

A background image showing a close-up of a person's hands holding a silver smartphone. The person is wearing a white wristwatch. The image is slightly blurred, focusing on the hands and the phone.

# Implementing **M**obile **M**ental health **R**ecording **S**trategy for **E**urope



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Overarching goal of IMMERSE



- Advance transformation of mental health care in Europe in ***true person-centered care***
- Transfer Experience Sampling Methodology into an ***innovative clinical digital health tool***
- Conduct ***an implementation study*** in order to further ***scale up DMMH*** in routine mental health care in Europe



# Background



- Mental health disorders are prevalent (30% of the population)
- High burden of disease
- Individuals are not often active partners in their treatment
- Treatment is not focused on the specific needs of an individual



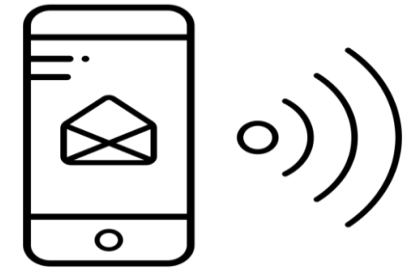
**Need for transformation to a true person-centered care**



# Background



**AMSTERDAM 2018**



**Experience Sampling  
Methodology**

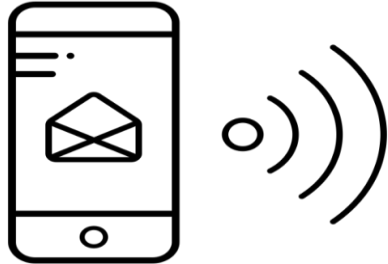


This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Experience Sampling Methodology



IMMERSE



DAY 1

DAY 2

DAY 3

DAY 4

DAY 5

DAY 6

(day 4 in detail)

Beep 1

Beep 2

Beep 3

Beep 4

Beep 5

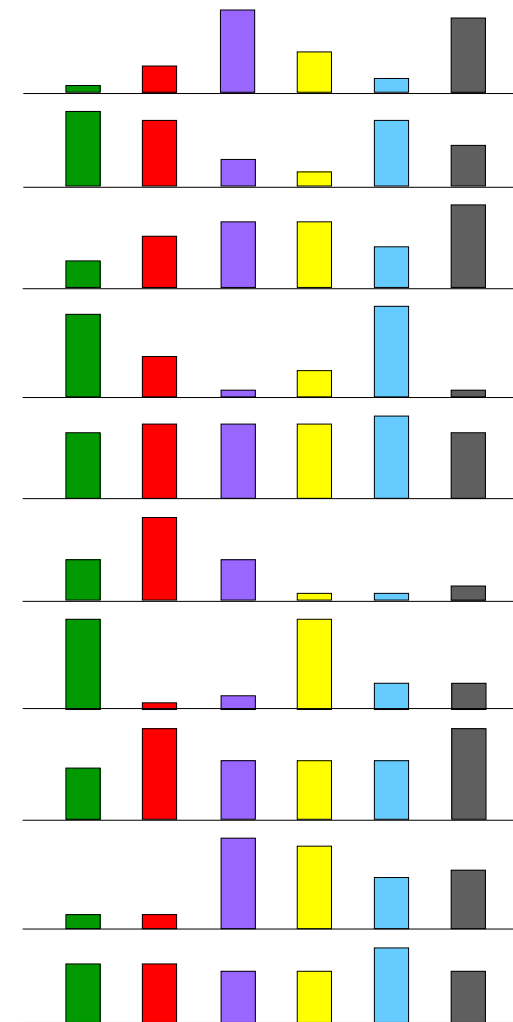
Beep 6

Beep 7

Beep 8

Beep 9

Beep 10

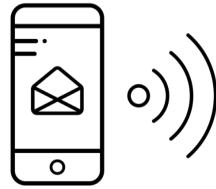


- ✓ 10 times a day
- ✓ 6 consecutive days
- ✓ at random moments



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Scientific Evidence for ESM as a clinical tool



## SERVICE USER

- empowerment and engagement
- self-management and recovery

## CLINICIAN

- goal direction in clinical assessment and management of care
- shared decision-making

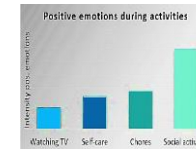
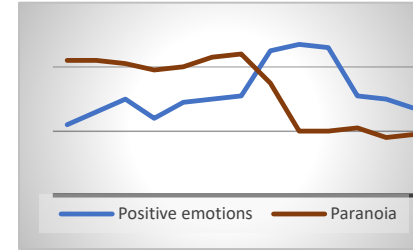
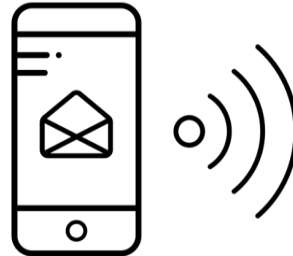


This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# ESM: from research to clinical application



**DMMH**  
(digital Mobile Mental Health)



**Why does it not get implemented in clinical care?**



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)





# IMMERSE



Belgium

- KU Leuven



Germany

- Universität Heidelberg
- Central Institute of Mental Health
- Movisens
- University of Erlangen



Scotland

- University of Edinburgh



Slovakia

- Comenius University Bratislava
- Pavol Jozef Safarik University



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)



# Objectives of IMMERSE



**O1. To transfer DMMH from *a research context* into *a prototype clinical tool***

*O1a. Develop prototype of clinical tool, data management and data protection plan.*

*O1b. Develop basic statistics for visualisations and AI models for this multimodal data*

