

Report on GDC Reporting Tools and Action Tools Catalogue

Report on GDC Reporting Tools and Action Tools Catalogue: version 1.0 (FINAL)

Deliverables 2.6 and D2.9

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1 Summary

This document addresses the requirements for a written report on D2.6 Final GDC Reporting Tools and D2.9 Final Action Tools Catalogue; supporting the products themselves delivered as elements of the online Toolkit.

As the deliverables co-exist within the toolkit, the reports for D2.6 and D2.9 have been combined for clarity of purpose and general ease of reading. This document aims particularly to highlight the changes made since the previous drafts were published.

It sets out to show how and where the Toolkit has been developed in the light of the constructive comments provided in the Project Review Report of July 2013. It seeks to highlight the complete overhaul of the User Experience and the improvements made to each of the tools as well as the way in which city-provided Activities and Tools - the Action Tools Catalogue - can be effectively searched using the ontology of the Green Digital Charter (GDC) framework.

There is now a clear distinction between those using the toolkit to assess and record their city's progress and those seeking advice and inspiration from cities that have already committed to the GDC.

Navigation and advice has been thoroughly reviewed throughout the Toolkit, aligning to the GDC Framework wherever appropriate and presenting additional help in context.

Each question in the Self Assessment Questionnaire (SAQ) has been reviewed and updated and explanation and examples provided in the SAQ, where needed.

Searching the Tools Catalogue of Activities and Tools already provided by cities is now based on the ontology of the GDC Framework and is both robust and flexible.

All regular administration activities have been brought into the Administrator's dashboard and are therefore no longer dependent on 3rd party technical support.

2 Background and Introduction

The main deliverables D2.6 Final GDC Reporting Tools and D2.9 Final Action Tools Catalogue are provided as components of the online NiCE Toolkit (http://www.greendigitalcharter.eu/nice_toolkit/).

This report is intended to highlight how and where the Toolkit has been developed since the Project Review in July 2013.

The Technical Review Report on Information and Communication Technologies, dated 12th July 2013, by Experts Maria João Rendas of Centre National de la Recherche Scientifique (CNRS), France, and Prof. Dr. Peter Heydebreck, of inno AG, Germany provided useful, specific findings with regard to the online Toolkit's operation and how the users' experience could be improved.

Since that review, the underpinning code has been substantially redesigned and redeveloped to facilitate more efficient and flexible operation. The User Experience (UX) aspect was also re-assessed and a revised interface implemented.

Working closely with the Leibniz Institute of Ecological Urban and Regional Development (IOER), the wording of the Self Assessment Questionnaire (SAQ) has been overhauled and clearer assistance and linkage to relevant Activities has been provided.

The GDC ontology, founded on the dimensions of the GDC Framework, is consistently used for reference and classification across the SAQ and Activities (Projects) recorded by Cities, providing a tangible alignment across the Toolkit.

3 Overall User Experience (UX)

Visually, a complete new 'look and feel' has been implemented.

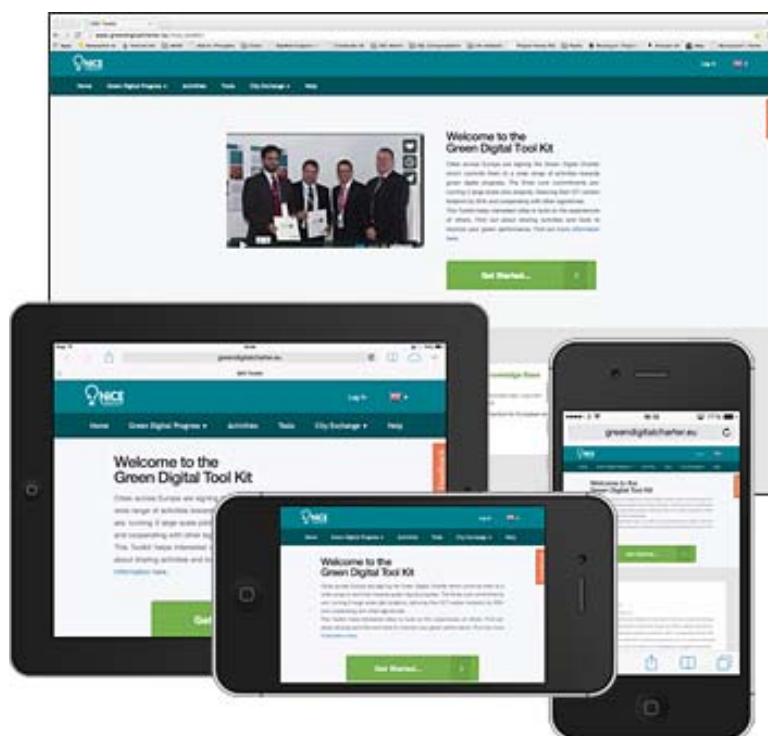
Based on current best practice approaches as utilized by Google, Dropbox and other mainstream services, the design utilizes a modern, flat, 2-dimensional design.

