TRANSFORM

Benchmarking Transformational Use of ICTs

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Policy relevance

"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?

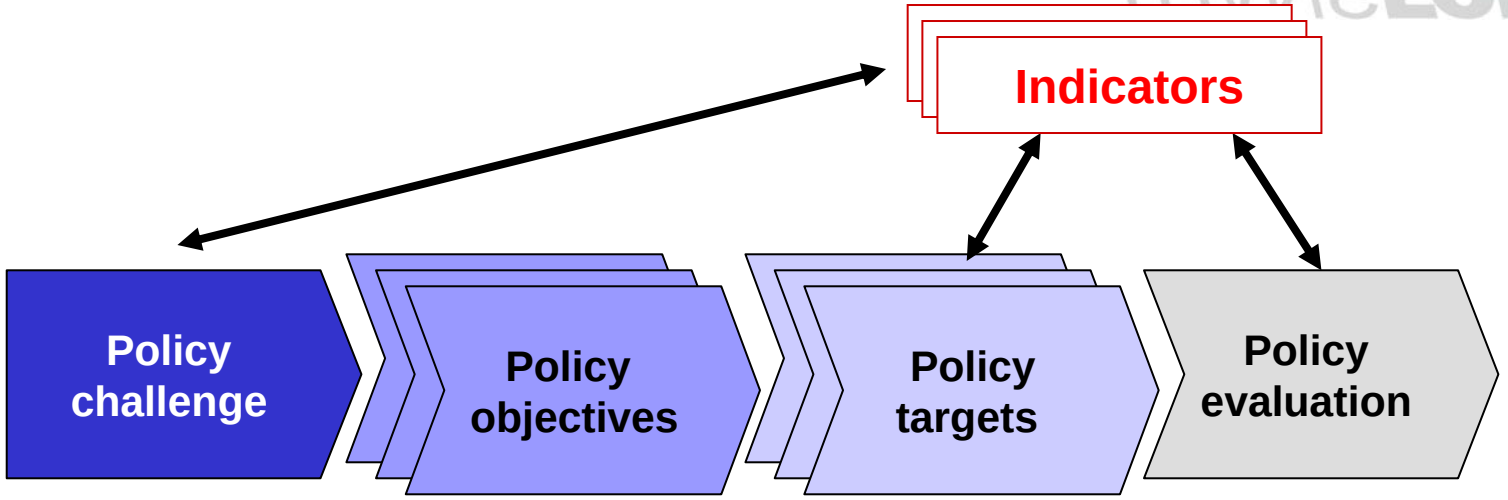
- ICT uptake is not an end in itself ...
- ... outcomes are! (growth, competitiveness, social cohesion, sustainability, jobs and human capital formation, good governance)
- However, outcome indicators are to causally distant from policy initiative and ...
- ... they arrive to late to inform policy making
- 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?

