



Copenhagen  
Business School  
HANDELSHØJSKOLEN

**Association of Enterprise Architects**  
*An International Forum for Enterprise Architecture*

Enterprise Architecture and Interoperability Survey

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# SURVEY RESULTS

- Gathered Evaluation Results at Governmental Level



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The following document is created as a part of a master thesis at Copenhagen Business School.

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## *Table of Contents*

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### **Part 1: The participating government's maturity levels**

Belgium.....	4
Canada.....	4
Cyprus.....	5
Denmark.....	6
Estonia.....	6
Finland.....	7
Liechtenstein.....	8
The Netherlands.....	9
New Zealand.....	9
Norway.....	10
Poland.....	11
Sweden.....	12
Turkey.....	12

### **Part 2: Maturity summary**

Maturity summary.....	123
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## *The participating government's maturity levels*

In the following, the participating governments are analysed and evaluated according to the capabilities and maturity stages of the maturity model “Next generation of national EA programs” described in section XXX. In the end the nation’s maturity levels will be outlined together in a figure, for in this way to clarify the nations maturities in relation to each other. The nations are listed in alphabetic order.

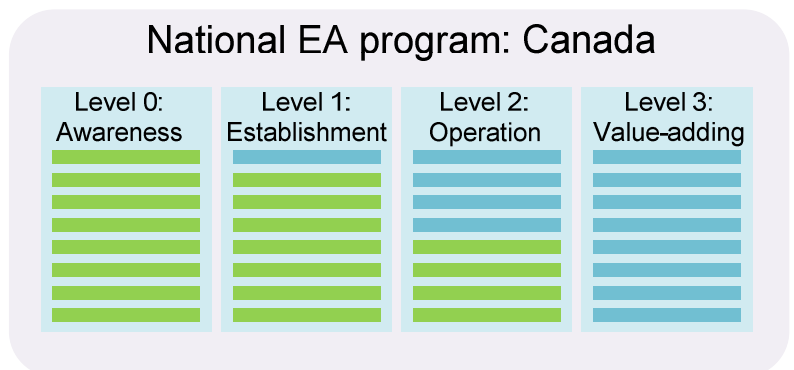
### **Belgium**

Belgium is having an EA program at a department-level, and they are planning a national EA program within the next three years. They are well aware of different business drivers and also of EA risks. Belgium has not identified any measurable goals or key performance indicators, and therefore, they are not capable of measure the EA performance, maturity or status of EA. There are no publicized guidelines describing processes or frameworks. Belgium has established educations, which is based on external EA courses.



### **Canada**

Canada has EA program at a national level. They have setup qualitative as well as quantitative goals, which in the case of the qualitative goals, Canada is using tools and techniques which is rolled into management processes

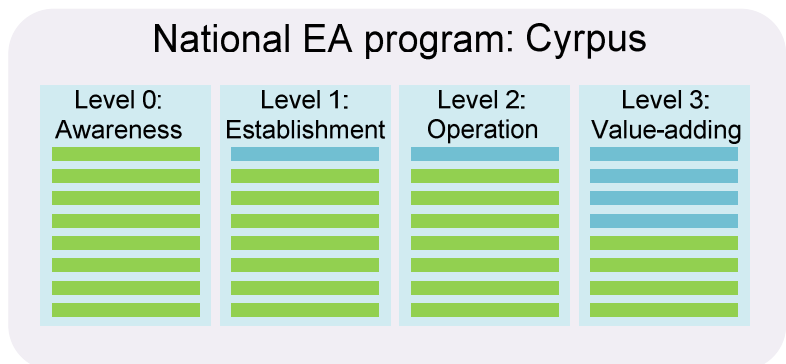


resulting in better understanding of programs, projects and investments etc.

Canada has publicized guidelines describing the EA process and framework. In relation to the EA aspects, Canada has described the architectures at different levels. The Business architecture is described at whole 75-100% in the public sector, meanwhile the information architecture is described at 25-50%, and finally the application and technical architecture are both described at 50-75% in the public sector. Canada is stating that between 10% and 25% of the public entities are using the publicized guidelines.

