Networking for Sustainability & Green Digital Charter

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"Sustainability is in our hands – global networking"
14 May 2014, Zagreb

Index

- How does EUROCITIES work for a sustainable future?
- The Green Digital Charter
- NiCE toolkit

EUROCITIES

Founded in 1986, representing cities of over 250,000 inhabitants

Over 130 full members in 35 countries, representing 130 million citizens

Over 40 associated partners

Most European capital cities are members

Mission statement

EUROCITIES is committed to work towards a sustainable future in which all citizens can enjoy a good quality of life

Our priorities

JOBS **CLIMATE** **CITIZENS**

Our activities

- Influencing
- Visibility
- Networking

Influencing

EUROCITIES…

1. Represents the interests of cities in an **ongoing dialogue** with the European institutions

Structural dialogue:
Regular meetings between Commissioners and EUROCITIES to represent your views

EUROCITIES brings member cities face-to-face with representatives from European institutions

Influencing

EUROCITIES…

2. Bringing attention to the **urban dimension** of Community policies and programmes, so strengthening the **role of cities** in European decision-making

Policy papers & letters regularly sent to European institutions - both in response to consultations and pro-actively

Example:
EUROCITIES recently published a statement on the Commission's cyber security strategy and a response to the consultation on rail freight noise

Influencing

EUROCITIES…

3. Secures **EU resources** for cities by demonstrating the key role for city governments if EU policies and programmes are to be delivered
   - where they can make most difference, and
   - at the level closest to the citizen.

Working with the European Parliament to bring forward EU initiatives on key issues for cities

Example:
Working with the Parliament's Urban Intergroup to ensure a strong urban dimension in EU policies

Visibility

- a European **platform** for city politicians
- international **conferences**
- transnational **partnerships**
- European, national and local **media**
- international **campaigns**

EUROCITIES Forums

COOPERATION

Chaired by the city of Nantes

Culture Forum	Economic Development Forum	Environment Forum	Knowledge Society Forum	Mobility Forum	Social Affairs Forum
Chaired by the city of Bologna	Chaired by the city of Liverpool	Chaired by the city of Birmingham	Chaired by the city of Ghent	Chaired by the city of Mannheim	Chaired by the city of The Hague

Collaborating

Support for development of European projects

- early information on Community **calls for proposals**
- access to a network of **potential partners**
- development of **joint projects**
- dissemination of **project results** to members
- **information seminars** on funding opportunities

Exchanging experience

Members of EUROCITIES can...

meet
people in other European cities who are working on the same issues and facing similar challenges

share
knowledge and develop ideas for common projects, new policy tools and innovative working methods

learn
from others' experiences, and how to develop successful policies and implement effective solutions

ask
questions about the costs and benefits of different approaches and what problems were encountered

Executive Committee

EUROCITIES Executive Committee

President
Warsaw

Vice-President
Nantes

Secretary
Birmingham

Treasurer
Ghent

Other members
Birmingham
Budapest
Turin
Leipzig
The Hague
Stockholm
Vienna
Barcelona

Collaborating

EURO CITIES

CASCADE
Cities exchanging on local energy leadership

NiCE
Networking intelligent Cities for Energy efficiency

TIDE

EURO CITIES

Covenant of Mayors
Committed to local sustainable energy

EUROPEAN MOBILITY WEEK

integrating cities IMPLEMENTORING

DO THE RIGHT MIX

Cities for Active Inclusion

Tomorrow…

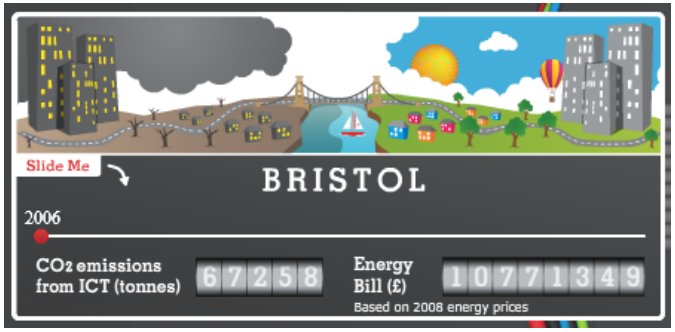
- Digital cities
- Smart cities
- Future cities
- Eco cities
- Sustainable cities
- (Intelligent, Resilient, Flexible, …)

- Can we network and help cities… before "defining" them?

Cities projects: Green ICT

Green IT collaboration in the City of Malmö

- Introduce a model for collaboration concerning Green IT within the municipality departments in the City of Malmö



Green AddICT Bristol

- Carries information on ICT-based carbon dioxide emissions in Bristol including case studies on green businesses, carbon calculators, and statistics on ICT carbon and energy bills.

