Iceland Liechtenstein Norway grants

Narodowe Centrum Badań i Rozwoju

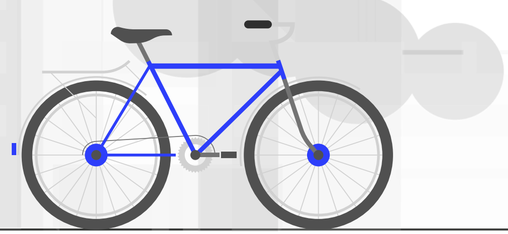
CO-DESIGNING INCLUSIVE MOBILITY

COMOBILITY AN INTERNATIONAL RESEARCH PROJECT

WHAT IF PEOPLE VALUED EFFICIENT, SAFE AND ECO-FRIENDLY MOBILITY OVER CAR OWNERSHIP?

COMOBILITY’S AIMS

- an analysis of attitudes and behaviors of Warsaw residents to learn about barriers and opportunities in using mobility alternative to private cars
- identifying actions that can facilitate a long-lasting change in transport habits
- creating climate-neutral solutions
- creating a publicly available package of methods and tools



PROCESSES AND METHODS

CO-DESIGN PROCESS

Tight cooperation with:

- citizens,
- municipalities,
- businesses,
- other stakeholders

at each stage of the project

DATA COLLECTION IN COMOBILITY

MACHINE LEARNING MODEL

TRANSPORT MODEL

EXISTING DATA

EMISSION MODEL

TEAM

UNIWERSYTET WARSZAWSKI

SGH
Szkoła Główna Handlowa w Warszawie

Politechnika Warszawska

miejsca

FRIDTJOF NANSENS INSTITUTT
FRIDTJOF NANSEN INSTITUTE

NILU
Norsk institutt for luftforskning
Norwegian Institute for Air Research

Lublin
MIASTO INSPIRACJI

CO-OPERATION

1. City of Warsaw
2. Association of Polish Cities
3. City of Cracow

PRODUCT

A PACKAGE OF METHODS AND TOOLS

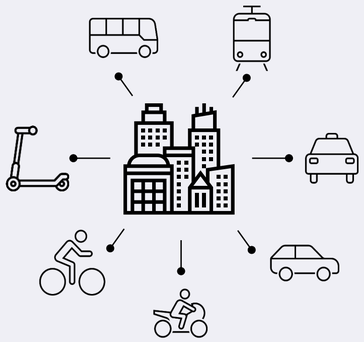
- to **co-create** solutions that change mobility choices
- to **simulate** the effects of hypothetical scenarios in an integrated model of individual transport behavior, city traffic and air quality
- **scalable** to other cities

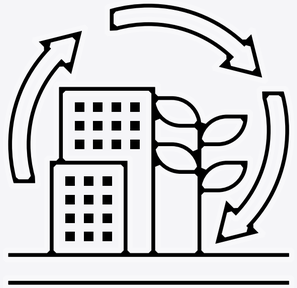
A SCALABLE PACKAGE OF TOOLS AND METHODS

WARSAW

ENVIRONMENTAL MODEL

TRANSPORT MODEL





TRANSPORT BEHAVIOUR

QUANTITATIVE AND QUALITATIVE STUDIES

CITY LABS

+

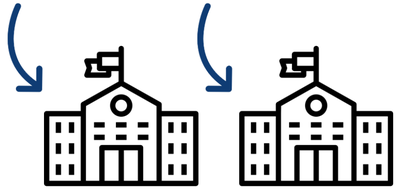
OTHER CITIES

Source of some icons: https://www.flaticon.com/authors/good-ware

CITY LABS

2021/22

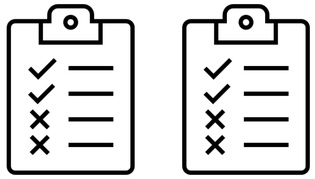
2022/23



- involving local school communities, experts, decision makers, researchers and entrepreneurs in the process of generating knowledge

- Co-creating solutions during workshops with a wide range of stakeholders
- Experiment: an implementation of solutions developed during the workshops
- Interventions in the urban space
- Air quality measurement
- Educational activities
- Survey research
- City Labs evaluation
- Assessment of the effectiveness of educational activities and interventions

