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## Creation of clusters to supplement legislature indicators

Methodology report

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# Creation of clusters to supplement legislature indicators

Methodology report

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## Summary

Indicators are variables that describe the state or dynamics of a phenomenon, system or part of a system. They are selected to represent topics as a whole. A limited number of indicators can therefore be used to monitor complex objectives. However, indicators also have limitations, as they usually represent broad topics but in reality cover only a portion thereof. As a result, indicators generally can only measure a specific aspect of a topic or objective.

One solution to this problem is to create clusters. This approach supplements indicators with additional statistical information that is selected using a set of criteria determined in advance. This enables a more in-depth analysis of the indicators and strengthens their explanatory power.

The 2011–2015 Legislature Plan includes 44 legislature indicators that monitor the objectives of the Federal Council. As previously stated, these legislature indicators are limited by the fact that they cover only a very specific aspect of their respective objectives. At the same time, the objectives can be quite broad. To enhance their explanatory power, the legislature indicators were supplemented with clusters. For each cluster component, it was determined in advance which additional aspect of the legislature objective would be measured. Moreover, clusters increase the relevance and explanatory power of the situation analysis included in the Annual Reports of the Federal Council and in the Dispatch on the Legislature Plan, matching the needs of the Federal Chancellery (FCh).

Clusters were selected in a participatory process that included an advisory group of the Federal Administration and the data-producing specialised sections of the Federal Statistical Office (FSO), in compliance with the principles of official statistics. In total, clusters were created for 41 of the 44 legislature indicators of the 2011–2015 Legislature Plan. These clusters are available to both the FSO and the FCh. In autumn 2014, the FSO added cluster components to the commentaries of select legislature indicators for the first time, and published these

on its website. The FCh drew on these commentaries for the situation analysis in the 2014 Annual Report of the Federal Council. The commentaries of the remaining legislature indicators will be expanded on an ongoing basis. Clusters are also available to the FCh for the drafting of the situation analysis in the Dispatch on the 2015–2019 Legislature Plan.

### 1 Introduction

#### 1.1 Starting point and issues at stake

Indicators have been defined in many ways, whereby two definitions have proven especially helpful for this project. Morosini et al. (2002) define indicators as parameters or values derived from parameters that describe the state or dynamics of a phenomenon, system or part of a system. According to the Federal Statistics Committee (2002), a limited number of indicators can provide a quick overview of the developments being monitored. It thus becomes possible to monitor complex objectives with just a few selected indicators. Consequently, these indicators represent topics as a whole and are treated as communication tools.

Indicators are limited in their representative role. First, they represent topics that are broad in scope while only being able to cover them in part. Selecting an indicator and linking it to a topic or objective only enables the observation and communication of a specific aspect of

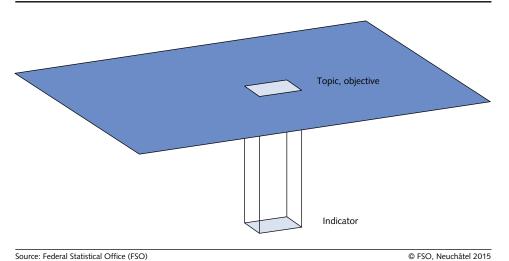
the topic or objective (see Figure 1). Second, indicators are used in their roles as representatives in a simplified way, outside of their original context, which "decontextualises" them (Feller-Länzlinger et al. 2010, page 93).

Such limitations usually affect all indicators, including the 44 indicators of the 2011–2015 Legislature Plan. These indicators are taken from a monitoring system, known as the indicator system for the Federal Council and Parliament, which contains approximately 150 indicators. The system was established in 2010–2011 for the purpose of providing indicators every four years to monitor the objectives of the Federal Council, thereby turning them into legislature indicators<sup>1</sup>.

The Federal Council's 2011–2015 Legislature Plan consists of seven guiding principles and 28 strategic objectives. As a general rule, one or more measurable (quantifiable) objectives were defined for each of the strategic objectives. The 44 legislature indicators are all linked to one quantifiable objective. They cover 24 of



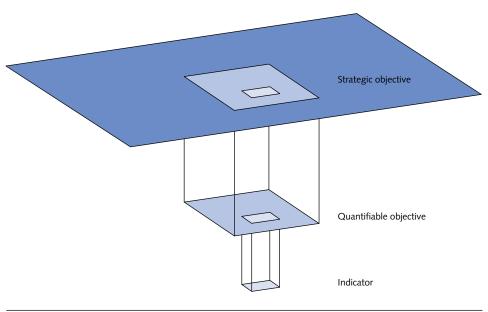




<sup>&</sup>lt;sup>1</sup> The indicator system is described in greater detail in FSO (2013), Revision of the indicator system for the Federal Council and Parliament.

#### Limitations of legislature indicators

Fig. 2



Source: Federal Statistical Office (FSO)

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the 28 strategic objectives<sup>2</sup>. The legislature indicators have been published on the FSO's website in compliance with the principles of official statistics and according to specific writing guidelines. Each published indicator includes a graph, a data table and texts to describe how it relates to the associated objective (significance), observed developments (commentary) and additional information (metadata)<sup>3</sup>.

The limitations described above apply to the legislature indicators in particular because the strategic objectives of the Legislature Plan cover topics the scope of which vary in size. Moreover, not only do the quantifiable objectives usually cover only a part of these strategic objectives (see Figure 2), the legislature indicators also tend to cover only a part of their associated quantifiable objectives. The decision to employ a limited number of indicators is intended to strengthen their role as representatives as well as highlighting only a specific aspect of a strategic objective. Several legislature indicators would benefit from additional statistical information to increase their scope and place them more appropriately in their context.

Legislature indicators were first produced in order to be published on the FSO's website<sup>4</sup>. Commentaries describing the development of the indicators were written in a concise way in order to improve readability and meet the requirements of digital media. The FCh has used these indicator graphs and the associated commentaries without modification since 2012 in the situation analysis of the Annual Reports of the Federal Council<sup>5</sup>.

This usage, which reinforces the role of official statistics as a supplier of necessary information for the elaboration and monitoring of political processes, generated a need to expand the commentaries and to go into greater detail in order to improve their pertinence as well as to reinforce the link between indicators and their strategic objectives. Certain commentaries had been supplemented previously on an ad hoc basis, for example for the indicator "Fixed (wired) broadband subscriptions" (see Figure 3). The commentary first describes the indicator's development before touching on fibre optic connections in the italicised second half of the text. The information on fibre optic connections expands the

The need to increase the explanatory power of legislature indicators is due in large part to their use by the FCh when drafting the situation analysis both of the Annual Report and of the Dispatch on the Legislature Plan.

No quantifiable objective was formulated for four of the strategic objectives, and therefore no indicators were assigned.

<sup>&</sup>lt;sup>3</sup> See also FSO (2013), pages 26-28.

Production here means calculating the indicator, creating the graph and preparing the texts on significance, commentary and metadata.

 $<sup>^5</sup>$  www.bk.admin.ch o Themen o Politische Planung o Geschäftsbericht

commentary with details on the latest technology, enabling a more in-depth statement on the scope of the legislature indicator.

These detailed commentaries could potentially give an added value to the FCh when drafting the situation analysis for the Annual Reports and Dispatch on the Legislature Plan. When the decision was made that such analyses should be conducted systematically, the FSO launched a project in 2014 to complement the legislature indicators with additional statistical information. This project was confronted with a number of challenges. First, as the indicator system is concerned with all of the Confederation's tasks, it was necessary to include specialists for each topic. Second, the process for choosing additional statistical information had to be compatible with the construction of the indicator system. Additional statistical information was thus chosen in a participatory and transparent process. Third, the additional statistical information had to be useful to both the FCh for drafting the situation analyses and the FSO for expanding the commentary on legislature indicators. Finally, the process and selection of supplementary statistical information had to be reproducible so that it could be used for other Legislature Plans.