Cities projects: ICT4EE in buildings

Birmingham AIM HIGH project

- Field test and evaluate the effectiveness of digital technologies for energy saving such as domestic smart meters, heating controls etc in a testbed of 348 homes

Amsterdam Wattcher
Source: http://www.greenlaunches.com/gadgets-and-tech/wattcher_to_curb_energy_consumption_at_home.php

Amsterdam Smart Challenge

- Involve 11 organisations over 2 months using the 'Wattcher' to monitor their energy consumption, thereby becoming more aware of their usage and enabling them to save energy

Cities projects: ICT4EE in transport

Nice Côte d'Azur Eco Valley

- providing seamless journeys for travelers by coordinating and integrating different methods of transport
- Different pilots: intelligent parking, electric car-sharing schemes and Near Field Communication (NFC) technology around ticketing and payment

Bologna Traffic control centre

- Development of a traffic control centre to manage traffic in the metropolitan area. This will improve traffic flow, provide real-time traffic data, and contributing to the development of municipal traffic planning tools

Tallinn Real-time information system

- Make up-to-date, reliable travel information available to passengers in an effort to increase ridership levels on public transport.

Cities projects: ICT4EE in lighting

Energy Efficiency Public Lighting in Rijeka

- 97% of public lights in Rijeka are energy efficient. City spends less energy per light and has sustainable goal to reduce lighting pollution

Genoa ILLUMINATE

- investigate the implementation of "smart" lighting in high quality urban areas, with the aim of piloting innovative solutions and achieve both energy efficiency and improved quality of light.

City of Rijeka

Cities projects: ICT4EE - cross-sectors

Manchester Smart Environments

- Enable residents to collect data about the city environment through the use of wearable sensor technology as well as sensors embedded in streets, buildings and green spaces.
- *Example: provide info as "at what time of day pollution is at a high" or "how trees help improve the environment"*

Eindhoven sensors

Source: http://www.llga.org/past_edition.php?idPastE=50&any=2011#

Eindhoven Ambient sensor network

- Distributed control system for energy management to achieve efficient energy use
- Awarded the Living Labs Global Award in 2011

The Green Digital Charter

- **EUROCITIES** initiative
  - **City of Manchester** and **Clicks and Links** (Green Shift Europe)
  - **European Commission** support

- Commits cities to reduce emissions through ICT → **Green ICT**

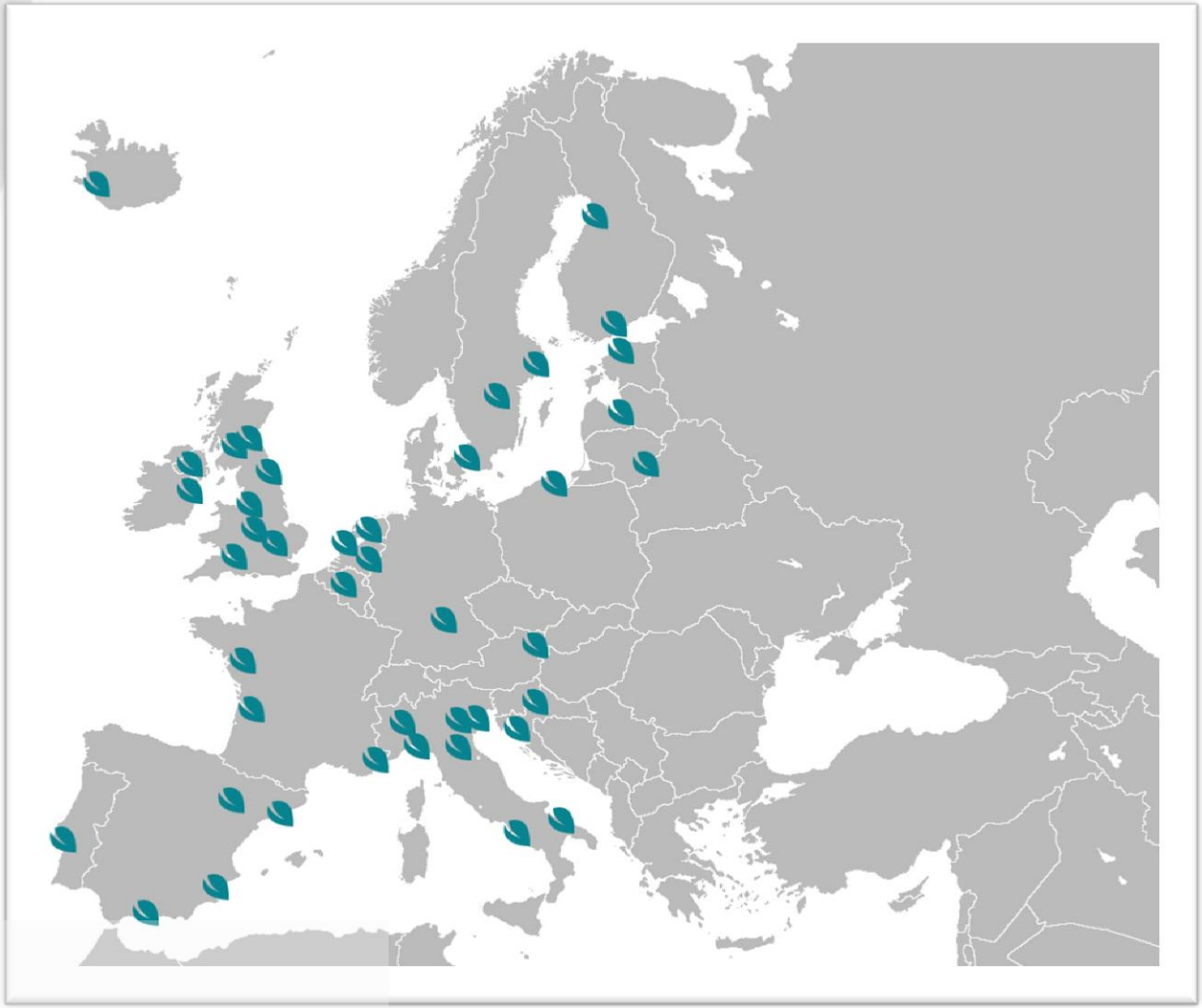
- Promotes **progress in tackling climate change** through the innovative use of digital technologies in cities → **ICT for Green**

