

교통 혁명 시대,

도시의 재구성

# I. 자동차 산업의 변화

# 프랑스, 영국: 내연기관 금지



## France to ban sales of petrol and diesel cars by 2040

Move by Emmanuel Macron's government comes a day after Volvo said it would only make fully electric or hybrid cars from 2019



20,289 1,007

This article is 2 months old

Angelique Chrisafis and Adam Vaughan

Thursday 6 July 2017 14.20 BST






EUROPE





## Britain to Ban New Diesel and Gas Cars by 2040

By STEPHEN CASTLE JULY 26, 2017



# 네덜란드, 캘리포니아

electrek     

Automakers  Alt. Transport  Autonomous Driving  Energy 

OCTOBER 10

The Dutch government confirms plan to ban new petrol and diesel cars by 2030

Fred Lambert - Oct. 10th 2017 1:56 pm ET  @FredericLambert



114 Comments      


WIRED

AARIAN MARSHALL 10.03.17 8:00 AM

## THE TRICKS AND TREATS CALIFORNIA CAN USE TO BANISH FOSSIL FUEL CARS



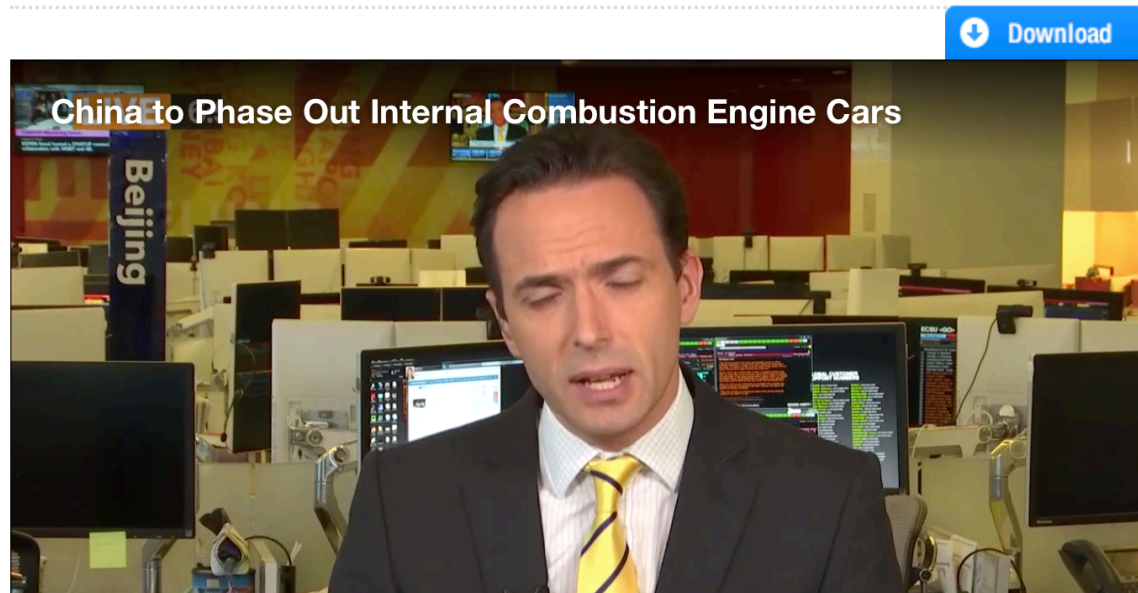
# 중국: 내연기관 금지 계획

**Bloomberg Technology** 

## China Fossil Fuel Deadline Shifts Focus to Electric Car Race

Bloomberg News  
2017년 9월 11일 오전 2:01 GMT+9  
Updated on 2017년 9월 11일 오전 10:36 GMT+9

- Regulators working on timetable for the ban, official says
- China joins U.K., France to phase out combustion-engine cars




XINHUANET



## China formulates national smart car industry strategy

Source: Xinhua | 2017-09-10 20:54:50 |



Xinhuanet App 

TIANJIN, Sept. 10 (Xinhua) -- China is working on a national strategy on smart cars, and mulls banning production and sales of fossil fuel cars, according to policy makers attending a forum on automotive industry development.

With the global auto industry leaning toward intelligent and electric vehicles, work has begun on a timetable to ban manufacture and sales of traditional energy cars, according to Xin Guobin, vice minister of industry and information technology.

He told a forum in Tianjin that auto-makers should have a thorough understanding of the situation and readjust their strategies.

The Ministry of Industry and Information Technology (MIIT) will work out the timetable, Xin said.

# 중국, 전기자동차 쿼터제 도입



#TECHNOLOGY NEWS

JUNE 2, 2017 / 4:35 PM / 4 MONTHS AGO

## China agrees to delay electric car quota by a year: source

Andreas Cremer, Ilona Wissenbach



BERLIN/RASTATT (Reuters) - China agreed to delay an 8 percent quota for electric and hybrid vehicles by a year until 2019, an auto industry source said on Friday, in a major concession for German carmakers seeking to expand in the world's largest auto market.

In a draft in September, Chinese policymakers proposed that 8 percent of automakers' sales be battery-electric or plug-in hybrid vehicles by 2018, sparking protests from domestic and international carmakers.