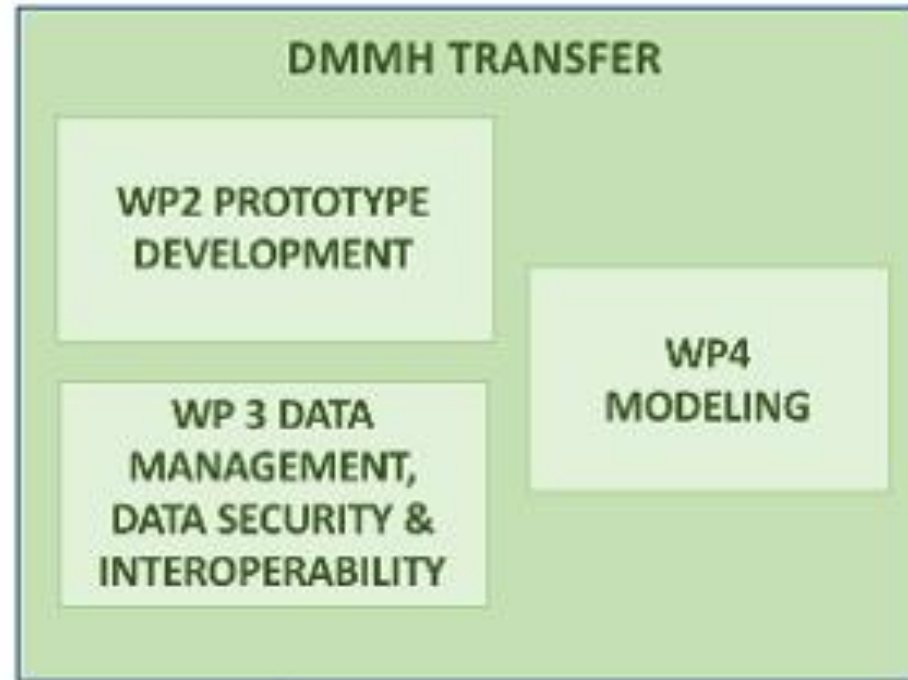


This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Objectives of IMMERSE



O1. To transfer DMMH from *a research context* into *a prototype clinical tool*



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Objectives of IMMERSE



**O2. To evaluate the *implementation of DMMH* into routine health care practice in 4 countries in Europe, providing evidence for further scale up**

*O2a. Key barriers and facilitators for implementation based on stakeholder feedback and ethical and regulatory framework and device policy white paper*

*O2b. Conducting an implementation study of DMMH across 4 different health systems in Europe*



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Objectives of IMMERSE



O2. To evaluate the *implementation of DMMH* into routine health care practice in 4 countries in Europe, providing evidence for further scale up



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Objectives of IMMERSE



O3. To develop a prediction model for the ***future implementation of DMMH*** and its impact on 4 representative health care systems in Europe.

*O3a. Dissemination and exploitation plan, and develop a market analysis.*

*O3b. Provide a white paper on implementation strategies for mHealth in mental health care.*



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Objectives of IMMERSE



O3. To develop a prediction model for the *future implementation of DMMH* and its impact on 4 representative health care systems in Europe.

