

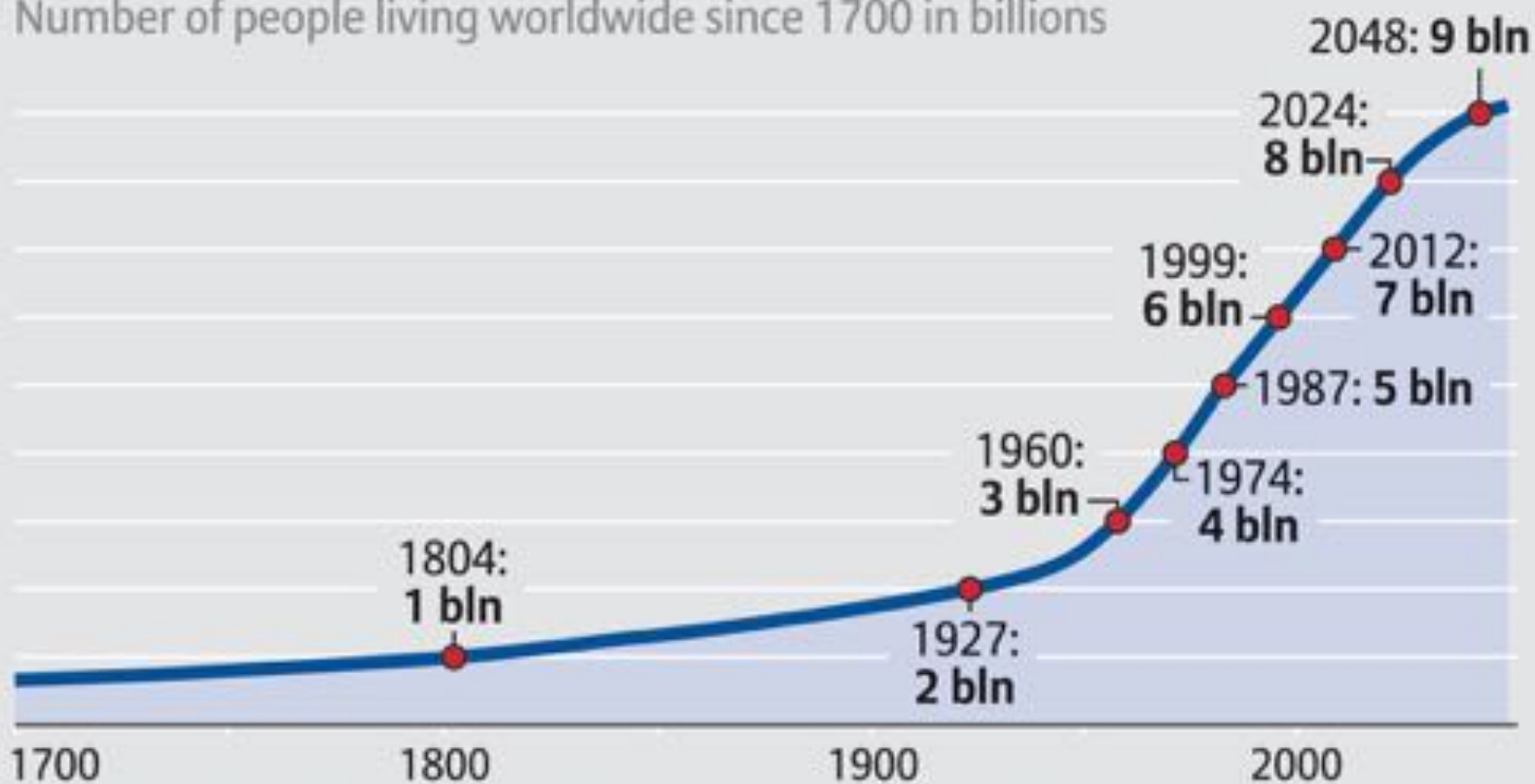




# POPULATION OF THE EARTH

Allianz 

Number of people living worldwide since 1700 in billions



Source: United Nations World Population Prospects, Deutsche Stiftung Weltbevölkerung

For further information please visit: [www.knowledge.allianz.com](http://www.knowledge.allianz.com)

## Dome truths and pillar talk

Global population, % of total



Source: UN





# ANNUAL GLOBAL ROAD CRASH STATISTICS



Nearly  
**1.3 MILLION**  
people die in road crashes  
each year, with an average of  
**3,287**  
deaths per day.



