The Future of Mobility

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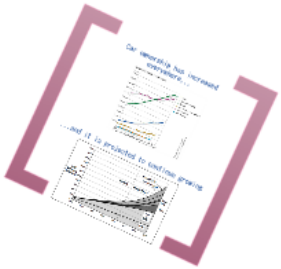
How can we get there faster, easier, more comfortably, and in a more sustainable way?

Treffpunkt Science City 2014



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Treffpunkt Science City 2014

We face traffic problems every day

Central

30
22-6 h
Lärmschutz
Tempokontrolle

HEDINGEN

We are not doing that bad!

THE WORST TRAFFIC JAMS IN HISTORY

PARIS 1980 — 18 MILLION CARS, 109 MILES

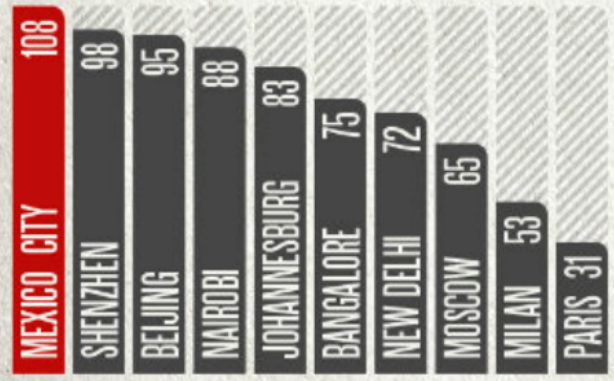
BERLIN 1990 — 17 MILLION CARS, 79 MILES

BEIJING 2010 — 7 MILLION CARS, 62 MILES

HOUSTON 2005 — 2.5 MILLION CARS, 100 MILES

TOKYO 1990 — 15,000 CARS, 84 MILES

TOP 10 WORST COMMUTER CITIES WORLDWIDE / PAIN INDEX

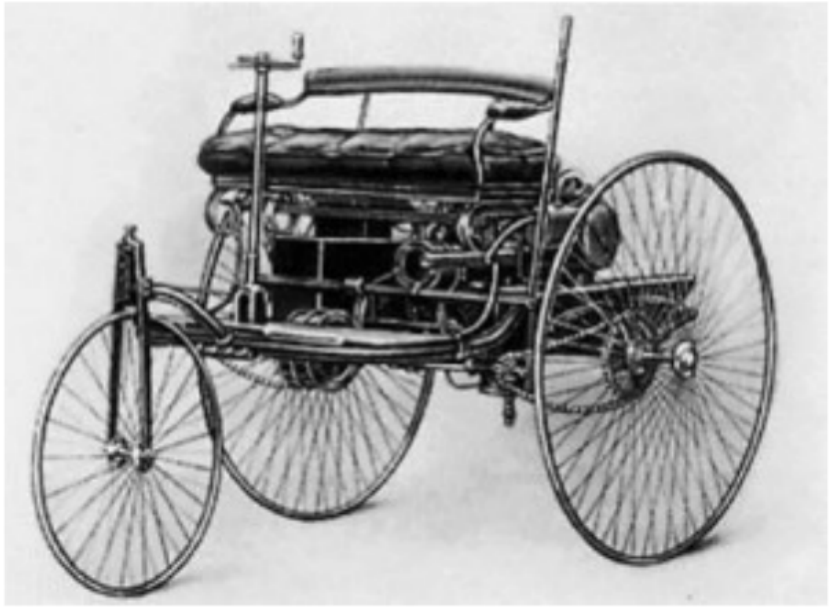


The index was comprised of 10 issues:

