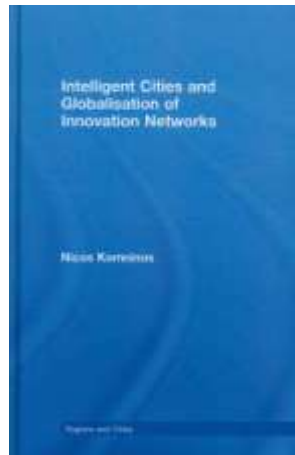
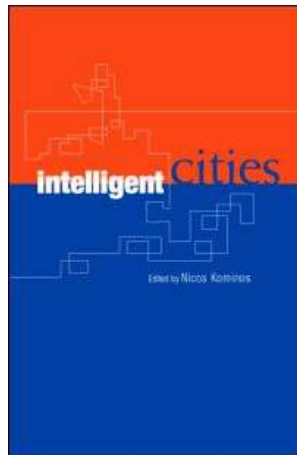


The IntelCities Community of Practice: the capacity-building, co-design, evaluation and monitoring of eGov services

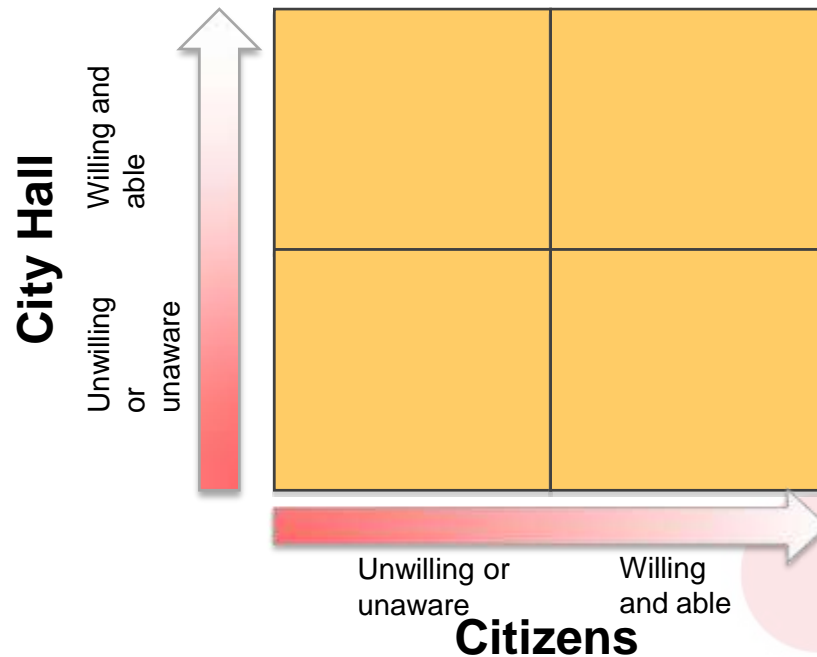


Mark Deakin, Patrizia Lombardi and
Ian Cooper

Introduction: the IntelCities CoP

- The notion of the intelligent city as the provider of electronically-enhanced services has become popular over the past decade or so.
- In response to this growing interest in the notion of intelligent cities, researchers have begun to explore the possibilities of using CoPs as a means of getting beyond current 'state-of-the-art' solutions and use the potential such organizations offer to develop integrated models of e-government (eGov) services.
- This paper shall report on the outcomes of one such exploration and review the attempt made by a consortium of leading European cities to use the intelligence that CoPs offer as the organisational means by which to get beyond current state-of-the art solutions

Building the capacity for shared enterprise



Stakeholders' willingness and commitment to deploying and using on-line civic services – the need for reciprocity (after Corsa, 2006)

Lombardi P., Cooper I, Paskaleva K, Deakin M., 2009, *The Challenge of Designing User-Centric e-Services: European Dimensions*, in: C. Reddick (editor), ***Strategies for Local E-Government Adoption and Implementation: Comparative Studies***. IGI Global books.