**= the production-cap!**

# ‘규모의 경제’의 배신

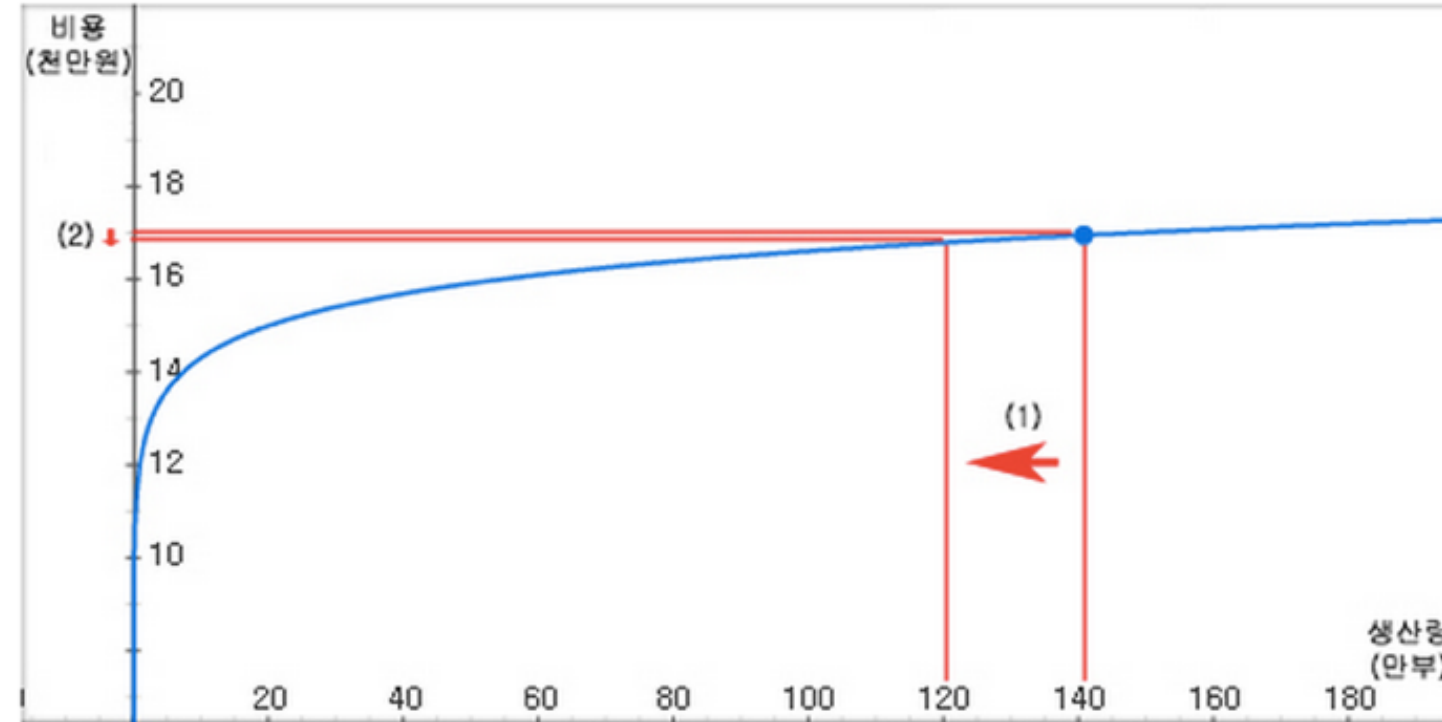
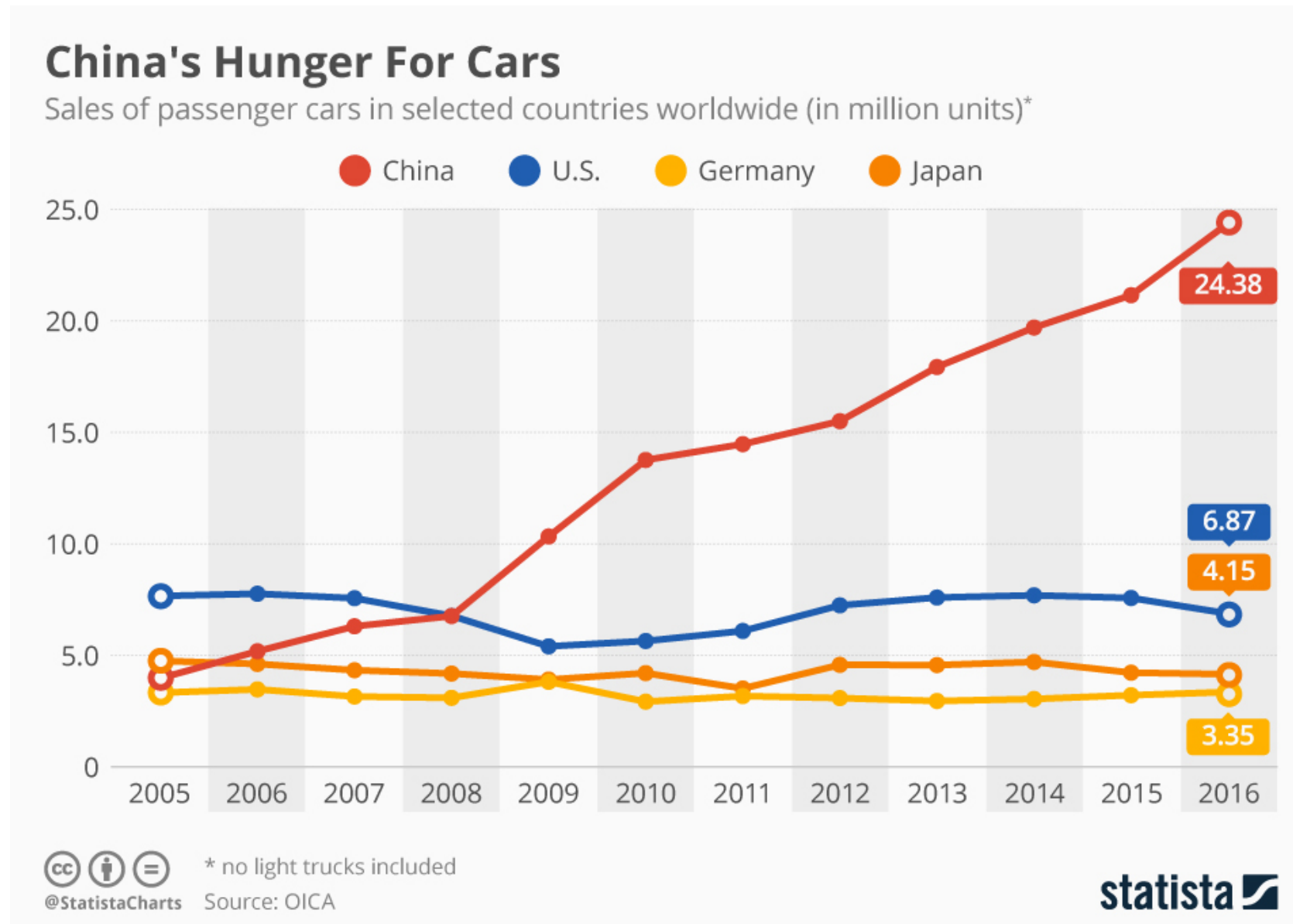


