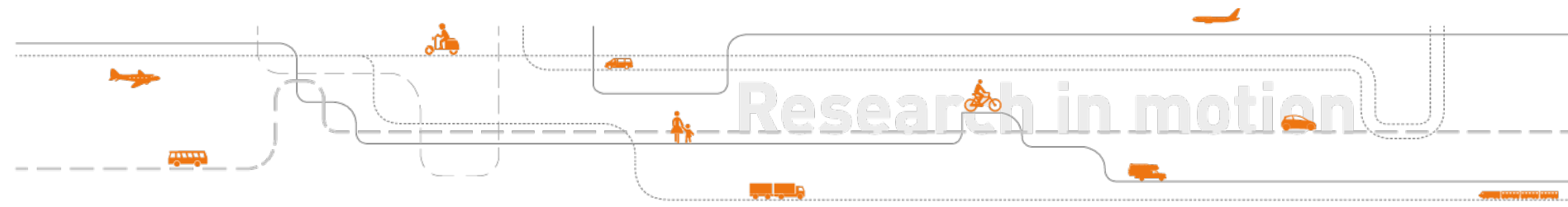


Gendered Mobilities

Tanu Priya Uteng, PhD.

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The ingenious cyclewear Victorian women invented to navigate social mores

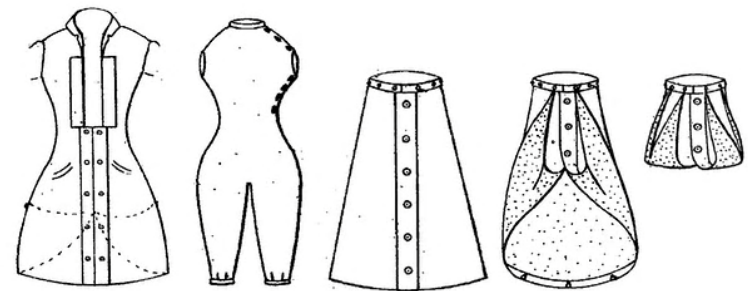
Patents by female inventors from the 1890s reveal the creative ways women made their body mobile through clothing

Cycling's **“dress problem”**

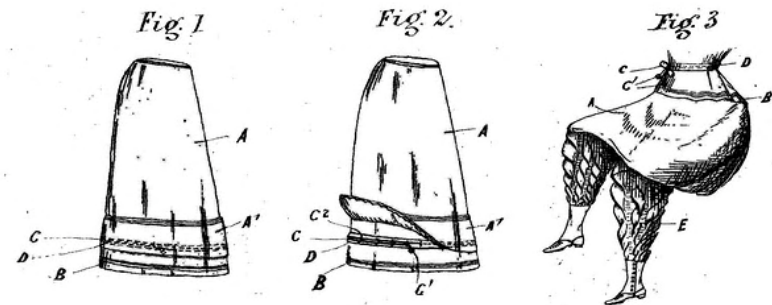
primary vehicle for women's entry into the **world of patenting.**



▲ An advertisement for Stower's Lime Juice Cordial from around 1898 showing a fashionable Victorian woman relaxing while having a refreshing drink. Photograph: Alamy



▲ Henrietta Müller's 1896 patented convertible cycling suit. Photograph: Handout



▲ Julia Gill's 1895 patented convertible cycling semi-skirt. Photograph: Handout



What are the **knowledge gaps**?

How can we look for other needs/ attitudes/perceptions/

inventions/interventions/designs/programmes **hidden in plain sight**?