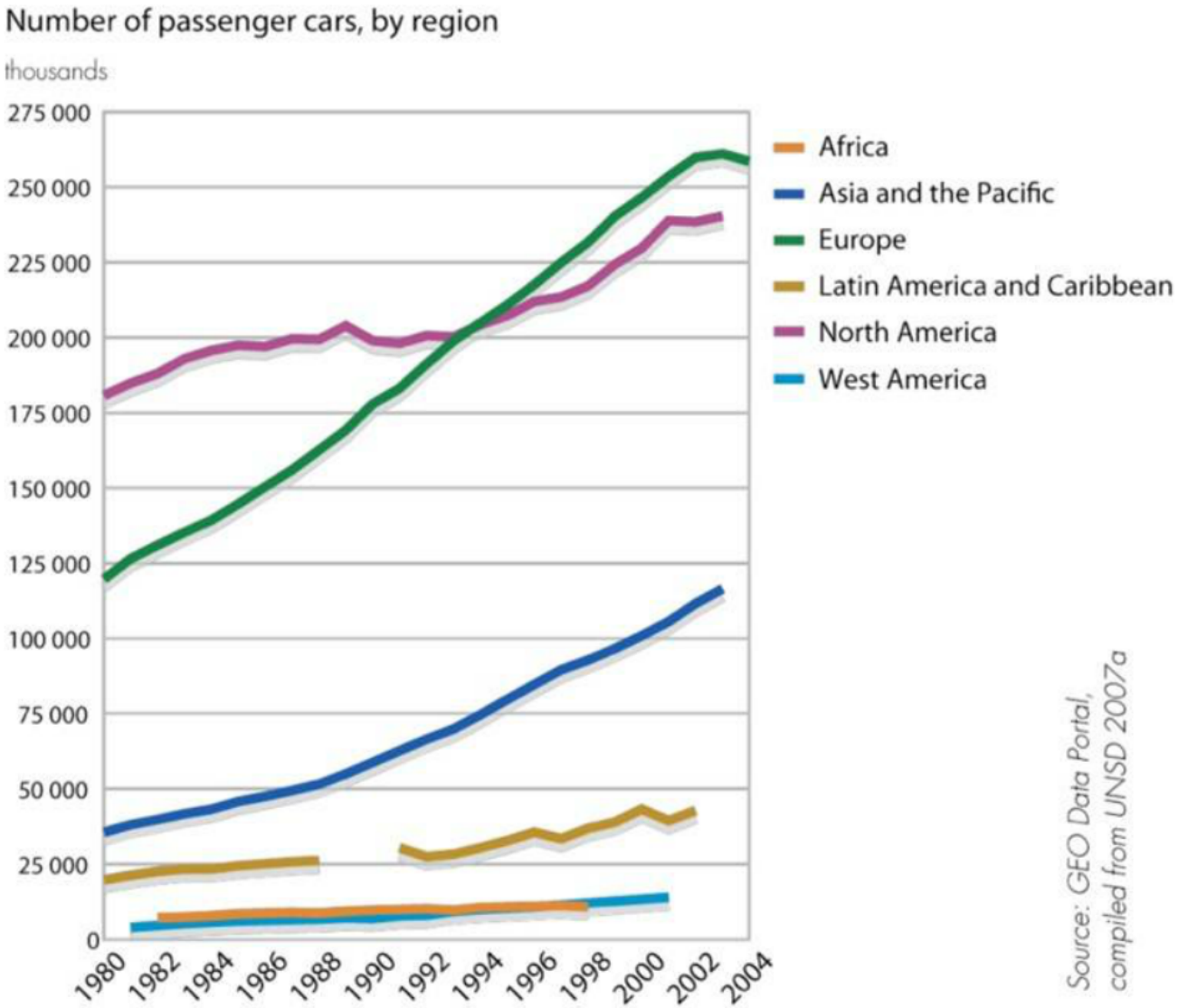
- Commuting Time
- Time stuck in traffic
- Price of gas is too high
- Traffic has gotten worse
- Start-stop traffic is a problem
- Driving causes stress
- Driving causes anger
- Traffic affects work
- Traffic is so bad that movement has stopped
- Commuters decided not to make the trip due to traffic

How did we get to this point?

The invention of cars changed the way we move



Car ownership has increased everywhere...



Source: GEO Data Portal, compiled from UNSD 2007a

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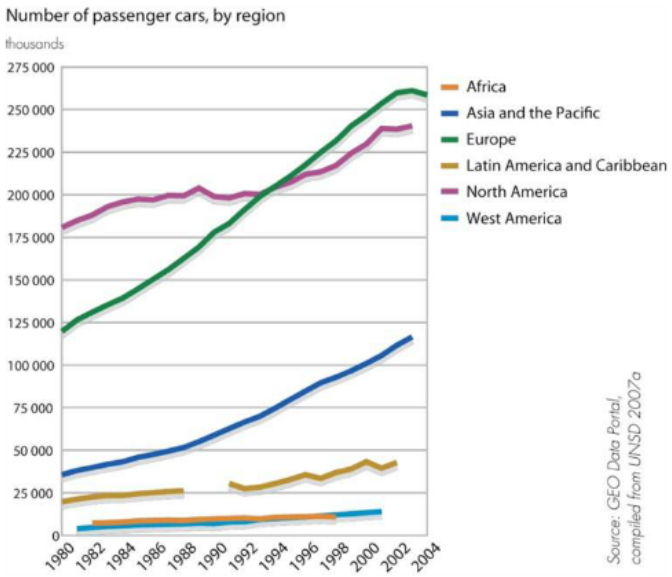
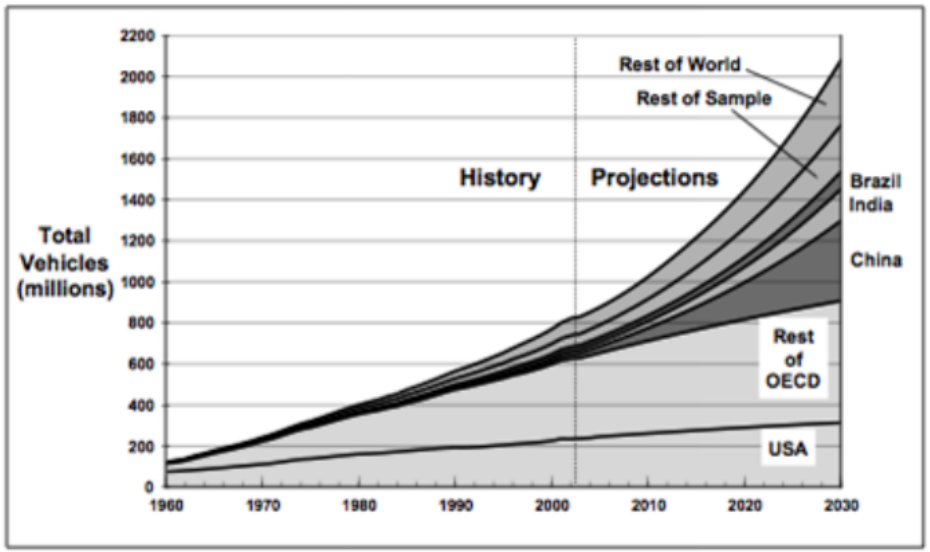


