

Performance Indicators for Public Employment Services

Data Adjustments and Context Variables

*Ursula Lehner
Michael Wagner-Pinter*

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Synthesis Forschung
Kolingasse 1/12
1090 Vienna
Telephon 0043-1-310 63 25
Fax 0043-1-310 63 32
E-Mail office@synthesis.co.at



ÖSB-Consulting GesmbH
Meldemannstraße 12-14
1200 Vienna
Telephon 0043-1-33 168-0
Fax 0043-1-33 168-101

Every pilot project has to strike a balance between a realistic assessment of the possibilities at the pilot stage and the ambitious aspirations envisaged for the future.

The purpose of this background paper to the 29–30 March and 6–7 May meetings of the Working Group is to outline such a balance.

It addresses the imperfections of the data base so far available and the limitations these imperfections put on the methods for statistical analysis.

At the same time the Members of the Working Group are assured that many of these imperfections will become less stringent in the future provided the Members carry on with their work.

The views of this background paper are those of the consultant's team. They do not prejudice the decisions taken by the Working Group.

For the consultant's team

Prof. Michael Wagner-Pinter

Vienna, March 2004

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- Dealing with the limitations of the database
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 - Variant 2

1

The line of argument

A pilot project is a pilot project

At the current stage of the project »Performance Indicators for PES in Europe« one would wish to bear in mind that the project is still in a pilot phase.

From definition ...

So far, the PES involved in the Working Group have reached a consensus on operational definitions for a set of performance indicators. This is a considerable achievement.

... to data

The Working Group has, however, been determined to move on from definitions to a corresponding data base.

in some cases swiftly

Some Members of the Working Group managed to make the transition from definitions to data rapidly (though not without substantial efforts).

in other cases it has faced obstacles,

Other Members face obstacles on several dimensions:

- Firstly, some Member-PES have been undergoing several major changes in scale and scope of their operations over recent years. Such changes have disrupted the continuity in collecting data and make the retrieval of information (from past years) difficult (if not impossible) at reasonable cost. Under such circumstances these Members can only make sure that the necessary data are going to be produced for the years to come.

... because of organizational change

- Secondly, some indicators relate to areas of performance which are outside the scope of a Member-PES. Thus the Member has little reason to provide information on indicators it considers irrelevant for the assessment of its management practices.

... and differences in scope.

Such obstacles account for a rather patchy data base at this stage of the project.

This comes hardly as a surprise. And it certainly should not discourage the transition from the agreed set of performance indicators to a trial run in benchmarking.

A productive pragmatism ...

A certain type of productive pragmatism is all that is needed. It calls for compromises, particularly in matters of methodological rigor; more of which below (in the panel »Dealing with the limitations of the data set«).

... should not compromise long term goals

Since such a productive pragmatism never should compromise the ultimate aspirations of the exercise, the Working Group has decided to go along with the context adjustment-approach even if one has to make do with data limitations.

The impact of variation in »context« ...

The purpose of context variables is the following: It is intuitively plausible that variations in performance across Member-PES are partly due to variations in context. In order to evaluate the contribution of management practices to PES performance it is necessary to »neutralize« that part of variation which is caused by (changing) contexts.

... could be estimated with standard econometric techniques.

If there was a well established data base, standard econometric techniques would provide estimates for the influence of contexts (as represented by specific variables) on performance indicators. Alas, such a data base is not available at this stage.

At the given stage extreme simplifications ...

The Working Group will have to apply extreme methodological simplifications to achieve results (more of which below in the panel »Heroic Pragmatism«).

