Applications are invited from enthusiastic and talented individuals for a 24-month post-doctorate research position as part of a Science Foundation Ireland funded project – SciTechSpace (Science-Technology Space). The position is available from 1 February 2020 in the area of quantitative research on science-technology knowledge networks, innovation studies, and policy evaluation and impact analysis more generally. Prior experience with the application of advanced (spatial) econometrics analysis methods to large-scale and complex datasets, and a background in Social Network Analysis are essential requirements. Expertise with policy evaluation and impact analysis techniques, and evolutionary economic theory are further desirable assets.

The creation and accumulation of scientific and technical knowledge are processes at the heart of technological change and economic growth. A significant literature has contributed to aggregate measures of knowledge production, but the underlying processes that explain how advanced knowledge is generated in the first place, and subsequently translated into novel products and processes of economic value, remains unexplored. The “Science-Technology Space” (SciTechSpace) project will undertake an evolutionary analysis that will establish the link between scientific knowledge production and technological progress. Of particular interest are knowledge recombination activities at the intersection of science and technology domains. The overall objective of the project is to develop 1) an analysis tool capable of identifying gaps and opportunities for technology evolution and scientific advancement at the micro- and meso-scale, relevant for public and private entities, and 2) a science and technology policy evaluation appraisal tool capable of assessing impact and forecasting.

The successful applicant will be working directly with SciTechSpace’s principal investigator, Prof. Dieter F. Kogler and a number of international collaborators. Short-term visits to European higher education institutes and research organizations in order to carry out collaborative and in situ data and modelling work might be necessary over the duration of the contract. The post-doctorate research position will primarily be based at University College Dublin (IE) as a part of Prof. Kogler’s research group in the Spatial Dynamics Lab.

This is an advanced research focused role, building on your prior experience as a post-doctoral fellow, where you will conduct a specified programme of research supported by research training under the supervision and direction of a Principal Investigator. The primary purpose of the role is to develop new or advanced research skills and competences, on the processes of publication in peer-reviewed academic publications and scholarly dissemination, the development of funding proposals, and the supervision and mentorship of graduate students along with the opportunity to develop your skills in research led teaching.

Equality, Diversity and Inclusion
UCD is committed to creating an inclusive environment where diversity is celebrated, and everyone is afforded equality of opportunity. To that end the university adheres to a range of equality, diversity and inclusion policies. We encourage applicants to consult those policies here [https://www.ucd.ie/equality/](https://www.ucd.ie/equality/). We welcome applications from everyone, including those who identify with any of the protected characteristics that are set out in our Equality, Diversity and Inclusion policy.
Post Doc Level 2 Salary Scale: € 45,041 - € 49,049 per annum
Appointment on the above range will be dependent on qualifications and experience

Principal Duties and Responsibilities

- Conduct a specified programme of research and scholarship under the supervision and direction of your Principal Investigator.
- Engage in appropriate training and professional development opportunities as required by your Principal Investigator, your School or Institute, or the University.
- Support your Principal Investigator and research group in the design and development of the research programme.
- Support if required, the development of proposals for research funding.
- Engage in the dissemination of the results of the research in which you are engaged as directed by and with the support of and under the supervision of your Principal Investigator.
- Engage in the wider research and scholarly activities of your research group, School and Institute.
- Take responsibility as requested for day-to-day advice and support of graduate research students associated with your research group.
- Mentor and assist, as appropriate and as directed, the research graduate students in your group, School and Institute.
- Carry out administrative and management work associated with your programme of research.

Selection Criteria
Selection criteria outline the qualifications, skills, knowledge and/or experience that the successful candidate would need to demonstrate for successful discharge of the responsibilities of the post. Applications will be assessed on the basis of how well candidates satisfy these criteria.

Mandatory

- Ph.D. degree in the fields of Economics, Public Policy, Sociology, Statistics, Science & Technology studies, or related engineering/science disciplines
- 2/3 years postdoctoral research experience
- Experience with spatial analysis methods and expertise in the preparation and analysis of large-scale socio-economic and firm-level datasets
- Previous exposure to policy evaluation and impact analysis techniques
- Proven track-record with computer simulation and statistics, as well as data analysis and modelling in an R environment, incl. programming skills
- Expertise in collecting and organising socio-economic data, and its subsequent analysis and interpretation using advanced econometric methods
- Expertise with the preparation and analysis of longitudinal time-series and panel datasets
- A demonstrated commitment to research and publications
- Demonstrated understanding of operational requirements for a successful research project and managing resources
- Knowledge and application of the principles underpinning successful grant application
- Ability to identify and fulfil the academic writing requirements for target publications
- Proven record of working with team members and PhD students to help build their research skill and knowledge and to support and guide their professional development
- Generates new ideas and links and builds upon existing ideas to generate unique concepts and solutions

Criteria for PD1 and PD2 roles
Candidates must demonstrate an awareness of equality, diversity and inclusion agenda.