그림 1: 종이신문의 생산/비용함수(그림: 강정수)

- 판매량 증가에 따라 수익 증가폭 매우 큼
- 판매량 감소에 따라 수익 하락폭 매우 큼



# 시장 결정력 = Keymarket



# Bob Lutz

**Automotive News**  
**Redesigning the Industry**  
A time of change for the auto industry

**Home**

**Visionaries**  
November 5

Nov. 13:  
Strategies of global auto giants

Nov. 20:  
Suppliers: New dictators of development?


Nov. 27:  
Dealers become mobility companies

Dec. 4:  
Who will dominate the future?

## Bob Lutz: Kiss the good times goodbye

'Everyone will have 5 years to get their car off the road or sell it for scrap'

**Bob Lutz**



# 고용효과!

## 3. EVs: 100X fewer Moving Parts

ICE (Gas) Vehicle

**2,000+** moving parts (1)

Transmission,  
driveshaft, clutch,  
valves, differentials,  
pistons, gears,  
carburetors,  
crankshafts...



Electric Vehicle (EV)

**18** moving parts (1)



- EVs **10X-100X** cheaper to maintain!
- Tesla: **Infinite Mile Warranty!** (2)

# Merkel: 2037년, 인간 운전 금지

Rat rund ums  
Geld: „Meine  
Finanzen“



Frankfurter Allgemeine  
Wirtschaft

Mittwoch, 05. Juli 2017 VIDE

POLITIK WIRTSCHAFT FINANZEN FEUILLETON SPORT GESELLSCHAFT STIL TECHNIK & MOTOC

F.A.Z.-Index 2.417,34 +0,04 % DAX 12.436,97 -0,00 % Dow Jones 21.479,27

Home > Wirtschaft > Neue Mobilität > Angela Merkel: Autos selbst steuern? In 20 Jahren nur mit Sond...

Angela Merkel

## Autos selbst steuern? In 20 Jahren nur mit Sondererlaubnis

Das selbstfahrende Auto kommt – und schon in 20 Jahren könnte es weit verbreitet sein, sagt Bundeskanzlerin Angela Merkel. Es könnte sogar zum Zwang werden.