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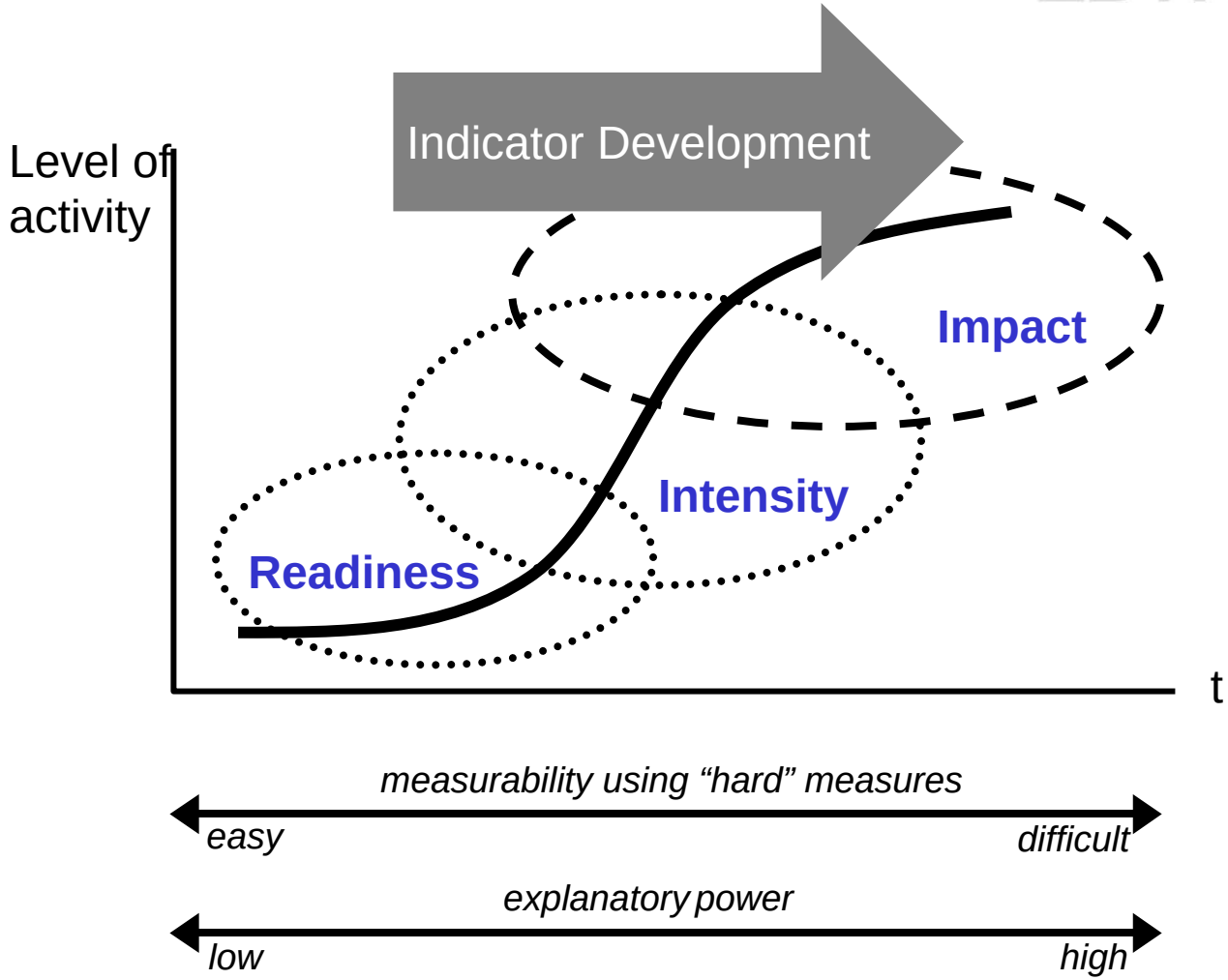
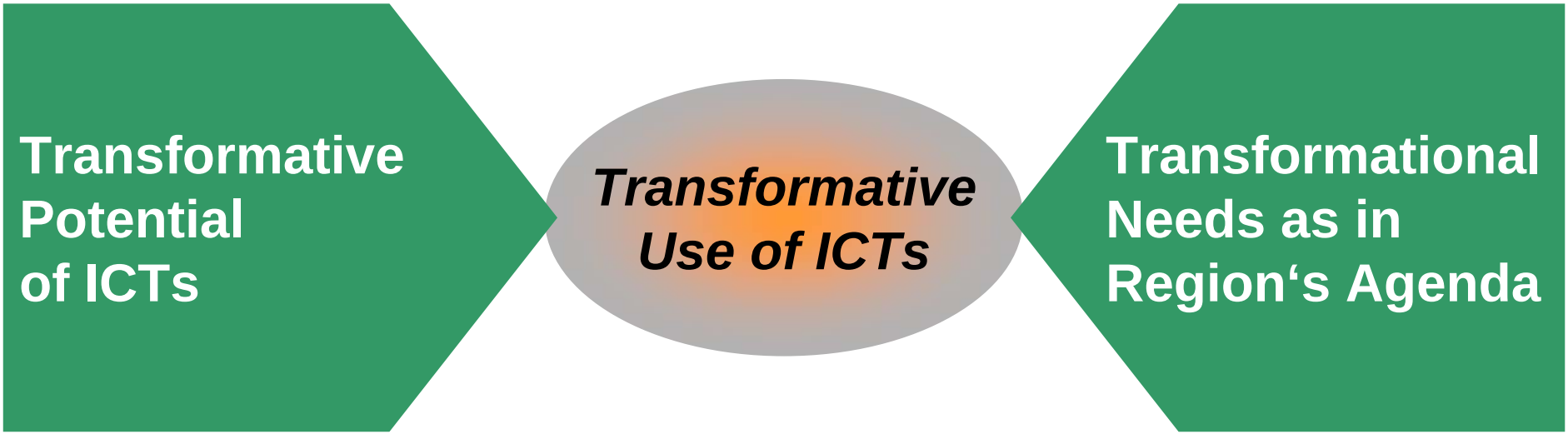
What is being measured



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?



