

Liveable Cities, Useable Mobility

Sunny Kodukula, Project Coordinator, Wuppertal Institute for Climate, Energy and Environment

WRI Liveable Cities Conference

26 October 2017, Istanbul, Turkey

We like our cars



Photo by Santhosh
Kodukula, 2011

And we love
them more



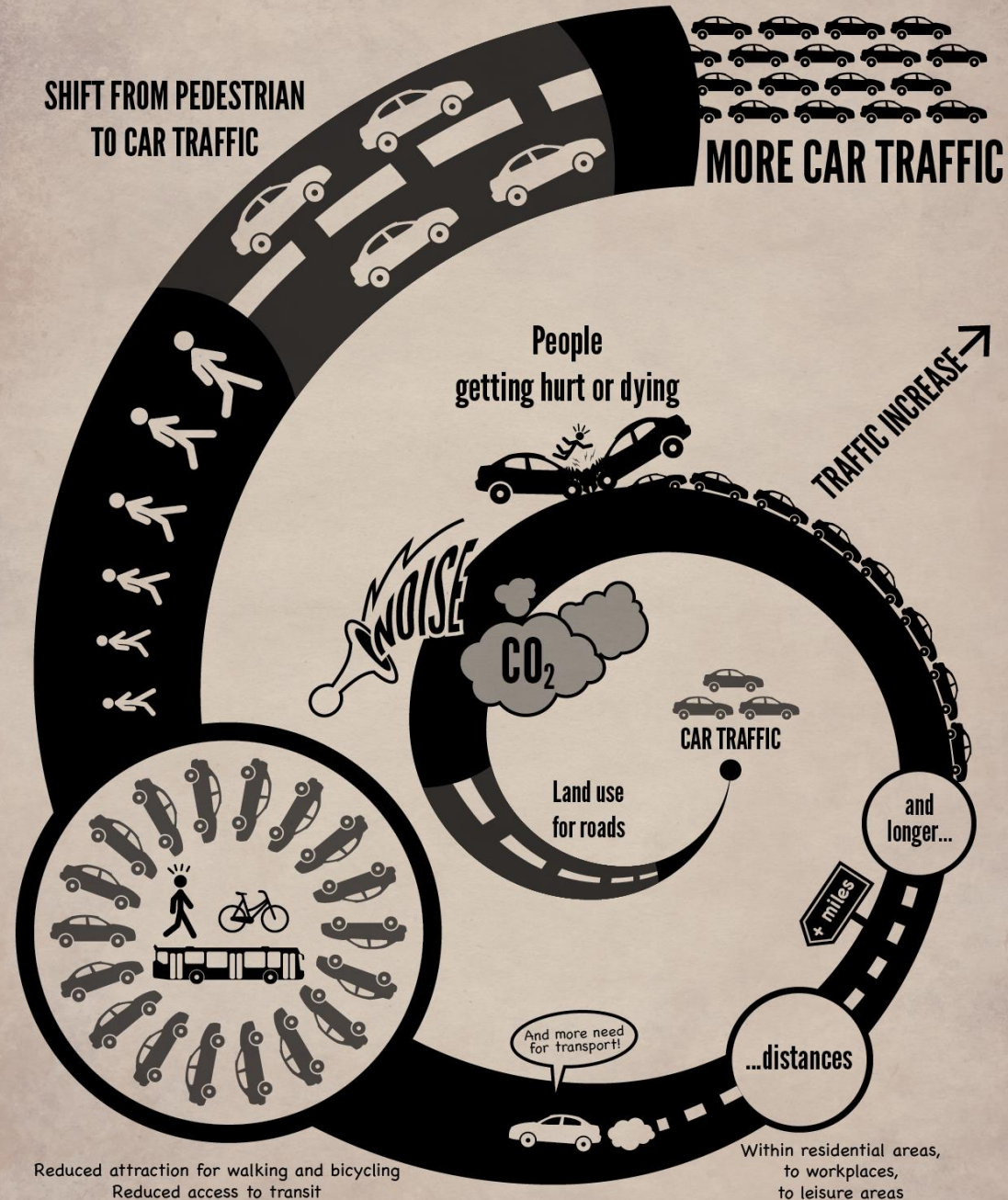
Resulting in

...