Commitments

Three tangible commitments:

- Work with Green Digital Charter **signatories** on ICT & energy efficiency
- Deploy **5 large-scale ICT pilots** per city within 5 years
- Decrease **ICT's direct carbon footprint** per city by 30% within 10 years

The Charter Signatories



42 signatories

18 European countries

Why sign? GDC fits cities' agenda & priorities

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40% carbon reduction **by 2020**

Bristol - Malmo
Murcia - Nuremberg

20% carbon reduction **by 2020**

Bologna - Helsinki

60% carbon reduction **by 2026**

Birmingham

21% carbon reduction **by 2020**

Vienna - Zagreb

31.64% carbon reduction **by 2020**

Rijeka

Carbon neutral by 2050

Ghent

NiCE Networking intelligent Cities for Energy efficiency

SEVENTH FRAMEWORK PROGRAMME

Why sign? GDC can help cities work better

- City teams work towards an official and explicit objective
- Signatories gain access to projects and tools developed by other cities
- They can exchange best examples and know-how with pioneering peers
- GDC offers visibility and promotion

- *Cities are supported by the NiCE project*

Why sign? GDC follows EU priorities

- Smart cities and communities EIP
- “20-20-20” goals
- Covenant of Mayors
- EU-China cooperation in urbanisation and sustainable development
- Horizon 2020 objectives & goals

Signing the Charter

GREEN DIGITAL CHARTER

SIGN IN 3 STEPS:

1. Check eligibility (size, importance)
2. City Council decision and application
3. Signing Ceremony

BENEFITS FOR SIGNATORIES:

- Trainings and study tours
- Networking with pioneering cities
- Visibility → website, events
- Access to GDC toolkit and support
- Opportunities for inernational cooperations

NiCE Networking Intelligent Cities for Energy efficiency

SEVENTH FRAMEWORK PROGRAMME

The NiCE project

Networking **i**ntelligent **C**ities for **E**nergy **E**fficiency

- **Duration:** September 2011 – May 2014
- **Coordinator:** EUROCITIES
- **Partners:**
  - Clicks and Links Ltd
  - Manchester City Council
  - Leibniz institute for Ecological Urban and Regional Development
- **Funding programme:** FP7-ICT

NiCE approach

GREEN DIGITAL CHARTER

GDC TOOLKIT
Action Framework
Action Tools Catalogue
Reporting tools

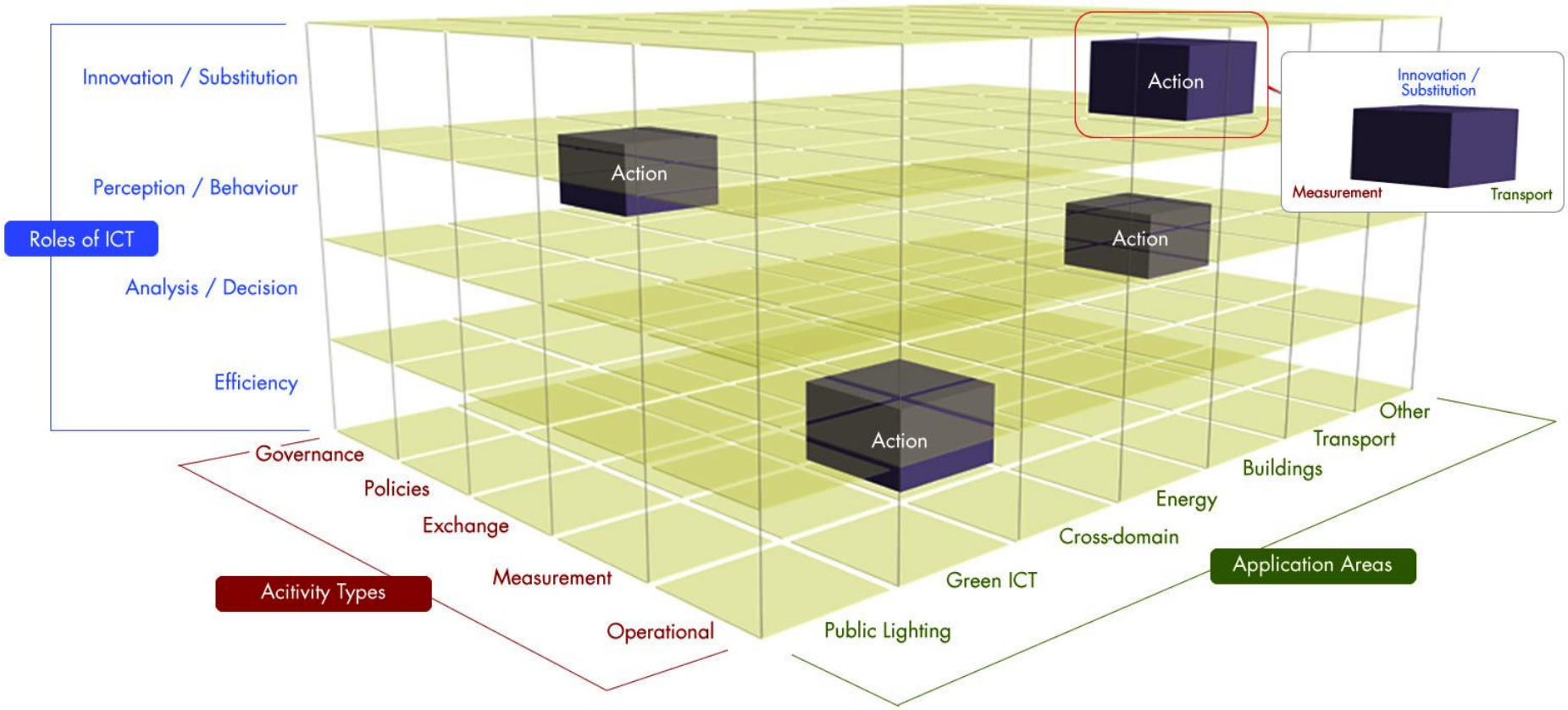
SUPPORT TO CITIES
GDC Contact Point
Technical trainings
Study tours