IMPACT

WP 8 DISSEMINATION AND EXPLOITATION



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

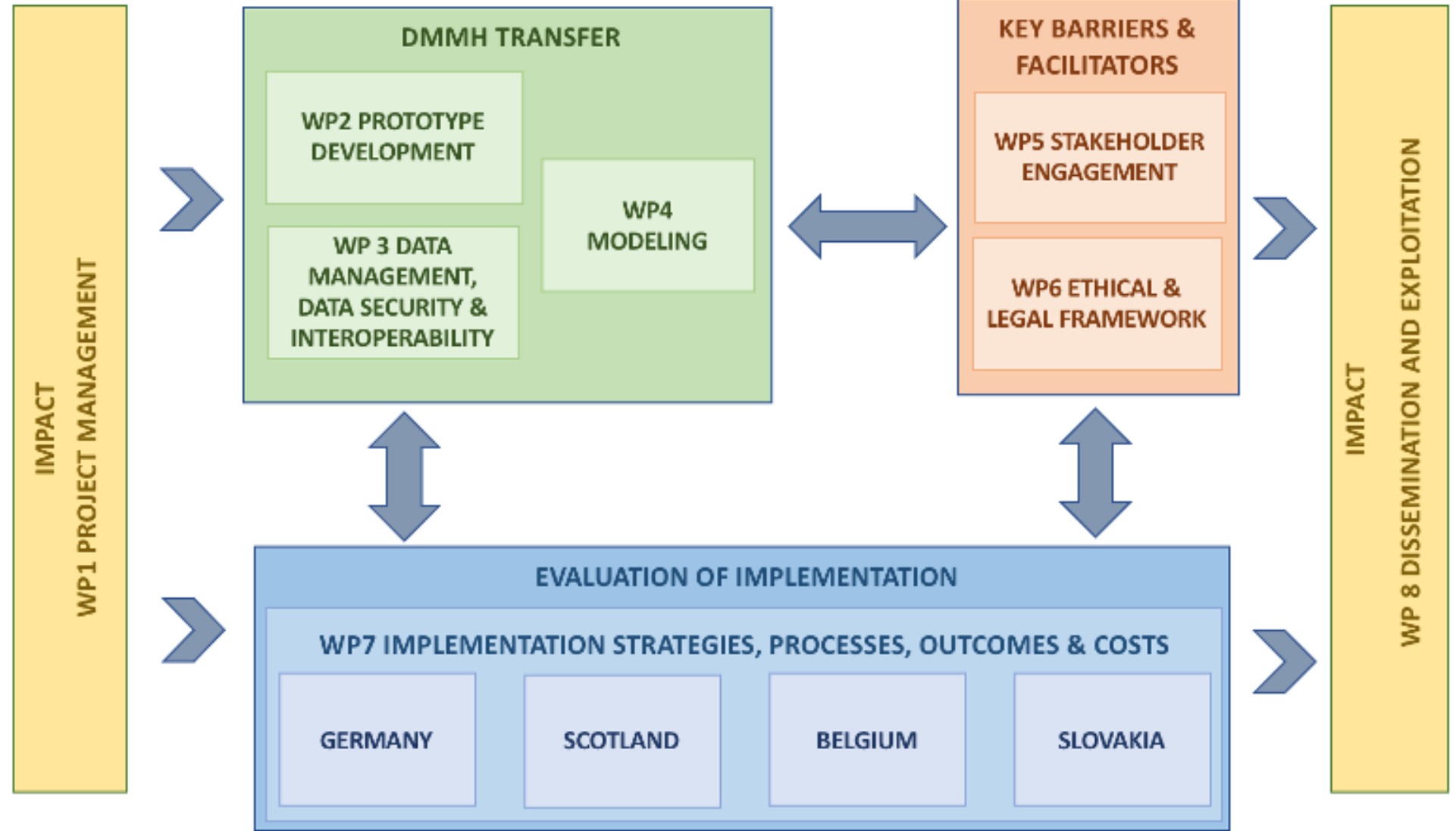




Patient Advisory Board

Ethics Advisory Board

Scientific Advisory Board



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# WP1 Project Management



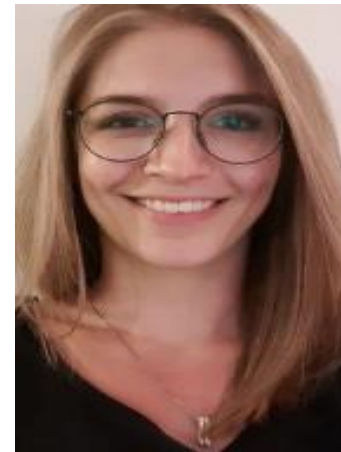
Inez Myin-Germeys



Silke Apers



Anita Schick



Steffie Schoefs



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# WP1 Project Management

## EXTERNAL COMMUNICATION

In collaboration  
with PAB



Home DMMH Tool Project Teams ▾ Studies ▾ Results Consortium Contact Blog ▾

Implementing Mobile MEntal health Recording  
Strategy for Europe



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# WP1 Project Management

## COMMUNICATION WITH CLINICIANS AND SERVICE USERS



[Home](#)

[DMMH Tool](#)

[Project Teams](#) ▾

[Studies](#) ▾

[Results](#)

[Consortium](#)

[Contact](#)

[Blog](#) ▾

EN

NL

DE

SK



[Are you a clinician?](#)



[Are you a service user?](#)



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# WP1 Project Management

## COMMUNICATION WITH CLINICIANS AND SERVICE USERS



### Klein MoMentje!

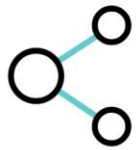
Bedankt voor uw deelname aan het IMMERSE-onderzoek. Door deel te nemen aan het onderzoek draagt u bij aan de integratie van digitale mobiele geestelijke gezondheid in de klinische routinezorg.



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# WP1 Project Management

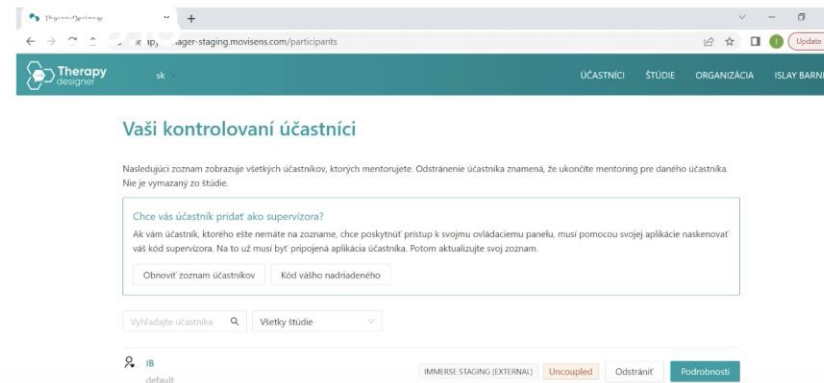
## COMMUNICATION WITH CLINICIANS AND SERVICE USERS



## Nastavenie terapie

Upraviť a uložiť prídavné moduly

Toto video je sprievodcom nastavenia Ciel'ov terapie krok za krokom. Podľa rovnakých krokov môžete upravovať prídavné moduly pri konfigurácii intervencie s pacientom. Sprievodcu krok za krokom môžete nájsť aj v



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)



# WP1 Project Management

## COMMUNICATION WITH CLINICIANS AND SERVICE USERS



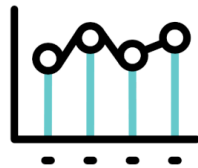
Hintergrund

Grundlegende Konfiguration

Personalisierung von Zusatzmodulen

Visualisierung

FAQ



## Visualisierungen

Personalisiertes Feedback für Sie und Ihre\*n Patient\*in

In den folgenden Videos werden die verschiedenen Darstellungsarten (Visualisierungen), die das Dashboard bietet, gezeigt.

Das [Video](#) für Behandler\*innen enthält auch ein Schritt-für-Schritt-Anleitung.

