Statistics Netherlands Architecture; Context of change

Richard Bredero, Wim Dekker, René Huigen and Robbert Renssen

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Explanation of symbols

.	= data not available
*	= provisional figure
x	= publication prohibited (confidential figure)
–	= nil or less than half of unit concerned
–	= (between two figures) inclusive
0 (0,0)	= less than half of unit concerned
blank	= not applicable
2007-2008	= 2007 to 2008 inclusive
2007/2008	= average of 2007 up to and including 2008
2007/'08	= crop year, financial year, school year etc. beginning in 2007 and ending in 2008
2005/'06–2007/'08	= crop year, financial year, etc. 2005/'06 to 2007/'08 inclusive

Due to rounding, some totals may not correspond with the sum of the separate figures.

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Statistics Netherlands Architecture; Context of Change

Richard Bredero, Wim Dekker, René Huigen and Robbert Renssen

Summary: This paper describes the context architecture of Statistics Netherland (SN). Among others, the paper discusses the clients, consumers, in- and outputs, financers, and several reasons for change. Special attention is given to the Electronic Government.

Keywords: Integrated Architecture Framework (IAF), ICTAL (ICT and reduction in Administrative burden), and ICTU.

1. Introduction

1.1 Background and task

Statistical information production by Statistics Netherlands [*Centraal Bureau voor de Statistiek*, CBS] must continue to reflect the increased complexity of society and the rapid changes therein. The emphasis is shifting towards thematically presented information that provides insight into relevant connections and developments. In that respect, Statistics Netherlands has to be able to respond sufficiently quickly to changing information requirements and must combine information from various sources for this purpose. Furthermore, Statistics Netherlands must forgo direct interrogation as much as possible and must use registers wherever possible. In that respect, Statistics Netherlands must fulfil an efficiency task laid down by the Ministry.

The architecture project group has been assigned the task of establishing an information provision architecture for Statistics Netherlands. This architecture will enable Statistics Netherlands to determine and steer the relationship between business, information, technical, security and management aspects of this information provision.

The Capgemini Integrated Architecture Framework (IAF) will be used as a starting point.

In addition to designing the situation that is to be put in place, the architecture project group has been assigned the task of reassessing the key projects that are already underway in the short term.

1.2 Time frame

The date of completion envisioned for this context analysis is 2008. Statistics Netherlands has formulated its vision, objectives, strategy and instruments up to that

year. Where it is strictly necessary, assumptions will be made in this analysis with regard to the period after that year; this will be clearly indicated in each case.

1.3 Positioning within the Integrated Architecture Framework

Architecture serves to control change. It makes the change objectives of Statistics Netherlands explicit and, on the basis of those objectives, indicates the adjustments that need to be made to operational management and information provision. On the basis of generally endorsed basic architectural principles, the intended change will be translated into requirements that must be imposed upon the new situation that is to be realised.

The definitive design and the required information provision will then be planned on the basis of those requirements. This will be done in two stages, the first relating to the logic of the architecture (*how* the new situation works) and the second to the physical set-up (*what* people will be working with).

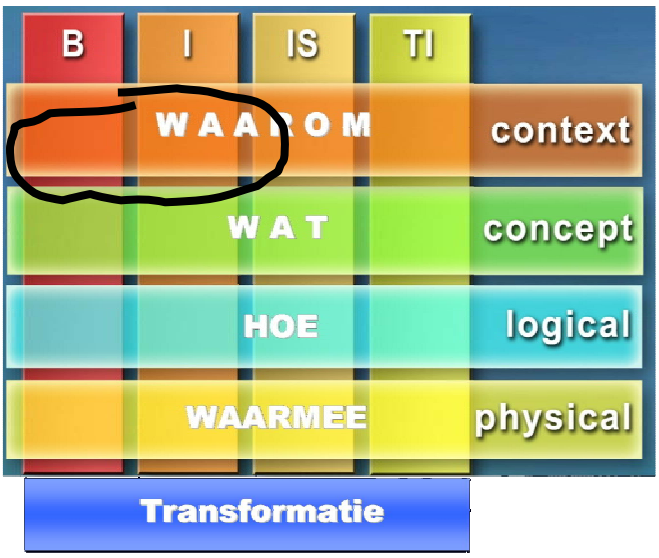
Levels of consideration and areas

The architecture is being developed on the basis of Capgemini's Integrated Architecture Framework. This framework provides and integral scheme for all analyses and designs. IAF lays down a number of levels for consideration:

- context: position and direction. *Why* the change is occurring
- concepts: *what* the result of the change must be, and what the requirements are for that
- logic: *how* the new situation should look
- physical set-up of the new situation
- transformation: aspects of the change itself

The change is described in relation to four areas:

B: the business
I: the information that is important in this process
IS: the information systems that support the business
TI: the technical infrastructure that is needed for the change



WHY [*WAAROM*]

WHAT [*WAT*]

HOW [*HOE*]

BY WHAT [*WAARMEE*]

TRANSFORMATION [*TRANSFORMATIE*]

Figure 1: position of this document within IAF

This document forms the description of the Statistics Netherlands business architecture at the contextual level. It describes the background of Statistics Netherlands in terms of:

- the parties that Statistics Netherlands interacts with
- the products and services provided by Statistics Netherlands
- the sources on which Statistics Netherlands depends
- the external causes of change
- developments in relation to Statistics Netherlands that are influential
- the consequences of these for Statistics Netherlands
- the principles that control the way in which the change is configured.

1.4 Task-setting and conclusions

This context analysis will set targets for the further development of the institution-wide architecture of Statistics Netherlands, as well as for the implementation of the generic system of processes and supporting IT across the whole of Statistics Netherlands. In the text, task allocations and conclusions are continuously indicated in the form of boxed text. These will all be reviewed in the last chapter.

This document is directly related to the following documents:

1. PROCAP project: “the 10 strategic principles" in the establishment of the generic system of processes and supporting ICT across the whole of Statistics Netherlands (see also Appendix 1).
2. PROCAP Architecture project group: “Conceptual architecture”, to be delivered in February 2006.

1.5 IS and TI strategy and context

In relation to IS and TI, only the developments in the context of electronic government have been taken into account, since these also have a clear impact on the organisation of the business. This context analysis does *not* however contain the further context analysis of IS and TI. This will take place at a later stage during

- the IS/TI review for the purpose of reassessing the chain projects, scheduled for February 2006;
- the further elaboration of the IS/TI architecture, scheduled for the period April to July 2006.