#### 1.2 Objectives and principles

In light of the lessons learned when drafting the situation analyses for the Dispatch on the 2011–2015 Legislature Plan and the 2012 and 2013 Annual Reports of the Federal Council, and taking into account the principles guiding the construction of the indicator system for the Federal Council and Parliament, it became apparent that the cluster creation must be pursued in a systematic manner to achieve the following goals:

• broaden the scope of the indicators, as well as improve the relevance and topicality of situation analyses;

- ensure a better chronological consistency as well as the reproducibility of the situation analyses in the Annual Reports of the Federal Council and the Dispatch on the Legislature Plan, drafted by the FCh;
- ensure transparency and documentation of the process as well as compliance with the principles of official statistics;
- save time and increase efficiency by performing additional analyses on the basis of indicators both at the FSO and at the FCh or for other federal offices who use such additional information.

The principles governing the selection of such additional information to the legislature indicators and the delegation of tasks are the same as those used to construct the indicator system for the Federal Council and Parliament (see FSO 2013, pages 7–8):

- work was performed in a participatory manner and included the FCh, an advisory group of the Federal Administration and the appropriate data-producing specialised sections of the FSO (see Chapter 1.3);
- the rules and responsibilities were similar to the ones used to construct the indicator system (see Chapter 3.2 as well as FSO 2013, page 20);
- work was done in compliance with the principles of official statistics.

#### Indicator commentary with supplementary information

Fig. 3

The number of wired broadband internet subscriptions has increased over the past years from 10.6 for every 100 residents at the end of 2003 to 48.9 for every 100 residents at the end of 2013. This corresponds to a total of 3,990,200 subscriptions. Switzerland thus ranks at the top of the 2013 OECD comparison, just ahead of Denmark. Switzerland is still below the OECD average when it comes to ultra-high-speed fibre optic network connections. This is explained by the high rate of broadband coverage. Japan and South Korea have the highest rate of fibre optic network connections.

Source: Federal Statistical Office (FSO) © FSO, Neuchâtel 2015

#### 1.3 Participants and inclusion of stakeholders

Stakeholder participation in the construction of an indicator system ensures transparency and increases acceptance of decisions. In contrast to single-topic monitoring, multi-topic monitoring requires specialised knowledge of various disciplines. It is therefore important to include participants from different fields in a participatory process, as they can contribute a great deal of experience and expertise when creating indicator systems or when selecting additional statistical information. However, such a participatory system requires that certain rules and decision-making responsibilities are determined and communicated transparently in advance (see Chapter 3.2).

The additional statistical information for the legislature indicators was selected in a participatory process that included an advisory group of the Federal Administration and data-producing specialised sections of the FSO. The same participants were involved as during the construction of the indicator system (FSO 2013, pages 8-9). The advisory group consisted of 25 representatives of the departments and offices of the Federal Administration, which are responsible for certain tasks as outlined in the Confederation's task catalogue (Annex 4 of the Legislature Financial Plan). The advisory group provided specialised knowledge to facilitate the selection of additional statistical information, as did the data-producing sections of the FSO. Administrative units not included as members of the advisory group but affected by a legislature objective were given the same rights as the members of the advisory group<sup>6</sup>. The FSO project group ensured the operational management and implementation of the project. The FCh was regularly informed of the project status and consulted about key results.

This concerns the Federal Office of Communications (OFCOM), the Federal Office of Personnel (FOPER), and the Federal IT Steering Unit (FITSU).

## 2 Different approaches

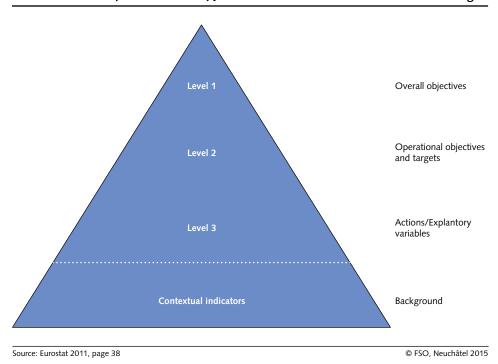
Designing an indicator system often involves making difficult choices. One can choose to keep the system small to promote communication and readability, but this may lead to a superficial analysis. The alternative is to create a larger system that is more difficult to communicate but whose broad range of indicators allows for more indepth analysis. Statistical offices and international organisations have attempted to reconcile these two options by exploring multiple approaches, including the use of a hierarchical structure, key indicators, or clusters.

#### 2.1 Hierarchical structure

Some indicator systems use a multi-level structure, sometimes represented as a pyramid, to establish a hierarchy of indicators. Indicators at the top are considered to be especially pertinent and easy to communicate, generally representing strategic or higher objectives. Indicators at other levels can be used to monitor more operational objectives, or they may refer to concrete measures. The sustainable development indicator system of the European Union is structured as a pyramid (see Figure 4)<sup>7</sup>. Its base consists of contextual indicators that are not explicitly linked to an objective, but provide basic information useful for understanding the phenomena observed through higher-level indicators.

#### Sustainable development indicator pyramid of the EU





http://epp.eurostat.ec.europa.eu/portal/page/portal/sdi/indicators/

This type of indicator system would meet some of the requirements mentioned in Chapter 1. The contextual and lower-level indicators supplement and hone the analyses of top-level indicators. They thus serve a more specific purpose than merely communicating information to the general public. However, such a hierarchical indicator system is determined directly by the structure of the system of the observable objectives. It is meant to monitor, making it more appropriate for monitoring invariable objectives, such as sustainable development principles or strategy. It certainly would not be suitable for the monitoring of the Legislature Plan as the number of guiding principles and objectives as well as the content change every four years. Furthermore, such a structure requires objectives to be in a hierarchical relationship with one another, which is not the case in the Legislature Plan.

#### 2.2 Key indicators

Key indicators, also known as flagship or headline indicators, are generally indicators that, by political or scientific consensus, are considered especially important and represent a group of indicators or statistical parameters. Usually few in number, key indicators are meant to give a simplified account of the most important tendencies and features of a phenomena while establishing links to other indicators in the same system (de Montmollin 2005, page 2).

The key indicators of the Swiss sustainable development monitoring system MONET<sup>8</sup> and the headline indicators used by the UK<sup>9</sup> are examples of key indicators taken from a more comprehensive system. Their primary purpose is to provide a simple way of communicating with a large audience; they were not designed to be supplemented by other system indicators with the goal of conducting more in-depth analysis. This approach is therefore not suited for the requirements outlined in Chapter 1.

#### 2.3 Clusters

The idea to have indicators accompanied by clusters or contextual data was raised several times during the revision of the sustainable development monitoring system MONET in 2009, and during the revision of the indicator system for the Federal Council and Parliament. It was further encouraged by the possibilities offered by the structure of the aforementioned indicator system, which, although based on the admittedly sectoral approach of the Confederation's task catalogue, provides numerous points of entry to the system and just as many analytical possibilities when combined with cross-cutting themes and a typology of indicators (FSO 2013, pages 13-17). It is thus possible to link system indicators according to a precise rationale to one or more legislature indicators thereby creating clusters that reach beyond the sectoral framework of the task catalogue and that are able to evolve in each legislature.

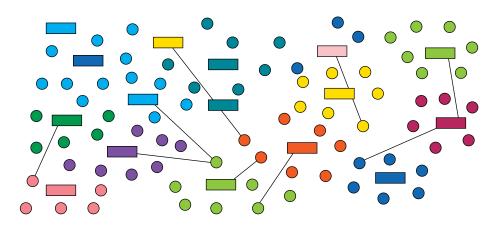
To illustrate the idea, one can imagine legislature indicators as soloists in an orchestra of system indicators (see Figure 5). The soloists (rectangles) rely on indicators or contextual data (circles) that are similar to them (similar colour) as well as on other indicators or contextual data from a different sector (different colour connected by a line).

