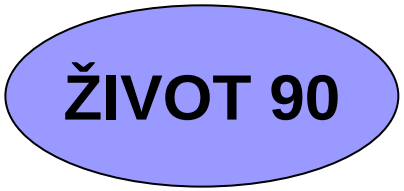
Jan Lorman
SENIOR BLUE LIGHT
The Digital Areíon

‘TRANSFORMING EMERGENCY CARE FOR SENIORS AND PHYSICALLY DISABLED CITIZENS INTO A COMPREHENSIVE PORTFOLIO OF CIVIC SERVICES’



ŽIVOT 90 BACKROUND

- Eighteen years of experience collected by ŽIVOT 90, civic association, showed clearly that the emergency care service can efficiently link other social and health services
- Considering demographic ageing of the Czech population and sources of finance available, this experience proved undoubtedly the need to develop this even further in view of the necessity to optimize social services and health care

AREION EMERGENCY CARE

AREION emergency care is a service designed for senior and physically disabled persons. Equipped with a terminal enabling two-way communication, a client is monitored in his/her home by the system that guarantees immediate professional help in case of a crisis situation. A single push on the emergency button connects a client with the control room. Professional aid is available on a 24/7 basis.

An example of an urgent crisis situation

The monitored client falls in his/her bathroom, gets injured and cannot stand up.

S/he pushes the emergency button worn around his/her neck and waits.

Motionless for 10-12 hours

Space sensor

In addition to the terminal, space sensors are installed in the apartment to react on motion.
In case that within a set timeout period no motion is detected (usually 10-12 hours), an alarm is automatically generated and a phone call is established.
A space sensor can be easily switched from "motion detection" mode to "apartment guard" mode.
If a client leaves his/her apartment for a period longer than the set timeout period, s/he switches the motion detection function off by turning a key, which switches the system to the apartment guard mode.
In case of unlawful entry, the system sends an alarm and the operator calls POLICE. This is an important crime prevention function.

An alarm is displayed on a screen in the emergency care control room within thirty seconds.

A nurse on duty calls the client's apartment – the telephone set automatically unhooks – and finds out what happened.

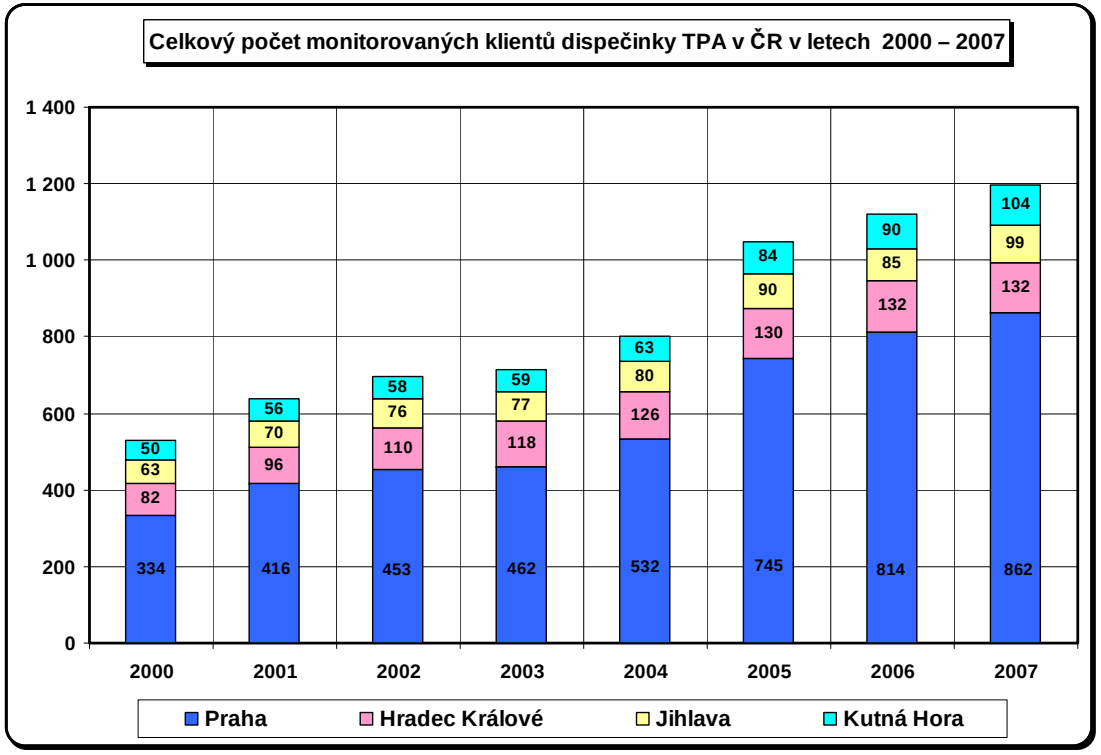
If the injury does not require immediate medical treatment, the client's health continues to be monitored in order to react fast in case it gets worse. If required by the situation, the nurse carries out a psychotherapeutic dialogue with the client.