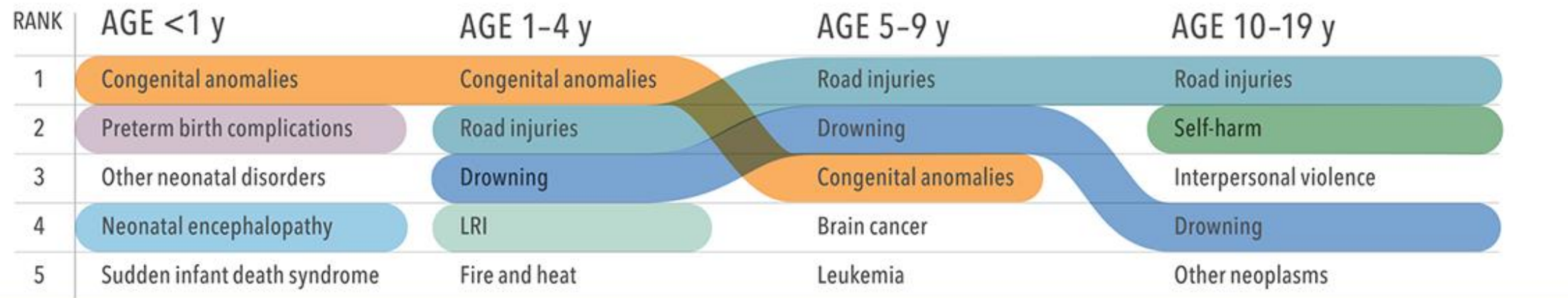
Induced Demand

- > Greater
 - Demand for space
 - Impact on health
 - Deterioration of environment
 - Impact on traffic
 - Demand for travel

