



# *Public procurement for low-carbon innovation*

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# Why look at PP for low-carbon innovation now?

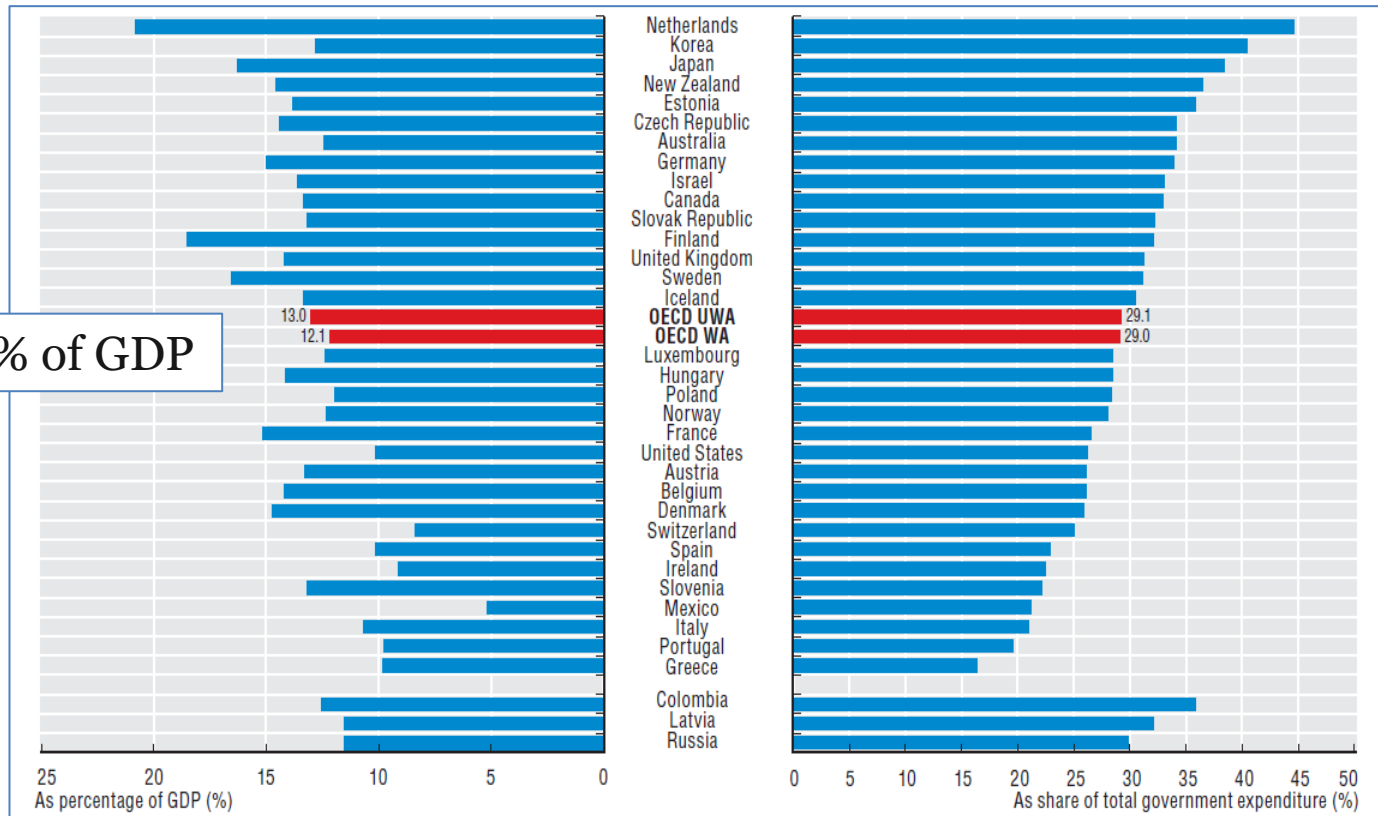


- First diagnosis of how existing policy regulatory frameworks hinder climate policy
    - Public procurement possibly ‘misaligned’ with climate goals
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- Sustainable Development Goals: 12.7
    - “Promote public procurement practices that are sustainable, in accordance with national policies and priorities”
  - The Paris Agreement
    - Signatories, i.e. governments, should lead by example
  - Some sectors slower at generating (or diffusing?) low-carbon innovation



# Why does public procurement matter for the low-carbon transition?

## General government procurement as percentage of GDP and as share of total government expenditures, 2013



EU: 14% of GDP

Source: OECD National Accounts Statistics (database). Data for Australia are based on a combination of Government Finance statistics and National Accounts data provided by the Australian Bureau of Statistics.



