

# Funding for Research and Higher Education Opportunities in EU and France: Tools and mechanisms

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# Ways of Collaboration with EU

1. **Collaborative research - Horizon Europe** : Health, Water, Bio-economy, Biotechnology, Nanotechnologies, Advanced materials, ICT, Energy, ICT etc.
2. **Researchers Mobility: Marie Skłodowska-Curie Action** : PhD, Post-Doc and short-term mobility of research and innovation staff;
3. **European Research Council (ERC)** grants support individual researchers of any nationality and age who wish to pursue their frontier research.

# Bio-refinery Call with DBT as partner

**EU and DBT co-funded call on biorefinery for the development of smart concepts of integrated energy driven bio-refineries for co-production of advanced biofuels, bio-chemicals and biomaterials.**

Call is open with a deadline of **4th Feb 2025**.

## Other EU-India calls in 2025

### 1. **EU-India EV Battery recycling matchmaking - Ministry of Heavy Industries as partner**

EU matchmaking event was done by EU early October to bring EU start-ups to come to India for recycling of batteries, they visited a few facilities in Noida and also met Maruti India.

*The talks are going on with the Ministry of Heavy Industries for a co-funded research call.*

### 2. **EU-India workshop on marine plastic - MoES as partner**

EU and MoES will co-fund a call on Marine plastics (micro and nano) in 2025, they will conduct a joint workshop on **8th November 2024 online**.

### 3. **EU-India upcoming call on Hydrogen - MNRE as partner**

EU is also coordinating with the Ministry of New & Renewable Energy (MNRE), to build a co-funded call on waste to Hydrogen, the TRL level desired by the Indian side is 7.



# The Marie Skłodowska-Curie Actions

## 4 main types of actions



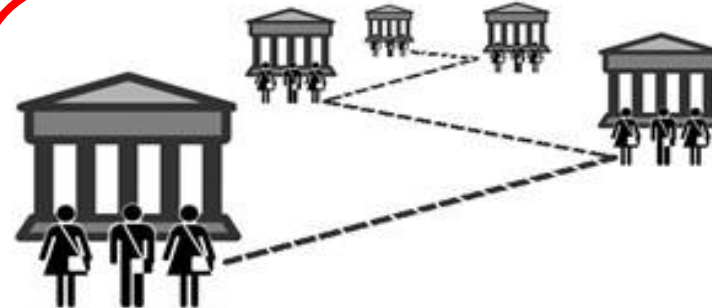
**DN**  
Doctoral Networks



**PF**  
Postdoctoral Fellowships



**COFUND**  
Co-funding of doctoral or fellowships programmes



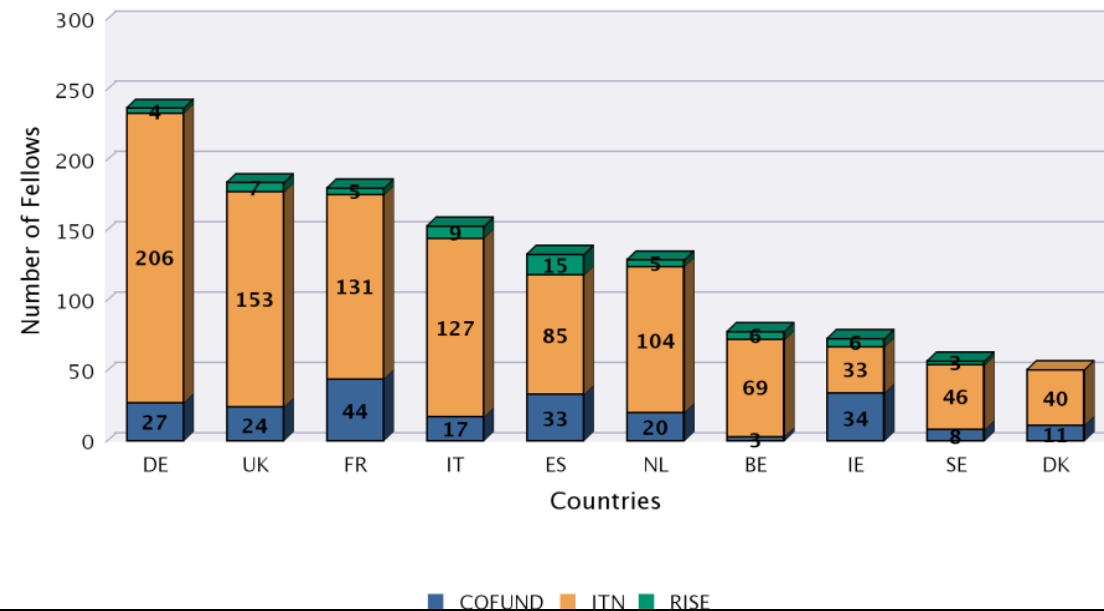
**Staff Exchanges**  
Research and Innovation  
Staff Exchanges



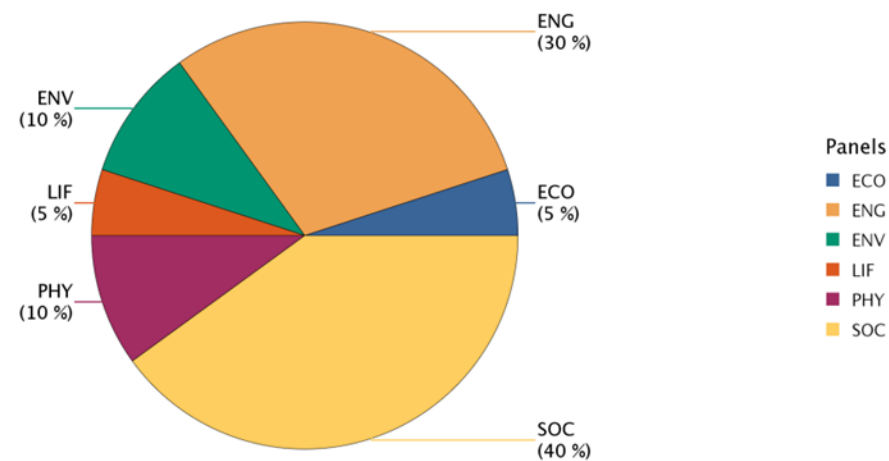
# India in MSCA (2014-2021)