## Anpassung des Analysezeitraums



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# WP1 Project Management



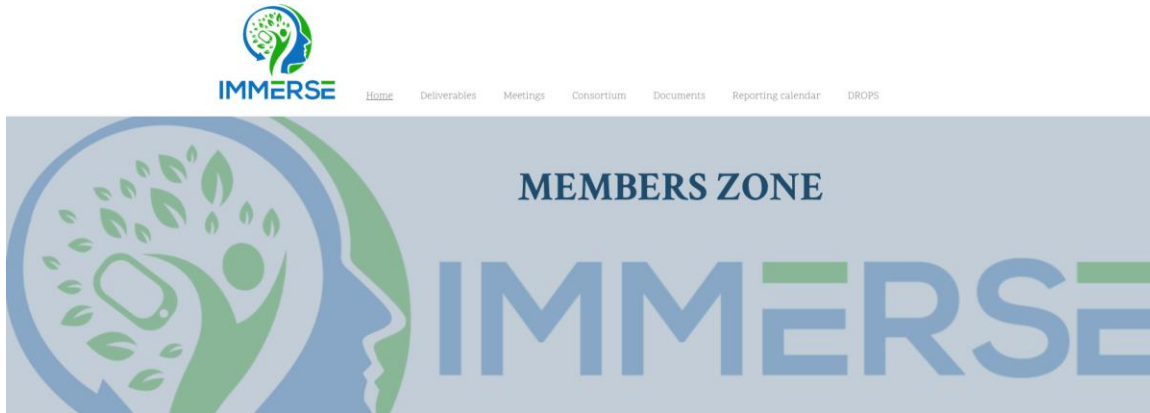
Video IMMERSE



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# WP1 Project Management

## INTERNAL COMMUNICATION



### IMMERSE project

Set up people AK AA AP AH CR DB DD DD EN FD GK GK HN IP IB

#### Campfire

Iveta Nagyova 3:00pm  
Martine van Nierop 3:09pm  
Anita Schick 3:19pm  
Anita Schick 9:01am  
Anita Schick 8:12am

#### Schedule

There are no upcoming events on the Schedule, but you've got **1 overdue assignment**

#### Message Board

Tips from our grants office  
Horizon Europe Call

#### Docs & Files

Abstract submission  
General Assembly Edinburgh 2022  
WP1  
WP2 Prototype development  
WP3 Collaboration Area  
WP4

#### Automatic Check-ins

Create recurring questions so you don't have to pester your team about what's going on.

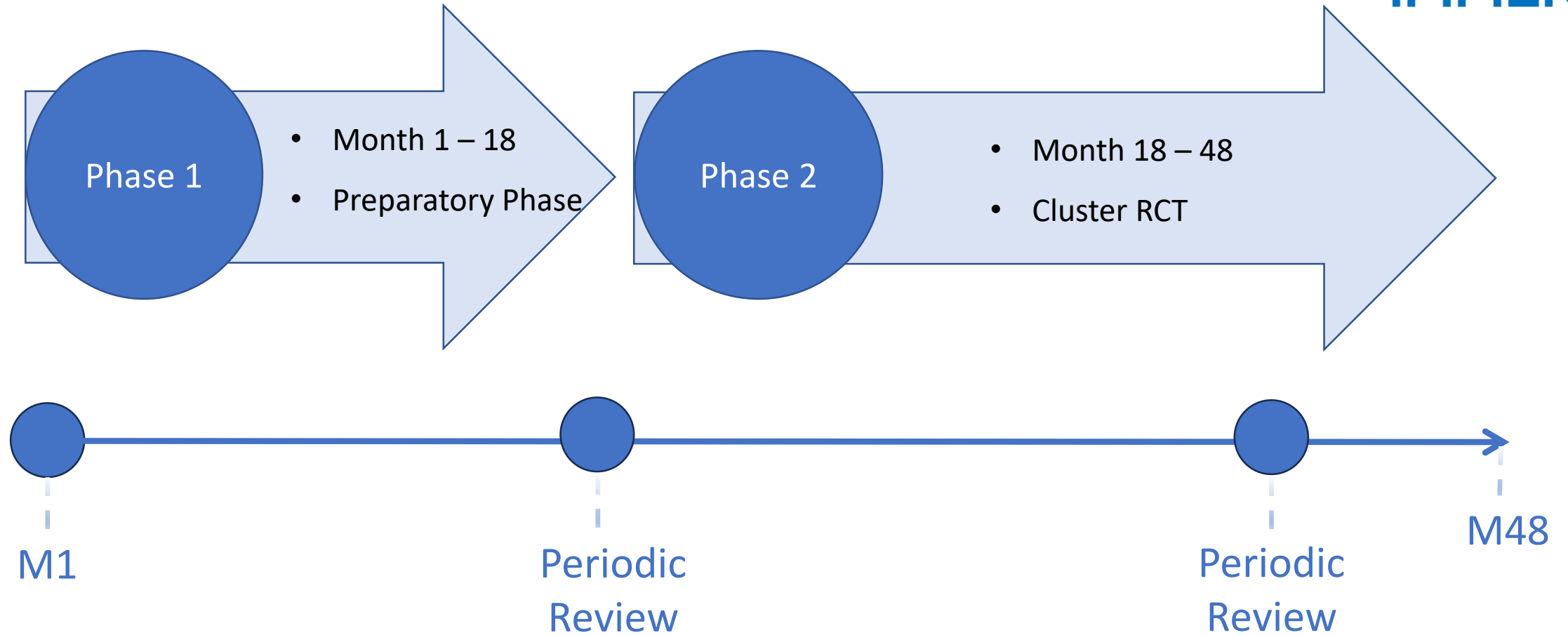
#### To-dos

respond to REC (Phase II Ethics) and provide additional documentations  
check the DMMH intervention Manual is aligned with TIDieR checklist  
Trying out MoMent app



