

Building

Resilient & Sustainable

Cities

in

TURKEY



Livable Cities Symposium 2014 – EMBARQ & IZKA
Developing Policies for Sustainable Transport and Participation
Izmir, Turkey-- November 20, 2014

Why “Sustainable Cities” in Turkey?

Context

- Rapid urbanization and shift to secondary cities
- Increasing traffic congestion and air pollution
- Weak urban planning framework and application
- High energy dependency and reliance on imports

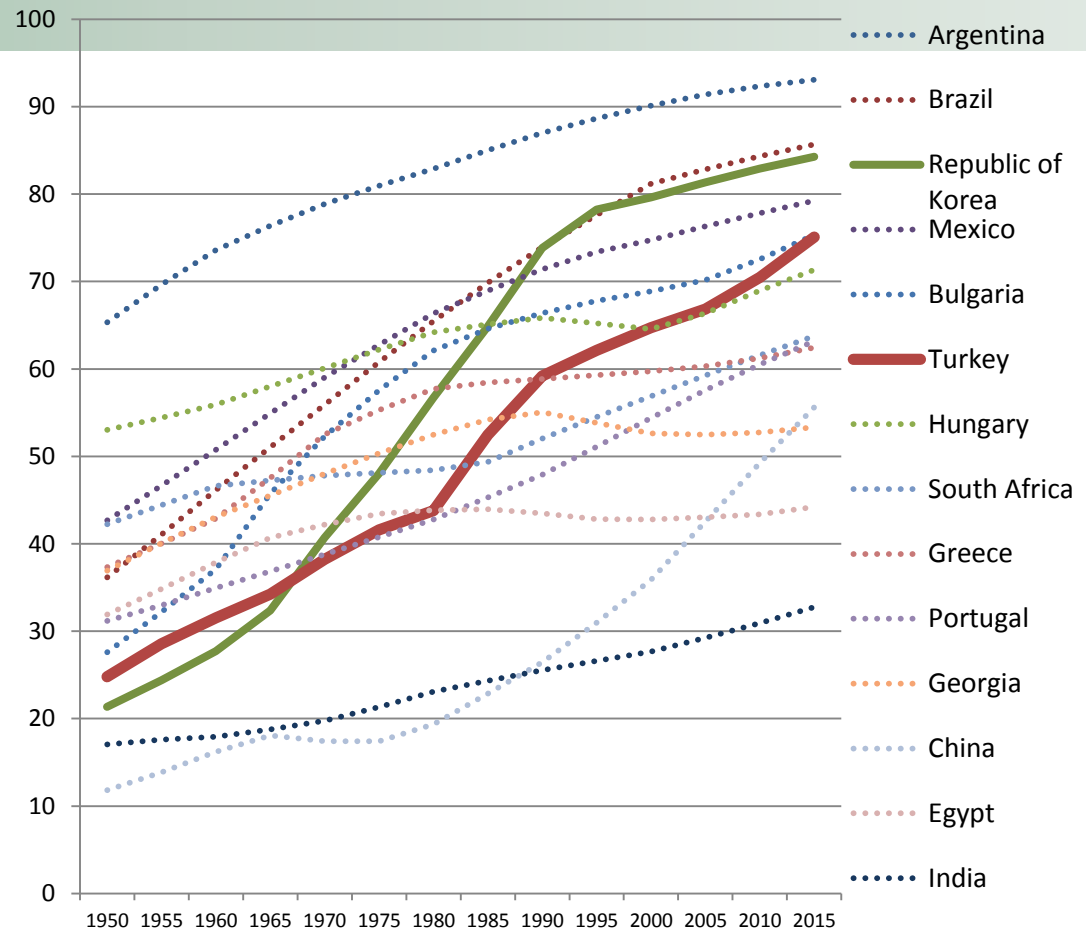
Relevance

- Modality for implementing elements of 10th National Development Plan, KENTGES, and other national strategies and plans
- Adding 14 new Metro Municipalities and expansion to provincial boundaries



