



Horizon 2020 Societal challenge 5
Climate action, environment, resource
Efficiency and raw materials

D7.3: RESEARCH ARTICLES INVENTORY M1–M12

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PROJECT	Sustainable Integrated Management FOR the NEXUS of water-land-food-energy-climate for a resource-efficient Europe (SIM4NEXUS)
PROJECT NUMBER	689150
TYPE OF FUNDING	RIA
DELIVERABLE	D.7.3 Research articles inventory m1-m12
WP NAME/WP NUMBER	Dissemination and Communication / WP 7
TASK	7.3
VERSION	2.1
DISSEMINATION LEVEL	Public
DATE	16/05/2017 (Date of this version) – 31/05/2017 (Due date)
LEAD BENEFICIARY	PIK
RESPONSIBLE AUTHOR	Tobias Conradt
ESTIMATED WORK EFFORT	0.1 person-months
AUTHOR(S)	No other contributors
ESTIMATED WORK EFFORT FOR EACH CONTRIBUTOR	n/a
INTERNAL REVIEWER	Guido Schmidt

DOCUMENT HISTORY

VERSION	INITIALS/NAME	DATE	COMMENTS-DESCRIPTION OF ACTIONS
1	TC/TOBIAS CONRADT	15 MAY 2017	FINALISED INITIAL WRITING AND EDITING
2	GUIDO SCHMIDT	16 MAY 2017	REVISED DELIVERABLE
2.1	GUIDO SCHMIDT	16 MAY 2017	ONE ERROR IN ACRONYM TABLE CORRECTED

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This document does not contain figures nor tables.

Executive summary

This might be one of the shortest reports about the SIM4NEXUS Deliverables. The reason is the still immature development of the scientific output – there is only one (!) publication to report in the end of the first year of the project. This is, however, not an indication of low productivity: Generally, research projects rarely release scientific publications before the final stages of their runtime (and many reports are finalized only long after their project officially terminated), because such citeable contributions are typically based on validated results and their interpretation, in many cases also new methods and approaches have to be developed and tested in the first place. SIM4NEXUS does not differ in the last point, and therefore also the single reported contribution is still more of an appreciation of the Nexus research potentials which have to be surveyed in the years to come. This report will be updated in M48, and in the meantime articles will be tracked in Task 7.8..

Changes with respect to the DoA

No changes were necessary.

Dissemination and uptake

This report is primarily targeted towards the scientific community: it should be the comprehensive catalogue of citeable contributions from the SIM4NEXUS project. Of course, the general public can also use this as reference.

Within SIM4NEXUS, the knowledge of existing publications should be considered when writing more scientific articles, especially for positioning new contributions correctly (with the option to easily address relevant authors of the existing publications for coherence) and, of course, for citations.

Short Summary of results (<250 words)

The single contribution is a conference proceeding accepted for publication and named “The water-land-food-energy-climate Nexus for a resource-efficient Europe”, written by Chrysi Laspidou (UTH), Maria Papadopoulou (NTUA), and nine other co-authors; a corresponding presentation is to be given at the 15th International Conference on Environmental Science and Technology (CEST) in Rhodes, Greece, 31 Aug – 2 Sep 2017. The paper gives an overview of the methodology of SIM4NEXUS.

Evidence of accomplishment

The author of this Deliverable report declares that there were no other scientific publications from SIM4NEXUS submitted, under review, accepted, in press, or published brought to his knowledge despite two explicit email requests to the whole consortium, one by himself, and one sent by Marianne Selten as a reminder.

Glossary / Acronyms

As the document is being written, terms and glossary will be added here as needed. Before the last version is submitted this list will be re-arranged alphabetically by the lead author.

doi	Digital object identifier. Usually obtained through the journal publishers. Expanded to a url of the format <a href="http://dx.doi.org/<doi>">http://dx.doi.org/<doi> it should always direct to an online resource of the original research article.
ed/eds	Editor, edited / editors
pp.	Pages, page range
vol	Volume

1 Introduction

1.1 Structure of the document

This report is structured in one Chapter as follows:

Chapter 2 lists details of the scientific contribution made in the first twelve months. As there are no other kinds of research articles than this conference proceeding, the only section has been named 'Conference Proceedings' accordingly.

2 Research articles in detail

2.1 Conference proceedings

The water-land-food-energy-climate Nexus for a resource-efficient Europe.

In: Proceedings of the 15th International Conference on Environmental Science and Technology (CEST); Rhodes, Greece; 31 Aug – 2 September 2017. 5pp. Status: accepted.

Authors: Laspidou C.^{1,*}, Witmer M.², Vamvakeridou L.S.³, Domingo X.⁴, Brouwer F.⁵, Howells M.⁶, Susnik J.⁷, Blanco M.⁸, Bonazountas M.⁹, Fournier M.¹⁰, Papadopoulou M.P.¹¹

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Abstract:

A novel methodology for addressing policy inconsistencies and knowledge gaps that hinder the transition to a greater resource efficiency Europe is proposed. We focus on the integration of all different sectors that interact and influence each other, namely the “water- energy- food- land use-climate nexus” and we develop tools for identifying and quantifying their complex interlinkages under the influence of climate change. In order to achieve this, we employ a series of sophisticated models (referred to as “thematic models”), each of which addresses a different nexus dimension, or a combination of a few, while none addresses all nexus dimensions in an integrative manner. We use dynamic systems modeling and other complexity science techniques in order to “merge” different thematic model outputs in a single coherent result, which is presented to the user in an easy-to-comprehend Serious Game environment. This way, the effect of policies that are designed to affect one field (nexus dimension) on others can be quantified and simulated, thus informing policy-makers for the unintended consequences of their policies, reducing uncertainties, covering knowledge gaps and leading to a resource efficient Europe faster.

3 Conclusions and recommendations

It can be expected that the number of scientific publications will grow, and this growth will accelerate much towards the end of the project runtime. As this deliverable will be repeatedly prepared and released, more content will be provided by follow-up issues of this report.

The first recommendation is accordingly to check back for new versions as D7.7. The other recommendation is an advice to the SIM4NEXUS consortium members: Please inform the author(s) about each new publication or status update beginning from the stage of submittal!