### Cyprus

The national EA program in Cyprus has not been very visible in the consulted literature, which is very remarkable. Compared to the stages in the “Next generation of national EA programs” Cyprus has a well-established EA program that, seen from a maturity position, can compete with very few leading governments in the field of national EA. This is stated in the light of clear and measurable goals, stated by Cyprus, which many of them are achieved.



Cyprus has well publicized guidelines describing the EA process as well as many aspects of the EA. In average Cyprus describes the architecture at 50-75% within the public sector, and impressively between 50% and 75% of the public entities are using the publicized processes.

Cyprus has come very far with their national EA program and has almost all the capabilities needed to have their national EA program rated, as one of the participating governances, as a national EA program of the “Next generation”.

## Denmark

Denmark is having a national program, and has identified many business drivers for the EA program. The two drivers, which Denmark mark as very important is improved service delivery and cross governmental interoperability.



In relation to the qualitative goals, Denmark identifies several goals. One of the goals is via digitalization to be able to

focusing on creating improvements in the service to citizens and business as well as enable resources to be transferred from administration to citizen-focused services. As quantitative goals, Denmark states they are having a strategy containing general goals as well as the 35 specific initiatives. Even though, Denmark has not yet achieved any benefits, although Denmark does use KPI's.

Denmark is having publicized guidelines describing the EA processes and framework respectively, and both are well described. The EA program is mandated as a proposed practice and is enforced at all levels within the nation. In relation to training the EA staffs, Denmark is using many sources, this includes external and internal EA courses, self-education etc. Denmark has no knowledge about how many percentage of the architecture is described within the public sector.

## Estonia

Estonia is having a national EA program and as business drivers they are identifying support and enable business changes, cross governmental interoperability and improve service delivery as the very most important drivers.

They are identifying many different goals, which include facilitating and implementing the transformation to institution-based public administration into a service-centred one, reduce public sector IT expenses through a wide use of centrally developed solutions<sup>1</sup>. And also, they have achieved many benefits from the EA program. The benefits include “eVoting” and “Set up a business in two hours”. As important and

very important main barriers in achieving the EA goals and establishing the EA program, Estonia identifies lack of top management support and lack of skilled staffs respectively. They are having a well defined list of publicized guidelines describing both the EA process as well as the EA framework and the program is mandated as a proposed practice and is enforced at a national level. For training the EA staffs, Estonia is using self-education as the only method.



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Estonia is measuring the EA performance at a national level. As one of the very few nations, Estonia is using key performance indicators such as achieving the eEurope and i2010 objectives (e.g. X number of basic online public services).

**Finland**

Finland is, like most of the participating nations, having a national EA program. They are identifying different business drivers for the EA program, such as support and enable business change and cross governmental interoperability, both is by Finland weighted as the very most important of the listed



<sup>1</sup> For a full list of business goals for Estonia see Appendix XXX





Impressively, New Zealand has identified qualitative goals, such as better government through better design and quantitative goals such as identifies ICT investment framework goals. Though, they have not achieved any benefits so fare but will soon start evaluating on it.

Though, only 0-10% of the public entities are using the publicized processes guidelines, the guidelines New Zealand has publicized is covering almost all aspects of the EA process. It is a locally defined EA process



based on the formal EA process TOGAF, but the guidelines do not suggest any specific techniques or any guides on governance or guides on measurements.

New Zealand supports an extensive use of training the staffs, including self-education, external EA certifications, external and internal EA courses and university/master studies as well.

Summarising, New Zealand is not identified as the leading nation within the field of national EA programs, although New Zealand has a well established EA program.

**Norway**

Norway does not have an EA program at a national level, though they have stated that they have an EA program at a municipal/local level. They have no plans for a national EA program within the next four years. When initialling the



survey, Norway was expected to be one of the participating governments scoring highest in the maturity model. However, based on the survey carried out in this study and compared to the capabilities of the “Next generation of EA programs” Norway positions themselves less impressively, actually, directly poor. Norway is not capable of defining any risk in establishing or achieving EA goals. No goals or benefits are identified. Norway has no publicized guidelines for the EA, and is not able to suggest any tools either repositories or EA suites. For those reasons, Norway is definitely not a leading nation within the field of national EA programs, as they all mostly are doing nothing.