11.06.2017

f Teilen Twittern > Teilen E-



the economic structure

the old economic structure

a new economic structure

# Disruption:

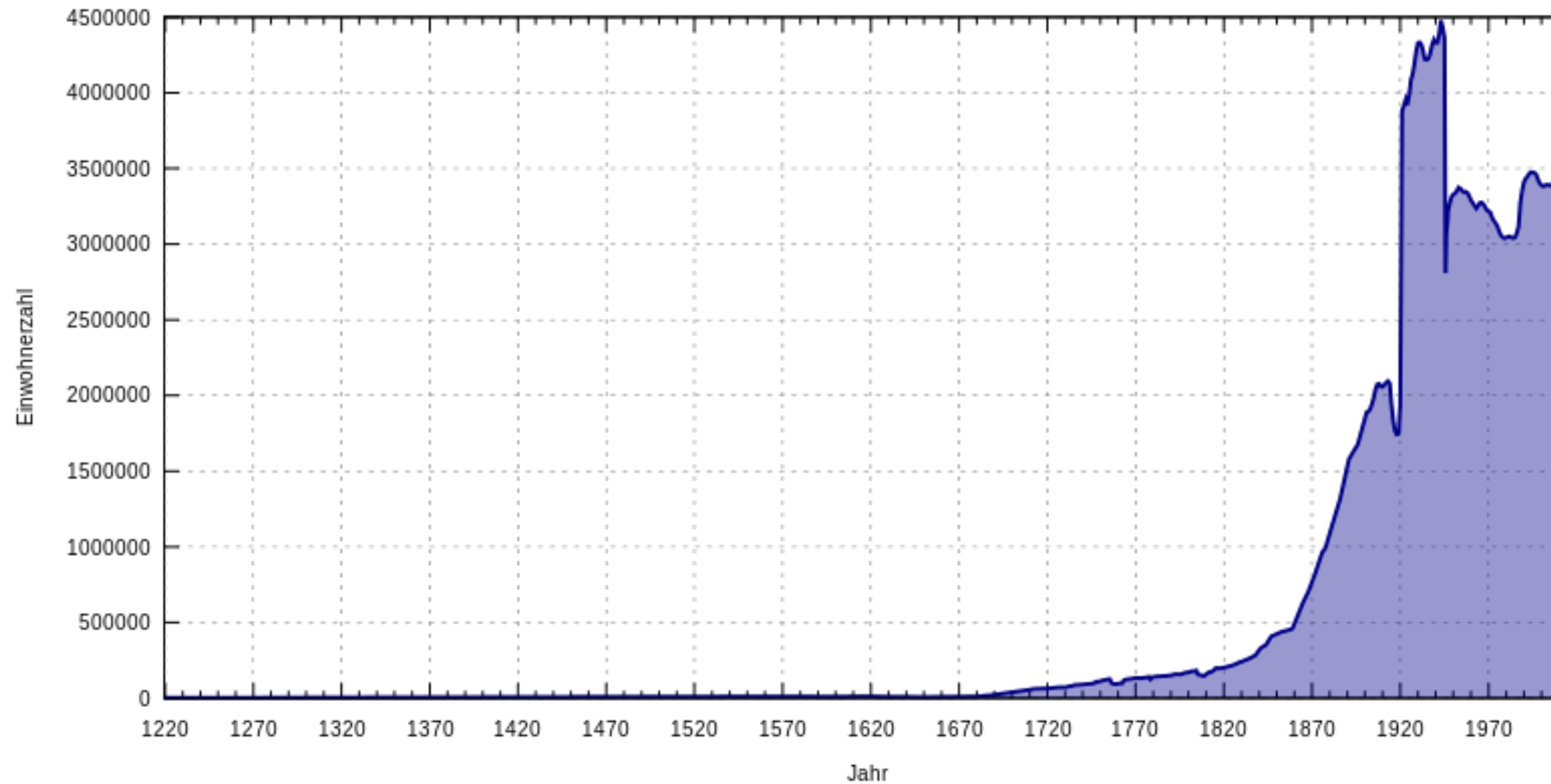
**= change of the economic structure**

# II. Urbanization

# & Mobility Revolution

# Accelerating Urbanization

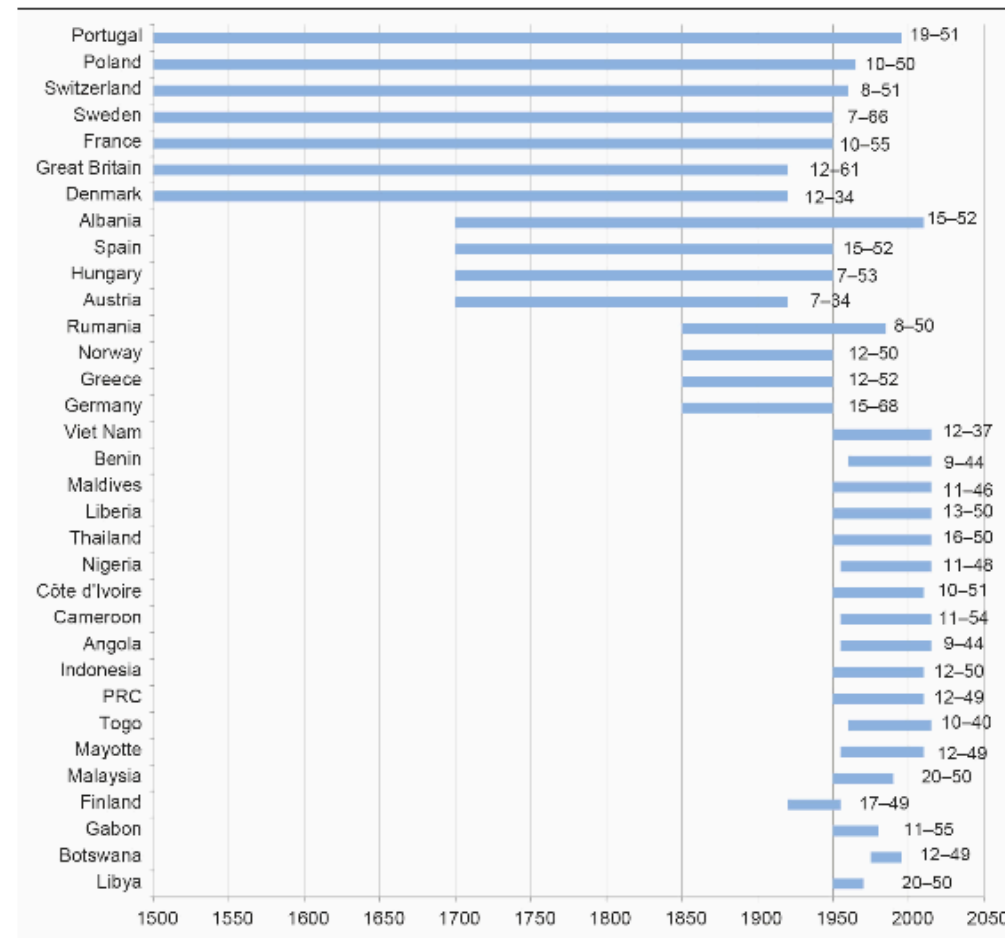
## 도시 인구 팽창(예: 베를린)





