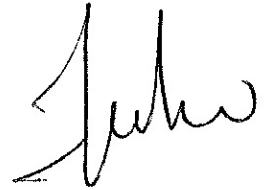


ALLEGATO 1

Urban Innovative Actions – V bando (www.uia-initiative.eu)
Iniziativa della Commissione Europea su fondi FESR
Progetto "MATER – Monitoraggio Ambientale Terra dei Roghi"
Con coordinatore il Comune di Giugliano



Partenariato

Il partenariato è costituito dal Comune di Giugliano (coordinatore) insieme ai cosiddetti delivery partner, alcuni dei quali, i partner privati, sono stati selezionati dal Comune con determina n° 1804 del 25/11/2019:

- E.I.T.D. Scarl;
- ENCO Consulting Srl;
- Fides Consulting Srl;
- Agrocoltura Srl.
- Dipartimento di Ingegneria Chimica, dei Materiali e della Produzione Industriale (DICMAPI) della Federico II, tramite una lettera di supporto alla progettazione e all'eventuale implementazione del progetto.

Inoltre, il Comune ha individuato nell'ARPA Campania e nell'Ente Riserve Foce del Volturno, Costa di Licola, Lago di Falciano due ulteriori soggetti pubblici a complemento del partenariato.

Abstract

Negli ultimi anni la qualità della vita e dell'aria nel territorio del Comune di Giugliano in Campania è stata influenzata, oltre che dal livello di emissioni da fonti urbane (traffico veicolare, riscaldamento domestico) e da fonti industriali, anche dal fenomeno dello sversamento illecito di rifiuti che causa l'emissione diretta di sostanze dannose per la salute dei cittadini e del successivo incendio di rifiuti di varia natura con l'emissione di inquinanti altamente tossici a seguito dell'innescò di roghi di rifiuti ("Terra dei fuochi").

In considerazione di ciò e in risposta alla sempre più crescente esigenza dei cittadini di essere informati sulla qualità dell'aria, il Comune di Giugliano, in partenariato con soggetti privati (EITD, ENCO, Fides, Agrocoltura) e pubblici (ARPAC, Ente Riserve Naturali "Foce del Volturno Costa di Licola" e Lago di Falciano", si candida a partecipare al quinto bando UIA – Urban Innovative Actions sulla tematica della Qualità dell'Aria.

Con il progetto che, se approvato, sarà co-finanziato dalla Commissione Europea, il Comune di Giugliano e i partner tutti intendono intervenire con azioni mirate a mitigare gli effetti delle emissioni inquinanti in atmosfera sia da fonti urbane (mobilità, pendolarismo) ma soprattutto da quelle peri-urbane della "Terra dei Fuochi").

Il progetto prevede le seguenti azioni:

- progettazione e realizzazione di una rete capillare di monitoraggio fissa e mobile della presenza dei roghi e degli inquinanti basata sull'utilizzo di sensori con parametri caratteristici degli eventi di combustione.
- La rete di monitoraggio capillare sarà affiancata da un monitoraggio dettagliato delle classi di inquinanti tossici di interesse nella combustione non controllata dei rifiuti quali diossine, metalli e polveri sottili mediante una serie di sensori "avanzati" da installare su un mezzo pubblico con trazione elettrica, di cui si doterà il Comune, tramite questo progetto UIA.
- I dati di monitoraggio confluiranno in un'unità di controllo e decisione che permetterà, a valle dei risultati del monitoraggio e del modello previsionale di diffusione degli inquinanti, di adottare decisioni informate e metodologie di remediation della qualità dell'aria (ed eventualmente dei suoli) e metodologie comportamentali con l'obiettivo di migliorare la qualità della dell'aria e la qualità vita dei cittadini di Giugliano in Campania.



- A supporto delle attività di monitoraggio e con la finalità di influire sulle scelte della mobilità dei cittadini, verrà realizzato un servizio di bike-sharing che utilizzerà la pista ciclabile in realizzazione nel Comune di Giugliano in Campania e un servizio di collegamento tra le stazioni ferroviarie del territorio da effettuarsi tramite un autobus elettrico.
- Si attuerà infine una Formazione Sociale sia per una maggiore informazione dei cittadini sia perché vengano adottati modelli di comportamenti atti a migliorare la qualità dell'aria (incentivazione della mobilità sostenibile – pista ciclabile), oltre a una serie di azioni di formazione in materia di qualità dell'aria e inquinamento atmosferico, modellate in relazione ai cittadini del Comune di Giugliano, quali ad esempio studenti, casalinghi/e, lavoratori, disoccupati. In particolare, per quest'ultima categoria, si prevede di realizzare un percorso formativo professionalizzante sul monitoraggio della qualità dell'aria, anche a supporto delle attività che metterà in campo il Comune e i suoi partner.

Stakeholder

Sono stati coinvolti come stakeholder:

- Il circolo Legambiente Giugliano "Arianova"
- La Prefettura di Napoli
- Il Consorzio ASI
- Il Cluster Tecnologico Nazionale "Smart Communities Tech"
- Il progetto "AIR Heritage" del Comune di Portici sulla Qualità dell'aria, finanziato dal terzo bando UIA

Risultati attesi

I cambiamenti attesi sono:

- Riduzione del 20% dei roghi incontrollati con conseguente miglioramento della qualità dell'aria e della qualità della vita dei cittadini giuglianesi
- Il lancio di un servizio di bike-sharing che potrebbe essere utilizzato da circa 38.000 persone all'anno
- L'utilizzo di tecnologie di miglioramento la qualità dell'aria in vari contesti;
- Un'informazione e formazione sociale di 13.700 studenti delle scuole primarie e secondarie, di 3000 lavoratori, i 3000 tra casalinghe e pensionati, e la formazione di 60 tecnici per il monitoraggio ambientale

In allegato 1, il progetto in inglese come caricato nella piattaforma UIA per l'invio del progetto.

Budget del progetto

Si veda allegato 2





Part A - Project summary

A.1 Project Identification

Acronym	MATER		
Title	Monitoring of Air quality in Terra dei Roghi (Monitoraggio Ambientale nella Terra dei Roghi)		
Project Number	UIA05-267		
(Main) Urban Authority	Municipality of Giugliano		
ERDF rate	80 %		
Project Duration	Start Date	01/07/2020	
	End Date	30/06/2023	
	Total Months	36	
Topic	Air quality		

A.2 Project summary

Description In recent years, quality of life and air quality in the Municipality of Giugliano has been negatively influenced by emissions from urban and industrial sources and by illegal industrial waste disposal which causes the direct emission in the atmosphere of harmful substances and/or the emission of toxic pollutants due to uncontrolled waste fires (well known as Terra dei Roghi). The established consortium proposes an initiative aimed at realizing specific actions to mitigate pollutant emissions in the atmosphere deriving from urban sources and from the emissions of the "Terra dei Roghi". MATER proposes a widespread monitoring system, an early-warning Control Unit, green mobility actions, remediation actions and social education and training to improve the air quality in Giugliano and in other similar contexts. The proposed action is innovative, acts directly on the emission sources of harmful pollutants and on early detection of incipient waste fires, together with a direct involvement of the citizenships, either in monitoring (Citizen science), in remediation actions and in Social Education. The expected results are a strong reduction of uncontrolled waste fires, the use of a bike-sharing and electric buses service for students and workers of the industrial area, the use of remediation technologies in different contexts, real-time information to citizen of air quality on the entire territory, social education for citizens and training of about 60 technicians on air monitoring.

Partner	Country	ERDF co-financing		Contribution		Total	Total	
		EUR	ERDF rate	Public	Private		Budget	% of project budget
PP 1 - Municipality of Giugliano	IT	1,885,600.00	80.00 %	471,400.00	0.00	471,400.00	2,357,000.00	48.82 %
PP 2 - BITD	IT	344,720.00	80.00 %	0.00	86,180.00	86,180.00	430,900.00	8.89 %
PP 3 - ENCO	IT	255,200.00	80.00 %	0.00	63,800.00	63,800.00	319,000.00	6.58 %
PP 4 - Fides Consulting srl	IT	529,204.00	80.00 %	0.00	132,301.00	132,301.00	661,505.00	13.64 %
PP 5 - Agricoltura srls	IT	295,964.00	80.00 %	0.00	73,991.00	73,991.00	369,955.00	7.63 %
PP 6 - University of Naples Federico II	IT	209,136.00	80.00 %	52,284.00	0.00	52,284.00	261,420.00	5.39 %
PP 7 - Campania Regional Agency for Environment Protection (ARPAC)	IT	323,084.00	80.00 %	80,771.00	0.00	80,771.00	403,855.00	8.33 %
PP 8 - Ente Riserve Foce Volturno Costa Licola Lago Falciiano	IT	35,564.00	80.00 %	8,891.00	0.00	8,891.00	44,455.00	0.92 %
Total (€)		3,878,472.00	80.00 %	613,346.00	356,272.00	969,618.00	4,848,090.00	100.00 %



A



Part B - Partnership

Relevance of the Partnership

The City of Gugliano conceived the MATER project with the direct involvement of a plurality of actors, both as project partners and as local stakeholders, linked to air quality issues from the beginning of the design phase and has foreseen their direct involvement in the implementation phase. The partnership is made of private partners, EITD, ENCO, Fides and Agricoltura with their own expertise, respectively on social training, on communication and dissemination, on software development for air quality monitoring and early-warning systems, and on remediation actions for air quality; an academia partner, UNINA, with competences on air quality monitoring. The private partnership has been built after a public call of the Urban Authority. Moreover, two public institutional partners have been involved in the partnership, ARPAC and Ente Riserva Costa Licola, with the aim of including all different actors dealing with the local challenges at different participation levels.

B.1 - (Main) Urban Authority

Organisation name (Original)	Comune di Gugliano		
Organisation name (English)	Municipality of Gugliano		
Member state	ITALY		
Number of inhabitants	123.839		
Comments, if necessary	The Municipality of Gugliano in Campania is the Urban Authority representing its community. It takes care of its citizen's interests and of the neighboring territories, promoting the general development of the territory. The Gugliano Municipality has been for a long one of the most populous town in Europe. It is characterized by numerous marginal areas from a social, cultural and especially environmental perspective. This has significant influence on economics and social well-being of a large community, being the municipality of Gugliano a point of reference for the nearby local authorities. In the recent years, in fact, the quality of life and the air quality in the territory of Gugliano has been negatively influenced not only by emissions from urban (traffic and domestic heating) and industrial sources, but mainly by the illegal disposal of industrial wastes causing directly the emission of harmful substances for the citizens' health and indirectly the emission of highly toxic pollutants (the phenomenon is called Land of Fires or Terra dei Roghi) by the uncontrolled fires of abandoned wastes. Several initiatives have been put in place either for monitoring the air quality and for promoting sustainable and civil actions to hinder this phenomenon, but still it remains a lot to do. A report on health investigations carried out by the Italian National Institute of Health (Istituto Superiore di Sanità) and the Naples North Office's Public Prosecutor in June 2019 mapped the "land of fires" ("Terra dei Roghi") calculating an indicator of exposure that takes into account the dangerousness of the sites in each municipality and the percentage of the population living in their respective areas of impact. On the basis of the values of this indicator, the report divides the municipalities into four classes of increasing value, identifying with the "class 4" the municipalities most at risk. Specifically, Gugliano in Campania is classified as "class 4 municipality".		
Department(s)/unit(s)/division(s) concerned	The Unit involved in the project implementation is the "Environment and Infrastructures". Its role is to provide guidelines on project implementation in compliance with local, national and European laws. The Unit will take care of project coordination, partner involvement, achievement of project objectives. Furthermore, the Unit is responsible for administrative activities and for tendering all foreseen investments. Giuseppe Sabini, Unit manager, is the contact person.		

Address	Street	Corso Campano 200, Gugliano in Campania (NA)	Contact Person	Position	Manager of the Environment and Public Works Project Unit
	Post Code	80014		Title	Mr
	Town	Gugliano in Campania (NA)		Forename	Giuseppe
	NUTS 2	Campania		Surname	Sabini
	NUTS 3	Napoli		Email Address	giuseppe.sabini@comune.gugliano.na.it
				Phone Number	+39 0 818 956 301

Legal representative	Position	Mayor
	Title	Mr
	Forename	Antonio
	Surname	Pozzello
	Email Address	protocollo@pec.comune.gugliano.na.it
	Phone Number	+39 0 818 956 301

Legal status of the organisation	Public	Partner type	Local public authority
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VAT number	80049220637
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VAT recoverable	No
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Involvement in the design phase	The applying Urban Authority (UA) contributed in the designing phase through: <ul style="list-style-type: none"> - Identification of consortium partners by means of public call to co-design - Selection of applicant consortium - Meeting with partners and definition of project proposal - Definition of partners and stakeholders' role in the proposal - Identification of the resources (co-funding) needed for the project implementation. The UA contributed to the definition of the whole project proposal coordinating all partners.
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Involvement in the implementation phase

The UA contribution to the project consists of:

- Coordination of partners during the implementation of their actions;
- Contribution to the implementation of communication activities;
- Realization of investments;

- Contribution to the dissemination of project results

The referring WPs are: WP2 (Management); WP3 (Communication); WP4, WP5, WP6 and WP7 (Implementation); WP8 (Investments) and WP9 (Closure). The Municipality will coordinate the management, the investments and the closure of the project, while supporting the other partners in the activities of WP3, WP4, WP5, WP6 and WP7.

The Municipality is the leader partner also for WP1 (Preparation).

WPs are presented in detail in the dedicated section.

Competences and experiences in relation to the challenge addressed?

Being one of the municipalities mostly affected by the problems from "the land of fires" (report of health investigations, June 2019, section C.1.1), Gugliano has already implemented several remediation measures:

- promotion of sustainable mobility;
 - urban tree-planting to reduce air pollution;
 - agreement with Campania Region to tackle waste disposal and their arson (2018).
- Therefore, Gugliano represents the perfect player to coordinate partnerships' actions aimed at improving air quality.

Experience in participating in and/or managing EU co-financed projects or other international projects.

The municipality of Gugliano has already taken part in:

- PIU Europa for the recovery of the territory, project co-financed by Regional Program PO FESR 2007-2013- Lead Partner.

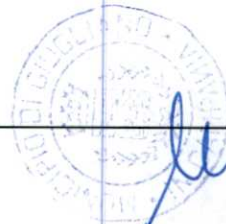
- Integrated Project for the recovery and reorganization of the mobility system, accessibility and fruition of the archaeological park of "Campi Flegrei" - funded by the "Culture and tourism" exhibition plan of the fund for development and cohesion 2014-2020 - Partner

Total Partner Budget

PROGRAMME CO-FINANCING		CONTRIBUTION			Total (€)	
ERDF (€)	ERDF Co-financing rate (%)	Public Contribution (€)	Private Contribution (€)	Total Contribution (€)	Total Eligible Cost (€)	
(a)		(b)	(c)	(d)=(b)+(c)	(e)=(a)+(d)	
1,885,600.00	80.00 %	471,400.00	0.00	471,400.00	2,357,000.00	

Breakdown of Partner Budget per Work Package/ Budget Line

Work Package	Staff Costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and Works (€)	Sub-total (€)	Revenues (€)	Total (€)
WP 1	0.00	0.00	0.00	20,000.00	0.00	0.00	0.00	0.00	20,000.00
WP 2	75,000.00	11,250.00	3,000.00	0.00	0.00	0.00	89,250.00	0.00	89,250.00
WP 3	10,000.00	1,500.00	0.00	4,500.00	0.00	0.00	16,000.00	0.00	16,000.00
WP 4	25,000.00	3,750.00	0.00	0.00	0.00	0.00	28,750.00	0.00	28,750.00
WP 5	25,000.00	3,750.00	0.00	0.00	0.00	0.00	28,750.00	0.00	28,750.00
WP 6	25,000.00	3,750.00	0.00	0.00	0.00	0.00	28,750.00	0.00	28,750.00
WP 7	25,000.00	3,750.00	0.00	0.00	0.00	0.00	28,750.00	0.00	28,750.00
WP 8	25,000.00	3,750.00	0.00	540,000.00	1,483,000.00	50,000.00	2,101,750.00	0.00	2,101,750.00
WP 9	0.00	0.00	0.00	15,000.00	0.00	0.00	0.00	0.00	15,000.00
Total (€)	210,000.00	31,500.00	3,000.00	579,500.00	1,483,000.00	50,000.00	2,357,000.00	0.00	2,357,000.00
% of total budget	8.91 %	1.34 %	0.13 %	24.59 %	62.92 %	2.12 %	100.00 %	0.00 %	100.00 %





B.3 - Delivery Partner (Partner 2)

Organisation name (Original) E.I.T.D. S.c.a.r.l.

Organisation name (English) EITD

Member state ITALY

Department(s)/unit(s)/division(s) concerned EITD is a limited company, established in 1994, that develops consultancy projects and interventions, continuous and vocational education and technical advice in favour of public administrators and private companies. It has implemented more than 120 interventions and trained more than 10,000 people. The area of Experimentation and Innovation (SPIN) will be involved in Social Training WP and will support the coordinator for the management of the project.

Address

Street via Vicinale S.Maria del Pianto 1, Napoli (NA)

Post Code 80143

Town Napoli

NUTS 2 Campania

NUTS 3 Napoli

Contact Person

Position Project manager

Title Ms

Forename d'Alessandro

Surname Cristina

Email Address cdalessandro@eitd.it

Phone Number +39 0 817 872 851

Legal representative

Position Sole Administrator

Title Mr

Forename Paolo

Surname Lanzilli

Email Address planzilli@eitd.it

Phone Number +39 0 817 872 851

Legal status of the organisation Private Partner type SME

VAT number 06763460638

VAT recoverable Yes

Involvement in the design phase EITD has been selected, jointly with the other private delivery partners, by the City of Giugliano for the co-design phase, through a public notice published by the UA. It has participated to all co-design meetings at Giugliano Council's premises, coordinating all partners' contribution, supporting the UA in submitting the proposal. It has contributed to the overall proposal design and in identifying the resources needed for the implementation phase. It also designed the WP7 "Social Training".

Involvement in the implementation phase EITD will coordinate the WP7 Social Training, thanks to its long-lasting experience in training delivery. EITD will implement workshop and training courses on air quality and air pollution, tailored on different target groups, such as students, housewives, workers and unemployed people, aimed at raising awareness of Giugliano citizenships on the local contest and on remediation activities that can be done by themselves. Moreover, it will contribute to the communication phase (WP3) and to the promotion of green mobility (WP5) and to the management phase (WP2) by supporting the UA in the realisation of administrative activities for the investments, in the coordination with the Permanent Secretariat and with the other delivery partners.

Competences and experiences in relation to the challenge addressed? EITD has a significant experience in the design and management of training activities. In detail, with the municipality of Giugliano, it implemented a complex intervention (under the Regional Programme PON "Legalità") aimed at restructuring a property confiscated from the Camorra and its reuse for development and animation of the territory. On these, EITD will leverage for the implementation and management of social training activities and dissemination/communication campaigns.

Experience in participating in and/or managing EU co-financed projects or other international projects. EITD's experience derives from management and/or participation to several EU co-financed project. The most relevant are:
 - "Garanzia Giovani"- design and provision of training courses on cultural mediation and interculturality, co-financed by the ESF;
 - Project of gender territorial agreements, co-financed by the ESF;
 - Vocational training and guidance projects, co-financed by the ESF.
 - Project partners on 7 Leonardo da Vinci and 1 Grundtvig project.

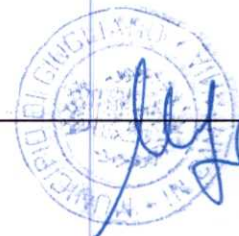
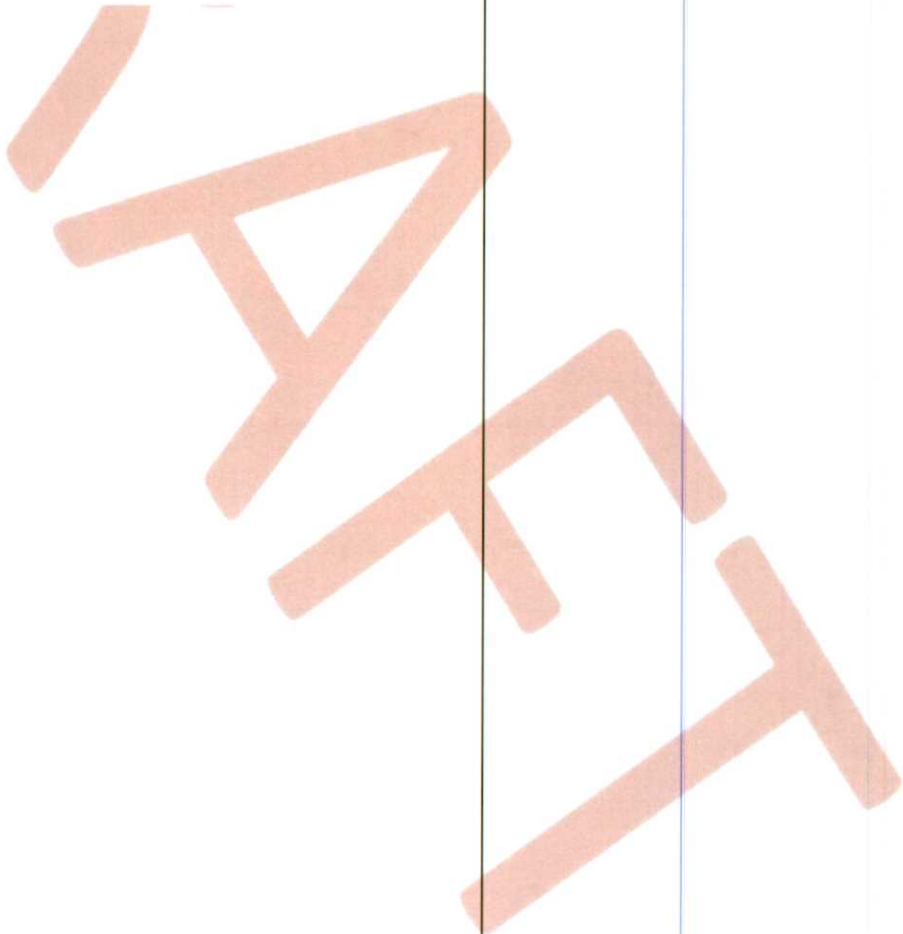
Total Partner Budget

PROGRAMME CO-FINANCING			CONTRIBUTION		Total (€)
ERDF (€)	ERDF Co-financing rate (%)	Public Contribution (€)	Private Contribution (€)	Total Contribution (€)	Total Eligible Cost (€)
(a)		(b)	(c)	(d)=(b)+(c)	(e)=(a)+(d)
344,720.00	80.00 %	0.00	86,180.00	86,180.00	430,900.00



Breakdown of Partner Budget per Work Package/ Budget Line

Work Package	Staff Costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and Works (€)	Sub-total (€)	Revenues (€)	Total (€)
WP 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 2	25,000.00	3,750.00	1,900.00	0.00	0.00	0.00	30,650.00	0.00	30,650.00
WP 3	10,000.00	1,500.00	0.00	1,500.00	0.00	0.00	13,000.00	0.00	13,000.00
WP 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 5	25,000.00	3,750.00	0.00	0.00	0.00	0.00	28,750.00	0.00	28,750.00
WP 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 7	300,000.00	45,000.00	2,000.00	0.00	0.00	0.00	347,000.00	0.00	347,000.00
WP 8	10,000.00	1,500.00	0.00	0.00	0.00	0.00	11,500.00	0.00	11,500.00
WP 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (€)	370,000.00	55,500.00	3,900.00	1,500.00	0.00	0.00	430,900.00	0.00	430,900.00
% of total budget	85.87 %	12.88 %	0.91 %	0.35 %	0.00 %	0.00 %	100.00 %	0.00 %	100.00 %



A



B.3 - Delivery Partner (Partner 3)

Organisation name (Original) ENCO srl
 Organisation name (English) ENCO
 Member state ITALY
 Department(s)/unit(s)/division(s) concerned ENCO is an innovation and research-consulting firm based in Naples, active since 1987. The company during the last 10 years has specialized in the management of projects funded directly by the European Commission as Project Coordinator, WP leader and task leader. In the implementation phase of the project will be involved:
 • Mr. MARCO DE LA FELD (male), Senior Project Manager
 • Mr. Ing. GIAMPIERO DE LA FELD (male), Managing Director of ENCO
 • Ms. SIMONA MINCIONE (female), Project Manager

Address	Street	Via Michelangelo Schipa, 115, Napoli (NA)	Contact Person	Position	Senior Project Manager
	Post Code	80122		Title	Mr
	Town	Napoli		Forename	Marco
	NUTS 2	Campania		Surname	de la Feld
	NUTS 3	Napoli		Email Address	m.delafield@enco-consulting.it
	Phone Number	+39 3 351 426 318			

Legal representative	Position	Legal Representative
	Title	Mr
	Forename	Giampiero
	Surname	de la Feld
	Email Address	direzione@enco-consulting.it
	Phone Number	+39 0 817 611 727

Legal status of the organisation Private Partner type SME

VAT number IT05195140636

VAT recoverable Yes

Involvement in the design phase Enco has identified three kind of target groups: citizens, institutions and operational bodies. Online and offline communication strategy has been identified. Synergies with the nearest municipalities will be created in order to inform them about the collected data, if relevant. A dedicated APP will be created. Enco will put all his expertise at the service of the consortium. Thanks to the communication strategy, a significant support regarding the achievement of the objectives will be provided.

Involvement in the implementation phase Enco will be involved in WP5 focusing on the involvement of students and citizens and their sensitisation on air pollution issue, encouraging them to good practices. There will be foreseen actions to encourage clean mobility with the aim of influencing the citizens' clean mobility choices. These actions will be modulated depending on different target groups identified, maximising in this way the impacts and contributing to the development of good "Clean Commuting" practices.

Competences and experiences in relation to the challenge addressed? Communication and dissemination strategies: action plans for C&D activities; tailor made campaign, organizing and selecting events and meetings; producing publications, newsletters, brochures, promotional materials; setting up and managing project websites. Development of innovative APP. The company, with the support of some external partners, has developed dedicated APP (IOS and Android) in various reference sectors. Development of market analysis, business plan and exploitation plans

Experience in participating in and/or managing EU co-financed projects or other international projects. The company has a long track record participating in EU-funded projects as Project Coordinator, WP leader and task leader. The following are the managed EU co-financed projects that are of relevance for the topic of this call:
 - TRAINWARE (POR Campania FESR 2014-2020 under the Priority Axis 1 "Research and Innovation", Specific Objective 1.1 "Increasing the innovation Activities of Enterprises) as Lead Partner
 - FLIWARE (H2020 - ICT-12-2016) as Lead Partner

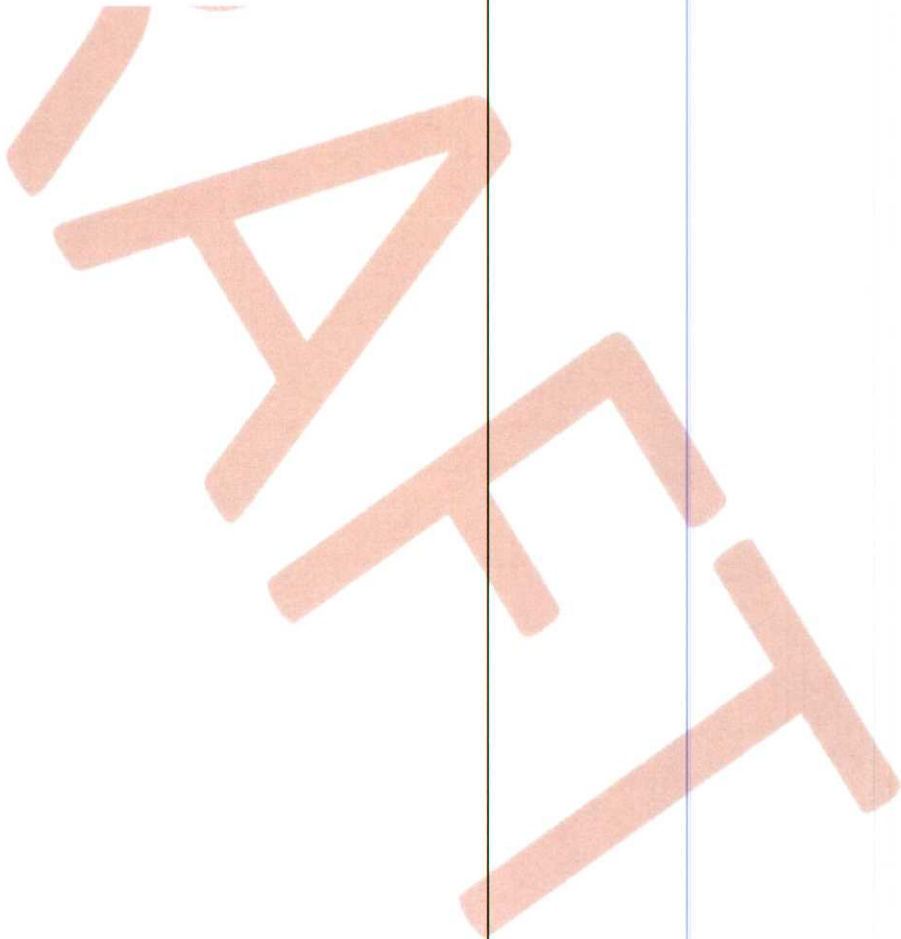
Total Partner Budget

PROGRAMME CO-FINANCING			CONTRIBUTION		Total (€)
ERDF (€)	ERDF Co-financing rate (%)	Public Contribution (€)	Private Contribution (€)	Total Contribution (€)	Total Eligible Cost (€)
(a)		(b)	(c)	(d)=(b)+(c)	(e)=(a)+(d)
255,200.00	80.00 %	0.00	63,800.00	63,800.00	319,000.00



Breakdown of Partner Budget per Work Package/ Budget Line

Work Package	Staff Costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and Works (€)	Sub-total (€)	Revenues (€)	Total (€)
WP 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 2	27,000.00	4,050.00	1,900.00	0.00	0.00	0.00	32,950.00	0.00	32,950.00
WP 3	135,000.00	20,250.00	8,000.00	15,000.00	0.00	0.00	178,250.00	0.00	178,250.00
WP 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 5	45,000.00	6,750.00	0.00	0.00	0.00	0.00	51,750.00	0.00	51,750.00
WP 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 7	45,000.00	6,750.00	2,000.00	0.00	0.00	0.00	53,750.00	0.00	53,750.00
WP 8	2,000.00	300.00	0.00	0.00	0.00	0.00	2,300.00	0.00	2,300.00
WP 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (€)	254,000.00	38,100.00	11,900.00	15,000.00	0.00	0.00	319,000.00	0.00	319,000.00
% of total budget	79.62 %	11.94 %	3.73 %	4.70 %	0.00 %	0.00 %	100.00 %	0.00 %	100.00 %





B.3 - Delivery Partner (Partner 4)

Organisation name (Original) Fides Consulting srl

Organisation name (English) Fides Consulting srl

Member state ITALY

Department(s)/unit(s)/division(s) concerned Fides is one of the leading companies in the IT context thanks to over 250 professionals and a radius of action throughout the national territory. The company is divided in departments depending of the application context: consulting services, software development ad innovation division. The only one department involved in the implementation of the project will be the innovation division, that will have a decisive role in the design, development and testing phases of the project.