Iconic imagery together with short, uncomplicated phrases has been used to make the site as easy as possible to navigate by non-expert English readers. This is regarded as particularly important in encouraging broader uptake of the Toolkit within Signatory City organisations.

Clear graphics-based introductions are now displayed on entry to each of the three main Green Digital Progress Tools together with a clear 'next step' depending on current user authentication status (see Authentication and Access Control section).

Google translation is consistently located on the top right hand corner of each page throughout the site for users who wish to use it.

Pages are responsive, meaning that they will display appropriately across computer browsers, tablet and handheld devices.



General navigation around the Toolkit has been made easier, using consistent visual signage and wording.

Grouping of information has been revised to present related aspects together, removing much of the clutter of the previous layout.

4 Authentication and Access Control

There is now a clear distinction between the authenticated (logged in) and unauthenticated (not logged in) user experience that delivers substantial information to the casual visitor, encouraging them to find out more, whilst maintaining the demanded level of confidentiality for signatory cities.

Users representing a Signatory City will have gone through induction and registration with the site administrators, EURO CITIES. See Administration and Maintenance for detail of system support for this process. These users will be able to identify themselves to the Toolkit through submission of a Username and Password.

Users who are new to the Toolkit or are otherwise not recognised as representing a Signatory City will not have been issued with a Username or Password and are therefore unable to identify themselves to the site.

The unauthenticated user is able to explore the concepts of the Green Digital Charter and the capabilities of the Toolkit. They may search all Activities and Tools provided by Cities as well as review discussions between City users, the latest development news and the level of participation by each signatory city.

An authenticated user is in addition, able to access and utilise, on behalf of his/her City, the three Green Digital Progress tools as well as contribute information about Activities (Projects) and Tools for others' benefit.

4.1 Presentation of content

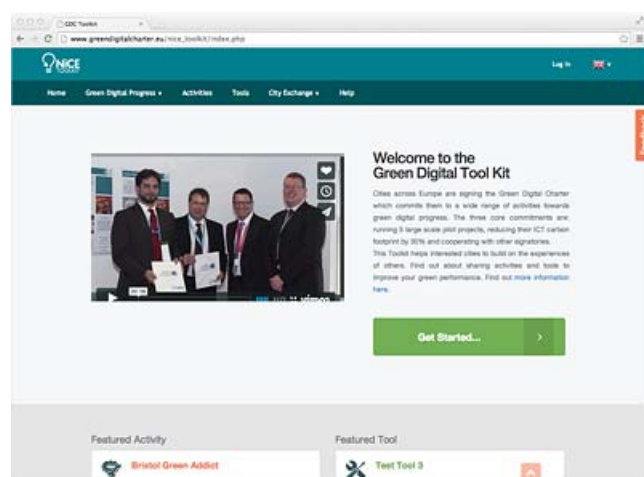
On entry to the Toolkit, what is presented to the user depends on whether or not they are logged in.

