20 universitie	s 12	Research (centres, net	work	s, large scale fa	acilities	& National Age	encies 8 com	panies
UPJV Amien	UPJV Amiens		UoB Bath		UB Bordeaux		J Cambridge	DTU Copenhagen	
jula Verne			SATH		université *BORDEAUX				
TU Delft	Delft CHALMERS Göteborg TU Graz F		FSU Jena LU Lancaster		ter				
TU Delft	ŤU Delft					FRIEDRICH-SCHILLER- UNIVERSITAT JENA		9.0	
UM Montpellier		UN Nantes			OXF Oxford	CDF Paris		UPPA Pau	
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USTAN St Andrews		UPS Toulouse			UT Twente	UU Uppsala		WUT Wars	saw
University of St Andrews		UNIVERSITÉ TOULOUSE III PAUL SABATIER							
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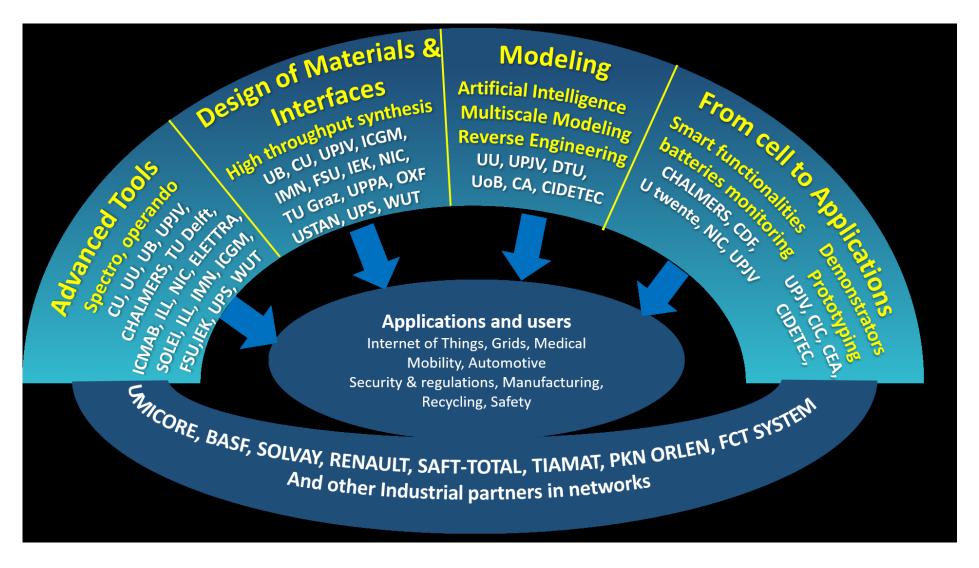
50 PhD thesis under the Marie Curie Cofund programme: Hosting PhD students and implementing training schools

- 2 cohorts:
- Cohort1: 30students from September 2021 to September 2024
- Cohort2: 20 students from September 2022 to September 2025
- Official start of the project: **October 1**, **2020** (date for kickoff meeting to be further defined)
- First call for 30 topics: Opening on June 15th and deadline on September 15th 2020
- April/May 2021: The selected students will choose their topic

The 14 PARTNERS who will Recruit (hire, register) PhD students

Name of PI & & h Factor (WOS)	Academic Institutions	Country	number of recruted PhDs foreseen	# being cofunded by the academic institution
Christian MASQUELIER (53) Mathieu MORCRETTE (52) Rosa PALACIN (33)	CNRS/UPJV -Unit LRCS	France	Coordinator	
Mathieu MORCRETTE (52)	CNRS/UPJV -Unit LRCS	France	6	4
	ICMAB / CSIC - Barcelona	Spain	1	1
Saïful ISLAM (65) Laurence CROGUENNEC (42) Tejs VEGGE (37) Andrea BALDUCCI (40) Robert DOMINKO (46) Laure MONCONDUIT (34)	UoB Bath - Chemistry Dept	UK	2	2
Laurence CROGUENNEC (42)	CNRS/UB Bordeaux - Unit ICMCB	France	4	3
Tejs VEGGE (37)	DTU Copenhagen	Denmark	1	1
Andrea BALDUCCI (40)	FSU Jena	Germany	1	1
Robert DOMINKO (46)	NIC Ljubljana	Slovenia	3	3
Laure MONCONDUIT (34)	CNRS/UM Montpellier - Unit ICGM	France	3	3
Thierry BROUSSE (41)	CNRS/UN Nantes - Unit IMN	France	5	3
Jean-Marie TARASCON (122)	CNRS/CdF Paris - Unit CSE	France	1	1
Rémi DEDRYVERE (32)	CNRS/UPPA Pau - Unit IPREM	France	2	2
Patrice SIMON (63)	CNRS/UPS Toulouse - Unit CIRIMAT	France	2	2
Montserrat CASAS CABANAS (30)	CICe Vitoria - SSEMG	Spain	3	3
Wladyslaw WIECZOREK (40)	WUT Warsaw - Faculty of Chemistry	Poland	5	5
			39	34

The 4 main Scientific Directions under the umbrella of DESTINY



Future Leaders

1/able to reinvent battery materials
2/able to develop smart batteries functionalities
3/able to implement new technologies in industry

Ambitious training programme divided in 2 domains

A: Scientific and technical knowledge and skills B: Transferable skills

Training from the PhD research work

intersectorial / interdisciplinarity approaches through the consortium relationships

TECHNOLOGIES

Li-sulfur & Metal-air
Aqueous, Sensors
Supercapacitors
Organic Batteries
Solid State batteries
M-ion Batteries (Li, Na, K)
Advanced Batteries

EXPERTISES

High Throughput Synthesis
Advanced Spectroscopies
Crystal Chemistry
Multiscale Modeling & A.I.
Operando Techniques
Reverse Engineering
Smart functionalities
Sensing, Battery Monitoring
Demonstrators & prototyping

APPLICATIONS

Internet of Things
Grids, Medical
Mobility, Automotive
Security & Regulations
Manufacturing
Recycling
Safety

Training

Research Scope

The Core of the TRAINING programme's content

A. Scientific & Technical Knowledge and Skills

A1. Design of Materials and Interfaces: Training to understand how the synthesis of novel materials and matching these determine the cell and battery performance and environmental impact give skills to contribute to novel designs

A2. Advanced Characterisation Methods and Tools: A large variety of tools and methods including use of large-scale facilites are needed to fully understand the mechanisms of modern batteries and ultimately improve them

A3. Modelling: Modern battery research embraces materials modelling at all scales from atoms to cell and pack level, including the use of AI and ML to handle the analysis of large amounts of data efficiently and for forecasting.

A4. From Cell to Application: Whatever the battery concept there is a large need of better understanding of how the application demands affect cell concepts, performance needs, and the development stages in academia and industry.

B. Transferable Skills

- **B1.** Personal effectiveness: The development of personal qualities and training in approaches to be an effective researcher
- Career development
- Personal development
- **B2. Research governance and entrepreneurship:** Knowledge of the professional standards and requirements, benchmarking and results exploitation
- Research and industry: bringing down barriers
- Professional responsibility
- Management
- **B3. Engagement, influence and impact:** The knowledge and skills to work with others to ensure the wider impact of research
- Working with others & engagement
- Communication and dissemination
- Societal impact