Address

Street	Via Giovanni Porzio, 87, Napoli (NA)
Post Code	80143
Town	Napoli (NA)
MUTS 2	Campania
MUTS 3	Napoli

Contact Person

Position	Innovation Architect
Title	Mr
Forename	Paolo
Surname	Di Capua
Email Address	paolo.dicapua@fides.it
Phone Number	+39 3 496 000 474

Legal representative

Position	Legal representative
Title	Mr
Forename	Umberto
Surname	Caccioppoli
Email Address	umberto.caccioppoli@fides.it
Phone Number	+39 3 355 221 961

Legal status of the organisation Private Partner type SME

VAT number 05131731217

VAT recoverable Yes

Involvement in the design phase Fides was selected with the other delivery partners and due to its expertise in software design, by the City of Giugliano for the co-design phase, through a public note published by UA. It participated to all co-design meetings at Giugliano Council's premises. Specifically, it contributed to the design of the overall proposal and in the identification of the resources needed for the implementation phase. Mainly, it designed the WP4 "Widespread monitoring system and early-warning Control Unit".

Involvement in the implementation phase Fides will coordinate WP4 (Widespread monitoring system and early-warning Control Unit) thanks to its relevant expertise in software design. This while coordinating the selection of the best multi sensorial stations, and developing the software architecture responsible for monitoring the environment and managing all the data collected. Moreover, while Fides will act as WP leader referring to WP4, it will also contribute to WP2 (management) by supporting the Urban Authority and other involved partners.

Competences and experiences in relation to the challenge addressed? Fides has relevant expertise in terms of software design. Specifically, it has elaborated an internal technology (named OPTICCON), that helps government agencies to monitor the environment and to take prompt action in case of problems. On this, Fides will leverage for the implementation of Widespread monitoring system and early-warning Control Unit. Moreover, the relevance of this technology has been testified by the interest of Italian Ministry of Environment and of ISPRA.

Experience in participating in and/or managing EU co-financed projects or other international projects. Fides does not have previous experience in participation to project finance at European or International level.

Total Partner Budget

PROGRAMME CO-FINANCING			CONTRIBUTION		Total (€)
ERDF (€)	ERDF Co-financing rate (%)	Public Contribution (€)	Private Contribution (€)	Total Contribution (€)	Total Eligible Cost (€)
(a)		(b)	(c)	(d)=(b)+(c)	(e)=(a)+(d)
529.204.00	80.00 %	0.00	132.301.00	132.301.00	661.505.00



Breakdown of Partner Budget per Work Package/ Budget Line

Work Package	Staff Costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and Works (€)	Sub-total (€)	Revenues (€)	Total (€)
WP 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 2	5,700.00	855.00	1,900.00	0.00	0.00	0.00	8,455.00	0.00	8,455.00
WP 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 4	567,000.00	85,050.00	1,000.00	0.00	0.00	0.00	653,050.00	0.00	653,050.00
WP 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (€)	572,700.00	85,905.00	2,900.00	0.00	0.00	0.00	661,505.00	0.00	661,505.00
%of total budget	86.58 %	12.99 %	0.44 %	0.00 %	0.00 %	0.00 %	100.00 %	0.00 %	100.00 %

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B.3 - Delivery Partner (Partner 5)

Organisation name (Original)	Agrocultura srls				
Organisation name (English)	Agrocultura srls				
Member state	ITALY				
Department(s)/unit(s)/division(s) concerned	Agrocultura srls is an innovative enterprise based in Naples. Its vision lies on highly innovative urban development based on technology and agriculture combination, according to the circular economy paradigms. It has been recognized as unique and innovative by the Ministry of Economic Development (START and SMART measure of 2014). Its value has been confirmed with the participation to MONTERUSCIELLO AGROCITY (financed UIA project- Municipality of Pozzuoli) where the company plays a key role.				
Address	Street	VIA G. PORZIO,4 -Isola E2 CENTRO DIREZIONAL E. NAPOLI (NA)	Contact Person	Position	Founder and CEO
	Post Code	80147		Title	Mr
	Town	Napoli		Forename	Gerardo
	NUTS 2	Campania		Surname	Gatta
	NUTS 3	Napoli		Email Address	g.gatta@agrocultura.tv
				Phone Number	+39 3 775 495 087
Legal representative	Position	Founder and CEO			
	Title	Mr			
	Forename	Gerardo			
	Surname	Gatta			
	Email Address	g.gatta@agrocultura.tv			
	Phone Number	+39 3 775 495 087			
Legal status of the organisation	Private	Partner type	SME		
VAT number	07764851213				
VAT recoverable	No				
Involvement in the design phase	Agrocultura has been selected, jointly with the other private delivery partners, by the City of Giugliano for the co-design phase, through a public notice published by the UA. It has participated to all co-design meetings at Giugliano Council's premises. Moreover, it realized appropriate site inspections, collecting the data necessary to measure the impact of buildings on air quality, the quality of urban plants and the conditions of agricultural crops. This in order to functionally design WP6.				
Involvement in the implementation phase	Agrocultura will coordinate WP6 thanks to its expertise. Concretely, it will take care of making external structural interventions to some public buildings in order to limit the emissions of total atmospheric particulate, it will be improving local crops with an intervention of regenerative organic agriculture (planting detoxifying tree species and limiting air damage from the spread of pesticides) and it will build up a Social Forest towards the territory of the coastal strip. Moreover, Agrocultura will support the Consortium in the implementation of WP2 and WP7 respectively referred to "management" and "social training".				
Competences and experiences in relation to the challenge addressed?	Agrocultura's team is able to manage environmental problems and the culture of agriculture. This is testified by the fact that Agrocultura is already a delivery partner in the contest of MAC - UIA project of the first call. In this framework, it has developed its activities of regenerative organic agriculture, creating a concrete response to a serious environmental and cultural problem. Thus, it is able to develop an intervention aimed at improving air quality in Giugliano through agriculture.				
Experience in participating in and/or managing EU co-financed projects or other international projects.	Delivery Partner in UIA- MAC - MONTERUSCIELLO AGRO CITY				

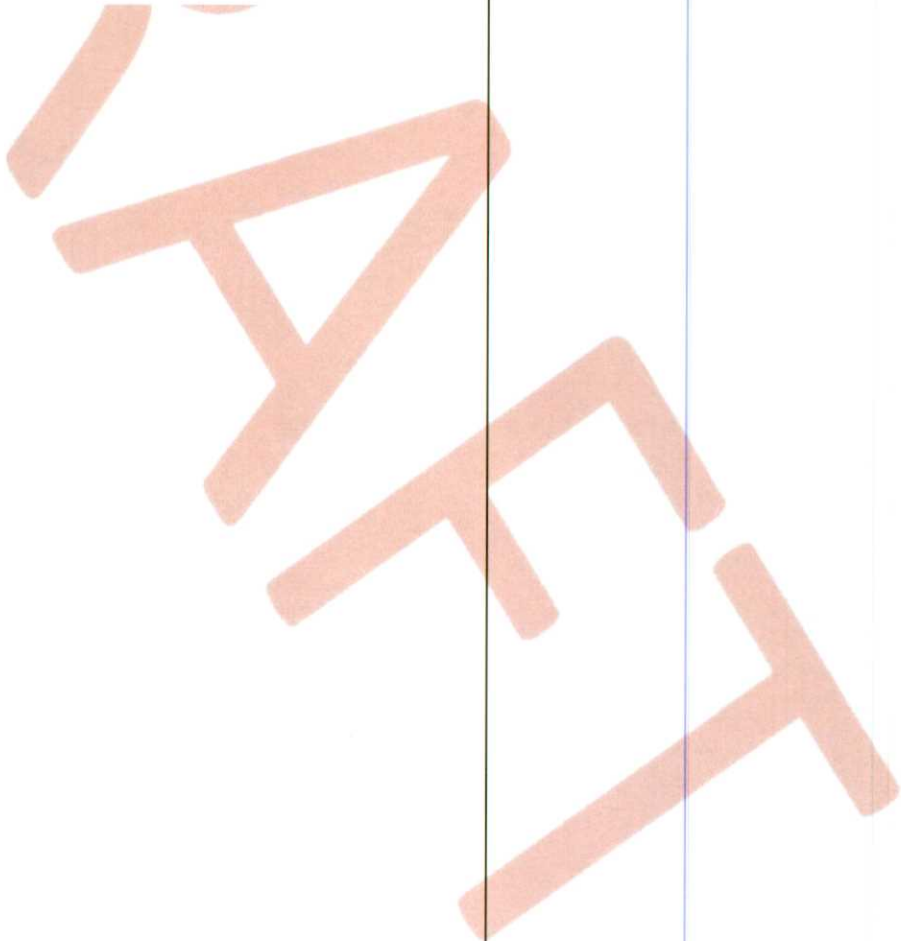
Total Partner Budget

PROGRAMME CO-FINANCING			CONTRIBUTION		Total (€)
ERDF (€)	ERDF Co-financing rate (%)	Public Contribution (€)	Private Contribution (€)	Total Contribution (€)	Total Eligible Cost (€)
(a)		(b)	(c)	(d)=(b)+(c)	(e)=(a)+(d)
295.964.00	80.00 %	0.00	73.991.00	73.991.00	369.955.00



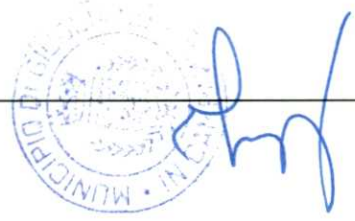
Breakdown of Partner Budget per Work Package/ Budget Line

Work Package	Staff Costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and Works (€)	Sub-total (€)	Revenues (€)	Total (€)
WP 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 2	5,700.00	855.00	1,900.00	0.00	0.00	0.00	8,455.00	0.00	8,455.00
WP 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 6	50,000.00	7,500.00	2,000.00	242,500.00	0.00	0.00	302,000.00	0.00	302,000.00
WP 7	50,000.00	7,500.00	2,000.00	0.00	0.00	0.00	59,500.00	0.00	59,500.00
WP 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (€)	105,700.00	15,855.00	5,900.00	242,500.00	0.00	0.00	369,955.00	0.00	369,955.00
% of total budget	28.57 %	4.29 %	1.59 %	65.55 %	0.00 %	0.00 %	100.00 %	0.00 %	100.00 %







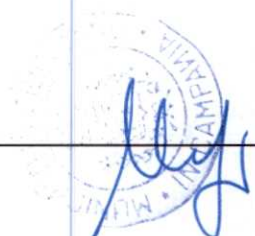
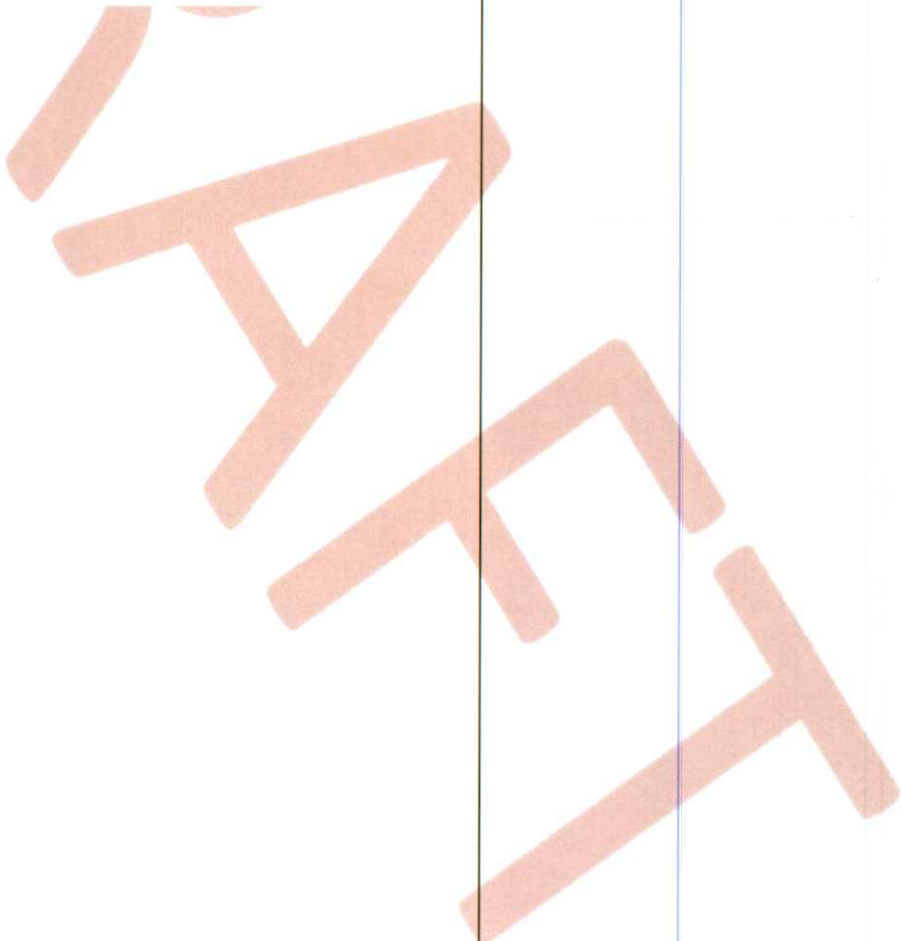
B.3 - Delivery Partner (Partner 6)

Organisation name (Original)	Università degli studi di Napoli Federico II
Organisation name (English)	University of Naples Federico II
Member state	ITALY
Department(s)/unit(s)/division(s) concerned	Department of Chemical, Material and Industrial Production Engineering (DICMFI)
Address	Street: Piazzale V. Teichio, 80, Napoli (NA) Post Code: 80125 Town: Napoli NUTS 2: Campania NUTS 3: Napoli
Legal representative	Position: Legal representative Title: Mr Forename: Luigi Surname: Carrino Email Address: direttore.dicmfi@unina1.it Phone Number: +39 0 817 682 372
Legal status of the organisation	Public
VAT number	IT00876220633
VAT recoverable	No
Involvement in the design phase	DICMFI was involved after providing a letter of support to the consortium selected by the Municipality of Giugliano through a public call published by the UA. It has participated to all co-design meetings at Giugliano Council's premises. Specifically it contributed to the design of WP4, WP5 and WP6 through the selection of low-cost sensors and of the components of an "advanced monitoring station" to detect PM11 and PM2.5 concentrations and to the selection of an "early remediation device".
Involvement in the implementation phase	In the implementation phase, DICMFI will contribute to WP4, WP5 and WP6. This will be done by supporting in the individuation of chemical species for fire-alarming and selection of low-cost sensors for their detection and contribution to the calibration and validation of the "advanced monitoring station" (WP4) used on the electric bus (WP5), and by contributing to the development of an "early remediation procedure" based on the technology of scrubbing or polluted plumes to be used immediately after the diffuse sensor network produces the alerting signal indicating the fire location (WP6).
Competences and experiences in relation to the challenge addressed?	The group of DICMFI developed and used advanced diagnostics for the physico-chemical characterization of carbonaceous particulate matter including soot nanoparticles and polyaromatic hydrocarbons (PAH) either in lab scale systems, at the exhausts of real combustion systems and in indoor and outdoor ambient. Moreover, it is worldwide recognized for researches in combustion and pollutant formation. This makes it the perfect technical partner to get involved for a project on air quality.
Experience in participating in and/or managing EU co-financed projects or other international projects.	DICMFI is currently participating as partner to EU - Horizon 2020/Clean Sky JU - JTC-CS2-2018-CF08-TH1-01 LEAF-INNOX(2019-2021). Moreover, DICMFI is currently responsible for UNINA of the ACTRIS-IT action, part of the pan-European research infrastructure ACTRIS for atmospheric pollutants.
Total Partner Budget	
PROGRAMME CO-FINANCING	209,136.00
ERDF (e)	80.00 %
Public Contribution (e)	52,284.00
Private Contribution (e)	0.00
Total Contribution (e)	52,284.00
Total Eligible Cost (e)	261,420.00



Breakdown of Partner Budget per Work Package/ Budget Line

Work Package	Staff Costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and Works (€)	Sub-total (€)	Revenues (€)	Total (€)
WP 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 2	5,700.00	855.00	1,900.00	0.00	0.00	0.00	8,455.00	0.00	8,455.00
WP 3	3,600.00	540.00	3,000.00	0.00	0.00	0.00	7,140.00	0.00	7,140.00
WP 4	117,000.00	17,550.00	10,000.00	30,000.00	0.00	0.00	174,550.00	0.00	174,550.00
WP 5	12,000.00	1,800.00	0.00	0.00	0.00	0.00	13,800.00	0.00	13,800.00
WP 6	32,000.00	4,800.00	0.00	0.00	0.00	0.00	36,800.00	0.00	36,800.00
WP 7	11,000.00	1,650.00	4,000.00	0.00	0.00	0.00	16,650.00	0.00	16,650.00
WP 8	3,500.00	525.00	0.00	0.00	0.00	0.00	4,025.00	0.00	4,025.00
WP 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (€)	184,800.00	27,720.00	18,900.00	30,000.00	0.00	0.00	261,420.00	0.00	261,420.00
% of total budget	70.69 %	10.60 %	7.23 %	11.48 %	0.00 %	0.00 %	100.00 %	0.00 %	100.00 %





B.3 - Delivery Partner (Partner 7)

Organisation name (Original)	Agenzia Regionale Protezione Ambientale Campania (ARPAC)						
Organisation name (English)	Campania Regional Agency for Environment Protection (ARPAC)						
Member state	ITALY						
Department(s)/unit(s)/division(s) concerned	ARPAC is an institutional partner of the Campania Region. It develops monitoring, prevention and control activities to protect the quality of the territory, including supervision and control of compliance with current regulations, technical-scientific support to local authorities, provision of analytical performance, environmental information, research and information tasks. The department involved is "Technical Direction- UOC- Reti di Monitoraggio e CEMEC", with Mr. Paolo D'Auria as executive						
Address	Street	Via Vicinale Santa Maria del Pianto Centro Polifunzionale, Torre 1			Contact Person	Position	Contact Person
	Post Code	80143				Title	Mr
	Town	Napoli				Forename	Paolo
	NUTS 2	Campania				Surname	D'Auria
	NUTS 3	Napoli				Email Address	p.dauria@arpacampania.it
					Phone Number	+39 0 812 326 426	
Legal representative	Position	legal representative					
	Title	Mr					
	Forename	Luigi Stefano					
	Surname	Sorino					
	Email Address	direzionegenerale.arpac@pec.arpacampania.it					
	Phone Number	+39 0 812 326 215					
Legal status of the organisation	Public	Partner type	Regional public authority				
VAT number	07407530638						
VAT recoverable	No						
Involvement in the design phase	After the public invitation of the municipality, ARPAC attended the co-design meetings with the other partners. ARPAC exploited the know-how on territorial analysis acquired during the projects «Campania air quality regional network updating» which has redefined the AQ network in accordance with the EU, national and technical normative evolution and UIA03-322 "AIR-Heritage" for improving the environmental quality of the City of Portici. Moreover, it contributed to the design of WP4 and WP8.						
Involvement in the implementation phase	ARPAC will participate in the network design phase in order to create a knowledge base responding to the identification of anthropogenic pressures on air quality in the examined areas. It will provide the analysis of possible scenarios for the application of good policies and practices aimed at improving air quality. ARPAC will provide technical support to project partners due to the evaluation of the outcomes connected with the proposed actions and improvement measures. Moreover, it will purchase and install a certified air quality monitoring unit, set up a mobile air quality monitoring laboratory and develop a pollutant dispersion model. Thus strongly contributing to the implementation of WP4, WP7 and WP8.						
Competences and experiences in relation to the challenge addressed?	ARPAC is legally identified by the Campania Region for the control, monitoring and protection of the environment and territory. ARPAC has specific experience and expertise in the AQ monitoring field as regional detection network manager. It also offers technical support to local authorities for the interpretation of environmental pollution phenomena.						
Experience in participating in and/or managing EU co-financed projects or other international projects.	The intervention « PROGETTO DI ADEGUAMENTO DELLA RETE REGIONALE DI RILEVAMENTO DELLA QUALITA' DELL'ARIA DELLA REGIONE CAMPANIA » has carried out with positive results by ARPAC. It has ensured the implementation of monitoring systems and has allowed the development of a specific know-how in the planning and management of complex projects of significant economic value. ARPAC is also involved in the UIA03-322 AIR-HERITAGE project as partner.						

Total Partner Budget

PROGRAMME CO-FINANCING		CONTRIBUTION			Total (€)
ERDF (€)	ERDF Co-financing rate (%)	Public Contribution (€)	Private Contribution (€)	Total Contribution (€)	Total Eligible Cost (€)
(a)		(b)	(c)	(d)=(b)+(c)	(e)=(a)+(d)
323,084.00	80.00 %	80,771.00	0.00	80,771.00	403,855.00



Breakdown of Partner Budget per Work Package/ Budget Line

Work Package	Staff Costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and Works (€)	Sub-total (€)	Revenues (€)	Total (€)
WP 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 2	5,700.00	855.00	1,900.00	0.00	0.00	0.00	8,455.00	0.00	8,455.00
WP 3	10,000.00	1,500.00	0.00	1,500.00	0.00	0.00	13,000.00	0.00	13,000.00
WP 4	84,000.00	12,600.00	0.00	0.00	50,000.00	0.00	146,600.00	0.00	146,600.00
WP 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 7	10,000.00	1,500.00	2,000.00	0.00	0.00	0.00	13,500.00	0.00	13,500.00
WP 8	2,000.00	300.00	0.00	0.00	220,000.00	0.00	222,300.00	0.00	222,300.00
WP 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (€)	111,700.00	16,755.00	3,900.00	1,500.00	270,000.00	0.00	403,855.00	0.00	403,855.00
% of total budget	27.66 %	4.15 %	0.97 %	0.37 %	66.86 %	0.00 %	100.00 %	0.00 %	100.00 %

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B.3 - Delivery Partner (Partner 8)

Organisation name (Original)	Ente Riserve Foce Voltumo Costa Licola Lago Falciano				
Organisation name (English)	Ente Riserve Foce Voltumo Costa Licola Lago Falciano				
Member state	ITALY				
Department(s)/unit(s)/division(s) concerned	Not applicable				
Address	Street	via Giotto, 13	Contact Person	Position	Manager
	Post Code	81030		Title	Mr
	Town	Castel Voltumo		Forename	Massimo
	NUTS 2	Campania		Surname	D'Antonio
	NUTS 3	Caserta		Email Address	info@riservevolumicolafalciano.it
Legal representative	Phone Number	+39 3 486 995 296	Phone Number	+39 3 494 574 432	
	Position	President			
	Title	Mr			
	Forename	Giovanni			
	Surname	Sabatino			
Email Address	info@riservevolumicolafalciano.it				
Legal status of the organisation	Public		Partner type	Regional public authority	
VAT number	03151660614				
VAT recoverable	No				
Involvement in the design phase	After the public invitation of the municipality, Ente Riserve Naturali Regionali attended the co-design meetings with the other delivery partners. Specifically, it contributed to the design of the WP6 and of the WP7.				
Involvement in the implementation phase	Ente Riserve Naturali Regionali will contribute to the WP6 thanks to its expertise on social forest activities. Concretely, it will host the Social Forest towards the territory of the coastal strip. Moreover, Ente Riserve will support the Consortium in the implementation of WP7 thanks to its experience in promotion and valorisation of the territory.				
Competences and experiences in relation to the challenge addressed?	Ente Riserve has a consolidated experience in environmental education activities and in scientific research related to its habitat with a support of botanists, zoologists and faunal researchers.				
Experience in participating in and/or managing EU co-financed projects or other international projects.	Ente Riserve, in partnership with Carabinieri Police Force, has been financed the project « Volo Libero » by Fondazione con il Sud for the recovery and remediation of a zone of Ente Riserve, called "area Soglitelle", saved from poaching and organised crime. This call for proposal invited third sector organisations to present best practice projects for prevention and reduction of environmental risks inside Protected Natural Areas in South of Italy.				

Total Partner Budget

PROGRAMME CO-FINANCING			CONTRIBUTION		Total (€)
ERDF (€)	ERDF Co-financing rate (%)	Public Contribution (€)	Private Contribution (€)	Total Contribution (€)	Total Eligible Cost (€)
(a)		(b)	(c)	(d)=(b)+(c)	(e)=(a)+(d)
35,564.00	80.00 %	8,891.00	0.00	8,891.00	44,455.00



Breakdown of Partner Budget per Work Package/ Budget Line

Work Package	Staff Costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and Works (€)	Sub-total (€)	Revenues (€)	Total (€)
WP 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 2	5,700.00	855.00	1,900.00	0.00	0.00	0.00	8,455.00	0.00	8,455.00
WP 3	10,000.00	1,500.00	0.00	1,500.00	0.00	0.00	13,000.00	0.00	13,000.00
WP 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 6	10,000.00	1,500.00	0.00	0.00	0.00	0.00	11,500.00	0.00	11,500.00
WP 7	10,000.00	1,500.00	0.00	0.00	0.00	0.00	11,500.00	0.00	11,500.00
WP 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WP 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (€)	35,700.00	5,355.00	1,900.00	1,500.00	0.00	0.00	44,455.00	0.00	44,455.00
%of total budget	80.31 %	12.05 %	4.27 %	3.37 %	0.00 %	0.00 %	100.00 %	0.00 %	100.00 %

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Part C - Project description

C.1 Project relevance and innovativeness

C.1.1 Main challenge(s) to be addressed

Main challenge(s) to be addressed

In recent years, quality of life and air quality in the Municipality of Giugliano in Campania has been negatively influenced not only by emissions from urban and industrial sources, but mainly by illegal industrial waste disposal which caused the direct emission in the atmosphere of harmful substances and/or the emission of highly toxic pollutants after the uncontrolled fires of abandoned wastes (the phenomenon is known as Land of Fires or Terra dei Roghi). Several initiatives have been put in place either for promoting the air quality and sustainable and civil actions to hinder this phenomenon. The most important are:

- promoting sustainable mobility by planning the realization of cycling paths over the entire territory of Giugliano;
- installation of air quality monitoring stations by ARPAC near sites of greatest impact on the environment (industrial area, waste storage areas);
- urban tree-planting in extended zone of the territory to reduce air pollution;
- signing and implementation of "Piano delle azioni per il contrasto del fenomeno dell'abbandono dei rifiuti e dei roghi dolosi in Campania 2017-2018" which provides resources for the monitoring of abandoned waste, their removal and the establishment of a rapid intervention for the extinction of waste fires. It is worth to highlight that the state of this protocol is far from its implementation.

These actions have led to an improvement of the air quality, improving the quality of life of 124.436 inhabitants as well. Nevertheless, there is still a lot to do in this direction as testified by the results of an health investigation carried out by the Istituto Superiore di Sanità (Italian National Institute of Health) and the Naples North Office's Public Prosecutor (June 2019). The study maps the territory of the "land of fires" ("Terra dei Roghi") calculating an indicator of exposure to waste disposal that takes into account the dangerousness of the sites in the municipality and the percentage of the population living in their respective areas of impact. On the basis of the value of these indicators, the report divides the municipalities into four classes of increasing value, being "class 4" the municipalities most at risk. Specifically, Giugliano in Campania is classified as "class 4 municipality".

Giugliano in Campania is the biggest municipality that lies in the so-called Terra dei Roghi. It is the reason why the Urban Authority decided to present a project to tackle the Air Quality issues in its widespread territory of 94,7 Square-Kilometers, made of an urban area and an industrial area but mostly by cultivated and uncultivated land which is the perfect location of illegal waste disposal and of uncontrolled waste fires. This project can represent a flagship initiative to solve the air quality problems and related health issues of all the other municipalities of Terra dei Roghi.

C.1.2 Proposed solution

Proposed solution

The consortium proposes MATER project aimed at realising actions to mitigate the effect of polluted emissions in the atmosphere, either from urban and industrial sources or (mainly) from peri-urban emissions of the "Terra dei Roghi".

MATER foresees the following actions:

- Design and realisation of a widespread monitoring network (WP4) constituted by fixed and mobile sensors (Citizen science) (I1), to detect the presence of incipient fires and pollutants typical of combustion events;
- Together with the widespread monitoring network, an advanced monitoring of pollutants (WP4) coming from uncontrolled combustions such as dioxin precursors and particulate matter, including metals, will be realised due to an advanced sensor (I1) to be installed on an electric bus (I3) that will cover Giugliano's territory with a 20 km route;
- Monitoring data will be collected (I2) in an early-warning Control Unit (I5) that will allow, after the application of a pollutants diffusion model and machine-learning mechanisms, to adopt informed decisions and remediation technologies (I4) of the air quality (and eventually of land) and behavioral methodologies aimed at improving air quality and quality of life of citizens of Giugliano in Campania;
- In order to influence mobility behaviors of citizens, a bike-sharing service will be realised (WP5) by using the cycling paths planned to be realized in the Giugliano' municipality, together with an e-bus service that will link the two train stations (one in urban area, another one in the industrial area) with the coastal territory limit of the municipality territory;
- Remediation technologies (WP6) will be identified and used (I4) in different contexts of the Giugliano territory to improve the air quality, impacted by past and present uncontrolled waste fires;
- Social Education and Training (WP7) will be delivered aimed at giving more information on air quality to citizens for the adoption of behaviors that can improve air quality (promoting green mobility), together with a series of educational actions on air quality issues and environmental monitoring, addressed to Giugliano citizenships, divide in target groups (schoolchildren, workers, housewives and retired people, unemployed people and NEET). For this last target, it is foreseen to realise a training path for technicians of Environmental monitoring, also at support of project actions.