Turkey's Rapid Urbanization

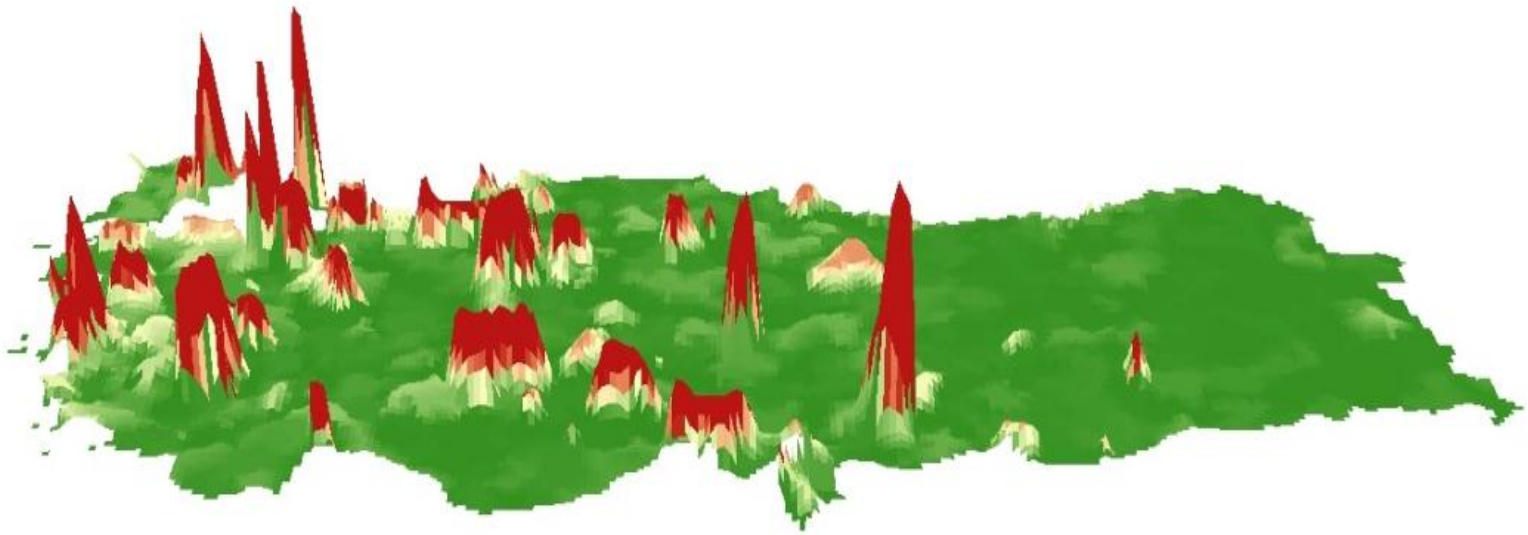
- Turkey's rapid urbanization has transformed the country demographically. Urban population has grown from 25% (1950s) to 75% (today).
- Like Korea, sharp urban growth over past 60 years



Economic shift with demographic shift

Can secondary cities leverage economic spillovers?

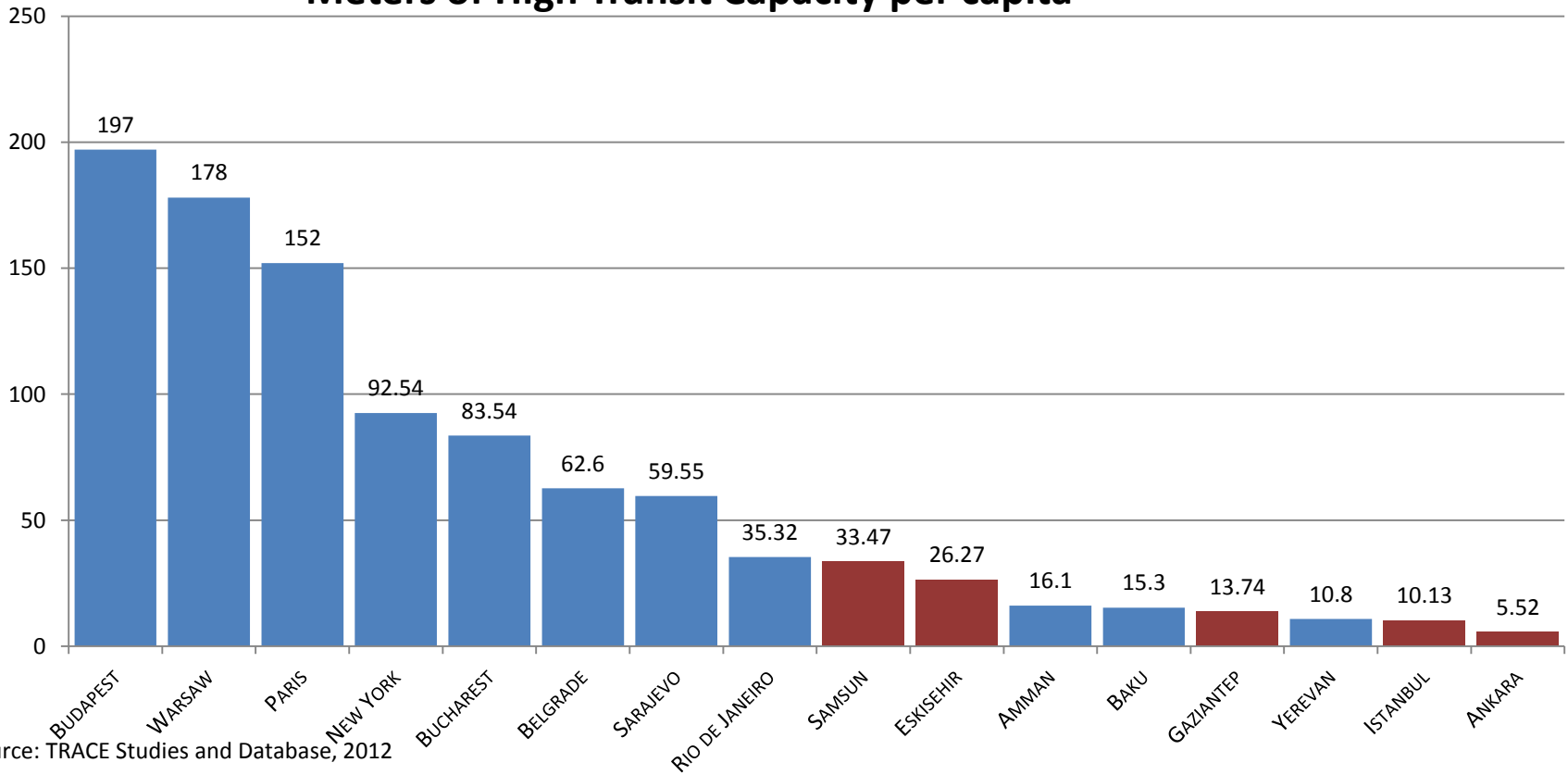
Spatial Distribution of Firms Established from 2007 to 2010



