



**ΔΙΑΤΜΗΜΑΤΙΚΟ ΠΡΟΓΡΑΜΜΑ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΩΝ ΤΑ  
ΠΛΗΡΟΦΟΡΙΑΚΑ ΣΥΣΤΗΜΑΤΑ (Μ.Ι.Σ.)**

**ΔΙΠΛΩΜΑΤΙΚΗ ΕΡΓΑΣΙΑ**

**Τίτλος εργασίας:**

«Πληροφορικά Συστήματα για την Ολοκλήρωση Δημοσίων Υπηρεσιών με βάση την έννοια των "Περιστατικών Ζωής"»

«Information Systems for Integrating Public Services based on the "Life Events" concept»

**Συγγραφέας: Σαραπάρης Σωτήριος**

**Επιβλέπων Καθηγητής: Ταραμπάνης Κωνσταντίνος**

**Εξεταστής Καθηγητής: Γεωργίου Ανδρέας**

**Θεσσαλονίκη, Ιανουάριος 2010**

2010, Σαραπάρης Σωτήριος

Η έγκριση της διπλωματικής εργασίας από το Διατμηματικό Πρόγραμμα Μεταπτυχιακών Σπουδών στα Πληροφοριακά Συστήματα (Μ.Ι.Σ.) του Πανεπιστημίου Μακεδονίας δεν υποδηλώνει απαραίτητως και αποδοχή των απόψεων του συγγραφέα εκ μέρους του Τμήματος (Ν.5343/32 αρ.202 παρ.2).

## Contents

Contents .....	3
List of Figures .....	5
List of Tables .....	7
Abstract .....	8
1. Introduction .....	9
1.1 Problem Statement .....	9
1.2 Field of Research .....	9
1.3 Goal of the study .....	10
1.4 Study Contents .....	10
2. Introducing Basic Terms .....	11
2.1 Life Event .....	11
2.2 Life Events and public services .....	12
2.3 E-Government and Life Event Portals .....	13
2.4 Life Event Model .....	16
3. Methodology .....	19
3.1 Identification and Presentation of Life-Event Portals .....	19
3.2 Review of existing Life Event Models .....	20
3.3 Construction and Validation of a new Life Event Model .....	20
4. Life Event Portals .....	21
4.1 Introduction .....	21
4.2 List of Life Event Portals .....	21
4.3 Description of Life-Event Portals .....	22
4.3.1 Your Europe Portal .....	22
4.3.2 Help.gv.at Portal .....	23
4.3.3 Belgium.be Portal .....	25
4.3.4 Suomi.fi Portal .....	27
4.3.5 Ermis.gov Portal .....	30
4.3.6 Magyaroeszag.hu Portal .....	32
4.3.7 Citizens Information Portal .....	34
4.3.8 E-uprava.gov.si Portal .....	35
4.3.9 Sverige.se Portal .....	36
4.3.10 The Swiss Portal .....	38
4.3.11 Australia.gov.au Portal .....	39
4.3.12 New South Wales Portal .....	41
4.3.13 Service Canada Portal .....	43

4.3.14 Ontario Life Event Portal .....	45
4.3.15 Dubai eGovernment Portal .....	47
4.3.16 Salford City Portal .....	48
4.4 List of main Life Events .....	50
4.5 Main entities used for describing Life Events .....	51
5. Life Event Models .....	53
5.1 Introduction .....	53
5.2 Presentation of approaches .....	53
5.2.1 List of the approaches and articles .....	53
5.2.2 The OneStopGov Approach .....	54
5.2.3 The Access-eGOV Approach .....	56
5.2.4 The Pledge Project approach .....	59
5.2.5 The E-Gov Public Services Ontology .....	62
5.2.6 The Governance Enterprise Architecture .....	63
5.2.7 The OntoGov Project approach .....	66
5.2.8 The Web DG Approach.....	71
5.2.9 The DIP Project Approach .....	74
5.3 Concepts and Relationships Matrix .....	76
6. Construction and validation of a new Life Event Model.....	78
6.1 Introduction .....	78
6.2 Main concepts .....	78
6.3 Relationships between the concepts .....	82
6.4 Enhanced life event model .....	84
6.5 Proposed life event model.....	86
6.6 'I want to travel abroad' Life Event .....	90
6.7 Portal presentation .....	96
Conclusion.....	100
References .....	101
Appendix A: List of Life Events.....	107

## List of Figures

Figure 1: Citizens', life events and public administration domains.....	12
Figure 2: Public Services from the user's perspective.....	12
Figure 3: Life events and public services (user's perspective) .....	13
Figure 4: Concepts of an active life-event portal.....	15
Figure 5: LE models at four levels of abstraction .....	16
Figure 6: Template for describing life event portals .....	20
Figure 7: Citizens' life situations in 'Your Europe' Portal.....	22
Figure 8: The 'Opening a bank account' life event in Your Europe Portal.....	23
Figure 9: Topics from A-Z in Help.gv.at Portal.....	24
Figure 10: Life event example in Help.gv.at Portal.....	25
Figure 11: Thematic areas in Belgium.be Portal .....	26
Figure 12: 'Buying or selling a home' life event in Belgium.be Portal.....	27
Figure 13: The subject page of the suomi.fi portal.....	28
Figure 14: The E-Services and forms section of the suomi.fi portal .....	29
Figure 15: 'My needs' section of Ermis.gov Portal .....	31
Figure 16: 'Getting Married' life event in Ermis.gov Portal .....	32
Figure 17: Key events in Life by topic in Magyarorszag.hu Portal.....	33
Figure 18: 'Divorce action' life event in Magyarorszag.hu Portal .....	33
Figure 19: Life event example in Citizens Information portal.....	34
Figure 20: Life events as presented in State Portal of the Republic of Slovenia..	35
Figure 21: 'I want to obtain a divorce' life event in E-uprava Portal .....	36
Figure 22: 'Get a permit' life event in Sverige.se Portal.....	37
Figure 23: 'Your Life' section of the Swiss Portal.....	38
Figure 24: 'Moving home' life event in Swiss Portal.....	39
Figure 25: Life Events in Australia.gov.au Portal.....	40
Figure 26: 'Getting Married' Life Event in Australia.gov.au.....	40
Figure 27: The NSW Portal Life event section.....	42
Figure 28: 'Getting a Divorce' life event in NSW Portal .....	43
Figure 29: List of life events in Service Canada .....	44
Figure 30: 'Getting divorced' life-event at the Service Canada portal .....	45
Figure 31: Life event section of the Ontario Portal .....	46
Figure 32: 'Getting Married' life event in Ontario Portal .....	46
Figure 33: 'Obtaining a Driving License and Renewal' life event in Dubai Portal .	48
Figure 34: Life Event section in Salford City Portal.....	49
Figure 35: 'Getting Married' life event in Salford City Portal .....	50

Figure 36: The main OneStopGov entities .....	54
Figure 37: OneStopGov main entities connection (Todorovski, L. 2007C) .....	55
Figure 38: OneStopGov model .....	55
Figure 39: OneStopGov Life-Event Ontology (Trohidis, I. et al 2008) .....	56
Figure 40: Logical data view on Access-eGov .....	58
Figure 41: Schema for the definition of LE .....	61
Figure 42: The life-event ontology .....	62
Figure 43: Part of the electronic services ontology .....	63
Figure 44: The GEA meta-model .....	64
Figure 45: THE GEA PS object model .....	65
Figure 46: Clusters of e-government ontologies .....	67
Figure 47: The cluster of Meta Ontologies .....	68
Figure 48: The OntoGov Profile Ontology .....	69
Figure 49: OntoGov Process Ontology .....	70
Figure 50: The Proposed Web Service Model .....	72
Figure 51: Web DG Ontology .....	73
Figure 52: Class Diagram of the "Change of Circumstance" Ontology of the DIP project .....	75
Figure 53: Enhanced Life Event Model .....	85
Figure 54: Proposed Life Event Model .....	88
Figure 55: Proposed Life event model with attributes describing a life event .....	89
Figure 56: 'I want to travel abroad' life event (all cases) .....	91
Figure 57: 'I want to get a new passport' case .....	93
Figure 58: 'I want to renew or replace my old passport' case .....	94
Figure 59: 'I want to get a new passport because of theft or loss' case .....	95
Figure 61: 'I want to get a new passport (for minors)' case .....	96
Figure 62: 'Travelling Abroad' life event in Ermis.gov Portal .....	97
Figure 63: Ermis.gov Portal according to our model .....	98
Figure 64: 'Issuing a new passport' public service in Ermis.gov Portal .....	99

## List of Tables

Table 1: Life event based eGovernment Portals.....	22
Table 2: List of main life events .....	51
Table 3: Portals and their main entities for describing Life Events.....	52
Table 4: Relevant approaches and articles .....	53
Table 5: Main Domain Concepts and their relationships.....	77
Table 6: Domain Concepts as presented in several approaches .....	81
Table 7: Synopsis of concepts' relationships .....	83
Table 8: Main Concepts and relationships.....	87

## **Abstract**

One of the fundamental objectives of modern governments regarding public service delivery is the ability to offer a citizen-centric view of the government administration and services. This challenge led to the introduction of life events as 'a straightforward metaphor for identifying the public services related to a specific situation that citizens often face'. Life-event model is the most widely adopted paradigm supporting the idea of composing a single complex service that corresponds to an event in a citizen's life. The aim of this study is to construct and validate a life event model able to describe public service provision based on the concept of life events. First, it investigates and reviews the existing life event portals in order to collect the entities used to describe life events. Secondly, it reviews the existing life event models in order to identify the main domain concepts used and their relationships. All review findings are then used for the construction of our own life event model, which is validated through a life event example and its representation in an existing life event portal.

# 1. Introduction

## 1.1 Problem Statement

Public Administrations worldwide are characterized by complex internal structures and their existent organization of government services is based on a division of work between several fields or competences. Accordingly, government processes and services are adapted and distributed over several public institutions. However, the problems of customers do not usually apply merely to one single public institution.

In contrast to public administrations, citizens do not think in terms of services but in terms of their needs. In fact, citizens desire as little interaction and knowledge of public administration as possible. In order to meet this challenge governments offer and organize their services in many ways. However, the life event concept is the most widely adopted paradigm supporting the idea of a single complex service that corresponds to an event in a citizen's life.

Also, life event government portals are often passive as they usually present life events as hierarchies of topics or lists. This is actually a one-way communication from the portal to the citizen. The citizen's exact needs and circumstances are not considered by the portal. This causes frustration to citizens and prevents easy access to information. For example, even when the desired services are located, they still do not necessarily consider the citizen's extra needs and circumstances.

## 1.2 Field of Research

This study reviews the relevant literature and also identifies and examines the existing life event portals and life event models, in order to construct and validate a new life event model.

The identification of life event portals was based to three main categories:

- Transnational level portals (Your Europe: <http://ec.europa.eu/youreurope/>)
- National level portals (according to Epractice.eu factsheets: <http://www.epractice.eu>)
- Good practice life event portals according to the literature (Tambouris, E. and Tarabanis, K. 2008E)

In total, forty one (41) portals were identified and sixteen (16) of them were examined. This was mainly because most of them were described in their native language and others were not organized in terms of life events.

Moreover, the study introduces the existing life event models and approaches in order to identify the main domain concepts used and their relationships. This introduction is based on the MSc thesis of Kaliva, E. 2008. In this study several approaches and models about public service provision are reviewed and eight of them were selected as beneficial and relevant to our study.

### **1.3 Goal of the study**

The main goal of this study is to create an efficient life event model for describing a citizen's life event. More specifically, our goal is to create a conceptual model that considers all the concepts that take part in a public service provision model but through the aspect of a life event and that also considers the relationship between those concepts.

The creation of this model is based on an analysis and synthesis of the existing life event models found in the literature. The methodology followed is described in chapter 3. The validation of the new life event model is achieved through a life event example and is depicted in an existing life event portal.

### **1.4 Study Contents**

The study is organized as follows:

Chapter 2 introduces the basic terminology related to life events as presented in the relevant scientific papers, articles and reports. Chapter 3 describes thoroughly the methodology we followed, Chapter 4 reviews and presents existing life event portals while Chapter 5 reviews existing life event models found in literature. In Chapter 6 we use the results from the previous chapters in order to construct and validate our new life event model through an example. At the end of this study (chapter 7), the main contributions are revisited and explained with a hint on future research plans while Appendix A presents the life events found in the government portals examined in chapter 4.

## 2. Introducing Basic Terms

In this chapter we introduce the basic terminology related to life events as presented in the relevant scientific papers, articles and reports. This involves the term *life event*, as it is defined and used by different approaches in literature, its *relationship with public services*, the definition of *life event portal* and an introduction to *life event models*.

### 2.1 Life Event

The growing need of the government agencies to offer a citizen-centric view of the service delivery is recently supported by life event models. According to the literature a life event is a set of actions, including at least one public service, which, when executed in its appropriate workflow, fulfils a need of a citizen arising from a new life situation (Trochidis, E., Tambouris, E. and Tarabanis, K. 2006).

Moreover, life event is referred as a metaphor used to denote a specific situation or event in the life of a citizen or a life cycle of an organization that requires a set of public services to be performed (Wimmer & Tambouris, 2002; Leben & Vintar, 2003; Vintar et al., 2004). Users (i.e., citizens or organizations) need to easily identify their needs at their stage in life and the life event should help them map their needs to the set of public services they need to perform.

The scope of the definition mentioned above is wide and refers to both life events of citizens and organizations. Usually the reference made to life events is from the citizen aspect of life events. Thus, a life event is defined as a specific situation or an event in the life of a citizen that requires a set of public services to be performed (Todorovski, L. Et al 2007A). From the aspect of the public administration domain a life event refers to the government services needed at specific stages in life (European Commission, 2003). So there are two perspectives in the definition of a life event: a citizen perspective which suggests that there are life stages (e.g. I want to buy a new house) while there is the public administration perspective which corresponds to life events in public administration (e.g. Registering a new address).

Thus, there are certain citizen needs that require a set of public services to be performed (*Figure 1*).

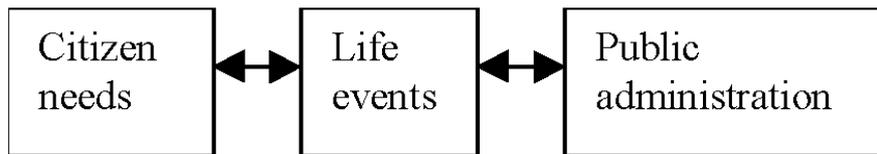


Figure 1: Citizens', life events and public administration domains (Tambouris, E. and Tarabanis, K. 2008)

The citizens' domain contains their needs, wishes, rights, obligations and events that occur in their lives while the public administration domain contains the public authorities and the public services that each one provides. The life-events domain acts as a broker between the citizens' domain and the public administration domain. An important objective of this domain is to identify the specific public services that need to be executed depending on the citizens' needs.

## 2.2 Life Events and public services

In general a public service is a service provided by a government to its citizens, either directly or by authorizing (and in some cases co-financing) external organizations. In either case, a public service is provided by an institution or organization referred to as a service provider. This is typically a public authority (if a service is provided directly by the government) or a private business organisation (if a service is provided by authorizing external organizations) (Todorovski, L. et al 2007A)

More specifically and from the end-users point of view, a public service is a black-box that develops and delivers a product or service (*Figure 2*).

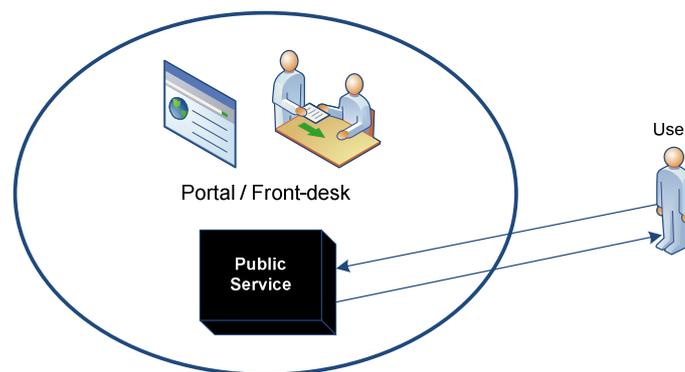


Figure 2: Public Services from the user's perspective

Life events may be considered as entry points to these public services that are realized at the presentation level. As such, life events consist of a set of concrete services (*Figure 3*).

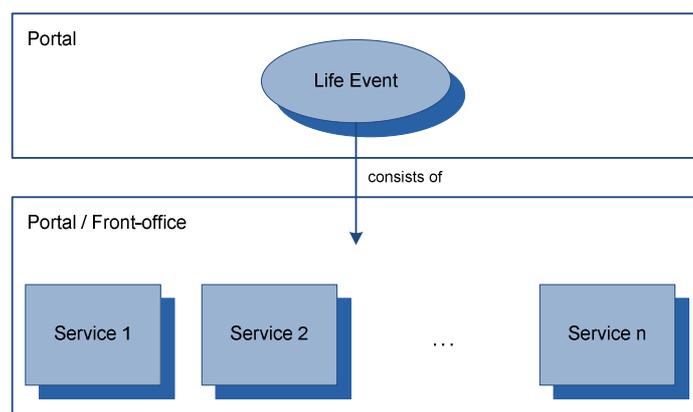


Figure 3: Life events and public services (user's perspective)

In order to clarify the differences between life events and public services, it is useful to work on an example like the one made by the sentence 'I want to buy a new house'. This should be considered as a life event because:

- It expresses an actual wish of a citizen
- It requires an official public administration document (in our example an approved registration) in order to be fulfilled. If the citizen does not hold the relevant public service documentation which is in our case 'registering a new address' then the life event cannot be fulfilled.

Similarly 'registering a new address' is a public service and not a life event because it does not reflect an actual need of the citizen. If the citizen in order to buy a new house was not obliged to acquire a registration for a new address then he would not have to execute that service. In other words the actual citizen's need is to buy a new house and not to register for a new address. Thus 'I want to buy a new house' is a life event but 'registering a new address' is not.

## 2.3 E-Government and Life Event Portals

Government portals as one of the development trends of e-government programs have an important role in the provision of public services. They allow us to join or even integrate services that are in the competence of different public institutions into one single entry point via the Internet. The problem of course lies in the fact that the citizen only knows what he wants and not the way to accomplish this need. The solution to this problem is the development of services based on life-events. The government portal, which includes the system to help the user to identify and solve his life-event, is called a life-event portal (Leben, A. and Bohanec, M. 2003).

At this point it must be noted that e-Government portals can provide information of various kinds, both in terms of the amount and detail of provided information as well as its quality. Based on the kind of provided information, we can classify the portals into the two basic classes, passive and active (Vintar & Leben 2002).

Passive e-Government portals help the user to identify his or her life event by organising them in taxonomy of administrative areas and topics. By browsing this space of topics and sub-topics, the user identifies their life event and finds a FAQ type of information about the set of public services needed to resolve it. In most cases, the information on individual public services is informal free-text extracted from relevant legal acts and typically includes information about who provides the necessary services, who is eligible for these services and what documents (application forms and/or support documents) are typically needed. Where available, the portal will provide links to appropriate e-services. However, this kind of information has limited user-scope (Todorovski, L. et al 2007A). On the other hand, active portals provide the user with a complete guide through the set of necessary public services (Vintar & Leben, 2002; Leben & Bohanec, 2004). The first phase of identifying a life event can be the same as for passive portals but the difference comes into play later, when the user has already identified the appropriate life event. First, the active portal performs an active dialogue with the user to identify all of the user's circumstances that can influence the life-event resolution. Based on the dialogue, the active portal should provide the user with a list of public services tailored to his or her circumstances and needs (Todorovski, L. et al 2007A).

Despite all the effort made by the governments in order to provide integrated public services to the citizens and businesses at 'one place' and in 'one go' thus eliminating all the unnecessary waiting times and confusion the results have not been satisfactory. Recent studies (Tambouris, E., Vintar, M. and Tarabanis, K. 2006) suggest that the reasons are mainly two:

1. Life-event portals are often passive (Leben, A., Kunstelj, M., Bohanec, M. 2004). Life-events are usually presented as hierarchies of topics or lists. This is actually a one-way communication from the portal to the citizen. The citizen's exact needs and circumstances are not considered by the portal. This causes frustration to citizens and prevents easy information discovery. Even when services are located, they still do not necessarily consider the extra needs and circumstances of the citizen.

2. "One-stop" portals do not in fact provide one-stop capabilities. Most governments offer some central point for accessing services, even if the portals themselves have no transactional capability. But if one-stop capabilities are missing, the whole idea of life-event portals is reduced to simple Web sites offering information.

The results can be more efficient and solve the above problems by the use of an active life event portal. Such a portal is introduced by Leben, A. and Bohanec, M. (2003). The core system of such a portal is a knowledge-based system (*Figure 4*) which is a computer program that employs the relevant knowledge and is based on inference mechanisms to solve a given problem. The knowledge-based system in an active life-event portal (intelligent guide through life-events) uses a pre-defined structure of a particular life-event to form an active dialog with the user. In this way, the user is an active partner in the overall process of identifying and solving his/her problem.

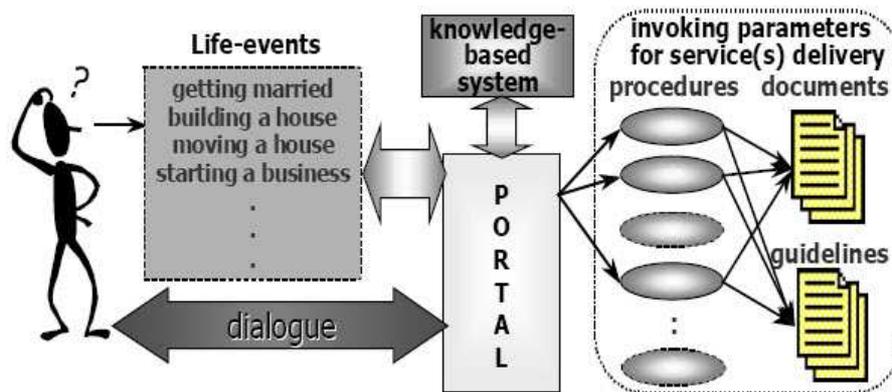


Figure 4: Concepts of an active life-event portal (Leben, A. and Bohanec, M. 2003)

Another interesting review about active life-event portals is introduced by Vintar, M. and Leben, A. (2002). According to the authors an 'intelligent' user interface of an active life-event portal that employs corresponding knowledge-management system should meet three objectives. The first goal is to select an adequate life-event. This could be achieved through a hierarchical structure of topics. This structure helps the user to identify the life-event that corresponds to his problem. Other instruments for selecting an adequate life-event are, for example, a search engine or alphabetical list of life-events with their brief descriptions. The second goal is to identify the processes needed to solve this life-event. This could be achieved through a decision-making process, which is comprised in the structure of the life-event. This process results in a list of

generic processes. The third aspect is to identify an adequate variant of each generic process in this list. This is also a decision-making process, where parameters needed to define a variant of process depend on the values of decisions. These parameters are, for example, different documents needed as supplements to the application form for particular process, and their corresponding guidelines. The list of procedures and corresponding documents and guidelines are called invoking parameters for e-service delivery. These e-services can be presented as information, interaction or even transaction.

## 2.4 Life Event Model

A model of a life-event (or LE model) is a formal description of the life event. There are four levels of abstraction identified for LE models as shown in Figure 5 (Todorovski, L. et al 2006).

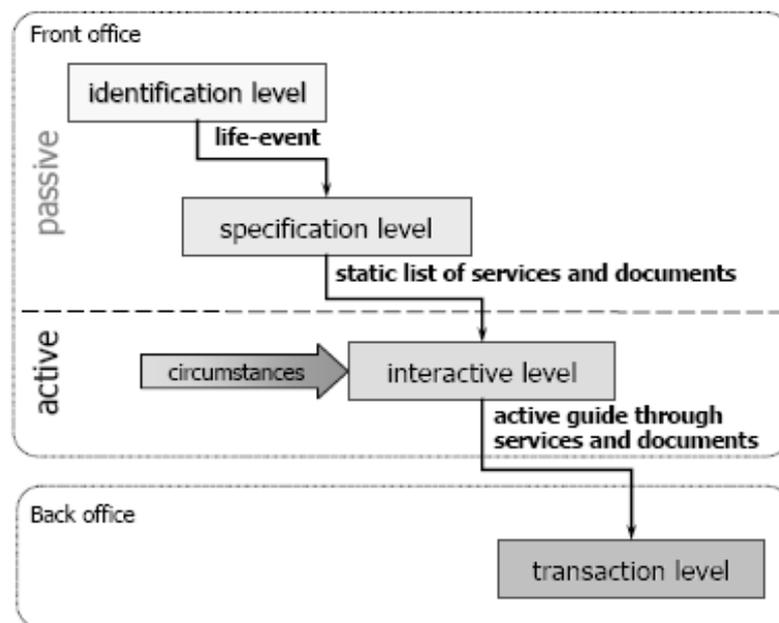


Figure 5: LE models at four levels of abstraction (Todorovski, L. et al 2006)

At the first (*identification*) level, the life-event model consists of a brief life-event description that should allow users to easily identify which life event corresponds to their current life situation. LE models at this level usually take the form of a free-text description. Besides this brief description, they also include further specifications that can make the process of user identification easier. Examples of these are the LE administrative area or topic (such as, taxes, healthcare and education) and the LE target audience. The GovML data vocabulary for life events (Tambouris, E. et al 2004b) is an example of a

comprehensive standard template for building LE models at this first identification level.

LE models at the second (*specification*) level include information from the identification level as well as information about all the public services corresponding to the life event. Information about individual public services typically focuses on facts important to users that need to perform those public services. It typically includes a brief informal free-text description of the service, including information such as:

- who is the service provider;
- a list of documents that are necessary to request the service from the provider (i.e. application forms and support documents);
- typical time needed to perform the service;
- maximal time for performing the service as specified in relevant legal acts;
- Cost of the public service and pointers to legal acts related to the service.

The GovML data vocabulary for public services (Tambouris, E. et al 2004b) is a comprehensive standard template for building LE models at the specification level. LE models on the specification level contain enough information for establishing a passive eGovernment portal. They provide the user with a static list of public services (and links to their electronic counterparts where available) corresponding to the life event of interest. Afterwards, they provide a static list of application forms (and links to electronic versions where available) and support documents needed to trigger execution of each public service. However, specification level models cannot provide the user with an active guide through necessary services and documents. This is due to the fact that models on the specification level lack the formal declaration of different circumstances that can influence the resolution of the life event and therefore are unable to adapt to user specific needs and interests.

The aim of LE models at the third (*interactive*) level is to overcome the limitation of descriptive LE models and provide the basis for the development of active portals. In order to do this, LE models should be extended with information about all potential user circumstances that can influence the resolution of the life event. The influence is two fold. First, the list of public services needed to resolve a life event depends on user-specific circumstances. The second influence of user circumstances is on the list of support documents that have to be attached to an application form for initiating a public service execution. Thus, the interactive LE model covers all the possible user circumstances that can influence the resolution of a specific life event. It must be also noted that all this information is usually part of the LE models on the descriptive level as well, since they usually contain

pointers to relevant legal acts that specify all relevant circumstances. The main difference is however that this information is made formal and explicit in the LE models at the interactive level. That means that the active portal software can make use of this formal specification to query the user about relevant circumstances and use these responses to tailor the generic LE model to the specific user needs. This tailored LE model provides a guide for the user in terms of:

- a time plan (or a graphical workflow model) that guides the user through the public services he or she needs and
- A tailored list of support documents that the user has to attach to the application forms necessary to trigger those services. In the next section, we present a methodology for building generic LE models at the interactive level.

### 3. Methodology

This chapter describes the methodology followed in this study in order to construct and validate a new life event model. This includes three main steps:

- Step 1: Identify and present some of the existing life event portals
- Step 2: Review existing life event models created by relevant literature approaches and
- Step 3: Construct and validate a new model

#### 3.1 Identification and Presentation of Life-Event Portals

Life-Event based eGovernment portals are identified and presented by the following four step process.

