

Benchmarking Transformational Use of ICTs

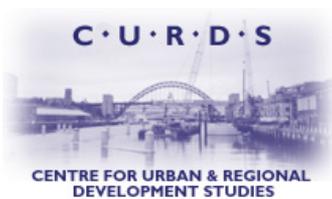
iTEC08, Darmstadt, 6-7 November 2008

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“For 2007-2013 an effort needs to be made to improve the capacity of the regions to reinforce a regional benchmarking culture namely by the development and use of regional ICT indicators”

European Commission: ‘Regions Delivering
Innovation Through Cohesion Policy’,
SEC(2007)1547

Contents of the presentation



- 1 Regional Information Society indicators
– what for?
- 2 Making sense of transformational use of ICTs
- 3 Towards benchmarking transformational use: Key challenges for regional benchmarking

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Regional ICT indicators – What for?



Do we need ICT indicators?

- ICT uptake is not an end in itself ...
- ... outcomes are! (growth, competitiveness, social cohesion, sustainability, jobs and human capital formation, good governance)
- However, outcome indicators are to causally distant from policy initiative and ...
- ... they arrive to late to inform policy making
- It is not ICT as such, but the way it is applied/utilised which explains differences in business performance
- Leading indicators on take-up and transformational use needed

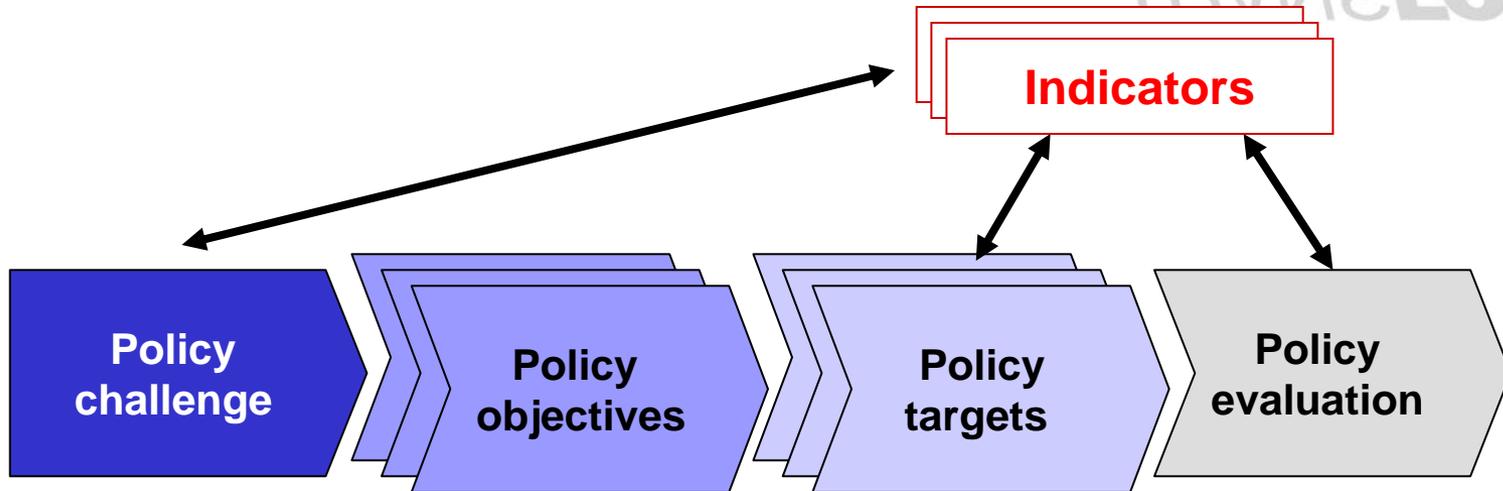
Regional ICT indicators – What for?



Do we need [Regional](#) ICT indicators?

- Policy-makers need statistics on the geographical unit they are responsible for
- Regional digital divides may be widening
- Better evaluation of EU investments on ICT for regional development needed
- Benchlearning

Benchmarking as a Policy Tool



- **Benchmarking:** Where is policy action needed?
- **Broad area** for activity and investigation
- The "mission statement"

- Translate challenges into more concrete **concerns**
- Basis for specification of **policy actions**

- The **measurable** output and outcome of policy actions
- **Benchmarking:** What is the **current situation**?