Key dimensions of ICT-based transformation

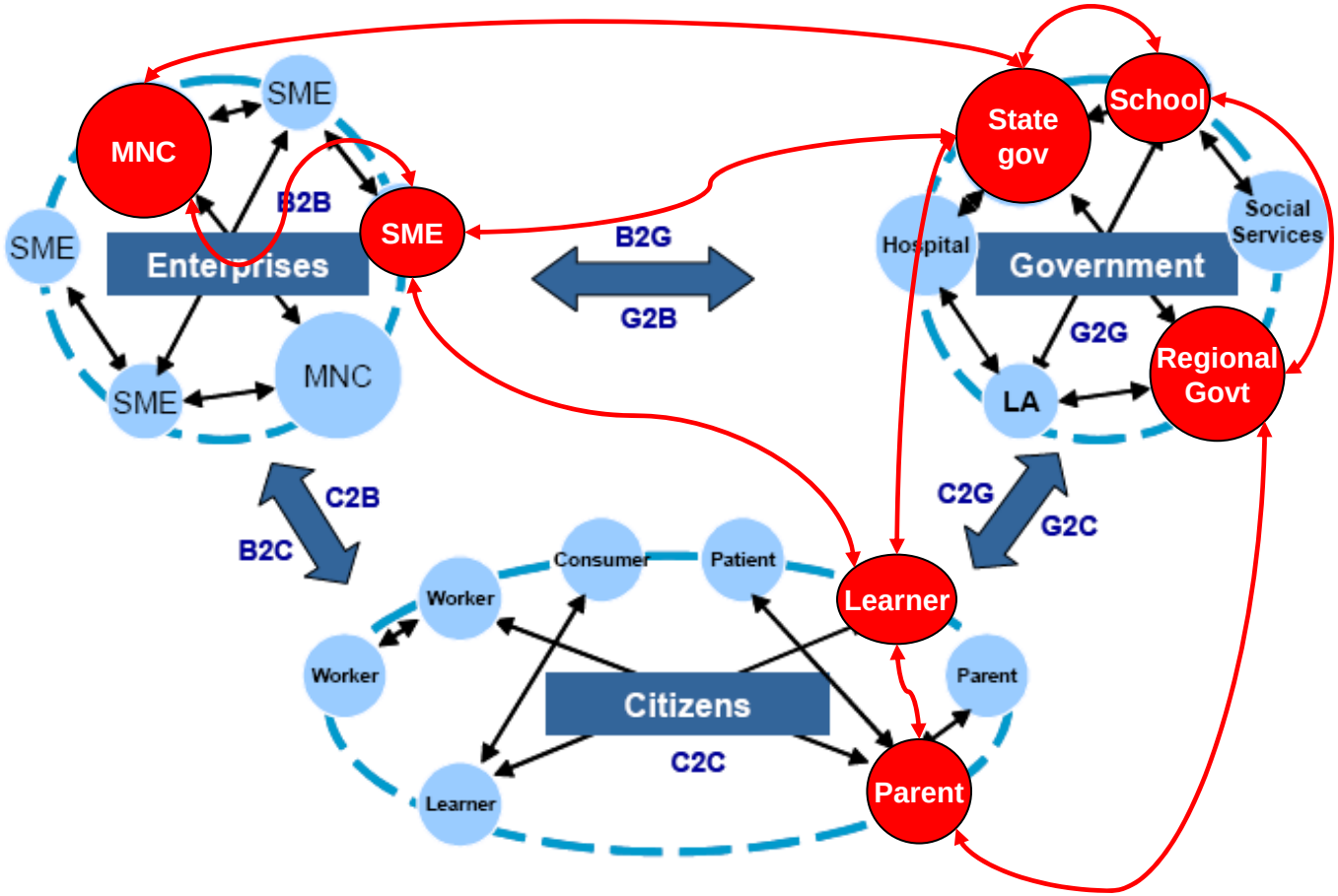
- Network capital
  - The degree to which individuals, firms and the public sector are engaged in maintaining and creating networks (ICT-based or ICT-enhanced networking activities incl. social capital);
- Learning/Innovation
  - The extent to which regional actors are engaged in ICT-based or ICT-enhanced 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"?