Moreover, it is worth to underline that the proposal added value lies on its transferability. Precisely, the so thought model can be reproduced in all the 90 municipalities of the "Land of Fires" - affected by the same problems of air pollution - improving the quality of life of more than 2 and half millions of people.

On the other hand, the proposed solutions can be applied also to other areas with different problems of air pollution through the adaptation of the widespread monitoring system.

C.1.3 Innovativeness of the proposed solution

Innovativeness of the proposed solution

MATER can be considered an unicorn in the European context thanks to its innovation high level. That characteristic is declinable in two different domains, defined as follows:

The first domain is linked to the Information Technology world. The software architecture uses a highly innovation technology stack, defined with the acronym MEAN, and it's based on the microservice concept, that allows a better agility and scalability, so that the developers can resize correctly the infrastructure as the real necessity needs. Moreover, all the used technologies are open source and they are maintained by enormous communities of developers, that ensure new interesting features and rapid support to any problem.

The second domain is linked to the management of the action on the environment by the Municipality of Giugliano in Campania. MATER is revolutionary because allows the data collection in real time and, in case of environment danger, it is possible to alert thousands of people in a few of seconds with the knowledge about the rate of receiving of the information and about the potentially delivery issues. That last characteristic is very important for the professionals that are designated to act on the environment. This task is divided into a lot of activities linked to different communicating working groups. The mechanism is, obviously, very difficult to follow, so often the information and the state of the art of the interventions are lost. We feel that MATER will allow to be updated every time about what's happening on the territory during a danger situation, so it will minimize the errors and it will improve the productivity in that context. Last but not least, we are sure that MATER will improve the lifestyle of all people that are in this territory.

C.1.4 Potential obstacles and resistance

Potential obstacles and resistance

The project is strongly addressed to citizens' needs, so a strong focus will be put in the involvement of the population. This will prevent the most usual obstacle: the citizens' distrust of Urban Authority's interventions.

Moreover, the involvement of relevant local and national stakeholders (Circolo Legambiente "Giugliano Arianova", Napoli Prefecture - Terra dei Roghi Office, National Technology Cluster "Smart Communities Tech" whose interest has already been expressed in the attached letters of support) during the project implementation phase will increase the interest of population and build a sense of community within the investment area. From a different perspective, another obstacle could arise from resistance to innovation and to new practices introduction (i.e. introduction of new way of sustainable mobility). To overcome this, action of communication and sensibilization will be implemented from the very beginning of the project.

Moreover, it is worthy to mention that this proposal is fully aligned with national and regional strategies to face the fire land problem such as the "PIANO D'AZIONE PER IL CONTRASTO DEI ROGHI DEI RIFIUTI" which is a Memorandum of Understanding between the Premiership and the Campania Region on environment, air quality, and health themes. In view of the above, the mutability of the local political landscape will not obstruct the implementation of the project.

C.1.5 Integrated Approach

Integrated approach

MATER solutions integrate different aspect of the control and remediation of air quality issues starting from a widespread monitoring system and an early-warning Control Unit for alerting the Giugliano municipality, activating the emergency chain and informing citizens on air quality. Green mobility actions are also foreseen with an e-bus service (used also as mobile monitoring), together with a bike-sharing service that will promote sustainable mobility, allowing citizens to monitor air quality (citizen science). Moreover, remediation actions will serve for improving air quality negatively affected by past and current fire-wastes' events. These actions are complemented by social education involving all citizens, starting from schoolchildren, workers, housewives and retired people and reaching unemployed people and NEET.

The proposed solutions complement foreseen and ongoing projects in the city, aimed at creating an intersectoral structure to combat illegal waste disposal activities on the territory, at installing charging stations for electric vehicles; at realising cycling paths; at implementing reforestation within the Kyoto parks project.

Lastly MATER addresses all key dimensions of sustainability (social, environmental) providing integrated solutions for improving residents' air quality and thus quality of life by reducing uncontrolled waste fire events and by reducing air pollution and enhancing city and citizens' capacities to cope with air quality issues.



C.1.6 Link to ERDF thematic objectives and investment priorities

Link to ERDF Thematic Objectives and Investment Priorities

MATER contributes to following ERDF Thematic Objectives:
- TO2 Enhancing access to, and use and quality of, ICT: addressing IP(c) - strengthening ICT application for e-government and e-inclusion, with WP4 actions and investments
- TO4 supporting the shift towards a low-carbon economy in all sectors: addressing IP(c) - promoting sustainable multimodal urban mobility and mitigation-relevant adaptation measures with WP5 actions and investments
- TO6 preserving and protecting the environment and promoting resource efficiency: addressing IP(a), IP(c), IP(e) and IP(f) - investing in the waste sector to meet the requirements of the Union's environmental acquis addressing needs identified by the Member States; protecting natural heritage; taking action to improve the urban environment regenerating and decontaminating brownfield sites; promoting innovative technologies to improve environmental protection and resource efficiency in the waste sector or to reduce air pollution and inequalities in term of health status, with WP6 actions and investments
- TO7 promoting sustainable transport and social inclusion : addressing IP(c) - improving environmentally-friendly and low-carbon transport systems in order to promote sustainable local mobility, with WP5 actions and investments
- TO9 promoting social inclusion : addressing IP(a) - Investing in health and social infrastructure for national, regional and local development, reducing inequalities in terms of health status, with WP7 actions

C.2 Project context and local partnership

C.2.1 Link with other local/regional/national strategies and policies (incl. smart specialisation strategies)

Link with other local/regional/national strategies and policies

This proposal considers both regional and local development strategies. In details, it is built on the "Action plan to tackle the burning of waste", which foresees several actions aimed at protection of human health, protection of the environment and to the presidium and control of the territory and prevention of waste fires. Moreover, it is also designed on the basis of the "Programme agreement for the adoption of measures to improve air quality", which establishes commitments (reciprocal) for the Campanian Region and the Ministry of the Environment in view of improving air quality in Campanian Region. On the other hand, at local level, the proposal is strictly grounded on:
- DGC N° 134 of 31/10/2019, Decision by Gugliano City Council aimed at creating an inter-sectoral structure to combat illegal waste disposal activities on the territory
- DGC N° 138 of 31/10/2019, aimed at realizing 16 charging stations for electric vehicles
- DGC N° 56 of 06/04/2017, Decision by Gugliano City Council, aimed at the implementation of reforestation projects within the framework of the Kyoto parks project in the municipality of Gugliano.
The established commitments, the implemented monitoring systems, the installed charging stations and the planted "green" are the starting point of MATER project. The added value is represented by the applied methodology which aim at exploiting and harmonizing all the mentioned interventions in view of air quality improvement in the land of fires.

C.2.2 Synergies with other projects and initiatives

Synergies with other projects and initiatives

MATER has synergies with "AIR HERITAGE" project (municipality of Portici, UIA 3th call for proposals). Similarly, MATER project will implement a pervasive way of monitoring air quality, also based on "citizens' science". Nevertheless, it will face the thematic of the "Land of Fires", complementing AIR HERITAGE through WP6 and WP7. MATER project will leverage on ARPAC's expertise on monitoring activities and other UIA projects' results. Moreover, this proposal has synergies with:
- "Gugliano in bici", a proposal submitted under the framework of PriMUS programme (Italian Ministry of Environment) aimed at realizing a 3.5 km of cycle path.
- "PIU' EUROPA", programme of which Gugliano is beneficiary - Axis 6 Objective 6.1 - of the POR ERDF 2007/2013 of the Campania Region - aimed at strengthening the attractiveness and competitiveness of the city.
- "Programma Sperimentale Nazionale di Mobilità Sostenibile" in the framework of which the municipality of Gugliano submitted a project for the purchase of 4 methane buses.
- "Masterplan litorale domito flegreo" - which includes strategies for territorial, environmental and social regeneration.
The applicants will try to build up on the results achieved by the mentioned projects. This in view of creating an integrated approach to tackle the thematic of the "Land of fires", i.e. through: providing a service of bike sharing, financing the purchase of a new electric bus, exploiting the monitoring system etc.

C.2.3 Involvement of wider stakeholders in project design

Involvement of wider stakeholders in project design

The proposal was built through internal co-design meetings between the Urban Authority and Delivery Partners and through the involvement of the main local stakeholders in the design phase, considering their essential contributions. The participatory co-design mechanism was set up through dissemination meetings organized with the aim of collect both inputs of local stakeholders and their feedback for the design phase and for the implementation of innovative schemes. This, being MATER project strongly addressed to satisfy citizens needs. More specifically, the "Funzionario Delegato (ex OCDP)" and Legambiente association circolo "Arianova" has been actively involved in the designing phase of the project, this by witnessing the citizens' needs so as to orient the project towards satisfying them. In particular, the "Funzionario Delegato (ex OCDP)" provided evidences of their already set up work on the thematic of air quality (within the territory of the project) on which MATER project is built up. Last but not Least, it is worth noting that Ente Riserve Foce Voltumo - representing a significant part of the territory of the Municipality of Gugliano- has been involved as a project partner. Thus, it actively contributed to the overall project design as well as it will actively contribute to the implementation of WP2 (management), WP3 (communication), WP6 (remediation) and WP7 (social education). This strengthening the local representativeness of the proposal and being an added value of MATER project.

C.2.4 Involvement of wider stakeholders in project implementation

Involvement of wider stakeholders in project implementation

In parallel with the involvement of stakeholders during the design phase, the stakeholders will be involved also during the implementation phase - in different ways based on their different roles and features. Specifically, the "Funzionario Delegato (ex OCDP)" and Legambiente association "Circolo Arianova" will be strongly active in the elaboration of dissemination campaigns, this in order to both spread the project results in the territory and sensitize population on thematic of air quality and environmental pollution. On the other hand, the Prefecture of Naples, the ASI Consortium and the cluster "Smart Communities Tech" which have been made aware of aim, activities and objectives of the project, have already provided letters of support declaring their interest in "MATER" project. Thus, in the implementation phase, they will also contribute to networking and to the dissemination of project results. However, the overall idea is to involve a wide number of other stakeholders during the implementation phase itself. Their contribution to the project will be determined with a case by case approach, nevertheless the guiding mantra is to provide the project with a relevant local and non local supporting network of stakeholders able to spreading as much as possible the project result and model and to involving as many people as possible in social education initiatives. Among them, the Consortium has already identified: local environmental associations, local associations of citizens, the Managing authority of the NATO base (based in the territory of the Municipality of Gugliano) and the Fire Brigade Corp.

C.3 Project objectives, results and outputs

C.3.1 Overall objectives and expected results (changes in the local situation)



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PROJECT main objective(s)

In addressing the Air Quality challenge, MASTER goals are:
 - To improve air quality in Gugliano municipality, and thus quality of life of Gugliano' citizenship
 - To provide citizens with information on air quality on real time and on remediation actions that can be taken
 - To directly involve citizens on how to intervene on ameliorate the air quality with sustainable mobility choices and a good waste management
 - To provide an instrument to Gugliano Council to take informed decisions on air quality issues

To achieve these goals, MATER proposal will address the following objectives:
 - To realise a widespread monitoring system and an early-warning Control Unit to detect uncontrolled waste fires and to alert the Gugliano' Council and activate the emergency chain;
 - To provide citizens with green mobility means of transport, with the service of an electric bus and the realisation of a bike-sharing service
 - To realise remediation activities for improving air quality, negatively impacted by past and current uncontrolled waste fires.
 - To directly involve all the citizenship in social education paths, starting from schoolchildren, workers, housewives and retired people and reaching unemployed people and NEET

PROJECT main result(s)

The main changes expected as a consequence of the project can be listed as follows:
 - the reduction of 20% of uncontrolled waste fires, thus improving air quality and quality of life of Gugliano citizens;
 - the starting of a bike-sharing service to be used by about 38.000 persons;
 - the use of remediation technologies in different contexts;
 - the social education of 13.700 schoolchildren, 3000 workers, 3000 housewives and retired people, and 60 trained technicians on environmental monitoring.
 All mentioned changes will contribute to remediate air quality, increase quality of life and environmental quality of the Gugliano municipality and might be included in the climate and energy strategies, such as the Sustainable Energy and Climate Action Plans (SECAPs) under the Covenant of Mayors.

C.3.2 Outputs

Work package	Output Number	Project output	Target value of project expected output(s)
WP.4 WP4 Widespread monitoring system and early-warning control unit	O4.1.1	Air quality monitoring report (ARPAC)	3
	O4.1.2	Air quality fixed station relocation (ARPAC)	1
	O4.1.3	New air quality fixed station installation (ARPAC)	1
	O4.1.4	AQ model scenarios (ARPAC)	1
	O4.4.1	Back end software layer	1
	O4.4.2	Front end software layer	1
	O4.5.1	PM and dioxins precursor monitoring system (DICMAP)	1
WP.5 WP5 Actions to encourage Green Mobility	O5.1.1	Public Bicycle System (PBS) scheme	3000
	O5.1.2	APP and Web platform Bike Sharing System MATER	2
	O5.2.1	Electric bus system	1
WP.6 WP6 Air Quality remediation actions	O6.1.1	Mobile technical device to be used for fire plume purification	1
	O6.2.1	Photovoltaic greenhouse project	1
	O6.3.1	HYDRAULIC PROJECT AND ELECTRICAL PROJECT	1
	O6.4.1	Cultivation and soil design guidelines with equipment and materials	1
	O6.5.1	Guidelines	1
WP.7 WP7 Social education and training	O7.1.1	Educated students of primary, secondary-lower level and secondary-upper level school	13700
	O7.2.1	Educated citizens (workers, housewives, retired people)	6000
	O7.3.1	60 new technicians for air quality monitoring	60
WP.8 Air Quality Investments for information, early-warning and remediation	O8.1	Widespread Monitoring System and early-warning Control Unit	1
	O8.2	Realisation of the Communication infrastructure for the early-warning Control Unit	1
	O8.3	Investments for Green Mobility	1
	O8.4	Control Room refurbishment	1
	O8.5	Hiring of 3 persons for executing the exercise of the early-warning Control Room	1

C.3.3 Rationale for result indicators

Measurement of results

In respect to the listed results, the main targets and indicators are: 1) target: 20% reduction of uncontrolled waste fires; indicators: No of sensors purchased with the hardware stations; Realization of the widespread monitoring system together with the early-warning Control Unit, 2) target: about 38.000 persons starting using the bike-sharing service; Indicators: No. of purchased bikes, No. of subscribed member to the rental service and No. of rentals; 3) target: use of remediation technologies in different contexts; indicators: No of interventions realised on the overall territory of Gugliano municipality; reduction of CO2 emission/year; 4) target: 13.700 schoolchildren involved in social education; No of workshops realised per each school per year; No of participants per each workshop; 5) 3000 workers and 3000 housewives and retired people trained on air quality issue; indicators: No of events realised per year and per target; No of participants at each event; 6) 60 trained technicians on environmental monitoring; Indicator: No of training courses realised per year; No of participants to each training course; 7) target: involvement of 40% of citizen's in communication activities on sustainable mobility; indicators: No. of communication events, No. of people participating to the events, in terms of physical presence and through web sites; No. of schoolchildren involved the project; No. of local associations and of stakeholders, participating and collaborating in project activities.



Result indicators

No result indicators found.

C.3.4 Methodology for monitoring and measurement of outputs and results

Methodology for monitoring and measurement of outputs and results

C.3.5 Target groups

Target Groups

C.4 Project Project scaling up and transferability

C.4.1 Scaling up of the project

Scaling up of the project

C.4.2 Transferability of the project: evidence of demand for your project in other cities

Transferability of the project: evidence of demand for your project in other cities

C.5 References

C.5.1 References of the project

References



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Part D - Work plan

WP Nr.	Title	Work package type	Start date	End date
1	Preparation	Preparation	09/2019	06/2020
2	Project Management	Project Management	07/2020	06/2023
3	Communication	Communication	07/2020	06/2023
4	WP4 Widespread monitoring system and early-warning control unit	Implementation	07/2020	06/2023
5	WP5 Actions to encourage Green Mobility	Implementation	07/2020	06/2023
6	WP6 Air Quality remediation actions	Implementation	07/2020	06/2023
7	WP7 Social education and training	Implementation	09/2021	06/2023
8	Air Quality Investments for information, early-warning and remediation	Investment	01/2021	06/2023
9	Closure and knowledge transfer	Closure	07/2023	06/2024

MATER






Number	WP Title	Start Date	End Date	WP budget
1	Project preparation	16/09/2019	30/06/2020	20,000.00

Partners' involvement

WP responsible partner Municipality of Giugliano

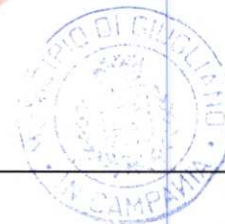
Summary

Preparation and submission of the application form

Work Package Budget

Partner name	Staff cost (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and construction works (€)	Sub-Total (€)	Revenues (€)	Total (€)
Municipality of Giugliano	0.00	0.00	0.00	20,000.00	0.00	0.00	0.00	0.00	20,000.00

MATER



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Work Plan Per Work Packages - WorkPackage 2 (Project Management Work Package)

Title	Project management
Start Date	01/07/2020
End Date	30/06/2023
Budget	195,125.00

Partners Involvement

Responsible Partner	PP 1 - Municipality of Giugliano
Involved Partners	PP 1 - Municipality of Giugliano PP 2 - EITD PP 3 - ENCO PP 4 - Fides Consulting srl PP 5 - Agricoltura srls PP 6 - University of Naples Federico II PP 7 - Campania Regional Agency for Environment Protection (ARPAC) PP 8 - Ente Riserve Foce Volturno Costa Licola Lago Falciano

Summary

The Project Management activities have the aim of ensuring that all the activities, with the related goals, will be implemented respecting the deadlines fixed by the project and implementing corrective actions in fitting time when required. The overall project organizational structure foresees 4 levels:

- A Project Manager (PM), an Urban Authority manager, supported in all management activities by EITD and ENCO project managers. The PM will be the direct intermediary between the project's partnership and the UIA Secretariat and will be the reference figure to which partnership members and external subjects may refer;
- A Steering Committee (SC), that will be formed by the PM and one representative for each delivery partner. The SC will represent the strategic decision-making body, in charge of guaranteeing the coherence between actions and project objectives and will oversee monitoring all planned actions as well as validating related outcomes. Also, SC will be responsible for mitigating possible risks that may incur promoting possible corrective actions.
- WP Leaders, that will be directly responsible for the implementation of work packages' activities and related deliverables planned and will coordinate each operational team.
- A Financial Manager (FM), a representative of the Urban Authority, dealing with all the financial aspects of the projects and with costs budgeting and justification, that will be supported by a financial professional from the delivery partner EITD.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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Deliverable number	Deliverable and partners involved	Target value	Delivery date
A2.1	Coordination meetings	Start date 01/07/2020 End date 30/06/2023	
D2.1.1	Management meetings report	Target value 7 Delivery date 30/06/2023	
D2.1.2	Operational meetings reports	Target value 12 Delivery date 30/06/2023	

All the delivery partners will contribute directly to the day to day management of the project and will participate to internal project coordination meetings at different level. The first meeting, the kick-off meeting will be aimed at presenting the project to the whole working group, discussing the management aspects of each WP and will take place within 15 days from the project start. Moreover, the SC and the PM will meet every six months to define strategies. Operational meetings will take place between each WP Leaders and operational teams every three months.

Title
Management meetings report

Description
After each management meeting including the kick-off meeting, a Strategic Coordination report will be prepared by the City of Gugliano in Campania with the support of ETTD and ENCO.

Title
Operational meetings reports

Description
After each operational meeting, an operational coordination reports will be produced by the City of Gugliano in Campania with the support of ETTD and ENCO.

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A.2.2	Technical and Financial reporting	This activity is devoted to periodic technical and financial reporting, following the UIA requirements. When specifically required, the PM together with WP Leaders and the FM will produce intermediate reports aimed at reporting the activities implemented and at certifying all the costs incurred. Within three months to the end of the project, a final technical and financial report including all incurred costs together with the justification documents will be produced.		Start date	End date
				01/07/2020	30/06/2023
Deliverable number	Deliverable and partners involved		Target value	Delivery date	
	Title	Intermediate reports			
D.2.2.1	Description	At the end of each project year, technical and financial intermediate reports will be produced by the City of Gugliano in Campania with the support of all partners for the technical report, and of EITD for the financial report.	Target value	Delivery date	
			2	30/06/2022	
	Title	Final technical and financial report			
D.2.2.2	Description	At the end of the project, a final technical and financial report will be produced by the City of Gugliano in Campania with the support of all partners for the technical report, and of EITD for the financial report.	Target value	Delivery date	
			1	30/06/2023	





A2.3

Capitalisation

This activity will be devoted to have support from the UIA expert to get assistance in the development of documentation and outputs that will capture and disseminate lessons learnt and good practices and to get guidance on the substance of the action, especially regarding the innovative content. Moreover, the partnership will participate to the activities of the Urban Development Network, aimed at supporting information exchange between cities involved in the UIA initiative, as well as will participate to at least two national/international conferences to share lessons learnt and good practice on ongoing basis.

Start date

01/01/2021

End date

30/06/2023

Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Capitalization materials		
D.2.3.1	Description	For delivering this activity, the City of Gugliano in Campania, with the support of all delivery partners, whenever required, will deliver capitalization documents to support this process. The capitalization process will be done in collaboration with the UIA expert.	Target value 1	Delivery date 30/06/2023
	Title	Capitalisation conferences		
D.2.3.2	Description	Report on the participation to national/international conferences to share lessons learnt and good practice.	Target value 2	Delivery date 30/06/2023

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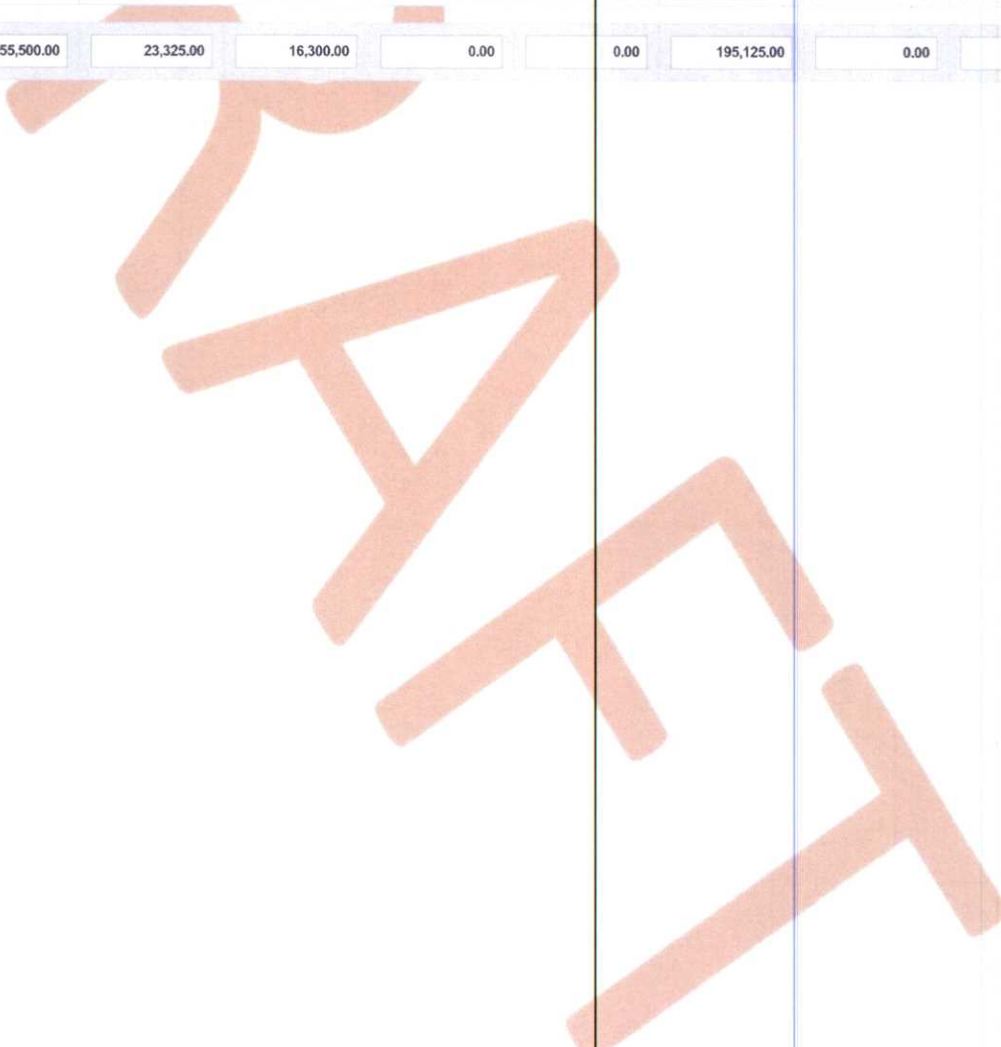


Work Package Budget								
PP 1 - Municipality of Gugliano	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	12 manmonths of an Urban Authority manager, 6 manmonths of an Urban officer	N/A	3 travels in Europe for UIA's coordination reasons (1 per year, € 1000 per travel)					
Amount (€)	75,000	11,250.00	3,000	0	0	89,250.00	0	89,250.00
PP 2 - EITD	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	6 manmonths of a senior project manager	N/A	Costs for internal management and operational meeting (7 for management + 12 for operational, € 100 per travel)					
Amount (€)	25,000	3,750.00	1,900	0	0	30,650.00	0	30,650.00
PP 3 - ENCO	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	6 manmonths of a senior project manager	N/A	Costs for internal management and operational meeting (7 for management + 12 for operational, € 100 per travel)					
Amount (€)	27,000	4,050.00	1,900	0	0	32,950.00	0	32,950.00
PP 4 - Fides Consulting srl	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	19 days of a senior project manager for the management and operational meetings	N/A	Costs for internal management and operational meeting (7 for management + 12 for operational, € 100 per travel)					
Amount (€)	5,700	855.00	1,900	0	0	8,455.00	0	8,455.00
PP 5 - Agrocoltura srls	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	19 days of a senior project manager for the management and operational meetings	N/A	Costs for internal management and operational meeting (7 for management + 12 for operational, € 100 per travel)					
Amount (€)	5,700	855.00	1,900	0	0	8,455.00	0	8,455.00
PP 6 - University of Naples Federico II	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	19 days of a full professor for the management and operational meetings	N/A	Costs for internal management and operational meeting (7 for management + 12 for operational, € 100 per travel)					
Amount (€)	5,700	855.00	1,900	0	0	8,455.00	0	8,455.00





PP 7 - Campania Regional Agency for Environment Protection (ARPAC)								
	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	19 days of a senior project manager for the management and operational meetings	N/A	Costs for internal management and operational meeting (7 for management + 12 for operational, € 100 per travel)					
Amount (€)	5,700	855.00	1,900	0	0	8,455.00	0	8,455.00
PP 8 - Ente Riserve Foce Voltorno Costa Licola Lago Falciano								
	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	19 days of a senior project manager for the management and operational meetings	N/A	Costs for internal management and operational meeting (7 for management + 12 for operational, € 100 per travel)					
Amount (€)	5,700	855.00	1,900	0	0	8,455.00	0	8,455.00
Total (€)	155,500.00	23,325.00	16,300.00	0.00	0.00	195,125.00	0.00	195,125.00



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Indicative budget breakdown per year

Year	2020	2021	2022	2023	Total
Amount (%)	16 %	33 %	33 %	18 %	100.00 %
Budget (€)	31,220.00	64,391.25	64,391.25	35,122.50	195,125.00

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Work Plan Per Work Packages - WorkPackage 3 (Communication Work Package)

Title: Communication

Start Date: 01/07/2020

End Date: 30/06/2023

Budget: 240,390,00

Partners Involvement

Responsible Partner: PP 3 - ENCO

Involved Partners: PP 1 - Municipality of Gugliano
PP 2 - EITD
PP 3 - ENCO
PP 6 - University of Naples Federico II
PP 7 - Campania Regional Agency for Environment Protection (ARPAC)
PP 8 - Ente Riserve Foce Volturmo Costa Licola Lago Falciano

Summary: A communication strategy will be developed at the beginning of the project; this will comprise: a tailor made campaign to raise audience's awareness on the project aims, activities and results; identifying and selecting events; producing publications, newsletters, brochures, posters, promotional materials, setting up and managing project website and APP; participating in relevant events. Target groups will be reached both with standard and customised communication channels. Citizens will be reached especially through the dedicated mobile APP and thanks to events and conferences. Institutions and operational bodies will be reached through the institutional channels in order to promptly communicate the collected data by the RTD partners, if relevant and deserving of monitoring activities.

Communication objective: Thanks to the communication activities it will be possible to spread the project aims, activities and results maximising the impact by differentiating different kind of target groups. Furthermore, it will be possible to sensitize citizens and general public to the development of good "Clean Commuting" practices and encouraging them to good practises in general.

Target groups: 3 target groups have been identified:
- Citizens
- Institutions
- Operational bodies (e.g. Municipal Police, Fire Department, Civil Protection etc.)

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A3.1

Start up activities

The communication plan will be developed at the very beginning of the project and will define the activities that should take place. It will explain the methods to carry out the communication activities and provide detailed division of tasks among the project partners. A kick-off event will be organized. A visual manual will be provided with all the instructions about the correct use of the graphic elements of the project and all the promotional material, allowing the public to easily identify the project.

Start date

01/07/2020

End date

30/09/2020

Deliverable number

Deliverable and partners involved

Target value

Delivery date

Title

Communication plan

D.3.1.1

Target value

1

Delivery date

30/09/2020

Description

A written report including detailed communication intention and strategy.