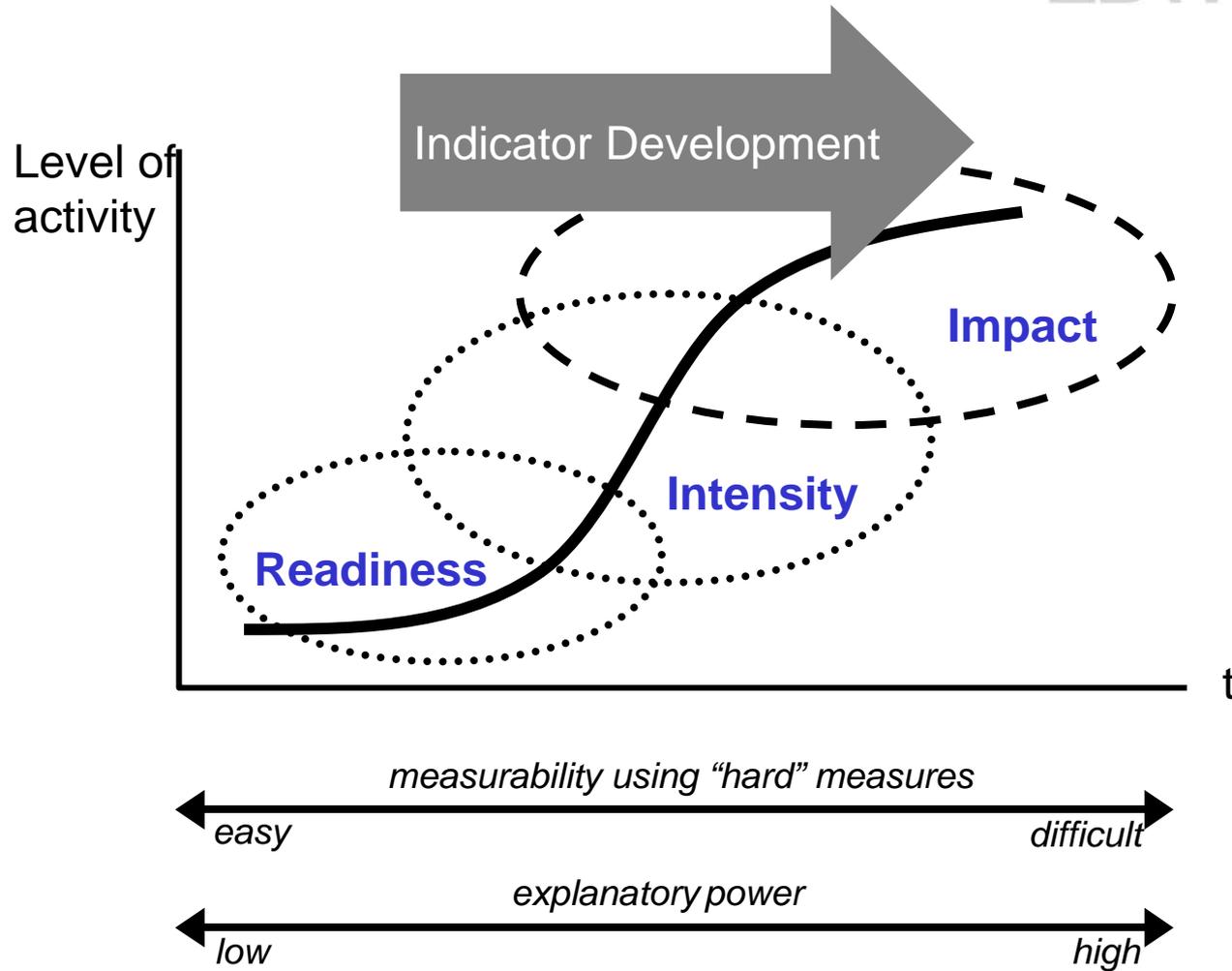
- **Benchmarking:** Has there been **progress** towards meeting objectives?
- **Benchelearning:** What and how can we learn from others' experience?

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What is being measured



What is of most importance?



- Not differences in ICT investment (alone) explain success and failure in the knowledge-based economy & society!
- Also: Differences in the effectiveness with which ICT is used to transform traditional ways of doing things.
- ICT investments need to be complemented by adequate changes in organisational structures & procedures...
- ... and in modes of governance.

What is transformative use of ICT?