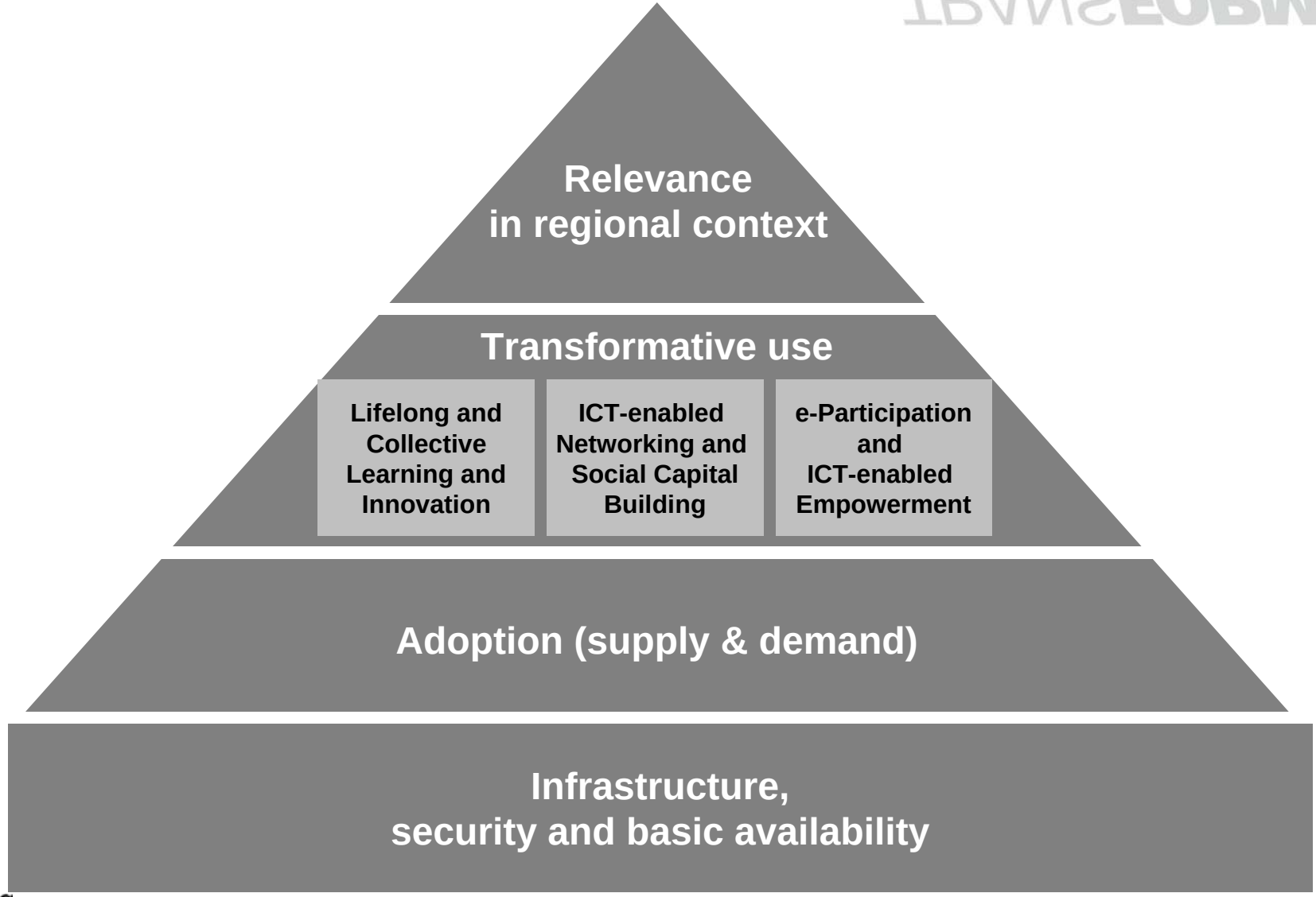
	1st phase: Adopt ICT	2nd phase: Transform via ICT
Individuals Firms Public sector	**Exploiting the efficieny potential of ICTs** automation, information storage, data processing, etc.	**Exploiting the trans-formational potential of ICTs** network creation, enabling learning & innovation, participation & empowerment

ICT diffusion process

What is "transformative"?



Benchmarking system