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A3.2

Publications

The results of the activities done during the project duration will be published either by academia partners and by technical partners in relevant and specialized journals, at national and international level. The publications will be provided with a free access on the online media of the project. Mater project foresees to realise at least 6 publications.

Start date

01/07/2020

End date

30/06/2023

Deliverable number

Deliverable and partners involved

Target value

Delivery date

D3.2.1

Title

Final report of publications published on national and EU journals

Target value

Delivery date

Description

A report of all done publications will be delivered at the end of the project

1

30/06/2023

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A.3.3	Digital activity	<p>A Project website will be created in order to enable stakeholders and general public to follow up in an easy and attractive way the development of the project. The project website will be supported by an e-newsletter service. The project website will be regularly updated and it will remain operative for at least two years after the end of the project.</p> <p>Social media channels will be created (Twitter, LinkedIn, Youtube and Instagram) in order to reach a different kind of public in a different and more direct way. We expect to have at least 20000 views. In order to properly reach the citizens a dedicated APP (IOS and Android) will be developed. The APP will support and inform the citizens about the data collected during the monitoring activities.</p>	Start date	End date
			01/07/2020	30/06/2023
	Deliverable number	Deliverable and partners involved	Target value	Delivery date
	Title	Website & Social media channels		
D.3.3.1	Description	The project web site will contain all public information of the project and the direct link to the social media channels of the project. It will be continuously updated and available for the whole duration of the project and at least two years after the end of the project.	Target value	Delivery date
			5	30/09/2020
	Title	APP MATER		
D.3.3.2	Description	The dedicated APP of the project where information on data collected during the monitoring activities will be dispatched to all citizenship.	Target value	Delivery date
			1	30/06/2021





A.3.4

Public events

Three events, one per year, will be organized in order to spread the aims of the project and reach the general public and stakeholders. Citizens, Institutions and Operational bodies will be invited in order to reach as many as target persons as possible. During these events, a focus will be made on issues related to air quality, on remediation activities, and on good practises for a 'clean commuting' sensitizing the attendees on this topic and encouraging the sustainable mobility. These events will be promoted through the project website, the social media and the APP.

Start date

01/07/2020

End date

30/06/2023

Deliverable number

Deliverable and partners involved

Target value

Delivery date

D.3.4.1

Title

Final report of the realised events

Description

A final report of the three realised public events will be released at the end of the project.

Target value

1

Delivery date

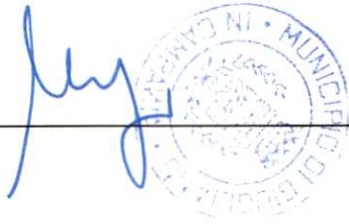
30/06/2023

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A.3.5	Promotional material	Logo, brochure, poster and roll-up will be created. All the promotional material will be available on the dedicated section of the project website. The material will be also printed and used during conferences, events and meetings. The promotional material will be further distributed at any events attended to support project communication activities.	Start date	01/07/2020	End date	31/01/2021
Deliverable number	Deliverable and partners involved		Target value	Delivery date		
D.3.5.1	Title	Promotional material kit	Target value	4	Delivery date	31/01/2021
	Description	Printable and downloadable promotional material (4 types - logo, brochure, poster, roll-up).				

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A3.6	Media relations	Interviews on newspaper, Radio and TV will be made. A detailed list of media channels will be further provided. Each partner will provide the consortium with a direct access their network of local and national media, such as TV, radio and newspapers.	Start date	End date
			01/07/2020	30/06/2023
Deliverable number	Deliverable and partners involved		Target value	Delivery date
D.3.6.1	Title	Detailed report of released interviews	Target value	Delivery date
	Description	A report on all released interview will be delivered at the end of the project, while each media document will be available in all communication channels of the project (website, social media)	1	30/06/2023

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A3.7	Final dissemination activity (mandatory)	<p>A final event will be organised to present project achievements and outputs. High-level policy briefings to target groups and other stakeholders (representatives of other countries and municipalities not directly involved in the project) will be conducted to illustrate the main outcomes of the project and their practical application in terms of best practices. A further aim of the policy briefings is to encourage the persons in charge to exploit the results of the project. ENCO is responsible for the organisation of a final event, with a direct involvement of Urban Authority, and all other partners are requested to contribute for the involvement of as many relevant participants as possible.</p>	Start date 01/01/2023	End date 30/06/2023
Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 3.7.1	Title	Final conference report	Target value 1	Delivery date 30/06/2023
	Description	<p>The final event will involve a broad audience (academic and institutional organizations, local associations, and citizens) and will be organized at the end of the project in order to present the project's achievements and allow for the evaluation and exploitation of its results.</p>		

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A3.8	Promotional video	Enco will produce a promotional video of the project involving also citizens and schoolchildren during the recording phase in order to maximise the impact of it. This video will be further posted on social media channels, project and UIA website and showed during public events, presentations and conferences. The promotional video will communicate the aims of the project and will encourage general public to good practice of clean mobility.	Start date 01/07/2020	End date 30/09/2020
Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 3.8.1	<p>Title</p> <p>Promotional video delivered</p> <p>Description</p>	<p>MATER promotional video expects to reach at least a total of 20000 views (result obtained by adding up the views from each social media channel).</p>	Target value 1	Delivery date 30/09/2020

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A.3.9	Customization for bikes and bus	The electric bus will be customized with a project banner on a side. Bikes will be customized with project graphic patches. Thanks to this approach the project will circulate in the city every day.	Start date 01/07/2020	End date 30/09/2021
Deliverable number	Deliverable and partners involved		Target value	Delivery date
D.3.9.1	Title Bus banner		Target value 1	Delivery date 30/09/2021
	Description	On the bus side will be applied a project banner (300x70) improving the visibility of the project.		
D.3.9.2	Title Bikes patches		Target value 96	Delivery date 30/09/2021
	Description	On each bike will be applied a project graphic patch in order to improve the visibility of the project.		

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Work Package Budget

PP 1 - Municipality of Gugliano	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	2 manmonths of an Urban Authority manager	N/A		Cost for supporting the organisation of the public events and of the final conference				
Amount (€)	10,000	1,500.00	0	4,500	0	16,000.00	0	16,000.00
PP 2 - ETD	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	2 manmonths of a senior project manager	N/A		Cost for supporting the organisation of the public events and of the final conference				
Amount (€)	10,000	1,500.00	0	1,500	0	13,000.00	0	13,000.00
PP 3 - ENCO	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	30 manmonths of a senior project manager, responsible for coordinating all communication activities, in strict relation with the UA	N/A	Participation to relevant international events for dissemination (10 events for 800€ each)	Costs for the realization of public events and for the website and for the final conference				
Amount (€)	135,000	20,250.00	8,000	15,000	0	178,250.00	0	178,250.00
PP 6 - University of Naples Federico II	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	12 days of a full professor (4 days per each international conference per each year)	N/A	Participation to 3 international conference in total (1 conference per year 1000€)					
Amount (€)	3,600	540.00	3,000	0	0	7,140.00	0	7,140.00
PP 7 - Campania Regional Agency for Environment Protection (ARPAC)	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	2 manmonths of a senior project manager for institutional communication activities	N/A		Cost for supporting the organisation of the public events and of the final conference				
Amount (€)	10,000	1,500.00	0	1,500	0	13,000.00	0	13,000.00



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PP 8 - Ente Riserve Foce Volturmo Costa Licola Lago Falciano	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	2 manmonths of a senior project manager for institutional communication activities	N/A		Cost for supporting the organisation of the public events and of the final conference				
Amount (€)	10,000	1,500.00	0	1,500	0	13,000.00	0	13,000.00
Total (€)	178,600.00	26,790.00	11,000.00	24,000.00	0.00	240,390.00	0.00	240,390.00

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Indicative budget breakdown per year

Year	2020	2021	2022	2023	Total
Amount (%)	10 %	33 %	33 %	24 %	100.00 %
Budget (€)	24,039.00	79,328.70	79,328.70	57,693.60	240,390.00

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Work Plan Per Work Packages - WorkPackage 4 (Implementation Work Package)

Title WP4 Widespread monitoring system and early-warning control unit

Start Date 01/07/2020

End Date 30/06/2023

Budget 1,002.950.00

Partners Involvement

Responsible Partner PP 4 - Fides Consulting srl

Involved Partners
 PP 1 - Municipality of Gugliano
 PP 4 - Fides Consulting srl
 PP 6 - University of Naples Federico II
 PP 7 - Campania Regional Agency for Environment Protection (ARPAC)

Summary WP4 regards the development of a complex Internet of Things infrastructure aiming at improving the air quality in the Municipality of Gugliano by reducing the problem of waste fires. The goal will be reached by the analysis of past and current air quality and waste fire locations and by the development of a widespread monitoring and alerting architecture.

A hardware stations mesh will be installed over the entire territory; it will give the possibility to work on the development of the software architecture. Thanks to the IoT infrastructure, the air quality and the potential fire occurrences will be monitored. The collected data will be send to the software clients through a communications system constituted by a mix of RESTful web services and message broker pattern. The early warning control unit will be the final step into the development process and will be based on a large number of software types. It will make all the end users able to see the environment situation in real time with a big improvement on possible remediation actions.

The widespread monitoring system will be calibrated based on a monitoring campaign with a mobile laboratory and complemented by a fixed monitoring station that will be included in the regional monitoring network managed by ARPAC. A mobile advanced monitoring system for particulate matter and toxic by products will be installed on an electric bus included in the local transport network giving a real-time monitoring of the air quality.

Activities, Deliverables and Outputs

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A4.1	Knowledge base, monitoring and outcome evaluation	ARPAC will constitute a knowledge base of the examined areas through the implementation of monitoring campaigns with stand-alone mobile laboratory. Analysis of possible scenarios for the application of good policies and practices aimed at improving air quality. Technical support to project partners due to the evaluation of the outcomes connected with the proposed actions and improvement measures. Contribution to the interpretation of the evolution of air pollution mechanisms.	Start date 01/07/2020	End date 30/06/2023
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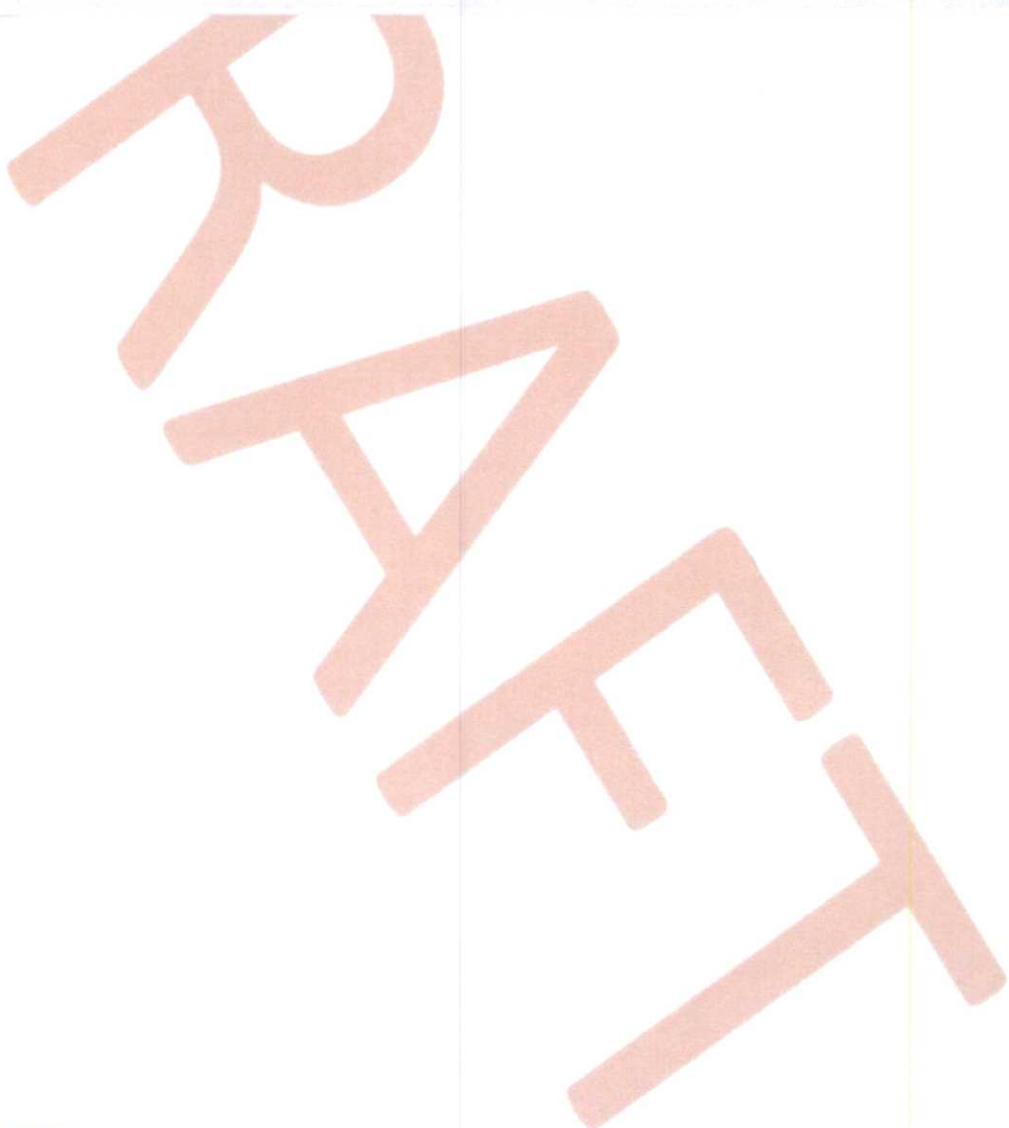
Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 4.1.1	Title	Air quality monitoring stand-alone campaigns (ARPAC)		
	Description	Air quality monitoring stand-alone monitoring campaigns with mobile laboratory during the start phases of the project in order to realize a knowledge base of examined areas connected with the anthropogenic pressure on the air quality in relation with target pollutants (100 days total).	Target value 3	Delivery date 31/12/2021
D 4.1.2	Title	Air quality fixed station relocation (ARPAC)		
	Description	Relocation of a fixed air quality monitoring station from San Tammaro "Discarica Maruzella" (with the Municipality of Gugliano in Campania support) to the city centre of Gugliano in Campania in order to implement the regulatory air quality monitoring trained by ARPAC with an indicative site.	Target value 1	Delivery date 31/07/2021
D 4.1.3	Title	New air quality fixed station installation (ARPAC)		
	Description	Installation of a fixed air quality station (with the Municipality of Gugliano in Campania support) in the Gugliano in Campania municipal territory according to the results of pervasive monitoring and modelling conducted during the first year of the project in order to implement the regulatory air quality monitoring trained by ARPAC with an indicative site. At the end of the project ARPAC will take over the management of the station and will provide for its inclusion in the regional monitoring network.	Target value 1	Delivery date 31/07/2022
D 4.1.4	Title	Air quality model scenarios (ARPAC)		
	Description	Reports from the air quality model under different simulated weather and emissive conditions in order to evaluate the outcomes connected with the proposed actions and improvement measures hypothesis by the project partners directly involved, also providing a contribution to the interpretation of the evolution of air pollution mechanisms.	Target value 1	Delivery date 30/06/2023



Output Number	Project output		Target value	Delivery date
O 4.1.1	Title	Air quality monitoring report (ARPAC)		
	Description	Air quality monitoring report in relation with the stand-alone campaigns delivered including the synthesis of monitoring activities and results.	Target value 3	Delivery date 31/12/2021
O 4.1.2	Title	Air quality fixed station relocation (ARPAC)		
	Description	Air quality monitoring station relocation delivered	Target value 1	Delivery date 30/06/2021
O 4.1.3	Title	New air quality fixed station installation (ARPAC)		
	Description	New air quality monitoring station installation delivered	Target value 1	Delivery date 30/06/2022
O 4.1.4	Title	AQ model scenarios (ARPAC)		
	Description	Air quality model outputs	Target value 1	Delivery date 30/06/2023

A4.2	Individuation of the hardware multi sensorial stations	<p>MATER will be based on a three steps idea for environment control: monitor, process, alert. For the first step, is very important the selection activity about right data collection technology. It shall be capable to collect the significant atmospheric physics and chemical values and to transfer them to the software architecture. The hardware stations will be capable to collect data about od interest for the air quality and as indicators of potential fires. Fides Consulting will be in charge for this activity and will cooperate with ARPAC.</p>	Start date 01/07/2020	End date 30/09/2020
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Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 4.2.1	Title	Definition of the physics and chemical atmospheric value types	Target value	Delivery date
	Description	ARPAC and DICMAP1 will define all the chemical-physical parameters of interest for the design of the multi sensorial stations.	1	30/09/2020
D 4.2.2	Title	Individuation of the hardware multi sensorial technology	Target value	Delivery date
	Description	Fides Consulting will define, based on the results of D.4.1.1, the requirements about the multi sensorial hardware stations. This deliverable will make able the Municipality to create a public call for the purchase of the stations into the commercial market from high level sensors engineering manufacturers.	1	30/09/2020

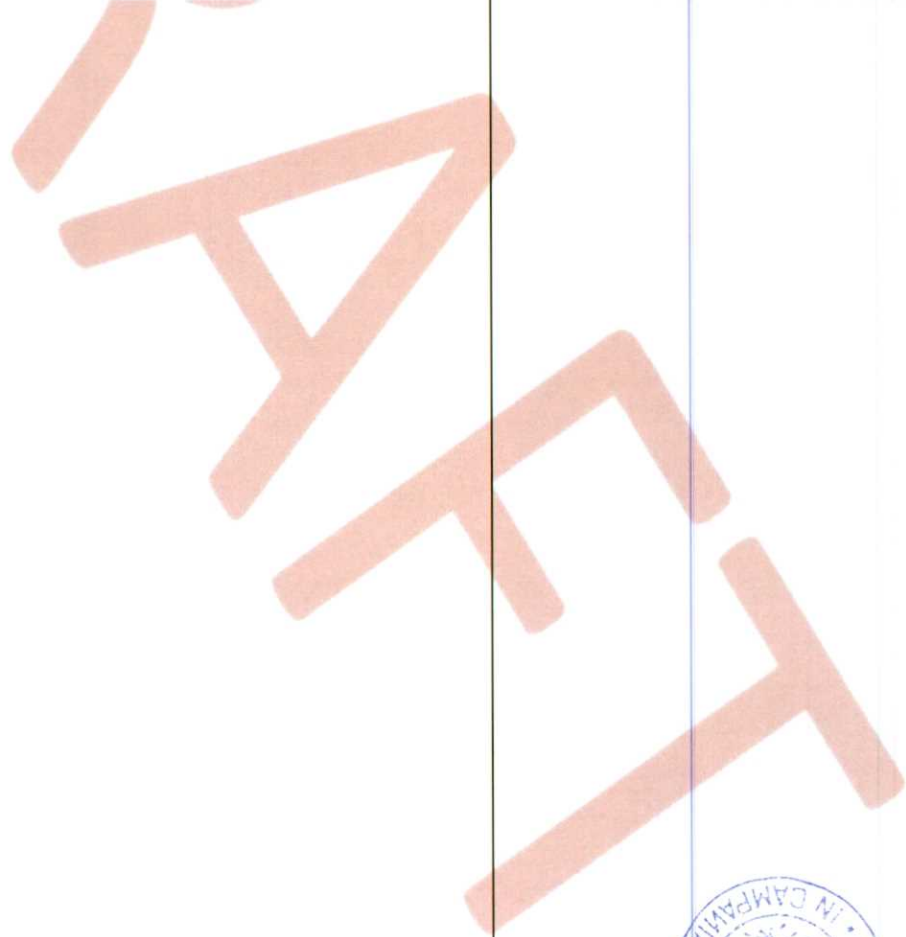
Output Number	Project output	Target value	Delivery date
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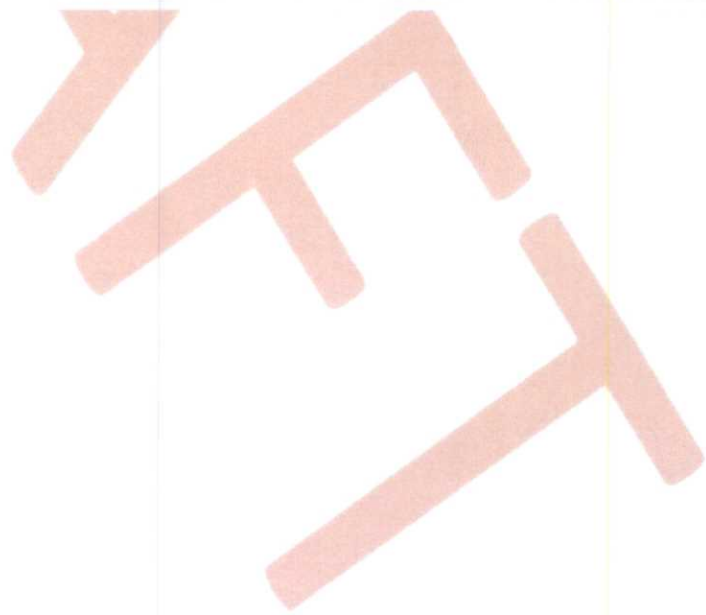





A4.3	Data analysis and multi sensorial hardware mesh design	<p>At the beginning of this activity Fides Consulting will analyse all available data about the fire occurrences inside the Municipality territory. These data will be evaluable for the individuation of the best organization on the environment of the hardware stations. This step is crucial to have in future interesting values about the fires presence in the municipality and to prevent them. The data will be send to the machine learning algorithms, that will make forecasts the zones with highest percentage of possibilities to have inside fires. Obviously, the air quality of the Municipality will be monitored with the same mesh, so it will be based on a homogenous distribution of the stations.</p>	Start date	01/11/2020	End date	31/03/2021
Deliverable number	Deliverable and partners involved		Target value	Delivery date		
D.4.3.1	Title	Municipality fires data analysis	Target value	1	Delivery date	28/02/2021
	Description	<p>Fides Consulting will analyse all shared data about the fires in the Municipality. These data will be organized by two different strategies. The first strategy will be about the empiric observation of them by our staff with a definition of some areas mostly hit. The second strategy will be based on a machine learning algorithm that will be able to analyse the data in spatial and temporal modes. These two strategies will be useful to select in a right way the zones that will be subject of multi sensorial hardware installation.</p>				
D.4.3.2	Title	Multi sensorial hardware mesh design	Target value	1	Delivery date	31/03/2021
	Description	<p>Fides Consulting will design the multi sensorial hardware mesh. This mesh will be created on a variable number of stations not definable at this moment. Probably, to cover all the 94.7 square kilometres MATER shall have about 500 hardware stations. Hypothetically, each squared Km will have about 16 hardware stations at a distance of 300 meters from each other. Obviously, not all the squared Km will have the same number of hardware stations. For example, the urban centre will be monitored by few of them because MATER's goal in this context will be to check the air quality. Instead, the rural area will be monitored by a more detailed mesh because the goal will be the fires monitoring and their prevention.</p>				
Output Number	Project output		Target value	Delivery date		

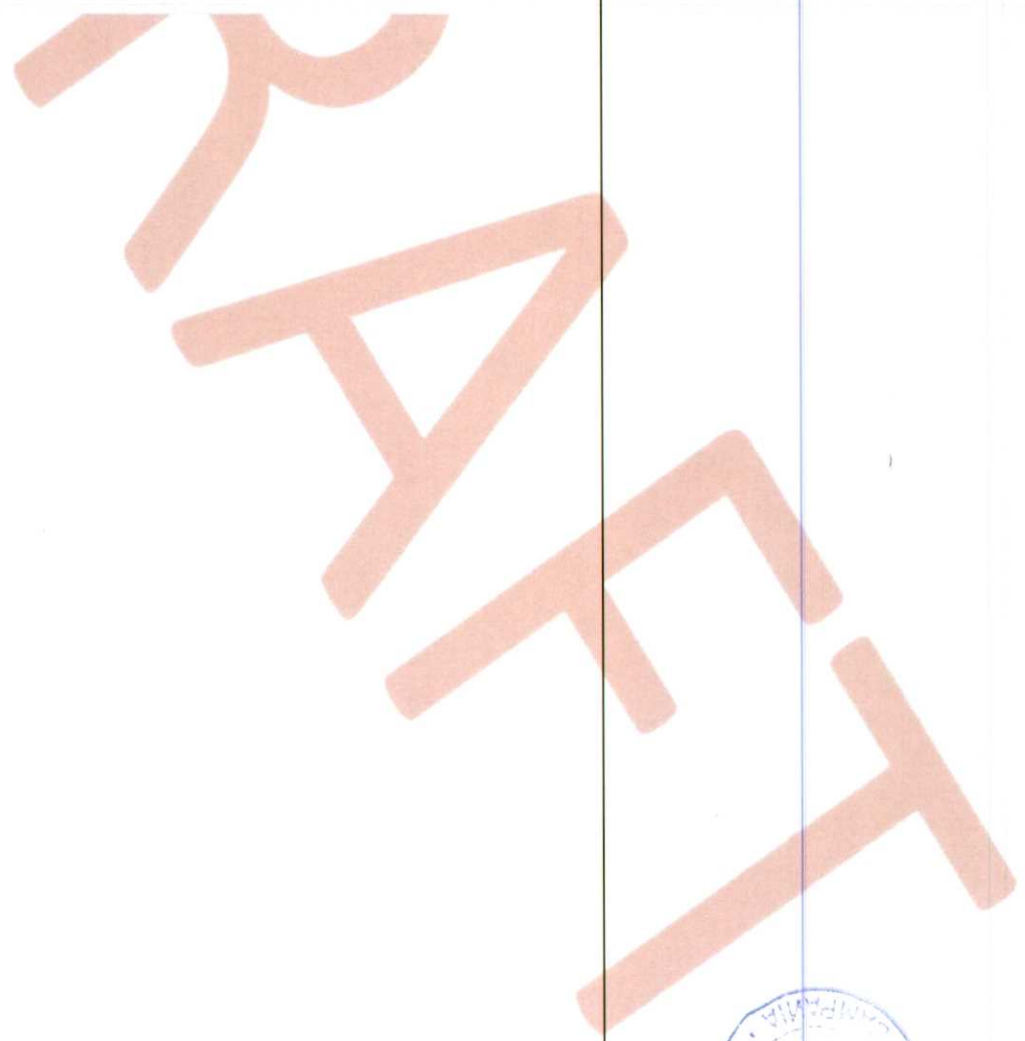


A4.4	Widespread monitoring system and early warning control unit development	<p>The software architecture that Fides Consulting will develop for MATER is based on three different modules. The first module will be the monitoring system that will be the responsible of the communication with the mesh of hardware stations and of the collection of all data. The second module will be the data processing system that will have different ways to manage them, like standard business logic and machine learning algorithms. The third module will be the alerting system that will be able to communicate a particular information to hundreds of thousands of clients in a few fractions of a second.</p>	<p>Start date 01/04/2021</p>	<p>End date 30/06/2023</p>
Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Widespread monitoring system development	<p>Target value 1</p>	<p>Delivery date 31/10/2022</p>
D.4.4.1	Description	<p>Fides Consulting will develop the software architecture on which is based the MATER project. It will be based on a modern technology stack defined with the acronym MEAN (Mongo+Express+Angular+Node) that will make MATER able to be modular and scalable for future upgrades. The monitoring system will communicate with the hardware stations and it will collect the digital data that will be stored on a cloud infrastructure. These data will be processed by business logic based on the functional requirements of the public intervention system. Then, the processed data will be shown in real time on different software clients, like web and mobile applications, that will be used by the sector professionals.</p>		
	Title	Early warning control unit development	<p>Target value 1</p>	<p>Delivery date 30/06/2023</p>
D.4.4.2	Description	<p>Fides Consulting will develop the alerting software module. Once a particular limit will be overcome, a professional in the monitoring room or an artificial intelligence algorithm can send, through https protocol and in JSON format, an alert to start the environment intervention of all the actors that are in governmental organizations. The alert will be tracked in all of its steps and the monitoring room will be able to know if and where it will be stopped. Moreover, also the citizens will be alerted about the potential danger situations and about the air quality. They will have a real time information and they will can become "human-sensors" themselves, making geo-referenced and multimedia detection.</p>		
Output Number	Project output		Target value	Delivery date
	Title	Back end software layer	<p>Target value 1</p>	<p>Delivery date 31/07/2022</p>
O.4.4.1	Description	<p>This first output will be the software back end layer. It will have the responsibility to receive all data sent by the multi sensorial hardware infrastructure, that will be stored and persisted. Moreover, the back end layer shall expose the RESTful API that will make the front end software layer able to receive the data and to show in an intelligible way to the end users.</p>		
	Title	Front end software layer	<p>Target value 1</p>	<p>Delivery date 30/06/2023</p>
O.4.4.2	Description	<p>This output will be based on the front end software layer. In detail, it will be represented by some client applications, like web applications, smartphone/tablet applications and smartwatch applications. All these clients will be designed and developed with an important attention on the user experience, that'll be totally natural to use.</p>		






A4.5	Design of an advanced monitoring station to be installed on an electric bus	DICMAPI will design an "advanced monitoring station" to be mounted on the electric bus of the local transport network; this advanced monitoring system should be able to detect in real-time the concentrations of PM1 and PM2.5 and of specific gaseous precursors for dioxins.	Start date 01/07/2020	End date 31/07/2021
Deliverable number		Deliverable and partners involved	Target value	Delivery date
D 4.5.1	Title	Selection of sensors for particulate matter	Target value 1	Delivery date 31/07/2021
	Description	Sensors for real-time monitoring of PM1 and PM2.5 will be selected and integrated. They will be calibrated in laboratory experiments and tested on a field campaign. Validation will be performed by using an array of laboratory equipment including an electrical impactor and a scanning measuring particle sizer for the determination of the particle size distributions.		
D 4.5.2	Title	Selection of sensors for dioxins precursors	Target value 1	Delivery date 31/07/2021
	Description	A sensor for dioxin precursors based on the experience obtained in a lab scale experiment will be developed. The sensor will be calibrated by using chemical techniques for the measurements of gaseous precursors.		
Output Number		Project output	Target value	Delivery date
O 4.5.1	Title	PM and dioxins precursor monitoring system (DICMAPI)	Target value 1	Delivery date 31/07/2021
	Description	Mobile particulate matter monitoring station and dioxin precursors sensor with fast response time.		



