



# SEAP as a framework to deliver city benefits

## Glasgow experience by Chris Dalrymple

STEP UP webinar – Friday 13<sup>th</sup> March 2015



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- **CoMs and SEAPs?**
- **SEAP requirements**
- **Future funding opportunities**
- **STEP-UP project**
- **Integrated projects in Glasgow**





# What is the Covenant of Mayors?



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The screenshot shows the homepage of the Covenant of Mayors website. At the top left is the logo, a stylized 'f' with a leaf, and the text 'Covenant of Mayors Committed to local sustainable energy'. To the right are links for 'Covenantofmayors.eu' and 'My Covenant'. Below this is a navigation bar with 'About', 'Actions', 'Participation', 'Support', and 'Media', along with a search box and an 'OK' button. The main content area features a large yellow number '6,261' with the word 'Signatories' below it. A text block describes the Covenant as a mainstream European movement involving local and regional authorities, committed to increasing energy efficiency and renewable energy use to meet and exceed the EU's 20% CO2 reduction objective by 2020. A 'Read more' button is provided. Below the text is a large image collage with the text 'MAYORS IN ACTION' overlaid. The collage includes photos of mayors participating in various activities: one on a bicycle, one cutting a red ribbon, one driving a bus, and one in a suit. Below the collage are three buttons: 'MAYORS IN ACTION', 'COVENANT MAP', and 'COVENANT IN FIGURES'. At the bottom of the page are links for 'Covenant of Mayors News', 'Rss feeds', 'Agenda', and 'iCal link'.

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# Sustainable Energy Action Plan



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## What is a SEAP?

***A Sustainable Energy Action Plan (SEAP) is the key document that details how a Covenant signatory will reach its CO<sub>2</sub> emissions reduction by 2020. This includes actions and measures set up to achieve the targets alongside assigned responsibilities and timeframes.***

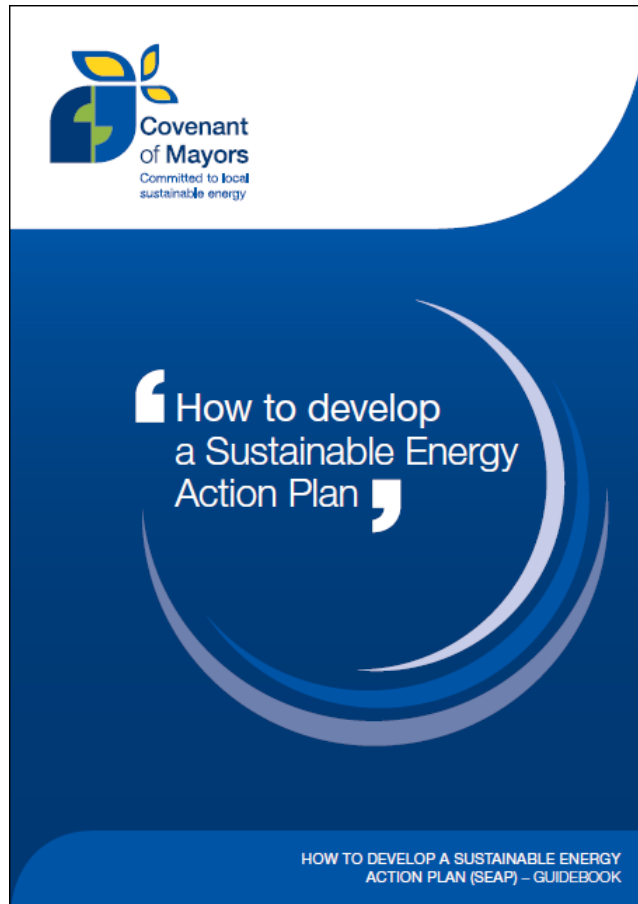




# 10 key elements for a successful SEAP



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- Strong Political support
- Reduction in CO<sub>2</sub> emissions by at least 20% by 2020
- CO<sub>2</sub> BEI
- Comprehensive measures covering all sectors
- Strategies until 2020
- Integration into structures
- Key stakeholders – citizens
- Financing
- Monitoring
- Submission and completion of template



## The Covenant of Mayors SEAP process: Completing the Template



3 key parts to completion of the CoM template:

- Strategy
  - Overall CO<sub>2</sub> emissions reduction
  - Vision
  - Coordination and structure
  - Staff and stakeholders
  - Financing
  - Monitoring
- Baseline Emissions Inventory
  - Final energy consumption (total and breakdown)
  - Energy supply
  - CO<sub>2</sub> emissions
- Action Plan
  - All actions split by sector



# The Covenant of Mayors SEAP process: Completing the Template



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## Part III - My Sustainable Energy Action Plan

Ergonomic optimisation of the table  
Actions are added via intermediate forms.

