Policy practices for low-carbon towns in OECD countries

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OECD
BETTER POLICIES FOR BETTER LIVES

Framing today's presentation

1| Key policy consideration for low-carbon towns

- Role of cities
- Policy complementarities and synergies
- Governance and financing arrangement

2| Policy practices in OECD (and some non-OECD) countries, based on OECD's green cities / urban green growth work

1. Key policy consideration for low-carbon towns

# Cities are part of the problem, but central to the solution

Key facts:

- 2% of OECD regions generate roughly 1/3 of all GDP growth in the OECD

- By 2100, urban population will account for 85% of the estimated global population

- Cities account for an estimated 67% of global energy use and 71% of global energy-related CO_2

- Cities are closer to citizens' needs, have better knowledge of local conditions, and can test innovative ideas locally

Cities are key economic actors

Subnational direct investment as a % of public direct investment (2012)
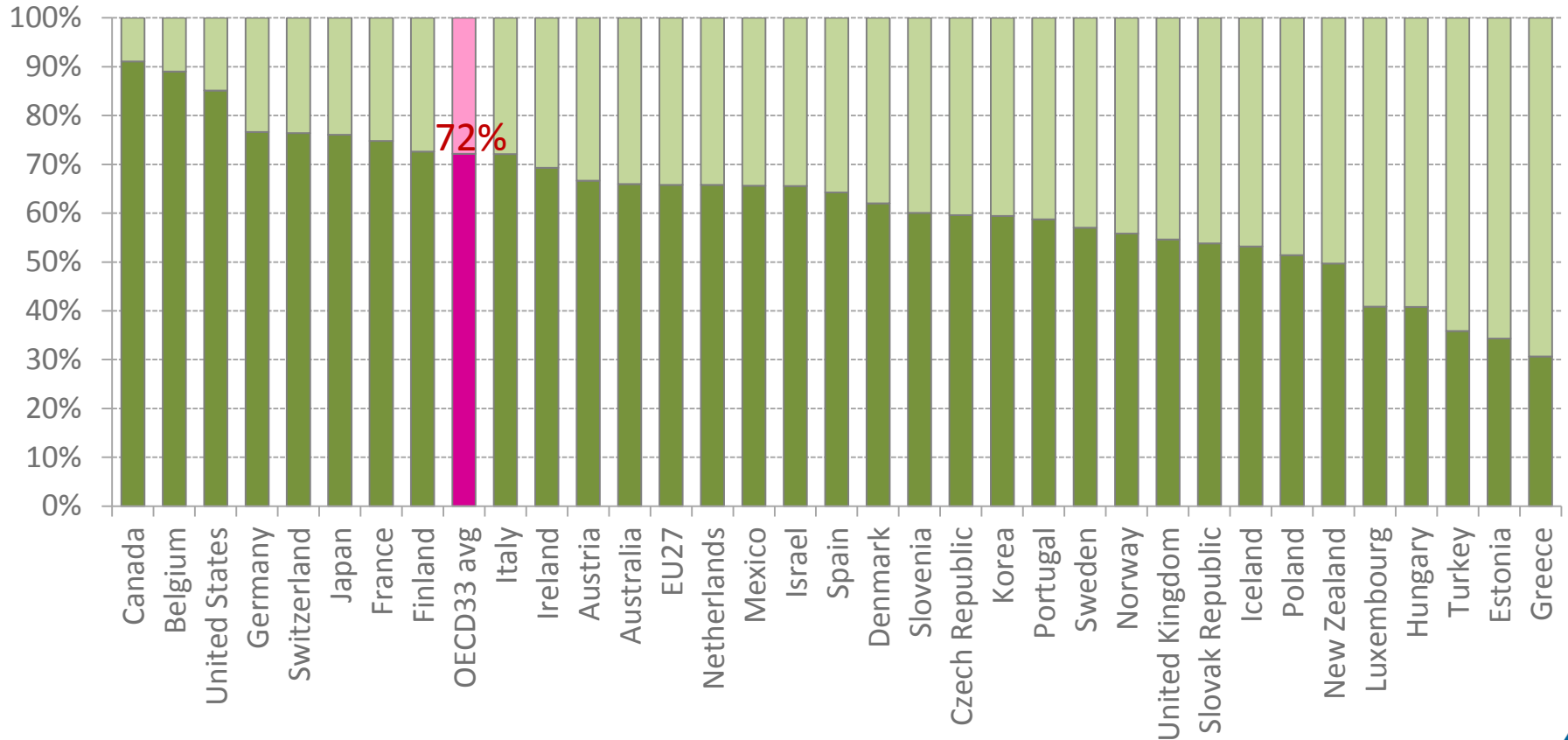
Legend:
- Rest of public sector (central government and social security)
- Subnational governments (States, regions and local governments)