Clearly divided gendered travel patterns

Snapshot from literature review

- Scheiner 2018
 - Scheiner and Holz-Rau, 2017
 - Konrad, 2015
 - Heinen and Chatterjee, 2015
 - Scheiner, 2013
 - Paleti et al., 2011
 - Bauer et al., 2011
 - Scheiner et al., 2011
 - Holz-Rau et al., 2011
 - Bühler and Kunert, 2010
 - Hjorthol, 2008
 - Sandow, 2008
 - Best und Lanzendorf, 2005
 - Best und Lanzendorf, 2005
 - Choo and Mokhtarian, 2004
 - Polk, 2003
 - Valley, 2003
- + Priya Uteng (multiple publications 2005-2018)

Clearly divided gendered travel patterns

■ Trip purposes

- Women - fewer job and business trips, more shopping and escort trips
- Women - more varied/complex activity patterns

■ Trip chains

- More complex trip-chaining - varied activity patterns

■ Daytime distribution of trips

- Women - go out by night less often
- Women - travel less often in rush hour

Clearly divided gendered travel patterns

■ Licencing and car availability

- Higher for men

■ Mode choice

- Women - passengers, men - drive
- Women- use public transport; walk more often
- Women - more multimodal / variable
- Vehicle choice - Women drive smaller cars
- Where cycling is a part of the travel culture, women bicycle longer distances.

■ Trip distances and trip duration

- Shorter for women; especially for job trips, but also other purposes
- Women participate less in long distance travel (commuting, business)

How things **should** have been
done?

Development, Gender and Transport

- What kind of (daily) **mobility needs** do women have?
- What are the **limitations** they face wrt **time constraints, financial constraints, safety constraints etc.**
- Can we **minimize these constraints**? For ex. (i) through spending less time and money on their daily travelling, (ii) can they use their time differently?
- What **ratio of women** are in the **different employment / services**– manufacturing services, care services etc.?

