase
- offer extended working options that wouldn’t exist without means of transport

For SRH, e-cargo bikes can be an option to

- overcome the shortage of truck drivers
- integrate employees with special needs
Preliminary findings

Increased visibility in the urban landscape
- Closer proximity to citizens
- Higher visibility – customized cargo-bikes are still a novum and eye-catcher
- Back to the roots – the cargo-bike could be today’s version of the traditional sweeping cart

Improved cleanliness
- On a bike one is closer to the dirt and rubbish on the ground and it’s easier to see it, stop and pick it up

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Thank you for your kind attention...

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