Increasing demand for infrastructure services

Urban transport options have not kept pace with urban growth

Meters of High Transit Capacity per capita

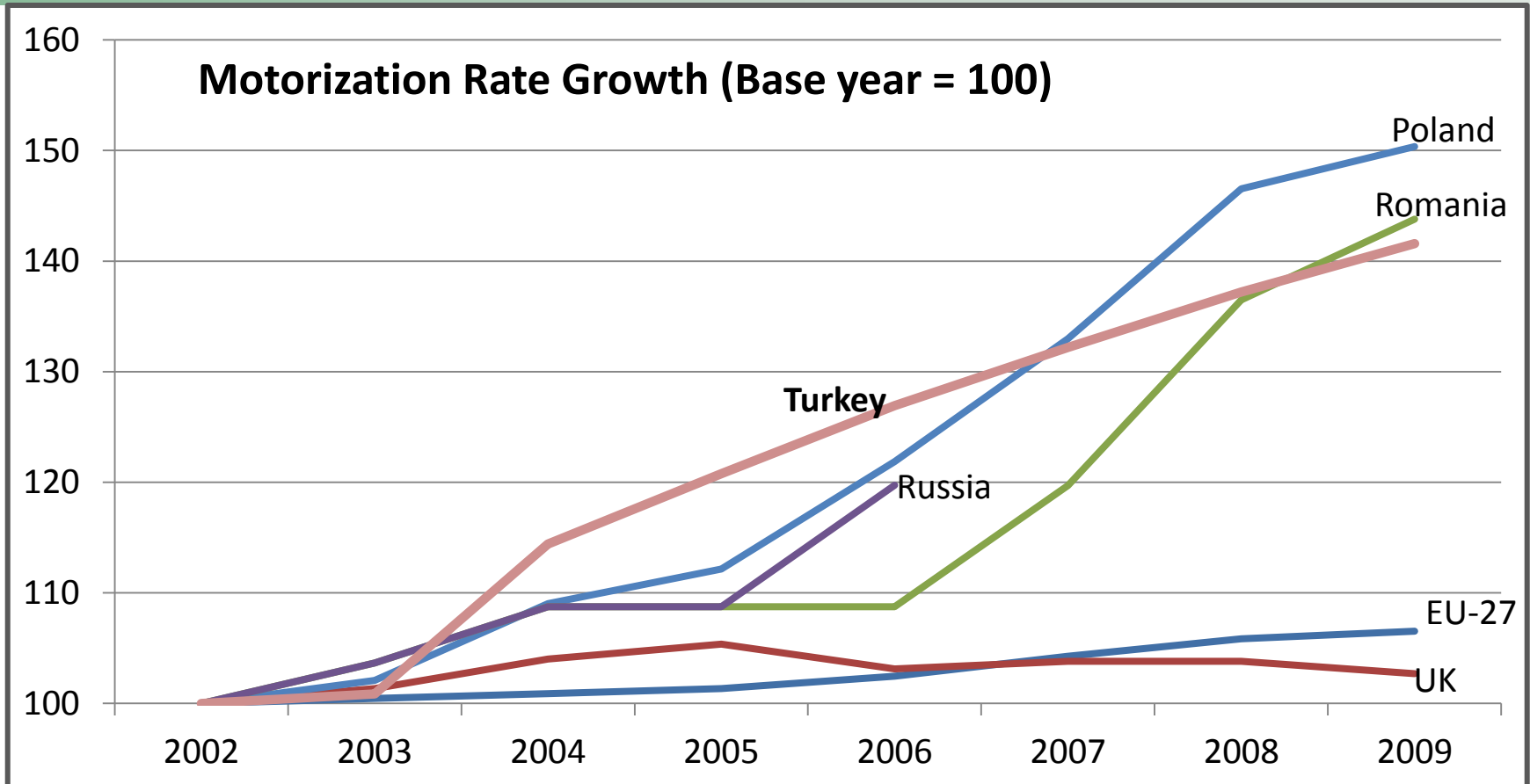


Source: TRACE Studies and Database, 2012



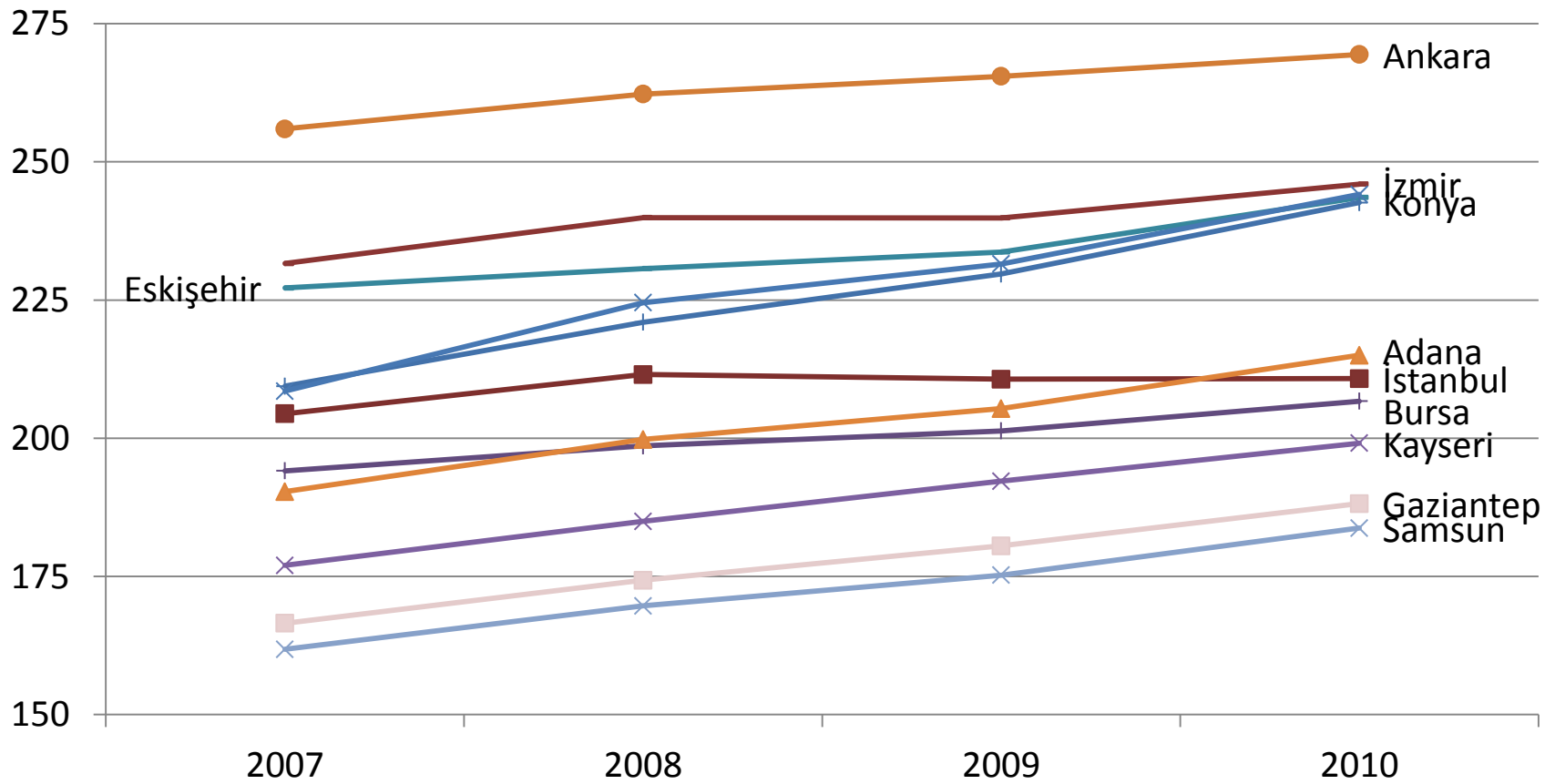
Car ownership has grown rapidly in Turkey