The PD2 post is intended for researchers that have completed PD1. As with the PD1, if you have already completed your PD2 stage in UCD or will soon complete a PD2, or your total Postdoctoral experience, inclusive...
of the duration of the advertised post, would exceed 6 years, you should not apply and should refer to Research Fellow posts instead.

Desirable

- Prior knowledge of and interest in theories of innovation and technological change
- A strong background in quantitative methodologies and analysis techniques
- Programming skills (R, Java, Python, etc.) and previous training in Social Network Analysis (UCI, Pajek, Gephi) software environments are additional assets
- Prior training in the area of spatial economic analysis, in particular familiarity with the analysis of cross section and panel data
- Expertise with connecting advance empirical findings to contemporary theoretical discussions in the context of evolutionary economics and complexity sciences
- Sufficient background knowledge concerning the planning, designing and performing of independent research activities as part of a larger project
- Sound understanding of how to communicate research findings at academic conferences, and policy and stakeholder meetings
- Experience communicating findings in top-ranked journals
- Demonstrated understanding of the value of academic and commercial information e.g. Non-disclosure agreements
- Knowledge of IP processes and knows how to protect findings

Further Information for Candidates

Supplementary information

| The University: | [http://www.ucd.ie/aboutucd.htm](http://www.ucd.ie/aboutucd.htm) |
| Spatial Dynamics Lab: | [http://www.ucd.ie/sdl](http://www.ucd.ie/sdl) |
| The School/Programme Office/Unit: | [https://www.ucd.ie/apep/](https://www.ucd.ie/apep/) |
| SFI Policy Research Programme: | [https://www.sfi.ie/funding/funding-calls/policy-research-programme/](https://www.sfi.ie/funding/funding-calls/policy-research-programme/) |

UCD offers a comprehensive Research Careers Framework in line with the Advisory Science Council Report ‘Towards a Framework for Researcher Careers’. This model provides a structured and supportive Career and Skills Development system designed to ensure that Post-docs in UCD are able to plan their careers and prepare for future opportunities in academia, industry or the public sector. For more information, please click here

Relocation Expenses:

- Will not apply
- Will be applied in accordance with the [UCD Relocation Policy](http://www.ucd.ie/aboutucd.htm)

Garda Vetting required:

- NO
- YES – Garda Vetting will be conducted for the recommended candidate(s) as part of the selection process for the post in accordance with the [UCD Garda Vetting Policy](http://www.ucd.ie/aboutucd.htm)

Informal Enquiries ONLY to:

| Name: | Dr. Dieter F. Kogler |
| Title: | Assoc. Prof, Director of UCD Spatial Dynamics Lab |
Email address: dieter.kogler@ucd.ie

<table>
<thead>
<tr>
<th>Eligibility to compete and certain restrictions on eligibility</th>
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<tbody>
<tr>
<td><strong>Incentivised Scheme for Early Retirement (ISER):</strong></td>
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<tr>
<td>It is a condition of the Incentivised Scheme for Early Retirement (ISER) as set out in Department of Finance Circular 12/09 that retirees, under that Scheme, are debarred from applying for another position in the same employment or the same sector. Therefore, such retirees may not apply for this position.</td>
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<tr>
<td><strong>Department of Health and Children Circular (7/2010):</strong></td>
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<td>The Department of Health Circular 7/2010 dated 1 November 2010 introduced a Targeted Voluntary Early Retirement (VER) Scheme and Voluntary Redundancy Schemes (VRS). It is a condition of the VER scheme that persons availing of the scheme will not be eligible for re-employment in the public health sector or in the wider public service or in a body wholly or mainly funded from public moneys. The same prohibition on re-employment applies under the VRS, except that the prohibition is for a period of 7 years, after which time any re-employment will require the approval of the Minister for Public Expenditure and Reform. People who availed of either of these schemes are not eligible to complete in this competition.</td>
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<tr>
<td><strong>Collective Agreement - Redundancy Payments to Public Servants:</strong></td>
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<tr>
<td>The Department of Public Expenditure and Reform letter dated 28th June 2012 to Personnel Officers introduced, with effect from 1st June 2012, a Collective Agreement which had been reached between the Department of Public Expenditure and Reform and the Public Services Committee of the ICTU in relation to ex-gratia Redundancy Payments to Public Servants. It is a condition of the Collective Agreement that persons availing of the agreement will not be eligible for re-employment in the public service by any public service body (as defined by the Financial Emergency Measures in the Public Interest Acts 2009 – 2011) for a period of 2 years from termination of the employment. Thereafter the consent of the Minister for Public Expenditure and Reform will be required prior to re-employment. People who availed of this scheme and who may be successful in this competition will have to prove their eligibility (expiry of period of non-eligibility) and the Minister’s consent will have to be secured prior to employment by any public service body.</td>
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<td><strong>Declaration:</strong></td>
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<td>Applicants will be required to a Pre-Employment Declaration to confirm whether they have previously availed of a public service scheme of incentivised early retirement and/or the collective agreement outlined above. The above represents the main schemes and agreements restricting a candidate’s right to be re-employed in the public service. However it is not intended to be an exhaustive list and candidates should declare details of any other exit mechanism they have availed of which restricts their right to be re-employed in the public service. Applicants will also be required to declare any entitlements to a Public Service pension benefit (in payment or preserved) from any other Public Service employment and/or where they have received a payment-in-lieu in respect of service in any Public Service employment.</td>
</tr>
<tr>
<td><strong>Superannuation and Retirement:</strong></td>
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| The successful candidate will be offered the appropriate superannuation terms and conditions as prevailing in the University, at the time of being offered an appointment. In general, and except for candidates who have worked in a pensionable (non-single scheme terms) public service job in the 26 weeks prior to
appointment (see paragraph d below), this means being offered appointment based on membership of the Single Public Service Pension Scheme (“Single Scheme”).