Depending on the nature of injury, the nurse organizes help. The nurse can either call a medical help, or an ambulance, and ensures that the apartment be accessible. The nurse can call a family member or a friend who has a key, or an emergency service to pick up a key stored in the emergency service control room, municipal police station or another safe place accessible 24/7.

ŽIVOT 90

OUTLINE OF CURRENT EMERGENCY CARE NETWORK

The **4** not interconnected call centres in Prague, Hradec Králové, Jihlava and Kutná Hora now help **1,200** clients in **64** Czech cities.



CZECH BACKROUND

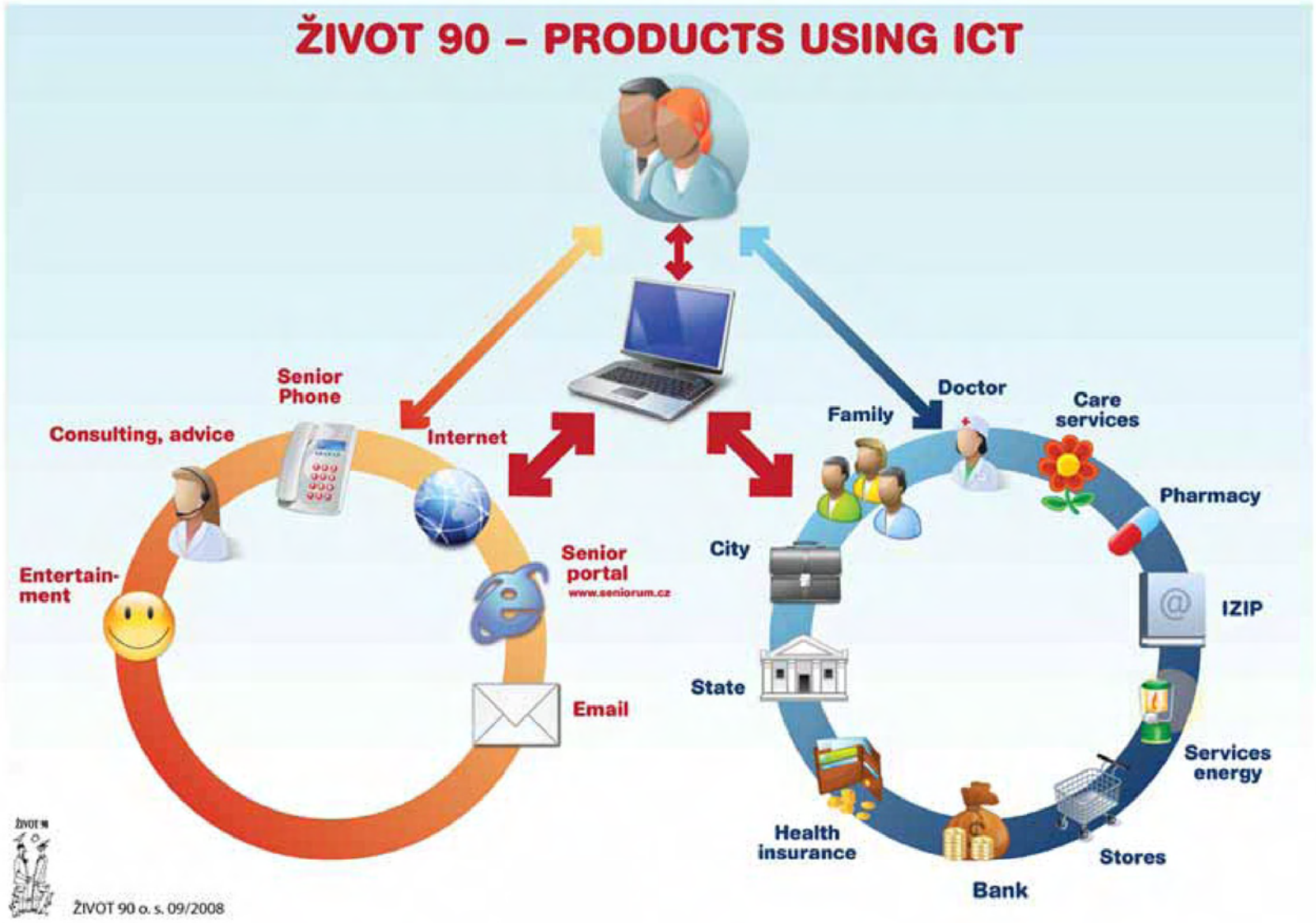
- 11 local and regional providers that are not interconnected;
- They are registered in the register of the Czech Ministry of Labour and Social Affairs (by the law of social services), provide their service to approximately 460 – 500 clients;
- High costs and low efficiency hindering further development;
- The interest of both the lay and professional public in providing and using the benefits of social and health care service like Emergency care for elderly and health disabled persons (EC) shows an ever-growing and accelerating trend.

