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# **Deliverable 7.1: D7.1.1: Communication and dissemination plan**

Work package Task Due date Submission date Deliverable lead Version Authors WP7 T 7.1 31.01.2017 31.01.2017 TNO 1.0 Olivier Blanson Henkemans Nicole van Kesteren Maaike Beltman Albert de Graaf

Dissemination Level					
PU	Public				
PP	Restricted to other programme participants (including the Commission Services)				
RE	Restricted to a group specified by the consortium (including the Commission Services)				
CO	Confidential, only for members of the consortium (including the Commission Services)				

# Abbreviations

This section contains the abbreviations used in this deliverable.

Abbreviation	Definition
PRB	Patient Representatives Board
SMSS	Self-Management Support System
DSS	Decision Support System
SME	Small and medium-sized enterprise
PRB	Patient Representatives Board

# Change procedure and history

This section contains the procedures for modifying the deliverable and maintaining a history of the changes.

Version	Date	Changes	From	Review
0.1	29-12-2016	-	TNO	General Assembly
1.0	31-01-2017	Pre- final version	TNO	

# **Executive Summary**

This document describes the initial dissemination strategy for POWER2DM. It discusses first the role of dissemination in Power2DM, covering important stakeholders for our project and purposes of dissemination activities. Second, it discusses the Communication and Dissemination Plan, which will be executed through the project. It covers the methods for dissemination per target group and purpose, aligned with project activities and milestones. Specific dissemination activities per project work packages for the participation of patients, the POWER2DM key stakeholder group are presented. Finally, a template is proposed for reporting dissemination outcomes, during the project.

# 1. The role of Dissemination in Power2DM

The Power2DM project's main objective is to develop and validate a personalized self-management support system (SMSS) for T1 and T2 diabetes patients. A key factor in achieving this objective is making the results and deliverables available to the stakeholders and to the wider audience. The focal medium for this is the project's website (Figure 1). As stated by the EU, "Dissemination is essential for take-up, and take-up is crucial for the success of the project and for the sustainability of outputs in the long term." (European Commission, 2010).

The personalized self-management support system (SMSS) for Type-1 and Type-2 diabetes patients that combines and integrates: (i) a decision support system (DSS) based on interlinked predictive computer models; (ii) automated e-coaching and advice functionalities based on Behavioural Change Theories; and (iii) real-time personal data processing and interpretation. The DSS will be based on existing predictive models that were originally developed primarily for decision support to healthcare professionals, the T2D-Marvel medium/long-term prediction model for diabetes progression, and established long term diabetes-related risk scoring models for diabetes and its co-morbidities (described in the literature). The SMSS will provide automated personalized action (care) plans in terms of lifestyle changes and therapy adjustments for short-term optimal metabolic control as well as for medium/long-term prevention of deterioration and diabetes complications, building on the Action Plan. The SMSS will fully integrate subject-specific health behaviour change interventions to increase adherence of the patients to their personalized care management program. The predictions will be based on real-time personal data monitoring and tracking by integrating existing personal health systems and applications including mobile systems built around self-monitoring devices.



Figure 1: Power2DM project website, version Year 1, through http://www.power2dm.eu/

Important Power2DM project stakeholders include: T1 and T2 diabetes patients

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- Their informal care givers (eg family)
- Health care professionals
- Policy makers
- Insurance companies
- Investors
- Small and medium-sized enterprises (SMEs)
- Large enterprises
- Scientific community

The purposes of our dissemination activities are:

- Specification of stakeholders and raise awareness let others know what you are doing
- Inform educate the community
- Engage get input/feedback from the community
- Promote 'sell' your outputs and results
- Make sustainable ensure that the effects will be sustained after the project.

# 2. Communication and Dissemination Plan

Various dissemination activities are planned in the project, with varying purposes, including raising awareness, informing, engaging and promoting. These activities are aligned with the project activities (Figure 2), such as Requirement and design phase, and milestones.

In the first and second year of the project, mainly the 'Requirement and design' phase, focus will be on raining awareness amongst stakeholders on project background, objectives, and approach. Also, the first year deliverables will be disseminated. This will take place through administering brochures and flyers, organizing events, and attending conferences.

In the second and third year, amongst others the 'Software management & testing' and 'Integration' phases, focus will be on informing and engaging. For these phases, it is important that stakeholders receive concrete information on the project developments and become engaged in the project. That is to say, provide feedback on the project to ensure future successful implementation. Informing will take place through social media, including Facebook, Instagram, Twitter and LinkedIn, depending of the stakeholder (Facebook and Instagram more informal, LinkedIn more formal), project website (see Figure 1 and project deliverable D8.2, 01.04.2016), publishing in international magazine and journals, and brochures. Engaging, will take place through organizing and attending events, workshops, and lectures.