Policy complementarities and synergies can be generated more in cities

For example, compact city policies can generate synergistic impacts:

| Characteristics	Environmental impacts	Social impacts	Economic impacts
Shorter intra-urban distances	Fewer CO2 emissions, less pollution	Higher mobility for all households, lower travel costs	Higher productivity due to shorter travel time for workers
Better access to diversity of local services and jobs	-	Higher quality of life due to access to local services (shops, hospitals, etc.)	Skilled labour force attracted by high quality of life; Greater productivity due to diversity, vitality, innovation and creativity
More efficient public service delivery	-	Public service level for social welfare maintained by improved efficiency	Lower infrastructure investments and cost of maintenance

Source: OECD (2012), *Compact City Policies: A Comparative Assessment*

Linking multiple policy objectives to drive low-carbon growth

| Policy objectives	Effective low-carbon growth policies
Jobs	• Energy-efficiency building retrofits • Public transport • Waste management / recycling
Urban attractiveness	• Public transport • Public service delivery (e.g. waste)
Green products and services	• Green products and service specialisation • Green technology R&D and innovation activities
Urban land values	• Infill and mixed use redevelopment • Reducing incentives for green-field development

Source: OECD (2013) Green Growth in Cities

Administrative boundaries are not the answer
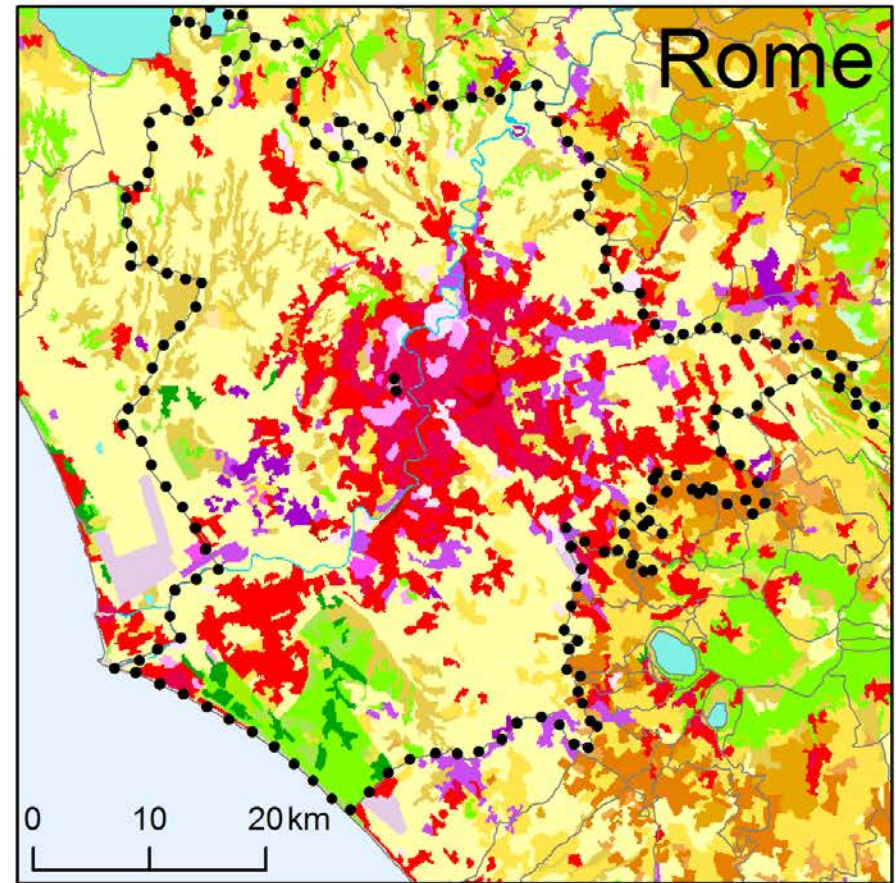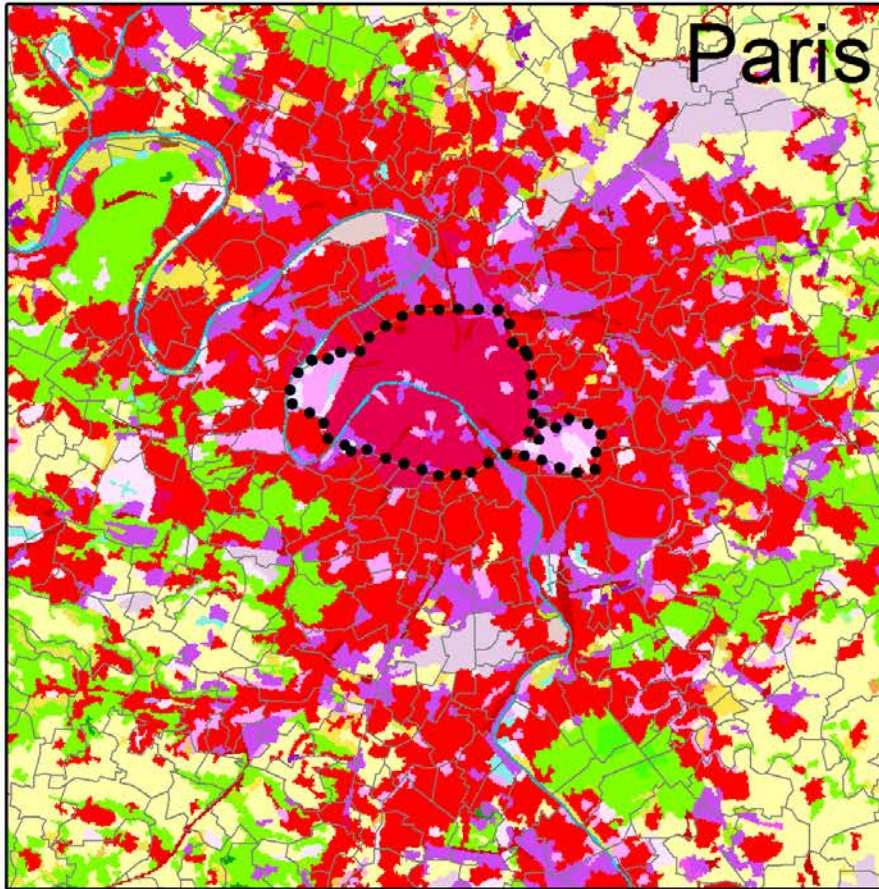
Metropolitan governance bodies can reduce sprawl

- Urban sprawl creates negative externalities in Metropolitan areas (MAs)

- Cooperation is a way to internalise the externalities when making policy decisions

- **-> Sprawl decreased in MAs with governance body, but increased in those without!**