...and it is projected to continue growing



This trend is changing our environment

- Urban sprawl & long commutes

- Segregation of activities & isolation

- Safety

- Urban landscape

- Energy/resources consumption

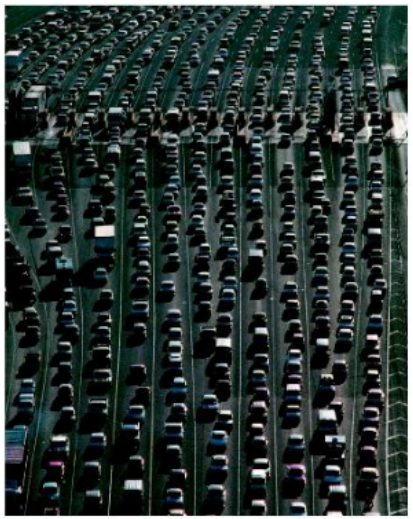
- Health, pollution & noise

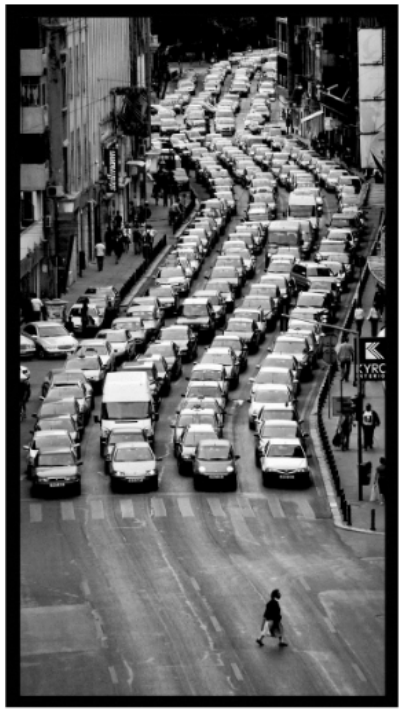
The resulting system is not sustainable

What about public transport?

Switzerland has a great public transport system

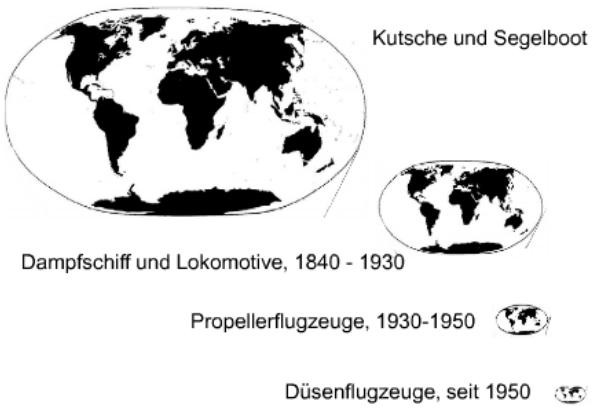
system





Not all countries can say the same

Schrumpfende generalierte Reisekosten seit 1840



Quelle: nach Dicken (1998) Abb.5.3

Today we are more mobile than ever before

faster

faster

easier

more comfortably

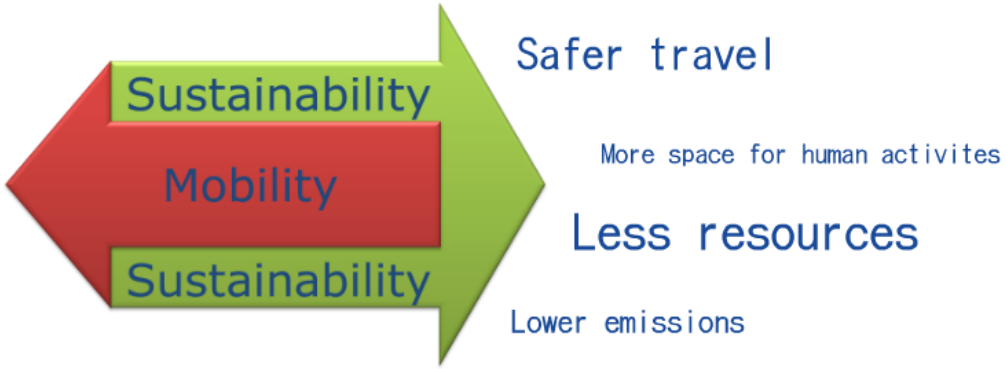
Safer travel

More space for human activites

Less resources

Lower emissions

low to addres



How to address these conflicting goals?

