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# SILHOUETTE

USING NOVEL INFORMATION  
AND COMMUNICATION TECHNOLOGIES  
FOR THE SUPPORT OF ELDERLY'S ACTIVE  
PARTICIPATION IN THE INFORMATION SOCIETY



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# ICT-based Support for the Elderly in Wielkopolska: Stakeholders' view

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## 1. Introduction

The population in the Wielkopolska Province is 3 415 841 (women - 1 656 884, men - 1 758 957), of which the working age 524 095 (153 770 - Men 65 + and 370 325 - Women 60 +). Demographic projections indicate a large increase in the number of elderly people over 65 years of age and are for 2020 - 591 133 and 2030 - 712 173. This creates a relatively significant challenge for the local administration, but at the same time it creates a potential opportunity for introducing and providing new products and services for the group of the elderly customers.

The current report contains interpretation of the benefits, barriers and opportunities of using ICT technologies for the support of the activity of the elderly as expressed by various stakeholders involved in providing support to this population group in Wielkopolska. The surveyed stakeholders include:

- Local administration: 86 returned answers to an extended questionnaire designed for Wielkopolska;
- Local social welfare centers: 174 returned answers to an extended questionnaire designed for Wielkopolska;
- Open questions surveys by district administration in Grodzisk Wilkp. and Nowy Tomyśl, MANUS company, Center for Innovation, Development and Technology Transfer of Poznań University of Technology;
- Questionnaires at the Best Practices Workshop in Poznań – 20 questionnaires.

## 2. Senior-oriented activities

### 2.1. Supporting the elderly communities in the region

Social support in the Wielkopolska Region is based on the activity of the state and its institutions, as well as the resourcefulness and solidarity of groups and individuals. Statutory obligation to ensure the implementation of tasks in the area of social welfare for the elderly rests with local government units and government bodies. Social assistance in the Wielkopolska province is implemented by local governments at three levels: provincial, county, municipal and subordinate units of social assistance. The responsibility for social assistance is shared with central government authorities, social organizations and NGOs, the Catholic Church, other churches, religious associations, as well as natural and legal persons.

In the area of social assistance tasks are divided as follows:

- a) The Ministry of Labour and Social Policy - creating the concept and definition of directions of development in the area of social assistance;
- b) the Wielkopolska Province Office in Poznań - determining how to perform the tasks of state administration carried out by local authorities;
- c) Marshal Office of the Wielkopolska Region - developing, updating and implementation of provincial strategies for social policy is an integral part of the regional development strategy;
- d) Districts - development and implementation of district strategies for solving social problems;
- e) Community - development and implementation of municipal social problem-solving strategies;

In the context of the regional development council Wielkopolska by RCPP plays in creating and implementing social policy for the elderly, the role as:

- a) representative of the issues, needs and problems of this group;
- b) promoter of actions for development, accessibility, social cohesion and integration;
- c) the initiator of normative solutions at national, regional and local levels;
- d) the authority of planning activities and preparing solutions to meet the needs of residents, groups of the region, the local community;

- e) switch and catalyst in the relationship between the level of the intermediate structures of government and local government and local communities
- f) the entity financially supporting the statutory tasks of social policy;
- g) the creator of the social infrastructure development in accordance with the statutorily assigned tasks of social policy;
- h) a partner and consultant for organizations dedicated to solving social problems and meeting the needs of individuals, groups and communities at a certain level of local government structures.

Nearly all Wielkopolska municipalities adopted a local strategy aiming to tackle social challenges. This is reflected also through the received answers, 98% of which confirm this fact. However, while these strategies may also cover the needs of the elderly citizens, less than 70% of surveyed municipalities adopted programs specifically aimed at supporting the elderly in their strategic documents.

## **2.2. Usage of ICT-based solutions in supporting the elderly**

The Silhouette project identified several products and services based on ICT that are offered to senior consumers in the Wielkopolska regions. These products and services are at various stages of maturity – some are full products or services available freely on the market, while others are at the stage of pilots or prototypes. Some of them are offered by or in cooperation with local public administration. These include first of all Public Internet Access Points provided by over 75% of Wielkopolska municipalities, as well as such initiatives as the “50+ Information Point” in Poznań or pilot implementation of a community care center based on the “button of life” service, also provided by the city of Poznań (through its social welfare center). Municipalities also engage into organizing computer and/or Internet training for their senior citizens.

While some early attempts at providing ICT-based solutions to senior citizens exist in Wielkopolska municipalities, they are few and mostly provided by the city of Poznań. The reason for that may be found in the answers of the performed survey. Less than 8% of the surveyed municipalities confirm that their strategies for promotion of active ageing indicate ICT and e-services as a possible solution. Other local regulations concerning support of the elderly suggest ICT as a solution to promote active ageing in about 3% of municipalities according to the performed survey. For the district level it is 5% and 4% accordingly.