In the third and fourth year, amongst others the 'Finalizing' and 'Evaluation campaign' phases, focus will be on engaging and promoting. In these phases, it is important that stakeholders are further engaged in the project and that the achievements and demonstrators of the project are broadly disseminated. Engaging will take place through organizing and attending events, workshops, and lectures. Promoting will take place through project website, promotion video (including Power2DM YouTube channel) and flyers which project achievements (i.e., factsheet).

An overview of the dissemination activities is given in Table 1.



*Figure 2: Overview of alignment of dissemination purposes (blue arrows) with project activities (yellow blocks) and milestones (red stars).* 

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	Purpose			
Target	Raise awareness	Inform	Engage and sustain	Promote and
group				sustain
Patient and	1. Brochure, Events.	2. Brochure	4. Patient	5. Promotion
informal	Press release	3. Social media:	workshop and	video and
care givers		Facebook,	surveys, events,	Prototype
		Instagram	Closing event	demonstrations
Professionals	6. Magazine	7. Website, Social	8. Workshops and	9. Promotion
	publications,	media:	surveys,	video,
	Press release,	LinkedIn,	Lectures, Closing	Prototype
	Opening event	Twitter	event	demonstrations
Policy	10. Flyer,	11. Website,	12. Workshops,	13. Flyer
makers	conferences	Social media:	Lectures, Closing	which project
		LinkedIn,	event	achievements
		Twitter		(factsheet),
				Prototype
				demonstrations
Insurance	14. Flyer,	15. Website,	16. Workshops,	17. Flyer
companies	conferences	Social media:	Lectures, Closing	which project
		LinkedIn,	event	achievements
		Twitter		(factsheet),
				Prototype
				demonstrations
Investors	18. Flyer,	19. Website,	20. Workshops,	21. Promotion
	conferences	Social media:	Lectures, Closing	video,
		LinkedIn,	event	Prototype
		Twitter		demonstrations
SME & Large	22. Flyer,	23. Website,	24. Prototype	25. Flyer
enterprises	conferences	Social media:	demonstrations,	which project
		LinkedIn,	Closing event	achievements
		Twitter		(factsheet),
				Prototype
				demonstrations
Scientific	26. Conferences	27. Journal	28. Journal	29. Promotion
community		publications,	publications,	video,
		Website, Social	Workshops,	Prototype
		media:	Lectures, Closing	demonstrations
		LinkedIn,	event	
		Twitter		

Table 1: Methods for dissemination, per target group and purpose.

# 3. Patient participation POWER2DM

A key stakeholder group is formed by diabetes patients since they constitute the main user group targeted by the project. Therefore, special dissemination activities are planned to involve Type-1 and Type-2 diabetes patients in the development and validation of a personalize SMSS by soliciting their feedback on the process and outcomes.

Type-1 and Type-2 diabetes patients will participate at three levels in the project (see the Organization Structure of Power2DM, on p.63 of the project proposal):

- 1. Level of the executive board, in the form of a Patient Representatives Board (PRB)
- 2. Level of the work packages (WPs) 1-7 (details in Appendix), in the form of patient panels,
- 3. Level of dissemination and communication, in the form of patient organizations and individuals

For an overview of patients' participatory activities and level of participation, see Table 2.

Table 2. Overview of patients' participatory activities and level of participation

Levels of patient		Patients' partici	patory activities					
participation	1 <sup>st</sup> Year	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	4 <sup>th</sup> Year (half)				
Level 1: Executive Board	Annually: Consultation of a Patient Representatives Board (PR) (patients with diabetes and/or their families and carers; N=6))							
	Regularly: PR will be informed of the project progress, outside of any formal meetings							
	Regularly: PR will be asked to provide advice on patient experience and ethical issues that may arise, outside of any formal meetings							
Level 2: WP 1-7	Depending on the research a	ctivities in the different WPs (see Ap	opendix: Flow charts 1-7)					
Level 3: Dissemination and communication	To get early feedback on the requirements and initial designs patient group workshops, conferences, open review questionnaires, and professional web forums will be used (M1-M8)	-To attract and to stimulate open innovation prototype demonstrations, dem. videos, publications, fairs, hackathons, and patient group workshops will be used (M9-M20) - To provide capabilities publications, and conferences will be used (M15-M20)	To attract customers, and build relationships fairs, exhibitions, demonstrations, publications, patient group workshops, conferences, workshops, and videos from pilot sites will be used (M21-M42)	<ul> <li>To attract customers, and build relationships fairs, exhibitions, demonstrations, publications, patient group workshops, conferences, workshops, and videos from pilot sites will be used (M21- M42)</li> <li>To prove the benefit and attract customers publications, press releases, patient group workshops, leaflet and brochures, social media and a closing event will be used (M36-42)</li> </ul>				

# 4. Reporting

The outcomes of dissemination activities will be reported in two iterations of D7.1.2, using the template provided in Table 3. In the report, we will describe what activities have taken place and where, what was the main message, which project partner(s) performed the activities. Also, important responses and feedback of stakeholders and their implications for the project will be reported.