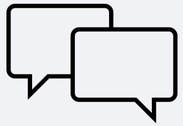
QUANTITATIVE STUDY



2 survey rounds

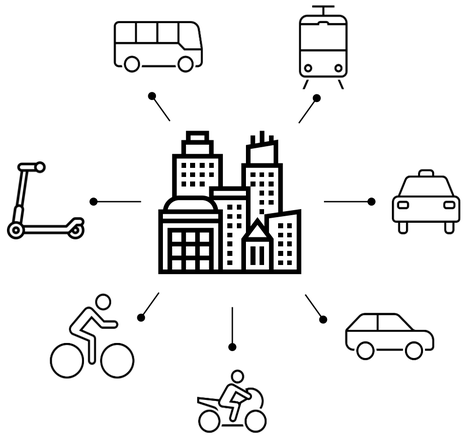
- data on mobility choices
- a representative sample (Warsaw and the surrounding area)

QUALITATIVE STUDY



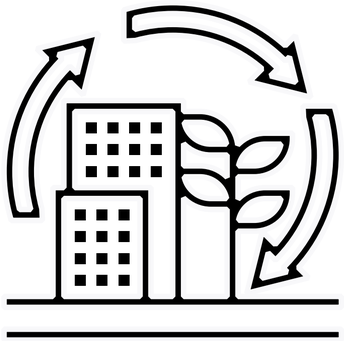
- in-depth interviews
- stakeholder engagement
- considering the knowledge and perspective of local government in the entire process of creating solutions in the CoMobility project

TRANSPORT MODEL



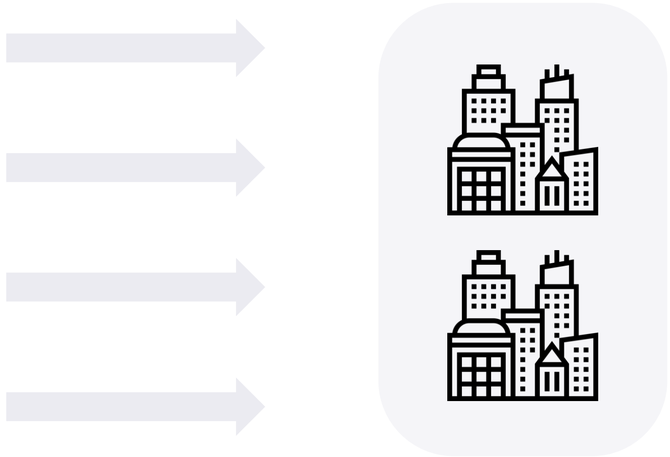
- Using Warsaw’s transport model for traffic and pollution modeling
- Taking into account the scenarios developed in the project (City Labs)
- Combining machine learning models for mobility with data collected in the surveys

ENVIRONMENTAL MODEL



- Models integrating machine learning solutions with environmental data
- E.g. pollution emission in particular areas

OTHER CITIES



- Workshops for local governments presenting the results of City Labs
- Feedback on the co-creation process and guidelines for City Labs in different context
- Feedback on the developed solutions
- Platform for the exchange of knowledge and experiences

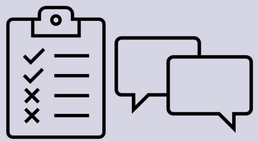
COMOBILITY: CO-DESIGNING INCLUSIVE MOBILITY

WARSAW

ENVIRONMENTAL MODEL

TRANSPORT MODEL

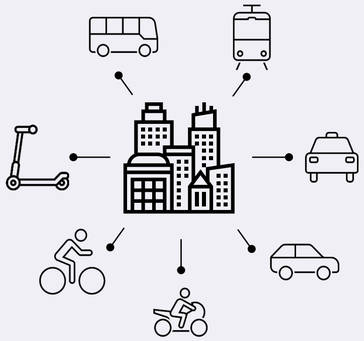
TRANSPORT BEHAVIOUR

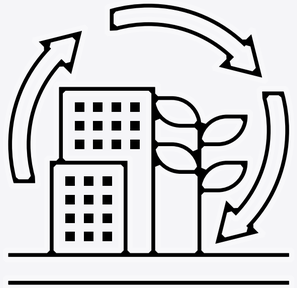


QUANTITATIVE AND QUALITATIVE STUDIES

CITY LABS

+





OTHER CITIES

Source of some icons: https://www.flaticon.com/authors/good-ware