

WP4

Activity progress

AdSWiM | PP Pescara | Ester Zazzero

GA Meeting | On line meeting | December 2021

Description_Activities

4.1 Innovative actions in WW

4.2 IAMD_Nutrients and trace elements

4.3 IAMD_ Sensors for ortophoshate analysis

4.4 IAMD_IAMD_Pathogens detection by innovative biosensors-based approaches

4.5 IAMD_ Survey of emerging pathogens

4.6 IAMD_Results analysis

Description_Activities_4.2

Deliverables	PP	State of art	
<p>Report of seasonal trend of the checked parameters on the IT coast (D 4.2.1)-Pescara</p> <p>Nutrients and heavy metals</p> <p>Microbiology</p> <p>CTD</p>	Pescara	<p>ARTA Abruzzo has carried out at the same time water samplings and analysis, at the final drainage of the purifier after treatment and at the discharge to the sea.</p> <p>ARTA has carried out the preparation of samples for the "Bacterial Community Structure" (Emerging pathogens) analyzes, the samples of which were sent on 10/11/2020 to the National Institute of Oceanography and Experimental Geophysics--OGS of Trieste.</p> <p>On 23 September 2020, the staff of ARTA Abruzzo sampled the sewage sludge and water from the "Pretaro" purifier and shipped them to Metris Centar Zagrebacka in Pola (HR).</p> <p>Below is the list of activities performed.</p>	<p>Data source: ARTA Abruzzo sampling and analysis of marine waters in order to allow the municipal administration to contribute to the achievement of the objectives set by the Adswim project as part of the 2014/2010 Italy-Croatia Cross-border Program (Interreg. V-A Italy Croatia).</p>

Description_Activities_4.2

Presentation of analytical methodologies



Fig. 1: The sampling point at the final drainage pit of the "Pretaro" purifier of the Municipality of Francavilla al mare indicated by the red arrow and the sampling point at the discharge to the sea of the Fosso Pretaro pipeline, approximately 2.5 km from the coast indicated by the white arrow.

n. 7 samplings on the following dates: 9 December 2019, 28 April 2020, 29 May 2020, 17 June 2020, 21 July 2020, 28 August 2020 and 22 September 2020 and the related analyzes were performed.

Description_Activities_4.2

List of activities performed:

TYPE	LOCATION	QUANTITY
CHEMICAL ANALYSES		
NUTRIENTS	SEA	7
NUTRIENTS	PURIFIER	7
METALS	SEA	7
METALS	PURIFIER	7
MERCURY	SEA	7
MERCURY	PURIFIER	7
MICROBIOLOGICAL ANALYSIS		
PREPARATION		
SAMPLE	SEA/PURIFIER	12
PREPARATION		
SAMPLE	SEA/PURIFIER DNA TRIESTE	14
ESCHERICHIA COLI	SEA	7
ESCHERICHIA COLI	PURIFIER	7
ENTEROCOCCHI	SEA	7
ENTEROCOCCHI	PURIFIER	7
PSEUDOMONAS	SEA	7
PSEUDOMONAS	PURIFIER	7
INSPECTION	SEA	7
INSPECTION	PURIFIER	7
USE OF MOTOR SHIP		7

Description_Activities_4.2

Below are the summary tables of the analytical results:

SEA WATER				
MICROBIOLOGICAL DETERMINATIONS				
Date	Escherichia Coli (UFC/100 mL)	Enterococchi (UFC/100 mL)	Pseudomonas spp (UFC/100 mL)	Volume DNA filtrato
09/12/2019	1	3	0	-
28/04/2020	<1	2	0	350 mL
29/05/2020	<1	0	6	500 mL
17/06/2020	<1	2	27	300 mL
21/07/2020	<1	1	0	300 mL
28/08/2020	<1	0	0	500 mL
22/09/2020	3	2	0	500 mL