### **3. National, regional and local programs and strategies of supporting the elderly**

#### **3.1. Practical implementation of programs**

Despite the fact that majority of Wielkopolska municipalities that participated in the survey adopted special programs aimed at supporting activity of the elderly in their local strategies, only about 15% practically implement such programs.

The implemented programs and projects are not big, however play an important role to local communities. For example, the district center for family support in Nowy Tomyśl carries out several activities aimed particularly at seniors. Initiatives undertaken in the Nowy Tomyśl district included projects of organizing holiday for seniors (one of the items on the agenda was computer training for seniors) and “Active Seniors” project with district Olympic games for seniors. These initiatives have often been implemented in cooperation with local associations of retired persons and pensioners.

An ever increasing role in implementing programs and projects aimed at activating the elderly is played by local non-governmental organizations. About 50% of surveyed local communities report that non-governmental organizations actively participate in supporting the elderly. What is important in the context of the Silhouette project, it has been reported that over 20% of local communities experience NGO programs including ICT solutions as a core part.

#### **3.2. Needs concerning creation and implementation of programs enabling wider usage of ICT**

While currently ICT is not widely exploited by municipalities to support activity of their elderly citizens, it is important to note that local communities notice that ICT is a possible solution and feel the need to wider use modern technologies in order to improve the quality of life of the elderly. Around 44% of surveyed municipalities in Wielkopolska express the need to include adequate regulations that could allow to implement ICT-based solutions for supporting the elderly. Also at the district level such a need is widely understood. About 45% of the surveyed districts express that addition of regulations facilitating application of ICT and e-services for supporting the elderly to local policies is needed and possible in the near future.

An example district that aims to adopt such regulations in the district of Nowy Tomyśl where the local “Strategy for Solving Social Problems in the Districts for years 2009-2018” has been developed. The district’s social welfare center works on expanding this strategy to first of all, include regulations directly aimed at the elderly and secondly to propose ICT as means to implement these regulations.

Around 35% of surveyed local communities in Wielkopolska express the need to implement programs using ICT solutions to improve communication, mobility and safety of senior citizens. They especially

seek to implement in and out of home security programs, preventive health care, and integration and activation of the elderly. They notice the need to build monitoring systems to ensure round the clock home care and to improve Internet accessibility for seniors. They also report a demand for programs focused on increasing skills in using novel technology, especially in mobile scenarios and on supporting the elderly in their place of residence, also with the participation of volunteers (including seniors).

## 4. Benefits and barriers in implementing ICT-based solutions for supporting the elderly

### 4.1. Benefits

The surveyed representatives of local governments and social welfare centers believe that using ICT to activate the elderly should:

- empower the elderly;
- allow them to maintain better health;
- improve functioning of the elderly at home and in the society;
- and boost local infrastructure development.

Consequently, this would increase the sense of security, self-esteem and sense of usefulness of the senior citizens.

Further on, social welfare centers provide various justifications for the need of implementing ICT-based solutions for supporting the elderly. They can be summed up as follows:

- the use of ICT and electronic services to support active ageing will contribute to social development, financial savings, time savings and better management of human resources (i.e. social workers);
- the use of ICT technologies improves communication between the elderly and public institutions and workers (e.g. health and social workers) as well as access to these services;
- ICT technologies can help to prevent social exclusion and isolation, and to facilitate intergenerational integration;
- ICT technologies are able to provide solutions for activating seniors in exploring their interests and social participation.

On the other hand, local governments see that using ICT solutions may help to:

- fight digital exclusion of the elderly;
- improve quality of life of the elderly (better health, autonomy, better living conditions);
- reduce costs of social and medical services;
- facilitate access to public services and information;

- allow elderly to remain active professionally and socially;
- reduce social isolation.

The representatives of the provincial level (that is Marshal Office and Regional Center for Social Policy) notice that ICT and electronic service can help to increase independence of the elderly, improve their functioning in the society as well as improve the quality of social services delivered to the elderly.