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Work Package Budget

Activity	Description	Amount (€)	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
PP 1 - Municipality of Gugliano	6 manmonths of an Urban Authority manager		25,000	N/A				25,000	0	25,000
PP 4 - Fides Consulting srl	106 manmonths of full time senior technicians		567,000	N/A	10 travel for site inspections, 100€ each			567,000	0	567,000
PP 6 - University of Naples Federico II	3 manmonths of a full professor, 42 manmonths of a post doc researcher		117,000	N/A	100 travel for site inspections, 100€ each	Consumable		117,000	0	117,000
PP 7 - Campania Regional Agency for Environment (ARPA-C)	36 manmonths of a full time researcher		84,000	N/A			100 mobile monitoring campaign, 500€ each	84,000	0	84,000
Total (€)			793,000.00	118,950.00	11,000.00	30,000.00	50,000.00	1,002,950.00	0.00	1,002,950.00



Indicative budget breakdown per year

Year	2020	2021	2022	2023	Total
Amount (%)	50 %	30 %	20 %	0 %	100.00 %
Budget (€)	501,475.00	300,885.00	200,590.00	0.00	1,002,950.00

Indicative budget breakdown per activity

Activity	Amount (%)	Budget (€)
A.4.1	14 %	140,413.00
A.4.2	24 %	240,708.00
A.4.3	22 %	220,649.00
A.4.4	22 %	220,649.00
A.4.5	18 %	180,531.00
Total	100.00 %	1,002,950.00

MATER



Work Plan Per Work Packages - WorkPackage 5 (Implementation Work Package)

Title	WP5 Actions to encourage Green Mbbility
Start Date	01/07/2020
End Date	30/06/2023
Budget	123,050.00

Partners Involvement

Responsible Partner	PP 3 - ENCO
Involved Partners	PP 1 - Municipality of Gugliano PP 2 - EITD PP 3 - ENCO PP 6 - University of Naples Federico II

Summary In order to support the monitoring activities and with the aim of influencing the citizens' green mobility choices, a bike-sharing service will be implemented in the Municipality of Gugliano in Campania and a connection service with an electric bus between the railway stations of the territory will be provided by the Municipality thanks to UIA. Mobile air quality sensors developed in WP4 will be installed on the electric bus allowing measurements at different points of the city and significantly increasing the coverage of the detection area. These actions will contribute, together with WP7 actions, to the development of good practice of "GreenCommuting".

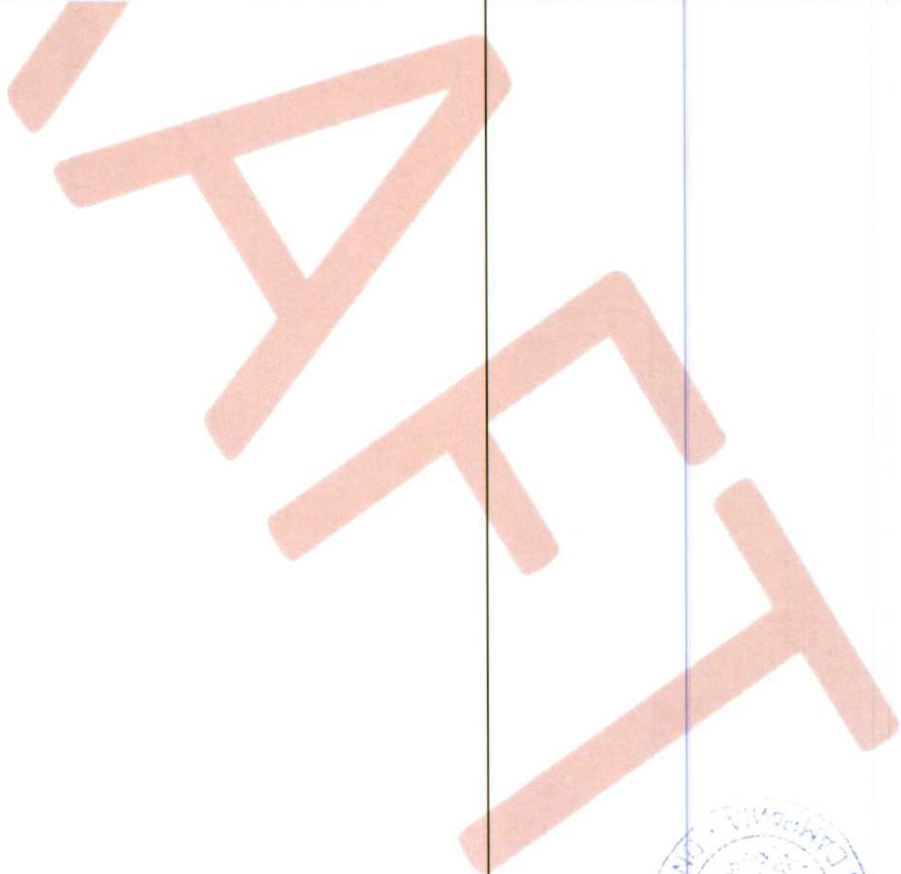
Activities, Deliverables and Outputs

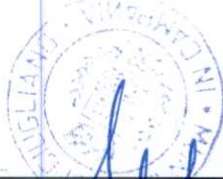
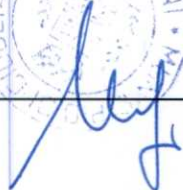
Activity number	Activity title	Activity description and partners involved	Start date	End date
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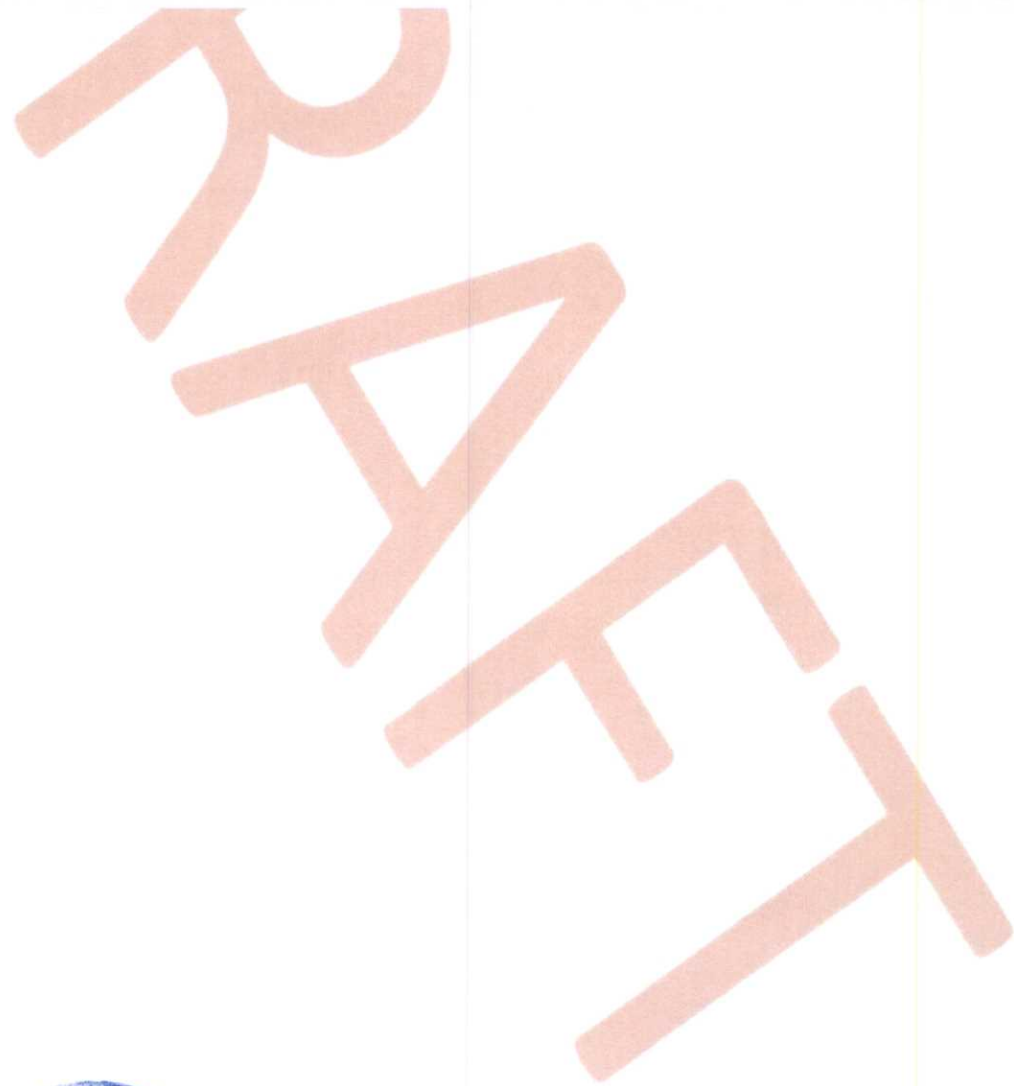



A5.1	Bike-sharing service	<p>A bike-sharing service will be implemented on the cycle paths that are under construction through the project "PRIMA- Giugliano in bici" in the Municipality of Giugliano in Campania. On these bikes they will be installed mobile air quality sensors developed in WP4, allowing measurements at different points of the city and significantly increasing the coverage of the detection area. A dedicated APP (IOS and Android) and a web platform for the bike-sharing system will be implemented in order to make easier to rent a bike and to make the service more efficient.</p>	<p>Start date 01/07/2021</p>	<p>End date 30/06/2023</p>
Deliverable number		Deliverable and partners involved	Target value	Delivery date
D 5.1.1	Title	Report on bike sharing service	<p>Target value 3,000</p>	<p>Delivery date 30/06/2023</p>
	Description	<p>A detailed report on the use of the bike sharing service and about the number of data collected thanks to this service. (ENCO).</p>		
D 5.1.2	Title	Report on bike rented with APP and through the web platform	<p>Target value 3,000</p>	<p>Delivery date 30/06/2023</p>
	Description	<p>A detailed report on the number of bikes rented (2500) through the dedicated APP and a detailed report on the number of bikes rented (500) through the web platform. (ENCO)</p>		
Output Number		Project output	Target value	Delivery date
O 5.1.1	Title	Public Bicycle System (PBS) scheme	<p>Target value 3,000</p>	<p>Delivery date 30/06/2023</p>
	Description	<p>A detailed report on the number of bikes rented through the dedicated APP. (ENCO)</p>		
O 5.1.2	Title	APP and Web platform Bike Sharing System MATER	<p>Target value 2</p>	<p>Delivery date 30/09/2021</p>
	Description	<p>The APP will be created with a smart approach allowing users to easily rent/return a bike and informing them about the location of the nearest bike rental point. The web platform also will allow users to rent or return a bike and will inform them about the location of the nearest bike rental point.</p>		



A5.2	Electric bus connection service	<p>A connection service between railway stations of the territory and Piazza Cristoforo Colombo will be provided by the Municipality with one electric bus. A charging station for e-buses will be located by the EAV railway station in the urban area. On the e-bus, like for the bikes, mobile air quality sensors, developed in WP4, will be installed allowing measurements at different points of the city and significantly increasing the coverage of the detection area. On the top of the bus will be also installed a light that will inform the citizen every time that a data will be collected. This action together with A5.1 will allow a coverage of a large part of the territory of interest and it will impact also on citizens greenmobility choices.</p>	Start date 01/07/2020	End date 30/06/2023
Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Report on data collected with electric bus	Target value	Delivery date
D 5.2.1	Description	A detailed report on the use of the electric bus system and the number of data collected thanks to this service, (ENCO).	1	30/06/2023
Output Number	Project output		Target value	Delivery date
	Title	Electric bus system	Target value	Delivery date
O5.2.1	Description	The electric bus will connect through a circular path of 20km the railway stations currently in use on the territory (one located in the city centre of the EAV service, and another one located in the industrial zone (Ponte Riccio) of the Trenitalia service) and Piazza Cristoforo Colombo. In this way the coverage area of the municipality would concern both the urban city centre and the area between the city and the sea.	1	30/06/2023

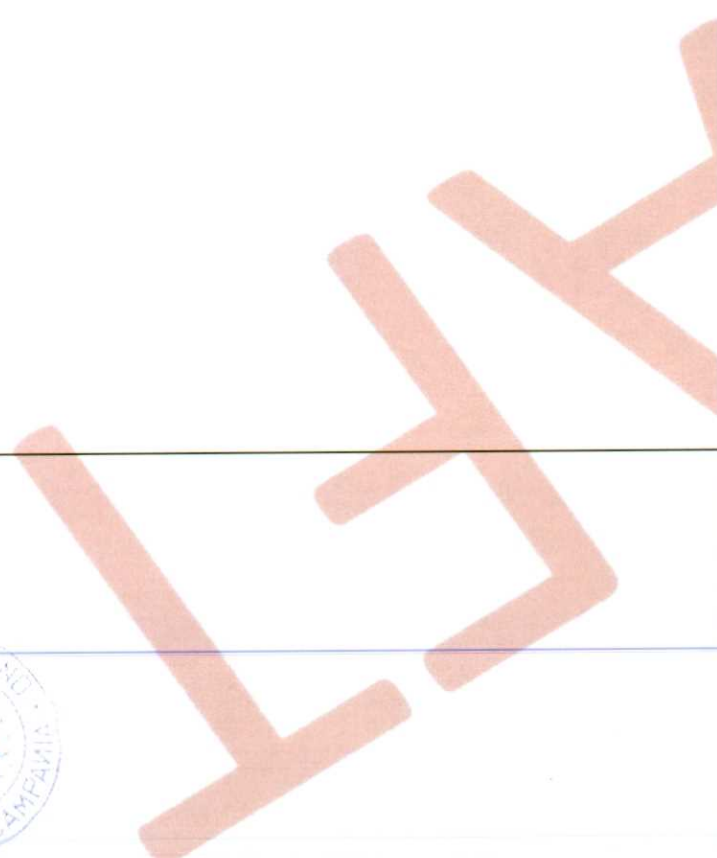






Work Package Budget

PP 1 - Municipality of Gugliano		Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	6 manmonths of an Urban Authority officer	N/A							
Amount (€)	25,000	3,750,00	0	0	0	0	28,750,00	0	28,750,00
PP 2 - ETID		Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	6 manmonths of a senior project manager	N/A							
Amount (€)	25,000	3,750,00	0	0	0	0	28,750,00	0	28,750,00
PP 3 - ENCO		Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	10 manmonths of a senior project manager	N/A							
Amount (€)	45,000	6,750,00	0	0	0	0	51,750,00	0	51,750,00
PP 6 - University of Naples Federico II		Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	6 manmonths of a post doc researcher	N/A							
Amount (€)	12,000	1,800,00	0	0	0	0	13,800,00	0	13,800,00
Total (€)	107,000,00	16,050,00	0,00	0,00	0,00	0,00	123,050,00	0,00	123,050,00



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Indicative budget breakdown per year

Year	2020	2021	2022	2023	Total
Amount (%)	16 %	33 %	33 %	18 %	100.00 %
Budget (€)	19,688.00	40,606.50	40,606.50	22,149.00	123,050.00

Indicative budget breakdown per activity

Activity	Amount (%)	Budget (€)
A.5.1	50 %	61,525.00
A.5.2	50 %	61,525.00
Total	100.00 %	123,050.00

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Work Plan Per Work Packages - WorkPackage 6 (Implementation Work Package)

Title WP6 Air Quality remediation actions

Start Date 01/07/2020

End Date 30/06/2023

Budget 379,050,00

Partners Involvement

Responsible Partner PP 5 - Agrocultura srls

Involved Partners PP 1 - Municipality of Gugliano
PP 5 - Agrocultura srls
PP 6 - University of Naples Federico II
PP 8 - Ente Riserve Foco Voltumo Costa Licola Lago Falciiano

Summary WP6 regards the development of air quality remediation actions aiming at improving the air quality in the Municipality of Gugliano in Campania. The goal will be reached by the early localization of waste fires as detected by the widespread sensor network and by the immediate action of extinguishing of the fire and of an "early remediation procedure" based on the technology of scrubbing of polluted plumes.

The widespread monitoring system and the IoT infrastructure will inform the Early Warning Control unit in the monitoring room or the artificial intelligence algorithm, an alert to start the intervention will start. Together with all the actions of fire control and extinguishing, an early remediation of the air pollution will be performed by the purification of the fire plume with a scrubbing systems which will be able to remove pollutants, including particulate matter and gaseous dioxin precursors, from hundreds cubic meters per hours of flame exhaust.

Other remediation actions concern all those operational activities that aim to put into practice actions that improve the quality of the area. Therefore we want to develop 4 types of intervention: The construction of vertical gardens, guarded within self-sufficient photovoltaic greenhouses that produce food and energy and placed in public spaces near school buildings, (ACTION 1); the territory of Gugliano has various agricultural areas owned by the Municipality, so in order to clean them up and prevent the progression of degradation and opportunities for abandoning hazardous waste, it was planned to make them cultivable with a REGENERATIVE ORGANIC AGRICULTURE system, thereby favoring the creation of urban agricultural settlements to be managed for the production of food or recreational activities and to support the well-being of citizens (ACTION 2). Another planned intervention concerns the coastal area and the LAGO PATRIA NATURE RESERVE, where a SOCIAL Forest will be established, with the aim of creating an informal, community space, open to all and all. The goal is to give the community a space in which different, spontaneous and better informed forms of social relations can be developed on the best practices for environmental protection (ACTION 3).

Activities, Deliverables and Outputs

Activity number	Activity title	Activity description and partners involved	Start date	End date
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Project Acronym: MATER

<p>Selection and development of technical devices to be used outdoor for ambient air purification</p>	<p>DICMAPI will analyse the availability on the market of technical systems to be used outdoor to purify limited amounts of ambient air. Scrubbing with water of portion of ambient air is a technology already used in very polluted areas. DICMAPI will verify if such technology might be used for fire exhaust treatments and if, by adding specific solvents to water, it might be useful to remove toxic combustion by-products of waste fires. DICMAPI will also verify if the response time of a mobile systems based on the same technology is sufficiently short to allow the use of the scrubbing systems for early remediation actions</p>	<p>Start date 01/07/2020</p>	<p>End date 31/12/2021</p>
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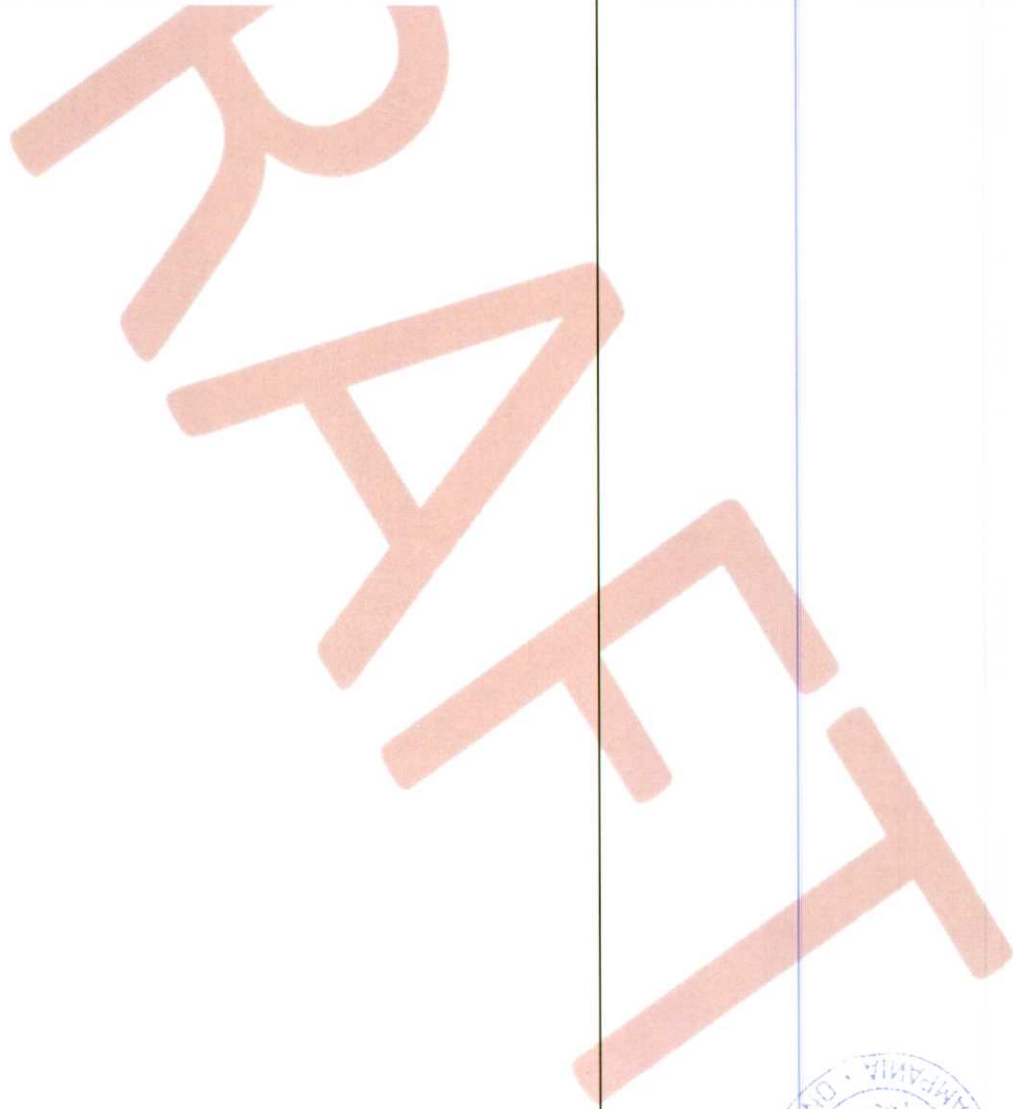
A6.1

Deliverable number	Deliverable and partners involved	Target value	Delivery date
<p>D 6.1.1</p>	<p>Selection of devices for ambient air purification</p>	<p>1</p>	<p>31/12/2020</p>
<p>D 6.1.2</p>	<p>Individualisation of possible solvent to remove gaseous toxic pollutants from fire plumes</p>	<p>1</p>	<p>31/07/2021</p>
<p>O6.1.1</p>	<p>Mobile technical device to be used for fire plume purification</p>	<p>1</p>	<p>31/12/2021</p>

REDACTED



A6.2	Photovoltaic greenhouses design	Agroculture in collaboration with the urban authority chooses the spaces where to locate the intelligent greenhouses equipped with vertical gardens. The activity starts with the survey of the selected areas then with the project and the choice of materials for the greenhouse. While the structure for the vertical plant is pre-fabricated but it too should be designed. The costs and documentation for the management and execution of the works will be defined.	Start date 01/07/2020	End date 30/06/2023
Deliverable and partners involved		Target value	Delivery date	
D 6.2.1	<p>Title</p> <p>Drawings of the architectural and executive project of the greenhouse</p> <p>Description</p> <p>Technical documentation of the project which includes: project report and technical report; relief drawings; project drawings (plans, elevations and sections at the appropriate scales); documentation and study of variations; economic evaluation. The necessary documentation for the beginning and closing of the photovoltaic greenhouse project, including the permit procedures; work phases, specifications for contracts and tenders. Supervision of the works and final document of the delivery of the works that certifies the direction of the works carried out during the realization and the certification of the correct execution of the works.</p>	1	30/06/2023	
Project output		Target value	Delivery date	
O6.2.1	<p>Title</p> <p>Photovoltaic greenhouse project</p> <p>Description</p> <p>Technical documentation for the construction works of the photovoltaic greenhouse, the entire documentation from the design phase to the work supervision and final certification</p>	1	30/06/2023	



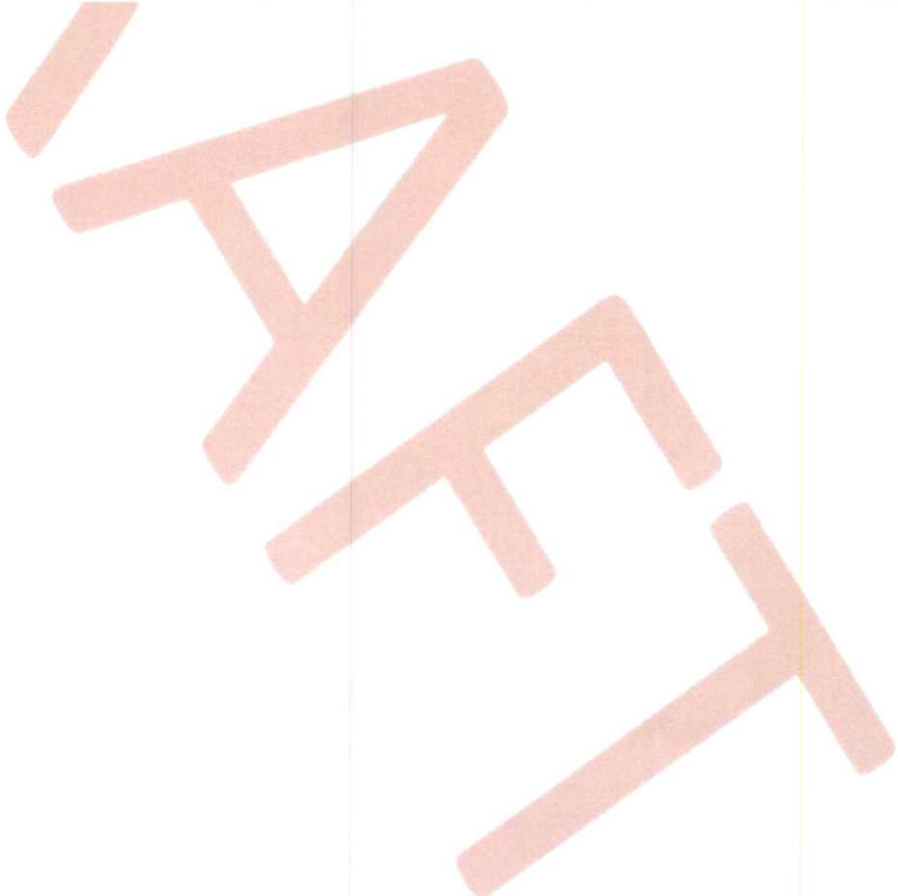
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A6.3	Vertical Garden Design within the photovoltaic greenhouse	<p>AGROCOLTURA realizes the vertical system of out-of-soil cultivation that uses the zeolite to replace the earth. Zeolite is a mineral of volcanic origin, a real "natural sponge", capable of retaining water and favouring strong oxygenation of the roots, as well as improving the absorption mechanism of plant nutrition. With zeolite your hydroponic crop will be natural to zero residue. ZeoVertical is equipped with a hydro / aeroponic system with intelligent closed loop irrigation that provides the roots with a perfect blend of water, nourishment and oxygen, so as to obtain explosive productions, drastically reducing the risk of diseases and parasites. The system is compact and takes up very little space. Its vertical development allows you to maximize the harvest by making the most of the surface. The vertical garden is sustainable, minimizing the use of electricity. Closed-cycle irrigation allows water to be reused for a long time, favouring water and fertilizer savings of 90% compared to traditional land gardens, achieving healthier and faster plant growth.</p>	Start date	End date
			01/07/2020	30/06/2023

Deliverable number	Deliverable and partners involved		Target value	Delivery date
D 6.3.1	Title	Drawings of the architectural and executive for the Vertical Garden	Target value	Delivery date
	Description	<p>Technical documentation of the project which includes: project report and technical report; relief drawings, project drawings (plans, elevations and sections at the appropriate scales); documentation and study of variations, economic evaluation. Hydraulic system project. Preliminary project: a) explanatory report; b) technical report; c) environmental pre-feasibility study, general planimetry and graphic drawings; project economic framework. Final project: a) Documents composing the final project, b) General report of the final project c) Technical and specialist reports of the final project, d) Graphic drawings of the executive project. Executive project: a) Documents that make up the executive project, b) Graphic drawings of the executive project, c) Executive calculations of structures and facilities, d) Maintenance plan for the work and its parts. Electric system project. Technical report: General electrical scheme; Installed, absorbed power and relative sizing; Protection coordination tables and diagrams; List of electrical components; List of electrical conduits; Technical specifications of electrical components; Schemes of the assembled protection and manoeuvring equipment; Planimetric drawings.</p>	1	30/06/2023

Output Number	Project output		Target value	Delivery date
O6.3.1	Title	HYDRAULIC PROJECT AND ELECTRICAL PROJECT	Target value	Delivery date
	Description	All the documentation from the design phase to the work super-vision and final certification.	1	30/06/2023





A6.4

Plants nurseries and urban gardens against air pollution

The municipality of Giugliano holds a patrimony of agricultural lands that are located near the city, these represent an imported resource, because through the implementation project, a part of them could be regenerated and transformed into nurseries of plants that contrast atmospheric pollution and also in urban gardens where plant antimog species are planted.
 The project initiative aims to improve environmental conditions but also to spread an eco-sustainable culture in the population. In fact the nurseries, in particular represent a place of supply of plants that can be brought into the home and purify domestic air; whereas in the town of Giugliano there is a high percentage of patients with respiratory problems, we consider this life support.
 It shows the importance of plants in domestic environments, a study conducted at the Paharpur Business Center. Within the 4,600 square meters of the Paharpur Business Center in New Delhi, in addition to the 300 people who work there, about 3,000 plants are housed.

52% of workers saw a reduction in disorders such as eye irritation, migraines 24%, respiratory problems 20%, lung damage 10/12% and asthma 9%, and an increase in 10% blood oxygen.
 Top 5 of the plants that purify the air at home:

1. Areca
2. Sanseveria
3. Pothos
4. Gerbera
5. Aglaonema

This intervention must be completed with the transformation of some soils into urban vegetable gardens cultivated through the method of organic regenerative farming, which allows the establishment of an efficient agricultural system for improving the soil also through plant species capable of combating atmospheric pollution, such as example the CANAPA.

