

The logo for Northern Ireland, featuring the words "Northern Ireland" in white, sans-serif font. The text is positioned over a dark, hexagonal background that has a subtle, textured appearance, possibly representing a map or a building facade.

Northern Ireland

A centre of excellence for FinTech

Overview

An unbeatable combination of world-class talent, highly competitive operating costs, research excellence and a resilient infrastructure, in a low-risk, pro-business environment, has fuelled the growth of Northern Ireland's financial services sector.

As financial firms and solutions providers seek technology, talent and industry expertise to harness next generation development, Northern Ireland has become a leading global location for FinTech investments.

Global names such as Citi, Allstate, Liberty Mutual and FD Technologies have established and expanded their operations here, while more recent investors CME Group, Vela and TP ICAP have joined the cluster and established delivery centres of significant scale in Northern Ireland.

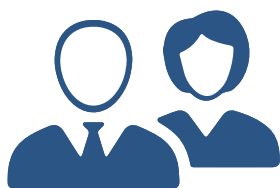
The growth of data and computing power, digital and mobile technologies, analytics and automation are driving transformation in the industry, while cybersecurity and emerging technologies such as blockchain, machine learning and AI are developing rapidly. Capability across these areas is well established in Northern Ireland, which has long held an international reputation for engineering excellence.

International firms have not only benefitted from the strength of technology and innovation talent in the region, they have tapped into a wealth of other skills available to deliver in a broad range of areas including fund administration, client services, investment operations, analytics, risk management, regulatory compliance and legal services.

Northern Ireland's start-up and SME tech community is also thriving thanks to a highly developed entrepreneurial ecosystem, vibrant networking scene and the active promotion of sector collaboration.

Northern Ireland enjoys a unique position within the UK and Europe. As part of the UK, Northern Ireland operates within its globally respected and robust regulatory framework. At the same time being located on the island of Ireland has also allowed Northern Ireland access to the European and Irish Financial Services markets. We also have strong links to the US, through a multitude of US investors as well as high speed internet connection across the Atlantic.

Did you know?



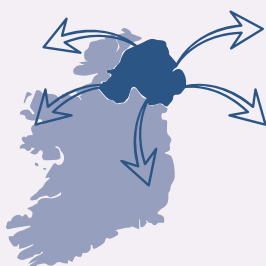
Expertise

There are nearly 40,000 employed in the Financial and related Professional Services sector in NI. **One in four are employed in areas of Fintech** expertise including trading and payments technologies, regtech, insurtech, cybersecurity as well as pioneering activity in disruptive technologies such as AI and data analytics.



Cyber Security

Northern Ireland is **the number one international location** for US cyber security development projects (fDi Markets FT 2020) and home to CSIT - the UK's Innovation & Knowledge Centre (IKC) for cyber security - at Queen's University Belfast.



Connection

Our position on the island of Ireland, also provides us with access to the **UK-EU Fintech Corridor**, connecting Belfast and Dublin. A cross-border partnership, The Fintech Corridor covers the geographical region between Dublin to Belfast. With many well established fintech organisations and enterprise hubs already operating in the region, the area provides start-ups and SMEs with an attractive and accessible location from which to grow across the UK, Ireland and into Europe.



Cities of the Future

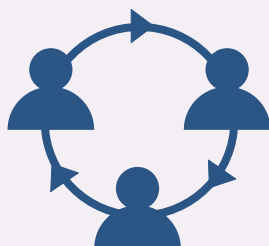
Northern Ireland is the **world's top region** for Financial Services technology inward investment projects*. Our capital city, Belfast, has been identified as a **top 3 Fintech location of the future** after London and Singapore** and has been ranked one of the **top 10 European Tech Cities of the future** by the Financial Times, fDi Intelligence.

The Derry and Strabane area has recently been ranked in the **top 5 places in the UK to work from home*****.