1. Identification of Life Event based eGovernment Portals. The portals identified are based to the following three categories:
  - Transnational level: The European portal Your Europe (<http://ec.europa.eu/youreurope/>).
  - National level: Portals mentioned as official national portals, provided from the ePractice.eu (<http://www.epractice.eu>) that is a service that merges the eGovernment Observatory with the good practice Framework.
  - Good Practice Portals: Portals found in literature (Tambouris, E. and Tarabanis, K. 2008E) that organize their services also around life events.
2. Formation of a template (*Figure 6*). This template presents the basic elements of the portal. The *id-portal* is the consecutive number of the portal examined, *url* is a hyperlink of the portal, *moto* is the main logo of the portal that the creator uses at the home page, *level* describes whether this portal is transnational, national or local, *country* is the country of origin of the portal, *list of life events* are the basic life events that can be executed from the portal in order to provide electronic services to the citizen and finally the *basic entities used for describing life events*.

<b>Id-Portal</b>	
<b>URL</b>	
<b>Moto</b>	

<b>Level</b>	
<b>Country</b>	
<b>List of life events</b>	
<b>Entities used for describing Life Events</b>	

Figure 6: Template for describing life event portals

3. Analysis of life event portals. According to the results derived from the first step of our methodology, we analyze the life event portals by using the Template presented in the second step.
4. Creation of a table presenting the most frequently used life events and the main entities that describe the life events in the portals examined in step 3.

### **3.2 Review of existing Life Event Models**

The review of existing life event models and approaches is based on the MSc thesis of Kaliva, E. 2008. The model and approaches found are further analyzed according to the following steps.

1. Creation of a table presenting the literature review including relevant scientific papers, articles and reports.
2. Description of the approach with the presentation of its background and model.
3. Creation of a table with the main domain concepts of each approach and their main relationships.

### **3.3 Construction and Validation of a new Life Event Model**

The construction and validation of our life event models is based on the following steps.

1. Using the table presenting the main entities that describe the life events in the portals from step 3.1.4 and the table presenting the main domain concepts and their main relationships from step 3.2.3, we construct our life event model.
2. We validate our life event model through the life event example 'I want to travel abroad'. Then, we apply our proposed model in an existing life event portal.

## 4. Life Event Portals

### 4.1 Introduction

In section 4 we follow the methodology presented in chapter 3.1. The results of the first step provided us with a number of eGovernment portals.

- At the transactional level we examine the European Portal 'Your Europe'.
- At the national level we refer to the ePractice eGovernment factsheets (<http://www.epractice.eu/en/factsheets/>) that aim to provide an overall picture of the situation and progress of eGovernment in thirty-four (34) European countries (EU Member States, EU Candidate countries and EFTA countries). From the thirty-four portals: ten (10) are described in their native language and fifteen (15) are not organized into life events and so they are excluded from our study. Conclusively nine (9) national level eGovernment Portals are examined.
- Moreover, we examine six (6) other eGovernment Portals in order to extend our study. Those portals are from countries and city councils that organize their services around life events.

Finally, we conclude in a template presenting the main life Events according to their use of frequency and their main entities.

### 4.2 List of Life Event Portals

In this section we provide the list of life event portals that were examined.

SN	PORTAL	URL
1	Your Europe (Europe)	<a href="http://ec.europa.eu/youreurope/">http://ec.europa.eu/youreurope/</a>
2	HELP.gv.at (Austria)	<a href="http://www.help.gv.at">http://www.help.gv.at</a>
3	Portal Belgium BE (Belgium)	<a href="http://www.belgium.be">http://www.belgium.be</a>
4	Suomi.fi (Finland)	<a href="http://www.suomi.fi">http://www.suomi.fi</a>
5	Ermis.gov (Greece)	<a href="http://www.ermis.gov.gr">http://www.ermis.gov.gr</a>
6	Hungary.hu (Hungary)	<a href="http://www.magyarorszag.hu/">http://www.magyarorszag.hu/</a>
7	Citizens Information (Ireland)	<a href="http://www.citizensinformation.ie">http://www.citizensinformation.ie</a>
8	e-Uprava Portal (Slovenia)	<a href="http://e-uprava.gov.si">http://e-uprava.gov.si</a>
9	Sverige.se (Sweden)	<a href="http://www.sweden.se/">http://www.sweden.se/</a>
10	The Swiss Portal (Switzerland)	<a href="http://www.ch.ch">http://www.ch.ch</a>
11	Australia (Australia)	<a href="http://www.australia.gov.au">http://www.australia.gov.au</a>
12	New South Wales (Australia)	<a href="http://www.nsw.gov.au/">http://www.nsw.gov.au/</a>
13	Service Canada (Canada)	<a href="http://www.servicecanada.gc.ca">http://www.servicecanada.gc.ca</a>
14	Ontario (Canada)	<a href="http://www.ontario.ca">http://www.ontario.ca</a>
15	Dubai eGovernment Portal (Dubai)	<a href="http://www.dubai.ae">http://www.dubai.ae</a>

Table 1: Life event based eGovernment Portals

### 4.3 Description of Life-Event Portals

In this section we thoroughly describe the life event portals, following the sequence of the list in section 4.2.

#### 4.3.1 Your Europe Portal

Your Europe portal gives individuals and businesses practical information on their rights and opportunities in the EU. It focuses on real-life, cross-border situations, e.g. European citizens wishing to work or study in another EU country.

The information provided is divided in two areas: Citizens and Business. Each area presents specific information of interest to Citizens or Businesses. The user of the portal can access information for each area by selecting the corresponding coloured tab from the top of the left menu. For example, information to citizens is provided according to life situations such as living, working, travelling, education etc. (Figure 7).

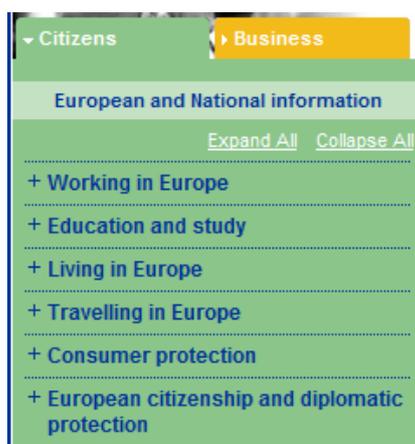


Figure 7: Citizens' life situations in 'Your Europe' Portal

Each insight of the specific life situation is associated with relevant services or life events. An example is shown in Figure 8 where the 'Opening a bank account' life event is presented.

## Opening a bank account (European Union)

English (en) 

- INFORMATION ON COMMUNITY LAW
  - REFERENCE DOCUMENTS

Top ▲

### INFORMATION ON COMMUNITY LAW

Without prejudice to banks' commercial freedom, you can open a bank account in any Member State of the European Union and make bank transfers to or from that account. The opening of the account will be done in accordance with rules that vary from one Member State to another. The rules concerning the opening of a bank account remain governed by national provisions which have not been harmonised.

Generally, if you wish to open an account in certain Member States but you neither live there nor are registered there for tax purposes, you will have to prove that you are resident in another Member State.

As a depositor, if your deposit is denominated in a Community currency, you enjoy a minimum level of protection, which, in the event of default by a bank, guarantees you a refund, in accordance with certain rules, of at least EUR 20 000 per depositor.

You should also know that the European Union has adopted common rules, the practical effect of which is that a cross-border payment in euro is subject to the same charges as the corresponding national payment in euro. This measure does not apply to cheques.

Top ▲

### REFERENCE DOCUMENTS

- Directive 94/19/EC of the European Parliament and of the Council of 30 May 1994 on deposit guarantee schemes (published in Official Journal of the European Communities No L 135, 30.5.1994, p. 5).
- Directive 2005/60/EC of the European Parliament and of the Council of 26 October 2005 on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing (published in Official Journal of the European Union No L 309, 25.11.2005, p. 15-36).

Top ▲

Find more about Opening a bank account...

In which country

In which language  

#### Related links

See EU Guide:

- [Data protection](#)
- [Living, working, studying - An overview of your EU rights](#)
- [Enforcing your rights](#)
- [Buying goods and services](#)

Figure 8: The 'Opening a bank account' life event in Your Europe Portal

The life event is presented by its title, information about the related community law, reference documents, related links and information about how this life event is executed in specific European countries.

<b>Id-Portal</b>	1
<b>URL</b>	<a href="http://ec.europa.eu/youreurope">http://ec.europa.eu/youreurope</a>
<b>Moto</b>	None
<b>Level</b>	Transnational
<b>Country</b>	European Union
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Law, Reference Documents, Related Links to additional information

### 4.3.2 Help.gv.at Portal

HELP.gv.at is a government agency help site on the Internet that offers the necessary information for living and working in Austria. Currently, many connecting links are available in German so we will try to analyze only the English part of this portal.

The English part of the Help.gv.at portal is analyzed in topics from A-Z. The topics are presented in *Figure 9*.

#### Topics from A to Z

##### A

- [Acquisition of Property](#)

##### B

- [Birth](#)

##### C

- [Childcare](#)
- [Citizenship](#)
- [Compulsory Schooling](#)

##### D

- [Driving Licence](#)

##### G

- [Glossary](#)
- [Government Authorities](#)

##### H

- [Household Pets](#)
- [Housing](#)

##### L

- [Lost and Found](#)

##### M

- [Marriage](#)
- [Motor Vehicles](#)

##### R

- [Registrations](#)
- [Residence](#)
- [Retirement Pension](#)

##### S

- [Starting a Business](#)
- [Studying](#)

##### W

- [Working](#)

Figure 9: Topics from A-Z in Help.gv.at Portal

The portal is tailored to citizen's needs, being designed around different 'life situations' like birth, marriage, passports, death, rather than around administrative structures. HELP provides Austrian citizens and residents with a single point of entry to detailed information about public services and administrative procedures. Even though the term life event is not used, the life situations presented can easily represent life events. An example of the 'Conversion of a Foreign Driving Licence' life event is presented in *Figure 10*.

## Conversion of a Foreign Driving Licence

EEA or European Union driving licences are recognized in Austria, and may be converted at any time on a voluntary basis.

### Responsible authority:

- In cities with federal police: the Federal Police Headquarters [*Bundespolizeidirektion*]
  - In Vienna: the Motor Vehicle Department [*Verkehrsamt*]
- In cities without federal police: the district administration [*Bezirkshauptmannschaft*] or the Municipal Authority [*Magistrat*] of your primary residence [*Hauptwohnsitz*]

### Documents to be presented:

- Completed Driving Licence Application form, "*[Führerscheinantrag]*" (download application form)
- Birth certificate [*Geburtsurkunde*]
- Residence Registration Form [*Meldezettel*]
- Official identification with photo [*amtlicher Lichtbildausweis*] (e.g., Passport [*Reisepass*])
- Old driving licence
- Two passport photos (35 mm x 45 mm)
- Medical report (for the exchange of driving licences from **non-EEA** states)

**Please note:** In Vienna the original documents are required plus copies (one copy from the Residence Registration Form, two copies from the Old driving licence and Passport).

### Fees:

- 55.70 euro

**Please note:** Detailed information concerning foreign, non-EEA driving licences is available at auto clubs, like *ARBÖ* and *ÖAMTC*, at the Federal Police Headquarter (in Vienna with the traffic department), or with the district administration [*Bezirkshauptmannschaft*] of your primary residence [*Hauptwohnsitz*].

Figure 10: Life event example in Help.gv.at Portal

As shown in the figure above the life event is presented by its title, a brief description, the responsible authority to execute the life event, documents to be presented and fees need to be paid.

<b>Id-Portal</b>	2
<b>URL</b>	<a href="http://www.help.gv.at">http://www.help.gv.at</a>
<b>Moto</b>	Your aid for official channels in Austria
<b>Level</b>	National
<b>Country</b>	Austria
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Description, Responsible Authority Required Documents, Fees, Tips

### 4.3.3 Belgium.be Portal

The federal portal [www.belgium.be](http://www.belgium.be) was first launched in November 2002. Originally, it was both the institutional site of the Federal Government and an eGovernment portal providing a single and multilingual entry point to information and services provided by the Federal Government to citizens, businesses and civil servants.

A new version of the portal has been released in May 2008, following a two-year preparatory work. The new portal results from a thorough review of the entire system, which was aimed at simplifying the way citizens and businesses communicate and interact with the Administration. The information is displayed in a more user-friendly manner according to the main life-events of both citizens and companies. Apart from this new user-centric presentation, a powerful search engine allows performing searches not only within the portal, but also in the whole web.

The detailed information featured stretches from all possible administrative procedures for citizens and businesses, an address repository for contacting public authorities from all levels of government to the websites of all Belgian public bodies, the latest news and publications of interest for the public, as well as videos and a calendar of events.

Life events are organized into thematic areas like family, justice, mobility, health etc. as shown in *Figure 11*.



Figure 11: Thematic areas in Belgium.be Portal

Each insight into a specific life event is associated with a title of the selected life event, a detailed description of the procedure in order to execute the life event, useful links leading to Public Administration web pages of similar contents and forms required. An example of the 'Buying or selling a home' life event is presented in *Figure 12*.

## Buying or selling a home

Buying a home of their own is at the top of the wish list for many Belgians. But there is so much involved in buying a home that you can lose sight of the greater picture. The "buying and selling" section will help you to avoid this.

Before you buy a home, it is important that you first obtain sufficient information. To finance the purchase, you will most probably need to take out a mortgage. After signing the notarial deed, you will be the official owner of the property, and you will have to pay the annual property tax. You will also need insurance on your new home.

More information on buying and selling a home in [French](#) or [Dutch](#)

### Taxation

If you buy a house or a building plot, you will normally be subject to registration duty (in [French](#) or [Dutch](#)).

In some cases the home that you buy may also be subject to VAT (in [French](#) or [Dutch](#)). If the home is new, the seller may opt to sell it subject to VAT. A home is regarded as "new" until 31 December of the second year following the year in which it was first occupied. For example, a home which was occupied for the first time in 2006 will be regarded as new until 31 December 2008. The rate of VAT on the purchase of a new home is 21%. In this event the purchaser no longer has to pay registration duty on the value of the property. However, registration duty on the value of the land remains due.

Detailed information about the taxes which you must pay when you buy a house or a building plot in [French](#) or [Dutch](#)

### Addresses and websites

Koninklijke federatie van het Belgisch Notariaat

website <http://www.notaris.be>

Figure 12: 'Buying or selling a home' life event in Belgium.be Portal

<b>Id-Portal</b>	3
<b>URL</b>	<a href="http://www.belgium.be">http://www.belgium.be</a>
<b>Moto</b>	No Moto
<b>Level</b>	National
<b>Country</b>	Belgium
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Description, Addresses and Websites, Forms

### 4.3.4 Suomi.fi Portal

Suomi.fi portal is aimed to ease the discovery of public services. It offers news and information about the public administration that is relevant to the daily life of citizens. The system is maintained by an editorial team at the Ministry of Finance in Finland. The main bulk of the original Suomi.fi portal content is a large link collection that is grouped into a taxonomy of fourteen (14) main subject areas of interest, such as 'Housing and construction', 'Families and social services', 'Law and legal protection' etc. *Figure 13* depicts the subject page of the suomi.fi portal.

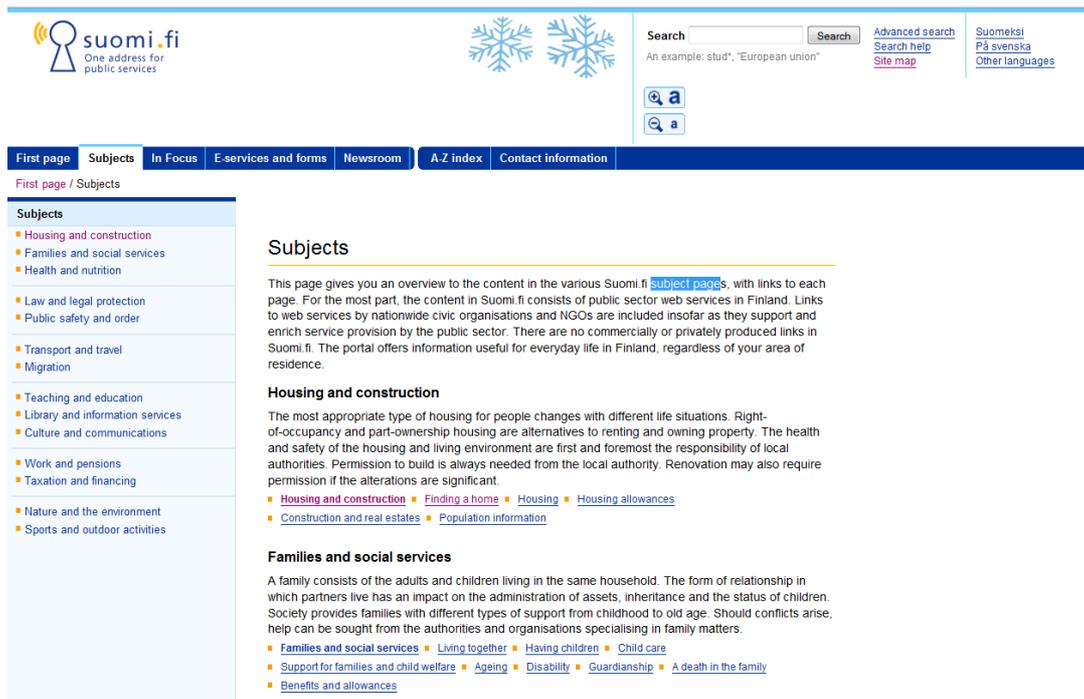


Figure 13: The subject page of the suomi.fi portal

The taxonomy consists of two levels of links leading to web sites and information pages maintained by various public services, ministries, and other governmental agencies. The links are annotated with a brief textual description of their content and with a set of keywords to help finding links with keyword search. By selecting a category, information and links related to it are shown, as well as a set of subcategory links to browse the directory further. Although the life event term is not used in this portal there are certain life situations presented that can represent a specific life event.

Another key issue in the suomi.fi portal is the selection of forms and online services from both state and local authorities. E-services and forms section of the portal is depicted in *Figure 14*.

**E-services and forms**

**Search e-services and forms**

You can search for e-services and forms by writing e.g. the name of a form, form identifier or organisation in the search box. Forms can also be browsed by subject.

An example: tax\*, "European union"

**Search by subject**

**Housing and construction (17 pcs)**

- Finding a home (1 pcs)
- Housing (7 pcs)
- Housing allowances (0 pcs)
- Construction and real estates (1 pcs)
- Population information (8 pcs)

**Families and social services (32 pcs)**

- Living together (7 pcs)
- Having children (3 pcs)
- Child care (11 pcs)
- Support for families and child welfare (1 pcs)
- Ageing (0 pcs)
- Disability (0 pcs)
- Guardianship (0 pcs)
- A death in the family (0 pcs)
- Benefits and allowances (16 pcs)

**Health and nutrition (26 pcs)**

- Health (23 pcs)
- Falling ill and rehabilitation (4 pcs)
- Intoxicants (0 pcs)
- Food and nutrition (0 pcs)

**Law and legal protection (73 pcs)**

- Fundamental rights of citizens (2 pcs)
- Acts and decrees (4 pcs)
- Voting and civic activity (1 pcs)
- Legal protection (2 pcs)
- Legal proceedings and criminal cases (4 pcs)
- Consumer protection (1 pcs)
- Data protection and personal data (4 pcs)
- Nationality, languages and minorities (11 pcs)

**Public safety and order (9 pcs)**

- Accidents and emergency numbers (0 pcs)
- Insurance (1 pcs)
- Maintaining law and order (0 pcs)
- Defence (8 pcs)

**Transport and travel (0 pcs)**

- Maps and geographic information (0 pcs)
- Timetables and transport connections (0 pcs)
- Vehicles and driving permits (3 pcs)
- Traffic safety (3 pcs)
- Tourism (2 pcs)

**Migration (24 pcs)**

- Immigration (13 pcs)
- Guidance for immigrants and integration (2 pcs)

**Teaching and education (15 pcs)**

- Education and educational institutions (14 pcs)
- Attending school and studying abroad (1 pcs)
- Financial aid and grants for students (2 pcs)
- Educational programmes and materials (0 pcs)
- Science and research (0 pcs)

**Library and information services (2 pcs)**

- Libraries (0 pcs)
- Library services for special groups (0 pcs)
- Information services and link collections (0 pcs)

**Culture and communications (21 pcs)**

- Culture and art (0 pcs)
- Museums (0 pcs)
- Archives (1 pcs)
- Religions and ethics (0 pcs)
- Civic organisations and interest groups (3 pcs)
- Media (18 pcs)

**Work and pensions (51 pcs)**

- Job seeking and job vacancies (14 pcs)
- Rules and regulations in working life (12 pcs)
- Working capacity and occupational safety (1 pcs)
- Unemployment and unemployment security (6 pcs)
- Pensions (7 pcs)

**Taxation and financing (27 pcs)**

- Taxation (24 pcs)
- Managing income and expenditure (1 pcs)
- Banking services and investment (0 pcs)
- Public finances (0 pcs)

**Nature and the environment (2 pcs)**

- Environmental protection and nature conservation (0 pcs)
- State of the environment and people's health (0 pcs)
- Natural resources (0 pcs)
- Plants and animals (0 pcs)

**Sports and outdoor activities (1 pcs)**

- Physical exercise and sports (0 pcs)
- Hiking and boating (1 pcs)
- Hunting and fishing (0 pcs)

**Most popular e-services and forms**

- Application for council housing (city of Helsinki)
- Contract of employment
- Non-disclosure of personal information
- Change of address notification form for a person living abroad when registered in the Finnish Population Information System
- Appendix to worker's residence permit application/Application for advance ruling
- Application for pay security (A)
- Passenger card
- Contract of employment for work abroad
- Information about foreign fiancé / fiancée
- Contract of employment in Estonian

**Latest e-services and forms**

- Application for job-related housing
- Change-of-address notification
- Parking Fine Appeal (Helsinki)
- Information for registration of marriage abroad
- Information about foreign fiancé / fiancée

[More e-services and forms](#)

**Revised Tax card 2009?**

Submit requests for revised tax cards. You may need a revised tax card for wages, salary, sideline income, social benefits or seafarer's wages.

- Tax Card Online 2009  
[www.vero.fi](http://www.vero.fi)

**News on e-services**

- In To service point attracts strong interest from foreign workers  
11.11.2009
- Refund of VAT to foreign businesses from Finland as of 1 Jan 2010  
30.10.2009

[More news](#)

Figure 14: The E-Services and forms section of the suomi.fi portal

This section of the portal is structured according to several forms and e-services provided by central government and local authorities. Each organisation has chosen its most important forms to be included in Suomi.fi. The citizens according to their needs may choose a life event situation and also by using the 'My eServices' section of the portal can save web forms and use their data again later when filling other forms.

<b>Id-Portal</b>	4
<b>URL</b>	<a href="http://www.suomi.fi">http://www.suomi.fi</a>
<b>Moto</b>	One address for public services
<b>Level</b>	National
<b>Country</b>	Finland
<b>List of life events</b>	Presented in Appendix A

<b>Entities used for describing Life Events</b>	Title, Description, Links to Public Services, Links to Public Administration Agencies, Forms
---	--

#### **4.3.5 Ermis.gov Portal**

The National Portal of Public Administration 'Hermes' ([www.ermis.gov.gr](http://www.ermis.gov.gr)) is the Governmental Portal of Public Administration aiming to inform citizens and businesses, and ensure the safe use of e-government services through digital certificates established and operated for first time. The portal will be linked to all Citizen Service Centres (KEP) and will have modern technological infrastructures for the interoperability between computer systems of public services and the safe use of public information. The Hermes portal provides 100 online services and 11 complete transactions.

The home page offers the possibility to browse services by topic and according to users' category (citizens vs. enterprises), but also offers the possibility to select a specific life event from the section called 'My needs' as shown in *Figure 15*.

## My needs

### Buying a House

It will include those procedures needed for the acquisition or the building of a residence but also any other type of facility provided by a number of public bodies, such as construction and purchase loans, as well as taxation issues, tax exemptions for the first residence etc.

### Death in the family

It pertains to the issuing of all those certificates needed when someone dies, such as death certificate, as well as, funeral allowances, pensions due to death, transfer of pension to relatives of the deceased etc

### Getting Divorced

It must include anything that has to do with the legal frame but also with the documents and certificates needed when someone gets a divorce.

### Getting Married

It must include anything related to the legal frame but also to the documents and certificates needed when someone is getting married or is already married, such as declaration of the marriage in the municipal rolls, marriage certificate

### Getting insured

It must include anything related to the social insurance from all the funds, such as insurance certificates, insurance fund allowances, insurance contributions etc.

### Having a baby

Declaration of birth, maternity allowances, family allowances and insurance fund aids, procedures pertaining to adoption, operation of children's playground and nurseries etc.

### Looking for a Job

Here, may be a description of a vocational training program and the acquisition of working experience, links to sites as the ones including vacant post announcements, information on technical and professional training, subsidies for the establishment of a new company, youth entrepreneurship etc.

### Lost wallet

In this case it is possible to categorize procedures that pertain to the loss of passport, identity card, and in general personal documents, while it would be useful to make reference to relevant information according to what one has to do, where one has to address to etc.

### Military Service

It must include anything pertaining to military service.

### Retirement

Anything related to the administration of pension by all the funds.

Figure 15: 'My needs' section of Ermis.gov Portal

Each insight into a specific life event is associated with a title of the selected life event, a brief description, links to the relevant public service or services needed to be performed, links to general information about the life event and finally links to existing announcements made about the life event. An example of the 'Getting Married' life event is presented in *Figure 16*.



Figure 16: 'Getting Married' life event in Ermis.gov Portal

As shown in the Figure above the 'Getting Married' life event is presented with its Title, description and two services needed to be performed, one for civil refugees and one for foreigners.

<b>Id-Portal</b>	5
<b>URL</b>	<a href="http://www.ermis.gov.gr">http://www.ermis.gov.gr</a>
<b>Moto</b>	24 Hour public service
<b>Level</b>	National
<b>Country</b>	Greece
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Description, Links to Public Services, Links to Information, Links to Announcements

#### 4.3.6 Magyaroeszag.hu Portal

Hungary's eGovernment portal, Magyarorszag.hu (Hungary.hu) was launched in September 2003 in replacement of the former eKormanyzat.hu (eGovernment.hu). It is at the same time an institutional portal and a services platform. It generates and summarises contents from 46 government web-sites.

In this portal life events are characterized as key events in life. Those are categorized by topics (Family, Education, Health etc.) and also by an A-Z list (Figure 17).



Figure 17: Key events in Life by topic in Magyarorszag.hu Portal

Its topic includes a list of life situations that sometimes respond to life events. Each life event is presented by its Title, a brief Description, related content and the procedure of the life event. Sometimes there is information about the cost and the rules concerning the life event. An example of the 'Divorce action' life event is presented in *Figure 18*.

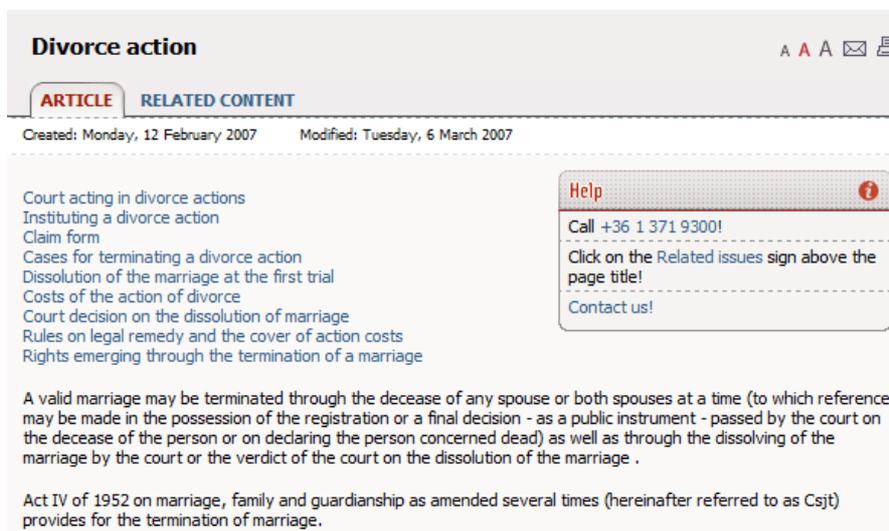


Figure 18: 'Divorce action' life event in Magyarorszag.hu Portal

<b>Id-Portal</b>	6
<b>URL</b>	<a href="http://www.magyarorszag.hu">http://www.magyarorszag.hu</a>
<b>Moto</b>	No Moto
<b>Level</b>	National
<b>Country</b>	Hungary

<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Description, Related Content, Cost, Rules

#### 4.3.7 Citizens Information Portal

Citizens Information Portal is an eGovernment website in Ireland which was developed and is maintained by the Citizens Information Board. The Citizens Information Board is the statutory body which supports the provision of information, advice and advocacy on a broad range of public and social services.

