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SENIOR-TV

PROVIDING ICT-BASED FORMAL AND INFORMAL CARE AT HOME

Updated Deliverable D1.1
Analysis of existing services of formal and informal care

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0. INTRODUCTION

The present deliverable reviews the state-of-the-art of formal and informal care services in Slovenia, Cyprus and Romania, the countries implicating end-users in the SENIOR-TV project, as well as a system and platform analysis in Spain. It firstly emphasizes on the identification of holistic approaches to the formal and informal care of older adults.

The main objective of this report is to identify synergies and reusing results. D1.1 Requirements V1: Analysis of existing services of formal and informal care will serve the basis of the requirements documents compiled in subsequent months; D1.2 Requirements V2: Gathering and Definition - Informal Care and D1.3 Requirements V3: Gathering and Definition - Formal Care.

1. DEMOGRAPHIC CHANGES IN SLOVENIA, CYPRUS AND ROMANIA

1.1. An Overview

Europe is ageing. Europe is undergoing significant demographic changes which impact heavily, on the one hand, on the health care systems and, on the other hand, on the socio-cultural fabric of our societies. Fertility below the replacement ratio, immigration and the increased life expectancy are key challenges and causes to population growing. Though a common phenomenon for all Member States, the demographic changes in Western Europe have different causes than those from South-Eastern Europe and specific challenges and solutions to be addressed and discussed, especially when accounting for cultural factors.

In the 60s and 70s, South Eastern Europe had a young population due to the fertility rates and low longevity. Once that a healthier lifestyle was adopted, the literacy level increased along the overall socioeconomic levels, and so the demographics changed. At the beginning, Italy, Greece and former Yugoslavia were at the forefront of providing care services in rural areas and increasig the capacity of national health systems. Balkan societies were rapidly urbanized and more medical facilities decreased the very high mortality rates, along the youth vaccination rates, better hygiene and availability of antibiotics, which all contributed to raise the survival rates (Jakovlevjevic and Laaser, 2015). All these changes in the health care systems dramatically changed the demography of the societies, and it is called the Semashko-type of health systems defined by state-financed, publicly owned health care services (Mayes and Michalski, 2013). In the Eastern Europe region, the knowledge on population aging stays scarce (Chawla et al, 2007).

Slovenia and Cyprus joined European Union in 2004 and Romania in 2007, so more data was made available for the first two countries which entered the European statistics earlier. Among the three countries of our focus, Cyprus is the one which has the youngest share of population and the share of the elderly is also among the lowest in European Union, along countries like Malta, Poland, Slovakia and Ireland. Slovenia and Romania are part of a secondary category, having the country characteristics similar to Austria and Portugal among the Western countries and to Latvia, Estonia, Hungary and Czech (Mette, 2006).

Conclusively, as in other countries, the population ageing is the result of the cumulative effects brought by low fertility along a constant rise in life expectancy due to the better-quality health services and public health care provision. The emigration also contributes to increase this rate in the poignant case of Romania, while Slovenia and Cyprus keep the net immigration rates low due to the high GDP per

capita, and their "economic miracles": Cyprus at the end of the 1970s and at the beginning of 2000s and Slovenia in the 1990s.

Today, the percentages of 65 years of age and older from total population in Cyprus, Slovenia and Romania, regardless of legal status or citizenship, are presented in the table below. We may notice that in the case of Romania and Slovenia, it has almost tripled over the course of 57 years and in Cyprus, it has more than doubled from 1960 to 2017.

Table 1 Share of population aged 65 and over in Slovenia, Cyprus and Romania in a comparative perspective

COUNTRY	% OF TOTAL (1960)	% OF TOTAL (2017)
World	**4.97**	**8.70**
China	3.70	10.64
European Union	9.81	19.77
Central Europe and the Baltics	7.21	17.88
Slovenia	7.78	19.06
Romania	6.83	17.85
Cyprus	5.90	13.42

Source: Index Mundi

Generally, this balance is not so severe as that faced by Eastern Europe as life expectancy may explain why the share of the elderly from the total population is not an absolute figure to express it as a burden for the society. Similar to Western Europe, Cyprus and Slovenia have a life expectancy of about 81 years, and, moreover, their share of the elderly is lower, while the life expectancy in Romania is much lower, of 75 years. For our discussion, healthy life expectancy is even a more appropriate indicator for the state of the matter. In the below table we may notice an increase in the healthy life expectancy at birth for the case of Cyprus between 2007 and 2014 and a status quo for the case of Slovenia. These two countries joined EU-15 in 2004. Romania became a European Member State in 2007 and the healthy life expectancy decreased with 3 years for the females and by 1 year for males.

Table 2 Healthy Life Expectancy in Slovenia, Cyprus and Romania

Country	**Healthy life expectancy 2007**		**Healthy life expectancy 2014**	
	Males	Females	Males	Females
UE-28	61,7	62,6	61,4	61,8
Cyprus	63,1	62,8	66,1	66,3
Slovenia	58,7	62,3	57,8	59,6
Romania	60,5	62,5	59,0	59,0

- Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_hlye&lang=en

All the three countries of our focus are ranked in the first 50 countries in the world with respect to the percentages of male and female from the total male and female population. Slovenia and Romania have quite similar ratios and the gender differences are significant for both countries.

Table 3 Share of female and male population aged 65 and above in Slovenia, Cyprus and Romania

RANKING 2016	WOMEN AGED 65 AND ABOVE FEMALE (% TOTAL FEMALE POPULATION)		RANKING 2016	MEN AGED 65 AND ABOVE (% TOTAL MALE POPULATION)	
1	Japan	29.45	1	Japan	23.55
14	Slovenia	21.41	21	Slovenia	15.57
22	Romania	20.28	25	Romania	14.38
49	Cyprus	14.37	43	Cyprus	11.88

Source: Index Mundi

There is an acute difference between Romania and the rest of the countries regarding the healthy life expectancy at 65 in 2014, scoring much below the average EU-28, while Cyprus and Slovenia register similar scores with the EU-28.

Table 4 Healthy Life Expectancy in Slovenia, Cyprus and Romania

COUNTRY	**HEALTHY LIFE EXPECTANCY AT 65 2007**		**HEALTHY LIFE EXPECTANCY AT 65 2014**	
	Males	Females	Males	Females
UE-28	8,7	9,0	8,6	8,6
Cyprus	9,0	7,3	10,4	8,8
Slovenia	9,1	10,0	7,8	8,6
Romania	7,6	7,8	5,9	5,7

Source: Eurostat, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_hlye&lang=en

1.2. The Young Seniors from Cyprus, Slovenia and Romania

1.2.1 Retirement

Due to the demographic changes, the state pension age is expected to increase in the following decades. Today, compulsory retirement in Cyprus is 65 years old with a right for early retirement and reduce pension at 63 years old but without any gender differences. In Romania, the retirement is set at 60 years old for females and 65 for men while in Slovenia is 65 for males and 63 for females. As Europe is getting older, all the costs related to ageing are raising, especially those related to pensions, health and long-term care (Ageing Working Group of the Economic Policy Committee, 2018).

Table 5 Share of female and male population aged 65 to 69 in Romania, Slovenia and Cyprus

RANKING 2016	FEMALE POPULATION AGES 65 TO 69, FEMALE (% TOTAL FEMALE POPULATION)		RANKING 2016	POPULATION AGES 65 TO 69, MALE (% TOTAL FEMALE POPULATION)	
1	Japan	7.55	1	Japan	7.42
16	Romania	6.07	19	Slovenia	5.24
28	Slovenia	5.51	25	Romania	5.05
49	Cyprus	4.48	48	Cyprus	4.18

Source: Index Mundi

Table 6 Share of female and male population aged 70 to 74 in Romania, Slovenia and Cyprus

RANKING 2016	FEMALE POPULATION AGES 70 TO 74, (% TOTAL FEMALE POPULATION)		RANKING 2016	MALE POPULATION AGES 70 TO 74 (% TOTAL MALE POPULATION)	
1	Latvia	5.58	1	Japan	5.97
16	Slovenia	4.80	16	Slovenia	4.01
23	Romania	4.29	38	Romania	3.25
47	Cyprus	3.56	39	Cyprus	3.14

Source: Index Mundi

1.2.2 Employment

Davidescu (2015) discusses the data which show the employment rate of seniors in the unofficial sector or shadow economy in Romania, and offers two potential explanations, which can also complement each other: weak potential of the economy to generate proper jobs, so the **shadow economy** is an alternative for seniors who do not meet the requirements of formal economy and the fact that seniors stay busy but with low earnings and therefore, they work to supplement their income. Walker and Zaidi (2016) also emphasizes that **the employment of the seniors proves the inadequacy between pension and income**. Though, also cultural, social and psychological needs have to be factor in for a better understanding of the **relationship between active ageing and employment**, societal conditions for elderly and fighting isolation. Seniors from Portugal, Latvia, Lithuania and **Romania**, have all above-average employment scores and, therefore, may need further supportive public policies.

