Informative Model for National Development Management

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Multi-dimensional system for planning of national development

- Ministries
- Saeima
- Cabinet of Ministers
- Regional administrations

- Strategy for sustainable development
- Regional strategies
- National Development Plan
- Regional programmes
- Sectoral programmes
- Sectoral strategies
- Long-term (25 years)
- Middle-term (7 years)
- Short-term (3 years max)
- Action plans
- Crisis regulation
Multi-dimensional system for planning and implementation of national development

Ministries | Saeima | Cabinet of Ministers | Regional administrations

Population | Business

Services

Long-term
25 years

Sectoral strategies

Strategy for sustainable development

Regional strategies

Middle-term
7 years

Sectoral programmes

National Development Plan

Regional programmes

Short-term
3 years max

Action plans

Crisis regulation

Normative environment

Laws

Regulations

Financial framework

National budget

Services

Functions

Functions

Functions

Functions
Functionality of the system: are consistencies ensured?

- Does any long-term goal is supported by defined mid-term tasks and short-term activities?
- Does regional and sectoral planning documents are consistent with national documents?
- Does responsible institution/person is defined for implementation of any planned activity?
- Are the planned/appropriated budgetary resources consistent with planned activities, performed functions and provided services?
- Does the necessary legal basis exist for the implementation of defined goals?

“YES” has not become a perpetual answer today
Weakness of management and threat to functionality

- weak connection of planning documents horizontally and vertically;
- weak compliance of implementation activities with planning and normative documents;
- functional obligations of many institutions and sharing of responsibility among them is not defined;
- costs for performed concrete functions and provided concrete services are not calculated;
- strong and direct connection does not exist among planning and normative documents, as well with performed activities, responsible executers, their functions, provided services and budget;

Systematic shortcoming:
high level of generality and lack of concreteness
Key solution: ontology-based algorithm

- structurization (decomposition) of all system’s objects (documents, institutions, functions, budget, etc.) in elementary units (entities);

- determination of strict connections (hierarchy and relations) between entities;
Multi-level ontology – informative system’s specificity

- Population logical ontology
- Government logical ontology
- Administration logical ontology

Federated Data sources physical ontology

- Data source 1 (object 1) physical ontology
- Data source 2 (object 2) physical ontology
- Data source n (object n) physical ontology

Logical level
Federated level
Physical level
Entities and connections I

Hierarchic tree 1
Entities and connections II

Hierarchic tree 2
Goal

Task 1
  Action line 1
    Action 1
      Activity 1

Task 2
  Action line 2
    Action 2
      Activity 2

Ministry
  Institution 1
    Department 1
    Department 2

  Institution 2

Relations

Hierarchic tree 1

Hierarchic tree 2
Goal

Task 1
  Action line 1
    Action 1
      Activity 1

Task 2
  Action line 2
    Action 2
      Activity 2

Ministry
  Institution 1
    Department 1
      Function 1

  Institution 2
    Department 2
      Function 2

Entities and connections IV
Public administration:
institutions, functions, services

Ministry 1
- Institution 1
- Institution 2
- Institution 3
- Institution 4
- Institution 5

Ministry 2

14 ministries
More than 200 institutions

More than 1000 functions

More than 1100 services

Function 1
Function 2
Function 3
Function 4
Function 5
Function 6
Function 7
Function 8

Service 1
Service 2
Service 3
Service 4
Structure of public administration: current situation

Ministry 1
- Institution 1
- Institution 2
  - Function 1
  - Function 2
- Institution 3
- Institution 4
- Institution 5
  - Function 3
  - Function 4
  - Function 5
  - Function 6
  - Function 7
  - Function 8

Ministry 2
- Service 1
- Service 2
- Service 3
- Service 4
Structural reform of public administration: improvement I
Structural reform of public administration: improvement II
Structural reform of public administration: improvement III

Ministry 1
- Institution 1
- Institution 2
- Function 1
- Function 2
- Service 1

Ministry 2
- Institution 4
- Institution 5
- Function 5
- Function 6
- Function 7
- Function 8
- Function 9
- Service 2
- Service 3
- Service 4
Budget planning (after structural reforms)

Budget planning

Ministry 1
- Institution 1
- Institution 2

Ministry 2
- Institution 4
- Institution 5

Costs of functions/services

Function 1
Function 2
Service 1

Function 5
Function 6
Function 7
Service 2

Function 8
Function 9
Service 3

Service 4
## Plans, service and executers

<table>
<thead>
<tr>
<th>General</th>
<th>Sector/Region</th>
<th>Function/Service</th>
<th>Ministry</th>
<th>Budget</th>
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<td>Strategic anti-crisis programme</td>
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<td>Growth of economy</td>
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<td>To promote export of products</td>
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<td>Economy</td>
<td>Education</td>
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<td>Interior</td>
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Achievement:
strong consistency of entities from any perspective

- issue of programme/plan – with activities, services, responsibility;
- activity – with responsible executer, financing, deadline, result;
- function/service – with executer, financing;
- institution – with performed activities, functions/services, financing, partners;
- budget – distribution by activities functions/services, institutions;
Applications and benefits

- definition of public functions and services on the basis of approved development goals and activities as well normative environment;
- evaluation and optimization of institutional structure of administration on the basis of necessary functions and services;
- creation of goal-based and task-based national budget;
- a real implementation control of planning documents;
- identification of necessary activities as well needless activities;
- adequacy of budgetary and institutional resources with performed activities, functions and services;
- analysis of administrative and management information from various perspectives;
Benefits and beneficiaries

QUALITY
Consistency of goals and activities

EFFICIENCY
Rational use of resources

TRANSPARENCY
Trust in governance

Society
Budget
State administration
creation and usage of united depository of logical units and their connections includes:

- entry of objects in the depository;
- decomposition of objects in elementary logical units;
- relations of logical units of separate trees;
- navigation on trees, expanding or shortening processed information when necessary;
- navigation on connected trees according to defined relations;

specific IT tools are needed:

- to take into consideration individualities of the model;
- to provide entry, maintenance and processing of information;
Specific tool for development and use of the model
DSL provide graphical modelling of administration processes and connection with external hierarchically structured information;
states and/or processes can be gradually detailed;
configuration of the necessary information as well external sources;
each partner keeps its own autonomy, specific skills are not asked;
Arranged management of the country

Multidimensional informative model

Advanced system of public services
State Social Insurance Agency: informative model

Clients (all Latvia citizens)

Proceses (>1000)

Old-age pension
Sickness benefit
...
....
Paternity benefit

Documents (>800)
(Applications, Amount of social taxes payed etc., References)

Headquarter & regional units (14)

Legal acts (>200)
Thank you for attention!

Have a nice coffee break!