Table 3: Template for reporting of outcomes dissemination activities in in two iterations of D7.1.2, including fictional example.

What	Where and	Message –	Partner(s)	Stakeholders'	Implications
	when	purposes		responses	for project
Workshop	Netherlands,	Introduction	TNO, LUMC,	Positive about	Creation of
with patients	event for	of Power2DM	iHealth	concept, a	usability check
and informal	Diabetes	concept and		number of	list and
care givers	patients, Q4	first		pointers for	requirements
	2016	demonstrator		improvement	list for core
		– inform and		usability and	functions
		engage		additional	
				functionalities	

# 5. Conclusion

This deliverable reports on the communication and dissemination plan. Various dissemination activities planned in the Power2DM project are presented. Activities are selected based on purpose, target group and project structure. The outcomes of dissemination activities will be reported in two iterations of D7.1.2.

# 6. References

- DoW: POWER2DM project proposal
- EU projects Dissemination guidelines : http://ec.europa.eu/chafea/documents/management/fact\_sheet/Factsheet\_6\_Elaborating\_dissemination\_ plan\_OVERVIEW\_OF\_DISSEMINATION\_METHODS.pdf
- Role of Dissemination in EU projects: http://ec.europa.eu/chafea/management/Fact\_sheet\_2010\_10.html



# Appendix: Flowcharts – Overview of research (and participatory) activities per work package

#### POWER2DM – WP1

#### Flowchart 1. Overview of research (and participatory) activities in work package 1, Overall design and integration

**Overall aim:** (1) Definition of scenarios and storyboard to illustrate and facilitate discussion about the POWER2DM SMSS framework for the architecture and the design of the care process; (2) Definition of the scientific problem, analysing the scientific and technical requirements of POWER2DM architecture and its components; (3) Designing POWER2DM architecture and its components; (4) Realizing the POWER2DM system by integrating all of the components according to the design before the experimentation and piloting phase; (5) Assuring the quality and correctness of the software by continuous testing activities; and (5) Providing and managing software releases and prototypes

Tasks (End Month)	Input	Aim	Design and Method	Participants	Outcome/results	Stakeholder Activities
and Executive						(from DoW)
Party						
Task 1.1 User	Theory/evidence/	To define the functional user	Creative FGI (??)	Medical end user partners	Insight into user	
Requirements and	project proposal	requirements for the POWER2DM	using multiple	representing DM patients and	requirements and	
Use Case Scenarios	(p. 19)	SMSS	scenarios and	their care givers	initial design	
(M3) <u>TNO</u>			storyboards		requirements	
Task 1.2	User	To define the scientific problem and	Combination of	Medical end user partners	A Requirements	- European Wide User
Requirements	requirements and	analyze the scientific and technical	desk research and	representing DM patients and	Specification	Workshop (60 patients,
Specification of the	initial design	requirements of the architecture	participatory	their care givers and relevant	Document in	10 experts PCDE, FEND),
POWER2DM	requirements		techniques	stakeholder	accordance with	20 care providers)
Architecture (M2-	(scenarios and				well-established	- Open Review
M4)	storyboards;				standards	Questionnaires
	D.1.1.1)					- Professional Web
<u>SRDC</u> , TNO, SRFG						Forums
Task 1.3	Requirements	To define the principles of operation	In proposal:	In proposal:	A Conceptual	-Webinar Milestone 1
Conceptual design	Specification	together with the accompanying	'Use-Case Analysis,	'Each partner will collaborate,	Design Document in	(WP1, WP4) @ Month8
of the POWER2DM	Document	process flow for each of the	Architectural	and the task leader will provide	accordance with	
Architecture (M4-	(D.1.2.1)	subsystems/components	Design, Use-Case	necessary guidelines and	well-established	
M8)			Design, Class and	templates to the partners'	standards	
			Subsystem Design	(p.52).		
<u>SRDC</u> , TNO, SRFG			phases'(p.52)			
Task 1.4 Software	Software	To manage the development process	See 1.4.1., 1.4.2. en	See 1.4.1., 1.4.2. en 1.4.3.	A prototype of the	
Management,	components and	of the various software components,	1.4.3.		system	
Integration and	subsystems from	integrate the developed components				
Testing	various work	into one system and develop and				
(M1-M34)	packages	execute a testing framework for				