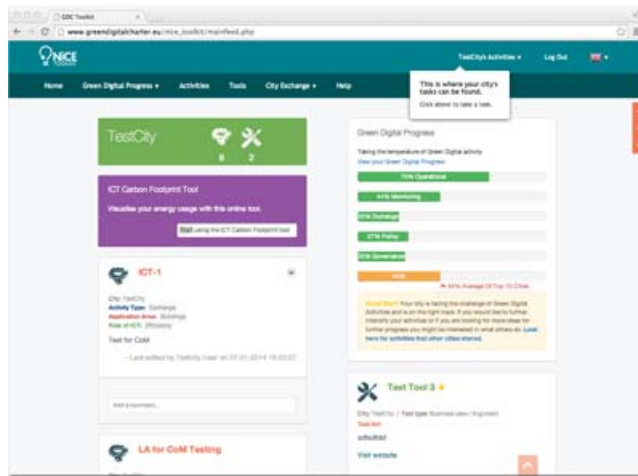
The unauthenticated user is presented with information and 'calls to action' aimed at encouraging their interest in the Toolkit and Green Digital Charter.

A video presents key information about the GDC and Toolkit whilst narrative is kept concise and to the point.

Featured Activities and Tools show examples of what cities are doing.

A succinct menu bar gives direct access to all parts of the Toolkit.

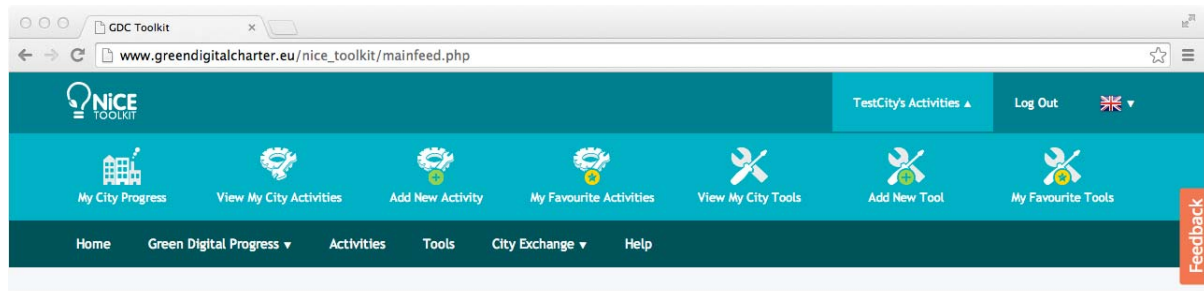




In contrast, the user who is recognised by EUROCITIES as representing a City is taken directly through to a Home Page that is a summary of their City's current Green Digital progress and contribution to the Toolkit.

Current status on the Self Assessment Questionnaire, ICT Carbon Footprint and contribution / notification of Activities and Tools is all readily visible.

An additional menu is also available that gives direct access to Activity and Tool related items.



5 A City's Progress

A registered user is always associated with the City they are representing.

The toolkit has been developed on the clear understanding that Cities have insisted that their record of progress is not viewable by or shared with others. Therefore an authenticated user may only view or update progress data pertaining to his/her own city.

The Toolkit provides three options under the Green Digital Progress menu item:

- Review my city's progress
- Review city ICT carbon footprint
- Review GDC in Covenant of Mayors.

Each option is introduced with a short narrative and graphic-based explanation of the selected function.

5.1 Review my city's progress


This tool comprises a Self Assessment Questionnaire (SAQ) categorised by the five Activity Types of the GDC Framework; Operational, Monitoring, Exchange, Policy and Governance.

Progress indicators are displayed at the top of each section, showing progress within this category and overall.

There are direct links to How to Use the SAQ Tool and to examples of Cities' Activities (Projects) associated with this Activity Type.

A PDF of the current state of all answers, notes and comments as well as progress indicators may be downloaded at any time. Regular download and storage of these reports form a record of the City's progress over time.

Each question has been reviewed by IOER and restated where needed to improve clarity. Visual emphasis such as emboldening of certain key words and phrases has been employed where considered useful.

A specific explanation for each question is available via a click or roll-over on the  icon to the right of the question.

Selecting the "More information" link provides:

1. the GDC Commitment(s) related to this question
2. the full dimensions of the GDC relating to this question - Activity Type, Role of ICT and Application Area
3. a list of example activities already added to the Toolkit by Signatory Cities relating to the same categorisation.

