



Public procurement for low-carbon innovation

Richard Baron

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or of the OECD Member countries - richard.baron@oecd.org



Why look at PP for low-carbon innovation now?

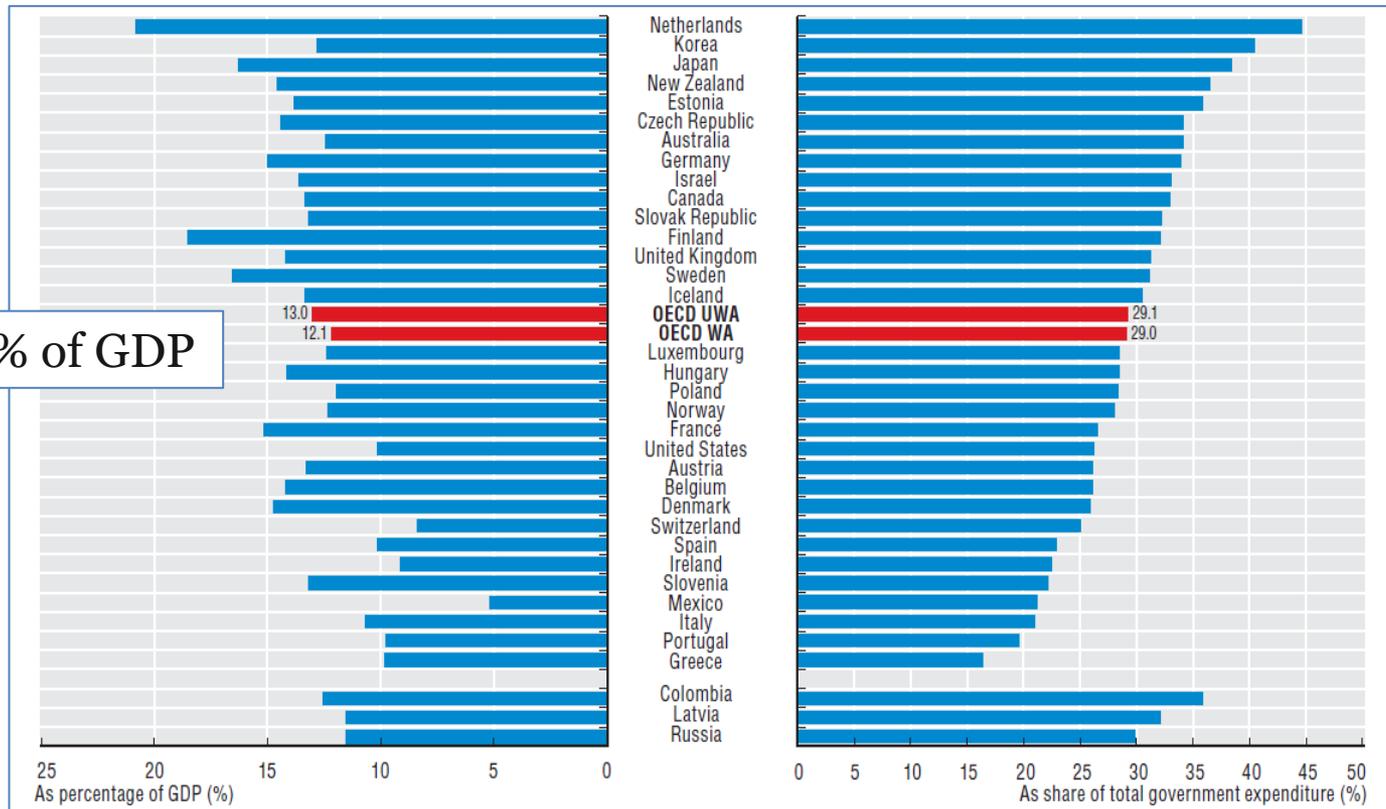


- First diagnosis of how existing policy regulatory frameworks hinder climate policy
 - Public procurement possibly ‘misaligned’ with climate goals
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- Sustainable Development Goals: 12.7
 - “Promote public procurement practices that are sustainable, 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

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)

“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)

- *Ampère Electric Ferry (Norway)*
 - Tender:
 - Price: 60%
 - Quality (40%): energy use per car-km, total energy, CO₂, NO_x, and innovation
 - Winner: awarded a 10-year concession contract
 - Innovation: first ever electric ferry, aluminium catamaran
 - -89% in CO₂, 60% energy saving, -100% NO_x...
- First of its kind worldwide



Examples of low-carbon innovation PP (2)

- 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*

- 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
 - CO₂ 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

- 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

- 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

- 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](#)*.