- **1<sup>st</sup> rank** among non-European countries
- **>2000 Indian** researchers (42% are women) funded by H2020 – MSCA
- **>1500** Indian PhD
- **450** Indian Postdocs (2014-2020)
- **82** Indian Postdocs in 2021
- 14%-18% overall success rate
- **12** Staff Exchanges projects (14 entities)

IN fellows (nationals) grouped by country of destination (top 10 countries)



Project distribution by scientific panel (IN)





# The Marie Skłodowska-Curie Actions

## 4 main types of actions



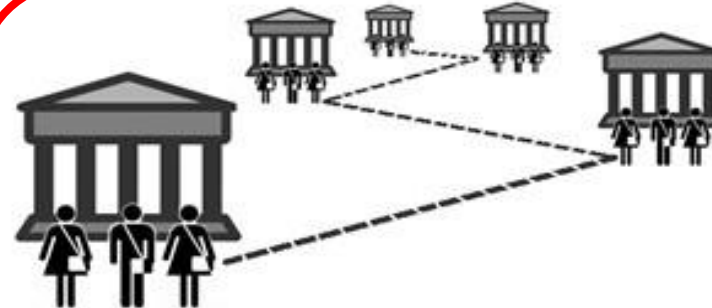
**DN**  
Doctoral Networks



**PF**  
Postdoctoral Fellowships



**COFUND**  
Co-funding of doctoral or fellowships programmes



**Staff Exchanges**  
Research and Innovation  
Staff Exchanges

# **(MSCA) Staff Exchanges with CSIR as partner**

**EU has partnered with CSIR to start a new co-funding initiative for the Marie Skłodowska-Curie Actions (MSCA) Staff Exchanges, part of the EU's research and innovation programme Horizon Europe**

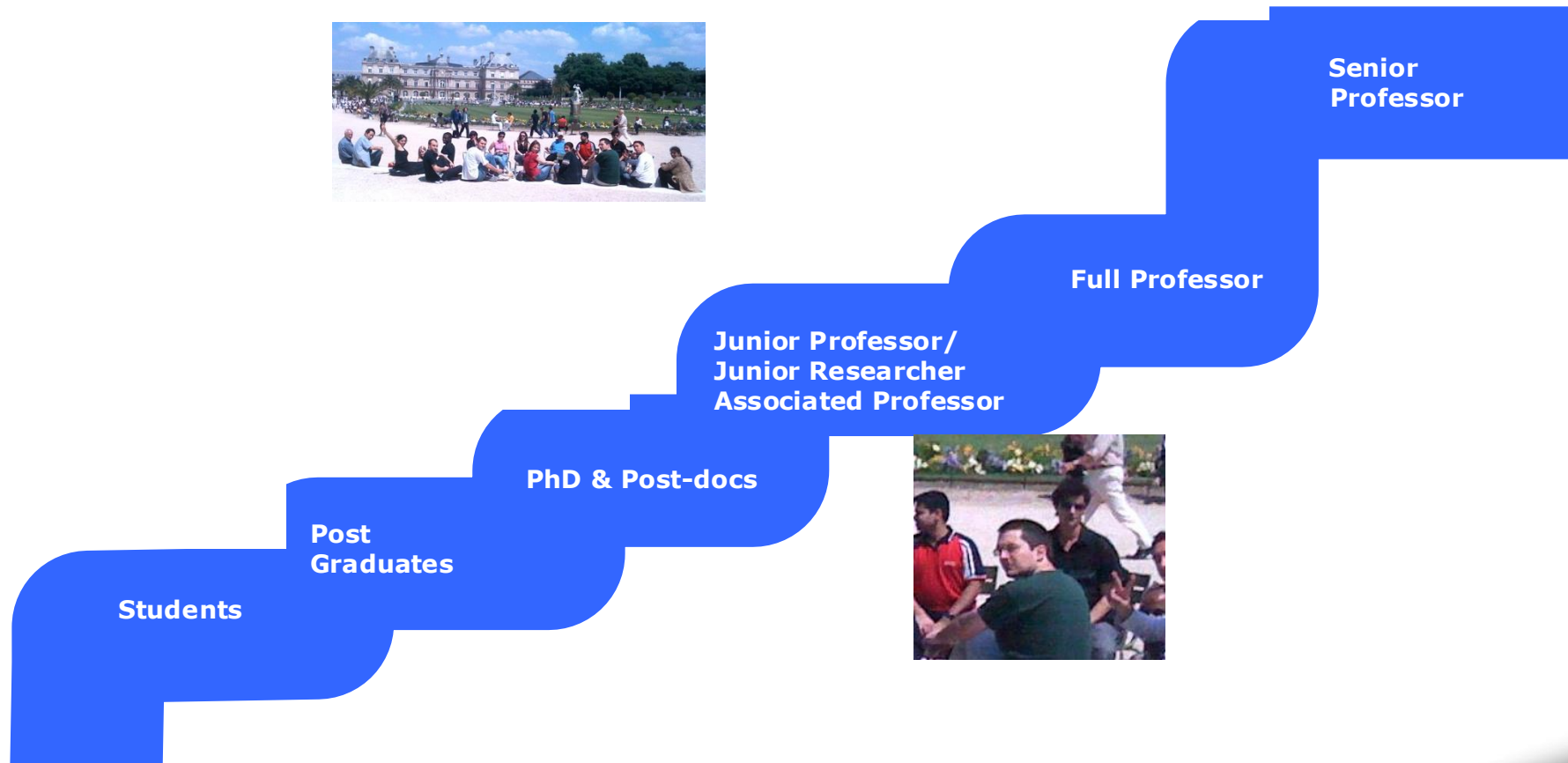
**To be eligible for the co-funding, projects should comply with Staff Exchange's eligibility criteria and include at least one CSIR entity and staff member.**

**Call is open with a [deadline of 5th Feb 2025](#).**



# Horizon Europe and the ERC

Researchers career development and complementary EU funding schemes- Possible path for individuals