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Benchmarking: Key Challenges

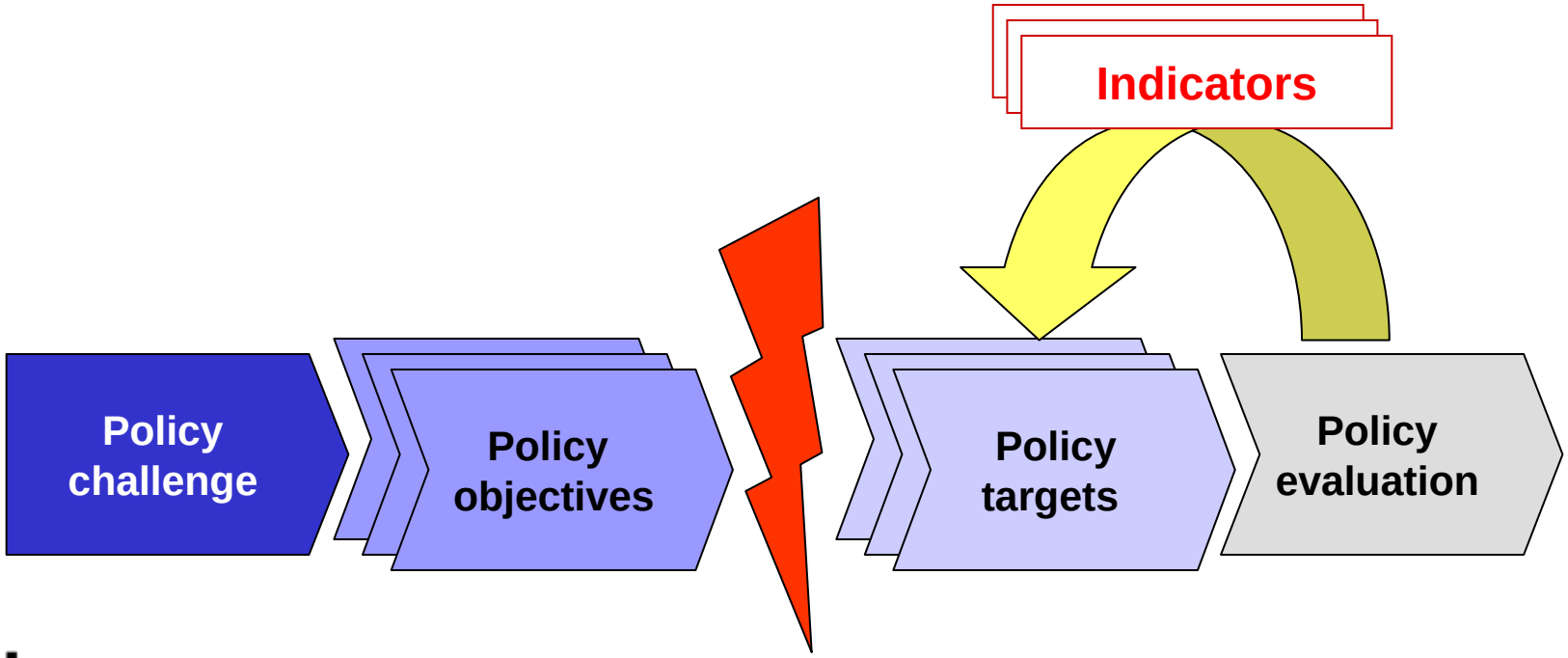
- Data availability
  - Until recently, little IS related data available from Eurostat or NSIs
  - Fresh data collection may be required
  - Collection of data at regional level is expensive
- Benchmarking is not an end in itself!
  - Policy: Only valuable as one tool in a system of tools for supporting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