**Transformative
Potential
of ICTs**

***Transformative
Use of ICTs***

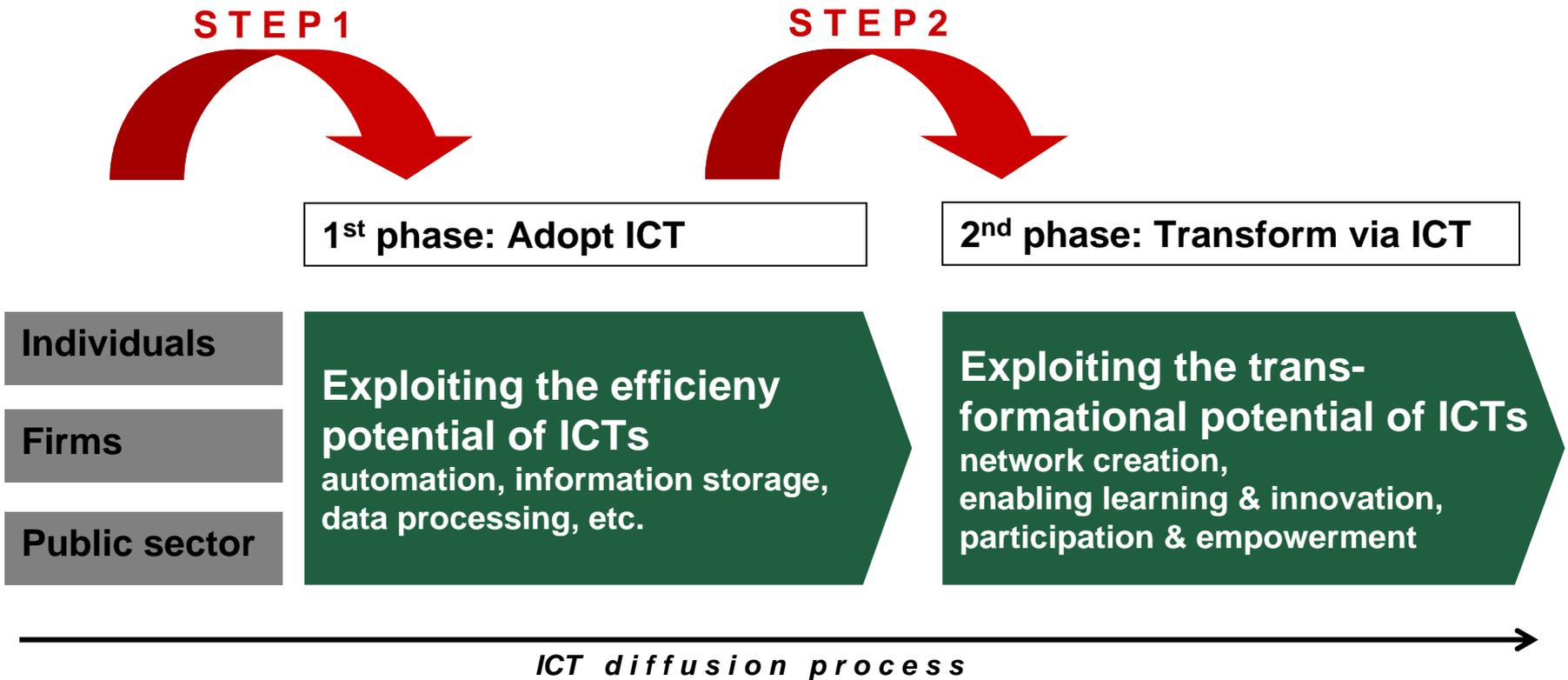
**Transformational
Needs as in
Region's Agenda**