... are necessary

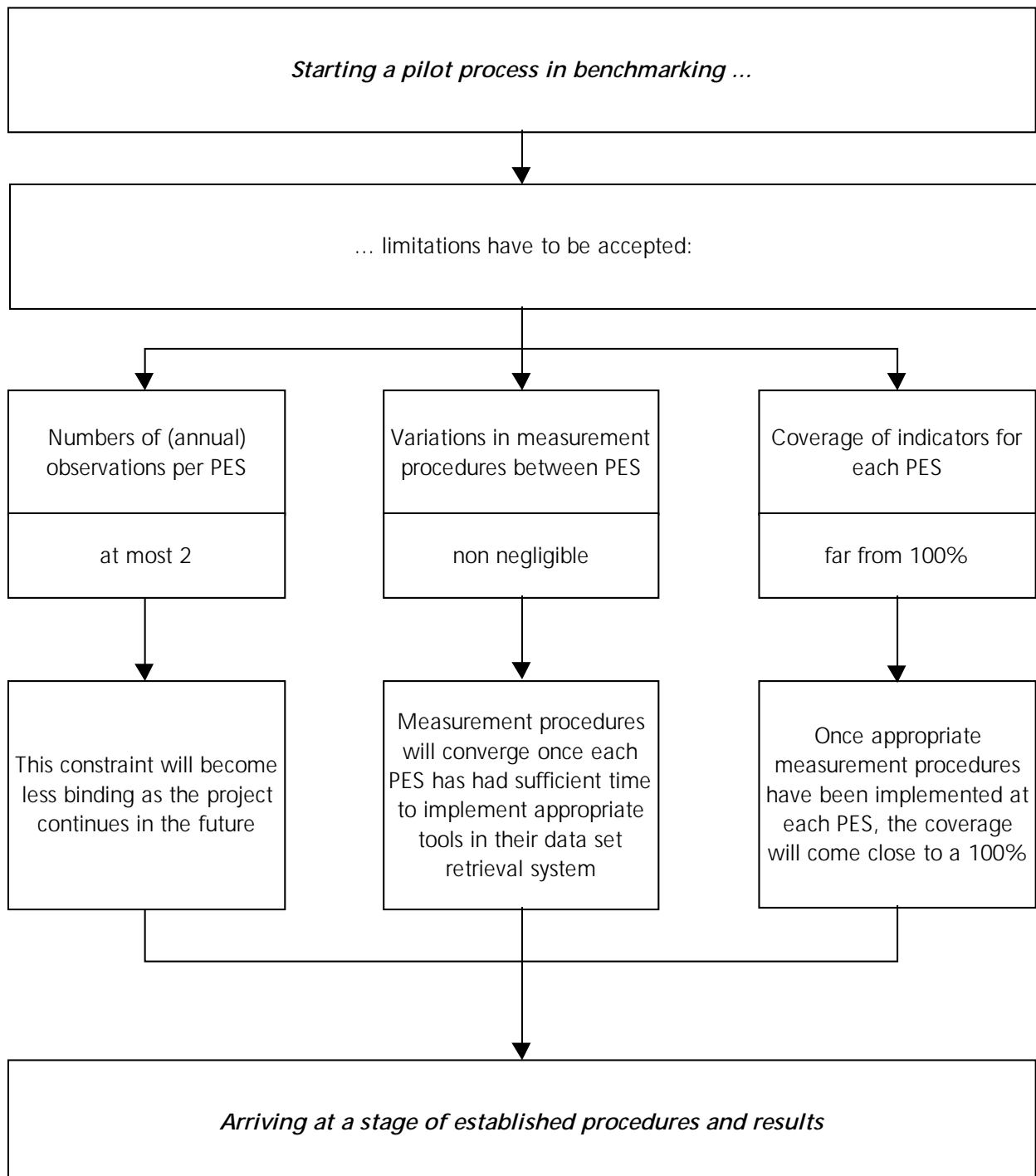
Given the necessity of such a heroic pragmatism, the results should be considered as rough sketches of a road map for future extensions and refinements. They are not yet robust results.