* fDi markets FT 2020

** fDi markets FT 2019

***Remote Working Index, uSwitch.com 2020)



Collaboration

Northern Ireland has a **strong collaborative environment**, with companies of various sizes and scale working together to achieve results and grow the sector. The **Fintech NI** network is the independent voice of FinTech in Northern Ireland and made up of active participants in the local ecosystem. It champions and empowers participants in the local FinTech ecosystem to be successful on a national and global stage. It represents Northern Ireland's interests as part of the **UK FinTech National Network**.



Fintech Envoy

We have our own **Fintech Envoy**, directly appointed by HM Treasury. The Envoy is the lead ambassador for Northern Ireland's Fintech sector, promoting it as a place for firms to develop and grow their business as well as showcasing Northern Ireland as a Fintech centre of excellence.



Further & Higher Education

Both **Queen's University Belfast** and **Ulster University** offer renowned degrees in Finance and Accounting and Computer Science and Software Engineering. Both Universities continue to work closely with industry partners to develop Fintech skills for the future.

Northern Ireland's six further education colleges operate across over 40 campuses and work closely with the financial and professional services industry to develop and deliver a range of programmes including apprenticeships, degrees and Assured Skills Academies.

In September 2020 Ulster University welcomed the first cohort of apprentices to its pioneering **Financial Technology Higher Level Apprenticeship degree**, an innovative programme co-created with industry partners to meet the evolving needs of the FinTech sector.

Allstate NI have partnered with the **Letterkenny Institute of Technology** on their Masters programme for **Innovation in Fintech**. This collaboration is continuing to build skills and talent for the North West region.



Banking & Capital Markets Technology

Northern Ireland has developed deep expertise in trading & banking technologies. With leading banks **BNP Paribas, Citi, Danske** and **Lloyds** all having a presence in the province, technologists in NI have developed a range of technology solutions for the banking and capital markets industries.

Over 2,000 software engineers and systems architects are employed in Northern Ireland in the development of trading technology platforms for global capital markets and financial services companies including

CBOE Hanweck, Clarus Technology, Cowen Group, Ion Fidessa, Neueda, Redline Trading Solutions and **Vela Trading Technologies**.

Both Queen's University Belfast and Ulster University in Northern Ireland have trading rooms in collaboration with financial industry partners. These dynamic learning environments enable Northern Ireland students to build skills and capability for the future through engaging with finance and risk challenges under real time trading conditions.

Citi

Leading global bank, Citi established a technology centre in Belfast in 2005 and has grown to over 2,900 employees providing professional services to 96 countries across the globe in 21 distinct functions. Global transactions are supported daily in trillion dollar businesses by Citi Belfast. The Technology function at Citi Belfast employs over 750 people providing solutions to the global Citi network. Activities carried out from Belfast include infrastructure support, e-communications surveillance and developing trading technology solutions for the Citi Institutional Banking Group. The team are using the latest advancements in AI, data analytics and low latency technology to build trading systems that enable transaction services around the world, providing best-in-class products and solutions, and unparalleled access to capital and liquidity.

www.citigroup.com

CME Group

Chicago based CME Group is the world's leading and most diverse derivatives marketplace. CME Group established its Technology and Support Centre in Belfast in 2012 and has now grown to over 280 employees. The centre provides a range of software development and programming to support CME Group's website, market data, order management and web-based tools.

www.cmegroup.com

Fern Software

Fern Software is a leading provider of core banking systems and software for financial institutions including banks, microfinance institutions, credit unions, SME lenders and development banks. With over 40 years' experience, Fern builds fully integrated and scalable solutions for lending, portfolio management and customer interactions. The company has a global presence with over 300 sites in 40+ countries, 3 million borrowers and offices in Belfast, Toronto, Singapore and India.

www.fernsoftware.com

FD Technologies

FD Technologies is a group of data-driven businesses that unlock the value of insight, hindsight and foresight to drive organisations forward. The Group comprises KX, the leading technology for realtime continuous intelligence; First Derivative, a provider of technology-led services in capital markets; and MRP, the only enterprise-class, predictive Accounts Based Marketing solution. FD Technologies operates from 15 offices across Europe, North America and Asia Pacific, and employs more than 2,500 people worldwide

www.fdtypechnologies.com

Options

Options expanded into Northern Ireland in 2013 and now employs over 100 people in Belfast. Options is the leading provider of cloud-enabled managed services to the global capital markets. Over 200 firms globally currently leverage the Options platform, including the leading global investment banks and exchanges. Using ultra-low latency technology, Options provides customers with access to all the global key liquidity centres, across all asset classes. This allows electronic trading firms to run with more agility and cost certainty than traditional approaches.

