HLG Strategy

Summary

The following is the HLG's strategy to implement its vision for modernising official statistics, which was endorsed by the Conference of European Statisticians (CES) in June 2011.

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Strategy to implement the vision of the HLG

I. Executive summary

1. This strategy is the high-level plan to deliver the vision that was presented at the June 2011 plenary session of the Conference of European Statisticians (CES). The main theme of the vision was that statistical organisations are confronted with accelerating change in society and the way that data are produced and used within the information industry. Official statistics faces all of the opportunities and threats that accompany a data deluge. The scope of the strategy is the global official statistics community, including national and international statistical organisations. This strategy will also help emerging economies to connect and be part of the wider information society. In this paper the word “product” should be understood in a wide sense, including statistical goods and services as well as environments created by statistical organisations for users to produce their own analyses.

2. The main themes of the strategy are:

(a) Statistical organisations need to improve their processes to free up resources for the new developments. This improvement will be done by harmonising our knowledge based on international standards such as the Generic Statistical Business Process Model (GSBPM) and the Generic Statistical Information Model (GSIM) and an alignment of our methods and technology. The first step is the development of the GSIM; the next will be a first outline of a “plug-and-play” architecture in which components can be assembled in different ways, rather like Lego blocks;

(b) Products and services must become easier to produce, less resource-intensive, and less burdensome on data suppliers. By designing them as assemblies or frameworks using components, official statistics outputs can become richer, yet easier to produce. Pilot projects will be started to explore this possibility;

(c) New and existing products and services should make use of the vast amounts of data becoming available, to provide better measurements of new aspects of society, such as e-commerce and globalisation. Joint research into new products will be started by the HLG;

(d) Statistical organisations should create environments that facilitate the reuse and sharing of methods, components, processes and data repositories that not only enable the delivery of predetermined outputs and services but which also enable new products and services to be created more efficiently, as well as enabling end-users to specify and run their own analyses and produce outputs through remote access to underlying datasets;

(e) Organisational changes are required to implement this strategy. This will require strategic leadership from top managers. It is recognised, however, that willingness, readiness and ability to change will vary between organisations.

3. The execution of the strategy will involve preparing for change, navigating towards big goals while formulating small steps to get there. This means that:

(a) The HLG will oversee the cross-cutting technical groups reporting to the Conference of European Statisticians (CES). Other expert

groups will cooperate by consent and or written agreement. As such the CES will by default take the lead, but recognizes the importance of connecting to the other UN regions and will actively reach out to them;

(b) A yearly list of key priorities and their timeframes will be agreed by the HLG and assigned to appropriate expert groups. The resources for this work will be drawn from consenting members of the CES. An annual workshop with all expert group leaders will make sure progress is made and support is maintained.

4. **The June 2012 CES Plenary Session endorsed this strategy.**

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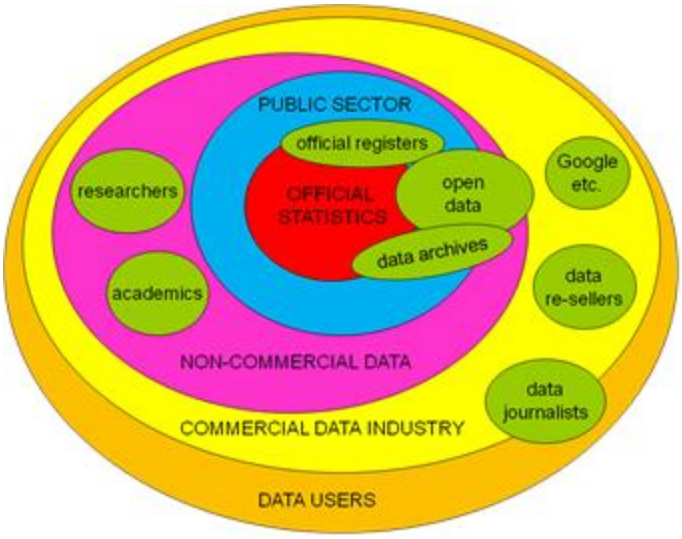
II. Background

A. The official statistics industry and its place in the wider information industry



5. The official statistics industry is part of a more extensive information industry. Within this wider information industry other players are claiming their place and statistical organisations cannot automatically assume that they will retain their current position and relevance.