The subjects covered are divided into 14 categories, representing life events and activities and allowing users to readily access the topic relevant to them. Sourced from a wide variety of service providers and agencies, the information is backed up by case studies, supporting documentation and downloadable forms. The website provides guidance on a wide range of subjects, including employment rights, buying a home, moving abroad and education.

Life events are sorted by alphabetical order. Each one is presented by the title, information about the life event, rules attached to the life event, rates for the relevant documents, links to documents that have to be acquired in order to execute the life event and sometimes contact information for the relevant government agency. An example of the 'Registering the birth of your baby' life event is given in *Figure 19*.



Figure 19: Life event example in Citizens Information portal

<b>Id-Portal</b>	7
<b>URL</b>	<a href="http://www.citizensinformation.ie">http://www.citizensinformation.ie</a>
<b>Moto</b>	Public Service Information
<b>Level</b>	National

<b>Country</b>	Ireland
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Information, Rules, Rates, Documents, Contact Information

#### 4.3.8 E-uprava.gov.si Portal

The State Portal of the Republic of Slovenia is a helpful tool to all the visitors interested in gaining general knowledge on Slovenia, information concerning public administration as well as those concerning private sector.

In this portal the information is organized according to life events, thus enabling users to acquire the desired information more rapidly. Life events are firstly separated in life events for individuals and life events for businesses and secondly are categorized by life situations (*Figure 20*).

LIFE EVENTS FOR INDIVIDUALS	
<p><b>Entry into and exit from the country</b> Required documents, Refusal of entry into the country, Restrictions upon entry into the country, ...</p> <p><b>Residence in Slovenia</b> Proving identity, Accommodation, Infrastructure, Change of residence, ...</p> <p><b>Work and employment</b> Work permits, Employment relationships, Registration and revocation of work performed by aliens, ...</p> <p><b>Work and employment</b> Marriage, Dissolving the marriage bond, Extra-marital union, Homosexual unions, Birth, Parents, Child adoption, Foster placement, Child protection, ...</p> <p><b>Death and mourning</b> Death, Funeral, Inheritance, last will, ...</p> <p><b>Traffic, vehicles</b> Road traffic, Vehicles, Railway traffic, Maritime traffic, ...</p>	<p><b>Citizenship and asylum</b> Citizenship, Residence permit, Asylum, ...</p> <p><b>Education</b> Basic education, Upper secondary education, Higher education and post-secondary vocational education, Student exchange, International school, Adult education, ...</p> <p><b>Personal finance</b> Taxes, Banking, Insurance companies, Consumer protection, ...</p> <p><b>Health and social affairs</b> Emergency medical assistance, Health institutions, Dentistry, Health insurance, Social services, Disabled persons, Retirement, ...</p> <p><b>Security</b> Crime, Road traffic safety, Arms, ...</p> <p><b>Travelling around Slovenia</b> Foreign embassies in Slovenia, Tourist information centres, Exchange rates, ...</p>
LIFE EVENTS FOR BUSINESSES	
<p><b>Establishment of a company</b> Companies, business subjects, expand business, appropriate legal form of legal subjects, establishing a company, ...</p> <p><b>Employment and employment relationships</b> Employment, Security and health at work, ...</p> <p><b>Taxes, customs, and other duties</b> Taxes in the Republic of Slovenia, obligations of paying taxes, customs and other duties, ...</p> <p><b>Capital and investments</b> Opportunities for investments in Slovenia, services and competent institutions, ...</p> <p><b>Contemporary business</b> Electronic signature, digital certificates, and certification authorities, Electronic shop, Electronic bank, ...</p> <p><b>Innovations and technological development</b> Patents, Models, Brands, Copyright and related rights, ...</p>	<p><b>Functioning of a company</b> Documents and permits, Consulting, ...</p> <p><b>Financial operations</b> Accounting, Audit of operations, ...</p> <p><b>Public procurement and other public resources</b> Revision of public calls, Electronic public calls, Public calls in EU, ...</p> <p><b>Law and public administration</b> Administrative procedure, Judicial proceedings, Administrative fees, ...</p> <p><b>Facilities and environment</b> Business premises, Protection of the environment, ...</p> <p><b>International cooperation</b> Business conference, deliberations, and seminars, ...</p>

Figure 20: Life events as presented in State Portal of the Republic of Slovenia

Each insight into specific life situations of citizens and businesses is associated with a title of the selected life event, a detailed description and useful links leading to Public Administration web pages of similar contents. In some cases the portal includes a section of Frequently Asked Questions. An example of the 'I want to obtain a divorce' life event is presented in *Figure 21*.

## I want to obtain a divorce

If the marriage should be disturbing for any reasons, both spouses are entitled to demand legal separation.

The Court dissolves the marriage on the basis of an agreement by spouses provided that they have come to an agreement on care, education and alimony for their children and contacts of children with both of their parents in accordance with the provisions of Marriage and Family Relations Act and provided that they have reached and submitted an agreement, in the form of an enforceable notarial act, on the distribution of joint property, namely who of the two spouses remains or becomes the tenant of the apartment and concerning the supporting of a spouse without the means of subsistence and without employment provided that the aforementioned spouse is not to blame for being unemployed.

Prior to dissolving the marriage bond, the Court must establish whether the agreement by spouses provides for the care, education and alimony for their children and contacts of children with both of their parents to the benefit of children, as well as obtain the opinion of the Social Work Centre. The Court takes into consideration also the opinion of children provided that it was expressed by children personally or through any other person trusted and chosen by children and provided that the children are capable of understanding the meaning and consequences of such an opinion.

### Useful links



#### General information

General

Source: Ministry of Labour, Family and Social Affairs



#### Legal sources

Marriage and Family Relations Act

Figure 21: 'I want to obtain a divorce' life event in E-uprava Portal

<b>Id-Portal</b>	8
<b>URL</b>	<a href="http://e-uprava.gov.si">http://e-uprava.gov.si</a>
<b>Moto</b>	State Portal of the Republic of Slovenia
<b>Level</b>	National
<b>Country</b>	Slovenia
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Description, Legal Sources, Useful Links, Related FAQ

### 4.3.9 Sverige.se Portal

Launched in October 2004, the 'Sverige.se' portal replaced the website 'SverigeDirekt.se'. While SverigeDirekt was merely a directory of public agencies, the 'Sverige.se' was intentions-based. However, it was not intended to become a single entry point to the public sector but to serve as an orientation portal; a starting point for people looking for public sector information and services. 'Sverige.se' provides links to:

- online services (e.g. national registration certificates, comparing telephony prices or sending in income tax returns);
- information and services in specific areas (e.g. work, family and pension planning);
- links to and address details of municipalities, county councils, the Parliament, the Government, social insurance offices, universities, the EU and other public sector organisations;
- a search engine covering all websites of the Swedish public sector

The portal is partly organized into life-events. The term life event is not used but some of the facts mentioned on the portal can be considered as life events. An example is the 'Working in Sweden' life event that is divided in four life events: Get a job, get a permit, moving to Sweden, and arrive to Sweden. If we get an insight of the 'Get a permit' life event (*Figure 22*) we can see that it is presented with its Title, a brief description, a process overview, with downloadable application forms and links to public service agencies.

#### Get a permit

From getting a job offer to arriving in Sweden, our process overview will guide you through the necessary steps. Find out how to apply online, which documents need to be included in your application and where your nearest Swedish embassy is located. Also, learn how your immediate family members can automatically qualify for a work permit along with your own, according to Sweden's family migration policies.

#### Process overview

1. Receive a written offer of employment.
2. Your employer sends the job offer to the concerned trade union for approval of salary and working conditions.
3. After approval, the trade union sends it back to the employer.
4. The employer sends it to you, the future employee, who submit it when you apply for the work permit.
5. Apply for a work permit at the Swedish Migration Board.
6. If applicable, apply for family work and residence permits.
7. Receive your work permit at the Swedish embassy or consulate.
8. Arrive in Sweden.

Please note that by filing your work permit application online, your approval process can be as short as three weeks, as opposed to three months or more for paper applications.

#### Steps 1-4: Receive a written offer of employment

If you have successfully applied for a job and been offered a position in Sweden, your future employer must provide you with a written offer of employment. This written job offer is important to the permit process; without it, you can't apply for your work permit.

#### What is a written offer of employment?

The written offer of employment, is an official document, that clearly describes the terms and conditions of your employment such as salary, insurance and length of employment. The offer of employment, must be obtained by your potential employer from the Swedish Migration Board (*Migrationsverket*). The employer then fills it out and sends it to the concerned trade union for approval of the offered conditions and then sends it back to the employer, who sends it on to you.

Please note that the offer of employment must be signed by both employer and the concerned trade union and submitted along with your application for a work permit.

[Download the application form \(pdf\)](#)

Figure 22: 'Get a permit' life event in Sverige.se Portal

<b>Id-Portal</b>	9
<b>URL</b>	http://www.sweden.se
<b>Moto</b>	The Official Gateway to Sweden
<b>Level</b>	National
<b>Country</b>	Sweden
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for</b>	Title, Description, Process Overview, Application

#### 4.3.10 The Swiss Portal

Sub-divided according to target groups, [www.ch.ch](http://www.ch.ch) provides subject-based access, via a single interface, to the entire information and services offering of the Confederation, cantons and municipalities. In total, the portal provides access to about 3,700 websites in five languages (German, French, Italian, Rhaeto-Romanic and English) and has links to about 220,000 pages on the Internet.

Life events are presented through 'Your life' section of the portal (*Figure 23*). They are organized by life stages and by topics.



Figure 23: 'Your Life' section of the Swiss Portal

All life event insights are not presented in the same way, but are associated with a title, a description and sometimes with links to the federal agencies or to brochures that describe the execution procedure of the specific life event. An example is given by the 'Moving Home' life event presentation in *Figure 24*.

## Moving home

Moving is always stressful. The stress can last for days or weeks before moving day, and then still linger on for some time after the actual move. Some basic organisation can help reduce this stress to a minimum. When you move home, you will also need to take care of some administrative procedures, which are indicated in detail below.

### Notification of departure and registration

The most important administrative procedures are notifying your commune of residence of your departure and registering with your new commune of residence. Contact the Residents' Registration Office to find out about the existing procedures you need to complete. Most communes require that you notify them of your departure or register with them in person.

As a general rule, you must register with your new commune of residence within eight days of your move (in Geneva, within two weeks). Remember to bring the following documents:

- Certificate of origin, for individuals or couples (your previous commune of residence will return your certificate of origin to you when you leave. You can order a new certificate of origin from your commune of origin.)
- Family record document, if you have children.

If you move home within the same commune, you simply need to inform the Residents' Registration Office of your change of address.

[Checklist for moving home](#)

### What should foreign nationals be aware of when they move?

Moving home for third-country nationals: In addition to the above-mentioned measures, as a third-country national with a residence permit you should find out as soon as possible from the Residents' registration office of your commune or from the cantonal immigration authorities what additional steps need to be taken when moving. This particularly applies when moving to another canton: a new residence permit is usually required. You must also notify your commune of your departure and register with your new commune within eight days. Further information is also available from the Federal Office for Migration (FOM).

Moving home for EU/EFTA nationals: According to the Agreement on the Free Movement of People, the same rules apply to EU/EFTA nationals as to Swiss citizens. The brochure "European Nationals in Switzerland" provides relevant information.

[FOM - Addresses of cantonal partner authorities](#)

[FOM - Federal Office for Migration](#)

 [Integration Office DFA/DEA - European Nationals in Switzerland](#)

Size: 1011 kb | Type: PDF

Figure 24: 'Moving home' life event in Swiss Portal

<b>Id-Portal</b>	10
<b>URL</b>	<a href="http://www.ch.ch">http://www.ch.ch</a>
<b>Moto</b>	The Swiss Portal
<b>Level</b>	National
<b>Country</b>	Switzerland
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Description, Links To Public Administration Agencies, Links to Further Information

### 4.3.11 Australia.gov.au Portal

*Australia.gov.au* is the official governmental portal of Australian government. Its enhanced search service will make it easier for the citizens to find information from all tiers of Australian government. The portal is organized

into life-events. The life-event section is provided from the home page of the portal. There are ten basic life-events presented (*Figure 25*).



Figure 25: Life Events in Australia.gov.au Portal

Each life event might be divided in other life-events. Each life event is associated with links either to the relevant public administration agency or to certain States of Australia where this life event might be executed. An example of the 'Getting Married' Life Event is presented in *Figure 26*.

## Getting Married

### [Getting Married](#)

The Attorney-General's Department provides information related to getting married in Australia. Includes links to information on: finding the right Marriage Celebrant; providing notice of your intended marriage; fees; participating in a Marriage Ceremony; getting married overseas; marriage to a relative; same-sex commitment ceremony; change of gender and the Certificate of Marriage issued to couples (Form 15).

[www.ag.gov.au](http://www.ag.gov.au)

### [Getting Married \(NSW\)](#)

This page provides information about topics such as: Getting Married, Living in a Marriage and Legal Rights.

[www.nsw.gov.au](http://www.nsw.gov.au)

### [Getting Married \(Vic\)](#)

The Victorian Registry of Births, Deaths and Marriages registers all marriages which occur in Victoria and offers a civil marriage service.

[online.justice.vic.gov.au](http://online.justice.vic.gov.au)

### [Getting Married in Australia](#)

The Attorney-General's Department provides information related to getting married in Australia.

[www.ag.gov.au](http://www.ag.gov.au)

### [Marriages \(Qld\)](#)

This page provides information about getting married in Queensland.

[www.justice.qld.gov.au](http://www.justice.qld.gov.au)

### [Marriages \(WA\)](#)

Marriages occurring in WA since 1841 are registered in the Western Australian Registry of Births, Deaths and Marriages.

[www.bdm.dotag.wa.gov.au](http://www.bdm.dotag.wa.gov.au)

Figure 26: 'Getting Married' Life Event in Australia.gov.au

<b>Id-Portal</b>	11
<b>URL</b>	<a href="http://www.australia.gov.au">http://www.australia.gov.au</a>
<b>Moto</b>	Your Connection With Government
<b>Level</b>	National
<b>Country</b>	Australia
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Links to Agencies, Links to other Portals

#### **4.3.12 New South Wales Portal**

The New South Wales (NSW) Portal has been created by the NSW Government in order to deliver the best possible services to the people of NSW. It sets strong targets for better service delivery across the public sector in NSW. The priorities in the State Plan are a result of extensive consultation with the community, business and stakeholder groups. More than 3,500 groups and individuals have provided their views and local knowledge in the development of this Plan.

The NSW Portal is completely organized in terms of life events. The Home page of the portal offers a Life Event link. By clicking there the citizen can be easily navigated to a list of life events in order to identify the one that represent his needs. *Figure 27* illustrates the Life Event section of the portal.

## Life Events

---



### Buying a Property

Buying a property, selling a property, investment properties, building & renovating...



### Caring for Others

Help for carers, addicts, mentally ill, physically impaired, aged...



### Death and Bereavement

Dying with dignity, death, bereavement, wills & legal issues...



### Having a Baby

Planning a family, pregnancy, giving birth, after the birth, pre-natal care...



### Jobs and Careers

Looking for a job, finding a career, losing your job, career choices...



### Moving House

Local services, moving from interstate, from overseas, utilities, visas...



### Relationships

Getting married, living in a marriage, de facto, getting divorced, legal rights...



### Retirement

Leisure for seniors, finance in your retirement, leaving the workforce, health...



### Victim Support

Discrimination, sexual abuse, domestic violence, reporting a crime...

Figure 27: The NSW Portal Life event section

In this section Life Events are categorized by life situations. Its life event includes a number of links that derive from a custom Google search that the portal provides. An example is presented in *Figure 28* that presents the 'Getting a Divorce' life event. These links lead to the relevant public administration agency and provides to the citizen information of how to execute the life event of his interest.

## Search Results

Results 1 - 10 for **Getting a divorce**. (0.21 seconds)

### [Divorce - LawAccess Online](#)

3 Oct 2003 ... It also includes information for people affected, or likely to be affected, by separation or **divorce**. The is a . pdf file that requires Adobe ...  
[www.lawaccess.nsw.gov.au/HomePageResults.asp?term...Divorce...](http://www.lawaccess.nsw.gov.au/HomePageResults.asp?term...Divorce...)



### [PDF] [FAMILY LAW](#)

File Format: PDF/Adobe Acrobat - [View as HTML](#)  
 and/or spouse maintenance proceedings within 12 months of **getting** divorced. Legal Aid NSW presents free **divorce** classes in a ...  
[www.legalaid.nsw.gov.au/data/portal/.../69069001156385082328.pdf](http://www.legalaid.nsw.gov.au/data/portal/.../69069001156385082328.pdf)

### [Relationships | NSW Government](#)

**Getting** Divorced · Legal rights · **Getting a divorce** · Children · Counselling ... Defacto Relationships - financial agreements · Children's rights and **divorce** ...  
[more.nsw.gov.au/life-events/relationships](http://more.nsw.gov.au/life-events/relationships)

### [Divorce Case Papers copy service — State Records NSW](#)

**Getting** started · Pre-order records · Special arrangements ... We will copy the **divorce** case papers in its entirety or copies to the value of \$30.00. ...  
[www.records.nsw.gov.au/state.../use.../divorce-case-papers-copy-service](http://www.records.nsw.gov.au/state.../use.../divorce-case-papers-copy-service)

### [LawAccess Online](#)

3 Oct 2003 ... Title : Can I get a **divorce**? Description : This page covers the basic steps to **getting a divorce** in Australia. Subject : **Divorce**, Family law ...  
[www.lawaccess.nsw.gov.au/FindMore.asp?...Divorce%2C...Divorce...](http://www.lawaccess.nsw.gov.au/FindMore.asp?...Divorce%2C...Divorce...)

### [Divorce Case Papers, 1873-1930 — State Records NSW](#)

The information in the **divorce** case papers varies considerably. ... Family Historians · » **Getting** Started · » Indigenous Communities · » People in regional ...  
[www.records.nsw.gov.au/state-archives/.../index-to-divorce-case-papers](http://www.records.nsw.gov.au/state-archives/.../index-to-divorce-case-papers)

### [Marriage and \*\*divorce\*\* superannuation advice - First State Super](#)

Marriage and **divorce**. On **getting** married. Here are some things about super you need to think about: Consider whether you wish to make (or change) a ...  
[www.firststatesuper.com.au/LifeEventsSuper/MarriageAndDivorce](http://www.firststatesuper.com.au/LifeEventsSuper/MarriageAndDivorce)

### [Archives In Brief 77 - \*\*Divorce\*\* records — State Records NSW](#)

The **Divorce** case papers are the key record series held by State Records relating to ....  
 Family Historians · » **Getting** Started · » Indigenous Communities ...  
[www.records.nsw.gov.au/state-archives/guides...in.../archives-in-brief-77](http://www.records.nsw.gov.au/state-archives/guides...in.../archives-in-brief-77)

Figure 28: 'Getting a Divorce' life event in NSW Portal

<b>Id-Portal</b>	12
<b>URL</b>	<a href="http://www.nsw.gov.au/">http://www.nsw.gov.au/</a>
<b>Moto</b>	Investing In A Better Future
<b>Level</b>	Local
<b>Country</b>	Australia
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Links to Documents, Links to Public Administration Agencies

### 4.3.13 Service Canada Portal

Service Canada was created in 2005 to improve the delivery of government programs and services to Canadians, by making access to them faster, easier, and more convenient.

Service Canada offers single-window access to a wide range of Government of Canada programs and services for citizens through more than 600 points of service located across the country, call centres, and the Internet.

The home page of the portal provides information about the services that a citizen might require, information that is organized around life events, by subject and by A-Z index. More specifically, the portal provides a list of life events as shown in the *Figure 29* below.

The screenshot shows the Service Canada website interface. At the top, there is a navigation bar with links for 'Français', 'Home', 'Contact Us', 'Help', 'Search', and 'canada.gc.ca'. Below this is a banner with the Service Canada logo and the tagline 'People serving people'. The main content area is titled 'Life Events' and includes a description: 'There will be many important events throughout your life. In some cases, the Government of Canada may provide assistance or important information. Select a life event for programs, services and information related to the topics below.' A list of life events is provided, including: Being a Caregiver, Buying a Home, Finding a Job, Getting Divorced, Getting Married, Having a Baby, Having your Credentials Recognized, Living with a Disability, Lost Wallet, Managing your Debt, Moving, Personal Loss, Raising a Family, Retirement, Starting a Business, Starting Post-Secondary Education, and Travelling Abroad. On the left side, there is a sidebar with 'About Service Canada' and 'Life Events' sections, and a 'Services by Subject' section listing various topics like Education and Training, Employment, Health, Housing, Immigration, Income Assistance, Legal Assistance, Personal Documents, Savings Plans, Special Events, Starting a Business, and Travel.

Figure 29: List of life events in Service Canada

Each link provides information for the specific life-event. This includes a short description of the life-event, a step-by-step presentation of the services needed in order to perform the certain life event and also links to the relevant public agencies with service documents and forms attached. An example is given in the following *Figure 30* which presents the 'getting divorced' life event as it is provided from the portal.

**Service Canada**  
People serving people

**Getting Divorced**

Service Canada has prepared this list to help you understand the legal issues and process of divorce in Canada. The list may inform you about your rights and responsibilities, but for legal advice, please consult a lawyer.

**1. Learn about the Divorce Law in Canada**

The [Divorce Law: Questions and Answers](#) guide informs you about the basic things you need to know about getting a divorce in Canada. It also explains the requirements for getting a divorce, some of the forms you have to fill out, how to set up living arrangements for your children, child support, spousal support, and the sharing of property and debt.

[Provincial and territorial laws](#) apply when unmarried parents separate or married parents separate and do not pursue a divorce. These [provincial and territorial laws](#) may contain provisions regarding parent-child relationships (parental authority, guardianship, etc.).

**2. Seek Legal Help and Advice**

If you cannot afford a lawyer, you may be eligible for legal aid. [Civil legal aid](#) (such as family law) is a provincial and territorial responsibility. Many provinces and territories also offer [lawyer referral services](#).

[Family Law Assistance Services](#) offers programs related to family orders and agreements, divorce proceedings and garnishment of salaries.

**3. Inform Yourself about Parenting After Divorce**

There are many [resources](#) available for parents on the *Divorce Act* and other issues related to post-separation parenting arrangements.

There is also information available about the [Federal Child Support Guidelines](#), including how to calculate child support owed. More information about [maintenance enforcement programs](#) can be obtained through your province or territory.

**4. Apply for the Canada Pension Plan Credit Splitting Program**

The [Canada Pension Plan Credit Splitting](#) program allow credits which the couple built up during the time they lived together to be divided equally between them. Credits can be split even if one spouse or common-law partner did not pay into the Canada Pension Plan.

In the case of a legal divorce that took place on or after January 1, 1987 you do not have to apply. Canada Pension Plan simply needs to be **notified** that the divorce occurred and given certain information (with documentation), such as the length of time you lived together. You can [contact Service Canada](#) to request a credit split or you can obtain the [application form](#) online.

Figure 30: 'Getting divorced' life-event at the Service Canada portal

<b>Id-Portal</b>	13
<b>URL</b>	<a href="http://www.servicecanada.gc.ca">www.servicecanada.gc.ca</a>
<b>Moto</b>	Service Canada – People serving people
<b>Level</b>	National
<b>Country</b>	Canada
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Description, Links to Public Services, Links to Further Information, Links to Public Administration Agencies, Law, Legal Help

#### 4.3.14 Ontario Life Event Portal

The Ontario Life Event Portal is categorized by communities (residents, businesses and visitors). Residents that concern our study are categorized in groups sometimes according to what life stage they belong (e.g. Senior) or due to their marital status. There is also a life event section in the portal as shown in *Figure 31*.

## Life Events

Throughout our lives, we may experience many important events such as getting married, having a baby or preparing for retirement. To help you deal with these kinds of events, we have gathered resources and services from several different ministries and levels of government to provide you with focused and organized information.

**Choose a Life Event**

- [After an Auto Accident](#)
- [Changing Your Name](#)
- [Dealing With Separation and Divorce](#)
- [Dealing With Spousal Abuse](#)
- [Finding Seniors' Health Care Resources](#)
- [Getting Married](#)
- [Getting Ready to Retire](#)
- [Having a Baby](#)
- [Looking for a Job](#)
- [Losing Your Wallet](#)
- [Managing Your Debt](#)
- [Moving to and Around Ontario](#)
- [Planning Your Next Steps After High School](#)
- [Pursuing Life's Best After Retirement](#)
- [Vacationing in Ontario](#)
- [What to Do When Someone Dies](#)

Figure 31: Life event section of the Ontario Portal

Each insight into specific life situations of residents is associated with a title of the selected life event, a brief description of the life event, useful links leading to Public Administration web pages of similar contents and sometimes to relevant documents required so that the life event can be executed. An example of the 'Getting Married' Life Event is presented in *Figure 32*.

**Marriage** E-MAIL PRINT

- ▶ Getting Married
- ▶ Before You Get Married
- ▶ After You Get Married

**Getting Married**

Marriage is an important event in a couple's life. You'll be excited and at times challenged by all the preparation and planning the occasion requires. Yet, don't forget some important details like obtaining a marriage licence or updating your identification if you change your name. The marriage licence is valid anywhere in Ontario for three months from the date of purchase. We hope the information gathered on this site will help you with some of the changes your new life as a married couple brings.

**Quick Links:**

- [Marriage Licence Application Form](#) (PDF - 27K)
- [Online Marriage Certificate Application](#)
- [Marriage Certificate Application Form](#) (PDF - 33K)
- [Online status inquiry for a Marriage Certificate Application in Ontario](#)
- [Marriage Tip Sheet \(English, French, Arabic, Chinese, Hindi, Punjabi, Tagalog\)](#)

Communities >  
Topics >  
Services >  
Explore Government >  
Resources >  
Forms

Figure 32: 'Getting Married' life event in Ontario Portal

<b>Id-Portal</b>	14
<b>URL</b>	<a href="http://www.ontario.ca">http://www.ontario.ca</a>
<b>Moto</b>	None
<b>Level</b>	Local
<b>Country</b>	Canada
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Description, Links to Documents, Links to Public Administration Agencies

#### 4.3.15 Dubai eGovernment Portal

Dubai eGovernment refers to Dubai Government's use of Information and Communication Technology (ICT) to provide government services to citizens, residents and visitors (G2C), to businesses (G2B), to other government entities (G2G) and to government employees (G2E); using multiple channels, in line with its vision of easing the lives of people and businesses interacting with the Government.

Dubai eGovernment Portal provides categorized information using the concept of life events. It distinguishes life events for citizens/residents, for businesses and for visitors. In each category we can find life events that are described through their title, a brief description of the life event, a description of the procedure that has to be followed in order to execute the life event successfully and useful links leading to Public Administration web pages of similar contents. An example of the 'Obtaining a Driving Licence and Renewal' life event is presented in *Figure 33*.

## OBTAINING A DRIVING LICENSE AND RENEWAL

While there are many options for travelling about in Dubai including buses, trains, abra and taxis, a very popular option is owning and driving your own car. You will need to follow government authorized procedures for obtaining your driving license, transferring your license and buying or selling a car.

