

*Ministero dell'università e della ricerca*

Segretariato Generale

Direzione generale dell'internazionalizzazione e della comunicazione

IL DIRETTORE GENERALE

- VISTO** il Decreto-legge 9 gennaio 2020, n. 1, pubblicato nella Gazzetta Ufficiale n. 6 del 9 gennaio 2020, istitutivo del Ministero dell'università e della ricerca (di seguito, anche solo MUR), convertito con modificazioni in Legge 5 marzo 2020, n. 12, pubblicato nella Gazzetta Ufficiale n. 61 del 9 marzo 2020 ed in particolare l'art. 4, co.1 dello stesso;
- VISTO** il DPCM n. 164 del 30.09.2020 recante il Regolamento di Organizzazione del MUR, nonché il Regolamento di organizzazione degli Uffici di diretta collaborazione del Ministro dell'università e della ricerca, di cui al DPCM n. 165 del 30.09.2020, n. 165, entrambi pubblicati nella Gazzetta Ufficiale n. 309 del 14 dicembre 2020;
- VISTO** il Decreto del Ministro dell'università e della ricerca del 19 febbraio 2021, pubblicato nella G.U.R.I. del 26 marzo 2021 n. 74, recante *"Individuazione e definizione dei compiti degli uffici di livello dirigenziale non generale del Ministero dell'università e della ricerca"*;
- VISTO** il DPCM 12 agosto 2021, registrato dalla Corte dei Conti in data 8 settembre 2021, n. 2474, che attribuisce al dott. Gianluigi Consoli l'incarico di funzione dirigenziale di livello generale di direzione della Direzione generale dell'internazionalizzazione e della comunicazione nell'ambito del Ministero dell'università e della ricerca;
- VISTO** il Programma Next Generation EU (NGEU), che integra il Quadro finanziario pluriennale per il periodo 2021-2027;
- VISTO** il Regolamento (UE) n. 241/2021 del Parlamento europeo e del Consiglio del 12 febbraio 2021, pubblicato nella Gazzetta Ufficiale dell'Unione Europea L57 del 18 febbraio 2021, che istituisce il dispositivo per la ripresa e resilienza e sue successive integrazioni;
- VISTO** il Programma Nazionale per la Ricerca 2021-2027, approvato con Delibera del CIPE n. 74/2020 (G.U. Serie Generale n. 18 del 23 gennaio 2021);
- VISTO** il Piano Nazionale di Ripresa e resilienza (di seguito PNRR), ufficialmente presentato alla Commissione europea in data 30 aprile 2021 ai sensi dell'articolo 18 del Regolamento (UE) n. 241/2021 e valutato positivamente con Decisione del Consiglio ECOFIN del 13 luglio 2021, notificata all'Italia dal Segretariato generale del Consiglio con nota LT161/21, del 14 luglio 2021;
- CONSIDERATO** che, ai sensi del decreto del Ministro dell'Economia e delle Finanze 6 agosto 2021 e successiva rettifica del 23 novembre 2021, il Ministero dell'università e della ricerca è assegnatario di risorse per l'attuazione degli interventi del PNRR nell'ambito della Missione 4 - Componente 2 *"Dalla Ricerca all'Impresa"* (di seguito "M4C2"), per complessivi euro 11,44 miliardi;



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VISTA la riforma 1.1 della M4C2 *“Attuazione di misure di sostegno alla R&S per promuovere la semplificazione e la mobilità”*;

CONSIDERATO che il citato Decreto del Ministero dell'Economia e delle Finanze del 6 agosto 2021 assegna (Tabella A), al Ministero dell'Università e della Ricerca euro 1.580.000.000,00 per il finanziamento di un *“Fondo per la realizzazione di un sistema integrato di infrastrutture di ricerca e innovazione”* nell'ambito della Missione 4, *“Istruzione e Ricerca”* – Componente 2, *“Dalla ricerca all'impresa”* – Linea di investimento 3.1 del PNRR, che mira a finanziare la creazione o il rafforzamento, su base competitiva, di infrastrutture di ricerca di rilevanza paneuropea e infrastrutture di innovazione dedicate, promuovendo la combinazione di investimenti pubblici e privati;

VISTE le Linee Guida definite dal MUR per le iniziative di sistema della M4C2, approvate con decreto ministeriale 7 ottobre 2021, n. 1141, condivise con la Cabina di Regia del PNRR dedicata a istruzione e ricerca, di cui all'articolo 2, comma 1, del decreto-legge 31 maggio 2021, n. 77, convertito con legge 29 luglio 2021, n. 108;

VISTE il Decreto Ministeriale 14 dicembre 2021, n. 1314, recante *“Disposizioni per la concessione delle agevolazioni finanziarie”*, emanato dal MUR in attuazione della suindicata riforma 1.1. della M4C2 del PNRR, ammesso alla registrazione alla Corte dei Conti in data 27 dicembre 2021 al n. 3142, successivamente rettificato con Decreto Ministeriale n. 1368 del 24 dicembre 2021, ammesso alla registrazione alla Corte dei Conti in data 27 dicembre 2021 al n. 3143;

VISTO il Decreto Direttoriale del 28 dicembre 2021, n. 3265 recante Avviso pubblico per la presentazione di proposte progettuali per *“Realizzazione o ammodernamento di infrastrutture tecnologiche di innovazione”* (nel seguito anche solo *“Avviso”*) da finanziare nell'ambito del PNRR Missione 4, *“Istruzione e Ricerca”* – Componente 2, *“Dalla ricerca all'impresa”* – Linea di investimento 3.1, *“Fondo per la realizzazione di un sistema integrato di infrastrutture di ricerca e innovazione”*, finanziato dall'Unione europea – NextGenerationEU;

VISTO l'art. 2 dell'Avviso che disciplina le Finalità e l'Ambito di applicazione dell'Intervento;

VISTO il Regolamento (UE) n. 651/2014 della Commissione, del 17 giugno 2014, che dichiara alcune categorie di aiuti compatibili con il mercato interno in applicazione degli articoli 107 e 108 del TFUE (Regolamento generale di esenzione per categoria) e in particolare l'articolo 59 che stabilisce l'entrata in vigore del medesimo Regolamento a partire dal giorno 1 luglio 2014, nonché della Comunicazione della Commissione *“Disciplina degli aiuti di Stato a favore di ricerca, sviluppo e innovazione”* (GU C 198 del 27 giugno 2014);

VISTO il Regolamento (UE) n. 972/2020 della Commissione, del 2 luglio 2020, che modifica il Regolamento (UE) n. 651/2014 per quanto riguarda la sua proroga e gli adeguamenti pertinenti;

VISTO il Decreto Direttoriale del 22 giugno 2022, n. 132 di approvazione della graduatoria, di cui all'articolo 9, comma 2, dell'Avviso;



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- VISTO** il Decreto Direttoriale n. 148 del 22 giugno 2022, con cui il progetto recante codice identificativo ITEC00000016 dal titolo “ITALIAN MATERIALS TECHNOLOGIES INFRASTRUCTURE (I-MATT)”, registrato alla Corte dei Conti in data 25 luglio 2022, al n. 1989, è stato ammesso alle agevolazioni;
- VISTA** l'istanza di variazione, trasmessa in data 20 dicembre 2024 tramite l'apposita sezione della piattaforma informatica GEA, con la quale, con riferimento all'Avviso, il Soggetto attuatore del citato Progetto, recante codice identificativo ITEC00000016, comunicava una rimodulazione di attività e costi, nonché una modifica delle sedi operative;
- VISTO** l'art. 15 del citato Decreto Ministeriale 14 dicembre 2021, n. 1314, successivamente rettificato con Decreto Ministeriale n. 1368 del 24 dicembre 2021, rubricato “*Varianti progettuali*” e in particolare il comma 3, il quale prevede che le variazioni intervenute nel corso del progetto siano oggetto di decreto ricognitivo finale, da redigersi a conclusione del progetto e preliminarmente all'erogazione del saldo finale;
- VISTO** l'art. 15 dell'Avviso, rubricato “*Variazioni del progetto*”;
- VISTO** l'art. 6 del Disciplinare, rubricato “*Variazioni del progetto*”;
- VISTA** la legge del 14 gennaio 1994, n. 20 e ss.mm.ii., “*Disposizioni in materia di giurisdizione e controllo della Corte dei Conti*”;
- VISTO** da ultimo, il Decreto Direttoriale n. 247 del 11 gennaio 2022, con il quale è stato conferito al dott. Michele Mazzola l'incarico di Dirigente dell'Ufficio III – Internazionalizzazione della ricerca – della Direzione generale dell'internazionalizzazione e della comunicazione;
- DATO ATTO** dell'adempimento agli obblighi di cui al Capo III del D.M. 31 maggio 2017, n. 115, “*Regolamento recante la disciplina per il funzionamento del Registro nazionale degli aiuti di Stato, ai sensi dell'articolo 52, comma 6, della legge 24 dicembre 2012, n. 234 e successive modifiche e integrazioni*”;
- CONSIDERATO** che la variazione presentata non impatta sulle finalità dell'intervento, così come definite nell'Avviso, e sul conseguimento degli obiettivi e scadenze, intermedi e finali, connessi all'esecuzione del progetto;
- RITENUTO** di dover procedere a rettifica del Decreto Direttoriale sopra richiamato;

Tutto quanto ciò premesso e considerato,

DECRETA



Ministero dell'università e della ricerca

Segretariato Generale
Direzione generale dell'internazionalizzazione e della comunicazione

Articolo unico

1. A seguito della variazione presentata, così come riportata nei Visti di cui al presente Decreto Direttoriale, gli Allegati 1 e 4 di cui al Decreto Direttoriale n. 148 del 22 giugno 2022 sono sostituiti dall'Allegato 1 del presente Decreto che ne costituisce parte integrante e sostanziale.
2. Per tutto quanto non espressamente specificato nel presente Decreto, si osservano le disposizioni contenute nel Decreto Direttoriale n. 148 del 22 giugno 2022.