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# IMMERSE project



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

## MDR-compliant therapy platform

### MoMent Dashboard

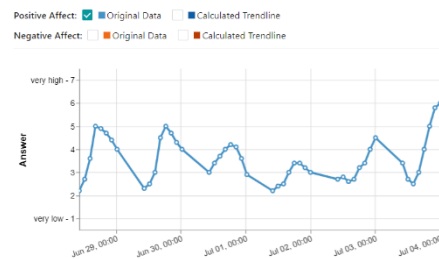
**(a)** tailor EMA items and generate reports for **clinicians and service users**

#### Additional Mood Items

In addition to the core items (I feel happy, enthusiastic, relaxed, content, anxious, irritated, sad, insecure) you can further personalize the mood items and select up to 2 additional items from the list. The 2 additional mood items will be asked several times per day as the other mood items (I feel \_\_\_).

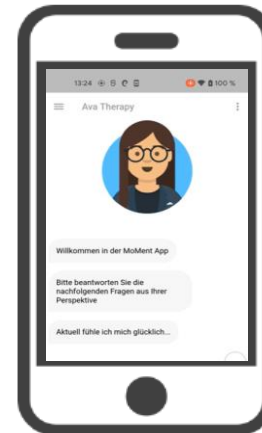
| Parameter | Description | Parameter Value for Participant                   |
|-----------|-------------|---|
| tired.    |             | <input type="checkbox"/> Activate Item            |
| stressed. |             | <input checked="" type="checkbox"/> Activate Item |