An additional  
**20-50 MILLION**  
are injured  
or disabled.

More than **HALF**  
of all road traffic deaths  
occur among people ages  
**15-44**



Road crashes cost  
**\$518 BILLION**  
per year and are predicted  
to become the  
**5<sup>TH</sup> LEADING**  
overall cause of death  
by 2030.

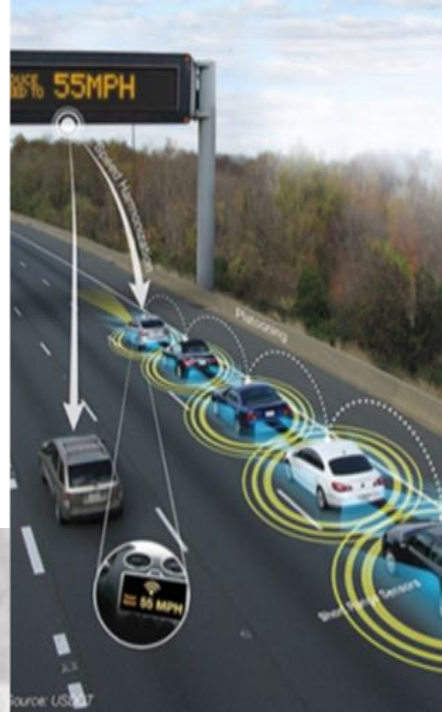
Around  
**1,000**



people under the  
age of **25**  
die on the  
roads  
each day.

For ages **15-29**,  
road crashes are the  
**LEADING** cause of death  
and for ages  
**2-14**,  
the **SECOND LEADING**  
cause of death.

