## Work Package 23 a & b: Precision Pre-clinical Recruitment

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**Start date:** Jan 2021　　　　　　　　　　　　　　　　　　　　　　　**End date:** Dec 2025

### Objective of project

The Trials Delivery Framework (TDF) will create an integrated, high quality, experimental medicine focused, national trial delivery network. This will include research registers for precision recruitment for pre-clinical studies, standard clinical assessment for recruitment to early clinical studies, and a network of clinical facilities accredited for multi-centre studies. The TDF builds on earlier work by DPUK including the DPUK imaging, stem cell, and informatics networks. These networks provide national reach for multi-centre studies. The TDF comprises two integrated work packages, each designed to fill important gaps in the UK trials ecosystem.

### Background

Lack of success in dementia clinical trials is in part a result of the heterogeneity of research participants and poor characterisation. This is a particular problem for early disease stage, pre-clinical experimental medicine studies. Two research register, each providing different levels of characterisation have been established to address this with current work focussing on developing efficient study enrolment procedures.

### Aim

To provide risk stratified recruitment for preclinical dementia experimental medicine studies and pre-clinical trial studies.

### Work Package 23a: The Clinical Studies Register (CSR)

(n=53,528 as of December 2020) is a re-contact platform for DPUK cohort participants who already have a consent to re-contact on the basis of their existing cohort data. It currently consists of members from the Airwave and HealthWise Wales cohorts and includes data on the participants' health (n=47k), cognitive phenotyping (n=34k) and GWAS (n=21k). This resource is able to support a range of studies that require stratified recruitment and offers a level of precision based on single alleles (e.g., APOE), polygenic risk, cognition and lifestyle. The Clinical Studies Register will be developed further and promoted to ensure incremental utilisation.

### Work Package 23b: The Great Minds Register (GM)

(n=4,542 as of December 2020) is a solution for individuals who have provided explicit consent for re-contact on the basis of their risk of dementia, as determined by serial cognitive assessments and self-reported medical data relevant to trial inclusion. Procedures are in place to allow remote genetic testing and actigraphy-based monitoring.  At December 2020, the Great Minds Register has 4,542 members available from 6 platform cohorts: HealthWise Wales, Airwave, Brains for Dementia Research (BDR), SleepQuest, Aberdeen Cohort of the 1950s and European Prevention of Alzheimer's Disease (EPAD), of which 4,530 have health data and 2,725 have cognitive data.  The Great

Minds Register will be developed further and promoted to ensure incremental utilisation.  Regular engagement with participants will be continued and developed based upon participant feedback.

**Objective 1: Develop and promote the Clinical Studies Register (CSR) (work package 23a)**
Deliverable 1: Increase the number of cohorts providing participants into the CSR by at least one per annum.
Deliverable 2: At least two new studies per annum utilise the CSR for recruitment.
Deliverable 3: The CSR database is enhanced to incorporate additional variables to enhance selection capabilities.
Deliverable 4: Re-develop the CSR feasibility tool to provide additional functionality for researchers.

**Objective 2: Develop and promote the Great Minds Register (GM) (work package 23b)**
Deliverable 5: Increase the number of participants registered on Great Minds to a target of 8,000.
Deliverable 6: At least three new studies per annum use Great Minds for recruitment.
Deliverable 7: The Great Minds database is enhanced to incorporate additional variables to enhance selection capabilities.
Deliverable 8: Determine genotypes for 50% of Great Minds participants and add to database to enhance selection capabilities.
Deliverable 9: Re-develop the Great Minds feasibility tool to provide additional functionality for researchers.

**Objective 3: Continue and enhance the engagement with participants of the registers**
Deliverable 10: Organise and run at least two engagement events every year to which all participants are invited.
Deliverable 11: Develop the website to provide Great Minds participants with additional, relevant information.
Deliverable 12: Solicit feedback from participants on the value to them of the engagement events and information provided on the website to enable further development.