It also provides an expandable entry box where the City user may enter or update a note or comment for future reference, such as specific references to how the City has addressed this question.

On completion of an Activity Type section, the user is invited to go to the next section. They may also do this at any time by selecting links at the top of each Activity Type section of the SAQ.

5.2 Review city ICT carbon footprint

A guide to assessment and reporting of an organisation's ICT carbon footprint is provided.

The guide is necessarily positioned as just that, offering advice on the essential data to be captured and how to load the collected results into the online record of performance over time.

Experience of cities such as Linköping, show that it is not useful to advocate a 'one size fits all' measurement of the organisations carbon footprint. Optimum balance of effort vs. granularity needs to be determined over time and across the organisation. A Case Study on Linköping's experience is included in the guide.

Early consultation indicated that an offline collection method was preferred to an online form as this more easily allowed collaboration between different departments within the organisation, some of whom would not have their own authenticated access to the Toolkit.

The ICT Carbon Footprint Tool therefore is aimed at consistent collection and upload of an organisation's data over time.

A 'template' spreadsheet file is provided - intended to ensure a correctly formatted data-file is uploaded to the Tool when completed.

Each set of collected data represents a 'snapshot' of ICT carbon equivalence at a point in time. Repeated assessment and upload of snapshots is visualised in the Tool in both graphical and tabular formats.

5.3 Review GDC in Covenant of Mayors

Green Digital Charter Signatory Cities typically also support the Covenant of Mayors (CoM) in its commitment to increased energy efficiency and use of renewable energy sources.

The Application Areas dimension of the GDC has associated 'subdomains' that are used to categorise all activities, tools, Charter commitments and SAQ questions. These subdomains have been mapped, within the GDC-CoM Tool, onto the CoM categories to enable aligned and efficient reporting into the CoM.

Where details of ICT-related activities have already been entered into the CoM, it is a simple task to copy and paste information from the CoM's Sustainable Energy Action Plan (SEAP) - available in spreadsheet format - directly into corresponding fields of the "Add New Activity" form in the NiCE Toolkit.

The GDC-CoM Tool shows all Activities entered by a City, in the GDC/NiCE Toolkit, in the SEAP format.

The online report may be reviewed; scrolling right and left to scan across all columns. When satisfied, the user may then download a SEAP-format spreadsheet of the same Activity details, from which whole rows of information may be copied directly, for CoM reporting purposes.

Since last review, the process has been more clearly defined and presented and the format for the download changed from 'pdf' to 'xls'.

6 Sharing Experience

6.1 City Activities and Tools - the Action Tools Catalogue

The Action Tools Catalogue is compiled from tools provided by cities, for cities. The Tools Catalogue comprises not just the tools used by a city but also illuminates the context in which they have been used, through association with the project (Activity) on which they are used.

Cities are encouraged to provide details of the Activities (projects) being undertaken that relate to their GDC Commitments. This includes deployment of five appropriate, large-scale ICT pilot projects within five years of signing the GDC.

The Activities logged in the NiCE Toolkit are useful to other cities considering how to meet GDC commitments. They provide examples of what experience is available within the peer group and, importantly, give an appropriate contact.

Additionally, Cities are encouraged to upload details of the tools they employ(ed) on their projects. Not to be confused with the Toolkit's own Tools, City tools may be any of a wide range of resources; a software application, a formatted spreadsheet, a web-based service or a written description of a method or manual process.

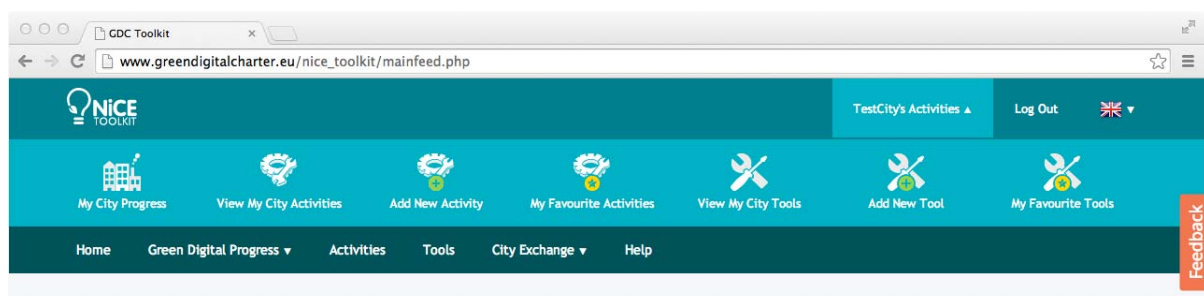
Activities are classifiable by the Activity Type dimension of the GDC Framework; Operational, Monitoring, Exchange, Policy and Governance. They may address more than one Activity Type. They may also be classified by the other two dimensions; Application Area and Role of ICT. These three dimensions are the core of the GDC ontology.