Benchmarking: Key Challenges

- 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

Benchmarking: Key Challenges

- 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.



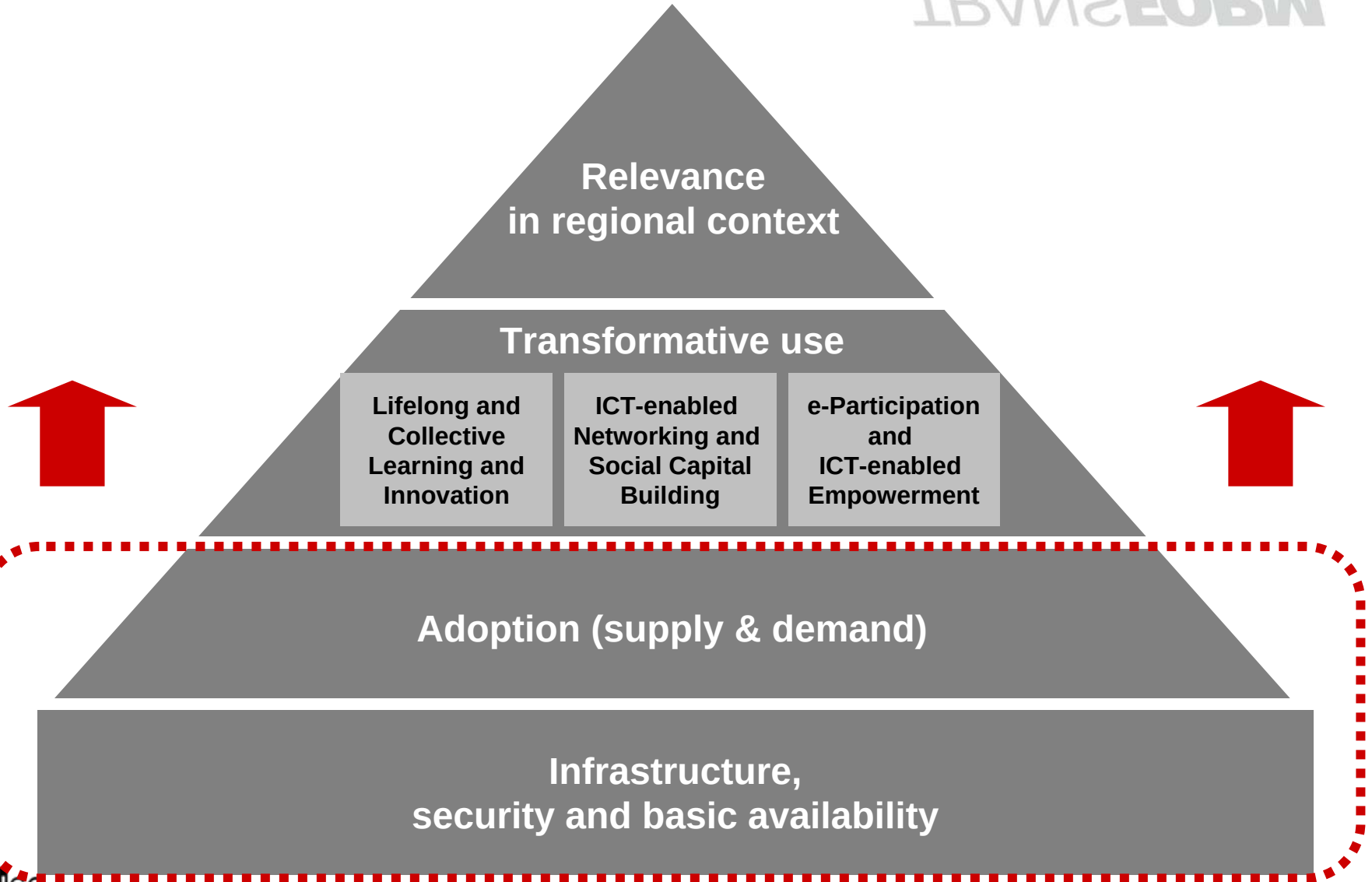
Indicators ≠ Variables/Statistics

- 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