OUTREACH
Roadshows
Cooperation with CoM
Focus on China

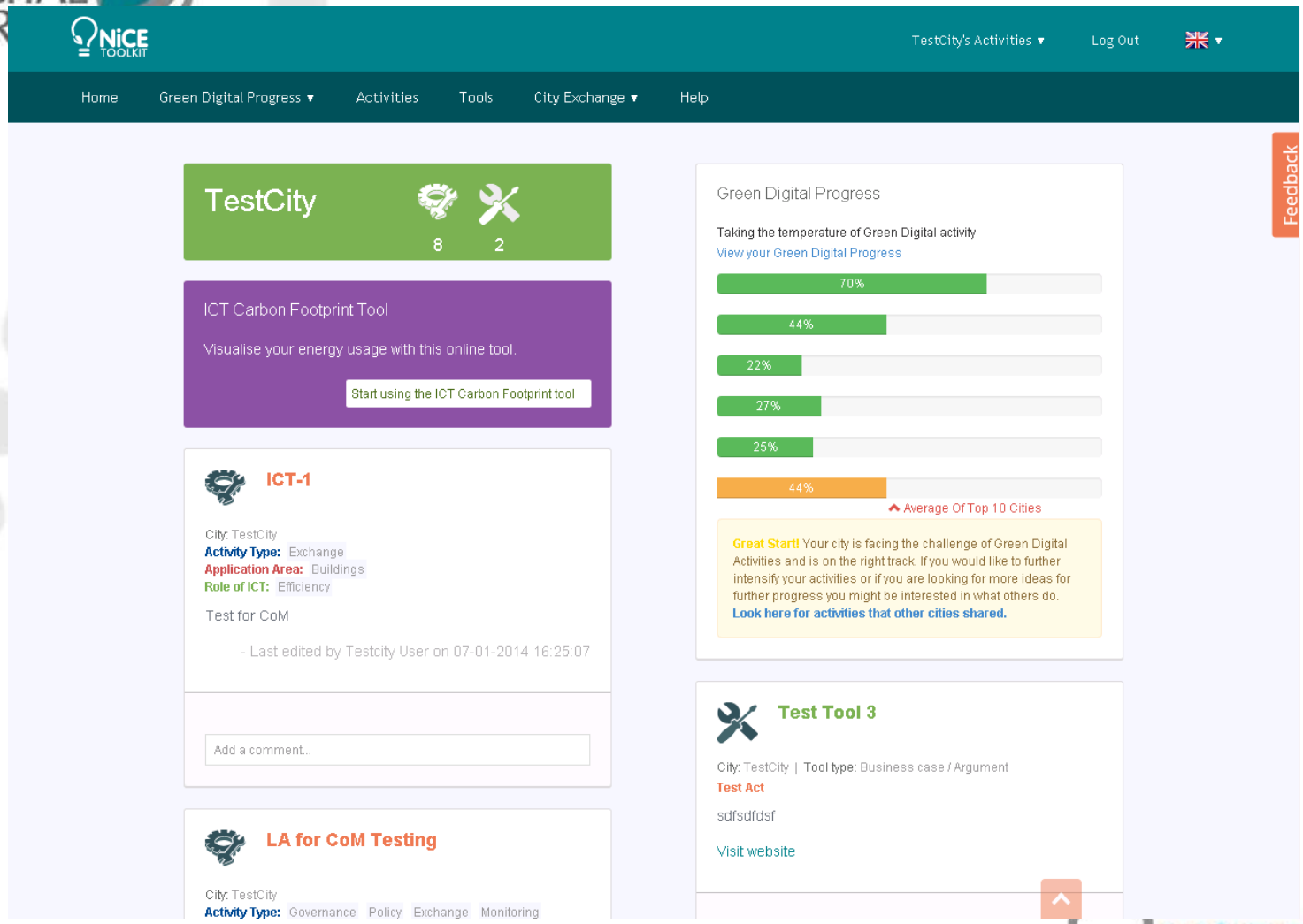
GDC cities

ADVISORY GROUPS: Reference Cities Group & Expert Advisory Board

Green Digital Action Framework



NiCE toolkit



GREEN DIGITAL CHAR

NiCE Networking Intelligent Cities for Energy efficiency

SEVENTH FRAMEWORK PROGRAMME

NiCE toolkit