A cluster is therefore a group of indicators and contextual data whose existence is based on a defined link between the legislature indicator and the other components. These links are determined according to a precise rationale, taking into account the system's structure, the indicator typology and other criteria (see Chapter 3.1). The illustration in Figure 6 shows how the cluster increases the scope of the indicator, represented by the disks, which then covers the associated objective more extensively. When monitoring the Legislature Plan, better coverage of a quantifiable objective by a legislature indicator leads to better coverage of the strategic objective.

<sup>8</sup> www.statistics.admin.ch → Topics → Sustainable development → Indicators. See also Boesch et al. (2009).

http://www.ons.gov.uk/ons/rel/wellbeing/sustainable-developmentindicators/july-2014/sustainable-development-indicators.html

Clusters Fig. 5



Source: Federal Statistical Office (FSO)

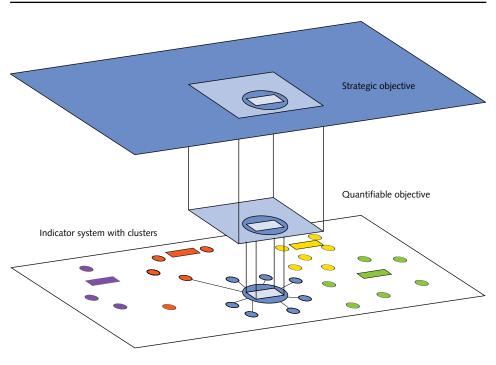
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Clusters should be considered as an information source or as a reference manual, enabling more in-depth analyses according to a precise rationale. It must remain possible to integrate further indicators or statistical information as required by current political events or emerging concerns as well as for a particular use or target audience.

In light of the explanations above and taking into account the initial goal to provide contextual data, it was decided to apply the cluster approach to this project.

#### From the cluster to the strategic objective

Fig. 6



Source: Federal Statistical Office (FSO)

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## 3 Creation of clusters

#### 3.1 Selection criteria and categories

To ensure maximum transparency when selecting additional statistical information – the so-called cluster components – certain criteria must be specified in advance. The FSO project group was able to apply the same selection criteria as were used to construct the indicator system for the Federal Council and Parliament. Accordingly, cluster components must comply with the principles of official statistics, be updated regularly and already have been published (see FSO 2013, pages 19–20 for details). In addition, it was also decided that a cluster must contain a legislature indicator and no more than three cluster components. This limit serves to ensure meaningful observations about legislature indicators while still keeping the clusters at a manageable size.

Cluster components were selected primarily from the indicator system or additional indicator dimensions<sup>10</sup>. Data external to the indicator system could also be used insofar as it met the selection criteria<sup>11</sup>. However, other information such as sporadically published studies or reports that contain no quantifiable information were not included into the clusters. Scenarios and prognoses were also excluded. The following categories were available for the selection of cluster components:

- Indicator system structure: The structure of an indicator system can provide a possible framework for the selection of cluster components. In the case of the indicator system for the Federal Council and Parliament, both cross-cutting themes and the typology are useful:
  - Cross-cutting themes: These are basic principles of society that concern various topics at once. Four cross-cutting themes were defined for the indicator system: equality, integration, national and social

- cohesion, as well as regional disparities. A cluster component can be selected, to represent another cross-cutting theme, e.g. a distribution indicator that is observed in light of different socio-demographic criteria.
- Typology: The typology establishes categories of indicators and defines the characteristics of each category, thereby providing the indicator system with an internal organisational scheme. The typology of the indicator system for the Federal Council and Parliament is based on the resource approach (capital stock model) and distinguishes between four types of capital: economic, natural, human and social capital. The categories are comprised of stocks, flows, efficiency and distribution. Cluster components can be selected to cover another category of the typology.
- International comparison: This is made possible when one indicator dimension can be compared internationally, for instance with EU or OECD member states.
- Contextual data: This is information about the general context, such as the state of the national or global economy, price levels, exchange rates, weather conditions or the average annual temperature.
- Outlook or future developments: Cluster components can provide information about new technologies or possible future developments. Scenarios and forecasts, however, are not included.
- Cross-cutting perspective: A cluster component can serve to link two tasks or principles, or two guiding principles or objectives of the Legislature Plan<sup>12</sup>.

Dimensions enable more nuanced statements regarding an indicator, for example regional differences, age and gender differences or international comparisons.

Since cluster components are not added to the indicator system, they do not have to adhere to the criteria that an indicator bears a direct relation to the frame of reference.

This type of category falls in line with the interdepartmental approach required for the implementation of the 2015–2019 Legislature Plan, as prescribed by motion 12.3185, which was adopted by Parliament and accepted by the Federal Council.

#### 3.2 Responsibilities

Clusters were created in close collaboration with the advisory group and data-producing specialised sections of the FSO. The same processes and assigned responsibilities were used as for the construction of the indicator system. Responsibilities and decision-making responsibilities were defined and communicated in advance for each step involved in selecting the clusters (see Table 1).

The FSO project group was responsible for defining technical criteria such as the number of cluster components per legislature indicator and the selection criteria. The explanatory power of a legislature indicator was analysed by the responsible administrative units (see Chapter 1.3). Cluster components were selected by consensual decision among these responsible administrative units, the specialised sections of the FSO and the FCh. The definitive creation of clusters fell under the responsibility of the FSO project group and the FCh, while the advisory group had a say in discussions.

#### 3.3 Procedure

The first step was to analyse the explanatory power of the legislature indicator (see Figure 7, step ①). Each legislature indicator is linked to a strategic and quantifiable objective of the Legislature Plan. As the strategic objectives in particular are quite vast in scope, the legislature indicator often cannot cover more than just a specific aspect thereof. Bilateral discussions with members of the

advisory group served to determine which aspects of the objective were not covered by the legislature indicator. The members of the advisory group then prioritised these missing aspects, which ought to be measured by cluster components. This step formed the basis on which cluster components were selected.

Step two ② was to find the statistical information that would measure the missing aspects identified in the first step. This was done through discussions with the advisory group and the responsible specialised sections of the FSO using the previously recommended categories (see Chapter 3.1). The search focused primarily on other indicators in the indicator system. Where no indicators were available, statistical information external to the indicator system was employed. For certain legislature indicators, however, no useful data could be identified, either because these sources did not meet the selection criteria or because no suitable data were available to measure the missing aspects of an objective. The proposed cluster components were then reviewed by the FSO project group for compliance with the selection criteria. Some of the suggested statistical information could not be used, as it had not been published.

The third step was to select the three most meaningful cluster components that were also the most suited to measuring the selected aspects (step ③). These components and the legislature indicator together represent one cluster. Cluster components were selected by consensual decision among the advisory group, the data-producing sections of the FSO, the FSO project group and the FCh.