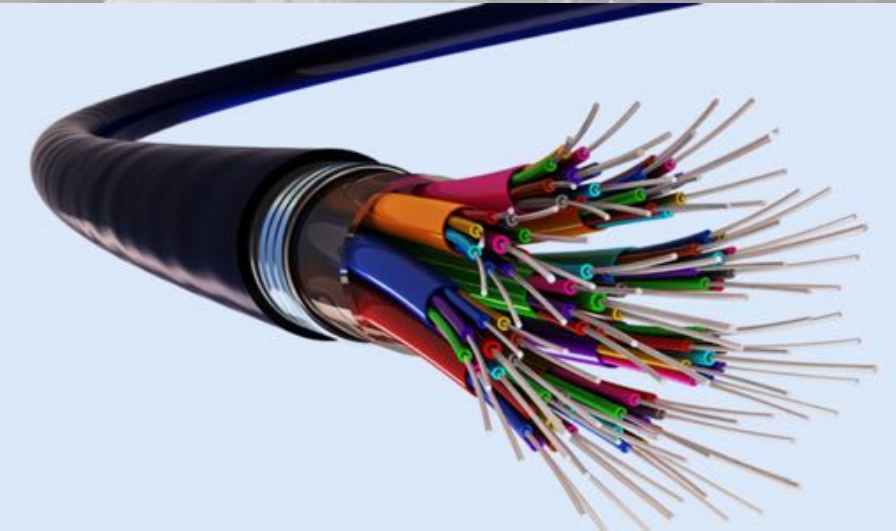


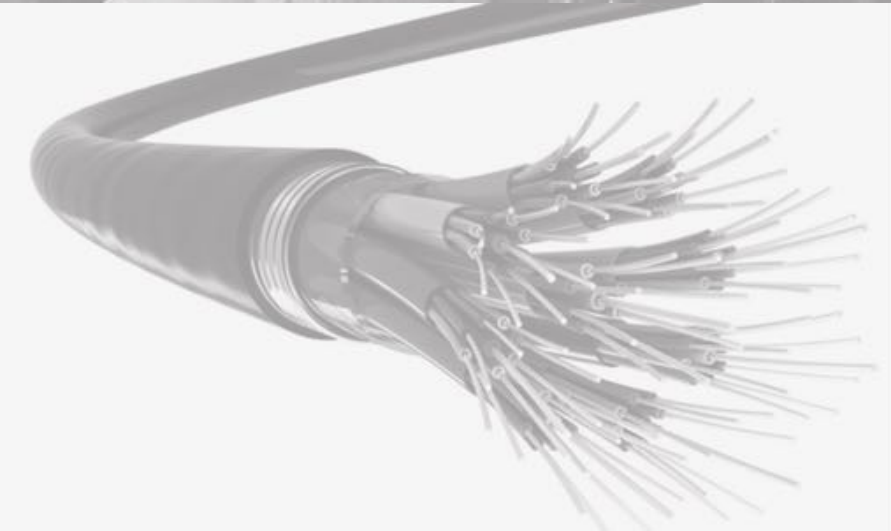
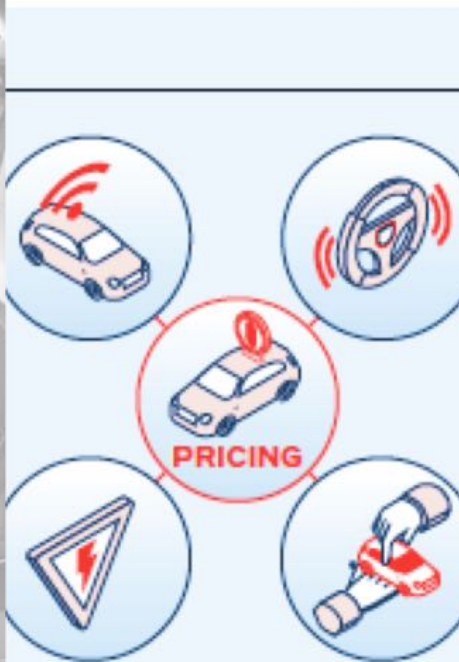
















...but where's the humanity?





Monitoring drone  
for predictive maintenance

Freight shuttle system  
for high-volume freight containers

Self-healing road surface

Congestion Charging Zone  
to encourage use of public transport

Urban greenway  
to encourage walking and cycling

Recycled material roadbed

Photo-luminescent road  
markings that glow in the dark

Space-saving underground  
car parks

Fully synchronized traffic signals

Transparent LCD information  
displays on buses

Smart fare collection  
for schoolbag travel

Intelligent pedestrian  
crossing

Underway roadway for  
non-autonomous vehicles

Underway roadway for  
power generation

Cycle superhighway  
separated from traffic

Vehicle-to-vehicle communication

Dedicated cycle  
and pedestrian lanes

Glowing street trees  
for natural street lighting



# Feasibility

- What's the most efficient use of resources?
- What mobility services can we sustainably offer?
- What is the ROI of various mobility investments?
- How can we attract new businesses and foster economic growth?