www.options-it.com

TP ICAP

FTSE 250 company, TP ICAP, one of the world's leading interdealer brokers, provides broking services, data and analytics and market intelligence to clients across the world. TP ICAP established its Global Technology Centre of Excellence in Belfast in 2016 to support the development of strategic applications for its global markets. The centre has now grown to almost 300 employees across a range of functions.

www.tpicap.com

Northern Ireland start-up's to watch in Trading Tech include **Cardinal Analytics, Plotinus** and **Yedup** who are using AI and Machine Learning to identify signals that can provide advantages for time-critical trading decisions.



There are over 2000 software engineers and systems analysts in NI working on trading tech.



Regtech & Compliance

Northern Ireland has a strong cluster of companies developing and delivering governance, risk and compliance (GRC) technology solutions for the global banking, asset management and payments industries.

Innovative start-ups are delivering solutions globally and international investors include major financial institutions and world leading cyber security companies.

Automated Intelligence

Through a cloud-based GRC platform, Belfast based, Automated Intelligence, empowers organisations to take control of their data. It's regtech platform AI.DATALIFT, trusted by financial industry leaders, is specifically designed to provide highly regulated Financial Services firms with unique insight into their data, allowing them to report against their data holdings and mitigate their risk exposure through automated data governance.

www.automated-intelligence.com

Datactics

Datactics specialises in data quality and matching software to meet the specific data requirements of firms operating in the financial sector as they prepare for current and emerging regulations, including AML/ KYC, MiFID II, BCBS 239, GDPR, FATCA etc. Datactics provides sophisticated tools to help financial institutions including Tier 1 investment banks, retail banks and wealth management firms, get their data in order and quickly respond to new standards, offering agile data quality and powerful matching capabilities for a vast array of data types including person, reference, entity and instrument data.

www.datactics.com

FinTrU

Founded in December 2013, FinTrU is a multi-award winning Financial Services company working on the global stage with the largest Tier 1 International Investment Banks based in London, New York, Tokyo, Frankfurt and Paris. Now employing over 700 people across offices in Belfast, Derry/Londonderry, London and New York, FinTrU works with clients to find solutions to help them meet with their regulations in areas such as; Legal, Risk, Compliance, KYC, Operations and Consultancy.

www.fintru.com

FSCom

NI based FSCom provides regulatory and compliance advisory, assurance and training services in relation to AML, Payment Services Regulations, MiFID II and GDPR on behalf of payment services and e-money, FX brokers, challenger banks and alternative finance providers. FSCom currently works with over 18% of the UK payments sector and actually assisted in the development and implementation of the PSD2 regulations into the UK.

www.fscom.co.uk

Funds-Axis

Funds-Axis is a global funds technology business, offering a single multi-modular platform for a range of investment compliance, risk, regulatory reporting and fund governance requirements across the investment management industry. This is delivered in combination with the highest levels of expert regulatory support and service. The cloud-based technology contains pre-configured rules libraries, advanced breach management tools, automated compliance workflows and in-depth reporting tools through customisable dashboards. Clients obtain real-time monitoring of regulatory restrictions with a full audit trail and reporting history taking the complexity out of regulatory compliance.

www.funds-axis.com

MetaCompliance

Cybersecurity and compliance specialist MetaCompliance provides customers with a fully integrated and multilingual suite of software that keeps their staff safe online, secures their digital assets and helps companies minimise risk and reputational damage. Metacompliance has developed a cloud platform that combines the key pieces of software functionality needed.

