**Annex 5**

**Templates for Mid-Term Evaluation Report**

**(Individual and Consensus)**

**Water Joint Programming Initiative**

**2018 Joint Call**

*Closing the water cycle gap - Sustainable management of water resources*

These Project Management Guidelines will be effective from the date of the National funding decisions and shall remain in force until the last final project report is approved in 2022.

**The Mid-Term Consensus Report will be made available to the Consortium as well as CSC and JPI Water GB.**

**MID-TERM INDIVIDUAL EVALUATION REPORT**

**PROJECT TITLE AND ACRONYM**

Name of Coordinator:

Project code: WaterWorks2017-**WaterHarmony**

Duration of project:

Start date: End date:

**DETAILS OF THE EVALUATOR**

Name: Mi-Yong Becker

Organisation: Bochum University of Applied Sciences

Date of review: 04/10/2021

### **Scientific and technological progress** (*Maximum 250 words)*

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| *Please describe the work performed and the results obtained during the lifetime of the project, and the conformity of work progress within the initial schedule. Take into account the following aspects:*   * *Has progress been achieved towards reaching the project objectives according to the original description and milestones?* WaterHarmony is one of the largest (in terms of number of partners) and also one of the most international projects in this program with 4 demos in four countries and 7 technology developments in 7 countries. The project is severely delayed by the COVID 19 pandemic conditions. *A*ll deliverables, except 71.-73. (coordination/management/consortium agreement) are delayed or are anticipated to be delayed. Consequently, an extension of the project has been requested. However, some partners have advanced albeit detrimental conditions, all work packages are active and making some progress. * *Detailed update on methodology & results* Specific progress and results by partner is explained in detail and where necessary, delays are explained and accounted for in a comprehensible manner. * *How has the progress of the project promoted a multi-disciplinary work?*   The project mobilizes 12 partners in 11 countries, bringing together a range of technological showcase and demonstration of management concept. The project should be one single project and not a conglomeration of smaller ideas so project management and continuing joint ethos will be important. The partners have diverse experience in the field of water resource management and technological innovations and are therefore complementary. However, the report indicates mainly bilateral exchange and collaboration among different partners.   * *Dissemination of the results (publications, patents, other)* Dissemination plan (draft) has been completed, some dissemination activities have taken place, but mostly dissemination has been delayed due to the pandemic. The Swedish partner has got their patent application approved aand the Norwegian partner’s patent is pending decision of the Technology Transfer Office on IPR. |

### **Collaboration, coordination and mobility within the Consortium** (*Maximum 250 words)*

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| *Please evaluate the collaboration, coordination and mobility within the Consortium*  *Take into account the following aspects:*   * *Efficiency on the coordination and organization of the projects* Project coordination is only partially efficient due to the need to resort to online consortium meetings since the beginning of the pandemic. A physical kick-off workshop and back-to-back meeting were arranged in 2019. Subsequently several online meetings have been held, but the partner’s different time zones (Asia, Americas, and Europe) pose a coordination challenge. Currently, most communication takes place via E-mail. * *Collaboration effective between the partners* Collaboration efforts seem to be strong since project partners have already acquired travel and mobility grants outside JPI funding for Australia, China, Romania, USA, Poland and Norway to be implemented in 2021. * *Mobility of the research between the consortia* Mobility of the research has been low due to the pandemic. Efforts to practice mobility among the partners are evident, since project partners have already acquired travel and mobility grants outside JPI funding for Australia, China, Romania, USA, Poland and Norway to be implemented in 2021. * *Does the project meet the transnational nature and its added value?*   The project depends largely on mobility and at this point, due to the force majeure of the pandemic, it is impossible to assess whether the project meets the transnational nature and its added value. However, the initiative of the project partners to acquire travel and mobility grants outside the JPI funding indicate that there is a strong commitment to generate a transnational impact through the project. |

### **Coordination with other international project funded by WaterWorks2017, or other instruments** (*Maximum 250 words)*

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| *Please evaluate the external collaboration of the Consortium,*  *Take into account the following aspects:*   * *Collaboration effective with other projects funded by WaterWorks2017 – delayed due to pandemic* * *Collaboration effective with other projects or consortia – delayed due to pandemic* |