SEA WATER											
CHEMICAL DETERMINATIONS											
Date	Azoto ammoniacale (come NH ₄) mg/L	Azoto nitroso (come N) mg/L	Azoto nitrico (come N) mg/L	Azoto Totale mg/L	Ortofosfati mg/L	Fosforo totale (come P) mg/L	Silicati mg/L	Cadmio µg/L	Piombo µg/L	Rame µg/L	Mercurio µg/L
09/12/2019	0,085	0,008	0,058	0,44	0,03	0,07	0,26	< 0,05	1	< 0,5	< 0,005
28/04/2020	0,04	0,008	0,06	0,15	0,02	0,02	0,19	< 0,05	< 1	1,1	< 0,005
29/05/2020	0,03	0,001	0,01	0,1	0,02	0,02	0,2	< 0,05	< 1	< 0,5	< 0,005
17/06/2020	0,07	0,005	0,05	0,32	0,02	0,05	0,1	< 0,05	< 1	< 0,5	< 0,005
21/07/2020	0,08	0,005	0,02	0,15	0,02	0,03	0,02	< 0,05	< 1	< 0,5	< 0,005
28/08/2020	0,016	0,001	0,01	0,03782	0,0089	0,0113	0,0485	< 0,05	0,7	1,9	< 0,005
22/09/2020	0,01	0,002	0,008	0,08109	0,0125	0,0145	0,1623	< 0,05	0,3	1,3	< 0,005

Description_Activities_4.2

WASTE WATER PURIFIER				
MICROBIOLOGICAL DETERMINATIONS				
Date	Conta di Escherichia Coli (UFC/100 mL)	Conta di Enterococchi (UFC/100 mL)	Conta di Pseudomonas spp (UFC/100 mL)	Volume DNA filtrato
09/12/2019	2200	7700	40	-
28/04/2020	11	23	20	100 mL
29/05/2020	<1	0	8	85 mL
17/06/2020	<1	0	0	100 mL
21/07/2020	3	0	2	100 mL
27/08/2020	<1	0	0	200 mL
22/09/2020	<1	0	0	90 mL

WASTE WATER PURIFIER											
CHEMICAL DETERMINATIONS											
Date	Azoto ammoniacale (come NH ₄) mg/L	Azoto nitroso (come N) mg/L	Azoto nitrico (come N) mg/L	Azoto Totale mg/L	Ortofosfati mg/L	Fosforo totale (come P) mg/L	Silicati mg/L	Cadmio mg/L	Piombo mg/L	Rame mg/L	Mercurio µg/L
09/12/2019	2,10	0,14	3,0	7	1,00	0,7	1,8	< 0,002	< 0,05	< 0,007	< 0,010
28/04/2020	0,11	0,32	10,2	8	1,23	2,6	3,22	< 0,002	< 0,05	< 0,007	< 0,010
29/05/2020	0,23	0,22	5,3	7	1,32	2,1	1,71	< 0,002	< 0,05	< 0,007	< 0,010
17/06/2020	1	0,4	4,9	6	1,92	2	0,03	< 0,002	< 0,05	< 0,007	< 0,010
21/07/2020	0,26	0,16	< 0,1	3	1,03	1,9	3,12	< 0,002	< 0,05	< 0,007	< 0,010
27/08/2020	0,16	0,5	2	5	0,64	0,8	1,74	< 0,002	< 0,05	< 0,007	< 0,010
22/09/2020	2,9	0,11	0,2	6	1,4	1,6	1,47	< 0,002	< 0,05	< 0,007	< 0,010

