





Magic Glass is part of the MAGIC project that has received funding from the European Union's Horizon 2020 Research and Innovation Programme. Information and opinions expressed are reflecting only MAGIC GLASS partners' views.



Outline of the talk

- 1. The MAGIC-GLASS solution
- 2. Who are we and how we are working together?
- 3. Project update; achievements at March 2017
- 4. Expected results at the End of Phase 1?
- 5. Conclusion



The solution/1

- The MAGIC-GLASS project aims to develop an innovative home rehabilitation solution for rehabilitation activities of stroke survivors.
- MAGIC-GLASS will exploit the potential of **digital glasses** for **augmented and virtual reality**, which will allow the patient to perform physical and cognitive rehabilitation at home by means of **serious games** grounded on the **mirror-therapy approach**.
- The MAGIC-GLASS intervention model is based on the development of an **enhanced individual rehabilitation plan** (EIRP) for each patient, whose direct benefits include increased **motivation**, rehabilitation **opportunities**, **adherence** to the plan and remote **interaction** with clinical staff, family carers and other player-patients involved in the network.





The solution /2

- The MAGIC-GLASS solution includes:
- a) INTEGRATED HARDWARE PLATFORM, assembling available, off-the-shelves devices for movement detection and digital glasses enhanced with Augmented Reality (AR) and Virtual Reality (VR);
- a) COLLECTION OF MINI-GAMES to be played combining AR, VR, movement tracking and Quick Response (QR) codes placed around the home (using a Pokémon-go like approach);
- a) MODULAR WEB PLATFORM AND RELATED INTERFACES, to which clinical staff, patients and family carers can get access to medical records, patients' self-assessments sessions and performances obtained during rehabilitation sessions;
- a) VIRTUAL COMMUNITY of stroke survivors that enables text, audio and video interaction with other patients, clinical staff and family carers.





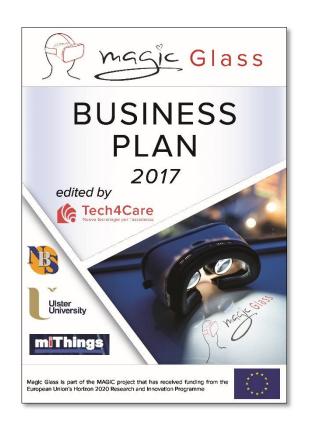
The solution /3

- Expected improvements:
- I. Body structure and function: Physical activity as measured by mobility (e.g. 10 m walk test) and/ or balance (e.g. Berg balance test., and/ or range of motion (e.g. measures in Degrees and/ or muscle power (measured by oxford grading scale) and/ or co-ordination
- II. Activity participation: INTENSITY AND DURATION OF REHABILITATION (minutes per day), INDEPENDENCE IN ADL
- III. Environmental context: GENERAL HEALTH AND WELL-BEING (EuroQol, EQ5D), STROKE SPECIFIC QUALITY OF LIFE, SOCIAL OUTCOMES (Subjective Index of Physical and Social Outcome, SIPSO), USABILITY (system usability scale, SUS), ECONOMIC OUTCOMES (Client Socio-demographic Receipt Inventory, CSRI)





magic Glass How we will work together?/1





Lead partner



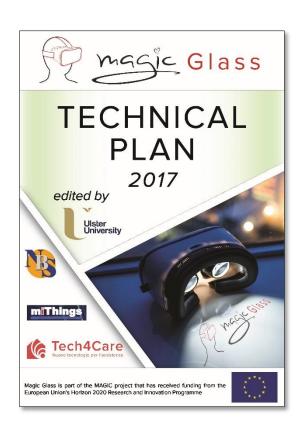




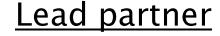




magic Glass How we will work together?/2





















magic Glass How we will work together?/3





Lead partner















Project update March 2017/1

- 1. Kick-off meeting in Belfast
- 2. Agreed on a preliminary outline for the:
 - 1. Technical Plan
 - 2. Business Plan
 - 3. Risk Managment Plan
- 3. Review of the literature
- Started the work on the deliverables (esp. Market Analysis, Customer segments, Unique Value Proposition, etc.)
- 5. But, most of all...







magic Glass Project update March 2017/2

We extensively engaged with users to fully understand their:

- Acceptability
- Perception
- Ideas

Belfast, February 27th



Ancona, March 18th



Macerata, Acceptability test, March 14th



Ancona, VR Open Day March 18th

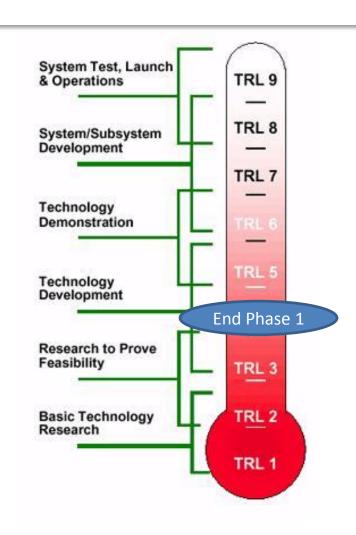






Expected results end Phase 1

- Define the MAGIC-Glass technical solution, ready for prototyping
- Finalize a definitive collaboration agreement among partners
- Finalize contacts with hardware suppliers
- Test some of the features of the VR prototype with healthy volunteers and with stroke survivors with stable clinical conditions.







Conclusions

	February				March				April				May				June					July			
	(1-		(13-(20																					(17-	
			19) 26																	25)				23)	
Weeks	1	2	3 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Action 1. Management & Quality																									
control (T4C)																									
Meetings								\vdash											<u> </u>						
Administrative Management							<u> </u>		CD A ZIEL																
Technical Management							\vdash	$oxed{GRAZIE!}$																	
Quality Assurance									<u>c.chiatti@tech4care.it</u>																
Action 2. Technical plan (ULSTER)												-6	10	++	0)+	1	h /	1	2 "	0	1+			
Hardware infrastructure							igsquare	\sqcup			(_ []	Id	LL	U	LE		112	+C	al	C.	IL			
End-user interface								\square																	
Virtual social community							lacksquare	\sqcup					33	33	-4	1X	()	7	X	X					
Interface with healthcare providers							igspace	\sqcup					<u> </u>				<u> </u>			$\stackrel{\smile}{-}$					
Magic general requirements							$oxed{oxed}$	\Box																	
Tuning on the basis of the suppliers'										nea,	R				2000	71.7	YE WAR					102 100	100	134	
feedback								1		D. mar.	1967				ET	Service 1	AGIC		PATER	(85)			A AREA	Torresta:	
Action 3. Risk register and risk							WHILE THE	CATICAL	THE STATE OF THE S	BOKERN					HADAK	- 0	PCP 1	0	SCIENCE!				The last	T 2 34	1
mitigation (T4C)								D. Har	10.150 mg/	()	(90)				WALNE			0.00_				Think!		TIME	101
Risk and ethical issues identification		C	Gone					Jenus C	Witnes		30				CONTO	(90)	Onion	(90)				-	1	many?	
Risk mitigation strategy							1	D Ton	15 2		0	121101017 121101017	3		Ficher 1	man .	(EKS DAP	C9C)	- Table 1	(36)		The an			y
Action 4. Final use-cases and								-	A STREET		KE	Y METRIC:	S		D	(96)	UNVOICE	CH CH	HANNELS			1			7
business plan <mark>(T4C)</mark>											Latt	e ky sintery for or Annexis is do	er hell you		COST.	+ (SE) E	ACCESSION	(1973 LIST (1973 LIST	your path to cash chounts.			RISC arre	142		
Use case definition										E al					Name of the last o	To the last of the	Eplocate 14	100	FAIRS			-			
Business plan_Products and Services									AV	SERVE	3					D	(427.57) (10F)	S	· COMERO	ISE I	TI.	EARLY ADD	20210	1	
Business plan_Market Analysis								XISTING ALTERI	MATIVES		-				HIGH-LEVEL	Yasahoya S	ANDO	TEN TEN	17 17 17	-	Med -	List the Chie	rectarates of gran	104	
Summary									0							A Joseph Market	constation)			1	mythe about	1	-	TEN	
Business plan_SWOT Analysis								SHEETY	NO. TA	D MAZE (10) A	2/				V!DE	ppro.		- 10		-	THE REAL PROPERTY.		1		
Business plan_Commercialization										Liney .	1	D	50		Blum	BV				H - Sans	10				
plan									1000	Total Control						P	DELLE /	eng		and with	1				
Business plan_Strategy and							COS	STSTRUC	TURE						1		KEVE	active.		and a		10	XX		101
Implementation Summary							Listyn						150				-	m F			1	1	1 Kg		
Business plan_Company and												115	1					My Engle !			10		1 E	$\chi\chi\chi$	11
Management Summary												\$1.0°										111		$\rangle\rangle\rangle$	
Business plan_Financial Plan											34.5	1										1/7		XX	$\langle \rangle \rangle$
																1000	1.0					1			\mathcal{X}