Key dimensions of ICT-based transformation

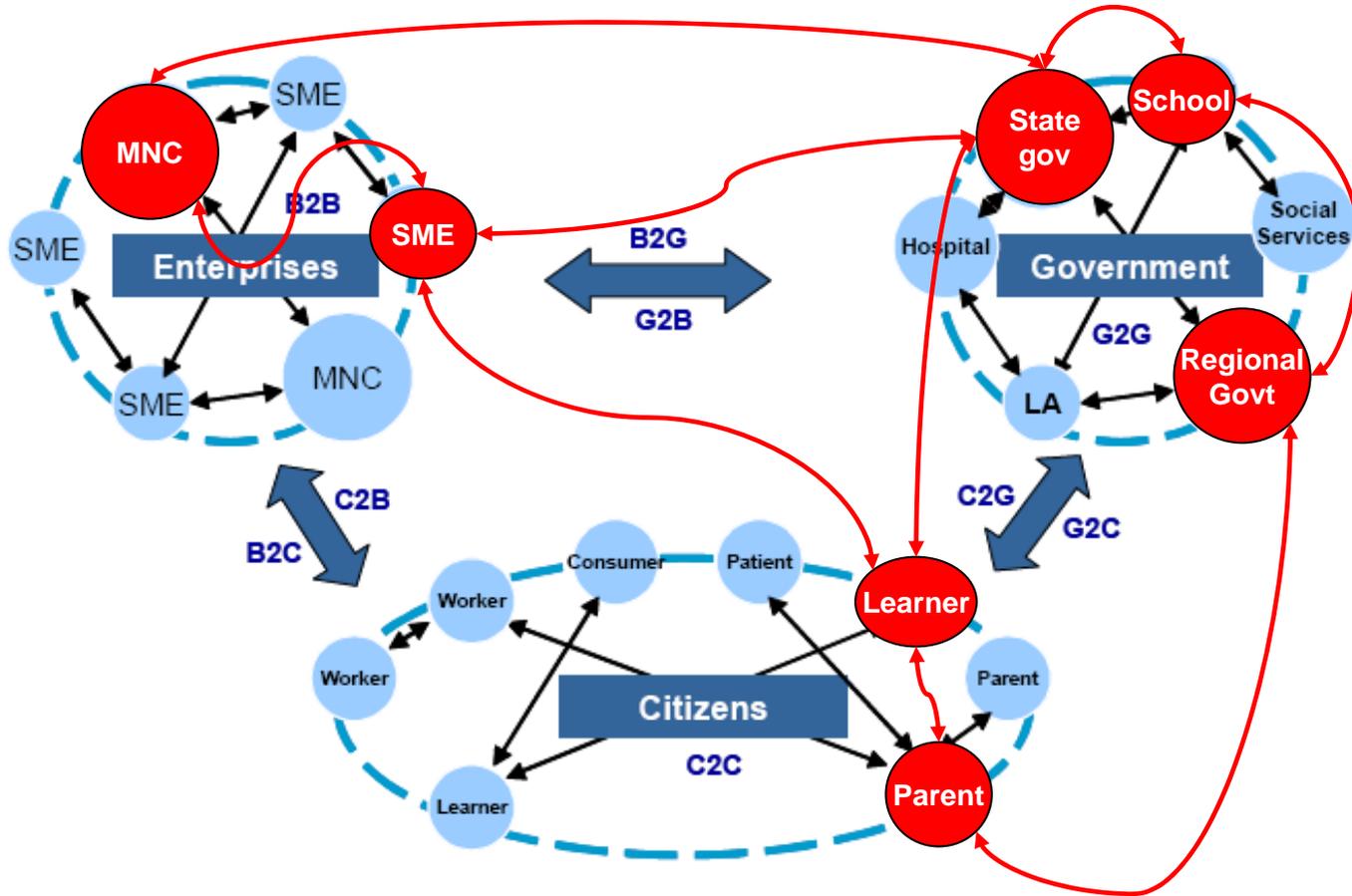


- Network capital
 - The degree to which individuals, firms and the public sector are engaged in maintaining and creating networks (ICT-based or ICT-enhanced networking activities incl. social capital);
- Learning/Innovation
 - The extent to which regional actors are engaged in ICT-based or ICT-enhanced lifelong learning and collective learning, and the translation of these into innovation;
- Participation/Empowerment
 - The level of ICT-enabled or ICT-enhanced participation in decision- and policy-making in the regional society, including issues of empowerment of citizens, workers, and SMEs.

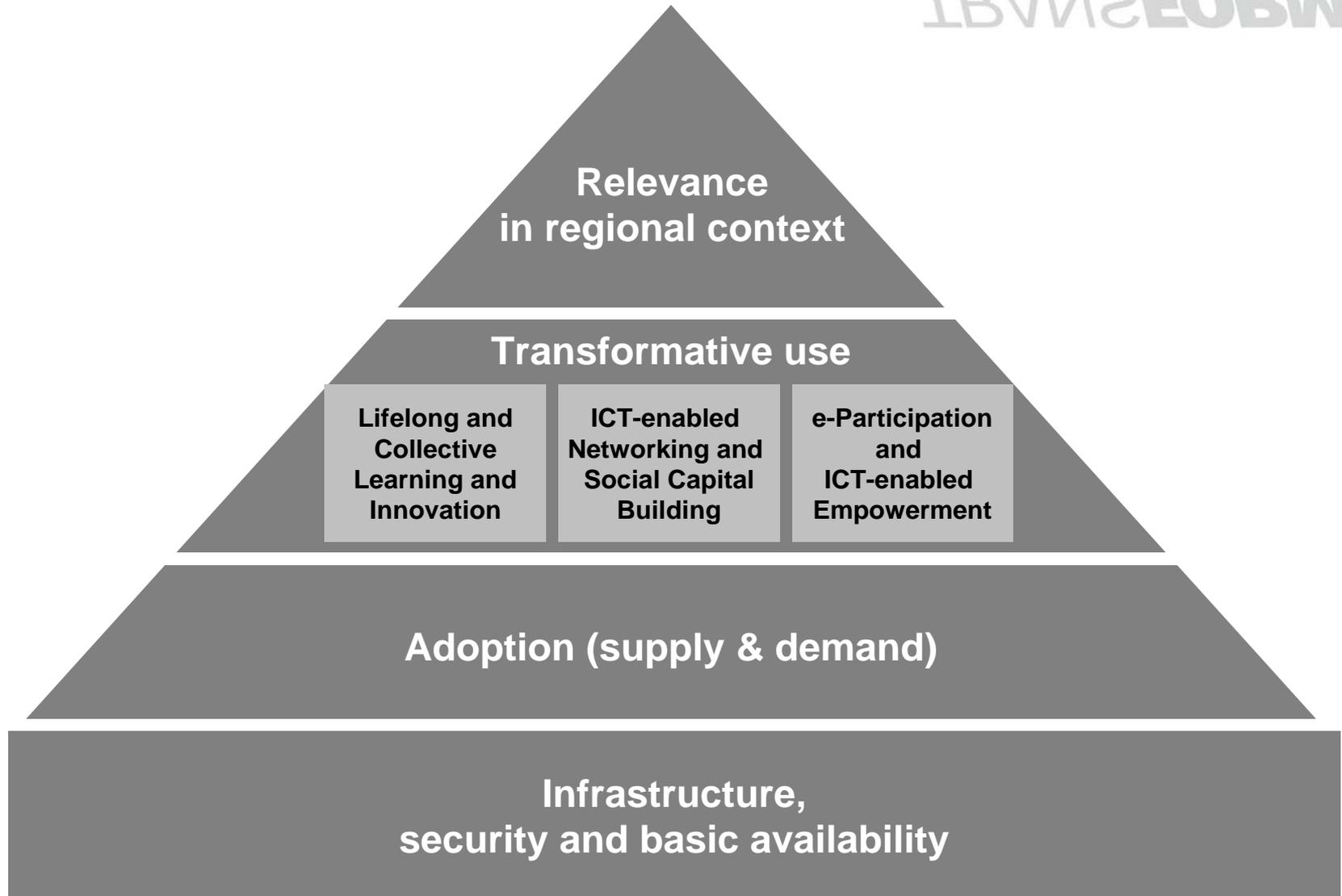
What is "transformative use"?