During these processes, the important principles will be laid down in relation to the IS/TI strategy and putting that strategy into practice, in so far as these relate to the establishment of the generic system of processes and supporting IT across Statistic Netherlands. IS and TI are not of huge importance to the context analysis of the business; at a later stage, they will constitute a determining factor for the *structure* of the new situation when setting up the physical architecture.

1.6 Structure of the document

Chapter 1 is this introduction. Chapter 2 describes the background against which Statistics Netherlands conducts its business. Chapter 3 describes in broad outlines the products and services provided by Statistics Netherlands. Chapter 4 focuses on the external causes of change and the objectives and ambitions of Statistics Netherlands that steer the change. Chapter 5 outlines the consequences of the development of electronic government for Statistics Netherlands. Chapter 6 contains an in-depth discussion of the consequences of the efficiency objective that has been imposed. Chapter 7 recapitulates all of the conclusions, assumptions and the tasks that have been set.

2. Business context

2.1 Mission of Statistics Netherlands

The mission of Statistics Netherlands is to compile and publish undisputed, coherent and actual statistical information that is relevant for the purposes of practice, policy and science.

2.2 Context diagram for Statistics Netherlands

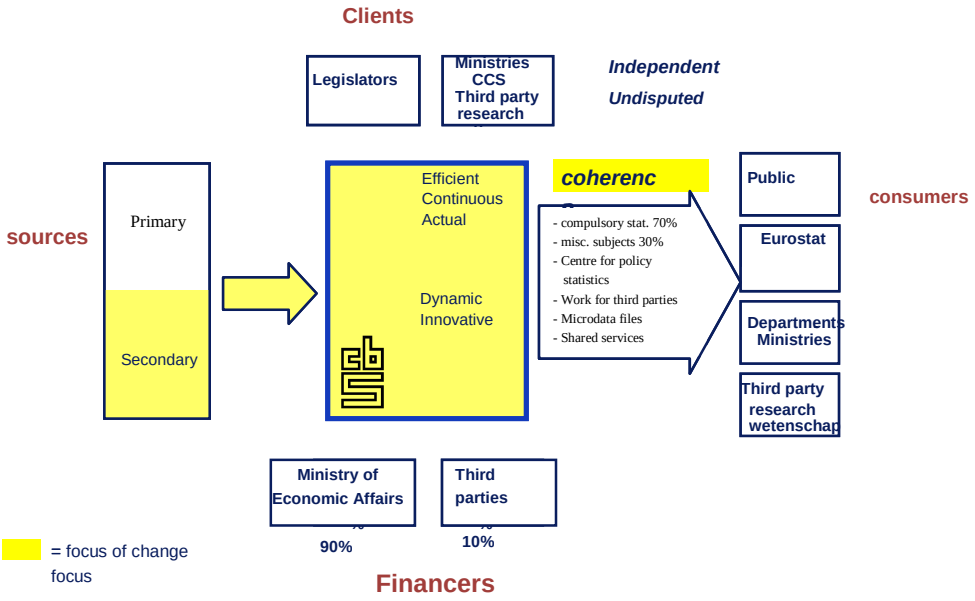


Figure 2 context of Statistics Netherlands

NB: A comprehensive overview of the strategic relations of Statistics Netherlands can be found on http://intranet/CTF/strategischerelaties.htm.

In the context of its primary business objectives, Statistics Netherlands interacts directly with a number of parties. In this interaction, those parties fulfil the following roles:

- Clients
  These determine the tasks allocated to Statistics Netherlands
- Consumers
  These are the consumers of the products and services of Statistics Netherlands

- Sources
  These are the providers of the data that Statistics Netherlands uses to make its products
- Financers
  These provide Statistics Netherlands with funds

The parties are described in the following sections.

2.3 Clients

Statistics Netherlands is allocated its tasks by

- the legislators, both at national and European level
  These determine by law which products Statistics Netherlands must produce and at what times.
- CCS [*Central Commission for Statistics*]
  This commission determines the thematic public regular portfolio of Statistics Netherlands in so far as this is not determined in the law
- Ministries
  Ministries are major potential clients for project work and/or work for third parties. The Centre for Policy Statistics obtains orders from the ministries.
- Eurostat/EC
  CBS supplies compulsory statistics to Eurostat in the context of the law. In addition, Eurostat is a European contracting authority for contract statistics and/or contract research
- Research
  Statistics Netherlands collaborates with research institutions through participation in research programmes. It provides information in the context of such programmes for research purposes. The main party in this respect is the NWO [*Netherlands Organisation for Scientific Research*], with which Statistics Netherlands collaborates. Within the framework of this collaboration, Statistics Netherlands regularly provides DANS (Data Archive and Network Services)
- Other third parties
  These are all other parties that can commission Statistics Netherlands to supply statistics or services

2.4 Consumers

Statistics Netherlands provides products and services to the following parties:

- The public and the press
- EUROSTAT
- The ministries

- Research (institutions, NWO)
- Other third parties
    - Planning offices
    - NSI's (BLAISE)

2.5 Sources

Statistics Netherlands obtains the data that is needs for statistics production from sources. These sources can be subdivided into two categories:

- primary sources
  these are sources that Statistics Netherlands approaches directly itself. In this instance, Statistics Netherlands itself determines who to approach and the time and method of the approach.
- secondary sources
  these are sources in respect of which Statistics Netherlands has no control. These include all (legally valid) government registers, such as those in the context of the Social Insurance Act (Tax and Customs Administration, Employee Insurance Schemes Implementing Body (UWV), Central Organisation for Work and Income (CWI)), the Municipal Database Act (GBA), BRON etc. The deductions from customs duty and VAT files of the Tax and Customs Administration are also included under secondary sources. These sources may incorporate external statistical information from government agencies such as De Nederlansche Bank (DNB) and local authorities.

An overview of the registers can be found at http://intranet/BES/Register/Overzicht Registers.htm.

2.5.1 Electronic data collection

In the case of electronic data collection, the information is obtained from the source electronically. This can take place passively, whereby the information is supplied to Statistics Netherlands by the source, and actively, in which case Statistics Netherlands collects the information from the source itself.

