



# INSTITUTIONAL STRATEGY AND PERFORMANCE INDICATORS IN PERFORMANCE DATA MANAGEMENT



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<https://www.evalag.de/sqelt>

# INTRO

Performance Data may be used in a variety of ways

- to trigger reactive vs proactive behaviors
- to characterize single units (e.g. *department or course*) vs entire entities (e.g. *university or program*)
- to answer to internal (e.g. *QA*) vs external (e.g. *audits*) needs
- to reward individuals (e.g. *internal promotions and/or salary incentives*) vs to increase the prestige of the institution (e.g. *University rankings*)
- to trigger competition vs to drive innovation
- and to ...?

# INTRO

A working Performance Data Management (PDM) framework for a higher-education institution may be based for instance on the following steps:

1. Establishing a manageable institutional strategy with well defined and clear goals
2. Developing and optimizing, also through use, an ideal set of performance indicator
3. Analyzing periodically the performance through the indicators
4. Taking actions when the indicators highlight e.g. under-performance, lack of accountability, misallocation of human/financial resources

# INSTITUTIONAL STRATEGY AND PERFORMANCE INDICATORS — A COMPLEX INTERPLAY

- Strategic planning is related to the production of an organization's strategic agenda
- Strategic management is related to the implementation of all the actions needed to bring to completion the organization's strategic agenda
- Strategy (planning + management) decides which performance indicators are relevant for the organization
- However, analysis of performance indicators may be used to inform decision-making regarding strategy and, in turn, affect strategy.

# INDICATORS

- Source of the indicator (*existing own or 3<sup>rd</sup> party database/records, interviews/surveys, exams/tests, ...*)
- Type of indicator quantitative (*and in that case raw number, average, percentage, rate, ratio, index, mixed, ...*) or qualitative
- Reliability (*how solid, precise, objective, unbiased*) and validity (*how relevant, appropriate, effective*)
- Stability (*how sensitive they are to changes of the “boundary conditions”*)
- Usability (*how easy is to manipulate/use them*)
- Transparency/reproducibility (*how easy to reproduce*) and ethics (*e.g. is collecting them morally acceptable*)

# EXAMPLES OF SIMPLE PIS FOR L&T

## L&T Environment, e.g.:

Ratio of teaching staff number to student number per subject field and/or per study programme | Percentage of total institutional expenditure dedicated to L&T activities | Number of enrolled Bachelor/Master/doctorate students who graduated at another institution

## Teaching Competences and Processes, e.g.:

Official teaching commitment in semester hours per week | Number of non-refereed/refereed/double-blind refereed publications/presentations at academic conferences during a certain time period

## Learning Outcomes and Learning Gain and their Assessment, e.g.:

Personal student coursework grades and earned credit points | Number of students and their identity who plan to exit their study programme/who leave their institution to change to another institution/who leave higher education per year and per study programme

# EXAMPLES OF COMPLEX PIS FOR L&T

## L&T Environment, e.g.:

Analysis and assessment report of offered classes with respect to topics, class options and sizes, time, place, lecturers, requirement level | Expert assessment about recognition of qualifications earned from other higher education institutions

## Teaching Competences and Processes, e.g.:

Satisfaction survey of teaching staff about teaching workload | Teaching staff peer review and/or participating observation of courses | Satisfaction survey of students about quality skills labs

## Learning Competences and Processes, e.g.:

Satisfaction survey of students about overall quality of their learning experience | Assessment survey of teaching staff about student workload

## Learning Outcomes and Learning Gain and their Assessment, e.g.:

Prediction of student attrition by educational data mining methodologies | Student evaluation of assessments/examinations (peer grading) (e.g. fairness, timeliness, adequacy of assessment format)

# WHAT ARE THE POSSIBLE PROBLEMS IN THE APPLICATION OF INDICATORS AT YOUR UNIVERSITY?





# INDICATORS: PROBLEMS

- Indicator bias (e.g. *consistent underestimate*) or observer bias (e.g. *due to personal view of the interviewer*)
- Other bias (e.g. *cheating or person involved in the data creation that changes attitude because it knows that the indicator is going to affect the future of someone else. Think for instance about exam grades and access to fellowships*)
- Noncomparability of the data (e.g. *due to differences in the database in different nodes of the data collection. For instance: teachers=tenured professors VS teachers=tenured+ untenured professors*)
- Poor design of the indicator (e.g. *indicator does not monitor what it should but something else*)
- Aging of the indicator (e.g. *an indicator may give different results because created from data, whose collection policy changes over time*)