**Business  
Need**



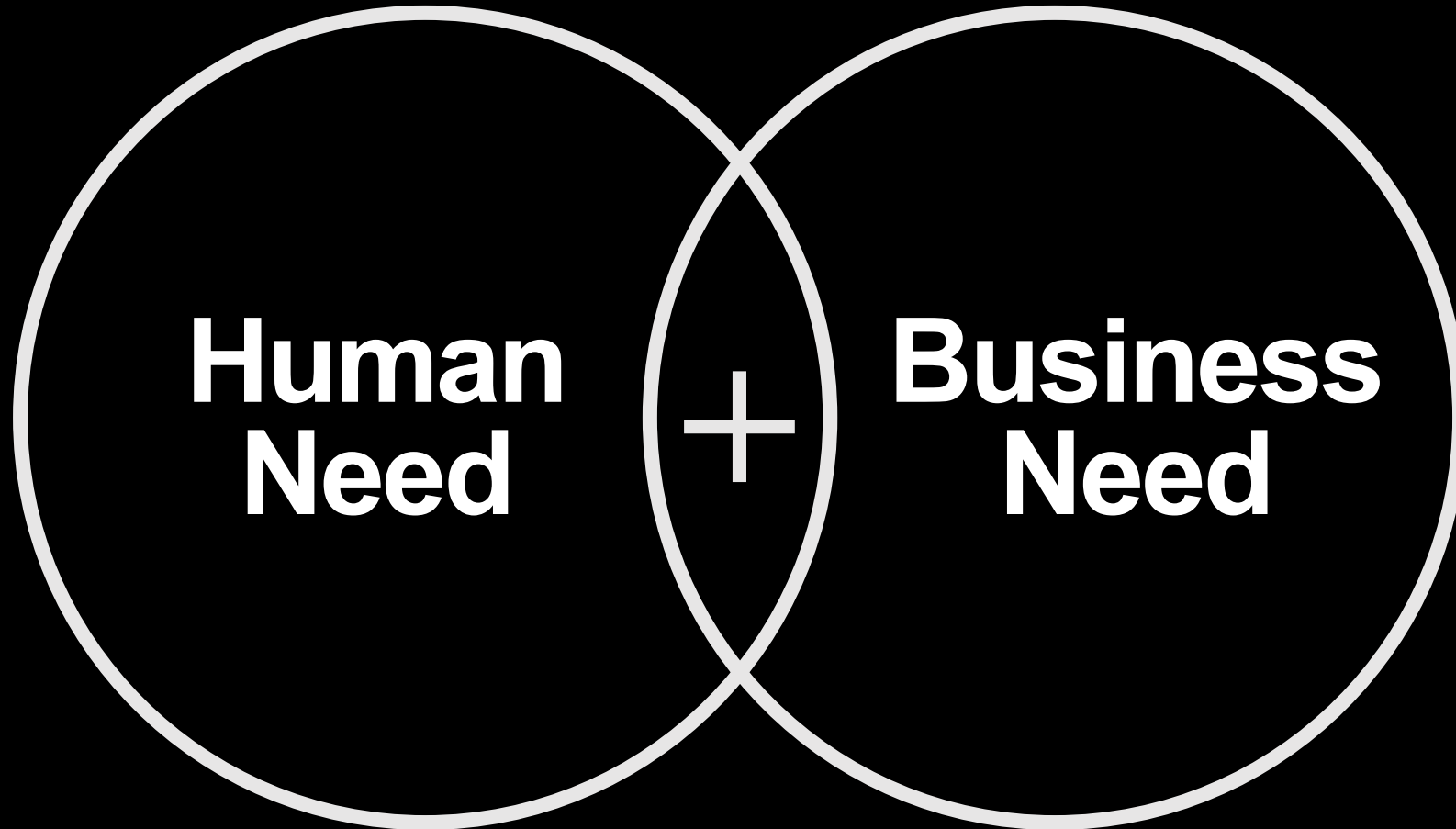


# Human Need

## Usability

- How can we best serve our constituents?
- How can we improve quality of life?
- What is unique about mobility in our region?
- How can mobility help constituents thrive?

# Viability







MOBILITY CHOICE  
**BLUEPRINT**

# a holistic approach

## Technology Transformation

- On Demand
- Shared
- Electric
- Driverless
- Connected



## Livable Community

- Health & Wellness
- Social Equity
- Environmental
- Urban Form

## Mobility

- Policy
- Funding
- Program/Implementation

As a unified metropolitan region,

how might we enable more accessible  
and effective mobility choices

to enhance the quality of our social,  
cultural, and economic life

now and in the future?



