



# SPES Košice pilot

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16<sup>th</sup> May 2014

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## Outline

- Motivation
- Target group
- SPES package (hardware and software)
- Evaluation
- Conclusion



## Introduction and motivation (1)

- Responsible partner for organization: Municipality of Košice City
- Responsible partner for technical support: Technical university of Košice
- Kosice pilot was motivated by problem of elderly social inclusion.
- Our aim was to enrich their daily routine, to improve their IT skills and social interactions.



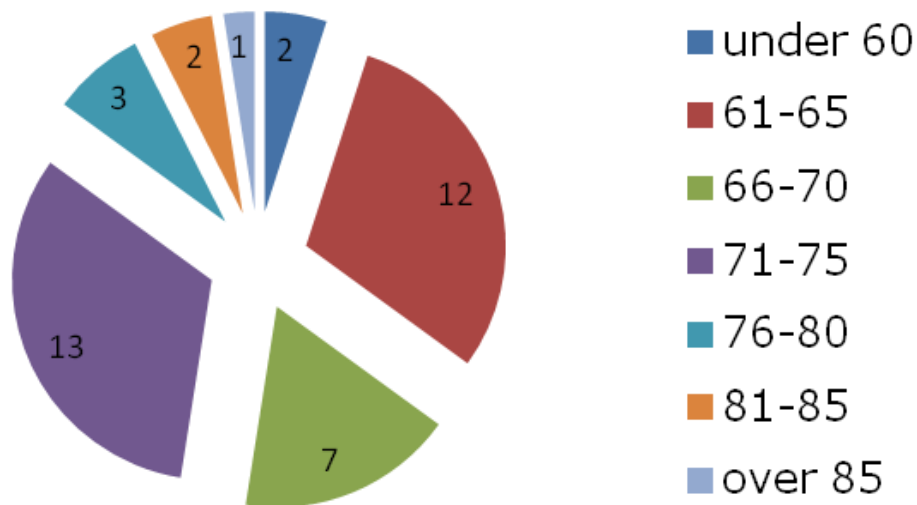
## Introduction and motivation (2)

- We didn't want to replace typical face to face communication.
- We wanted to stimulate their interactions with families or friends by some virtual opportunities as social and entertainment services.
- All offered functionalities were designed based on collected requirements and expectations.



## Target group - description (1)

- 40 members
- 21 men and 19 women
- Age structure:

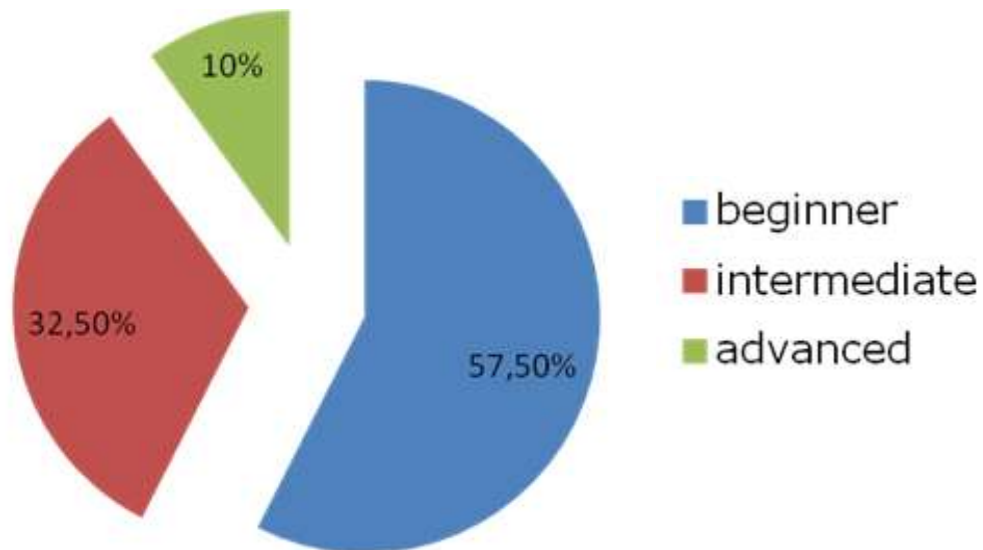






## Target group – description (2)

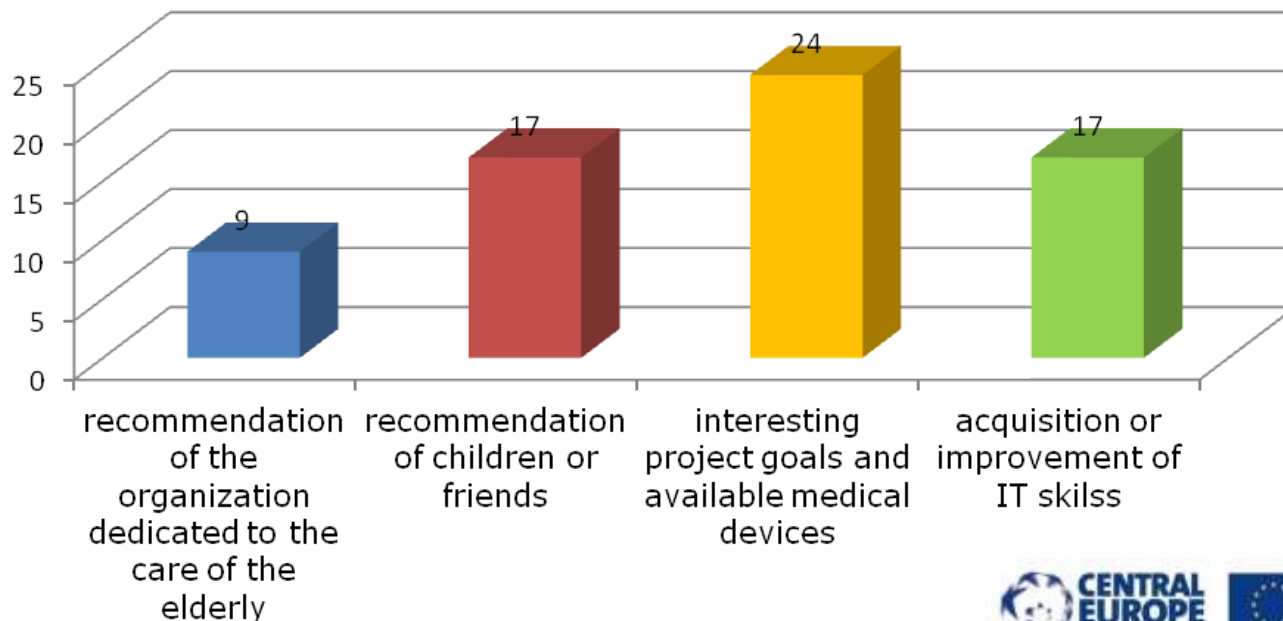
- 25% of members with university education
- Member's level of IT skills (before pilot start):





## Target group - description (3)

- Reasons for participation in the pilot (collected by initial questionnaire):





## SPES package for each pilot member

- 15,6" notebook with OS Windows 7
- USB modem for 3G mobile internet connection with prepaid internet plan for the duration of the pilot.
- Two supported medical devices (glucose monitor and blood pressure monitor).
- SPES platform tailored for this pilot.





## SPES package – software (1)

- SPES software for Košice pilot was designed and implemented based on detailed analyses of existing opportunities, requirements and expectations of pilot target group.
- All offered functionalities are integrated into easily understandable and usable virtual user environment.



## SPES package – software (2)

- Main software component is SPES platform developed by CETIC included the core functionalities (in some cases similar to Ferrara Pilot): simple email client, audio and video calls, calendar with reminders, multimedia sharing, user profile and contact list, simple management of collected measurements.



**Vitajte**  
**Pondelok 03. 03. 2014**

**Kto som?**  
**Domov**  
**Moje Zdravie**  
**Kalendár**  
**Komunikuj**  
**Zábava**  
**Nastavenia**

**Merania z glukomera**  
**Meranie z tlakomera**  
**RSS**




**Moje kontakty :**

- Kto som?
- Domov
- Moje Zdravie
- Kalendár
- Komunikuj
- Zábava
- Nastavenia

**Moje kontakty:**

- 
- 
- 

**Pridat' +** **Úpravy** **Vymazať**









Moje osetrenia    Formulare    Moje vysleaky    Načítaj merania

**Načítaj merania z prístroja**

-  Načítaj údaje z tlakomeru
-  Načítaj údaje z glukomeru

Kto som?    Domov    Moje Zdravie    Kalendár    Komunikuj    Zábava    Nastavenia








február 2013

	Pondelok	Utorok	Streda	Štvrtok	Piatok	Sobota	Nedela
					1	2	3
						1 Udalosti	1 Udalosti
4 1 Udalosti	5	6	7	8	9	10	
11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
25	26	27	28				