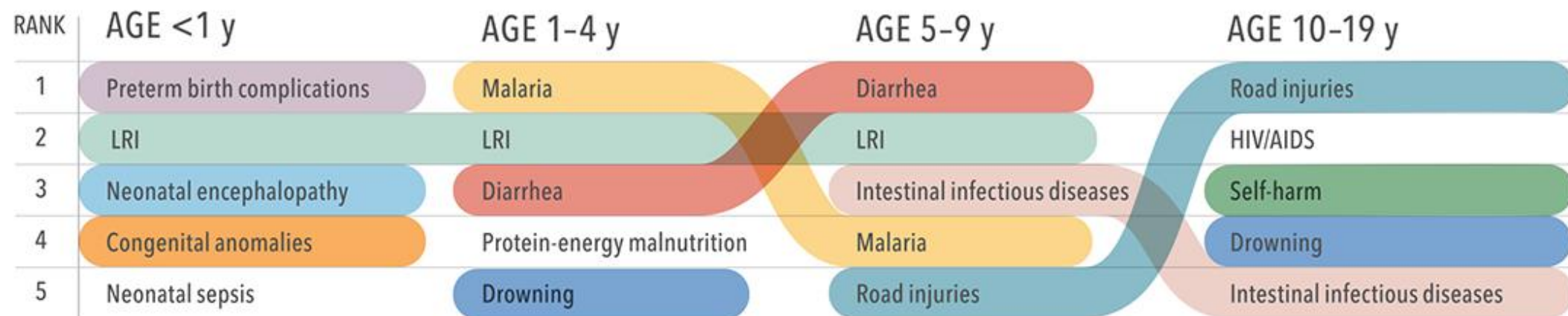


Top 5 Causes of Death by Age Group in Developed and Developing Countries, 2013

DEVELOPED COUNTRIES



DEVELOPING COUNTRIES



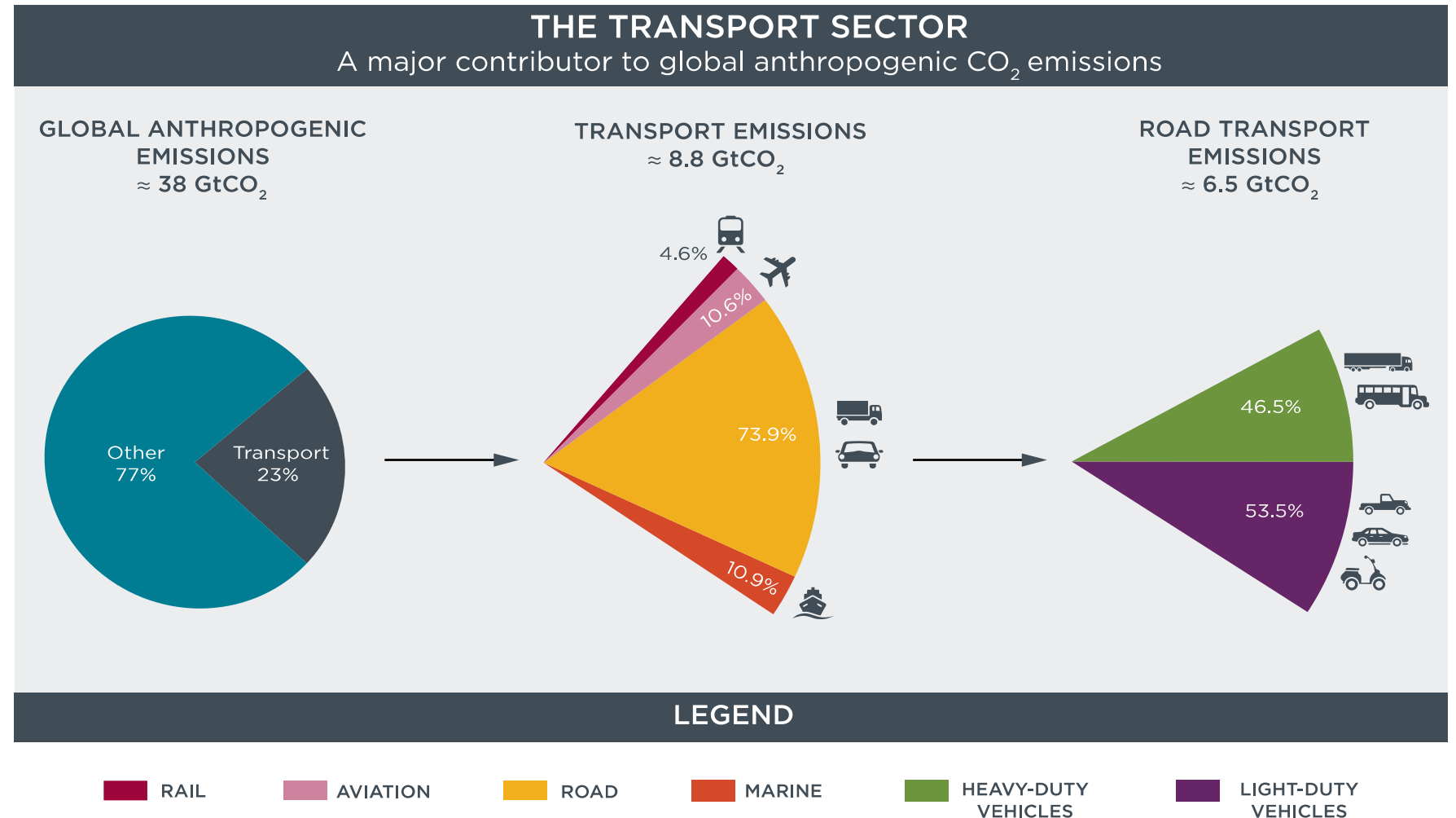
LRI=lower respiratory tract infections

Air Quality

- In most of the developing cities
- India and China are getting worse
- Majority of urban emissions from transport



Global emissions



Source: Kodjak D, 2015, Policies To Reduce Fuel Consumption, Air Pollution, and Carbon Emissions from vehicles in G20 Nations, May 2015, The International Council for Clean Transportation (ICCT)

As humans we
want cities
where we can
see other
people and
easier access
to jobs,
services

Cities for us

Liveability



Liveable Cities & Urban Life

What influences Liveability?