# Accelerating Urbanization

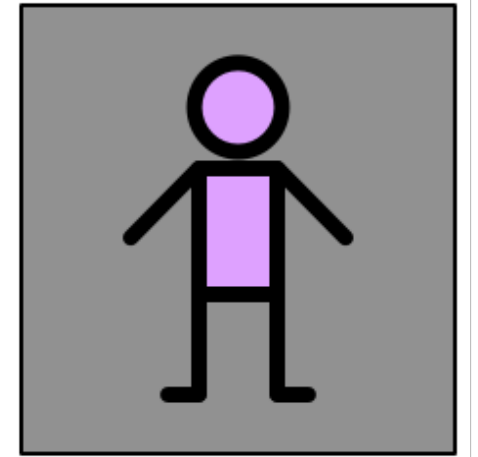
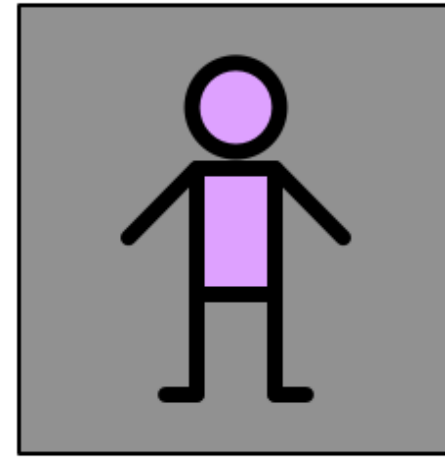
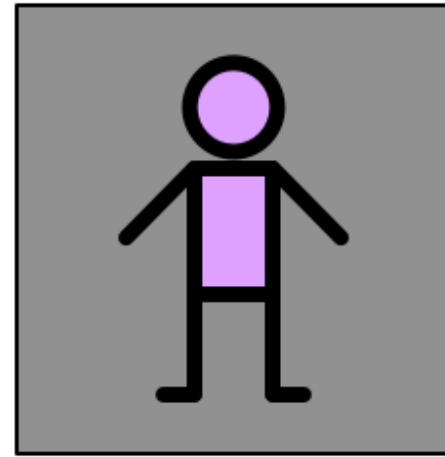
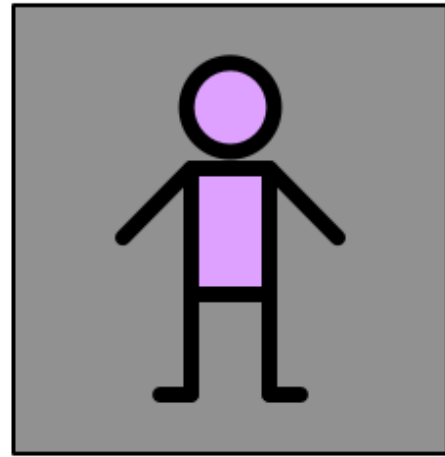
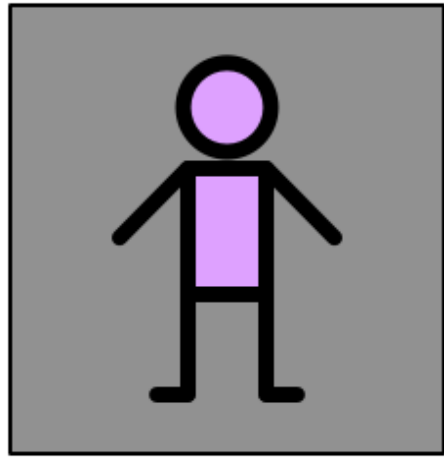
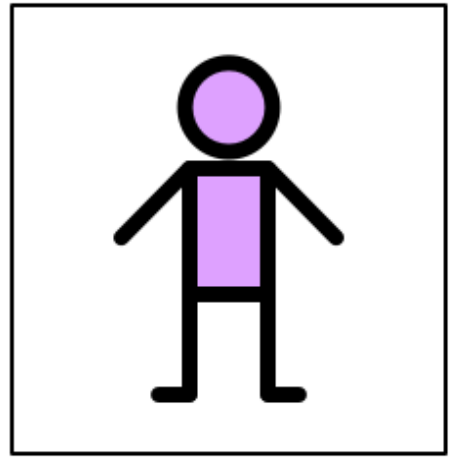
Figure 1: Years From About 10% to 50% Urbanization<sup>2</sup>  
(%)