Change in Urban Sprawl

|	
With Governance Body	Without Governance Body
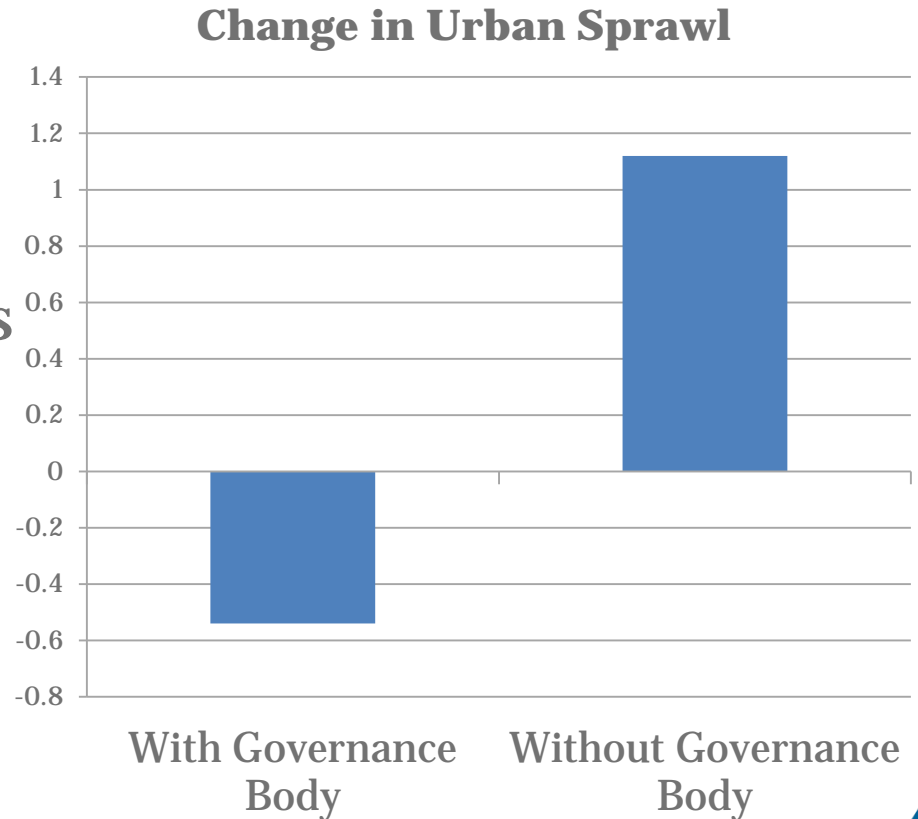
Difference significant at the 99%-level after controlling for log-population levels and country specific trends.

Metropolitan governance bodies can increase well-being

- **Citizens are more satisfied in MAs that have sectoral authorities for public transport**