### **Coverage of the themes and sub-themes of the call** (Maximum *250 words)*

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| *Please evaluate the relation within the project results and the themes and the sub-themes of the call.*  The project focuses on sub-themes 1.1, 2.1, 2.2, 2.3, 2.4 and 3 (supporting tools). Results for sub-themes 1.1 have been established mainly by the Polish partner at catchment level 🡪 (WP1). Work packages 5 and 6 are severely delayed by force majeure, and their assessment should be postponed. Also work package 2 (sub-theme 2.2) has started but is severely delayed and its assessment should be postponed. Work packages 3 to 5 (for sub-theme 2.3) and 6 (sub-themes 2.4 and 3) are severely delayed by force majeure and their assessment should be postponed. |

1. **Stakeholder/industry engagement** (*Maximum 250 words)*

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| * *Please evaluate the participation of stakeholder/industry on the project and the added value of this participation.* Delayed due to pandemic, but the Swedish and Romanian partners have implemented some stakeholder communication. |

### **Recommendations for improvements/amendments of the report** (Please complete Table below)

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| **Page** | **Modification** | **Rationale for change** |
| Overall, in particular section 2 | Please indicate progress by work packages and partners clearly in all reports. | This information is indispensable for reviewers for understanding whether the project is on track |
| Overall | Add plan for managing the project and expected results under prolonged Covid-10 conditions | To ensure project goals, a revised project plan, may be even including revised project goals should be provided. Transparency for the funding organizations is important. |

1. **Recommendations/ problems and risks** (Maximum *250 words)*

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| *Please include problems identified or specific risks to the projects, deviations in relation to the planned work or budget, as well specific recommendations/feedback with could be relevant to the Consortium.*  The reporting structure is not very transparent. It is very difficult to link the progress made to specific work packages. |

**MID-TERM EVALUATION CONSENSUS REPORT**

**This Consensus Report will be made available to the Consortium as well as CSC and JPI Water GB.**

**PROJECT TITLE AND ACRONYM**

Name of Coordinator:

Project code: WaterWorks2017-WaterHarmony

Duration of project:

Start date: End date:

**FOLLOW-UP GROUP**

Please include the data of the FG members reviewing the report

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| Name | Organisation |
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### **Scientific and technological progress** (Maximum *250 words)*

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| *Please describe the work performed and the results obtained during the lifetime of the project, and the conformity of work progress within the initial schedule. Take into account the following aspects:*   * *Has progress been achieved towards reaching the project objectives according to the original description and milestones?* * *Detailed update on methodology & results* * *How has the progress of the project promoted a multi-disciplinary work?* * *Dissemination of the results (publications, patents, other)* |

### **Collaboration, coordination and mobility within the Consortium** (Maximum *250 words)*

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| *Please evaluate the collaboration, coordination and mobility within the Consortium*  *Take into account the following aspects:*   * *Efficiency on the coordination and organization of the projects* * *Collaboration effective between the partners* * *Mobility of the research between the consortia* * *Does the project meet the transnational nature and its added value?* |

### **Coordination with other international project funded by WaterWorks2017, or other instruments** (Maximum 250 *words)*

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| *Please evaluate the external collaboration of the Consortium*  *Take into account the following aspects:*   * *Collaboration effective with other projects funded under the 2018 Joint Call:* * *Collaboration effective with other projects or consortia.* |