**(b)** visualize data on dashboard for **clinicians and service users**



### MoMent App

EMA-based monitoring of key problem areas, mood, context, and therapy goals



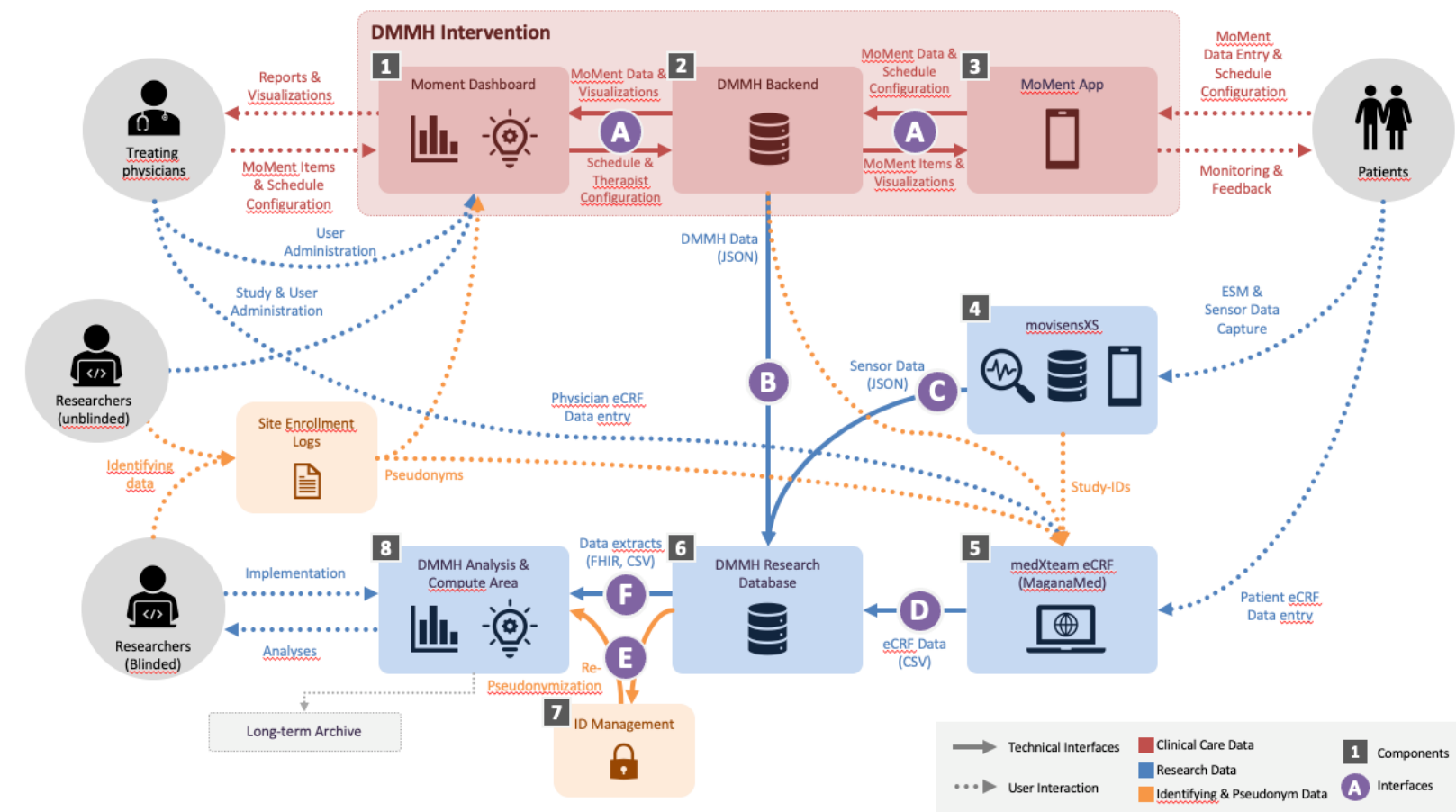
Daily monitoring of mood and context

Service desk

- Bugs
- Feedback

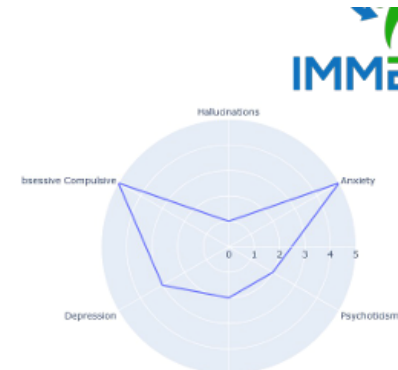
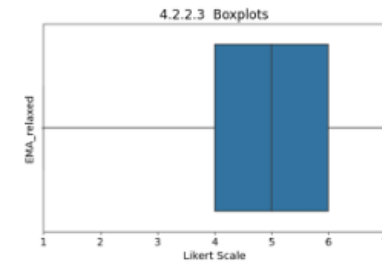
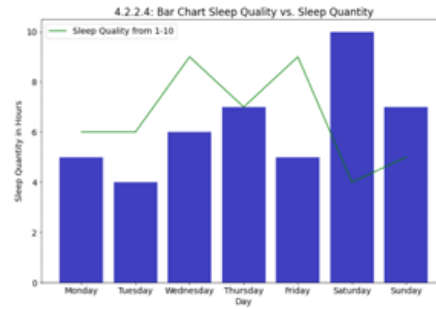
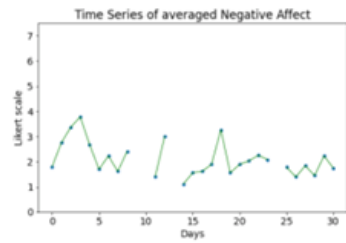
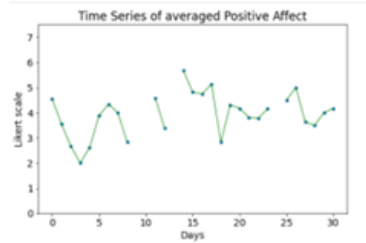


# FAIR datamanagement

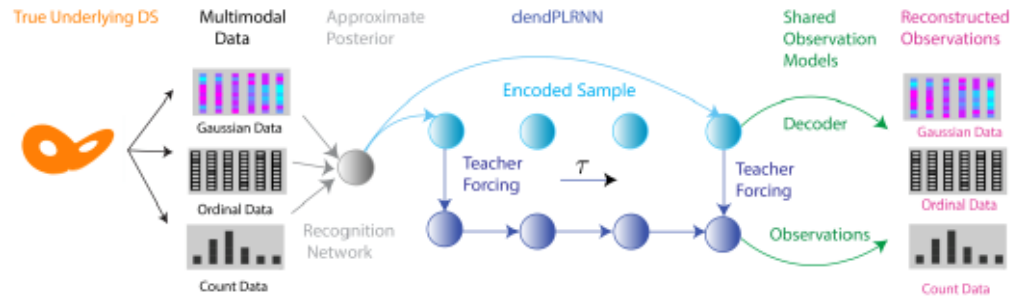




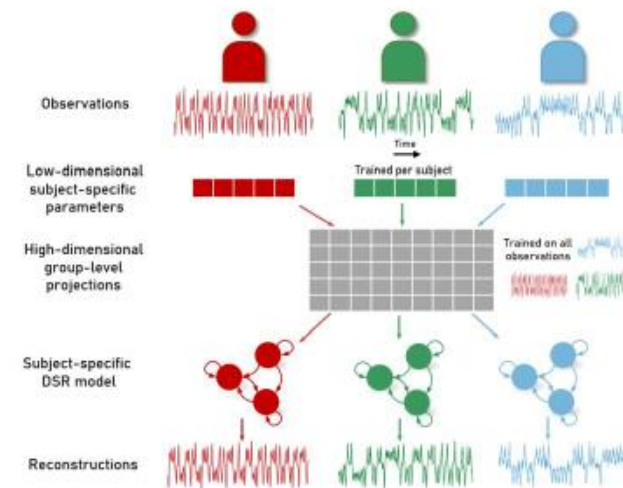
# Basic statistics and visualizations



## WP 4.2 – AI Algorithms: → Development of the Multimodal Teacher Forcing Framework



## WP 4.3 Big data integration framework → Development of Hierarchical Inference Framework



# Objectives of IMMERSE



**O1. To transfer DMMH from *a research context* into *a prototype clinical tool***

*O1a. Develop prototype of clinical tool, data management and data protection plan.*

*O1b. Develop basic statistics for visualisations and AI models for this multimodal data*



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

WPS STAKEHOLDER  
ENGAGEMENT

Surveys

Interviews



Service-users

Support  
Network

Clinicians

Hospital  
Management

## Phase 1

- Privacy
- Usability and patient / clinician characteristics
- Visualisations

## Phase 2

- Establishing the Context of Self-Tracking Practices and ESM



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

WP6 ETHICAL &  
LEGAL FRAMEWORK

Ethics / MDR

Data  
Governance  
Plan

Ethical, legal and policy  
analysis

Reimbursement

Medical Device Regulation

European health data space



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

WP6 ETHICAL &  
LEGAL FRAMEWORK

Ethics / MDR

Data  
Governance  
Plan

## Opinion piece sent to Politico.eu



### **From Progress to Paralysis: bridging the translation gap in digital mental health care?**

Mental health problems affect up to 30% of the global population, with a forecasted cost of over €5.5 trillion by 2030. The European Commission has therefore prioritised funding and research and innovation programs in this domain, pushing forward digital technologies as a powerful solution to make mental health care more accessible, equitable, and person-centred while providing earlier and better interventions. IMMERSE (Implementing Mobile Mental health Recording Strategies for Europe) is such a European-funded H2020 project, examining the implementation of a novel Mobile Digital Mental Health solution (called the MoMent app) in routine mental health care across four countries