Context variables

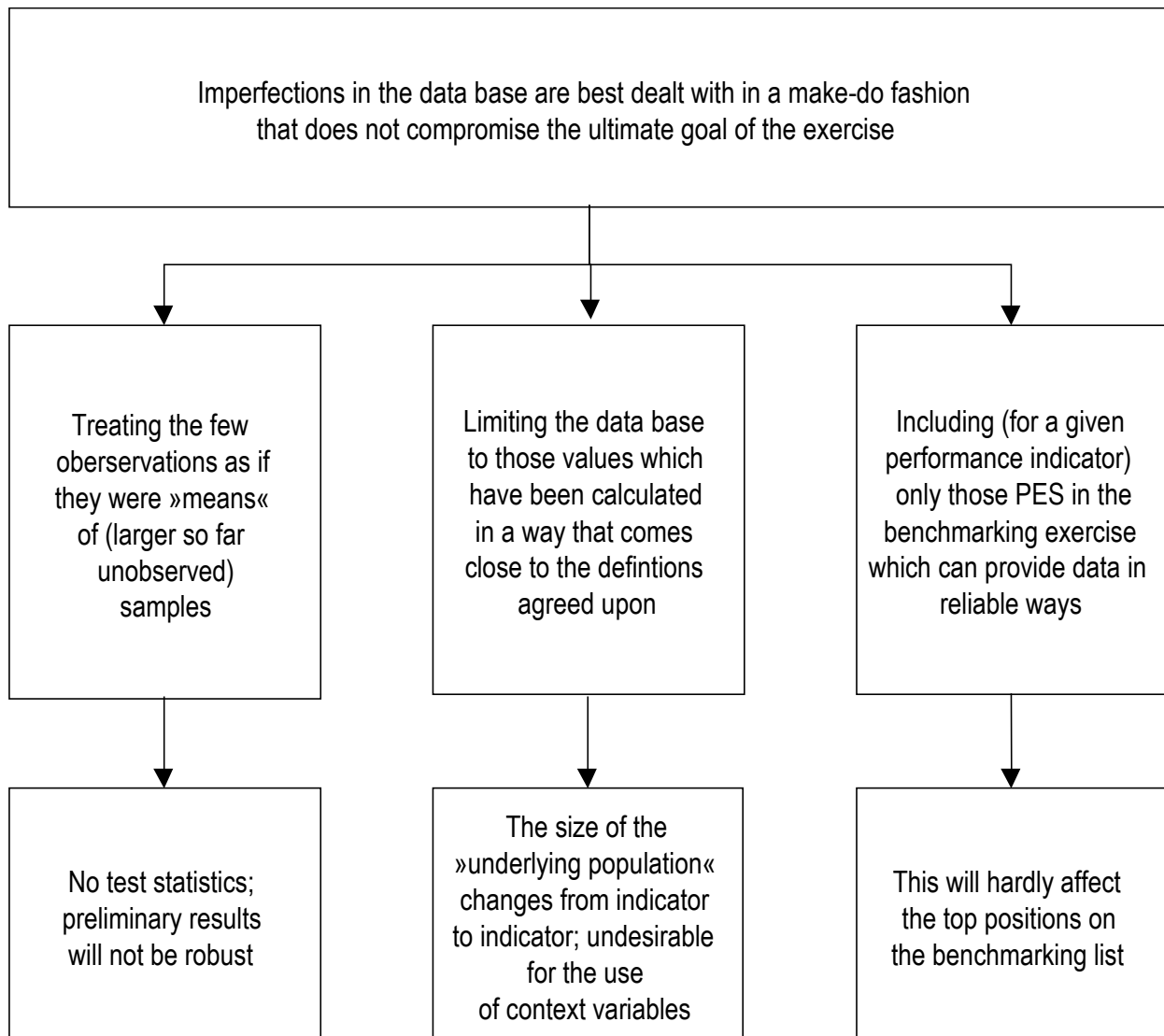
Some basic requirements of context variables can be determined even at this stage.

- Firstly, the context variables should reflect the challenges (the PES management faces) as much as the resources available to the PES management.
- Secondly, the context variables should only be chosen from a set of variables for which procedures of harmonization are already established.

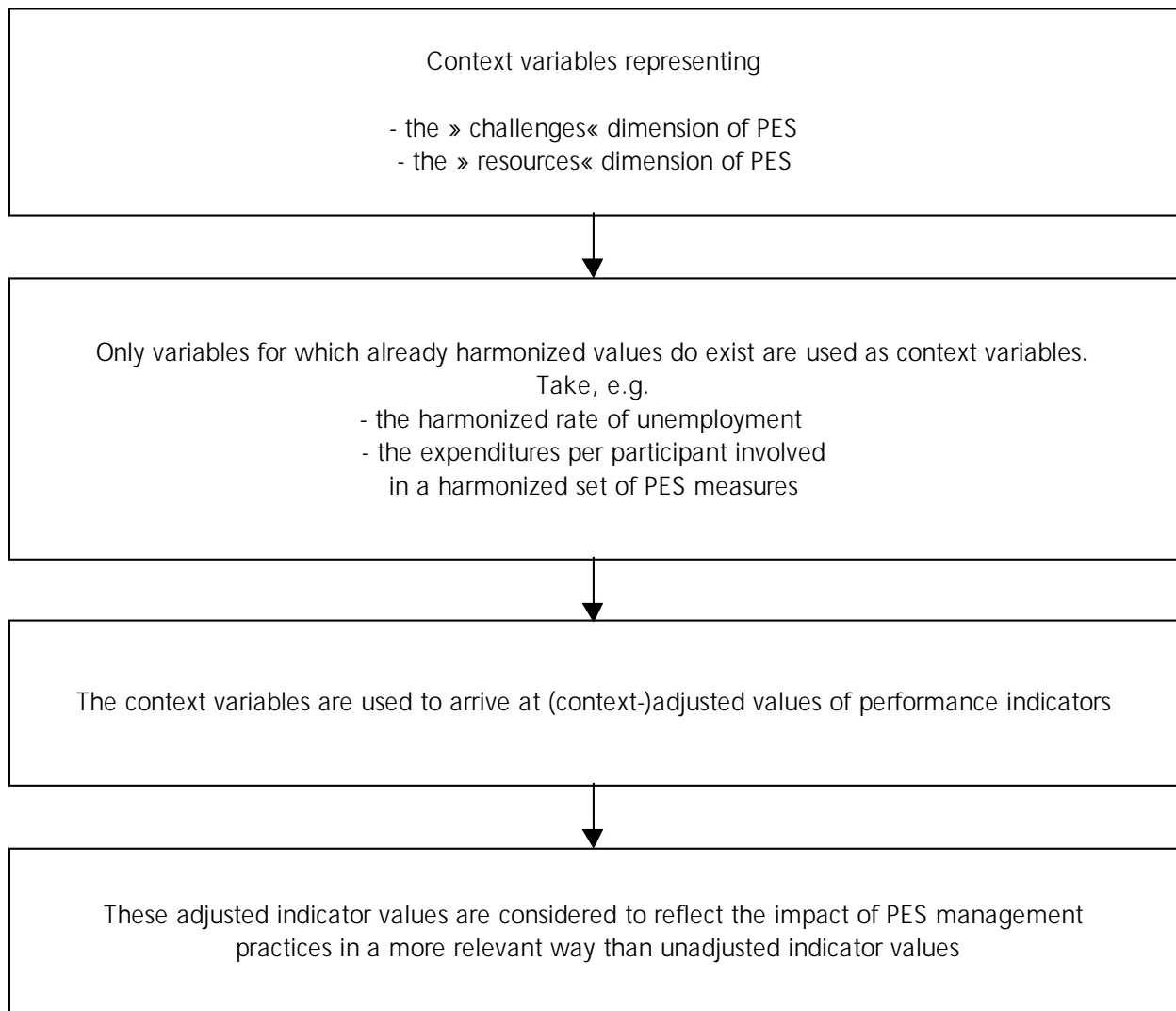
From the pilot project to established procedures