This includes state of the art e-Learning, GDPR, Policy Management, Simulated Phishing, Incident Management and Privacy Management.

www.metacompliance.com

Riskconnect

Global leader in integrated risk management Riskconnect, recently announced plans to establish a 100 person Fintech Centre in Belfast. Engineers and developers in Belfast will work alongside the global Riskconnect team to provide technology solutions to over 900 customers around the world to help them anticipate, manage and respond in real-time to strategic and operational risks.

www.riskconnect.com/uk

Vox Financial Partners

Founded in 2016, the Belfast based Fintech consultancy Vox Financial Partners works with top-tier banks and broker-dealer clients in the US and Europe. Vox offers high quality regulatory expertise to enable its clients to plan, resource and deliver major regulatory change projects. Its Opal software, is a suite of tools that provide structured contract drafting and management stores documents with metadata to enable easy searching, querying and reporting.

www.voxfp.com

Other firms in the NI cluster include

AquaQ Analytics

Arkk Solutions

Auditcomply

Clearpool

Surecert



Northern Ireland based teams from International and local insurance companies including **AbbeyAutoline**, **Allstate**, **Axa Insurance** and **Liberty Mutual**, are developing next generation insurance solutions based on telematics, advanced data analytics and predictive modelling to improve driver behavior, fraud detection and customer retention.

Aflac

Leading US insurance company Aflac established a Global IT and Cybersecurity Innovation Centre in Northern Ireland in 2019 to support customers and market growth in the US and Japan. Teams in Belfast are providing technical expertise and operational support to Aflac's US Cybersecurity and IT operations.

www.aflacni.com

Alchemy Technology Services

Alchemy Technology Services established a European Centre of Excellence for insurance software implementation in Derry city in 2018. Alchemy provides core systems implementation and consultancy services directly to leading software providers, systems integrators and insurance companies for the implementation of digital solutions across the global insurance industry.

www.alchemytechs.com

Insurance Office of America

More recently, Florida based, Insurance Office of America (IOA), announced plans to establish a 40-person technical development centre in Northern Ireland. The IOA team in Belfast will be largely responsible for the development of IOA's new quote-and-buy insurance platform, SimplyIOA, the first of its kind in the United States. It will also provide technical expertise and operational support across the IOA enterprise.

www.ioausa.com

Liberty Mutual

Liberty Mutual has had an operation in Northern Ireland for over 20 years. Employing over 500 people in Belfast, Liberty IT works to make the lives of Liberty Mutual customers easier through the development of award-winning software. Teams in Liberty IT are working with cognitive technology, data engineering, digital platforms and applied innovation to produce solutions like Liberty Mutual's easy-to-navigate online insurance claim platform and the serverless voice chatbox using Amazon connect and Amazon Lex.

www.libertymutual.com

Arity

With a global hub in Belfast, Allstate's startup Arity, analyses billions of miles of driving data using ML/AI based research to generate insights and scores that help to better evaluate risk and revolutionise driver safety, connectivity and value.

www.arity.com

Allstate Corporation

The Allstate Corporation; America's largest publically held personal lines, property and casualty insurer established its first NI centre in 1998 and today is Northern Ireland's largest IT Company with 2,300+ employees across three different sites in Belfast, Londonderry and Strabane. Allstate NI plays a strategic role in developing, transforming and maintaining the various technology platforms used within Allstate. NI covers the full life cycle of software design, development, maintenance and support. Specialist teams also work in telematics and analytics for fraud prevention and customer retention.

www.allstate.com

Northern Ireland companies to watch in the Insuretech sector include:

Bluesona

Bluesona builds connected InsureTech solutions that deter distracted driving and incentivise safe on road behaviour. By offering a unique combination of hardware and intuitive smartphone technology, Loop by Bluesona provides a telematics-based system to provide essential feedback on driving habits, encouraging safer road use by users.

www.bluesona.co.uk

Covernet

Coleraine based, Covernet Limited is a provider of specialist software to MGAs and Insurers. Founded in 1995, Covernet's first web based, full-cycle insurance system was released to market in 1998, and the company has been innovators in web based insurance software since.

