

SDGine for Healthy People and Cities

UPM

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Vice-Rectorate for Research, Innovation
and Doctoral Studies



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1. Introduction to SDGine



SDGine

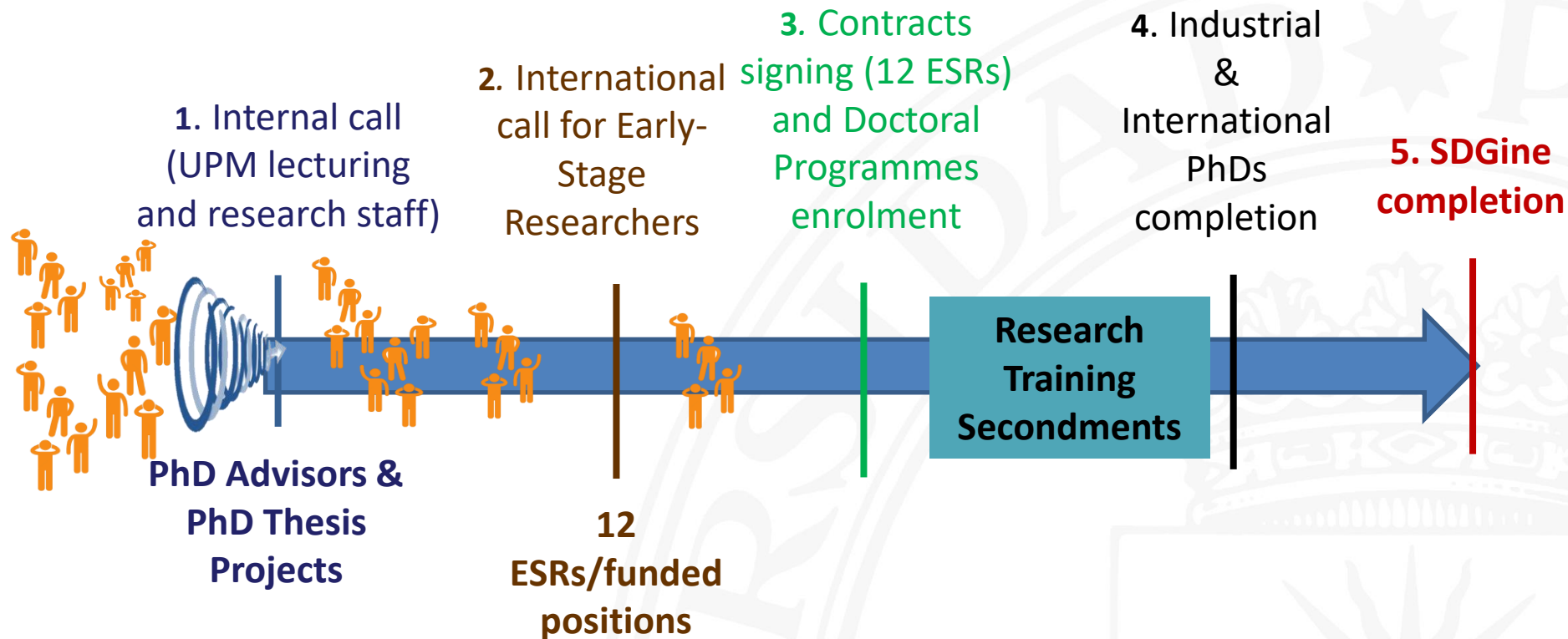
for Healthy People and Cities

<https://sdgine.eu/>

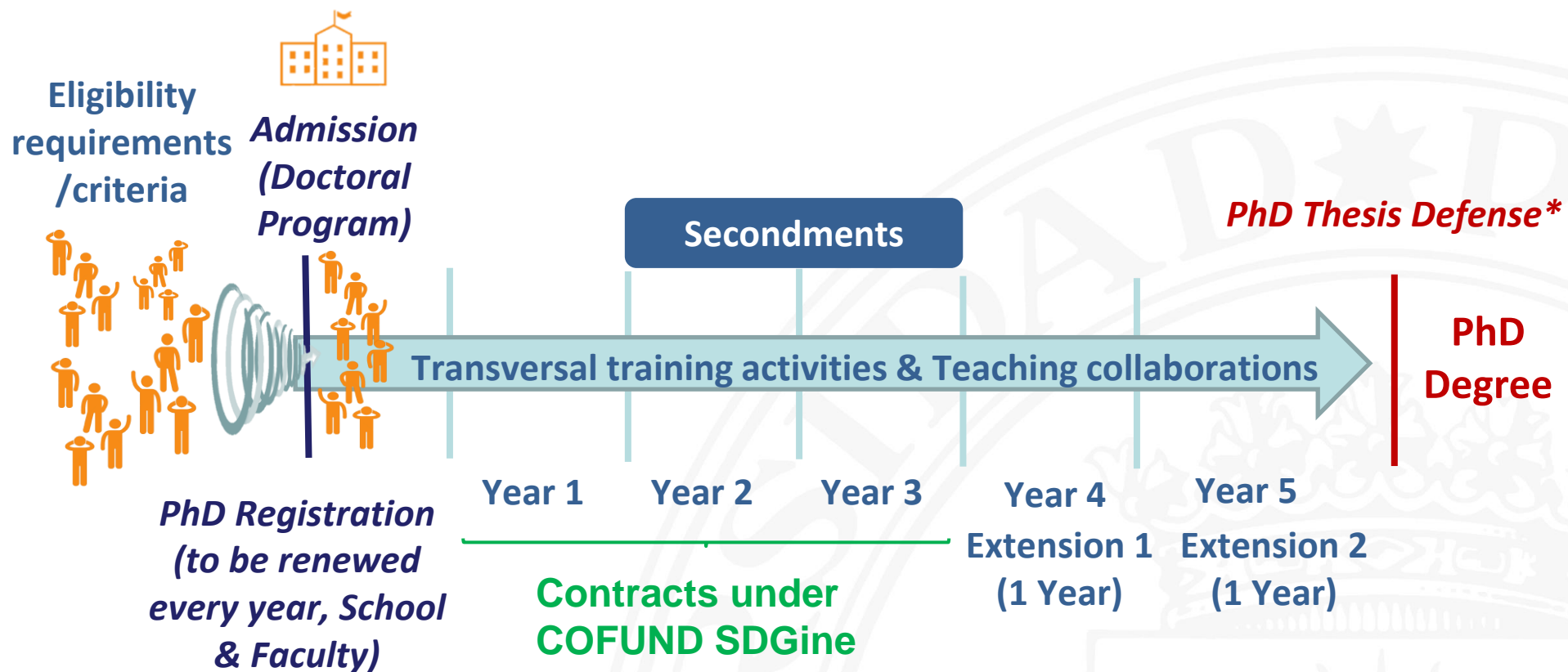
- **Call funding:** H2020-MSCA-COFUND-2019
- **Coordinator:** Vice-Rectorate for Research, Innovation & Doctoral Studies (UPM)
- **Areas of research:** STEAM & SDGs
- **Candidates:** 12 Early-Stage Researchers (ESRs)
- **Employment contracts:** 3-year contracts with UPM to complete **Industrial & International Doctorates**
- **Project starting date:** 01/10/2020
- **Project end date:** 30/09/2025 – extension 30/06/2026 (69 months)
- **Project total budget:** 1.952.640€

PARTNER	EARLY-STAGE RESEARCHERS (n)
CERN (hosting institution)	3 secondments (up to 6 months) and 3 short visits (1-2 weeks)
Iberdrola	4
Repsol	3
Fundación Tatiana PGB	2
Optiva Media	1
Telefónica I+D	1
Ecoembes	1
TOTAL (n)	12

SDGine milestones/timeline



Doctorate at UPM (RD 99/2011)



**1 JCR or 1 patent in use*

Affiliation: "Universidad Politécnica de Madrid" & Company



Doctoral Areas & Doctoral Programs

MANUFACTURING & INDUSTRY

1. Aerospace Engineering
2. Automation and Robotics
3. Economy and Innovation Management
4. Engineering in Industrial Organization
5. Environmental, Chemical and Material Engineering