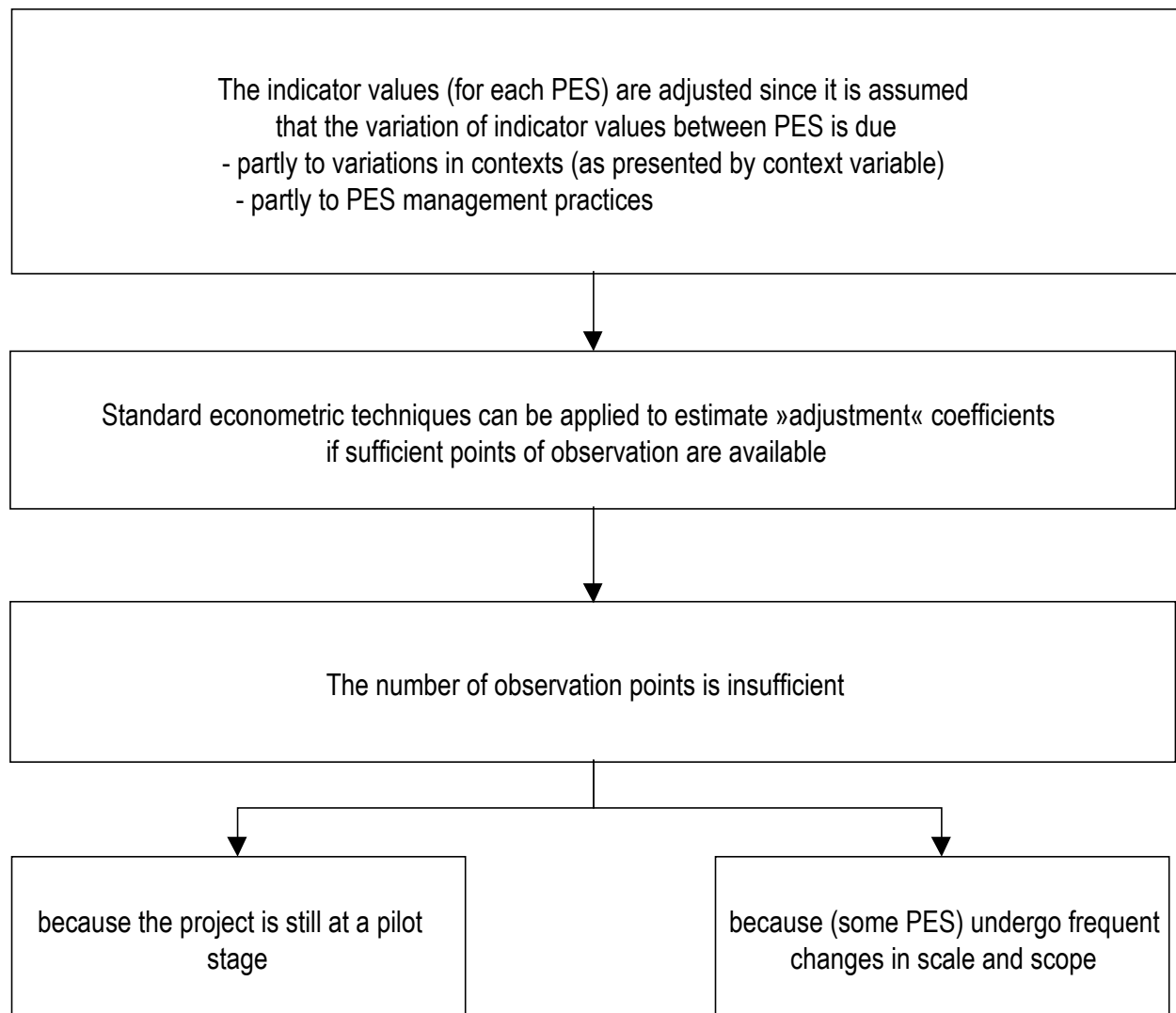
Dealing with the limitations of the data base



