ENIGMA Meeting n^o4

30/06/2018, Cargese

Reporting aspects





I. General Information



Already reached milestones

N°	Title	Lead Beneficiary	Date
1	Website completion	CNRS	01 Feb 2017
2	Recruitment completion	CNRS	01 Jan 2018
3	Development Plans	ULG	01 Jan 2018
4	State of the art review	CNRS	01 Apr 2018 <
5	Workshops 1,2,3 held	ULG	01 Apr 2018
6	Experimental plans	CNRS	01 Jul 2018

Please for MS4: state of the art

=> presentations & posters to give
/ send to Coordinator before end
of Summer School



N°	Title	Lead Beneficiary	Date
6	Experimental plans	CNRS	01 Jul 2018
7	Summer school held	CNRS	01 Jul 2018
8	Year 1 report	ULG	01 Sep 2018
9	1st round of experimental campaigns completed	CNRS	01 Sep 2018



Already registered deliverables

WP No	Title	Lead Beneficiary	Est. Del. Date (annex I)	Status
WP7	Supervisory Board of the network	CNRS	28 Feb 2017	Approved
WP7	Consortium Agreement	CNRS	28 Feb 2017	Approved
WP7	Setup of the ENIGMA website	CNRS	31 Mar 2017	Approved
WP1	NEC - Requirement No. 1 (Ethics)	CNRS	30 Jun 2017	Approved
WP1	EPQ - Requirement No. 2 (Ethics)	CNRS	30 Jun 2017	Approved
WP6	1st workshop	ULG	31 Jul 2017	Approved
WP6	2nd Workshop	CNRS	30 Sep 2017	Approved
WP7	Completion of the recruitment process	CNRS	30 Sep 2017	Submitted
WP7	Progress report	CNRS	31 Jan 2018	Submitted
WP6	3rd Workshop	ULG	28 Feb 2018	Submitted
WP6	ENIGMA summer school	CNRS	30 Jun 2018	
WP6	4th Workshop	UNIL	31 Oct 2018	Submitted



Del Rel N°	Del N°	Title	Lead Beneficiary	Est.Del.Date
D7.8	D32	Mid-term report	CNRS	31 Oct 2018
D3.2	D7	Field test of novel techniques for quantifying water content spatial distributions and temporal fluctuations	UNINE	31 Dec 2018
D3.3	D 8	Report: Critical assessment of emerging techniques for in situ monitoring of water content and fluxes	UCPH	31 Dec 2018
D5.1	D12	Validated algorithms for fully coupled 3-D inversion for tomographic datasets	EKUT	31 Dec 2018
D5.2	D13	Report on joint inversion procedures for multiple and disparate datasets (soft and hard data) with realistic subsurface structure reconstruction methods	ULG	31 Dec 2018
D6.2	D15	Training Needs Assessment Plan	UCPH	31 Dec 2018
D6.8	D21	Mid-term training progress reports by supervision committee	ULG	31 Dec 2018
D6.9	D22	5 th workshop	UNINE	30 June 2019

3 other scientific/technical deliverables in December 2019, then December



II. Details of the deliverables within the Workpackages



WP2 Explore coupled dynamic processes in highly instrumented sites



• Lead Beneficiary of the WP: Juelich

Del n°	Due Date	Lead Beneficiary	ESRs
D2.1	Month 48: December 2020		
In situ datasets on space an mixing interfaces	nd time patterns of fluxes and reactivity in	Juelich	Kevin ¹ , Guilherme ² , Alvaro ³
D2.2	Month 48: December 2020		
In situ datasets on flow district fractured media	tributions and transport patterns in	Itasca	Justine ⁴
D2.3	Month 48: December 2020		
	of in situ experimentation for understanding ow, transport and reaction processes in Face	CSIC	Kevin ¹ , Guilherme ² , Alvaro ³ , Justine ⁴



Del n°		Due Date
D2.1 : In situ d	atasets on space and time patterns of fluxes and reactivity in mixing interfaces	Month 48: December 2020
D2.2 : In situ d	atasets on flow distributions and transport patterns in fractured media	Month 48: December 2020
-	n the added value of in situ experimentation for understanding and quantifying ransport and reaction processes in critical areas of the subsurface	Month 48: December 2020
Lead-Contrik	ution for this Workpackage:	Senior manager
D2.1		
	Main person in charge: KEVIN DE VRIENDT ¹ Other contributors: Guilherme Nogueira ² , Alvaro Pardo Alvarez ³	Sander Huisman
D2.2	•	Sander Huisman Caroline Darcel



WP3 Quantify temporal changes in subsurface water content and fluxes distributions