6. Electrical and Electronic Engineering
7. European Doctorate in Industrial Management
8. Fluid Mechanics
9. Mechanical Engineering
10. Production Engineering and Industrial Design
11. Research, Modeling and Risk Analysis in Environment
12. Sustainable, Nuclear and Renewable Energy

ICTs

1. Artificial Intelligence
2. Biomedical Engineering
3. Communication Systems and Technologies
4. Computation Science and Technology for Smart Cities
5. Electronic Systems Engineering
6. Mathematical Eng., Statistics and Operations Research
7. Photovoltaic Solar Energy
8. Systems and Services Engineering for the Information Society
9. Software, Systems and Computation
10. Telematic System Engineering

AGRONOMICS, FORESTRY & ENVIRONMENT

1. Advanced Forest Research
2. Agricultural Engineering
3. Biotechnology and Genetic Resources of Plants and Assoc. Microorganisms
4. Complex Systems
5. Engineering and Management of Environment
6. Environmental Technology for Sustainable Agriculture
7. Project Planning for Rural Development and Sustainable Management

CIVIL ENGINEERING

1. Earth Informatics Engineering
2. Civil Engineering Systems
3. Structural, Geotechnical and Material Engineering
4. Naval Architect, Marine and Ocean Engineering
5. Technological Innovation in Building Construction

ARCHITECTURE

1. Advanced Architectural Design
2. Architecture and Urban Planning
3. Architecture Heritage
4. Building and Architecture Technology
5. Edification Structures
6. Sustainability and Urban Regeneration

ARTS & SOCIAL SCI.

