



4onse: analysis of Four times Open Non-conventional system for Sensing the Environment

Dissemination actions report

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	RE	Restricted to a group specified by the project (including R4D services)	
	CO	Confidential, only for project and the R4D services	
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Change log

Version ¹	Date	Amended by	Changes
0.1	20-09-2017	D. Strigaro	Document creation and structure set-up
0.2	07-05-2018	D. Strigaro	Added content
1.0	30-04-2018	M. Cannata	Updated contend
1.1	19-07-2019	D. Strigaro	Updated content
1.2	28-Oct-2019	D.Strigaro	Updated content
1.3	28-Oct-2019	E.J. Warusavitharana	Updated content
1.4	10-01-2020	D Strigaro	Updated content

Partners involved in the work execution

Versions	Partner Name	People involved
0.1	SUPSI/UOM	All the 4onse team
0.2	SUPSI/UOM	All the 4onse team
1.0	SUPSI/UOM	All the 4onse team
1.1	SUPSI/UOM	All the 4onse team
1.2	SUPSI/UOM	All the 4onse team
1.3	SUPSI/UOM	All the 4onse team
1.4	SUPSI/UOM	All the 4onse team

NOTES:

For comments / suggestions / contributions to this document, contact the Coordinator of 4onse project at massimiliano.cannata@supsi.ch

For more information on the project 4onse, link to <http://www.4onse.ch>

¹ Please start with version number 0.1. Any further minor review will increase the version number by 0.1 while a major review will increase the version by 1.0.

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Executive summary

This report lists the project's dissemination activities. It includes the actions taken to publicize the 4nse project among its stakeholders and the general public. This Deliverable presents the dissemination activities which accomplished during the period from the 1st October 2016 to the 30th April 2018.

1 Presentations/posters to conference

Date	Conference	Title	Authors	Link	Annex
14 October 2019	Forum innovazione, Lugano (poster+booth)	The 4nse monitoring system	Cannata M., Strigaro D.	link	n.a.
26-30 August 2019	FOSS4G-EU Bucharest, Romania	An open drought monitoring system for the Deduru Oya basin in Sri Lanka in the context of the 4nse project	Daniele Strigaro, Massimiliano Cannata, and Milan Antonovic	link , link2	P22
8-12 April 2019	EGU General assembly 2019, Wien (poster)	4nse: open data, software, hardware and standard to cope with climate data	Daniele Strigaro, Massimiliano Cannata, and Milan Antonovic	link	n.a.
2-5 December 2018	FOSS4G-Asia, Moratuwa, Sri Lanka	Is a non-conventional low-cost weather station a sustainable monitoring system?	D. Strigaro, M. Cannata, M. Antonovic, R. Rathnayake, B.H. Sudantha, I. Sahid	link	P08
9-13 September 2018	European Meteorological Society (EMS), Budapest, Hungary	Evaluation of Open, Reproducible, Low-cost and Non-conventional Weather monitoring System.	Cannata M., Strigaro D., Cardoso M., Ratnayake R., Sahid I.	link	P05
27-31 August 2018	FOSS4G-Africa, Dar es Salaam, Tanzania	Open & Low-cost Monitoring System: evaluation of the 4nse "non-conventional" solution.	Strigaro D., Cannata M., Cardoso M., Antonovic A., Hoffmann M.	link	P06
16-21 July 2018	FOSS4G-EU, Guimaraes, Portugal	4nse: a modular open, non-conventional and low-cost weather station & monitoring system	Massimiliano Cannata, Daniele Strigaro, Imran Shahid, Rangajeewa Ratnayake and B. H. Sudantha	n.a.	
16-21 July 2018	FOSS4G-EU, Guimaraes, Portugal	The analysis and deployment of a fully open monitoring system in the Sri Lankan Deduroya basin: the 4nse project	Massimiliano Cannata, Daniele Strigaro, Imran Shahid, Rangajeewa Ratnayake and B. H. Sudantha	n.a.	P03
8-13 April 2018	EGU General assembly 2018, Wien (oral)	4nse: a modular open, non-conventional and low-cost weather station & monitoring system	Strigaro D., Cannata M., Antonovic M., Cardoso M., Hoffmann M.	link	P12
8-13 April 2018	EGU General assembly 2018, Wien (oral)	4nse project: preliminary results of a non-conventional monitoring system.	Strigaro D., Cannata M., Antonovic M., Cardoso M., Hoffmann M.	link	P11
5 January 2018	Giornata della ricerca SUPSI, Canobbio (oral + poster)	The 4nse project	M. Cannata, Strigaro D., Mahanama S., Shahid I.	link	P13, P20
28 October 2017	Forum innovazione, Lugano (poster+booth)	4nse: analysis of Open, Non-conventional, Sustainable and Effective monitoring systems	Cannata M., Strigaro D., Hoffmann M.	link	P16
30 September 2017	ICRD, Bern (poster)	4nse: Analysis of 4 times Open non-conventional system for sensing the environment	M. Cannata , M. Antonovic , M. Cardoso, M. Hoffmann , D. Strigaro , M. Mahanama , I. Shahidi	link	P14
1 September 2017	15 th Swiss Geoscience Meeting, Davos	4 times open weather station: first results of non-conventional cost-effective monitoring system	Massimiliano Cannata , Daniele Strigaro, Mirko	link	P21