Key provisions attaching to membership of the Single Scheme are as follows:

**a. Pensionable Age** - The minimum age at which pension is payable is 66 (rising to 67 and 68) in line with State Pension age changes.

**b. Retirement Age** - Scheme members must retire at the age of 70.

**c. Pension Abatement:**
- If the appointee was previously employed in the Civil Service or in the Public Service please note that the Public Service Pensions (Single Scheme and Other Provisions) Act 2012 includes a provision which extends abatement of pension for all Civil and Public Servants who are re-employed where a Public Service pension is in payment. This provision to apply abatement across the wider public service came into effect on 1 November 2012. This may have pension implications for any person appointed to this position who is currently in receipt of a Civil or Public Service pension or has a preserved Civil or Public Service pension which will come into payment during his/her employment in this position.
- Department of Education and Skills Early Retirement Scheme for Teachers Circular 102/2007
  The Department of Education and Skills introduced an Early Retirement Scheme for Teachers. It is a condition of the Early Retirement Scheme that with the exception of the situations set out in paragraphs 10.2 and 10.3 of the relevant circular documentation, and with those exceptions only, if a teacher accepts early retirement under Strands 1, 2 or 3 of this scheme and is subsequently employed in any capacity in any area of the public sector, payment of pension to that person under the scheme will immediately cease. Pension payments will, however, be resumed on the ceasing of such employment or on the person’s 60th birthday, whichever is the later, but on resumption, the pension will be based on the person’s actual reckonable service as a teacher (i.e. the added years previously granted will not be taken into account in the calculation of the pension payment).
- Ill-Health-Retirement
  Please note that where an individual has retired from a Civil/Public Service body on the grounds of ill-health his/her pension from that employment may be subject to review in accordance with the rules of ill-health retirement within the pension scheme of that employment.

**d. Prior Public Servant** - While the default pension terms, as set out in the preceding paragraphs, consist of Single Scheme membership, this may not apply to certain appointees. Full details of the conditions governing whether or not a public servant is a Single Scheme member are given in the Public Service Pensions (Single Scheme and other Provisions) Act 2012. However the key exception case (in the context of this competition and generally) is that a successful candidate who has worked in a pensionable (non-single scheme terms) capacity in the public service within 26 weeks of taking up appointment, would in general not become a member of the Single Scheme. In this case such a candidate would instead be offered membership of the UCD Pension Scheme. This would mean that the abatement provisions at (c) above would apply, and in addition there are implications in respect of pension accrual as outlined below:

**e. Pension Accrual** - A 40-year limit on total service that can be counted towards pension where a person has been a member of more than one existing public service pension scheme would apply. This 40-year limit, which is provided for in the Public Service Pensions (Single Scheme and other Provisions) Act 2012 came into effect on 28 July 2012. This may have implications for any appointee who has acquired pension rights in a previous public service employment.

**f. Pension-Related Deduction** - This appointment is subject to the pension-related deduction in accordance with the Financial Emergency Measure in the Public Interest Act 2009.

For further information in relation to the Single Public Service Pension Scheme for Public Servants please see the following website: [http://www.per.gov.ie/pensions](http://www.per.gov.ie/pensions).