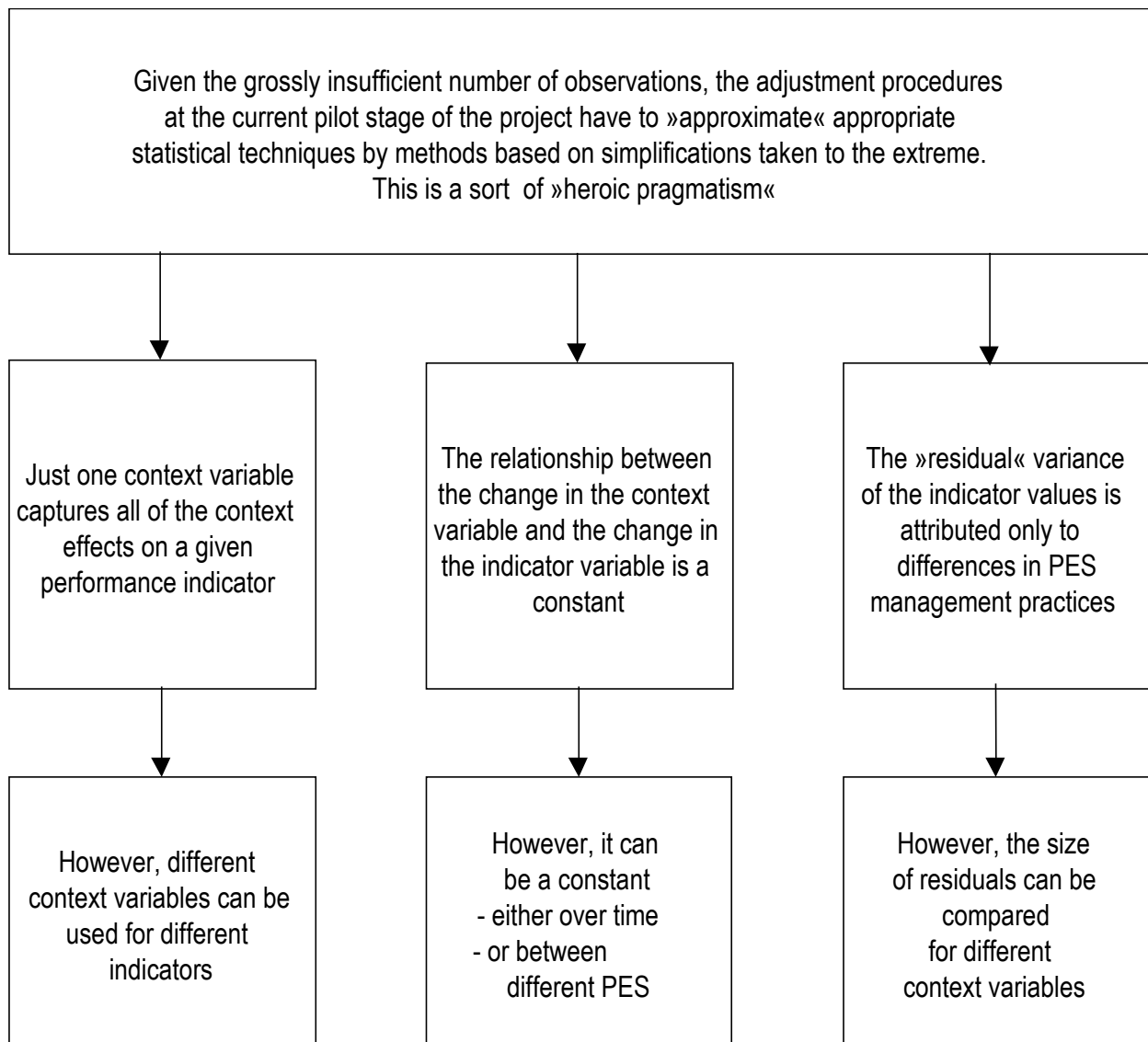
Context variables for challenges and resources