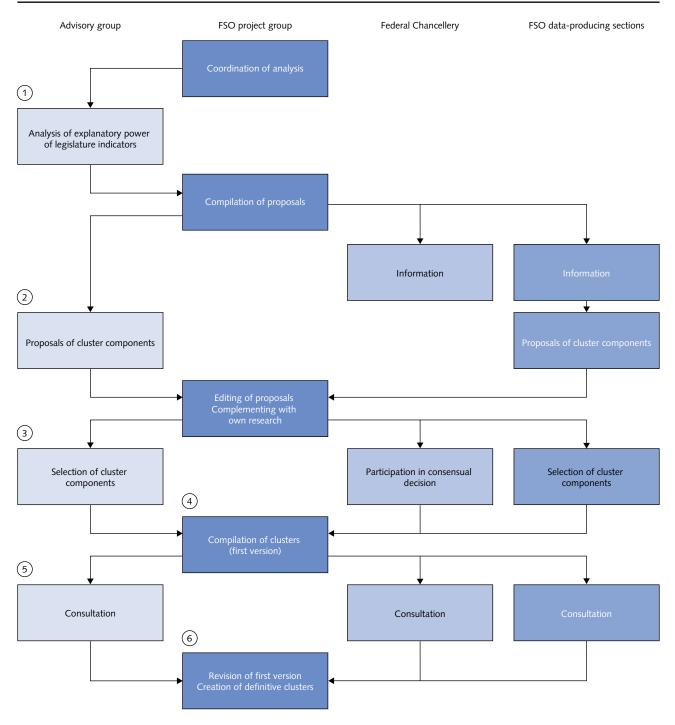
#### T1 Responsibilities in selecting and creating clusters

Tasks	FSO project group	Advisory group	Federal Chancellery	FSO data-producing sections
Definition of number of cluster components	Р	С	С	1
Definition of selection criteria and categories	Cd P	Cd P	С	1
Analysis of explanatory power of legislature indicators	Р	P*	1	1
Cluster component proposals	Р	P*	С	Р
Cluster component selection	Cd P	Cd* Pd	Cd	Cd Pd
Definitive structure of clusters	Cd P	Pd	Cd	Pd
Documentation	Р	I	1	1

- \* Administrative units in charge, including administrative units that are not a member of the advisory group
- P Perform
- Cd Consensual decision, i.e. the parties concerned participate in discussions and negotiate until consensus is reached.
- Pd Participate in discussion, i.e. affected parties are entitled to discussion, the consideration of interests and the justification of decisions. Vital interests must be taken into account as far as is reasonable and possible.
- C consultation, i.e. those concerned have the opportunity to air their opinions, but are not entitled to a justification of decisions.
- I Information

Source: Federal Statistical Office (FSO)

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Source: Federal Statistical Office (FSO) © FSO, Neuchâtel 2015

The selected cluster components were then compiled and thoroughly documented by the FSO project group (step ④). For each cluster component, it was recorded which strategic or quantifiable objective of the legislature indicator is measured by the cluster component, as well as how the cluster component relates to the legislature indicator. Data sources, information on data collection and definitions were also provided.

An initial draft of all clusters was presented to the entire advisory group, the data-producing specialised sections of the FSO and the FCh for consultation (step ⑤). All participating stakeholders were given the opportunity to voice an opinion on every cluster. The remarks were carefully reviewed by the FSO project group and taken into consideration wherever possible (step ⑥).

T2	Cluster information	for legislatur	e indicator	"Particination	in continuina	"education"
12	Ciustei iiiioiiiiatioii	i ioi legisiatui	e muncator	Participation	III COIIUIIUIII	euucation

Cluster components	Significance	Aspects measured in the legislature objective	Sources
Participation in continuing education of persons without post-compulsory education by type of continuing education	Which types of continuing education are most popular among persons without post-compulsory education?		FSO
Participation in continuing education of persons without post-compulsory education in international comparison	In Switzerland, the level of participation in continuing education differs considerably depending on an individual's education level. However, the percentage of individuals without post-compulsory education is relatively low compared to other countries.	Life-long learning in the Swiss Education Area; create condi- tions favourable to continuing	Eurostat
Unemployment rate (based on ILO definition) of persons without post-compulsory education	Individuals without post-compulsory education are at a greater risk of being excluded from the employment process.	education; equal opportunities must be improved (objective 26)	FSO
Obstacles to participation in further and continuing education by level of education and training	Information regarding the extent of unmet demand for further and continuing education and training. The focus here should be on those who do not wish to pursue further and continuing education and training and those who would like to but were prevented from doing so.		FSO

Source: Federal Statistical Office (FSO)

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In total, clusters were created for 41 of the 44 legislator indicators (see list of clusters in the Appendix). In some cases, exceptions were made to the criterion that each legislature indicator could have no more than three cluster components. Depending on the scope of the legislature objective, sometimes four cluster components were selected. In other cases, only two cluster components were selected due to lack of data<sup>13</sup>. For three legislature indicators, no cluster was created at all. This concerned legislature indicator "Bilateral agreements with the European Union", as the indicator's explanatory power has been challenged by the adoption of the popular initiative "Stop mass immigration" (Art. 121a of the Federal Constitution). In the case of legislature indicator "Multilateral treaties", none of the proposed components fulfilled the selection criteria. No cluster was created for legislature indicator "Reduction of the tariff burden due to free trade agreements" as this indicator is possibly due for revision.

#### **Example of procedure**

The process described above can be illustrated by the legislature indicator "Participation in continuing education" (see Figure 8). This indicator shows the percentage of the population aged 25 to 64 which participates in

continuing education (non-formal education), providing insight into the investments made by the population to maintain and expand knowledge and skills. This legislature indicator was included in the 2011–2015 Legislature Plan to measure the following objectives (Federal Council 2012, pages 585–586):

Excerpt from legislature objective 26: The Continuing Education Act is intended to boost life-long learning within the Swiss education and training system. The Confederation and cantons must create a propitious learning environment as a complement to personal responsibility and individual initiative. [...] The continuing education policy of the Confederation and cantons must be better coordinated and provide greater equality of opportunity.

Quantifiable objective: More individuals without post-compulsory education will participate in non-formal education.

The State Secretariat for Education, Research and Innovation (SERI) was the advisory group member responsible according to the task catalogue for this legislature indicator. To create the cluster, the SERI first analysed which aspects of the legislature objective and the quantifiable objective were not covered by the indicator (step ① in Figure 7). It was found that life-long learning, the creation of a propitious environment for continuing education and the amelioration of equal opportunities were represented only partially or not at all by the legislature indicator.

Legislature indicator quotients were not used as cluster components, as they are a part of the legislature indicator itself and have to be reviewed more closely during the analysis anyway.

The analysis of the quantifiable objective showed that while the legislature indicator did measure the quantifiable objective, it did so for both individuals without post-compulsory education or training and individuals with higher levels of education. In response to this, the SERI recommended singling out the population group described in the quantifiable objective, which are individuals without post-compulsory education or training. This enables a more precise and comprehensive measurement of the quantifiable objective, while also covering the other identified aspects of the legislature objective.

The SERI then proposed three cluster components that lend themselves to measuring the identified missing aspects (step ②). The data-producing specialised sections of the FSO agreed with the recommendations and introduced one additional item of statistical information. The SERI and specialised FSO section agreed to include all four propositions as cluster components (step ③):

- Participation in continuing education of persons without post-compulsory education by type of continuing education
- Participation in continuing education of persons without post-compulsory education in international comparison
- Unemployment rate (based on ILO definition) of persons **without** post-compulsory education
- Obstacles to participation in further and continuing education by level of education and training

The FSO project group then documented (step ④) the significance of each cluster component and which aspect of the legislature it measures (see Table 2). It was also reviewed whether the cluster components meet the selection criteria (see Chapter 3.1). In addition, details were recorded for each individual cluster component regarding the data source, definition, unit of measurement, time series, periodicity and international comparability.

## 4 Implementation

#### 4.1 Provision of clusters

The selection criteria stipulate that cluster components should be based on existing statistical information that has already been published. This means that they were not produced, but only documented, referenced and published in the form of a list, similar to what was done for the indicators of the indicator system for the Federal Council and Parliament (see Appendix)<sup>14</sup>.