The information can be supplied using various media:

- passive:
  tape, diskette, CD-ROM, DVD, file transfers, CAWI, EDI/XML/XBRL reports, contributions via E-form by clients
- active:
  file transfers, EDI/XML/XBRL reports.
-

2.5.2 Primary versus Secondary information

A source supplies *primary information*, if Statistics Netherlands is able to determine itself what precise information the source must supply. In that instance, it is the source's task to make any necessary conversions and interpretations to ensure that the information is delivered correctly. A source provides *secondary information*, if the source determines what precise information is supplied. In this instance, Statistics Netherlands must take responsibility itself for carrying out the necessary transformations in order to fulfil its own information requirements.

A primary source can therefore supply secondary information. For example, Vos Transport may choose to periodically transfer an electronic copy of its transaction journals, such as those that are stored in its administrative systems.

Form of data collection	**Source type**	**Information type**
Survey	Primary	Primary
Link with business administration	Primary	Secondary
Link to register	Secondary	Secondary
Delivery[1]	Secondary	Primary

Table 1 types of sources and types of information (non-exhaustive)

Re [1]: This is the form in which Statistics Netherlands itself determines precisely what information must be delivered, but in which the *process* of information collection is not determined (in detail) by Statistics Netherlands. This includes collaborative and outsourcing initiatives, such as the GBO [*Joint Management Organisation*].

2.6 Financers

Financers are the parties that provide Statistics Netherlands with funding. These include:

- The Ministry of Economic Affairs in the context of the Act governing the Central Bureau for Statistics
- Third parties within the context of work for third parties and contract work undertaken
    - Ministries
    - Eurostat (tendering)
    - Other NSIs (within the context of licence sales of BLAISE)
    - Other contracting authorities

Acquiring additional funds or new financers does not form an objective of Statistics Netherlands

3. Output

3.1 Types of product of Statistics Netherlands

Statistics Netherlands provides the following products/services:

1. Compulsory statistics

These are the statistics that are recorded by the Central Commission for Statistics (CCS) within the context of the Act governing the Central Bureau for Statistics. These consist of:

- the statistics that are compulsory by law or agreement (approximately 70%)
- Statistics within the context of variable topics laid down by the CCS (approximately 30%)

2. Contract statistics

- Orders obtained
- Information/data files to be supplied within the context of the Centre for Policy Statistics

3. Research participation

- anonymised micro-data files
    - on-site provision (CEREM)
    - provision elsewhere (on site@home via Centre for Policy Statistics)
    - delivery to DANS (NWO [*Netherlands Organisation for Scientific Research*] / KNAW [*Royal Netherlands Academy of Arts Sciences*])
- other research participation

4. Research publications

5. Consultancy and other services

    - work for third parties
    - data collection for third parties
    - information services (first/second-line services in relation to statistical output)
    -

6. BLAISE

A comprehensive overview of the statistics provided by Statistics Netherlands can be found in "Witte Vlek Analyse" [*White Spot Analysis*], revision 1.1, Statistics

Netherlands, Voorburg/Heerlen, PROCAP project, Architecture project group, December 2005

Assumption: Statistics Netherlands does not provide forecasts.

3.2 Product characteristics

The table below presents the most significant characteristics of the product groups of Statistics Netherlands. The “cat” column comprises a characterisation of the product group: “w" stands for products for which delivery is compulsory by law; “m” stands for products in relation to which that is not the case, but for which the delivery must be derived directly from the mission of Statistics Netherlands; “a” stands for additional products. The “delivery" column states the type of delivery: a product can be delivered in batches, that is to say in periodic deliveries, or a product can be delivered as a once-only delivery.

Cat	Product	Number	Delivery
w	Compulsory statistics: compulsory and variable topics	Programme of approx. 400 statistics	Monthly, per quarter, annually
m	Contract statistics for third parties (incl. Centre for Policy Statistics)	10-40/year	Once-only
m	Research participations/micro-data files (incl. DANS)	10-20/year	Once-only
m	Other research participations	10-20 current research	Once-only
a	Work for third parties/data collection for third parties	1-10/year	Once-only
m	Research publications	see 4.1.4, 2a)	Once-only
a	Consultancy and other services		Once-only in projects and collaborations
a	BLAISE licences	100+	Once-only, per item

The vast majority of Statistics Netherlands’ deliveries relate to the statistical programme: compulsory statistics and variable topics. Statistics Netherlands has a clear obligation to provide all statistics that are compulsory by law. The most serious obligation in relation to this programme is the timely and correct delivery of statistics to the Price indexes and National Accounts, by virtue of their visibility and immediate considerable importance to society.

When implementing the generic system of processes and supporting IT throughout Statistics Netherlands, the quality and timely delivery of those statistics that are legally compulsory must not be compromised in any way.

During the *term* of a batch delivery, the supply of information must be guaranteed and no interruptions in the trend may occur. This imposes requirements upon the extent to which and the term within which Statistics Netherlands is proofed against amendments to registers and to the formats and standards regarding the way in which source information is collected electronically.

The generic system of processes and supporting IT implemented throughout Statistics Netherlands must guarantee continuity in batch statistics. Register and source amendments must be able to be incorporated in good time.

3.3 Product quality

(See mission 2:1) Statistics Netherlands provides undisputed, coherent, actual statistical information that is relevant for the purposes of practice, policy and science.

If the information to be supplied must be both *undisputed* and *consistent*, then no demonstrable inconsistencies may occur in that consistent information. This is the "one-figure principle": a specific item of data (specific in terms of unit, dimension, definition, scale, time and period) must be the same in all deliveries and manifestations of Statistics Netherlands.

Furthermore, Statistics Netherlands creates added value by linking pieces of statistical information with each other and presenting them in a format, in which the relationships become apparent (for example, in topics).

The generic system of processes and supporting IT implemented throughout Statistics Netherlands must be oriented towards producing coherent information and the "one-figure principle".

Consistency in the information to be produced means that there is an agreement within Statistics Netherlands with regard to the definition, structure, meaning, quality and mutual relationships of the statistical data that are processed. This must be guaranteed and shared across the whole of Statistics Netherlands and equipped with tools.