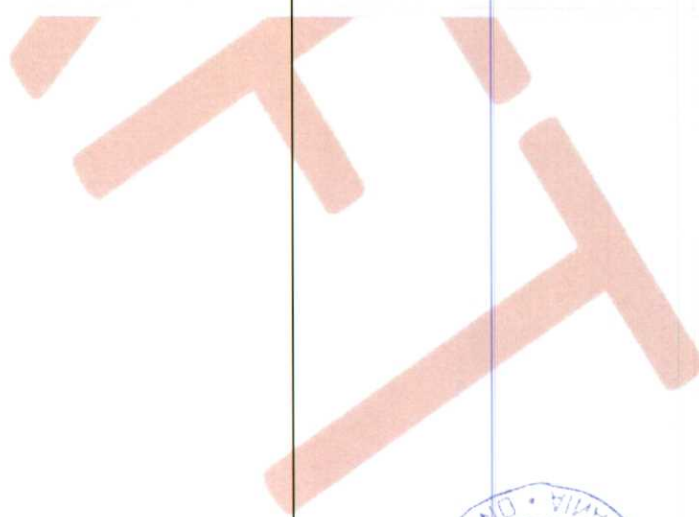
Start date

01/07/2020

End date

30/06/2023

Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Cultivation project		
D 6.4.1	Description	<p>Analysis document and direction of the relevant campaign The direction of the topographic survey campaign realized through innovative techniques of P.A. (Precision agriculture) and the analysis documents describing the current state of the soil, the ecosystem and ecological corridors. This will constitute the preliminary study for the development of the agriculture project. Project for the arrangement of soils, water system, lighting system, including any waste to be removed by specific dossier on contracts and tenders Documentation that will define the types of works necessary for the arrangement of the soils, for the construction of a water and lighting system, for the removal of any waste. Cultivation project The document will indicate the planning of cultivation with the types of crops and their location. Large areas will be dedicated to the implementation of a food-forest with the use of crops suitable for nursery and urban vegetable cultivation. Equipment and materials necessary for agricultural activities, with specific dossiers on contracts and tenders Areport that will describe the equipment (tools, machines), the material (seeds, plants, trees), and everything necessary for agriculture activities for the entire production cycle for nurseries and urban gardens. Identification of small structures necessary for agricultural activities Areport that will describe the small structures and deposits needed to support agriculture activities, such as the creation of bio-fertilizers, material storage, product preservation, as well as nursery departments.</p>	1	30/06/2023
	Title	Cultivation and soil design guidelines with equipment and materials		
O 6.4.1	Description	<p>The project and the guidelines of the agricultural cultivation project is a detailed document on the entire cultivation process. It will indicate all the work necessary for the implementation of the cultivation, the types of crops, and all the equipment, the materials, and the small structures necessary for nursery and horticulture activities.</p>	1	30/06/2023

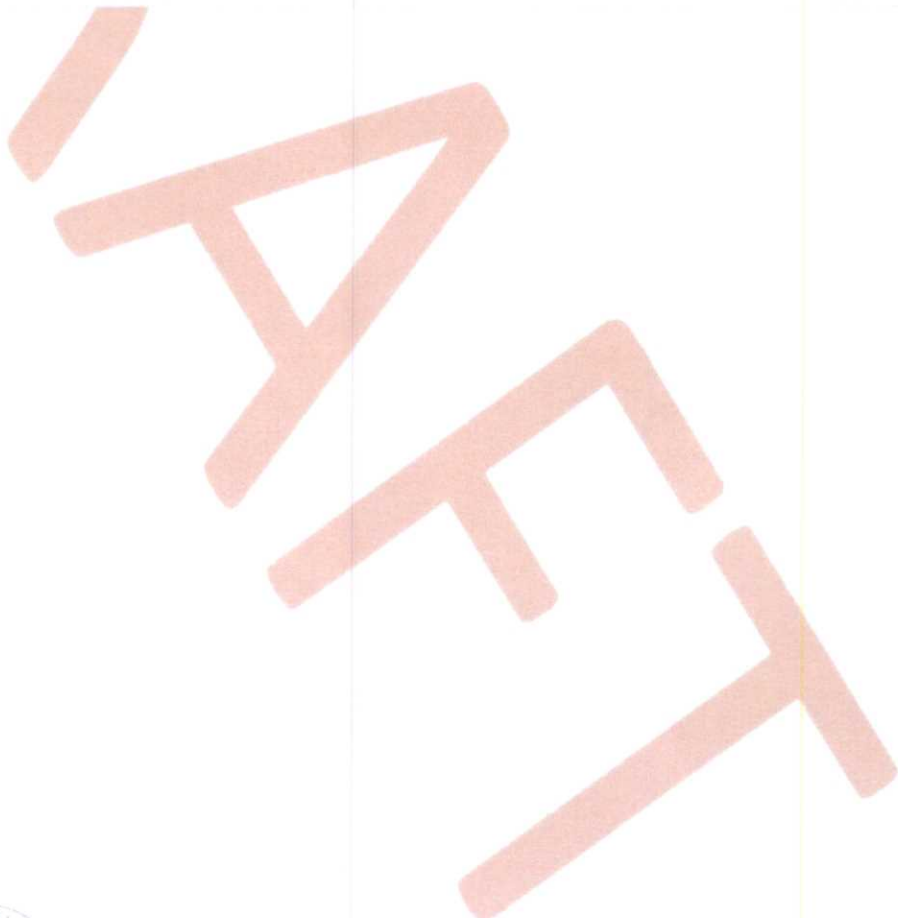


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A6.5	SOCIAL FOREST	<p>"Air pollution is also a social problem".</p> <p>The actions implemented with the Social Forest are aimed at:</p> <ul style="list-style-type: none"> • the creation of a place where one learns to create community through doing and promoting active citizenship; • the design of a space for meeting and dialogue between different social groups; • confrontation on new poverty and lack of access to personal development opportunities; • experimentation with other economies to make the academy sustainable in the long term; • the construction and transmission of knowledge and knowledge outside of scholastic and academic paradigms, with practical experimentation and collective research; • reflection on common assets, collective properties and civic uses in the area; • attention to the environmental sustainability of our projects; • the birth of opportunities for collective activation; • wanting to remain in "perpetual beta", that is, carrying out an idea of constant experimentation, reflection and collective evaluation to create a place that is in a stable state of becoming. 	Start date	End date
			01/07/2020	30/06/2023

Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Specific workshops aimed at involving the population		
D 6.5.1	Description	<p>Specific workshops aimed at involving the population will be carried out: Non-formal and informal learning on tree species and on the importance of the Reserve park as a deterrent against air pollution Co-planning and co-design, we facilitate the collective design of spaces, activities and economies with the aim of increasing collective responsibility towards the environment. Common goods and communing with the aim of increasing awareness of a circular culture that avoids waste.</p>	Target value 9	Delivery date 30/06/2023

Output Number	Project output		Target value	Delivery date
	Title	Guidelines		
O 6.5.1	Description	<p>Guidelines of the workshops that develop the activities of the Social Forest Event creation and management operations</p>	Target value 1	Delivery date 30/06/2023






Work Package Budget								
PP 1 - Municipality of Gugliano	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	6 manmonths of an Urban Authority officer	N/A						
Amount (€)	25,000	3,750.00	0	0	0	28,750.00	0	28,750.00
PP 5 - Agrocoltura srls	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	12 manmonths of a full time agronomist	N/A	20 surveys at 100€ each	Professional services for the design of all plants (hydraulic, electric, etc.)				
Amount (€)	50,000	7,500.00	2,000	242,500	0	302,000.00	0	302,000.00
PP 6 - University of Naples Federico II	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	12 manmonths of a post doc researcher, 2 manmonths of full time researcher	N/A						
Amount (€)	32,000	4,800.00	0	0	0	36,800.00	0	36,800.00
PP 8 - Ente Riserve Foce Volturno Costa Lica Lago Falciano	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
Description	2 manmonths of a senior professional	N/A						
Amount (€)	10,000	1,500.00	0	0	0	11,500.00	0	11,500.00
Total (€)	117,000.00	17,550.00	2,000.00	242,500.00	0.00	379,050.00	0.00	379,050.00



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Indicative budget breakdown per year

Year	2020	2021	2022	2023	Total
Amount (%)	6 %	33 %	33 %	28 %	100.00 %
Budget (€)	22,743.00	125,086.50	125,086.50	106,134.00	379,050.00

Indicative budget breakdown per activity

Activity	Amount (%)	Budget (€)
A 6.1	15 %	56,857.50
A 6.2	25 %	94,762.50
A 6.3	25 %	94,762.50
A 6.4	25 %	94,762.50
A 6.5	10 %	37,905.00
Total	100.00 %	379,050.00

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Work Plan Per Work Packages - WorkPackage 7 (Implementation Work Package)

Title: WF7 Social education and training

Start Date: 01/09/2021

End Date: 30/06/2023

Budget: 530,650.00

Partners Involvement

Responsible Partner: PP 2 - EITD

Involved Partners: PP 1 - Municipality of Giugliano, PP 2 - EITD, PP 3 - ENCO, PP 5 - Agrocoltura srls, PP 6 - University of Naples Federico II, PP 7 - Campania Regional Agency for Environment Protection (ARPAC), PP 8 - Ente Riserve Foce Volturmo Costa Licola Lago Falciiano

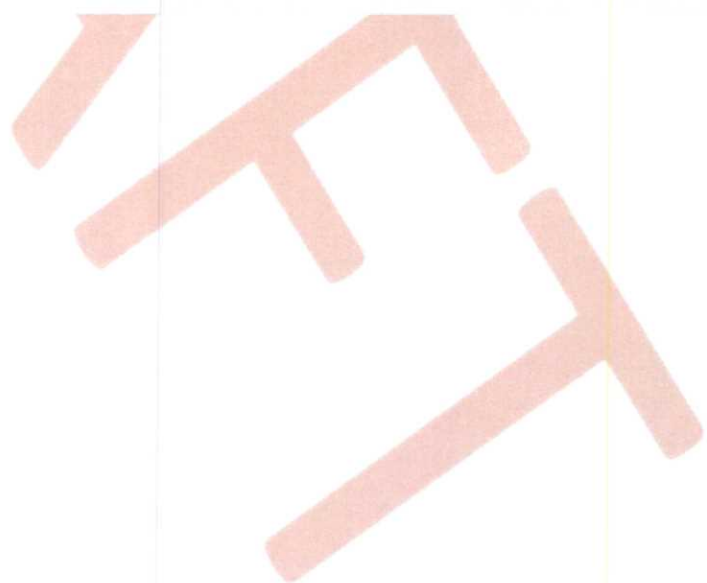
Summary: The overall goal of this WP is to contribute to the birth of a new class of citizens, more sensitive to issues of air quality, environmental pollution and production/management of different types of waste, capable of actively contributing to the improvement of air quality with their "socially correct behaviour". Social education will be focused on the topics of air quality and environmental pollution and on providing more information to citizens on environmental protection, thanks also to monitoring (WP4) and remediation (WP6) results and to foster behavioural models capable of improving air quality (i.e. encouraging sustainable mobility as well as the use of bicycle paths, object of WP5 activities). The social education is designed tailored on the peculiarities of the identified target groups, such as: schoolchildren of different levels, housewives, workers and unemployed people. Activities are dedicated to the social education of Giugliano citizenships, with activity 7.1 dedicated to students (first level, secondary lower level, secondary upper level); per each profile, a round of three workshops per year is foreseen in each local school; with activity 7.2 to housewives, retired people and workers involved by local associations, to be organised twice a year; with activity 7.3 dedicated to NEET and unemployed people, and is divided in 3 distinct cycles, one per year, covering thematic related to the professional figure of technician of environmental monitoring.

Activities, Deliverables and Outputs

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A7.1	Social education for students	<p>Social education paths are foreseen to schoolchildren to sensitise them on the topic of air quality and environmental pollution. They will slightly vary depending on beneficiaries' age and education level. Generally speaking, these paths will consist of:</p> <ul style="list-style-type: none"> - Lectures on concept of air pollution and different air pollutants, on pollution sources and their effects on human health and environment; - Lectures on air quality in Giugliano and best practices to limit air pollution; - Practical monitoring experience at school; - Visit to polluting sites and to the Control Room of Giugliano municipality (Investment I8.4). <p>With the coordination of EITD, the other involved partners will together develop and implement these training courses.</p>	<p>Start date 01/09/2021</p>	<p>End date 30/06/2023</p>
Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Educational path for primary school students	Target value	Delivery date
D 7.1.1	Description	<p>A round of three workshops per year is foreseen in each local school. During each quarter, a one-day workshop on the above identified themes will be organised in each of the 8 primary schools of Giugliano municipality, for a total of 24 workshop per year, for the overall duration of the project, with the aim to cover all the primary level schoolchildren of Giugliano municipality (5000 scholars). The responsibility of this deliverable lays on EITD with the technical support of the involved partners.</p>	24	30/06/2023
	Title	Educational path for secondary lower school students	Target value	Delivery date
D 7.1.2	Description	<p>A round of three workshops per year is foreseen in each local school. During each quarter, a one-day workshop on the above identified themes will be organised in each of the 4 secondary lower level schools of Giugliano municipality, for a total of 12 workshop per year, for the overall duration of the project, with the aim to cover all the secondary lower level schoolchildren of Giugliano municipality (4000 schoolchildren). The responsibility of this deliverable lays on EITD with the technical support of the involved partners.</p>	12	30/06/2023
	Title	Educational path for secondary upper level school students	Target value	Delivery date
D 7.1.3	Description	<p>A round of three workshops per year is foreseen in each local school. During each quarter, a one-day workshop on the above identified themes will be organised in each of the 5 secondary upper level schools of Giugliano municipality, for a total of 15 workshop per year, for the overall duration of the project, with the aim to cover all the secondary upper level schoolchildren of Giugliano municipality (3700 students). The responsibility of this deliverable lays on EITD with the technical support of the involved partners.</p>	15	30/06/2023
Output Number	Project output		Target value	Delivery date
	Title	Educated students of primary, secondary lower level and secondary upper level school	Target value	Delivery date
O7.1.1	Description	<p>13700 students from primary, secondary lower level and secondary upper level school will be educated and informed on air quality issues during the project.</p>	13,700	30/06/2023






A7.2

Social education for citizens, to be involved by local associations

Social education paths are foreseen to citizens involved by local associations. Subjects will be air quality and environmental pollution, with a particular focus on production, management and disposal of the various types of waste. This, since errors in waste management and disposal strongly contribute to the abandonment of waste that causes uncontrolled fires, and then air quality deterioration. Moreover, citizens targeted by this activity are: workers, housewives and retired people. This explains why the training paths will slightly vary focusing on the different types of waste produced in the home and office environment. With the coordination of EITD, the other involved partners will together develop and implement these training courses.

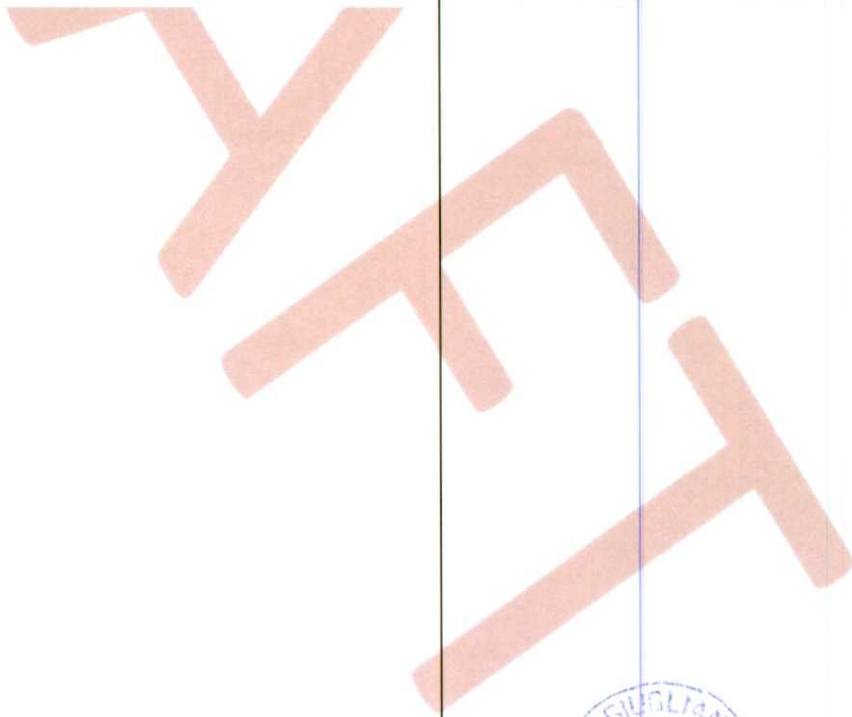
Start date

01/09/2021

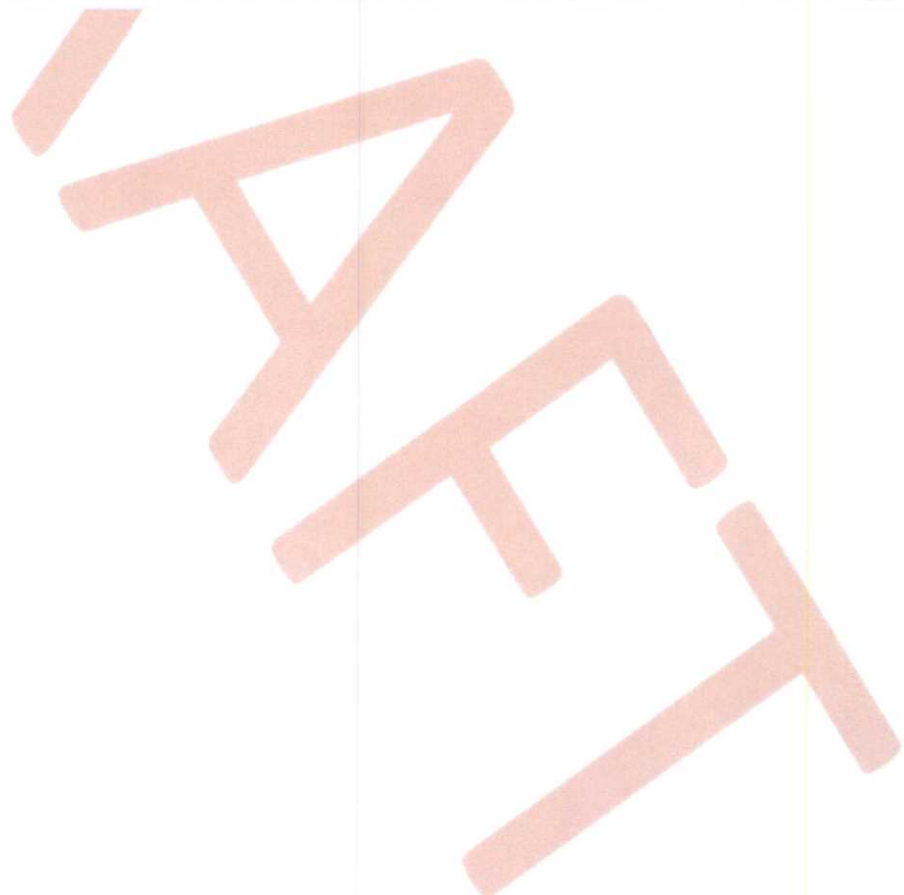
End date

30/06/2023

Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Educational path for workers		
D 7.2.1	Description	Around of two workshops per year is foreseen for workers, to be held in 'Giugliano' municipality premises or in local associations premises, for a total of 6 workshops per year, for the overall duration of the project, with the aim to cover as many workers as possible. Educational path on air quality and environmental pollution to be delivered includes: - notions on air quality and environmental pollution; - teaching on how waste and pollution from office environment can influence air quality; - visiting to polluting sites and Control Room of 'Giugliano's' municipality; - insights on best practices of office waste management and disposal. The responsibility of this deliverable lays on EITD with the technical support of all involved partners.	18	30/06/2023
	Title	Educational path for housewives and retired people		
D 7.2.2	Description	Around of 2 workshops per year is foreseen for housewives and retired people, to be held in 'Giugliano' municipality premises or in local associations, for a total of 6 workshops per year, for the overall duration of the project, with the aim to cover as many citizens as possible. Education path on air quality and environmental pollution includes: - notions on air quality and environmental pollution; - teaching on how waste and pollution from home environment can influence air quality; - visiting to polluting sites and Control Room of 'Giugliano's' municipality; - insights on best practices of home waste management and disposal. The responsibility of this deliverable lays on EITD with the technical support of all involved partners.	18	30/06/2023
Output Number	Project output		Target value	Delivery date
	Title	Educated citizens (workers, housewives, retired people)		
O 7.2.1	Description	3000 workers, 3000 housewives and retired people will be educated on air quality issues during the project.	6,000	30/06/2023



A7.3	Training of "Technicians for air quality monitoring" addressed to unemployed and NEET	<p>Three training paths have the aim of training on the professional figure "Technician for air quality monitoring". This, anticipating the need for the municipality of Giugliano to have staff trained and available for the monitoring and data Control Room (Investment I 8.4), while helping to reduce the unemployment rate of Campania region (more than 50% - Eurostat estimates), EITD, with all involved partners, will lead for developing and implementing these trainings. These 3 cycles are organised as following: 3 months for course organization, 1 month for participants' selection of the participants and management of the scholarships; 3 months for the training course.</p>	Start date	End date
			01/09/2021	30/06/2023
Deliverable number	Deliverable and partners involved		Target value	Delivery date
D7.3.1	Title Description	<p>"Technicians for air quality monitoring" Curriculum 1, 2, 3</p> <p>3 training paths on air quality and pollution will be delivered to 20 unemployed people and NEET. The final goal is to train new professional figures of technicians for air quality monitoring. The curriculum will include:</p> <ul style="list-style-type: none"> - insights on air quality and environmental pollution - lectures on different air quality pollutants with a focus on the most prevalent within the municipality of Giugliano. - Training on different tools and techniques for air quality monitoring - Training on monitoring systems and data processing of MATER project <p>Together with the organization of the course with teaching schedule and didactic objectives. The responsibility of this deliverable lays on EITD with the technical support of all involved partners.</p>	Target value 60	Delivery date 30/06/2023
D7.3.2	Title Description	<p>"Technicians for air quality monitoring" Final Report 1, 2, 3</p> <p>Final Report of the delivered courses. Delivery dates: 31/03/2022; 30/11/2022; 30/06/2023</p>	Target value 3	Delivery date 30/06/2023
Output Number	Project output		Target value	Delivery date
O7.3.1	Title Description	<p>60 new technicians for air quality monitoring</p> <p>60 new technicians for air quality monitoring will be trained during the project.</p>	Target value 60	Delivery date 30/06/2023







Project Acronym: MATER

Work Package Budget

Description	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Sub-total	Revenues	Total
PP 1 - Municipality of Gugliano								
Description	6 person/month of a manager for coordination	N/A						
Amount (€)	25,000	3,750.00	0	0	0	28,750.00	0	28,750.00
PP 2 - EITD								
Description	72 person/month of an educational professional profile for the social education organisation and management	N/A	20 travels to Gugliano, 100€ each					
Amount (€)	300,000	45,000.00	2,000	0	0	347,000.00	0	347,000.00
PP 3 - ENCO								
Description	10 person/month of a technical profile	N/A	20 travels to Gugliano, 100€ each					
Amount (€)	45,000	6,750.00	2,000	0	0	53,750.00	0	53,750.00
PP 5 - Agricoltura sris								
Description	12 person/month of a technical profile	N/A	20 travels to Gugliano, 100€ each					
Amount (€)	50,000	7,500.00	2,000	0	0	59,500.00	0	59,500.00
PP 6 - University of Naples Federico II								
Description	1 person/month of a full professor and 1 person/month of a researcher	N/A	2 persons for 20 travels to Gugliano, 100€ each					
Amount (€)	11,000	1,650.00	4,000	0	0	16,650.00	0	16,650.00
PP 7 - Campania Regional Agency for Environment Protection (ARPA-C)								
Description	2 person/month of a technical profile	N/A	20 travels to Gugliano, 100€ each					
Amount (€)	10,000	1,500.00	2,000	0	0	13,500.00	0	13,500.00
PP 8 - Eritre Reserve Foce Volturno Costa Lido Lago Falciiano								
Description	2 person/month of a technical profile	N/A						
Amount (€)	10,000	1,500.00	0	0	0	11,500.00	0	11,500.00





Total (€)

451,000.00

67,650.00

12,000.00

0.00

0.00

530,650.00

0.00

530,650.00

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Indicative budget breakdown per year

Year	2020	2021	2022	2023	Total
Amount (%)	15 %	33 %	33 %	19 %	100.00 %
Budget (€)	79,597.50	175,114.50	175,114.50	100,823.50	530,650.00

Indicative budget breakdown per activity

Activity	Amount (%)	Budget (€)
A.7.1	30 %	159,195.00
A.7.2	30 %	159,195.00
A.7.3	40 %	212,260.00
Total	100.00 %	530,650.00

MATER



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Work Plan Per Work Packages - WorkPackage 8 (Investment Work Package)

Title	Air Quality Investments for information, early-warning and remediation
Start Date	01/01/2021
End Date	30/06/2023
Budget	2,341,875.00

Partners Involvement

Responsible Partner	PP 1 - Municipality of Gugliano
Involved Partners	PP 1 - Municipality of Gugliano PP 2 - EITD PP 3 - ENCO PP 6 - University of Naples Federico II PP 7 - Campania Regional Agency for Environment Protection (ARPAC)

Summary

Following interventions design of the implementation (WP4-WP7), WP8 contains investments to realize them.

In WP4, the realization of the monitoring system needs the Investment I1, with the purchase of electronic noses for the localization of waste disposals and of sensors for the detection of gaseous precursors of waste fires to be widespread installed on the overall territory of Gugliano council and on citizens' bikes (citizens science) and the purchase of an advanced sensor for detecting gaseous compounds precursors of dioxins and particulate matter (PM1 and PM2.5) to be installed on an electric bus (I3), to be purchased by Gugliano council. A fixed monitoring station that provides certified data will be purchased by ARPAC. The realization of the early-warning Control Unit needs the Investment I2, for the realization of the transmission infrastructure. The early-warning Control Unit will be installed in the 'Gugliano' Civil Protection Control Room, and will be managed by 3 technicians of environmental monitoring to be hired (I5).

In WP5, green mobility actions have been designed with the investment I3 for purchasing the electric bus (together with the purchasing and installation of the dedicated charging station) together with the realization of the bike-sharing service with the installation of rental points and tendering of the bike-sharing service.

In WP6, remediation actions needs Investment I4 for purchasing technologies to be applied in the remediation actions.

Justification

Investments are essential to MATER realisation having the objective of improving the environment through interventions that improves the air quality.

The widespread monitoring system (I1) to be realised and delivered during the project, the realization of the early-warning Control Room (I5), important not only for giving real-time information on air quality (I2) but also and mainly as an early-warning instruments for the Council and for activate the emergency intervention chain. In order to have the Control Room functioning, it is necessary to foresee to hire 3 technicians on environmental monitoring (I5) which can take informed decision. The information from the Control Room will be also a useful instrument of communication to citizenships to be informed promptly on remediation actions that can be taken. In order to have certified data on air quality, a fixed monitoring station need to be purchased by ARPAC (I1). The purchase of the e-bus (I3) is necessary for realising the e-bus service, responding to the objective of promoting a sustainable mobility and to be used also as a mobile monitoring station on the overall territory of Gugliano council. The purchase of bikes stations and of bikes (I3) are crucial for the realization of the bike-sharing service and for setting standards for the service to be tendered to a local cooperative of young people. Remediation actions fulfill the need of improving air quality, negatively affected by past and current fire-waste events.

Work Package Budget

PP 1 - Municipality of Gugliano	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Sub-total	Revenues	Total
Description	5 person/month of an Urban Authority manager for coordination of all investments realisation	N/A		(I2) Realisation of the communication infrastructure for 250.00€; (I3) bike-sharing service together with an app (I5) 3 technicians for the Control Room for 2 years at 40.000€/year	(I8.1) 100 stations 4500€ each 1 advanced monitoring station 100000€; (I8.33) 1 ebus 70000€ 1 charging station 20000€ purchase of 96 bikes 500€ each 6 rental points 750€ each; (I8.4) remediation	Refurbishment of the Control Room (I5)			
18.1	5,000	750.00	0	0	550,000	50,000	605,750.00	0	605,750.00
18.2	5,000	750.00	0	250,000	0	0	255,750.00	0	255,750.00
18.3	5,000	750.00	0	50,000	183,000	0	238,750.00	0	238,750.00
18.4	5,000	750.00	0	0	750,000	0	755,750.00	0	755,750.00
18.5	5,000	750.00	0	240,000	0	0	245,750.00	0	245,750.00
Partner total (€)	25,000.00	3,750.00	0.00	540,000.00	1,483,000.00	50,000.00	2,101,750.00	0.00	2,101,750.00



PP 2 - BTD	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Sub-total	Revenues	Total
Description	2 person/month of a technical assistance professional	N/A							
18.1	2,000	300.00	0	0	0	0	2,300.00	0	2,300.00
18.2	2,000	300.00	0	0	0	0	2,300.00	0	2,300.00
18.3	2,000	300.00	0	0	0	0	2,300.00	0	2,300.00
18.4	2,000	300.00	0	0	0	0	2,300.00	0	2,300.00
18.5	2,000	300.00	0	0	0	0	2,300.00	0	2,300.00
Partner total (€)	10,000.00	1,500.00	0.00	0.00	0.00	0.00	11,500.00	0.00	11,500.00
PP 3 - ENCO	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Sub-total	Revenues	Total
Description	0,5 person/month of a senior professional	N/A							
18.3	2,000	300.00	0	0	0	0	2,300.00	0	2,300.00
Partner total (€)	2,000.00	300.00	0.00	0.00	0.00	0.00	2,300.00	0.00	2,300.00
PP 6 - University of Naples Federico II	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Sub-total	Revenues	Total
Description	0,5 person/month of a full professor	N/A							
18.1	3,500	525.00	0	0	0	0	4,025.00	0	4,025.00
Partner total (€)	3,500.00	525.00	0.00	0.00	0.00	0.00	4,025.00	0.00	4,025.00
PP 7 - Campania Regional Agency for Environment Protection (ARPAC)	Staff costs	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and works	Sub-total	Revenues	Total
Description	0,5 person/month of a senior professional	N/A			(I1) Fixed Monitoring station and its maintenance				
18.1	2,000	300.00	0	0	220,000	0	222,300.00	0	222,300.00
Partner total (€)	2,000.00	300.00	0.00	0.00	220,000.00	0.00	222,300.00	0.00	222,300.00
Total (€)	42,500.00	6,375.00	0.00	540,000.00	1,703,000.00	50,000.00	2,341,875.00	0.00	2,341,875.00





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Indicative budget breakdown per year

Year	2020	2021	2022	2023	Total
Amount (%)	0 %	33 %	50 %	17 %	100.00 %
Budget (€)	0.00	772,818.75	1,170,937.50	398,118.75	2,341,875.00

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Investment 1

Title: Widespread Monitoring System and early-warning Control Unit

Investment Description: For realising the Monitoring System, it is necessary to purchase:
- electronic noses for the localization of waste disposals and of sensors for the detection of gaseous precursors correlated to waste fires and of smoke deriving from a waste-fire to be widespread installed on the overall territory of Giugliano council and on citizens' bikes (citizens science)
- an advanced sensor for detecting gaseous compounds precursors of dioxins and particulate matter (PM1 and PM2.5) to be installed on an electric bus (I3), to be purchased by Giugliano council.
- a fixed monitoring station that provides certificated data to be purchased by ARPAC and to be included in its monitoring network.
The WP4 will give the specifications on type of sensors to be purchased and type of network to be realised (where and how the sensors will be installed). These requirements will serve both as input information for the implementation of the Public Procurement procedure for the realisation of both Investment actions.