As explained above, a detailed specification was written for each cluster component, its selection was justified and the additionally measured aspects of the legislature objective were listed in the documentation. These details and the specifications document all the work performed to create the clusters.

4.2 Use of clusters

To date, the clusters have been used primarily by the FSO to expand the commentaries of selected legislature indicators. These commentaries describe the development of the selected cluster components and their connection to the legislature indicator. Commentaries are politically neutral, in compliance with the writing guidelines, and they were submitted to the responsible administrative units and the specialised sections of the FSO for consultation. After this, they were published on the FSO website and updated annually. Cluster components are described only in text form, without any graphs.

Figure 8 shows how the commentary for the legislature indicator "Participation in continuing education" was supplemented with additional information from cluster components. Originally, four cluster components had been selected for this indicator (see Chapter 3.3), but only three were implemented. The component Participation in continuing education of persons without post-compulsory education by type of continuing education was left out of the commentary, as there were already enough cluster components. It is not required that all cluster components be implemented at the same time; they can be added as needed.

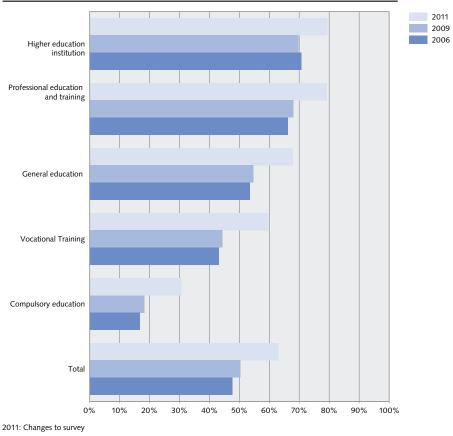
For each legislature indicator, information on the cluster components supplementing the commentary is available by clicking on the link under "Additional information" (metadata). This metadata includes a full definition, the data-collection frequency and links to sources for the legislature indicator and cluster components used in the commentary.

Within the indicator system for the Federal Council and Parliament only the legislature indicators are produced.

#### Supplementing the commentary with clusters

#### Participation in continuing education

Percentage of 25- to 64-year-olds who participate in continuing education (non-formal education), by level of education, in %



Source: Federal Statistical Office (FSO)

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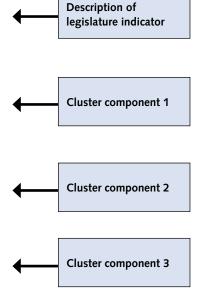
#### Commentary

The percentage of individuals who participate in continuing education (non-formal education) varies according to their level of education. Of the individuals who completed only their compulsory education, 30.7% participated in continuing education in 2011. In the same year, 79.4% of individuals who had completed education at a higher education institution pursued continuing education. In 2011, the average rate of participation in continuing education across all education levels was 63.1%. As the survey method was modified in 2011, comparison with 2006 and 2009 data is limited.

Continuing education is especially important for individuals without post-compulsory education, as it is a way for them to mitigate job-search risks. The 2013 unemployment rate among 25- to 64-year-olds without post-compulsory education was 8.2%, exceeding the national average of 3.9%.

In 2011, the percentage of individuals without post-compulsory education who wished to pursue continuing education but were not able to was 24%; this is considerably higher than among individuals with a higher level of education (between 6% and 13%). The percentage of individuals without post-compulsory education who did not wish to continue their education and therefore did not participate in further and continuing education and training was also high (at 44%).

When compared with other countries, the percentage of individuals without post-compulsory education who participate in continuing education in Switzerland (just over 30%) is on the high end. The only other European countries with higher rates are Luxembourg with 55% and Sweden with 38%. The estimated average among EU member states is 20%.



Source: Federal Statistical Office (FSO) © FSO, Neuchâtel 2015

#### 4.3 Writing guidelines

Writing guidelines were defined for the cluster component texts published on the FSO website, based on the writing guidelines for the legislature indicators. According to these guidelines, texts must, among other thing, meet the principles of official statistics, remain neutral and factual, and refrain from any judgment (for a detailed list, see FSO 2013, page 28). Additional rules were defined for cluster texts:

- In the commentary, the legislature indicator must be described first, followed by the individual cluster components.
- Each cluster component in the commentary must be described in a separate paragraph.
- Existing descriptions of the legislature indicators may be modified only in exceptional cases.
- Commentaries cannot exceed a prescribed maximum length to keep them clear and manageable on the FSO website.

Texts were written by the FSO project group. The responsible administrative units in the advisory group, the data-producing specialised sections of the FSO and the FCh were consulted on the texts and had the right to a consensual decision.

## 5 Initial experiences and outlook

In 2014, the commentaries of eleven legislature indicators were complemented with statistical information from the clusters and were used in the situation analysis of the Annual Report of the Federal Council. Eight more legislature indicators will be complemented with clusters by the end of 2015. This leads to a higher informative value of the legislature indicators, thus enhancing the situation analysis of the Annual Report of the Federal Council, which is a welcome fact. However, this also leads to additional work in the process of updating the legislature indicators since the additional information of the clusters needs to be updated on an annual basis as well.

The FCh can also use the selected clusters to draft the situation analysis in the Dispatch of the Legislature Plan, which according to Article 146, paragraph 3 of the Parliament Act, has to be based on indicators.

The same selection criteria and principles were successfully applied to the creation of clusters as were used to construct the indicator system for the Federal Council and Parliament. The participatory process also proved successful once again. The close collaboration with stakeholders resulted in an important mutual transfer of knowledge, as well as a better understanding of the legislature indicators and the role of indicators in political processes. The project thus not only valorised the monitoring system; it also increased the visibility of official statistics as a neutral and independent actor.

Until now, only textual cluster descriptions have been added to the commentaries of the legislature indicators. Another possibility is to present cluster components in graphs in order to communicate the information more easily. For instance, graphs of cluster components could be directly integrated on the legislature indicator's web page. Hence, a new presentation format would have to be designed to ensure a clear distinction between the legislature indicator, which was selected by the Federal Council, and the cluster components, which were selected as supplementary information by the advisory group and the data-producing specialised sections of the FSO. This, however, would imply a lot

of work, since each legislature indicator would require additional graphs for all the cluster components in different languages. In principle, clusters can be created for all indicator systems, and the idea is already being pursued for other FSO indicator systems. For instance, the indicators of the sustainable development monitoring system MONET<sup>15</sup> are to be expanded with clusters as part of the 2014–2015 revision. It is also planned to expand the sustainability indicators of Swiss cantons and cities in the Cercle Indicateurs<sup>16</sup> to enable a more in-depth analysis of the indicators and to increase their chronological consistency.

The legislature indicators and their clusters were defined for a four-year legislative period. In light of this rather short timeline, substantial efforts went into creating clusters and writing cluster texts. To reduce the workload in the future, clusters should be selected at the beginning of the legislative period, and legislature indicator commentaries should include clusters components from the start. This approach will be applied for the first time for the 2015–2019 Legislature Plan.