31 TO 74



CAUCASIAN  
BLACK  
ASIAN  
HISPANIC



50% MALE  
50% FEMALE



<15 MIN TO  
>60 MIN



90% OWN  
(2) HYBRID  
(1) ELECTRIC

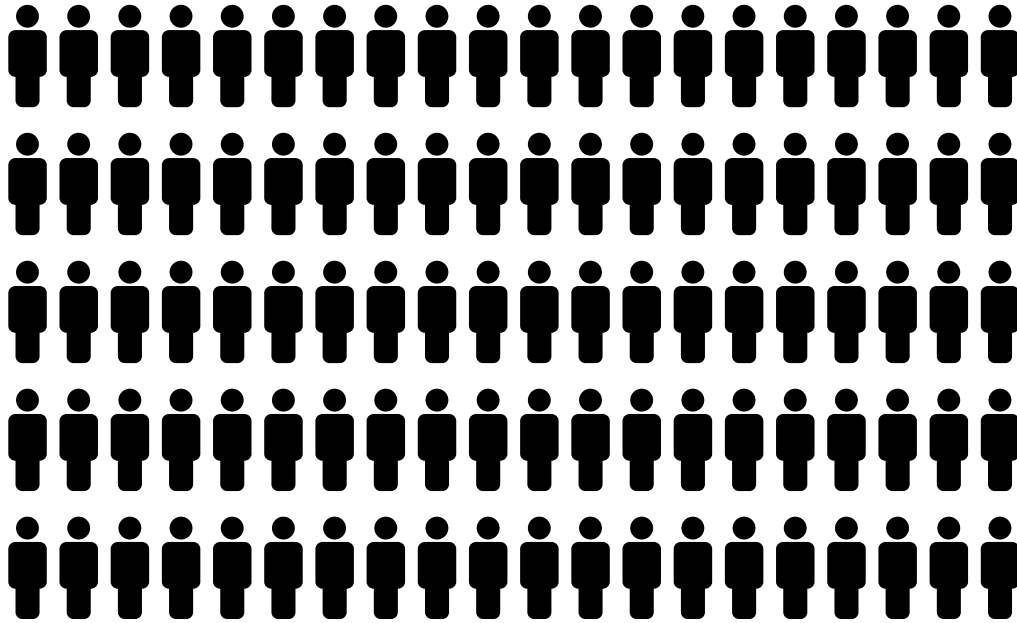


\$40K TO  
\$150K+





## Market Research (Evaluative)



100 People

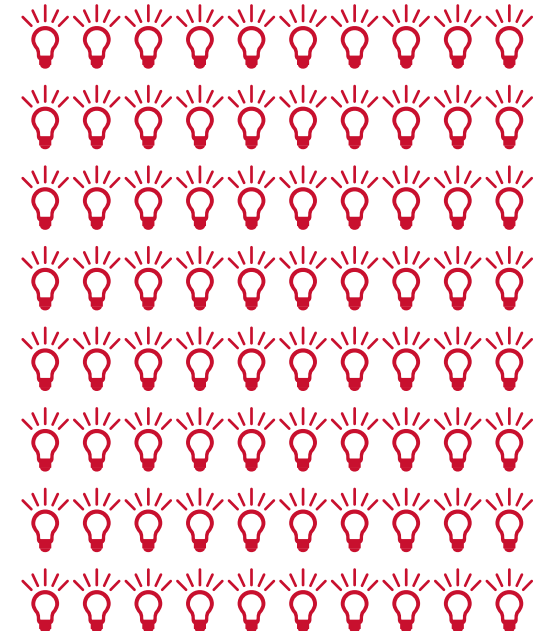


10 Insights

## Insights Research (Generative)



10 People



100 Insights

# instead of asking about solutions, we search for problems

question



~~We are thinking of having a grocery store, where should it go?~~

What do you usually do for lunch or dinner?

citizen



~~"I WANT a grocery store near my house."~~

"We only have fast food around here. It's hard to eat healthy when that's all you have access to."

(Read: I NEED access to healthy foods.)

designer



~~Based on responses, where should the grocery store go?~~

How might we provide access to healthy foods?

*A bigger problem with more solutions!*



## 4<sup>15</sup> HAPPY TO BE HANDS-FREE RIDERS

MINDFUL, DRIVEN, BALANCED

*I've made a very conscious decision to take public transit to work—to the point it has impacted where I live, how I spend my time, and my overall mood. By not sitting in traffic, I have less stress, can get more done, and have a better relationship with my partner.*

### MOTIVATIONS

Reducing stress  
Time efficiency  
Cost

### FRUSTRATION

Feeling unsafe on platforms  
Bus frequency  
Inconsistent HOV 4  
Lack of pedestrian safety  
Light rail opening delays

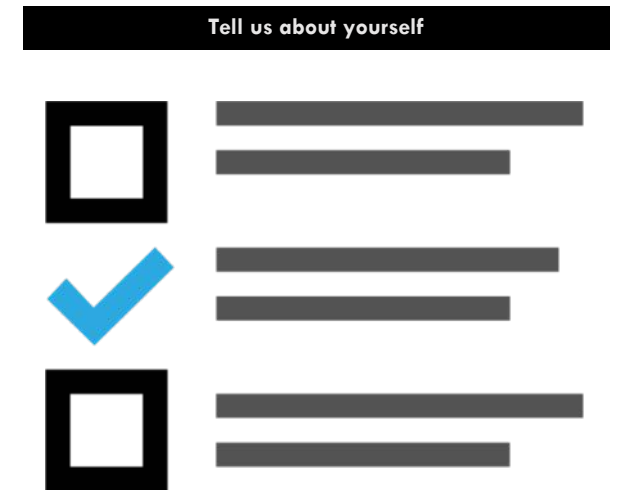
### WISHES

Smart public transit modes / stops / frequency  
Government ways to get disadvantaged persons  
Higher pedestrian safety