Economic growth and car ownership rates are linked

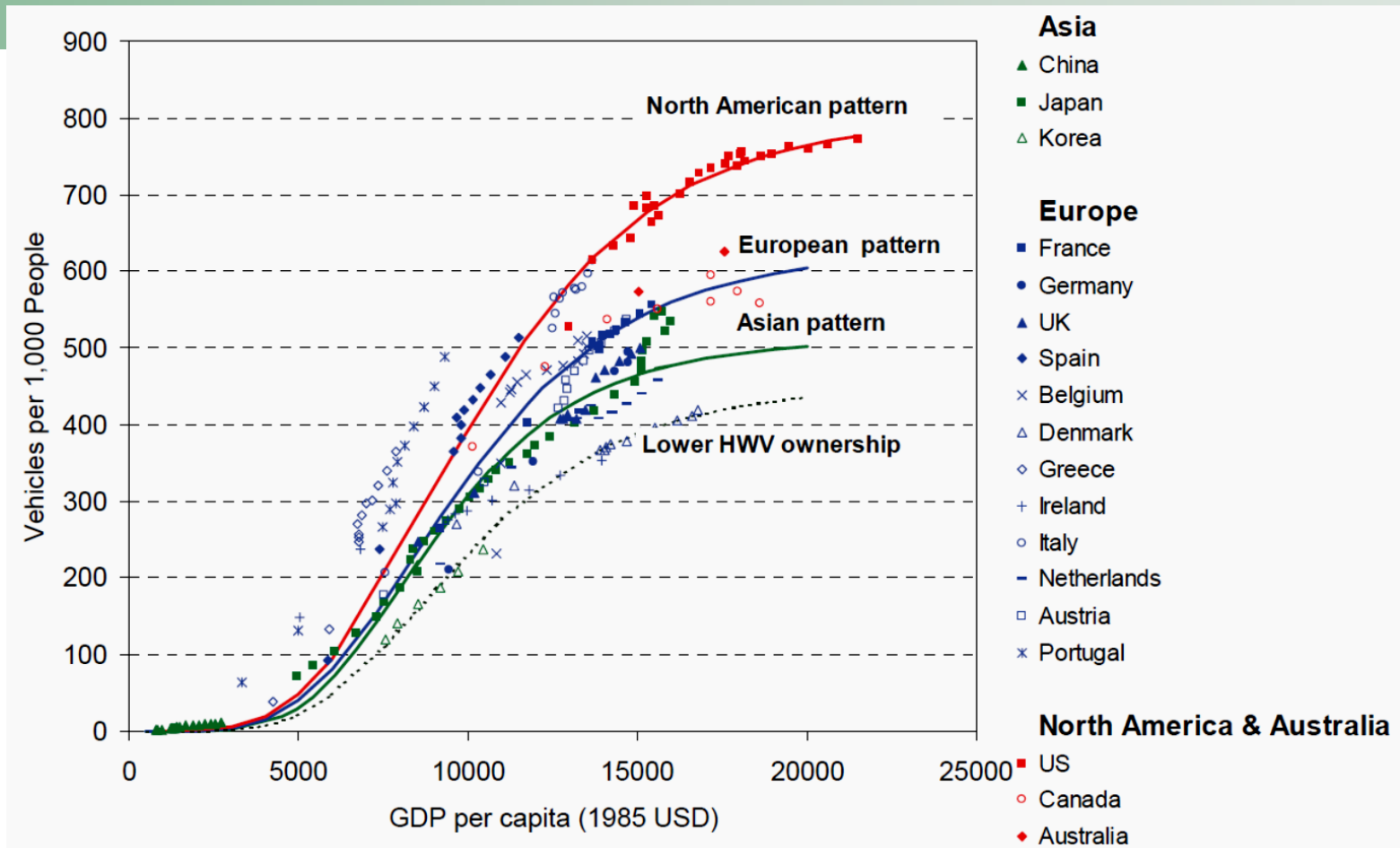


...and also in individual cities

Number of registered vehicles per 1000 population



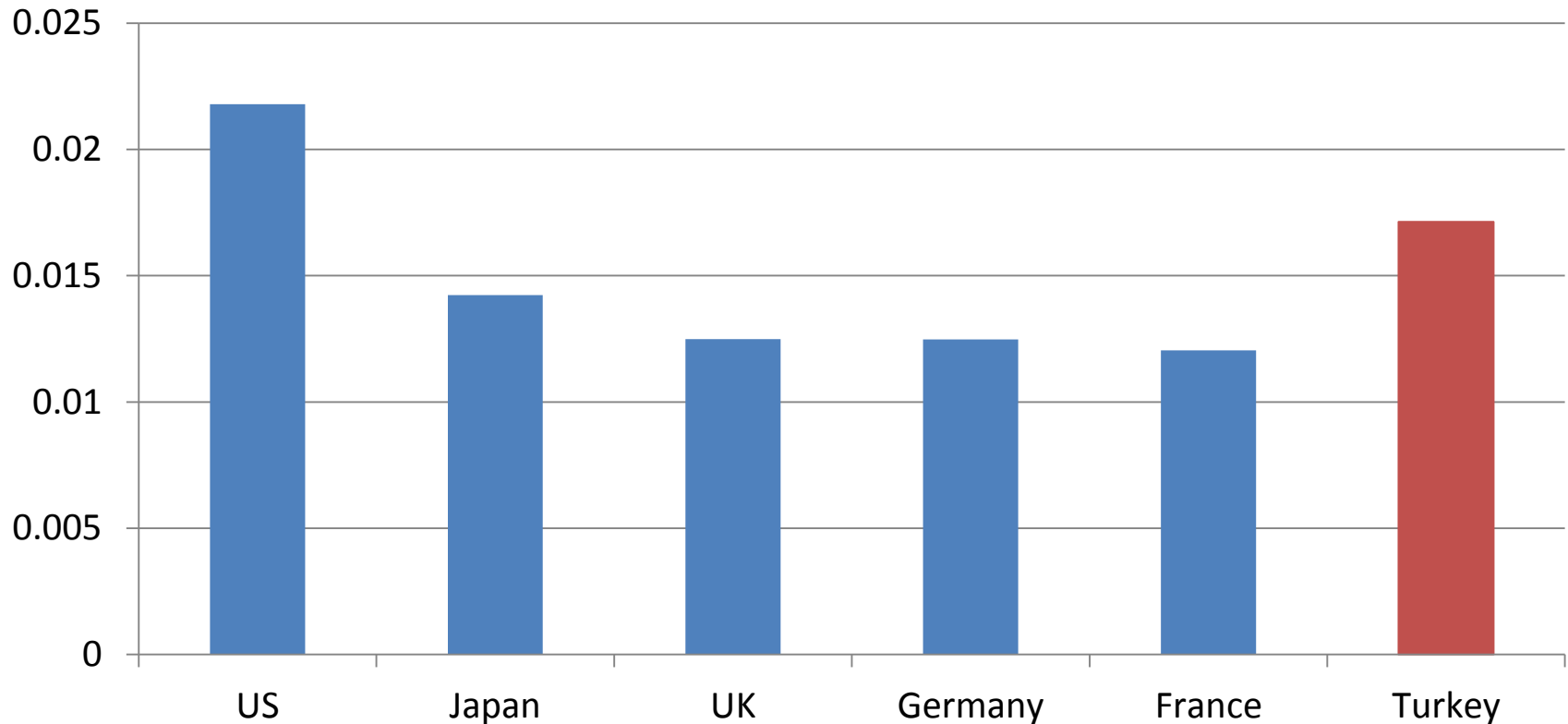
...and will continue to grow as income grows