Direct transport related factors:

- Infrastructure
- Accessibility
- Quality of architecture
- Urban design
- Public Transportation
- Public places

Other factors:

- Safety/Crime
- Schools and education
- Recreation
- Political stability
- Availability of goods/services
- Economic/Business conditions

Livable Cities & Urban Life

Ranking of Quality of living

Source:

<https://www.mercer.com/newsroom/2017-quality-of-living-survey.html>

Mercer Quality of Living Survey 2017

Top 10 Cities (worldwide):

- Vienna, Austria (*1st*)
- Zurich, Switzerland (*2nd*)
- Auckland, New Zealand (*3rd*)
- Munich, Germany (*4th*)
- Vancouver, Canada (*5th*)
- Düsseldorf, Germany (*6th*)
- Frankfurt, Germany (*7th*)
- Geneva, Switzerland (*8th*)
- Copenhagen, Denmark (*9th*)
- Basel, Switzerland (*10th*)

Vienna



Zurich

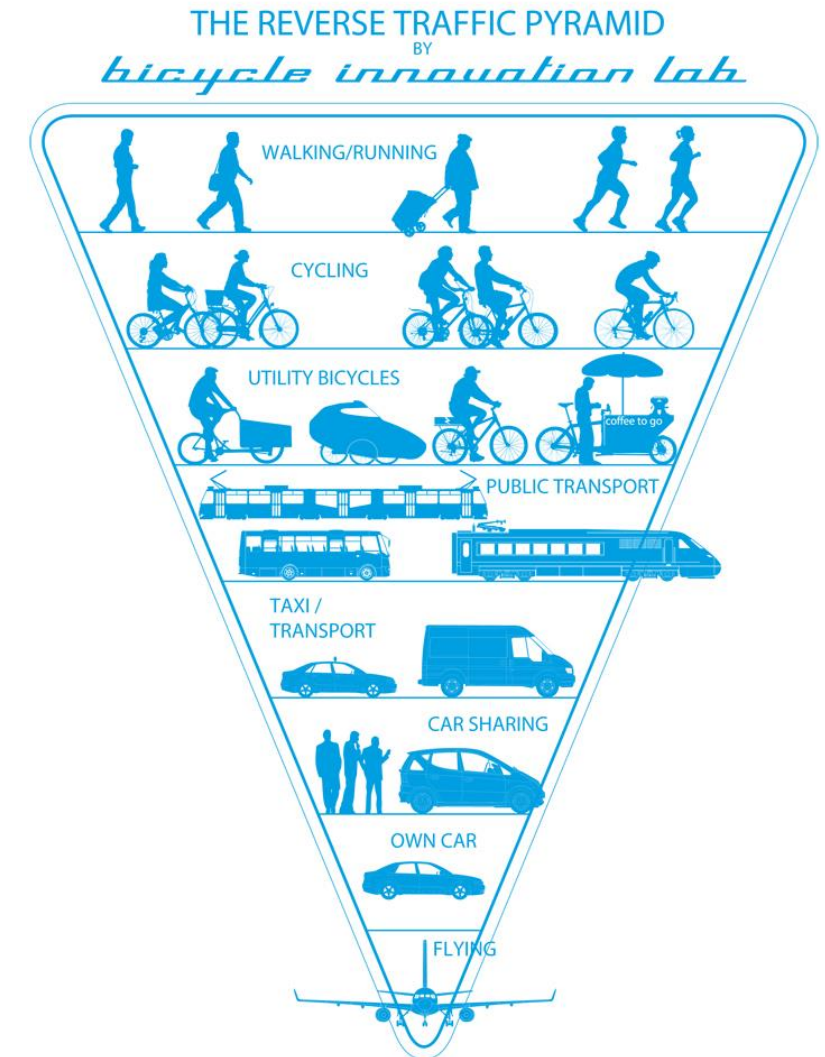


Munich



Overall aim of Sustainable Mobility

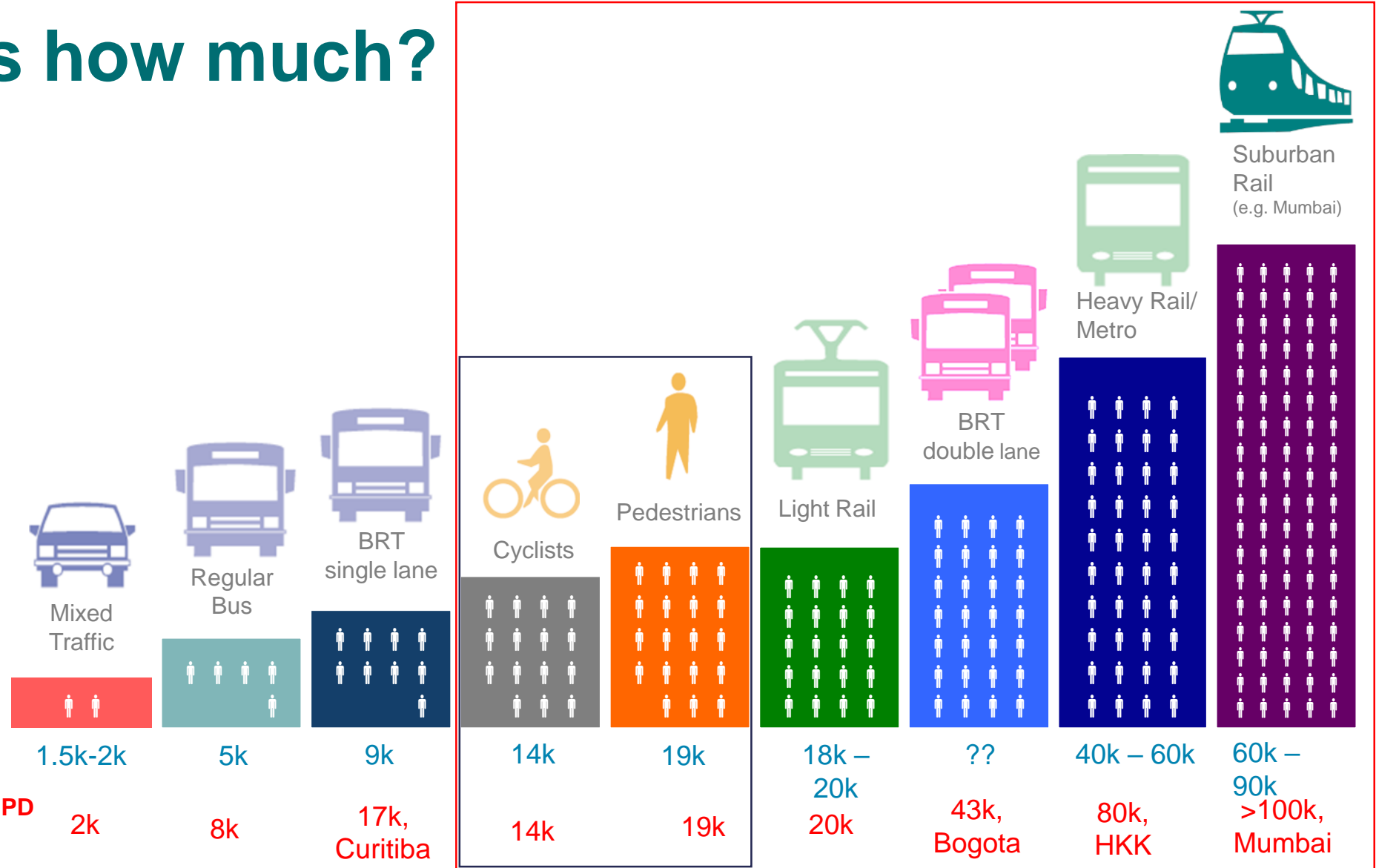
- To create an equitable, affordable, safe, environmentally-friendly and an integrated transport system
- It is essential to get the priority right
- Proper priority leads to putting money where the need is



What carries how much?