1.3. The Older Seniors from Cyprus, Slovenia and Romania

1.3.1 Gender gaps

The gender gap among females and males aged 75 years to 79 increases as we may note in the below table and it becomes more severe for the category of 80 years old and over. Women being overrepresented among the elderly in their 80s and older is a common situation to EU countries and,

especially for countries such as **Cyprus, Romania**, Bulgaria and Lithuania.

Table 7 Share of female and male population aged 75 to 79 in Romania, Slovenia and Cyprus

RANKING 2016	FEMALE POPULATION AGES 75 TO 79, FEMALE (% TOTAL FEMALE POPULATION)		RANKING 2016	MALE POPULATION AGES 75 TO 79 (% TOTAL MALE POPULATION)	
1	Latvia	5.58	1	Germany	4.60
12	Romania	4.46	15	Slovenia	3.06
18	Slovenia	4.18	25	Romania	2.82
49	Cyprus	2.76	43	Cyprus	2.27

Source: Index Mundi

The percentage of women and of men in a given living arrangement may significantly differ. **All these living arrangements may have implications for the care provided as those who live alone are more likely to be in need of care services.**

Also significant gender differences are to be noted in the living arrangements related to living alone or in couple. Across Europe, women aged 80 and over are more likely to live alone while men live in 'couple' households, except for Malta who displays the smallest gender differences related to living conditions and civic status. Over 50% of men in Romania and Slovenia, along other countries such as Slovakia and Poland, live with their spouses while the majority of women aged 80 and older live alone in Romania and countries such as Latvia, Germany, Greece, Slovakia, Hungary, Portugal, Bulgaria, Spain and Malta, but not in Slovenia and Cyprus (Rodrigues et al, 2012).

Female population ages 80 and above living alone compared to male population is doubled in Slovenia and significantly different in Romania. Gender differences may be explained by the factors of life expectancy and marital status, as men tend to remarry at advantaged ages.

There is a North-South divide in this matter, as well. People over 80 leave independently in Nordic countries, while in the Southern countries such as **Cyprus**, Greece, Portugal and Spain they tend to be dependent on the care provided by family or state.

Table 8 Share of female and male population aged 80 and above in Romania, Slovenia and Cyprus

RANKING 2016	POPULATION AGES 80 AND ABOVE FEMALE (% TOTAL FEMALE POPULATION)		RANKING 2016	MALE POPULATION AGES 80 AND ABOVE (% TOTAL MALE POPULATION)	
1	Japan	9.97	1	Japan	5.65
12	Slovenia	6.92	21	Slovenia	3.26
24	Romania	5.45	22	Romania	3.25
51	Cyprus	3.57	45	Cyprus	2.30

Source: Index Mundi

1.3.2. Isolation

Isolation of the elderly is widely present in the countries of our focus. More than 10% **Cyprus**, Greece and Hungary have a high degree of isolation as they declared that they never meet friends, relatives or colleagues. That support the need for public policies aiming at the improving health and well-being of the elderly (Rodrigues et al, 2012). 'Meet socially' is an indicator which measures the percentage of seniors who meet socially by choice, and not for work or pure duty and no data are available for the three countries.

Hrast et al (2012) discusses that elderly of Slovenia are extremely vulnerable comparative to other groups based on the observations of different types of social exclusion, among which: material deprivation, spatial exclusion, poor health and access to health care, housing exclusion and interpersonal exclusion. Another study on Slovenian elderly show that those who live independently are generally having good family relations, live qualitatively, admit the future in a healthy way, and are satisfied with their life, though they do not manifest a high self-esteem. Those elderly who cannot live independently feel abandoned and they are not satisfied with their way of life and have low esteem. (Železnik, 2007).

2. FORMAL AND INFORMAL CARE

2.1. Introduction. The phenomenon of familialism and de-familialization

The concept of social care, which differs from that of health care, refers to any dependent persons such as children and elderly and implies always a mix of services providers, among which family has a crucial role (Saraceno, 2010; Daly and Lewis, 1998). Authors such as Leitner (2003) and Jensen (2008) emphasize that any public policy concerning care entails conceptions about family obligations and, therefore, there are significant cross-country differences in expectations towards family care, comparative to health care. According to Kouta et al (2015), these demographic challenges lead to the decreasing of family care giving and the increasing of formal care services.

Contrary to what is widely assumed, public policies may integrate both familialism and defamilization (Intergenerational regimes). According to Saraceno (2010), there are three general approaches to familialism and de-familialization. The first refers to the generational and kinship obligations which may be inscribed in law. The second refers to the familialism which is supported through public policies for financial compensations for the financial and caring responsibilities. The third alternative, de-familialization, minimize family obligations and it may be supported through publicly financed services or market-provided services or private insurance against social risks. Though, when someone

appeals to market services that is an alternative offered by family resources, so it becomes an outcome of familialism and a matter relevant to social justice policies.

A survey of older workers in Europe (European Foundation, 2008) found a higher incidence of caring obligations. According to this study, 20.3% of all workers (25.6% in the 45–56-age group) provide care in some capacity for a disabled or elderly relative. In particular, slightly less than 10% of workers in the 45-and-over age group cares for a disabled relative or frail elderly person for at least one hour every second day. Women between 45- and 54-years-old often combine this care with care for children or grandchildren.

Countries who opt for defamilialization do not consider the needs of adult population who offer care, while those who recognize familialization offer days of paid leave for employees who assist older or disabled family members, such as Italy or Netherlands. Saraceno (2010) explains that gender and class overlap as women who have a weaker position in the labour market because of their history of education and or caregiving are more prone to familialism than men and higher skilled women.

There is information available for elderly residing in private households and receiving care at home and for those living in institutions, but the information is lacking for countries where care services are scarce and for those living alone (Rodrigues et al, 2012).

2.2. Familialism in Slovenia, Cyprus and Romania through the lens of Hofstede's cultural dimensions[1]

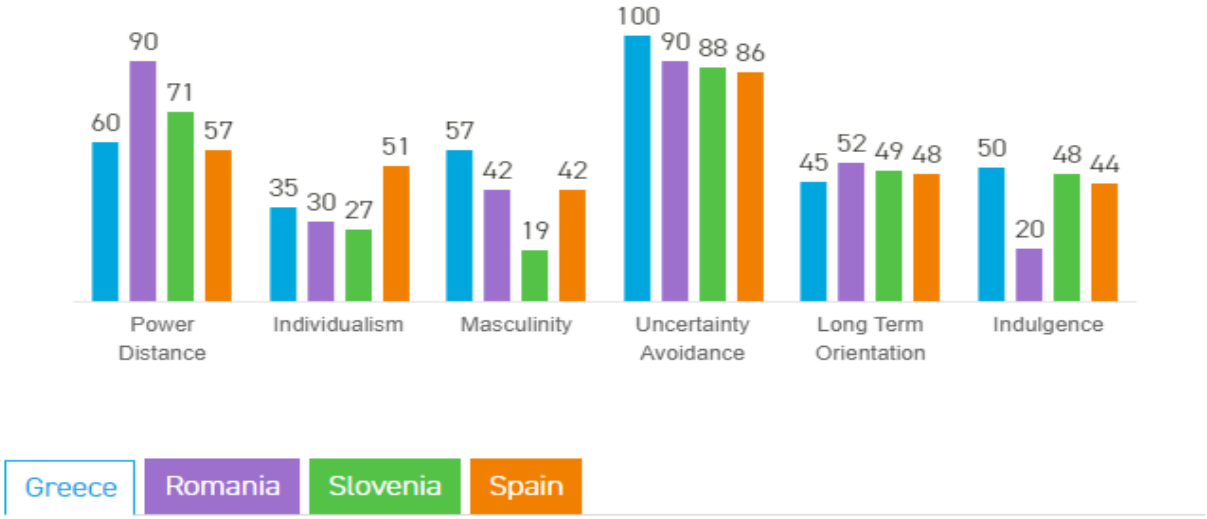
Hofstede's concept of "culture distance" using the 6 dimensions of individualism, masculinity, uncertainty avoidance, long term orientation and indulgence are of relevance here for understanding the national cultures of the countries where we operate.