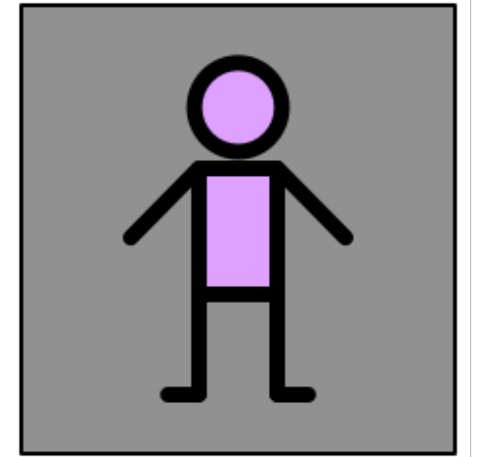
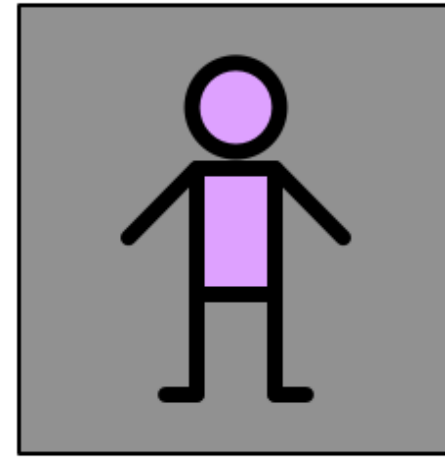
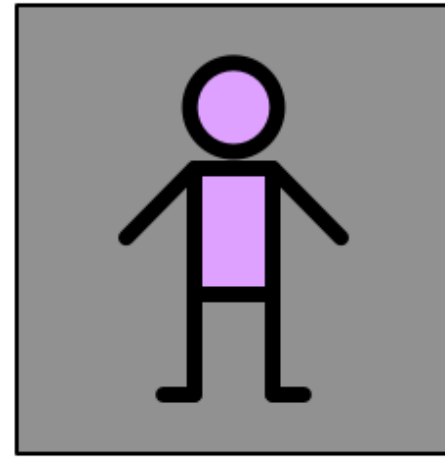
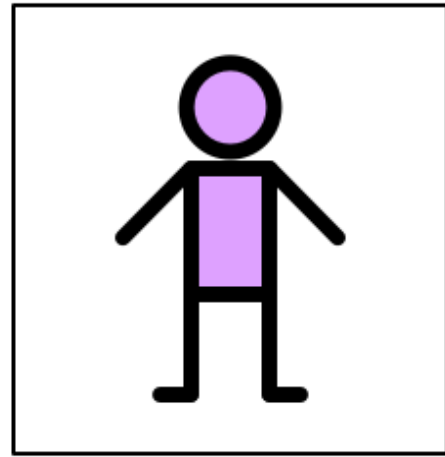
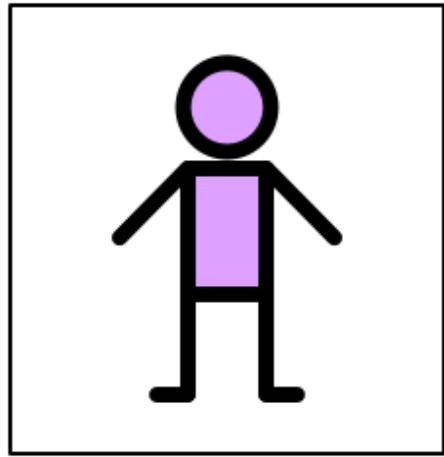
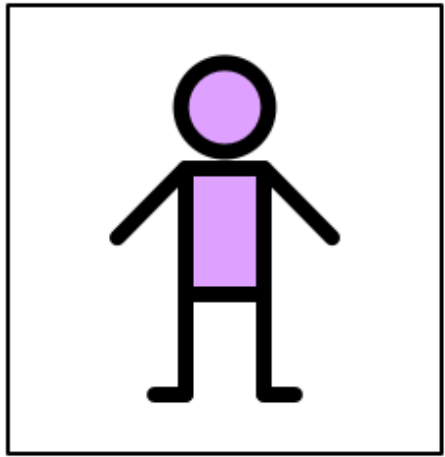
PRC = People' Republic of China.

Source: Authors' compilation based on two sources. Bairoch et al. (1988) reports the size of 2,191 European cities over the period 800-1850. Data are available at <https://github.com/JakeRuss/bairoch-1988> (accessed 1 November 2015). Urban population are added up and then divided by the estimated total population for each country. Data on total population are available from Table B-10 of OECD (2001, p.241). Data on urbanization rate in and after 1950 are from WDI of the World Bank.