<u>SRDC</u> , TNO, SRFG, PD. IDK. iHealth		testing the complete system.				
1.4.1. Software Test Plan for POWER2DM Infrastructure and its Components (M10)	See Task 1.4	To develop a testing framework	Combination of desk research and participatory techniques	Relevant stakeholders/technical partners	A testing framework	
1.4.2 Prototype and Integrated POWER2DM System Releases (M 16, 22, 28, 34)	See Task 1.4	<ul> <li>-To test all subsystems and components, including all interfaces between various subsystems.</li> <li>-To subject the integrated system to extensive system testing by the performance of simulation tests.</li> <li>After the phase of systems testing, software bugs can be fixed and changes in the design can be made if necessary.</li> <li>To fix software bugs and make changes in the design if necessary</li> <li>To update prototypes of the system (four prototype releases are planned currently)</li> </ul>	In proposal: -'Performance of simulation tests' (p.52) -'A roadmap of next releases is generated' (p.52) - Otherparticipatory techniques	In proposal: 'The further management and maintenance of the operational system is started and backups, version management and configuration management are organized according to international standards (ITIL etc.) In the meantime in other work packages the system is used and feedback is received from professionals and patients. This feedback is used as input for the update and release calendar.' (p52-53)	-Four prototype releases are planned currently -Complete instruction packages are created that are completely ready for implementation	<ul> <li>Webinar Milestone 5</li> <li>(WP1-4) @ Month16</li> <li>Webinar Milestone 6</li> <li>(WP1-4) @ Month22</li> <li>Webinar Milestone 7</li> <li>(WP1-4) @ Month28</li> <li>Local Patient</li> <li>Workshops @ Month16</li> <li>Local Patient</li> <li>Workshops @ Month22</li> <li>Local Patient</li> <li>Workshops @ Month28</li> <li>Incegrated Prototype</li> <li>Demonstrator version</li> <li>@ Month22</li> </ul>
1.4.3 Test and Evaluation Report for POWER2DM Components and Integration (M 15, 21, 27, 33)	See Task 1.4	To report (periodically) on 'Software Management, Integration and Testing'	Combination of desk research and participatory techniques	NOT SPECIFIED IN PROPOSAL	Test and evaluation report(s)	



#### POWER2DM – WP2

#### Flowchart 2. Overview of research (and participatory) activities in work package 2, Predictive Framework

**Overall aim:** To develop innovative programs, modules, and tools for short-term and long-term risk detection and risk prevention in personalized diabetes care and management by supporting patients efficiently in diabetes home monitoring and diabetes home care with patient-centered, real time decision support systems (DSS) which can finally be implemented into mobile-phone-based self-management equipment

Tasks (End Month)	Input	Aim	Design and Method	Participants	Outcome/results	Stakeholder
and Executive						Activities
Party						(from DoW)
Task 2.1 Calibration	Theory/evide	-To define inputs and outputs of a home monitoring tool for	NOT SPECIFIED IN	NOT SPECIFIED IN	Short-Term Predictive	Webinar
of Short-term	nce/project	the model of a real time, patient-centered predictive DSS	PROPOSAL	PROPOSAL	Component	Milestone 3
Predictive Model	proposal (p.	module (IDK, LUMC),				@ Month10
KADIS <b>(M3-M20)</b>	21)	-To develop a problem-related, personalized home				
IDK, iHealth, LUMC		monitoring module (IDK, iHealth),				
		-To define a personalized risk stratification module (IDK),				
		- To validate on that data quality from the pilot settings (IDK)				
Task 2.2 Calibration	Theory/evide	-To define input/output of the M2TD-Marvel and Risk	NOT SPECIFIED IN	NOT SPECIFIED IN	Mid-and-Long-Term	
of Medium-to-	nce/project	Scoring models for real time, patient-centered predictive	PROPOSAL	PROPOSAL	Predictive Component	
Long-term	proposal (p.	DSS module (TNO)				
Predictive Models:	21)/Taks 2.1	-To personalized home monitoring module based on self-				
MT2D-Marvel and		monitoring data (TNO, iHealth)				
Risk Scores (M3-		-To personalized risk stratification module (TNO)				
M20) <u>TNO</u> , iHealth		-To validate that data quality from the pilot settings meets				
		standards to properly drive the MT2D-Marvel and Risk				
		Scoring models for the intended functionalities in the				
		POWER2DM SMSS (TNO)				
Task 2.3	Theory/evide	-To develop a personalized real time risk prediction service	NOT SPECIFIED IN	NOT SPECIFIED IN	Power2DM Integrated	
Development of	nce/project	(IDK, iHealth),	PROPOSAL	PROPOSAL	Prediction Service & API	
Prediction Services	proposal (p.	- To define and develop model-specific APIs for interaction				
(1V19, 1V132) <u>IDK</u> ,	21)/Task 2.1	with the other modules and external systems (INO)				
INO, PD	& Task 2.2	- 10 implement interactions with the diabetes models (PD)				
Task 2 4	Theory/evide	-To develop mockups for GUI Components	In proposal:	In proposal:	-Mockups for GUI	
Visualization of	nce/project	-To develop web based GUI Components for Visualization of	'Trans-disciplinary	'Work will be	Components	
predictions and	proposal (p	Predictions/Simulations	HCI research for	carried out in close	-Web based GUI	
simulations	21)/Task 2.3	-To develop mobile GUI Components for Visualization of	patient-centred	cooperation with	Components for	
(M5-M32) SRDC.	,	Predictions/Simulations	visualizations.	the Patient	Visualization of Mobile	
IDK, PD, TNO,			representations and	Organizations to be	GUI	
LUMC, SAS			interfaces' (p.53)	involved in the	-Components for	
, -			4 <i>1</i>	project under	Visualization of	
				guidance of the	Predictions/Simulations	
				IDF.'(p.55).	Predictions/Simulations	