### Obtaining a driving licence and renewal

Considering the vast nationalities that have made Dubai their home, there is bound to be varied driving cultures. To ensure some uniformity and discipline, in line with international regulations and standards, Dubai's Road and Transport Authority has stringent tests before issuing driving licenses in Dubai.

The good news is that 36 countries that have a very high international standard of driving are on the approved list. Citizens of such countries holding driving licenses can automatically obtain transfers and obtain an UAE license without undergoing any training. For nationals of all other countries, you can obtain your license after training from an authorized driving school. If you are 18-21 years of age, you can apply for a probationary license.

Renewing your licence is simple and can be done at any RTA Traffic Office branch or mall outlet within less than 30 minutes.

[Approved list of 36 countries for transfer of driving licenses](#) – Dubai.ae  
[Procedures for getting a driving license in Dubai](#) – Dubai.ae  
[Request to open a new file for learner's licence and download the form](#) – Roads & Transport Authority  
[Authorized driving schools](#) – Dubai.ae  
[Request a traffic signs test appointment](#) – Roads & Transport Authority  
[Request NOC for Handicapped](#) – Roads & Transport Authority  
[Request to renew driving licence and vehicle registration](#) – Roads & Transport Authority  
[Report a damaged/lost driving licence or vehicle registration](#) – Dubai Police  
[Get an international driving licence](#) –Automobile and Touring Club of UAE

Figure 33: 'Obtaining a Driving License and Renewal' life event in Dubai Portal

<b>Id-Portal</b>	15
<b>URL</b>	<a href="http://www.dubai.ae">http://www.dubai.ae</a>
<b>Moto</b>	Together To Ease Your Life
<b>Level</b>	National
<b>Country</b>	Dubai
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Description, Procedure, Links to other Life Events, Links to further information, Links to Public Services

### 4.3.16 Salford City Portal

The Salford City Portal is tailored to citizen's needs being organized around the following categories:

- Living
- Learning
- Leisure
- Business

- Online Services
- Your Council

The life event section can be reached by the living category (*Figure 34*). It contains sixteen (16) life events in total.

Home » Living » Life events

**Life events**

From the cradle to the grave, we go through many stages of our lives, and these 'Life Events' pages provide links to guidance, advice and support to help you on your way ....

The information provided comes both from Salford City Council and other regional or national organisations to assist you in obtaining the best possible information and advice during the key points of your life.

**Why not suggest a new life event?**

If you have a suggestion for a life event to be included here - or would just like to recommend an additional link to add to a particular 'event', please email [webmaster@salford.gov.uk](mailto:webmaster@salford.gov.uk) with details.

This page was last updated on 11 December 2009

[Email this page to a friend](#)

**Bookmark this page using:**

[Delicious](#) [Digg](#) [Facebook](#) [reddit](#) [StumbleUpon](#) [Twitter](#)

Find out more about [social bookmarking](#).

<b>Living</b>
Applying for a school place
Becoming a parent
Being a teenager
Changing schools
Dealing with crime
Becoming disabled
Enjoying later life
When you're going away
Learning to drive
Looking for a job
Relationships
Sorting out a nuisance
Starting up a business
Welcome to Salford
When someone dies

Figure 34: Life Event section in Salford City Portal

Each life event is presented by its title, a brief description and contact information. Sometimes, when it is required by the life event, the portal provides the Documents needed in order to execute the life event, information about Fees to be paid, legal requirements and links to the relevant Public Administration Agencies. An example of the 'Getting Married' life event is presented in *Figure 35*.

Home » Living » Births, marriages and deaths » Marriages

**Getting married in Salford**

**Are you getting married at Salford Register Office or at one of our venues licensed to hold civil ceremonies?**

We aim to make your day as memorable as possible and will do everything possible to make it a day you will remember.

**Marriage co-ordinator**

Our Marriage Coordinator is available by appointment to discuss your requirements for your wedding day .

You can choose a formal or informal ceremony, to have a large or small wedding party. You may prefer a simple ceremony or to add readings or poetry and music. You may wish to enter the room together as a couple, or the bride may choose to arrive with a relative or friend when all the guests are assembled.

We will provide you with an information pack with the details of the services we offer and information and advice for choosing readings, poetry and music. Music must be on a CD and you should include 45 minutes of music.

The Register Office can offer a selection of music and poems, or you may prefer to bring your own. Please note that your choice must not have any religious connotations and that either you or your guests must read out your choice of literature or poetry. Music must be on a CD and you should include 45 minutes of music.

If you do require help from the Marriage Coordinator please make an appointment by telephoning 0161 909 6501, no later than two weeks before the date of the wedding. It might not be possible to add enhancements to ceremonies if you are unable to give this notice.

**Who to contact**

**Name** Salford Register Office  
**Address** Salford Civic Centre  
 Chorley Road  
 Swinton  
 SALFORD  
 M27 5AW  
**Telephone** 0161-909 6501  
**Email** [birthsanddeaths1@salford.gov.uk](mailto:birthsanddeaths1@salford.gov.uk)

Figure 35: 'Getting Married' life event in Salford City Portal

<b>Id-Portal</b>	16
<b>URL</b>	<a href="http://www.salford.gov.uk">http://www.salford.gov.uk</a>
<b>Moto</b>	None
<b>Level</b>	Local
<b>Country</b>	United Kingdom
<b>List of life events</b>	Presented in Appendix A
<b>Entities used for describing Life Events</b>	Title, Description, Contact Information, Documents, Fees, Legal Requirements, Links to Public Administration Agencies

#### 4.4 List of main Life Events

In this section we provide a list of the main life events found and the frequency that those appear in the examined Portals. The list of all life events found is presented in Appendix A.

Life event	Frequency
Having a Baby	16
Getting Married	14
Getting Divorced	11

Studying	10
Dying	8
Retiring	7
Bying property	6
Adoption	5
Loosing a job	4

Table 2: List of main life events

#### 4.5 Main entities used for describing Life Events

In each portal we presented the main entities used for describing Life Events. *Table 3* presents a brief outline of each portal and its main entities.

Portal_ID	Portal	Main Entities
1	Your Europe Portal (Europe)	Title, Law, Reference Documents, Related Links to additional information
2	HELP.gv.at (Austria)	Title, Description, Responsible Authority, Required Documents, Fees, Tips
3	Portal Belgium BE (Belgium)	Title, Description, Addresses and Websites, Forms
4	Suomi.fi (Finland)	Title, Description, Links to Public Services, Links to Public Administration Agencies, Forms
5	Ermis.gov (Greece)	Title, Description, Links to Public Services, Links to Information, Links to Announcements
6	Hungary.hu (Hungary)	Title, Description, Related Content, Cost, Rules
7	Citizens Information (Ireland)	Title, Information, Rules, Rates, Documents, Contact Information
8	e-Uprava Portal (Slovenia)	Title, Description, Legal Sources, Useful Links, Related FAQ
9	Sverige.se (Sweden)	Title, Description, Process Overview, Application Forms, Links To Public Administration Agencies
10	The Swiss Portal (Switzerland)	Title, Description, Links To Public Administration Agencies, Links to Further Information
11	Australia (Australia)	Title, Links to Agencies, Links to other Portals
12	New South Wales (Australia)	Links to Documents, Links to Public Administration Agencies
13	Service Canada (Canada)	Title, Description, Links to Public Services, Links to Further Information, Links to Public Administration Agencies, Law, Legal Help
14	Ontario (Canada)	Title, Description, Links to Documents, Links to Public Administration Agencies
15	Dubai eGovernment Portal (Dubai)	Title, Description, Procedure, Links to other Life Events, Links to further information, Links to Public Services

16	Salford (UK)	Title, Description, Contact Information, Documents, Fees, Legal Requirements, Links to Public Administration Agencies
----	--------------	---

Table 3: Portals and their main entities for describing Life Events

## 5. Life Event Models

### 5.1 Introduction

In section 4 we follow the methodology described in chapter 2.2. Eight approaches are reviewed, most of them developed under relevant projects. The approaches are:

- OneStopGov Project Approach
- Access-eGov Project Approach
- Pledge Project Approach
- E-Gov Public Services Approach
- Governance Enterprise Architecture Approach
- OntoGov Project Approach
- Web Digital Government Project Approach
- The DIP Project Approach

From the above eight approaches only the fist four include an explicit description of the life event concept while the other four present their models by using concepts that can clearly represent a life event based model.

### 5.2 Presentation of approaches

#### 5.2.1 List of the approaches and articles

The approaches and their relevant articles are presented in *Table 4*.

Approach	Articles
OneStopGov Project Approach	[36], [40], [50], [54], [55], [56]
Access-eGov Project Approach	[1], [2], [3], [9], [10], [11], [12], [48], [59]
Pledge Project Approach	[5], [32]
E-Gov Public Services Approach	[46], [64]
Governance Enterprise Architecture Approach	[14], [25], [26], [27], [28], [29], [31], [47]
OntoGov Project Approach	[34], [43], [51]
Web Digital Government Project Approach	[20], [21]
The DIP Project Approach	[6], [7], [13], [63] [49]

Table 4: Relevant approaches and articles

## 5.2.2 The OneStopGov Approach

### Background

OneStopGovGov was a thirty six month EU-funded research and development project that aimed at specifying, developing and evaluating a life-event oriented, all-inclusive, integrated, interoperable platform for online one-stop government (The OneStopGov Project: <http://www.onestopgov-project.org/>). The One-Stop Gov platform is based on a number of scientific and technological innovations. More specifically the OneStopGov project presented the following:

- Life-event ontology in order to enable proper representation of the life-event concept.
- An active life-event portal to care for citizens' needs and circumstances.
- A complete set of life-event reference models in order to allow implementing virtually any life-event.
- The usage of generic workflows Web technologies in the implementation of these reference models.

The OneStopGov platform and framework was deployed in three new Member States (Slovenia, Hungary and Poland). The platform was used for modelling, implementing and deploying 12 life-events.

### Model Presentation

Based on the relevant literature, five basic entities were identified for the OneStopGov ontology (*Figure 36*) (Todorovski, L. 2007C).

- life event
- public service
- document (input and output)
- citizen, as the main actor or user
- user profile

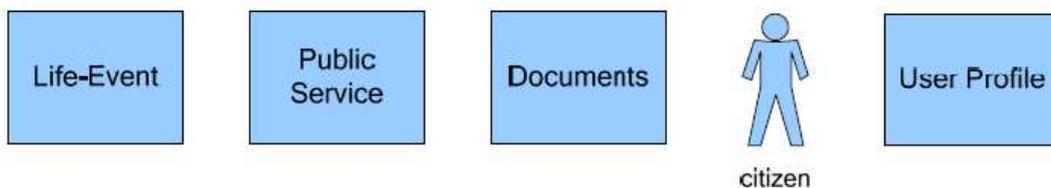


Figure 36: The main OneStopGov entities

The next step in order to present life-event ontology was to connect these five basic entities as shown in *Figure 37*.

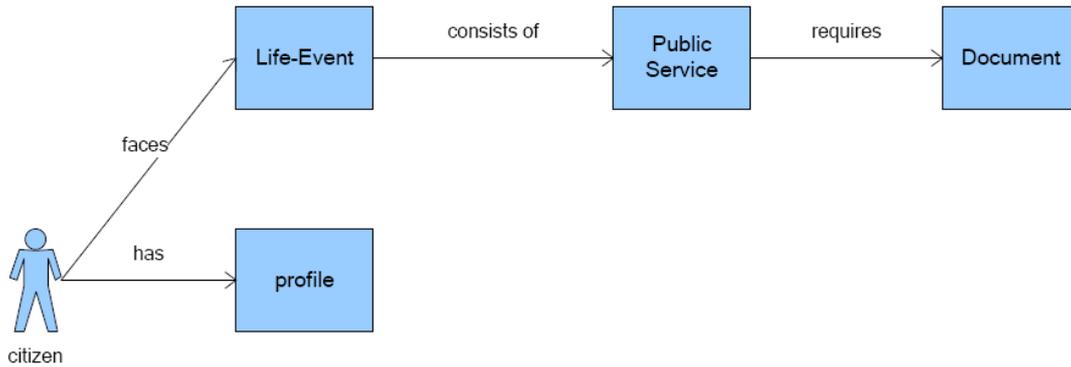


Figure 37: OneStopGov main entities connection (Todorovski, L. 2007C)

The above figure can textually be described as follows. A citizen faces a life event. A single life event is composed of one or more public services. Public services require documents as input. A citizen, in the OneStopGov environment, can have a profile. This profile can serve as an input to information that might be required for the execution of one or more public services. Using the profile we can avoid citizens being asked for duplicate information during a life event execution. Furthermore, based on the citizen’s profile the OneStopGov engine will be able to trigger the appropriate public services.

Moreover, the OneStopGov project presented a platform for online one-stop government that is accompanied by a coherent framework for realising and exploiting online one-stop government at all levels. This attempt is depicted in Figure 38.

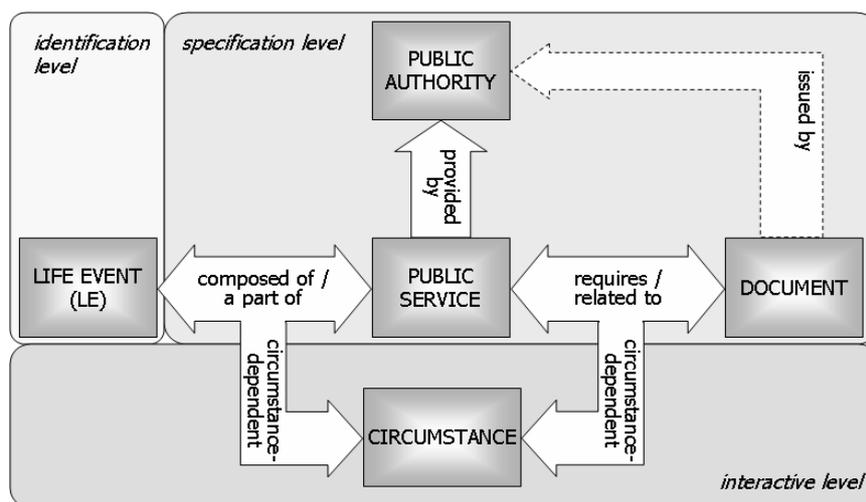


Figure 38: OneStopGov model

According to the above model, a Life Event is composed of Public Services that are provided by Public Authorities. Public Services require Documents that

are inputs whereas both Life Events and Public Services depend on citizens' Circumstances.

Moreover, OneStopGov Project presented a life event ontology shown in Figure 39 (Trohidis, I. et al 2008).

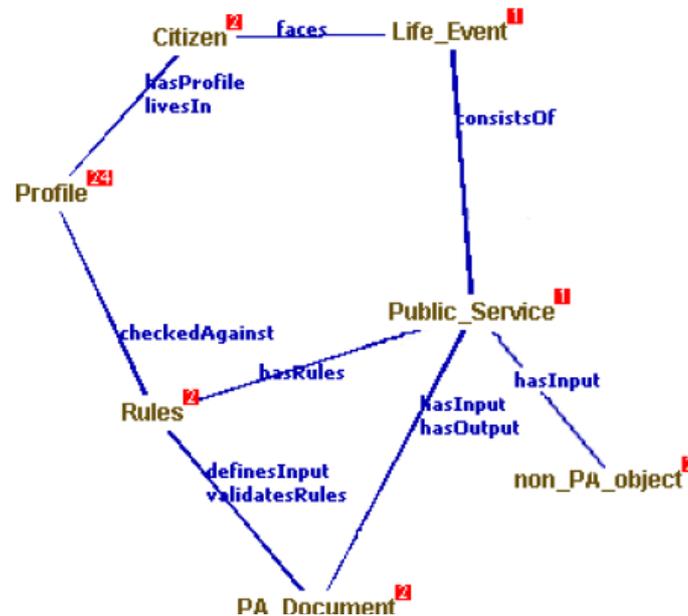


Figure 39: OneStopGov Life-Event Ontology (Trohidis, I. et al 2008)

According to the above model a citizen faces life-events. Each life-event consists of one or more public services. Each public service receives input and produces output. The input can be either an official document produced by the Public Administration or an object not produced by the Public Administration. The output of a public service is always an official Public Administration (PA) document.

In addition, a public service has rules stated in the relevant laws and regulations. The rules define the input and output and the internal logic of the service.

Finally, a citizen has a profile that contains information. When a citizen invokes a service, this information may be checked against the service's rules.

### 5.2.3 The Access-eGOV Approach

#### Background

Access-eGov was a thirty-six-month EU-funded research and development project that aims to develop and validate a platform for composition of government services into complex process definitions (covering life events/business episodes) enabling semantic interoperability of particular e-Government services (The Access-eGov Project: <http://www.accessegov.org/>).

By employing semantic technologies, the Access-eGov project supports semantic interoperability among e-government services across organisational, regional and linguistic borders. For service providers (on all levels of public administration - local, regional, national, and European) Access-eGov enables introduction of a (new) e-service to the world of e-government interoperability in an easy way. The government service registered in the Access-eGov may be localised, contracted and used automatically through agents and other IT components.

For citizens and business users the Access-eGov will provide two basic categories of services. Firstly, it provides a meta-service – depending on the needs and context of the user Access-eGov will find/ identify traditional and/or e-government services relevant to the given life event or business episode. Secondly, once the relevant services are found, Access-eGov generates a scenario consisting of elementary government services. Usually these scenarios will be of “hybrid” nature – i.e. combination of elementary traditional and e-services - realisation of which leads to a requested outcome (e.g. to get a new driving license, if you lost both your ID and the old driving license etc.). At the realisation of the scenario a virtual personal assistant guides the user through each step of the scenario.

### **Model Presentation**

Access-eGov is built on peer-to-peer and service-oriented architecture, addressing the semantic issues through ontology-guided mark-up of local e-government service interfaces. Component-based security infrastructure provides a complete portfolio of necessary security services (authentication, authorisation, attribute management, access control, data protection, auditing) that are accessible through web service interfaces.

The main concepts defined in the Access-eGov approach are (Tomasek, M. et al 2006):

- *Life event*
- *Goal*
- *Service*
- *Service Profile*
- *Generic scenario*

A logical data view on Access-eGov is depicted in *Figure 40* (Bednar Peter et al 2006).

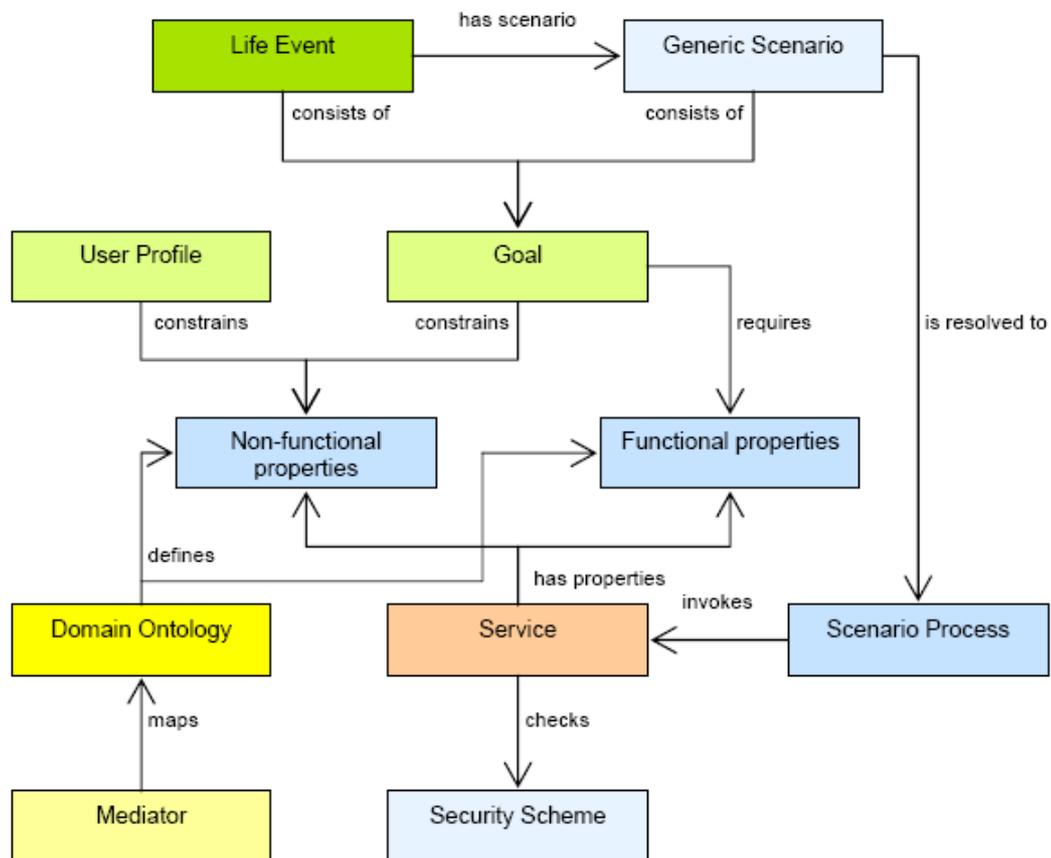


Figure 40: Logical data view on Access-eGov

A *life event* denotes a specific situation (i.e. event) in the life of citizen that requires a series of public services to be performed. Life events can be categorized into groups and may be organized in multiple hierarchies. Using the AeG Personal Assistant portal site, the user may “browse” or navigate through life event categories in order to select the appropriate life event.

A life event may be assigned multiple goals, which will formalize user needs. Life event’s goals can have specified optional preconditions, which allow users to customize their specific life event. Preconditions are specified as logical expressions with input variables provided either explicitly by the user or from the user profile (preconditions are not dependent on service invocation). More complex life events can organize goals with more complex workflow models specified as generic scenarios.

*Goal* specifies those objectives that client might have when consulting a service, including functionalities that the service should provide from the user’s perspective. Goals formalize user needs by specifying the requested outputs and

effects. This is declared in the same way as service functional properties. Goals are only logically matched against service's capability, but the data structures are completely independent from one another. They are not directly connected to service- and user-related data.

*Service* is an atomic activity provided by an atomic activity provided by a public administration. It can be either electronic or traditional.

*Service profile* specifies what the service does provide from user's perspective and is used by the public administration to advertise services. Service profile consists of non-functional and functional properties. Functional properties describe inputs, outputs, preconditions and effects of the service (IOPEs). They are specified as logical expressions, which consist of terms constraining type and property values of various resources required for or provided by the services. Types used to specify functional properties are defined in the domain specific resource ontologies. Non-functional properties describe semi-structured information intended for requesters for service discovery, e.g. service name, description, information about the service provider and properties which incorporate further requirements for service capability (e.g. traditional office hours and office location, quality-of-service, security, trust, etc.). Structured non-functional properties are specified by domain specific ontologies (i.e. organization structure of the service provider) and general (e-government independent) ontologies (i.e. types used to describe quality-of-service, security or trust).

*Generic scenario* is resolved to a scenario process model that is represented as a collection of activities designed to produce a specific output for a particular requester, based on a specific input. In that sense, activity is a function or a task that is carried out over time and has recognizable results.

From the above description of the Access-eGov approach is clear that the main entity of this model is Life Event which practically consists of goals that require certain properties. These properties are included in services that are in fact atomic activities provided by public administrations. On the other hand if life events are more complex they can organize goals with more complex workflow models specified as generic scenarios.

## **5.2.4 The Pledge Project approach**

### **Background**

This approach proposes a public administration platform that takes advantage of resources derived from the use of Semantics and from the use of Life Events. Its main goal is to introduce an ontology-based support to facilitate tasks related to services locating. The usage of the life event concept also offers

several advances: the services are defined in a more user friendly manner, are characterized by a uniform mechanism and semantic annotation new tools provide easier localization.

### **Model presentation**

The major concept of the model is the life event entity. The project after taking into account the former definition of Life Events, it establishes a semantic based definition for Life Events. This kind of definition of Life Events includes the following items (Corradini, F. et al 2007):

- *Task*: Title for the considered operation.
- *Description*: High level description of the desired operation expressed in natural terms from the point of view of the citizen.
- *Input Document*: The documents that the citizen is requested to provide in order to invoke the operation.
- *Output Document*: The documents that the public administration in charge provides as a result of any performed operation. This output will vary its content from the expected document to information about the failure to get the expected document.
- *Scope*: The scope of the operation (local, national, international etc.) where we want the operation to be recognized.
- *Security Conditions*: The conditions for the security mechanism involved during the whole process.
- *Cost*: The amount that a citizen has to pay for the requested operation and/or also the time it will take for the completion of the operation.
- *Version*: The tracking of Life Events modifications and changes from one version to another.

In order to transform common services into LE, expressed in the proposed terms, the Pledge project approach follows the following methodology and its schema is depicted in *Figure 41* (Corradini, F. et al 2007):

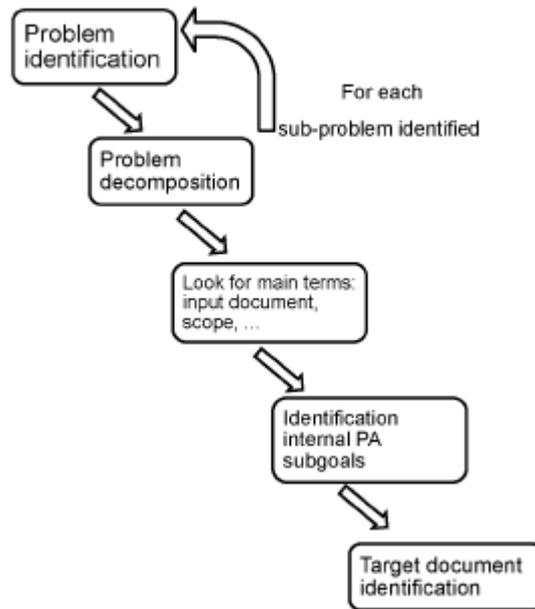


Figure 41: Schema for the definition of LE

The above schema is presented by the following six steps:

1. Identify the problem and dealing features as PAs involved.
2. Decompose the problem into different problems that may be solved in a single step, i.e., each step must produce as output a document meaningful for the citizen.
3. For each identified sub process, look for the input documents, scope and cost. These ones must be expressed in terms of the LE ontology.
4. Identify internal partial aims for citizens and PAs. These steps usually involve internal documents. They can be meaningless for the citizen but relevant for the administration.
5. Identify possible documents as possible final steps of the operation.
6. Update all services and agents that may be aware of the new service.

Once all this information has been gathered and codified properly, it can be presented to the end user.

Following the aforementioned schema the approach was extended into the life-event ontology. The ontology is depicted in *Figure 42* (Corradini, F. et al 2007).

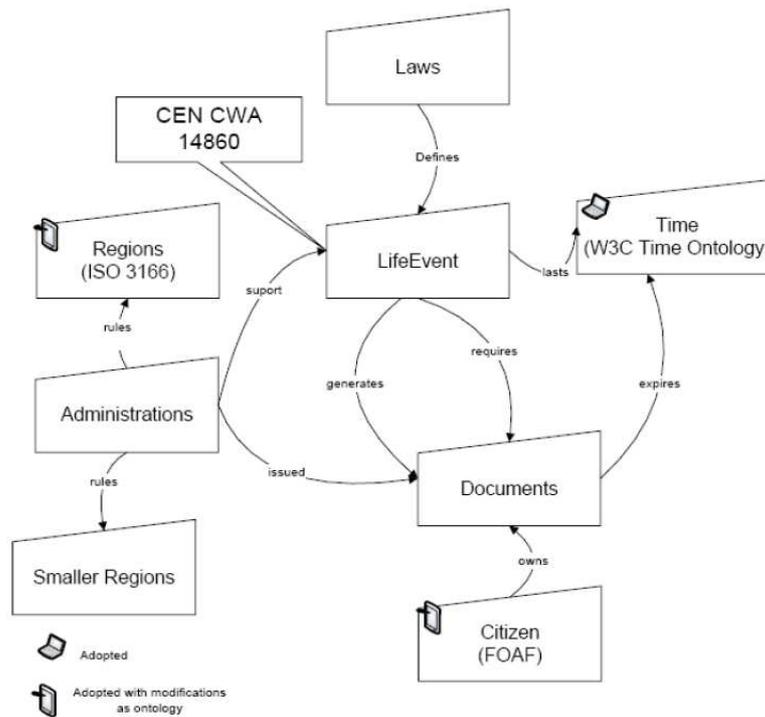


Figure 42: The life-event ontology

According to life-event ontology each life event is supported by a public administration office that issues documents and rules geographic regions. Citizens own the documents that last for specific time. Furthermore, life events demand and generate documents, last specific time and are defined by laws.