...and will continue to demand fuel

High Petroleum Intensity in Turkey

Annual consumption (tons) per GDP (USD)



... with lifestyle changes causing urban sprawl

- ✓ Rapid population growth in secondary cities
- ✓ Demand for high quality and larger housing
- ✓ As density drives up housing price in the city center, residents move further to suburban areas for larger space, at trade-off with longer commuting



...such as this city in Turkey

As cities grow they need to plan to avoid costly problems



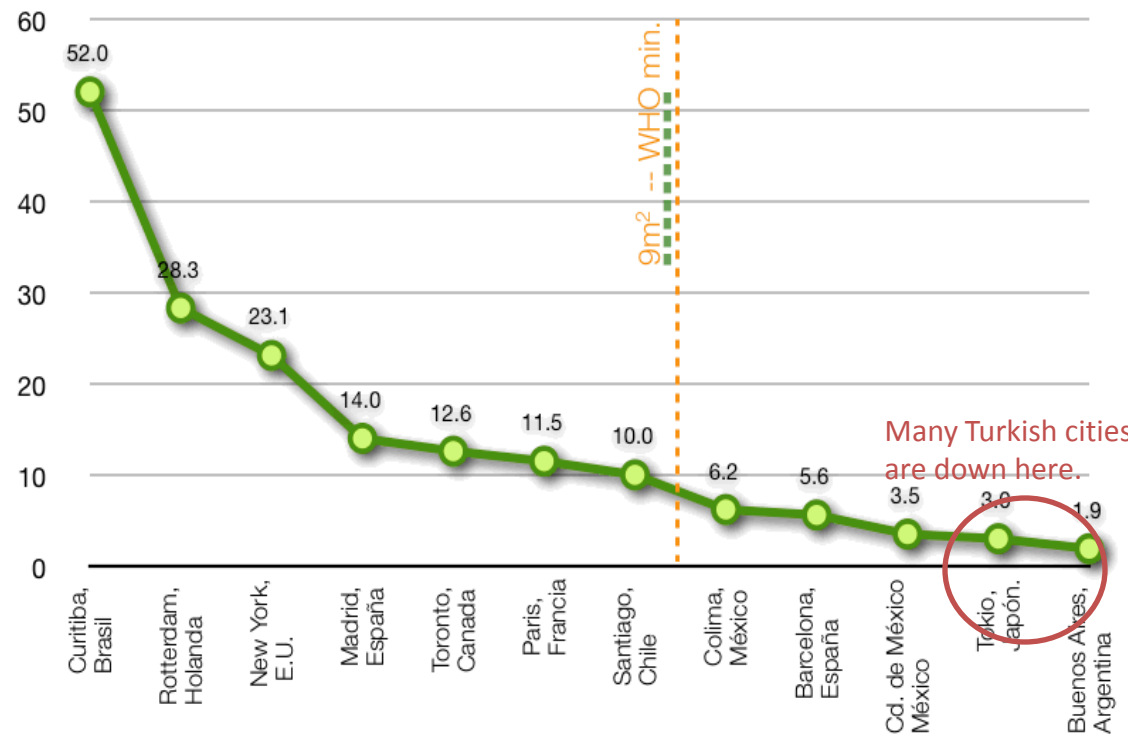
Increasing demand for urban land

Land use planning that provisions for green space

Provisioning for green space: increasing urban land values are placing new pressures on city officials to develop land

Many Turkish cities have low Green Space/person ratios. Strengthened land use planning can improve this

M2 OF GREEN SPACE PER PERSON IN CITIES OF THE WORLD



Sustainable Cities Project Concept

Partnering with Iller Bank

Principles

- Design a ***Policy Instrument*** that enables implementation and monitoring of 10th National Development Plan, Energy Efficiency Law and Strategy, KENTGES, and other national plans and strategies
- Establish a ***Platform*** that enables effective investment programming