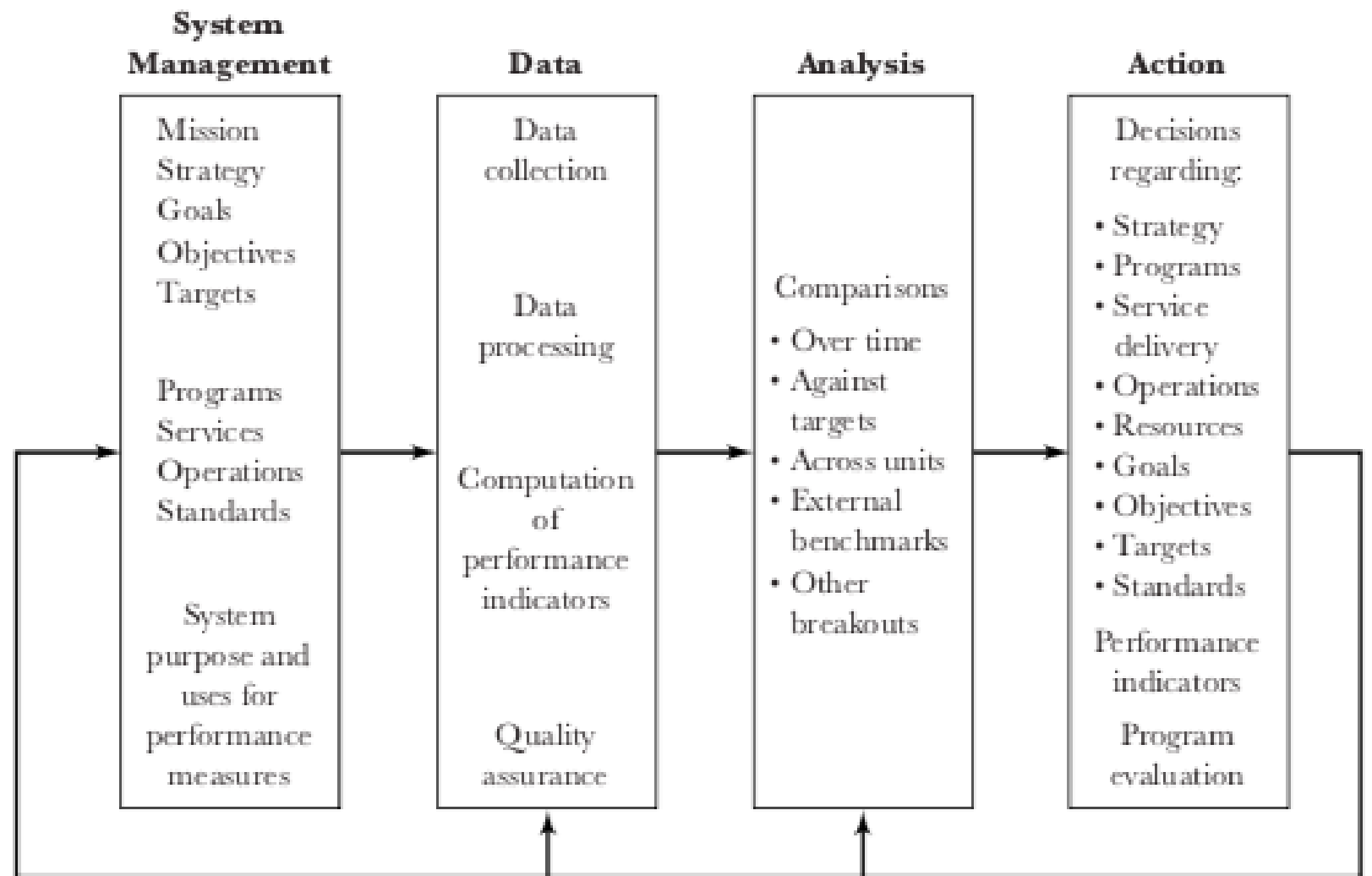
# WHAT ARE THE STRENGTHS AND WEAKNESSES OF IMPLEMENTING PDM AT YOUR UNIVERSITY?



## SWOTs of PDM

Strengths	Weaknesses
<ol style="list-style-type: none"><li>1. Recognition on institutional level/by leadership of the importance of performance data</li><li>2. Existing performance data collection can form the basis for further development of PI set</li><li>3. High autonomy of faculties allows them to choose appropriate PDM methods and tools</li><li>4. Established and accepted educational strategy underpins PDM</li><li>5. Annual reporting allows for monitoring time series</li></ol>	<ol style="list-style-type: none"><li>1. Bottleneck in communication as performance data and information are accessible only to a few people (at certain sample HEIs)</li><li>2. Lack of integrated PDM system (e.g. data warehouse) of all PIs, which makes it difficult to use it systematically</li><li>3. No (well-)developed PDM at the institutional and/or faculty/department levels (at certain sample HEIs)</li><li>4. No or poor representation of PDM in mission statements on various organisational levels</li><li><b>5. Performance data and information is mainly, if not exclusively used for reporting (accountability towards HE politics and the public), less for the enhancement of performance</b></li></ol>
Opportunities	Threats
<ol style="list-style-type: none"><li>1. Possibility to develop a PDM system in L&amp;T from scratch (at certain sample HEIs)</li><li>2. Participation in international rankings and benchlearning research projects about PDM models (such as SQELT)</li></ol>	<ol style="list-style-type: none"><li>1. Excessive reliance on (quantitative) data and underestimation of the relevance of qualitative content analysis</li><li>2. High autonomy of diverse faculties with different QM cultures makes the implementation of centralized, overarching PDM models difficult</li><li>3. Self-reporting within PDM model can lead to window-dressing</li><li>4. Dependence of performance data reporting on the commitment of programmes' directors (at certain sample HEIs)</li><li>5. A failing coordination between the goals of the HEI's management and the goals of the faculties with respect to PDM</li></ol>