User-centric co-design

Top down user-centric
co-design



IntelCities e-services



Bottom user-centric co-design

Users:

- City Hall stakeholders
- Citizens and Civic stakeholders
- Business stakeholders

City Roadshows – Manchester, Rome and Marseilles

Use of ‘storylines’ to promote empathetic and prospective thinking

Storyline

Both Mark and Sarah feel their family and work commitments have prevented them from becoming more involved with local groups in the past. However, both are keen on home computing and have broadband connections to the internet. Mark feels that the City’s website should provide information on crime rates and proposes that he and Sarah should logon and initiate a search to see how much they can learn about crime prevention initiatives online. They both want to know what their local administration is currently doing to address neighbourhood issues across the city and to submit their comments on past and present initiatives. They also feel it would be valuable to see what local groups are doing to tackle crime and whether any operate in their neighbourhood. They are also keen to discover how they, as citizens, can use the platform of services available on the city’s information portal to ensure the urban regeneration programmes affecting their neighbourhoods are effective in tackling crime and making the areas safe and secure.

What steps could Mark and Sarah take to use on-line services to tackle the problems they encounter?

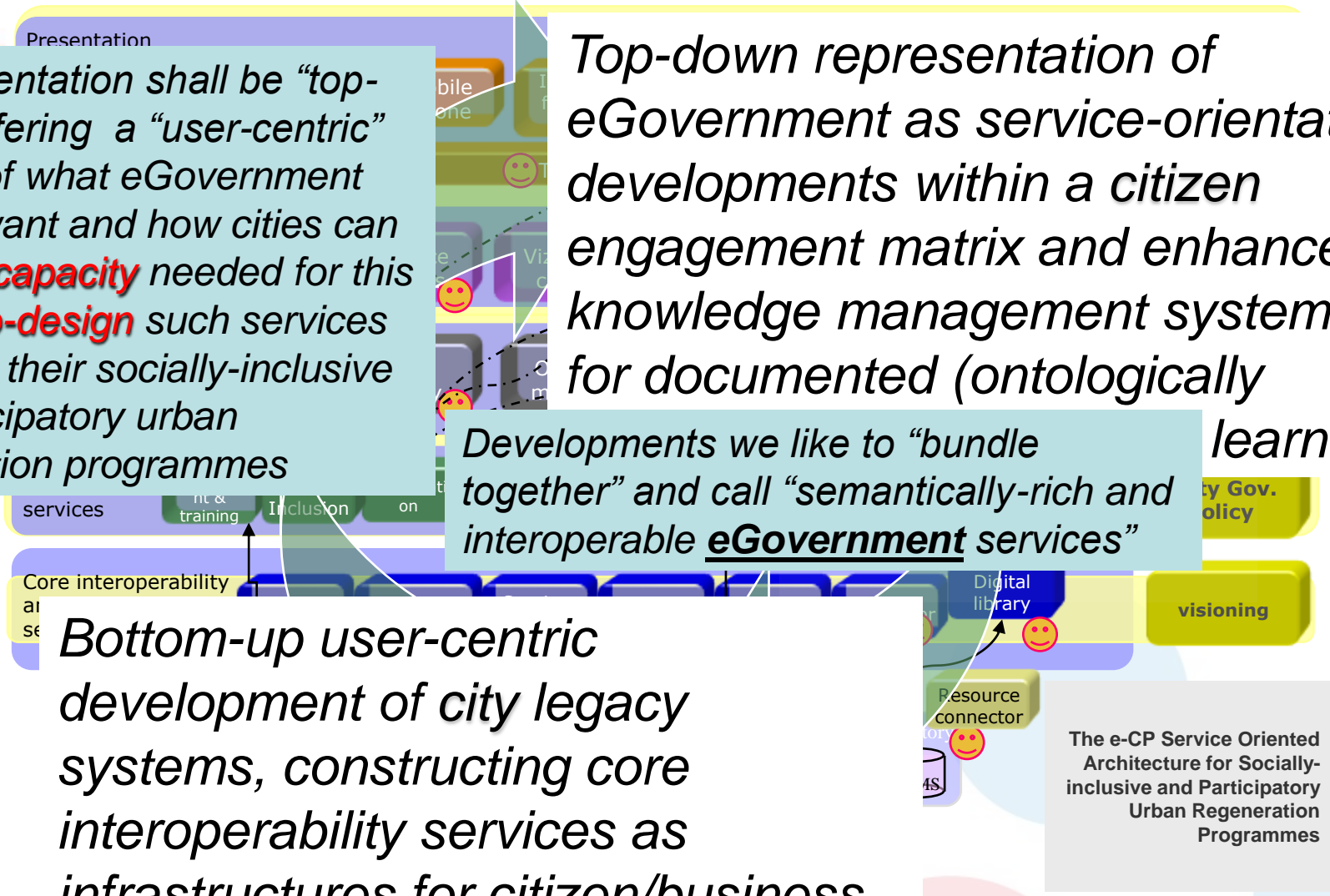
This presentation shall be “top-down”, offering a “user-centric” account of what eGovernment citizens want and how cities can **build the capacity** needed for this CoP to **co-design** such services as part of their socially-inclusive and participatory urban regeneration programmes