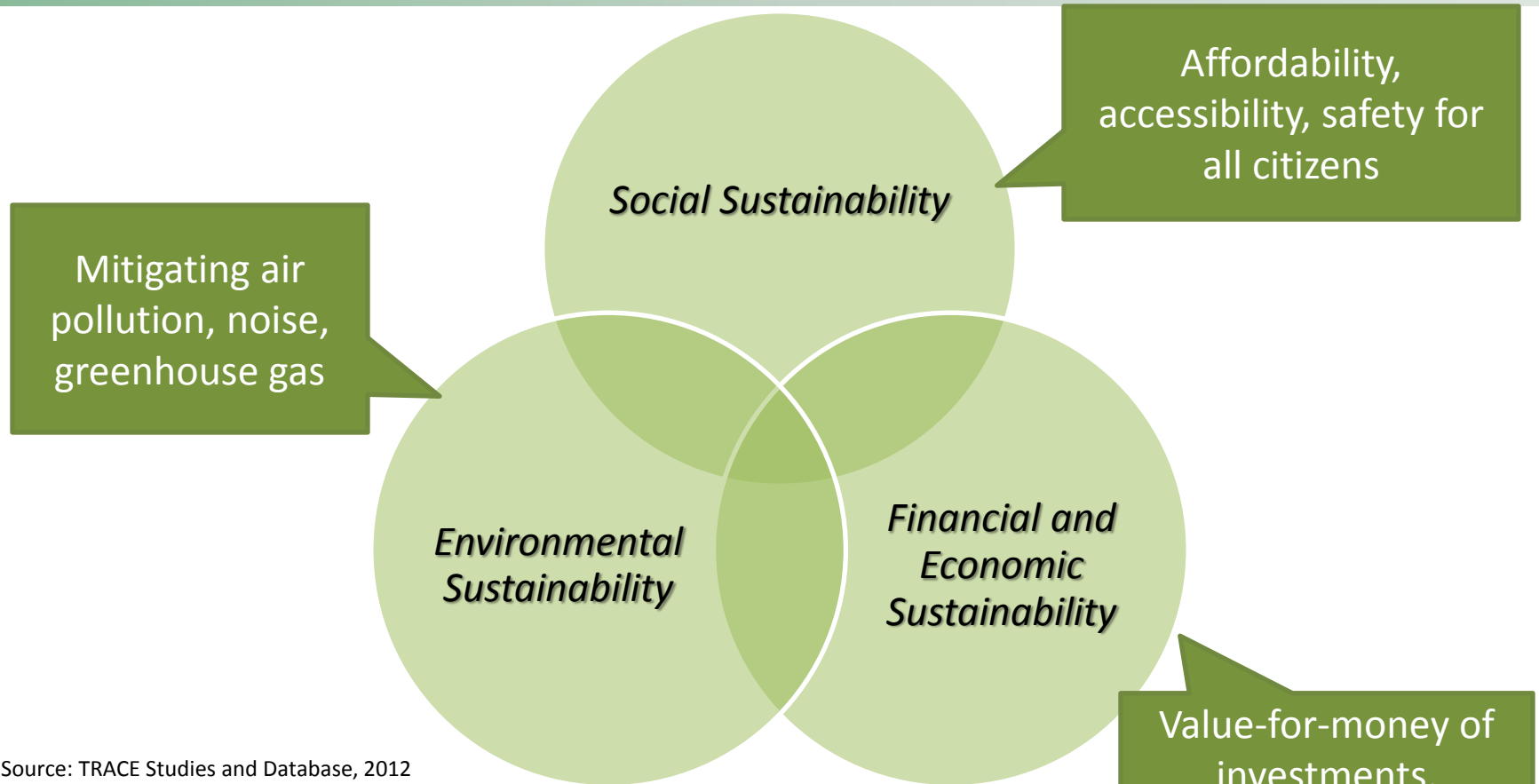
Modalities

- SCP will drive urban planning and investments
- Multiyear CIPs will provide investment framework to leverage IFI financing – as an alternative to “one-off” investments -- opportunities to work with the French Development Agency and EIB as cofinanciers