### 5.2.5 The E-Gov Public Services Ontology

#### Background

The study of Vassilakis, C. and Lepouras, G. (2006) presented an ontology for e-government services, covering various aspects of services, including administrative responsibility, meta-data, involved documents and legislation.

#### Model Presentation

The main concepts presented in the examined ontology are:

- *Service*: A means offered to the public for conducting business with the government
- *Service consumer*: A citizen or enterprise that is a potential user of a service
- *Organisation*: A governmental division that is responsible for defining and/or offering services to service consumers
- *Service implementation*: A concrete form of a service, offered by an organisation and made available to service consumers

- *Legislation*: Any type of official document or practice that regulates the operation of services
- *Form*: An instrument through which a service consumer requests a service, typically by provision of field values and submission
- *Document*: An official certificate issued by services
- *Life-event*: An incident for a service consumer that necessitates the use of a number of services

Figure 43 illustrates the above concepts.

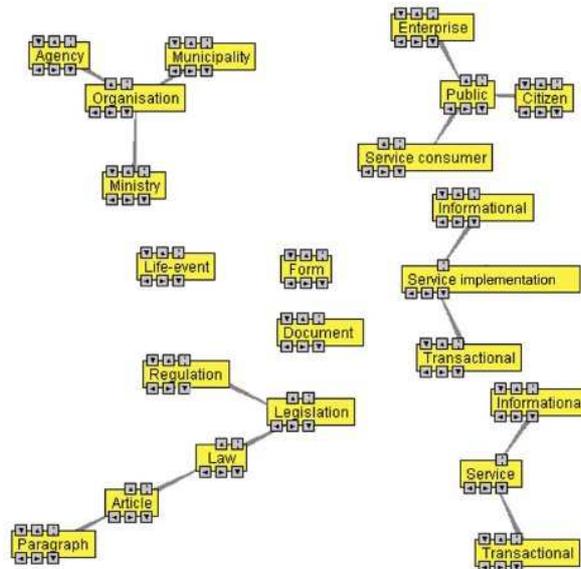


Figure 43: Part of the electronic services ontology

Although all main concepts in this ontology are clearly defined, the dependence between them is not explicitly stated, thus the only contribution of this model to our study is the presentation of its main entities.

## 5.2.6 The Governance Enterprise Architecture

### Background

The lack of commonly-agreed content standards in public administration motivated the development of the Governance Enterprise Architecture (GEA). The Governance Enterprise Architecture (GEA) is presented as a set of domain models that serve as top-level enterprise architecture.

### Model Presentation

At the current stage of development, GEA consists of five high-level models and are depicted in Figure 44 as the GEA meta-model (Peristeras, V. and Tarabanis, K. 2005). The models are:

- *GEA Governance System Domain Model (item1 in figure 44)* (Tarabanis, K. and Peristeras, V. 2000): serves a top-level description of the system

under study. Two sub-systems were identified as separate units of analysis (*vertical axis in Figure 44*)

- ❖ The 'Formulate Public Policy (FPP)' and
- ❖ The 'Provide Service (PS)'
- *GEA Overall Process Model (item 2 in figure 44)* (Peristeras, V. et al 2003): presents the process executed each time a public administration agency provides a service and HOW the public policy is formulated. It consists of:
  - ❖ The FPP Process Model and
  - ❖ The PS Process Model
- *GEA Overall Object Model (item 3 in figure 44)* (Peristeras, V. and Tarabanis, K. 2004)
- *GEA FPP Object Model (item 4 in figure 44)* (Tarabanis, K. et al 2001): presents the main objects participating in the 'Formulate Public Policy' subsystem.
- *GEA PS Object Model (item 5 in figure 44)* (Tarabanis, K. and Peristeras V. 2003): presents the main objects participating in the 'Provide Service' subsystem.

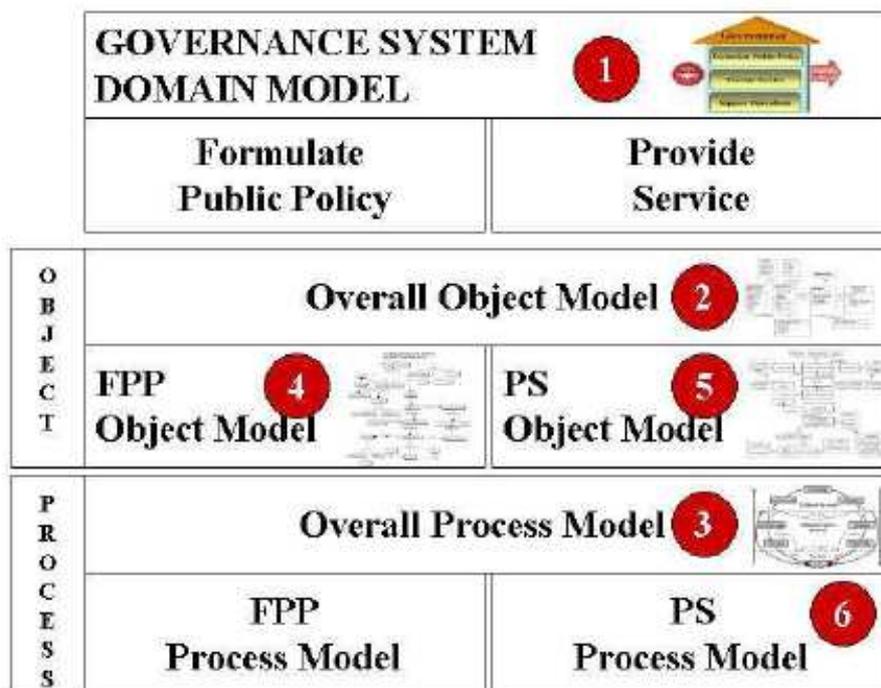


Figure 44: The GEA meta-model

We focus on the GEA object model for service provision by public administration which can be seen in *Figure 45* (Peristeras, V. and Tarabanis, K. 2006).

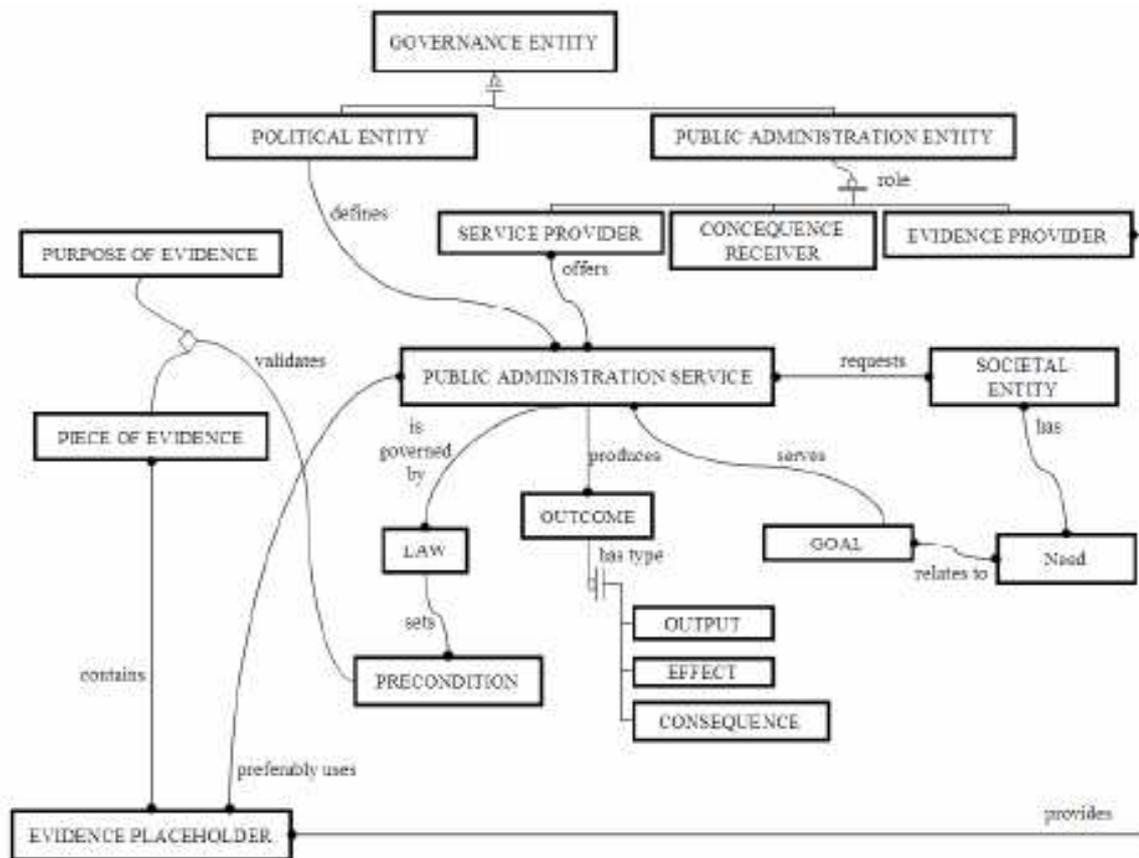


Figure 45: THE GEA PS object model

The main concept of the model is Public Administration Service. Its textual description involves Social Entities (in our case citizens) that have needs related to certain Goals. Moreover, the citizen requests a Public Administration Service in order to server its Goals.

The Governance Entities include two categories: The Political Entities and the Public Administration Entities that concern our study. Based on the role that the PA Entities acquire during the execution phase it can be characterized as Service Provider, Evidence Provider and Consequence Receiver. The role that concerns our study is the Service Provider role that provides the service to Social entities (citizens).

Public Administration Services are governed by Preconditions usually specified in Legal Acts-Laws.

The next concept of the model that concerns our study is the concept of the Outcome. This term is used in order to refer to the different types of results that a Public Administration Service might have. The three types are:

- *Output*: the acquisition of the information by the social entity (citizen) which is usually embedded in administration documents and which officially presents the decision of the Service Provider regarding the service asked by the client.
- *Effect*: the actual permission, certificate, restriction or punishment the citizen is finally entitled to.
- *Consequence*: the forwarding of the information related to a service execution to parties (agencies etc.) with an interest in the event.

Conclusively, in this approach there is no explicit use of the life-event concept. The main concept as mentioned above is the public service. However, the concept of Need that is used in this model can easily represent the concept of Life Event. This is mainly because the need that a citizen (social entity in the model) has requires a Public Administration Service in order to be fulfilled. On the other hand, according to the literature, life event is a set of actions, including at least one public service, which, when executed in its appropriate workflow, fulfils a need of a citizen arising from a new life situation (Trochidis, E., Tambouris, E. and Tarabanis, K. 2006).

### **5.2.7 The OntoGov Project approach**

#### **Background**

The Ontology-enabled e-Gov Service Configuration (ONTOGOV) project was a thirty-month EU-funded research and development project that aimed to develop and validate a platform that will facilitate the consistent composition, reconfiguration and evolution of e-government services. The aim of this platform was (The ONTOGOV Project: <http://www.ontogov.com/>):

- to provide the public administrations with a means that enables them to have an overview of their current service configuration model and easily reconfigure it, whenever required and
- To provide all actors involved in the e-government service lifecycle with enhanced knowledge related to the composition, re-configuration and evolution of the e-government service.

#### **Model Presentation**

In order to develop the platform the first task was to define ontologies for modelling e-government services. On the basis of the analysis of the existing standard for Semantic Web Services and by taking into account the e-government

specific requirements a set of ontologies has been defined. They can be clustered in the following way (see *Figure 46*) (Stojanovic, L. et al 2006):

- *Meta Ontologies* that define the schema that is the language for modelling e-Government services
- *Domain-Oriented Ontologies* that model the concrete e-government services and all data relevant for these services and
- *Administration Ontologies* that are presented in order to enable better management of e-Government services

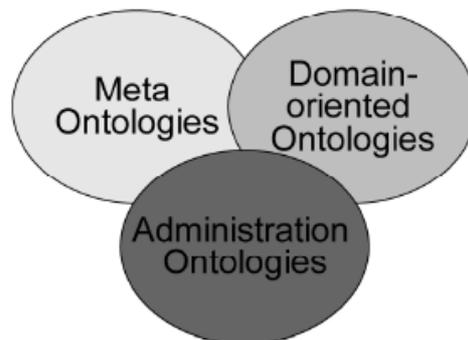


Figure 46: Clusters of e-government ontologies

More specifically the *Meta Ontology Cluster* contains general ontologies that do not change from one deployment to another. It consists of the following ontologies whose dependence is depicted in *Figure 47* (Stojanovic, L. et al 2006):

- The *Legal Ontology* defines the structure of the legal documents, which includes paragraphs, sections, amendments, etc.
- The *Organisational Ontology* models an organisation by defining its organisational units, roles, persons, resources, etc.
- The *Lifecycle Ontology* describes the information flow and the decision-making process in the public administration. Each design decision refers to the entities either from the *Legal Ontology* or from the *Organisational Ontology* or to other design decisions, since they drive the decision
- the *Domain Ontology* contains domain-specific knowledge
- The *Process Ontology* describes the elements for modelling the process flow. It includes the *Domain Ontology* for defining inputs and outputs as well as the *Lifecycle Ontology* for explaining reasons that motivate the decisions
- the *Life Event Ontology* models the categorisation of the e-government services and only used in order to support better searching for eGovernment services

- The *Profile Ontology* contains metadata about e-government services and includes all previously mentioned ontologies.

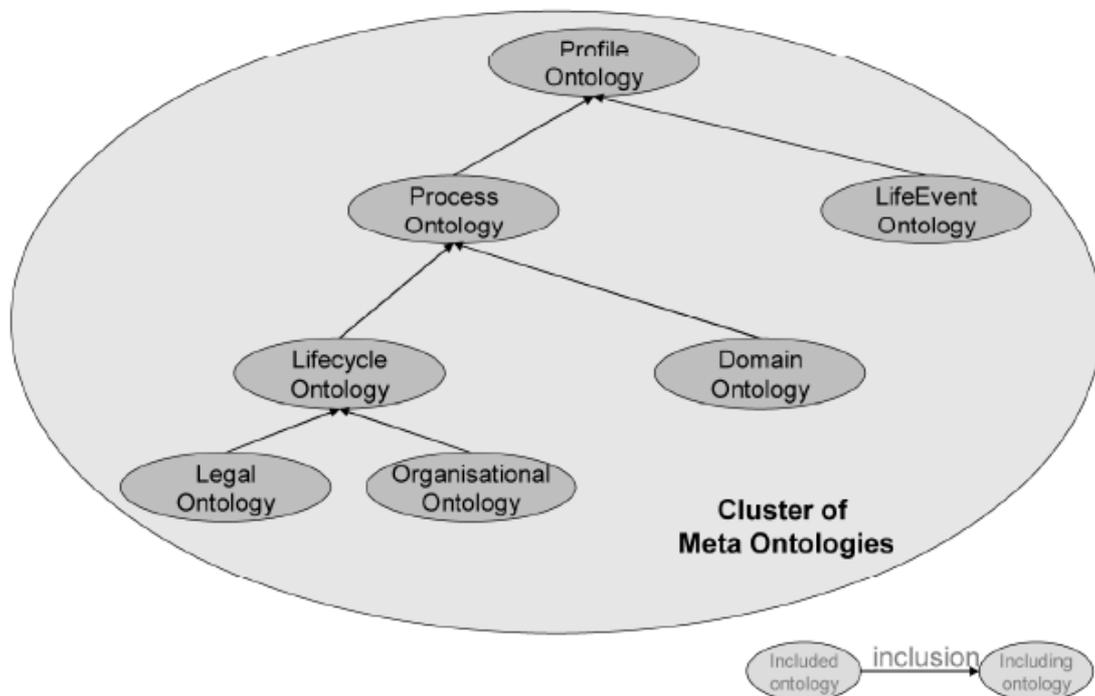


Figure 47: The cluster of Meta Ontologies

We focus on the profile and process ontologies that are illustrated in *Figure 48* and *Figure 49* respectively (Tambouris, E. et al 2004). Both of them are based on OWL-S Ontologies taking into account some e-Government specificities.

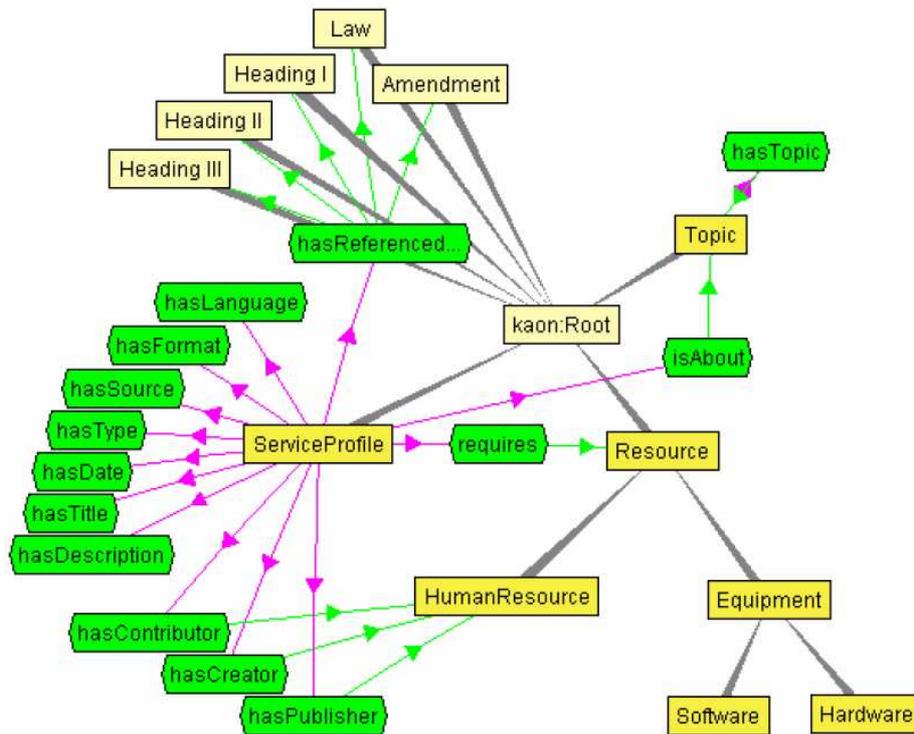


Figure 48: The OntoGov Profile Ontology

The profile part extends OWL-S service ontology in the following ways:

- firstly it introduces an explicit link between the service description and the business logic with the property “hasReferencedBusinessRule”. This ontology is called Business Rule ontology and depends on the application domain. In the eGovernment domain this ontology is called Legal Ontology and it contains the knowledge about laws;
- secondly additional entities were introduced, such as the property “requires” and the concept “Resource” (can be either a person involved in executing the service or an equipment that performs the service automatically);
- Finally, standard metadata for the eGovernment domain was taken into account.

The process part of Meta Ontology extends the OWL-S process ontology in the following ways (Todorovski, L. et al 2007A):

- EGovernment specific objects were added regarding security, cost, retraceability and realization (hasReferencedBusinessRule, hasReferencedSoftware, hasDecisionAttribute, hasSecurityLevel, hasCost, hasTimeRestriction).
- a number of concepts were introduced:

- ❖ "user-defined input" as a specialization of the concept "input"
- ❖ "Reference" due to two reasons:
  - A property may be attached due to several domain concepts
  - A concept defined in the domain ontology may have many properties and only a subset of them is used as an input.
- the symmetric property "isEqualTo" was introduced in order to establish the equality between two parameters (input/output)
- in the OntoGov meta-ontology preconditions are used for defining what a service expects for enabling it to provide its service. Post-conditions define what the service returns in response to its input.



Figure 49: OntoGov Process Ontology

Conclusively, in the OntoGov project the main entity is the Service that is included in Composite Services. However the concept of the Composite Service is related to the concept of Life Event, which is a technical way to bundle together public services.

At this point we should point out that the OntoGov model is a purely technological approach of the public service provision domain. This complicates the analysis and understanding of the model from non technical domain experts. The only way to conclude in useful results is by presenting the model in a more technologically-neutral way.

### 5.2.8 The Web DG Approach

#### Background

The Web DG Ontology was constructed under the Web Digital Government (WebDG) project and was presented by Medjahed, B. (2004). The study proposed a generic approach for the automatic composition of Web services on the Semantic Web and provided an implementation of this approach in the WebDG prototype.

More specifically, the author was motivated by the main impediment of the current Web that was the lack of semantics to enable machines to 'understand' and automatically process the data that they now merely display. The Semantic Web was for the author an emerging paradigm shift to fulfil this goal.

#### Model Presentation

The model that is presented by Medjahed, B. (2004) is purely technological. We focus on the aspect of the Public Administration Domain as presented in the WebDG Ontology because the technological implementation of the model clearly falls outside the scope of our study.

In his study Medjahed, B. (2004) proposes a model for the Semantic Web services that focuses on combining Web services and ontologies. *Community* is the main concept of the model. A *community* is a 'container' that clumps together Web services related to a specific area of interest (e.g., disability, adoption). All Web services that belong to a given community share the same area of interest. Communities provide descriptions of desired services (e.g., providing interfaces for insurance services) without referring to any actual service. Communities are defined by using metadata ontology, called *community ontology*, as a template. Metadata ontologies provide concepts that allow the description of other concepts (communities and Web services in our case). *Figure 50* summarizes the process of creating a community and registering Web services with it. Communities are defined by *community providers* as instances of the community ontology. Community providers are generally groups of government agencies, non-profit organizations, and businesses that share a common domain of interest.

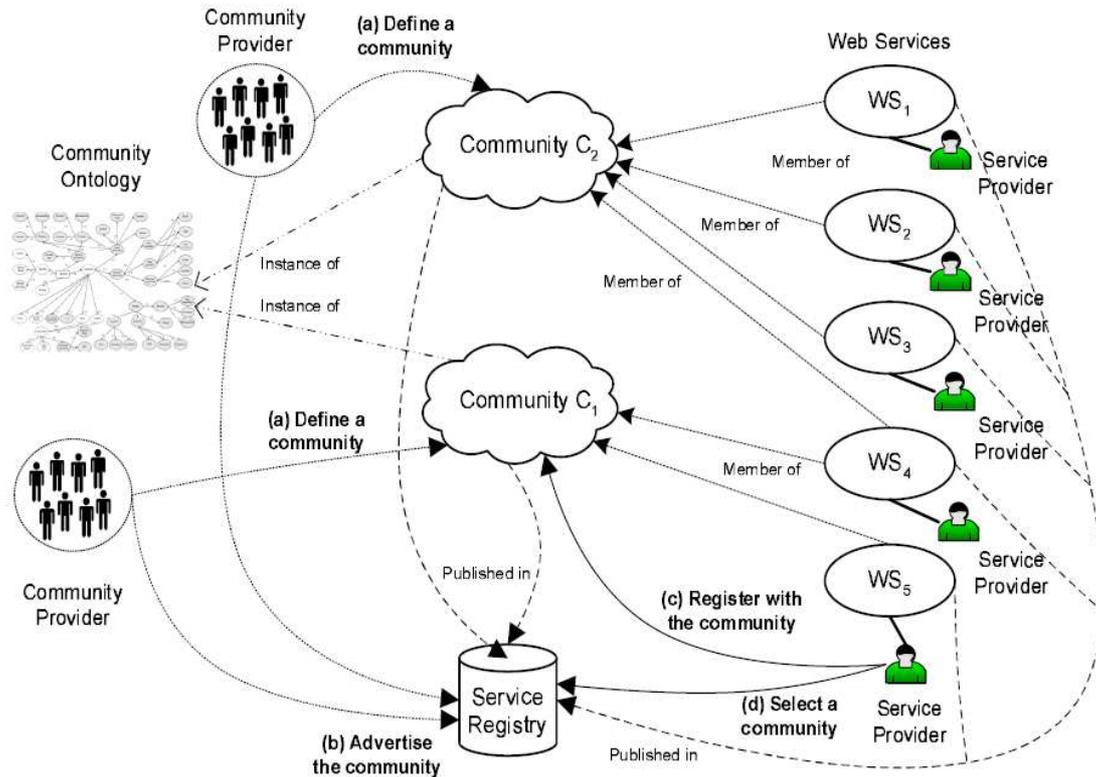


Figure 50: The Proposed Web Service Model

A community itself is a service that is created, advertised, discovered, and invoked in the same way that 'regular' Web services are. The providers of a community assign the values to the concepts of the community ontology. Examples of concepts defined in the community include *category* and *generic operation*. Each concept is defined by a set of attributes. For example, the *category* concept contains four attributes: *domain*, *synonyms*, *specialization*, and *overlapping*. Communities are published in a registry (e.g., UDDI) so that they can be accessible by service providers. *Service providers* identify the community of interest and register their services with it. During the registration of a Web service (WS) with a community, the service provider specifies the concepts of community that are 'inherited' by *Web Services*. A Web service may belong to different communities. End-users select a community of interest and invoke its operations. Each invocation of a community operation is translated into the invocation of a community member's operation.

The general structure of a community is given in *Figure 51*.

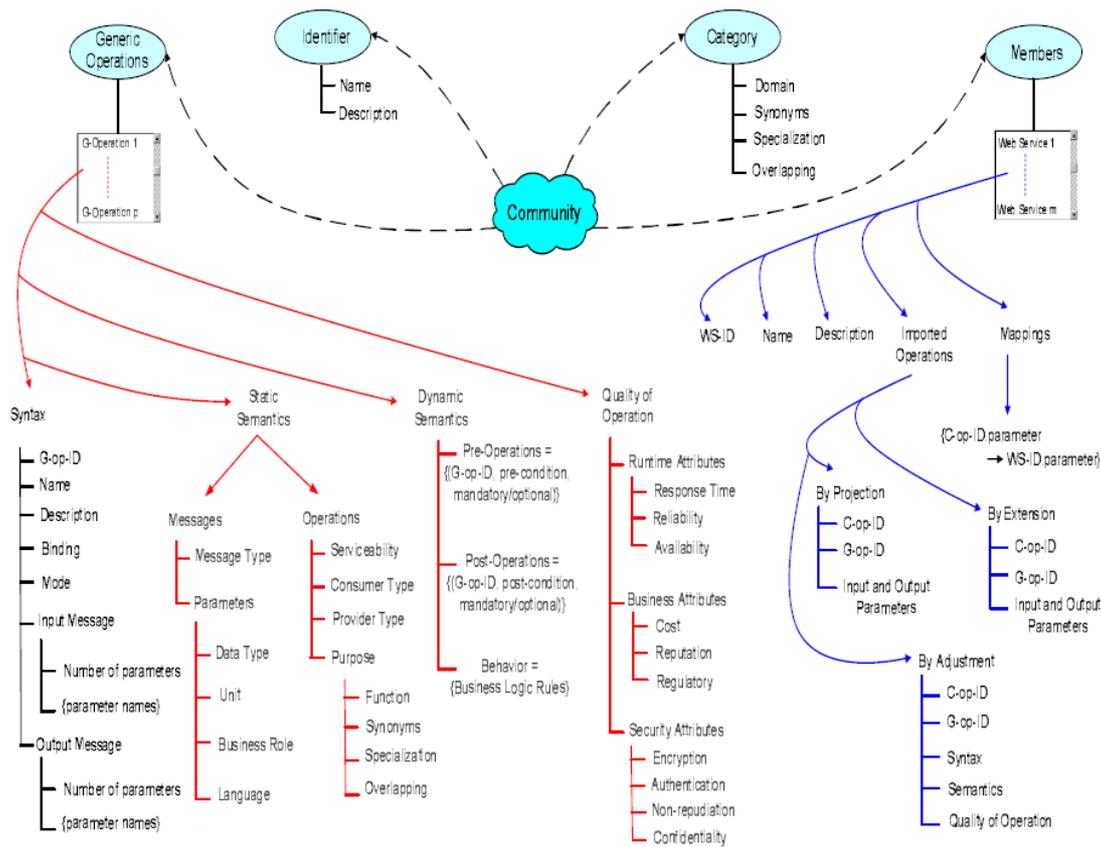


Figure 51: Web DG Ontology

The main concept of this approach is to define the communities of interest where each community refers to a specific thematic area, each one implementing a life event and to represent public services via web services.