Main conclusions on the results showed

Time	Pressure	Temperature	Conductivity	Salinity	Oxygen %	Oxygen mg/L	pH	Fluorometer AutoScale	Turbidity AutoScale	SigmaT
28/04/2020 12:59	0,5	16,5458	44,3846	34,949	116,9	9,21	8,004	0,73	0,949	25,5854
28/04/2020 12:59	1	16,6237	44,3432	34,844	117,1	9,22	8,004	0,75	1,030	25,4889
28/04/2020 12:59	1,5	16,5971	44,3725	34,893	117,1	9,22	8,004	0,73	0,859	25,53487
28/04/2020 12:59	2	16,3447	44,4696	35,201	117,3	9,26	8,004	0,76	0,768	25,83216
28/04/2020 12:59	2,5	16,1729	44,463	35,347	117,4	9,3	8,004	0,78	0,708	25,98671
28/04/2020 12:59	3	16,0012	44,4258	35,467	117,3	9,32	8,004	0,79	0,575	26,1208
28/04/2020 12:59	3,5	15,7423	44,2983	35,585	117,4	9,37	8,004	0,87	0,490	26,27317
28/04/2020 12:59	4	15,465	44,1401	35,693	117,7	9,43	8,004	1,09	0,525	26,42134
28/04/2020 12:59	4,5	15,2641	44,0744	35,817	117,9	9,48	8,002	1,14	0,504	26,56372
28/04/2020 12:59	5	15,1719	44,0410	35,87	118,0	9,50	8,001	1,26	0,553	26,62803
28/04/2020 12:59	5,5	15,115	44,0203	35,904	118,0	9,51	8,000	1,46	0,578	26,66847
28/04/2020 12:59	6	15,0488	44,0305	35,974	118,0	9,52	7,998	1,71	0,575	26,73948
28/04/2020 12:59	6,5	14,897	44,2743	36,338	118,1	9,53	7,987	1,68	0,681	27,05646
28/04/2020 12:59	7	14,6805	44,3626	36,623	118,1	9,56	7,971	1,63	0,822	27,32614
28/04/2020 12:59	7,5	14,4358	44,5146	36,996	118,2	9,60	7,961	1,60	1,013	27,67061
28/04/2020 12:59	8	14,2152	44,6535	37,338	118,2	9,62	7,953	1,57	0,786	27,98558
28/04/2020 12:59	8,5	14,0535	44,8357	37,667	118,2	9,63	7,948	1,65	0,918	28,27724
28/04/2020 12:59	9	13,9831	45,0923	37,979	118,0	9,61	7,945	1,41	0,765	28,5357
28/04/2020 12:59	9,5	13,9428	45,1971	38,118	117,7	9,58	7,933	1,28	1,223	28,65424
28/04/2020 12:59	10	13,8867	45,2786	38,251	117,4	9,56	7,916	1,14	1,721	28,7715
28/04/2020 12:59	10,5	13,9363	45,4479	38,361	117,0	9,51	7,920	1,00	0,933	28,8487
28/04/2020 12:59	11	13,8811	45,295	38,271	116,6	9,49	7,921	0,91	0,945	28,79318
28/04/2020 12:59	11,5	13,7348	45,2078	38,335	116,3	9,49	7,917	0,96	1,355	28,8761
28/04/2020 12:59	12	13,6355	45,1905	38,418	115,8	9,47	7,912	1,03	1,766	28,9639
28/04/2020 12:59	12,5	13,5958	45,1874	38,455	115,2	9,43	7,910	1,07	1,862	29,0032
28/04/2020 12:59	13	13,5818	45,1876	38,469	114,5	9,37	7,957	1,08	1,908	29,01928