# French Scientific Research Organizations



Sustainable  
development



Atomic  
Energy

Institut Pasteur  
Health



Informatics  
Applied  
Mathematics

Agriculture



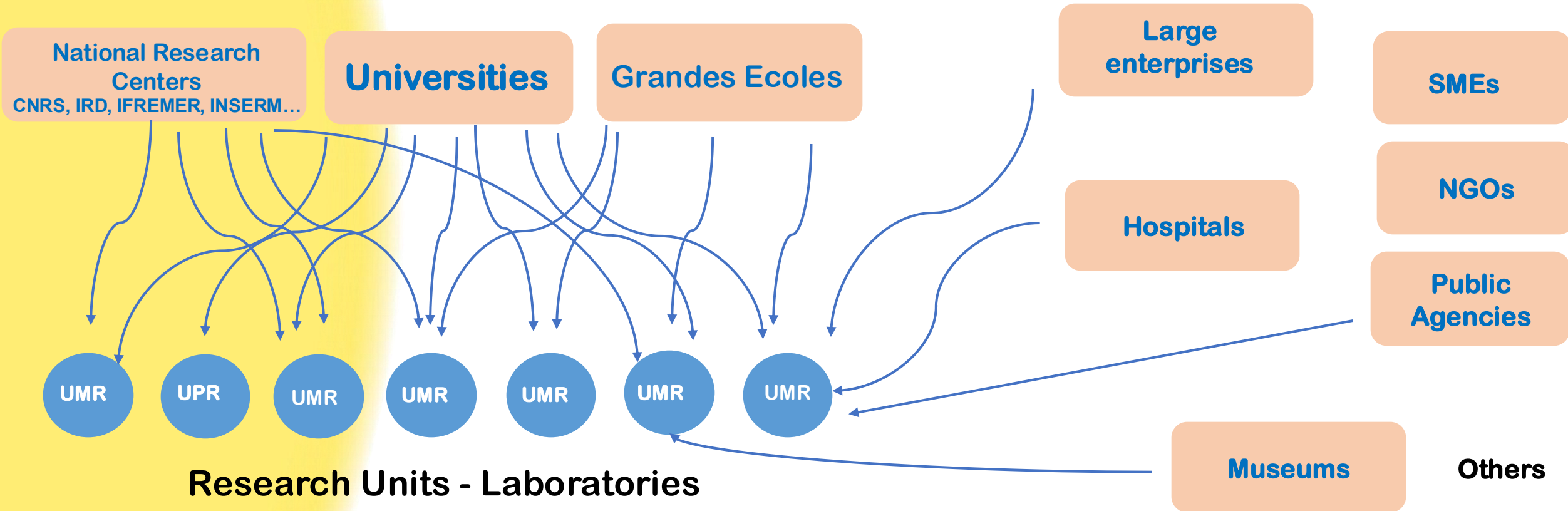
Marine  
Sciences (MoES)