The communities (life-events) are defined by community providers which are in our case government agencies that share a common domain of interest. These agencies assign values to the concepts of the life event ontology (e.g. category and generic operations) which in their turn are defined by a set of attributes (domain, synonyms, specialization and overlapping). Life events are then published in a registry in order to be easily accessed by the government agencies. The government agencies are then capable to register in the Public Services needed in order to fulfill the relevant life event. During this registration, the public service can inherit concepts and attributes from the life events and use them to describe Public services. Finally the end-users, in our case the citizens, select a life event of interest and invoke its operations.

## 5.2.9 The DIP Project Approach

### Background

The Data, Information and Process Integration with Semantic Web Services Project (DIP Project) had as main objective to develop and extend Semantic Web and Web Service technologies in order to produce a new technology infrastructure for Semantic Web Services (SWS) - an environment in which different web services can discover and cooperate with each other automatically (The DIP Project: <http://dip.semanticweb.org/>).

It should be mentioned, that the DIP project in order to achieve its goals implemented and developed a citizen's information service (seamlessUK/Essex Online) in a Web Services environment. This required the development and testing of eGovernment ontology to support the description and discovery of Web Services relevant to eGovernment and public administration.

### Model Presentation

The DIP project proposes an eGovernment System Reference Model that includes the following ontologies (Cabral, L. et al 2005):

- *Legacy Ontology*: defines the concepts and relations describing the laws and the political knowledge that defines the services.
- *Workflow Ontology*: contains concepts and relations describing the workflow of specific services from the PA point of view.
- *Service Ontology*: contains the description of services in terms of Semantic Web Services (SWS).
- *Life Event Ontology*: defines a hierarchy of topics, concepts and relations of life events.
- *eGovernment Domain Ontology*

The eGovernment domain ontology is the extension of the Description & Situations (D&S) Ontology. The project modelled only a use case from the eGovernment domain, which refers to the change of circumstance and is depicted in *Figure 52* (Domingue, J. et al. 2004).

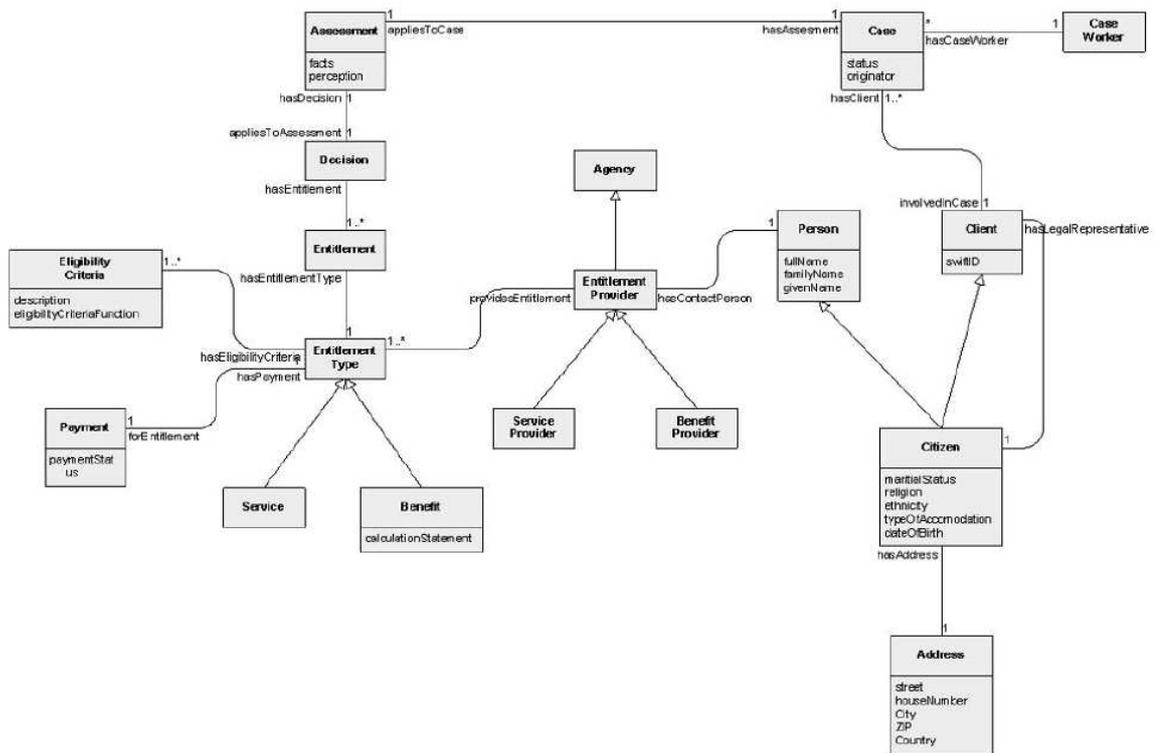


Figure 52: Class Diagram of the “Change of Circumstance” Ontology of the DIP project

The concept of life event is not explicitly presented in the above model, but it can be easily represented by the case concept that is thoroughly used in this model. According to this model, a citizen is involved in a case for entitlement of benefits and services. The case is opened by a social worker and described via an assessment (which has facts and perceptions) and a decision. The decision shows which benefits the citizen is entitled to. Benefits are provided by benefit or service (entitlement) providers, which are agencies (organization units).

### 5.3 Concepts and Relationships Matrix

Following the methodology described in chapter 3.2 we present an analysis of the approaches reviewed in *Table 5*. The distinguish of the main domain concepts on these approaches and how these concepts relate to each other will prove extremely beneficial in order to produce our own model.

Approach	Main Domain Concepts	Main Relationships
OneStopGov Project	Life Event, Public Service, Citizen, Profile, Input, Output, Rules	Life Event <i>consistsOf</i> PublicServices; PublicService <i>has</i> Rules, PublicService <i>receives</i> Input, PublicService <i>produces</i> Output; Citizen <i>faces</i> LifeEvents, Citizen <i>has</i> Profile; Profile <i>contains</i> Information; Input <i>isAn</i> OfficialDocument, Input <i>isNot</i> AnOfficialDocument; Output <i>is</i> AnOfficialDocument; Rules <i>define</i> Input, Rules <i>define</i> Output;
Access-eGov	Life Event, Goal, Service	Life Event <i>consistsOf</i> Goal; Goal <i>requires</i> Functional Properties; Service <i>has</i> Properties,
Pledge-Project	Life Event, Documents, Laws, Administrations, Citizen	LifeEvent <i>requires</i> Documents, LifeEvent <i>generates</i> Documents; Laws <i>define</i> LifeEvent; Administrations <i>issue</i> Documents, Administrations <i>support</i> Life Event; Citizen <i>owns</i> Documents;
E-Gov Public Services Ontology	Service, Service Consumer, Organization, Legislation, Form, Document, Life Event	No relationships between main concepts are described

Governance Enterprise Architecture	Public Administration Service (PA Service), Public Administration, Service Provider, Societal Entity, Need, Law, Outcome	PAService is GovernedBy Law, PAService produces Outcome, PAService serves Goal; Public Administration has Roles(Service Provider, Evidence Provider, Consequence Provider); ServiceProvider offers PAService; SocietalEntity has Needs, SocietalEntity requests PAServices; Need relatesTo Goals; Law sets Preconditions;
OntoGov Project	Composite Service, Service, Input, Cost, Documentation	CompositeService consistsOf Service; Service has Input, Service has Cost, Service has Documentation
WebDG	Community, Community provider, Web Services,	Community has Concepts (category and generic operation); Community Providers assign Values, identify Community, register WS; Web Services inherits Concepts; Operation has Parts(Syntax,Static Semantics,Dynamic Semantics,Quality Of Operation)
DIP Project	Case, Assesment, Decision, Entitlement, Citizen, Service Provider	Case has Assesment, Case has Client; Assesment appliesTo Case, Assesment has Decision; Decision has Entitlement; Citizen is InvolvedIn Case; ServiceProvider provides Entitlement

Table 5: Main Domain Concepts and their relationships

## **6. Construction and validation of a new Life Event Model**

### **6.1 Introduction**

In this section we follow the methodology described in chapter 3.3 in order to construct and validate a new life event model. First we present the concepts of our new model and the relationships between them according to the analysis made in chapter 5. This provides us with a graphic presentation of the first enhanced life event model of our study. Then we attempt to filter the most relevant and influential concepts-relationships in order to construct the final proposed life event model. The model is then enforced with the entities that describe the life event according to the analysis made in chapter 4. Finally, we validate our new life event model through a life event example and an application of our model in an existing life event portal.

### **6.2 Main concepts**

Based on the relevant literature and the review of existing life event models presented in *chapter 5.3 - Table 5*, we identified 12 concepts that in our judgment could be useful in constructing a new life event model. These are:

1. Life Event
2. Public Service
3. Public Administration
4. Citizen
5. Documents
6. Profile
7. Law
8. Cost
9. Input
10. Generic Scenario
11. Scenario Process
12. Circumstance

Those concepts, as presented in the approaches examined are depicted in *Table 6*. At this point we should mention that many concepts which were met in chapter 5 are represented in other approaches with the similar meaning but through different name. The name used further is the one that clarifies better the meaning according to our judgment. For example *needs* in GEA approach

represent *life event* and therefore are mentioned as Life event in our study. The table below shows in detail this kind of concepts (in brackets).

<b>CONCEPT / APPROACH</b>	OneStopGov	Access-eGov	Pledge Project	E-Gov	GEA	OntoGov	WebDG	DIP
Life Event	x	x	x	x	x (as Need)	x (as Composite Service)	x (as Community)	x (as Case)
Public Service	x	x (as Service)		x (as Service)	x (PA service)	x (as Service)	x (as Web Services)	
Public Administration			x (as Administrations)	x (as Organization)	x (and as Service Provider)		x (as Community Providers)	x (as Service Provider)
Citizen	x		x	x (as Service Consumer)	x (as Social Entity)			x
Documents	x (as Output)		x	x	x (as Outcome)	x (as Documentation)		
Profile	x							
Law	x (as Rule)		x	x (as Legislation)	x			
Cost						x		
Input	x			x (as Form)		x		
Generic Scenario		x						x
Scenario		x						x

Process								
Goals		x						
Circumstance	x							

Table 6: Domain Concepts as presented in several approaches

### 6.3 Relationships between the concepts

The concepts presented in *Table 6* have different relationships in every approach (except from the E-Gov Public Services Ontology where no relationships are presented). *Table 7* presents a synopsis of those relationships and the approach they are reported in.

<b>CONCEPT / APPROACH</b>	<b>Relationship</b>	<b>Secondary Concept</b>	<b>Approach</b>
<b>Life Event</b>	<i>consists of</i>	Public Services	One-Stop Gov
	<i>depends on</i>	Circumstances	One-Stop Gov
	<i>requires</i>	Documents	Pledge Project
	<i>generates</i>	Documents	Pledge Project
	<i>relates to</i>	Goals	GEA
	<i>consists of</i>	Service	OntoGov
	<i>consists of</i>	Goal	Access eGov
	<i>has</i>	Generic Scenario	Access eGov
	<i>has</i>	Client	DIP
<b>Public Service</b>	<i>has</i>	Rules	One-Stop Gov
	<i>receives</i>	Input	One-Stop Gov
	<i>produces</i>	Output	One-Stop Gov
	<i>depends on</i>	Circumstances	One-Stop Gov
	<i>is governed by</i>	Law	GEA
	<i>produces</i>	Outcome	GEA
	<i>serves</i>	Goal	GEA
	<i>has</i>	Output	OntoGov

	<i>has</i>	Input	OntoGov
	<i>has</i>	Cost	OntoGov
	<i>has</i>	Documentation	OntoGov
	<i>has</i>	Properties	Access eGov
<b>Public Administration</b>	<i>issue</i>	Documents	Pledge Project
	<i>support</i>	Life Event	Pledge Project
	<i>offers</i>	PA Service	GEA
	<i>identify</i>	Community (life- event)	Web DG
	<i>register</i>	Web Service (public service)	Web DG
<b>Citizen</b>	<i>faces</i>	Life Event	One-Stop Gov
	<i>has</i>	Profile	One-Stop Gov
	<i>owns</i>	Documents	Pledge Project
	<i>has</i>	Needs	GEA
	<i>requests</i>	Public Services	GEA
	<i>is involved in</i>	Case	DIP
<b>Profile</b>	<i>contains</i>	Information	One-Stop Gov
<b>Law</b>	<i>defines</i>	Input	One-Stop Gov
	<i>defines</i>	Output	One-Stop Gov
	<i>defines</i>	Life Event	Pledge Project
	<i>sets</i>	Preconditions	GEA
<b>Generic Scenario</b>	<i>is resolved to</i>	Scenario Process	Access eGov
<b>Scenario Process</b>	<i>invokes</i>	Service	Access eGov

Table 7: Synopsis of concepts' relationships

## **6.4 Enhanced life event model**

For the purposes of this study first we construct an enhanced Life Event model that includes all concepts and relationships found in *chapter 5.3*. A graphic presentation of the enhanced life event model is presented in *Figure 53*. The graphical model was constructed with the use of the Open Model Sphere software of Granite ([www.modelsphere.org](http://www.modelsphere.org)):

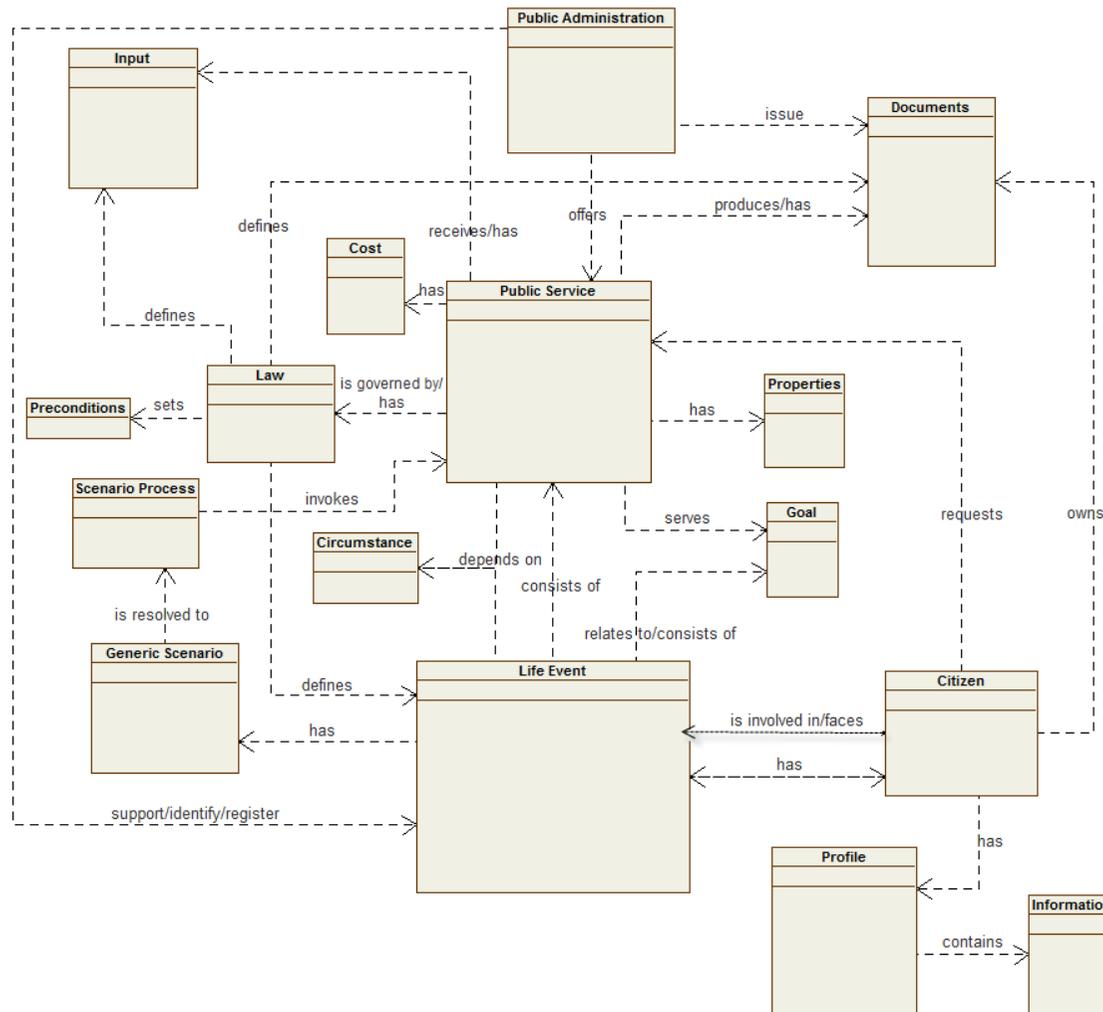


Figure 53: Enhanced Life Event Model

## 6.5 Proposed life event model

The presentation and the embedment of all 12 concepts and their relationships found in chapter 6.3 makes the above enhanced life event model quite complicated and abstruse. Therefore, in this section we try to identify only the relevant and most significant concepts and their relationships in order to construct a more explicit model.

In this model we have not included all concepts presented in *Table 7*. Instead we made a selection of those concepts that we feel are more influential and relevant. Those concepts are:

1. Life Event
2. Public Service
3. Public Administration
4. Citizen
5. Documents
6. Law
7. Cost
8. Input
9. Scenario Process
10. Circumstance

At this point we should clear out the meaning of the two concepts that we are using in our model: the concept *circumstance* and the concept of *scenario process*.

As presented in the OneStopGov approach (Todorovski, L. 2007B), the concept *circumstance* includes all the user's wishes, needs and aspects of his/her life situation that significantly influence the resolution of the whole LE (or an individual public service it contains). This influence can be two fold. First, it can be reflected in the set of public services that have to be performed for resolving the particular life event. Second, the user circumstances can influence the execution of individual public services, most notably through the set of support documents that are necessary for performing individual public services. Thus, in our model the concept *circumstance* includes attributes that influence the resolution of the whole life event. Such attributes are citizenship, gender, family status, age category, job category, health status, work sector etc.

In literature the *scenario process* is actually a collection of activities designed to produce a specific output for a particular requester, based on a specific input (Bednar Peter et al. 2006). Taking the above into consideration, we define the concept *scenario process* as a *case* that is in fact based on

circumstances and invokes the relevant public service. Thus, life event *depends on* circumstances or circumstances *define* life event while circumstances *define* cases. According to a specific circumstance, a certain case will *invoke* the relevant public service.

Conclusively, combining the results presented in *Table 7* of *chapter 6.3* with the above concepts we can produce the *Table 8* that presents only the basic concepts and their relationships that are in our opinion crucial for the construction of our new model.

<b>CONCEPT</b> <b>RELATIONSHIP</b>	<b>Relationship</b>	<b>Secondary</b> <b>Concept</b>
<b>Life Event</b>	<i>consists of</i>	Public Services
	<i>depends on</i>	Circumstances
<b>Public Service</b>	<i>produces</i>	Documents
	<i>is governed by</i>	Law
	<i>has</i>	Cost
	<i>has</i>	Input
<b>Public Administration</b>	<i>issue</i>	Documents
	<i>offers</i>	Public Services
<b>Citizen</b>	<i>faces</i>	Life Event
<b>Law</b>	<i>defines</i>	Input
	<i>defines</i>	Output
<b>Circumstance</b>	<i>defines</i>	Life Event
	<i>defines</i>	Case
<b>Case</b>	<i>invokes</i>	Public Service

Table 8: Main Concepts and relationships

Based on the above we present the proposed life event model in *Figure 54*.

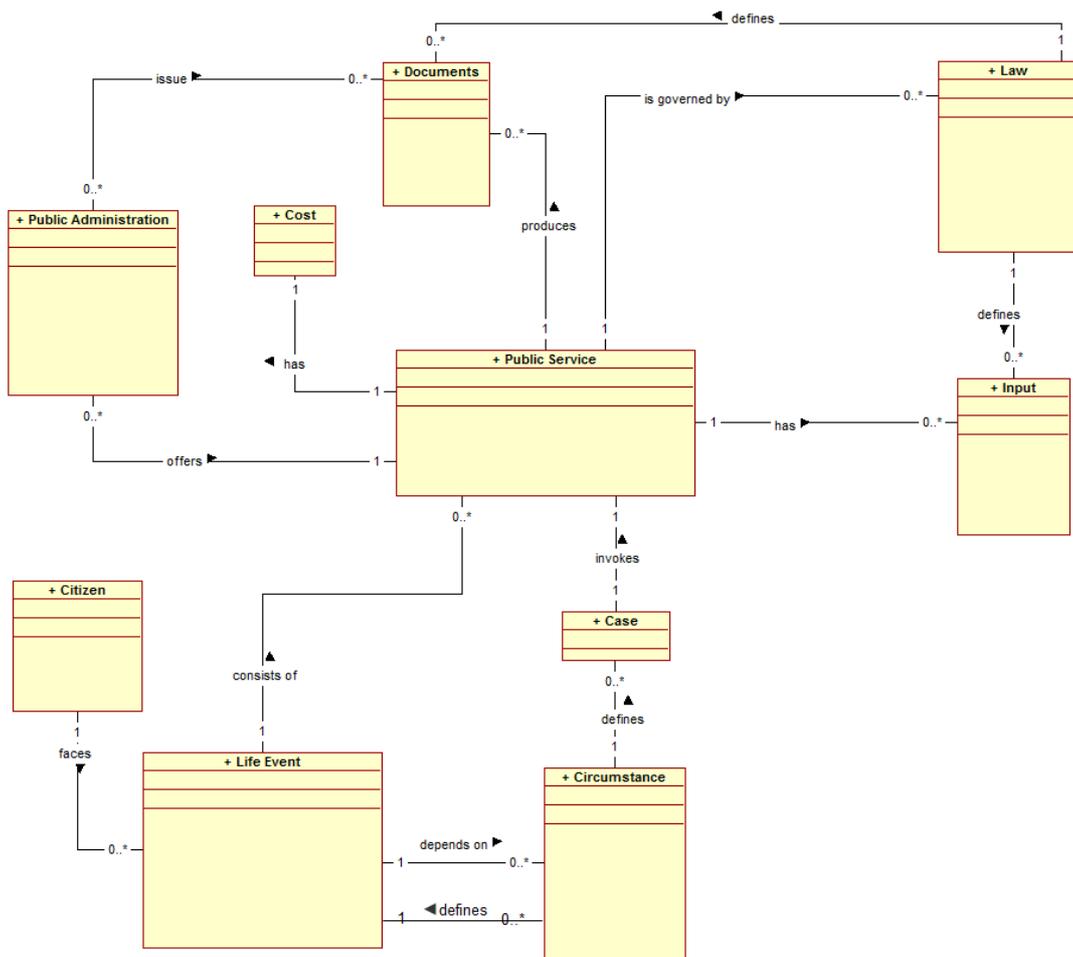


Figure 54: Proposed Life Event Model

In order to extend the value of the above proposed model we can add the entities for describing life events, as they are analysed in chapter 4.10 of our study. We include the attributes that better describe a life event and those that are mostly used in the existing life event portals. These are:

1. Title
2. Description
3. Required Documents
4. Law
5. Cost
6. Links to relevant Public Administration Agencies
7. Links to further information
8. Contact Information

At this point, we faced a contradiction concerning the fact that three from the above attributes (Law, Cost and Related Documents) appear both as concepts and as attributes and thus we had to decide on how to proceed further.

Law and the other two attributes, even though they appear as citizen-useful information, they are defined by the Public Service. For example consider the life event 'I want to travel abroad' that consists of the public service 'Issuing a new passport'. The attribute *Cost* in this life event defines the cost for paying the passport's issue dues but concerns exclusively the execution of the Public Service and not the execution of life event. Therefore, in our judgement the attributes Cost, Law and related documents should be included in the concepts of Life Event and thus connected to the Public Service concept.

According to the above statement the attributes that better describe a life event are now:

1. Title
2. Description
3. Links to relevant Public Administration Agencies
4. Links to further Information
5. Contact Information

The graphic presentation of the proposed life event model, after adding the above attributes, is depicted in *Figure 55*.

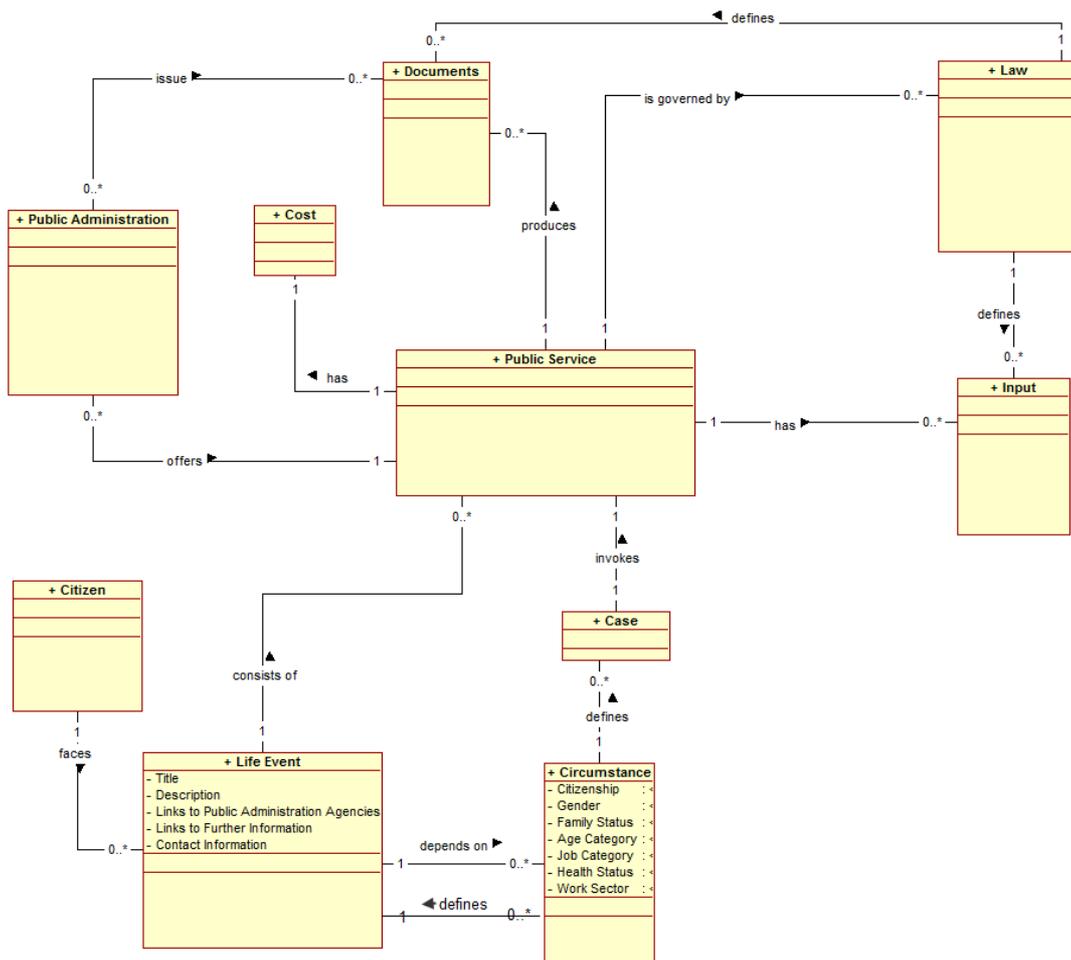


Figure 55: Proposed Life event model with attributes describing a life event

## 6.6 'I want to travel abroad' Life Event

In this section, we present a life event using our model in order to validate it. Relevant information, about the life event described below, is taken by the web site of Hellenic National Passport Center (<http://www.passport.gov.gr>)

As an example, we consider the life event 'I want to travel abroad'. In this life event the circumstances that define it are the following two:

1. Travel to a non European country
2. Travel to a European country

For the purposes of this study we will only examine the first circumstance which leads to four cases. The four cases identified and the ones that invoke the relevant public services are:

1. I want to get a new passport
2. I want to renew or replace my old passport
3. I want to get a new passport because of theft or loss
4. I want to get a new passport (for minors)

These cases are relevant to the following Public services:

1. Issuing a new passport
2. Renewing or replacing an old passport
3. Issuing a new passport because of theft or loss
4. Issuing a new passport (for minors)

The above life event with all circumstances and cases is depicted in *Figure 56*.