Top-down representation of eGovernment as service-orientated developments within a citizen engagement matrix and enhanced knowledge management system for documented (ontologically

Developments we like to “bundle together” and call “semantically-rich and interoperable **eGovernment** services”

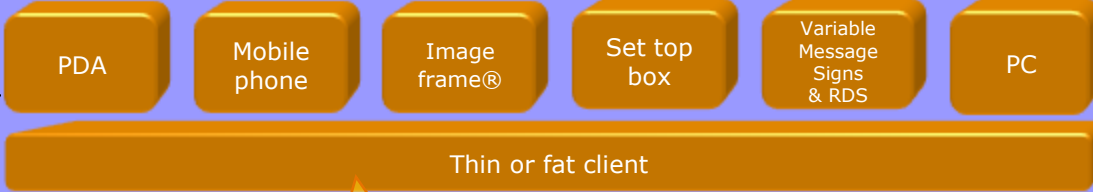
learning

Bottom-up user-centric development of city legacy systems, constructing core interoperability services as infrastructures for citizen/business activities as semantically-enhanced knowledge management processes



The e-CP Service Oriented Architecture for Socially-inclusive and Participatory Urban Regeneration Programmes

Presentation of eGov services to citizens/businesses from cities



Step 1- Capacity-building Roadshows: consultation & envisioning activities

Step 2 – Co-design

Inform architects of the eCity platform about the type of services “citizens” need and want:
no possibility of a “one size fits all” solution here!
This means cities have to build the capacity to



The scenario:

Karen and Samira have been running their catering business from Karen's home for the past two years. Recently, they've started offering buffet lunches for offices in the City centre and dinner parties in their customers' homes – their business is doing well, but Karen is finding it increasingly difficult to park their van in her neighbourhood. In addition to parking difficulties, they're both conscious of the area's traffic congestion, particularly at peak times.



Karen and Samira have decided to look for new premises, with parking facilities which are both affordable and secure. They're looking for an area with good transport links, enabling them to reach their clients, both in the city centre and suburbs. If business continues to do well, they're planning to invest in another van.



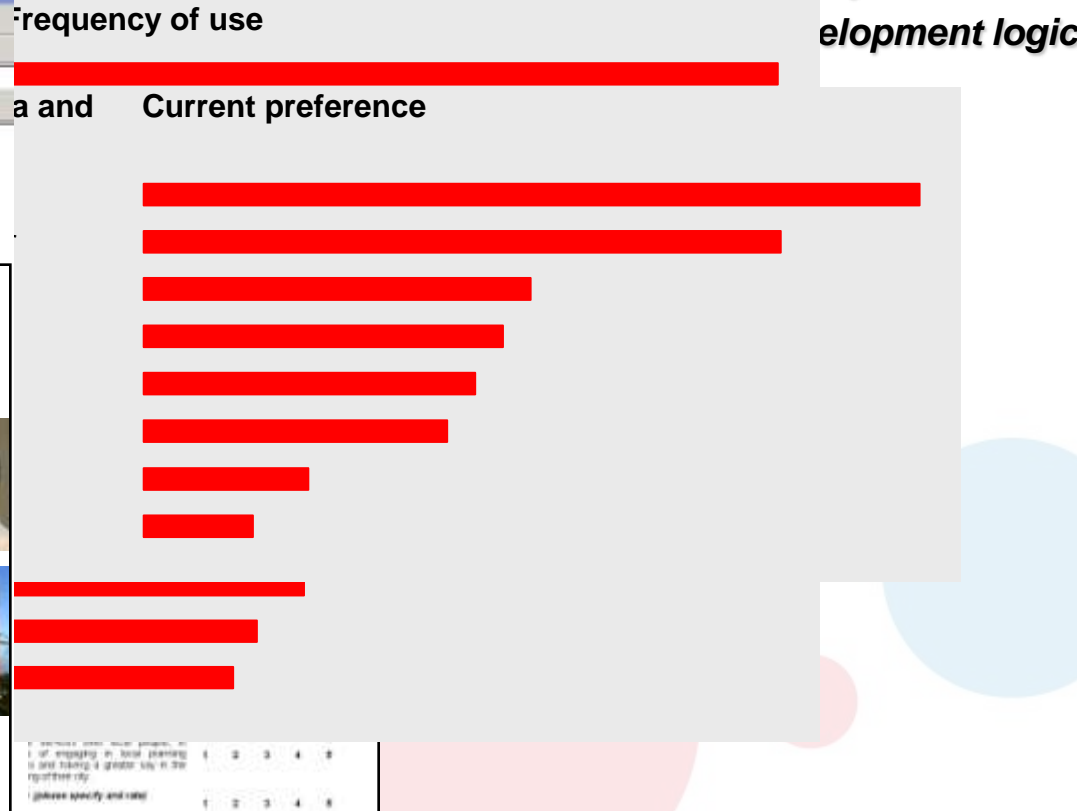
How can the eCity platform help Karen and Samira?