Navigation: Kto som?, Domov, Moje Zdravie, Kalendár, Komunikuj, Zábava, Nastavenia

Calendar controls: Deň, Dnes

Logos: SUPPORT PATIENTS THROUGH E-SERVICE SOLUTIONS, CENTRAL EUROPE COOPERATING FOR SUCCESS, EUROPEAN UNION EUROPEAN REGIONAL DEVELOPMENT FUND, Clock







**Detailný kontakt :** Zatvoriť 

 Kto som?

 Domov

 Moje Zdravie

 Kalendár

 Komunikuj

 Zábava

 Nastavenia



Priezvisko :

Krstné meno :

Prezývka :

Adresa :

Telefón Domov :

Telefón Kancelária :

Telefón Mobilný :

Telefón Hlavný :

E-mail Domov :

E-mail Kancelária :

Skype pseudo :

Picasa album :

Úpravy



Vymazať













**Obrázky albumov: February 3, 2013**

- Kto som?
- Domov
- Moje Zdravie
- Kalendár
- Komunikuj
- Zábava
- Nastavenia

↑ Albumy Jozef Ko\_Wagner  
 ← Všetky albumy

ICE SOLUTIONS **CENTRAL EUROPE** COOPERATING FOR SUCCESS. EUROPEAN UNION EUROPEAN REGIONAL DEVELOPMENT FUND





## SPES package – software components developed by TUK

- 2 device driver libraries for the communication with supported medical devices.
- 5 software modules (chat, measurements manager, RSS aggregator for accessing local news, information wall for sharing short messages, questionnaires) fully integrated within SPES platform.



Zoznam kontaktov      Gapko

**História**

Dnes

Včera

Týždeň

Mesiac

Staršie

Ukončiť

ja: Hello..  
How are you?

Gapko Tutoky: Fine.. much fine.. and you?  
Are you ok?  
It is so long time ago ..

ja: Yes... i am ok.. ;)

And here is a simple message ...



**Košice** **Korzár** **Hobby** **ite Gabriel**

Prázdňujúce deti si môžu vybrať z bohatého programu

V termíne od 3. do 7. marca si všetky školopovinné deti na Východnom Slovensku budú užívať jarné prázdniny. Keďže nie všetci rodičia si môžu v tomto termíne čerpať dovolenky, mestské organizácie aj tento rok pripravili množstvo celodenných programov, z ktorých si určite každý vyberie.