What is "transformative"?



Benchmarking system



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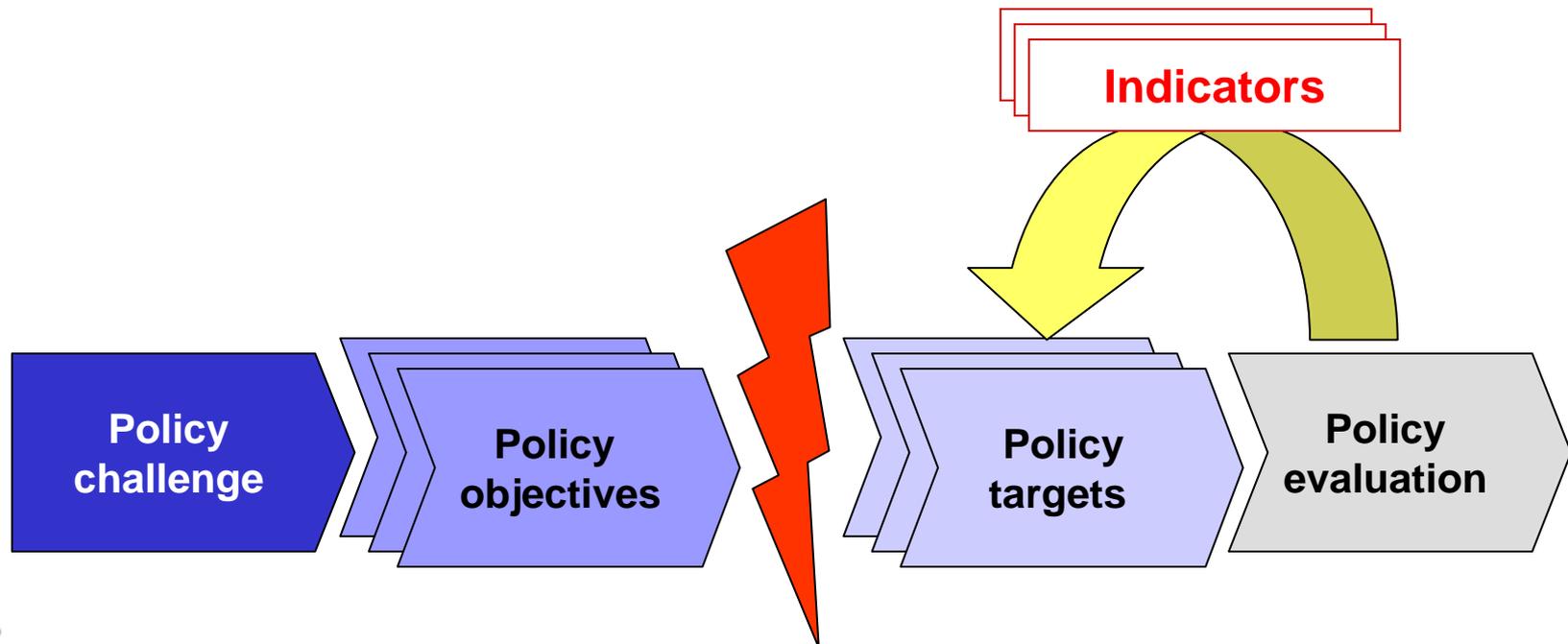


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Key challenges for regional benchmarking

- Data availability
 - Until recently, little IS related data available from Eurostat or NSIs
 - Fresh data collection may be required
 - Collection of data at regional level is expensive
- Benchmarking is not an end in itself!
 - Policy: Only valuable as one tool in a system of tools for supporting policy formulation (etc. “Benchlearning”)
 - Analysis: Needs to be supplemented by qualitative analysis

- Overall ranking of performance not helpful
 - Tends to induce defensive reactions from “laggards”
 - Does not take into account that preconditions differ between regions
- Quality of indicators and statistical analysis
 - Numerous examples of wrong interpretations of statistics
- Differences in goals
 - Showing that and where regional performance is different
 - Understanding why regional performance is different
 - Achieving more satisfactory indicator values
- Policy evaluation
 - Causal relationship between IS policies and regional development very hard to prove

- Choice of indicators has impact on policy
 - Quantitative targets lead policy-makers to seek to improve the indicator value rather than the underlying policy goal
 - Goodhart's Law (Charles Goodhart, British economist): If you measure very closely, you are bound to influence the object of measurement.