More specifically, each dimension is explained as follows (Hofstede Insights, 2019): power distance measures the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally, individualism measures the degree of interdependence a society maintains among its members; masculinity refers to what motivates people, wanting to be the best (Masculine) or liking what you do (Feminine); uncertainty avoidance refers to the extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these, long-term orientation measures how every society has to maintain some links with its own past while dealing with the challenges of the present

[1] Because there were no data registered on Cyprus, we took Greece as the culture of reference.

and future and, finally, indulgence refers to the extent to which people try to control their desires and impulses.

Figure 1 Cultural Distance in Slovenia, Greece, Romania and Spain



Source: https://www.hofstede-insights.com/country-comparison/greece,romania,slovenia,spain/

The indicators are quite similar in many respects. The indicators show that significant differences exist between Romania and the rest in power distance and indulgence while Slovenia scores low at masculinity.

We notice that we are developing and testing the product in societies which have a tendency to the higher side of PDI, showing that people believe that hierarchy and inequalities are acceptable, and that also leads to **familialism, manifesting respect toward the old age people and caring for them.** Because Romania scores 90 we understand that all those characteristics are exacerbated for the Romanian society.

Slovenia, Greece and Romania are collectivist cultures, comparative to Spain which ranks at the middle of the scale. Group cohesiveness is often expressed through the **extended family where members offer help and loyalty, strengthening the familialism paradigm.**

Greece and Romania are medium ranking masculine societies, implying that they are rather success oriented and driven, where men are caring for the families. Slovenia outstands through appreciating more the quality of life as a sign of success and not been driving by competition.

All the countries of our focus have the highest or extremely high scores for uncertainty avoidance, meaning that these nations are not comfortable in ambiguous situations, **valuing bureaucracy and laws** which can make the world safer.

The three countries also point middle ranking to the long-term orientation and indulgence indicators, except for **Romania which shows a clear preference towards indulging low control of desires and impulses.**

2.3. FORMAL CARE

2.3.1. Health Care Costs in Slovenia, Cyprus and Romania

Total health expenditure is the sum of public and private health expenditures as a ratio of total population. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. Data are in current U.S. dollars. Private health expenditure includes direct household (out-of-pocket) spending, private insurance, charitable donations, and direct service payments by private corporations. Public health expenditure consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds. In the below table we may notice that Romania spends the lowest amount on health care and the least as a percentage of its total budget. Romania spends about 500 euros per person on social protection in old age, similar to Latvia or Croatia. While countries such as Denmark spends tenth time of that (Europes Ageing Demography, 2010).

Table 9 Health Expenditure in Slovenia, Cyprus and Romania

RANKING 2014	HEALTH EXPENDITURE PER CAPITA $		RANKING 2014	HEALTH EXPENDITURE, PRIVATE (% OF GDP)		RANKING 2014	HEALTH EXPENDITURE, PUBLIC (% OF GDP)	
1	Switzerland	9,673.52	1	Sierra Leone	9,21	1	Tuvalu	16.40
28	Slovenia	2,160.75	29	Cyprus	4.04	27	Slovenia	6.62
32	Cyprus	1,819.11	80	Slovenia	2.61	80	Cyprus	3.33
75	Romania	556.81	162	Romania	1.09	162	Romania	4.47

Source: Index Mundi

According to the Ageing Report (Ageing Working Group of the Economic Policy Committee, 2018), the costs of ageing will differ among the European countries. For some the costs will decrease, for ten Member States they will increase by up to 3 percentage points of GDP among which **Cyprus and Romania**, along Portugal, Denmark, Poland, Sweden, Bulgaria, Finland, Hungary and Slovakia; and they more than 3 percentage points for the rest.

Due to the continuous demographic dynamics and the challenges which they pose to the governments, the provision for the elderly care is still under consultation and development. According to Mette (2006), Slovenia (along Malta) with a high share of the oldest old in society seems to be well equipped for the challenge of caring for the dependent elderly.

2.3.2. Formal Care Services in Slovenia

- **Home care** (home care services, home help, home care assistant, personal assistance, housing groups in the field of mental health).
- **Day programs** (such as adult day care centers and day care in training centers)
- **Institutional care** (retirement homes, occupational activity centers, training centers, institutions for persons with disabilities)

Cash benefits:

- Attendance allowance
- Assistance and attendance allowance
- Childcare allowance

Structure of formal caregivers according to activity types:

75 % institutional care

25 % home care

Income structure according to resources:

73 % from public resources

27 % from private resources

Expense structure:

76 % institutional care (55 % retirement homes, 16 % social-security institutions, 5 % hospitals)

24 % home care

Key stakeholders, from the field of ensuring care for the elderly in Slovenia, can be found in the

following areas: public sector (the state and local communities), private sector, third sector (non-governmental organizations), and informal sector (family, friends, relatives, neighbors, etc.). Much of their experiences are interconnected therefore defined in the following categories:

Formal Caregivers for the elderly

Status can be public, private, or nonprofit, and their mission is providing care in institutions or community types. Such as:

- **Retirement homes**, which provide institutional care, home care, and other types of services for the elderly (daily living centers, temporary placements, trainings for the elderly and relatives, etc.). At the end of 2014 the institutional care provided 98 retirement homes and special institutions. Of which 54 institutions were public, 39 institutions have been awarded concession to operate, and 5 special institutions for the elderly. Home care social-security services were conducted by 24 retirement homes in 2013.http://www.ssz-slo.si/
- **Centers for social work** (CSD), which provide home care social-security services. According to the Social protection Institute of the Republic of Slovenia the number of social protection centers was 37 and are the main providers of this kind of service in Slovenia; http://www.scsd.si/
- **Specialized home care agencies** - The Home Care Institute Ljubljana: www.zod-lj.si and Home Care Center Maribor; http://www.pomocnadomu.eu/
- **Daily Living Centers Ljubljana**; http://www.dca-ljubljana.org /
- **Home care service**, which provides home health care activities. Home care service is an integral part of the primary health care and with it primary health service. It is carried out in a patient's home, health center, local community and on the field. Home care operator is a registered nurse. Every Health care center has its own home care service.
- **Private undertakings** with granted concession, municipalities, or state, which provide home care services or institutional care services;

2.3.3. Formal Care Services in Cyprus

Analysis of the formal and informal care services in Cyprus let to the finding that while diverse and sufficient formal care services are available for the elderly, i.e. day care centers, elderly homes, nursing homes and senior living communities, limited informal care services exist. Whereas, both governmental and private institutions operate in all districts, the governmental institutions can be attended free of charge while the private ones are attended on either a monthly

or an annual fee. Regarding the informal care services, taking into account the strong family values that run in the Cypriot society, the elderly if neither independent nor living in nursing homes, they are usually looked after their children and/or relatives.

The table from Annex 1 comprises 97 private nursing homes/rehabilitation centers operating in Cyprus.

Strovolos Municipality created the Strovolos Municipal Multi-Functional Foundation (SMMFF) for Adults in 1993 in an attempt to integrate seniors into the Cypriot society. The Centre is a meeting place for individuals post retirement, aiming at their socialization and implication in creative, as well as, entertaining activities. Seniors can participate in any of the following activities free of charge: water aeropbics, gymnastics, computers, religious speech, hand-made creations and choir.