**Objective 4**: **DPUK/MRC project reporting**
Deliverable 13: Produce quarterly reports by the required dates.
Deliverable 14: Produce an annual report by the required dates.
Deliverable 15: Provide annual financial reporting against the specified budget by the required dates.
Deliverable 16: Produce a final work package report by the required date to summarise the work completed and the benefits achieved.

**Objective 1: Develop and promote the Clinical Studies Register (CSR) (work package 23a)**

| Specifics | Description | How and who | Outcome | Dates |
|---|---|---|---|---|
| **Deliverable 1: Increase the number of cohorts providing participants into the CSR by at least two per annum** | | | | |
| M1.1.1 At least one additional cohort providing participants each year | | GM/CSR Team.  Engagement with platform cohorts, contract agreement, data transfer, database incorporation, transfer onto selection tools | Number of additional cohorts providing participants into CSR | Dec 2021 |
| M1.1.2 At least one additional cohort providing participants each year | | GM/CSR Team.  Engagement with platform cohorts, contract agreement, data transfer, database incorporation, transfer onto selection tools | Number of additional cohorts providing participants into CSR | Dec 2022 |
| M1.1.3 At least one additional cohort providing participants each year | | GM/CSR Team.  Engagement with platform cohorts, contract agreement, data transfer, database incorporation, transfer onto selection tools | Number of additional cohorts providing participants into CSR | Dec 2023 |
| M1.1.4 At least one additional cohort providing participants each year | | GM/CSR Team.  Engagement with platform cohorts, contract agreement, data transfer, database incorporation, transfer onto selection tools | Number of additional cohorts providing participants into CSR | Dec 2024 |
| M1.1.5 At least one additional cohort providing participants each year | | GM/CSR Team.  Engagement with platform cohorts, contract agreement, data transfer, database incorporation, transfer onto selection tools | Number of additional cohorts providing participants into CSR | Dec 2025 |
| **Deliverable 2: At least two new studies per annum utilise the CSR for recruitment** | | | | |
| M1.2.1 Increase the number of studies using CSR participants by at least 2 per annum | | GM/CSR Team.  Liaison, promotion of service, study development, participant selection and engagement, support for study set up, monitoring of study development, reporting of study results | Number of new studies recruiting or ongoing | Dec 2021 |
| M1.2.2 Increase the number of studies using CSR participants by at least 2 per annum | | GM/CSR Team.  Liaison, promotion of service, study development, participant selection and engagement, support for study set up, monitoring of study development, reporting of study results | Number of new studies recruiting or ongoing | Dec 2022 |
| M1.2.3 Increase the number of studies using CSR participants by at least 2 per annum | | GM/CSR Team.  Liaison, promotion of service, study development, participant selection and engagement, support for study set up, monitoring of study development, reporting of study results | Number of new studies recruiting or ongoing | Dec 2023 |
| M1.2.4 | | GM/CSR Team.  Liaison, promotion of service, study development, participant selection and | Number of new studies recruiting or ongoing | Dec 2024 |