www.cover.net

Firemelon

Founded in 1998, Firemelon is a Belfast based insurance software company who offer technology solutions to international clients across different product lines enabling claims companies to benefit from AI based solutions, with online and automated claims technology. Firemelon's Magenta system, powers many insurance brands including Sainsburys Bank, Bupa, Admiral and MoreThan as well as smaller broker businesses.

www.firemelon.com

Seopa

Belfast based Seopa is the UK's leading provider of branded comparison platforms to the UK. The company developed one of the UK's first technology-driven price comparison platforms in 2005 and has continually enhanced and optimised its comparison technologies since. Seopa continues to operate price comparison websites in the UK for insurance, utilities and financial products, as well as providing the core technology behind the price comparison services for some of the country's leading money saving, technology and media brands.

www.seopa.com



Allstate has been in NI for over 20 years providing insurance cover to 16 million households.

Data Analytics & AI

Northern Ireland has several major clusters of excellence in AI research including cyber security, medicine, robotics, IoT, analytics and Financial Services. These clusters are using AI and advanced data analytics to solve data quality, data personalisation and using new sources of data as a source of competitive advantage in global financial services.

Ulster University's **Cognitive Analytics Research Lab (CARL)** is a cutting edge cognitive analytics research centre, building on the university's proud history of expertise in Data Analytics both in terms of machine learning algorithms and the application of analytical techniques across a diverse range of domains including Capital Markets and Financial Technology.

www.ulster.ac.uk/cognitive-analytics-research

Adoreboard

Belfast based, Adoreboard is a leader in emotion analytics for Human Experience (HX) measurement and a Gartner 'Cool Vendor' for Customer Analytics using AI. It measures and improves Human Experience (HX) by using Emotion AI to unify the experiences felt by both employees and customers. By taking any open text from customers or employees, Adoreboard can decrypt the key drivers of emotions to produce 'Decision Ready Insights'. The technology has been used by companies across the financial services sector including asset managers, insurance companies and banks.

www.adoreboard.com

Ampliphae

Ampliphae is an intelligent cloud-management solution built on artificial intelligence and machine learning. Ampliphae uses signal data to find clusters and also content analysis to look at the data being moved into apps to see if it appropriate for that app and business function, allowing organisations to have better control over their software, data and the risks involved.

www.ampliphae.com

Analytics Engines

Powered by advanced technologies, Analytics Engines are the trusted data analytics partner to local and international customers across industry and the public sector. The company empowers organisations with market-leading data-driven insights that reduce complexity, optimise performance and build intelligence. The Analytics Engine's team are specialists in data integration and management, machine learning, AI and advanced analytics with experience in devising scalable and flexible solutions that solve complex business challenges.

www.analyticsengines.com

AquaQ Analytics

AquaQ Analytics is a provider of specialist data management, data analytics and data mining services to clients operating within the capital markets and other sectors. AquaQ provides consulting services to several top tier investment banks, specialising in a range of technologies including kdb+/q, enterprise server technology, cloud and UI technologies. Utilising advanced analytics to manage multiple diverse sources of data (trade, execution, market and reference) AquaQ Analytics helps its investment banking clients manage regulatory risk and reporting and monitor liquidity and capital risk exposures.

www.aquaq.co.uk

Arity

With a global hub in Belfast, Allstate's startup Arity, analyses billions of miles of driving data using ML/AI based research to generate insights and scores that help to better evaluate risk and revolutionise driver safety, connectivity and value.

www.arity.com

Datactics

Datactics specialises in class-leading, self-service data quality and matching software to ensure compliance with financial regulation, eliminate roadblocks in data management, and add value to enterprise data. The platform gives CDOs and data stewards transparency into data quality

and offers SMEs and data analysts a powerful, yet user-friendly tool within a scalable enterprise-grade platform.

www.datactics.com

FD Technologies

Kx, a division of FD Technologies plc, is the leading technology for realtime continuous intelligence. Widely adopted throughout the financial services industry KX combines streaming, in-memory and historical data in one unified kdb+ time series database platform.