• Lead Beneficiary of the WP: UCPH

Del n°	Due Date	Lead Beneficiary	ESRs
D3.1	Month 36 : December 2019		
Validated prototype of por scale water content distrib	table absolute gravimeter for large oution	MUQUANS	Anne-Karin ⁸
D3.2	Month 24: December 2018		
Field test of novel technique distributions and temporal	ues for quantifying water content spatial I fluctuations	UNINE	Lara ⁵ , Behzad ⁶ , Joel ⁷
D3.3	Month 24: December 2018		
Report: Critical assessmen monitoring of water conte	t of emerging techniques for in situ ent and fluxes	UCPH	Lara ⁵ , Behzad ⁶ , Joel ⁷ , Anne-Karin ⁸



Del n°		Due Date
D3.1 : V distribu	alidated prototype of portable absolute gravimeter for large scale water content tion	Month 36 : December 2019
	ield test of novel techniques for quantifying water content spatial distributions and al fluctuations	Month 24: December 2018
	eport: Critical assessment of emerging techniques for in situ monitoring of water and fluxes	Month 24: December 2018
Lead-C	ontribution for this Workpackage:	Senior manager
D3.1	Main person in charge: ANNE-KARIN COOKE ⁸	Bruno Desruelle
D3.2	Main person in charge: LARA BLAZEVIC ⁵ Other contributors: Behzad Pouladi ⁶ , Joel Tirado Conde ⁷	Philip Brunner
D3.3	Main person in charge: JOEL TIRADO CONDE ⁷ Other contributors: all WP3 ESRs Lara ⁵ , Behzad ⁶ , Joel ⁷ , AnneKarin ⁸	Majken Looms Zibar



WP4 Create new methods for tracking the transport and reactivity of chemical species in subsurface

• <u>Lead Beneficiary of the WP</u>: **UNIL**

Del n°	Due Date	Lead Beneficiary	ESRs
D4.1	Month 36 : December 2019		
Laboratory facility: Geophysica transport and reactions	I millifluidic lab for testing geophysical monitoring of	CNRS	Alejandro ⁹ , Satoshi ¹²
D4.2	Month 48 : December 2020		
In situ datasets that couple trac	cer experiments and geophysical monitoring available	JUELICH	Peleg ¹⁰ , Richard ¹¹ , Veronika ¹³ , Andrea ¹⁴
D4.3	Month 36 : December 2019		
Report on process-based geop	nysical methodologies to monitore subsurface Processes	UNIL	Alejandro ⁹ , Peleg ¹⁰ , Richard ¹¹ Satoshi ¹²



Del n°		Due Date
D4.1 : Laborate reactions	ory facility: Geophysical millifluidic lab for testing geophysical monitoring of transport and	Month 36 : December 2019
D4.2: In situ da	atasets that couple tracer experiments and geophysical monitoring available	Month 48 : December 2020
D4.3 : Report of	on process-based geophysical methodologies to monitor subsurface Processes	Month 36 : December 2019
Lead-Contri	bution for this Workpackage:	Senior manager
D4.1	Main person in charge: ALEJANDRO FERNANDEZ VISENTINI ⁹ Other contributors: Satoshi Izumoto ¹²	Laurent Longuevergne
D4.1 D4.2		Laurent Longuevergne Sander Huisman



WP5

Design inverse modelling strategies for dynamic processes in complex subsurface structures



• Lead Beneficiary of the WP: EKUT

Del n°	Due Date	Lead Beneficiary	ESRs
D5.1	Month 24: December 2018		
Validated algorithms for fully	coupled 3-D inversion	EKUT	Veronika ¹³ Jorge ¹⁵
D5.2	Month 24: December 2018		
	ocedures for multiple and disparate datasets (soft and hard ce structure reconstruction methods	ULG	Veronika ¹³ Andrea ¹⁴ Jorge ¹⁵



Del n°		Due Date
D5.1: Va	lidated algorithms for fully coupled 3-D inversion	Month 24: December 2018
	port on joint inversion procedures for multiple and disparate datasets (soft and hard data) with subsurface structure reconstruction methods	Month 24: December 2018
Lead-C	Contribution for this Workpackage:	Senior manager
Lead-C	Contribution for this Workpackage: Main person in charge: VERONIKA RIEKCH ¹³ Other contributors: Jorge Lopez Alvis ¹⁵	Senior manager Olaf A. Cirpka



III. Communication & Dissemination



What was proposed in the project :

- Participate to public engagement activities to explain the scientific results (videos or simple schemes)
- Participate to relevant public events to expose scientific results and to understand public requirements such as 'The Researchers Night ' in Belgium, 'The Science Festival' in France, 'Fortbildungsverbund Boden und Altlasten' in Germany

Let me know when participation to conferences or events ! Send me your posters/videos... !

Public engagement and outreach to the policy community are deliverables !



Thank you for your attention !