Il Direttore Generale
Gianluigi Consoli

Firmato digitalmente ai sensi del c.d. Codice dell'Amministrazione digitale e norme ad esso connesse

Allegati

- Allegato 1: Proposta definitiva

Ministero dell'Università e della Ricerca
Direzione generale dell'internazionalizzazione e della comunicazione

Avviso per la *“Concessione di finanziamenti destinati alla realizzazione o ammodernamento di Infrastrutture Tecnologiche di Innovazione”* da finanziare nell'ambito del PNRR

Piano Nazionale di Ripresa e Resilienza, Missione 4, *“Istruzione e Ricerca”* - Componente 2, *“Dalla ricerca all'impresa”* - Linea di investimento 3.1, *“Fondo per la realizzazione di un sistema integrato di infrastrutture di ricerca e innovazione”*, finanziato dall'Unione europea - NextGenerationEU

Istanza di Variazione

Spett.le
Ministero dell'università e della ricerca
Direzione Generale dell'internazionalizzazione e della comunicazione
Largo Antonio Ruberti, 1 - 00153 ROMA

OGGETTO: Avviso per la concessione di finanziamenti destinati alla realizzazione o ammodernamento di Infrastrutture Tecnologiche di Innovazione, da finanziare nell'ambito del PNRR – Istanza di variazione identificata al ITEC0000016_VAR003

Il sottoscritto Maria Chiara Carrozza, nato a PISA il 16/09/1965, nella sua qualità di legale rappresentante (ovvero, procuratore speciale, in forza di idonea e adeguata procura speciale) del Soggetto Proponente Consiglio Nazionale delle Ricerche – CNR

PRESENTA

istanza di variazione identificata al codice ITEC0000016_VAR003 in conformità all'art. 15 dell'Avviso n. 3265/2021. Costituiscono parte integrante e sostanziale della istanza tutti gli allegati indicati nella Sezione Allegati, che si intendono sottoscritti in uno alla presente.

Firmato digitalmente



Maria
Chiara
Carrozza
20.12.2024
15:52:19
GMT+02:00

Proposal template

Dati di sintesi della variazione

Tipologia di Variazione:

- Rimodulazione del piano delle attività con impatto sui costi e sulle sedi
- Rimodulazione del piano delle attività senza impatto sui costi
- Modifiche dei dati relativi al progetto (anagrafica sedi, referenti progetto, PPP, altro)

% Variazione stimata: 14.5

Descrizione della Variazione: variazione delle sedi e dei costi delle sedi

Soggetto proponente

- **Anagrafica Soggetto Proponente**

- Denominazione: Consiglio Nazionale delle Ricerche – CNR
- Codice CAR: 000193_EIRI
- CF: 80054330586
- Pec: protocollo-ammcen@pec.cnr.it
- Tipologia soggetto: Enti e Istituzioni di Ricerca (d.lgs n° 218)
- Sede legale:
 - CAP: 00185
 - Via/Piazza: Piazzale Aldo Moro
 - Civico: 7
 - Comune: ROMA
 - Provincia: ROMA
 - Regione: Lazio

- **Anagrafica Rappresentante Legale**

- Nome: Maria Chiara
- Cognome: Carrozza
- Codice fiscale: CRRMCH65P56G702V
- E-mail: presidenza@cnr.it
- Data di nascita: 16/09/1965
- Comune di nascita: PISA
- Sesso: Femmina

- **Anagrafica Referente del progetto**

- Nome: Michele
- Cognome: Muccini
- Telefono: 0516398521
- Cellulare: 3400644535
- E-mail: michele.muccini@cnr.it

Sinossi della proposta progettuale

Titolo del Progetto: Italian MATerials Technologies Infrastructure

Acronimo del Progetto: i-MAT^{IT}

Settori e ambiti prevalenti dell'iniziativa:

- Salute:

- Tecnologie per la salute

- Digitale, industria, aerospazio:

- Transizione digitale
- High performance computing e big data
- Intelligenza artificiale
- Innovazione per l'industria manifatturiera
- Materiali avanzati

- Clima, energia, mobilità sostenibile:

- Mobilità sostenibile
- Energetica industriale
- Transizione energetica totale

- Prodotti alimentari, bioeconomia, risorse naturali, agricoltura, ambiente:

- Green Technologies

Keywords:

Packaging; One-Health; Hydrogen; Digitalization; Sustainability; Mechanics; Energy transition; Advanced materials;

Abstract del Progetto: i-MAT'Twill be focused on developing knowledge and know-how in the field of advanced materials and related industrial processes, to transfer this knowledge to the main industrial sectors, so that it can foster innovation in products, processes and services. i-MAT'Twill be strongly characterized by the leadership of the National Research Council of Italy (CNR), the largest national research body, as well as by skills, experiences and technologies that the private partner of the Public-Private Partnership (PPP) will share.

The services that i-MAT'T will provide will have transversal application, to cope with the innovation demand that urges from key sectors such as advanced mechanics, packaging, circular economy, energy and health, providing in particular solutions for:

- Materials and processes for packaging, both flexible and rigid, to enable sustainable packaging
- Materials and processes for advanced mechanics
- Materials and processes for green energy production
- Materials and processes for recycling and upcycling
- Materials for health
- Digital platforms for data management, processes and protocols digitalization.

i-MAT'T will be a driver for the industrial innovation for the way it is designed and the foreseen major upgrade phases.

Livelli di maturità tecnologica prevalente (TLR): 6;

Data di avvio del progetto: 01/11/2024

Durata del progetto (in mesi): 14

Costo complessivo del progetto: 27.710.521,78 €

Tipologia intervento: Realizzazione/Creazione

Localizzazione

Infrastruttura distribuita: Si

Numero sedi: 7

Sede 1

- CAP: 40129
- Via/Piazza: via P. Gobetti
- Civico: 101
- Comune: BOLOGNA
- Provincia: BOLOGNA
- Regione: Emilia Romagna

Sede 2

- CAP: 40129
- Via/Piazza: Via P. Gobetti
- Civico: 101
- Comune: BOLOGNA
- Provincia: BOLOGNA
- Regione: Emilia Romagna

Sede 3

- CAP: 40129
- Via/Piazza: Via P. Gobetti
- Civico: 101
- Comune: BOLOGNA
- Provincia: BOLOGNA
- Regione: Emilia Romagna

Sede 4

- CAP: 40129
- Via/Piazza: Via P. Gobetti
- Civico: 101
- Comune: BOLOGNA
- Provincia: BOLOGNA
- Regione: Emilia Romagna

Sede 5

- CAP: 40129
- Via/Piazza: Via P. Gobetti
- Civico: 101
- Comune: BOLOGNA
- Provincia: BOLOGNA
- Regione: Emilia Romagna

Sede 6

- CAP: 40129
- Via/Piazza: Via P. Gobetti
- Civico: 101
- Comune: BOLOGNA
- Provincia: BOLOGNA
- Regione: Emilia Romagna

Sede 7

- CAP: 40129
- Via/Piazza: Via P. Gobetti
- Civico: 101
- Comune: BOLOGNA
- Provincia: BOLOGNA
- Regione: Emilia Romagna