Similar centers for adults operate in almost all Municipalities in Nicosia such as in Engomi, Ayios Dometios and Lakatamia.

Cyprus has been also involved in the Elderly Care Vocational Training System (www.ecvleonardo.com) whose aim was to promote academically and socially acceptable skills for elderly care taking workers through self-training electronic methods and means.

The ECV project addressed the current status and the trends of the training, social and employment rehabilitation needs of the Elderly Care in Europe for:

- Vocationally skilled elderly care workers
- Transparency of competencies and
- Acceptance of the employment and service structures by the social partners.

The ECV project produced a Self-Training Computer Software, a Textbook, a Competence Accreditation methodology and a Social Relations Guide. The ECV self-training software utilized a contemporary electronic PC platform with adequate data storage, fast retrieval technology and advanced audio-visual media enabling the trainees to learn the Elderly Care Vocations modules of "Attendance", "Cleaning", "Hygiene", "Entertainment" and "Administration" at their own pace and in their own language. The successful diligent trainees had subsequently the option to apply, through the appropriate mechanism of the ECV network, for validation of their skills and award of the ECV Certificate of Competencies.

2.3.4. Formal Care Services in Romania

Formal and informal care services across Romania have been monitoring (See Annex 2). The services offered belong to three categories: medical and social care and services for seniors. The following services belong to medical and social care: homecare, homecare and medical assistance,

medical care, medical info, medical services. The second category comprises of online shopping and food delivery, socializing, entertainment, education and forums. To each sub-category a score has been given related to the content quality, usability, and aspect.

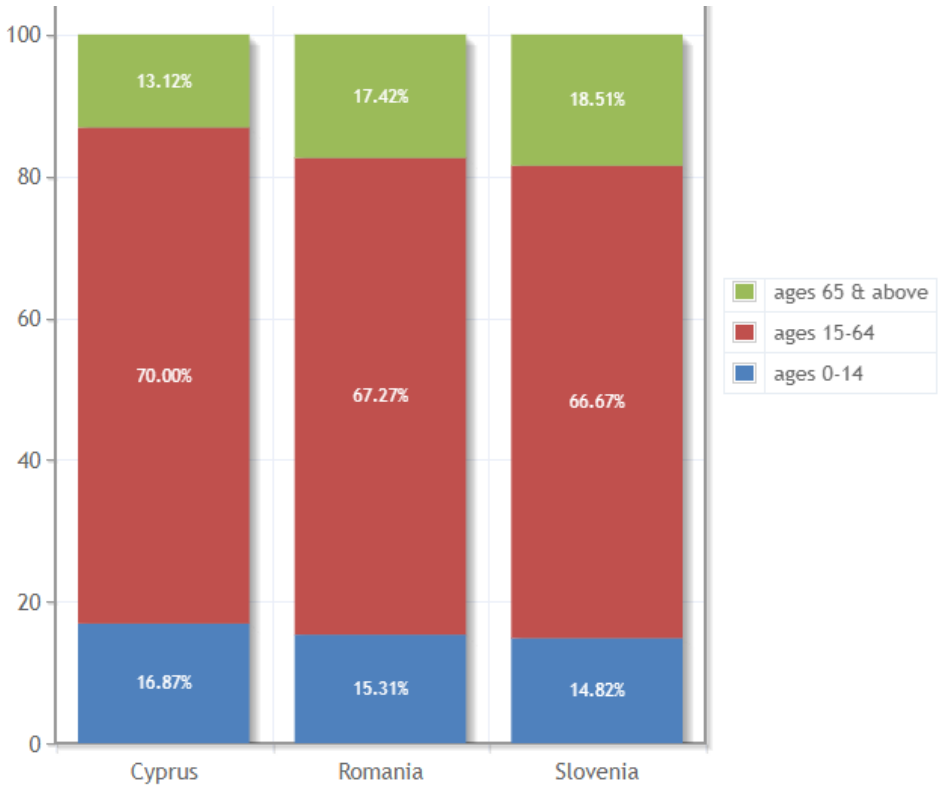
We may note that among all, the services related to entertainment such as traveling, museums' virtual tours, and shopping online and food delivery are ranked the highest among all service categories. These types of services are meant to serve the Internet-skilled seniors, who represents a little percentage from the whole seniors, though there is an increasing number in usages and interest in Internet among the young seniors.

2.4. INFORMAL CARE

2.4.1. Old Age Dependency Ratio in Slovenia, Cyprus and Romania

The age dependency ratio refers to the ratios of those not in the labor force and those typically in the labor force, therefore measuring the pressure on the productive population. Cyprus had an age dependency ration of 74.50 in 1961 and for 2016 the ratio is 42.85, while its lowest score was in 2010, 41, 35. Slovenia's age dependency ratio did not fluctuate too much over the last 50 years, being 54,89 in 1960 and 41,82 in 2004 and 2016, 50.00. Romania has a 48.65 in 2016, 58.70 in 1980 and 45,08 in 2006. These scores stays high comparative to the Western countries, such as Germany or Italy which have a ratio of 32,5 and 31,3, respectively (Index Mundi, 2019).

Figure 2. Old Age Dependency Ration in Slovenia, Cyprus and Romania



Source: Index Mundi (2019)

The phenomenon of growing needs of the seniors coupled with the increasing imbalance between the working age population and the seniors is present. Age dependency ratio clearly shows that while the dependency ratios increased, the potential support ratio decreased all over the countries between 1950 and 2010 (Index Mundi, 2019). In the coming decades, even though the total supply of labour is expected to decrease, the labour force participation rates are expected to rise due to the increasing higher rates participation among women and older workers (Ageing Working Group of the Economic Policy Committee, 2018).

The old age dependency ratio is over 60% in countries such as Bulgaria, the Czech Republic, Lithuania, Poland, **Romania, Slovenia** and Slovakia and less than 45% in Denmark, Ireland, **Cyprus,** Luxembourg and the United Kingdom (Giannakouris, 2008; Kouta et al, 2015). In **Cyprus** there are 14% of women and 9% of men in employment who have some care-related responsibility for an adult relative (European Labour Force Surveys, 2005).

Both older and young generations compete for the support of middle generation. Women with low incomes are the most affected group. There is a gender misbalanced ration when workers in the 45-and-over age group care for elderly of disabled relatives, as women care as well for children and grandchildren. According to a survey published by European Foundation in 2008 (Saraceno, 2010), 20.3% of all workers and 25.6% in the 45–56-age group provide care in some capacity for a disabled or elderly relative.

The risk of poverty in old age is strongly related to the loss of income as a result of care responsibilities, especially for the women with low incomes who do not have care alternatives. Data and information on the generations who provide care for older generations are few (Saraceno, 2010), especially for the countries of our focus.

2.4.1.1.Financial benefits

In Slovenia, for special cases, seniors may access the Assistance and Attendance Supplement which represents a major benefit in cash and it is intended for any type of care and the recipient cannot live independently. Of the three countries, only Romania (along England in Europe) offers a financial benefit which can be used as a substitute for informal care and it is connected to some degree of recognised disability, as long as a proof of medical or nursing need is provided (Riedel and Kraus, 2011).

The same is the case for Romania, where familialism is widely spread especially in the rural areas: family members care for the dependent seniors. There is almost no data available on the phenomenon of informal care and no official estimates (Popa, 2010), though compensations from local budget are offered for the caregiver and if the individual is salaried and working part-time, they can claim support for the remainder of their salary or a gross monthly salary of a newly qualified social assistant with an intermediate level of training.

2.4.1.2. Informal Care Services in Slovenia

Slovenia does not have a national policy, which would systematically and uniformly govern the field of informal care. Informal care is often intertwined with formal care due to separated heath system and social protection and is therefore uncoordinated for a long-term care user. A number of laws have been passed, which were indirectly connect with informal caregivers: The Pension and Disability Insurance Act, which mentions the right for an assistance and attendance allowance; The Health Care and Health Insurance Act, within which the right to an allowance to care for an immediate family member living in the same household as the insurer is enabled; The Social Protection Amendment Act, which enables family care assistants financial compensation on the basis of special regulations.