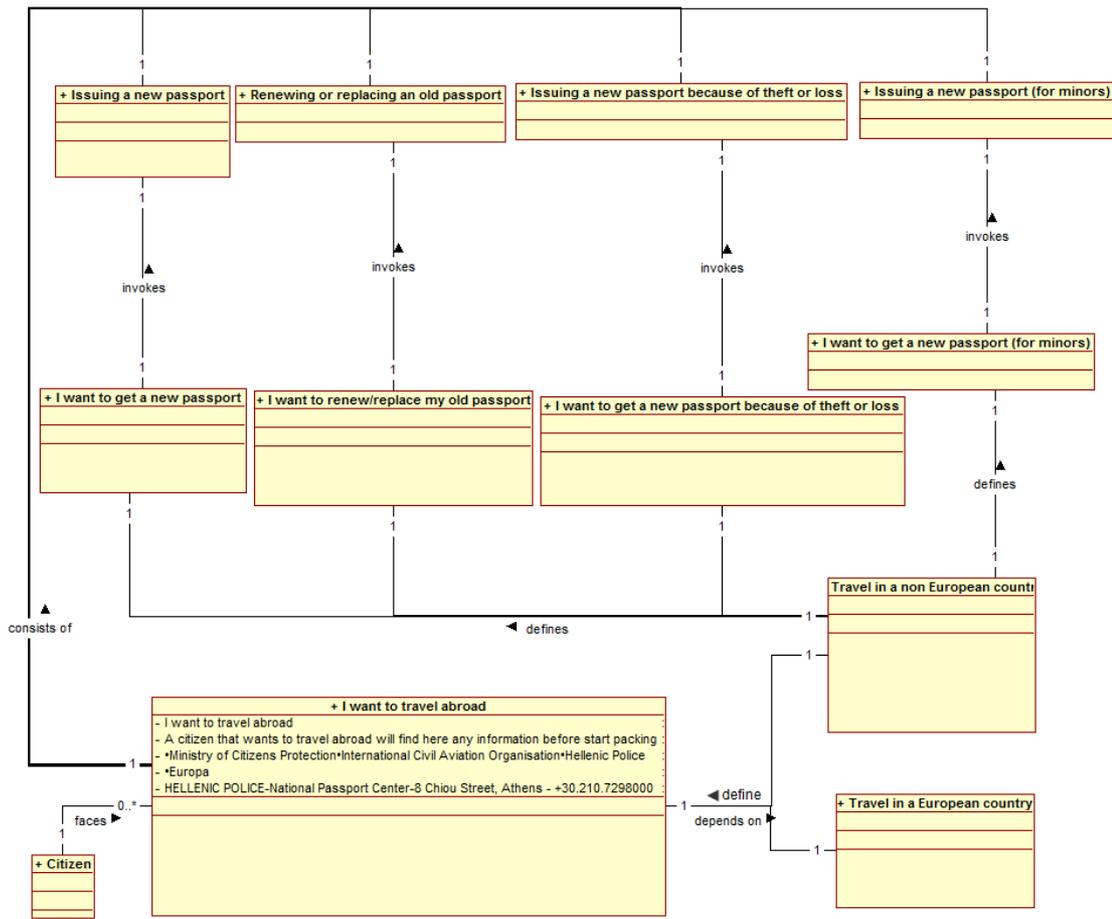


Figure 56: 'I want to travel abroad' life event (all cases)

So for example, if our case is a citizen that wants to get a new passport in order to travel in a non-European country the first case will initiate and invoke the relevant Public service.

Thus, according to our model the life event can be described as follows:

- The citizen *faces* the life event 'I want to travel abroad'.
- The circumstance 'I want to travel to a non European Country' *defines* the life event and also defines the four cases.
  - The case 'I want to get a new passport' *invokes* the Public Service 'Issuing a new passport'.
  - The public service is *governed by* the Law 3103/2003 (23/29-1-2003): «Publication of passports from the Greek Police and other provisions»
  - The public service *has* Cost:
    - For 5 years – 74.4 euro
    - For 13 months – 68.8 euro
    - For 8 months – 63.4 euro
    - For 3 months – 63.4 euro

- The Hellenic Police is the Public Administration and *offers* the public service 'Issuing a new passport' and also *issues* the documents required in order for the service to be executed.

- The Law 3103/2003 (23/29-1-2003): «Publication of passports from the Greek Police and other provisions» *defines* the documents required and the input (photo, photocopy of the identity card etc.) that the citizen must provide in order the service to be executed.

- Finally the public service *produces* the document that in our case is the new passport.

The life event is described according to our model by the following attributes:

1. Title: I want to travel abroad
2. Description: A citizen that wants to travel abroad will find here every information before start packing
3. Links To Public Administration Agencies: The links provided are:
  - [Ministry of Citizens Protection](#) (*The web site of the Hellenic Ministry of Citizen's Protection*)
  - [International Civil Aviation Organisation](#) (*The official web site, of I.C.A.O.*)
  - [Hellenic Police](#) (*Web site of the Hellenic Police*)
4. Links To further information: The links provided are:
  - [Europa](#) (*Gateway to the European Union*)
5. Contact Information: The citizen can contact with  
HELLENIC POLICE

**National Passport Center**

8 Chiou Street, Kaisariani - 16121

Attica, GREECE

+30.210.7298000

A graphic presentation of the case 'I want to get a new passport' according to our model is depicted in *Figure 57*:

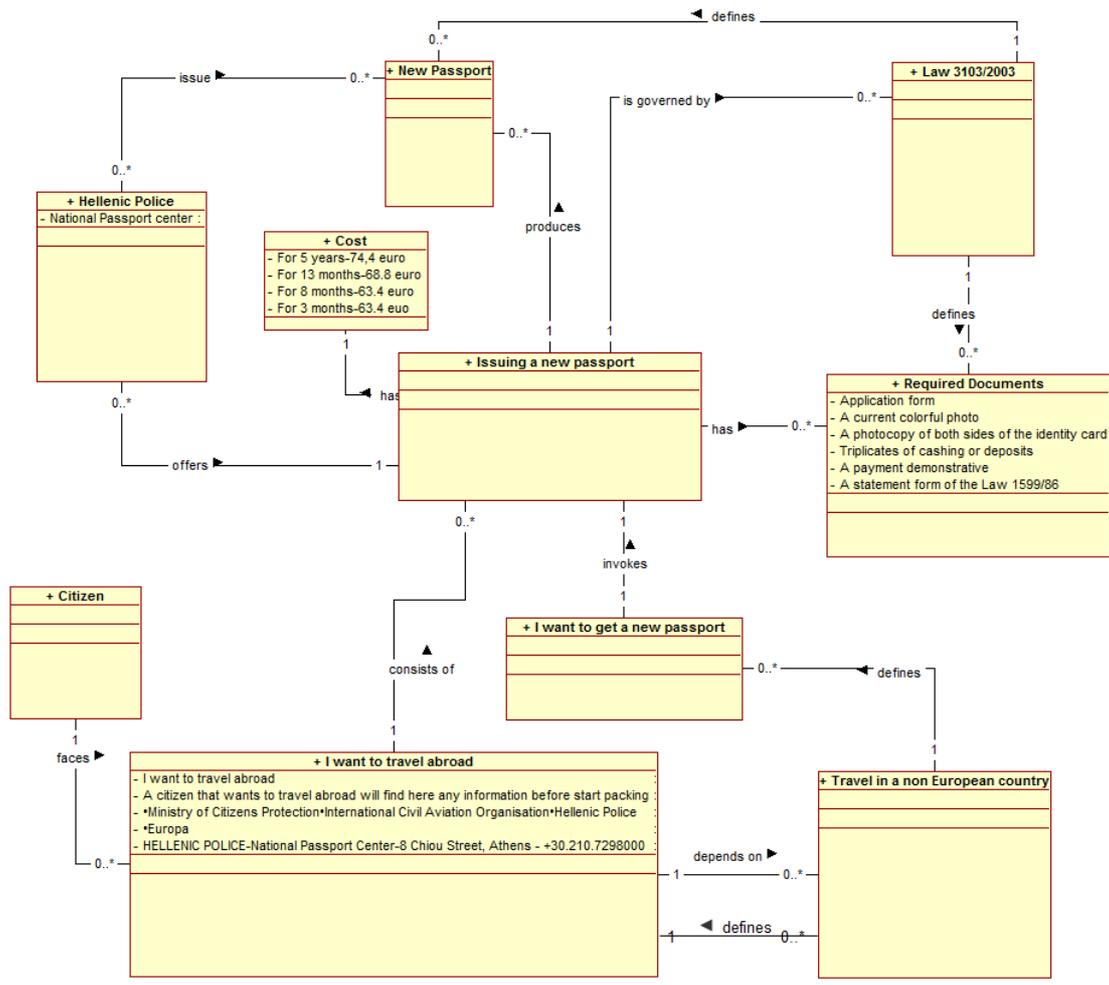


Figure 57: 'I want to get a new passport' case

If the case is 'I want to renew or replace my old passport' the only difference is that the citizen is obliged in addition to the first case documents, to bring his old passport. The case is presented in *Figure 58*.

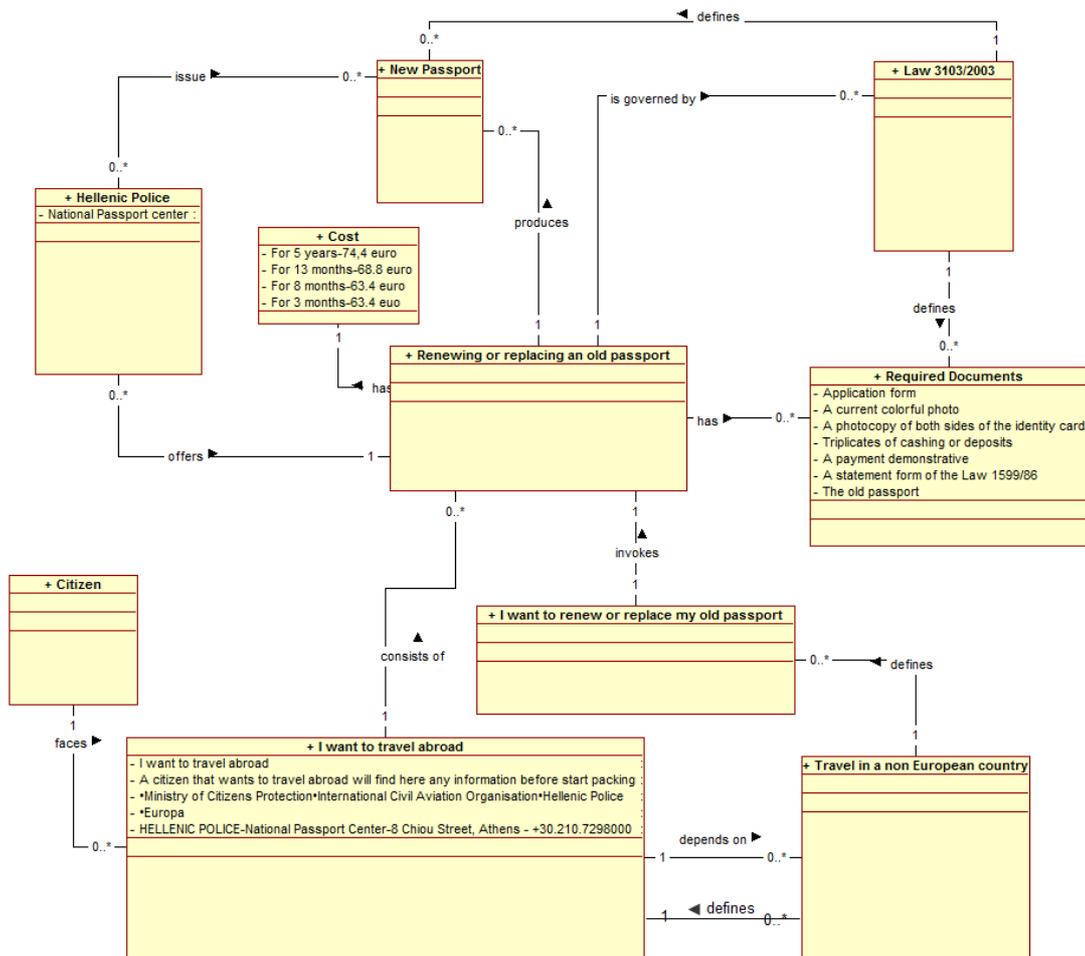


Figure 58: 'I want to renew or replace my old passport' case

If the case is 'I want to get a new passport because of theft or loss' the only alteration is that the citizen along with the documents of the first and second case, must bring a recent certification of the authority in which the loss of the passport was declared. The case is presented in *Figure 59*.

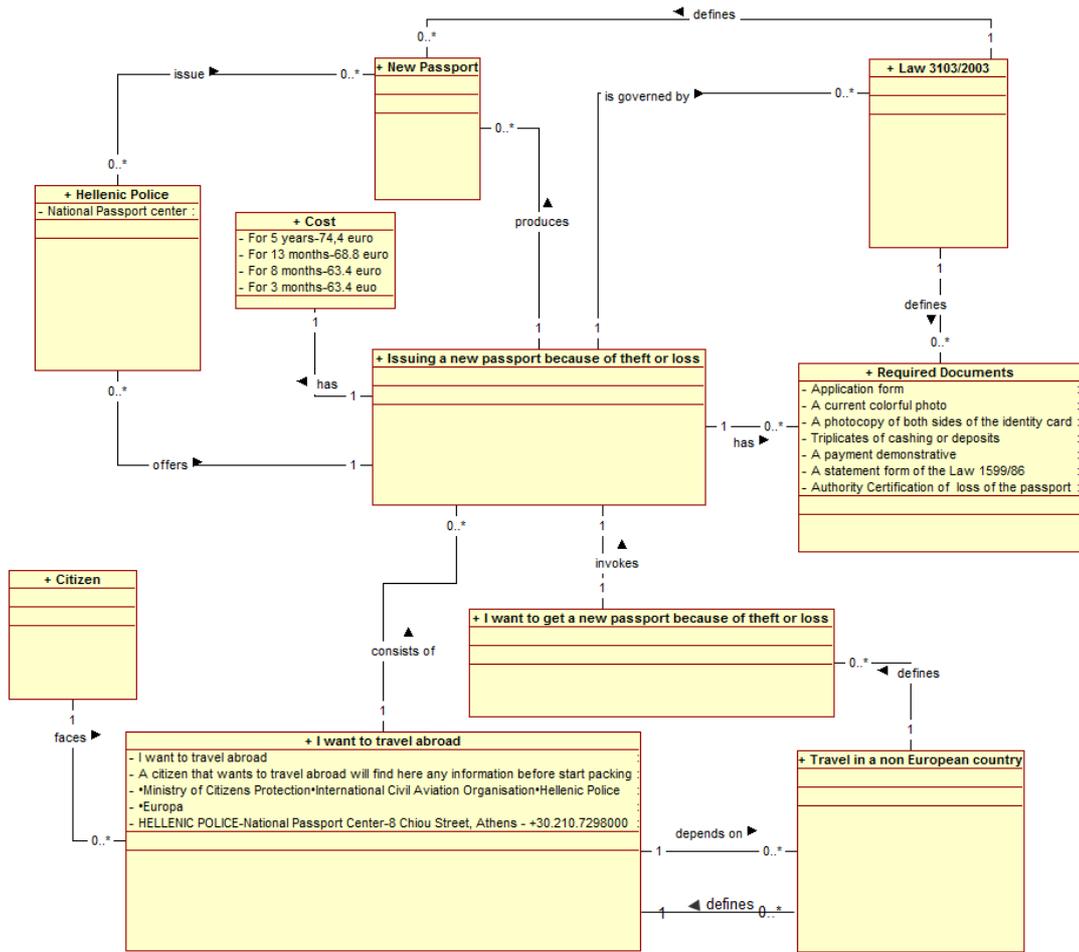


Figure 59: 'I want to get a new passport because of theft or loss' case

If the case is 'I want to get a new passport (for minors)' the alterations are in the documents and in the cost. The case is presented in *Figure 60*.

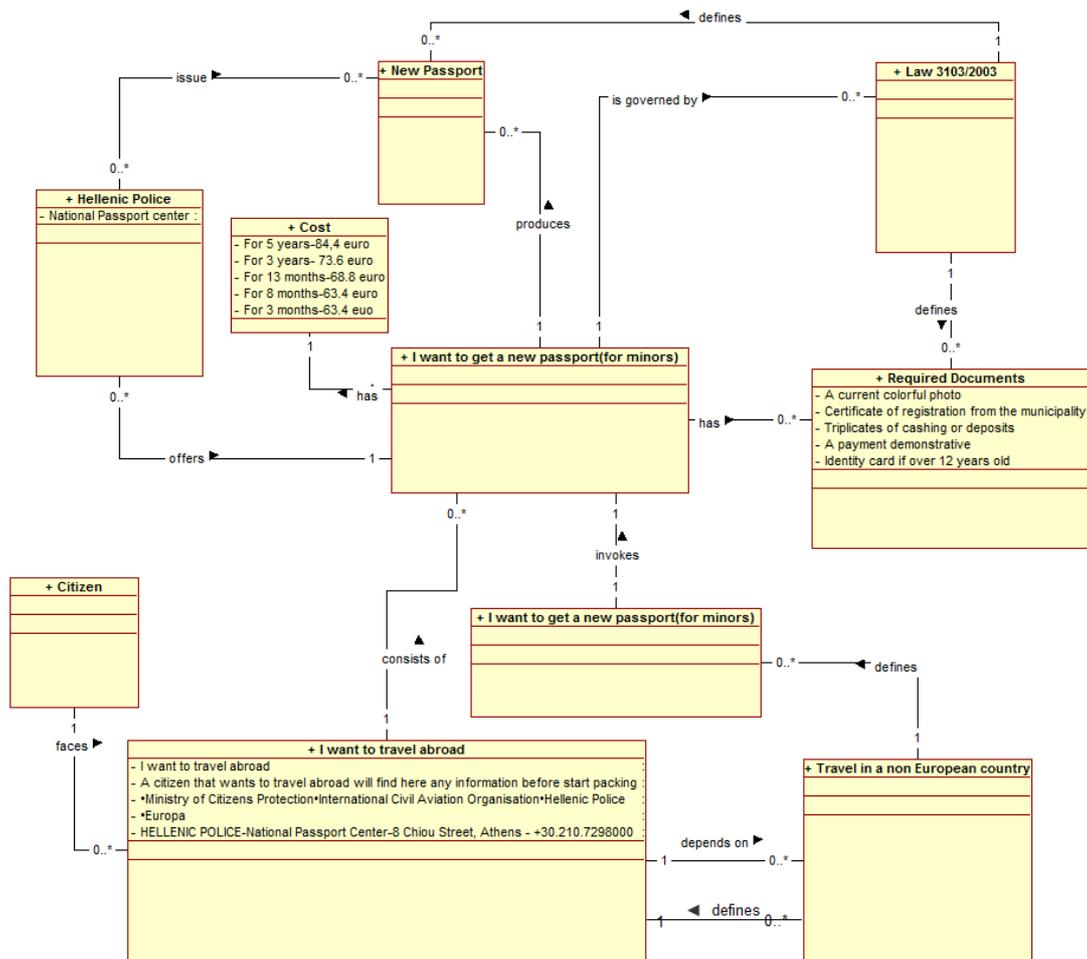


Figure 61: 'I want to get a new passport (for minors)' case

## 6.7 Portal presentation

In this section an attempt is made to apply the above proposed model in an existing life event portal. The portal we use is the 'Ermis.gov Portal' which was reviewed in chapter 4.3.5. The life event 'Travelling abroad' as presented in the portal is depicted in *Figure 62*.

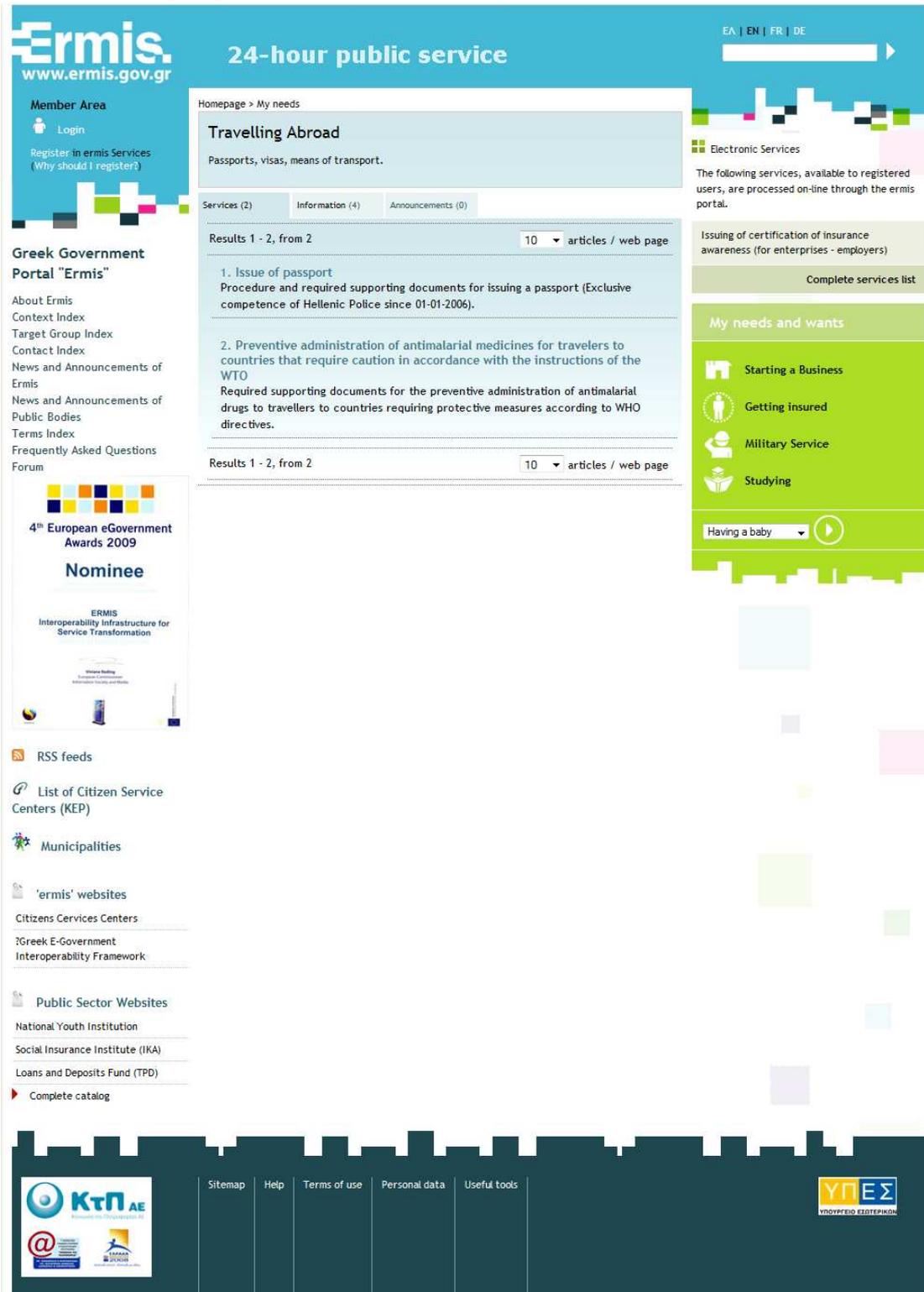


Figure 62: 'Travelling Abroad' life event in Ermis.gov Portal

From the existing life event portal we keep its layout and the title of the life event and then we apply our model in order to present it. Thus, according to our model the portal can be figured as follows:

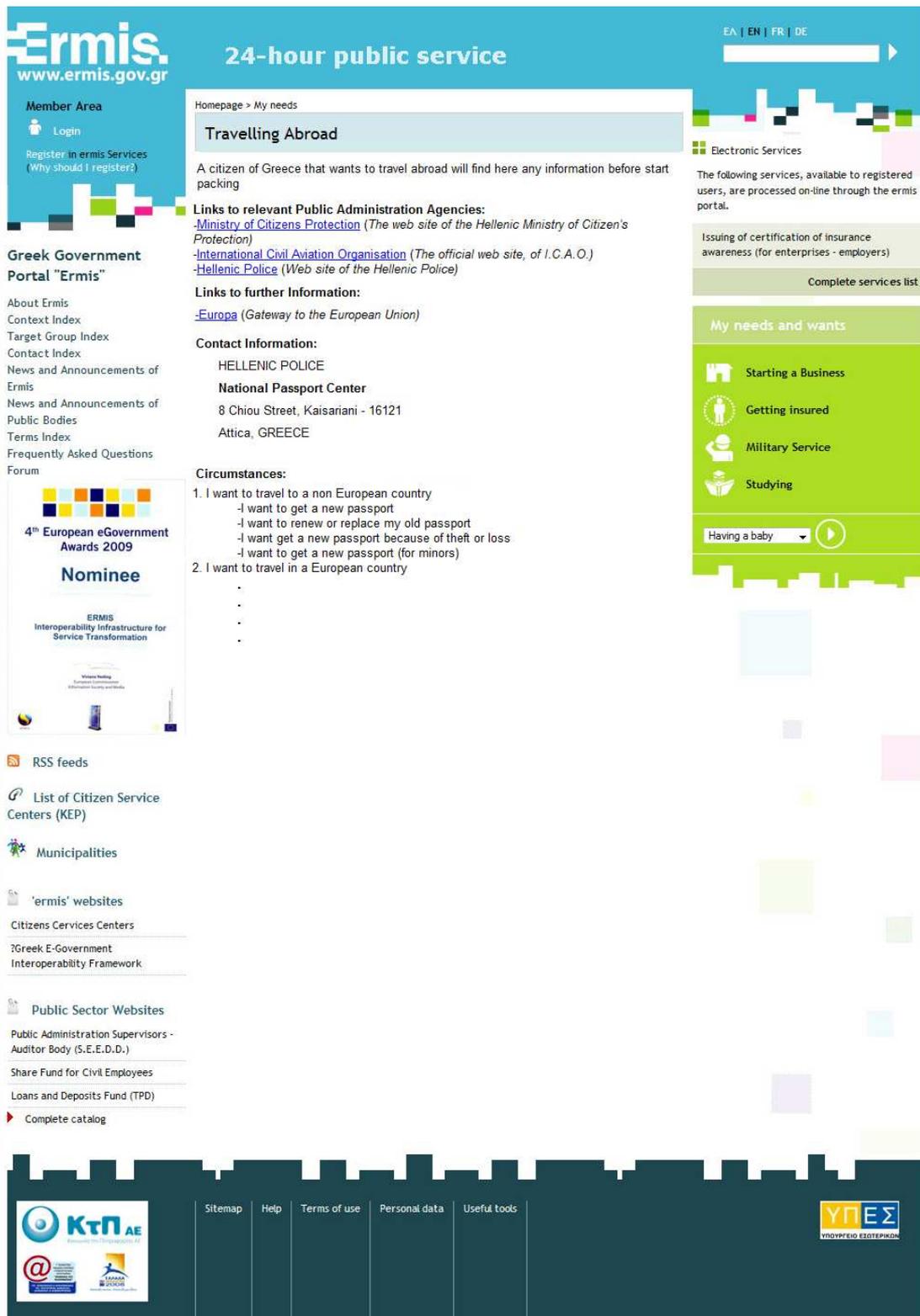


Figure 63: Ermis.gov Portal according to our model

The citizen from this page chooses the case that concerns him/her and then the relevant public service is invoked. If the citizen chooses the case 'I want to get a new passport' he will be transferred to the web page shown in *Figure 64*.