The generic system of processes and supporting IT implemented throughout Statistics Netherlands must give rise to situation in which:

- the definition, structure, meaning, quality and consistency of statistical information are well-known ("no products without metadata")
- standardised units and classifications are universally accessible and can be updated

The required *relevance* of the information determines *which* information must be supplied, but in addition, also determines the requirements in relation to the *quality aspects*, particularly the actuality and reliability of the information. These quality aspects partly determine the production costs and the delivery time. In that respect, a certain pressure exists between the reliability, actuality and costs: reliability costs time and money, speed is at the expense of money and reliability, and low-cost productions take a long time or are less reliable.

The costs, actuality and reliability of the information determine the relevance of that information for the consumer. The information must be affordable, delivered on time and sufficiently reliable. In that respect however, the information does not need to be any more up-to-date or reliable than is necessary, because the production must in all cases be no more expensive than is necessary.

The generic system of processes and supporting IT implemented throughout Statistics Netherlands must be oriented towards matching, producing and supplying information at a predetermined cost, of a predetermined quality and a predetermined actuality (see also 4.1.4 and 4.1.5).

4. Reasons for change

4.1 External performance indicators and targets

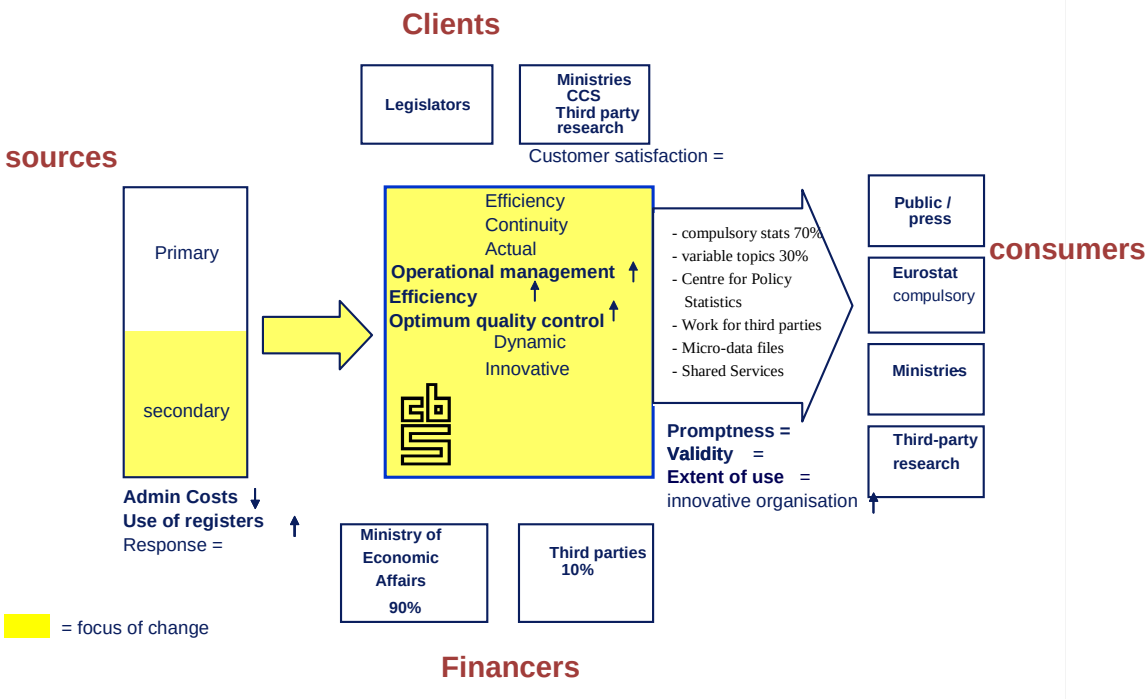


Figure 3 Overview of performance indicators and targets

Performance indicators have been determined for Statistics Netherlands, which to a large extent determine the objectives that need to be attained. These are presented in the following tables. The indicators are grouped according to the parties from the context of Statistics Netherlands to which they relate. These are the sources, the clients, the financers and the consumers. In addition, there are indicators for Statistics Netherlands itself.

In the case of each indicator, the achievement for 2004 has been included, and the target of Statistics Netherlands in terms of maintaining (=), increasing (↑) or strongly increasing (↑↑) the performance level. In that respect, in instances where the organisation has clearly over-performed, the target has been set as “maintain” (=).

In instances where Statistics Netherlands is striving to improve its performance, it has been stated whether the achievement of this improvement falls within the tasks of architecture.

4.1.1 Sources

Performance	**indicator**	**target value**	**actual 2004**	**target**
Reduction of administrative burden	(1a) Total costs of business community	15% ↓ in 2007 in comparison to 2002	11% ↓ in 2003 in comparison to 2003	↑
A sufficient response	(1b) Response to business surveys	65 %	69.4 %	=
A sufficient response	(1c) Response to household surveys	58%	60.1%	=

The target of Statistics Netherlands in relation to the reduction of the administrative burden is moderate (average 3% per year, 11% of which was already realised in 2003).

No drastic changes are necessary to achieve the proposed reduction of the total costs for the business community in itself. This remains the same in the case of our unaltered objective after 2007. NB: see 4.1.5, 1d)

4.1.2 Clients

Performance	**Indicator**	**target value**	**actual 2004**	**target**
A high degree of customer satisfaction	(3d) User survey	Positive judgment from the CCS by order of CvA [Advisory Committee]	positive judgement from CCS	=

4.1.3 Financers

Performance	**Indicator**	**target value**	**actual 2004**	**target**
Efficiency	(4b) Efficiency	positive operating result	€ 0.7 million; following reorganisation facility minus € 8.9 million	↑↑[1]
Operational management	(4a) Financial management in order	Approved auditor's declaration for annual accounts	-	↑[2]

Re [1]: The efficiency objective has been formulated as a result of the external funding. In the coming years, the funding will readjusted in accordance with an establishment reduction of 20%.

By virtue of this, the efficiency objective is a highly important reason for change. This change is urgent and will commence as from 2007.

Re [2]: The task of the architecture project group is limited to the process of compiling statistics. The objective in relation to operational management does not therefore fall under the scope of architecture.