- “Review my city’s progress”
- Add activities and tools
- “Review city ICT carbon footprint”
- “Review GDC in Covenant of Mayors”
- City exchange tools

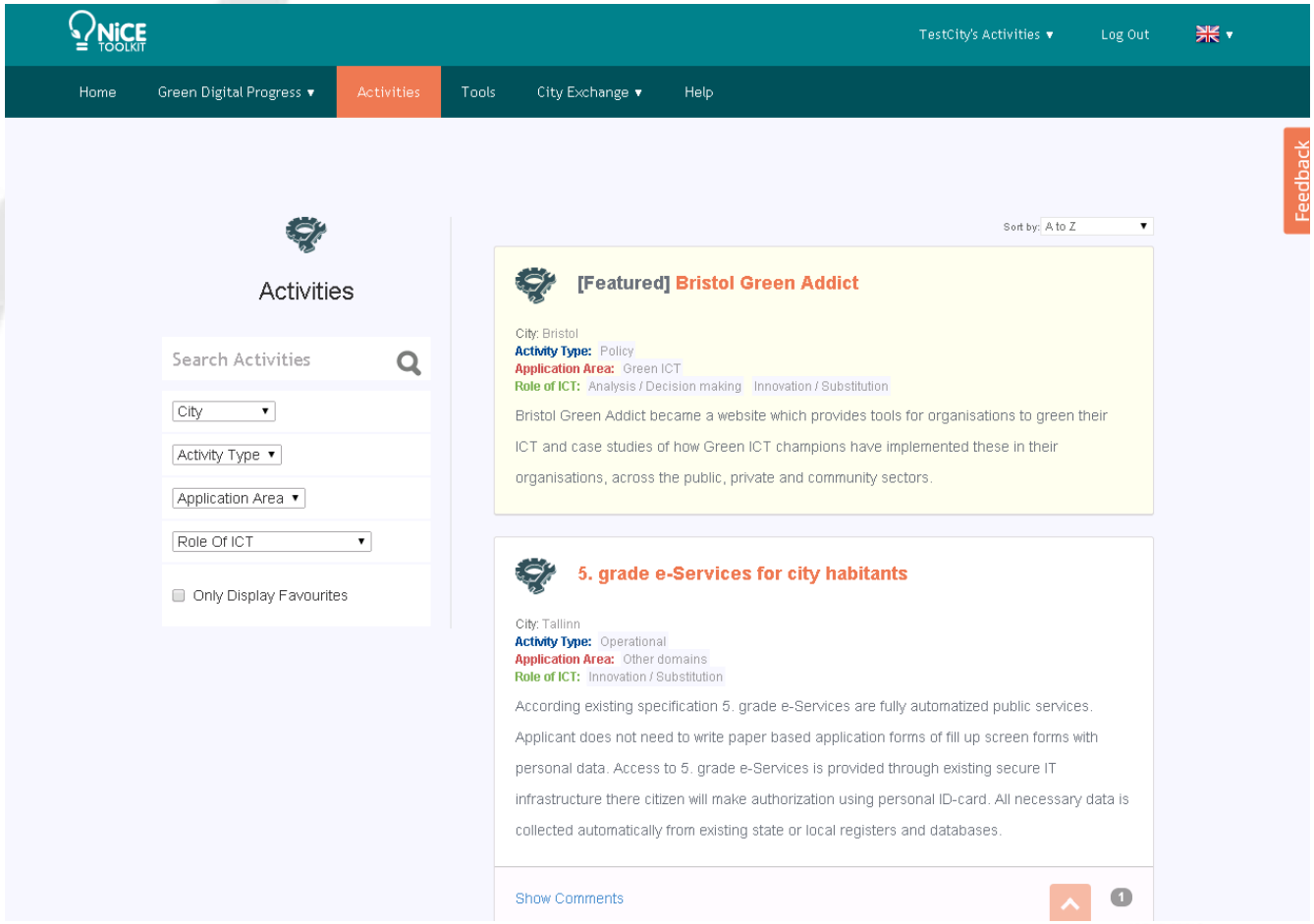
“Review my city’s progress”

- The "Self Assessment Questions" (SAQ) allows a city to easily assess and monitor its status on green digital activities and its development.