Due to the demands on their time, neither Karen nor Samira can search for suitable premises during the day, nor are they able to attend appointments with council staff during office hours. Karen has decided to devote her evenings to searching for resources via the internet. She wants to view information on council-owned premises available to rent and work out which of these offer easy, preferably secure, parking and good transportation links to



Frequency of use

Current preference



Presentation of eGov services to citizens/businesses from cities



PDA

Mobile phone

Image frame®

Set top box

Variable Message Signs & RDS

PC

eGov services

Thin or fat client

Enhanced Processes

Consultation & deliberation for regeneration

Job service with maps

Vizsim for citizens

Land use management

Knowledge management



citizen engagement matrix

Semantic interoperability



Services Discovery

Ontology mappings

Ontology registry & management

Ontology mark-up & deep annotation



document manager

Citizen/Business services

Employment & training

Social Inclusion

Participation

Map service

Land use analysis

e-Regen.

Virtual planning

Benchmarking

eLearning

eCity Gov. Policy

Core interoperability and infrastructure services

Administration

Session

Service pro.

Security

Profile man.

Geo broker

Digital library

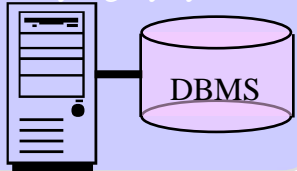
visioning

Resource connector

Resource connector

Resource connector

City legacy system



DB server



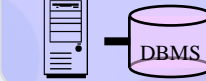
DB server



DB server



e-Library repository



Extranet

Co-design of eGov services using N-tiered logic

The e-CP Service Oriented Architecture for Socially-inclusive and Participatory Urban Regeneration Programmes



Evaluation and monitoring of eGov services

- In IntelCities CoP, the effectiveness and adoption of eGov services was evaluated and monitored to locate any present bottlenecks and policies in order to overcome them, based on end-users input.
- The main objective was the development of a Multi Criteria Analysis (MCA) benchmarking tool, named “e-CP Regional Benchmarking Environment”, to enable evaluation and cross comparison between the various eGov services.