Sustainable Cities Framework

Emphasis on three dimensions of sustainability at the city level

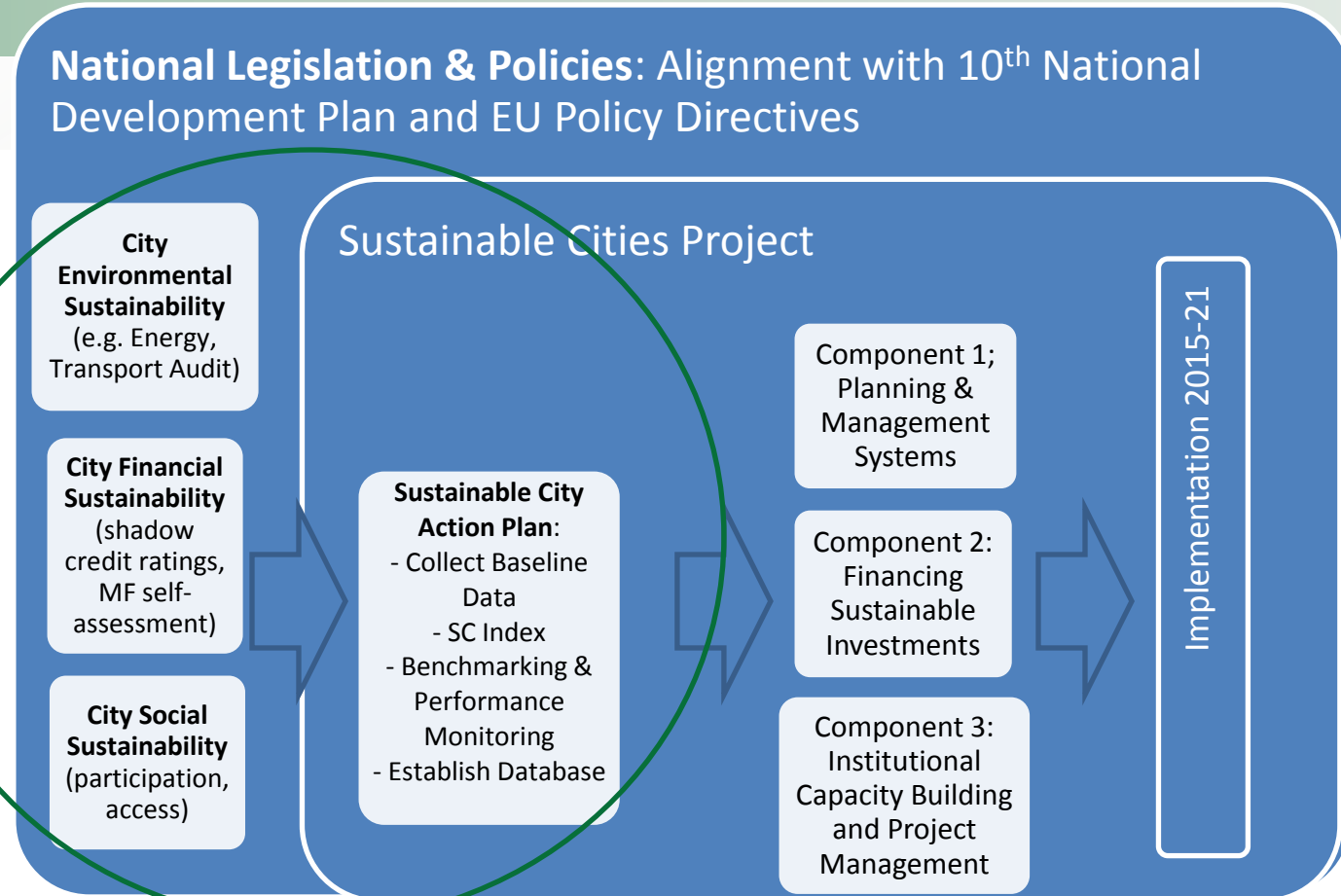


Source: TRACE Studies and Database, 2012



Linking SC Program with National Policy Objectives

- Emphasis on linking **planning** with investment financing
- Benefitting from **EU IPA2 grant funding** for planning dimension
- Expanding into **urban transport and energy efficiency** for the first time with Iller Bank



Improving Urban Mobility

Non-motorized modes of Transport

**Sustainable
Urban
Mobility:
Inclusive
transport**

- Non-motorized transport should be **fully integrated** into traffic management schemes
- Needs **pedestrian safety improvements** in city centers
- Non-motorized **“last-mile” connection** between public transport stations and residential areas could encourage greater public transport use
- **Air quality monitoring** is at an early stage
- Need to develop and enforce vehicle **emissions standards** for public transport vehicle fleet and private cars



**Environmental
monitoring,
management**



Improving and integrating management

Public transport management is often fragmented among multiple units

Light-rail-transit management and operation

By a municipal company or a department/unit in metropolitan government

Municipal bus operation and dispatching

By a department/unit in metropolitan government, but often separated from rail operation

Dolmuş management and operation

Coordination difficulties of UKOME to ensure route coverage in an integrated system

Needs to be coordinated in one **public transport authority**, responsible for route planning, performance monitoring and management



Options to Expand Electric Vehicles

Unlike many countries Turkey can benefit from its private sector

PARA | HABER

Elektrikli ticariler geliyor

Yol açını!



Şehir içi taşımacılık yapan firmalar, filolarını elektrikli araçlardan oluşturmaya başladı. Filonun büyüklüğüne göre ayda 3-4 bin TL arasında yakıt tasarrufu sağlayan elektrikli ticari araçlar pazarının hızlı büyüyeceği belirtiliyor.

BÜLENT EKİMCİ



Integrated Metropolitan Municipality Planning Framework

Sustainable Cities Project Component A

With grant funding support from the European Union's IPA2 Facility SCP cities will be supported in updating and strengthening their planning systems. Some potential areas of support are:

- Transportation Planning
- Housing Market Analysis
- Energy Efficiency Planning
- Resiliency to Disaster Risk Planning
- Strategic Environmental Impact Assessment (SEIA)
- Urban and Peri-urban Green Area Strategy
- Solid Waste Management Planning
- Community Participation in all stages of the process
- Urban/rural linkages
- Capital Investment Programming–CIP
- Urban Data Bases with Indicators integrated into a GIS system



Municipal Investments

Sustainable Cities Project Component 2

- **Smart Urban Transport.** Linking planning (EU funding for sustainable urban mobility planning) with investments – public transport, pedestrian walkways and bikepaths, green & energy efficient vehicles
- **Energy Efficiency & Climate Change:** Turkey is heavily reliant on imported energy which accounts for 6% of GDP – *Cities account for, on average, 70-80% of a country's energy consumption*
- **Water Management & Conservation:** Measures to reduce NRW losses – Turkey is a water surplus country but at risk of becoming a water deficit country – *NRW is as high as 50% or more in some cities; Treatment is just over 50% -- link with EU Water Acquis*
- **Solid Waste & Climate Change:** Turkey has high levels of methane gas emissions attributable to solid waste combustion.



TEŞEKKÜRLER!
THANK YOU!