Informal care is the most prevalent form of care in Slovenia and formal care is dedicated to very few older people who are in need and reside in urban settings (17,386 users in 2018). Informal care is supported by the large disposition of informal caregivers from outside of the households and rarely goes towards accessing exclusive formal care which stays as a specificity of the urban environment according to Srakar et al (2015).

Informal Care Services for the elderly

- Most often are **family members, relatives, friends, neighbors**.
- **Non-governmental** organizations are a specific category.

Nonprofit and volunteer organizations can be professionalized service providers who frequently provide unpaid services within the volunteer work. Key organizations in the areas of promoting the interests and assistance to the elderly through various programs and projects in Slovenia are:

1.The Slovenian Federation of Pensioners' Organizations (volunteer and other activities of individual ZDUS members, the 'Elderly for Elderly' project, the ‘Helps’ project); www.zdus-zveza.si

2. The Intergenerational Association for Quality Ageing Slovenia (Self-help groups for

elderly programs); www.zveza-medgendrustev.org

3. The Aton Trstenjak Institute of Gerontology and Intergenerational Relations (the Institute is focusing on development of new programs for quality ageing and good intergenerational relations); http://www.inst-antonatrstenjaka.si/sozitje/projekti/1.html
4. The Slovenian Association for Help with Dementia – Spominčica (Alzheimer Cafe – informal meetings of relatives of people with dementia); http://www.spomincica.si/
5. The Slovenian Red Cross (support programs for the most disadvantaged individuals and groups);
6. Caritas Slovenia (support programs for the most disadvantaged individuals and groups); www.karitas.si
7. Slovene Philanthropy (volunteer programs); www.filantropija.org - Prostovolljstvo.org is a Slovene Philanthropy's project providing all news about volunteering to individuals, volunteer organizations and general public. The developed informational system connects interested volunteers and volunteer organizations. News, events and voluntary work content is contributed by members of the Slovenian Network of Voluntary Organizations. http://www.prostovoljstvo.org/
8. Gerontological Association of Slovenia (the association associates with experts and other workers working with elderly in a social and health system, developing programs on a national and local level, etc.). www.gds.si
9. The Association of Societies for Social Gerontology of Slovenia - The Association's purpose is to implement self-help programs for the elderly, develop organized volunteer work, and preparing the middle generation of their old age. http://www.skupine.si/
10. National point for elderly MATIjA. MATIjA is an activity, marketing, information and assistance network, which enables access to information, services and support mostly for elderly through a call center, and organization and individual network. It connects and supports volunteers and other non-governmental organizations, and providers of goods and services for the elderly. http://www.cd-matija.si/
11. The VARNA STAROST portal is an informative web portal with personal consulting service for the elderly and their families. They collect, edit, and forward information about offers for the elderly. Varna Starost will also offer support on a personal level: seeking the best solutions with the help of legal, real estate, and financial advisors. http://varnastarost.si/
12. SENIORJI.INFO The seniorji.info web portal is intended for the elderly population (seniors and retirees). The portal provides useful information for a satisfying and full life, and

encouraging lifelong learning and coexistence between generations. http://www.seniorji.info/

13. Zlata leta Institute offers useful and interesting articles for the elderly population. They have introduced the News category intended exclusively for the elderly population. In doing so, it was found that there is almost no news content about and for the elderly currently on the web and would like to encourage the use of technology within the elderly population. http://zlataleta.com/
14. Slovenian Diabetes Association, Union of the Blind and Partially Sighted of Slovenia, other patient associations (cardiac, pulmonary, oncology, etc.), are performing measurements, counseling, preventive programs, and different projects.

2.4.1.3. Romania. The Phenomenon of Care Migration

The social changes brought by ageing and immigration accompany the changes of the economic growth and societal modernization as well as an increasing diverse population. Societies and policy makers have a limited perception of the phenomenon and scarce experience in dealing with these types of challenges and, therefore, there is a predisposition to ignoring or diminishing its importance, failing to address it through adequate public policies (Ruspini, 2009). We address here two challenges common to the countries of our focus, both under-represented on the public agendas and in the literature, especially because of their prevalent informal and illegal patterns: care migration and elderly migration.

Emigration of the working force is a key factor for understanding the demographic changes for the last 3 decades in Romania. Emigration leads to population declines, most visible in **Romania** among other countries such as Bulgaria (-28%), Latvia (-26%), Lithuania (-24%) or Poland (-18%) (Giannakouris, 2008).

The emigration from Romania is one of the greatest, as it is the second after Syria (13%) with 3.4 million Romanians working abroad. Economic and social implications for this working emigration are major to the Romanian society of the elderly. Moreover, there is a decrease in the care services provided in Romania as many working-age women prefer to provide their care services abroad. Even though that was a wide phenomenon at the level of Europe, it has been just recently acknowledged by policy makers and decision factors, and it refers to the growing numbers of migrant workers employed by elderly for providing care (Mestheneos & Triantafillou, 2005; Meyer, 2007). Due to the fact that the legal employment interdicts 24-hour-work, irregular workers and lack of data prevail. Most of the

women come from Eastern European countries (Dohner et al, 2008). Figures estimates that more than 100.000 women work in German household on an irregular basis.

The "care drain" from Romania to Italy is a very widespread phenomenon, known since the early 1990s. Because the Mediterranean countries still opt for familialism paradigm, comparative to the Northern European countries which opt for institutionalization of care, a large phenomenon of female migration for elderly caring occurred. Romania is the first European countries which provide domestic care in Italy, being exceeded only by Philippines, Peru and Sri Lanka and closely followed by Poland, Albania and Morocco (Bettio et al, 2006).

2.4.1.4. Retirement migration. The case of Cyprus.

Three "ideal types" are discussed by Warnes and Williams (2006) at the level of Europe: labour migration, retirement migration and the return of labour migrants to their country of origin. We focus here on the retirement migration as the other two phenomena are indirectly relevant to our research focus. Labour migration is a phenomenon rather specific to Western and Northern countries and it refers to the return of the young seniors where they raised their children. Many of them originate from southern and Eastern Europe, though this is a partial relevant phenomenon for Romania and Slovenia.

Retirement migration refers to the migration of affluent seniors from northern to southern Europe. It is the phenomenon which brings up cultural challenges for the host population and question the equity to access health and social services of the host countries (Rupini, 2009).

Elderly migrants of Western Europe create a specific situation for Cyprus comparative to Slovenia and Romania and, among many other European Southern Countries such as Spain and Italy. Similar to the situation from Portugal, Cyprus is among the secondary choices for the elderly migrants of Northern European countries.

Panayiotopoulos (2005) discusses the case of Cyprus where the phenomenon of international domestic workers employed as carers for elderly increased as a consequence of the commoditization and transfer of domestic reproductive labor. The studies focused on the market care which emerged in Europe due to the ageing population phenomenon and draws attention on the biological reductionism which make the majority of paid and unpaid domestic workers to be women with a special focus of those originated from Filipina. The "economic miracle" which took place in Cyprus in the 1970-1980s led to the employment of many women, who typically were having the double burden of caring for children and elderly and of house maintenance (what has been called generically, "the sandwich generation"). Due to the professionalization of women, the reproductive labour has been transferred and created the illegal market for a low wages' intercontinental foreign domestic workers. Figures estimated that 71%

of women serve as carers and maids in private households and as staff for cleaning in the tourism industry.

In the case of Romania, sporadic incidences of this type are observed. For example, the Transylvanian Saxons and Banat Swabians (people of German ethnicity) who left Romania for repatriation to Germany in the 1990s return to spend their retirement in their native villages. The cases of women from Filipina as domestic workers has been taken up in mass-media and discussed their employment as carers for children.

3. Spain – System & Platform Analysis

The analysis of different systems and platforms for assistance to the elderly has resulted to two kinds of categories, social services and medical services. This study was conducted via the analysis of systems aimed at elderly assistance.

Social services are those in which the system provides tools to help or to track users' state. Not all of the services have users' health monitoring and analysis and monitoring are only for users' wellbeing and neither for monitoring vital signs nor performing activities of medical nature.

