Collecting data and reporting of SEAP implementation for small cities

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Data collection

At municipal scale, by sources and sectors:

- Energy consumption
- Waste generation
- Water consumption
- Local Electricity Production
Data collection

From the municipality (related to services they provide)

- Energy consumption by sources
- Local Electricity Production

From:

- Municipal buildings and facilities,
- Public lighting
- Municipal fleet
- Public transport
Data collection

Sources may be different depending on the country

Information from municipality may come from energy bills!
Barriers to obtain data

Municipal scale:

- Depends on each country, on how this information is gathered.
  - Some information might not be available at the municipal scale → Estimations to reach the municipal level.
- Difficulties to obtain recent data.
Barriers to obtain data

Within the municipality

- No energy accounting systems implemented:
- Different departments involved or few resources to manage information
- Some services might be outsourced
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Overcoming barriers

Data at municipal scale

Important role of the coordinator

• Centralized data collection for all municipalities
• Establish common estimation calculations and emission factors
• Delivering information of each municipality in an easy and friendly way
• Delivering emission inventory
• Establish specific tools for that
Overcoming barriers

Data from the municipality

- Promotion of energy accounting systems: Coordination with energy accounting software providers.
- Establish an easy and friendly way to collect data through specific tools
- **Local Energy Agencies are essential: joint energy accounting services and management!**
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Data collection. To fill in by the municipality.

The rest are results: tables, graphics, etc...
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Electricity consumption

| Year | Municipal Electricity Consumption (kWh) | Cost € | Equipment Consumption of Electricity (m³) | Equipment Consumption of Gas Natural (m³) | Gas Natural | Gasoil C | Propia | Bati | Biomassa | Solar Térmica | Geotermica | Fotovoltaica |
|------|----------------------------------------|--------|------------------------------------------|------------------------------------------|------------|---------|--------|------|----------|---------------|------------|-------------|-----------|
| 2005 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2006 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2007 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2008 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2009 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2010 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2011 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2012 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2013 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2014 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2015 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2016 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2017 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2018 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2019 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |
| 2020 | 123456                                 | 7890   | 123                                      | 456                                      | 789        | 123    | 456    | 123 | 456      | 123           | 456        | 123         |

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Action status

It is the municipality who must answer

- As a Coordinator we provide them with specific excel templates, so once they have filled the status of the actions, a simple reports can be done automatically.

- Specific workshops to fill in the template and help municipalities with their monitoring reports

- Local Energy Agencies have a key role too! Providing data and implementing some of the actions
Conclusions

• Covenant Coordinators have a key role: collecting data, establishing common criteria, optimizing data collection.

• Help municipalities gathering information at municipal scale and delivering emission inventories

• Obtaining data takes time, It is important no to forget that!

• Energy accounting systems in the municipalities is essential

Knowledge = Management = Control = Savings
Conclusions

• Local Energy Agencies are essential: for small municipalities bundling energy accounting, management and measurement is essential.

• Need to have specific training for LG

• Specific tools are welcomed by LG in order to make the monitoring easier and to produce monitoring reports

• Benchmarking. Common basic parameters should be established, as well as common criteria
Thank you

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