**24-hour public service**

EA | EN | FR | DE

---

**Member Area**

Login

Register in ermis Services  
(Why should I register?)

---

**Greek Government Portal "Ermis"**

About Ermis  
Context Index  
Target Group Index  
Contact Index  
News and Announcements of Ermis  
News and Announcements of Public Bodies  
Terms Index  
Frequently Asked Questions  
Forum

4<sup>th</sup> European eGovernment Awards 2009

Nominee

ERMIS  
Interoperability Infrastructure for Service Transformation

RSS feeds

List of Citizen Service Centers (KEP)

Municipalities

'ermis' websites

Citizens Services Centers

Greek E-Government Interoperability Framework

Public Sector Websites

Public Administration Supervisors - Auditor Body (S.E.E.D.D.)

Share Fund for Civil Employees

Loans and Deposits Fund (TPD)

Complete catalog

### Issuing a new passport

**Public Administration:** Hellenic Police - National Passport Centre

**Law:** 3103/2003 (23/29-1-2003): «Publication of passports from the Greek Police and other provisions»

**Required Documents:**

- An application for passport publication. Its been provided from the Passport Offices.
- A recent (last month) coloured photograph 4x6 mill. with specific technical specifications 2. I want to travel in a European country
- Photocopy (two aspects) of your identity card
- Triplecates of cashing or deposits
- A Payment demonstrative
- A solemn statement of the Law1599/86, where you should report:
  - If you have been finally condemned for counterfeiting, counterfeiting of certificates, false deposit without oath or false declaration. Provided that these offences concern a passport's publication, use, loss or theft.
  - If there has been a penal prosecution practised against you or you have been referred in trial for the above mentioned offences.
  - If you have been declared as a draft-evader or as a deserter.
  - If theres a prohibition of egress from the country, against you.
  - If he had a passport, issued according to the regulations of the Law 3103/2003 which is lost, stolen or asks for its replacement.
- Also, you must know the number of the municipal roll, since this is not quoted on you identity card or your certificate of birth.

**Cost:**

- \* For a 5 year duration passport, a 22 Euro nominal value deposit + 20% (O.G.A.). Total amount: 26,40 Euros.
- \* For a 13 month duration passport, a 9 Euro nominal value deposit + 20% (O.G.A.). Total amount: 10,80 Euros.
- \* For a 8 month duration passport, a 4,50 Euro nominal value deposit + 20% (O.G.A.). Total amount: 5,40 Euros.
- \* For a 3 month duration passport, a 4,50 Euro nominal value deposit + 20% (O.G.A.). Total amount: 5,40 Euros.

- Fee of notebook: 53 Euros.
- Fee of postal dues: 5 Euros.

**Electronic Services**

The following services, available to registered users, are processed on-line through the ermis portal.

Issuing of certification of insurance awareness (for enterprises - employers)

Complete services list

---

My needs and wants

Starting a Business

Getting insured

Military Service

Studying

Having a baby



Sitemap   Help   Terms of use   Personal data   Useful tools



Figure 64: 'Issuing a new passport' public service in Ermis.gov Portal

## Conclusion

Public services are often provided and distributed over several public institutions due to the complex internal structure of public administrations worldwide. This is usually in contrast to citizens' needs, who desire as little interaction and knowledge of public administration as possible. Their expectation is to accomplish faster, simpler and less troublesome the public services. In order to meet this challenge this study has proposed and validated a life event model that describes the public service provision in terms of life events and helps users (in our case citizens) to identify the relevant public services.

In the context of this study, we first identified the existing life event portals and analyzed thoroughly sixteen of them, in order to collect the main entities for describing life events. Then, we reviewed eight approaches around public service provision related explicitly or implicitly to the concept of life events. These approaches provided us with the main domain concepts and their main relationships. Combining the results from the review of the life event portals and the life event models, we constructed an enhanced life event model with all the concepts and relationships described. However, the complexity of the produced model, led us to keep only the relevant and most significant concepts and their relationships in order to construct a more explicit model. Additionally, the final proposed model has been enforced with the main entities found from the life event portals in the previous chapter. Finally, we validated our proposed life event model through a life event example and its representation in an existing life event portal.

At this stage, it would be meaningful to mention the limitations of our work. We reviewed life event portals developed only in the English language, excluding those developed in other foreign languages. The review of the excluded portals could provide further information and entities in a life event model. Another limitation derives from the fact that in literature the majority of public service provision models consider public service as their main entity. Thus, we only identified and reviewed eight approaches that either had an explicit description of the life event concept or used concepts that can represent a life event model. Future research could be done on investigating more approaches and validating our model through the construction of a life event portal with a web page development tool.

## References

- [1] Access-eGov Project: Deliverable 3.1: Access-eGov Platform Architecture, 2006
- [2] Bednar, P., Furdik, K., Paralic, M., Sabol, T. and Skokan, M. 2008, 'Semantic Integration of Government Services - the Access-eGov Approach', *Collaboration and the Knowledge Economy: Issues, Applications, Case Studies* (Cunningham, P. and Cunningham, M., Eds), IOS Press
- [3] Bednar, P. et al. 2006, 'D3.1 Access-eGov Platform Architecture', *Technical report of the Access-eGov project*, FP6-2004-27020, University of Regensburg.
- [4] Bouguettaya, A., Ouzzani, M., Medjahed, B. and Elmagarmid, A. 2002, 'Supporting Data and Services Access in Digital Government Environments', *In Advances in Digital Government Technology, Human Factors, and Policy* (W. J. McIver and A. K. Elmagarmid, editors), ISBN 0-306-47374-7, Kluwer Academic Publishers.
- [5] Corradini, F., Sabucedo, L.A., Polzonetti A., Rifon, L.A., and Re, B., 2007, 'A Case Study of Semantic Solutions for Citizen-Centered Web Portals in eGovernment: The Tecut Portal', , *LECTURE NOTES IN COMPUTER SCIENCE*, SPRINGER-VERLAG, NUMB 4656, pp. 204-215
- [6] DIP Project, Deliverable 9.5 Change of circumstances - WSMO descriptions, 2005
- [7] DIP Project, Deliverable 9.3 e-Government ontology, 2004
- [8] Farzad, S. and Jie, L. 2009, 'Multilevel Life-event Abstraction Framework for E-government Service Integration', *9<sup>th</sup> European Conference on e-Government*, London (UK), University of Westminster, pp. 550-559.
- [9] Furdík, K., Klischewski, R., Paralič, M., Sabol, T. and Skokan, M. 2009, 'E-Government Service Integration and Provision Using Semantic Technologies', pp. 1-8
- [10] Furdík, K., Mach, M. and Sabol, T. 2008A, 'Practical Experiences with Enhancing Semantic Interoperability in eGovernment using WSMO', pp. 1-12
- [11] Furdík, K., Hreno, J. and Sabol, T. 2008B, 'Conceptualisation and

Semantic Annotation of eGovernment Services in WSMO', pp. 1-12

- [12] Furdík, K., Sabol, T. and Bednar, P. 2007, 'Framework for Integration of eGovernment Services on a Semantic Basis', pp.1-8
- [13] Gangemi A., and Mika P. 2003, 'Understanding the semantic web through description and situations.' *DOA/CoopIS/ODBASE 2003 Confederated International Conference DOA, CoopIS and ODBASE, Proceedings, LNCS*. Springer.
- [14] Goudos, S.K., Peristeras, V. and Tarabanis, K., 2006, 'Mapping Citizen Profiles to Public Administration Services Using Ontology Implementations of the Governance Enterprise Architecture(GEA) models' *Proceeding of the Workshop on Semantic Web for eGovernment, Serbia & Montenegro*, pp. 25-36
- [15] Gugliotta, A., Cabral, L. and Domingue, J. 2005, 'Knowledge modelling for integrating semantic web services in e-government applications', in *Doctoral Symposium at the International Semantic Web*, 6-10 Nov 2005, Galway, Ireland.
- [16] Kaliva, E. 2008, 'Model creation for Service Provision in Public Administration', *MSc Thesis*, University of Macedonia.
- [17] Kavadias, G. and Tambouris, E. 2003, 'GovML: A Markup Language for Describing Public Services and Life Events', *Knowledge Management in Electronic Government, Lecture Notes in Artificial Intelligence # 2645 (M. Wimmer, Ed.)*, Springer Verlag, pp. 106-115.
- [18] Leben, A., Kunstelj, M., Bohanec, M. 2004, 'Evaluation of life-event portals: trends in developing e-services based on life-events', *The 4th European Conference on e-Government, ECEG, 2004*, pp. 469-480.
- [19] Leben, A. and Bohanec, M. 2003, 'Evaluation of life-event portals: Multi-attribute model and case study', *Lecture notes in computer science ISSN 0302-9743*.
- [20] Medjahed, B. 2004, 'Semantic Web Enabled Composition of Web Services', *PHD Thesis*, Virginia Polytechnic Institute, Falls Church.
- [21] Medjahed, B., Rezgui, A., Bouguettaya A. and Ouzzani, M. 2003, 'Infrastructure for E-Government Web Services' *IEEE INTERNET COMPUTING*
- [22] Momotko, M., Izdebski, W., Tambouris, E., Tarabanis, K. and Vintar, M. 2007, 'An Architecture of Active Life Event Portals: Generic Workflow

- Approach', *Electronic Government, Lecture Notes in Computer Science # 4656*, Springer Verlag, pp. 104-115.
- [23] Momotko, M., Tambouris, E., Bliźniuk, G., Izdebski, W. and Tarabanis, K. 2006, 'Towards Implementation of Life-events using Generic Workflows', *Proceedings of the eGovernment Workshop 2006*, Brunel University.
- [24] Palkovits, S., Orensanz, D. and Karagiannis, D. 2004, 'Process Modelling in E-Government Living Process Modelling Within A Public Administration', *IADIS International Conference e-Society 2004*.
- [25] Peristeras V. and Tarabanis K., 2006, 'Reengineering the public administration modus operandi through the use of reference domain models and Semantic Web Service technologies', *Proceedings of the 2006 AAAI Spring Symposium on The Semantic Web meets eGovernment (SWEG)*, Mar. 27-29, Stanford University, California, USA
- [26] Peristeras, V. and Tarabanis K. 2004A, 'Advancing the Government Enterprise Architecture - GEA: The Service Execution Object Model', *Lecture Notes in Computer Science*, Vol. **3183**, pp. 476-482
- [27] Peristeras, V. and Tarabanis, K., 2004B, 'The Governance Enterprise Architecture (GEA) Object Model' *Knowledge Management in Electronic Government, LNCS 3035* , Springer, 101-110
- [28] Peristeras, V. and Tarabanis, K., 2004C, 'The Governance Enterprise Architecture (GEA) Object Model.' *Knowledge Management in Electronic Government, LNCS 3035* , Springer, 101-110
- [29] Peristeras, V., Tsekos, T. and Tarabanis. K., 2003, 'Building Domain Models for the (e-) Governance System.' *Proceedings of the International Conference on Politics and Information Systems: Technologies and Applications (PISTA '03)*, Orlandos, Florida, USA.
- [30] Peristeras, V., Tsekos, and Tarabanis, K., 2003, 'E-Government or e-Governance? Building a Domain Model for the Governance System', *International Conference on Politics and Information Systems*, pp.1-15.
- [31] Peristeras, V. and Tarabanis K. 2000, 'Towards an Enterprise Architecture for Public Administration: A Top Down Approach.' *European Journal of Information Systems* **9**, pp. 252-260.
- [32] Sabucedo, L.A., Rifon, L.A. and Perez, R.M. 2009, 'A Platform for LifeEvent Development in a eGovernment Environment: The PLEDGE Project' (Feldman, Y.A., Kraft, D., and Kuflik, T., Eds.), NGITS 2009LNCS 5831,

Springer-Verlag, pp. 146–157

- [33] Sidoroff, T. and Hyvönen, E. 2005, 'Semantic E-Government Portals - a Case Study', *Proceedings of the ISWC 2005 Workshop on Semantic Web Case Studies and Best Practices for eBusiness*, Galway, Ireland.
- [34] Stojanovic, L., Stojanovic, N. and Apostolou, D. 2006, 'Change management in e-government: OntoGov case study' *Electronic Government*, Vol. **3**, No. 1, pp. 74-92
- [35] Tambouris, E., Momotko, M., Chatzidimitriou, M. and Tarabanis, K. 2008A, 'Active Life-Event Portals by Example', *Proceedings of Eastern European eGov days conference*.
- [36] Tambouris, E. and Tarabanis, K. 2008B, 'A dialogue-based, life-event oriented, active portal for online one-stop government: The OneStopGov platform', *The Proceedings of the 9th Annual International Digital Government Research Conference (dg.o)*, ACM Press, pp. 405-406.
- [37] Tambouris, E. and Tarabanis, K. 2008C, 'Guest editors' introduction: one-stop government', *International Journal of Electronic Governance*, Volume 1, Number 3, pp. 255-257.
- [38] Tambouris, E. 2008D, 'Introducing the need for a Domain Model in Public Service Provision (PSP) eGovernment Systems', *Proceedings of ICDIM 2008*, (IEEE Press), pp. 794-799.
- [39] Tambouris, E. and Tarabanis, K. 2008E, 'Understanding and Scoping Life Events', *International Journal of Electronic Governance*, vol. 1, no 2, pp. 139-154.
- [40] Tambouris, E., Vintar, M. and Tarabanis, K. 2006A, 'A life-event oriented framework and platform for one-stop government: The OneStopGov project', *Proceedings of Eastern European eGov days conference*.
- [41] Tambouris, E., Tarabanis, K., Izdebski, W. and Momotko, M. 2006B, 'Life-events revisited: Conceptualization and Representation using Generic Workflows', *Workshop Proceedings of the 5<sup>th</sup> EGOV conference*, Universitätsverlag Rudolf Trauner, Austria.
- [42] Tambouris, E. and Wimmer, M. 2005, 'Online one-stop government: a single point of access to public services', *Electronic Government Strategies and Implementations*, (Wayne Huang, Keng Siau & Kwok Kee Wei Eds.), Idea Publishing Group, pp. 115-145.
- [43] Tambouris, E., Gorilas, S., Kavadias, G., Apostolou, D., Abecker, A.,

- Stojanovic, L. and Mentzas, G. 2004A, 'Ontology-Enabled E-gov Service Configuration: An Overview of the OntoGov Project', in *Knowledge Management in Electronic Government*, Lecture Notes in Artificial Intelligence # 3035 (M. Wimmer, Ed.), Springer Verlag, pp. 106-111.
- [44] Tambouris, E., Kavadias, G. and Spanos, E. 2004B, 'The Governmental Markup Language (GovML)', *Journal of E-Government*, vol. 1, issue 2.
- [45] Tambouris, E. and Spanos, E. 2002, 'An Architecture for Integrated Public Service Delivery based on Life-events', *Journal of Electronic Markets*, vol. 21, No. 4, 12/2002, pp. 281-288.
- [46] Tambouris, E. 2001, 'An Integrated Platform for Realising One-Stop Government: The eGOV project', *E-Government Workshop within DEXA01*, IEEE Press, pp. 359-363.
- [47] Tarabanis, K., Peristeras, V. and Frigidis, G. 2001 'Building Enterprise Architecture for Public Administration: A High Level Data Model for Strategic Planning.' *Proceedings of the 9th European Conference on Information Systems*, Bled, Slovenia
- [48] The Access-eGov Project: <http://www.accessegov.org/>
- [49] The DIP Project: <http://dip.semanticweb.org/>
- [50] The OneStopGov Project : <http://www.onestopgov-project.org/>
- [51] The ONTOGOV Project: <http://www.ontogov.com/>
- [52] The SemanticGOV Project: <http://www.semantic-gov.org/>
- [53] The SmartGOV Project: <http://www.smartgov-project.org/>
- [54] Todorovski, L. 2007A, 'A life-event oriented framework and platform for one-stop government (OneStopGov)', *D11-State of Art*.
- [55] Todorovski, L. 2007B, 'A life-event oriented framework and platform for one-stop government (OneStopGov)', *D12-Life-Event Analysis and Description Language*.
- [56] Todorovski, L. 2007C, 'A life-event oriented framework and platform for one-stop government (OneStopGov)', *D13-Life-Event Reference Models*.
- [57] Todorovski, L., Kunstelj, M. and Vintar, M. 2007D, 'Reference Models for E-Services Integration Based on Life-Events', *Electronic Government*, pp. 92-103.
- [58] Todorovski, L., Leben, A., Kunstelj, M., Cukjati, D. and Vintar, V. 2006, 'Methodology for building models of life events for active portals',

*Proceedings of the eGovernment Workshop 2006*, Brunel University.

- [59] Tomasek, M. et al 2006, 'D3.2 Access-eGov Components Functional Descriptions', *Technical report of the Access-eGov project*, FP6-2004-27020, InterSoft, a.s., Kosice.
- [60] Trohidis, I., Tambouris, E. and Tarabanis, K. 2008, 'One-Stop Government: A Literature Review', *Proceedings of Eastern European eGov days conference*.
- [61] Trochidis, I., Tambouris, E. and Tarabanis K. 2007, 'An Ontology for Modeling Life-Events', *IEEE International Conference on Services Computing (SCC 2007)*, Salt Lake City, Utah, USA (IEEE Press).
- [62] Trochidis, E., Tambouris, E. and Tarabanis, K. 2006, 'Identifying Common Workflow Patterns in Life-Events and Business Episodes', *International Conference on e-Government (ICEG)*.
- [63] Vasiliu, L., Harand, S., and Cimpian, E., 2004 'The DIP Project: Enabling Systems and Solutions for processing Digital Content with Semantic Web Services', *EWIMT 2004 European Workshop on the Integration of Knowledge, Semantics and Digital Media Technology*, London, UK.
- [64] Vassilakis, C. and Lepouras, G. 2006 'An Ontology for e-Government Public Services' *Encyclopedia of E-Commerce, E-Government and Mobile Commerce*
- [65] Vintar, M. and Leben, A. 2002, 'The Concepts of an Active Life-event Public Portal', *Electronic Government, Proceedings of the First International Conference, EGOV 2002*, Aix-en-Provence, France, September 2002. Springer-Verlag. Pg. 383-390.
- [66] Wimmer, M. and Tambouris, E. 2002, 'Online One-Stop Government: A working framework and requirements', *Information Systems: The E-Business Challenge*, (R. Traunmuller, Ed.), Kluwer Academic Publishers, pp. 117-130.
- [67] Web Site of Hellenic National Passport Center: [www.passport.gov.gr](http://www.passport.gov.gr)

## Appendix A: List of Life Events

Portal_ID	Portal	Life Events	Comment
1	Your Europe (European Union)	1. Working in Europe	Organized into general life topics
		2. Finding a job	
		3. Education and Study	
		4. European citizenship	
		5. Living in Europe	
		6. Travelling to Europe	
		7. Opening a bank account	
2	HELP.gv.at (Austria)	1. Acquisition of property	Organized into general life topics
		2. Birth	
		3. Childcare	
		4. Driving Licence	
		5. Citizenship	
		6. Housing	
		7. Retirement	
		8. Marriage	
		9. Starting a Business	
		10. Studying in Austria	
		11. Working in Austria	
3	Portal Belgium BE (Belgium)	1. Getting married	Organized into general life topics
		3. Moving to Belgium	
		4. Buying or selling a home	
		5. Renting a home	
		6. Invest in Belgium	
		7. Financing a company	
		8. Coming to study in Belgium	
		9. Authenticating your qualifications abroad	
		10. Coming to work in Belgium	

		11. Posting workers to Belgium	
		12. Looking for a job	
4	Suomi.fi (Finland)	1. Finding a home	Organized into general subjects that include life events
		2. Housing	
		3. Construction and real estates	
		4. Living Together	
		5. Having Children	
		6. Ageing	
		7. Disability	
		8. Guardianship	
		9. A death in the family	
		10. Health	
		11. Intoxicants	
		12. Falling ill and rehabilitation	
		13. Maintaining law and order	
		14. Vehicles and driving permits	
		15. Immigration	
		16. Voting and Civic Activity	
		17. Moving Abroad	
		18. Attending school and studying abroad	
19. Job seeking and job vacancies			
20. Managing income and expenditure			
5	Ermis.gov (Greece)	1. Buying a House	Organized into life events
		2. Death in the family	
		3. Getting Divorced	
		4. Getting Married	
		5. Getting insured	
		6. Having a baby	
		7. Looking for a Job	
		8. Lost wallet	
		9. Military Service	

		10. Retirement	
		11. School life	
		12. Starting a Business	
		13. Studying	
		14. Travelling Abroad	
6	Hungary.hu (Hungary)	1. Marriage	Organized into key events in life
		2. Marrying a foreign citizen	
		3. Conclusion of Marriage by Foreign Nationals in Hungary	
		4. Divorce action	
		5. Death	
		6. Adoption	
		7. Travelling in- and outside of the EU	
		8. Termination of the employment	
		9. Employment of foreign citizens in Hungary	
		10. Searching, seeking for job	
		11. Change in ownership	
		12. Building, construction, real estate	
		13. Pension, retiring allowance	
		14. Getting married	
		15. Getting a divorce	
		16. Preparing a will	
		17. Reporting a Crime	
7	Citizens Information (Ireland)	1. Becoming a Parent	Organized into general life topics that include life events
		2. Going to college	
		3. Losing your job	
		4. Setting up a business in Ireland	
		5. Getting married	
		6. Adoption and fostering	
		7. Separation and divorce	
		8. Death and Bereavement	

		9. Education and Training	
		10. Employment	
		11. Health	
		12. Housing	
		13. Moving Country	
		14. Travel and Recreation	
8	e-Uprava Portal (Slovenia)	1. Entry into and exit from the country	Organized into general life topics that include life events and public services
		2. Acquiring citizenship	
		3. Acquiring a residence permit	
		4. Asylum	
		5. Residence in Slovenia	
		6. I would like to study in the Republic of Slovenia	
		7. I wish to enrol my child into an international school	
		8. Recognition of university diplomas	
		9. Registration and revocation of work performed by aliens	
		10. Training on occupational health and safety	
		11. Marriage	
		12. Dissolving the marriage bond	
		13. Birth	
		14. Child adoption	
		15. Foster placement	
		16. Child protection	
		17. Retirement	
		18. Death	
		19. Inheritance, last will	
		20. Reporting criminal offences to police authorities	
		21. Entry of arms into the Republic of Slovenia	
		22. Traffic, vehicles	
		23. Travelling around Slovenia	
9	Sverige.se (Sweden)	1. Get A Job	Not organised into life-

		<ul style="list-style-type: none"> <li>2. Get A Permit</li> <li>3. Move To Sweden</li> <li>4. Arrive To Sweden</li> <li>5. Starting a business in Sweden</li> </ul>	events, however many of the facts that are mentioned on the portal can be considered as life-events.
10	The Swiss Portal (Switzerland)	<ul style="list-style-type: none"> <li>1. Immigrating to Switzerland</li> <li>2. Working in Switzerland</li> <li>3. Passports and identity cards for Swiss citizens</li> <li>4. Naturalisation</li> <li>5. Divorce</li> <li>6. Marriage</li> <li>7. Marriage abroad</li> <li>8. Matrimonial property regimes in Switzerland</li> <li>9. Adoption</li> <li>10. Birth</li> <li>11. Death</li> <li>12. Housing and moving home</li> <li>13. Insurance</li> <li>14. Children and younger people</li> <li>15. Healthcare</li> <li>16. Religion</li> </ul>	Organized into general life topics
11	Australia (Australia)	<ul style="list-style-type: none"> <li>1. Becoming Independent</li> <li>2. Buying a Property</li> <li>3. Caring for Others</li> <li>4. Death and Bereavement</li> <li>5. Going Overseas</li> <li>6. Jobs &amp; Careers</li> <li>7. Immigrating to Australia</li> <li>8. Relationships</li> <li>9. Retiring</li> <li>10. Starting a Family</li> </ul>	Organized into life events

12	New South Wales (Australia)	<ol style="list-style-type: none"> <li>1. Buying a Property</li> <li>2. Selling a Property</li> <li>3. Building or Renovating</li> <li>4. Investment Properties</li> <li>5. Caring for Others</li> <li>6. Death</li> <li>7. Wills and Legal Issues</li> <li>8. Moving House</li> <li>9. Getting married</li> <li>10. Getting divorced</li> <li>11. Leaving the workforce</li> <li>12. Finance in your retirement</li> <li>13. Discrimination</li> <li>14. Sexual abuse</li> <li>15. Domestic violence</li> <li>16. Reporting a Crime</li> </ol>	Organized into life events
13	Service Canada (Canada)	<ol style="list-style-type: none"> <li>1. Being a Caregiver</li> <li>2. Buying a Home</li> <li>3. Finding a Job</li> <li>4. Getting Divorced</li> <li>5. Getting Married</li> <li>6. Having a Baby</li> <li>7. Having your Credentials Recognized</li> <li>8. Living with a Disability</li> <li>9. Lost Wallet</li> <li>10. Managing your Debt</li> <li>11. Moving</li> <li>12. Personal Loss</li> <li>13. Raising a Family</li> <li>14. Retirement</li> <li>15. Starting a Business</li> </ol>	Organized into life events

		16. Starting Post-Secondary Education	
		17. Travelling Abroad	
14	Ontario (Canada)	1. After an Auto Accident	Organized into communities and includes a topic of life events
		2. Changing Your Name	
		3. Dealing With Separation and Divorce	
		4. Dealing With Spousal Abuse	
		5. Finding Seniors' Health Care Resources	
		6. Getting Married	
		7. Getting Ready to Retire	
		8 Having a Baby	
		9. Looking for a Job	
		10. Losing Your Wallet	
		11. Managing Your Debt	
		12. Moving to and Around Ontario	
		13. Planning Your Next Steps After High School	
		14. Pursuing Life's Best After Retirement	
		15. Vacationing in Ontario	
		16. What to Do When Someone Dies	
15	Dubai eGovernment Portal (Dubai)	1. Getting married in Dubai	Organized into life events
		2. Getting medical treatment in Dubai	
		3. Paying your bills and fines in Dubai	
		4. Having a baby in Dubai	
		5. Volunteering & charitable activities in Dubai	
		6. Finding a job in Dubai	
		7. Going to school in Dubai	
		8. Going to university in Dubai	
		9. Contacting Dubai Government Officials	
		10. Buying and selling land and property in Dubai	
		11. Travelling about in Dubai	
		12. Obtaining professional licenses in Dubai	
		13. Driving a car in Dubai	

		<ul style="list-style-type: none"> <li>14. Practising your religion in Dubai</li> <li>15. Dealing with legal issues in Dubai</li> <li>16. Retiring in Dubai</li> <li>17. Reporting crime and ensuring safety in Dubai</li> <li>18. Getting a divorce</li> <li>19. Dealing with death and bereavement in Dubai</li> </ul>	
16	Salford (UK)	<ul style="list-style-type: none"> <li>1. Applying for a school place</li> <li>2. Becoming a parent</li> <li>3. Being a teenager</li> <li>4. Changing schools</li> <li>5. Dealing with crime</li> <li>6. Becoming disabled</li> <li>7. Enjoying later life</li> <li>8. When you're going away</li> <li>9. Learning to drive</li> <li>10. Looking for a job</li> <li>11. Relationships</li> <li>12. Sorting out a nuisance</li> <li>13. Starting up a business</li> <li>14. Welcome to Salford</li> <li>15. When someone dies</li> </ul>	Organized into general life topics that include life events