 $<sup>^{15}</sup>$  www.statistics.admin.ch ightarrow Topics ightarrow Sustainable development ightarrow Indicators

www.statistics.admin.ch → Topics → Sustainable development → More indicator systems for sustainable development

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## **Appendix**

#### List of legislature indicators 2011–2015 with clusters

Organised according to the guidelines and objectives of the 2011–2015 legislature plan

Cluster components	Aspects measured in the legislature objective*	Sources
Guiding principle 1: Switzerland is an attra- finances and efficient state institutions.	active and competitive location for business, wit	h healthy federal
Objective 1: Federal finances will remain balance	d	
Legislature indicator: Federal debt ratio		
Expenditure ratio (Confederation)	Balanced federal finances (guiding principle 1)	FFA
Change in interest payable (Confederation)		FFA
Gross federal debt	Effectiveness and efficiency of Swiss institutions (guiding principle 1)	FFA
Public deficit/surplus (Confederation)	- (guiding principle 1)	FFA
Objective 2: The Swiss economy is consolidated	by the best possible general conditions so that it can con	itinue to grow
Legislature indicator: Product market regulation		
Network sector regulation	Increased competition on the domestic market	OECD
Employment protection legislation	General conditions respect market principles and reduce administrative burden	OECD
Services Trade Restrictiveness Index		OECD
E-Government Development Index		UNPAN
Legislature indicator: Labour productivity		,
Labour productivity by sector (business sector)	A large part of GDP growth must be obtained from productivity gains (quantifiable objective)	FSO – SNA
Innovative companies	Competiveness of Swiss economy	ETHZ-KOF
Share of investment in GDP	6 (6	FSO – SNA
Gross domestic expenditure on R&D by the private sector as % of GDP (BERD)	Competiveness of Swiss economy, in international comparison	FSO – R&D statistics
Objective 3: The stability and appeal of the Swiss	s financial centre will be maintained	
No legislature indicator		
Objective 4: Switzerland will continue to move to	owards an integral agricultural and food policy	
Legislature indicator: Food production		
Gross and net self-sufficiency rate	Agriculture makes an important contribution to food security strategy	SFU – Food balance sheet
Nitrogen efficiency	Environmentally friendly food production	Agroscope
Utilised agricultural areas per capita	Sustainable use of utilised agricultural areas	FSO – Farm structure census
Agricultural income per annual family work unit	Socially responsible food production	Agroscope

Cluster components	Aspects measured in the legislature objective*	Sources
Legislature indicator: Labour productivity in agric	culture	
Agricultural producer price index	Improvement in competitiveness of whole agricul-	FSO – PPI agricultur
Capital stock in agriculture	tural and food industry, competitiveness of Swiss agriculture (guiding principle 1)	FSO – EAA
Direct payments in agriculture	Agriculture provides services in the public interest for the benefit of the national economy and to the satisfaction of the population.	FFA
Gross value added at constant prices	Outlies to a second of the levisletons in disease.	FSO – EAA
Volume of work in annual work units	Quotient component of the legislature indicator	FSO – EAA
Objective 5: The effectiveness and efficiency of Sv	viss institutions will be optimised	
No legislature indicator		
Objective 6: The appeal and credibility of the Swis	ss tax system will be reinforced	
Legislature indicator: Tax-to-GDP ratio (Confede	ration, cantons, communes, social insurances)	
General government expenditure ratio (Confederation, cantons, communes, social insurances)	Moderate general government expenditure and tax-to-GDP ratios (guiding principle 1)	FFA
Tax effort index	tax-to-GDF fatios (guiding principle 1)	FFA
Distribution of direct federal taxes on natural persons	Vertical equity and transparency. The distribution of the tax burden should be widely accepted	FTA
Tax ratio (Confederation, cantons, communes)		FFA
Social security contribution ratio	Quotient component of the legislature indicator	FFA
Objective 7: Switzerland takes advantages of the	opportunities offered by information and communicatio	n technologies
Legislature indicator: Fixed (wired) broadband su	bscriptions	
Fixed network ADSL/VDSL connection service	Nationwide availability of communication	OECD
Mobile network service rate	infrastructure	OFCOM
Household internet access in international comparison	Recognition of the fundamental importance of Information and Communication Technologies (ICT) for social, economic and political life in Switzerland	Eurostat
Internet use by education and training	The continuing digitalisation of everyday life and the world of work is changing how we work, exchange information and communicate (guiding principle 1); ICT available to all	MA-Net; Net Metrix Base
Fibre connections in international comparison	High-quality, reliable communication infrastructure	OECD
Legislature indicator: Online Service Index		
E-Government Development Index	Recognition of the fundamental importance of	UNPAN
E-Participation Index	Information and Communication Technologies; the objectives of the e-Government Switzerland strategy are pursued	UNPAN
Satisfaction of private sector with e-Government services	Government activity is as citizen-oriented, efficient	FITSU
Satisfaction of the population with e-Government services	and economic as possible	FITSU

the international level.

Objective 8: Switzerland is globally networked and enjoys a strong position on the international stage and in multilateral institutions

#### Legislature indicator: Multilateral treaties

No cluster defined

Cluster components	Aspects measured in the legislature objective*	Sources
Legislature indicator: Swiss citizens working in i	nternational organisations	
Number of Swiss citizens working in UN organi-		FDFA
sations, in relation to Switzerland's financial contribution	Switzerland encourages the presence of Swiss	
	citizens in multilateral organisations, and strengthens International Geneva	FDFA
Swiss participation in international organisations Switzerland as guest and headquarter state	International Geneva	OCSTAT Geneva
Objective 9: Switzerland has strengthened its ties	with the FLI	OCSTAT GETIEVA
Legislature indicator: Bilateral agreements with		
No cluster defined	ine European Omon	
Objective 10: Foreign economic strategy continue	es to be developed	
Legislature indicator: Reduction of the tariff burg		
No cluster defined		
	contribution to overcoming poverty and reducing global	risks
Legislature indicator: Official development assis		
Public opinion on the importance of the EZA (Development Cooperation) in solving global development problems	Bilateral and multilateral actions to reduce poverty	gfs.bern
Official development assistance in international comparison	and encourage economic growth; strong local presence	OECD
Official development assistance in favour of least developed countries		SDC
Objective 12: Switzerland has strengthened its co	mmitment to human rights, peace policy, mediation and	d good offices
No legislature indicator		
Guiding principle 3: Switzerland's security	is guaranteed.	
Objective 13: Instruments for the early detection	and combating of security risks will be used effectively	
Legislature indicator: Trust in the army		
Trust in other institutions	Comparison with other institutions	ETHZ-CSS
Army service days for subsidiary security operations and peace building abroad	Contribution to stability and peace beyond Swiss borders	Swiss Army
Objective 14: Crime, terrorism and cyber attacks	will be tackled effectively, and violence in Swiss society ;	prevented
No legislature indicator		
Objective 15: Closer cooperation with domestic a	nd foreign partners	
Legislature indicator: Deployment days for Front	ex operations	
Number of deployments for Frontex operations	Priority to cooperation in Schengen area	SCA
Successful alerts in Schengen Information System	Cross-border crime prevention; cooperation with partners at home and abroad	fedpol
Guiding principle 4: Social cohesion in Swi effectively.	tzerland will be consolidated, and demographic	challenges met
Objective 16: The opportunities that migration br	rings will be exploited, and the risks will be contained	
Legislature indicator: Activity rate by nationality		
Employment rate of provisionally admitted foreigners with permit F		SEM – ZEMIS
Congruence of education and job requirement level by nationality		FSO – SLFS
Unemployment rate based on ILO definition of 15–24 year-olds by nationality	Integration of foreigners	FSO – ELS-ILO
Distribution of equivalised disposable income by migration status		FSO – SILC

