

COST action C18 –

*Performance assessment of urban infrastructure services:
the case of water supply, wastewater and solid waste.*

State-of-the-art report 2

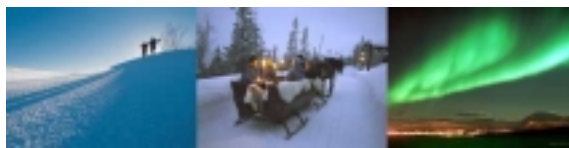


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This presentation is



- Updates from the State-of-the-art report
- Aim for the report – Who is our target group?
- Suggestions for further work

C18 Performance assessment of urban infrastructure services: the case of water supply, wastewater and solid waste.

- WG 1 - Development of PI interpretation mechanisms within water and wastewater (this workshop)
- WG 2 - Promotion of PI synergies with existing decision support tools within water and wastewater
- WG 3 - Extension of PI use to solid waste services

Answer questions asked in C18

- How to analyse and utilise the results of PI?
- Are explanatory factors (e.f.) a need? If so, how to identify the more relevant ones (regardless of the use)?
- What types of e.f. should be appropriate (short term management e.f.; long-term management e.f.; external e.f.)
- To what extent do the statistical (data mining) methods used to automatically select the relevant explanatory factors for each indicator lead to consistent and satisfactory results?
- How does data uncertainty affect the results of statistical methods and are they valid to the water industry?
- What alternative relevant methods exist?
- Availability, advantages, shortcomings and applicability of existing “hand-made” methodologies.
- What are the suitable methods for each use?
- How to represent PI and e.f. in order to assist in judgement making (use dependent)?

Refreshing the discussions from Lisbon

- The State of the art is a working document for C18 members to support and contribute during the action
- We want a document to define "where we are" in order to define "Where we want to go"
- We need to get a common consensus – for further discussions. Specially on WG1 and on the different benchmarking methodologies. A working group was defined (Frøydis, Enrique, Peter, Rui, Karl, Paul and Bjørn)
- Restructure the report to make it easier to read
- Make it more user friendly – i.e. selling our ideas to "new" stakeholders

My suggestion

- The state-of-the-art has two main target groups:
 - the C18 members (scientific focus)
 - Others (overview and practical use)
- Therefore we can:
 - Focus on the common consensus for the report
 - Start the report with a "easy to understand" summary including figures (4-5 pages) for everybody

Subject for discussion 1: PI resolution and use

LEVEL	E.G. #OF PI (RESOLUTION)	INFORMATION	USE/QUESTIONS TO ANSWER	USERS (RANKED)
1. Obligatory	20 (High level)	Economy Environment/ Health Physical PI	"Do we fulfil basic requirements for a reasonable cost?" Regulation Basic service level	Regulators Politicians Public Media Managers Operators
2. Voluntary	50 (More detailed level)	Operation Quality of service Sustainability + level 1	"How is the level of service? Are we efficient?"	Managers Operators Regulators Politicians
3. Voluntary	100 (Detailed level)	Same as above, with more detail and PI linked to specific issues (e.g. rehab.)	"Where are the bottlenecks? Where are we doing well? How can we improve?"	Operators Managers (Politicians)

Subject for discussion 2: User requirements

End-user perspective (Service provider)	<p>Systematic management of data and information to:</p> <ul style="list-style-type: none"> a) Learn about the performance and development over time in different aspects as: <ul style="list-style-type: none"> • Technical and operational • Economy and finance • Quality of service • Environmental a) Learn about your performance by comparing with others (metric benchmarking) b) Use PI to make decisions (Decision support tools), e.g: <ul style="list-style-type: none"> • Use of PI in specific tools to plan e.g. leakage or rehabilitation (e.g CARE-W/CARE-S) • Balanced scorecards • Use of GIS a) Process benchmarking (use of metric benchmarking results to study processes and reasons for best practice in cooperation with "the best")
Regulator perspective	<p>Control quality of service Compliance of tariffs vs. quality of service Compliance with legislation Are the suppliers sufficiently efficient?</p> <ul style="list-style-type: none"> • Select PI's that give the necessary information • Select explanatory factors • Select benchmarking methods (describing a defined efficiency or detailed information?)
Other users:	<p>Understandable presentation of results, e.g. diagrams and GIS presentation. "Can we trust our service supplier and are the quality of services good?"</p> <ul style="list-style-type: none"> • Customers • Public • Media