Indicators ≠ Variables/Statistics



- Indicators are **proxy measures** which are able to stand for a larger number of variables/statistics
- The subject measured by indicators **can** be unrelated to the issue we want to know about (!)
- Powerful indicators make collection of a large number of variables/statistics **redundant** ...
- ... and/or represent a fairly precise measure of phenomena which **cannot be measured** quantitatively

Recent progress in data availability



- Data from Eurostat surveys on ICT use of private households and individuals
 - Long list of indicators
 - Used for benchmarking at Member State level (i2010)
- Now available at NUTS1 level on obligatory basis
 - Households with access to the Internet at home
 - Households with broadband connection
 - Individuals regularly using the Internet
 - Individuals who have never used a computer
 - Individuals who ordered goods or services over the Internet for private use

Benchmarking system

Relevance
in regional context

Transformative use

Lifelong and
Collective
Learning and
Innovation

ICT-enabled
Networking and
Social Capital
Building

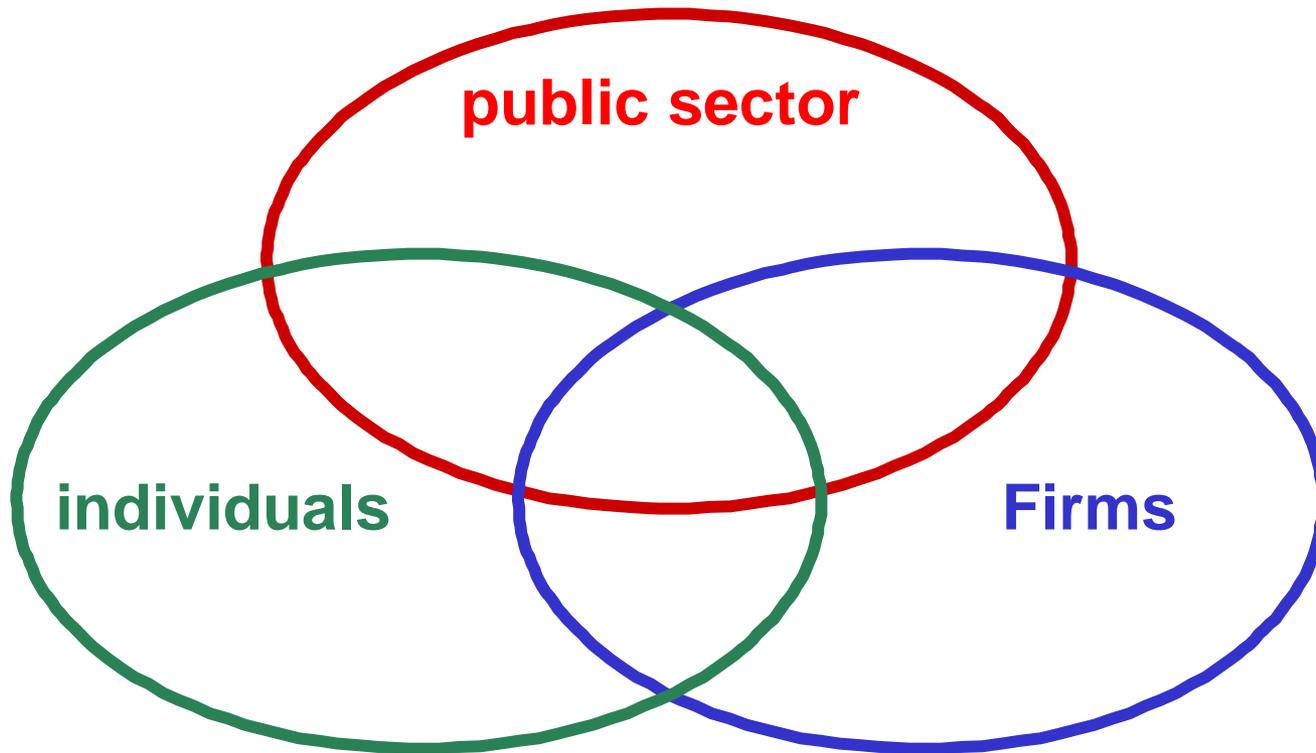
e-Participation
and
ICT-enabled
Empowerment

Adoption (supply & demand)