Cluster components	Aspects measured in the legislature objective*	Sources
Objective 17: Social cohesion will be consolidated	, and common values encouraged	
Legislature indicator: Early school leavers by nati	onality	
Early school leavers by migration status	In light of increasing challenges with regard to	FSO – SLFS
Transition to upper secondary level by nationality	demographic trends and cultural diversity, social cohesion needs to be strengthened, in particular through investment in the education of disadvantaged groups in the population.	FSO – SDL, Education outlook
Unemployment rate of population without post-compulsory education and training	Encouragement of the next generation of qualified academics and researchers and improvement of conditions for young people to complete training and find employment (objective 25)	FSO – SLFS
Objective 18: Cost increases in healthcare will be	curtailed by strengthening prevention	
Legislature indicator: Cost of health care system	as percentage of GDP	
Cost of health care system by service type and service provider	Figure 1.1 off and a left to a file and a second	FSO – COU
Cost of health care system as percentage of GDP in international comparison	Financial affordability of health care costs	OECD
Legislature indicator: Health care expenditure pe	r capita	
Burden of health care costs on households	Financial affordability of health care costs for every	FSO – HBS
Health insurance premiums by canton	social class	FOPH
Per capita health care expenditure by financing scheme	Financial affordability of health care costs	FSO – COU
Objective 19: Social services must be placed on a	solid financial base	
Legislature indicator: Financial result of old-age	and survivors' insurance	
Size of old-age and survivors' insurance funds in relation to expenditure	Social services must be financially secured in the long term	FSIO
Activity rate of 55–64 year-olds	Integration of older people in working life	FSO – SLFS
Old-age dependency ratio	Ageing of the population will require major	FSO – STATPOP
Share of 80 year-olds and older in total population	adjustments to the funding of old age pensions	FSO – STATPOP
Guiding principle 5: Switzerland uses energy with an increasingly mobile society.	gy and resources sustainably and more efficient	ly and is able to cope
Objective 20: Switzerland's energy and natural regradually	source supply is secured in the long term and nuclear en	ergy is phased out
Legislature indicator: Consumption of non-renew	vable energy	
Consumption of non-renewable energy by energy carrier	Reduce dependence on non-renewable energy carriers by encouraging renewable resources	SFOE – Overall energy statistics
Energy efficiency		SFOE – Overall energy statistics; FSO – SNA
Per-capita final energy consumption	Increase energy efficiency	SFOE – Overall energy statistics; FSO – STATPOP
Heating degree days	Contextual data on energy demand	MeteoSwiss; calculations SFOE
Legislature indicator: Electricity production from	new renewable energies	
Electricity production from hydropower plants	Encouragement of renewable resources; increase in the capacity of hydropower	SFOE – Electricity statistics
Electricity production from new renewable energies by technologies	Increase in the capacity of hydropower and other renewable energies (objective 20); sustainable energy supply (guiding principle 5)	SFOE – Statistics of renewable energy
Electricity generation	Energy demand and supply	SFOE – Electricity statistics

Cluster components	Aspects measured in the legislature objective*	Sources
Objective 21: Switzerland has a financially stable	and extensive transport infrastructure	
Legislature indicator: Congestion on Swiss moto	rway network	
Kilometre performance on national motorway network	Use of transport infrastructure	FEDRO
Road traffic accidents and casualties	Safe infrastructure	FEDRO
Costs of traffic congestion	Economic costs (guiding principle 5)	ARE; FEDRO
Legislature indicator: Swiss railway network effic	iency	
Railway accidents	Safe infrastructure	FOT
Kilometre performance of railways in passenger and freight transport	Use of transport infrastructure	FSO – Public transport statistics
Objective 22: Switzerland contributes to containing	ng climate change and mitigating its effects	
Legislature indicator: Greenhouse gas emissions		
Greenhouse gas emissions by sector	Reduction of CO <sub>2</sub> and other climate changing substances	FOEN – Greenhouse gas inventory
Annual mean temperature	Warming of atmosphere	MeteoSwiss
Legislature indicator: Damage caused by natural	hazards	
Protected forest areas	Structural, biological or organisational measures to	FOEN
Investment in protection against natural hazards	counter dangers or reduce damage	FOEN
Thawing of the permafrost	Consequences of climate change	Permos
agricultural land and countryside, in particular by	uitable manner and ensures the effective protection of better coordinating land use and infrastructure	the environment,
Legislature indicator: Per-capita settlement area		
Landscape fragmentation	Sustainable approach to land use	FOEN – LABES
Development of agricultural areas	Cultivated land needs to be better protected	FSO – AREA
Settlement area	Quotient component of the legislature indicator	FSO – AREA
Average permanent resident population		FSO – STATPOP
Legislature indicator: Diversity of species in selection	cted groups	
Threatened species (red lists)	Biodiversity is preserved and encouraged	FOEN
Protected areas for biodiversity	Distances of the properties and encountages	FOEN
Landscape fragmentation	Spatial planning makes a key contribution to maintaining biological diversity in Switzerland	FOEN – LABES
Legislature indicator: Modal split in agglomeration	on traffic	
Modal split in agglomeration traffic by agglomerations	Use of transport infrastructure (objective 23); the share of public transport and human-powered mobility (pedestrians and bicycle) in total transport must be at least stabilised (quantifiable objective)	FSO – MCMT
Congestion on Swiss motorway network	Use of transport infrastructure	FEDRO
Passenger transport performance	Use of transport infrastructure, transport development	FSO – PV-L
Accessibility by public transport of building zones by canton	Improved coordination of settlement and transport development for more economic land use and organised urban settlement of Switzerland	ARE – Building zone statistics

Cluster components	Aspects measured in the legislature objective*	Sources
Guiding principle 6: Switzerland holds a lea	ading position in education, research and innov	ation.
Objective 24: The high quality and good internation	onal reputation of Switzerland's higher education and re	esearch sector are
Legislature indicator: Funding contributions from	the EU's Research Framework Programmes	
Number of participating institutions from Switzerland	Cutting-edge research in Switzerland, focused on	SERI
Number of coordinators from Switzerland	scientific excellence and global issues	SERI
Success rate of Swiss institutions		SERI
Legislature indicator: Impact of Swiss scientific p	ublications	
Development of impact of Swiss publications by research subject	Research focused on scientific excellence and global	Thomson Reuters, Processing and elaboration SERI
Development of volume of publications by country	issues	Thomson Reuters, Processing and elaboration SERI
Number of publications per 1,000 inhabitants	Switzerland's leading position in international research is maintained and strengthened (quantifiable objective)	Thomson Reuters, Processing and elaboration SERI
Development in percentage of national and international partnerships among all partnerships of each country	Coordinated procedure within Switzerland and with international partners; research focused on scientific excellence and global issues	Thomson Reuters, Processing and elaboration SERI
Legislature indicator: Projects approved by the Eu	uropean Research Council (ERC)	,
Subsidies allocated to Swiss institutions by the ERC	Cutting-edge research in Switzerland, focused on scientific excellence and global issues	ERC
Success rate of proposals (ERC)		ERC
Objective 25: Measures will be taken to train the improve the education and employment prospects	next generation of qualified workers in science and bus of young people	iness as well as to
Legislature indicator: Unemployment rate of grad	luates from an institution of higher education	
Unemployment rate of graduates from an institution of higher education five years after graduation	-	FSO – Graduate survey
Adequacy of education level of graduates from an institution of higher education one year after graduation	Employability of graduates (quantifiable objective)	FSO – Graduate survey
Under- and overemployment of graduates from an institution of higher education five years after graduation		FSO – Graduate survey
Legislature indicator: Completion rate of basic vo	ocational training	
Completion rate of basic vocational training in economically active population	Safeguarding the next generation in our SMEs; higher value attached to vocational training qualifications	FSO – SLFS
Direct transfer from basic vocational training to tertiary level	Further enhancement of permeability between different educational programmes and systems therefore encouraging mobility and lifelong learning	FSO – SLFS (available from 2017)
Legislature indicator: Completed education in hig	gher vocational education	
Graduation rate of higher vocational education in economically active population	In order to take into account the qualification structure requested by the scientific community and industry, the economically active population with	FSO – SLFS
Higher vocational education qualifications by diploma	upper secondary level qualifications should aim for higher level qualifications	FSO – Education statistics

Cluster components	Aspects measured in the legislature objective*	Sources		
Legislature indicator: Youth unemployment rate				
Unemployment rate based on ILO definition	Encouragement is given to the next generation of qualified specialists in academia and industry, and the education and employability of young people is improved	FSO – SLFS		
Youth unemployment rate (based on ILO definition) in international comparison	The vocational education and training system contributes to a youth unemployment rate that is low in international comparison (quantifiable objective)	Eurostat		
NEET rates of young people in international comparison		Eurostat		
Objective 26: The general conditions for continui	ng education and training will be optimised and secured			
Legislature indicator: Participation in continuing education				
Participation in continuing education of persons without post-compulsory education by type of continuing education	Lifelong learning in the Swiss Education Area; create conditions favourable to continuing education; equal opportunities must be improved	FSO – AES		
Participation in continuing education of persons without post-compulsory education in international comparison		Eurostat		
Unemployment rate (based on ILO definition) of persons without post-compulsory education		FSO – SLFS		
Obstacles to further and continuing education by level of education and training		FSO – AES		

Guiding principle 7: Switzerland ensures that there is equality before the law and in everyday life, in particular in the family, in education, in the workplace and for pensioners.