To whom? City Governments

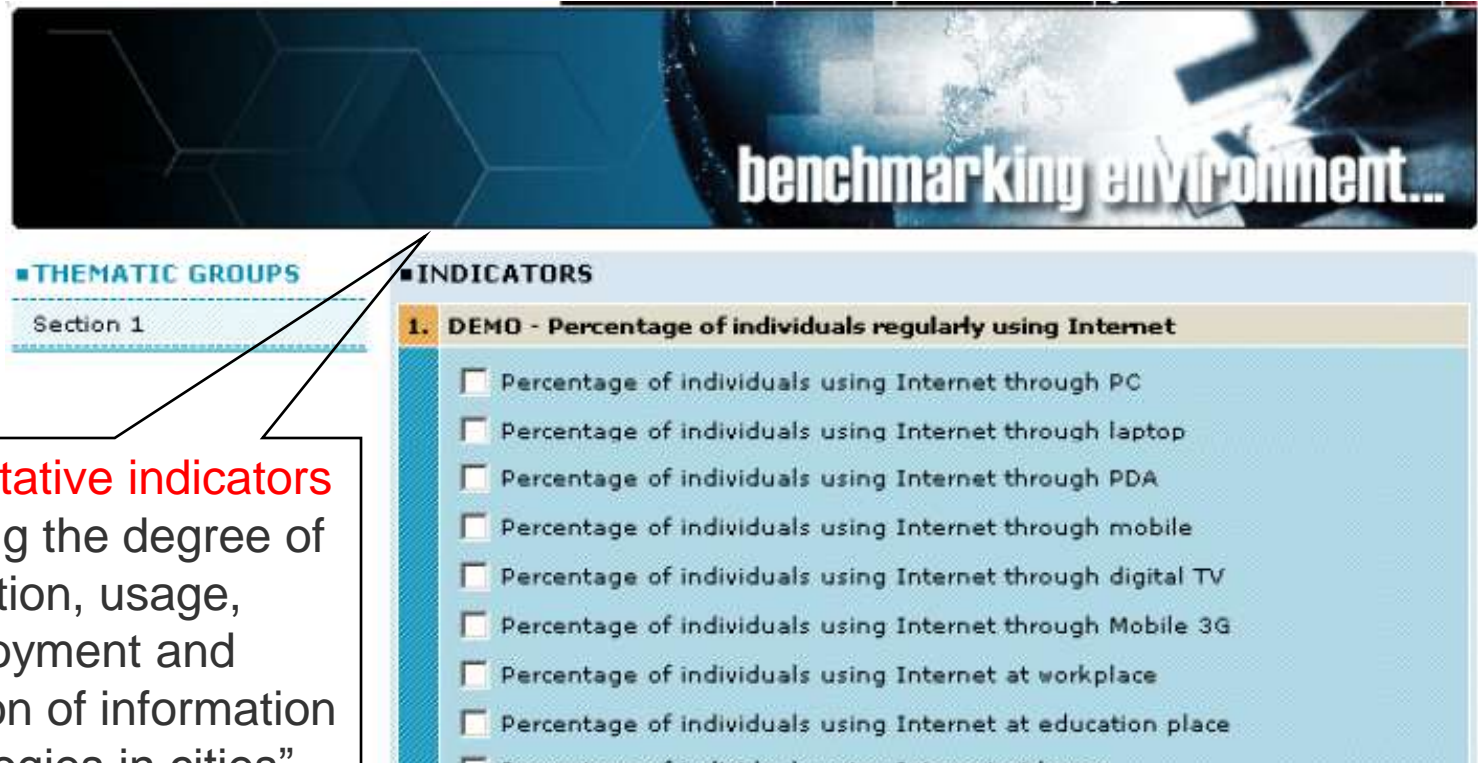
What for? To benchmark their presence, deployment and usage of IT, and supporting/improving the decision-making process,

How? Using a predefined set of benchmarking indicators

The main benefits of the e-CP's Regional Benchmarking Environment

- Defining, measuring and exploiting new e-Gov service evaluation indicators
- Using of modern survey and benchmarking tools in electronic working environments
- Supporting multilingual information and content for the evaluation of eGov services
- Eliminating paper exchange for the benchmarking processes
- Minimising e-Governance evaluation budget and increasing ROI of Information System infrastructure
- Automating complex workflow benchmarking tasks and minimising overall delivery time of new e-Governance benchmarks
- Planning and deploying public and Municipality e-Government knowledge management systems
- Working remotely with counter parts in different locations
- Disseminating benchmarking outcomes to the clients or the broad public

