



PROJECT SUMMARY

The DESTRIERO project (Grant Agreement n. 312721) has reached the end of its foreseen life.

During the last year, the project has achieved all the foreseen objectives and, in particular, the following main facts of the last year deserves to be highlighted:

- A. Release of a working version of the system (prototype)
- B. Demonstration day
- C. Dissemination day

DESTRIERO is now a working prototype platform, evaluated with a Technology Readiness Level (TRL) of 6: "technology demonstrated in relevant environment". The adopted solution has been validated simulating an operational and complex cascade scenario:

1. a strong earthquake happens damaging two dams
2. the collapse of the dam generates serious flooding in the area
3. the flooding impacts on towns and villages and on a nuclear plan already damaged by the initial earthquake (CBRN crisis).

The platform has been designed to be used during the recovery, reconstruction and planning phase, which starts at T0+72h. Users are all entities involved in this phase without distinction of role and type (different organizations, from different countries, as well as, different roles within the organizations) fostering a real collaboration.

DESTRIERO allows the users:

- to have a common picture and understanding of the current situation;
- to provide and share the same set of data and information, including geo-spatial data;
- to model and simulate the CBRN propagation and impact;
- to support the decision makers through a tool able to optimize the allocation of available resources;
- to optimize the use of operational teams on fields with respect to assigned activity plans;
- to organize and setup call conferences and send SMS between involved people and teams on field, etc.

The above-mentioned events (the Demonstration day and the Dissemination day) have achieved very good results: participation over the expectations and many positive feedbacks/comments on the adopted solution.

This is a further confirmation of the goodness of the platform that has been implemented and in general of the adopted methodology and solution.

A video, recorded during the demonstration day, is available on YouTube <https://www.youtube.com/watch?v=Esmg0io3N2c>, and explain the use of the system within an operational context.



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Eventually, also from a scientific point of view, several articles have been presented and published contributing to broaden the interested over the developed platform.

In general, the project has successfully reached its natural closure achieving all foreseen objectives, on time and within the budget.

The table hereinafter reports the actual effort (person/months) spent in the project compared with the budget planned at the beginning of the project.



WP #	Type	PERSON MONTHS	EGEOS	CINI	TRT	AMPER/THP	UPVLC	FHG	INNO	SESM/SELEX/FNMI	ITTI	SAADIAN	AMI	PSNI	SGSP	TOTAL
WP1 Project Management	MGT	Budget	8	1,5	1,5	1,5	1,5	2	2	2,35	2,5	1,5	1	1	1	27,35
		Actual	8,83	1,73	4,04	2,7	2	2,9	2,71	2,35	2,5	1,5	1,5	1,23	1	34,99
WP2 PDNA and RRP user requirements	RTD	Budget	2	4	3	5	7	5	3	3	8	2	5	5	5	57
		Actual	2	2,65	4,27	3,25	8	6,49	3,1	3,01	8,11	2	4,3	1,19	5	53,37
WP3 Technological Interoperability for damage assessment and recovery needs data	RTD	Budget	2	5	0	11	4	4	9	2	4	0	0	0	0	41
		Actual	2	4,4		8,82	5	5,19	9,4	3	4,28					42,09
WP4 Functional Interoperability for coordination and planning activities	RTD	Budget	2	0	4	0	0	9	0	9	7	7	0	0	0	38
		Actual	2		6,44	4,85		11,67		9	7,18	7				48,14
WP5 DESTRIERO Architecture design	RTD	Budget	8	9	7	3	6	3	0	5	4,5	2	0	0	0	47,5
		Actual	8	5,49	3,62	0	7	3,89		5	4,69	2				39,69
WP6 Development of platform for PDNA and RRP	RTD	Budget	14	8	6	7	8	4	2	11	5	5	0	0	0	70
		Actual	14,56	10,07	5,13	8,16	9	5,19	2,3	10	5,36	5				74,77
WP7 DESTRIERO modules integration	RTD	Budget	6	4	4	5	4	3	4	7	5	4	0	0	0	46
		Actual	10	5,96	4,87	7,04	5	3,89	2,5	7	5,13	4				55,39
WP8 DESTRIERO Demonstration and Validation	DEM	Budget	3	1	4	4,5	2	4	4	3	3	2	2	2	2	36,5
		Actual	1,57	1,04	6,07	3,88	3	5,32	3,5	0,21	3,17	2	1,9	1,25	2	34,91
WP9 Exploitation and Dissemination	OTH	Budget	3	3	2	1	2	2	4	2	2	4	2	2	2	31
		Actual	3,35	3,02	1,36	0,42	2	3,16	5,7	1,85	2,17	5,37	1,8	0,27	2	32,47
TOTAL		Budget	48	35,5	31,5	38	34,5	36	28	44,35	41	27,5	10	10	10	394,35
		Actual	52,31	34,36	35,8	39,12	41	47,7	29,21	41,42	42,59	28,87	9,5	3,94	10	415,82

Table 1 - Person /months: Actual vs. Budget



The total amount of the PM spent during the project life results higher than what expected. Moreover, analyzing the effort spent in each WP, it is possible to highlight some major discrepancies. Despite this, the project has respected the overall budget.

For a correct evaluation of these values, it is therefore important to report the following considerations:

1. Seniority and cost of resources: several partners have employed personnel with lower seniority or with lower hourly rate than the personnel originally planned. This has led to higher PM consumed at approximately the same total cost.
2. Recovery action plan: a reallocation of PM assigned to partners has been presented in the Action Plan for the Technical Manager (a total of 6 PM shared by the research and industrial partners and assigned to the Project coordinator) and for the reorganization of WP9 activities. The tables hereinafter report these reallocations as presented in the recovery action plan.

Partner	DOW – RTD budget (person months)	NEW – RTD budget (person months)	Effort shared (person months)
EGEOS	32.0	31.0	1.0
CINI	30.0	29.5	0.5
TRT	24.0	23.5	0.5
AMPER/THP	31.0	30.5	0.5
UPVLC	29.0	28.5	0.5
FHG	28.0	27.5	0.5
INNO	18.0	17.5	0.5
SESM/SELEX/FNM	37.0	36.0	1.0
ITTI	33.5	33.0	0.5
SAADIAN	20.0	19.5	0.5
AMI	5.0	5.0	0.0
PSNI	5.0	5.0	0.0
SGSP	5.0	5.0	0.0
TOTAL person months shared for the TeM			6.00

Table 2 – TEM: effort sharing within RDT PM budget



Partner	WP9 (Person months)			Total
	T9.1	T9.2	T9.3	
EGEOS	2.00	0.00	2.00	4.00
CINI	1.00	0.00	2.00	3.00
TRT	1.00	0.00	1.00	2.00
AMPER/THP	1.00	0.00	0.00	1.00
UPVLC	0.75	0.00	1.00	1.75
FHG	0.00	0.00	2.00	2.00
INNO	1.50	0.00	2.00	3.50
SESM/SELEX/FNM	0.75	0.00	1.00	1.75
ITTI	1.00	0.00	1.00	2.00
SAADIAN	1.00	2.00	1.00	4.00
AMI	1.00	1.00	0.00	2.00
PSNI	1.00	1.00	0.00	2.00
SGSP	1.00	1.00	0.00	2.00
TOTAL	13.00	5.00	13.00	31.00

Table 3 – WP9 new person month association - The yellow cell identifies the WP Leader, the green cells identify the Task leader