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| Increase the number of studies using CSR participants by at least 2 per annum | engagement, support for study set up, monitoring of study development, reporting of study results | | |
| M1.2.5 Increase the number of studies using CSR participants by at least 2 per annum | GM/CSR Team. Liaison, promotion of service, study development, participant selection and engagement, support for study set up, monitoring of study development, reporting of study results | Number of new studies recruiting or ongoing | Dec 2025 |
| **Deliverable 3: The CSR database is enhanced to incorporate additional variables to enhance selection capabilities** | | | |
| M1.3.1 At least one incremental variable incorporated within each year | GM/CSR Team. Engagement to identify variables, liaison with cohorts to confirm availability, data transfer, data harmonisation, inclusion into database, transfer onto selection tools | Number of additional variables added for selection | Dec 2021 |
| M1.3.2 At least one incremental variable incorporated within each year | GM/CSR Team. Engagement to identify variables, liaison with cohorts to confirm availability, data transfer, data harmonisation, inclusion into database, transfer onto selection tools | Number of additional variables added for selection | Dec 2022 |
| M1.3.3 At least one incremental variable incorporated within each year | GM/CSR Team. Engagement to identify variables, liaison with cohorts to confirm availability, data transfer, data harmonisation, inclusion into database, transfer onto selection tools | Number of additional variables added for selection | Dec 2023 |
| M1.3.4 At least one incremental variable incorporated within each year | GM/CSR Team. Engagement to identify variables, liaison with cohorts to confirm availability, data transfer, data harmonisation, inclusion into database, transfer onto selection tools | Number of additional variables added for selection | Dec 2024 |
| M1.3.5 At least one incremental variable incorporated within each year | GM/CSR Team. Engagement to identify variables, liaison with cohorts to confirm availability, data transfer, data harmonisation, inclusion into database, transfer onto selection tools | Number of additional variables added for selection | Dec 2025 |
| **Deliverable 4: Re-develop the CSR feasibility tool to provide additional functionality for researchers** | | | |
| M1.4.1 Re-develop the CSR Feasibility tool on superior technology to provide additional selection capabilities for researchers | GM/CSR Team. Obtain feedback from researchers on current tool relative to requirements, specify tool requirements, develop tools, demonstrate enhanced tools, and obtain additional feedback. | CSR Feasibility tool re-developed to better meet researchers' requirements. | Jun 2022 |

**Objective 2: Develop and promote the Great Minds Register (GM) (work package 23b)**

| Specifics | Description | How and who | Outcome | Dates |
|---|---|---|---|---|
| **Deliverable 5: Increase the number of participants registered on Great Minds to 8,000** | | | | |
| M2.5.1 Number of participants on the Great Minds Register increased each year to achieve a target of 8,000 participants by December 2025 | | GM/CSR Team. Engagement with platform cohorts, contract agreement, unique ID development, participant engagement and invitation, participant registration, cohort data transfer, database incorporation, transfer onto selection tools | Incremental participant membership | Dec 2021 |
| M2.5.2 Number of participants on the Great Minds Register increased each year to achieve a target of 8,000 participants by December 2025 | | GM/CSR Team. Engagement with platform cohorts, contract agreement, unique ID development, participant engagement and invitation, participant registration, cohort data transfer, database incorporation, transfer onto selection tools | Incremental participant membership | Dec 2022 |
| M2.5.3 Number of participants on the Great Minds Register increased each year to achieve a target of 8,000 participants by December 2025 | | GM/CSR Team. Engagement with platform cohorts, contract agreement, unique ID development, participant engagement and invitation, participant registration, cohort data transfer, database incorporation, transfer onto selection tools | Incremental participant membership | Dec 2023 |
| M2.5.4 Number of participants on the Great Minds Register increased each year to achieve a target of 8,000 participants by December 2025 | | GM/CSR Team. Engagement with platform cohorts, contract agreement, unique ID development, participant engagement and invitation, participant registration, cohort data transfer, database incorporation, transfer onto selection tools | Incremental participant membership | Dec 2024 |
| M2.5.5 Number of participants on the Great Minds Register increased each year to achieve a target of 8,000 participants by December 2025 | | GM/CSR Team. Engagement with platform cohorts, contract agreement, unique ID development, participant engagement and invitation, participant registration, cohort data transfer, database incorporation, transfer onto selection tools | Incremental participant membership | Dec 2025 |