The e-CP Benchmarking Environment



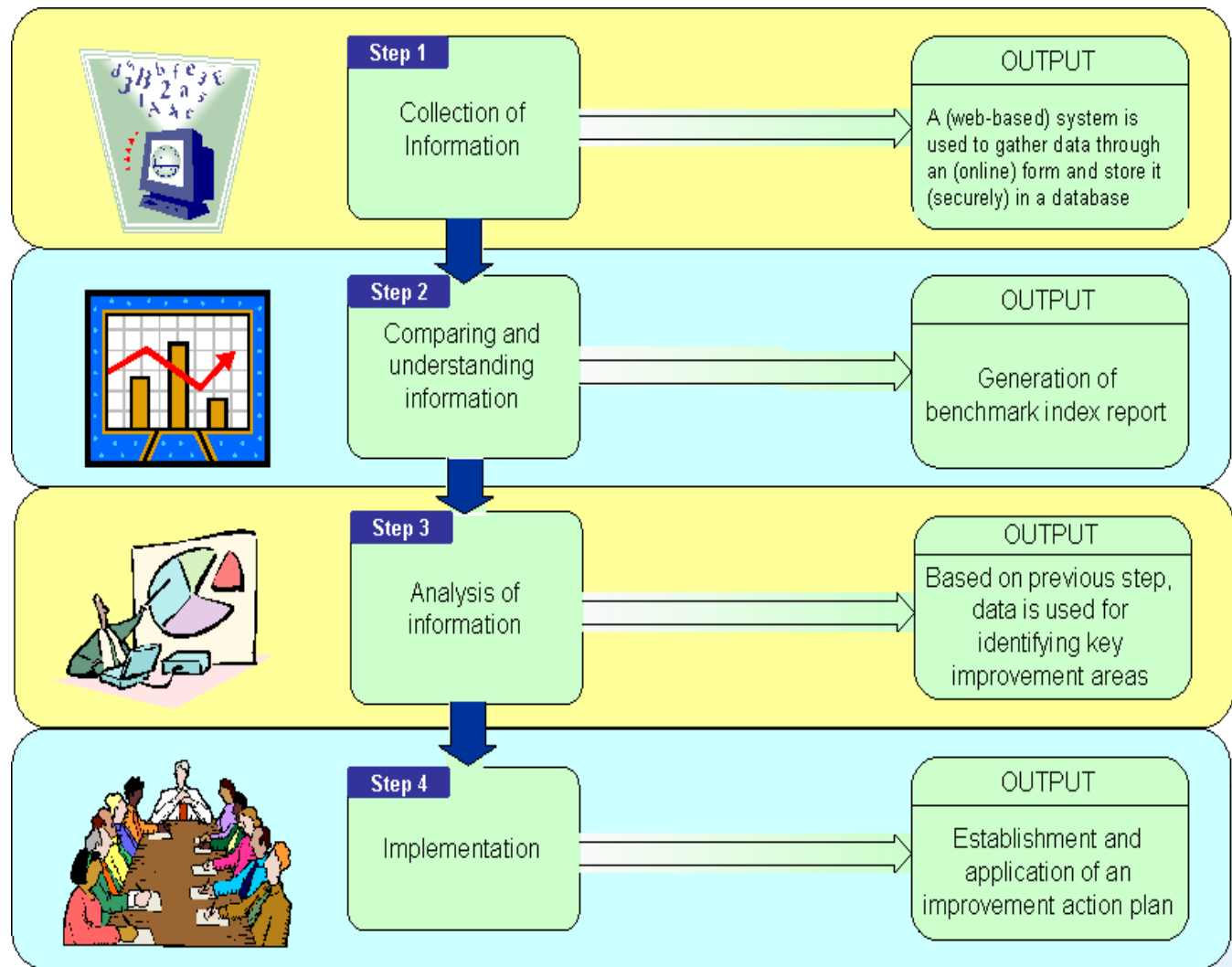
The screenshot shows a web-based interface for benchmarking. At the top, there is a banner with the text "benchmarking environment...". Below the banner, there are two main sections: "THEMATIC GROUPS" and "INDICATORS". Under "THEMATIC GROUPS", there is a sub-section "Section 1". Under "INDICATORS", there is a list of indicators, with the first one being "1. DEMO - Percentage of individuals regularly using Internet". This indicator has a list of sub-indicators, each with a checkbox:

- Percentage of individuals using Internet through PC
- Percentage of individuals using Internet through laptop
- Percentage of individuals using Internet through PDA
- Percentage of individuals using Internet through mobile
- Percentage of individuals using Internet through digital TV
- Percentage of individuals using Internet through Mobile 3G
- Percentage of individuals using Internet at workplace
- Percentage of individuals using Internet at education place