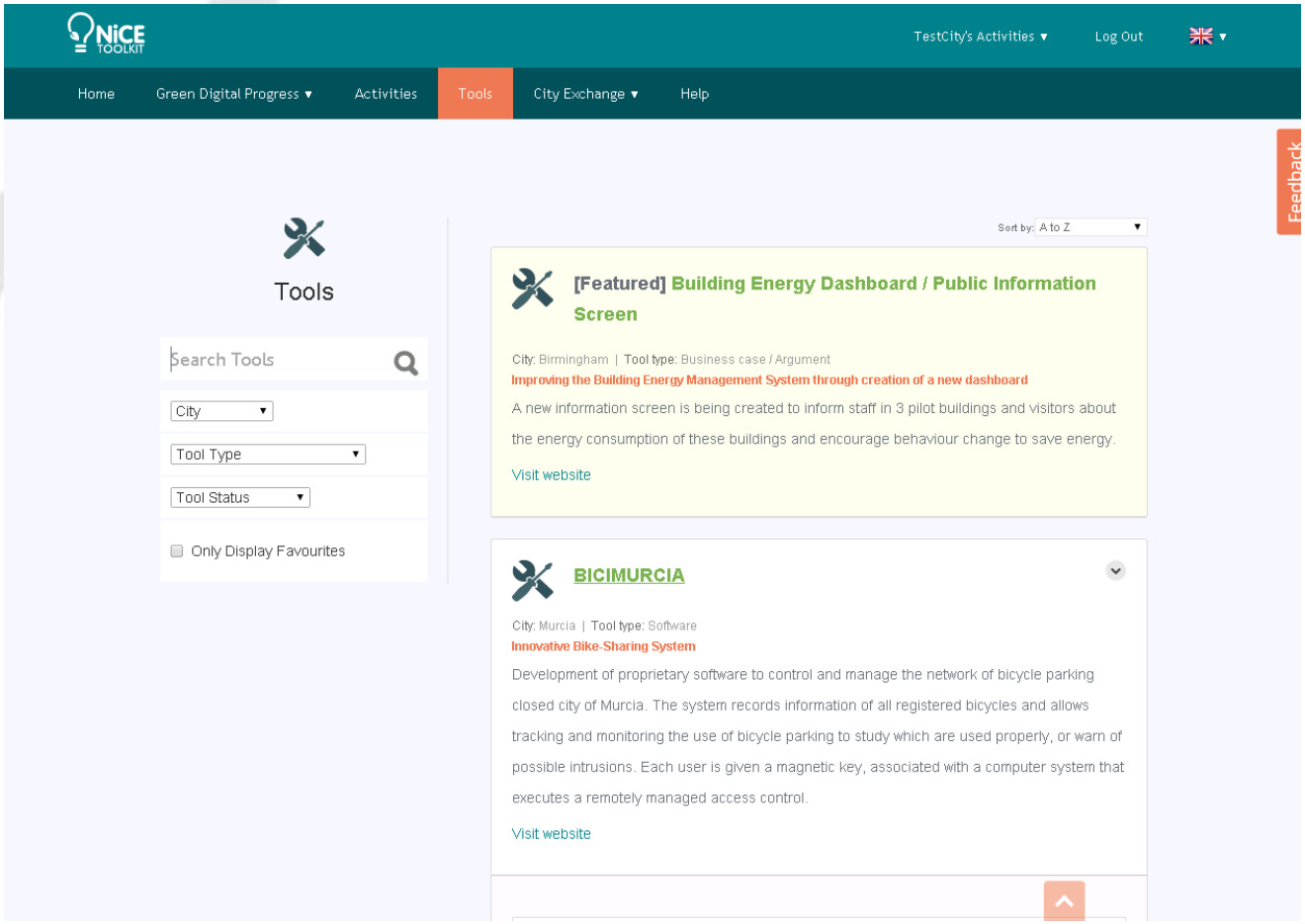
  The term "green digital" specifies strategies or activities combining information and communication technology (ICT) with energy efficiency/carbon emission reduction.

  Although the Charter is a very comprehensive political document, it is the aim of the SAQ to cover all the commitments and at the same time limit the effort of the assessment process to a feasible amount.

Add activities and tools

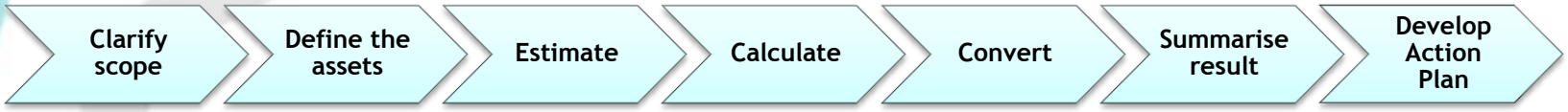


Add activities and tools



“Review city ICT carbon footprint”

- With this tool a city can collect, visualise and compare data with regard to its ICT equipment



1. Clarify organisational scope
2. Define ICT assets
3. Estimate number of assets according to type
4. Calculate energy usage from estimation
5. Convert energy usage to carbon emissions data
6. Summarise results
7. Develop action plan to reduce emissions

… Repeat process bi-annually...