Medical services correspond to those that provide functionality relating to monitoring vital signs and conducting medical checking in all of the forms. In most cases, the same service can be used in medical systems and in social services.

3.1. Social services

Detection of risk situations: Risk situations can be of different types. Users' falls or absence of normal activity fall within this category. Through user patterns, the system can detect deviations which lead to detect risk situations on real-time. On the other hand, situations like gas leakage can be detected with sensors installed at house.

Agenda / reminders: Within this group we can distinguish the services involving a human operator, and those based on an automated system, with both having access to the users' information while generating a message through a device located at home.

Company: Elderly people need company. These services provide a means to establish contact with important others, including their caregivers. Calls or video calls do not necessarily take the form of a medical consultation.

Help need: Alarm service; when a non-controlled situation occurs, the user sends a notification to the control centre. The Control centre receives in turn the request and gives a solution to the problem. There can be different types of problems (social, environmental, etc.).

Geolocation. It allows user permanent location through a GPS service. This service is often combined with the previous one, although it can be used independently, as for example, to locate people with Alzheimer's disease.

3.2. Medical services

Self-training: systems that offer training services to enable self-regulation of the individual's health situation with the ultimate goal of improving the user's habits and behaviours. The knowledge acquired enables users to adapt to their health condition and needs.

Rehabilitation: usually consisting of explanatory videos showing to the elderly the correct way to perform rehabilitation exercises. Systems also exist that generate cognitive rehabilitation exercises (e.g. question - answer games). Serious games are also used. The primary purpose of the games is for training and better rehabilitation results.

Tele - consultation: Possibility of holding consultations with health professionals from home. Within this group, we have the option of telephone consultations or, in most cases, by videoconference.

Tele - monitoring: Measurement and monitoring of various biomedical parameters. All measurements are performed from home. Most common are:

Pulsi-oximeter: A system that indirectly monitors the oxygen saturation of a patient's blood.

Spirometry: Functionality that help detect breathing problems. This is used to diagnose COPD (Chronic obstructive pulmonary disease), asthma, and others.

Actigraphy: User registration movement.

Blood Pressure: Blood pressure meter. Used for detection and monitoring of coronary heart disease.

1. ECG: Electrocardiography.
2. Glucose: Measuring blood glucose.
3. Weight: Weight monitoring.
4. Temperature.
5. Pulse

Each system analyzed is classified below in social and medical services. This classification is nevertheless not exclusive as, as shown, many of systems fall in both categories.

Figure 3 Classification of systems in social and medical services

System/platform	Medical services	Social Services
Artemis	•	
Asispa		•
AsisT		•
Aviva	•	•
Cardiocom	•	•
CompanionAble	•	•
Cruz roja		•
E-Cliniq	•	•
Eocene	•	
Eulen		•
Health buddy	•	
Igon		•
Intel Health guide	•	
MiAvizor		•
Mckesson	•	•
Omni	•	•
Philips Remote Patient Monitoring	•	
Philips Motiva	•	•
POET		
RecorDate	•	
SarQuavitae		•
Skeeper		•
T-asisto	•	•
Telegerontología	•	•
TeleMedCare	•	
Tunstall		•
Weel@Home	•	•
Wireless Complete Health monitoring	•	

Further analyzing the data above, it can be concluded that 37% of the systems include both social and medical services.

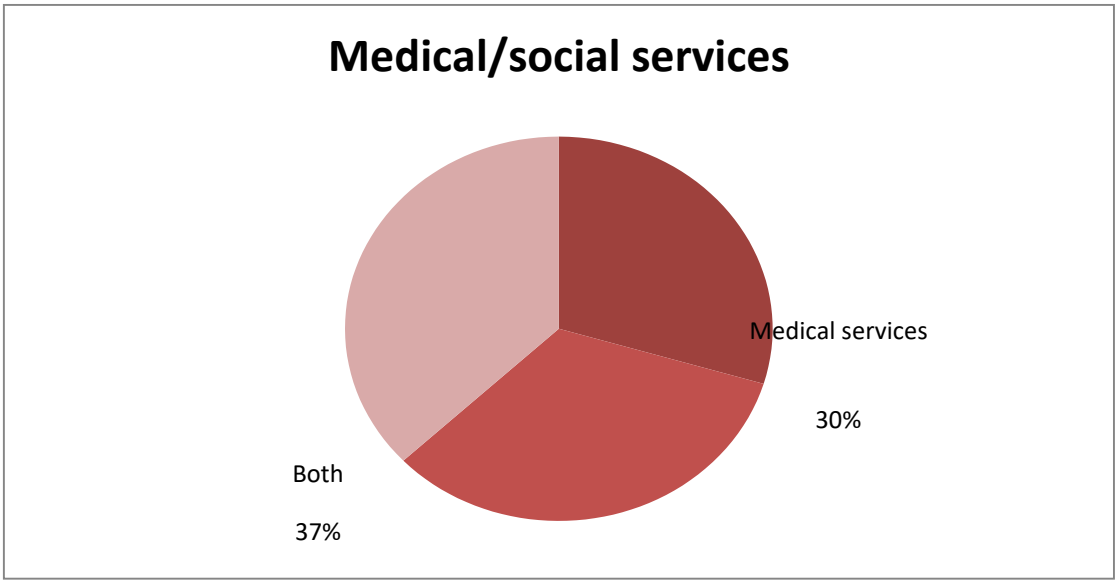


Figure 4 Medical/Social services

Groups of functionalities of medical systems

	Tele-consultation				
	Tele-monitoring	Audio	Video	Self-training	Rehabilitation
Aviva	•	•	•		•
Cardiocom	•	•			•
CompanionAble					
E-Cliniq	•	•			•
Eocene	•				
Health buddy	•			•	
Intel Health guide	•	•	•	•	
Mckesson	•			•	
Omni		•	•		•
Philips Remote Patient Monitoring	•				
Philips Motiva		•	•	•	
RecorDate					•
T-asisto				•	•

Telegerontología	•	•	•		•			
TeleMedCare	•			•				
Weel@Home	•			•				
Wireless Complete Health monitoring	•							

Figure 5 Medical systems with their functionality group

As shown below, the principal services in medical systems are tele-monitoring and tele- consultation.

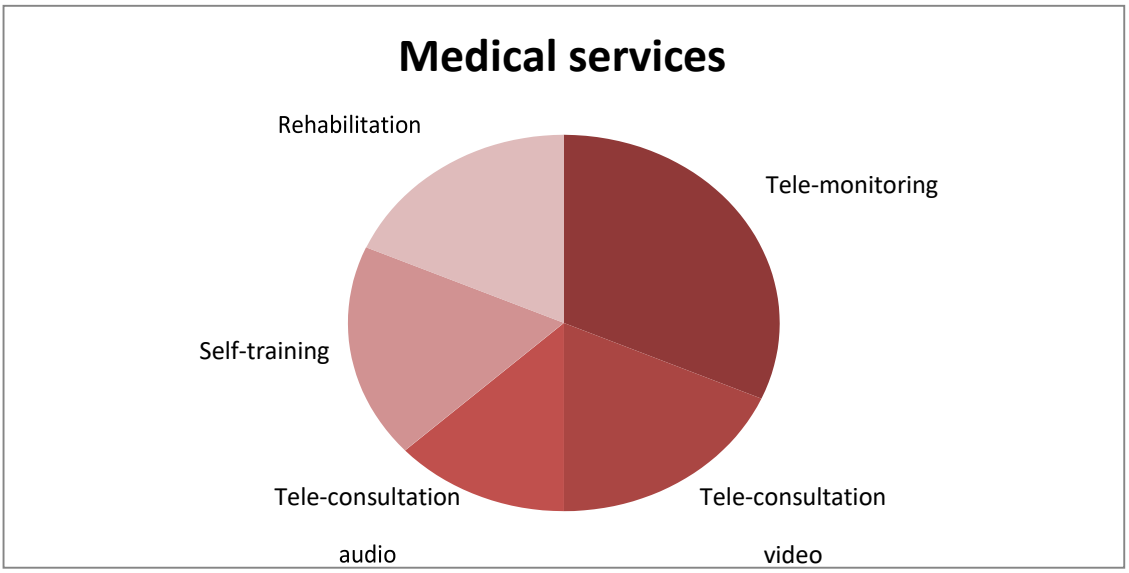


Figure 6 Principle services in medical systems

3.3. Monitoring Services

The table below outlines the different kinds of monitoring services.