#### POWER2DM – WP3

### Flowchart 3. Overview of research (and participatory) activities in work package 3, Personalized DSS

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**Overall aim:** To design and develop of a personalised decision support system

Task (End Month) and Executive Party	Input	Aim	Design and Method	Participants	Outcome/results	Stakeholder Activities (from DoW)
Task 3.1 Dynamic Behaviour Change Intervention Models for Self-Management (M5- M21) <u>SRFG</u> , TNO, LUMC, SAS, IDK, SRDC	User Requirements and Use Case Scenarios (Task 1.1)	To select a set of BCT functionalities for a range of patient profiles, for lifestyle and therapy and to develop the intervention models	In proposal: Different phenotypes of diabetic users (p.54)	NOT SPECIFIED IN PROPOSAL	Dynamic Behaviour Change Intervention Models for Self- Management	
Task 3.2 Recommender Engine (M9-M32): <u>SRDC</u> , SRFG	Task 3.1	To extend EMPOWER Recommender Engine to automatically create not only textual recommendations, but also create/adapt personalized recommended goals and action plans for the patient	technical development (?)	NOT SPECIFIED IN PROPOSAL	Recommender engine	- Open Innovation Event (Hackaton Contest) @ Month9
Task 3.3 Action Plan Engine (M9-M32) <u>SRFG</u> , SRDC	Task T3.2, Task 3.1; WP4, WP2	To enhance the existing EMPOWER Action Plan Engine by guidance-based goal and action plan specification	technical development (?)	NOT SPECIFIED IN PROPOSAL	Action Plan Engine	
Task 3.4 Web and Mobile User Interfaces for Behavioural Change Interventions (M9-M32) <u>SRDC</u> , iHealth, SRFG	Task 3.2, Task 3.1	To design a set of target-group specific HCI interfaces to enable patients and doctors to interact with the services	In proposal: 'The user interfaces will be made available as mock-ups in an early stage of the project for evaluation and feedback of prospective end-users.' (p.53)	In proposal: 'In close cooperation with the Patient Organizations under guidance of the IDF'	- Mockups for the Web/Mobile User Interfaces - Web-Based GUI Components for DSS Mobile GUI - Components for DSS	- Open Innovation Event (Hackaton Contest) @ Month16
Task 3.5 BCT modules knowledge content (M9- M32) <u>SAS</u> , LUMC, IDK, SRFG	Task 3.3	To implement static knowledge modules content (such as text, multimedia snippets), as well as define dynamic knowledge (e.g. rules and workflows)	NOT SPECIFIED IN PROPOSAL	In proposal: 'In close cooperation with the Patient Organizations under guidance of the IDF'	Behaviour Change Intervention Contents	

#### POWER2DM – WP4

#### Flowchart 4. Overview of research (and participatory) activities in work package 2, Personailzed Data Integration Platform

**Overall aim:** (1) Set specifications of all the data needed for the overall system according to data model defined in design phase; (2) Develop and deploy the data integration platform based on the requirements of pilot sites for both Quantification and Evaluation campaigns; (3) Implement functionalities in the different languages of the pilot studies; and (4) Integrate POWER2DM Services and GUI components to eHealth systems (e.g. PatientCoach) in Pilot Sites