**FIGURE 1.1. PERFORMANCE MEASUREMENT SYSTEMS.**

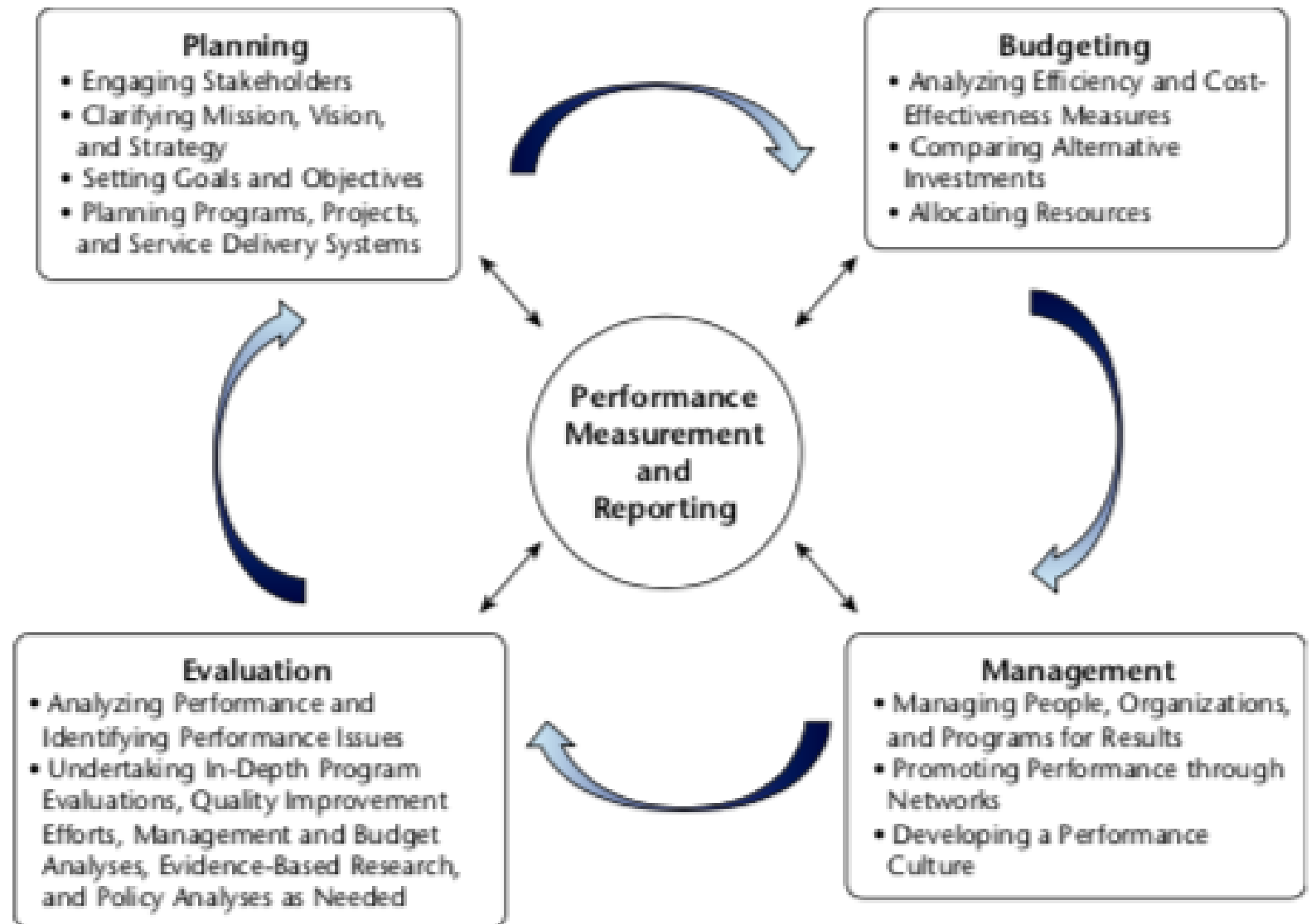


T. H. Poister  
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1st ed.

Jossey-Bass (2003)

**FIGURE 1.1 THE PERFORMANCE MANAGEMENT FRAMEWORK**



T. H. Poister, M.  
Aristiguieta, J. L. Hall  
*Measuring Performance  
in Public and Nonprofit  
Organizations: an  
integrated approach*  
2nd ed.  
Jossey-Bass (2014)