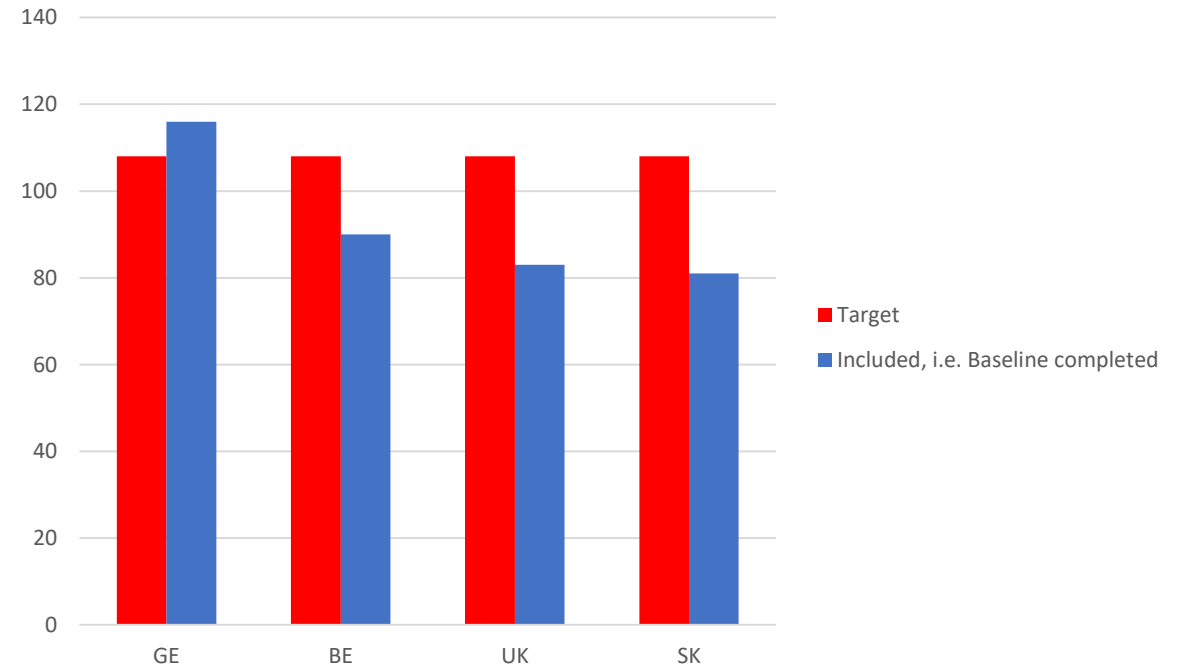


This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)



**Cluster Randomised  
Clinical Trial**

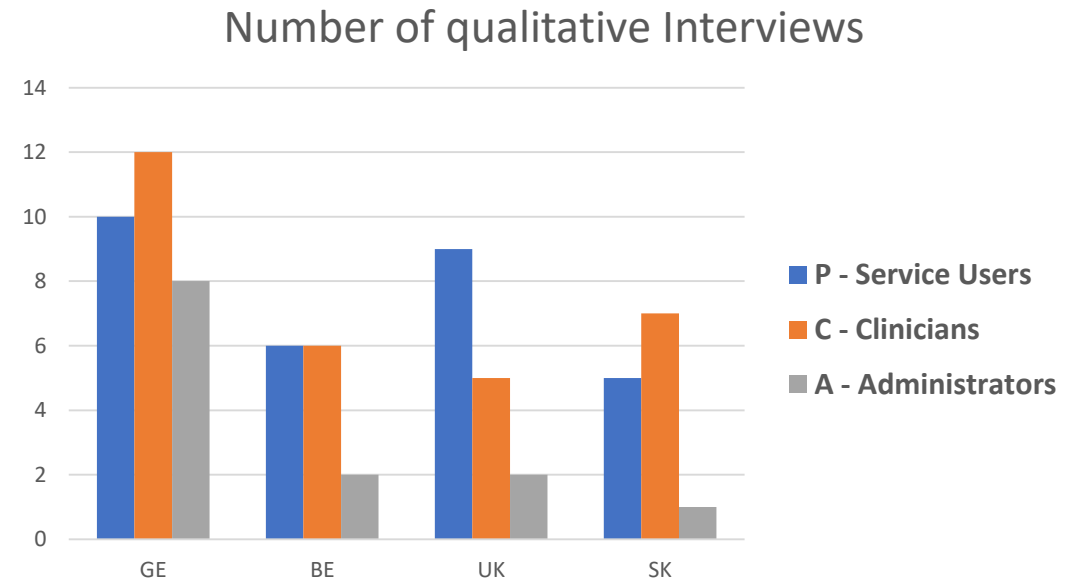
Recruitment numbers per country





**Clustered Randomised Clinical Trial**

- RE-AIM evaluation (Reach, Effectiveness, Adoption, Implementation, Maintenance)
- Process evaluation
- Economic evaluation







Preprints are preliminary reports that have not undergone peer review.  
They should not be considered conclusive, used to inform clinical practice,  
or referenced by the media as validated information.