Piano economico

Costi complessivi di progetto

Spese ammissibili	Costi (€) (1)	IVA (€) (2)	Totale (€) (1+2)
a) Spese Manager Infrastruttura ed altre figure manageriali	597.683,91	0,00	597.683,91
b) Strumentazione scientifica, apparecchiature e macchinari	22.600.000,00	0,00	22.600.000,00
c) Impianti tecnici generici	1.200.000,00	0,00	1.200.000,00
d) Licenze software e brevetti	700.000,00	0,00	700.000,00
e) Fabbricati e terreni	0,00	0,00	0,00
f) Recupero, ristrutturazione, riqualificazione e ampliamento immobili	600.000,00	0,00	600.000,00
g) Spese per progettazione e altre spese tecniche	200.000,00	0,00	200.000,00
h) Costi indiretti	1.812.837,87	0,00	1.812.837,87
Totale (€)	27.710.521,78	0,00	27.710.521,78

Articolazione costi di progetto per localizzazione

Sede/Sito 1			
Spese ammissibili	Costi (€) (1)	IVA (€) (2)	Totale (€) (1+2)
a) Spese Manager Infrastruttura ed altre figure manageriali	298.841,46	0,00	298.841,46
b) Strumentazione scientifica, apparecchiature e macchinari	11.300.000,00	0,00	11.300.000,00
c) Impianti tecnici generici	600.000,00	0,00	600.000,00
d) Licenze software e brevetti	350.000,00	0,00	350.000,00
e) Fabbricati e terreni	0,00	0,00	0,00
f) Recupero, ristrutturazione, riqualificazione e ampliamento immobili	300.000,00	0,00	300.000,00
g) Spese per progettazione e altre spese tecniche	100.000,00	0,00	100.000,00
h) Costi indiretti	906.418,90	0,00	906.418,90
Totale (€)	13.855.260,36	0,00	13.855.260,36

Sede/Sito 2			
Spese ammissibili	Costi (€) (1)	IVA (€) (2)	Totale (€) (1+2)
a) Spese Manager Infrastruttura ed altre figure manageriali	298.842,45	0,00	298.842,45
b) Strumentazione scientifica, apparecchiature e macchinari	11.300.000,00	0,00	11.300.000,00
c) Impianti tecnici generici	600.000,00	0,00	600.000,00

d) Licenze software e brevetti	350.000,00	0,00	350.000,00
e) Fabbricati e terreni	0,00	0,00	0,00
f) Recupero, ristrutturazione, riqualificazione e ampliamento immobili	300.000,00	0,00	300.000,00
g) Spese per progettazione e altre spese tecniche	100.000,00	0,00	100.000,00
h) Costi indiretti	906.418,97	0,00	906.418,97
Totale (€)	13.855.261,42	0,00	13.855.261,42

Sede/Sito 3			
Spese ammissibili	Costi (€) (1)	IVA (€) (2)	Totale (€) (1+2)
a) Spese Manager Infrastruttura ed altre figure manageriali	0,00	0,00	0,00
b) Strumentazione scientifica, apparecchiature e macchinari	0,00	0,00	0,00
c) Impianti tecnici generici	0,00	0,00	0,00
d) Licenze software e brevetti	0,00	0,00	0,00
e) Fabbricati e terreni	0,00	0,00	0,00
f) Recupero, ristrutturazione, riqualificazione e ampliamento immobili	0,00	0,00	0,00
g) Spese per progettazione e altre spese tecniche	0,00	0,00	0,00
h) Costi indiretti	0,00	0,00	0,00
Totale (€)	0,00	0,00	0,00

Sede/Sito 4			
Spese ammissibili	Costi (€) (1)	IVA (€) (2)	Totale (€) (1+2)
a) Spese Manager Infrastruttura ed altre figure manageriali	0,00	0,00	0,00
b) Strumentazione scientifica, apparecchiature e macchinari	0,00	0,00	0,00
c) Impianti tecnici generici	0,00	0,00	0,00
d) Licenze software e brevetti	0,00	0,00	0,00
e) Fabbricati e terreni	0,00	0,00	0,00
f) Recupero, ristrutturazione, riqualificazione e ampliamento immobili	0,00	0,00	0,00
g) Spese per progettazione e altre spese tecniche	0,00	0,00	0,00
h) Costi indiretti	0,00	0,00	0,00
Totale (€)	0,00	0,00	0,00

Sede/Sito 5			
Spese ammissibili	Costi (€) (1)	IVA (€) (2)	Totale (€) (1+2)

a) Spese Manager Infrastruttura ed altre figure manageriali	0,00	0,00	0,00
b) Strumentazione scientifica, apparecchiature e macchinari	0,00	0,00	0,00
c) Impianti tecnici generici	0,00	0,00	0,00
d) Licenze software e brevetti	0,00	0,00	0,00
e) Fabbricati e terreni	0,00	0,00	0,00
f) Recupero, ristrutturazione, riqualificazione e ampliamento immobili	0,00	0,00	0,00
g) Spese per progettazione e altre spese tecniche	0,00	0,00	0,00
h) Costi indiretti	0,00	0,00	0,00
Totale (€)	0,00	0,00	0,00

Sede/Sito 6			
Spese ammissibili	Costi (€) (1)	IVA (€) (2)	Totale (€) (1+2)
a) Spese Manager Infrastruttura ed altre figure manageriali	0,00	0,00	0,00
b) Strumentazione scientifica, apparecchiature e macchinari	0,00	0,00	0,00
c) Impianti tecnici generici	0,00	0,00	0,00
d) Licenze software e brevetti	0,00	0,00	0,00
e) Fabbricati e terreni	0,00	0,00	0,00
f) Recupero, ristrutturazione, riqualificazione e ampliamento immobili	0,00	0,00	0,00
g) Spese per progettazione e altre spese tecniche	0,00	0,00	0,00
h) Costi indiretti	0,00	0,00	0,00
Totale (€)	0,00	0,00	0,00

Sede/Sito 7			
Spese ammissibili	Costi (€) (1)	IVA (€) (2)	Totale (€) (1+2)
a) Spese Manager Infrastruttura ed altre figure manageriali	0,00	0,00	0,00
b) Strumentazione scientifica, apparecchiature e macchinari	0,00	0,00	0,00
c) Impianti tecnici generici	0,00	0,00	0,00
d) Licenze software e brevetti	0,00	0,00	0,00
e) Fabbricati e terreni	0,00	0,00	0,00
f) Recupero, ristrutturazione, riqualificazione e ampliamento immobili	0,00	0,00	0,00
g) Spese per progettazione e altre spese tecniche	0,00	0,00	0,00
h) Costi indiretti	0,00	0,00	0,00
Totale (€)	0,00	0,00	0,00

Cronoprogramma di attuazione

Obiettivi intermedi: una sintesi

Codice identificativo	Mese di avvio (dalla data di avvio progetto)	Durata (in mesi)	Stima dei costi (€)
1	01/11/2024	5	68.808,00
2	01/03/2025	3	650.000,00
3	01/03/2025	4	122.000,00
4	01/03/2025	5	544.000,00
5	01/03/2025	9	1.167.400,00
6	01/03/2025	9	23.223.475,91
7	01/06/2025	6	1.934.837,87
8	01/11/2024	1	0,00
9	01/11/2024	1	0,00
10	01/11/2024	1	0,00
11	01/11/2024	1	0,00
12	01/11/2024	1	0,00
13	01/11/2024	1	0,00
14	01/11/2024	1	0,00
15	01/11/2024	1	0,00
16	01/11/2024	1	0,00
16	01/11/2024	1	0,00
16	01/11/2024	1	0,00
16	01/11/2024	1	0,00
Totale (€)			27.710.521,78

Obiettivi intermedi: 1

- Descrizione

Set up of the public-private partnership

- Mese Avvio

1

- Durata In Mesi

5

- Deliverables

-Report on the progress of the PPP preparation stage

Obiettivi intermedi: 2

- Descrizione

MNG and staff selection and appointment

- Mese Avvio

5

- Durata In Mesi

3

- Deliverables

-Report on the progress of the MNG and staff selection and appointment

Obiettivi intermedi: 3

- Descrizione

Design of the infrastructure

- Mese Avvio

5

- Durata In Mesi

4

- Deliverables

Report on the progress of the design of the infrastructure

Obiettivi intermedi: 4

- Descrizione

Building renovation

- Mese Avvio

5

- Durata In Mesi

5

- Deliverables

Report on the progress of the renovation of the buildings hosting the infrastructure

Obiettivi intermedi: 5

- Descrizione

Technical installations

- Mese Avvio

5

- Durata In Mesi

9

- Deliverables

Report on the progress of the technical installations in both the primary and secondary site of the infrastructure

Obiettivi intermedi: 6

- Descrizione

Purchase of Scientific/technical instrumentation and equipment, software licences and patents

- Mese Avvio

5

- Durata In Mesi

9

- Deliverables

Report of the progress in the purchase of Scientific/technical instrumentation and equipment, software licences and patents