Standard econometric methods not yet applicable



Heroic pragmatism



2

A detailed numerical example

*Heroic pragmatism
deserves close scrutiny*

Given the patchy state of data base, it seems appropriate to put the simplified methodology of heroic pragmatism to the scrutiny of the Working Group. This is best done by a numerical example.

*Calculation of
adjustment
coefficients ...*

The example is used in the first step to show how the »adjustment coefficients« are derived for a single Member-PES.

*... based on extreme
simplifications*

It is worthwhile to emphasise the limitations implied by the extreme simplification:

- For each performance indicator only one context variable can be chosen (so it must be either a »challenge« or a »resource« variable).
- There is only one observation for estimating the relationship between the change of context and the change of performance.
- For this given observation it has to be assumed that the change of performance has only been brought about by the change of context (and not by management practices).

*Choice of the context
variable is crucial*

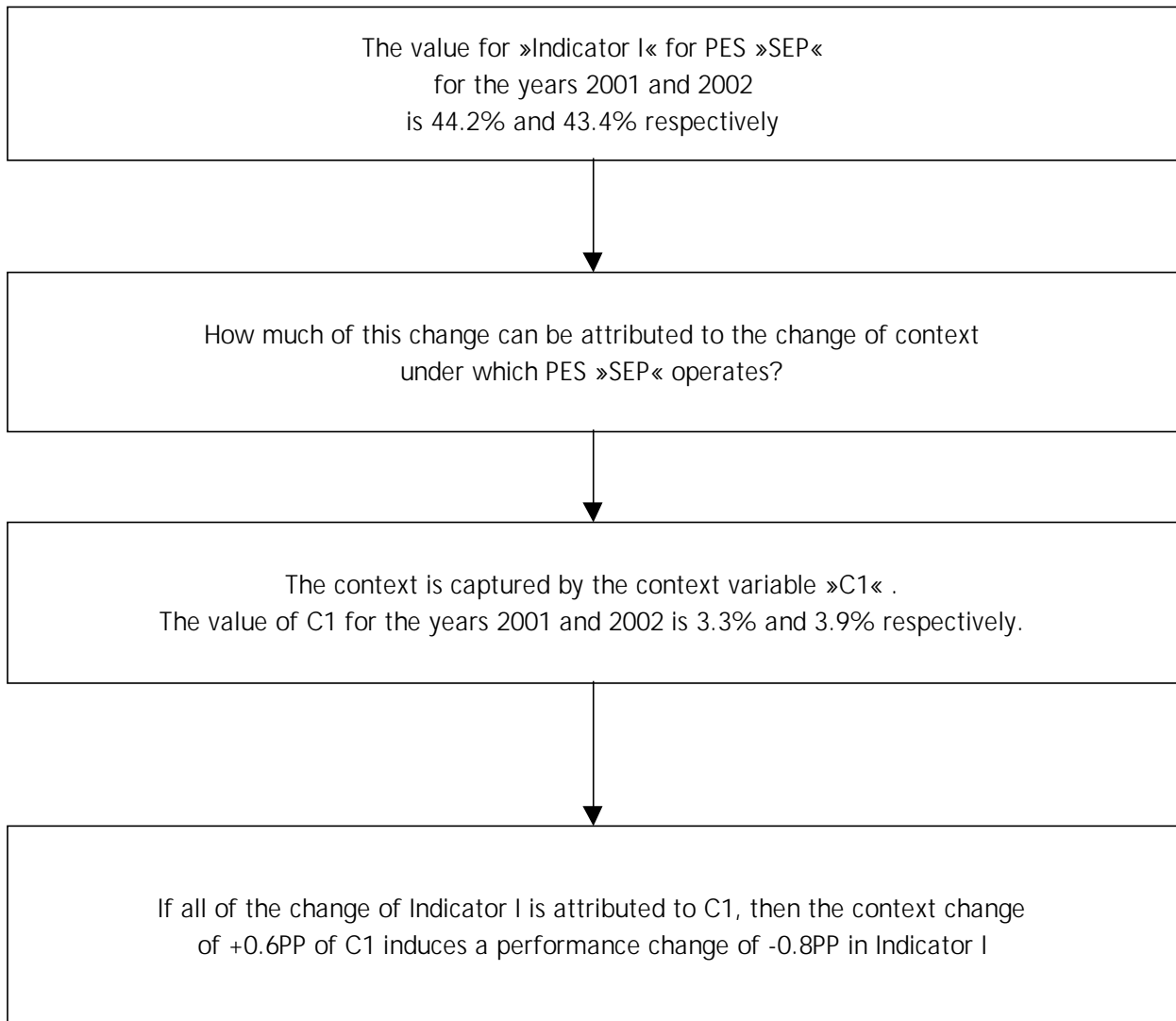
Apart from any methodological reservations, it is quite obvious that the resulting adjustment coefficients heavily depend on the choice of the variable to serve as context variable. This is well illustrated in step 2.