Activities are unique to a City and employ (City) tools to deliver.

A tool is therefore always associated with an Activity. This relationship has been made clear in the redeveloped Toolkit. A tool may not be entered without it being associated with an existing Activity.

The re-use of developed tools is encouraged as being efficient and promoting collaboration. In practice a tool will inevitably be altered in some way before being employed in another Activity (project). Therefore each tool is also regarded as unique, although there is ambition to provide a derivation path for tools if future funding allows.

All users may search Activities and Tools, whether or not they are logged in, but only a City user may add, amend or delete an Activity or Tool - and only for their own City. This is undertaken via the special City user toolbar.



Amendment and deletion of Activities and Tools are undertaken via the appropriate “View My . . .” menu item, using a dropdown menu that appears when an individual entry is in focus.

Both Activities and Tools may be searched using a comprehensive set of filters on the left hand side of the listing. Multiple selections may be included so that for instance Activities from both Bristol and Murcia may be included in the same set of filtered results.

When adding either an Activity or Tool, progress through the form is indicated at the top of the page. Mandatory entries are clearly indicated.

If a new tool is added via an existing Activity, the associated Activity entry defaults to that Activity. This is not possible if entered directly, although an Activity must be selected. It is also possible to add a new Activity from the Tool entry page if this has not already been entered into the Toolkit.

Basic principles of ‘WWW2’ have been applied so that Catalogue entries seek to link out to maintained ‘fuller’ content elsewhere rather than store expiring content within the Toolkit.

6.2 City Exchange

Three options for sharing experience are given under the City Exchange menu item:

- View City Exchange
- View Developers’ Blog
- View All City Snapshot.

The City Exchange is a forum where registered City users can initiate and take part in discussions on matters of interest.

Unauthenticated users are able to view forum entries but are not able to initiate or comment on topics.

The Developers’ Blog is a means of providing news on the development of the NiCE Toolkit, such as new or updated features. It is not meant as a discussion forum.

Any discussion on the Toolkit and its development is expected to take place in the City Exchange forum.

The All Cities Snapshot gives a summary view of the level of contribution of Activities and Tools to the NiCE Toolkit by each GDC Signatory City.

It can be used to quickly access a filtered list of either Activities or Tools provided by that City, through a simple click of the appropriate icon against that City.

There are ambitions to also share summary details of Cities’ progress from the Green Digital SAQ and ICT Carbon Footprint tools in the All Cities Snapshot, but it is understood that this has not yet been agreed with all Signatory Cities.

7 Help and Feedback

A comprehensive help section aims to explain use of the Toolkit's functions as well as provide handy reference on the underpinning Green Digital Charter.

A Feedback tab has been added to the Toolkit - to be found high on the right hand side of every page. It is always available no matter where the user is on the page.

Clicking on the tab opens a panel that facilitates the report of any question or problem encountered by the user. The feedback is automatically registered in Clicks and Links' issue management system where it is managed to a resolution. Any policy or operational, rather than technical, issues are passed directly onto EURO CITIES for response and control.

8 Administration and Maintenance

The Toolkit is presented as part of the GDC website at www.greendigitalcharter.eu.

EUROCITIES is responsible for city and user administration as well as general content update and maintenance, through a customised *WordPress* administration dashboard.

Business administration of the system is now an integral part of the developed GDC reproducible 'product'.

Template or database changes continue to require specific technical skills such as provided on the project by Clicks and Links.