CZECH

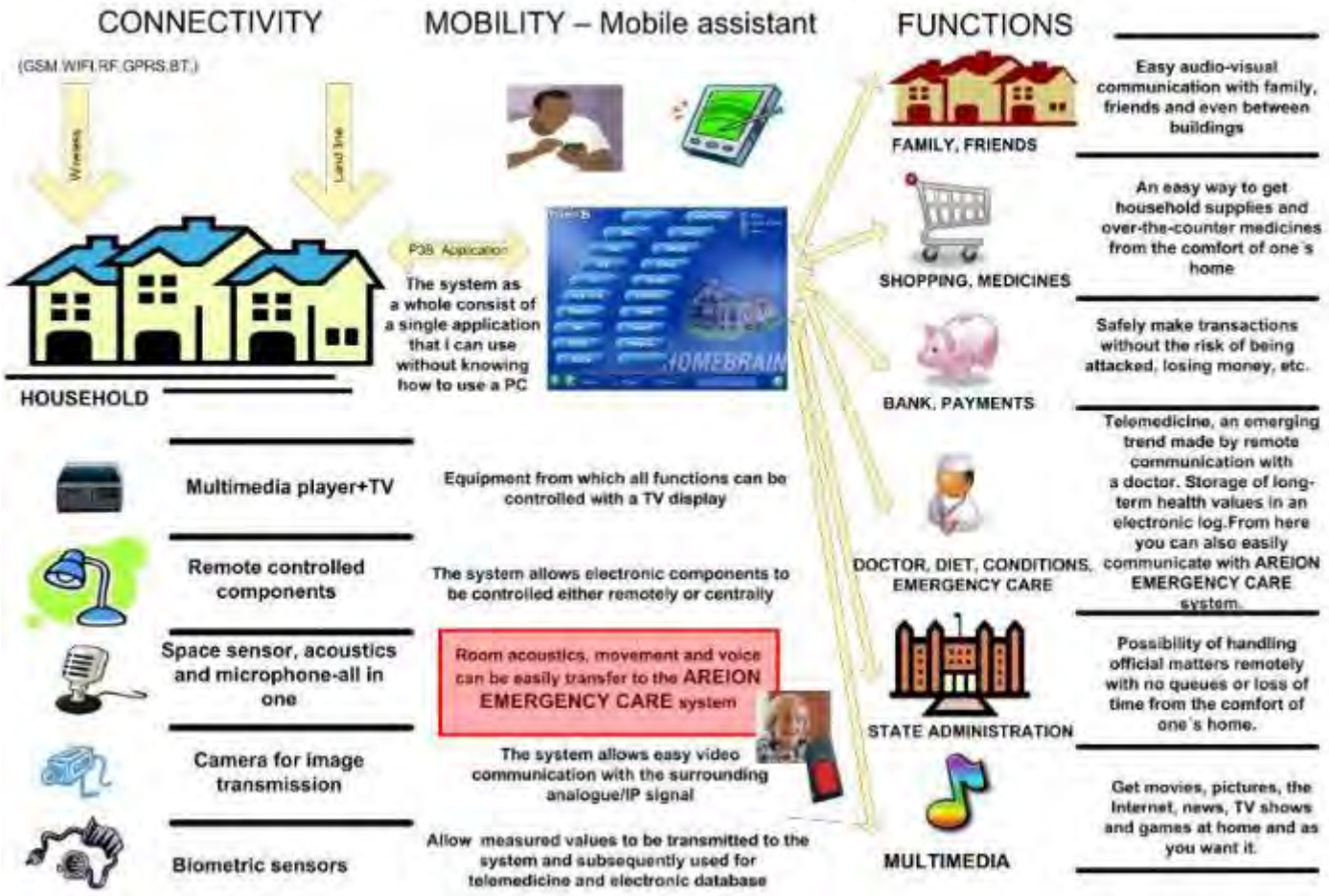
KIND OF AMBIENT ASSISTED LIVING TECHNOLOGIES

- IP / GSM / GPS telephony implementation
  - higher volumes of data
  - New permanent or temporary peripheral devices
  - monitoring basic vital bodily functions (blood pressure, pulse, etc.)
  - Electronic / audiovisual conference communication network :

SENIOR - CALL CENTRE -
- FAMILY - DOCTOR - NURSES –
- HEALTH DOCUMENTATION – PHARMACY -
SOCIAL+HEALTH INSURANCE –
- BANK – STATE - MUNICIPALITY –
- MERCHANTS - SERVICE PROVIDERS…