Deliverable (End Month) and Executive Party	Input	Aim	Design and Method	Participants	Outcome/results	Stakeholder Activities (from DoW)
Task 4.1 Personal Data Store and Service for Data Access or Update (M1-M15) <u>SRDC</u> , PD, TNO, IDK, iHealth		Within the scope of this task, a full- blown set of data specifications of the system will be formulated. Based on the data requirements and description of data model, the personal data store service API will be defined (D4.1.1).	NOT SPECIFIED IN PROPOSAL	NOT SPECIFIED IN PROPOSAL	<ul> <li>Personal Data</li> <li>Model and Service</li> <li>API</li> <li>Personal Data</li> <li>Store Service</li> <li>Implementation-</li> </ul>	
Task 4.2 Integration of Sensor data (M1-M15) TNO, iHealth, PD, SAS	Task 4.1, WP5, WP6	<ul> <li>-To define the state of the art in available and relevant quantified self-sensor equipment and make a choice of the sensors that will be used within this project.</li> <li>-To define, design and develop, based on the chosen sensor equipment, several API's for data extraction to the E-health platform</li> </ul>	NOT SPECIFIED IN PROPOSAL	NOT SPECIFIED IN PROPOSAL	Sensor Integrators	
Task 4.3 Integration of data from EHR and external eHealth Systems (M1-M15) <u>SRDC</u> , SAS, IDK, LUMC	Task 4.1, Task 4.2	To integrate official national health records and personal health records	NOT SPECIFIED IN PROPOSAL	NOT SPECIFIED IN PROPOSAL	External EHR/PHR Integrators	
Task 4.4 Data Quality Analysis and Basic Data Processing (M1-M21) <u>PD</u> , TNO		To preform (1) data quality analysis and (2) basic data processing	<ul> <li>A first order review</li> <li>framework of data quality</li> <li>is established, and several</li> <li>quality checks and</li> <li>detections will be taking</li> <li>place</li> <li>Basic data processing will</li> <li>take place in order to</li> <li>guarantee data quality of</li> <li>the available data via API's</li> </ul>	NOT SPECIFIED IN PROPOSAL	Data Quality Analysis Framework Basic Data Processing Framework	Webinar Milestone 1 (WP1, WP4) @ Month8



Task 4.5 Implement e-	Tasks 4.1 - 4.4	To establish data based E-health	- the calculation and	NOT SPECIFIED IN	Integrated eHealth	
Health system		functionalities necessary for WPs 5	statistical models will be	PROPOSAL	Systems for Pilot	
functionalities (M16-		and 6	linked to the E-health		sites	
M32) <u>PD</u> , LUMC, SAS			system			
			<ul> <li>the linkage/interaction</li> </ul>			
			with the Personalized DSS			
			(WP3) will be implemented			
			<ul> <li>the interface to the</li> </ul>			
			Predictive Framework			
			(WP2) services will be			
			established			
Task 4.6 Privacy and	WP2, WP3, WP4	To provide the required privacy and	NOT SPECIFIED IN	NOT SPECIFIED IN	Privacy and Security	
Security Measures (M6-		security tools/mechanisms, in	PROPOSAL	PROPOSAL	Enablers for	
M21) <u>SRDC</u> , PD		order to protect the privacy and			Power2DM Services	
		security of personal data while				
		flowing among POWER2DM				
		components and opening these				
		services to third party applications				



#### POWER2DM – WP5

#### Flowchart 5. Power2DM Pilot Studies

**Overall aim:** The aim of POWER2DM test campaigns will be twofold. In the first half of the project they will be performed so as to ground the model with experimental data and quantify and fine-tune the developed WP2 computational models. In the second half of the project, evaluation campaigns will involve execution in the three challenging pilot sites and will serve both model optimization and validation purposes (WP6).