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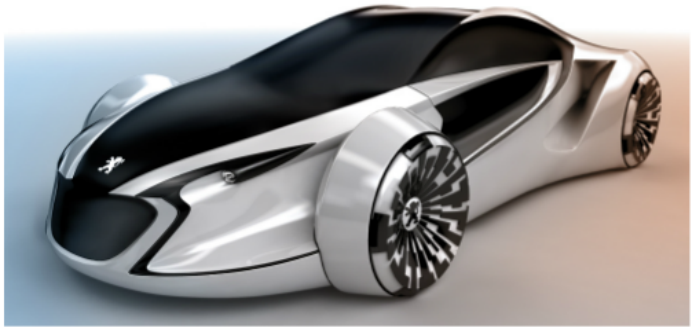
How can we get there faster, easier,



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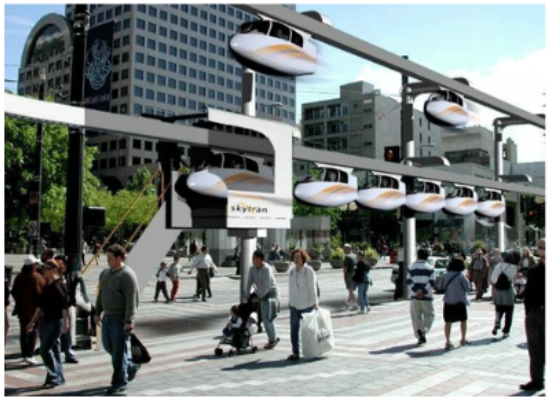
001


skytran

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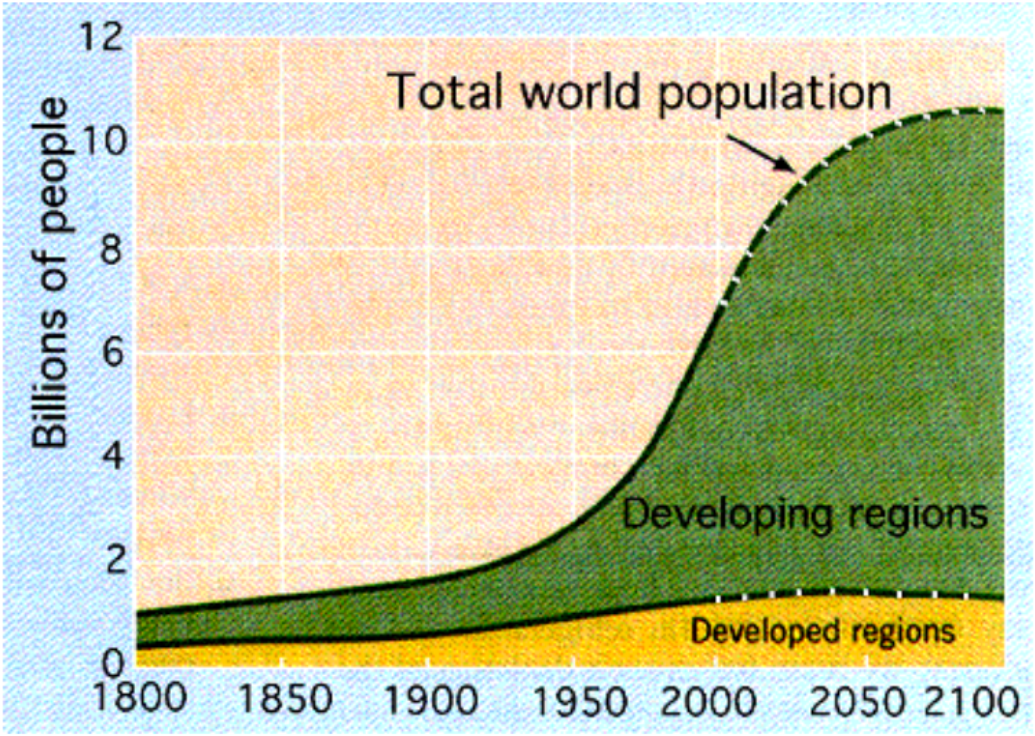


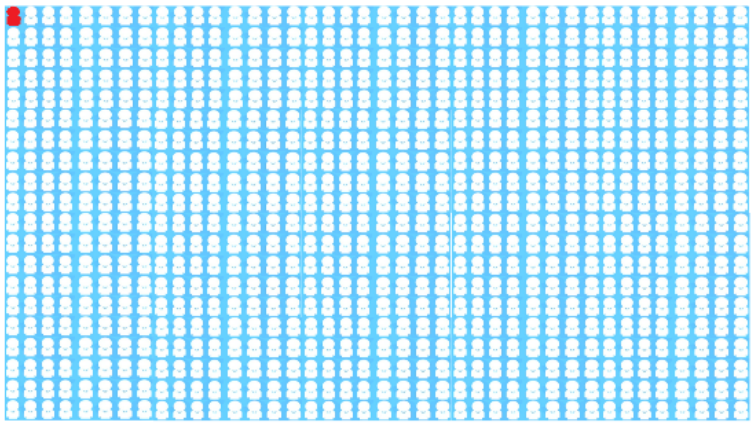
Population is fast growing across the globe

in the world had the same
ad space as Swiss people...

If everyone would spend the
of time traveling as Swiss

There are 7.95 million people in Switzerland...