Infrastructure,
security and basic availability

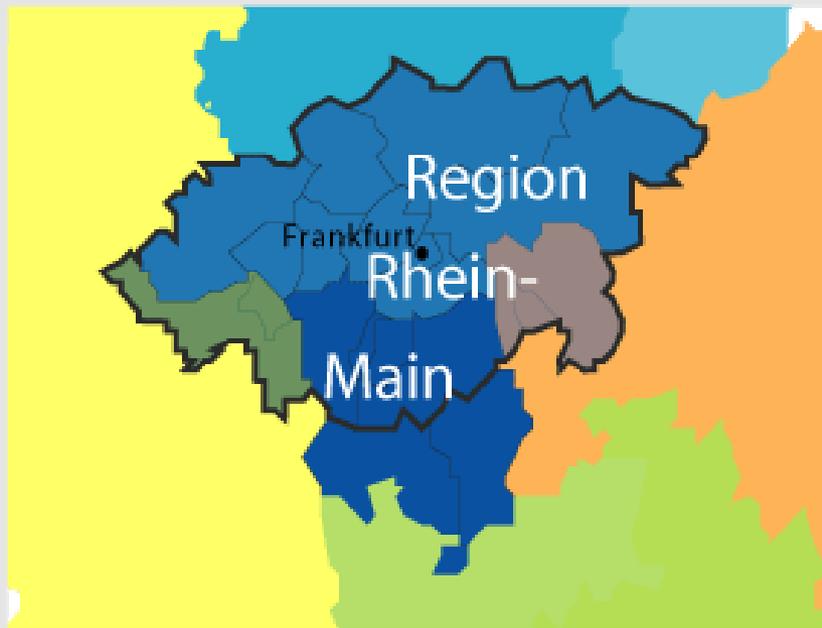


Observation units



- EU standard (NUTS) is based on geographical units which were defined for political reasons
- Very different from functional regions (but functional regions are not available at EU level)
- Germany:
 - NUTS1 = Länder
 - NUTS2 = Regierungsbezirke
 - NUTS3= Kreise und Städte
- Risk of wrong conclusions as a result of aggregation
- Risk of limited value for policy-making
- NUTS3 better than NUTS2?

Region Rhein-Main



- Hessen (NUTS 1)
- Regierungsbezirk Darmstadt (NUTS 2)
- Raumordnungsregion Rhein-Main
- Raumordnungsregion Starkenburg
- Kreise (NUTS3)
- Bayern
- Rheinland-Pfalz
- Baden-Wuerttemberg

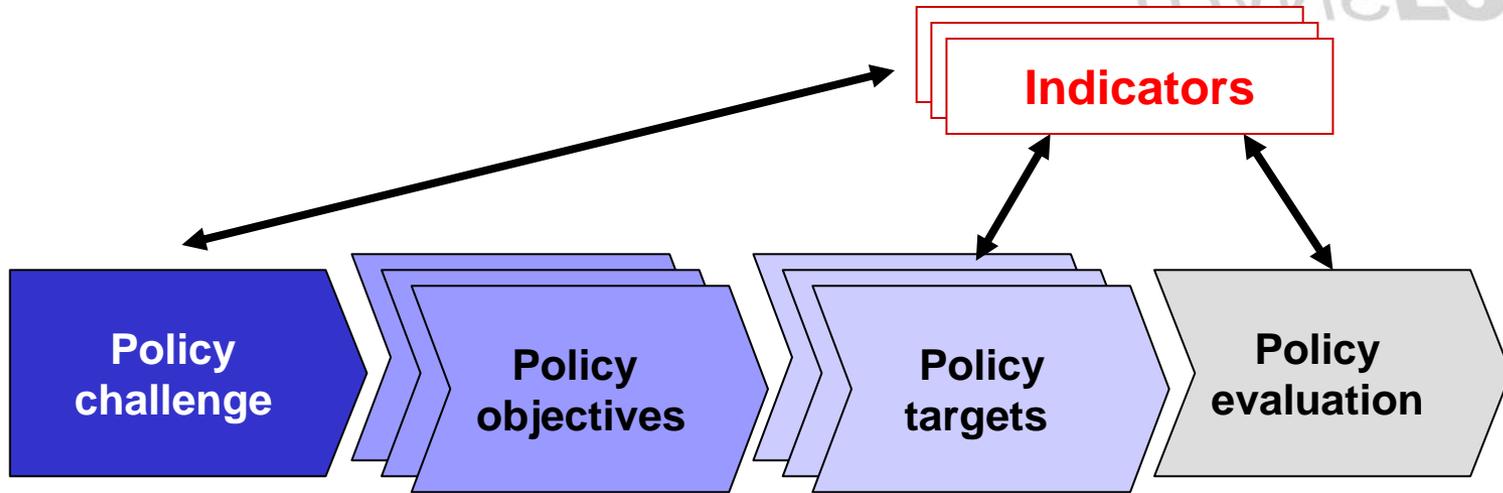
0 100 km

Towards “Benchlearning”



- Benchlearning = ...
- ... Cooperation between policy-makers and researchers from benchmarked regions ...
- ... to make sense of the benchmarking results ...
- ... and to learn what the findings mean against the background of local/regional context and the historical trajectory

Towards "Benchlearning"



