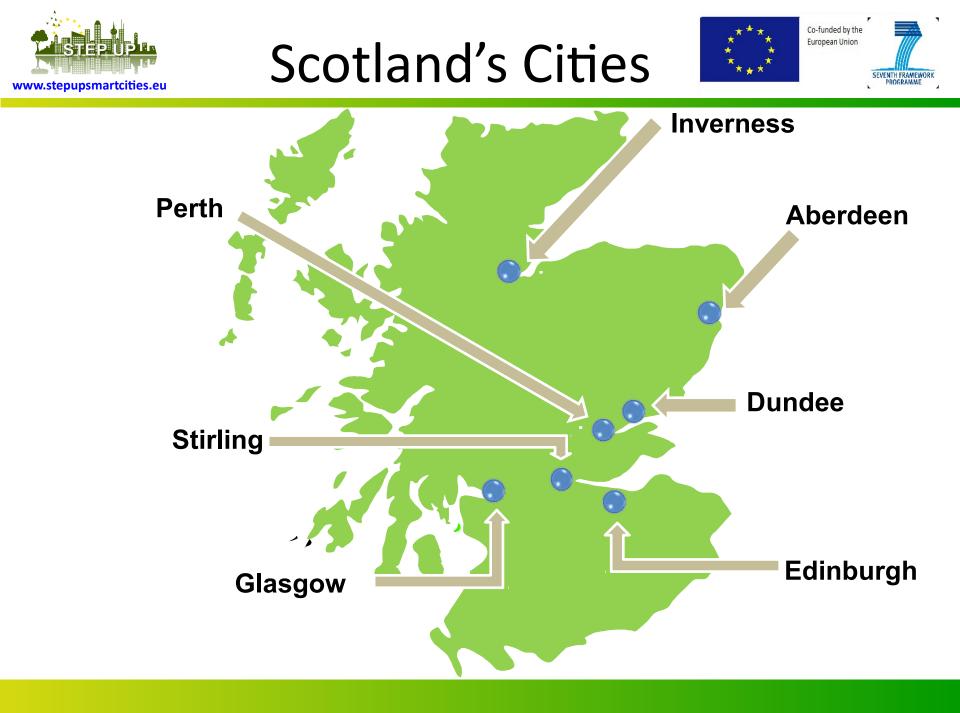


#### WP4 - AM session – 26/11/2013 – Glasgow Learning Network of Cities - Scotland





www.stepupsmartcities.eu





### Aberdeen



- Population 222,500
- North Sea port city
- UK/European centre for offshore oil operations
- Historic university (Est 1495)
- SEAP in preparation "Smarter Aberdeen Strategy"
- Target of 42% CO<sub>2</sub> emissions reduction by 2020 (2008 baseline)
- Reliant on offshore oil industry for jobs – needs diversification



http://en.wikipedia.org/wiki/File:3rd\_Aug\_2012-\_Abdn\_Harbour\_2.JPG





- ESCO delivering district heating Aberdeen Heat and Power
- SEAP Process underway help with BEI required
- Hydrogen buses project Hydrogen produced via wind turbine, hydrogen refuelling station and fleet of 10 x hydrogen buses





## Dundee

- Population 147,200
- North Sea port city
- Social challenges, high fuel poverty
- Large scale regeneration Dundee Waterfront
- Identified as strategically important port for development of offshore renewables industry hub
- No SEAP but developing 'Low Carbon Strategy' by 2017
- No target for city wide CO2 emissions
- Fuel Poverty an issue



European Union

http://www.dundeeadvice.org/images/DundeeFromTheAir2.jpg



# **Dundee Projects**



- Dundee Partnership established 'Dundee Renewables' to develop Scottish renewables industry
- Small scale biomass and district heating, 40 electric vehicles
- Dundee Waterfront large scale regeneration project.



http://www.dundeewaterfront.com/site/modules/Page/view/Basic/Common/images/panel-3.jpg



# Edinburgh



- **Population 477,940**
- Scotland's capital city, home to Scottish Parliament
- Centre of tourism, financial and professional services. Prestigious universities
- Edinburgh SEAP exists in draft form
- 40% target for city wide CO<sub>2</sub> emissions reduction
- Integration of SEAP with planning & other strategies required
- Demographic growth and sustainable transport issues



http://www.anglianblog.co.uk/wpcontent/uploads/2009/04/edinburgh-city.bmp



# Edinburgh Projects



- Electric vehicles, LED Street Lighting & Energy Efficient ICT
- Millerhill Waste to Energy Plant due for completion 2015