Obiettivi intermedi: 7

- Descrizione

Testing & Release

- Mese Avvio

8

- Durata In Mesi

6

- Deliverables

Report on the progress towards the testing and final release of the infrastructure

Obiettivi intermedi: 8

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Obiettivi intermedi: 9

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Obiettivi intermedi: 10

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Obiettivi intermedi: 11

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Obiettivi intermedi: 12

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Obiettivi intermedi: 13

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Obiettivi intermedi: 14

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-Technical and financial report

Obiettivi intermedi: 15

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Obiettivi intermedi: 16

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Obiettivi intermedi: 16

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Obiettivi intermedi: 16

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Obiettivi intermedi: 16

- Descrizione

-

- Mese Avvio

1

- Durata In Mesi

1

- Deliverables

-

Allegati

Variazioni Annex 1 (technical annex) (se disponibile)

Altra documentazione di supporto (se disponibile)

Allegato 1: i-MATT Proposal

Ministero dell'Università e della Ricerca
Direzione generale dell'internazionalizzazione e della comunicazione

Avviso per la “Concessione di finanziamenti destinati alla realizzazione o ammodernamento di Infrastrutture Tecnologiche di Innovazione” da finanziare nell’ambito del PNRR

Missione 4, “Istruzione e Ricerca” - Componente 2, “Dalla ricerca all’impresa” -
Linea di investimento 3.1, “Fondo per la realizzazione di un sistema integrato di infrastrutture di ricerca e innovazione”, finanziato
dall’Unione europea - NextGenerationEU

REFORMS AND INVESTMENTS UNDER THE RECOVERY AND RESILIENCE PLAN

NextGenerationEU

Call for proposals

Intervention field 6: Investment in digital capacities and deployment of advanced technologies
DESI dimension 4: Integration of digital technologies + ad hoc data collections
055 - Other types of ICT infrastructure (including large-scale computer resources/equipment, data centres, sensors and other wireless equipment)

Mission 4 – “Education and Research”

Component 2: from research to business

Investment 3.1: “Fund for the realisation of an integrated system of research and innovation infrastructures

Annex 1 (technical annex)

Proposal template, pursuant to Article 8 of the call for proposals

(To be provided in English only)

DISCLAIMER: This document is aimed at informing potential applicants for call-PNRR funding. It serves only as an example. The actual Web forms and templates, provided in the online proposal submission system under the online proposal submission system, might differ from this example. Proposals must be prepared and submitted only via the online proposal submission system.

Part A – Strategic framework of the initiative

A.1. Objectives of the initiative

The **Italian MATerials Technologies Infrastructure (i-MATT)** focusses on the key enabling technology of advanced materials and on their cross intersections with different industrial and application fields leveraging broad range innovation to promote sustainable industrial processes, products and human-centric technological solutions. The initiative will have a multifunctional character, covering different thematic areas such as i) advanced materials, ii) circular economy, iii) energy transition, iv) packaging, v) health.

i-MATT will be a multi-site technological infrastructure formed by both market-leading companies and the largest Italian public research institution. Organized through a Public-Private Partnership (PPP) governance, the infrastructure will be able to test and develop processes, create components, semi-finished products and finished prototypes, integrating of state-of-the-art process, analysis equipment and digital platforms. **i-MATT** will provide services to **transversal** applications, to cope with the innovation demand that urges from key sectors such as **advanced mechanics, materials recycling, packaging, energy and health**, providing in particular solutions for:

- Materials and processes for packaging, both flexible and rigid, to enable sustainable packaging
- Materials and processes for advanced mechanics
- Materials and processes for green energy production
- Materials and processes for recycling and upcycling
- Materials for health
- Digital platforms for data management, processes and protocols digitalization.

i-MATT will offer advanced tools, solutions and services for the academic, business and market sectors to increase their competitiveness, and will provide new high-tech components, instruments and related services to remove technological and market barriers, promoting innovation and generating knowledge. The infrastructure will be a key for the promotion of sustainable industrialization to increase access to markets, to improve high quality scientific research and the capacities of the industrial sector. **i-MATT** will strongly support and encourage the industrial diversification and technology transfer.

The infrastructure will identify communities and industrial users, which will benefit from this initiative in the long term, ensuring a systemic approach that integrates circularity and functionality of products and processes throughout their life cycle. Partners will provide and invest in a set of instrumentation, personnel and assets, that will contribute to mobilize capacities to find solutions to the industrial needs. The project implements a strategy to address the barriers between innovation needs of large enterprises and technological solutions provided by Small Medium Enterprises (SMEs), therefore increasing SMEs opportunities and for the market in general.

Our vision is based on the following strategic assets:

- **Stable, yet flexible** – Engaging private partners catalyses speed, effectiveness and scale. **i-MATT** will be stable at its core, allowing for new members to join and work effectively.
- **“Think big”** – A scalable distributed infrastructure enabled through a Central Hub.
- **A multi-sided ecosystem** facilitated by local and trusted access points.
- **Demand-driven services** based on a careful and regularly updated market analysis.
- **Sustainability** – Growing through a green and digital transition driven approach and an evidence-based business planning.

The distributed infrastructure will be financially sustainable and able to grow further in the long term, generating value for its members and stakeholders as well as for external users. We will establish a sustainable business model which can be effectively taken up and upscaled beyond the end of the grant.

i-MATT will work on technology foresight and driving an effective R&D portfolio management, delivering solutions for market-creating innovation. The **co-localization and coordinated operation with running and emerging research infrastructures led by CNR** will leverage the capacity and impact of **i-MATT**.

A.2. Geographical area of interest

i-MATT will be a “Multi-Site” infrastructure covering different Italian Regions, starting from Emilia-Romagna, leveraging on the localization within public research sites and at industrial innovation sites to culturally and operationally connect to the scientific and industrial worlds.

The geographical area-of the Hub of **i-MATT** is in one of the most economically and socially dynamic Region in Europe (Emilia - Romagna 149 B€ of gross national product) that will be linked to other highly “industrialized” Regions like (e.g., Lombardia: 365 B€, Veneto 152 B€) in which other sites of the infrastructure could eventually be located. Changes in the global context underline the relevance of a close contact and physical proximity between research and development and production, to respond quickly to the requests and variations of an increasingly volatile market. The enhancement of local skills plays therefore a key role: the manufacturing culture, consolidated design skills, presence of research and technology transfer centres and infrastructures are associated with the environmental context. Accordingly, the nature and geographical localization of **i-MATT** will be a valuable service for the entire Country and an attractor for companies from abroad.

A.3. Sectors/domains

i-MATT will cover the field of advanced materials and related fields that are vital to a significant number of industrial sectors. The core specialization fields of **i-MATT** will be **advanced mechanics; materials recycling; sustainable packaging; energy; health industry**.

Engagement Plan:

This plan outlines the strategy for **i-MATT** to engage with some key external partners and communities that could be interested to join our strategy for Future developments on the sectors domain reported above. The plan aims to improve the revenue, the partnership, the reputation of the management and researcher teams, and also the reputation and the potentiality of the research infrastructures. The Engagement Plan allows to focus all the **i-MATT** activities, on the needs of external customers, to build our reputation, raise funds; and to recruit researcher & PhD. Our engagement is focused on seven internal and external areas of activities:

1. SME & Industry engagement
2. Universities engagement
3. Researchers & PhD engagement
4. Start Up engagement
5. National & Regional Government engagement
6. Research Communities engagement
7. National & International Associations

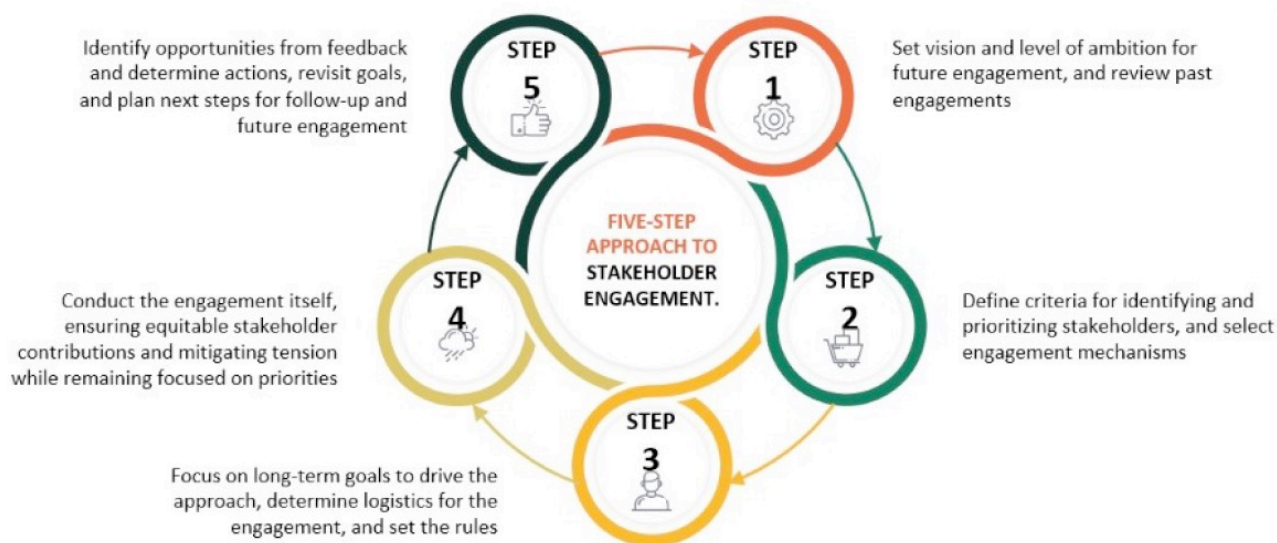
The following table report the engagement plan that is based on four main areas, and divided in Tasks and Outputs. The plan provides the identification of stakeholders, their evaluation, to identify the most effective communication way to obtain their full involvement in the initiative.