MAPPING...PLOTTING...INTERLINKAGES

Gendered layerings

Mapping

- Accessibility
- Affordability
- Availability
- Acceptability

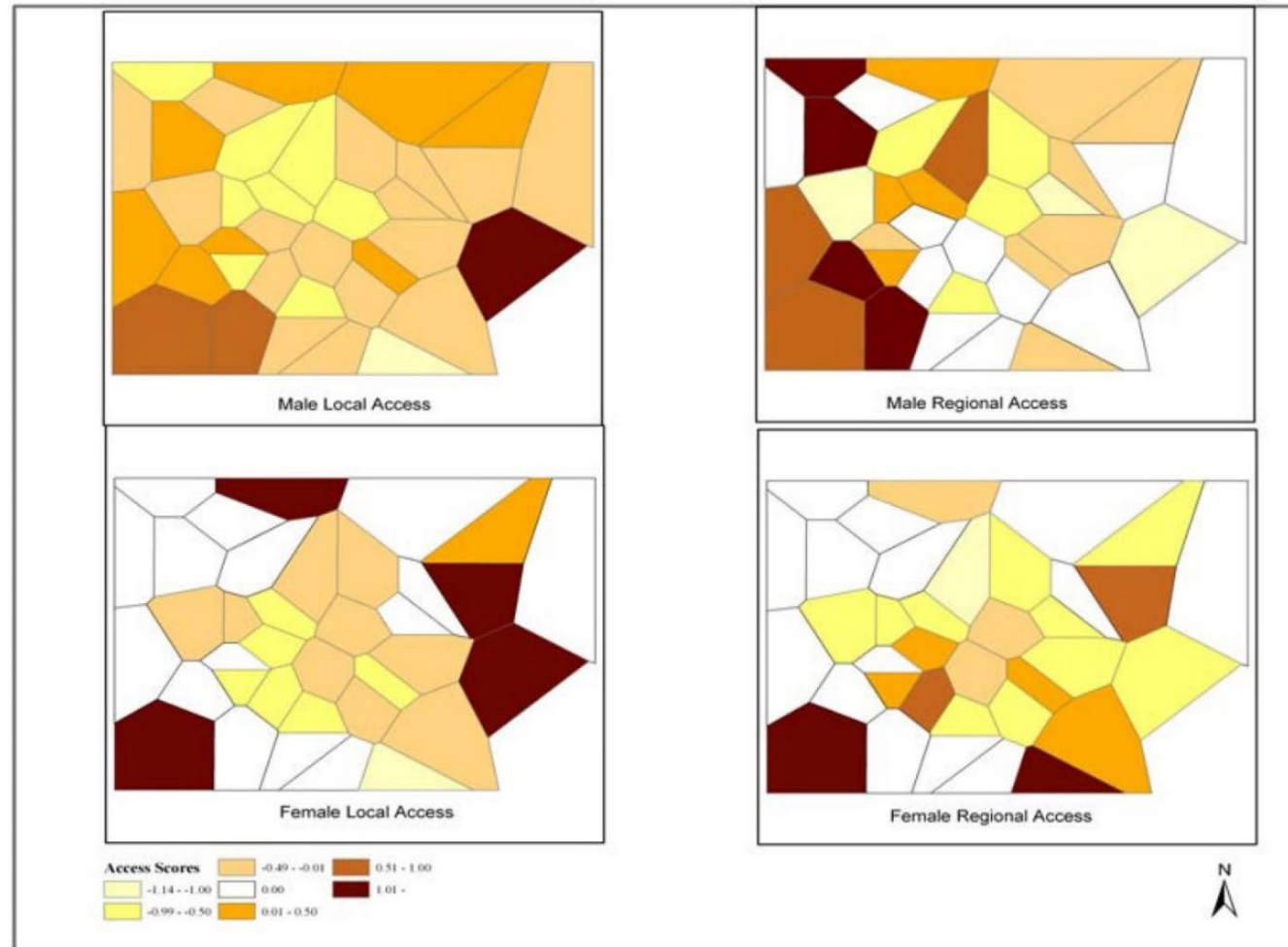


Figure 14. Average access scores by location and gender in Chennai, India

Source: Srinivasan, 2008

How things **have been** done?

Hegemony of trips planned for **peak hour, commute, fixed employment, fixed areas, Transport modelling exercises.....**

The 'desired' Target groups

- **Commuters**
- **Men**
- **9-5 jobs**

Flexible trips, trip-chaining, travelling with **children**, linking multiple, geographically spread **low-end / flexible jobs**.....???