Space

# Organisation of Research and Innovation in France

## Academic sector

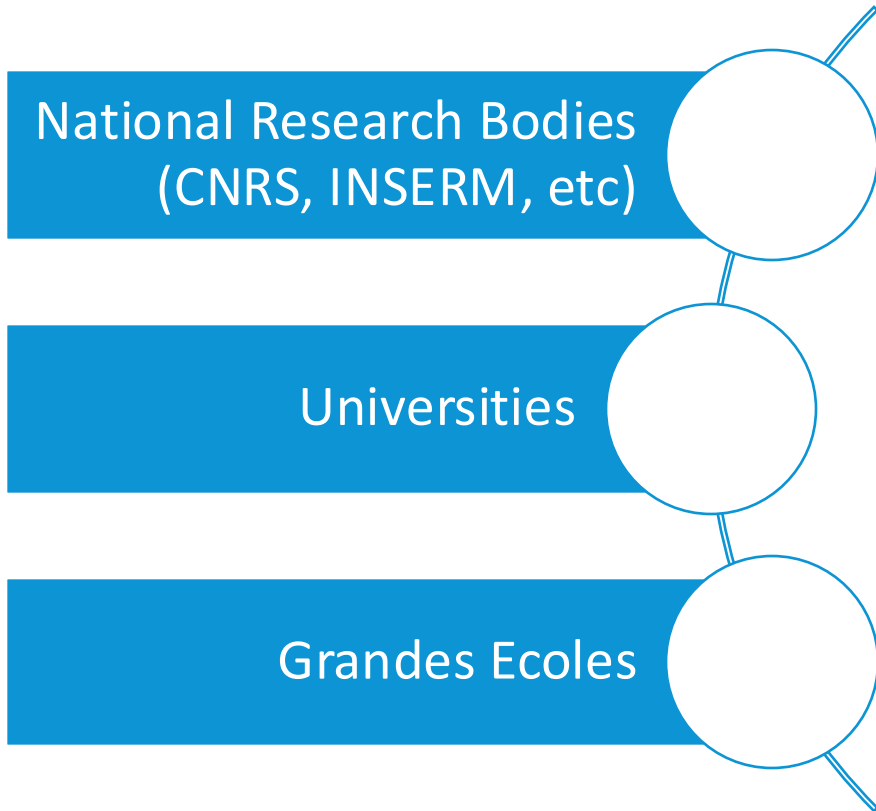
## Non-academic sector



# Organisation of Research and Innovation in France

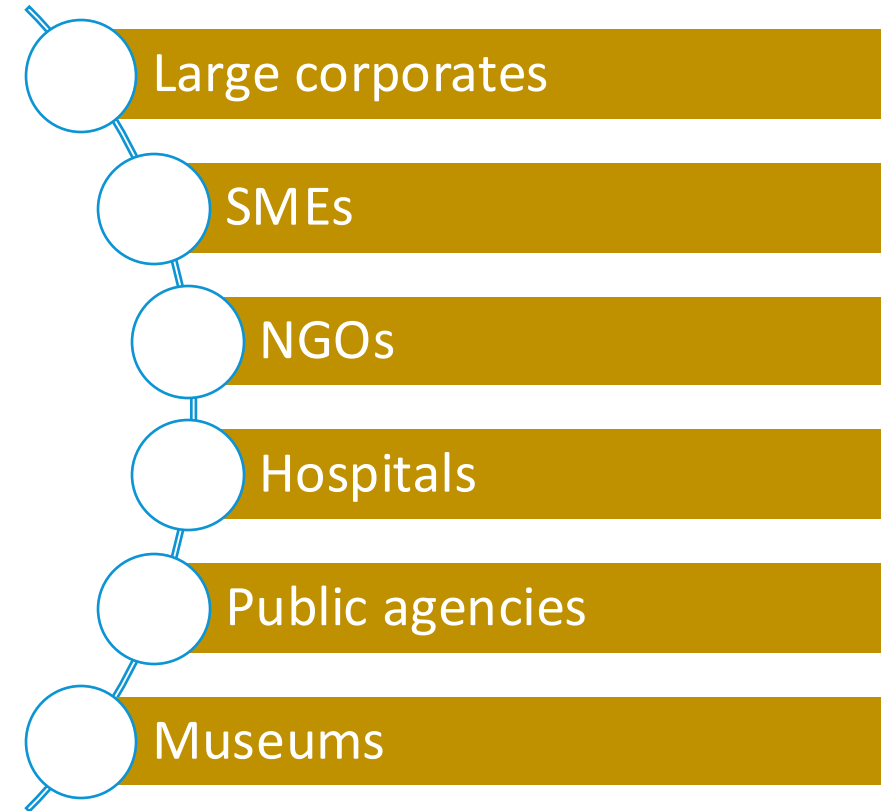
## A specificity : the “UMR” (Unité Mixte de Recherche = Joint Research Unit)

### Academic sector (at least 1 institution)



900+ in France

### Non academic sector (opt.)



**UMR**  
Research  
Units /  
laboratories



What is



**CEFIPRA**



Indo-French Centre for the Promotion of Advanced Research (IFCPAR)/  
Centre Franco-Indien pour la Promotion de la Recherche Avancée (CEFIPRA)



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## COLLABORATIVE SCIENTIFIC RESEARCH PROGRAMME (CSRP)

Project/Seminar

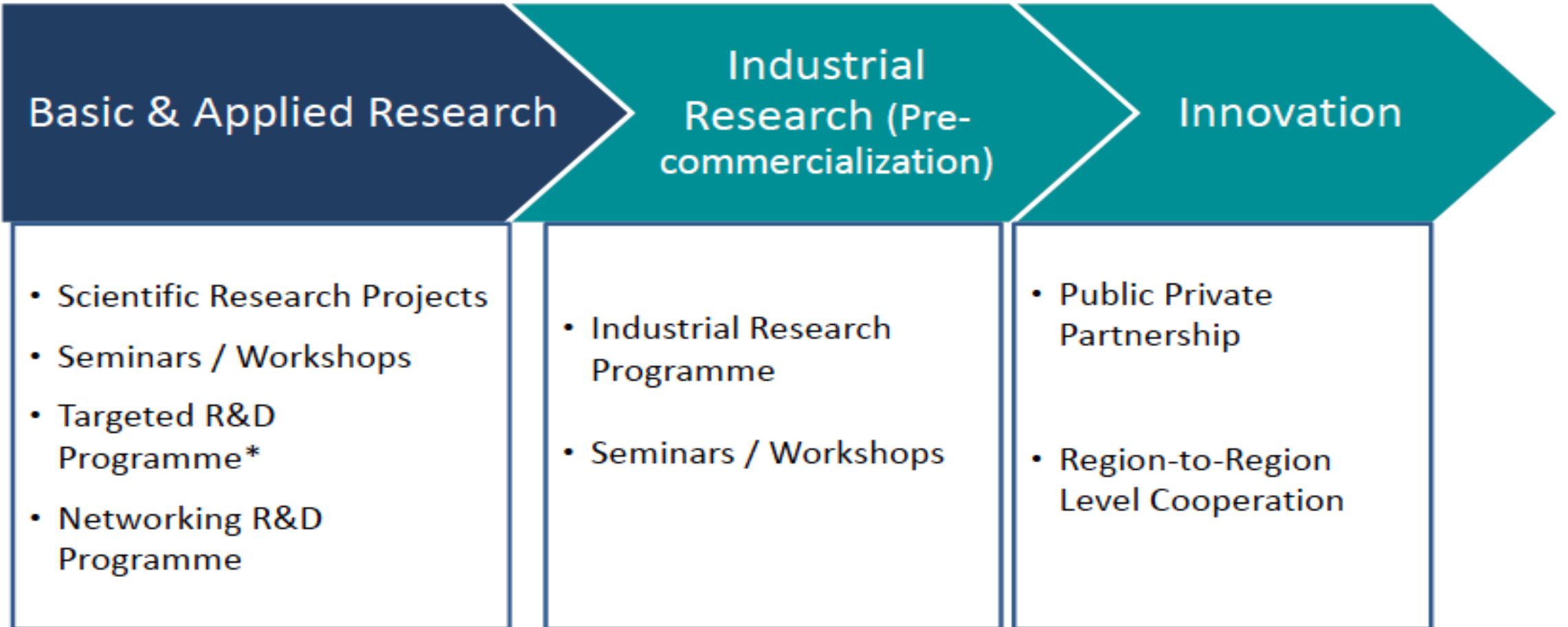
Collaborative Scientific Research Projects in  
Advanced Areas of Basic and Applied Science  
to nurture scientific competency



- Annual budget : **6.2 M€** (equally shared by the two countries)

# CEFIPRA

## Programme across the Knowledge Innovation Chain





# Raman-Charpak Scholarship: Doctoral stay in France

For students already enrolled for PhD in India

For a doctoral stay in a French lab

Duration: 2-6 months

Amount: 1500 €/months

Also for students doing their Master or PhD in France, for a doctoral stay in an Indian lab

Fields of research: Atmospheric and Earth Sciences, Chemical Sciences, Engineering Sciences, Life and Medical Sciences, Material Sciences, Mathematical and Computational Sciences, Physical Sciences, Environmental Sciences





# Charpak Programme : Master and Bachelor

[www.inde.campusfrance.org](http://www.inde.campusfrance.org)

## *Charpak Exchange (Autumn and spring session)*

- Living allowance of **700 euros**
- Student visa and Campus France fee waiver
- Assistance to find affordable student accommodation