In the following scheme we have identified the communication methods that i-MATT will be able to manage in order to reach in the better and simple way the various stakeholders. The selection of the best communication channels will be done according to the specific stakeholder groups and the associated engagement plan.



According to the Engagement plan that defines the rules and the communication way, we will follow a five steps approach to determine stakeholder interest in order to prioritizing the stakeholders that are more interested and to focus the attention in the most impactful way to implement future business.



To properly manage the engagement Plan, a direct budget to cover the activities has been allocated, and the New Private/Public Entity will evaluate the opportunity to manage the plan with the support of external partners, like, e.g., VeniSIA Srl www.venisia.com, a spinoff of Cà Foscari University.

A.4. Keywords

Sustainability, advanced materials, circular economy, energy transition, advanced mechanics, sustainable packaging, biomedical, one-health, digital platforms, digitalization.

A.5. Prevailing levels of TRLs

i-MATT will address a broad range of TRL (from 5 to 9) relevant for stakeholders along the whole technological and industrial value chain.



The **i-MATT** actions will cover the entire cycle of innovation on materials and components: from studies and research on a laboratory scale to the design and engineering of products-processes-technologies, to experimentation at a pilot, demonstration and industrial level, to the prototype construction of systems and products, to the problems of reliability and safety and to environmental problems and the recycling of by-products and materials.

i-MATT will share a common vision and interoperability with advanced materials research infrastructures led by CNR. The strategy adopted shows a dual involvement of CNR: the realization of a **research infrastructure (iENTRANCE@ENL)** with a focus on advanced materials and, at the same time, a **technological innovation infrastructure (i-MATT)** both with their headquarters in Bologna. The complementarity of these two parallel

initiatives, will create synergies and avoid unnecessary duplications. (details in section A.7).

In this framework, broad research activities will be ensured by the active presence of CNR, whereas companies will foster activities toward the market in the proper industrial context, thus facilitating dialogue with other companies that tackle the same technological issues, amplifying efficiency and effectiveness of the entire action.

A.6. Coherence with the priorities set in the European, National and Regional strategic agendas

The **i-MATT** proposal is consistent with the “Materials 2030 - Manifesto Systemic Approach of Advanced Materials for Prosperity – A 2030 Perspective 7 February 2022” *a strong European Materials ecosystem drives the green and digital transition as well as a sustainable inclusive European society through a systemic collaboration of upstream developers, downstream users and citizens and all stakeholders in between.*

i-MATT is placed in the European development framework implemented through PPPs within Horizon Europe and the interregional partnerships of the Smart Specialisation Strategy 2021-2027 S3 platform. This is a strategic theme for the Emilia-Romagna Region, responding to the main economic, social and territorial challenges, which include those identified by the policy objectives of the new cohesion policies.

A.7. Synergies with other initiatives envisaged within Mission 4 ("Education and research"), Component 2 ("From research to enterprise"), with particular, but not exclusive, reference to Investment 3.1 ("Fund for the creation of an integrated system of research and innovation infrastructures")

The CNR has promoted and participates in several PNRR initiatives in strong synergy with **i-MATT**. The key relevant **research infrastructure** led by CNR in Emilia-Romagna is **iENTRANCE@ENL**, devoted to advanced materials for Energy Transition and Circular Economy @EuroNanoLab, high-priority PNIR infrastructure EuroNanoLab (<http://euronanolab.eu>; <http://itfab.bo.imm.cnr.it>). The **iENTRANCE@ENL** project aims to realize the first research infrastructure of European excellence in Italy, providing the scientific community with access to facilities for: 1. nanomaterials for energy; 2. processes and devices for green energy production, storage and management; 3. micro and nanoscale characterization; 4. technologies for the realization of devices and systems. It will be structured across 6 geographical nodes, internationally recognised in complementary research domains, operating through a Central Hub located at CNR Bologna acting as single-entry point and unique catalogue of all the methods and technologies available within the consortium. Research is up to TRL 4, in perfect complementarity with **i-MATT**.

i-MATT is also fully synergic with the **innovation ecosystems** submitted under the PNRR M4C2 action 1.5 by the Emilia-Romagna Region (Ecosystem for Sustainable transition in Emilia Romagna), by the Lombardia Region (MUSA: Multilayered Urban Sustainability Action) and by the Veneto Region (iNEST - Interconnected Nord-Est Innovation Ecosystem).

A.8. International profile and reach of potential users (with particular reference to SMEs)

The project envisages making use of a very extensive partnership made up, among others, of large companies of international standing, world leaders in their respective fields of action, or their national partners.

The project also includes, among its objectives, that of being able to reach a wide audience of SMEs, both local and international, offering them not only support and infrastructural services but also aid in terms of knowledge transfer, continuous training and reskilling as well as partnership opportunities. These objectives will be achieved by implementing different services and offering different opportunities to a wide range of SMEs, in particular:

- supporting the development of new skills by means of a structured program of intellectual and technical contamination with Big Companies and research institutions;

- providing a fertile environment supporting SMEs in implementing effective growing strategies and a faster go-to-market;
- supporting the recruitment of skilled professionals by means of joined up-skilling and re-skilling programs with CNR, jointly designed to better address the specific needs of SMEs.

i-MATT will be an open access facilities. A minimum of the 30% of **i-MATT** total production capacity will be available for industrial research conducted by “external” researchers aiming at setting up new business. A Scientific & Technical Committee will evaluate the projects proposal in terms of their technological feasibility, while the Board of the Directors of the NewCo that will evaluate their business convenience. The creation of the startups will be managed by a Start-up Studio, for example one could leverage the experience of VeniSIA, spinoff of Ca’ Foscari University, a startup builder and accelerator supported by Eni, Enel, Snam, Edison, OVS, Mundys and many others.

i-MATT will support the continuous innovation from scientific and industrial point of view providing high-level services to local businesses and academic institutions. The mission of the infrastructure will be to:

1. Promoting Innovation in the Industry sector, to support its growth and its consequent positive impact on the territory thanks to the creation of an important ecosystem of academic and technological partners around the infrastructure.
2. Supporting the research of the Scientific Public sector, thanks to the ecosystem of academic and technological partners and the High-Tech infrastructure that can attract scientific collaborators from all over the world.
3. Supporting Industrial Competitiveness, providing enterprises with access to tools and skills that enhance their ability to innovate and compete in global markets.
4. Training and Development, creating educational opportunities for students and professionals, expanding the talent base specialized in advanced technologies and data management.
5. Research and Development, conducting cutting-edge research projects in collaboration with universities and local industries, with a particular focus on applications in key areas such as Sustainability, advanced materials, energy transition, advanced mechanics, sustainable packaging, biomedical, one-health, digital platforms, digitalization, decision science, cybersecurity, artificial intelligence, Big Data.
6. International Collaborations, establishing partnerships with international organizations and companies for the exchange of knowledge and skills, and for the realization of joint projects.
7. Sustainability and Social Impact, ensuring that the activities of the centre contribute to sustainable and responsible growth, with attention to reducing environmental impact and improving the quality of life.

A.9. Start date of the initiative

The initiative will start on 01/11/2024, and will last until 31/12/2025.

A.10. Please choose one of the following options below:

Multi -Site Infrastructure

Part B – Initiative features

B.1. Activities

The **i-MATT** initiative will be focused on developing knowledge and know-how in the field of advanced materials and on activating efficient pathways to transfer knowledge to relevant industrial sectors, fostering innovation in products, processes and services.

The ambition of **i-MATT** is to provide high-ranking, international level services and competences. At the same time, the infrastructure will impact on the local ecosystem, fostering innovation in SMEs, which are the backbone of the Italian industrial system.