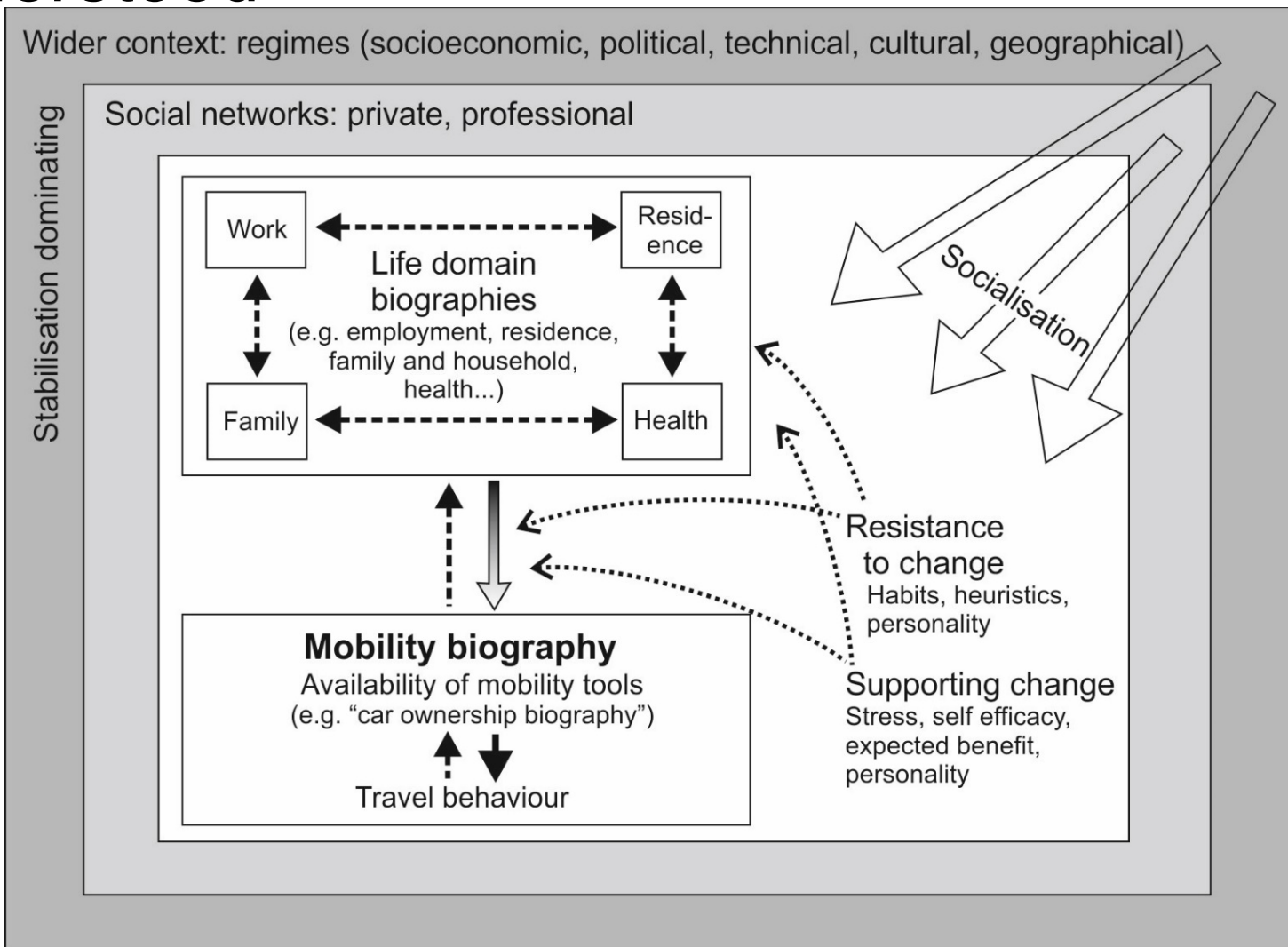
The 'undesired' Target groups

- **Women**
- **Family with young children**
- **Shift / Part-time workers**
- -----

Biggest issues. based on **literature reviews, surveys, interviews.**

1. **Public transport, walking and bicycling infrastructure** – inadequate attention.
2. **Gendered nature of infrastructure** – poorly understood
3. **Daily Mobilities** – not integrated with other developmental policies like health, employment generation, education, welfare services etc.
4. The relationship between **gender equality and sustainability** is poorly understood, or NOT understood at all.

Gender – life stages – transport : poorly understood



- Primary interrelation
- - - - Other interrelation
- ➔ Process of travel behaviour change

Source: Scheiner (2018)

What has this **lead** to?

(-) Convergence

Direction of this convergence. Why (-)?

1. While men are still driving more than women, BUT the gap is decreasing over time for all life-cycle stages
2. Trip purposes *Convergence*
3. Licence holding *Convergence*
4. Car availability *Convergence*
5. Mode choice *Convergence*
6. Trip distances and trip duration *Convergence*

How to move FORWARD?

Transport vs. networked mobility

- **Transport** classified as **'hard infrastructure'**
- BUT Transport vis-à-vis **Daily Mobilities** is a **dynamic element**– Multimodality, MaaS, Digitalisation, Transition, Intermediate means of Transport, bike sharing, Qualitative studies etc. as part of the entire travel chain with particular reference to women's needs.

A real good chance of promoting sustainable travel behaviour IF women's travel preferences are made the unit of analysis– Walking, bicycling and PT

Understanding the links between gender and transportation

Revealed, preferred and digital mobilities

- Given the **current system, roles, jobs, gendered divisions** – what are the current mobility needs?
- **Division of labour** in different sectors. What are the current and future mobility needs of future?
- What kind of transportation policies and investment will ensure that the **accessibility of women** increase?
- Are there **systemic and systematic flaws** responsible for gender-blind transport policies?
- How do **land use regulations** or the lack of it affect the mobilities in urban and peri-urban areas?
- Which kinds of mobilities (both urban and rural) are being **supplemented / complimented** or substituted by mobile phones?

Example 1: Gender-disaggregated data and gender budgeting

Gender budgeting vis-a-vis travel patterns

If women were to adopt the travel patterns of today's men...

