A Global High Shift *Cycling* Scenario:

The Potential for Dramatically increasing Bicycle and e-Bike Use in Cities Around the World

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Platform

Cycling plays a major role in personal mobility around the world, but it could play a much bigger role. This report presents a new look at the future of cycling for urban transportation, exploring how cycling and low powered e-bikes could become a core element of sustainable low-carbon development based on benefits from:

- Affordability
- Health benefits
- Energy Use
- CO_2 emissions
- Reduced land use
- Accessibility
- Mobility
- Convenience

Methodology

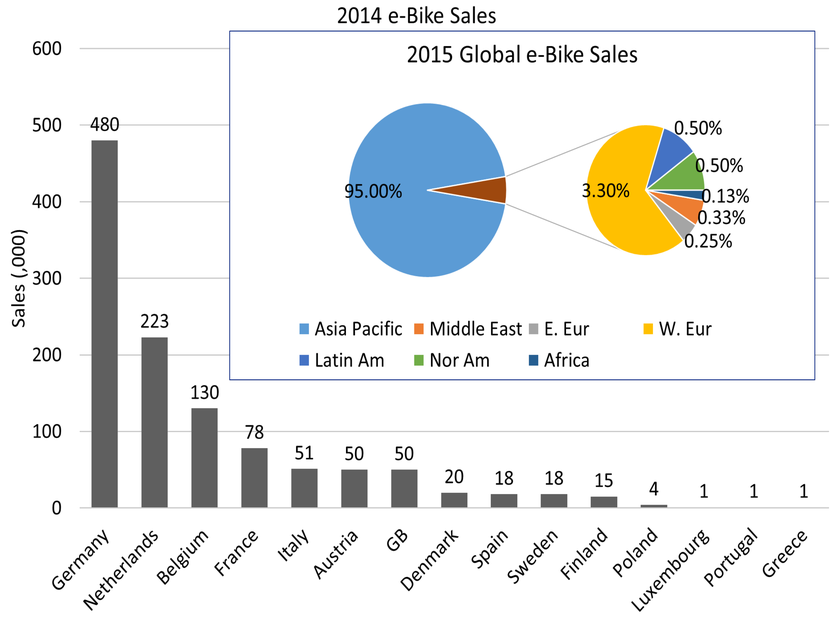
Data Collection

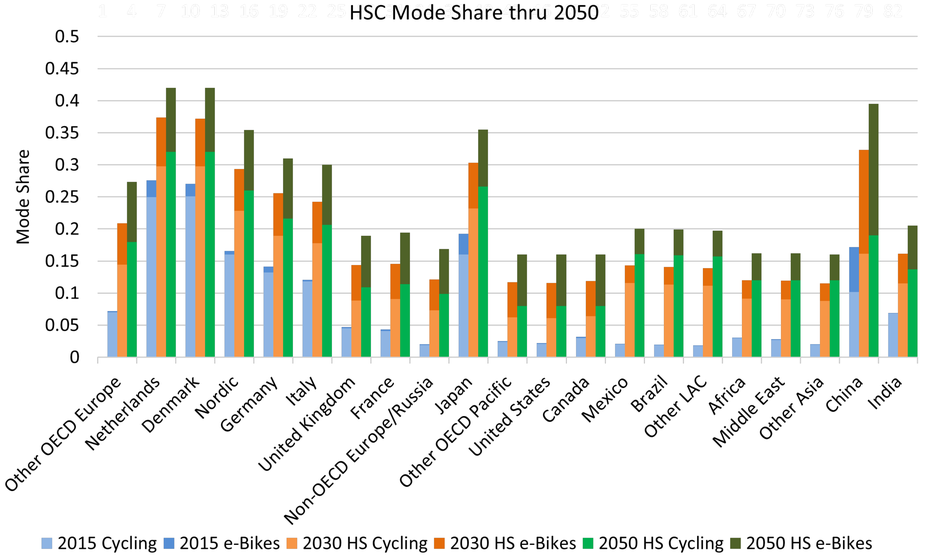
- Global cycling use
- Global e-bike use
- Bike Sharing Schemes (BSS)
- Bike Sales
- Current Infrastructure
- Current Policy
  - Policy impacts

Modeling/Projection

- BAU scenario
- High Shift Cycling(HSC) scenario
  - Sales
  - Bike Share
  - Infrastructure development
  - Policy
  - Cost and Environmental impacts

