

<b>Job Title:</b>	Advanced Research Fellow: Data Scientist
<b>Department/Division/Faculty:</b>	Business School
<b>Campus location:</b>	South Kensington
<b>Job Family/Level:</b>	Academic and Research Job Family, Advanced Research Fellow
<b>Responsible to:</b>	Scientific Director, Leonardo Centre
<b>Key Working Relationships (internal):</b>	Leonardo Centre Directors and team. Business School professional staff, researchers and faculty. Imperial College researchers and faculty in College research centres
<b>Key Working Relationships (external):</b>	Staff at all levels in companies and other organisations associated with the Leonardo Centre
<b>Contract type:</b>	Full time, fixed term

### Research Programme

The research programme of the Leonardo Centre focuses on the study of, and experimentation with, innovative models of business enterprise designed for the joint creation of economic and social value.

The Leonardo Centre at Imperial College Business School is a new research centre which is characterised by an emphasis on cross-disciplinary collaboration among scholars in the social, natural, engineering, data, medical and neuropsychological sciences within Imperial College and at international level. In addition, its activities are centred on principles of collaborative design, and deployment of the knowledge development process with companies and their key stakeholders. To this end, the Centre provides a collaborative platform for knowledge experts to work with executives, entrepreneurs, investors, value chain partners, unions, government institutions, local communities and NGOs. The platform includes a unique digital dataset of published corporate sustainability initiatives to design and test the impact of innovative change in the core elements of the business enterprise. The overarching goal is to contribute to the development of a more integrative, just and sustainable model of economic and social development by discovering, testing and diffusing innovative logics of the enterprise.

### Purpose of the Post

The Leonardo centre is looking to recruit a **Data Scientist at Advanced Research Fellow** level.

This post is fixed until 31 October 2023 and may eventually be renewable for additional two years. Imperial College policy requires a six-month probation period.

The Data Scientist should have demonstrated significant capability to produce high quality research in a relevant discipline, consistent with the objectives of the Centre. In particular, we are looking for expertise in the management and analysis of large scale (digital) datasets, dynamic modelling and simulation of the evolution of complex adaptive systems applied to organisational and systemic (social and environmental) sustainability. Machine learning or NLP capabilities applied to sustainable development phenomena would be an advantage.

The ideal candidate will be expected to undertake research within the broad research agenda and programmes launched by the Leonardo Centre, in collaboration with senior scholars affiliated with the centre. In addition, the candidate will be expected to nurture a productive personal research agenda, drawing on the data assets and the cross-disciplinary capabilities available in the centre.

### Key Responsibilities

- Research design and grant writing

- Large scale dataset management, integration and analysis
- Modelling and history friendly simulations
- Data analysis and visualisation of the evolution of the phenomenon
- Reporting of results in various formats and for different interested audiences
- Project development in collaboration with business and other institutions
- To produce research papers for publication in leading academic journals, independently or in collaboration with a member of faculty.

### **Management**

- Manage and monitor the resources (assets and budgets) allocated to the role's funding appropriately.
- Contribute to centre management as required
- Attend relevant meetings

### **Other Duties**

- To write reports for submission to research sponsors
- To provide guidance to staff and students
- To promote the reputation of the Leonardo Centre, the department and the Business School
- To undertake appropriate administration tasks
- To be responsible for ensuring that data is accurate, up-to-date and complete
- To attend relevant meetings
- To undertake any necessary training and/or development

### Person Specification

<b>Requirements</b>	<b>Essential (E)/ Desirable (D)</b>
Candidates/post holders will be expected to demonstrate the following:	
<b>Education</b>	
Completed PhD in scientific domains relevant to the study of corporate sustainability.	E
<b>Experience</b>	
Experience in large scale collaborative projects, especially involving non-academic partners (policy institutions, NGOs, businesses, etc.)	D
Completed multi-disciplinary collaborative studies related to the sustainability of business firms or other socio-economic phenomena of relevance to the Centre's agenda	D
Evidence of having made a significant contribution to writing proposals and securing successful grant awards at national and international level	D
Publications in relevant and refereed journals	E
Experience of presenting results and findings to specialist and non-specialist audiences e.g. at significant conferences or engaging with the public on science	E
<b>Knowledge</b>	
Knowledge of research methods and statistical procedures	E
<b>Skills &amp; Abilities</b>	
Diversity of methodological skills, spanning quantitative designs and analytical approaches, including simulations with system dynamics and/or agent-based modelling	E
Strong quantitative analytical skills.	D
AI skills in Machine Learning and/or NLP applied to sustainable development phenomena	D
Capacity to work autonomously, with a proactive, developmental, mindset.	D
Cognitive flexibility, to apply personal skills to diverse empirical phenomena	D
Ability to communicate complex information clearly	E
Ability to develop and apply new concepts; Able to formulate research questions and develop successful research proposals and funding bids	E
Demonstrated ability to interact with other academics	E
The appropriate technical skills to perform research in the field (data science) and to design, plan and lead high quality original research, project managing the research activity, ensuring deliverables are achieved.	E
Ability to conduct a detailed review of recent literature	E
Creative approach to problem-solving	E
Excellent verbal communication skills and the ability to deal with a wide range of people	E
Excellent written communication skills and the ability to write clearly and succinctly for publication	E
Ability to organise own work with minimal supervision; ability to work effectively, both independently and collaboratively	E
Ability to prioritise own work in response to deadlines	E
<b>Personal Attributes</b>	
Value alignment with the overall mission of the Leonardo Centre.	E
Willingness to work as part of a team and to be open-minded and cooperative	E
Flexible attitude towards work	E
Discipline and regard for confidentiality and security at all times	E
Willingness to undertake any necessary training for the role	E
Willingness to be based within the United Kingdom to conduct research and attend	E

conferences	
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Please note that job descriptions cannot be exhaustive, and the post-holder may be required to undertake other duties, which are broadly in line with the above key responsibilities.

Imperial College is committed to equality of opportunity and to eliminating discrimination. All employees are expected to follow the [7 Imperial Expectations](#) detailed below:

- 1) Champion a positive approach to change and opportunity
- 2) Communicate regularly and effectively within and across teams
- 3) Consider the thoughts and expectations of others
- 4) Deliver positive outcomes
- 5) Encourage inclusive participation and eliminate discrimination
- 6) Support and develop staff to optimise talent
- 7) Work in a planned and managed way

Employees are also required to comply with all College policies and regulations paying special attention to:

- Confidentiality
- Conflict of Interest
- Data Protection
- Equal Opportunities
- Financial Regulations
- Health and Safety
- Information Technology
- Smoking
- Private Engagements and Register of Interests

They must also undertake specific training and assume responsibility for safety relevant to specific roles, as set out on the [College Website Health and Safety Structure and Responsibilities](#) page.

*The College is a proud signatory to the San-Francisco Declaration on Research Assessment (DORA), which means that in hiring and promotion decisions, we evaluate applicants on the quality of their work, not the journal impact factor where it is published. For more information, see <https://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-evaluation/>*

*The College believes that the use of animals in research is vital to improve human and animal health and welfare. Animals may only be used in research programmes where their use is shown to be necessary for developing new treatments and making medical advances. Imperial is committed to ensuring that, in cases where this research is deemed essential, all animals in the College's care are treated with full respect, and that all staff involved with this work show due consideration at every level.*

<http://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-integrity/animal-research/>

*Committed to equality and valuing diversity, we are an Athena SWAN Silver Award winner, a Stonewall Diversity Champion, a Disability Confident Leader and work in partnership with GIRES to promote respect for trans people.*