Time	Pressure	Temperature	Conductivity	Salinity	Oxygen %	Oxygen mg/L	pH	Fluorometer AutoScale	Turbidity AutoScale	SigmaT
29/05/2020 09:57	0,5	19,6861	48,9184	36,0947	94,1	6,94	7,765	0,26	0,011	25,68339
29/05/2020 09:57	1	19,6901	49,0085	36,1659	94,2	6,94	7,765	0,31	2,072	25,73886
29/05/2020 09:57	1,5	19,6973	49,2689	36,3754	94,3	6,94	7,768	0,36	2,191	25,89919
29/05/2020 09:57	2	19,7390	49,5945	36,6092	94,9	6,97	7,767	0,48	2,432	26,06894
29/05/2020 09:57	2,5	19,7842	50,2553	37,118	94,9	6,94	7,764	0,54	2,501	26,44791
29/05/2020 09:57	3	19,8579	50,5633	37,3082	95,1	6,94	7,77	0,67	2,342	26,57584
29/05/2020 09:58	3,5	19,8497	50,6006	37,3463	95,3	6,95	7,769	0,75	2,272	26,60926
29/05/2020 09:58	4	19,8560	50,6748	37,4022	94,9	6,92	7,764	0,81	2,152	26,65248
29/05/2020 09:58	4,5	19,8450	50,7177	37,4475	95,2	6,94	7,763	0,94	1,968	26,69222
29/05/2020 09:58	5	19,8319	50,7443	37,4811	95,4	6,96	7,762	0,99	1,976	26,72353
29/05/2020 09:58	5,5	19,8451	50,7888	37,5061	95,6	6,97	7,762	1,04	2,000	26,74134
29/05/2020 09:58	6	19,8483	50,7946	37,5079	95,7	6,98	7,762	1,13	1,955	26,74407
29/05/2020 09:58	6,5	19,8381	50,8046	37,5251	95,8	6,99	7,761	1,12	1,986	26,76211
29/05/2020 09:58	7	19,8321	50,8195	37,5427	95,9	6,99	7,761	1,08	1,900	26,77933
29/05/2020 09:58	7,5	19,8207	50,8387	37,5687	96,1	7,01	7,759	1,02	2,008	26,80437
29/05/2020 09:58	8	19,8063	50,8431	37,5851	96,2	7,02	7,758	0,97	1,853	26,82295
29/05/2020 09:58	8,5	19,7390	50,8620	37,6613	96,4	7,03	7,757	0,87	2,077	26,90117
29/05/2020 09:58	9	19,6861	50,5644	37,7311	96,4	7,08	7,760	0,80	1,463	27,04998
29/05/2020 09:58	9,5	19,6517	50,5794	37,6773	96,6	7,10	7,759	0,77	1,491	27,36689
29/05/2020 09:58	10	19,6173	50,6400	37,7779	96,6	7,10	7,758	0,68	1,308	27,48281
29/05/2020 09:58	10,5	19,5829	50,7023	37,7903	96,7	7,11	7,757	0,69	1,269	27,51946
29/05/2020 09:58	11	19,5485	50,8002	37,8852	96,8	7,15	7,755	0,71	1,133	27,76884
29/05/2020 09:58	11,5	19,5142	50,7724	37,9286	96,8	7,15	7,753	0,72	1,294	27,86738
29/05/2020 09:58	12	19,4798	50,8026	37,9787	96,9	7,20	7,755	0,78	1,825	27,98159
29/05/2020 09:58	12,5	19,4455	50,9097	38,0543	97,0	7,19	7,752	0,81	2,434	28,10387
29/05/2020 09:58	13	19,4111	50,9636	38,1866	97,0	7,19	7,752	0,93	2,214	28,25075

Time	Pressure	Temperature	Conductivity	Salinity	Oxygen %	Oxygen mg/L	pH	Fluorometer AutoScale	Turbidity AutoScale	SigmaT
16/06/2020 09:23	0,5	21,6402	49,9982	35,326	99,9	7,14	7,76	0,13	0,330	24,56956
16/06/2020 09:23	1	21,6576	51,4012	36,428	99,5	7,06	7,79	0,34	0,331	25,40506
16/06/2020 09:23	1,5	21,6639	51,503	36,503	99,5	7,06	7,79	0,35	0,319	25,46303
16/06/2020 09:23	2	21,8372	51,9186	36,687	99	7,00	7,79	0,32	0,248	25,55642
16/06/2020 09:23	2,5	21,9081	52,3379	36,96	99,1	6,98	7,79	0,3	0,163	25,74614
16/06/2020 09:23	3	21,9999	52,658	37,136	99,5	6,99	7,79	0,29	0,123	25,85598
16/06/2020 09:23	3,5	22,0649	52,7855	37,181	99,4	6,98	7,8	0,28	0,092	25,8741
16/06/2020 09:23	4	22,0862	52,9148	37,265	99,7	6,99	7,79	0,28	0,069	25,93427
16/06/2020 09:23	4,5	22,0975	52,9433	37,277	99,8	6,99	7,8	0,30	0,082	25,94279
16/06/2020 09:23	5	22,0989	52,9591	37,289	99,8	6,99	7,8	0,30	0,094	25,95313
16/06/2020 09:23	5,5	22,0939	53,0117	37,335	100,1	7,01	7,8	0,30	0,087	25,99164
16/06/2020 09:23	6	22,0292	53,2056	37,545	99,9	7,00	7,79	0,33	0,083	26,17191
16/06/2020 09:23	6,5	21,8519	53,2976	37,772	100,4	7,05	7,79	0,32	0,096	26,39779
16/06/2020 09:23	7	21,861	53,3615	37,815	100,5	7,05	7,79	0,30	0,114	26,42997
16/06/2020 09:23	7,5	21,8345	53,3758	37,85	100,7	7,07	7,79	0,31	0,100	26,46597
16/06/2020 09:23	8	21,6585	53,3244	37,964	101,0	7,11	7,79	0,33	0,094	26,60442
16/06/2020 09:23	8,5	21,6423	53,3686	38,013	101,5	7,14	7,78	0,35	0,103	26,64892
16/06/2020 09:23	9	21,4472	53,3878	38,202	101,9	7,19	7,78	0,35	0,104	26,84959
16/06/2020 09:23	9,5	21,0524	52,8651	38,131	102,4	7,27	7,78	0,44	0,364	26,90774
16/06/2020 09:23	10	20,6953	52,623	38,254	102,6	7,33	7,78	0,42	0,447	27,10229
16/06/2020 09:23	10,5	20,4392	52,4356	38,332	102,7	7,37	7,77	0,47	0,398	27,23369
16/06/2020 09:23	11	19,7517	52,0373	38,631	103,4	7,50	7,77	0,55	0,562	27,64985
16/06/2020 09:23	11,5	19,6566	51,9276	38,627	103,3	7,50	7,77	0,50	0,633	27,67423
16/06/2020 09:23	12	19,5731	51,8768	38,661	103,1	7,50	7,76	0,50	1,501	27,72509
16/06/2020 09:23	12,5	19,4694	51,8551	38,739	103,1	7,51	7,76	0,52	2,296	27,81442
16/06/2020 09:23	13	19,4447	51,8226	38,735	102,9	7,50	7,76	0,52	2,46	27,8196