### Key Actions of the SEAP

Add action   
  Delete action   
  Edit action   
  Select / unselect action as **Benchmark of Excellence**

Key Actions	Area of intervention	Policy instrument	Origin of the action	Responsible body	Implementation timeframe		Estimated implementation cost €	Estimates in 2020						
					Start	End		Energy savings MWh/a	Renewable energy production MWh/a	CO <sub>2</sub> reduction t CO <sub>2</sub> /a				
<b>MUNICIPAL BUILDINGS, EQUIPMENT/FACILITIES</b> <input type="checkbox"/>												<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>[Name of the action]</i>														
<i>Estimated reduction not associated with any reported actions</i>														
<b>TERTIARY BUILDINGS, EQUIPMENT/FACILITIES</b> <input type="checkbox"/>														
<i>[Name of the action]</i>														
<i>Estimated reduction not associated with any reported actions</i>														
<b>RESIDENTIAL BUILDINGS</b> <input type="checkbox"/>														
<i>[Name of the action]</i>														
<i>Estimated reduction not associated with any reported actions</i>														
<b>PUBLIC LIGHTING</b> <input type="checkbox"/>														
<i>[Name of the action]</i>														
<i>Estimated reduction not associated with any reported actions</i>														
<b>INDUSTRY</b> <input type="checkbox"/>														
<i>[Name of the action]</i>														
<i>Estimated reduction not associated with any reported actions</i>														
<b>TRANSPORT</b> <input type="checkbox"/>														
<i>[Name of the action]</i>														
<i>Estimated reduction not associated with any reported actions</i>														
<b>LOCAL ELECTRICITY PRODUCTION</b> <input type="checkbox"/>														
<i>[Name of the action]</i>														
<i>Estimated reduction not associated with any reported actions</i>														
<b>LOCAL HEAT/COLD PRODUCTION</b> <input type="checkbox"/>														
<i>[Name of the action]</i>														
<i>Estimated reduction not associated with any reported actions</i>														
<b>OTHERS</b> <input type="checkbox"/>														
<i>[Name of the action]</i>														
<i>Estimated reduction not associated with any reported actions</i>														
<b>TOTAL</b>							0	0	0	0				
Sub-total Buildings, equipment/facilities and industries														

**New fields for the categorisation of the actions:**  
 1) 'Area of intervention' – to specify the main field/scope (EE, RES, etc.) targeted by the action,  
 2) 'Policy Instrument' – to specify the type of policy instrument foreseen (awareness raising/education, regulation, financial).

**New field to specify the origin of the actions (i.e. local or other).**

**Introduction of Total breakdown by sector (previously only for the BUILDINGS macro-sector).**

**Phase-out of certain fields of action**  
 'Land Use Planning', 'Public Procurement', 'Working with the citizens' are now addressed through the new 'policy instrument' column.





# The Covenant of Mayors SEAP process



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## Benefits of completing a SEAP

- Reductions in CO<sub>2</sub> emissions
- Deliverable actions and action governance
- Demonstrate commitment to sustainability
- Political visibility
- Energy savings
- Networking with other signatories
- Access to European Funding

**NB – this list is not exhaustive**



# Future Funding Opportunities



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## Quick Reference Guide

### Financing Opportunities for Local Sustainable Energy

2014 - 2020



- SEAP development
- Capacity building / hiring of experts / preparation of bankable projects and investments
- SEAP implementation (hard measures)
- SEAP implementation (soft measures, e.g. awareness raising, stakeholders' involvement)



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# STEP UP



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- EU FP7 funded energy planning project running until Spring 2015
- 4 European cities: Ghent, Glasgow, Gothenburg and Riga
- 12 Partners: each city council works with commercial and research partner



STEP UP Website:

[www.stepupsmartcities.eu](http://www.stepupsmartcities.eu)

STEP UP Twitter:

<https://twitter.com/StepUpEU>



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## Reports and Presentations

[Energy Planning](#)

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### Carbon Management

#### Glasgow City Council - Carbon Management Plan 2012

The Carbon Management Plan outlines some of Glasgow's progress in reducing CO2 emissions and commitment to a low carbon and energy efficient future for the city.