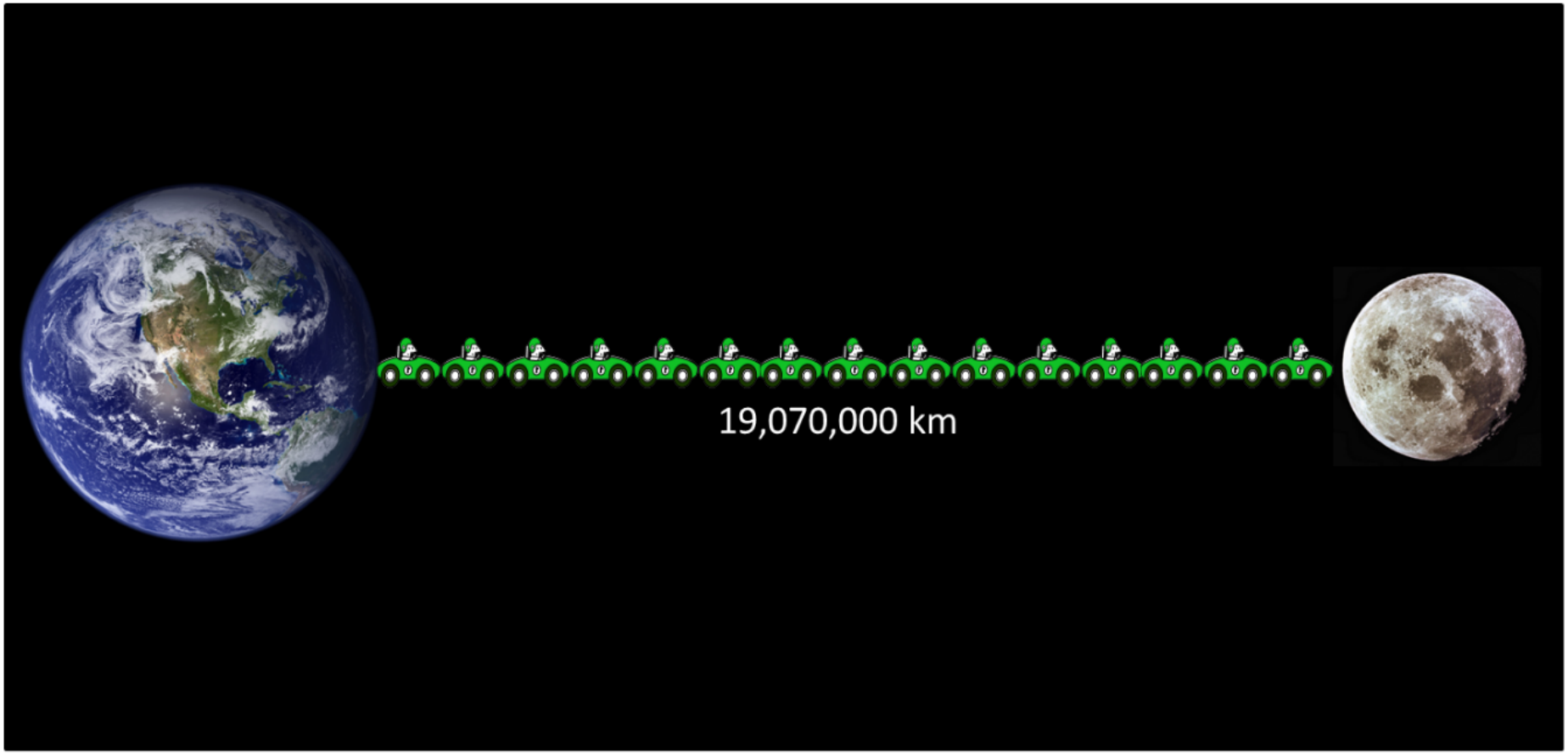
...and 7.05 billion people in the world



For every Swiss person, there are 1000 people worldwide

There is one private car every
1.84 people in Switzerland

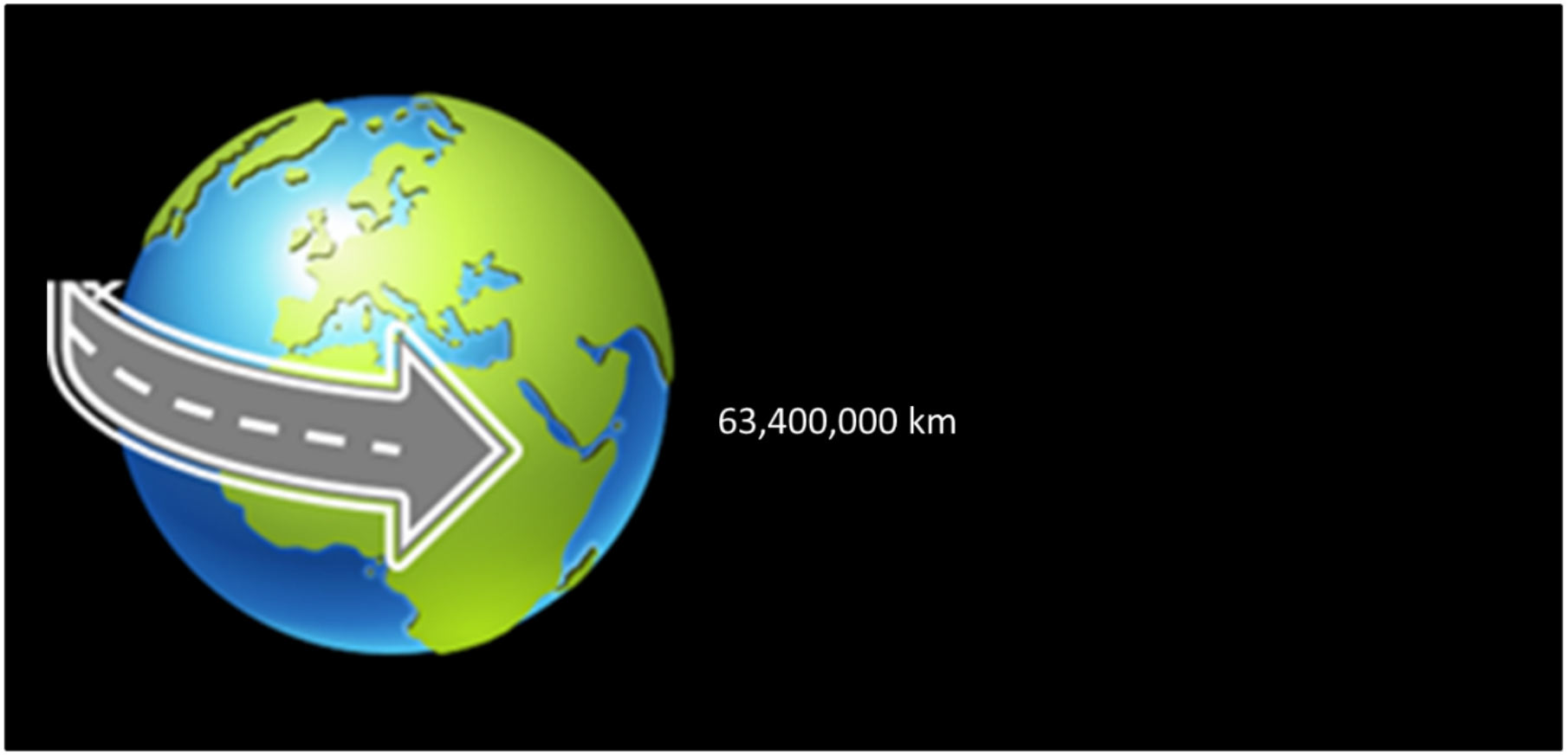
If car ownership was the same around the world as it is in Switzerland...