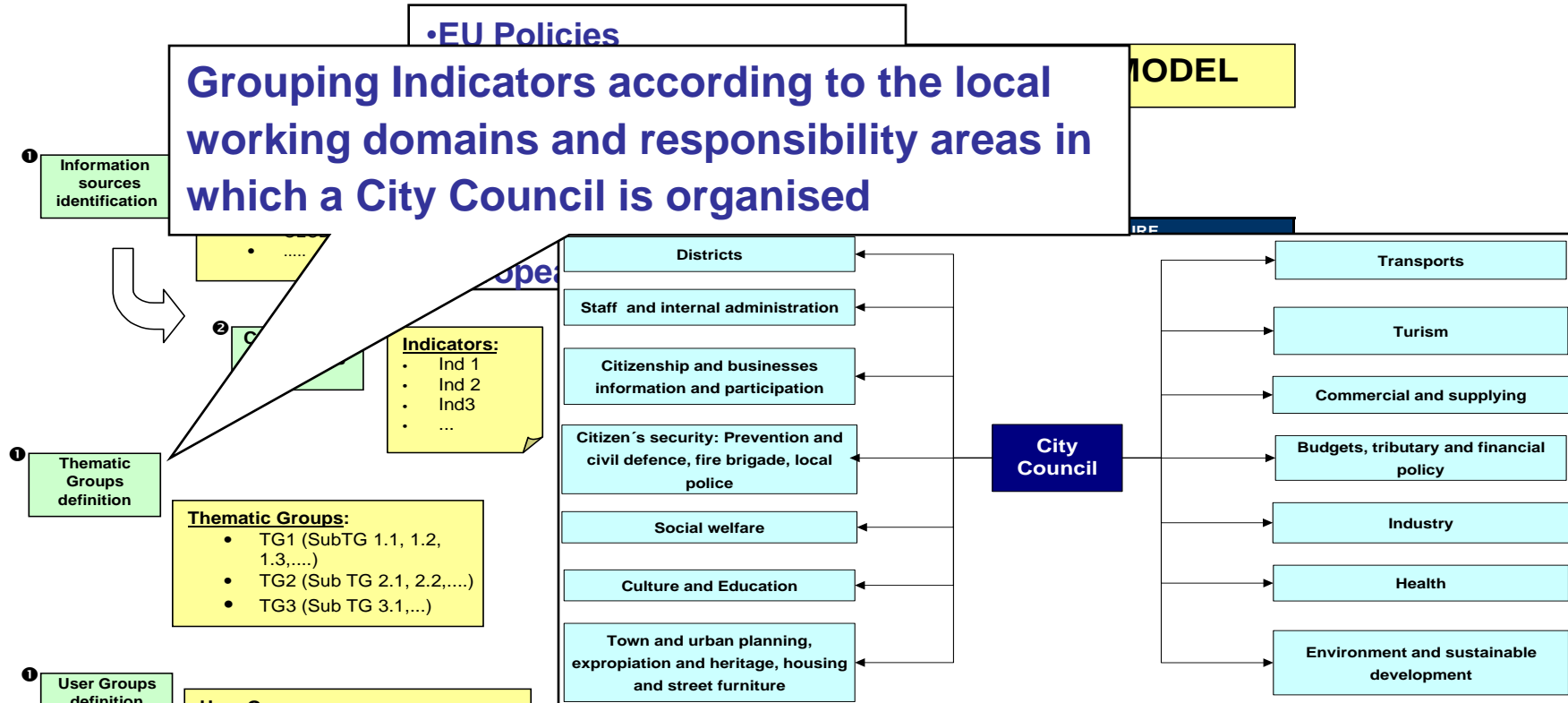
“IT quantitative indicators measuring the degree of adoption, usage, deployment and penetration of information technologies in cities”

This is a **powerful Web based distributed Open Source Software (OSS) platform** which addresses the needs of European City municipalities and requirement to evaluate the eGov services deployed via online surveys (benchmarks) from end-user communities.

