

Define Tech and CloudCIX to Support Genomics Research in Ireland

Submitted by: Define Tech

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Define Tech (<http://www.define-technology.com>), in partnership with CloudCIX (<http://www.cloudcix.com>), will establish a new cloud infrastructure, powered by open standards, to enable researchers at the SFI Centre for Research Training (CRT) (<https://genomicsdatascience.ie/>) in Genomics Data Science, to perform cutting edge research and data analytics across a range of modern genomics technologies. The new Cloud platform will enable researchers to explore the use of AI and data analytics tools and techniques across vast genomics data sets.

The SFI Centre for Research Training in Genomics Data Science is one of six CRTs funded under a €100M Science Foundation Ireland initiative. As the first PhD training initiative of scale with an all-Ireland remit, the Genomics Data Science CRT, hosted at the National University of Ireland Galway (NUIG), will train over 100 PhD students at NUIG, University College Dublin, Trinity College Dublin, the Royal College of Surgeons in Ireland, University College Cork, Dublin City University and Queen's University Belfast.

The primary goal of the project is to equip the CRT with a performant and scalable cloud computing service for the advancement of Genomics and Data Science research and training across Ireland. It is the hope of the program founders that students using the new platform will become future leaders in the field of data science, an area where talent is in high demand both in Ireland and globally.

Genomics Data Science allows us to better understand the information encoded in the DNA in our genomes, and to leverage genomic technologies to benefit science, medicine, society and the economy. With the rapid advancement of technologies used to sequence DNA, we're now seeing an unprecedented increase in the availability and use of genomics data, from fundamental scientific discoveries in life sciences to clinical applications in precision medicine. Taking COVID-19 as a recent example, these technological advancements and the availability of a wealth of genomics data as well as the use of AI tools and techniques to parse through and analyse this data, have facilitated the rollout of multiple vaccine programs in record time.

The analysis of these large, complex datasets requires a new generation of highly trained scientists who possess not only a sound understanding of the underlying biological principles and technologies, but also have the necessary quantitative and computational skills. The new Cloud platform provided by Define Tech and CloudCIX will equip the next generation of Life Science researchers with the tools and technology required to help bring Ireland to the fore of Genomics Research and will encourage the development of local skillsets.

"The purpose of this project - the first of its kind in Ireland - is to maximise the benefits of technological advances in cloud computing to support genomics research and future applications of genomics in Ireland. Having the opportunity to work closely with local technology experts from CloudCIX and DefineTech to help shape cloud computing services for Genomics in Ireland and to train a cohort of highly skilled cloud native PhD graduates is the most exciting aspect of this joint venture."

Cathal Seoighe, CRT Director, NUIG.

“At CloudCIX we are proud to offer research groups like the CRT an Irish alternative to the US Cloud service providers, ensuring that critical infrastructure and sensitive data remains at home and offering complete transparency in our resource usage and billing model. Advancing scientific research is something we feel passionate about, and to be able to do that as one of Irelands few locally owned public cloud providers is a very proud moment for us.”

Jerry Sweeney, CEO, CloudCIX.

“The new Cloud platform at NUIG creates an environment that easily accommodates all the research and software development needs of today, and scales to provide an agile environment as the CRT’s plans grow, future proofing the infrastructure requirements for vital research groups across the country – I’m very proud to play any part in helping to advance genomics research in Ireland” - David Power, CTO, Define Tech.

To find out more, visit www.define-technology.com or www.cloudcix.com.

About Define Tech Ltd.

Define Tech is a global provider of cloud technology solutions, with capabilities and expertise across the entire IT supply chain. The ISV is focused on helping companies design and implement their desired technology strategy, by coupling the right software, cloud, and storage solutions at the right price, while managing and optimising the wider software estate. For more information on Define Tech, visit www.define-technology.com

About CloudCIX

Cork Internet eXchange opened its doors in 2008 and is a founding member of Cork Neutral Internet eXchange Association Limited. CloudCIX is a multi-tenant, multi-region Cloud platform which orchestrates your compute, storage, networking and security needs, in a flexible, safe and cost effective manner. CloudCIX is based on simple, elegant, design principles utilising, for example, REST APIs and leveraging the capabilities of the Juniper SRX platform. This design focus makes CloudCIX secure, easy to install and upgrade, and easy to support. The fully qualified technical engineers in our Network Operations Centre (NOC) can monitor your Private Cloud on a twenty-four-hour, seven-day, basis. Leaving you secure in the knowledge your organisation’s IT systems are in safe hands. To find out more about CloudCIX visit us at www.cloudcix.com.