www.fdtechnologies.com

The Robot Exchange

With a Research and Development hub based in Lisburn, The Robot Exchange delivers robotic process automation (RPA) and Portal technology projects to the legal and financial services markets, through innovation in SaaS platforms, machine learning and AI.

www.therobotexchange.com

Yedup

Using low latency AI, recent entrant to the market Yedup have developed a product for Hedge Funds, High Frequency Traders and Algorithmic Trading that monitors global information flows continually in real time. The product, produces streaming signals that can be used to identify advantageous trading opportunities.

www.yedup.com

Other firms in the NI cluster include

Cardinal Analytics

Plotinus

Push Technologies

Qarik Group



Payments & AccountsTech

In an era when the payments industry is evolving rapidly amidst an influx of technology, demographic and regulatory dynamics, Northern Ireland's globally renowned technical talent and highly developed R&D ecosystem combined with competitive operating costs make it the go-to location for next-gen payment innovators and disruptors.

AirPOS

NI firm AirPOS was the first in the world to create fully integrated point-of-sale (POS) and e-commerce software for the small independent retailer. AirPOS offer the simplest-to-use POS system in the market today. The company's innovative ePOS and e-commerce applications enables merchants to make transactions, record sales and manage stock across multiple devices and locations, removing the burden of managing multiple inventories, whilst at the same time lowering costs and increasing profitability.

www.airpointofsale.com

CyberSource

CyberSource (a Visa company) has been and continues to be a pioneer within the e-Commerce Payment Management world. CyberSource offers a full-service payment management platform for e-commerce merchants, combining global payment processing, fraud management and payment security systems. Founded in 2008, the company's Belfast centre has full life cycle responsibility for the delivery of products that are integral to the continued growth and success of CyberSource worldwide.

www.cybersource.com

Lightyear

Lightyear is a global Software as a Service (SaaS) business focused on developing and building cutting edge fintech products for businesses, accountants and bookkeepers. Lightyear offers cloud-based procurement and invoice processing automation software to SMEs and mid-market companies across the world. Its Software-as-a-Service (SaaS) product increases workplace efficiencies and team collaboration through data extraction and customisable workflows for businesses.

www.lightyear.cloud

ShopKeep

New York headquartered, ShopKeep provides an intuitive, secure, cloud based iPad point-of-sale system with POS software that empowers tens of thousands of independent businesses to sell in store and online, take payments, and manage their day-to-day operations. Businesses use ShopKeep to manage their inventory and employees, build an eCommerce store, send invoices, access real time sales reports, and more, all from one seamless, intuitive platform. ShopKeep has had a presence in Belfast since 2014.

www.shopkeep.com

SLA Digital

SLA Digital provides mobile operators and merchants with carrier billing solutions through its digital services platform. SLA Digital connects with clients across Europe, the Middle East and Asia to help them engage with their audience and increase subscription and one-time payment revenues through carrier billing. The team of digital experts are headquartered in Belfast and Malaysia and have been serving clients throughout Europe, the Middle East and Asia for over 15 years.

www.sla-digital.com

Signifyd

Signifyd the market leader in guaranteed fraud protection, has a global R&D centre in Belfast, broadening the company's European presence and supporting its global drive to provide innovative e-commerce technology & services for retailers. The company's technology leverages big data, machine learning and expert manual review to provide 100 percent financial guarantee against fraud on approved orders. The result is a friction-free buying experience that effectively shifts the liability for fraud away from ecommerce merchants, allowing them to increase sales and open new markets while reducing risk.

www.signifyd.com

TSYS

(a Global Payments Company)

Headquartered in Georgia, USA, TSYS (a Global Payments Company) is a leading global provider of seamless, secure and innovative solutions to payment card issuers, including financial institutions and retail companies, in approximately 80 countries worldwide. Every day, Global Payments makes it possible for millions of people to move money between buyers and sellers using its payments solutions for credit, debit, prepaid and merchant services. Its solutions range from simple and reliable payment processing, to fully integrated, multichannel customer engagement platforms which facilitate payment security, acceptance, consumer programs, and analytics. TSYS's Belfast team delivers engineering and client/technical support for customers in North America.

www.tsys.com

Other companies in the Northern Ireland payments and accountstech cluster include

Biztech

MiFinity

Payhere

Right Revenue

Selazar



Funds & WealthTech

A cluster of global wealth management, pensions and actuarial service providers have chosen to locate offices in Northern Ireland and several of our innovative fintech companies including **AquaQ Analytics**, **Clarus Technology**, **Plotinus** and **SaltDNA** offer pioneering solutions to customers operating in funds and asset management.