- **Those MAs have also lower pollution levels (PM)**

Share of Citizens Satisfied with Public Transport

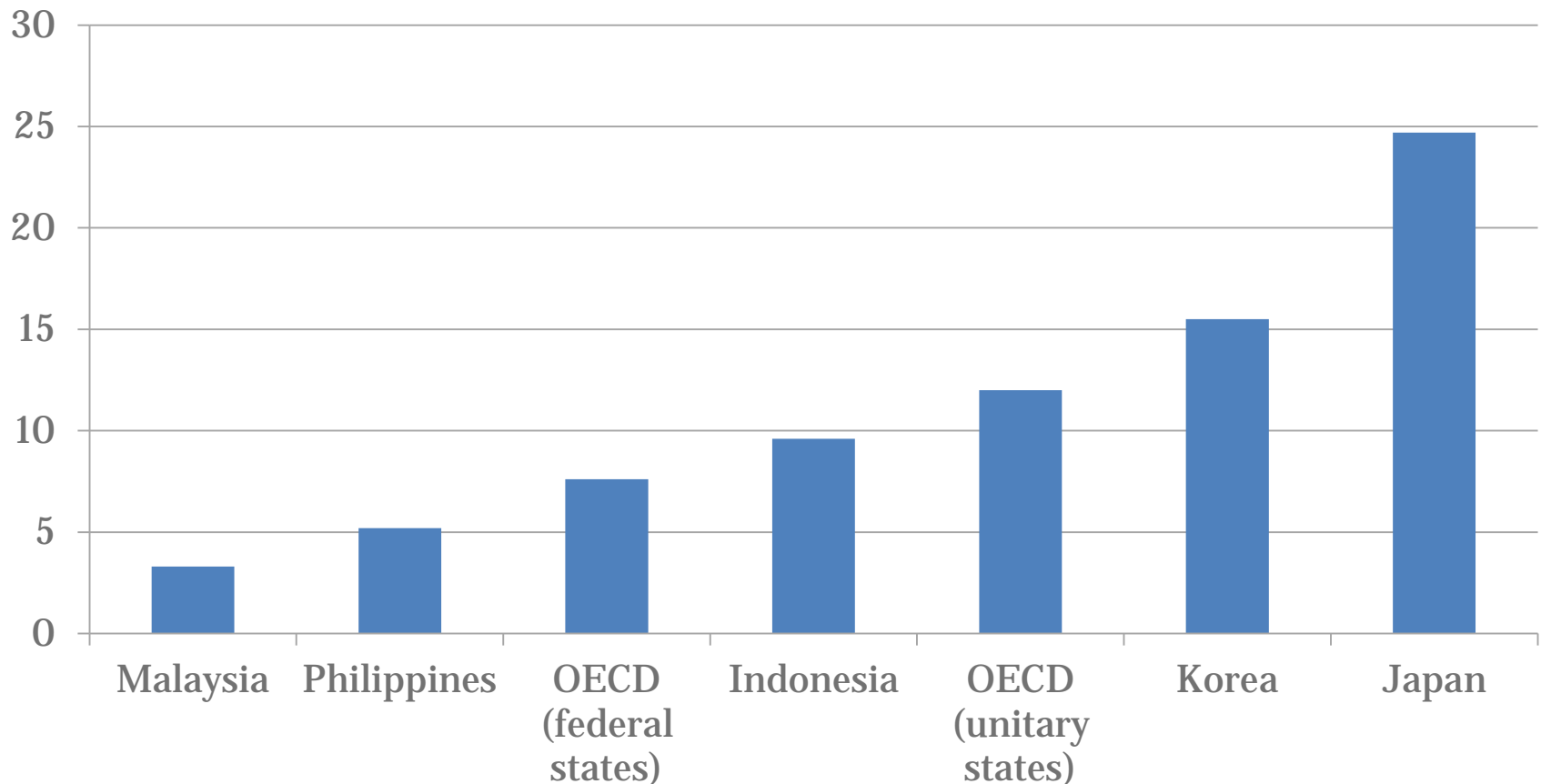|	
