



Collecting data and reporting of SEAP implementation for small cities

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1. Data collection

2. Barriers to obtain data

3. Overcoming barriers

4. Actions: status

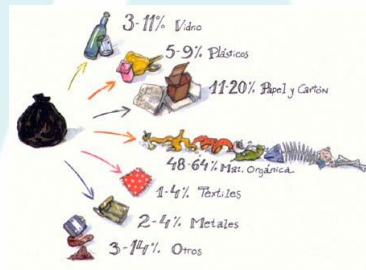
5. Conclusions



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



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!**





DADES AJUNTAMENT DE

el Brull

Persona de contacte

Càrrec

Telèfon

Adreça electrònica

Data collection.
To fill in by the
municipality

0_INSTRUCCIONS PER OMLIR LES DADES

- 0 EQUIPAMENT I INSTAL·LACIONS MUNICIPALS
- 0 ENLLUMENAT PÚBLIC I SEMÀFORS
- 0 FLOTA DE VEHICLES (PRÒPIA I EXTERNALITZADA) I TRANSPORT PÚBLIC MUNICIPAL

1_PRESA DE DADES

- 1 EQUIPAMENT I INSTAL·LACIONS MUNICIPALS
- 1 ENLLUMENAT PÚBLIC I SEMÀFORS
- 1 FLOTA DE VEHICLES (PRÒPIA I EXTERNALITZADA) I TRANSPORT PÚBLIC MUNICIPAL

2_RESULTATS

- 2 EQUIPAMENT I INSTAL·LACIONS MUNICIPALS
- 2 ENLLUMENAT PÚBLIC I SEMÀFORS
- 2 FLOTA DE VEHICLES (PRÒPIA I EXTERNALITZADA) I TRANSPORT PÚBLIC MUNICIPAL

3_GRÀFICS

- 3 EQUIPAMENT I INSTAL·LACIONS MUNICIPALS
- 3 ENLLUMENAT PÚBLIC I SEMÀFORS
- 3 FLOTA DE VEHICLES (PRÒPIA I EXTERNALITZADA) I TRANSPORT PÚBLIC MUNICIPAL

4_TAULES RESUM

- 4 TAULA KWH
- 4 TAULA EUROS (€)
- 4 TAULA MWH
- 4 GRÀFICS generals
- 4 TAULA tCO2
- FACTORS DE CONVERSIÓ

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

		municipal						ESCOLA MUNICIPAL					
EDIFICIS I INSTAL·LACIONS MUNICIPALS		índex						Retorn Índex					
EQUIPAMENTS I INSTAL·LACIONS		Gas Natural	Gasoil C	Propà	Butà	Biomassa	Solar Tèrmica	Geotèrmica	Fotovoltaic				
Consum energètic i cost (€)/ any		Consum						Cost					
ANY	Adquirició municipal d'electricitat ecològica certificada (kWh)	CONSUM ELECTRICITAT (kWh)	COST (€)	equipament Electricitat (OPCIONAL)	equipament Electricitat (m ³) (OPCIONAL)	Gas Natural	UNITATS (kWh, m ³)	COST (€)	Nombre equipament Gas Natural (OPCIONAL)	Superfície equipament Gas Natural (m ²) (OPCIONAL)	CONSUM GASOIL C	UNITATS (kWh, litres, Kg, tones)	
2005													
2006													
2007													
2008													
2009													
2010													
2011													
2012													
2013													
2014													
2015													
2016													
2017													
2018													
2019													
2020													

Electricity consumption

Consumption

Cost €

Units to choose

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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KAPE
CRES



REGIONE DEL VENETO



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implementing and monitoring their Sustainable Energy Action Plan

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