..the queue of cars would cover 50 times
he distance from here to the moon

There is an average of 9 meters of road per person in Switzerland

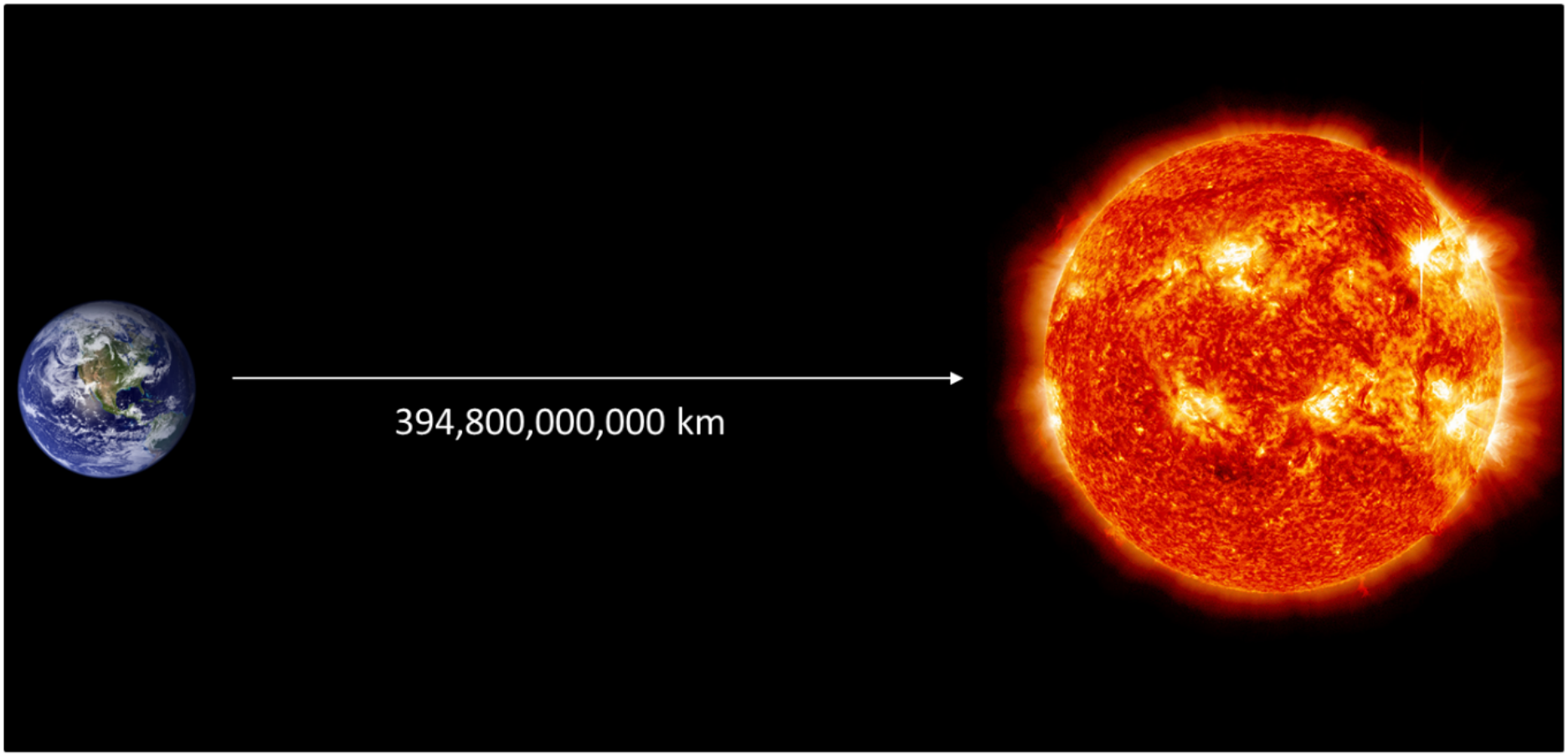
If everyone in the world had the same amount of road space as Swiss people...