With Transport Authorities	Without Transport Authorities
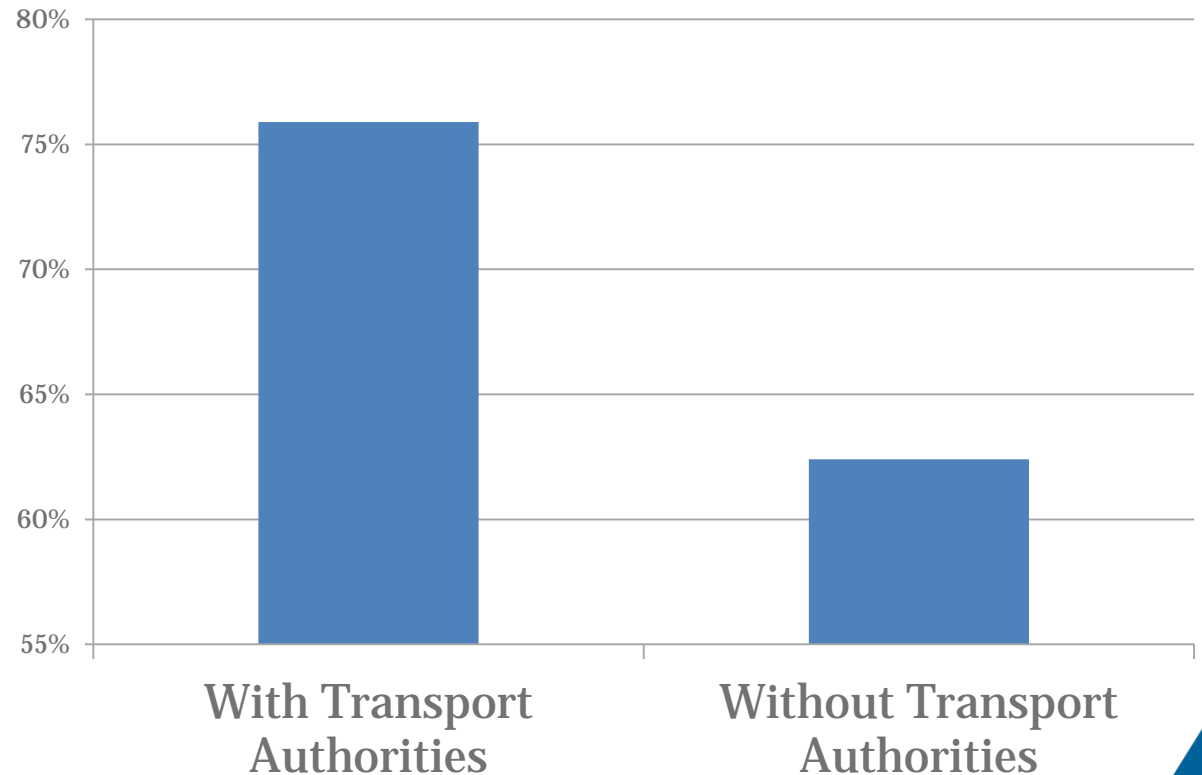
Based on European Urban Audit perception survey.
Difference significant at 95% level.