[Carbon Management Plan 2012.pdf](#)

### Climate Change

#### Gothenburg and the Environment

An overview of all the environmental work underway in the STEP UP partner city of Gothenburg. This report has sections on energy, transport, nature and consumption.

[Events](#)

[News](#)

**4th Informed Cities Forum: Which way to the future? Strategies, tools and inspiration for transforming cities - 26 to 27 March 2015**

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# Glasgow Integrated Energy Planning



Proposals & Plans

Substations

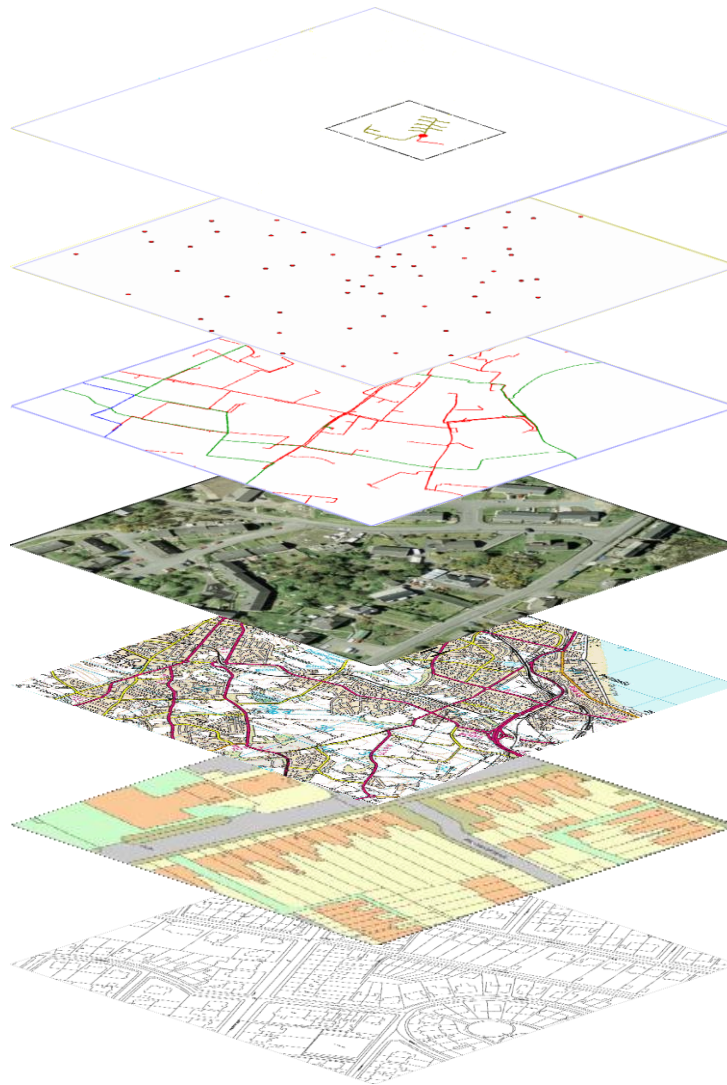
Cables / Overhead lines

Aerial Imagery

Landranger

ArcMap Topology

LandLine



**City Development Data**

**ScottishPower Asset Base**

**Various Mapping Datasets**



# Glasgow Integrated Energy Planning



- Geographical Information System (GIS) used
- IEP development combines electricity distribution network data with Local Authority data, including
  - Local Development Plans
  - Housing Land Audits
  - Commercial, Industrial and Retail Development Summaries
  - Vacant and Derelict Land Surveys
- Allows the DNO to develop energy demand forecasts based on planned developments rather than past demand trends
- Provides the Local Authority with insight into constraints and opportunities impacting local development