		Spiromerty	Weight	Blood pressure	Glucose	Temperature	Pulse	Pluxi oximeter	Actigraphy
Aviva	•		•	•	•	•	•		
Cardiocom		•	•	•	•			•	
E-Cliniq	•	•	•	•	•	•			
Eocene				•	•				
Health buddy		•	•	•	•				

Intel Health guide			•	•	•			•	
Mckesson			•	•	•			•	
Philips Remote Patient Monitoring	•		•	•	•			•	
Philips Motiva	•		•	•	•			•	
Telegerontología			•	•	•		•		
TeleMedCare	•	•	•	•	•	•	•	•	
Weel@Home			•	•	•			•	
Wireless Complete Health monitoring			•	•			•		•

Figure 7 Types of Monitoring Services

Principal services in the monitoring systems are Blood pressure, Glucose and Weight with about 20% of the systems including the aforementioned services.

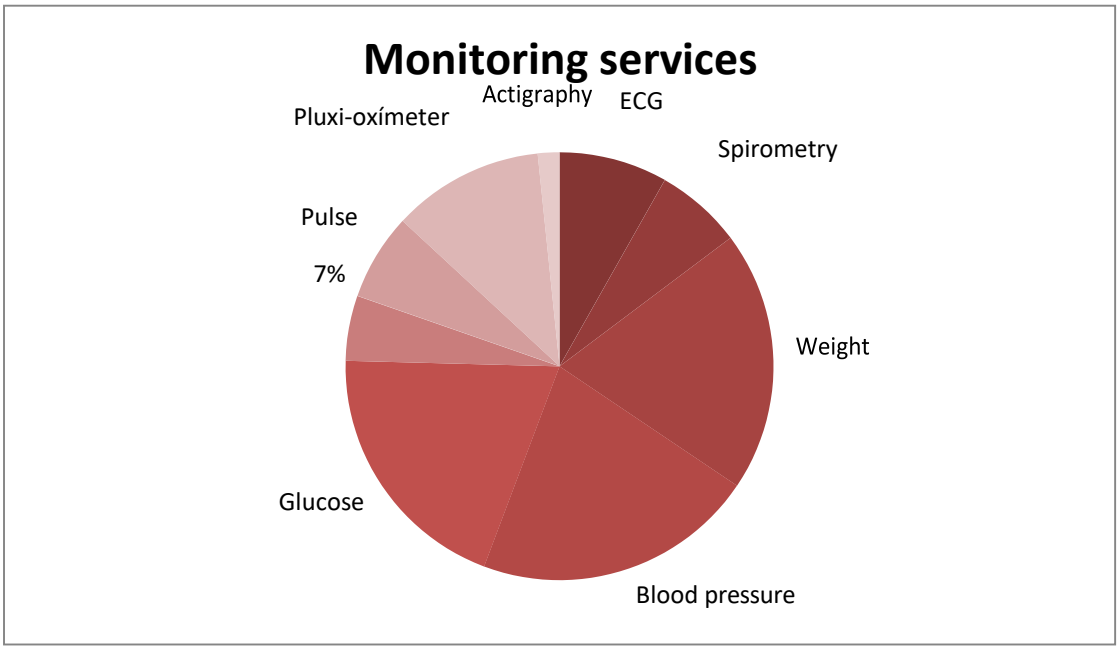


Figure 8 Principle services in monitoring systems

3.4. Functionalities of Social Services

Company	Audio	Video	Detection of risk situlation	Need help	Geolocation	Agenda/reminders
Asispa	•		•	•	•	•
AsisT				•		•
Aviva				•		
Cardiocom	•	•		•		
CompanionAble	•		•	•		•
Cruz roja	•			•	•	•
E-Cliniq				•		
Eulen	•			•		•
Igon	•	•		•		•
MiAvizor			•	•		
Mckesson				•		
Omni	•	•		•		•
Philips Motiva	•	•		•		•
SarQuavitae	•	•		•		•
Skeeper				•	•	
T-asisto				•		•
Telegerontología	•	•		•		•
Tunstall			•	•		
Weel@Home				•		•

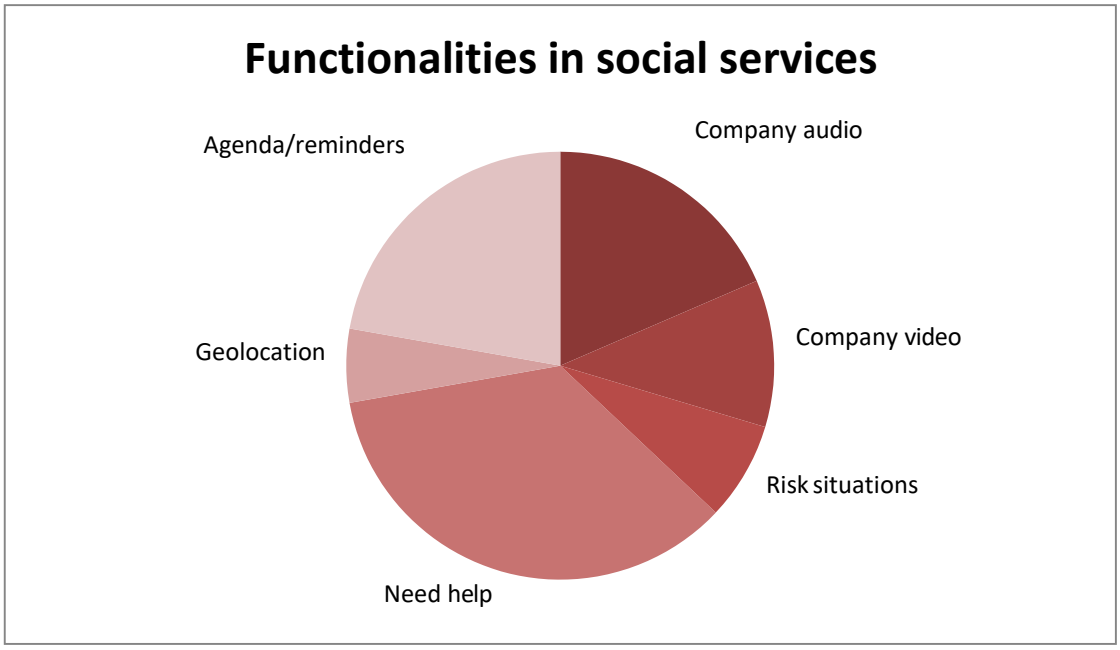


Figure 9 Functionalities in Social Services

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Annex 1. Private nursing homes/rehabilitation centers operating in Cyprus:

Nursing Home/Rehabilitation Center	District
Panayia I Eleoussa Synchronos Old Age Home Ltd	Nicosia
Rodotheon Foundation	Nicosia
Saint Mary's and John's Polyclinic	Nicosia
Materia Senior Living Community The vision of Materia is a Beautiful Quality Life for third Age in Cyprus. Their aim is to constantly improvethe quality of life of elderly people in Cyprusandthe group's mission is to offer an integrated framework of quality care services by continuous improvement of the existing services and the continuous addition of new services http://www.materia.com.cy/index.php?lang=en	Nicosia
Nursing Home Agios Pavlos	Nicosia
Old Age Home	Nicosia
Apostolos Loucas Old Age Home	Larnaca
Agios Ioannis o Prodromos	Nicosia
Melathron Nicosia	Nicosia
Agia Marina Old Age home	Nicosia
FED Hosting House	Famagusta
Frangou Andreas	Larnaca
Ayios Nektarios Charity Foundation	Nicosia
Destalo Care Home	Larnaca
Ma Rea Kiveli Old Age Home	Larnaca
Andreou Constantia	Larnaca
Chrysostomio Old Age Home	Larnaca
Kentro Filoxenias Enil. "O Timios Stavros" Lefkaron	Limassol
Oasi Ilikiomenon Ayios Georgios	Larnaca
Megali Ikogenia Ikos Evegirias	Nicosia
Anagenissi Old Age Home Ltd	Nicosia
Anastasiou Eleni	Nicosia
Chrysi Ilikia Ltd	Nicosia
Estia Old Age Home	Nicosia
Galini Old Age Home	Nicosia
Archangelos Michael Old Age Home	Nicosia
Ayios Ioannis O Lambadistis Rehabilitation Center	Nicosia