Cities need to increase their own revenues and develop diverse financing tools

Attribution of local tax revenues within the total tax revenue (in 2013, %)

2. Policy practices for low-carbon towns in OECD countries

Policy practices in 11 categories

1. Facilitate in-fill redevelopment
2. Promote low-carbon neighbourhoods
3. Charge private car use to finance public transport
4. Develop shared mobility and non-motorised transport
5. Reduce energy intensity in industry
6. Reduce energy consumption and waste from buildings
7. Reduce municipal waste and promote recycling and waste-to-energy
8. Increase distributed renewable energy in cities
9. Supply skilled workforce for the green economy
10. Facilitate connections to spur green-tech innovation
11. Increase demand for low-carbon products and services

Incentivise in-fill redevelopment

Opportunities / challenges

- Reducing green-field development, while increasing the asset value of the surrounding area.
- Complexity, costs

Practices in place

- Financial incentives for brownfield development
- Preferential property tax rate for multiple dwellings: Greater Copenhagen (Denmark), Sweden
- Two-rate property tax / tax on under-utilised land: Sydney (Australia), Denmark, Finland
- Special area tax / Development fees
- Refill rate: Portland (US)

Promote low-carbon neighbourhoods

Opportunities / challenges

- High-density, mixed-use neighbourhoods linked by public transit can make travel distance shorter and increase accessibility of urban services for all.

- Scaling up / inclusiveness

Practices in place

- High-dense, mixed use redevelopment: Hamburg (Germany), Stockholm (Sweden)

- Eco-quartier / eco-neighbourhood : France, Malmö (Sweden), Beddington (UK)

- Transit-oriented development: Arlington (US)

Charge private car use to finance public transport

Opportunities / challenges

- Reducing auto use requires attractive public transit alternatives.

- Financing tools to discourage auto use can also accelerate public transit projects.