## *Charpak LAB*

- Monthly stipend for maximum 3 months (May to July) of **650 / 800 euros** (students interning outside / in Paris)
- Student Visa and Campus France fee waiver

# CEFIPRA Programmes

## Research Funding Programme

**Collaborative Scientific Research Programme – CSRP** (1 academia+ 1 indian academia)

**Industry Academia Research & Development Programme - IARDP** (2+2)

## Networking Programme

**High Impact Scientific Research Network Programme** (3+3)

Seminars / Workshops (25 supported each year)

## Mobility Programme

### Raman-Charpak Fellowship

- For Indian PhD students and French PhD (+masters students)

**Duration:** 2 to 6 months

**Benefits:** Monthly allowance of 1500 euros / ~1.5 Lakh INR



## Mobility Support Programme for researchers and PhD/Post-Docs

**Areas for Call:** Health and Marine Sciences (+ decarbonized hydrogen)

**Duration of projects:** 3 years;

**Amount:** max 200K€, 2 calls for projects per year

**Next deadline:** November 2024

### Women Post-Doctoral Fellowship (PROWES & PROWIS)

- For Indian and French women post-docs

**Duration:** 1 to 4 months

**Benefits:** Monthly allowance of 2000 euros / ~2 Lakh INR

### Indo-French Emerging Project Partnerships Programme

- For Indian and French academics and young scientist

**Duration:** 2 to 3 years

**Benefits:** Monthly allowance of 30000 euros / ~ 28-30 Lakh INR

\*120 new projects in progress / 25 new projects per year



# **CEFIPRA**

## **Next Calls 2024-2025**

**Health**

**Marine Sciences**

# **ANR-DST Calls**

**Applied Maths**

**Hydrogen**

## Scientific High Level Visiting Fellowships (SSHN) 2024

Call for Applications: Short Research Trip to France – SRTF

*Call for Applications*

**May 3 - June 3, 2024**

**Scientific High Level  
Visiting Fellowship  
[SSHN] - 2024**

*Short Research Trip to France - SRTF*

*\*\* Application Deadline: June 3, 2024*



# CNRS was created on 19 October 1939

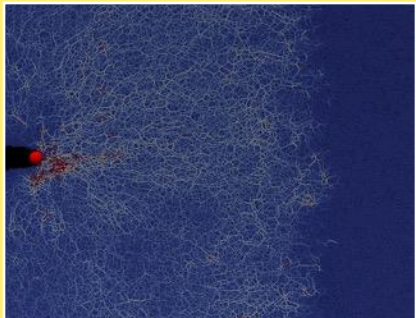
*“...the mobilization of French laboratories through CNRS amounted to the creation of a new regiment..”*

*“Il n'est pas de science possible où la conscience n'est pas libre sans que la conscience soit libre, mais nous voulons que notre idéal vive”.*

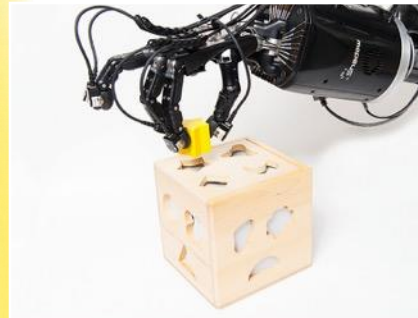
Jean Perrin, 23 septembre 1939, extrait du discours radiodiffusé annonçant la naissance du CNRS.

\*CNRS, la naissance: c'est aussi une exposition virtuelle.  
[www.cnrs.fr/paris-michel-ange/CNRSnaissance/](http://www.cnrs.fr/paris-michel-ange/CNRSnaissance/)

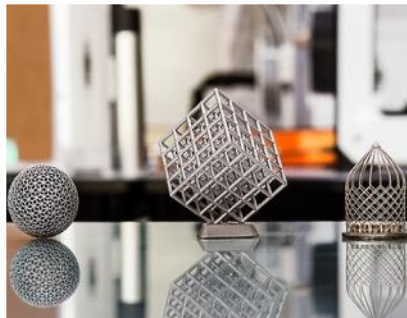
# Our 10 scientific DEPARTMENTS (*Instituts*)



**Mathematical Sciences  
& their Interactions**



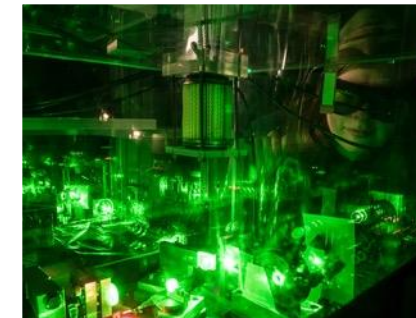
**Information Sciences &  
Technologies**



**Engineering  
& Systems Sciences**



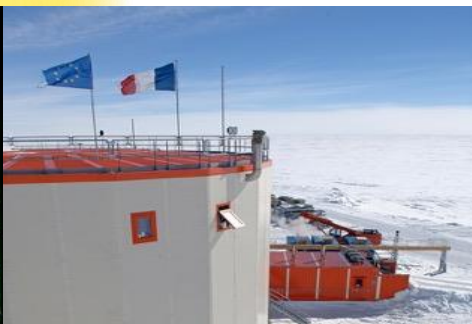
**Chemistry**



**Physics**



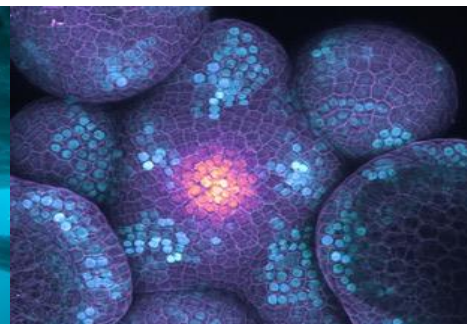
**Nuclear & Particle Physics**



**Earth Sciences &  
Astronomy**



**Ecology  
& Environment**



**Biological Sciences**



**Humanities & Social  
Sciences**

# CNRS in Numbers

- **Research**
  - Over 55 000 publications per year, 60 % of which with international collaboration
  - 6th in patent filing
- **Ressources**
  - Budget 2021 : 3,7 Billion €
  - Over 32 000 staff at CNRS