			Cardoso, Marcus Hoffman, Miln Antonovic		
19-20-21 July 2017	FOSS4G-EU, Paris (oral)	Extending the scalability of istsos within the 4nse project	Strigaro D., Cannata M., Cardoso M., Antonovic M., Hoffmann M.	link	P07
23-28 April 2017	EGU General assembly 2017, Wien (oral)	4nse: four times open & non-conventional technology for sensing the environment	Cannata M., Ratnayake R., Antonovic M., Strigaro D., Cardoso M., Hoffmann M.	link	P17
23-28 April 2017	EGU General assembly 2017, Wien (oral)	Sustainable and non-conventional monitoring systems to mitigate natural hazards in low income economies: the 4nse project approach.	Cannata M., Ratnayake R., Antonovic M., Strigaro D.	link	P18
9-10 February 2017	XVIII GRASS MEETING - X GFOSS DAY - OSMIT2017, Genova (oral)	4nse: reti di monitoraggio ambientale non-convenzionali e completamente aperte	Cannata M., Antonovic M., Strigaro D.	link	P04
3-4 February 2017	Environmental Awareness protection & New Challenges, Jaipur (oral)	4nse project presentation	Marcus Hoffmann	link	P19
26-29 January 2017	FOSS4G – Asia – Hyderabad (oral)	4ONSE: four times open monitoring system for sensing the environment	Cannata M.	link	P15
18-19 November 2016	14 th Swiss Geoscience Meeting – Geneve (poster)	4ONSE: 4 times Open and Non-conventional technology for Sensing the Environment	Cannata M., Mahanama S., Karyanto O., Shahid I.	link	P01

2 Workshops

Date	Location	N° participants	Title	Authors	Link	Annex
28 November 2019	Uswetakeiyawa, Sri Lanka	30	4ONSE Final Workshop	M. Cannata, R. Rangajeewa, B.H. Sudantha, D.Strigaro, E. Warusawitharana		W12
13 Novemeber 2019	Islamabad, Pakistan	53	4 times open solution for SENSING THE ENVIRONMENT	I. Shahid, H. Ahmad	n.a.	W11
17-18 September 2019	Pisa, Italia	21	Open monitoring system with 4nse	M. Cannata, D. Strigaro	link	W08
2-3 July 2019	Kurunegala, Sri Lanka	47	4nse state of the art and sustainability discussion	M. Cannata, D. Strigaro, M. Hoffmann, R. Ratnayake, BH Sudantha, E.J. Warusavitharana	n.a.	W07
15 March 2019	Divisional Secretariat Office, Walapane, Sri Lanka	40	Weather stations for climate resilient agriculture	R. Ratnayake, B.H. Sudantha	n.a.	W10
2 December 2018	University of Moratuwa, Moratuwa, Sri Lanka	52	Training on building a 4ONSE weather station	M. Cannata, D. Strigaro, R. Ratnayake, BH Sudantha, I. Shahid	n.a.	W06
10 October 2018	SUPSI, Lugano, Switzerland	23	4ONSE: build a scientific weather monitoring system based on open	Massimiliano Cannata, Milan Antonovic, Daniele Strigaro, Rangajeewa	link	n.a.