## **Poland**

Poland is one of the new nations in EU. After joining the EU, Poland has started some heavy activities in establishing an EA program. The program is at a national level, though, they has not identified a name for the program. Well-aware of the business drivers as well as EA risk, Poland mandating the EA program or more exactly the suggested tools, as a proposed practice and characterising the governance arrangements in the EA program as being both centralised and decentralised.



Poland has remarkable publicized guidelines (compared to the relative few years for establishing the EA program) describing the EA process at a locally level. To a high degree the guidelines are based on TOGAF, and the guidelines describing the EA process is very conceptually. The guidelines covering several aspects of the architecture, where most of them are described at 25-50 % within the public sector.



identified any qualitative or quantitative goals related to the EA program, at present, Turkey is not be able to measure any benefits and has not set up any key performance indicators. There is no publicized guidelines

describing the EA process or the EA framework, neither does Turkey express any knowledge in suggesting the use of any EA repositories or EA suites. Even though



Turkey not yet has an EA program, they have impressively already plans for how the EA program should be mandated and at which level as well.

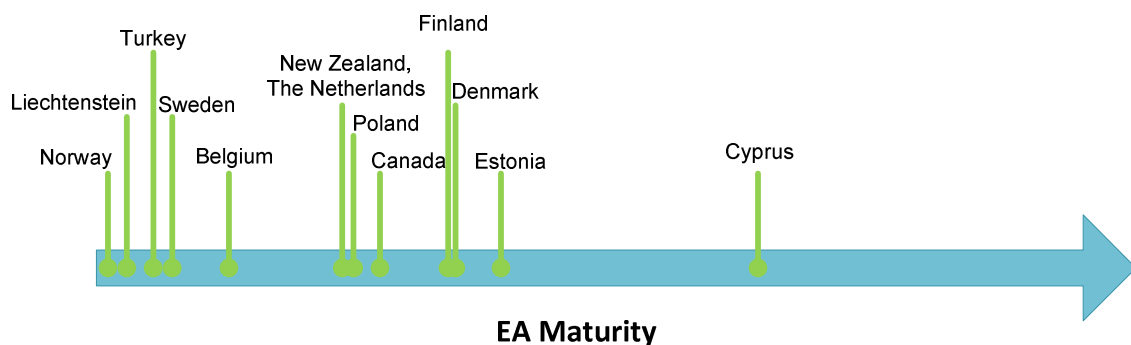
Based on this study, Turkey is not a leading nation within the field of national EA programs. Actually, they have just begun the adventure of initialising the EA program. Therefore, Turkey is believed to be at the early stages compared with the maturity model.

## *Maturity Summary*

After outlining the maturity levels of the participating nations it is clear that the nations are positioned in different levels. Compared to the “Next Generation EA Program” it is clear that most of the nations have a lot of work to do before they will be able to raise their maturity to a higher level, though most of them are going well. Below the table contains the summarising of the governments’ maturity levels and the point gained from the capabilities they fulfil.

Country	National EA Program	Point gained
Belgium	1	3,5
Canada	2	7,5
Cyprus	3	17,5
Denmark	2	9,5
Estonia	2	10,75
Finland	2	9,25
Liechtenstein	1	0,75
Netherlands	2	6,5
New Zealand	2	6,5
Norway	0	0,25
Poland	2	6,75
Sweden	1	2
Turkey	1	1,75

The governments’ maturities are positioned in the figure below, which may give a better illustration of the governments’ maturity levels compared to each other.



One nation worth a notice is Cyprus. Cyprus has, based on the conducted survey, most of the activities needed to accomplish almost all the maturity levels of the “Next Generation of EA

Program”. Also Norway is worth a notice. Before the completion of the survey, we expected Norway to be one of the nations well positioned in an EA program.