# TSB Future Cities Demonstrator

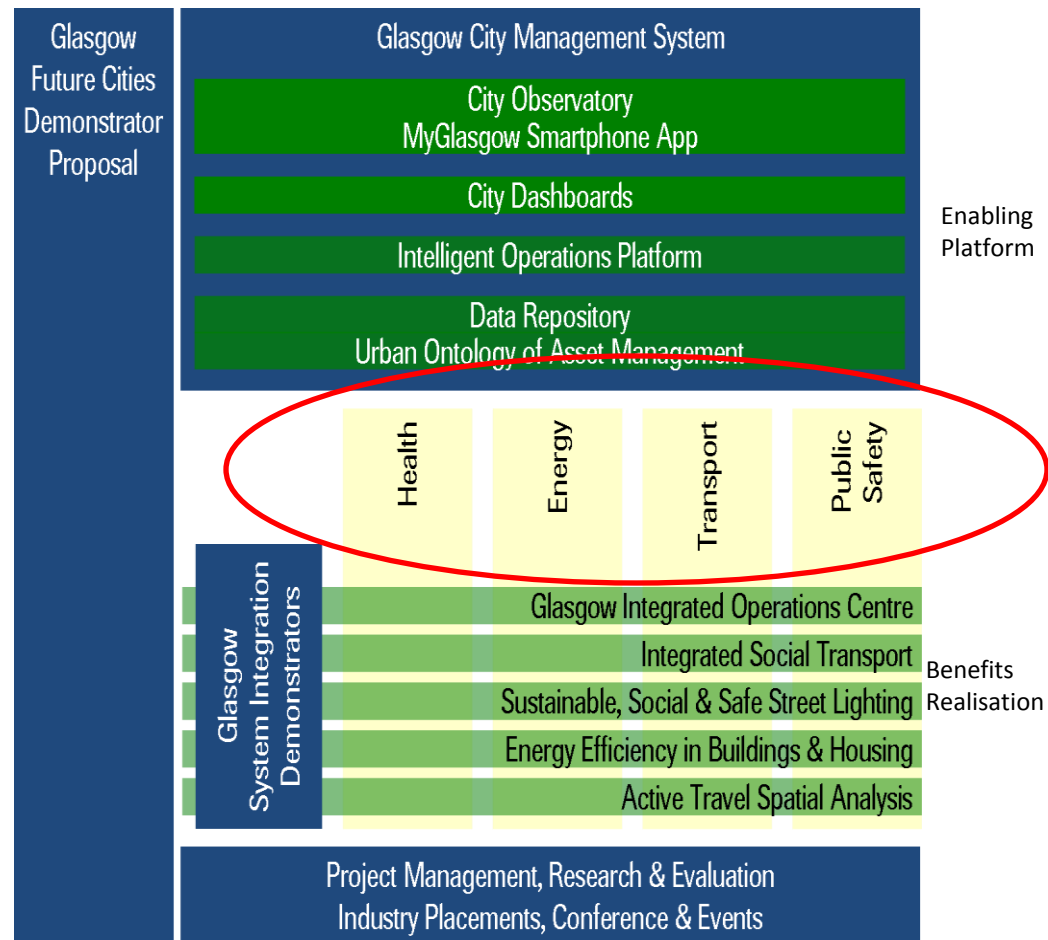


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Public, private and academic sectors will combine expertise and use cutting-edge technology to enhance day-to-day life in the city. It integrates issues such as public safety, transport, health, technology and sustainable energy.





# Integrated approach



- **Integrated Operations Centre**: managing a new futuristic public space CCTV network and TRAFFCOM roads management systems.
- **Sustainable Glasgow**: efficient energy conservation/generation, use of green technology, air pollution and integration of active transport (walking and cycling) routes with public transport networks.
- **Big Data Store**: collecting and analysing information from previously unconnected databases to influence future city services and developments and make it more accessible to more organisations.
- **Centralised City Dashboard**: giving agencies and the public real time information on subjects like traffic flow, weather alerts, accident and emergency waiting times, rail and bus services and roads gritting. Access will be via smartphone apps and customisable interface.





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# Coming to fruition



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## Energy App

This state of the art app explores building energy use across Glasgow. You can rate how your building performs against benchmarks and discover how to save money. Start using the latest technology in this area. Be part of the City of the Future!

[www.glasgowenergyapp.org](http://www.glasgowenergyapp.org)

[open.glasgow.gov.uk](http://open.glasgow.gov.uk)



[www.stepupsmartcities.eu](http://www.stepupsmartcities.eu)

# Clyde Waterfront



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- One of the biggest regeneration projects ever undertaken in Scotland.
- Brings together public and private sectors to rejuvenate 20km along the River Clyde.
- Started in 2003 and will be completed by 2025.
- Major developments are completed, others underway or planned.



# Integrated approach



- *Energy and technology; financing, transport, organization and stakeholders.*
- Clyde Waterfront is a strategic partnership between public sector working in tandem with the private sector and local community groups.
- Scottish Government, Scottish Enterprise, Glasgow City Council, Renfrewshire and West Dunbartonshire Councils working together.
- NHS SGHC: combines social, environmental and economic benefits, jobs and training go to locally recruited apprentices and unemployed. Also sub-contracting opportunities advertised to local small to medium businesses.
- FASTLINK: Energy efficient vehicles with latest real time information technology, dedicated routes and frequent services



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# The Athletes' Village – Energy Centre



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- Ambitious regeneration programme for East End of Glasgow.
- 33 hectares of brown field area transformed into a low carbon housing development: 700 houses, 120 bed care home.
- Initially created for the Commonwealth Games 2014 has a wide legacy for the city.