Objective 27: Equal opportunities are to be improve	ved			
Legislature indicator: Gender wage gap				
Gross monthly wage by gender in private sector	Men and women are entitled to equal pay for equal work (quantifiable objective)	FSO – SESS		
Employees with low and high wages by gender	Equal opportunities are to be improved	FSO – SESS		
Gross monthly wage by gender and education in private sector	Men and women are entitled to equal pay for equal work (quantifiable objective); equal opportunities are to be improved (objective 27)	FSO – SESS		
Gross monthly wage of 20–29 year-olds by gender in private sector		FSO – SESS		
Legislature indicator: Proportion of female students in MINT subjects (mathematics, IT, science and engineering)				
Matura diplomas by special subject and gender	Gender inequality [] must be seen to diminish (quantifiable objective)	FSO – Education statistics		
Proportion of MINT diplomas among all diplomas by gender and in international comparison		Eurostat		
Adequacy of educational level of graduates with a MINT diploma		FSO – Graduate survey		
Number of male students in female-dominated subject areas		FSO – SHIS		
Legislature indicator: Old-age and survivors' insurance average pensions by gender				
Difference in occupational pension fund assets between men and women	Switzerland ensures that there is equality before the law and in everyday life between men and women	FSO – Statistics of pension funds		
Difference in old-age pensions from occupational pension funds between men and women		FSO – Statistics of pension funds		

Cluster components	Aspects measured in the legislature objective*	Sources		
Legislature indicator: Serious cases of domestic violence				
Share of domestic violence in violence registered in police statistics	Reduction in domestic violence (quantifiable objective)	FSO – PCS		
Victims and accused of domestic violence by gender and age		FSO – PCS		
Victims of violence of parents by gender and age		FSO – PCS		
Legislature indicator: Employment, domestic and family workload				
Individual contributions to household remuneration	Equal opportunities are to be improved	FSO – SILC		
Main responsibility for housework in couple households		FSO – SLFS		
Employment module in couple households		FSO – SLFS		
Part-time employment		FSO – SLFS		
Objective 28: Gender equality is implemented in the Federal Administration and in state-owned companies and equal opportunities are guaranteed for the language minorities				
Legislature indicator: Proportion of women in wa	ge classes 24–29 and 30–38 (Federal Administration)			
Proportion of women in the Parliamentary Services	Extension to the legislative power	FC – Personnel management reporting		
Proportion of women in Federal Courts and in the Office of the Attorney General of Switzerland	Extension to the executive power	FC – Personnel management reporting		
Proportion of women at management level in federal businesses	Gender equality in federal businesses	Annual reports of federal businesses		
Proportion of women on the boards of directors of federal businesses and institutions	Share of women on the boards of directors of federal businesses and institutions (Federal Administration personnel strategy 2011–2015)	FC – Management salary reporting		
Proportion of women in management	Extension to the entire Swiss labour force since the legislature indicator only covers the proportion of women in the Federal Administration	FSO – SLFS		
Legislature indicator: Proportion of language gro	ups in the departments and the Federal Chancellery			
Proportion of national languages in the Parliamentary Services	Extension to the legislative power	FC – Personnel management reporting		
Proportion of national languages in the Federal Courts and in the Office of the Attorney General of Switzerland	Extension to the executive power	FC – Personnel management reporting		
Proportion of national languages in the federal businesses	Equal opportunities for linguistic minorities in the federal businesses	FC – Personnel management reporting; autonomous bodies		
Proportion of national languages in the federal businesses and institutions	Proportion of national languages in the boards of directors of federal businesses and institutions (Federal Administration personnel strategy 2011–2015)	FC – Management salary reporting		

<sup>\*</sup> Unless otherwise indicated, the extracts are taken from the objectives to which the legislature indicator is assigned.

## **Abbreviations**

AES Adult education survey

ARE Federal Office for Spatial Development

**AREA** Swiss land use statistics

**COU** Costs and financing of the health care system

**EAA** Economic accounts for agriculture

ELS Unemployment statistics
ERC European Research Council

ETHZ-CSS Swiss Federal Institute of Technology in Zurich – Center for Security Studies
ETHZ-KOF Swiss Federal Institute of Technology in Zurich – Swiss Economic Institute

EU European UnionFC Federal CouncilFCh Federal Chancellery

**FDFA** Federal Department of Foreign Affairs

fedpolFederal Office of PoliceFEDROFederal Roads Office

**FFA** Federal Finance Administration

FITSU Federal IT Steering Unit

FOEN Federal Office for the Environment
FOPH Federal Office of Public Health
FOT Federal Office of Transport
FSIO Federal Social Insurance Office

**FSO** Federal Statistical Office

FTA Swiss Federal Tax Administration

GDP Gross domestic product
HBS Household budget survey

ILO International Labour Organization
 LABES Landscape monitoring Switzerland
 MCMT Microcensus on mobility and transport
 MINT Mathematics, IT, science and engineering
 MONET Monitoring sustainable development

**NEET** Youth not in education, employment or training

**OECD** Organisation for Economic Cooperation and Development

**OFCOM** Federal Office of Communications

**PCS** Police crime statistics

**Permos** Swiss permafrost monitoring network

**PPI** Producer price index

**PV-L** Passenger transport performance

R&D Research and development

SCA Swiss Customs Administration

SDC Swiss Agency for Development and Cooperation

SDL Statistics on pupils and students
SEM State Secretariat for Migration

**SERI** State Secretariat for Education, Research, and Innovation

SESS Swiss earnings structure survey
SFOE Swiss Federal Office of Energy

**SFU** Swiss Farmers' Union

SHIS Swiss higher education information system
SILC Statistics on income and living conditions

**SLFS** Swiss labour force survey

**SNA** National accounts

**STATPOP** Population and household statistics

**UNO** United Nations Organization

**UNPAN** United Nations Public Administrations Network

**ZEMIS** Central migration information system

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Indicators are selected to represent whole topics. A limited number of indicators can therefore be used to monitor complex objectives. However, indicators also have limitations, as they usually represent far-reaching topics, which can only be partly covered by indicators.

Such limitations also affect the indicators of the 2011–2015 Legislature Plan, used to monitor the objectives of the Federal Council. Legislature indicators capture only very specific aspects of the objectives they represent, while at the same time the objectives can be quite broad in scope. To improve the explanatory value of the legislature indicators, they were supplemented with additional statistical information to create a cluster. Clusters were selected in close collaboration with the responsible specialised sections of the Federal Statistical Office as well as an advisory group composed of representatives from the Federal Administration, while complying with the principles of official statistics.

This report describes how the clusters were created, from the definition of selection criteria and responsibilities to actual creation and first experiences with implementation. The relevant steps are illustrated by a sample legislature indicator.

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