6. This strategy focuses on the statistics-specific aspects of the work of national and international statistical organisations. Other more general aspects such as human and financial resource management are common to all organisations, so are not explicitly considered here.

7. Key factors in defining the role of official statistics include:

(a) Quality - Even if some other players in the information industry can deliver comparable quality, official statistics are, and need to remain the preferred source for decision makers needing high quality, impartial information. National statistical organisations (NSOs) should have a greater role in quality assuring data from other sources;

(b) Trust – NSOs have built a level of trust in their outputs, based largely on quality and impartiality. Trust can be enhanced by global standardisation of products and processes;

(c) Users and their needs – A good understanding of current and likely future needs, particularly of key users, is essential to maintaining the relevance of official statistics providers. Changing production methods will have an impact on the products themselves and thus on user satisfaction. Another challenge is that new types of users are emerging, some with powerful computers at their disposal, and some wanting to access statistics via mobile devices;

(d) Strategic partnerships – NSOs are increasingly building partnerships with other statistical organisations, and with other parts of the information industry. For example commercial organisation strengths in data collection, dissemination and visualisation can be used to support and promote official statistics outputs;

(e) Common standards – Common methods, terminology, systems and processes all help to improve efficiency. Whilst the official statistics industry has made some progress in this area, it will become increasingly important to accelerate this process and to work together with other partners in the information industry to ensure wider acceptance and use of standards;

(f) Funding - Statistical organisations should communicate more clearly and consistently with governments on why investments in

industrialisation - including international collaboration - are beneficial to society, so that they stand a much better chance of getting the funding needed;

(g) Output - Whatever technology or new inputs are used, the official statistical industry will be judged by its outputs and the way it interacts with the different types of users.

B. SWOT analysis

8. A SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis was undertaken by Capgemini Consulting working for Statistics Netherlands to define the current situation of the official statistics industry assessing it from an international perspective. This analysis was based on existing information on the industry (including the vision of the HLG) complemented by interviews with members of the HLG (internal stakeholders), commercial organisations and government bodies (external stakeholders).

9. The results of this exercise are:

1. Strengths

(a) High quality with relevant and very strong statistical products over long term;

(b) Strong “brand value” of official statistics locally and internationally;

(c) Ability and ‘stamina’ to produce statistics for long-term records and consistency;

(d) International collaboration has started mainly because it is becoming too expensive for each NSO to individually change their tailor-made production processes and products.

2. Weaknesses

(a) A limited outside and “client-centric” view;

(b) Communication of products and results is often not good enough;

(c) Workforce and processes should be more agile to follow rapidly the changing needs of society;

(d) NSOs are not efficient enough in their processes and rely too much on human effort;

(e) The statistical industry as a whole has no clear silhouette or definition; international coherence is low;

(f) NSOs should provide more information about statistics, regarding both quality and other metadata;

(g) Top-level commitment to bring about the changes needed to align the statistical industry with the changing environment is not broadly understood as the key factor in this change process.

3. Opportunities

(a) In some specific statistical domains, cross-border data become more important (globalisation, enterprise groups, climate change). The work and products of NSOs should be expanded to explain what is happening on a multinational level;

(b) The “open data” movement may increase the sources available for official statistics;

(c) NSOs could collaborate (more) with (commercial) external parties;

(d) The official statistics industry could play a more active role regarding new and alternative data sources and collection methods;

(e) NSOs could be quality institutes that certify statistical inputs/outputs of other (commercial) parties;

(f) In the statistical domain the NSOs can lead when it comes to defining and maintaining international standards;

(g) Standardisation of production process (plug and play technology) and products of NSOs to increase international comparison and quality control of products;

(h) Consolidation of NSOs roles as public supplier of trust and quality;

(i) International coherence and the willingness to form a more closely knit statistical community or industry are beginning to materialize;

(j) Specialisation of NSOs in certain products to increase efficiency in the production process of these products. This specialisation in products could vary across countries and sectors to optimize the possibilities of specialisation.

4. Threats

(a) Other organisations are starting to create output NSOs used to have a monopoly on;

(b) Reduced staff and budget cuts;

(c) Weak/fragile coordination of international collaboration activities;

(d) Society wants more timeliness in statistics, both in disseminating existing products and in developing new products;

(e) Some government clients do not distinguish between official and non-official data sources for ad hoc questions, as long as it meets their purpose;

(f) New technologies like open data can seduce NSOs into losing focus of their core business.