Time	Pressure	Temperature	Conductivity	Salinity	Oxygen %	Oxygen mg/L	pH	Fluorometer AutoScale	Turbidity AutoScale	SigmaT
21/07/2020 10:54	0,5	25,3708	56,533	37,282	93,0	6,16	7,822	0,31	1,510	24,95646
21/07/2020 10:54	1	25,3541	56,4599	37,241	92,7	6,14	7,824	0,30	1,387	24,93284
21/07/2020 10:54	1,5	25,3488	56,5488	37,311	92,7	6,14	7,823	0,31	1,306	24,98985
21/07/2020 10:54	2	25,3643	56,6018	37,338	92,4	6,12	7,824	0,32	1,339	25,00733
21/07/2020 10:54	2,5	25,3588	56,6116	37,349	92,9	6,15	7,820	0,33	1,383	25,01992
21/07/2020 10:54	3	25,3569	56,6407	37,373	92,8	6,15	7,821	0,32	1,372	25,04023
21/07/2020 10:54	3,5	25,3614	56,6498	37,375	92,9	6,15	7,824	0,34	1,379	25,04308
21/07/2020 10:54	4	25,3511	56,6387	37,375	93,2	6,17	7,821	0,35	1,421	25,04848
21/07/2020 10:54	4,5	25,3362	56,6104	37,367	92,9	6,15	7,823	0,36	1,473	25,0485
21/07/2020 10:54	5	25,3058	56,5842	37,372	93,2	6,17	7,824	0,38	1,508	25,06417
21/07/2020 10:54	5,5	25,2820	56,562	37,375	93,3	6,18	7,822	0,41	1,589	25,07582
21/07/2020 10:54	6	25,2657	56,5472	37,3771	92,9	6,16	7,853	0,43	1,537	25,08476
21/07/2020 10:55	6,5	25,2516	56,5355	37,3798	93,2	6,18	7,829	0,48	1,543	25,09333
21/07/2020 10:55	7	25,2356	56,5261	37,386	93,6	6,21	7,824	0,49	1,516	25,10499
21/07/2020 10:55	7,5	25,2251	56,5215	37,391	93,5	6,20	7,826	0,51	1,563	25,11418
21/07/2020 10:55	8	25,2239	56,5100	37,383	93,3	6,19	7,827	0,54	1,556	25,11086
21/07/2020 10:55	8,5	25,2171	56,5056	37,385	93,4	6,20	7,825	0,56	1,528	25,11678
21/07/2020 10:55	9	25,2096	56,4995	37,387	93,5	6,20	7,824	0,58	1,550	25,12227
21/07/2020 10:55	9,5	25,1951	56,4596	37,369	93,3	6,19	7,827	0,62	1,609	25,1153
21/07/2020 10:55	10	25,1486	56,3394	37,317	93,2	6,19	7,825	0,66	2,038	25,09285
21/07/2020 10:55	10,5	25,0342	56,2142	37,318	93,2	6,20	7,822	0,62	3,290	25,13068
21/07/2020 10:55	11	24,9234	56,1983	37,398	93,2	6,21	7,820	0,61	3,986	25,22717
21/07/2020 10:55	11,5	24,8913	56,1952	37,422	92,6	6,18	7,821	0,62	4,370	25,2575
21/07/2020 10:55	12	24,8838	56,1938	37,427	92,2	6,15	7,819	0,66	4,856	25,26572
21/07/2020 10:55	12,5	24,8804	56,1948	37,43	91,5	6,10	7,820	0,65	5,524	25,27148
21/07/2020 10:55	13	24,8775	56,1985	37,435	91,5	6,11	7,826	0,65	6,102	25,2783