			hardware, open software, open standard and open data	Ratnayake and BH Sudantha		
29 September 2018	Divisional Secretariat Office, Lankapura, Sri Lanka	40	Weather stations for climate resilient agriculture	R, Ratnayake, B.H. Sudantha, P.K.S. Mahanama	n.a.	W09
21 March 2018	Lanka Rainwater Harvesting Forum, Battaramulla, Sri Lanka	15	Open source weather station community of practice workshop	Dr Yann Chemin (Independent researcher), Global Facility for Disaster Reduction and Recovery (GFDRR) and Lanka Rainwater Harvesting Forum	n.a.	W05
15 November 2017	University of Moratuwa, Moratuwa, Sri Lanka	80	4ONSE demonstration workshop	4ONSE project team	n.a.	W04
13 November 2017	Hotel Kandyan Reach, Kurunegala, Sri Lanka	20	4onse demonstration workshop	4ONSE project team	n.a.	W03
19 July	University of Moratuwa, Sri Lanka	30	Workshop and Industry Forum on emerging Internet of Things (IoT) Applications	Faculty of Information Technology, University of Moratuwa	n.a.	W02
18 July 2017	FOSS4G-EU, Paris	24	Fully Open Monitoring System	Cannata M., Antonovic M., Cardoso M., Strigaro D., Chemin Y., Delucchi L.	link	n.a.
8 February 2017	University of Genoa, Italia	30	Costruire un sistema di monitoraggio ambientale aperto	Delucchi L., Cannata M, Chemin Y.	link	n.a.
6-7 December 2016	Fondazione Edmund Mach - Trento	25	Building fully open climatic monitoring system	Cannata M., Delucchi L., Chemin Y.	link	n.a.
21-23 November 2016	Colombo - Sri Lanka	35	First policy workshop	4onse team	n.a.	W01

3 Articles

Date	Journal	Title	Authors	Status	Link	Annex
17 October 2019	Proceedings of the 7 th International Symposium on Advances in Civil and Environmental Engineering Practices for Sustainable Development (ACEPS-2019)	Assessment of open technologies based measurements as a potential dataset for hydrological modelling in Deduru Oya river basin of Sri Lanka	E.J. Warusavitharana, B.H. Sudantha, R. Ratnayake, P.K.S. Mahanama, R.J. Warusavitharana, M. Cannata and D. Strigaro	Published	link	A09
23 October 2019	ISPRS International Journal of Geo-Information	Performance Testing of istSOS Under High Load Scenarios	Massimiliano Cannata, Milan Antonovic, Daniele Strigaro and Mirko Cardoso	Published	link	A07
23 August 2019	ISPRS - International Archives of the Photogrammetry, Remote Sensing and	An open drought monitoring system for the Deduru Oya basin in Sri Lanka in the context of the 4onse project	D. Strigaro, M. Cannata, E. Warusavitharana, B. H. Sudantha, and R. Ratnayake	Published	link	A08