- 12 Fields Medal winners
- 23 Nobel Laureates

Alain Aspect  
Physics 2022



- Over 1100 research units
- 80 International Res Labs
- 10 offices all over the world





# Tools of cooperation with CNRS

## Exploring

### International Emerging Actions

2-year PI-to-PI research projects

yearly call for proposals

bottom-up approach

## Consolidating

### International Research Networks

5-year multi-team scientific coordination networks

### International Research Programmes

5-year labs-to-labs collaborative research programmes

institutional endorsement by exchanges of letters of support

## Structuring

### International Research Laboratories

5-year joint research laboratories

full-fledged interinstitutional contracting

top-down approach

## Integrating

### International Research Centres

multi-project (incl. actions, networks, programmes, laboratories, dedicated calls) strategic partnerships

framework agreements or MOU bilateral steering

Instruments for International Collaboration

[www.cnrs.fr](http://www.cnrs.fr)



# Tools of cooperation with CNRS

## Exploring

### International Emerging Actions

2-year PI-to-PI  
research projects

yearly call for proposals

# International Emerging Actions

**TECG** **CNRS Informatics**  
 SHIRMOHAMMADI Mahsa, Institut de Recherche en Informatique  
 Fondamentale (IRIF), Paris  
 BALAJI Nikhil, IIT Delhi  
 2023-24

**FLUOROCATSIL** **CNRS Chemistry**  
 MICHON Christophe, Laboratoire d'Innovation Moléculaire et Applications  
 (LIMA), Strasbourg  
 Vanka Kumar, CSIR-NCL, Pune  
 2022-24

**MISOC** **CNRS Earth & Space**  
 BELLON Gilles, Centre national de recherches météorologiques (CNRM),  
 Toulouse  
 DIXIT Vishal, IIT Bombay  
 2023-24

**GREENMONACO** **CNRS Physics**  
 ANTOINE Rodolphe, Institut Lumière Matière (ILM), Lyon  
 Sabu THOMAS, Mahatma Gandhi University, Kottayam,  
 2022-23

**Pierre Maisonneuve, UMR 5248 - Chemistry & Biology  
 of Membranes and Nano-Objects Bordeaux**  
**Sandhya Vishweshwariah IISc Bangalore**

**NEWAIR** **CNRS Ecology & Environment**  
 BLOND Nadège, Laboratoire Image, Ville, Environnement (LIVE), Strasbourg  
 ARORA Pratham, IIT Roorkee  
 2023-24

**MicEpyMitosis** **CNRS Biology**  
 BASTO Renata, Biologie cellulaire et cancer, Paris  
 ANAND Anuranjan, JNCASR  
 2023-24

**MicroSoft** **CNRS Physics-CNRS Biology**  
 VALOTTEAU Claire, Adhésion et inflammation (LAI), Marseille  
 BHAT Ramray, IISc Bangalore  
 2023-24

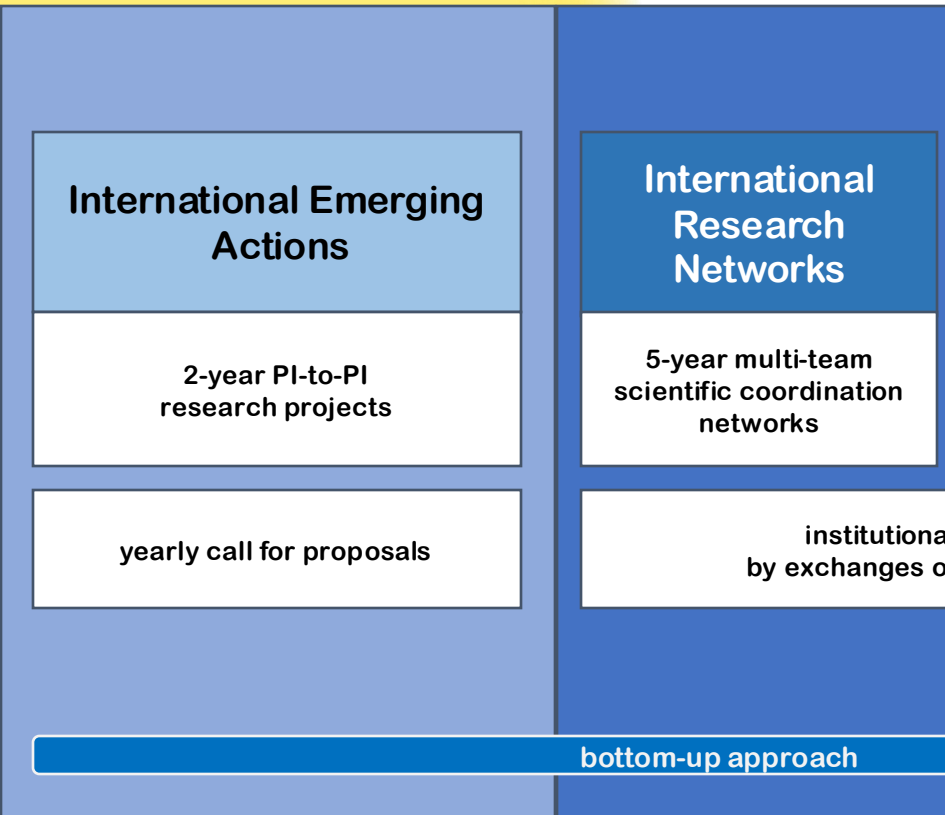
**CMSHI** **CNRS Nuclei & Particles**  
 NGUYEN Matthew, Laboratoire Leprince Ringuet (LLR), Palaiseau  
 PUJAHARI Prabhat, IIT Madras  
 2023-24



# Tools of cooperation with CNRS

## Exploring

## Consolidating



Instruments for International Collaboration  
[www.cnrs.fr](http://www.cnrs.fr)

# International Research Networks



## HYDRO-MMBI

AMIROUDINE Sakirhousen,,  
Institut de Mécanique et d'Ingénierie  
CHAKRABORTY Suman, IIT Khar