Time	Pressure	Temperature	Conductivity	Salinity	Oxygen %	Oxygen mg/L	pH	Fluorometer AutoScale	Turbidity AutoScale	SigmaT
27/08/2020 10:06	0,5	26,6516	56,4294	36,177	91,6	5,97	8,134	0,12	1,236	23,72038
27/08/2020 10:07	1	26,8002	56,8503	36,365	91,9	5,97	8,134	0,15	0,965	23,8164
27/08/2020 10:07	1,5	27,0694	57,186	36,395	92,3	5,97	8,135	0,13	0,924	23,75515
27/08/2020 10:07	2	27,1753	58,2415	37,07	92,9	5,98	8,139	0,13	0,841	24,23163
27/08/2020 10:07	2,5	27,1787	58,3367	37,135	93,3	6,00	8,142	0,13	0,903	24,28216
27/08/2020 10:07	3	27,1815	58,3849	37,167	93,6	6,01	8,140	0,13	0,937	24,30771
27/08/2020 10:07	3,5	27,1761	58,4178	37,195	93,2	5,99	8,145	0,14	0,937	24,33261
27/08/2020 10:07	4	27,1781	58,4468	37,214	93,3	6,00	8,147	0,15	0,987	24,34848
27/08/2020 10:07	4,5	27,1697	58,4685	37,236	94,0	6,04	8,143	0,15	0,881	24,37000
27/08/2020 10:07	5	27,1629	58,4825	37,252	93,8	6,03	8,143	0,16	0,848	24,38593
27/08/2020 10:07	5,5	27,1541	58,4871	37,262	93,6	6,01	8,146	0,17	0,795	24,39867
27/08/2020 10:07	6	27,0925	58,4381	37,276	93,6	6,02	8,147	0,19	0,939	24,4312
27/08/2020 10:07	6,5	27,0632	58,3863	37,262	94,2	6,06	8,143	0,20	0,950	24,4322
27/08/2020 10:07	7	27,0361	58,3348	37,247	94,0	6,05	8,144	0,21	0,983	24,43145
27/08/2020 10:07	7,5	27,0135	58,3022	37,241	93,7	6,04	8,148	0,23	1,012	24,4367
27/08/2020 10:07	8	27,0151	58,3527	37,276	94,0	6,05	8,146	0,22	1,177	24,46467
27/08/2020 10:07	8,5	27,0236	58,5943	37,443	94,6	6,08	8,14	0,20	1,165	24,59039
27/08/2020 10:07	9	27,0268	58,6704	37,496	94,0	6,05	8,143	0,20	1,171	24,63081
27/08/2020 10:07	9,5	26,9916	58,7000	37,545	93,9	6,04	8,144	0,20	0,945	24,68185
27/08/2020 10:07	10	26,8746	58,7690	37,69	94,3	6,07	8,136	0,22	1,405	24,83096
27/08/2020 10:07	10,5	26,6626	58,8518	37,924	94,4	6,09	8,130	0,21	2,188	25,07741
27/08/2020 10:07	11	26,5882	58,8707	37,999	94,1	6,08	8,130	0,20	2,880	25,15988
27/08/2020 10:07	11,5	26,5779	58,8687	38,005	93,7	6,05	8,131	0,17	3,565	25,17055
27/08/2020 10:07	12	26,5768	58,8676	38,005	94,0	6,08	8,127	0,17	3,976	25,17296
27/08/2020 10:07	12,5	26,5763	58,8667	38,005	93,8	6,06	8,127	0,18	3,945	25,17495
27/08/2020 10:07	13	26,5763	58,8651	38,004	93,2	6,02	8,131	0,18	3,758	25,17607