1. Architecture Communication
2. Architecture, Design, Fashion and Society
3. Music and its Sciences and Technologies
4. Physical Activity and Sport Sciences

2. Management

- **Coordinator:** Vice-Rector for Research, Innovation & Doctoral Studies (Prof. Dr. Asunción Gómez-Pérez)
- **Deputy Director of the International Doctorate School** (Prof. Dr. Gabriel Huecas)
- **Project Manager** (Dr. Susana Negrete)
 - Activities:** Day-to-day management (project monitoring, reporting to EC, selection of candidates' process, interaction with PhD advisors and ESRs, etc.)
- **Risk Manager:** Dr. Estela Hernández (contingency plan implementing)
- **OPI Deputy Director at UPM:** Ms. Beatriz Cubeiro (SDGine monitoring & reporting)
- **European Commission:** Mr. Zakaria Benameur (Project Officer)

European Commission - reporting

- **WP1: Management**
 - **D1:** Data Management Plan, Data Protection management & GDPR - I
 - **D2:** Periodic Progress Report
 - **D3:** Data Management Plan, Data Protection management & GDPR - II
- **WP2: Dissemination of the Programme and its Call(s)**
 - **D4:** SDGine call promotion – Euraxess
 - **D5:** Dissemination of the call
- **WP3: Evaluation and Selection (of candidates)**
 - **D6:** Report on evaluation and selection
- **WP4: Ethics Issues (PhD Theses projects checked by the Ethical Committee of the UPM)**
 - **D7:** Report for the call on Ethics Issues
 - **D8:** Final Report on Ethics Issues

Internal UPM – no EC deliverables

- **WP5: Sustainable Development Goals (SDGs)** (PhD Theses projects & SDGs reviewed by itdUPM)
- **WP6: Career Development and Training** (secondments, ESRs evaluations,...)



Management: Timeline

Work Package	Year 1 Oct 2020- Sep 2021	Year 2 Oct 2021- Sep 2022	Year 3 Oct 2022- Sep 2023	Year 4 Oct 2023- Sep 2024	Year 5 Oct 2024- Sep 2025
WP1: Management		D1 (sep-2022) D2 (nov-2021)			D3 (sep-2025)
WP2: Dissemination of the Programme and its Call(s)	D4 (mar-2021)	D5 (oct-2021)			
WP3: Evaluation and Selection	D6 (oct-2021)				
WP4: Ethics Issues	D7 (feb-2021)				D8 (sep-2025)
WP5: Sustainable Development Goals	PhD Thesis projects check (SDGs) SDGs Dissemination & Communication (press notes, conferences, training...)				
WP6: Career Development and Training		UPM-cross-disciplinary training seminars, writing days, secondments,...			

3. Collaboration agreement

Benefits for companies...

- Attraction of talent adapted to the needs of the company
- Training of (future) employees in cutting-edge technologies
- Access to UPM research groups and facilities into high-added value research lines, knowledge and expertise
- R&D&I development in start-up and emerging companies
- Tax benefits from investment in R&D&I
- Creation of strategic alliances

In Collaboration with UPM, companies should...

- Establish and co-supervise the training, research and work plans
- Provide the necessary support for the development of the PhD theses
- Promote mobility (secondments of at least 3 months in international locations to obtain the International Doctorate)
- Encourage training (conference attendance and participation)
- State the forms of use and exploitation of results

4. Internal call – PDI UPM

Internal call for expressions of interest: PhD Advisors & PhD Thesis Projects

1. Companies have specified the **research lines** & identified potential **PhD advisors**
2. **UPM will launch an Internal call** open to all the UPM lecturing and research staff – based on “*Programa Propio de Investigación*”
3. **Evaluation→Documentation:** *Pentachart* model and report with PhD thesis project description, and PhD Advisors expertise & research groups/structure
4. Selection of **24 PhD Advisors & PhD Thesis Project** jointly with the company, to be offered to predoctoral candidates
(2 choices/alternatives per funded position)

5. ESRs selection process – international call

International Call to select 12 predoctoral candidates...