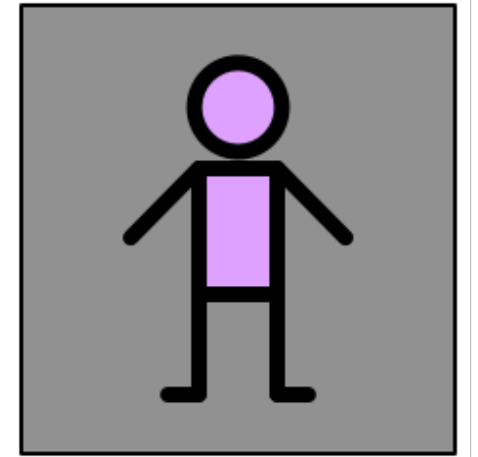
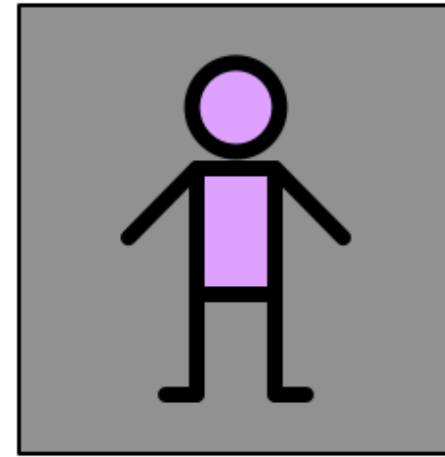
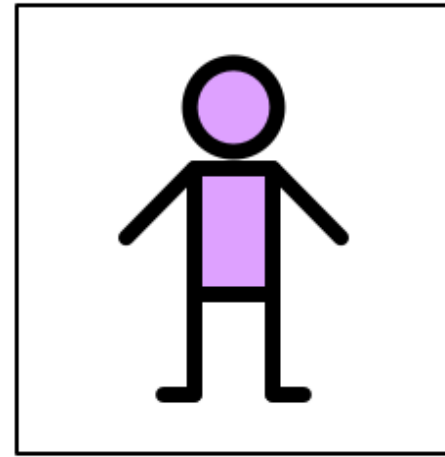
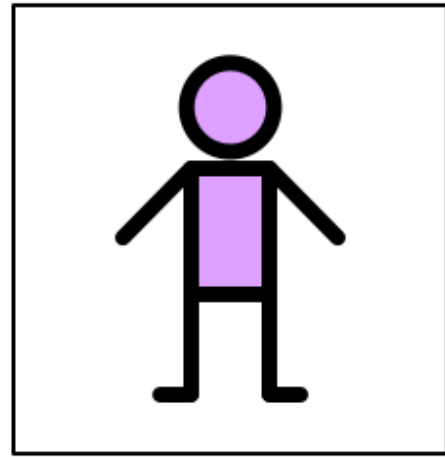
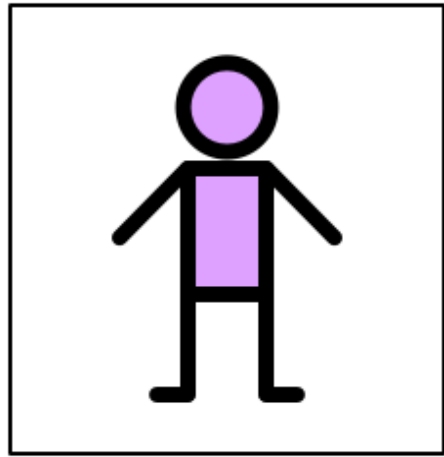
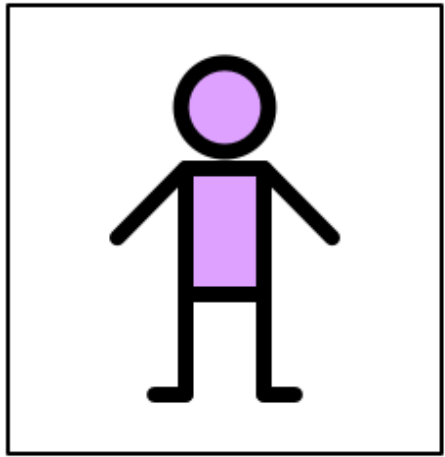
# 1900년: 15% urban