# Some improvements in public procurement practices

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From lowest cost of acquisition to...

- Total cost of ownership (e.g. acquisition + energy use over life-time)
  - Life-cycle cost analysis (e.g. monetised externalities)
  - MEAT (most economically advantageous tender), including quality attributes
  - Tendering for services instead of products (can align supplier's and customer's incentive to save)
- Greener not necessarily more expensive
- All of the above compatible with EU 2014 Directives on PP

*These 'smarter' methods are not used everywhere yet*



# Public Procurement for innovation (PPI)

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“While achieving the best result for the best price, public procurement can also be used by the governments as *a strategic instrument to promote innovation, achieve socio-economic and environmental policy objectives and address societal challenges*”

*OECD (2016), Public Procurement for Innovation*

- Almost 80% of surveyed countries (OECD) take measures to support innovation procurement
- PP: long-recognised as a demand-side instrument of innovation policy
  - Adaptive PPI: diffuse an existing innovative product
  - Developmental PPI: create and diffuse
- Green or “sustainable” public procurement (a subset of PPI): not new, but not the default.



## Examples of low-carbon innovation PP (1)

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- *Ampère Electric Ferry (Norway)*
  - Tender:
    - Price: 60%
    - Quality (40%): energy use per car-km, total energy, CO<sub>2</sub>, NO<sub>x</sub>, and innovation
    - Winner: awarded a 10-year concession contract
  - Innovation: first ever electric ferry, aluminium catamaran
  - -89% in CO<sub>2</sub>, 60% energy saving, -100% NO<sub>x</sub>...
- First of its kind worldwide



## Examples of low-carbon innovation PP (2)

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- Infrastructure procurement (the Netherlands), Rijkswaterstaat (RWS)
  - Most Economically Advantageous Tender procedure
  - Two sustainability criteria:
    - CO2 performance ladder (CPL): **rating of companies** on energy savings, efficient use of materials. Discount applied to tendering price for ambitious contractors
    - DuboCalc: Sustainable building calculator provided to tenderers to assess environmental **impact of materials used** (a certified Life Cycle Analysis – production, transport, demolition, re-use, etc.) Includes CO2 and 10 other externalities → determines “Environmental Cost Indicator” units (ECI) and a discount
    - **Both criteria lead to a deduction from the bidding price. The adjusted bidding price is used to select the winner**



# Examples of low-carbon innovation PP (2)

## - *continued*

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- Example of RWS procurement
  - Motorway exit. Estimated cost: €5 Mn**
    - Winner: original bid price €2,98 Mn
    - With both environmental deductions (CPL and ECI):  
€2,43 Mn, i.e. **-18%** in fictional bid price
    - CO<sub>2</sub> savings compared to ‘worst case’: **-39%**
- The programme created a **lead market for existing low-carbon materials**, e.g. cement, now broadly used in all public infrastructure (adaptive PPI)
- Now discussing a Green Deal to foster breakthrough innovations in materials
- *Unique (?) and promising example of public procurement driving low-carbon innovation in heavy industry*





# Processes for PPI and low-carbon innovation

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- Market dialogues – procurers and private sector can discuss existing innovations.
- Prior information notice: outlines requirements ahead of PP process.
- Pre-commercial procurement
- EU's Innovation Partnerships: *development and subsequent purchase, based on pre-agreed performance and maximum costs*
- Examples of internationally-coordinated PPI to generate a critical mass and influence supply
  - Paris and EU cities for CNG buses
  - C40 planning to acquire 45,000 clean buses
- Beyond PP, standards and regulations too can drive innovations – but design matters!



## In closing

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- Implementation of PP for Innovation is not without challenges: “risk aversion, management, personnel and skills capacity and **political support**” (OECD, 2016)
- Public procurement can be harnessed for low-carbon innovation:
  - There is a **track record** of effective PP for low-carbon innovation in many jurisdictions – with positive effects on heavy industry
  - The **aligned interests** of governments (low carbon, innovation) and private sector (new markets, innovation) should make PP a strategic tool of the low-carbon transition
  - **EU Directives on public procurement** include a number of tools in support of innovation (including public-private market dialogues)
  - **International coordination** is possible for greater market impact
  - PP needs to be **elevated on the priority list of climate policy-markers**, to drive change and raise capacity of public procurers to better reflect low carbon in their objectives



## References

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- Aligning Policies: <http://oe.cd/lowcarbon>
- OECD Round Table on Sustainable Development [Documents](#) on public procurement
- OECD (2015): *Procurement for Innovation – [Good practices and strategies](#)*.