4.1.4 Consumers

Performance	**Indicator**	**target value**	**actual 2004**	**target**
Delivery of statistics on time	(1e) Percentage of deliveries to Eurostat made on time	1%/year ↑	10% ↑ to 90%	=
Delivery of statistics on time	(1f) Percentage of press releases made on time	1%/year ↑	16% ↑ to 91%	=
Delivery of statistics on time	(1g) Percentage of publications in StatLine on time	100%	86%	↑[1]
Validity	(1h) Difference between provisional and final figures	EC: <20% with difference > +/- 0.5%	25%	↑[2]
Validity	(1h) Difference between provisional and final figures	CPI <5% with difference > +/- 0.2%	0%	=
An innovative organisation	(2a) Number of publications in leading scientific journals	1%/year ↑	2004 reference year	↑[3]
Extent of use of end products	(3a) Coverage percentage of press releases	1%/year ↑	9% ↓ to 71%	↑[4]
Extent of use of end products	(3b) Use StatLine	20%/year ↑ in comparison to 2 million hits in 2003	-	↑[4]
Extent of use of end products	(3c) Number of times that Statistics Netherlands is cited in Parliamentary documents	1%/year ↑ in comparison to 2004	2004 serves as a reference year	↑[4]

Re [1], [2]: in relation to the timely delivery and validity of statistics:

In order to guarantee that statistics are delivered on time and that they are of the correct quality, insight is continuously required into the status of the statistics

production.

The generic system of processes and supporting IT across Statistics Netherlands must

- achieve effective chain management of the statistical process, which will provide greater insight into processes and opportunities for planning, and which will enable processes to be reproduced and controlled
- bring into operation an effective and suitable quality control and assurance policy, based upon the registration of audit and quality information.

Re [3]: in relation to the objective for Statistics Netherlands as an innovative organisation:

The generic system of processes and supporting IT across Statistics Netherlands must provide the statistical work-set to the whole of Statistics Netherlands and in a transparent manner for the purpose of statistics development and research.

Re [4]: The extent to which products are used by third parties is not realised by means of a generic system of processes and supporting IT throughout Statistics Netherlands.

4.1.5 Statistics Netherlands internal

Performance	**Indicator**	**target value**	**actual 2004**	**target**
Increasing use of registers[1]	(1d) Growth in the number of processes involving the use of registers	↑ 5%/year in comparison to 2004	2004 reference year, 43%	↑↑
Optimum quality assurance	(4b) Percentage of guaranteed sub-processes	100% at the end of 2005	2004: 72% compliant to Government Departments Data Protection Regulations Decree (VIR)	↑
Optimum quality assurance[2]	(4c) Number of audits carried out and followed up	6 audits carried out and followed up on properties/year	-	↑

Re [1]: This is an ambitious internal objective, which cannot be derived directly from the external objective to reduce the burden.

Assumption: this is an elaboration of the legal obligation imposed upon Statistics Netherlands to demonstrate that information searched for cannot be obtained from registers.

Re [2]: see also 4.1.4, 1e) and 1f) in relation to quality assurance:

4.2 Responding to developments in the government

The (re)organisation of the generic processes across Statistics Netherlands and the bringing into operation of the organisation's supporting IT will be determined to a considerable extent by the initiatives within the context of electronic government. This matter will be discussed in greater depth in chapter 5.

4.3 Efficiency

The target in relation to efficiency (performance indicator 4d) is a highly important reason for change. This is discussed in greater depth in chapter 5.5.

4.4 Input and output

As far as *output* is concerned, Statistics Netherlands wishes to continue responding to the client requirements with regard to the non-compulsory part of the supply spectrum. Its core values are dynamic, innovative and actual.. The strategy is oriented towards preserving the current level of client satisfaction. The strategy also includes a growth objective for the number of publications by Statistics Netherlands in scientific journals. No radical changes are necessary for this to take place.

As far as *input* is concerned, there has been a shift towards secondary data collection. The continuity of supply and thereby also the reliability of Statistics Netherlands must continue to be guaranteed in that regard. The external target of Statistics Netherlands (3% per year reduction in the number of enquiries made in 2007) is less ambitious than the internally-oriented target to focus 5% of the processes on the use of registers each year.

The generic system of processes and supporting IT implemented throughout Statistics Netherlands must support the objective of focussing 5% of the processes each year on the use of registers.

Assumption: The generic system of processes and supporting IT implemented throughout Statistics Netherlands must support the production of new statistical products based upon the available statistical data.

4.5 Responding to the information requirements of clients.

CCS

Statistics Netherlands strives to maintain and reinforce its position as the national bureau for statistics. Statistics Netherlands wishes to supply relevant information on a wide range of topics that are of importance to society. In that respect, the organisation must match the speed of social developments. In order to support

Statistics Netherlands in so far as possible with regard to determining the variable section of the work programme, adjustments to the work programme will need to be implemented sufficiently quickly and in a cost-effective manner. The target of Statistics Netherlands is to maintain the current level of performance.

No radical changes are necessary for this to take place.

Ministries

Ministries are increasingly often compiling policy information themselves, including statistical information for policy monitoring. As a result of this, Statistics Netherlands is playing less of a central role in this information provision. The work programme of Statistics Netherlands will have to fulfil the structural information requirements of the ministries. The participation of Statistics Netherlands in the provision of shared services must also be considered in that regard. Performance indicators have not been established for this.

Assumption: The target of Statistics Netherlands is to maintain its current level of performance in relation to the services it provides to ministries.

The generic system of processes and supporting IT implemented throughout Statistics Netherlands cannot exclude the possibility of participation in shared services.

4.6 Maintenance of position

Knowledge institution

Statistics Netherlands aspires to achieve a position as a leading knowledge institution in the field of providing statistical information, both on a national and international level. Its role as a knowledge centre is achieved through collaboration with the Netherlands Organisation for Scientific Research (NWO), universities and other research and knowledge institutions such as planning offices and De Nederlandsche Bank.

4.7 Compulsory shift to secondary delivery

Statutory obligation

Statistics Netherlands has been placed under the obligation to use secondary sources first, before moving on to primary sources. This is felt most severely in the division of Business Statistics [*Bedrijfseconomische Statistieken*, BES], which must demonstrate that it was unable to obtain the information requested in any way other than by enquiry.

Transformation from primary to secondary sources of data wherever possible: the

generic system of processes and supporting IT implemented throughout Statistics Netherlands must ensure a controlled structural transfer of (large quantities) of data from registers, and the continuous, prompt and correct processing of those data into statistical products.