**Deliverable 6: At least three new studies per annum use Great Minds for recruitment**

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| M2.6.1<br>Increase the number of studies using Great Minds participants by at least 2 per annum | GM/CSR Team. Liaison, promotion of service, study development, participant selection and engagement, support for study set up, monitoring of study development, reporting of study results | Number of new studies recruiting or ongoing | Dec 2021 |
| M2.6.2<br>Increase the number of studies using Great Minds participants by at least 2 per annum | GM/CSR Team. Liaison, promotion of service, study development, participant selection and engagement, support for study set up, monitoring of study development, reporting of study results | Number of new studies recruiting or ongoing | Dec 2022 |
| M2.6.3<br>Increase the number of studies using Great Minds participants by at least 2 per annum | GM/CSR Team. Liaison, promotion of service, study development, participant selection and engagement, support for study set up, monitoring of study development, reporting of study results | Number of new studies recruiting or ongoing | Dec 2023 |
| M2.6.4<br>Increase the number of studies using Great Minds participants by at least 2 per annum | GM/CSR Team. Liaison, promotion of service, study development, participant selection and engagement, support for study set up, monitoring of study development, reporting of study results | Number of new studies recruiting or ongoing | Dec 2024 |
| M2.6.5<br>Increase the number of studies using Great Minds participants by at least 2 per annum | GM/CSR Team. Liaison, promotion of service, study development, participant selection and engagement, support for study set up, monitoring of study development, reporting of study results | Number of new studies recruiting or ongoing | Dec 2025 |

**Deliverable 7: The Great Minds database is enhanced to incorporate new cohort variables to enhance selection capabilities every year**

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| M2.7.1<br>At least two incremental variables incorporated within each year | GM/CSR Team. Engagement to identify variables, liaison with cohorts to confirm availability, data transfer, data harmonisation, inclusion into database, transfer onto selection tools | Additional selection variables added to database and selection tools | Dec 2021 |
| M2.7.2<br>At least two incremental variables incorporated within each year | GM/CSR Team. Engagement to identify variables, liaison with cohorts to confirm availability, data transfer, data harmonisation, inclusion into database, transfer onto selection tools | Additional selection variables added to database and selection tools | Dec 2022 |
| M2.7.3<br>At least two incremental variables incorporated within each year | GM/CSR Team. Engagement to identify variables, liaison with cohorts to confirm availability, data | Additional selection variables added to | Dec 2023 |

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| | transfer, data harmonisation, inclusion into database, transfer onto selection tools | database and selection tools | |
| M2.7.4<br>At least two incremental variables incorporated within each year | GM/CSR Team. Engagement to identify variables, liaison with cohorts to confirm availability, data transfer, data harmonisation, inclusion into database, transfer onto selection tools | Additional selection variables added to database and selection tools | Dec 2024 |
| M2.7.5<br>At least two incremental variables incorporated within each year | GM/CSR Team. Engagement to identify variables, liaison with cohorts to confirm availability, data transfer, data harmonisation, inclusion into database, transfer onto selection tools | Additional selection variables added to database and selection tools | Dec 2025 |
| **Deliverable 8: Determine genotypes for 50% of Great Minds participants and add to database to enhance selection capabilities** | | | |
| M2.8.1<br>Genotype samples from at least 50% of GM participants and include the results in the database and selection tools so that they are available as selection capabilities for researchers | GM/CSR Team. Send kits to consented participants, perform genotyping, obtain results and incorporate into database and selection tools. | Number of participants with genotypes available for selection in GM studies. | Dec 2023 |
| **Deliverable 9: Re-develop the Great Minds feasibility tool to provide additional functionality for researchers** | | | |
| M2.9.1<br>Re-develop the GM Feasibility tool on superior technology to provide additional selection capabilities for researchers | GM/CSR Team. Obtain feedback from researchers on current tool relative to requirements, specify tool requirements, develop tools, demonstrate enhanced tools and obtain additional feedback. | GM Feasibility tool re-developed to better meet researchers' requirements. | Jun 2023 |

| **Objective 3: Continue and enhance the engagement with participants of the registers** | | | |
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| **Specifics** | **Description** | **How and who** | **Outcome** | **Dates** |
| **Deliverable 10: Organise and run at least two engagement events every year to which all participants are invited** | | | |
| M3.10.1<br>Hold a member event in every six-month period | GM/CSR Team, Communications. Determine appropriate brain health topic, identify suitable researchers, organise event, invite participants, host event, evaluate. | Member event held & evaluated | Jun 2021 |
| M3.10.2 | GM/CSR Team, Communications. Determine appropriate brain health topic, identify suitable | Member event held & evaluated | Dec 2021 |