03. marca 2014, 00:00

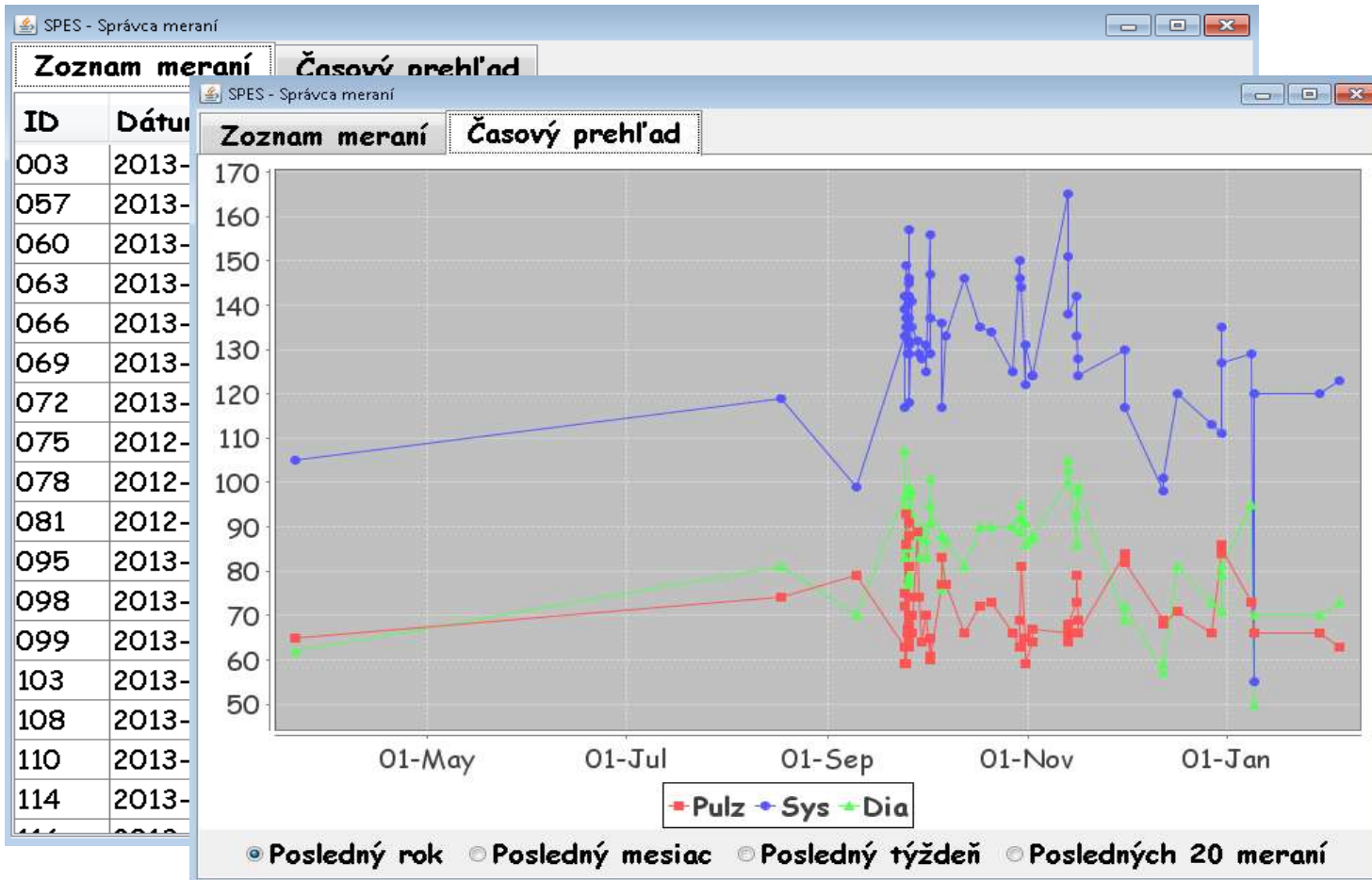
Vodohospodári odovzdali zrekonštruovanú hrádzu Hornádu v Košiciach

Po viac ako ôsmich mesiacoch výstavby dnes vodohospodári za účasti ministra životného prostredia Petra Žigu slávnostne skolaudovali zrekonštruovaný vyše 540 metrov dlhý úsek ľavobrežnej ochrannej hrádzy rieky Hornád v košickej mestskej časti Džungľa. Spolu so 60 metrov dlhým a v korune 50 centimetrov širokým ochranným múrikom tak spĺňa parametre na ochranu pred storočnou vodou. Ukončila sa tak prvá časť rozsiahlej komplexnej výstavby protipovodňovej ochrany mesta Košice, ktorá bude mať po doko