Continuity

Adjustments will frequently need to be made to registers, merely because there are so many of them. Statistics Netherlands exercises barely any influence over these. In order to guarantee the continuity of Statistics Netherlands, the processes and systems for acquiring register information and incorporating that information into the databanks of Statistics Netherlands are flexible. (See also the last paragraph of section 3.2).

5. The Electronic Government

5.1 Netherlands Government Reference Architecture

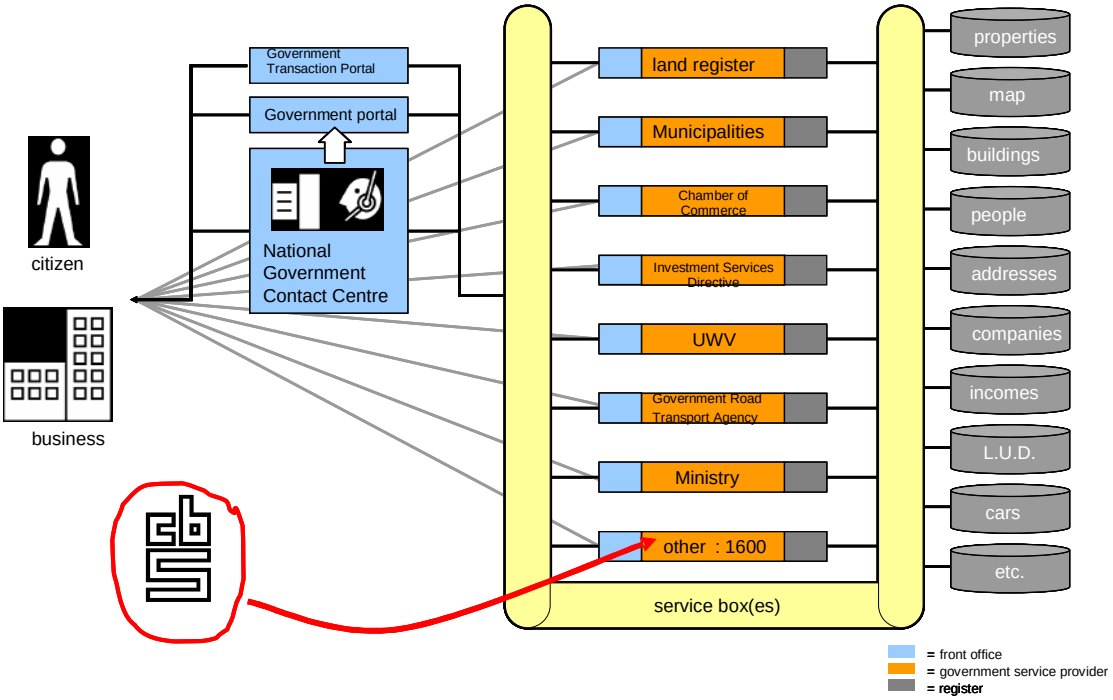


Figure 4 Position of Statistics Netherlands in the Electronic Government (source: ICTU/Netherlands Government Reference Architecture)

UWV = Employee Insurance Schemes Implementing Body

L.U.D = Wages, Benefit recipients and Employment contracts

In principle, the Netherlands Government Reference Architecture [*Nederlandse Overheid Referentie Architectuur*, NORA] forms a leading guideline for the development of the Netherlands Electronic Government [*elektronische overheid*, ELO]. In this architecture, Statistics Netherlands constitutes one party in a whole of approximately 1600 participating government service providers. NORA allows Statistics Netherlands to operate its own electronic front office for citizens and companies, but states against this that the Government Transaction Portal [*Overheid Transactie Portaal*, OTP] and the government portal form the most important channels for citizens and companies for the purpose of electronic and online communication with the government. These channels are supported in that role by the national government contact centre.

The communication between these central portals and the service providers is effected by means of a national service box.

The registers are also made available to all government service providers by means of a national service box.

Anything that can be done by the shared government front office, Statistics Netherlands does not need to do. All shared facilities that are being implemented throughout the entire government can be used by Statistics Netherlands, so that the organisation no longer has to maintain such systems of its own.

For efficiency reasons, it is important that as many tasks and facilities as possible are transferred from Statistics Netherlands' own front office to the shared government front office.

5.2 **The Joint Management Organisation** [*Gemeenschappelijke Beheer Organisatie,* **GBO]**

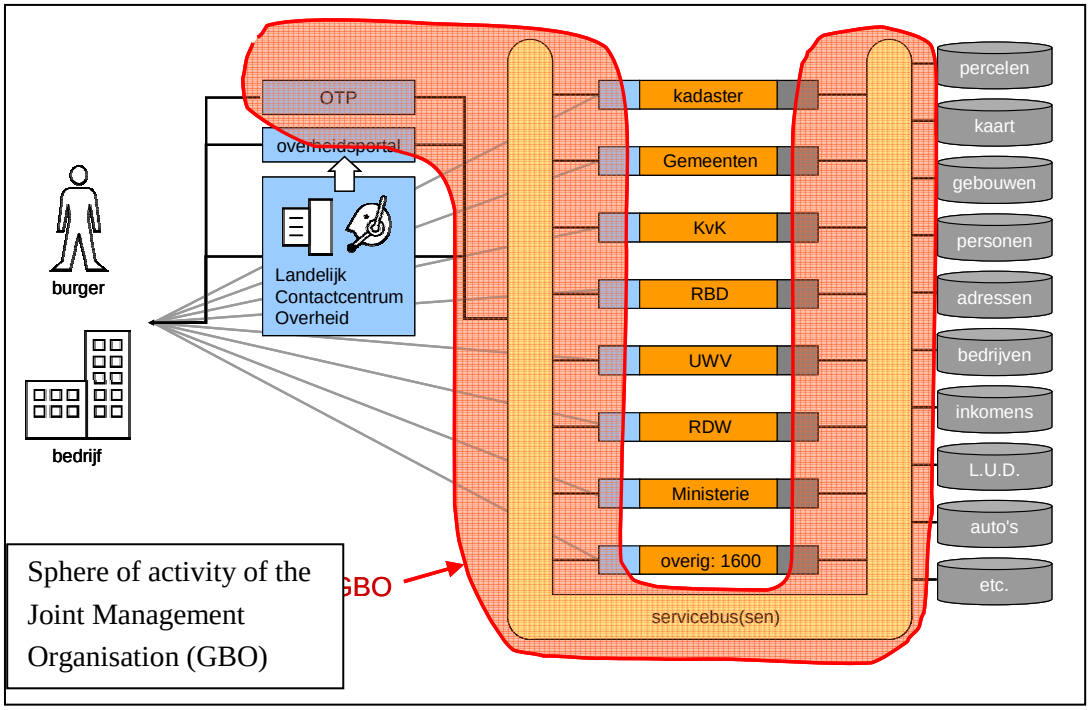


Figure 5 Role of the GBO in ELO

The Joint Management Organisation [*Gemeenschappelijke Beheer Organisatie*, GBO] is expected to play an important role in the Electronic government. ICTAL (ICT and reduction in Administrative burden) [*ICT en Administratieve lastenvermindering*] has transferred the implementation and management of the Government Transaction Portal to the GBO. In addition, the GBO will become