ŽIVOT 90 – PRODUCTS USING ICT
Senior Phone
Consulting, advice
Internet
Entertain-ment
Senior portal
www.seniorum.cz
Email
Family
Doctor
Care services
Pharmacy
City
IZIP
State
Services energy
Health insurance
Stores
Bank
ŽIVOT 90 o. s. 09/2008

HOMEBRAIN OPERATION CHART



BENEFITS OF THE FUTURE ADVANCED NETWORK

- Support independence and well-being of elderly and physically disabled people in their own social environment;
- Overcoming social isolation of elderly people living in seclusion
- Introduce user-friendly products in practical life [screen driver];
- Decrease the ever-growing number of risks (health, social and criminal);
- Support to caring families and close relatives and friends;

BENEFITS OF THE FUTURE ADVANCED NETWORK

- Electronic (audiovisual) conference of all parties involved in health and social care;
- Update information on the client's health – connected peripheral equipment can monitor biometric functions;
- Efficient utilization of e-Health Books (IZIP) through interconnection of central EC servers with central electronic database of medical information;
- Technological interconnection with the Integrated Rescue System (IRS) – more efficient and timely and targeted help provided to clients in crisis situations;

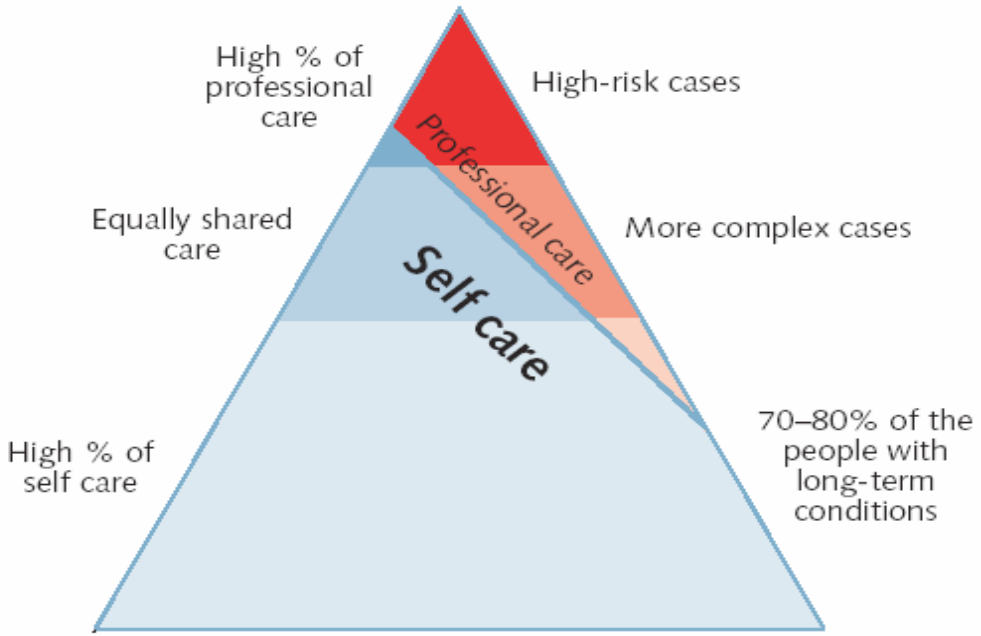
BENEFITS OF THE FUTURE ADVANCED NETWORK

- Shorter-term hospitalization in a medical establishment caused by a combination of social and health reasons;
- Manageable quality of service;
- Monitoring of home nursing: easier checks and control over financial flows within the system of health and social care;

BENEFITS OF THE FUTURE ADVANCED NETWORK

- Efficient advisory provided to clients – social, health and other general and specialized advisory;,
- Service availability – compared to the current situation, the service will be available to clients in all Czech regions, counties and municipalities;
- e-banking; transfers of pensions, social benefits and allowances, health insurance and individual personal resources;
- e-learning and access to information;
- High level of personal data protection;

Fig 5.2 Empowering and enabling individuals to take control



Source: Department of Health

BACKBONE NETWORK NEED

- EC central call centres backbone network system
- Client accessability improving
- Quick implementation of best practices – a new positive element, procedure, type or level of service developed and tested in one part of the Czech Republic will be introduced and provided to the rest of users in a relatively short time;

- List of direct innovation beneficiaries:
  - Elderly, i.e. citizens over 50 years of age
  - Elderly ill and frail, endangered by social exclusion
  - The physically disabled
  - Caring family – close relatives and friends

- List of indirect beneficiaries:
  - Physicians, nurses
  - Health insurance companies
  - Pharmacies
  - Social Care Inspection
  - State
  - Municipalities
  - Banks
  - Technology companies

SENIOR BLUE LIGHT
is created by High-Tech Park Consortium