The support provided by **i-MATT** will fully exploit the intrinsic capability of materials to be an enabling technology with a strong impact on a potentially wide range of industrial sectors. The impact of **i-MATT** will be strengthened by the involvement of leading specialized companies, at the edge of the supply chain and with a comprehensive vision of their own industrial sector.

The unified operational coherence of the **i-MATT** distributed structure will be guaranteed by five different assets:

- i. A common focus on materials development and exploitation;
- ii. A Central Hub that will act as the coordinating body and as a single-entry-point for services and users;
- iii. A digital infrastructure, which will act as an overarching framework with respect to the nodes, with common tools, allowing the interoperability of data and procedures;
- iv. The technical-scientific leadership of CNR, which will trigger innovation activities, transparency of the conditions for access, synergies with many other running or starting initiatives, in the PNRR and beyond, and that will share a common focus on advanced materials with **i-MATT**;
- v. The commitment of industrial partners in the foreseen PPP, that will guarantee the real coherence of the innovation and development issues that will be tackled by the infrastructure and the matching with the main interests of the broad industrial supply chains in which these partners are involved, with a particular focus on SMEs, that could therefore be the main potential customers of **i-MATT**.

Private investments will be strengthened by CNR as the public partner promoting the initiative and by the cooperation with the CNR infrastructures and scientific networks. The hub of **i-MATT** will be located at the CNR territorial area in Bologna, where the Bologna CNR Technopole, that belongs to the Technopole Network of Emilia-Romagna and promotes the innovation of both consolidated and emerging industrial systems (<https://tecnopolo.bo.cnr.it>), is also established. The Bologna CNR Technopole has, up to now, over 6000 square meters of research and innovation infrastructures, laboratories and state-of-the-art instrumentation and is led by a consortium company created by the CNR, MISTER Smart Innovation, that can leverage the collaboration with the CNR scientific and technological networks on industrial research.

The specialization fields of **i-MATT** will be:

- Materials and processes for packaging, both flexible and rigid, to enable sustainable packaging
- Materials and processes for advanced mechanics
- Materials and processes for green energy
- Materials for health
- Digital platforms for data management, processes and protocols digitalization.

Moreover, sustainability and circularity will constitute strong transversal topics at the core of **i-MATT**, on which materials can play a fundamental role. Examples are the impact of compostable materials in packaging, or the role of materials in the energy sector in the development of new green systems.

Materials for packaging and advanced mechanics. The packaging industrial sector is strategic for Emilia-Romagna (surroundings of Bologna are known as “the packaging valley”), with strong interactions with the agri-food sector, which represents one of the economic cornerstones of the Region. The demand for materials and packaging solutions that protect quality and healthiness of food products, with efficient air and humidity barrier properties, combined with the growing need for natural and / or biodegradable materials, is the main driving force of this technological field. In addition, packaging technologies are fundamental also for other industrial sectors and other products, whenever the external “container” plays a role in the correct conservation of the product and therefore represents an added value for the product itself. This is the case, for example, of the pharmaceutical sector, where protecting and preserving drugs without contamination is a fundamental requirement.

i-MATT activities will target the study and analysis of different materials for packaging, with the aim to enhance mechanical and barrier characteristics and to replace current fossil-based plastics. A pilot line for the study of the deposition techniques and the analysis of the interactions of such materials with each other and with the substrate could be settled, to provide technological services and consultancy to mechanical and packaging companies and to any other company potentially interested to these topics, evaluating their industrial applicability in different scenarios.

Materials for energy. A fundamental pillar of **i-MATT** will be constituted by activities on materials for energy, a very broad topic that involves the industrial world at all levels. Indeed, the growth of the global population to over seven billion people has increased energy consumption and natural resource depletion, pollution, waste disposal and anthropic CO₂, and has made “energy transition” and “circular economy” the essential challenges for the future. **i-MATT** will deal primarily with **materials development and characterization related to green energy production**, a fundamental issue for its strong impact on sustainability.-

Materials and devices for health. Health is one of the main issues in modern society. Covid-19 pandemic has shown how public health can impact all the main aspects of our society, starting from economy. Also in this field, materials can be the game changer, from new drugs to new materials for prosthesis, for biomedical applications, and many others. **i-MATT** will deal mainly with materials for biomedical applications and techniques and technologies for disease management, focusing on the studies of the biocompatibility of materials, in particular the interaction between materials and neural cells, and, as part of the material-data integration, on the development of activities for remote disease management, enabled by the collection and processing of data provided by the interconnection between materials and the patient's neural structure. The infrastructure will concern a broad spectrum of technologies, skills, disciplines and background, from advanced materials, enabling technology for the development of devices, to the engineering and development of interconnected devices, to data management and simulation platforms, to analyses and systemic monitoring of human/clinical/patient data, to define innovative and resilient solutions applicable to human health and performance and to the management of human disease on Earth and on Space. In perspective the goal of **i-MATT** will be to foster the development of promising new approaches, treatments, countermeasures or technologies that have practical application to human performance, health and disease management.

Materials and data. The close correlation between materials and experimental data, with the aim of managing and enhancing the latter as a fundamental asset, is one of the aspects that strongly characterize **i-MATT**. Data Analytics approaches integrated with Machine Learning and Artificial Intelligence (AI) methodologies constitute a new paradigm for the entire field of materials science and technology as well as of the entire production chain, capable of bringing strong innovation in all sectors impacted by the materials themselves. Deep learning models can associate the variation in performance with the details of the manufacturing processes, reducing the costs associated with development processes. Similarly, predictive data-driven models can determine the status of artifacts and devices with great accuracy, providing information relevant to the life cycle. Furthermore, in an integrated development process, Machine Learning technologies can effectively guide R&D (adaptive experimental design) paths, significantly reducing (up to 80% less) the resources required for experimental development. The integration between technologies related to AI, Big-Data, innovative materials and processes, can therefore represent the turning point for the creation of new materials and

formulations capable of satisfying a complex matrix of requirements, reducing costs prototyping, experimental development and production, to minimize the environmental impact.

The infrastructure realization will obtain the following Relevance and Impact:

- **Technological Innovation:** The infrastructure will act as a catalyst for innovation, providing resources and skills that are at the top of current technology. The adoption of advanced technologies will transform the way local industries and universities approach research and development, increasing their global competitiveness.
- **Economic Development:** Through collaboration between academic institutions, research institutions and the industrial sector, the infrastructure will stimulate the local economy, creating skilled jobs and attracting investment in the region.
- **Training and Professional Development:** The commitment to advanced training will ensure professional preparation for staff and young researchers, who will be able to face future challenges in the field of technology, keeping the local workforce in step with market developments.
- **Support for New Enterprises:** The infrastructure will launch an acceleration program, and will evaluate the involvement of external partners, like, e.g., VeniSia, to promote entrepreneurship and innovation open to private individuals, local businesses and researchers and university spinoffs.

B.2. Governance model

B.2.1. Infrastructure and operational management

i-MATT will be structured as a Public-Private Partnership (PPP), a long-term collaboration between one public partner (CNR) and private members, ensuring open market access and fair competition, maximizing added value, defining the optimal level of grant financing both to realize a viable and sustainable project, but also to avoid windfall profits from the grant itself.

The PPP structure will be ruled through a **Board of Directors (BoD)** of three members, one appointed by CNR, shareholder of the structure with 49% of the total investment, and two members appointed as representatives of the private part of the partnership (51% of the investment). The president of the PPP will be one of the members indicated by the private shareholders. PPP management will be guaranteed by an Infrastructure Manager hired on a fixed-term basis.

As key shareholder of the initiative, the role of the CNR will be to guarantee the technical-scientific quality of the activities developed in the PPP, in particular towards external customers, with respect to which the impartiality and reliability of the results must also be guaranteed.

The core **i-MATT** activities will be to set and ensure a strong and effective relationship with companies. that will be built around these cornerstones:

- a. starting from customers' needs;
- b. acting as a single operational interface establishing and coordinating ad-hoc constituted working groups with competences tailored to the specific activities, crossing different nodes when this will be necessary;
- c. evaluating possible funding opportunities for innovation activities at regional, national and European level and supporting the companies to access them.

Within this model, companies, and more in general infrastructure's users, will have access to the joint know-how in a "natural" way in the context of projects in which **i-MATT** will act as the "only" direct interlocutor. Moreover, the support to access to further funding opportunities will give the opportunity to fruitfully activate additional collaborations and technology transfer activities, promoting the overall competitiveness of the addressed industrial sectors.

