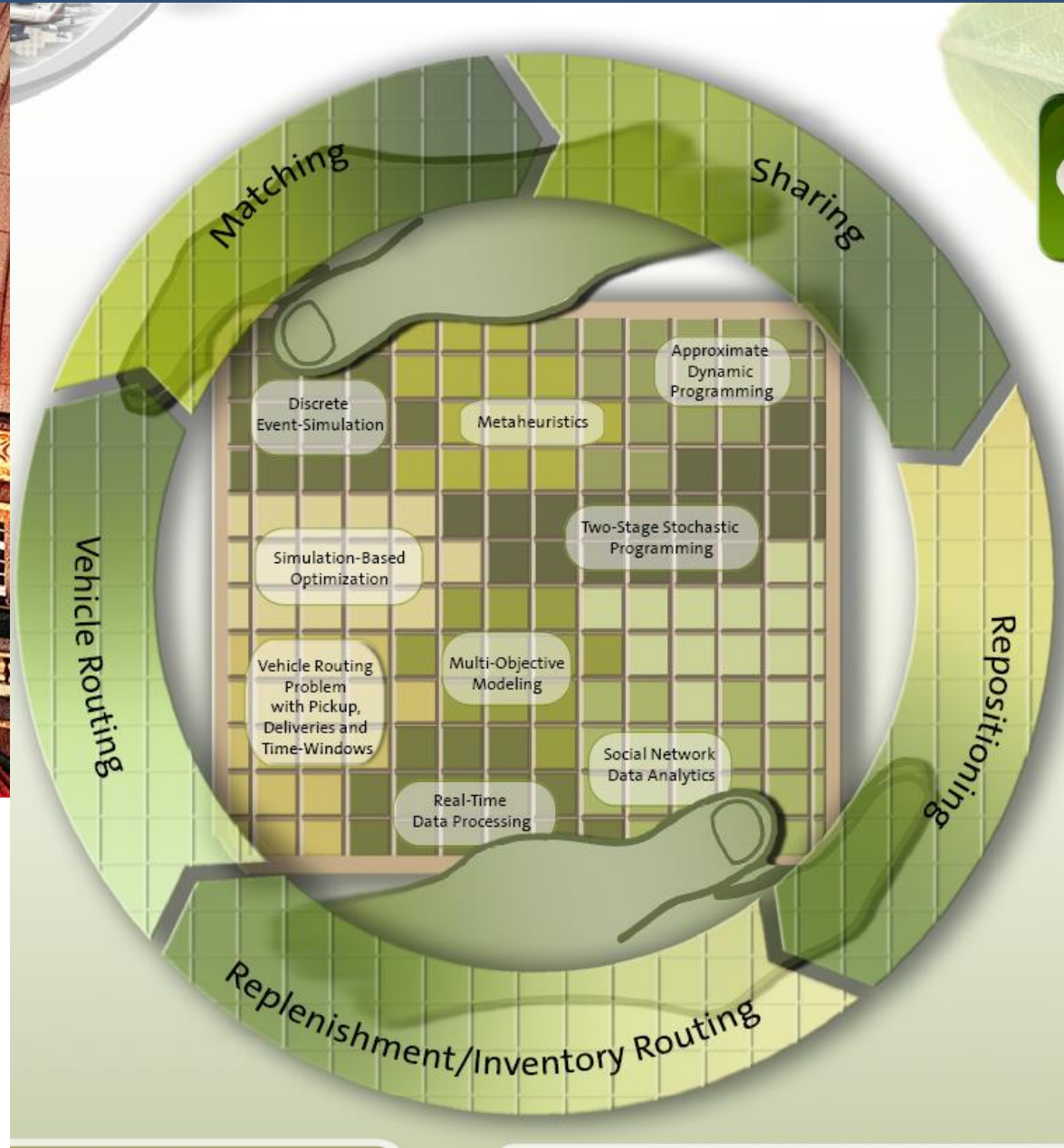


SHARING AND COORDINATION TO REDUCE TRANSPORT- RAISED POLLUTION

Aktionstage Nachhaltigkeit Lunch Session 2016

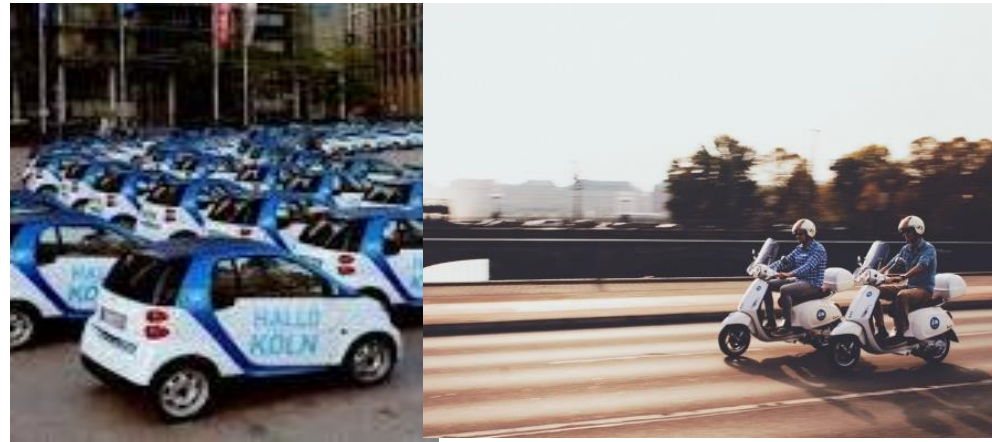
Frederik Schulte & Stefan Voß
Institut für Wirtschaftsinformatik



Collaborative Truck Scheduling in Chile



Car and Vespa Sharing in Hamburg



Empty Containers in Latin America



Pushbacks and Taxiing in Oslo



■ Transport problems with a severe environmental impact!

Models and Applications of related Problems with similar Objectives:

- *Collaborative Truck Scheduling*: Planning model reduces up to 25 % of truck emissions
- *Vehicle Sharing*: Realistic demand and relocation models for *Free-Floating Car and Scooter Sharing* make many self-owned vehicles unnecessary
- *Coordinated Pushbacks* may reduce taxiing emissions by 20 %
- *Empty Container Repositioning* considering emissions may reduce respective maritime pollution by 10-15 %

→ Modeling analogies build a framework

- Future Work:
 - Implementation with industry partners (within the existing consortia)
 - Applications for project funding
 - Spin-off development

Frederik Schulte

Institute of Information Systems

FREDERIK.SCHULTE@UNI-HAMBURG.DE