SustainAsia,

CNRS Humanities &  
Social Sciences

RIPERT Blandine (ex LANDY Frédéric), IFP Pondicherry

2019-23



# International Research Networks



**PBIR** **CNRS Biologie**

TROTTEIN François  
Centre d'Infection et d'Immunité de Lille

SHARMA Pushkar, NI Delhi

2025-

**MIRA** **CNRS Biologie**

NEYROLLES Olivier, Institut de Pharmacologie et Biologie Structurale (IPBS)

SINGH Amit, IISc Bangalore

2023-27

# Tools of cooperation with CNRS

## Consolidating



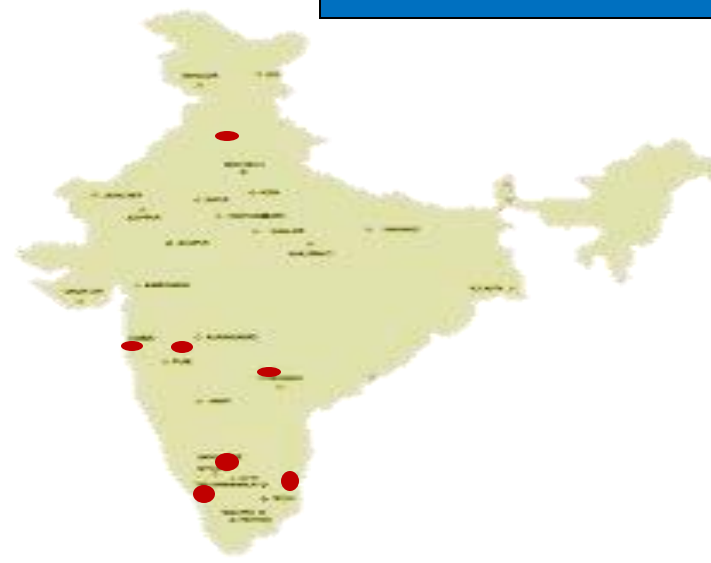
Instruments for International Collaboration  
[www.cnrs.fr](http://www.cnrs.fr)



# International Research Programmes

**GANGA-Rhone Project** **CNRS Ecology and Environment**  
 Shishir GAUR, IIT BHU  
 Hervé Piegay, UMR5600 EVS, ENS de Lyon  
2021-25

**CNRS Earth and Space**  
 Indo-French Cell for Water Sciences (CEFIRSE)  
 IRD/INRAe/CNRS (J Riotte/ L Ruiz)  
 IISc: B'lore (Sekhar Muddu) 2020-24





# International Research Programmes

## CNRS Chemistry

Indo-French Lab of Solid State Chemistry (LAFICS)  
 ICMCB, UPR9048 (MH Delville, Bordeaux)  
 IISc – SSCU, B'lore (Satish Patil/Abhishake Mondal)

2022-26

## NextGen

## CNRS Chemistry

Daniel GRANDE, Institut Charles Sadron, Strasbourg;  
 S. Ramakrishnan, Dept Inorg & Phy Chemistry, IISc, Bangalore

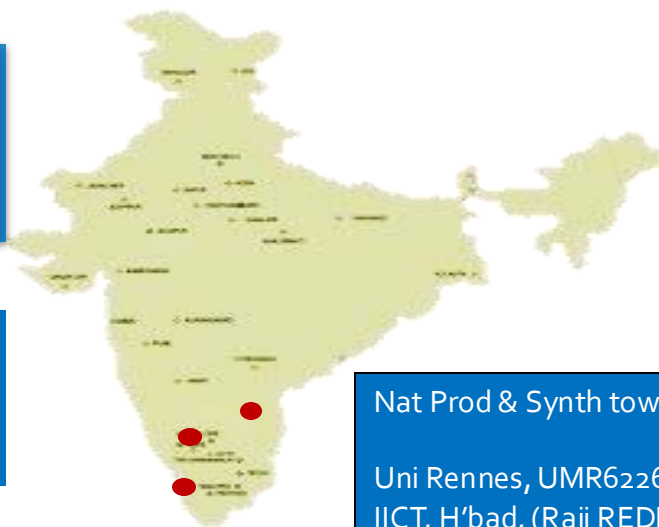
2020-2024

## APONAMA

## CNRS Chemistry

Inst Jean Lamour Nancy (Didier ROUXEL)  
 International and Inter University Centre for Nanoscience and  
 Nanotechnology (Sabu THOMAS / Nandu)

2022-26



Nat Prod & Synth towards Affordable Health (NPSAH)

CNRS Chemistry

Uni Rennes, UMR6226, Rennes (J Boustie)  
 ICT, H'bad, (Raji REDDY)

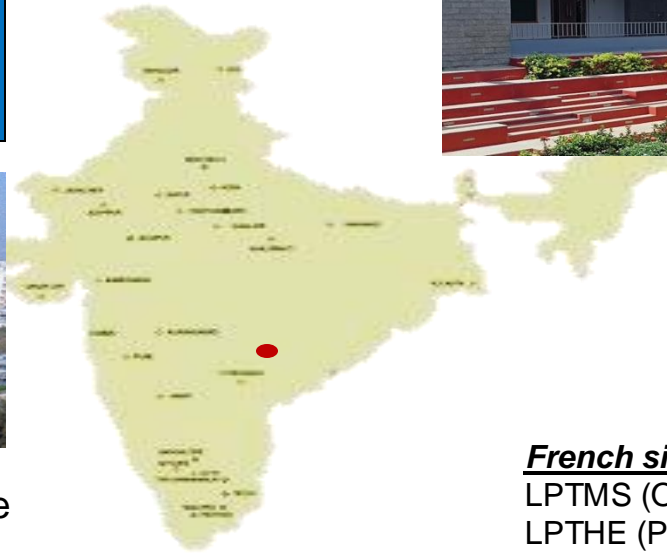
2021-25





# International Research Programmes

**CNRS Physics**  
 outSys - Classical and quantum dynamics in out of equilibrium systems  
 ya MAJUMDAR, LPTMS, Universite' de Paris-Sud  
 utam MANDAL, Tata Institute of Fundamental Research, Mumbai  
 2022-26