Cities are encouraged to sign up to the Green Digital Charter through a programme of promotion and engagement. During this process, a city will be granted access to the Toolkit by EUROCITIES. Normally upon signing the Charter, but potentially beforehand so that city managers may start to assess and record their current status.

A registered user must be associated with an already registered city.

The set up of a new city, setup of a new user, association of a user with a city and any subsequent update have all been brought into the administration dashboard.

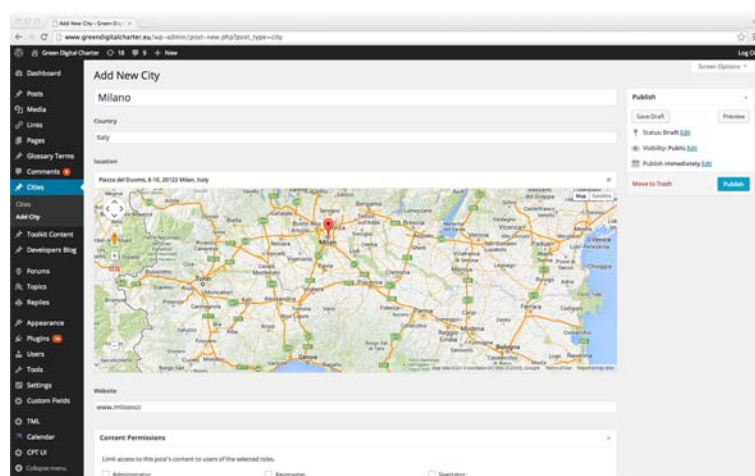
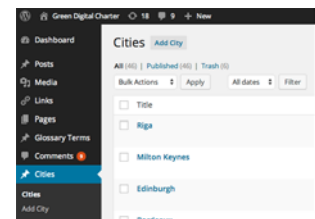
8.1 City Administration

Selecting the Cities option from the main administration dashboard menu allows the Administrator to add a new city or edit or 'trash' an existing city.

Adding a new city is a simple matter of entering a name, country and associated website address.

Previously, locating the city in its correct position on the GDC map of signatory cities required knowledge of that city's location in terms of its latitude and longitude.

Now it is a simple case of dropping a pin on the city in an embedded map, something that is easily accomplished given that there has already been a period of engagement with the city, probably including a first-hand visit.

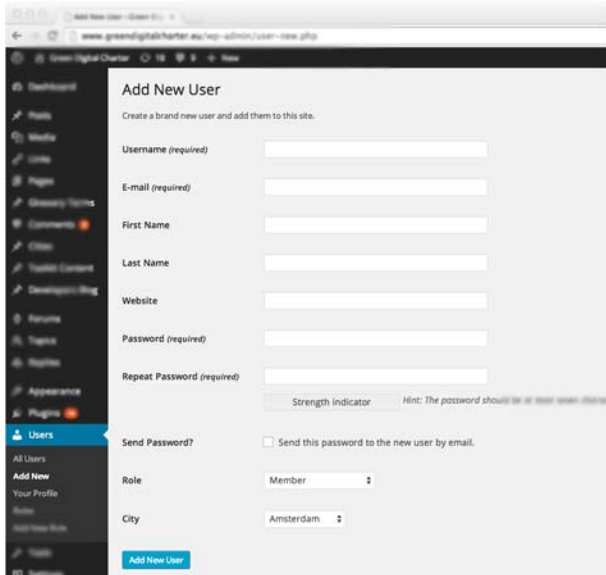


The same facilities are available when editing an existing city.

A city may be removed from the Toolkit by ‘trashing’ it. Cities may be permanently removed from the system by deleting the city from Trash.

8.2 User Administration

Selecting the Users option from the main administration dashboard menu allows the Administrator to add a new user or edit or ‘trash’ an existing user.



Adding a new user is a simple matter of entering a username, contact details and a password.

There is an option to send the new user their registration details by email.

The user is associated with their city by selecting from a list of cities registered on the Toolkit.

8.3 Content Maintenance

Much of the narrative, imagery and downloadable content is maintained within the *WordPress* content management system (CMS).

This is updateable from the Administrator’s dashboard.