- ...of **any nationality and age**, who have not resided in or carried out their main activity in Spain for **more than 12 months in the 3 years** immediately prior to the call deadline (MSCA mobility rule)
- ...who must have completed the studies that lead to an official university degree from any country of the European Higher Education Area (EHEA) awarding 300 ECTS , of which **60 ECTS correspond to an official Master program, or allow them to do PhD in their country**
- ...published at **Euraxess**, international media (Nature Jobs, Science Careers), websites and platforms
- Applications: **Applicants' Portal** linked to SDGine website – 2 Submission periods
- **Contracts:** Mod 404 (*“Contrato predoctoral Ley de la Ciencia”*, full-time, 3 years) – visas, work permits, etc.

Evaluation will be done in three phases:

- **Phase I: Eligibility check** (VR RID staff) – mobility rule, 300 ECTS, English level – **Project manager**
- **Phase II: Selection Committees** (international experts coming from Academia and Industry, remote evaluation) – evaluation of candidates' CV & Expression of Interest – **Fundación Madri+d (reviewers & rapporteur)**
- **Phase III: Personal Interview** (Company staff & PhD Advisor) – evaluation of candidates' Background, Potential & Defence of Expression of Interest

6. Training

MSCA actions: excellent training

- **Training Coordinator at UPM:** Doctorate Division & International Doctorate School (EID)
- **Specific training for SDGine fellows**
 - First week training school
 - Summer School on SDGs
 - Summer School on Gender, RRI, Ethics-Laws
- **Specific training offered by the Doctoral Programme**
- **General training for UPM predoctoral researchers**
 - UPM-cross-disciplinary training seminars - EID
 - Writing days (MSCA & ERC) – OPI

7. Communication & Dissemination



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POLITÉCNICA



HR EXCELLENCE IN RESEARCH

Mail & Website



SDGine gives 12 Early-Stage Researchers the opportunity to complete International Industrial

Convocatoria Marie Skłodowska-Curie Actions COFUND
2019: 4 proyectos concedidos a entidades españolas

30 de abril de 2020

En la Convocatoria COFUND 2019 España obtuvo obtenido 7,40ME (11.02% UE 28), siendo el 2do país en número de proyectos financiados, con un total de 4 ([ver noticia](#)).

Actualmente, las 4 entidades han firmado ya el acuerdo de subvención con la Comisión, permitiendo así el inicio de los diferentes programas financiados en los próximos meses.

En este [enlace](#) se detallan aspectos como el tipo, la duración y la descripción del programa, el número de investigadores/as a contratar y los fondos recibidos de la Comisión Europea.

ENTIDAD BENEFICIARIA	PROYECTO
Centro de Recerca en Agergenómica (CRAG)	AGent: Agricultural Genomics Transversal Postdoctoral Program
Fundació Institut Recerca Biomèdica (IRB Barcelona)	IRB_Dream: IRB preDoctoral Fellowship Programme: attracting international talent
Universidad Politécnica de Madrid (UPM)	SDGine: SDGine for Healthy People and Cities
Universitat Rovira i Virgili (URV)	MIP_Plus: Martí i Franquès Doctoral Programme Plus

La convocatoria COFUND de las Acciones Marie Skłodowska Curie (MSCA) es un mecanismo de co-financiación que pretende estimular programas regionales, nacionales o internacionales para fomentar la excelencia en formación de los investigadores, su movilidad y el desarrollo de su carrera profesional. Está destinada a entidades legales establecidas en Estados Miembros o Países Asociados que financien o gestionen Programas de Doctorado o Programas de Incorporación de Investigadores.

El proyecto SDGine de la UPM seleccionado como Acción Marie Skłodowska-Curie COFUND

Cuatro programas españoles han obtenido financiación de esta convocatoria europea para la contratación de investigadores

06.05.2020

SDGine: SDGine for Healthy People and Cities es un proyecto institucional del Vicerrectorado de Investigación, Innovación y Doctorado de la Universidad Politécnica de Madrid (UPM) que ha sido seleccionado en la convocatoria europea de co-financiación Marie Skłodowska-Curie (MSCA) H2020-MSCA-COFUND-2019. La UPM recibirá 976.320 € de la Comisión Europea para la contratación de 12 Investigadores pre-doctorales.

El programa SDGine plantea el desarrollo de tecnologías y herramientas para acelerar en el cumplimiento de los Objetivos de Desarrollo Sostenible (ODS) relacionados con el cambio climático y las transformaciones sociales que se necesitan en los entornos urbanos. Los investigadores pre-doctorales seleccionados entrarán a formar parte de un programa que incluye no solo investigación, sino también formación a todos los niveles siguiendo los estándares europeos en lo relativo a doctorado e investigación, lo que les permitirá en el futuro una alta empleabilidad.



We have done so far...

Logo & Flyer



A research and innovation platform for the SDGs



Horizon 2020
European Union funding
for Research & Innovation



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This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 945199

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Vicerrectorado de Investigación, Innovación y Doctorado

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Thank you very much for your attention!