Step 2 applies adjustment coefficients to calculate context-adjusted-values of the performance indicators.

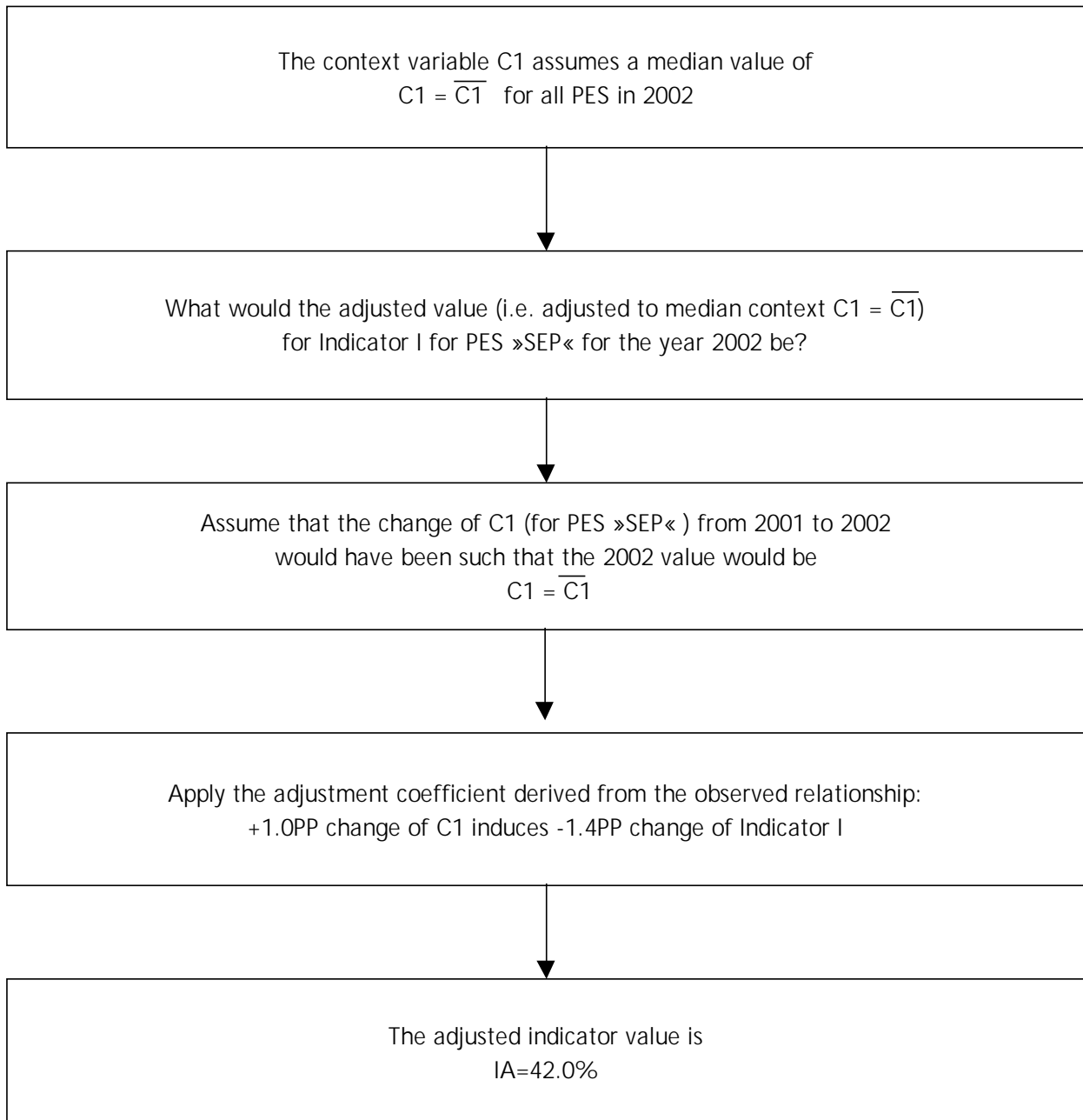
*Adjusting for the
»mean« context*

The idea behind this adjustment is the following: The common point of reference is the »median context«; i.e. the median value of the context variable for the Members to be compared. If for each Member of the Group the context variable is set at the median level, then the performance indicators (as a function of the context variable) will move along. This results in an adjusted value for the performance indicator of each PES.