Involved Partners: PP 1 - Municipality of Giugliano, PP 2 - EITD, PP 6 - University of Naples Federico II, PP 7 - Campania Regional Agency for Environment Protection (ARPAC)

Budget: 834,375.00

Locations of investment

Table with 4 columns: Number, Country, NUTS 2 level, NUTS 3 level. Row 1: 1, ITALY, Campania, Napoli

Investment Risk: The investment will be realised through Public Procurements for purchase both type of sensors. For the first one, the risk is low since it is related to the specifications given in WP4 and to the capacity to find on the market such type of sensors, which are, by the way, very easy to find and at a very low cost. A pre-feasibility study on sensors' type availability has been conducted by the partnership, thanks to PP4 Fides and PP6 DICMAPI competences. For the second one, the risk is medium since the sensors are advanced ones, the costs are higher with respect to the previous sensors and maybe a little prototype need to be realised with this investment. Also, for this investment a pre-feasibility study has been conducted by the partnership, thanks to PP6 DICMAPI competences. The third one is a low risk investment since ARPAC will purchase a fixed monitoring system that already uses in other contexts for air quality monitoring. Risks of the investment are connected also with to the good management and work capacities. Some Urban Authority personnel effort, together with the support of technical partners, has been foreseen for speed up the process of Public Procurements and monitoring its realisation.

Investment Documentation: For the attribution of the investments, the Public Procurement procedure for Public Authority will be used, following the dedicated national legislation.

Ownership: The ownership of the site where the investment is located is of the City of Giugliano in Campania; after the end of the project, the City of Giugliano in Campania will retain the ownership of the widespread monitoring system as well as of the advanced sensors. While the ARPAC will retain the ownership of the fixed monitoring station. The Urban Authority will take care then of the maintenance of both equipment through its own resources and European Regional Development Funds, generally dedicated and used in this municipality and in the Regional administration. ARPAC will take care of the maintenance of the fixed monitoring station thanks to its own dedicated budget.

Activities, Deliverables

Table header for Activities, Deliverables with columns: Activity number, Activity title, Activity description and partners involved, Start date, End date





A8.1

Purchase of the widespread monitoring sensors (electronic noses and sensors)

The investment consists of the purchase of the sensors for the widespread monitoring system, either to be installed on a fixed position and to be installed on public-owned bikes. A Public Procurement procedure will be put in place through the publication of the Public notice, then the selection of the supplier and the contract with it, then the delivery of the goods, and the installation of the sensors. The technical requirements come from the activity A4.2.

Start date

01/01/2021

End date

31/05/2021

Deliverable number

Deliverable and partners involved

Target value

Delivery date

Title

Public Procurement procedure for the purchase of the monitoring sensors

D 8.1.1

Description

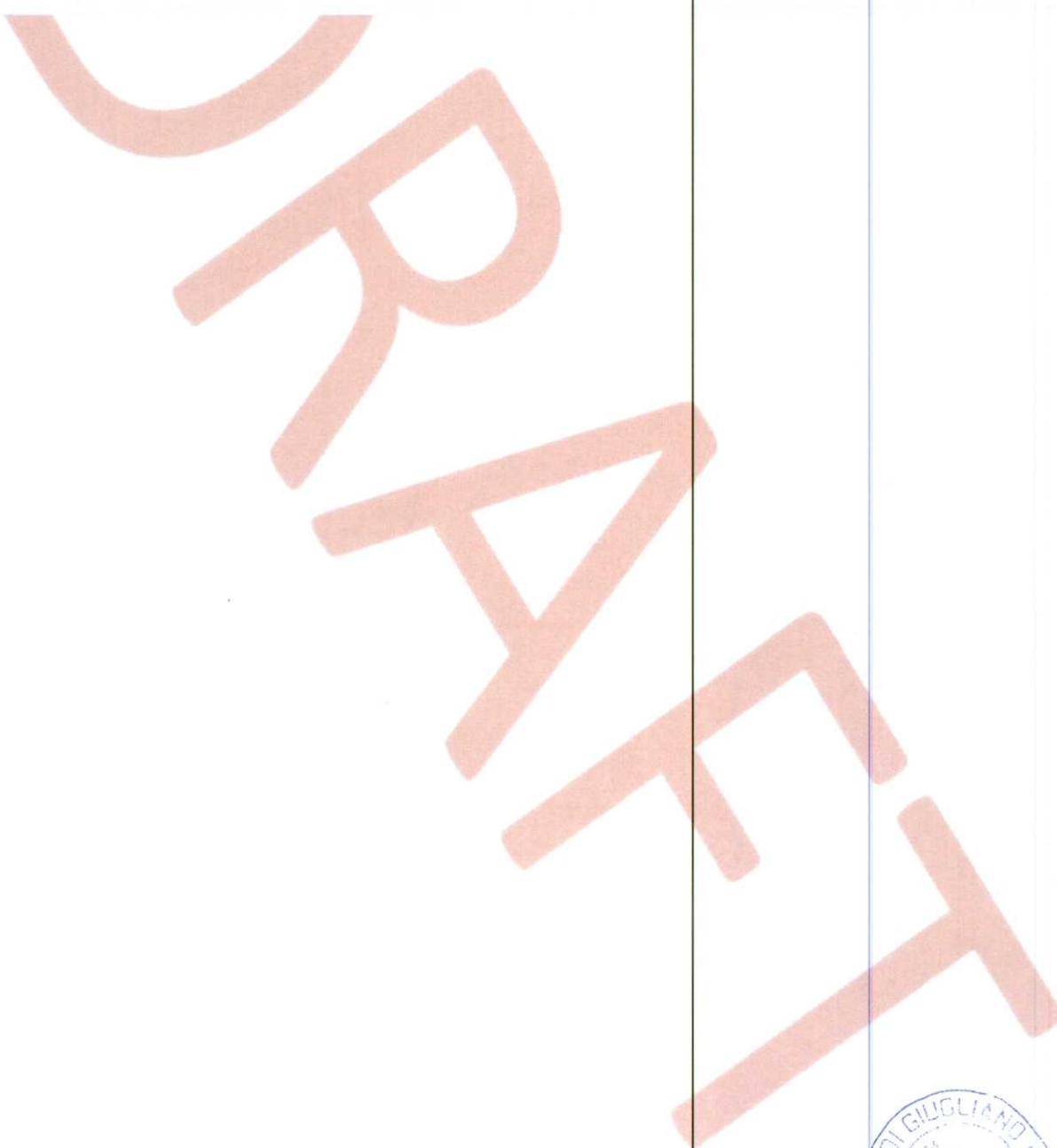
To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of the City of Giugliano in Campania, structured as following:
- Publication of the public notice (for 1 month);
- Then selection of the supplier (15 days);
- Contract with the selected supplier (15 days);
- Realisation of the work (1 month);
- Acceptance test of the service (at the end of the realisation of the work).
Support of technical partners (EITD, DICMAP1) has been foreseen for speed up the process of Public Procurements and monitoring its realisation.

Target value

1

Delivery date

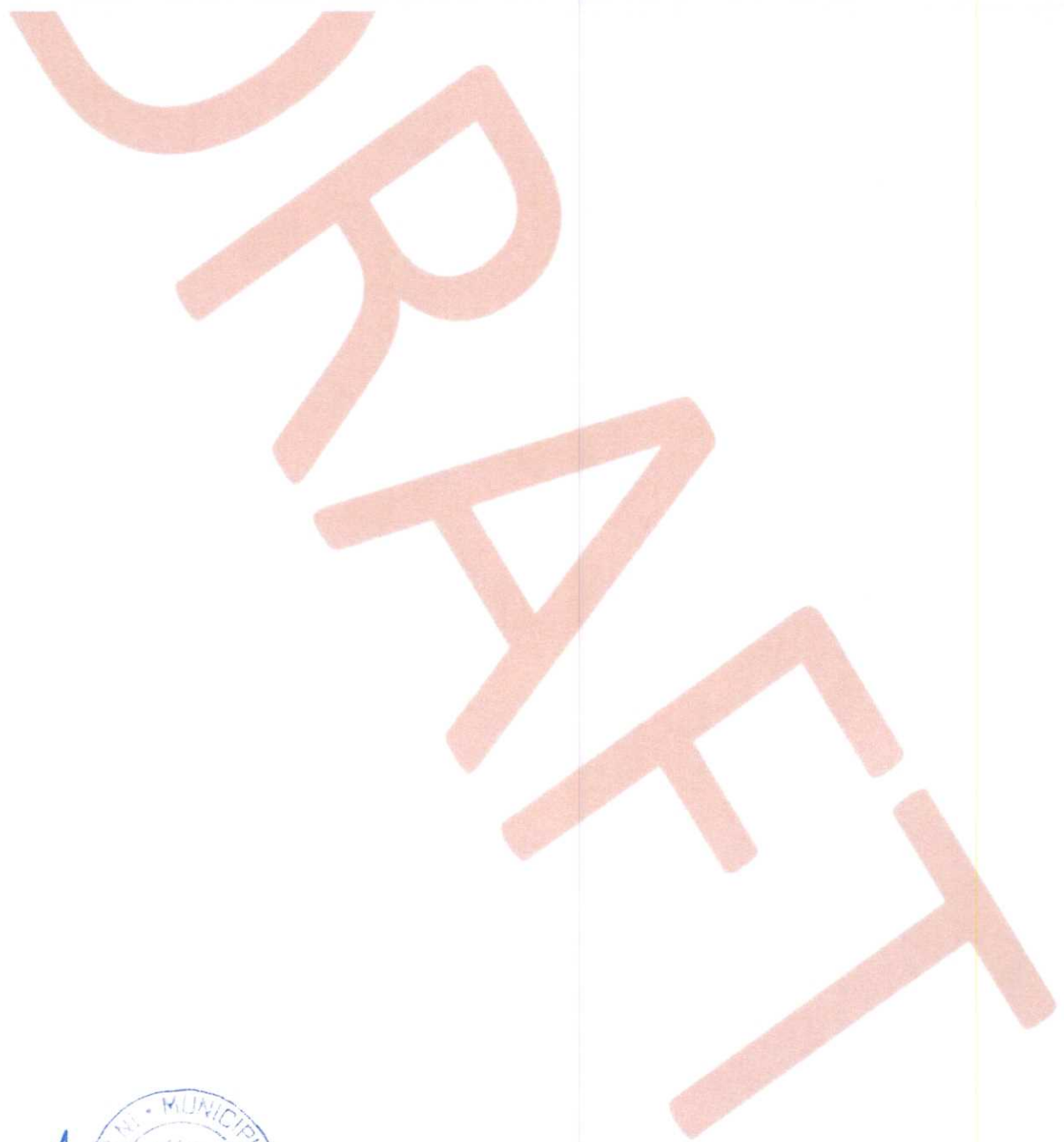
31/05/2021



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A8.2	Purchase of the advanced sensor	<p>The investment consists of the purchase of the advanced sensors to be installed on the electric bus to be purchased in the investment 3 (I3), in order to realise a mobile monitoring infrastructure that serves to different type of pollutant such as dioxins, metals, particulate matter. A Public Procurement procedure will be put in place through the publication of the Public notice, then the selection of the supplier and the contract with it, then the realization of the work, and the handover of the service. The technical requirements come from the activity A4.5.</p>	Start date	01/01/2021	End date	31/05/2021
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Deliverable number	Deliverable and partners involved	Target value	Delivery date
	<p>Title</p> <p>Public Procurement procedure for the purchase of the advanced sensor</p>		
D 8.2.1	<p>Description</p> <p>To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of the City of Gugliano in Campania, structured as following:</p> <ul style="list-style-type: none"> - Publication of the public notice (for 1 month); - Then selection of the supplier (15 days); - Contract with the selected supplier (15 days); - Realisation of the work (1 month); - Acceptance test of the service (at the end of the realisation of the work). <p>Support of technical partners (EITD, DICMAP) has been foreseen for speed up the process of Public Procurements and monitoring its realisation.</p>	<p>Target value</p> <p>1</p>	<p>Delivery date</p> <p>31/05/2021</p>






A8.3

Purchase of the fixed monitoring station

The investment consists of the purchase of the fixed monitoring station by ARPAC, in order to realise an air quality monitoring that provides certified data. A Public Procurement procedure will be put in place by ARPAC through the publication of the Public notice, then the selection of the supplier and the contract with it, then the realization of the work, and the handover of the service.

Start date

01/01/2021

End date

31/05/2021

Deliverable number

Deliverable and partners involved

Target value

Delivery date

Title

Public Procurement procedure for the purchase of the fixed monitoring station

D 8.3.1

Description

To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of ARPAC, structured as following:
- Publication of the public notice (for 1 month);
- Then selection of the supplier (15 days);
- Contract with the selected supplier (15 days);
- Realisation of the work (1 month);
- Acceptance test of the service (at the end of the realisation of the work).

Target value

1

Delivery date

31/05/2021

ARPA





Investment 2

Title	Realisation of the Communication infrastructure for the early-warning Control Unit
Investment Description	For realising the early-warning Control Unit, it is necessary to develop the signal transmission infrastructure, that integrate the collection of data from the monitoring system and the machine-learning mechanism into the early-warning Control Unit. Again, the WP4 will give the technical requirements for the realisation of the signal transmission infrastructure.
Involved Partners	PP 1 - Municipality of Giugliano PP 2 - EITD
Budget	258,050.00

Locations of investment

Number	Country	NUTS 2 level	NUTS 3 level
1	ITALY	Campania	Napoli

Investment Risk
 The investment will be realised through Public Procurements for the realization of the signal transmission infrastructure of the early-warning Control Unit. For the second one, the risk is low since it is related to the specifications given in WP4 and to the capacity to find on the market such type of services, provided by software companies. Also, for this investment a pre-feasibility study has been conducted by the partnership, thanks to PP4 Fides and PP6 DICMAP1 competences. Risks of the investment are connected also with to the good management and work capacities. Some Urban Authority personnel effort, together with the support of technical partners, has been foreseen for speed up the process of Public Procurements and monitoring its realisation.

Investment Documentation
 For the attribution of the investments, the Public Procurement procedure for Public Authority will be used, following the dedicated national legislation.

Ownership
 The ownership of the site where the investment is located is of the City of Giugliano in Campania; after the end of the project, the City of Giugliano in Campania will retain the ownership of the early-warning Control Unit. The Urban Authority will take care then of the maintenance of the system through its own resources and European Regional Development Funds, generally dedicated and used in this municipality and in the Regional administration.

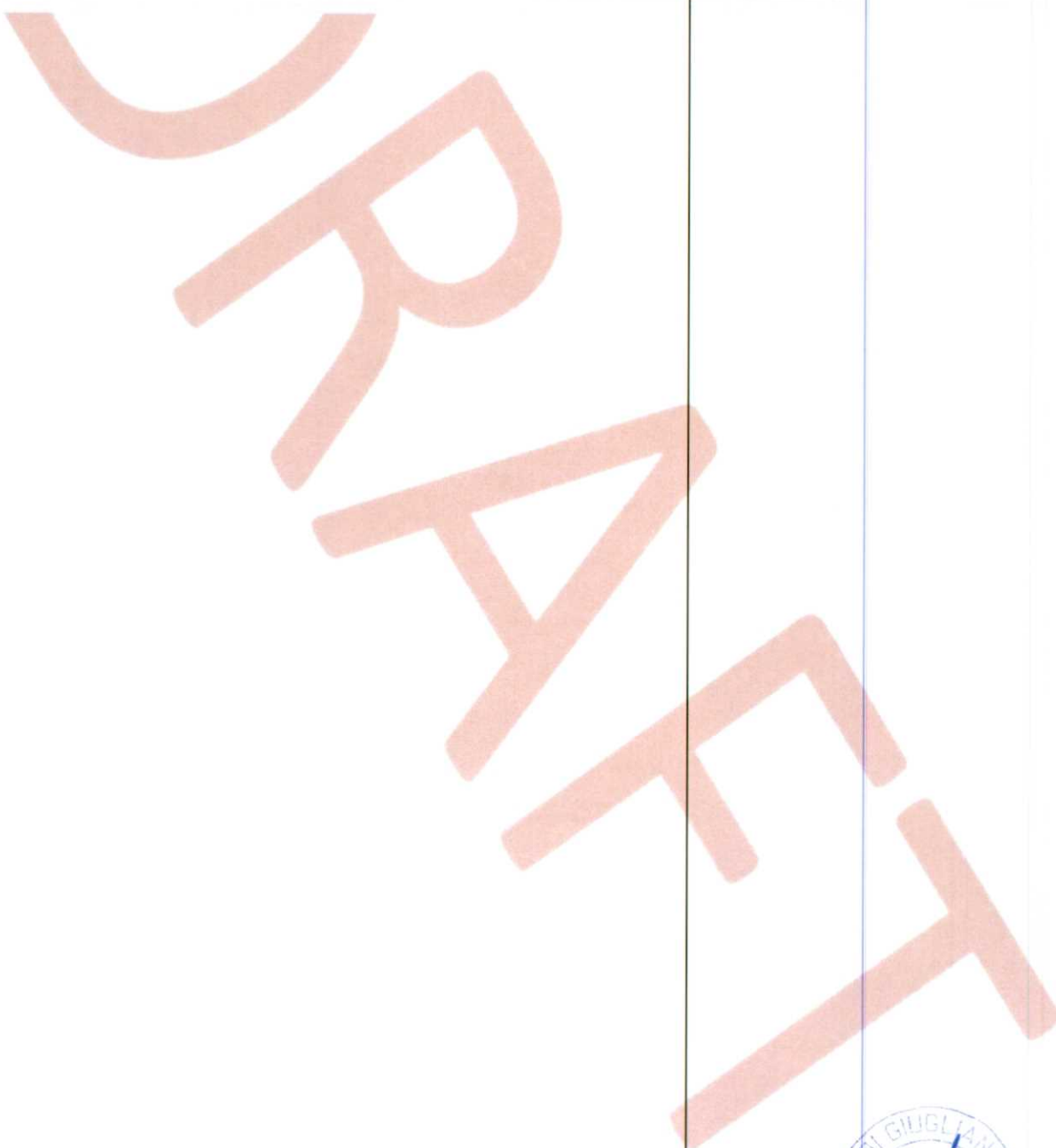
Activities, Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A8.4	Realisation of the signal transmission infrastructure	The investment consists of the realization of the signal transmission infrastructure, that permits to integrate all data collected from the monitoring system into the early-warning Control Unit, following the architecture requirements depicted in the WP4 dedicated activity (A4.4). Then, a Public Procurement procedure will be put in place through the publication of the Public notice, then the selection of the supplier and the contract with it, then the realization of the work, and the handover of the service.	Start date 01/01/2021	End date 31/05/2021
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Deliverable number	Title	Deliverable and partners involved	Target value	Delivery date
D.8.4.1	Description	<p>Public Procurement procedure for the realization of the signal transmission infrastructure</p> <p>To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of the City of Giugliano in Campania, structured as following:</p> <ul style="list-style-type: none"> - Publication of the public notice (for 1 month); - Then selection of the supplier (15 days); - Contract with the selected supplier (15 days); - Realisation of the work (1 month); - Acceptance test of the service (at the end of the realisation of the work). <p>Support of technical partner (EITD) has been foreseen for speed up the process of Public Procurements and monitoring its realisation.</p>	Target value 1	Delivery date 31/05/2021





Investment 3

Title: Investments for Green Mobility

Investment Description: For the electric bus, the investment is made of: a) The purchase of an electric shuttle bus... b) The installation of charging stations for electric buses... c) The installation of rental (and parking) points of traditional bikes... d) Bikes' purchase: 16 traditional bikes per rental point... e) Bike sharing service & Web-Platform...

Involved Partners: PP 1 - Municipality of Gugliano, PP 2 - EITD, PP 3 - ENCO

Budget: 243,350.00

Locations of investment

Table with 4 columns: Number, Country, NUTS 2 level, NUTS 3 level. Row 1: 1, ITALY, Campania, Napoli

Investment Risk: The investment will be realised through Public Procurements for all the planned actions. The risk related to the purchase of the electric bus and of its charging station is mainly related to the right fulfillment of the procedure...

Investment Documentation: For the attribution of the investments, the Public Procurement procedure for Public Authority will be used, following the dedicated national legislation. Following authorizations are needed for both investments' realisation: - Circulation authorisation following the Highway Code.

Ownership: The ownership of the site where the investment is located is of the City of Gugliano in Campania; after the end of the project, the City of Gugliano in Campania will retain the ownership of the investments.

Activities, Deliverables

Table with 5 columns: Activity number, Activity title, Activity description and partners involved, Start date, End date

Handwritten signature and official stamp of the Municipality of Gugliano



A8.5	Charging station for Electric buses	<p>The charging station will be located at the EAVtrain station, located in the urban area. A Public Procurement procedure will be put in place through the publication of the Public notice, then the selection of the supplier and the contract with it, then the realization of the work, and the handover of the service.</p> <p>The technical requirements come from the activity A5.2.</p>	Start date	End date
			01/01/2021	30/06/2021
Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Public Procurement procedure for the e-bus charging station		
D.8.5.1	Description	<p>To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of the City of Giugliano in Campania, structured as following:</p> <ul style="list-style-type: none"> - Publication of the public notice (for 1 month); - Then selection of the supplier (15 days); - Contract with the selected supplier (15 days); - Realisation of the work (1 month); - Acceptance test of the service (at the end of the realisation of the work). <p>Support of technical partners (EITD, ENCO) has been foreseen for speed up the process of Public Procurements and monitoring its realisation.</p>	Target value	Delivery date
			1	30/06/2021

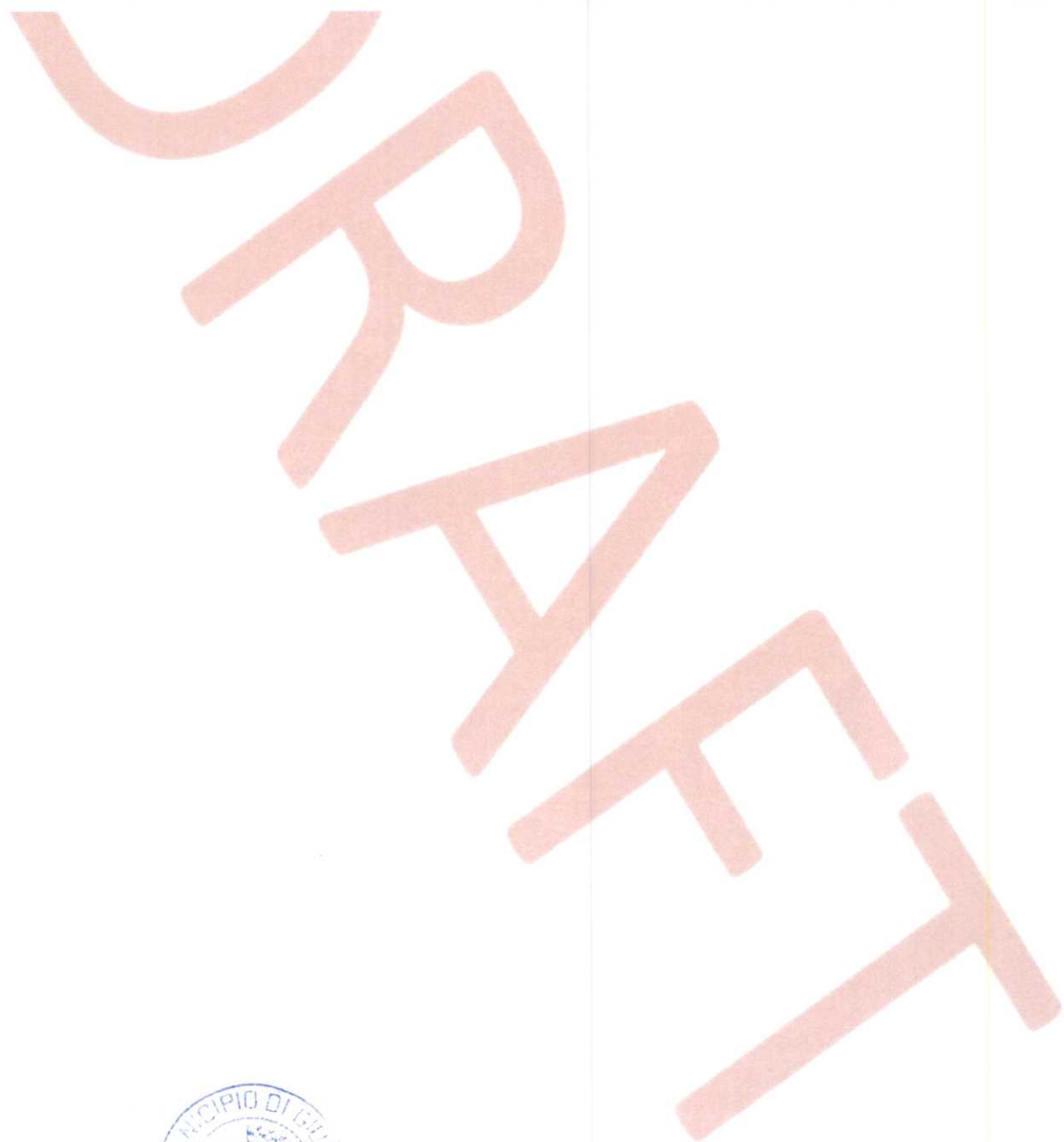
BOZZA



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A.8.6	Electric bus purchase	<p>The purchase of the electric shuttle bus, that will serve a circular path covering the entire territory of Giugliano council. The pilot investment foresees the realisation of dedicated paths using 1 e-bus. A Public Procurement procedure will be put in place through the publication of the Public notice, then the selection of the supplier and the contract with it, then the realization of the work, and the handover of the service.</p> <p>The technical requirements come from the activity A.5.2.</p>	Start date 01/03/2021	End date 30/09/2021
Deliverable number	Deliverable and partners involved		Target value	Delivery date
Title	Public Procurement procedure for e-bus purchase			
D.8.6.1	Description	<p>To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of the City of Giugliano in Campania, structured as following:</p> <ul style="list-style-type: none"> - Publication of the public notice (for 1 month); - Then selection of the supplier (15 days); - Contract with the selected supplier (15 days); - Realisation of the work (1 month); - Acceptance test of the service (at the end of the realisation of the work). <p>Support of technical partners (EITD, ENCO) has been foreseen for speed up the process of Public Procurements and monitoring its realisation.</p>	Target value 1	Delivery date 30/09/2021








A8.7

Bike-sharing rental points

The installation of rental (and parking) points of traditional bikes: 6 stations for parking and renting the bikes. The rental points are crucial for the realization of the bike sharing service. The technical requirements are taken from WP5, activity A5.1.

Start date

01/04/2021

End date

31/10/2021

Deliverable number

Deliverable and partners involved

Target value

Delivery date

Title

Public Procurement procedure for the purchase and installation of rental points

D 8.7.1

Description

To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of the City of Giugliano in Campania, structured as following:
- Publication of the public notice (for 1 month);
- Then selection of the supplier (15 days);
- Contract with the selected supplier (15 days);
- Realisation of the work (1 month);
- Acceptance test of the service (at the end of the realisation of the work).
Support of technical partners (EITD, ENCO) has been foreseen for speed up the process of Public Procurements and monitoring its realisation.

Target value

6

Delivery date

31/10/2021

PROVA



A8.8	Bikes' purchase	<p>The purchase of traditional bikes for the bike-sharing service: 16 bikes per rental point, for 6 rental points for a total of 96 traditional bikes to be purchased. The technical requirements are taken from WP5, activity A.5.n. A Public Procurement procedure will be put in place through the publication of the Public notice, then the selection of the supplier and the contract with it, then the realization of the work, and the handover of the service.</p>	Start date	01/03/2021	End date	30/09/2021
Deliverable number	Deliverable and partners involved		Target value	Delivery date		
D 8.8.1	Title	Public Procurement procedure for purchasing 96 bikes	Target value	96	Delivery date	30/09/2021
	Description	<p>To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of the City of Gugliano in Campania, structured as following:</p> <ul style="list-style-type: none"> - Publication of the public notice (for 1 month); - Then selection of the supplier (15 days); - Contract with the selected supplier (15 days); - Realisation of the work (1 month); - Acceptance test of the service (at the end of the realisation of the work). <p>Support of technical partners (EITD, ENCO) has been foreseen for speed up the process of Public Procurements and monitoring its realisation.</p>				







A.8.9

Bike sharing service

Following the technical specification of WP5, activity A.5.1, the bike-sharing will be tendered to an external transport operator. A Public Procurement procedure will be put in place through the publication of the Public notice, then the selection of the supplier and the contract with it, then the realization of the work, and the handover of the service. The technical requirements come from the activity A.5.1.