responsible for the National Service Box(es) that connect the government service providers, the registers and portal with one another (see section 5.1), and for linking those service boxes with regional and international networks.

GBO constitutes an important party in the implementation of DigiD and PKI Government.

The GBO will therefore become a key player in the Electronic Government.

5.3 The ICTU and ICTAL

ICTU

The ICTU foundation is responsible for the most important projects within the context of the electronic government. The most important projects of the ICTU for Statistics Netherlands are:

- electronic architecture of government
- e-Forms
  Relevant for CAWI (see 2.5)
- Personal Internet Page (PIP)
  Relevant for the government portal and also a relevant channel for CAWI (see 2.5)
- Streamlining Basic Data
  develops a system that must used by all government organisations for their basic administration.
- Starter package GBA/Use of GBA (spG)
  NB: the project to link with the GBA is already underway within Statistics Netherlands
- GBO.overheid
  see GBO
- Communications traffic system design
  develops the method by which data is exchanged via the service boxes

ICTAL

The ICTAL (ICT and reduction in Administrative burden) [*ICT en Administratieve lastenvermindering*] programme will be discontinued after 2006. The activities and results will be guaranteed in the course of 2006, in so far as these are still relevant after 2006.

5.4 Dutch Taxonomy Project

The Dutch Taxonomy Project [*Nederlands Taxonomie Project*, NTP] is a joint project between the Ministry of Justice and the Ministry of Finance to develop the

XBRL standard for the delivery of data by electronic means to the Chamber of Commerce, Tax Office and Statistics Netherlands. Statistics Netherlands is participating in this project. The Dutch Taxonomy Project is important because it lays down which data companies will supply directly to Statistics Netherlands via electronic means. This determines to a large extent the potential value for Statistics Netherlands of primary electronic data collection via the Government Transaction Portal.

The system of primary electronic data collection must support the swift and controlled adoption of XBRL and the use of the Government Transaction Portal as a delivery channel. Statistics Netherlands must be able to actively make enquiries using this system.

5.5 Consequences for Statistics Netherlands

The development of the Electronic Government has major consequences for the way in which Statistics Netherlands communicates with its relations (particularly its sources) and for the resources that Statistics Netherlands maintains for that purpose. The Joint Management Organisation (GBO), ICTU and ICTAL organise government-wide facilities for this purpose, which could potentially be very useful for Statistics Netherlands.

For instance, the *GBO* is developing service boxes for communication between governmental bodies, citizens, businesses and registers. Statistics Netherlands will have to remain in close contact with the GBO throughout this development for the following reasons:

- Statistics Netherlands no longer needs to realise all of the things that the GBO is realising in respect of access to registers. In those areas for which Statistics Netherlands has already devised its own solutions, it will be necessary in each case to examine the extent to which the necessary maintenance capacity can be reduce by adopting the standard solutions put forward by the GBO.
- The same applies in respect of all of the solutions put forward by the GBO in respect of secure communication between governmental bodies.
- On the other hand, Statistics Netherlands no longer has to deal with, nor maintain, any of solutions put in place by the GBO in order to secure electronic communication between citizens and business enterprises and the government.

The *ICTU* programme *Streamlining Basic Data* (SB) is important for the information requirements of Statistics Netherlands, because:

- SB exerts a major influence over the information structure and the meaning of the data in the basic registrations, which is a determining factor for the value of those data for Statistics Netherlands, and the further processing of those data by Statistics Netherlands.

- SB streamlines access to and the exchange of data in basic registrations, as a result of which standard data-exchange becomes possible. As a result of this, it is possible procure the facilities for data-exchange from outside of Statistics Netherlands, so that we do not need to construct of maintain such facilities.

The *ICTU* project *e-Forms* provides a shared facility for the development and management of intelligent electronic forms for use by citizens and businesses when communicating with the government. Statistics Netherlands maintains extensive facilities of its own for this purpose. Much can be gained by using the results of e-Forms for this purpose and for CAWI in any case.

The *ICTU* project *Personal Internet Page (PIP)* plays an important role, in conjunction with the government portal, in enabling parties to procure the facilities for CAWI externally, so that Statistics Netherlands no longer needs to construct, manage and maintain such facilities.

When developing the generic system of processes and supporting IT throughout Statistics Netherlands, the developments in relation to the GBO and the ICTU/ICTAL projects must be taken advantage of wherever possible.

5.6 Collaboration between Statistics Netherlands and local authorities

Statistics Netherlands is going to collaborate with local authorities with regard to supplying information to the end-users. Local authorities will be given the opportunity to place relevant statistical information on the internet channel for output by Statistics Netherlands.

6. Efficiency

6.1 Objective

In the coming years, the Ministry of Economic Affairs will readjust the funding of Statistics Netherlands according to an establishment reduction of 20%. Statistics Netherlands will not seek out other financers to compensate for this, therefore the operational costs will have to reduced accordingly. The reduction will have to be realised almost entirely by means of establishment reduction.

This is the principal task of the generic system of processes and supporting IT being implemented throughout Statistics Netherlands. The Ministry of Economic Affairs is providing a once-only innovation budget to assist in the realisation of a new system of processes and supporting IT.

6.2 Consequences

The statistical programme of Statistics Netherlands (after reprioritisation) comprises approximately 400 periodical statistics and topics. These will soon have to be produced by a considerably diminished organisation. The number of specialists available for each set of statistics is therefore too small to be able to guarantee continuous production.