Funds-Axis

Funds-Axis is a global funds technology business, offering a single multi-modular platform for a range of investment compliance, risk, regulatory reporting and fund governance requirements across the investment management industry. This is delivered in combination with the highest levels of expert regulatory support and service. It's cloud-based technology contains pre-configured rules libraries, advanced breach management tools, automated compliance workflows and in-depth reporting tools through customisable dashboards. Clients obtain real-time monitoring of regulatory restrictions with a full audit trail and reporting history taking the complexity out of regulatory compliance. Funds-Axis' technology is used by leading asset managers, fund administrators, depositaries, hedge funds and management companies in the UK, Ireland, Europe and North America.

www.funds-axis.com

Options

Options began life as a hedge fund technology services provider and has now become a leading provider of cloud-enabled managed services to the global financial services markets. Over 200 firms globally leverage the Options platform, including hedge funds and asset managers, making use of the company's fully integrated, end-to-end solution encompassing security, compliance and engineering best practice with the latest advances in cloud and mobile technology.

www.options-it.com

Yedup

Using low latency AI, recent entrant to the market, Yedup have developed a product for Hedge Funds, High Frequency Traders and Algorithmic Trading that monitors global information flows in real time. The product, produces streaming signals that can be used to identify advantageous trading opportunities.

www.yedup.com

Northern Ireland start-ups in the Fintech for Good area include:

ESTHER

Belfast based start-up ESTHER, operates a peer to peer platform that allows charitable donations to give money directly to people living in poverty in their own city. ESTHER puts transparency and traceability at its core, with 100% of funds going directly to the recipient to spend on a pre-paid card.

www.esther.org.uk

Haru

Start-up company Haru is helping charities begin to navigate the world of online retail with its end-to-end e-commerce service. Using this service charity shops can easily sell online, maximising the value of their donations.

www.haru.ie

LoyalBe

Northern Ireland's LoyalBe are on a mission to replace "dumb" paper loyalty cards with its smartphone app. LoyalBe users can earn rewards from retailers by paying with a linked bank card, and data is secured in the back-end using bank-grade security to give users peace of mind. The Belfast-based company, was identified by TechNation as one of the top 15 fintechs in the UK to watch in 2020.

www.loyalbe.io



Cybersecurity for Financial Services

Northern Ireland is a world-leading cybersecurity hub, with specialist university research, an impressive cluster of international companies and innovative start-ups delivering solutions globally. Northern Ireland is the number one international investment location for US cyber security firms (FDI Markets FT 2020) and home to **CSIT** - the UK's Innovation & Knowledge Centre (IKC) for cyber security - at Queen's University Belfast.

Companies in the region deliver expertise in advance persistent threats to national security, critical infrastructure, networks, capital markets and web applications.

Financial Services giants such as **Aflac**, **Allstate** and **CME Group** have all located cyber security teams in Northern Ireland, alongside Cybersecurity specialists **Whitehat Security** and **Rapid7**, to develop and deliver a wide range of solutions for firms in the financial services sector. Other firms in the Northern Ireland cluster include **Angoka** and **Contrast Security**.