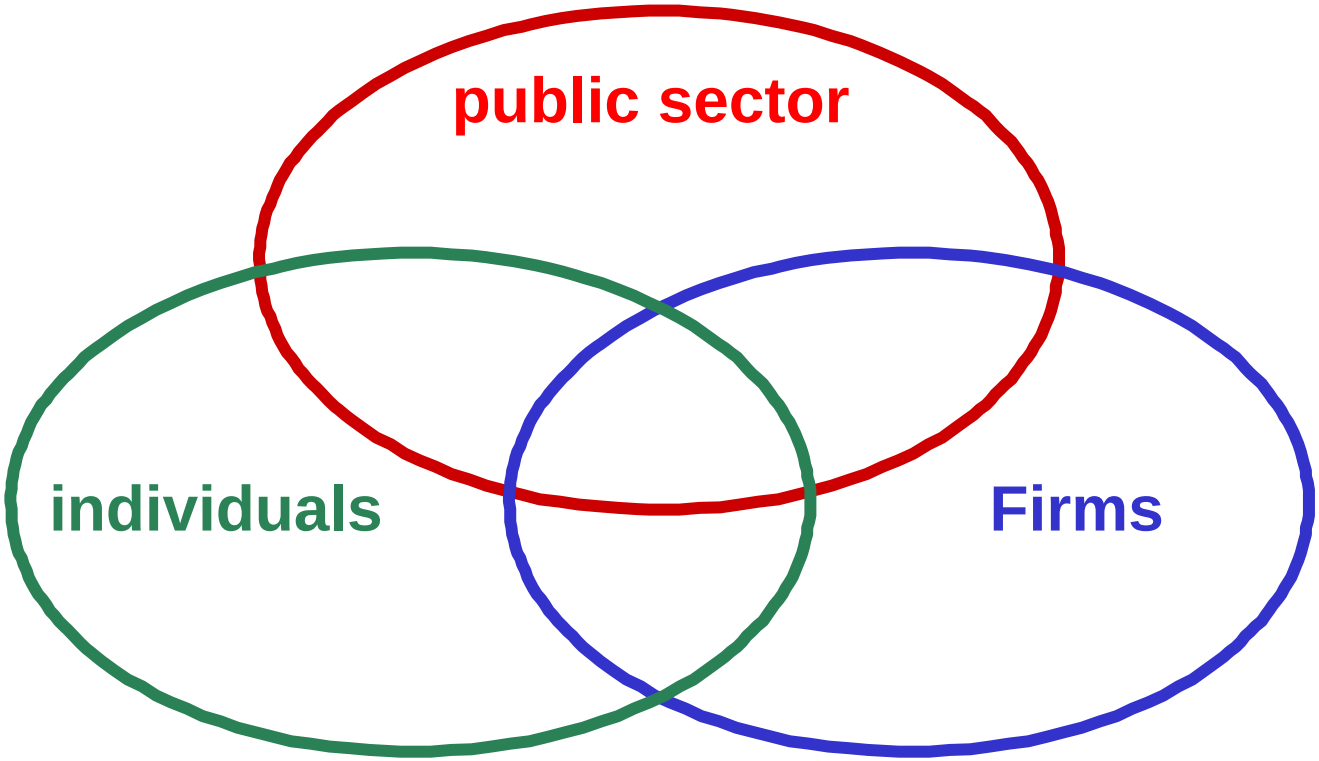
Recent progress in data availability

- 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



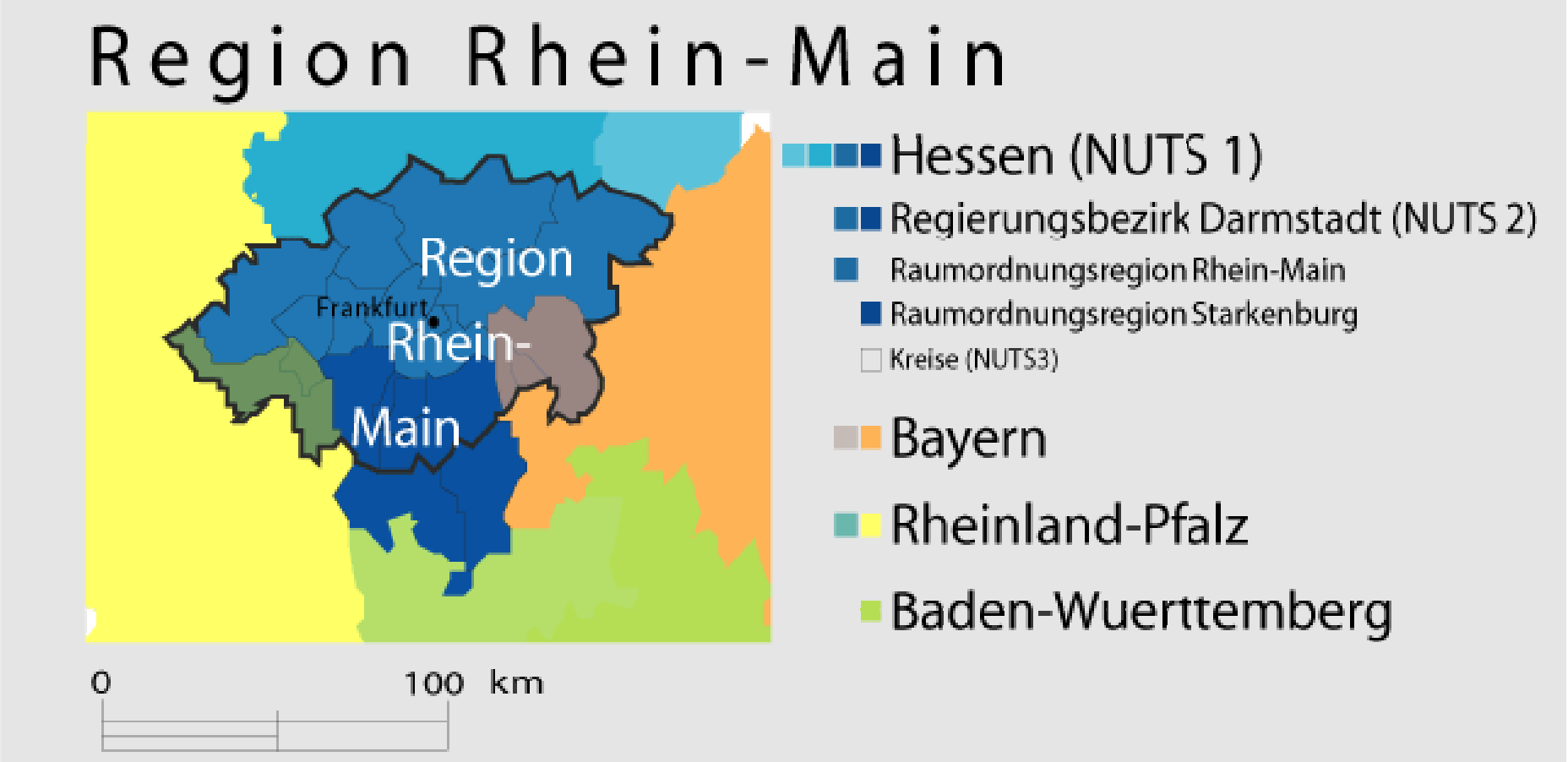
Observation units



Geographical reference

- 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?