...the modal share by car would increase by 17 %

...CO₂ emissions from car traffic would increase by 31%

...the additional demand for driving and parking space would add up to 190 Møllevångstorget (standard town square)



Source: City of Malmö Planning Office, Daniel Svanfelt | Strategy Officer

Example 2: Merging **STATIC + DYNAMIC** =



Example 3: Gender Impact Assessments (GIA)

- Assessment procedure-
 - **Integrate gender equality in planning**
 - **Assess the impacts**
 - **Mitigate impacts**
 - **Give guidance for subsequent stages**



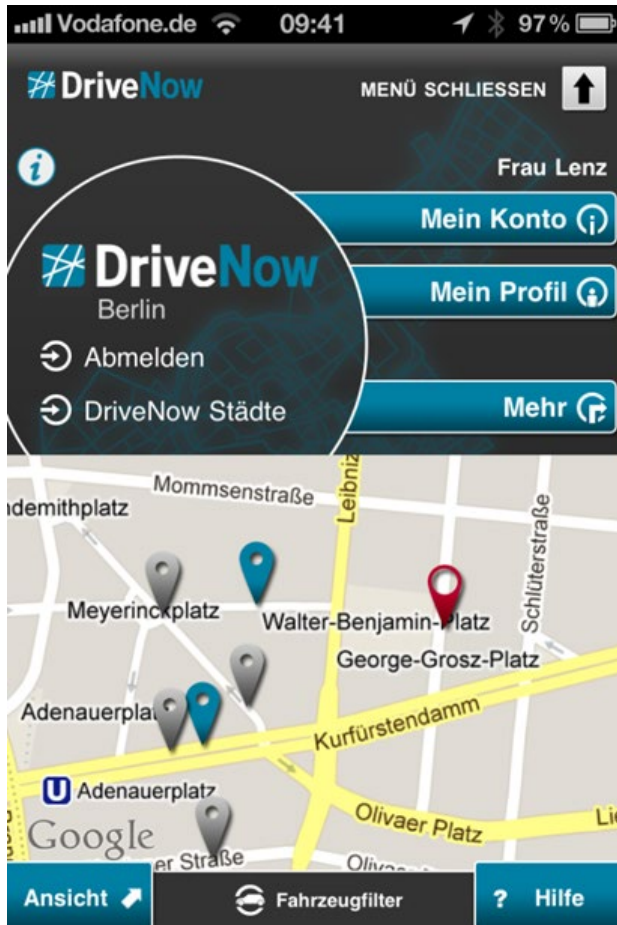
- Clear steps / stages
 1. Start-up
 2. Scoping (identify field of work)
 3. Baseline
 4. Identify and involve relevant groups
 5. GIA's impact on the plan or on the content of the project
 6. Investigate the impacts of proposed measures
 7. Mitigate the impacts of the proposed action
 8. Assess the impacts of the final design
 9. Write GIA-report
 10. Give suggestions on integration of gender measures in the subsequent planning
 11. Follow-up

Gender Mainstreaming @

– Macro-Meso-Micro

- Gendered **needs, power structures, negotiation processes**
- **TRANSITIONS – Digitalisation - Smart Cities- Smart mobilities** – What do they mean for women?
- What are the systematic / financial benefits? etc.
– demands further consideration.