**Indian side:** TIFR (Mumbai): **G. Mandal**, S. Gupta, T. Sadhu, K. Damle

**ICTS (Bangalore): Manas Kulkarni, A. Dhar, Anupam Kundu**

- IER (Kolkata): Amit Ghosal
- IRRI (Bangalore): S. Sabhapandit
- IMSC (Chennai): A. Pal
- IRACS (Kolkata): K. Sengupta
- S. N. Bose Center (Kolkata): U. Basu
- IRIS (Hyderabad): M. Barma, K. Ramola
- IRIT Mumbai: D. Das

**French side:**

- LPTMS (Orsay): **S. N. Majumdar**, A. Rosso, C. Texier, V. Ros
- LPTHE (Paris): **G. Schehr**, L. F. Cugliandolo, M. Picco
- LPENS (Paris): P. Le Doussal, J. Kurchan
- LOMA (Bordeaux): D. S. Dean
- IPHT (Saclay): L. Foini, K. Mallick
- Collège de France (Paris): M. Schiro
- INPHYNI (Nice): R. Chetrite

The CNRS logo consists of the lowercase letters 'cnrs' in a bold, sans-serif font, enclosed within a white circle that is partially overlapped by a grey square.

# International Research Programmes

macrophages, key systemic sensors and signaling hubs in development and physiology  
(ACHUB)  
ANGRANDE Angela, Institut de génétique et de biologie moléculaire et cellulaire  
KUMAR TINA, Institute for Stem Cell Biology and Regenerative Medicine (INSTEM),  
Bengaluru  
2022-26

CNRS Biology



# Tools of cooperation with CNRS

## Structuring



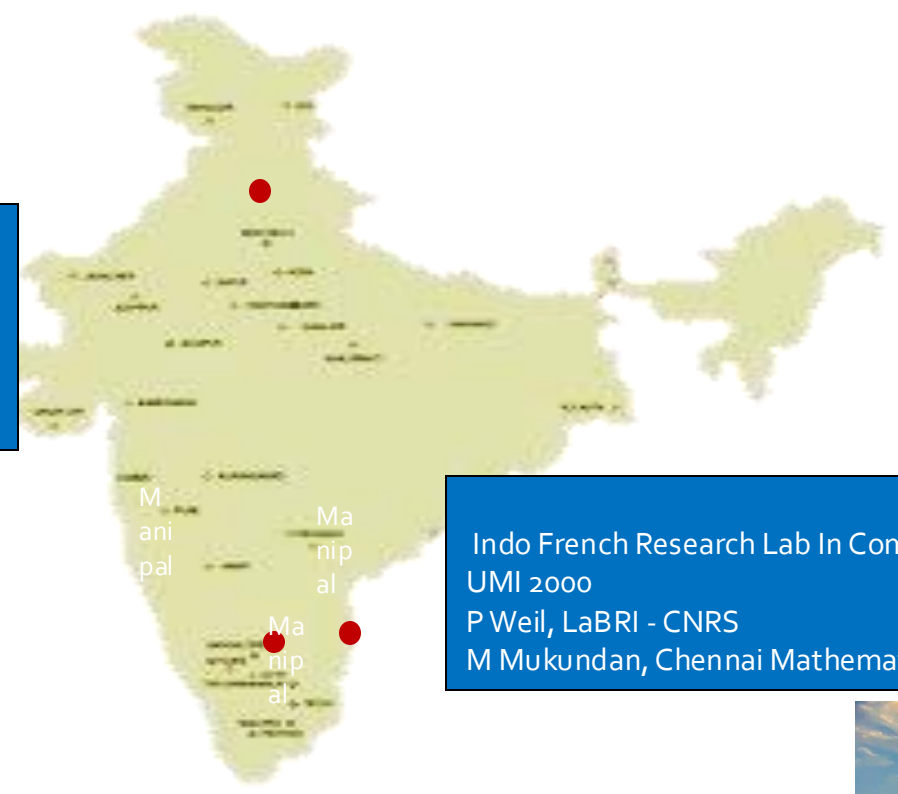


# International Research Laboratories

## CNRS Mathematics

Indo-French Centre for Applied Mathematics (IFCAM)  
Jacques Giacomoni, Uni Paul Sabatier, Toulouse  
G Rangarajan, IISc, Bangalore (*under discussion*)

2023-2027



## CNRS Informatics

Indo French Research Lab In Computer Science (RELAX)  
UMI 2000  
P Weil, LaBRI - CNRS  
M Mukundan, Chennai Mathematical Institute, Siruseri

2022-26



**CNRS Mathematics**

Indo-French Centre for Applied Mathematics (IFCAM)  
Jacques Giacomoni, Uni Paul Sabatier, Toulouse  
G Rangarajan, IISc, Bangalore (*under discussion*)

2023-2027

**Financially supported by**

**DST in India**

**CNRS and**

**also by Inria, U Toulouse, Pau, Nice and Ecole Polytechnique, in France**

**Logistic coordination from CEFIPRA**

**IFCAM covers pan-India & pan-France activity in Applied Maths**



## **Calls for Indo-French projects on Applied Math**

**Summer Schools**

**Winter Schools**

**Workshops**

**Visits**



## IFCAM : A success story

**68 projects,**  
either **one- or three year** projects  
**9 summer/winter schools**  
**7 workshops**

- **90 Faculty from 42 institutions**
- 40 PhD students
- 10 Post-doctoral fellows  
have participated in different projects
- **66** high level publications
- **14** Conference Proceedings
- 57 Senior researchers
- 25 Students and postdocs





**ReLaX**  
Research Lab in  
Computer Science

CNRS Informatics

Indo French Research Lab In Computer Science (RELAX)

M Mukundan, Chennai Mathematical Institute, Siruseri  
P Weil, LaBRI - CNRS

2022-26

CNRS, Université de Bordeaux,  
École Normale Supérieure Paris-Saclay,

Chennai Mathematical Institute and  
Institute of Mathematical Sciences.



# International Research Laboratories

**CNRS Biology**  
Self-organisation and Control in biological Systems: from molecules to cells and tissues (SCALES)  
LECUIT Thomas  
MAYOR Satyajit (tbc)  
2023-27





# UMI FRE

Le Centre de Sciences Humaines de New Delhi, CSH (UMIFRE20)



L'Institut Français de Pondichery, IFP (UMIFRE21)



*Merci...*