- ICT (dynamic pricing / fee collection)

- Political will and sectoral silos

Practices in place

- Value capture tax from public transport investment: Hong Kong (China), Miami (US), Milan (Italy)

- Congestion charges: Singapore, London (UK), Stockholm (Sweden)

- High-occupancy toll lanes / parking charges and fees

Develop shared mobility and non-motorised transport

Opportunities / challenges

- Car sharing can drastically reduce the number of travel and thus reduce carbon emissions.

- Integrating various transport modes can facilitate the use of public transport and non-motorised transport.

- Legal framework and sectoral silos

Practices in place

- Car sharing / Bicycle sharing

- Integrated fee system: Paris (France)

Reduce energy intensity in industry

Opportunities / challenges

- Circular economy practices can reduce energy intensity in industry and increase competitiveness.

- Industry can be located near urban centres, thus increasing accessibility to jobs.

Practices in place

- Eco-industrial park: Kalundborg (Denmark), Kitakyushu (Japan), Guigang (China), Rotterdam (Netherlands)

- Support for energy efficiency consulting for SMEs

Reducing energy consumption and waste from buildings

Opportunities / challenges

- Low-interest loans and innovative financing mechanisms can lower the barriers for property owners to invest in energy efficiency and renewable energy technologies.

- Building retrofits create local employment.

Practices in place

- Green building standards/incentives

- Energy efficiency retrofits for public buildings: Paris (France)

- ESCOs: Berlin (Germany)

- Local Emission Trading System: EU, Tokyo (Japan)

Reduce municipal waste and promote recycling and waste-to-energy

Opportunities / challenges

- Recycling, food composting, material re-use can minimise landfilled waste.

- Waste-to-energy technology can reduce fossil fuel based energy production.

- Separation at source / community engagement

Practices in place

- 'Zero Waste' ordinance (San Francisco, US)

- Comprehensive recycling strategy: Horsholm (Denmark), Stockholm (Sweden)

- Waste-to-energy: Amsterdam (Netherlands)

- Smart bin: Bristol (UK)

- Capture landfill methane gas: Sao Paolo (Brazil)

Increase distributed renewable energy in cities

Opportunities / challenges

- Green building standards for new buildings increase the provision of renewable energy for commercial and residential buildings

Practices in place

- Solar Thermal Ordinance: Barcelona (Spain)

- Requirement for the use of renewable energy for new buildings (Merton Rule): London (UK)

Supplying skilled workforce for the green economy

Opportunities / challenges

- Green human capital development is an effective means to adapt skills to the emerging needs of the green economy.

Practices in place

- Multi-stakeholder coordination committee for solar energy: Mitteldeutschland (Germany)

- Workforce development programme for clean energy: Massachusetts (US)

Facilitate connections to spur green-tech innovation

Opportunities / challenges

- Facilitating connections between university research and private sector R&D for green technologies spurs green tech innovation.

Practices in place

- Tax incentives and funding for green tech industrial zones and incubators

- Regional forum between businesses, universities and local governments : Øresund (Denmark / Sweden), Mitteldeutschland (Germany)

- Platform to support local SMEs to facilitate R&D: Paris (France)

- Business cluster to offer expert assistance: Lahti (Finland)

Increase demand for low-carbon products and services

Opportunities / challenges

- City governments can purchase low-carbon products and services by themselves, or promote green purchasing, so they can increase demand for low-carbon products and services.

Practices in place

- Procurement centre: Helsinki (Finland)

- Hydrogen fuel buses: Barcelona (Spain), Cologne (Germany), Hamburg (Germany), London (UK)

- Renewable energy purchasing: Calgary (Canada)

Conclusions

- Cities play a crucial role in fostering low-carbon growth, as they are major economic investors and have many policy instruments to engage at hand.

- Low-carbon targets can be best achieved when they are adressed together with economic and social targets.

- Rulemaking, regulatory oversight and financing structure for low-carbon growth will require effective coordination with national government (national price signals and standards are crucial).