### **Coverage of the themes and sub-themes of the call** (Maximum 250 words*)*

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| *Please evaluate relation within the project results and the themes and the sub-themes of the call.*  *Theme 1. Enabling sustainable management of water resources.*  The overall aim for this theme is to develop new governance and knowledge management approaches.   * *Sub-theme 1.1. Promoting adaptive water management for global change:*   The aim of sub-theme 1.1 is to increase knowledge and to develop evidence-based methodologies and technologies for monitoring the cumulative impacts of human activities and climate change on the water cycle, but also to develop management options on the water cycle (considering all cycle compartments) and water / ecosystem services. This knowledge must be applicable for the adaptive management of water resources on a regional scale, while enabling downscaling to address local or catchment situations.   * *Sub-theme 1.2. Integrative management by implementing Natural Water Retention Measures (NWRM) such as Managed Aquifer Recharge (MAR):*   The aim is to increase the knowledge and develop NWRMs such as MAR in a multidisciplinary way, to protect, prolong, sustain and augment freshwater supplies. Evidence of their effectiveness and on the multiple benefits they deliver should be demonstrated.   * *Sub-theme 1.3. Mitigating water stress in coastal zones and urbanized areas:*   The aim is to develop and demonstrate a comprehensive coastal zone management system based on monitoring and modelling to ensure the provision of freshwater security under a range of conditions including saline intrusion, sediment management, storms, floods and droughts, but also specific coastal water uses. Please, refer to H2020 calls on nature-based solutions to propose complementary actions.  *Theme 2. Strengthening socio-economic approaches to water management.*  The overall aim of this theme is envisaging education and communication initiatives to raise social awareness of consumption habits and water scarcity and to increase the levels of social acceptance and use of recycled water.   * *Sub-theme 2.1. Integrating economic and social analyses into decision-making processes:*   The aim is to increase the knowledge the effectiveness and efficiency of existing economic mechanisms and policy instruments related to water management, with a special emphasis on implementation of water policies (such as the EU Water Framework Directive) and development of a circular and green economy. The approach should aim to break boundaries between services valuation including more flexible pricing and charging mechanisms, management tools and institutions, and the employment of economic and social sciences to develop best practice management guidelines for efficient water uses, including under extreme events such as droughts and floods.   * *Sub-theme 2.2. The reuse of water:*   The aim is to develop integrative methods and cost-effective technologies for the implementation of acceptable and sustainable solutions on a large scale for different reuse cycles, spanning from irrigation, via livestock drinking water, to human consumption. Furthermore, goals include assessments of social acceptance for the use of recycled water and the development of integrated approaches combining technological solutions with social-psychological acceptability, economic viability and appropriate governance approaches. Research into the removal of emerging contaminants must consider the cost of the technology vs yield and realistic options for reuse of the recovered water. Please refer to projects funded under previous Water JPI Joint Calls (2013, 2015 and 2016) to avoid any duplication. See Joint Calls on Water JPI website.   * *Sub-theme 2.3. Connecting science to society:*   The aim is to increase understanding of the role of socio-economic approaches to water uses in hydrological cycles. Knowledge building should address stakeholders' and public awareness of water challenges and values, and how perception of policy measures and technological solutions are formed and how stakeholders can be steered towards desirable behaviour. Local and/or regional context (attitude, social norms, cultural context, etc.) should be taken into consideration. The value of improved water stewardship overall should be considered by developing sustainable business models.   * *Sub-theme 2.4. Promoting new governance and knowledge management approaches:*   The aim is to develop innovative water management tools and approaches suitable for decision-making based on an analysis of the limitations of current practices. These approaches should involve the broad participation of stakeholders (including public monitoring, communication and education), multidisciplinary research, and short and long-term water cycle scenarios to support decision-making and the integration of water policy into other policy fields. In effect, governance capacities for implementation of water policies at the local and regional levels should be enhanced.  *Theme 3. Supporting tools for sustainable integrative management of water resources.*  This theme aims to complement the actions developed under the European Strategy Forum for Research Infrastructures (ESFRI) and other European initiatives. Emphasis should be on establishing networks and information sharing among existing research facilities/field labs, analytical methods, monitoring tools and programmes, access to databases and platforms, exploring the use of big data solutions and establishing reliable hydrological standards. Across the globe, there is a large body of knowledge, methodology and data related to hydrology and the water cycle that has the potential of being beneficial for a wide range of the world's regions. The alignment of water-related research and sharing of data and results will serve to avoid duplication of research, support progress based on previous finding, and thus facilitate the establishment of water management policies addressing rapid climatic changes. |

1. **Stakeholder/industry engagement** (*Maximum 250 words)*

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| * *Please evaluate the participation of stakeholders/industry on the project and the added value of this participation. – delayed due to pandemic* |

### **Recommendations for improvements/amendments of the report** (Please complete Table below)

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1. **General Assessment Comments** (*Maximum 250 words)*

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| *Please include a summary of the key points of this evaluation.*  *Problems identified or specific risks to the projects. As well recommendations/feedback, which could be relevant to the Consortium.* |