# Integrated approach



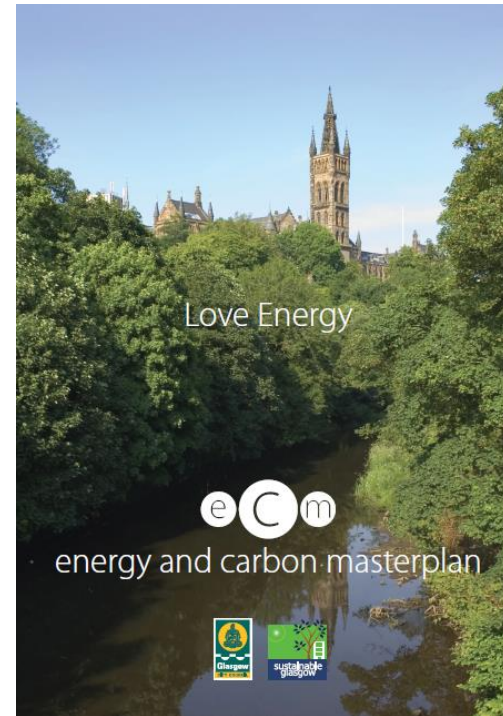
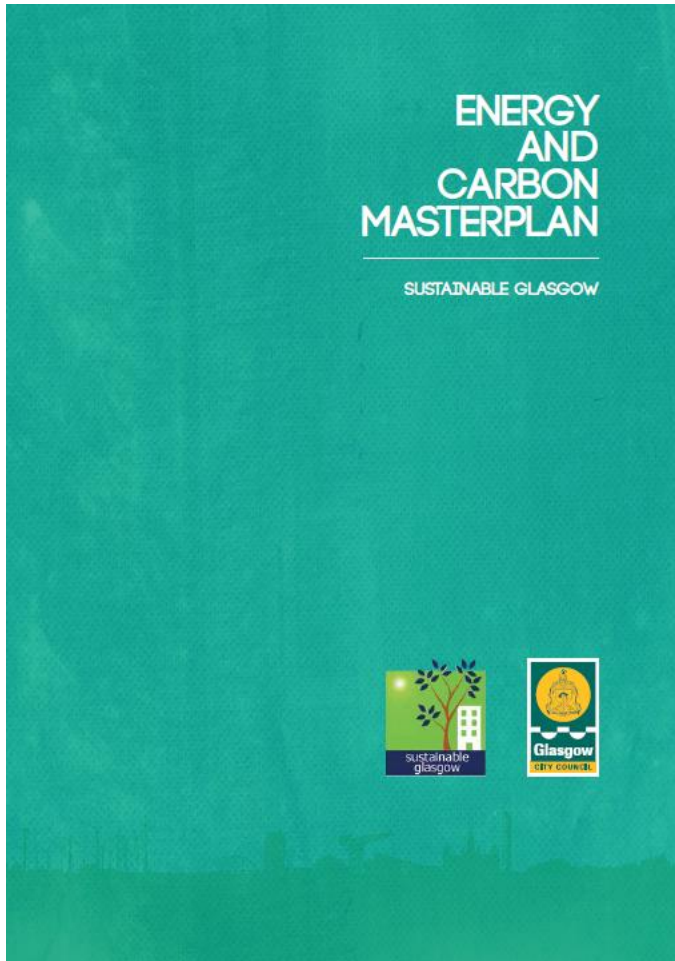
- Organisation: integration between private and public sector working together to transform a brown field into an attractive urban environment.
- Sustainable homes with BREEAM and EcoHome excellent rating.
- Energy & Social approach: reducing energy poverty creating housing with District Heating network.
- Improvement in the drainage system (surface water).
- Generation of employment and skills: 620 direct/indirect jobs (incl. 84 apprenticeships) in the construction of the Village.
- The Athletes' Village model will produce 60% less CO<sub>2</sub> emissions than if powered by an electrically heated system (contribution to Glasgow's SEAP).



# Energy and Carbon Masterplan



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Energy and Carbon Masterplan