28. februára 2014, 00:00

Dnes otvorili zmodernizovanú spaľovňu odpadov pri Košiciach

Obnov Zobrazit' staršie

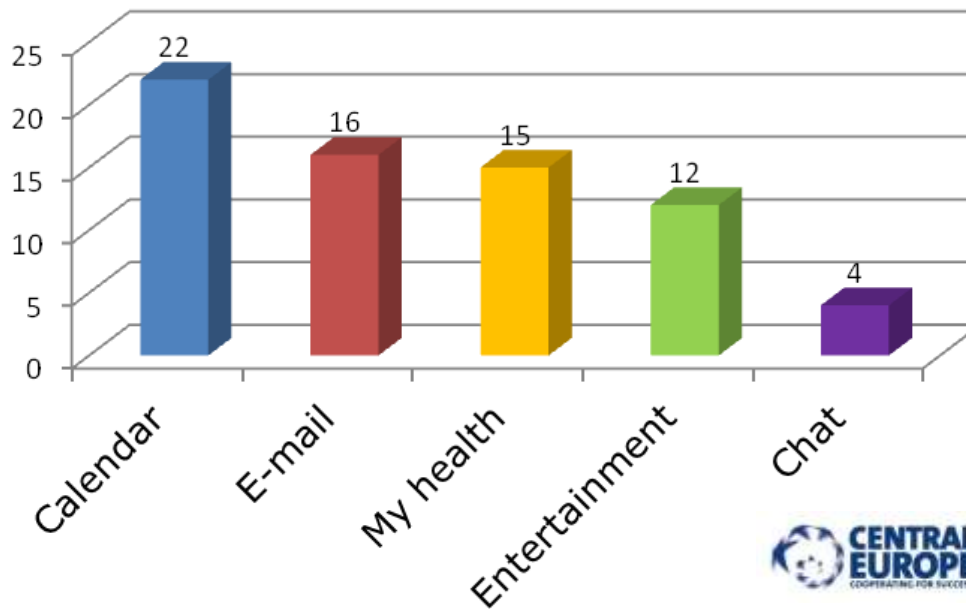






## Evaluation – 1st phase (05- 08/2013)

- Most used parts of SPES platform – only limited list of functionalities was provided in this version (no. of members):

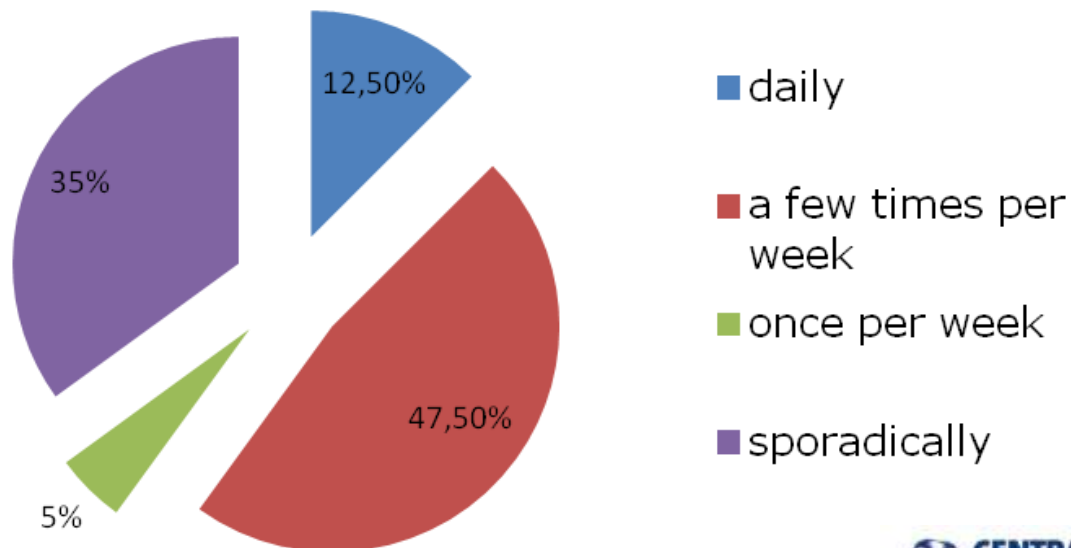






## Evaluation – 1st phase

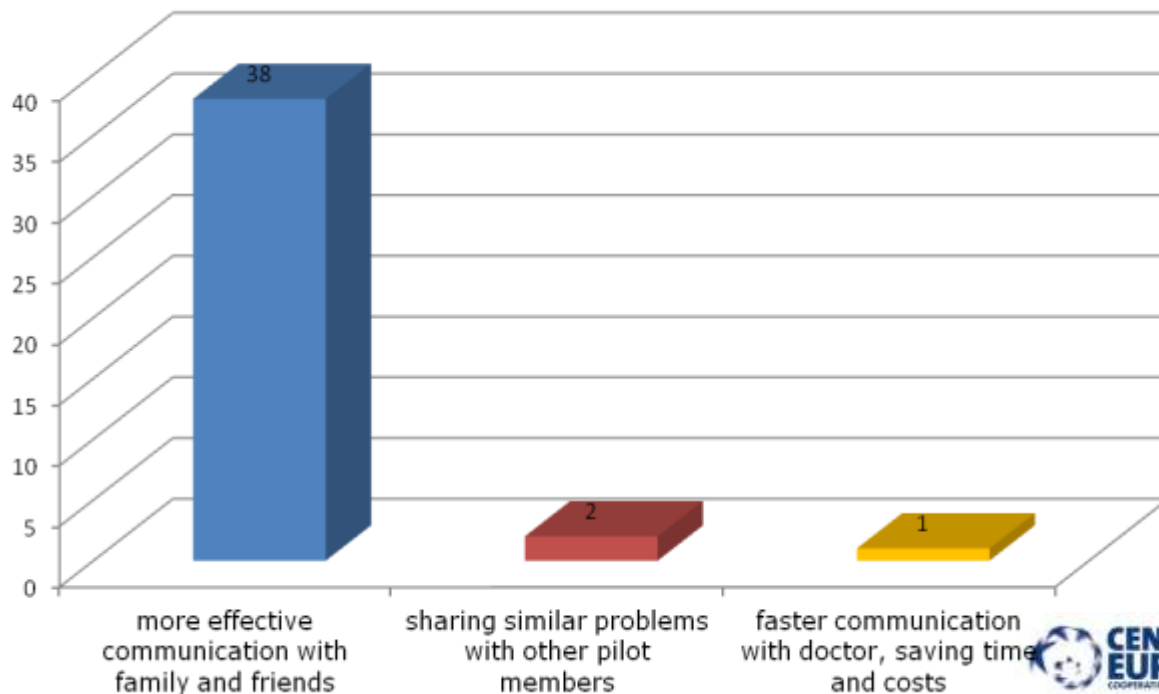
- Frequency of SPES platform use – only limited list of functionalities was provided in this version:





## Evaluation – 1st phase

- Members identified following improvements in their questionnaires:





## Evaluation – 1st phase (conclusion)

- Blood pressure monitors were on the way.
- Members used their owns that were not supported - motivation for the new TUK module.
- Skype module wasn't available yet.
- Pilot participants were satisfied with offered software solution, but require more intuitive easily adaptive features for their level of skills or experiences.



## Evaluation – 2nd phase (09 – 12/2013)

	August 2013	January 2014	Difference +/-
	%	%	%
<b>Frequency of use</b>			
several times during the day	12,5	40,0	+27,5
several times during the week	47,5	35,0	-12,5
once a week	5,0	7,5	+2,5
irregularly	35,0	17,5	-17,5





## Evaluation – 2nd phase (conclusion)

- The same version of the SPES platform, but blood pressure monitors were already distributed to the pilot members.
- 72,5% of members had improved their IT skills.
- 67,5% of members consulted collected measurements with their doctors (previously 12,5%).
- 12,5% of members confirmed modification of their therapy.



## Evaluation – 2nd phase (conclusion)

- Still missing features:
  - Export or print for collected measurements from medical devices.
  - Possibility to exchange these measurements with doctors in electronic form. (not possible based on Slovak legislative).
  - Missing filters for measurements visualization.