#### **4.2. Barriers**

Barriers reported as important to cause difficulty in implementation of programs aimed at supporting the elderly include the following:

- shortages in financial resources (77% of surveyed social workers and 72% of surveyed local government representatives);
- need to implement more urgent tasks concerning social welfare (61% of surveyed social workers and 52% of surveyed local government representatives);
- shortages in personnel resources (53% of surveyed social workers and 39% of surveyed local government representatives);
- and unidentified needs of seniors (27% of surveyed social workers and 27% of surveyed local government representatives)

As far as barriers for using ICT to tackle challenges concerned with ageing are concerned, the main reported barriers include the following:

- limited financial resources of local communities (76% of surveyed social workers and 72% of surveyed local government representatives find it a very important barrier);
- low ICT-literacy levels among the elderly (67% of surveyed social workers and 62% of surveyed local government representatives find it a very important barrier);
- limited access of the elderly to computers and the Internet (64% of surveyed social workers and 51% of surveyed local government representatives find it a very important barrier);
- poor accessibility and friendliness of devices and applications (55% of surveyed social workers and 50% of surveyed local government representatives find it a very important barrier);
- high cost of ICT (58% of surveyed social workers and 45% of surveyed local government representatives find it a very important barrier).

Low societal activity of local communities and lack of leadership, equipment, know-how and support are also listed as important reasons for low level of implementation of programs aimed at supporting the elderly with the use of ICT.

## **5. Potential of the region to utilize ICT-based solutions for supporting activity of the elderly**

### **5.1. The size of the regional market**

The Wielkopolska Province is a relatively big market with a Total population of over 3,400 thousand of which nearly 525 thousand are beyond retirement age. Demographic projections indicate further increase in the number of elderly in the coming years. This provides to a conclusion that demand for innovative products and services supporting needs of the elderly will be growing.

Information and communication technologies seem a solution that is sought for by various groups of stakeholders. The Best Practices Workshop organized in March 2012 in Poznań once again confirmed that seniors are interested in learning about new technologies and are willing to use ICT-based products and services if they could help to facilitate their active functioning. Access to information is pointed as one of the important needs that can be fulfilled by ICT. Furthermore, the representatives of public institutions (local administration, social welfare centers, public social service providers) indicated a range of solutions as useful and needed in their everyday practice. These included such products and services as safety alarms, geolocation for persons suffering of dementia (e.g. for use within nursing homes), meal-on-wheels supported with ICT devices and Internet-based applications, and daily monitoring and social contact with the use of videoconferencing. The discussion during the workshop highlighted also that the key to providing innovative products and service for supporting the elderly is an adequate analysis and identification of needs of seniors towards developing their individual profiles. Active cooperation with NGOs is also an important element in establishing a market for such products and services.

### **5.2. The R+D and innovation potential**

Wielkopolska is the location of 9% of category I research entities (universities and research institutes) of Poland. Poznań is host to 25 higher education schools including 8 public universities and 7 institutes of the Polish Academy of Sciences. The potential of the region is also influenced by the high quality of technical, life and medical sciences. Despite relatively high potential of the Wielkopolska research community, enterprises rarely use their support in innovation design and technology transfer processes. Nevertheless, adequately shaped cooperation between research and for-profit sectors could help to develop and deploy innovations supporting active ageing.

Furthermore, according to the surveyed representatives of the Wielkopolska scientific community, the region is ready to use ICT-based solutions in providing care services for the elderly. The barrier indicated as the main reason for poor implementation of such solutions is the lack of sufficient financial resources for mass production of electronic devices constituting core elements of solutions proposed by the research community. Several R+D project have been realized to design and ICT-based

solutions for supporting the elderly, however their results have not been practically deployed as investment support is not available to create enterprises based on these solutions, for example spin-off companies. Therefore, significant expectations are directed towards the central and regional institutions, as well as NGOs, concerning allocation of adequate funds to the well-designed research projects. It is indicated that close cooperation between R+D, enterprises, NGOs, local authorities and senior communities is the prerequisite for the success of research and development of innovative solutions supporting needs of the elderly.

## 6. Recommendations of regional stakeholders

Analyzing views of surveyed stakeholders very interesting information can be found in the answers to questions concerning benefits of products and services based on modern technologies. These answers may be interpreted as recommendations for developers of products and services supporting the elderly in the context of understanding importance of various aspects of active ageing. The representatives of the social welfare system and local governments suggest that especially important are solutions supporting the following areas:

- improving functioning of the elderly in local communities (suggested as very important by 42% of surveyed social workers and 32% of surveyed local governments' representatives);
- increasing independence of the elderly (suggested as very important by 39% of surveyed social workers and 35% of surveyed local governments' representatives);
- fulfilling intellectual needs of the elderly (suggested as very important by 38% of surveyed social workers and 32% of surveyed local governments' representatives).

The above suggestions match the stakeholders' opinions on usefulness of products and services existing in other regions. Solutions such as geolocation and ICT-supported meal-on-wheels service increase independence of the elderly. Videoconferencing allows for novel forms of communication and thus improves functioning of an elderly person in the information age communities. Information web portals such as the one offered by the Center for Senior Citizen Initiatives provide for further activation of the elderly in local communities, and the Internet itself brings means to fulfill own intellectual needs.