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| Hold a member event in every six-month period | researchers, organise event, invite participants, host event, evaluate. | | |
| M3.10.3<br>Hold a member event in every six-month period | GM/CSR Team, Communications. Determine appropriate brain health topic, identify suitable researchers, organise event, invite participants, host event, evaluate. | Member event held & evaluated | Jun 2022 |
| M3.10.4<br>Hold a member event in every six-month period | GM/CSR Team, Communications. Determine appropriate brain health topic, identify suitable researchers, organise event, invite participants, host event, evaluate. | Member event held & evaluated | Dec 2022 |
| M3.10.5<br>Hold a member event in every six-month period | GM/CSR Team, Communications. Determine appropriate brain health topic, identify suitable researchers, organise event, invite participants, host event, evaluate. | Member event held & evaluated | Jun 2023 |
| M3.10.6<br>Hold a member event in every six-month period | GM/CSR Team, Communications. Determine appropriate brain health topic, identify suitable researchers, organise event, invite participants, host event, evaluate. | Member event held & evaluated | Dec 2023 |
| M3.10.7<br>Hold a member event in every six-month period | GM/CSR Team, Communications. Determine appropriate brain health topic, identify suitable researchers, organise event, invite participants, host event, evaluate. | Member event held & evaluated | Jun 2024 |
| M3.10.8<br>Hold a member event in every six-month period | GM/CSR Team, Communications. Determine appropriate brain health topic, identify suitable researchers, organise event, invite participants, host event, evaluate. | Member event held & evaluated | Dec 2024 |
| M3.10.9<br>Hold a member event in every six-month period | GM/CSR Team, Communications. Determine appropriate brain health topic, identify suitable researchers, organise event, invite participants, host event, evaluate. | Member event held & evaluated | Jun 2025 |
| M3.10.10<br>Hold a member event in every six-month period | GM/CSR Team, Communications. Determine appropriate brain health topic, identify suitable | Member event held & evaluated | Dec 2025 |

| | | researchers, organise event, invite participants, host event, evaluate. | | |
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| **Deliverable 11: Develop the website to provide Great Minds participants with additional, relevant information** | | | | |
| M3.11.1 Review and develop website | | GM/CSR Team, Communications.  Review of website, develop additional content, develop design. | Website re-developed | Dec 2021 |
| M3.11.2 Review and develop website | | GM/CSR Team, Communications.  Review of website, develop additional content, develop design. | Website re-developed | Dec 2023 |
| **Deliverable 12: Solicit feedback from participants on the value to them of the engagement events and information provided on the website to enable further development** | | | | |
| M3.12.1 Generate input from participants on the value of member events and the website through questionnaires and follow-up conversations. | | GM/CSR Team, Communications.  Development of questionnaires, delivery of questionnaires, review and analysis of responses, plan follow-up conversations, review, determine required developments. | Feedback obtained and incorporated | Dec 2022 |
| M3.12.2 Generate input from participants on the value of member events and the website through questionnaires and follow-up conversations. | | GM/CSR Team, Communications.  Development of questionnaires, delivery of questionnaires, review and analysis of responses, plan follow-up conversations, review, determine required developments. | Feedback obtained and incorporated | Dec 2024 |

| **Objective 4: DPUK/MRC project reporting** | | | | |
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| **Specifics** | **Description** | **How and who** | **Outcome** | **Dates** |
| **Deliverable 13: Produce quarterly reports by the required dates** | | | | |
| M4.13.1 Provide Quarterly reports detailing project deliverables and outcomes. | | Online quarterly form to be completed for DPUK for MRC meetings | Quarterly report submitted | Mar 2021 |
| M4.13.2 Provide Quarterly reports detailing project deliverables and outcomes. | | | Quarterly report submitted | Jun 2021 |
| M4.13.3 | | | Quarterly report submitted | Sep 2021 |