Deliverable (End Month) and	Input	Aim	Design and Method	Participants	Outcome/results	Stakeholder Activities (from DoW)
Executive Party Task 5.1 Specific Requirements of Pilot Applications (M1, M2) <u>IDK</u> , SAS, LUMC, TNO, PD, iHealth	WP3, WP4	To evaluated and implemented the specific general and local requirements needed for each pilot center	In proposal: - local PC-based security tasks in the different health centers to technical issues - specific integration of the PC- based and mobile-based systems with local pre-existing software (like Patient coach), and the creation of any additional needed modules for those centres in which POWER2DM is installed "de novo" (p.56-57)	In proposal: 'In close cooperation with the Patient Organizations to be involved in the project under guidance of the IDF' (p.56)	Specific Requirements of Pilot Sites	
T5.2 Pilot Design and Technical Preparations (M1, M8) <u>LUMC</u> , SAS, IDK, TNO, SRDC, PD, SRFG, iHealth	?	To define a proper test campaign strategy	In proposal: - The models will be grounded and calibrated with experimental data - feasibility studies and execution of a pragmatic randomised trial in three distributed clinical sites (p. 57)	In proposal: 'An "executive board" will be created including one member of each center, who will be responsible for dealing with the possible problems and serving as a reference for all clinical members when having any doubt during the development of the study (p. 57)	-Quantification of Campaign Methodology -Evaluation of Campaign Methodology	- Webinar Milestone 4 @ Month12 - User Training Workshops for Pilot participants (patients, healthcare professionals, 3 languages) @ Month6 (Quantification Campaign)
T5.3 Feasibility Studies (M23, M24) <u>SAS</u> , IDK, LUMC	WP1, WP2, WP3, WP4	To investigate and highlight any potential issues that may impede implementation of POWER2DM	In proposal: 'Patients initially will attend the clinic for a demonstration of the system, and allowed to trial setting it up and using it	In proposal: 'Patients'(p. 57)	Feasibility Studies Outcomes	- User Training Workshops for Pilot participants (patients, healthcare professionals, 3 languages) @ Month22



			independently, before trying it at			
			home for a two week period.			
			During this period they will use it			
			as instructed, with open access			
			to the researchers by telephone			
			or email for feedback. Patients			
			will be contacted after two and			
			seven days of use, before			
			returning the equipment at day			
			14. Then patients will undergo a			
			one-to-one debriefing session			
			with a researcher, in order to			
			record the user-experience of the			
			POWER2DM procedure, from the			
			initial set-up meeting through to			
			home use.'(p. 57)			
T5.4 Pilot	?	- To provide education for	NOT SPECIFIED IN DETAIL	In proposal:	-Completion of	- User Training Workshop for
Deployment and		healthcare professionals		'Health care	Quantification	Pilot participants (patients,
Operation (M8-M11,		and patients with		professionals, patients,	Campaign	healthcare professionals, 3
M25-M38) <u>SAS</u> , IDK,		theoretical sessions		docters, executive	-User Training	languages) @ Month25
LUMC, PD, SRFG,		- To run the systems in test		board' (p.57)	Materials and	- Webinar Milestone 8 @
SRDC		settings and provide			Outcomes	Month38
		helpdesk and backup:			-Completion of	
		- To collect and evaluate			Randomised Trial	
		user feedback			Campaign	
		- To provide system				
		updates according to user				
		needs				



#### POWER2DM – WP6

#### Flowchart 6. Evaluation and validation

**Overall aim:** The aim of this work package is two-fold. First, it is aimed at evaluating the performance of the existing KADIS and MT2D-MARVEL prediction models and to assess to what extent POWER2DM applications can provide (additional) model inputs that are non-invasive, easy attainable and convenient for all patient. Second, this work package is focused on the evaluation and validation, including the clinical and socio-economic and organizational impact of the final POWER2DM mHealth & prediction based personalized health system.

Deliverable (End Month)	Input	Aim	Design and Method	Participants	Outcome/results	Stakeholder Activities
and Executive Party						(from DoW)
Task 6.1 Formulation of	?	To formulate and construct a	In proposal:	NOT SPECIFIED IN	Description of the	
Evaluation Criteria and a		computer decision model for	'The model will be	PROPOSAL	Decision Model	
Cost-effectiveness		evaluation of long-term effects	constructed in dedicated			
Model (M12-M16)		and costs	software for decision			
<u>LUMC</u> , SAS, IDK			analysis' (p. 58)			
T6.2 Data management	?	- To combine the several data	NOT SPECIFIED IN	NOT SPECIFIED IN	-Description of the	
and data preparation for		sources from the 3 study	PROPOSAL	PROPOSAL	Quantification	
analysis (M11-M38)		settings in Spain, Germany and			Campaign Dataset	
LUMC, TNO, IDK, SAS,		The Netherlands			-Description of the	
PD		- To prepare the combined			Evaluation Campaign	
		dataset for the analysis in T6.3			(RCT) Dataset	
		and T6.4				
T6.3 Analysis of small	WP2, WP3, WP4	- To further calibrate the	In proposal:	In proposal:	Small-Scale Evaluation	
scale experiments and		computational patient models	'Metabolic fingerprints'	Pilot data from ten	Reports	
evaluations (M12-M21)		and clinical state prediction	and 'pragmatic trial' (p.	patients at each clinical		
<u>TNO</u> , LUMC, IDK, SAS		framework	58)	centre (i.e. 30 patients in		
		- To analyse any potential issues		total) and interviews will		
		that may impede		be used to assess the user		
		implementation of the		experience with the		
		POWER2DM prototype in the		POWER2DM prototype		
		real-world setting that is tested		(p. 58)		
		in the pragmatic trial				
T6.4 Evaluation of Users'	?	To evaluate and validation the	'Typical validity	NOT SPECIFIED IN	Field Trials Report &	Webinar Milestone 9
Acceptance and Clinical		results in such a way that the	approaches for new	PROPOSAL	Socio-Economic	@ Month42
and Socio-economic		results will be understandable	methodologies' and 'the		Guidelines	
Impact (M37-M42)		to the stakeholders, including	extraction of the			
<u>LUMC</u> , TNO, IDK, SAS		lay audience for which it is	POWER2DM socio-			
		designed	economic and			
			organizational impact			
			based on the analysis of			
			the results from the			
			evaluation process' (p.			
			58)			