## Strategies, processes, outcomes, and costs of implementing experience sampling-based monitoring in routine mental health care in four European countries: study protocol for the IMMERSE effectiveness- implementation study

Ulrich Reininghaus

[ulrich.reininghaus@zi-mannheim.de](mailto:ulrich.reininghaus@zi-mannheim.de)

Central Institute of Mental Health, Heidelberg University

Matthias Schwannauer

University of Edinburgh

Islay Barne

University of Edinburgh

Joanne R. Beames

KU Leuven

### The Experience Sampling Methodology as a Digital Clinical Tool for More Person-centred

#### Mental Health Care: An Implementation Research Agenda

Inez Myin-Germeys<sup>1</sup>; Anita Schick<sup>2\*</sup>; Thomas Ganslandt<sup>3\*</sup>; Michal Hajdúk<sup>4,5\*</sup>; Anton Heretik<sup>4\*</sup>; Ine Van Hoyweghen<sup>6\*</sup>; Glenn Kiekens<sup>1,7,8\*</sup>; Georgia Koppe<sup>9,10,11\*</sup>; Luca Marelli<sup>6,12\*</sup>; Iveta Nagyova<sup>13\*</sup>; Jeroen Weermeijer<sup>1\*</sup>; Michel Wensing<sup>14\*</sup>; Maria Wolters<sup>15\*</sup>; Joanne Beames<sup>1</sup>; Manuela de Allegri<sup>16</sup>; Simona di Folco<sup>17</sup>; Daniel Durstewitz<sup>9,18,19</sup>; Zuzana Katreniaková<sup>13</sup>; Elisa Lievevrouw<sup>6,20</sup>; Hoa Nguyen<sup>16</sup>; Jan Pecenak<sup>5</sup>; Islay Barne<sup>17</sup>; Rafael Bonnier<sup>1</sup>; Manuel Brenner<sup>9,19</sup>; Natália Čavojská<sup>5</sup>; Daniel Dancik<sup>4,5</sup>; Adam Kurilla<sup>4</sup>; Erica Niebauer<sup>17</sup>; Koraima Sotomayor-Enriquez<sup>17</sup>; Julia Schulte-Strathaus<sup>2</sup>; Lena de Thurah<sup>1</sup>; Lotte Uyttebroek<sup>1</sup>; Matthias Schwannauer<sup>17^</sup>; Ulrich Reininghaus<sup>2,21,22^</sup>



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Objectives of IMMERSE



**O2. To evaluate the *implementation of DMMH* into routine health care practice in 4 countries in Europe, providing evidence for further scale up**

*O2a. Key barriers and facilitators for implementation based on stakeholder feedback and ethical and regulatory framework and device policy white paper*

*O2b. Conducting an implementation study of DMMH across 4 different health systems in Europe*



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

IMPACT  
WP 8 DISSEMINATION AND EXPLOITATION



+ New...

8.2 Dissemination plan (M1-48)

Unsorted



- Task 8.2**

WP8 together with WP2 and WP7 will identify key (local) users, opinion leaders and decision-makers to deploy a dissemination plan for the research outputs, deliverables and milestones of
- Principles of authorships.pdf**
- General acknowledgment**

**SHOULD BE ON ALL IMMERSE PAPERS!**

This project has received funding from the European Union's Horizon 2020 research and innovation
- Acknowledgment/text to add to powerpoints/posters etc**

This project has received funding from the European Union's Horizon 2020 research and innovation
- Open Access requirements**

As mentioned in D8.2 and decided during the GA in March '22, each beneficiary must ensure **open access to all peer-reviewed publications** relating to IMMERSE
- Dissemination tracker**

**Notes:**  
No need to fill this out, Martine will do this based on your quarterly reports.
- Full info on clinical investigation sites**

UK:  
NHS Tayside Mental Health Service (Clinical Investigation Site)  
NHS Tayside Psychological Therapies Centre
- IMMERSE LOGO FILES (IMMERSE).jpg**
- IMMERSE LOGO FILES (IMMERSE).png**
- IMMERSE LOGO FILES (IMMERSE).psd**

Scientific and commercial exploitation plan

Market Analysis



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

IMPACT

WP 8 DISSEMINATION AND EXPLOITATION



ValueBased HealthCare | Prize 2024

The Prize that recognizes inspiring VBHC initiatives



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)



SIRS

Schizophrenia International Research Society

About ▾

Membership ▾

Meetings ▾

Awards ▾

Publications ▾

Resources ▾

Donate ▾

M

## 2024 Translational Research Award

### Inez Myin-Germeys Named the 2024 Translational Research Awardee



Statement:

I am deeply honoured to receive the Outstanding Translational Research Award from the SIRS research community. This recognition not only acknowledges my contributions to the field but also celebrates the remarkable advancements within the field of contextual psychiatry. From the outset of my research journey, my focus has been on unravelling the intricate interplay between persons and their environment in the development of psychosis and psychopathology. From the days of my doctoral thesis, titled 'The Primacy of Context', to the present, the field of Contextual Psychiatry has



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)



# IMPACT & DISSEMINATION



- 13 published papers
- 6 preregistered papers
- 16 planned papers
- 2 prizes
- 24 presentations at scientific conferences
- 21 presentations for clinicians and end-users
- 12 Booth presentations by Movisens at 6 German and 6 international conferences and conventions
- 1 opinion piece



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Objectives of IMMERSE



O3. To develop a prediction model for the *future implementation of DMMH* and its impact on 4 representative health care systems in Europe.

*O3a. Dissemination and exploitation plan, and develop a market analysis.*

*O3b. Provide a white paper on implementation strategies for mHealth in mental health care.*



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

# Key expected results



**IMMERSE**

- A DMMH prototype (consisting of an app and dashboard) ready for scale up to medical device
- Inventory of implementation strategies for implementing digital health in routine mental health care
- Evaluation of effectiveness and implementation processes as well as economic evaluation
- Overview of barriers and facilitators for digital interventions
  - Based on stakeholder's views
  - Related to the regulatory framework
- Exploitation strategy



This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)