The example of Linköping (Sweden)

- The city's action plan is a continuous process
  - Started 2004 and is still running…
- Compared to a similar measurement made in 2008:
  - Linköping has reduced the total ICT energy usage by more than 50 %
  - The reduction has taken place even though the number of computers has increased from 6,000 to 10,000 units
  - Reason; computers use less energy and sleep mode functions work better today

- The ICT Carbon Footprint Tool works!
  - Provides a good basis for further planning and actions
- But, first you need to decide why to use the model?
  - The purpose is the input to define the scope
  - The Footprint Tool gives you knowledge, and…
  - …the output is ***input to the action plan*** or the ***report to the city council***

The example of Linköping

ICT Footprint spreadsheet Linkoping v.5 - Microsoft Excel

ICT Carbon Footprint measurement tool v.1

Organisational Scope	Operational Scope	Time in Use	Time on Standby	Switched off		Power usage		Annual unit consumption	Number of units	Total power consumption pa.	Total Cost	CO_2 emissions (%)
Detail City Depts.	Categorise ICT Assets	(hours per year)	(hours per year)	(hours per year)	in-use	(watts) standby	switched off	(kWh)		(kWh)	SEK per kWh	(kgCO2e)
	Device Type										0.567	0.4
	Portable PC	1,789	0	6,971	43	1.45	1.43	87	2195	190,743	108,151 kr	76,297
	Desktop PC	1,789	0	6,971	86	4.2	2.5	171	2577	441,365	250,254 kr	176,546
	Thin client	3,769	0	4,991	43	2.75	0.75	166	457	75,718	42,932 kr	30,287
	Projector Hitachi CP-WX3015WN	452	8,308	8,308	180	11,1	n/a	#VALUE!	170	#VALUE!	#VALUE!	#VALUE!
	Projector Hitachi CP-AW2519N	452	8,308	8,308	267	0.8	n/a	127	44	5,603	3,177 kr	2,241
	Projector Hitachi IPJ-AW250N	452	8,308	8,308	191.6	14.7	n/a	209	721	150,495	85,331 kr	60,198
	Projector Hitachi CP-WX410	452	8,308	8,308	291	7.4	n/a	193	45	8,686	4,925 kr	3,474
	Network Switch HP2620 - 24 port	8,760	0	0	28	n/a	n/a	245	493	120,923	56,471 kr	48,369
	Network Switch HP2620 - 48 port	8,760	0	0	43.5	n/a	n/a	381	158	60,207	28,117 kr	24,083
	Network Switch HP2620 - 24 port power	8,760	0	0	38.5	n/a	n/a	337	58	19,561	9,135 kr	7,824
	Network Switch Extreme X460 - 28 port	8,760	0	0	107	n/a	n/a	937	22	20,621	9,630 kr	8,248
	Smartphone	565	0	0	5	n/a	n/a	3	1189	3,359	1,905 kr	1,344
	Simple cell phone	113	0	0	5	n/a	n/a	1	419	237	134 kr	95
	Surfpad iPad	1,017	0	0	13.5	n/a	n/a	14	669	9,185	5,208 kr	3,674
	IP-phone Alcatel 4028IP	8,760	0	0	3.1	n/a	n/a	27	670	18,195	8,497 kr	7,278
	Printer	226	8,534	0	610	52	0.5	582	1770	1,029,482	583,716 kr	411,793
	Printer Multifunction	226	8,534	0	680	113	1	1,118	77	86,088	48,812 kr	34,435
	Datacenter	8,760	0	0	97000	n/a	n/a	849,720	1	849,720	396,819 kr	339,888
										Totals	#VALUE!	#VALUE!

This spreadsheet is accompanied by a 7 step guide on measuring carbon footprint of ICT in city administrations - accessible here: http://www.greendigitalcharter.eu/toolkit/toolkit_ICTcarbonFootprintT

“Review GDC in Covenant of Mayors”

- The "Green Digital Charter/Covenant of Mayors" reporting tool is designed to allow for cities to report more easily and effectively their activities and projects in both initiatives:
  - In the case a city has completed its CoM reporting, it needs only to identify its ICT related activities and projects (among the CoM actions) and copy all CoM fields to the GDC/CoM reporting tool, adding some GDC specific information
  - In the case a city reports first to the GDC, after reporting its green digital activities, it needs only to download the excel file, provided by the GDC toolkit and copy/paste all activities to the CoM reporting template.

City exchange tools

City Exchange Forum

Home › Forums › City Exchange

This forum contains 8 topics and 6 replies, and was last updated by Anonymous 1 week, 4 days ago.