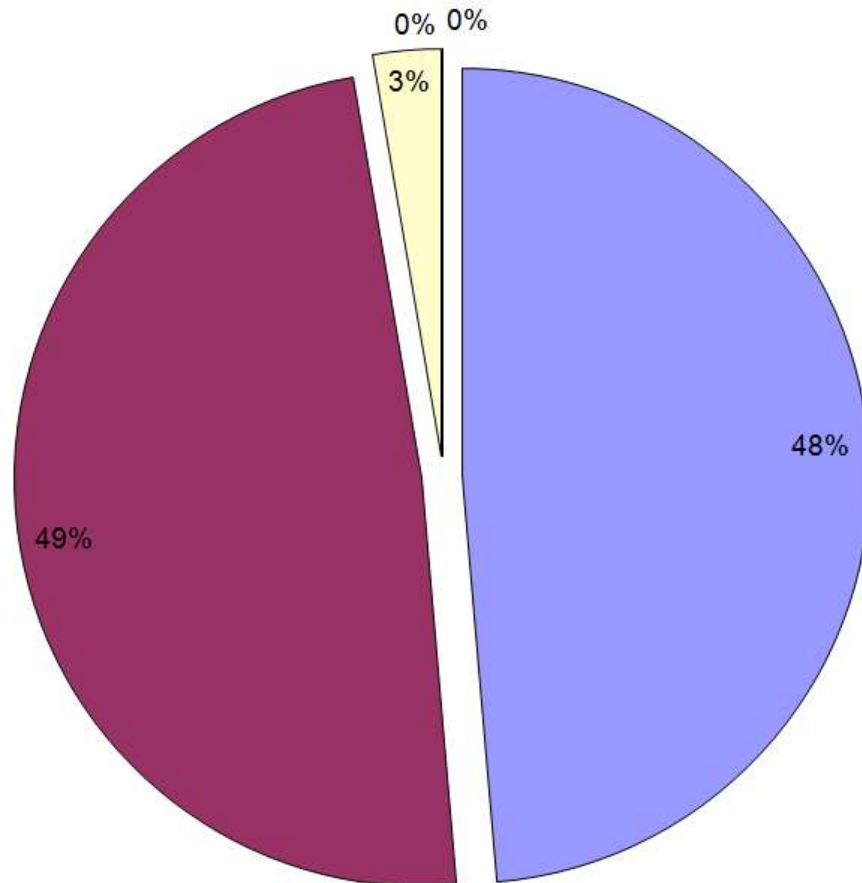


## Evaluation – 3rd phase (01 – 03/2014)

- Pilot ended on 31 March 2014.
- 2 groups:
  - 7 participants with v4.0.3b of the SPES platform (final with all TUK software components and Skype module).
  - 33 participants with v2.2.12c of the SPES platform (the same as in the 2<sup>nd</sup> evaluation phase).
  - The overall pilot evaluation (3 members didn't receive their questionnaire).