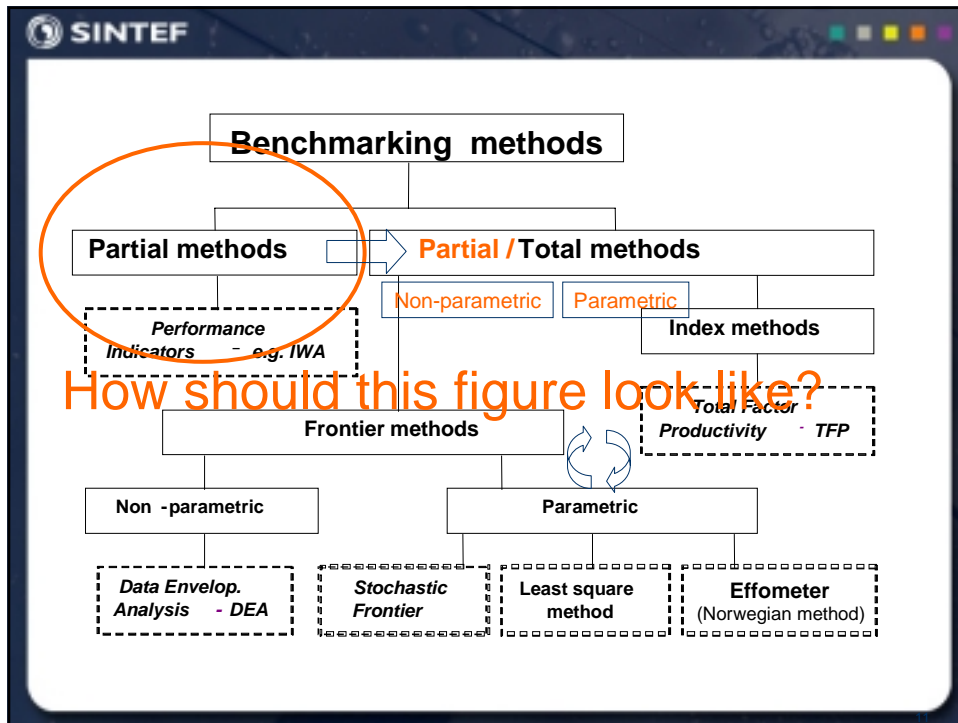
WG1 Interpretation mechanisms

Two point of view:

- For internal use; improvement based on internal assessment (e.g. time series)
- Benchmarking for comparison of performance with others in order to
 - a. Make improvements, of own interest – tool for more efficient solutions (bottom-up)
 - b. For authorities to control performance – Regulation – (top-down)

Benchmarking methods

First draft

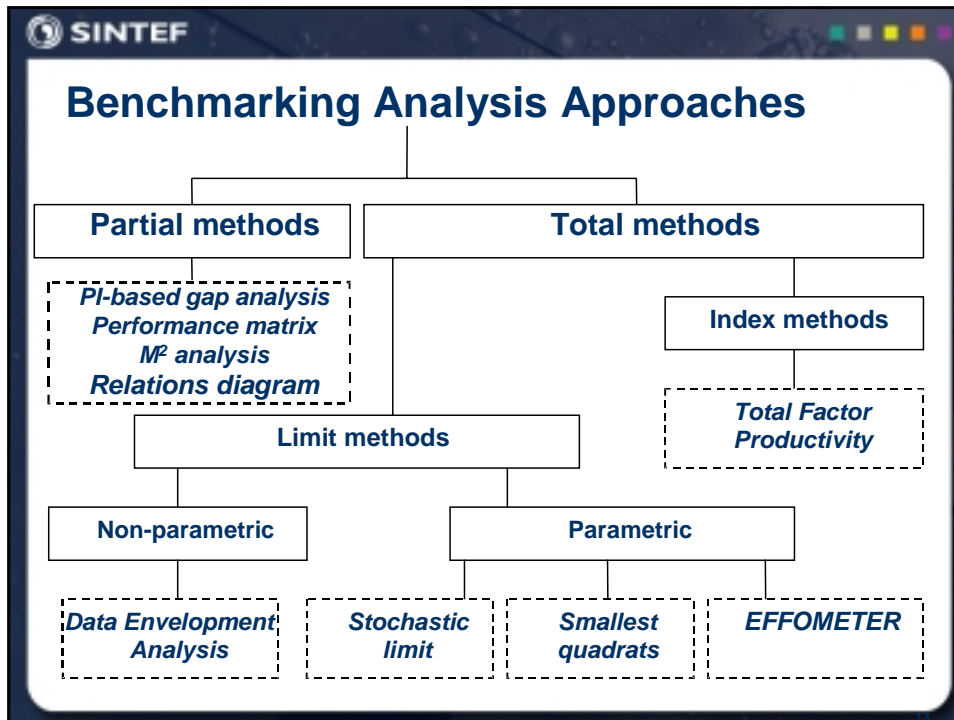


How should this figure look like?

Now

Is it OK?

Subject for discussion



- Further development of the report**
- Contributions are welcome! Specially on WG2 and WG3 - We need more examples!
 - Each country MC/WG member: Include information about the different nationalities regulation/organisations and reason to perform performance assessment
 - How about a STSM in Trondheim to work on the report?

Thank you for your attention!