...we could go around the equator on the earth 1,585 times

Swiss people travel on average 56 km per day

If everyone would travel the same as Swiss people...

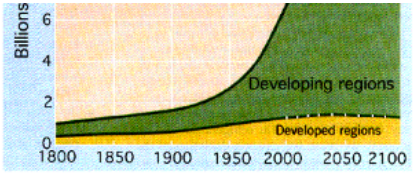


...we would cover the distance between the earth and the sun 2640 times per day

Swiss spend an average of 92 minutes per day traveling within the country

If everyone would spend the same amount of time traveling as Swiss people...

...we would cumulative spend over one million years per day



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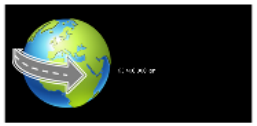

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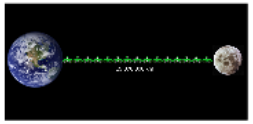

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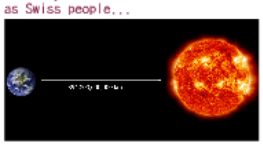

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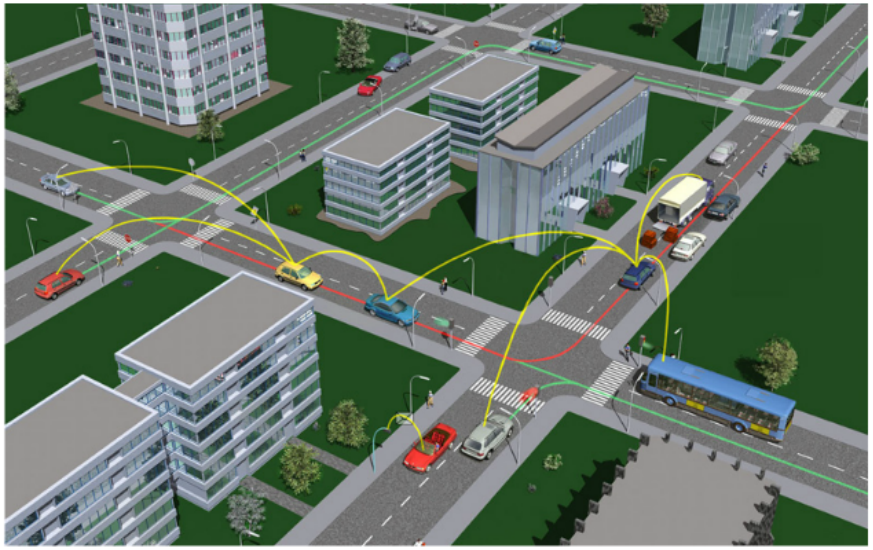
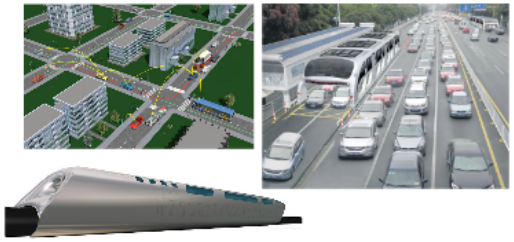
We need to think about mobility in a different way

We are slowly modifying our behavior and our cities



Technology would evidently play a big role

We are slowly modifying our behavior and our cities



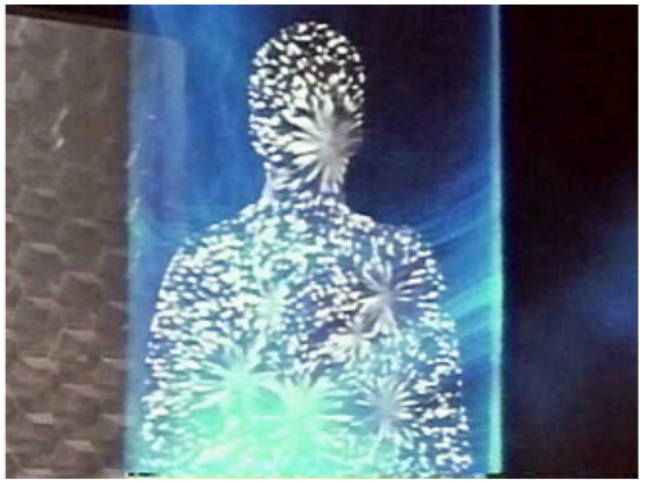
Technology would evidently play a big role

It should be less about private mobility and more about shared mobility

Would technology make us more or less (physically) mobile in the future?