Viewing 8 topics - 1 through 8 (of 8 total)

Topic	Voices	Posts	Freshness
Test Started by: Anonymous	1	1	1 week, 4 days ago Anonymous
Training for Building Managers Started by: Birmingham-1	1	1	1 month, 1 week ago Birmingham-1
retraining of the ICT Clusters of the signatory countires Started by: Testcity User	1	1	6 months, 3 weeks ago Testcity User
Feedback on ICT Carbon Footprint tool Started by: Testcity User	2	2	6 months, 3 weeks ago Testcity User
Are we ICT Footprint hubs or not..? Started by: Linkoping-1	2	2	6 months, 3 weeks ago Linkoping-1
Should signatories act as ambassadors in their regions? Started by: Ghent-1	1	1	6 months, 3 weeks ago Ghent-1
Could we raise ICT & Energy Efficiency in national forums? Started by: Birmingham-1	1	1	6 months, 3 weeks ago Birmingham-1
Welcome Started by: jess.symons	4	5	7 months, 2 weeks ago jess.symons

Viewing 8 topics - 1 through 8 (of 8 total)

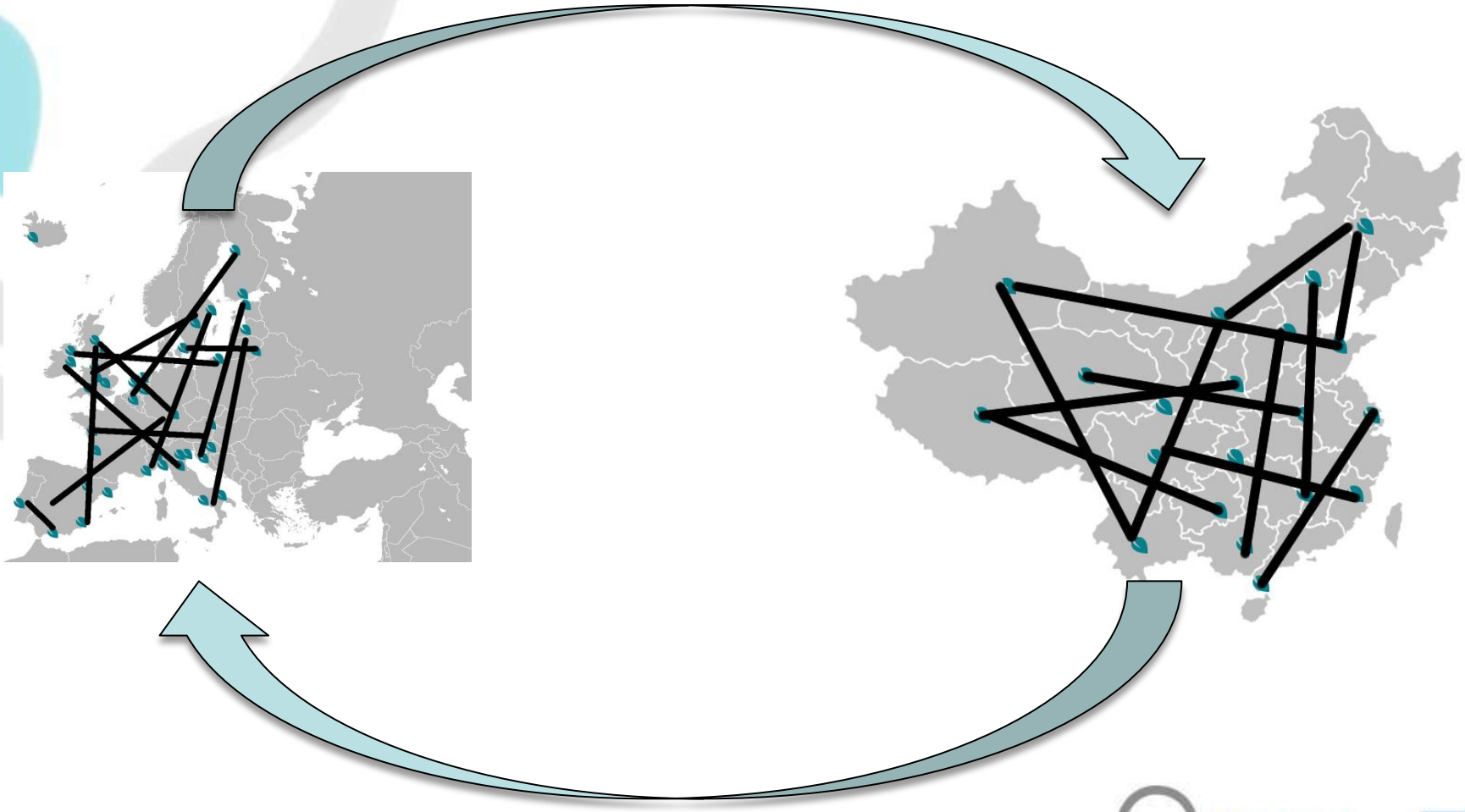
Create New Topic in “City Exchange”

Feedback

The next day?

- Updated (& upgraded/ enhanced/ enriched) Green Digital Charter?
- Sustainability & resource efficiency content?
- “NiCE-2” project?
- New ways of training and knowledge transfer?
- More GDC signatories?
- Access to EU funding and opportunities?
- The role of industry stakeholders?
- SCC-EIP “Invitation for commitments”?
- *Cooperation beyond Europe?*

Two networks working together
中欧合作网络



GREEN DIGITAL CHARTER

NiCE Networking Intelligent Cities for Energy efficiency

SEVENTH FRAMEWORK PROGRAMME

Thank you!

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