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PERFORMANCE INDICATORS AT STATISTICS NORWAY:
Some experiences and issues[1]

I.   Introduction

1.   The statistical system in Norway is centralised. The Statistics Act of 1989 stipulates that Statistics Norway is the central body for the preparation and dissemination of official statistics. Statistics Norway is subject to supervisory guidelines and financial frameworks set for its business at any time by the Government and the Storting (National Assembly), but the Statistics Act stipulates that Statistics Norway is an independent institution in its field, which includes a comprehensive research activity. About 75-80 per cent of Statistics Norway's tasks are funded over the central government budget. The rest are funded on revenue from assignments and sales of publications, including collection and preparation of statistics within special areas. The assignments many also concern special processing of data already collected and research projects based on numerical material from Statistics Norway.

2.   Statistics Norway has for about 40 years been working on systems for a fairly detailed registration of resource usage linked to different operations and subject areas. Over the last years there has been increased focus on measuring a broader range of indicators telling more about efficiency, including response burden and quality, such as production time, response rates etc.

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3.   There have also been some efforts to produce and compare some indicators on the National Statistical Institutes at Nordic level.

4.   However, experiences suggest that producing "statistics on statistics" is not an easy task, not at national level, and especially not at international level. And it demonstrates the that there are the same requirements as for developing statistical systems in general:
- To have a clear description of user requirements
- To define and implement a clear structure of observation units for measuring
- To put in place meaningful classification systems in order to summarise and generalise information

5.   The objective of this paper is to highlight some issues based on the experiences for developing a planning system within Statistics Norway.

II. The basis for planning within Statistics Norway

6.   At present there are several different systems providing management and planning information:

- A system on staff with information on the persons employed
- An accounting system keeping continuous track on income and expenditures linked to individual projects
- A system for planned and registered hours on different products
- A "register" on products where some key information should be updated for instance on response rate, response burden, production time, data sources, legal basis, etc.
- A release calendar listing release date for different topics/statistical subject areas

7.   By combining information from the different systems it has - with considerable efforts - been tried to produce consistent "Product accounts" for two years.

8.   Information from these different sub-systems is further used as a basis for the annual planning process as well as for follow up and internal and external reporting.

9.   Some of the experiences can be summarised in the following way:

-    The basic building block for planning, which is the "product" (see later), has been developed in an inconsistent way, resulting in many and heterogeneous "products". This leads to difficulties in updating as well as extraction of information.

-    One important element in order to measure resource allocation is the requirement of all staff to plan and register hours spent on different products.

Partly due to the detail and ambiguities in the "product" system, there are some doubts about the quality of this registration. For instance, a too large part of resources is allocated to products classified as "general " and "internal".

- There is a need to integrate information from the different systems, for instance to be able to link accounting information to the different products in the product register, to information from the hours registration system and to the release calendar. However, this has shown not to be trivial, partly due to the structure of the product system, but partly also due to technical problems.

III. A key issue: What are the basic observation units for planning and measurement of performance?

10. One main lesson from the experiences mentioned above is that it is necessary to clarify and define in a more consistent way the basic observation units (in our terminology: "products"). These basic units have effects both on the quality of updating the system as well as on how information can be extracted from the system and used as a basis for analysis and presentation.

11. When the planning system was designed, there existed a fairly "generic" definition of what should be the basic observation unit or "product": "A product should to a large extent as possible represent the results of the tasks performed, meaning a collection of tables, a publication, other documents, data files, projects etc. - or internal services. Products are given a 3-digit code. Products which naturally are grouped together are given a 4th digit – resulting in sub-product".

12. During the actual implementation it was very much up to the different subject matter units to define products, resulting in rather inconsistent solutions. The inconsistency increased because of the ambiguity between the 3-digit code and the possibility for a 4th digit or sub-product - which in reality could become as important as a product on the 3-digit level. For the moment there are around 1500 "products" on 4-digit level and around 400 3-digit products.

13. It has further been criticised that the information system does not give enough detail for local planning whilst it on the other hand does not provide aggregates and enough overview at top management level.

14. A process for "cleaning up has thus been initiated in order to get a better basis for planning and integration of the different parts of the system.

15. In this evaluation, it has been noted that the designation "product" in itself can lead to some confusion and misconception. How are for instance, "projects" and specific "activities" treated? And how is the relationship to the generic term "statistics" or a subject matter classification?

16. Thus, the main issue necessary to clarify is - as it is for all information systems: How do we specify and define in a more precise way the basic observation units to which we may link performance indicators and other indicators? And how do we design a system which make it possible and meaningful to aggregate information in order to get a more systematic overview at management level and for external reporting?

17. In defining what we still call "products" we are now approaching a more process oriented view. This is partly based on the recognition that there are difficulties in being precise about real, concrete products when working with statistics - especially in a world of changing tools and methods for dissemination, which also may affect our internal organisation. It is also observed that several activities are not necessarily leading to a concrete product - for instance methodological development work or establishing internal technological and administrative infrastructure. Still we maintain the "product" concept while trying to clarify and define it in a more precise way.