Travel at the speed of light

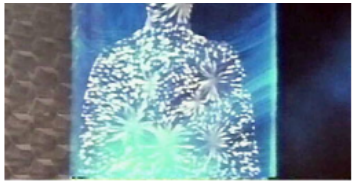
or



Teletransport

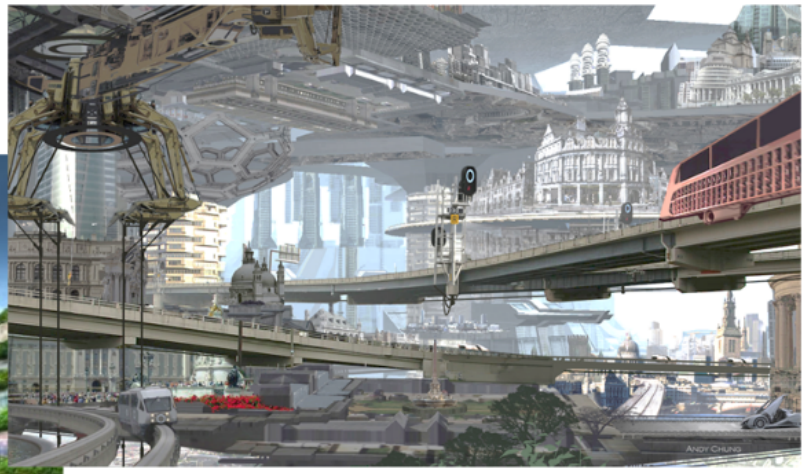
Travel at the speed of light

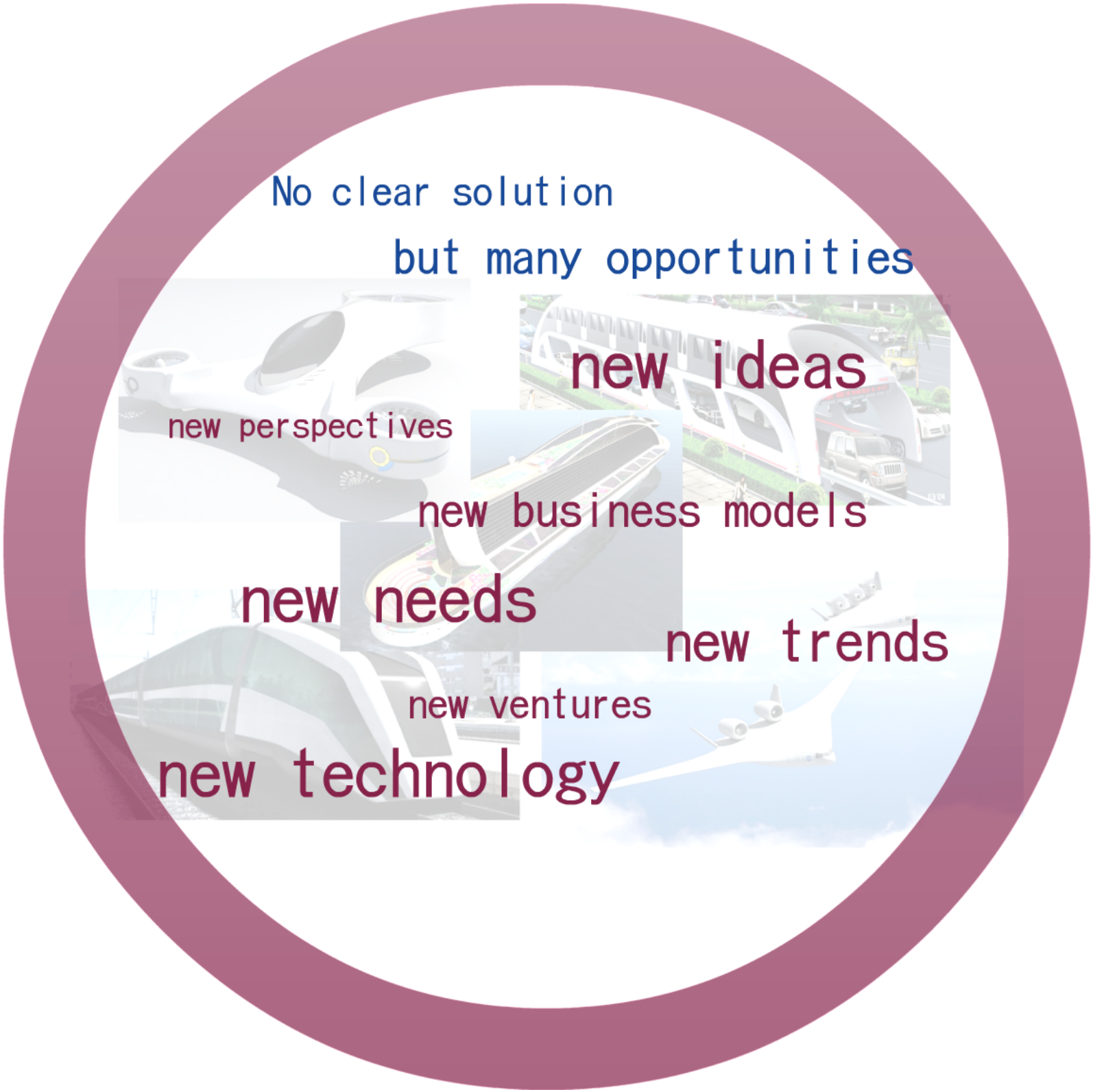
or



Teletransport

What would that do to our cities?




No clear solution
but many opportunities
new ideas
new perspectives
new business models
new needs
new trends
new ventures
new technology

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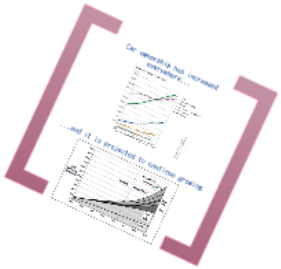

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