- Metropolitan governance should be urgently established, as urban activities extend beyond administrative boundaries and interact strongly with periphery and rural areas.

FIND OUT MORE ...

OECD's expertise on urban policy

1. **Reviews of metro-regions and national urban policy** to identify opportunities to address competitiveness, sustainability and governance challenges

2. **Horizontal analyses** targeting, for example, urban competitiveness, climate change, port cities and green growth in cities

3. **Policy dialogue** on urban issues to facilitate knowledge exchange and best practices to inform policymakers' agendas (Roundtable)

4. **Statistical indicators** on urban and metro-regions – the fundamental tools for enhancing cross-country comparison and improving policy evaluation

Policy reviews of metro-regions and national urban policy

1. **Metropolitan reviews**: tailored studies assessing how a given metro-area can boost competitiveness and foster sustainability

   e.g. Chicago, Guangzhou, Rotterdam-Hague, Mexico City, Venice, …

2. **National urban policy reviews**: tailored studies assessing national level policies which impact urban development in a country

   e.g. Poland, Korea, Chile, China, Mexico, Kazakhstan, Viet Nam, …

Thematic work related to low-carbon growth

- OECD (2010), Cities and Climate Change
- OECD (2012), Compact City Policies: A Comparative Assessment
- OECD (2012) Redefining Urban: a new way to measure metropolitan areas
- OECD (2013), Linking Rural Development with Renewable Energy
- OECD (2013), Urban and rural linkages
- OECD (2013) Green Growth in Cities
- OECD (2015) The Metropolitan Century: Understanding Urbanisation and its Consequences
- OECD (2015) Governing the City
- OECD (2016) Urban Green Growth in Dynamic Asia
- OECD (2016), OECD Regional Outlook 2016
- OECD (2017), The Governance of Land Use
- OECD (2016), Making Cities Work for All

OECD Green Growth Studies
Compact City Policies
A COMPARATIVE ASSESSMENT
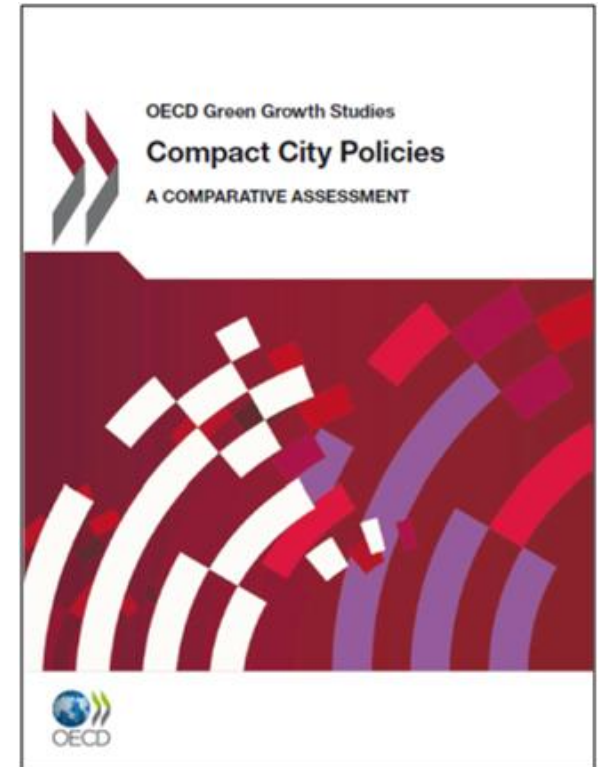
Policy Dialogues at OECD

- *OECD Regional Development Policy Committee / Working Party on Urban Policy*

  – *OECD's official meeting (twice a year) to discuss and exchange policies on regional development and urban issues among 35 member countries*

- *OECD Roundtable of Mayors and Ministers (2007-)*

  – *Unique global forum for mayors and ministers to exchange best urban policy practices*

OECD Metropolitan Database

Interactive maps and data on OECD metro areas
http://measuringurban.oecd.org/

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