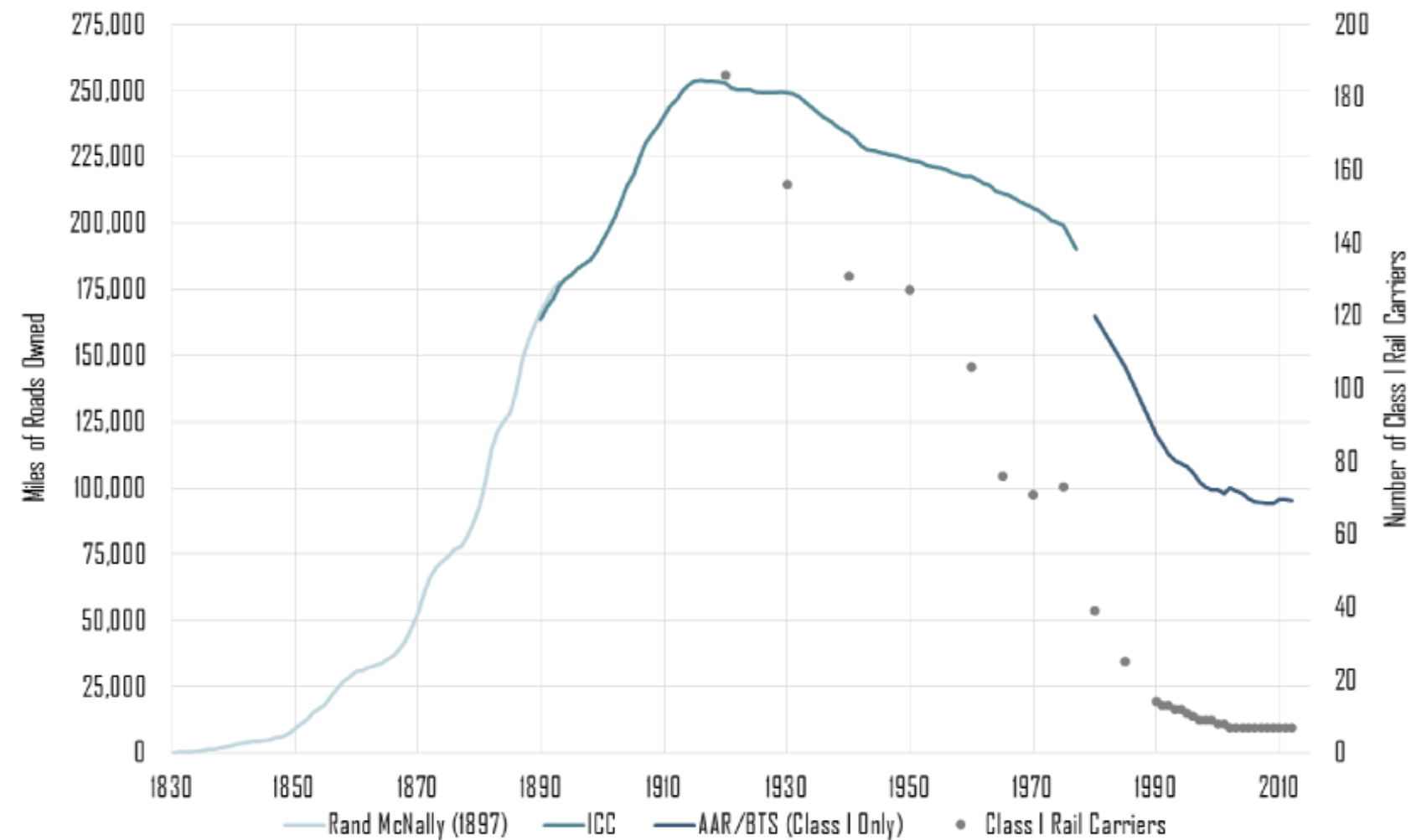
2000년: 50% urban



2050년: (추정) 65% urban



# The first mobility/transportation revolution: Railroads, began in early 1800s



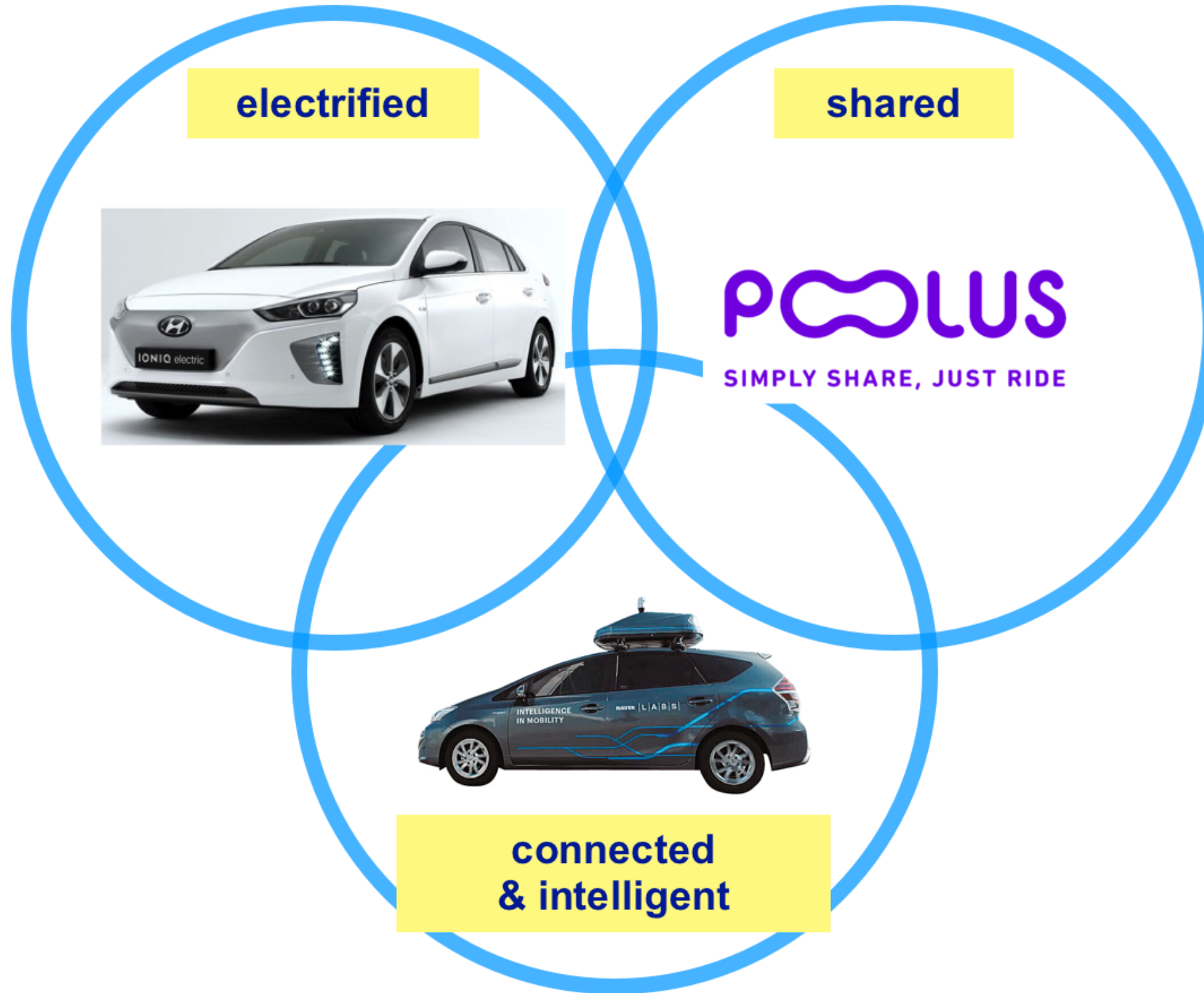
# The second mobility/transportation revolution: “Cars defined our cities!”



The Third

**Mobility/**

Transportation Revolution





교통 정책 목표

**making citizens' lives  
better**

1. providing the crucial  
dialog

**between the next-level  
tech industry**

and Seoul's residents

# 2. accelerating urban innovation

# economic mobility & job opportunities

서울시 교통물류과 | 우버 | 차량공유

# 플러스 ‘출퇴근 시간선택제’ 도입…서울시 “고 발하겠다” 맞불

권도연 | 2017.11.06

공유 278 | 댓글 8

언어 선택 Google 번역에서 제공

가+    가-



# Red flag traffic laws in the late 19th century



# Merkel: 2037년, 인간 운전 금지

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11.06.2017

f Teilen Twittern > Teilen E-



(rent-seeking)

조직된 소수

VS.

분산된 다수



# Changing Mobility Architecture

**Connected**

Heterogeneous

**Intelligent**

personalized

re-tooled

**re-imagined**