Time	Pressure	Temperature	Conductivity	Salinity	Oxygen %	Oxygen mg/L	pH	Fluorometer AutoScale	Turbidity AutoScale	SigmaT
22/09/2020 09:27	0,5	23,9396	52,2865	35,247	95,7	6,57	7,956	0,31	1,609	23,85015
22/09/2020 09:27	1	23,8950	52,2551	35,258	95,6	6,57	7,974	0,31	1,567	23,87411
22/09/2020 09:27	1,5	24,1226	53,0432	35,674	95,6	6,53	7,973	0,30	1,451	24,12365
22/09/2020 09:27	2	24,4007	54,3342	36,426	95,5	6,46	7,987	0,31	1,328	24,61169
22/09/2020 09:27	2,5	24,5491	54,9423	36,764	95,2	6,41	8,001	0,3	1,223	24,82482
22/09/2020 09:27	3	24,7142	55,5112	37,057	95,2	6,38	8,001	0,29	1,163	24,99851
22/09/2020 09:27	3,5	24,814	55,8269	37,212	94,8	6,34	8,012	0,29	1,093	25,08761
22/09/2020 09:27	4	24,8517	56,018	37,3240	94,7	6,32	8,024	0,29	1,170	25,16328
22/09/2020 09:27	4,5	24,8500	56,045	37,346	95,5	6,38	8,024	0,29	1,098	25,18228
22/09/2020 09:27	5	24,8463	56,0628	37,362	95,3	6,36	8,034	0,30	1,073	25,19785
22/09/2020 09:27	5,5	24,8731	56,0808	37,353	95,6	6,38	8,036	0,30	1,102	25,18508
22/09/2020 09:27	6	24,8784	56,1124	37,372	95,8	6,39	8,04	0,33	1,049	25,20018
22/09/2020 09:27	6,5	24,9215	56,1575	37,3700	96,3	6,42	8,04	0,34	1,506	25,1875
22/09/2020 09:27	7	24,9263	56,2418	37,429	96,8	6,45	8,042	0,35	1,174	25,23306
22/09/2020 09:27	7,5	24,9383	56,2653	37,437	96,8	6,45	8,045	0,36	1,125	25,23715
22/09/2020 09:27	8	24,9253	56,2893	37,465	97,0	6,46	8,048	0,37	1,070	25,26504
22/09/2020 09:27	8,5	24,9341	56,2931	37,461	97,2	6,48	8,05	0,37	1,121	25,26101
22/09/2020 09:27	9	24,9686	56,3311	37,461	97,3	6,48	8,052	0,40	1,218	25,2523
22/09/2020 09:27	9,5	24,9719	56,3880	37,5003	97,5	6,49	8,055	0,38	1,152	25,28357
22/09/2020 09:27	10	24,9826	56,4234	37,518	97,6	6,49	8,058	0,37	1,236	25,29562
22/09/2020 09:27	10,5	25,0180	56,4959	37,543	97,6	6,49	8,06	0,38	1,330	25,30561
22/09/2020 09:27	11	25,0889	56,7257	37,656	97,4	6,47	8,058	0,44	2,080	25,37155
22/09/2020 09:28	11,5	25,0615	56,8312	37,758	97,3	6,46	8,056	0,44	2,452	25,45928
22/09/2020 09:28	12	25,0204	56,8311	37,792	96,3	6,4	8,058	0,44	3,342	25,49994
22/09/2020 09:28	12,5	24,9421	56,7968	37,831	95,6	6,35	8,053	0,31	5,735	25,55623
22/09/2020 09:28	13	24,9365	56,7991	37,838	94,4	6,28	8,051	0,29	7,051	25,56496

WP4

Activity progress

AdSWiM | PP Pescara | Ester Zazzero

GA Meeting | On line meeting | December 2021