10. The results of this analysis are consistent with the issues identified in the HLG vision. For the strategy, the opportunities are the most important with some of the weaknesses as constraints. The opportunities show the importance of a global view of the official statistics industry. They point in the direction of standards and process rationalisation through international collaboration. This analysis shows that it is unlikely that NSOs will ever be truly agile organisations, so it may be more appropriate to build strategic partnerships with third parties, rather than try to compete with them.

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III. Elements of the Strategy

A. Purpose

11. The SWOT analysis, allows the creation of a clear strategy, with a number of key actions to support the implementation of the HLG vision. A complicating factor is that the future developments are very uncertain because of the accelerating rate of change. This makes concrete long-term goals a near impossibility. The logical consequence is that the basis of the strategy should be preparing for change, navigating towards the big goals while formulating small steps to get there, validating and adjusting the direction as necessary.

12. The purpose of this strategy is to free up resources for agile product management and renewal by improving processes. Statistical organisations need to produce their outputs faster and in a more agile way to meet rapidly changing needs. The standardisation of processes, products, methods and statistical concepts has to serve the purpose of the strategy and be a means of cost reduction.

B. Rejuvenating the product set

13. The HLG vision emphasises that new products are needed that are more suited to current and future user requirements. A number of important drivers are mentioned:

(a) The need to make available resources to be more agile in meeting user needs;

(b) The growing abundance of data and the opportunities this represents;

(c) The changing needs and expectations of society and governments;

(d) The measurement of globalisation requires more coherence.

14. This strategy promotes an environment that facilitates rapid change by:

(a) Exploring needs: Statistical organisations should reach out to both existing and potential users to identify new needs and research the possibilities to meet them;

(b) Exploring possibilities: The rapid increase in the availability of data and the changing nature of those data are offering opportunities that were impossible not long ago. Research is needed to discover how to create new products from these data, and how to produce existing products in a more cost-effective way using different methods and sources;

(c) Exploring collaborations: Statistical organisations are not alone in the information industry, and might be able to benefit from the existence of a larger value chain. This might take the form of collaboration on products and/or knowledge;

(d) Encouraging Standardisation: Existing products often take a lot of resources to produce. Process rationalisation will not be sufficient alone. The way these products are defined needs to be reviewed. Research is needed into the possibilities to create frameworks or product families, increasing standardisation and improving consistency. Some existing products may need to change to facilitate more efficient production;

(e) Recognising the importance of globalisation: It is no longer realistic for certain products to be made in isolation by individual NSOs. The nature of the variables they measure is global, so collaborations should be set up to create global statistics. The way statistics are disseminated to an increasingly global community also needs reconsidering. Industry-wide conventions, for example, concerning the release of experimental statistics, are needed to improve communication.

(f) Promoting systematic archiving: Statistical organisations are responsible for archiving data that are of future interest to themselves and others. It is therefore in everybody's interest to have a good and uniform archiving of data. Collaboration with national and international archives and other interested parties is called for;

(g) Creating secure environments for access to micro-data: This ties in with archiving albeit that supplying microdata to other parties has confidentiality pitfalls that have to be addressed either by legislation, policy, software, processes or all of the above. On-going research in this area is promising and needs to be stimulated, some good practices are already emerging;

(h) Treating methods and classifications as products: Since statistical organisations are not alone in the information value chain, others will need our methods and can be interested in our classifications. Proactive encouragement for other organisations to adopt standards from official statistics increases the visibility and relevance of official statistics outputs, making it easier for users to understand and combine data;

(i) Encourage others to add value to our products: Investigate how NSOs can create environments to encourage third parties to add value to statistical products. For example developing services for use by creators of mobile applications;

(j) Opening up our output to others: Bridging statistical data communication standards like Statistical Data and Metadata eXchange (SDMX) to standards used in the public domain like Google's Data Set Publishing Language (DSPL) will facilitate publication and dissemination. It will also facilitate communication with strategic partners (commercial entities) to enable them to use statistical data in their platforms. Open Data is another area where research and initiatives are needed.