18. In this approach we may discern the following types of "products":

- **Primary products:** The datafile/database of verified statistics being the result of an integrated data collection and production process. A primary product may result in direct dissemination and/or be further processed as part of secondary and tertiary products.
- **Secondary products:** Products, which in a systematic way integrate primary products or parts of primary products. Examples are a regional database or National accounts.
- **Tertiary products:** Products (or activities) which are using the previous products as a basis for research and analysis or dissemination/presentation.
- **Internal products:** These are projects/activities which cannot be categorised in one of the previous types but are contributing general administrative, methodological or technical support.

19. There are some other requirements that should be taken into account:
- All products - also internal - should be given a description of objectives and contents
- When appropriate, it should be possible to link a product to its legal basis (national or EU through the EEA agreement)
- A "product" should further have a unique linkage to the subject matter classification within Statistics Norway (as a basis for aggregation)
- There should be a linkage between the products and the listings in the release calendar (One product may result in several listings/dissemination products)
- It should be possible to identify whether the product is financed from internal source (government budget), external sources (contract work etc.) or a mixture of both

20. It is assumed that one may still end up with some 500 "products" after a review and revision. It is thus necessary to ensure a possibility for

aggregation of information, both based on the organisational structure and according to the subject matter classification.

21. In addition one still will use the 4th digit or sub-product option but with a changed definition and meaning. These sub-codes should now be used partly to distinguish between different dissemination products (tertiary products), partly to cover and integrate a previous separate "activity code", for instance "planning", "data revision", "international reporting" - linked to the different products.

22. Most indicators will be linked to the product level, but still some indicators on for instance timeliness, will have to be linked to sub-product if there are several different releases from the same product.

23. In the process of reviewing and updating the planning system, it is considered essential to take into account information requirements both at local project level, at medium management level and at top management level. It remains to be seen to what extent it is feasible to combine these different requirements.

IV. Performance indicators

24. The mentioned product register was prepared to include several indicators, which partly could be considered as "performance indicators". The main being:

- Resources used (hours/costs) per product
- Response burden (estimation of hours spent by respondents)
- Actuality or production period (period between reference date and release date)
- Punctuality, meaning response level at deadline

25. Further, there are several indicators which could be used as a basis for quality assessments, for instance response level, coverage, number of follow ups, number of imputations, number of respondents contacted during revision.

26. Parts of the mentioned information has been utilised and proved valuable in the annual reporting from Statistics Norway for instance tables on actuality for monthly, quarterly and annual statistics, resource usage, response levels and response burden.

27. However, due to the mentioned structural deficiencies of the product specification, as well as some problems concerning the quality of the information, usage has been somewhat fragmentary so far.

28. One specific issue is how to aggregate and summarise these indicators which are given on a rather detailed level, linked to several hundred "products". It is not considered that the best option is simply to give unweighted averages based on the different products for a department - or for the whole of

Statistics Norway. One possibility could be to weight production time or other indicators by the resources spent on the products. Another possibility could be to use a systematic "sample" of "reference" products.

29. It should be underlined that even if we may have been developing fairly concrete performance indicators on resource usage, timeliness etc., there is still much more work to be done to get more information on data quality, user satisfaction and overall performance involving staff competence, technology and organisation.

V. Some notes on comparisons at international level

30. So far, little effort has been done to compare in a systematic way performance indicators for Statistics Norway with that of other statistical agencies or comparable organisations.

31. However, there has been some work for several years to present and discuss some indicators for comparisons at Nordic level.

Some of the indicators discussed have been:
- Total expenditures and employment and breakdown by main categories
- IT - solutions and technological change
- Organisational adaptations

32. Efforts to make comparisons on a more detailed product or thematic level have proven difficult due to problems to identify comparable products.

33. It should further be noted that, even if it is possible to present costs figures for the statistical agencies themselves, this does not give a good basis for comparing costs or performance of the total system of official statistics in different countries - even at Nordic level. This is due to the fact that there are different budgeting systems (how are for instance housing costs treated), different levels of outsourcing/use of external consultants (for instance linked to IT) and differences in the overall centralisation/decentralisation of statistical production. These aspects have recently been further demonstrated in an effort to collect comparable cost and employment estimates for the statistical system of the European Union and the EFTA members of the European Economic Area.

34. Some of the issues to be looked into in order to make progress on comparisons of the statistical production systems in different countries are, as we see it:

- How is it possible to measure output of the statistical production systems in a comparable way?

- How is it possible to give a comparable structural description of the statistical production system - including the central bureau of statistics as well as other different partners?

- How is it possible to specify the different cost elements in the production of statistics - taking account of different accounting practises and organisational models?

- How is it possible to distinguish comparable statistical routines/processes (products) for which more concrete performance indicators can be developed?

- Linked to the last point: Should the priority be to work on some concrete indicators on comparable routines in order to evaluate performance and issues linked to productivity and efficiency, or should one concentrate on overall and general indicators?

35. When comparing the performance of statistical agencies and statistical systems of different countries one should further:
- take account of "economies of scale", meaning that comparing countries of very different size is of little value without further evaluations and corrections.
- make corrections for differences in infrastructure linked to legal framework (for instance allowing register usage), data collection methods (volume of administrative sources) etc.