For ex: Smart Mobility – station-based and flexible carsharing. Case- Germany



Source: Lenz 2017

Users of

..... station-based carsharing

40% women – 60% men

..... free-floating carsharing

30% women – 70% men

age group up to 35y

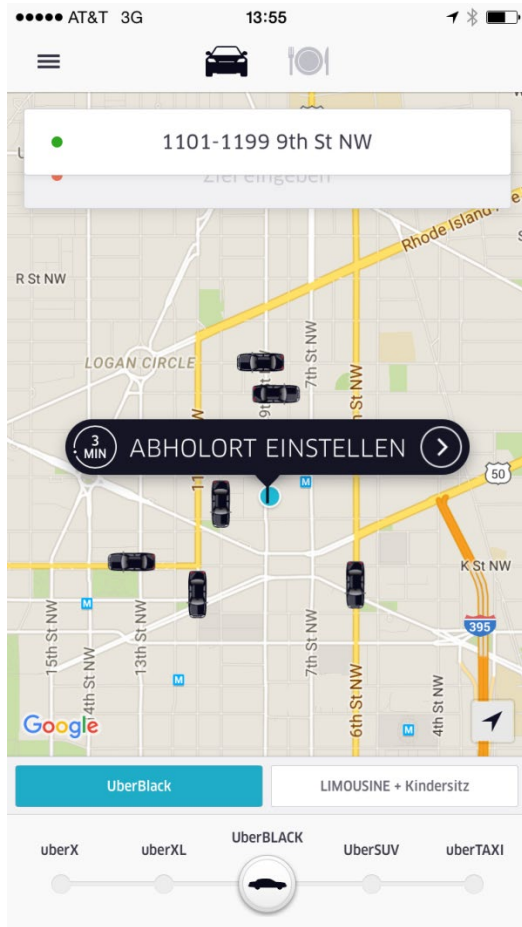
living in 1-2 person households

above average formal education

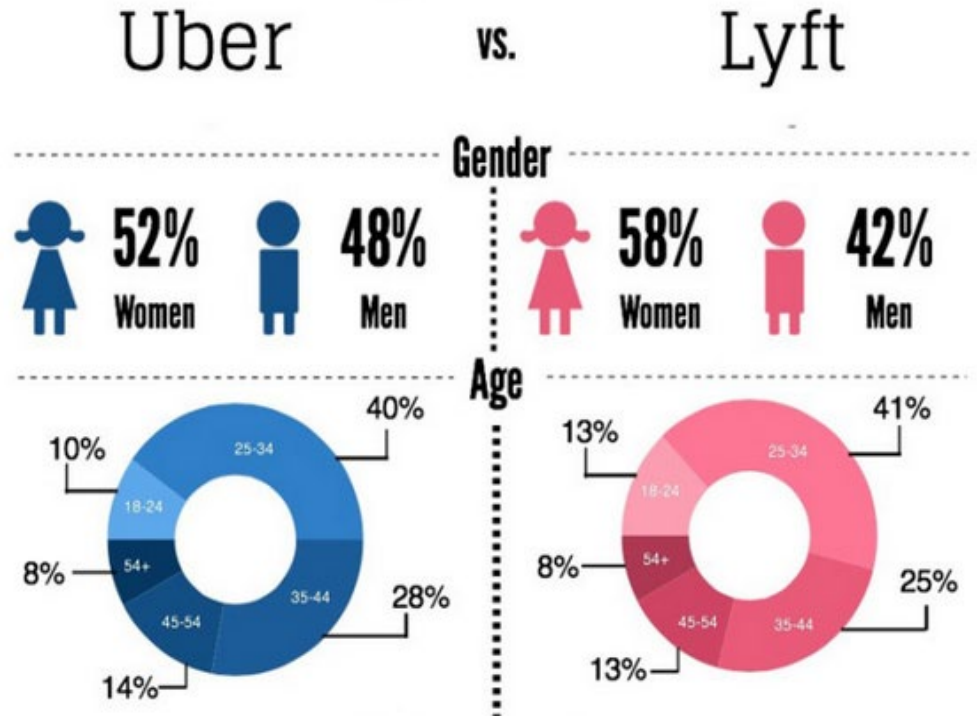
above average income

Loose 2010, Riegler et al. 2016

Smart Mobility – ridesharing / ridehailing. Case- Germany



Source: Lenz 2017



Source: ciscosolutions.com

@Moving «smartly» forward: Macro-Meso-Micro mapping

- **MACRO** – build focus on PT, WALKING, BICYCLING through National Transport Policies
- **MESO** – Regional planning, urban planning policies-
Ex: locational decisions - training centers, high schools, health centers etc. accessible by PT, walking, cycling.
- **MICRO** – Road design, Apps, PT routes / timings / accessibility mapping.

Thank you!!