Equivalency road width: In order to carry 20,000 automobile commuters PPHD, a highway must be at least 18 lanes wide. (assumption 1.2 passengers per automobile)

**PPHPD
Range**
Maximum PPHPD
achieved



Doing things
and doing
things **right**



Why
Design
Matters



Pedestrians

› What they
actually need

› SPACE

- **Safety**
- Priority
- Access
- Comfort
- Enjoyable



Pedestrians

> What they
actually need

> SPACE

- Safety
- **Priority**
- Access
- Comfort
- Enjoyable



Pedestrians

> What they
actually need

> **SPACE**

- Safety
- Priority
- **Access**
- Comfort
- Enjoyable



Pedestrians

› What they
actually need

› **SPACE**

- Safety
- Priority
- Access
- **Comfort**
- Enjoyable



Pedestrians

> What they
actually need

> **SPACE**

- Safety
- Priority
- Access
- Comfort
- **Enjoyable**



Cyclists

➤ What do they need?

- **Connected Routes**
- Direct Routes
- Safety
- Comfort
- Attractive



Cyclists

› What do they need?

- Connected Routes
- **Direct Routes**
- Safety
- Comfort
- Attractive



Cyclists

› What do they need?

- Connected Routes
- Direct Routes
- **Safety**
- Comfort
- Attractive



Cyclists

➤ What do they need?

- Connected Routes
- Direct Routes
- Safety
- **Comfort**
- **Attractive**



Ingredients to make useable transport

- Knowing what the user wants
- Designing the transport system with user in mind
- Increasing the access to the system for all kinds of users
- Making the system attractive and affordable
- Maintaining the quality of the system and service

Wuppertal Institut activities for cities

- E-Learning on various urban mobility topics
- Identifying change makers in cities and highlight successes at global level
- Accelerate uptake of urban mobility actions through increased access to financing from institutions such as ADB, KfW, CAF and the World Bank
- Work closely with other initiatives such as MobiliseYourCity (MYC), Transformative Urban Mobility Initiative (TUMI), C40 Cities Financing Facility etc.

Join Us!

- If your city needs technical expertise for urban mobility projects
- If your city has an idea and is looking for funding for implementing projects
- To explore synergies with other sectors to amplify the co-benefits
- Share your experience with other cities world-wide
- Increase your technical capacity through workshops and courses.

➤ <http://www.urban-pathways.org>

**Thanks for
the attention**

➤ Sunny Kodukula
Project Coordinator
Wuppertal Institute, Germany

santhosh.kodukula@wupperinst.org

T: +49 20 22 49 22 59

F: +49 20 22 49 22 50

Skype: santhosh.kodukula

Twitter: @sunnykodukula

LinkedIn: <https://www.linkedin.com/in/santhoshkodukula/>

Public Transport

- **Faster**
- Integrated
- Network
- Aesthetics
- Stations
- Time spent



A public transport system faster than the personal motor vehicles attracts occupants, even from cars and motorcycles.

Public Transport

- Faster
- **Integrated**
- Network
- Aesthetics
- Stations
- Time spent



Can an individual take his/her bicycle? Is it easy to walk?

Should he/she can drive to the station?

Public Transport

- Faster
- Integrated
- **Network**
- Aesthetics
- Stations
- Time spent



Can I reach A to B just by public transport? Can I use my bike and public transport? Can I change modes? Network in a public transport increases usability

Public Transport

- Faster
- Integrated
- Network
- **Aesthetics**
- **Stations**
- Time spent

How clean are my stations?
How attractive is my fleet?
How professional is my staff?
How comfortable is the journey?

Caution: Just aesthetics will not hold
for a long time



Public Transport



One **timetable**

One **fare**

One **ticket**

→ Includes all public transport modes with different operators

- Faster
- Integrated
- Network
- Aesthetics
- Stations
- Time and money spent