Benchmarking Process

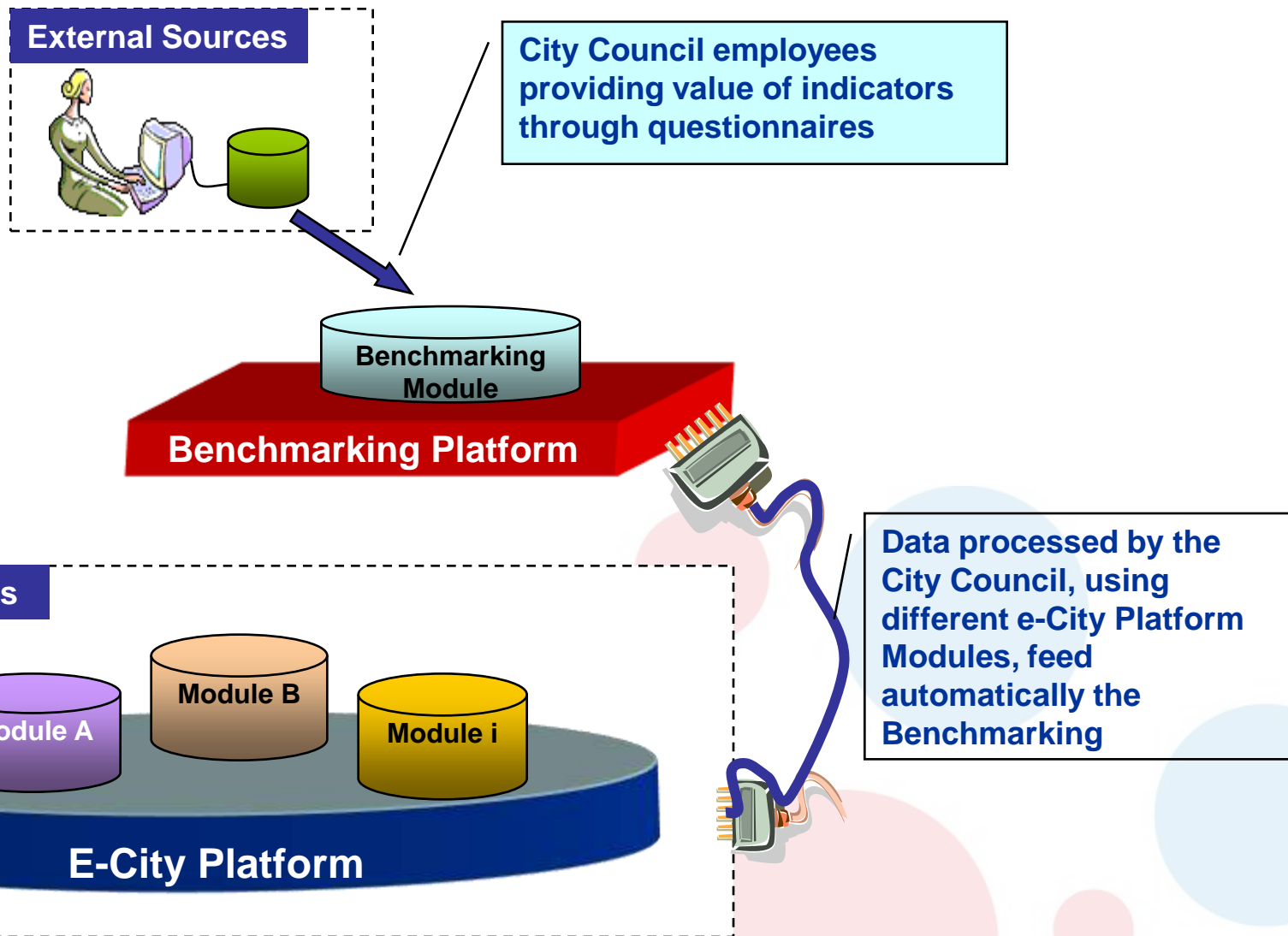


The methodology



- ➔ Initial list of 300 indicators
- ➔ Final list of 115 indicators
- ➔ 14 Thematic Groups

Feeding the Benchmarking Platform



Lessons learnt

- CoPs do offer the opportunity to bridge the cognitive distance between the expectations citizens have of eGov service developments and the cities capacity meet them
- Such collaboration and consensus-building calls for a mutual learning exercise centred around the shared enterprise of a “user-centric” approach to eGov service development
- Based on this, it is possible for citizens and cities to co-design eGov services as part of a N-tiered development logic
- These enhancements can in turn be evaluated as part of the regional benchmarking environment generated to monitor such developments.