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| Provide Quarterly reports detailing project deliverables and outcomes. | | | |
| M4.13.4<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Mar 2022 |
| M4.13.5<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Jun 2022 |
| M4.13.6<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Sep 2022 |
| M4.13.7<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Mar 2023 |
| M4.13.8<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Jun 2023 |
| M4.13.9<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Sep 2023 |
| M4.13.10<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Mar 2024 |
| M4.13.11<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Jun 2024 |
| M4.13.12<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Sep 2024 |
| M4.13.13<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Mar 2025 |
| M4.13.14 | | Quarterly report submitted | Jun 2025 |

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| Provide Quarterly reports detailing project deliverables and outcomes. | | | |
| M4.13.15<br>Provide Quarterly reports detailing project deliverables and outcomes. | | Quarterly report submitted | Sep 2025 |

**Deliverable 14: Produce an annual report by the required dates**

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| M4.14.1<br>Annual reports to oversee project status and updates of deliverables and outputs. Information to assess completion criteria as part of payment schedule. | Annual form to be completed for DPUK for MRC meetings.<br>Annual reports submitted to confirm milestone completion for next payment scheduled | Annual report submitted | Dec 2021 |
| M4.14.2<br>Annual reports to oversee project status and updates of deliverables and outputs. Information to assess completion criteria as part of payment schedule. | Annual form to be completed for DPUK for MRC meetings.<br>Annual reports submitted to confirm milestone completion for next payment scheduled | Annual report submitted | Dec 2022 |
| M4.14.3<br>Annual reports to oversee project status and updates of deliverables and outputs. Information to assess completion criteria as part of payment schedule. | Annual form to be completed for DPUK for MRC meetings.<br>Annual reports submitted to confirm milestone completion for next payment scheduled | Annual report submitted | Dec 2023 |
| M4.14.4<br>Annual reports to oversee project status and updates of deliverables and outputs. Information to assess completion criteria as part of payment schedule. | Annual form to be completed for DPUK for MRC meetings.<br>Annual reports submitted to confirm milestone completion for next payment scheduled | Annual report submitted | Dec 2024 |

**Deliverable 15: Provide annual financial reporting against the specified budget by the required dates**

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| M4.15.1<br>Financial reports submitted at the end of each year. Information to assess completion criteria as part of payment schedule. | Yearly financial statement on spending | Financial report submitted | Dec 2021 |
| M4.15.2 | Yearly financial statement on spending | Financial report submitted | Dec 2022 |

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| Financial reports submitted at the end of each year. Information to assess completion criteria as part of payment schedule. | | | |
| M4.15.3 Financial reports submitted at the end of each year. Information to assess completion criteria as part of payment schedule. | Yearly financial statement on spending | Financial report submitted | Dec 2023 |
| M4.15.4 Financial reports submitted at the end of each year. Information to assess completion criteria as part of payment schedule. | Yearly financial statement on spending | Financial report submitted | Dec 2024 |
| M4.15.5 Financial reports submitted at the end of each year. Information to assess completion criteria as part of payment schedule. | Yearly financial statement on spending | Financial report submitted | Dec 2025 |
| **Deliverable 16: Produce a final work package report by the required date to summarise the work completed and the benefits achieved** | | | |
| M4.16.1 Final report submitted at end of project. | PI to complete final report and send to DPUK /MRC for final payment to be made. | Final report submitted | Dec 2025 |

## WP 23 a & b: Precision Pre-clinical Recruitment

| | 2021 | | | | 2022 | | | | 2023 | | | | 2024 | | | | 2025 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |

**Objective 1**
- O1, D.1
- O1, D.2
- O1, D.3

**Objective 2**
- O2, D.5
- O2, D.6
- O2, D.7
- O2, D.8
- O2, D.9

**Objective 3**
- O3, D.10
- O3, D.11
- O3, D.12

**Objective 4**
- O4, D.13
- O4, D.14
- O4, D.15
- O4, D.16