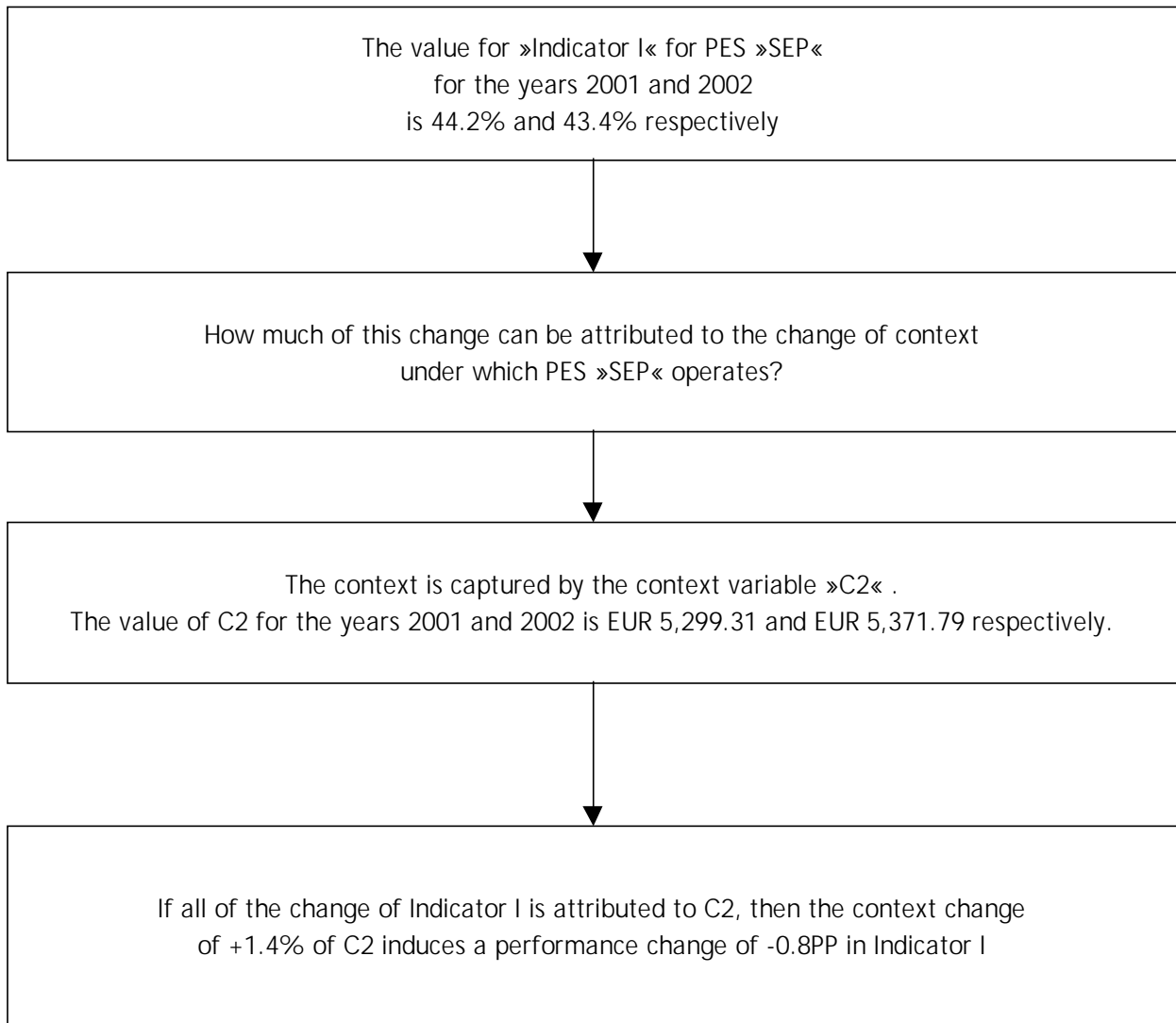
Calculating adjustment coefficient – Variant 1



Calculating adjusted indicator values – Variant 1



Calculating adjustment coefficient – Variant 2



Calculating adjusted indicator values – Variant 2