The generic system of processes and supporting IT implemented throughout Statistics Netherlands must be oriented towards minimising the statistics-specific expertise and capacity required in the production of statistics. This implies a separation of statistics production and statistics presentation and the establishment of linking and feedback mechanisms between these tasks.

The generic system of processes and supporting IT implemented throughout Statistics Netherlands must establish effective chain management of the statistical process, which will provide greater insight into processes and opportunities for planning and which will enable processes to be reproduced and controlled, in order to prevent the duplication of processes and resources. (See also 4.1.4)

(Primary) data collection is labour intensive. The reduction in the size of the establishment is expected to put a great deal of pressure on the processes involved.

The generic system of processes and supporting IT implemented throughout Statistics Netherlands must be oriented towards minimising the capacity of Statistics Netherlands that is required for data collection.

The statistical processes are supported by large volumes of statistics-specific customised software. The capacity required to maintain this software is decreasing and will not be supplemented. There is insufficient capacity in order to fulfil the maintenance obligation.

The generic system of processes and supporting IT implemented throughout Statistics Netherlands must minimise to the fullest extent possible the required construction and maintenance capacity of Statistics Netherlands' IT personnel.

- Processes and IT must be disconnected in so far as possible.
- IT must be as generic as possible.
- Maximum reduction in IT expertise required within Statistics Netherlands for construction and maintenance purposes.
- Maximum reduction in the volume of software to be maintained.

7. Tasks

This chapter is a compilation of all of the tasks set in the context analysis. The tasks are grouped according to the mission of Statistics Netherlands, input from Statistics Netherlands, output, efficiency, quality and statistical chain, and electronic government and efficiency.

The term "the solution" is continuously referred to in the following text. This term is synonymous with "the implementation of a generic system of processes and supporting IT throughout Statistics Netherlands".

7.1 Mission

CX1	Acquiring additional funds or new financers does not form an objective of Statistics Netherlands.

7.2 Input

CX2	No drastic changes are necessary to achieve the proposed reduction of the total costs for the business community in itself. This remains the same in the case of our unaltered objective after 2007. (NB: see 4.1.5, 1d)
CX3	The solution must guarantee cohesion in batch statistics. Register and source amendments must be able to be incorporated in good time.
CX4	The solution must ensure a controlled structural transfer of (large quantities) of data from registers, and the continuous, timely and correct processing of those data into statistical products.

7.3 Output

CX5	*Assumption: Statistics Netherlands does not provide forecasts.*
CX6	When establishing the solution, the quality and timely delivery of those statistics that are legally compulsory must not be compromised in any way.
CX7	The solution must be oriented towards producing coherent information and the "one-figure principle".
CX8	The solution must be oriented towards matching, producing and supplying information at a predetermined cost, of a predetermined quality and a predetermined actuality (see also 4.1.4 and 4.1.5).
CX9	*Assumption: The generic system of processes and supporting IT implemented throughout Statistics Netherlands must support the production of new statistical*

	products based upon the available statistical data.

7.4 Efficiency

CX10	The efficiency objective is a highly important reason for change. This change is urgent and will commence as from 2007.
CX11	The solution must be oriented towards minimising the statistics-specific expertise and capacity required in the production of statistics. This implies a separation of statistics production and statistics presentation and the establishment of linking and feedback mechanisms between these tasks.
CX12	The solution must be oriented towards minimising the capacity of Statistics Netherlands that is required for data collection.
CX13	There must be no duplication of processes and facilities. Standardisation, consolidation and centralisation of processes and resources, and sharing and reusing statistical data to the fullest possible extent.
CX14	The solution must minimise in so far as possible the effort required from the Statistics Netherlands IT personnel with regard to construction and maintenance. - Processes and IT must be disconnected in so far as possible. - IT must be as generic as possible. - Minimisation of the IT expertise required within Statistics Netherlands for construction and maintenance. - Minimisation of the volume of software to be maintained by Statistics Netherlands.

7.5 Quality and chain management

CX15	The solution must establish effective chain management of the statistical process, which will provide greater insight into processes and opportunities for planning and which will enable processes to be reproduced and controlled, in order to prevent the duplication of processes and resources.
CX16	The solution must bring into operation an effective and suitable quality control and assurance policy, based upon the registration of audit and quality information.
CX17	The solution must give rise to situation in which: - the definition, structure, meaning, quality and consistency of statistical information are well-known (“no products without metadata”) - standardised units and classifications are universally accessible and can be updated (thereby enabling consistency) - the statistical work-set is transparent and available throughout Statistics Netherlands - maximum reuse of statistical data is possible

7.6 The electronic government

CX18	The solution must not exclude possible participation in shared services.
CX19	For efficiency reasons, it is important that as many tasks and facilities as possible are transferred from Statistics Netherlands' own front office to the shared government front office.
CX20	When developing the solution, the developments in relation to the Joint Management Organisation (GBO) and the ICTU/ICTAL projects must be taken advantage of wherever possible.
CX21	The system of primary electronic data collection must support the swift and controlled adoption of XBRL and the use of the Government Transaction Portal (OTP) as a delivery channel. Statistics Netherlands must be able to actively make enquiries using this system.

APPENDIX: Strategic starting points

1. Strategic starting points

Based upon the results of the context analysis and conceptual design of the PROCAP architecture project group, ten strategic starting points have been formulated for the implementation of a generic system of processes and supporting IT throughout Statistics Netherlands. These are:

1. Introduction of chain management, which will provide greater insight into processes and opportunities for planning, and which will enable processes to be reproduced and controlled (prevent duplication of processes/resources)
2. Separation between statistics production and presentation (including linking and feedback mechanisms); minimise the statistics-specific expertise required in the production of statistics
3. All statistics products must be categorised according to descriptive and guiding metadata
4. Standardised units and classifications that are universally accessible
5. Controlled use of statistical data, including with regard to version management via a information office function and a distinction between raw data, microdata, aggregated data and publishable data
6. Generic system throughout Statistics Netherlands that is oriented towards related information (topics) and the “one-figure principle”.
7. Transformation from primary to secondary sources of data wherever possible
8. Use of government-wide facilities, unless... (DigiD, GB), government portal)
9. Separation of internal processing and external developments; connection via portal systems
10. Statistics Netherlands takes a proactive role in the government-wide development, particularly from the point of view of the “bureau of standards”