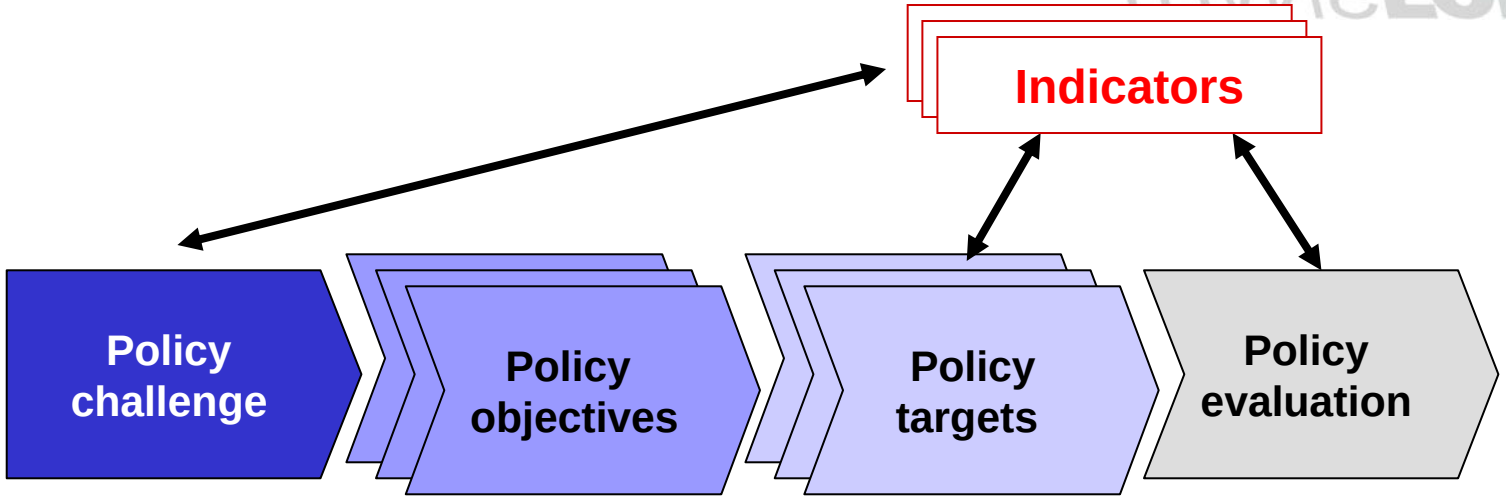
An example


Region Rhein-Main
Region
Frankfurt
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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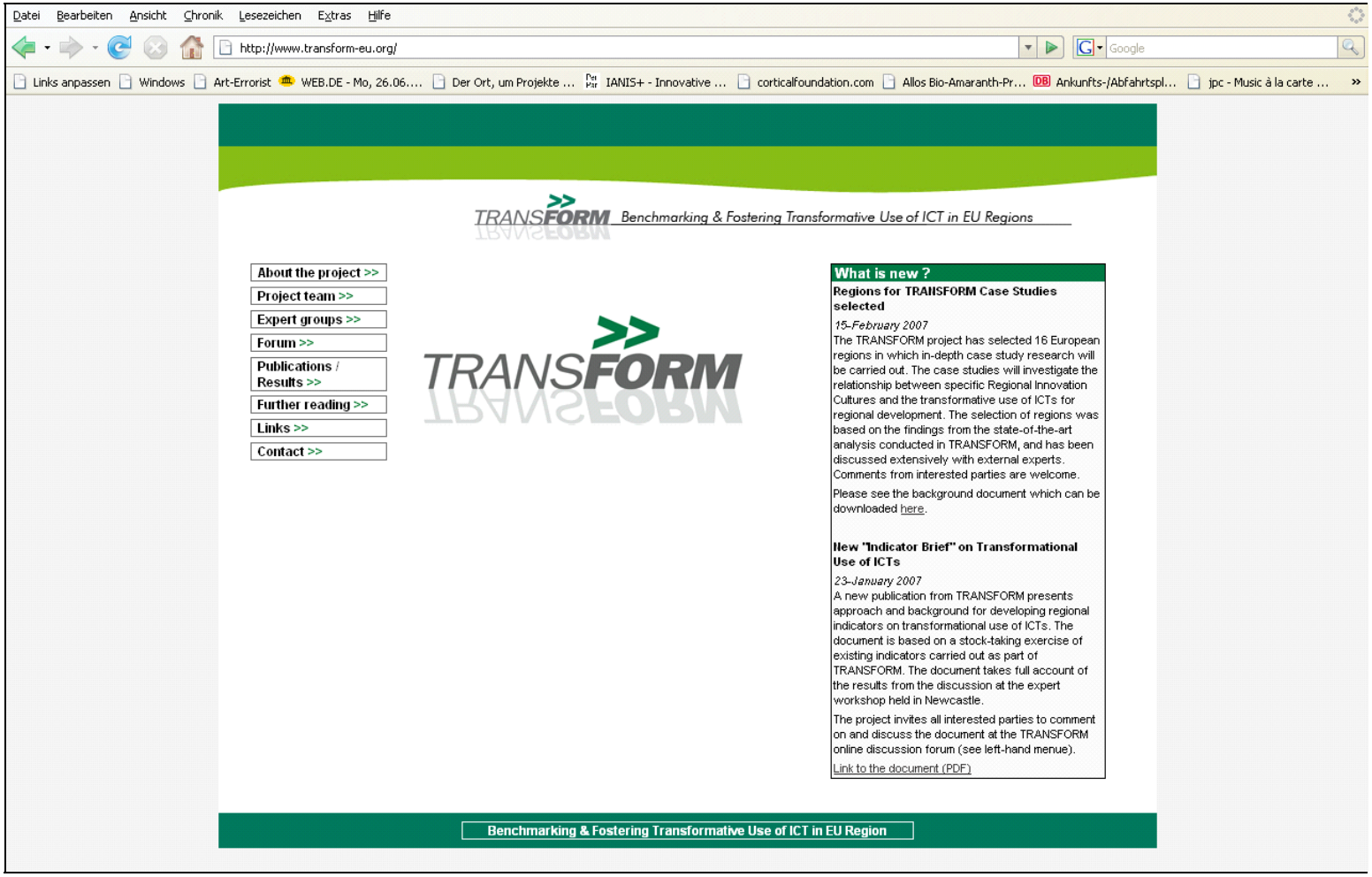
Source: Osimo & Gareis 2005, based on Selhofer 2003

www.transform-eu.org



Thank you for your attention!

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