The **i-MATT** management team will be composed of:

- 1 Infrastructure Manager/Chief Executive Officer;
- 1 Senior Project Manager
- 1 Legal Manager
- 2 System Engineer
- 2 Junior Project Managers;

The **Infrastructure Manager/CEO** will be responsible for the achievement of the objectives of the **i-MATT**: selection of the personnel: the Senior Project Manager, the Legal Manager, the System Engineers and the Junior Project Managers and the laboratory technicians, responsible for carrying out the activities in line with the project presented and its updates;

- Formulation of an annual budget;
- Achievement of the given objectives including setting up of the infrastructure;
- Execution of the investment plan;
- Definition of the guidelines of the service portfolio ensuring the coverage of resources and skills necessary to carry out the program;
- Supervision of the administrative activities, of the project management activities;
- Management of any risks and critical issues that arise in carrying out the activities;
- Report to the corporate bodies;
- Support the Scientific Technical Committee, in evaluating the scientific and technological feasibility of the projects presented;
- Support the Board of Directors in evaluating the economic convenience and strategic relevance of the projects presented;

The **Senior Project Manager**, under the supervision of the IM/CEO, will be responsible for:

- Project Execution
- Management Requirements
- Definition of skillset for staffing and recruiting.

The **Legal Manager**, under the supervision of the IM/CEO, will be responsible for:

- Manage legal activities
- IPR matters

The **System Engineers**, under the supervision of the IM/CEO, will be responsible for:

- Design the integrated system architecture
- Monitoring and coordination of the purchase and installation of the infrastructure;
- Coordinating the laboratory technicians to ensure the implementation of the project until the release of the results.

The **Junior Project Managers**, under the supervision of the IM/CEO, will be responsible for:

- Managing the innovation projects by acting as an interface and facilitator of the interaction between the infrastructure and its research and business users;
- Maintaining and taking care of the relationship with users, facilitating the regular and complete exchange of information and ensuring the correct involvement of all stakeholders in the progress of the project;
- Guaranteeing effective and timely identification of project criticalities, communication to internal contacts and stakeholders, identification and implementation of mitigation or resolution interventions;
- Scheduling visits and other uses of the infrastructure by stakeholders on the basis of their needs and of the various company functions;
- Managing the infrastructure agenda by prioritizing the use of space and equipment by stakeholders according to strategic lines;

The **Board of Directors** together with the **Infrastructure Manager** will be responsible of the overall management of the infrastructure as well as of the continuous monitoring of its implementation (i.e. monitoring the expenses, monitoring the coherent application of the proposed project's technical and financial timing, supervising the

achievement of the intermediate objectives), of the promotion and the establishment of the digitalization of the services provided, referring to the best practices available worldwide, of the compliance with the Do Not Significant Harm (DNSH) principles and guidance, adopting all the necessary actions, and of the adoption and implementation of the **Gender Equality policies**.

B.2.2. PPP operation

I-MATT will be managed by an institutionalized PPP. The legal entity will be a Limited Liability Company (“Società a Responsabilità Limitata” - SRL) between CNR and private partners to be selected. The latter will directly provide a 51% share of the required funds to implement the i-MATT infrastructure, while CNR will provide the remaining 49%. Private shareholders will be selected through a public tender that will be managed according to Italian Legislative Decree No. 175 of August 19, 2016, "Testo Unico in materia di società a partecipazione pubblica" and with particular reference to article 17. About the new legal entity we assume that in 3 months after the publication of the tender we could have the newco able to start the operation. Scientific equipment, machineries and laboratory apparatuses, software licenses and acquired patents will become part of the company assets of both private shareholders and CNR. Any software and patents useful for the operation of the infrastructure will also be made available to the I-MATT by means of an exclusive and free licence agreement. Every NewCo SRL's single private shareholders should be at the same time:

1. Technology provider company identifying and, partially, supplying and updating the hardware and software enabling technologies for the realization of the i-MATT infrastructure;
2. Technology transfer company identifying clients needs, designing coherent industrial research projects, finding university researchers with the appropriate competences to develop the projects, negotiate and define agreements with clients to carry out the industrial research projects and coordinating their execution.
3. Corporate venture capitalist co-funding the startup created by I-MATT.

NewCo SRL's initial public shareholder will be CNR, but the ambition is to involve, three years after the beginning of project, additional public universities to guarantee the I-MATT's long-term sustainability.

The SRL's Board of Directors will be composed of 3 members:

- 1 member, the President of the NewCo SRL representing private shareholders;
- 1 member the president of CTS, nominated by CNR;
- 1 member, the CEO of the NewCo SRL, nominated by private shareholder.

The creation of a Scientific Technical Committee is also envisaged, chaired by the representative nominated by CNR and composed by representatives of participating universities and/or independent highly qualified technical persons. The Scientific & Technical Committee will be involved in assistance to the Infrastructure Manager/CEO and to the Senior Project Manager to assist in problem solving design and construction, to advise on the skillset for staffing and recruiting, and to leverage on strategic relationships and collaborations with external partners and stakeholders, including public research centres and private entities. The PPP NewCo SRL aims to experiment a new effective way of technology transfer and new business creation. A limited amount of the activities developed by I-MATT, for a maximum of 70% of its total production capacity, will be funded and addressed by private shareholders with the aim to bring the research outcome to the market. This technology transfer activities to third-parties is substantially accelerated by the fact that the industrial application is built with the use of the same enabling technologies used in i-MATT. The private shareholders, also at the request of their third-party clients, will contract CNR or its participating consortium MISTER Smart Innovation, to develop competitive industrial research activities. According to CNR Policies, the ownership of the results, potentially subject to patent/registration, will be shared between the private shareholder and the CNR, with the recognition that the private shareholder will have the right to protect, including the CNR among the owners. The agreement will also contain the commitment of the CNR to transfer its ownership after the patent has been filed, determining the economic conditions of the subsequent transfer, given the commitment of the private shareholder to exploit (directly or through its clients) the patent and maximise the impact of the initiative. Industrial and intellectual property rights, eventually arising from collaborative research projects between private and public stakeholders, will be

governed by agreements defined under the university's patent regulations with the aim, however, of facilitating the exploitation and impact of any IP obtained. The industrial and intellectual property rights resulting from inventions, research, projects, discoveries and, more generally, from anything else autonomously developed by private shareholders in I-MATT, will remain the exclusive property of them. In-kind contributions as inventions, projects, discoveries or anything else previously developed on their own by private shareholders, instrumental to the realization of I-MATT, remain exclusive property of the private shareholders. They cannot be used without the prior written consent of the owners. The remaining i-MATT production capacity, for a minimum 30% of its total production capacity, will be available for industrial public research projects that will be supported in their exploitation pathways through the creation of start-up companies, which may originate from a worthy combination of the cutting-edge knowledge and the entrepreneurial spirit of some university researchers. The Scientific & Technical Committee will evaluate the independent university research and innovation projects in terms of their technological feasibility, while the Board of Directors will evaluate their business convenience. 35% of the share of the startup will be owned by NewCo SRL. NewCo SRL adopt open access principles and, with reference to data, the FAIR principles: as open as possible, as closed as necessary. It will disclose the results obtained by private partners and university researchers, in compliance with public universities' intellectual property rights and privacy laws. NewCo SRL will develop a transparent policy of conservation and access to data and it will disseminate the most important results and discoveries, involving the community of researchers and innovators to stimulate their use. Public universities participating in the initiative will give adequate prominence to the results achieved within i-MATT through scientific publications, conference participations, dissemination activities and training actions. i-MATT aims to attract universities students, especially PhDs, within its ecosystem. Students (not only from universities participating in i-MATT) will get internships within the Infrastructure and will have the opportunity to develop the research for their theses. i-MATT will also support lifelong learning for people involved in i-MATT through specific training initiatives. The identification and selection of partners has and will be made in consideration of their effective interest in participating in the partnership. Therefore, it will be necessary to structure a partnership in which the potential costs and benefits of the partnership are clear from the beginning both internal and external to the partnership.