Chrysospiliotissa Old Age Home	Nicosia
Demetra Old Age Home	Nicosia
Evaggelismos Old Age Home	Nicosia
St. Demetrio Center for the Elderly	Nicosia
Stegi Ilikiomenon Elenio Ltd	Nicosia
Thalpori Old Age Home	Nicosia
Timotheion Old Age Home Ltd	Nicosia
Evelpidio	Limassol
Marmi Services Ltd	Limassol
Agia Eirini Stegi Ilikiomenon	Limassol
Constantinion Stegi Ilikiomenon Ltd	Limassol
Ayios Demetrios Old Age Clinic	Limassol
Ayia Zoni Old Age Home	Limassol
Ayios Nicolaos Old Age Home	Limassol
Ayios Spyridonas Old Age Home	Limassol
Elpis Stegi Geronton & Anarotirio	Limassol
Zoe Old Age People Home	Limassol
Zesti Folia Old Age Home	Larnaca
Fotostella Panagia Maria Old Age Home Ltd	Paphos
Kyanos Stavros – Geriatric Center and Rehabilitation	Paphos
Vasiliada Old Age Home	Paphos

Annex 2. Formal and informal care services in Romania

CATEGORY	LINK	TYPE OF CONTENT	CONTENT QUALITY	USABILITY	ASPECT
HOMECARE	http://homecareservices.ro/?gclid=CjwK EAiA9c-2BRC_vaaJ0Ybps30SJABlqx DekShlFP dn6rfNSJKhRsCLBFoHz-Re1dOu6yfP3TjmixoCZIzw_wcB	Homecare	4	3	3
	http://www.niciodatasingur.ro/	Companionship at home	5	5	5
	http://www.seniorinet.ro/	Providers of homecare and medical assistance at home	5	5	5
HOMECARE & MEDICAL ASSISTANCE	http://www.cag.ro/	Providers of homecare and medical assistance at home	5	4	4
	http://caritasromania.ro/	Providers of homecare and socio- medical assistance at home	5	5	5
LIFESTYLE	http://www.cursurigratuite.ro/cursuri/7/exercitii_pentru_varsta_a_treia.html	Physical exercises for seniors	2	2	2

	http://www.intermedicas.com/ personal- health-assistant/personal-health-assistant-pentru-seniori-cronic	Medical services at home	4	4	5
	http://ingrijiriladomiciliu.com/index-2.html	Medical care at home	5	5	5
MEDICAL CARE	http://www.nicomed.ro/ingrijire-medicala-la-domiciliu.html	Medical care at home	5	5	5
	http://www.romedic.ro/cabinete/ingrijire -medicala-la-domiciliu/bucuresti	Interactive list of companies providing medical care at home	3	3	4
	http://cabinet-recuperare-medicala.ro/	Medical recovery services at home	5	5	5
	http://www.doctoracasa.ro/?gclid=CjwK EAiA9c-2BRC_vaaJ0Ybps30SJABlqxDemOdAf RNjSCd6vzTK7ZlZcc_ZejHu iRsdqUn WSAZ_4xoCibHw_wcB	Medical care at home	5	5	**5**
	http://www.sanacas.ro/	Medical, stomatological and recovery care at home	4	4	**5**
MEDICAL SERVICES	http://www.caritas-ab.ro/hu/node/1609	EKG - telemedicine services provided by a formal care provider	3	3	**3**
	https://www.youtube.com/watch?v=ukk cbeOv5Eo	Physical exercises for seniors	3	5	**5**
MEDICAL INFO	https://www.youtube.com/channel/uct myhokd0av4ychjllblswq	collection of medical video shows on senior related	3	5	**5**

		pathologies			
	https://www.roportal.ro/discutii/topic/33852-alzheimer/	Ad forum			
	http://forum.romedic.ro/prod/grup_de_suport_pt_bolnavi_de_parkinson_si_familiile_lor_052488.html	Alzheimer forum			
	http://www.boala-parkinson.ro/html/forum-boala-parkinson.html	parkinson forum			
	http://forum.romedic.ro/cauta.php?sir_cauta=dementa	dementia forum			
ONLINE SHOPPING AND FOOD DELIVERY	http://www.coradrive.ro/delivery?gclid=cjwkeaia9c-2brc_vaaj0ybps30sjablqxdel1wxl7sd4nueiyqkd7b_jb90gcxyuxulqt1j6guzrxoccqjw_wcb	Food online shopping delivery at home (supermarket	5	4	4
	http://www.carrefour-online.ro/	Food online shopping delivery at home (supermarket)	5	5	5
	http://www.alimentaraonline.com/?gclid=CJax1OqUn8sCFerpwgodG5MBJA	Food online shopping delivery at home (supermarket)	5	5	5
	http://www.homemarket.ro/	Online shopping and delivery Supermarket	3	5	5
	http://www.bolnav.ro/	Online shopping and delivery pharma	5	5	5
	http://www.efarma.ro/contact/	Online shopping and delivery pharma	5	5	5

	http://www.emag.ro/	Online shopping and delivery	5	5	5
SOCIALIZING	http://www.voluntariseniori.ro/	Senior volunteers recruitment	4	4	4
	http://www.descopera.ro/	magazine: science, news, nature, history	4	5	5
	http://www.220.ro/documentare/	magazine: science, news, nature, history, entertainment	3	4	4
	http://natgeotv.com/ro/ghid-de-calatorie-in-cosmos/clipuri/calatorie-virtuala	national geographic virtual tours	5	5	5
	http://europatravel.ro/seniori	travel for seniors	5	5	5
ENTERTAINMENT	http://www.infoturism.ro/sejur/program-seniori/	Travel for seniors	5	4	3
	http://e-senior.pl/ro/	Senior platform: education, training, chat, online shopping,	1	1	1
	http://www.muzicaderelaxare.eu/	Relaxation music	4	4	4
	http://www.muzicapopulara.net/	Popular music	4	4	4
	http://www.fanlafel.ro/muzica/clasica/brahms/	Classical music	5	4	5
	http://www.cimec.ro/muzee/muzee-cu-tur-virtual.html	Virtual tour museums	4	4	4
	http://www.sibiu360.ro/obiective360/ms-turvirtual/	Virtual tour museums	4	5	5

	http://www.cursuridecalculatoare.ro/cursuri-pentru-seniori.htm	Information on available senior IT training sessions	3	3	3
	http://gratuitor.ro/curs-it-pentru-seniori/	Information on available senior IT training sessions	3	3	3
	http://www.attitudeconcept.com/dans-seniori/	Information on available courses for seniors: dance, canto etc.	2	2	2
TECHNOLOGY	http://www.yoda.ro/tv-electronice/telecomanda-minune-cum- iti-faci-smart-tv-cu-250-ron-cu-un-gadget-romanesc.html	Smart remote control			
	http://www.yoda.ro/tv-electronice/samsung-smart-tv-2012.html	Interactive smart TV with human interaction command			
	http://www.onetouch.com/support/testing/download-testresults	Glucometer with monitoring software and medication and customized lifestyle advice			
	http://glneurotech.com/kinesia/products/homeview/	Integrated Solution For Tele-monitoring Parkinson Patients			
	http://www.dotari-medicale.ro/pacienti_ro/verificare-stare- de-sanatate/ecg-pentru-acasa/palm-ecg-cardio-a.html	Portable EKG			
	http://www.linemed.ro/tensiometru-omron-digital-brat-m10-it-automat	PC connectable tensiometer			

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http://forum.romedic.ro/cauta.php?sir_cauta=dementa	dementia forum	