Black Duck by Synopsys

Black Duck by Synopsys provides automated solutions for securing and managing open source software. With the rapid, widespread adoption of open source software, Black Duck is a key component of Synopsys' Software Integrity Platform, the most comprehensive solution for integrating security into the SDLC and software supply chain. Black Duck by Synopsys is headquartered in Mountain View, California and has had a cybersecurity research group in Belfast since 2016.

www.blackducksoftware.com

Proofpoint

California-based Proofpoint is a next-generation cybersecurity company protecting people, data, and brands from advanced threats and compliance risks. Built on the cloud and the world's most advanced intelligence platform, its solutions help clients effectively detect and block targeted attacks and respond quickly to suspected compromises. Proofpoint set up its R&D and Operations Centre for Proofpoint Essentials in Belfast in 2014, and the Belfast site also supports the company's EMEA customer base.

www.proofpoint.com/uk

Northern Ireland cyber security companies developing solutions for the financial services sector:

Cyphra

Cyphra provides specialist cyber security services and solutions across the UK and Ireland. Cyphra works with clients to manage their digital risks and ensure their security strategy supports their business agility and growth objectives.

www.cyphra.com

SaltDNA

SaltDNA are a multi-award-winning cybersecurity company based in Belfast, Northern Ireland, that builds secure enterprise mobile communications solutions. With military-grade voice and messaging encryption, SaltDNA's technology prevents the monitoring of sensitive communications across public networks. The technology is used by Wealth Management firms to ensure complete privacy when providing investment management and financial planning services.

www.saltdna.com

Skurio

Founded in 2011, Skurio creates innovative cybersecurity software to help customers protect themselves from digital risks. The Skurio Digital Risk Protection platform combines automated, round the clock monitoring of the surface, deep and Dark Web with powerful analytics capabilities for cyber threat intelligence. Additional features help protect data across the supply chain with synthetic identities, and open APIs integrate valuable alerts into SOC and ITSM workflow systems to automate breach response. Skurio's highly skilled team of security analysts work at the leading edge of business threat intelligence and digital risk protection, providing financial services and banking customers with the support they need to extend their in-house expertise.

www.skurio.com

Uleska

Belfast based, Uleska has developed a scalable platform that provides automated and continuous software security testing whilst translating cyber risk without the need for more personnel. It orchestrates security testing to increase security coverage and scale across applications. The Uleska Platform helps financial companies meet regulations such as PCI, GDPR, NYCRR 500, and more by allowing security programs to test software changes, and evaluate risk, quickly and efficiently.

www.uleska.com

Vertical Structure

Founded in 2006, Vertical Structure is an independent cyber security consultancy providing security and penetration testing services for e-commerce websites, mobile applications and cloud infrastructure to ensure data is secure.

www.verticalstructure.com



Blockchain

Companies in Northern Ireland are currently exploring the application of Blockchain solutions across a wide variety of sectors including food & drink, life & health sciences, local government and financial services.

Within our well respected financial and related professional services cluster, global leaders including **Deloitte** and **PwC** are currently working on the application of blockchain solutions within insurance, digital banking and cross-border payments.

PwC

The PwC global blockchain impact centre in Belfast comprises a team of fintech professionals with deep expertise and a proven record of delivery of insurance, banking, e-commerce and bitcoin products and services. The Belfast team is exploring the application of this disruptive technology to digital currencies, digital assets, identity and smart contracts. The specialist team has already delivered a significant proof of concept project for the Bank of England, to investigate the capability of distributed ledger technology.

www.pwc.co.uk

Rakuten Blockchain Lab

Belfast is the home of the Rakuten Blockchain Lab, a software engineering team founded in 2016 as part of the Japanese headquartered Rakuten, Inc, a global leader in internet services. Rakuten established the Rakuten Blockchain Lab in Northern Ireland with the goal of enabling distributed ledger technology and cryptocurrencies for the many Rakuten companies. The Rakuten Blockchain Lab has already delivered multiple projects including a cryptocurrency exchange service called Rakuten Wallet which enables users to convert loyalty points to crypto assets. The Rakuten Wallet app, offers crypto asset spot trading services and the company hopes the service will reduce the barriers of entry to crypto asset trading by providing an easy and more accessible way for new users to access crypto asset trading.

www.global.rakuten.com

Vox Financial Partners

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The logo for Northern Ireland, featuring the words "Northern Ireland" in a white sans-serif font inside a grey hexagonal shape.

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