B.3. Budget plan

Eligible cost (Art. 7 of the call for proposal)	Costs (€)		
	Not to be located in Mezzogiorno Regions	Location of expenses in Mezzogiorno Regions will be welcome, although not compulsory	Total
a. Expenses, even if not accounted for as tangible and intangible investments, related to one highly qualified infrastructure manager and other executive personnel (managers) in charge of the services offered by the Infrastructure	597.683,91 €	- €	597.683,91 €
b. Scientific instrumentation, research equipment and machinery and relative accessories, turnkey	22.600.000,00 €	- €	22.600.000,00€
c. Technical installations strictly connected to the functionality of equipment and machinery	1.200.000,00 €	- €	1.200.000,00 €
d. Software licences and patents	700.000,00 €	- €	700.000,00 €



e. Buildings and land (including built land) not exceeding 10% of the total cost of the project. For sites in a state of decay and for those previously used for industrial purposes that include buildings, this limit is increased to 15%	- €	- €	- €
f. Rehabilitation, renovation, redevelopment and expansion of buildings if strictly necessary as to the functionality of the Infrastructure	600.000,00 €	- €	600.000,00 €
g. Design cost and other related technical expenses	200.000,00 €	- €	200.000,00 €
h. Indirect costs, forfeit (up to a maximum of 7% of the other project costs)	1.812.837,87 €	- €	1.812.837,87 €
Total	27.710.521,78 €	- €	27.710.521,78 €

B.4. Project time schedule

B.4.1. Intermediate objectives

ID	Title	Start	Duration	Summary	Cost
1	Tender	1	5	ppp tender preparation, opening, evaluation and assignment – ppp subscribed and ready to execution	68.808,00€
2	MNG and staff selection and appointment	5	3	Managers contractualization	650.000,00 €
3	Design of infrastructure	5	4	Infrastructure design ready for execution	122.000,00 €
4	Building renovation	5	5	Rehabilitation, renovation, redevelopment and expansion of buildings	544.000,00 €
5	Technical installations	5	9	Technical installations to enable the functionality of equipment, machinery and pilot lines	1.167.400,00 €
6	Purchase of Scientific/technical instrumentation and equipment, software licences and patents	5	9	Scientific instrumentation, research equipment and machinery and relative accessories, Software licences and patents needed for infrastructure operation	23.223.476 €
7	Testing & Release	9	6	Laboratories implementation	1.934.838 €

B.4.2. Timeframe envisaged for the implementation of the procedure aimed at setting up a PPP started in November 2024, the project will last 14 months to end on December 2025. The following GANTT diagram describes the timing for the main four actions in which the project is declined, that are:

1. PPP
2. Management
3. Equipment acquisition
4. Laboratory implementation

Activities	Timing of the project (months)													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ppp														
MNG & Staffappointment														
Design of infrastructure														
Building renovation														
Technical installations														
Purchase of equipment														
Testing & Release														

Management action foresees the acquisition of the head managers that will be the general manager of the newco. We foresee a full quarter for the employment process of the management team. Management team will be in operation up to the end of the project, their last task being the editing of the final report.

Acquisition and installation of all equipment:

- Project phase which will last four months starting from March 2025 comprehensive of detailed definition of furniture's and staging details.
- Laboratories' implementation and installation of equipment and services will follow the project phase and it will be conducted in a parallel way.
- The acquisition of the instruments addressed to staging the laboratories will start as soon as the first equipments are defined and will last three quarters.

We dedicate the last two quarters to realize and tune the installation of all the instruments and to the final set up of the laboratories.

B.5. Promotion of knowledge transfer and business creation activities.

In Section B.1 it has been mentioned that the infrastructure aims, among its objectives, to support knowledge transfer as well as to stimulate the growth of companies, in particular SMEs, which already exist and/or the birth of new companies.

In addition, as described in the portion of the document dedicated to the composition of the PPP, in order to ensure that the innovative infrastructure created with the project can represent a real asset for the development and sustainability of the infrastructure itself in the near future as well as for guaranteeing its integration with the territory and profitable and optimal effects on the territory itself, particular emphasis will have been placed in the composition of the PPP so as to favor those partners who will most want to engage in knowledge transfer activities as well as in those of stimulating and supporting the birth of new businesses .

Regarding knowledge transfer activities, the partnership with large companies and/or multinational companies that we hope will be part of the PPP will provide great support to SMEs in terms of knowledge transfer thanks to their inclusion within both the context of the innovative project infrastructure and the partnership in which it is reasonable to expect the presence of a significant and varied number of subjects who can support it also through partnerships aimed at the enhancement of specific products/services and/or the development of new products/services .

The same goes for supporting the creation of new businesses. These can arise thanks to the activation of various tools:

- the establishment of a business incubator connected with the infrastructure in synergy, for example, with the VeniSia Startup Builder;
- the exploitation of the results of the research and development that it is planned to carry out which could lead to the creation of newco established by the PPP partners themselves or in partnership with third parties.

Finally, specific attention will be devoted to the promotion of doctorates in partnership with the enterprises involved in the project on the many topics of interest of the project itself.

Finally, **i-MATT** will also carry out **training activities** as one of the cornerstones to promote technology transfer. Industrial sectors must deal with the rate of technological transformations and the pervasiveness of digitalisation, capable of strongly modifying processes and very often even the products themselves. To better manage these transformations, companies need to be enriched with transversal and increasingly multidisciplinary skills, beyond traditional training (schools, universities), which must be developed with ad hoc training paths starting from the needs of the companies. For this reason, **i-MATT** training activities will include:

- organization of events, workshops, information and training seminars to foster industrial innovation;
- availability of spaces and skills for organizing and carrying out scientific and technological dissemination activities, training, organization and participation in national and international fairs;
- planning and implementing training projects for single companies or groups of companies.

Part C – Expected impact

C.1. Expected outcomes of the intervention

i-MATT will operate on the market, with and for the companies that will ask for R&D services. The strong focus on digital innovation for a strategic KET, from the regional to the international level, will make the infrastructure one of the leading national poles for the development of highly specialized competences. The connection with the industrial landscape will have a strong impact on the job market related to innovative sectors, from advanced manufacturing to digital technologies.

Around the innovative infrastructure is planned to be created, **a real community of actors and users** of the services enabled by the infrastructure itself, so as to represent a real innovative ecosystem capable, itself, to create further innovation and startups;

i-MATT is expected to have a direct significant impact in all the industrial sectors primarily addressed, as highlighted in Section B2. Nevertheless, it also holds a great potentiality of impact in several additional sectors, like automotive, aerospace and agrifood, thanks to the intrinsic transversality of materials science and technology, of the technologies and investments foreseen as well as of the leading roles of the companies involved in the PPP. Synergies with other production and research areas can be measured either by means of the number of contracts stipulated with organisations belonging to these additional areas, by the number of supported spin-offs and start-ups that will operate outside the primary fields, as well as, for example, by number of European large-scale projects in which **i-MATT** will be involved.

C.2. Long-term sustainability profile

We present here below the preliminary profit and loss account for the initiative during the fifteen years of management period, based on the following main assumptions.

Revenues are related to:

- Rents paid by Members and external public and private partner for the use of *i-MATT* infrastructure,
- Royalties from patents, other IP and StartUp Exit,

Main costs are related to:

- Direct costs for services, maintenance, property management related to the buildings
- Staff Costs
- Equipment Maintenances
- General and administrative
- Depreciation and Amortization

We expect to be in positive balance since from the first year of operation till the 15th year report. After the 15th year, the private can decide to continue the exploitation of the project related to the building and plants, while CNR will evaluate the continuation of the partnership, according to an updated strategic assessment.

Cumulative profit and loss for the period will be over 60 mln of Eur.

The table below illustrates a summary of the variable costs and revenues expected in 15 years. The project ROI respect to the total public-private investment is expected in Year 8. The first startup exits is expected in Year 5. An annual inflation of 2% plus enhanced capacity is estimated for personnel, rents, consumable, operating and maintenance costs, which are adjusted every years.

	Costs		Revenues		
Year	Management	Operating	Rents	Exit Startups	R-C
1	920.000,00	2.483.000,00	5.206.590,00	0,00	1.803.590,00
2	920.000,00	2.503.000,00	5.232.090,00	0,00	1.809.090,00
3	920.000,00	2.523.000,00	5.267.790,00	0,00	1.824.790,00
4	976.311,36	2.691.919,06	5.612.392,55	0,00	1.944.162,12
5	976.311,36	2.711.919,06	5.642.992,55	2.250.000,00	4.204.762,12
6	976.311,36	2.711.919,06	5.642.992,55	4.500.000,00	6.454.762,12
7	1.036.069,43	2.889.953,17	6.006.814,57	4.500.000,00	6.580.791,97
8	1.036.069,43	2.909.953,17	6.037.414,57	4.500.000,00	6.591.391,97
9	1.036.069,43	2.929.953,17	6.068.014,57	4.500.000,00	6.601.991,97
10	1.099.485,16	3.117.660,22	6.452.232,44	4.500.000,00	6.735.087,05
11	1.099.485,16	3.147.660,22	6.498.132,44	2.250.000,00	4.500.987,05
12	1.099.485,16	3.177.660,22	6.544.032,44	4.500.000,00	6.766.887,05
13	1.166.782,45	3.385.632,29	6.965.194,55	2.250.000,00	4.662.779,81
14	1.166.782,45	3.425.632,29	7.026.394,55	2.250.000,00	4.683.979,81
15	1.166.782,45	3.465.632,29	7.087.594,55	4.500.000,00	6.955.179,81