# Overall satisfaction with the SPES project

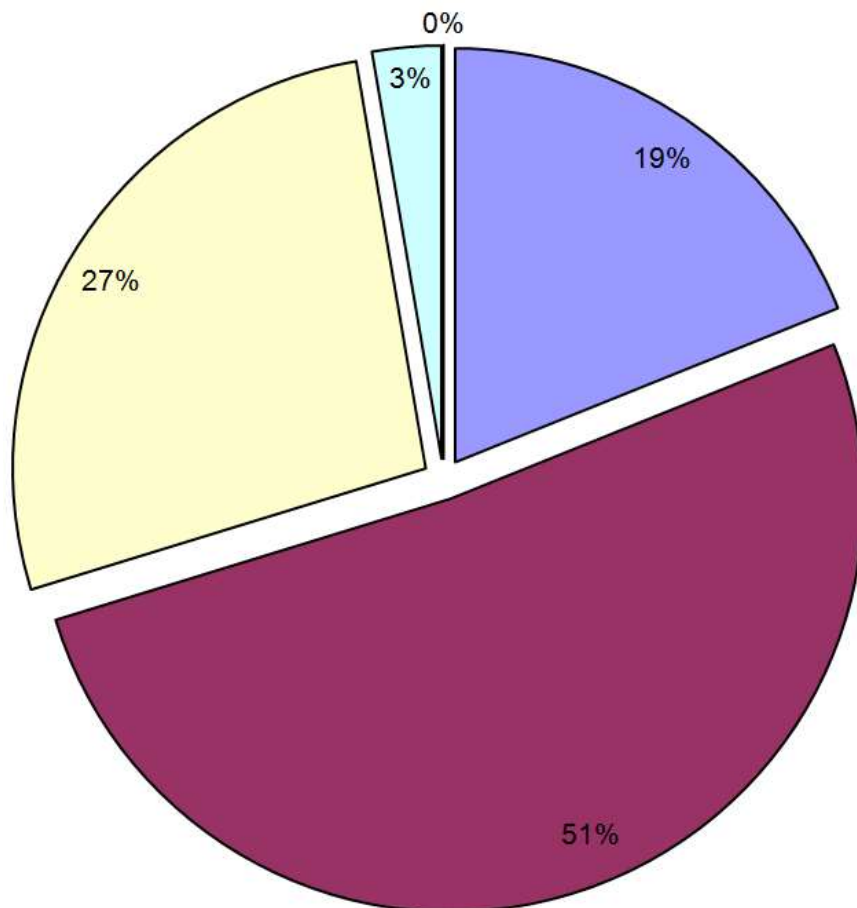







- very satisfied
- satisfied
- somewhat satisfied
- not satisfied
- cannot judge





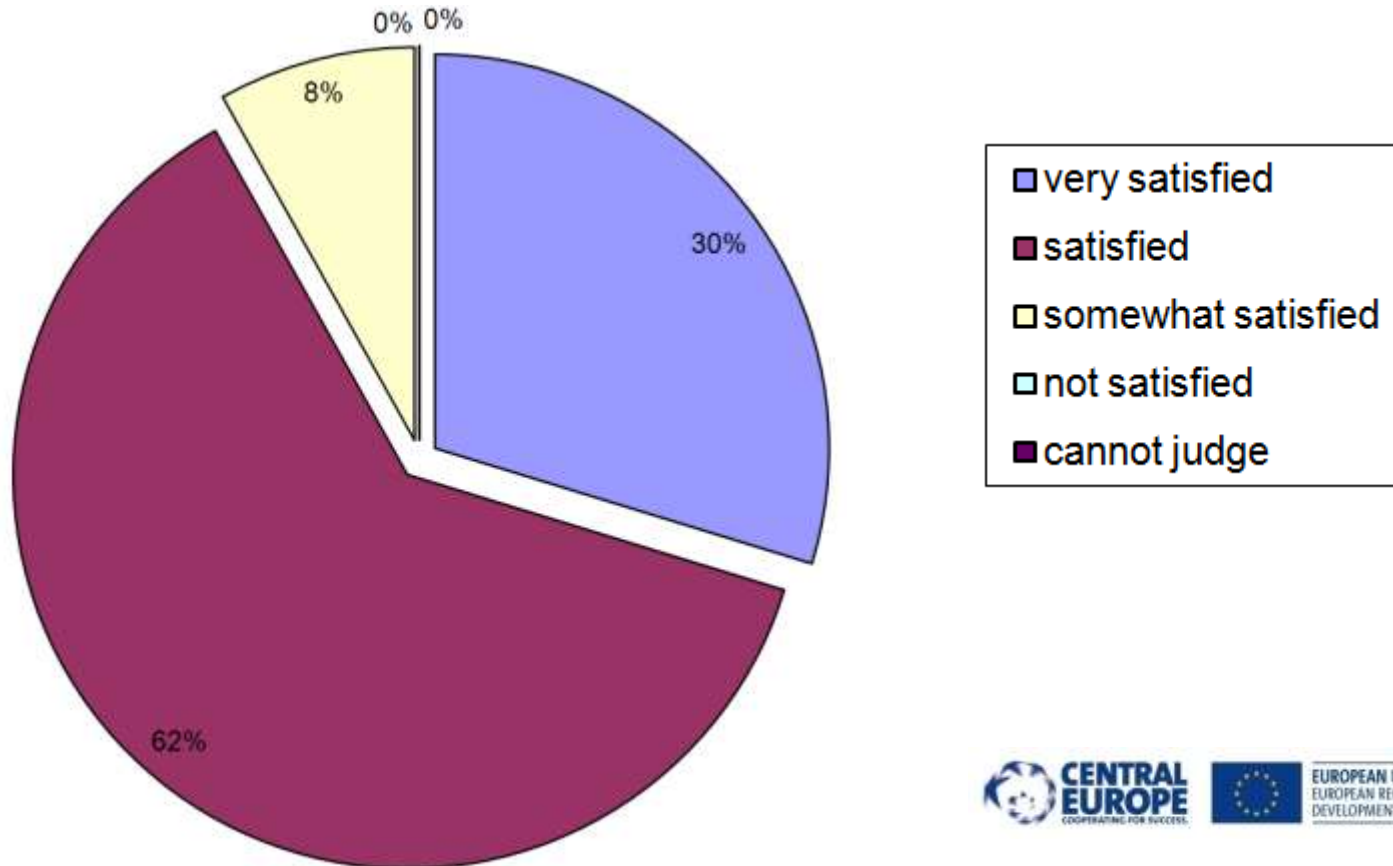
# Overall satisfaction with the SPES package



-  very satisfied
-  satisfied
-  somewhat satisfied
-  not satisfied
-  cannot judge



# Overall satisfaction with the SPES social and communication services





## Conclusion (1)

- 75,7% (of pilot members) declared increase of their PC skills.
- 70,2% declared increase of overall quality of life.
- 65% declare better and more frequent communication with relatives.
- 60% used the measurements collected within SPES package in the consultation with a doctor.



## Conclusion (2)

- 73% declared an electronic communication with the doctors as very interesting way how to save the costs and time.
- 67,5% declared their interest to participate in similar project in the future.
- 75,7% declared a short testing time.
- 16,7% declared a poor interoperability of the SPES platform with commonly used software.





## Conclusion (3)

- Combination of suitable software solution and social services provided by local governments and relevant stakeholders represents a good opportunity to save costs and time.
- To improve the exchange of information between the patient and all parts of medical care are necessary legislative changes and common understanding on the EU level.



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Thanks for your attention 😊