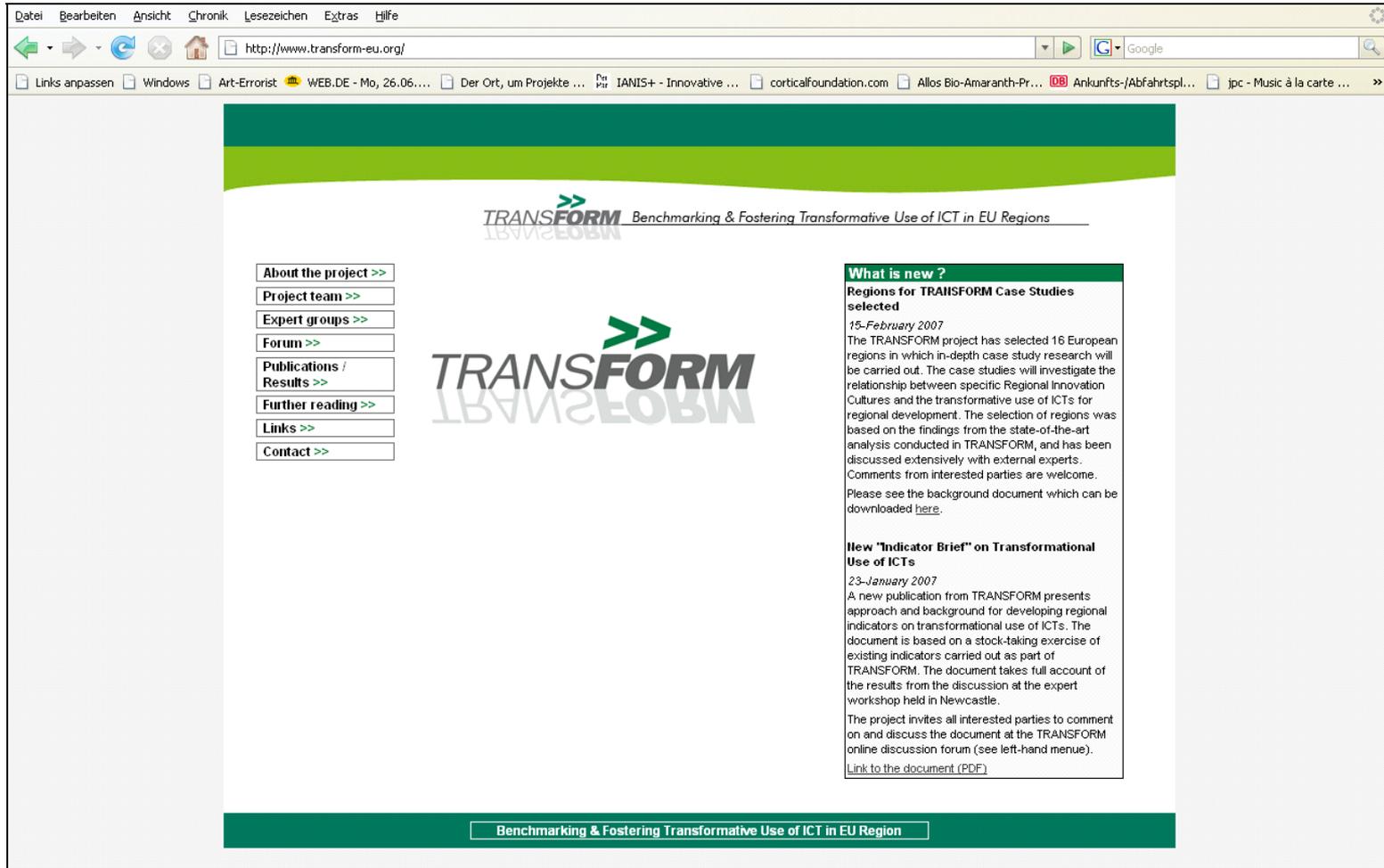
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- **Benchmarking:** Has there been progress towards meeting objectives?
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Source: Osimo & Gareis 2005, based on Selhofer 2003



The screenshot shows a web browser window displaying the TRANSFORM website. The browser's address bar shows the URL <http://www.transform-eu.org/>. The website features a green header with the TRANSFORM logo and the tagline "Benchmarking & Fostering Transformative Use of ICT in EU Regions". A navigation menu on the left includes links for "About the project >>", "Project team >>", "Expert groups >>", "Forum >>", "Publications / Results >>", "Further reading >>", "Links >>", and "Contact >>". The main content area is divided into two columns. The left column contains the TRANSFORM logo and tagline. The right column, titled "What is new?", contains two news items: "Regions for TRANSFORM Case Studies selected" dated 15-February 2007, and "New 'Indicator Brief' on Transformational Use of ICTs" dated 23-January 2007. A green footer bar at the bottom of the page contains the text "Benchmarking & Fostering Transformative Use of ICT in EU Region".

TRANSFORM Benchmarking & Fostering Transformative Use of ICT in EU Regions

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TRANSFORM
Benchmarking & Fostering Transformative Use of ICT in EU Regions

What is new ?

Regions for TRANSFORM Case Studies selected
15-February 2007
The TRANSFORM project has selected 16 European regions in which in-depth case study research will be carried out. The case studies will investigate the relationship between specific Regional Innovation Cultures and the transformative use of ICTs for regional development. The selection of regions was based on the findings from the state-of-the-art analysis conducted in TRANSFORM, and has been discussed extensively with external experts. Comments from interested parties are welcome. Please see the background document which can be downloaded [here](#).

New "Indicator Brief" on Transformational Use of ICTs
23-January 2007
A new publication from TRANSFORM presents approach and background for developing regional indicators on transformational use of ICTs. The document is based on a stock-taking exercise of existing indicators carried out as part of TRANSFORM. The document takes full account of the results from the discussion at the expert workshop held in Newcastle. The project invites all interested parties to comment on and discuss the document at the TRANSFORM online discussion forum (see left-hand menu). [Link to the document \(PDF\)](#)

Benchmarking & Fostering Transformative Use of ICT in EU Region

Thank you for your attention!



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