	Spatial Information Sciences					
8 March 2019	Sensors	Boosting a Weather Monitoring System in Low Income Economies Using Open and Non-Conventional Systems: Data Quality Analysis.	Strigaro, D., Cannata, M., & Antonovic, M.	Published	link	A05
5-7 December 2018	Proceedings of the 3 rd International Conference on Information Technology Research (ICITR)	Building an open-source environmental monitoring system – A review for state-of-the-art and directions for future research	Sudantha, B.H., Warusavitharana, E.J., Ratnayake, G.R., Mahanama, P.K.S., Cannata, M. and Strigaro, D.	Published	n.a.	A10
2-5 December 2018	Proceedings of the FOSS4G Asia 2018 conference (Free and Open Source Software for Geospatial)	Is non-conventional low cost weather station a sustainable monitoring system?	Sudantha, B.H., Warusavitharana, E.J., Ratnayake, G.R., Mahanama, P.K.S., Cannata, M. and Strigaro, D.	Published	link	A11
15 – 19 October 2018	Proceedings of the 39 th Asian Conference on Remote Sensing (ACRS 2018)	An approach to determine the optimum spatial distribution of hydrometeorological stations for hydrological modelling: 4ONSE deployment	Warusavitharana, E., Ratnayake, R., Mahanama, S. and Cannata, M.	Published	link	A12
9 – 11 October 2018	Proceedings of the 5 th Open Source Geospatial Research and Education Symposium (OGRS 2018)	Appropriateness of low cost sensor network for environmental monitoring in a tropical country: Experience and Lessons learnt from real world deployment	Sudantha, B.H., Warusavitharana, E.J., Ratnayake, R., Mahanama, P.K.S., Cannata, M. and Strigaro, D.	Published	link	A13
18 July 2018	Free and Open Source Software for Geospatial (FOSS4G) Conference Proceedings	The analysis and deployment of a fully open monitoring system in the Sri Lankan Deduroya basin: the 4onse project.	Cannata, M., Strigaro, D., Shahid, I., Ratnayake, R., & Sudantha, B. H.	Published	link	A04
28 June 2018	Bhumi, The Planning Research Journal	Open-source implementation of an integrated, low-cost Environmental Monitoring System (EMS) for developing countries.	Sudantha, B.H., Warnakulasooriya, K.M.H.K., Jayasuriya, Y.P., Ratnayaka, G.R., Mahanama, P.K.S., Warusavitharana, E.J. and Weerasinghe, S.N.	Published	link	A06
15 December 2017	Proceeding of the International Conference on Information Technology Research - 2017	4ONSE – 4 times Open and Non-conventional Technology for Sensing the Environment: An Integrated low-cost Environmental Monitoring System (EMS) for Developing Countries	Ratnayake, G.R., Mahanama, P.K.S., Warusavitharana, E.J., Weerasinghe, S.N., Warnakulasooriya, K.M.H.K., Sudantha, B.H. and Jayasuriya, Y.P.	Published	n.a.	A03
12-14 October 2017	Proceeding of the APSA, Tsinghua University, Beijing, China 2017	4 times Open & Non-conventional technologies for Sensing the Environment (4ONSE): An approach for hydrological forecasting in Deduru Oya river basin	Warusavitharana, E.J. Ratnayake, R., Cannata, M. and Mahanama, P.K.S.	Published	n.a.	A02
July 2017	The International Archives of the Photogrammetry,	Extending the scalability of istSOS within the 4onse project	Strigaro D., Cannata M., Cardoso M., Antonovic M., Hoffmann M.	Published	link	A01

	Remote Sensing and Spatial Information Sciences, Volume XLII-4/W2, 2017					
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4 Social

Name	N°	Link
Twitter	85 tweets	link
Facebook	34 posts	link
Youtube	2 videos	link , link2
Mailing list / gougole group	200 threads	link

5 Other / Press

Date	Location	Title	Type	Link	Annex
August 2019	SUPSI Canobbio, Switzerland	4onse – Newsletter ISSUE4	Newsletter	link	N10
April 2019	SUPSI Canobbio, Switzerland	4onse – Newsletter ISSUE3	Newsletter	link	N09
August 2018	SUPSI Canobbio, Switzerland	4onse – Newsletter ISSUE2	Newsletter	link	N07
August 2017	SUPSI Canobbio, Switzerland	4onse – Newsletter ISSUE1	Newsletter	link	N06
May-June 2017	Moratuwa, Sri Lanka	UOM – Biomonthly news	Newsletter	link	N05
2 May 2017	SUPSI Canobbio, Switzerland	Project presentation	Infolunch	link	N04
April 2017	Moratuwa, Sri Lanka	Open source mobile weather stations for flood resilience	Web Journal	link	n.a.
25 March 2017	Sirasa TV, Sri Lanka	4onse project demonstration	News/TV	link	N03
24 March 2017	Sri Sumangala College, Panadura, Sri Lanka	Plan your future (“Sirasa” Media)	Exhibition	n.a.	N02
January 2017	Ticino Management, innovazione e ricerca	Farsi in Quattro per l'ambiente	Journal	n.a.	N07
November-December 2016	Moratuwa, Sri Lanka	UOM – Biomonthly news	Newsletter	link	N01