#### POWER2DM – WP7

## Flowchart 7. Exploitation and Dissemination

Overall aim: To disseminate key information on the project, associated activities and outcomes to an international audience

Deliverable (End Month)	Input	Aim	Design and Method	Participants	Outcome/results	Stakeholder Activities
and Executive Party						(from DoW)
<b>T7.1</b> Dissemination and Communication Activities (M1, M42) <u>TNO</u> , SAS, IDK, SRGF, LUMC, SRDC, iHealth, PD	?	To develop a detailed dissemination strategy	<ul> <li>stakeholder mapping exercise</li> <li>identification of main</li> <li>communication messages</li> <li>development of a</li> <li>communication plan detailing</li> <li>the tools and channels to be</li> <li>used</li> <li>production of a timetable for</li> <li>communication and</li> <li>dissemination activities</li> </ul>	NOT SPECIFIED IN PROPOSAL	- Communication and Dissemination Plan - Report on Dissemination Activities	<ul> <li>Press releases, website, social media</li> <li>Opening Event @ Month5?</li> <li>Leaflet, brochures</li> <li>Newsletter (4-monthly)</li> <li>3 different Prototype</li> <li>Demonstrations (Investors, Customers, End users) @ 6</li> <li>events in Month24-34</li> <li>Closing Event</li> </ul>
T7.2 Management of Innovation and Intellectual Property (M1, M42) <u>TNO</u> , All partners	T7.1	To stimulate the Power2DM project and consortium to develop innovative strategies, models, products and services, and to materialise these during the lifetime of the project	In proposal: 'Innovation management tools such as brainstorming, idea management, product lifecycle management and portfolio management will be utilized', 'an IP management database will be made available' and 'a Data Management Plan to determine which of the research data can and will be made open will be developed.' (p. 59)	NOT SPECIFIED IN PROPOSAL	<ul> <li>Open Research</li> <li>Data Management</li> <li>Plan</li> <li>Intellectual</li> <li>Property Rights</li> <li>Agreement</li> <li>Report on</li> <li>Intellectual</li> <li>Property</li> <li>Management</li> <li>-Report</li> </ul>	
T7.3 Exploitation Activities (M1, M42) <u>iHealth</u> , TNO, PD, IDK, SRDC, All partners	?	To form a basis for maintenance and further development of the outputs and to include measures to ensure that the benefits of the project will endure beyond the lifetime of the project	-Exploitation activities and plans, supported by realistic business cases, will be reported three times during this period -Exploitation activities will be defined and carried out in a close relation with the dissemination activities -The final business plan report will incorporate all results and recommendations from the	In proposal: -Each POWER2DM partner will prepare exploitation plans indicating what market and business opportunities will be favoured by the development of the new technologies POWER2DM - Project partners will consult with	- Exploitation Plan - Business Plan	



			evaluation and dissemination reports in addition to IPR rights	representatives from other public authorities,		
			agreements	regions and ecosystems,		
				to extend the impact of		
				the projects, circulate the		
				knowledge and scale-up		
				the solutions developed		
				- A consortium		
				agreement will fix the		
				rules of knowledge		
				sharing between		
				academics partners and		
				companies, regarding the		
				IPR, rules of publications,		
				commercial activities,		
				spin-off or		
				entrepreneurship (p.59)		
T7.4 Stakeholder Liaison	?	To bring the innovations	TNO Small Business Innovation	NOT SPECIFIED IN	Report on Industry	
(M1, M42) <u>TNO</u> , IDK,		produced in POWER2DM	Research (SBIR) programme	PROPOSAL	Liaison and	
SAS, SRDC		in the European market	named "Technology seeks		Exploitation	
			Entrepreneur"		Activities	