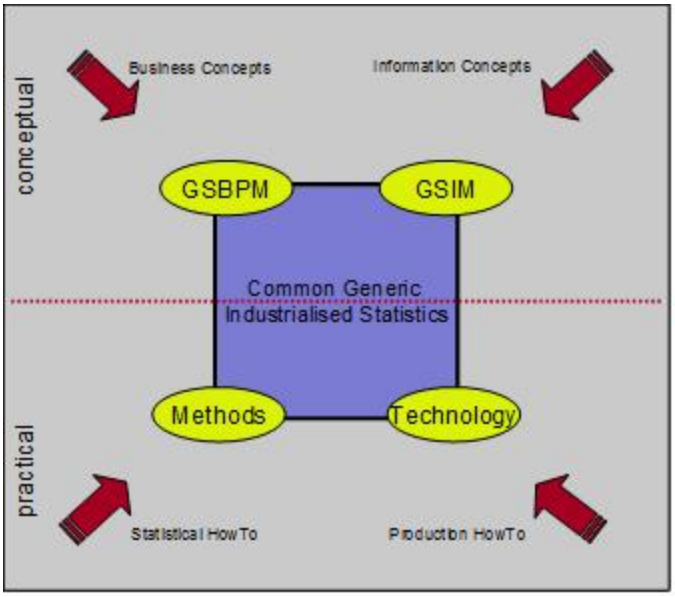
First steps in rejuvenating the product set

15. A good starting point will be to create an inventory of all interesting projects and initiatives. This will help to bring interested statistical organisations in contact with each other and to inform the statistical community what research is being undertaken to what end. The big aim is to create a statistical research community for new products.

16. A list should be created of concrete projects that are candidates for collaboration and in line with the strategy. A good start would be the list of projects based on collective needs and offers made in the Statistical Network. Based on this list, key priorities can be identified and allocated to relevant expert groups. The list will be maintained by the HLG. Entries in the list can be created by the HLG as well as by statistical organisations and leaders of expert groups.

C. Rationalising processes

17. The basis of the strategy on processes is presented in the diagram below. The variety in processes has to be reduced to free up resources. This is to be done by reducing the number of methods and technologies used and by harmonising concepts in industry-wide models such as the GSIM and the GSBPM.



18. The HLG vision clearly identifies the need for agreeing and adopting standardised and industrialised processes for the production of statistics. However, during the development of the GSIM, it was recognised that a higher-level integration of statistical process, information objects and flows, methodology and technology is needed to produce statistics. The GSBPM, GSIM, Methods and Technology corners have relations that are governed by rules that cannot be expressed at this level. Further work in this direction, therefore, is being done.

19. Proposals:

(a) Develop a common approach and language for process standardisation based on the GSBPM and the GSIM, together with common methodologies and tools. Add the development of an overarching view to the list of key priorities;

(b) Create a universal statistical "plug and play" architecture to facilitate collaborative development, reuse and shared processing between organisations and countries in a way that is independent of technical platforms. List this as a key priority;

(c) Encourage greater convergence of current process standardisation initiatives, for example the joint strategy to integrate statistical production processes within the European Union, through better communication and stronger coordination;

(d) Develop new methodologies to reflect the changes in data acquisition and the dramatic increase of the volume of data available, for example, on topics such as noise and error reduction in large data sets, pattern recognition and other methodological tools appropriate for "Big Data";

(e) Create environments that facilitate the reuse and sharing of methods, components, processes and data repositories that not only enable the delivery of predetermined outputs and services but which also enable new products and services to be created more efficiently, as well as enabling end-users to specify and run their own analyses and produce outputs through remote access to underlying datasets.

D. Managing organisational change

Prerequisites for change

20. To manage effectively the changes required, it is vital to consider four main issues:

(a) Willingness to change – This is determined by trust and support for the leadership and/or governance structure of the change. There must be enough trust and support for the strategy, vision and the leadership. This will require clear communication and leadership as it is really about “selling the vision” to encourage staff and stakeholders to embark on a transformation journey;

(b) Ability to change - This is about the capacity to change, which is determined by many factors but people and their skills are of the utmost importance. Are enough people “on board” to really make it happen? Leadership is again a critical factor as it is needed to change, often long lasting, structures and ideas within organizations;

(c) Readiness for change - As transformation requires many changes to the organization, its people, stakeholders etc., change readiness is essential. An effective transformation must be well timed, because timing affects the level of support from the people that are involved;

(d) Speed of change - One of the choices to be made is between evolution and revolution. Although the speed of change is to some

extent driven by the increasing rate of change in the outside world, current advantages such as quality and trust should be preserved. Effective leaders regularly re-check the willingness, ability and readiness to change, and adjust the speed of change on the basis of that.