Start date

01/10/2021

End date

30/06/2023

Deliverable number

Deliverable and partners involved

Target value

Delivery date

Title

Public Procurement procedure for tendering the bike-sharing service

D.8.9.1

Description

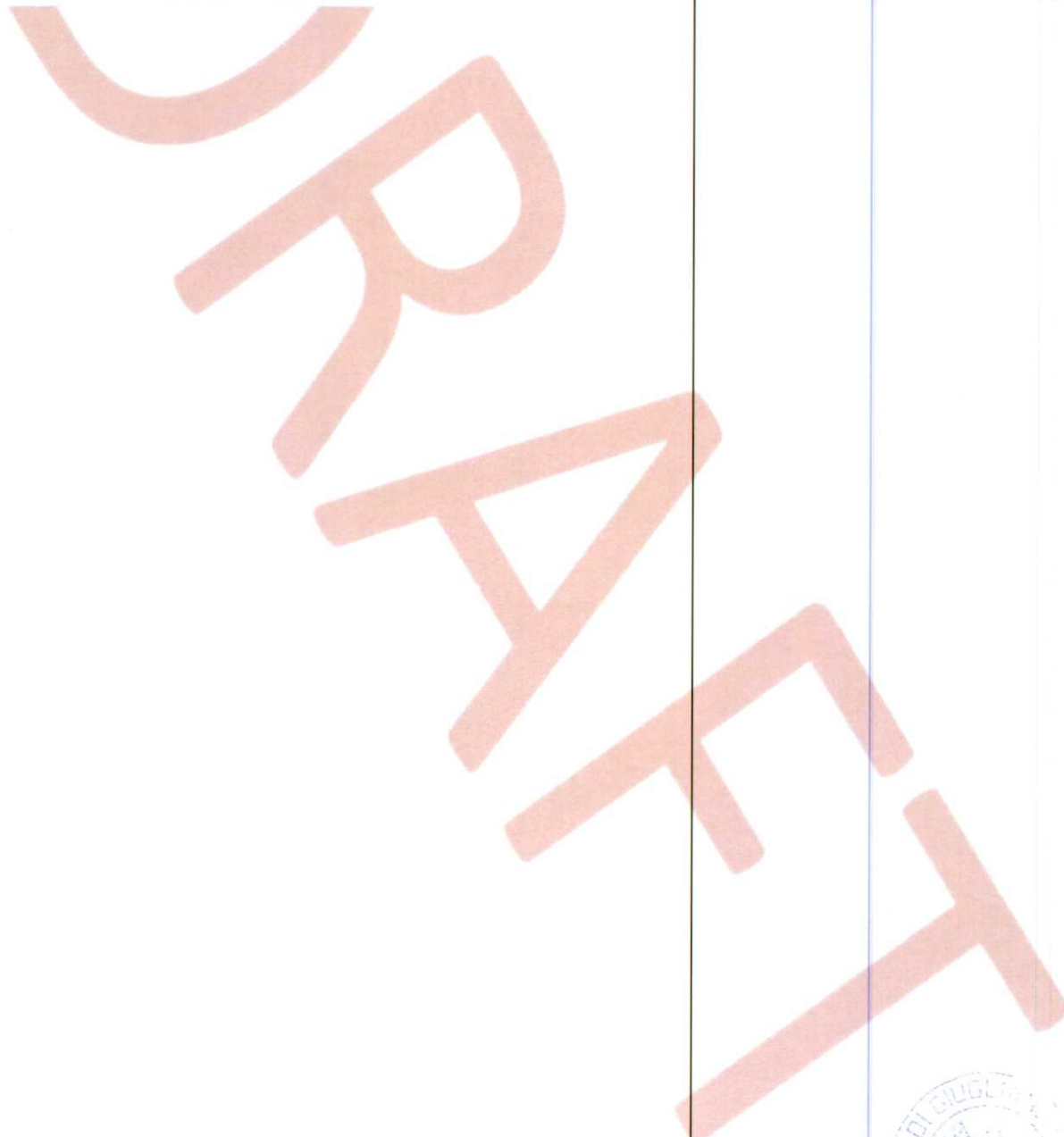
To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of the City of Giugliano in Campania, structured as following:
- Publication of the public notice (for 1 month);
- Then selection of the supplier (15 days);
- Contract with the selected supplier (15 days);
- Realisation of the service (1 month);
- Acceptance test of the service (at the end of the work, March 2022);
- Monitoring of the service until the end of the project.
Support of technical partners (EITD, ENCO) has been foreseen for speed up the process of Public Procurements and monitoring its realisation.

Target value

1

Delivery date

31/03/2022



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Investment 4

Title	Control Room refurbishment
Investment Description	The Control Room will be created within an existent public building, in order to reinforce the Civil Protection activities. The works will consist in interior refurbishment and in the installation of equipment of the early-warning Control Unit. These requirements will serve both as input information for the implementation of the Public Procurement procedure for the realisation of both Investment actions.
Involved Partners	PP 1 - Municipality of Gugliano PP 2 - EITD

Budget 758,050.00

Locations of investment

Number	Country	NUTS 2 level	NUTS 3 level
1	ITALY	Campania	Napoli

Investment Risk The risk associated with this investment is low because the Control Room will be located in an already-existing structure of the Gugliano in Campania Council Administration. Risks of the investment are connected also with to the good management and work capacities. Some Urban Authority personnel effort has been foreseen for speed up the process of Public Procurements and monitoring its realisation.

Investment Documentation No building permits are needed because the investment will be done in an existing structure. An authorization will be asked for refurbishment works (Declaration of Starting Activities - Dichiarazione di Inizio Attività) and an approval is needed from the City Council (Delibera del Consiglio Comunale).

Ownership The ownership of the site where the investment is located is of the City of Gugliano in Campania; after the end of the project, the City of Gugliano in Campania will retain the ownership of the site and of the investment. The Urban Authority will take care then of the maintenance of both systems through its own resources and European Regional Development Funds, generally dedicated and used in this municipality and in the Regional administration.

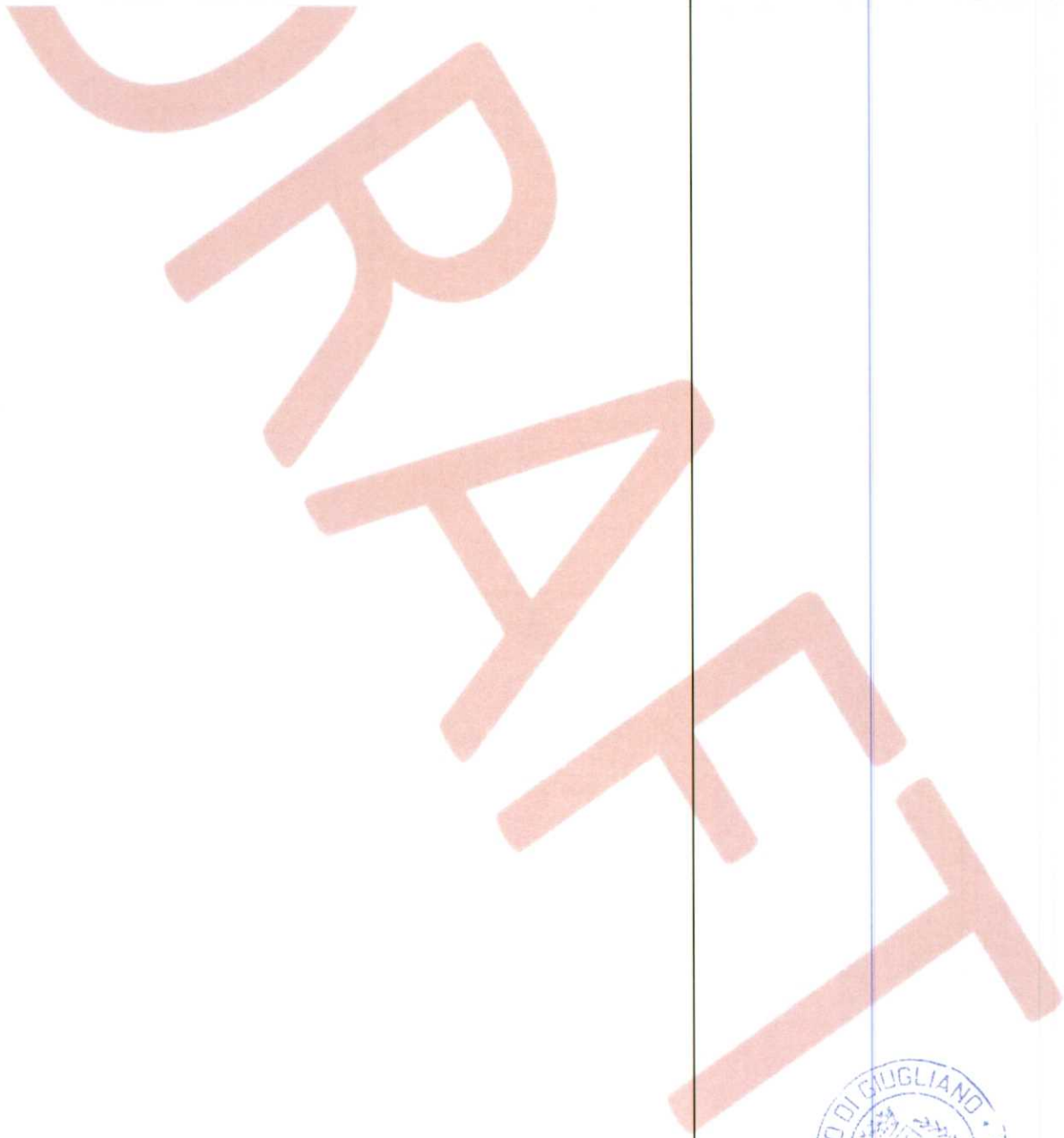
Activities, Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A8.10	Refurbishment Works	<p>The investment consists of the construction works for a minimum interior refurbishment of the Civil Protection Control Room in which install the early-warning Control Unit. The works to be realised include: the maintenance, replacement, or alterations of some components of the interior space (masonry works, partitions, plasterworks, paving, electric system, water system) in order to adapt the space for the new planned uses.</p> <p>A Public Procurement procedure will be put in place through the publication of the Public notice, then the selection of the supplier and the contract with it, then the realization of the work, and the handover of the service.</p>	Start date	End date
			01/07/2021	30/06/2022
Deliverable number	Deliverable and partners involved		Target value	Delivery date
	Title	Public Procurement procedure for Refurbishment works		
D 8.10.1	Description	<p>To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of the City of Giugliano in Campania, structured as following:</p> <ul style="list-style-type: none"> - Publication of the public notice (for 1 month); - Then selection of the supplier (15 days); - Contract with the selected supplier (15 days); - Realisation of the work (1 month); - Acceptance test of the service (at the end of the realisation of the work). <p>Support of technical partner (EITD) has been foreseen for speed up the process of Public Procurements and monitoring its realisation.</p>	Target value	Delivery date
			1	30/06/2022



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Investment 5

Title Hiring of 3 persons for executing the exercise of the early-warning Control Room

Investment Description For realising the service of the Control Room, it is necessary to hire 3 persons that will work on three shifts of 8 hours each. These persons will act as the interface between the early-warning Control Unit and the Gugliano City Council and its citizenships in order to take informed decisions and mitigation actions. The investment will be implemented through Public Procurement procedures.

Involved Partners PP 1 - Municipality of Gugliano
PP 2 - EITD

Budget 248,050.00

Locations of investment

Number	Country	NUTS 2 level	NUTS 3 level
1	ITALY	Campania	Napoli

Investment Risk The investment will be realised through Public Procurements for hiring the required profiles. The risk is medium since there is a need to find specialised persons on environmental monitoring. To mitigate this risk, a public campaign, also using communication means of the project, will be adopted in order to widespread the opportunity all over the City Council, but also at regional level. Risks of the investment are connected also with to the good management and work capacities. Some Urban Authority personnel effort, together with the support of technical partner (EITD), has been foreseen for speed up the process of Public Procurements and monitoring its realisation.

Investment Documentation For the attribution of the investments, the Public Procurement procedure for Public Authority will be used, following the dedicated national legislation.

Ownership The ownership of the investment is of the City of Gugliano in Campania. The Urban Authority will commit itself in maintain both services (Control Room, Electric Bus) and so it will invest in human resources through its own financial resources and European Regional Development Funds, generally dedicated and used in this municipality and in the Regional administration.

Activities, Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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A8.11	3 technicians to be hired	The investment consists of in hiring three (3) technicians that will operate in the Control Room. A Public Procurement procedure will be put in place through the publication of the Public notice, then the selection of the persons and the contract with them, then start of the job.	Start date 01/01/2022	End date 30/06/2022
Deliverable number	Deliverable and partners involved		Target value	Delivery date
Title	Public Procurement procedure for hiring 3 technicians		Target value	Delivery date
D.8.11.1	Description	<p>To realise the investment, it is necessary to put in place a Public Procurement procedure under the responsibility of the City of Gugliano in Campania, structured as following:</p> <ul style="list-style-type: none"> - Publication of the public notice (for 1 month); - Then selection of the persons (15 days); - Contract with the selected persons (15 days); - Start of the job <p>Support of a technical partner (EITD) has been foreseen for speed up the process of Public Procurements and monitoring its realisation.</p>	3	30/06/2022

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Work Plan Per Work Packages - WorkPackage 9 (Closure and knowledge transfer work package)

Title Closure and knowledge transfer

Start Date 01/07/2023

End Date 30/06/2024

Budget 15,000.00

Partners Involvement

Responsible Partner PP 1 - Municipality of Gugliano

Involved Partners
 PP 1 - Municipality of Gugliano
 PP 2 - EITD
 PP 3 - ENCO
 PP 4 - Fides Consulting srl
 PP 5 - Agricoltura srls
 PP 6 - University of Naples Federico II
 PP 7 - Campania Regional Agency for Environment Protection (ARPAC)
 PP 8 - Enle Riserve Foce Volturno Costa Licola Lago Falciano

Summary All partners will be involved in the closure and knowledge transfer with different roles, based on their role and contribution in the project.

Activities and Deliverables

Activity number	Activity title	Activity description and partners involved	Start date	End date
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MUNICIPIO DI GUGLIANO



A9.1

Transfer of knowledge activities

- Drafting and submission of the final qualitative report
- Participation to Urban Development Network (UDN)
- Project evaluation with UIA Experts

Start date

01/07/2023

End date

30/06/2024

Deliverable number

Deliverable and partners involved

Target value

Delivery date

D 9.1.1

Title

Final qualitative report

Description

Final qualitative report

Target value

1

Delivery date

30/06/2024

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A9.2	Administrative closure	Preparation and submission of final progress report	Start date	End date
			01/07/2023	01/10/2023
	Deliverable number	Deliverable and partners involved	Target value	Delivery date
	D9.2.1			
	Title	Final progress report	Target value	Delivery date
	Description	Final progress report	1	01/10/2023

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Work Package Budget

Partner name	Staff cost (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and construction works (€)	Sub-Total (€)	Revenues (€)	Total (€)
Municipality of Giugliano	0.00	0.00	0.00	15,000.00	0.00	0.00	0.00	0.00	15,000.00

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Part E - Project Budget

E.1 Project Budget Co-Financing Source (Fund) - Breakdown per Partner

Partner	Country	ERDF co-financing			Contribution		Total	
		EUR	ERDF rate	Public	Private	Total	Budget	% of project budget
PP 1 - Municipality of Giugliano	IT	1,885,600.00	80.00 %	471,400.00	0.00	471,400.00	2,357,000.00	48.62 %
PP 2 - EITD	IT	344,720.00	80.00 %	0.00	86,180.00	86,180.00	430,900.00	8.89 %
PP 3 - ENCO	IT	255,200.00	80.00 %	0.00	63,800.00	63,800.00	319,000.00	6.58 %
PP 4 - Fides Consulting srl	IT	529,204.00	80.00 %	0.00	132,301.00	132,301.00	661,505.00	13.64 %
PP 5 - Agrocultura srls	IT	295,964.00	80.00 %	0.00	73,991.00	73,991.00	369,955.00	7.63 %
PP 6 - University of Naples Federico II	IT	209,136.00	80.00 %	52,284.00	0.00	52,284.00	261,420.00	5.39 %
PP 7 - Campania Regional Agency for Environment Protection (ARPAC)	IT	323,084.00	80.00 %	80,771.00	0.00	80,771.00	403,855.00	8.33 %
PP 8 - Ente Riserve Foce Volturno Costa Licola Lago Falciano	IT	35,564.00	80.00 %	8,891.00	0.00	8,891.00	44,455.00	0.92 %
Total (€)		3,878,472.00	80.00 %	613,346.00	356,272.00	969,618.00	4,848,090.00	100.00 %

E.2 Project Budget - Overview per Partner/ per Period

Partner	Preparation (Period 0)	Jan - Dec 2020	Jan - Dec 2021	Jan - Dec 2022	Jan - Dec 2023	Closure	Total
PP 1	20,000.00	40,892.50	765,397.50	1,119,820.00	395,890.00	15,000.00	2,357,000.00
PP 2	0.00	62,854.00	142,197.00	144,152.00	81,697.00	0.00	430,900.00
PP 3	0.00	39,439.50	105,270.00	105,661.00	68,629.50	0.00	319,000.00
PP 4	0.00	327,877.80	198,705.15	133,400.15	1,521.90	0.00	661,505.00
PP 5	0.00	28,397.80	122,085.15	122,085.15	97,386.90	0.00	369,955.00
PP 6	0.00	96,255.30	81,032.10	64,261.35	19,871.25	0.00	261,420.00
PP 7	0.00	77,977.80	128,874.15	152,005.15	44,997.90	0.00	403,855.00
PP 8	0.00	5,067.80	14,670.15	14,670.15	10,046.90	0.00	44,455.00
Total (€)	20,000.00	678,762.50	1,558,231.20	1,856,054.95	720,041.35	15,000.00	4,848,090.00
% of total budget	0.41 %	14.00 %	32.14 %	38.28 %	14.85 %	0.31 %	100.00 %

E.3 Project Budget - Overview per Partner/ per Work Package



Partner	Preparation (WP 1)	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	WP 8	Closure (WP 9)	Total
PP 1	20,000.00	89,250.00	16,000.00	28,750.00	28,750.00	28,750.00	28,750.00	2,101,750.00	15,000.00	2,357,000.00
PP 2	0.00	30,650.00	13,000.00	0.00	28,750.00	0.00	347,000.00	11,500.00	0.00	430,900.00
PP 3	0.00	32,950.00	178,250.00	0.00	51,750.00	0.00	53,750.00	2,300.00	0.00	319,000.00
PP 4	0.00	8,455.00	0.00	653,050.00	0.00	0.00	0.00	0.00	0.00	661,505.00
PP 5	0.00	8,455.00	0.00	0.00	0.00	302,000.00	59,500.00	0.00	0.00	369,955.00
PP 6	0.00	8,455.00	7,140.00	174,550.00	13,800.00	36,800.00	16,650.00	4,025.00	0.00	261,420.00
PP 7	0.00	8,455.00	13,000.00	146,600.00	0.00	0.00	13,500.00	222,300.00	0.00	403,855.00
PP 8	0.00	8,455.00	13,000.00	0.00	0.00	11,500.00	11,500.00	0.00	0.00	44,455.00
Total (€)	20,000.00	195,125.00	240,390.00	1,002,950.00	123,050.00	379,050.00	530,650.00	2,341,875.00	15,000.00	4,848,090.00
% of total budget	0.41 %	4.02 %	4.96 %	20.69 %	2.54 %	7.82 %	10.95 %	48.31 %	0.31 %	100.00 %

E.4 Project Budget - Overview per Work Package/ per Period

Work Package	Preparation	Jan - Dec 2020	Jan - Dec 2021	Jan - Dec 2022	Jan - Dec 2023	Closure	Total
WP 1	20,000.00						20,000.00
WP 2		31,220.00	64,391.25	64,391.25	35,122.50		195,125.00
WP 3		24,039.00	79,328.70	79,328.70	57,693.60		240,390.00
WP 4		501,475.00	300,885.00	200,590.00	0.00		1,002,950.00
WP 5		19,688.00	40,606.50	40,606.50	22,149.00		123,050.00
WP 6		22,743.00	125,086.50	125,086.50	106,134.00		379,050.00
WP 7		79,597.50	175,114.50	175,114.50	100,823.50		530,650.00
WP 8		0.00	772,818.75	1,170,937.50	398,118.75		2,341,875.00
WP 9						15,000.00	15,000.00
Total (€)	20,000.00	678,762.50	1,558,231.20	1,856,054.95	720,041.35	15,000.00	4,848,090.00
% of total budget	0.41 %	14.00 %	32.14 %	38.28 %	14.85 %	0.31 %	100.00 %

E.5 Project Budget - Overview per Partner/ per Budget Line

PIÙ DI GIUGLIANO
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Partner	Staff	Office and administration	Travel and accommodation	External expertise and services	Equipment	Infrastructure and construction works	Sub-total	Revenues	Total
PP 1	210,000.00	31,500.00	3,000.00	579,500.00	1,483,000.00	50,000.00	2,357,000.00	0.00	2,357,000.00
PP 2	370,000.00	55,500.00	3,900.00	1,500.00	0.00	0.00	430,900.00	0.00	430,900.00
PP 3	254,000.00	38,100.00	11,900.00	15,000.00	0.00	0.00	319,000.00	0.00	319,000.00
PP 4	572,700.00	85,905.00	2,900.00	0.00	0.00	0.00	661,505.00	0.00	661,505.00
PP 5	105,700.00	15,855.00	5,900.00	242,500.00	0.00	0.00	369,955.00	0.00	369,955.00
PP 6	184,800.00	27,720.00	18,900.00	30,000.00	0.00	0.00	261,420.00	0.00	261,420.00
PP 7	111,700.00	16,755.00	3,900.00	1,500.00	270,000.00	0.00	403,855.00	0.00	403,855.00
PP 8	35,700.00	5,355.00	1,900.00	1,500.00	0.00	0.00	44,455.00	0.00	44,455.00
Total (€)	1,844,600.00	276,690.00	52,300.00	871,500.00	1,753,000.00	50,000.00	4,848,090.00	0.00	4,848,090.00
% of total budget	38.05 %	5.71 %	1.08 %	17.98 %	36.16 %	1.03 %	100.00 %	0.00 %	100.00 %

E.6 Project Budget - Overview per Work Package/ per Budget Line

Work Package	Staff Costs (€)	Office and administration (€)	Travel and accommodation (€)	External expertise and services (€)	Equipment (€)	Infrastructure and Works (€)	Sub-total (€)	Revenues (€)	Total (€)
WP 1	0.00	0.00	0.00	20,000.00	0.00	0.00	0.00	0.00	20,000.00
WP 2	155,500.00	23,325.00	16,300.00	0.00	0.00	0.00	195,125.00	0.00	195,125.00
WP 3	178,600.00	26,790.00	11,000.00	24,000.00	0.00	0.00	240,390.00	0.00	240,390.00
WP 4	793,000.00	118,950.00	11,000.00	30,000.00	50,000.00	0.00	1,002,950.00	0.00	1,002,950.00
WP 5	107,000.00	16,050.00	0.00	0.00	0.00	0.00	123,050.00	0.00	123,050.00
WP 6	117,000.00	17,550.00	2,000.00	242,500.00	0.00	0.00	379,050.00	0.00	379,050.00
WP 7	451,000.00	67,650.00	12,000.00	0.00	0.00	0.00	530,650.00	0.00	530,650.00
WP 8	42,500.00	6,375.00	0.00	540,000.00	1,703,000.00	50,000.00	2,341,875.00	0.00	2,341,875.00
WP 9	0.00	0.00	0.00	15,000.00	0.00	0.00	0.00	0.00	15,000.00
Total (€)	1,844,600.00	276,690.00	52,300.00	871,500.00	1,753,000.00	50,000.00	4,848,090.00	0.00	4,848,090.00
% of total budget	38.05 %	5.71 %	1.08 %	17.98 %	36.16 %	1.03 %	100.00 %	0.00 %	100.00 %





Part F - Partners contribution

Source(s) of Contribution

Total Contribution 969,618.00 Total Contribution Target 969,618.00

PP1 - Municipality of Giugliano

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Comune di Giugliano in Campania/ Personnel costs	Public	100.00 %	471,400.00	cash	The City of Giugliano in Campania will co-finance with its own staff resources, such as an Urban Authority manager profile and an Urban Authority officer profile.
Total (€)			471,400.00		Contribution Target 471,400.00

PP2 - EITD

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
EITD/Personnel costs	Private	100.00 %	86,180.00	cash	EITD will co-finance its activities with its own human resources.
Total (€)			86,180.00		Contribution Target 86,180.00

PP3 - ENCO

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
ENCO/Personnel costs	Private	100.00 %	63,800.00	cash	ENCO will co-finance its activities with its own human resources.
Total (€)			63,800.00		Contribution Target 63,800.00

PP4 - Fides Consulting srl

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Fides Consulting/Personnel costs	Private	100.00 %	132,301.00	cash	Fides will co-finance its activities with its own human resources.
Total (€)			132,301.00		Contribution Target 132,301.00

PP5 - Agrocultura srls

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Agrocultura/Personnel costs	Private	100.00 %	73,991.00	cash	Agrocultura will co-finance its activities with its own human resources.
Total (€)			73,991.00		Contribution Target 73,991.00





PP6 - University of Naples Federico II

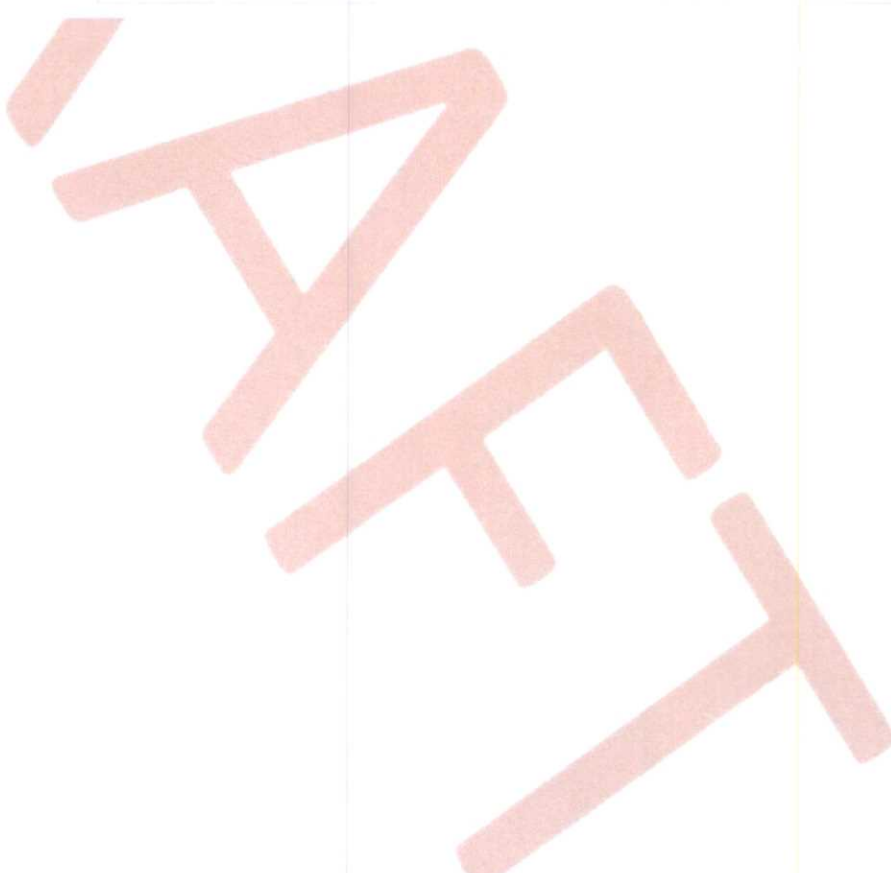
Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
University of Naples Federico II DICMAPI/Personnel costs	Public	100.00 %	52,284.00	cash	DICMAPI will co-finance its activities with its own human resources.
Total (€)		100.00 %	52,284.00		Contribution Target 52,284.00

PP7 - Campania Regional Agency for Environment Protection (ARPAC)

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
ARPAC/Personnel costs	Public	100.00 %	80,771.00	cash	ARPAC will co-finance its activities with its own human resources.
Total (€)		100.00 %	80,771.00		Contribution Target 80,771.00

PP8 - Ente Riserve Foce Volturmo Costa Licola Lago Falciano

Name of Organisation/ Source of Contribution	Legal Status	% of Total Partner Contribution	Amount (€)	Cash or In-kind Contribution	Comment
Ente Riserve Foce Volturmo Costa Licola Lago Falciano/Personnel costs	Public	100.00 %	8,891.00	cash	Ente Riserve Foce Volturmo Costa Licola Lago Falciano will co-finance its activities with its own human resources.
Total (€)		100.00 %	8,891.00		Contribution Target 8,891.00





Part G - Risk Management

Please describe at least one risk.

DRAFT



[Handwritten mark]



Part H - Confirmation

(Main) Urban Authority confirmation and signature

(Main) Urban Authority Municipality of Giugliano

By signing the application form the (Main) Urban Authority hereby confirms that:

- the Urban Authorities involved in this project proposal are not involved in other proposals submitted to the UIA Initiative as part of this current Call for Proposals;
- the project neither in whole nor in part has or will receive any other complementary EU funding (except for the funding indicated in this application form) during the whole duration of the project;
- the project partners listed in the application form are committed to take part in the project's activities and financing;
- the (Main) Urban Authority and the project partners will act according to the provisions of the relevant national and EU legislation and policies (especially regarding structural funds, public procurement, state aid, environment and equal opportunities) as well as the specific provisions of the UIA Initiative;
- the information in the Application Form is accurate and true to the best knowledge of the (Main) Urban Authority
- general information about this project can be used by the UIA Initiative to liaise with national and regional authorities in charge of implementation of operational programmes funded by the European Structural and Investment Funds

Forename, Surname

Date

Position

Place

Authorized signature of (Main) Urban Authority