- http://www.zerowastefuture.com/media/15297/are%20food%20facility\_web.jpg
- Several District Heating schemes including bio-quarter with University of Edinburgh



### Inverness



- Population 222,370 (Highland Council area)
- Highland Council covers large geographical area
- City population 58,000
- Historic & popular tourist destination
- No SEAP but has 'Carbon Clever Highlands' strategy
- Council has 3% per annum CO<sub>2</sub> emissions reduction target from 2013
  2020
- Rural geography high % of residents not connected to main gas grid
- High private car usage



http://www.cityofinvernesscc.co.uk/infusions/mwp\_welco me\_message\_panel/images/inverness.jpg





- Carbon Clever Highlands ambitious target of Carbon Neutral Inverness 2025
- Park & Ride scheme & Westlink road around to remove congestion from city centre
- Bikes on buses to allow commuters to combine cycling with longer journeys







### **Perth** (Perth and Kinross Council)



- Population 134,380 (Perth and Kinross Council (PKC) area)
- City population 45,000
- Historic & popular tourist destination
- No SEAP but several projects
- 5% target for PKC CO₂ emissions reduction per annum
- Rural geography high % of residents not connected to main gas grid)
- Fuel poverty an issue
- Air quality problem in city centre



 http://www.taypearls.co.uk/images/perth-tay-113-1379\_400.jpg



#### **Perth/PKC Projects**



- Biomass boilers in 6 schools plans for more
- 6 x hybrid buses & 30 electric vehicles in Council fleet
- Northern by-pass & plans for freight distribution hub to remove delivery vehicles from city centre



http://suzyscott.com/misc\_files/Perth\_E350H\_Launch\_2012/perth%203%20July%20010.JPG



# Stirling



- Population 90,770 (Stirling Council area)
- City population 33,000
- Historic city & popular tourist destination
- Central belt location transport links strong
- No SEAP but has Council Carbon Management Plan covering only city council activities
- 20% target for Council CO<sub>2</sub> emissions reduction by 2016
- Areas of deprivation/fuel poverty
- Capacity issues in the Council



http://upload.wikimedia.org/wikipedia/commons/c/c1/Stirling\_Castle\_and\_Sorroundings.





- Solar PV installations on social housing and schools
- Development of active travel infrastructure walkways and cycle paths
- New waste management strategy



http://www.stirling.gov.uk/\_\_images/press-releases/2012/march/st.marys-\_1.jpg



#### Nuremberg, Germany





SEVENTH ERAMEWO

PROGRAMM

- City Population 500,000
- Wider metropolitan area has population of 2.5 million
- Historic city has developed into services centre
- Growth in consulting, planning R&D, ebusiness and market research, communication and multimedia services
- SEAP submitted 2007, enhanced version underway
- State of sustainable city planning is advanced and has strong political buy in
- 40% CO<sub>2</sub> reduction target by 2020, 34% reduction achieved
- Need to integrate energy, planning and infrastructure strategies



http://digital-photo.com.au/gallery3/var/albums/Landscapes/Europe/Germany/Nurembe rg/Germany-Nuremberg-N rnberg-101 8859-Web.jpg?m=1335136107





- 2000 PV installations & 40,000 across wider region
- Municipal waste incineration plant & development of new Energy from Waste plant using Biogas from anaerobic digestion of sewerage sludge
- New SEAP will address ICT, Street lighting, explore geothermal energy production using heat pumps and investment in sustainable transport technology
- Large district heating network provides heat to 25% of population. One large ESCO serves wider northern Bavarian region



http://www.greendigitalcharter.eu/wp-content/uploads/2012/03/profileImage\_Nuremberg.jpg





- 1 SEAP Process including BEI as basis for developing citywide targets.
- 2 Integration of Plans Development Planning.
- 3 District Heating and ESCo Development
- 4 Financing and Investment in Projects/Project Appraisal
- 5 Stakeholder Engagement



Aberdeen • Dundee • Edinburgh • Glasgow • Inverness • Perth • Stirling





- General training on SEAPs useful for almost all
- Variation in size & type of city Highland and Perth & Kinross Councils are large, rural geographical areas.
- Need to bespoke SEAP production to each Council's circumstances
- Need to show value & raise political profile of SEAPs
- Interest in district heating and ESCOs
- Integration of energy into development & other planning a need for all
- Opportunity to learn from each other, STEP UP cities & Nuremberg