21. It is not realistic to suppose that all members of the official statistics industry will have the same levels of willingness, ability and readiness to change at the start. Change will therefore be pioneered by a few organisations before being implemented by all. The ability to change can differ as NSO's face different challenges in particular, differences in national legislation, priorities and requirements.

Proposals on governance

22. It is necessary to establish layers of governance to bring about successfully the changes needed without top managers needing to get involved in detailed technical issues.

23. The HLG only has direct control of the groups that are under the jurisdiction of the CES. Other expert groups will be invited to cooperate by consent and/or written agreement. As such, the CES will by default take the lead, but the importance of connecting to the other UN regions is recognised.

24. A mechanism is needed so that expert groups can present ideas to the HLG, whilst the HLG can task the expert groups with work that needs to be done.

25. The proposed mechanisms of governance are:

(a) The HLG is the body supervising the implementation of the strategy. It is responsible for stimulating development of global standards and overseeing the activities undertaken in collaboration;

(b) The HLG secretariat, consisting of people appointed by the HLG, will take care of day-to-day operations like overseeing projects and administering agreements;

(c) A yearly list of key priorities and their timeframes will be agreed upon by the HLG and allocated to relevant expert groups. The resources will be drawn from consenting members of the CES;

(d) An annual workshop will be held with the leaders of all relevant expert groups. It will help the HLG to identify key priorities and tasks;

(e) A central contact point for information on official statistics standards is needed. This would involve:

(i) Regular maintenance of an inventory of all standards that can be seen as belonging to the official statistics domain;

(ii) Mapping of the relationships between standards, and their mutual dependence;

(iii) Creation and maintenance of a life cycle program for all standards;

(iv) Facilitation of use and application of standards.

26. It is understood that governance has to measure up to the ambition level. If we are serious about meeting the challenges identified in the vision paper, we will need appropriate governance mechanisms.

27. Other proposals relating to organisational change are:

(a) Top managers should provide clear support for the engagement of staff in multinational projects. There should be a commitment for an explicit allocation of resources (human and financial) to contribute to these multinational projects, possibly co-financed by international organisations;

(b) National and international projects should also be aligned to the HLG vision and strategy wherever possible, to ensure maximum efficiency;

(c) Establish formal procedures for collaboration. However successful individual projects may be, they will not have the necessary impact unless they are accompanied by appropriate organisational structures and processes. For example, a memorandum of understanding can help to make a collaboration activity more formal, and give it a sounder basis;

(d) Make sure collaboration is at the desired organisational level. If the level is too low, the overhead is too high because too much detail has to be agreed upon. For example, creating software together at the actual coding level could prove to be very costly while agreeing on a framework could be more beneficial.

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IV. Definition of success

28. To assess the value of this strategy, success criteria are needed. The vision makes it clear that the strategy is, to some extent, chasing a moving target. The world is changing much faster than statistical organisations can react. The measure of success should not, therefore, be the completion of a single big task but the realisation of a process. This process is the ability to continually adapt to the changing world.

29. The HLG should develop indicators to monitor and communicate progress. This will send out the message that the HLG is serious about driving change and will also motivate those who are involved in making it actually happen.

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V. Phases and milestones

30. Looking at the distance between current reality and the vision, a number of milestones are proposed:

(a) Define a strategy and a governance mechanism to ensure it will be delivered in cooperation with the relevant expert groups. This milestone should be achieved by the June 2012 plenary session of the Conference of European Statisticians;

(b) Adoption of the strategy and commitment of CES members. This milestone should be reached at the June 2012 plenary session of the Conference of European Statisticians;

(c) First implementation project to be agreed and resourced by selected CES members. This should happen before the end of 2012;

(d) CES members make the necessary organisational changes to facilitate enhanced international collaboration, and therefore demonstrate their commitment to the HLG vision. This could happen by the end of 2013;

(e) The first networked functions become available for use (shared development, active coordination) - 2013-2014;

(f) CES plenary sessions to review progress made annually - 2014-2015;

(g) The CES plenary sessions provide a platform for the strategic direction of the official statistics industry. This is a logical consequence of the achievement of the above milestones.

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VI. Bibliography

The following documents were used as the basis for preparing this strategy:

(a) HLG Vision Paper, CES June 2011;

(b) The Business Case for 21st Century Official Statistics (Eurostat);

(c) The Case for an International Statistical Innovation Program (Australian Bureau of Statistics).

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