### TECH SAVVINESS

### NEW TECH ATTITUDE

8/10 QUALITY OF  
LIFE SCORE





# 1 mobility is a quality of life enabler



→  
**mobility**  
←



financial wellbeing



safety



health



education

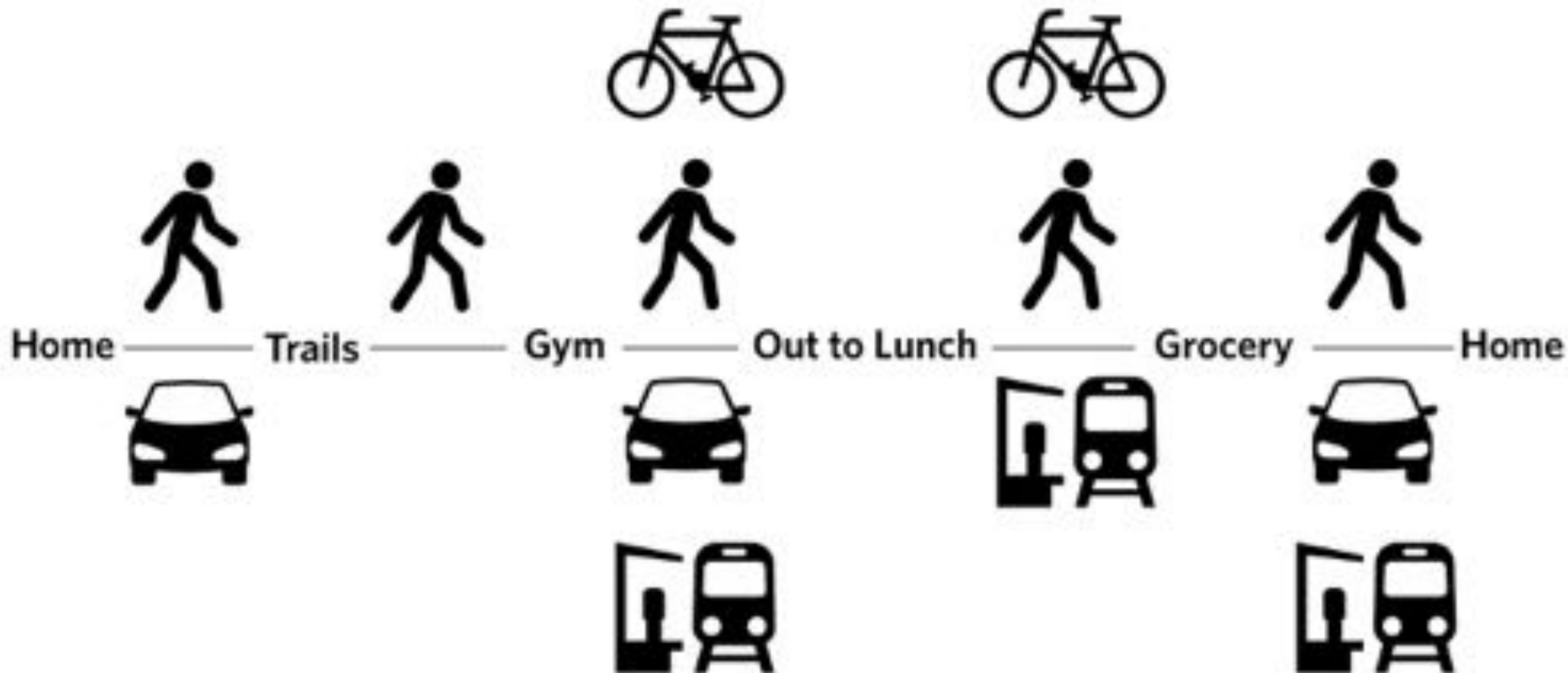


love and belonging

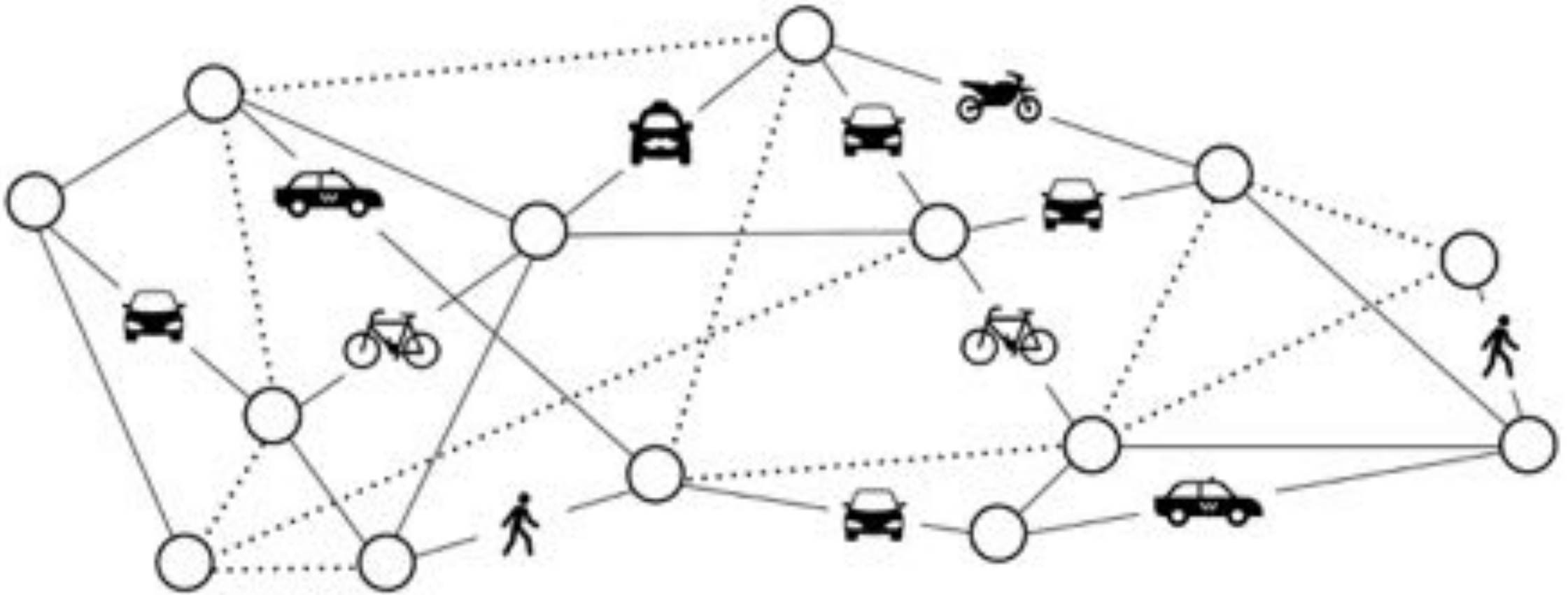


recreation

# 2 mobility is more than infrastructure

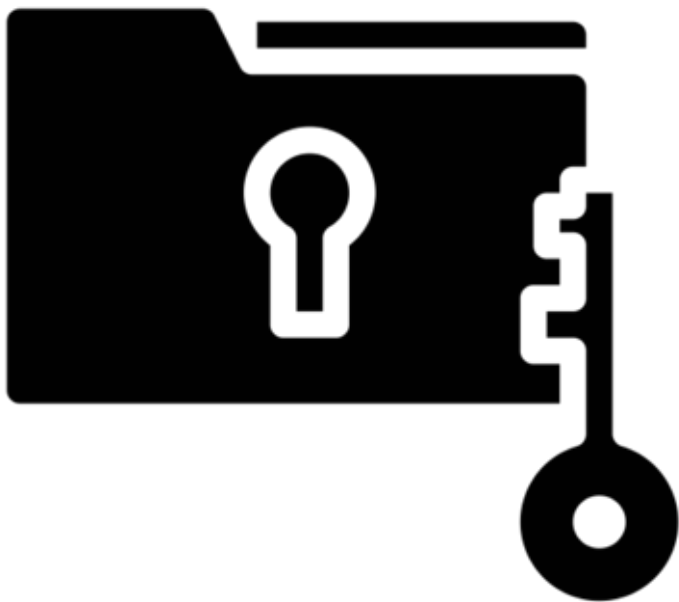


# 3 mobility is solving for gaps in connectivity



# 4

mobility is  
safe and secure







Source: <https://www.colourbox.com/image/bus-stop-on-rural-road-image-3627518>



Source: <http://cutlerbay-fl.gov/Home/Components/News/News/1577/17>



Source: <https://thepointsguy.com/2016/06/using-uber-in-vegas/>



Source: <https://newmobility.news/2017/05/19/whim-app-combines-clean-transport-antwerp/>



# a mobility revolution for all