Traditional Cycling and e-Bike Figures

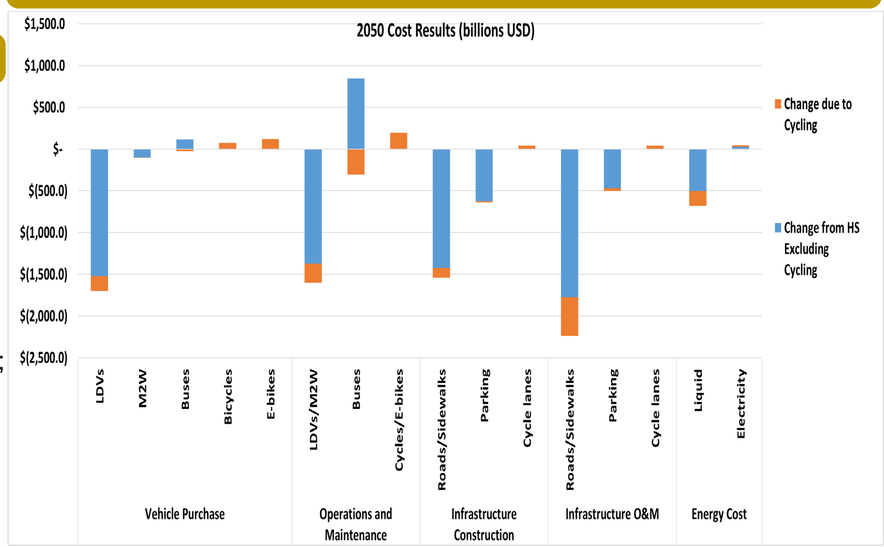




Policy Suggestions for HSC

- Rapid develop of infrastructure;
- Implement BSS, prioritizing connections to transit;
- Revise laws and enforcement practices for cycling;
- Invest in public transport to accommodate a wide variety of trips;
- Coordinate PT and land-use plans;
- Repeal policies that subsidize motorization (min parking requirements, free on-street parking, and fuel subsidies);
- Encourage cycling via pricing policies and information campaigns;
- Charge for negative externalities of driving (congestion pricing, VKT fees);
- Dedicate fuel taxes, driving fees, and other transport-system revenues toward investment in sustainable transport.

Cost and Emissions Results



Data Collection

City Count	Region	>300k Cities Percent coverage	>300k Cities Mode Share	<300k Cities Percent coverage	<300k Cities Mode Share	Weighted City MS	Years to 2015	2015 Mode Share
12	Denmark	100%	0.45	61%	0.18	0.23	9	0.25
40	France	95%	0.04	15%	0.02	0.02	9	0.04
68	Germany	100%	0.13	19%	0.14	0.12	8	0.13
18	Italy	39%	0.09	7%	0.16	0.10	11	0.12
31	Netherlands	100%	0.28	44%	0.26	0.23	8	0.25
24	Nordic	100%	0.13	29%	0.18	0.14	8	0.16
33	United Kingdom	61%	0.03	14%	0.05	0.03	7	0.04
108	Other OECD Europe	55%	0.06	15%	0.08	0.06	7	0.07
52	Japan	100%	0.17	14%	0.15	0.17	17	0.16
23	Other OECD Pacific	27%	0.02	18%	0.02	0.02	3	0.02
347	United States	95%	0.011	60%	0.012	0.01	5	0.02
14	Canada	56%	0.03	13%	0.01	0.02	5	0.03
14	Mexico	27%	0.02	0%	0.00	0.02	1	0.02
5	Brazil	9%	0.03	0%	0.00	0.02	1	0.02
33	Other LAC	25%	0.03	2%	0.05	0.03	5	0.02
10	Africa	5%	0.06	0%	0.00	0.05	9	0.03
29	Non-OECD Europe/Russia	9%	0.03	4%	0.04	0.03	5	0.02
2	Middle East	1%	0.08	0%	0.02	0.04	9	0.03
24	China	6%	0.25	0%	0.00	0.19	10	0.10
29	India	16%	0.17	0%	0.01	0.08	7	0.07
2	Other Asia	3%	0.03	0%	0.00	0.02	3	0.02

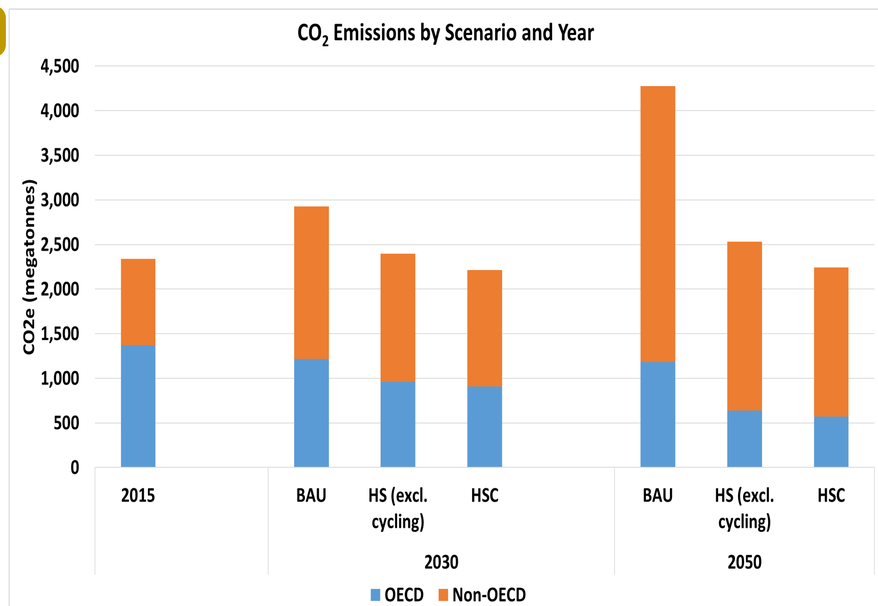
Summary Statistics

Better conditions for cycling and public transit concurrent with managed demand for private cars can:

- Saved $120Trillion USD cumulatively thru 2050 ($24
- Cut CO_2 emissions from urban passenger transit by nearly 50% in 2050

Cycling and e-biking in HSC accounts for:

- $25Trillion USD cumulative cost reduction to 2050
- A 10% CO_2 reduction in 2050
- Estimated $700Billion average yearly savings in vehicle, fuel and infrastructure cost



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