Ayrshire Digital Economy Ecosystem (ADEE) Framework

This document describes the Ayrshire Digital Economy Ecosystem framework, developed to provide support for the implementation of a collaborative framework to facilitate regional innovation.

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Version	1.0.0
Last Updated	28/05/25

1: The Ayrshire Digital Economy Ecosystem (ADEE) Strategy

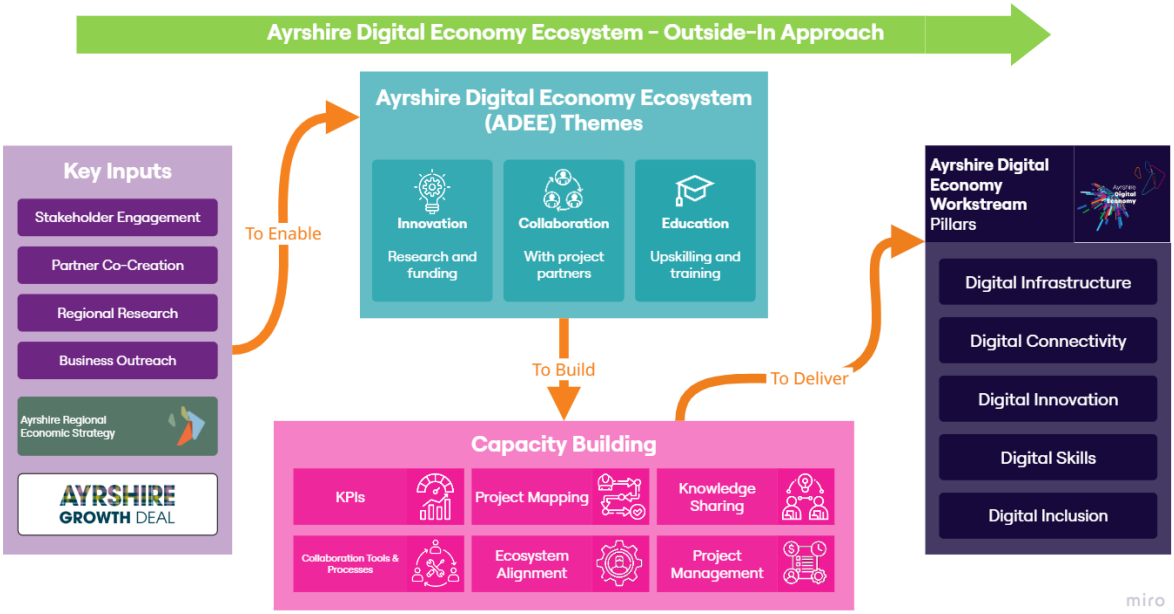

Fig. 1 – ADEE framework diagram

Background

Fragmented Initiatives
Local councils, businesses, and academic institutions were each working on digital initiatives, but these efforts were largely disconnected. This siloed approach meant there was duplication of effort in some areas, while others were neglected entirely.

Limited Collaboration
There was also a lack of structured engagement between key stakeholders—public bodies, private enterprises, and academia—which limited the ability to share knowledge, develop collaborative projects, or create a unified vision for Ayrshire's digital future.

Infrastructure and Skills Gaps
This fragmentation contributed to gaps in infrastructure and therefore many local industries were slow to adopt emerging digital solutions, limiting their productivity and competitiveness. Digital skills provision was inconsistent, leaving parts of the workforce underprepared for technological change.

Need for ADEE
ADEE was introduced to address these challenges by creating a coordinated, collaborative framework that aligns public and private digital efforts, drives skills development, and accelerates innovation adoption. It supports delivery of the regional strategies and ensures that digital transformation underpins regional economic growth, inclusivity, and long-term prosperity.

The Ayrshire Digital Economy Ecosystem (ADEE) is designed as a sustainable framework to drive innovation, digital skills development, and collaborative opportunities across Ayrshire.

It supports the Ayrshire Growth Deal and the Ayrshire Digital Economy, ensuring Ayrshire becomes a leading regional digital economy.

This is developed by the University of the West of Scotland in collaboration with North Ayrshire Council and 5GIR partners through an approach of stakeholder engagement, partner co-creation and capacity building.

Enabling Inputs

To build the ecosystem, input from a range of sources is essential. Regional stakeholders must be consulted, researched and engaged using an outside-in approach; this includes all types of organisations from many sectors and industries. These processes include stakeholder engagement, partner co-creation, regional research and organisational outreach.

Ecosystem Key Enablers

The ecosystem is built on three principal themes; **innovation**, **education** and **collaboration**. Innovation of processes and technology enables paths to research and funding opportunities, effective education is key to upskill stakeholders regarding technology and applications, and close collaboration allows sharing of benefits, knowledge and interconnectivity between projects.

Capacity Building

To enable current 5GIR and future projects to deliver their shared goals, the ADEE facilitates the building of innovative capacity in the region. This is achieved through a range of supporting initiatives and delivery programmes, including reporting of Key Performance Indicators (KPIs), mapping of projects, documentation of roles and responsibilities, sharing of knowledge and deployment of tools and processes for collaboration and project management.

Digital Economy

The Ayrshire Digital Economy Framework (ADEF) is a comprehensive and strategic blueprint that lays the foundation for Ayrshire's strong and resilient digital economy. Comprising five interconnected pillars - Digital **Infrastructure**, Digital **Connectivity**, Digital **Innovation**, Digital **Skills**, and Digital **Inclusion** - the ADEF aims to enhance the region's digital landscape and drive economic growth, productivity, and sustainability. Through collaborative efforts with stakeholders from public sector entities, anchor institutions, businesses, and communities, the ADEF seeks to foster a culture of innovation, research, and digital adoption. It envisions a future where Ayrshire becomes a leading digital hub, powered by robust infrastructure, seamless connectivity, a skilled digital workforce, and inclusive access to digital technologies. By leveraging data-driven decision-making and embracing sustainability principles, the ADEF will support a thriving and inclusive digital economy that benefits all residents and businesses in Ayrshire.

2: Stakeholder Engagement

Processes and results from engaging with stakeholders within the 5GIR ecosystem.

Partner Engagement

Co-creation and partner engagement is essential to the development of the ecosystem. Not only is it key for interconnected projects to share work and benefits, but also to draw on the experience and networks of partner organisations to ensure the best success of the projects.

Throughout the development of each project for the 5GIR, intra and inter-project relationships have been maintained, to allow sharing of knowledge, boosting engagement and linking of networks. This connected collaboration boosts sustainability and success across all projects.

Roles & Responsibilities

Tracking the roles and responsibilities of partner organisations in an innovation ecosystem is crucial for ensuring clarity, accountability, and effective collaboration. By defining each partner's contributions—whether in research, funding, technology development, or policy support—stakeholders can align efforts, avoid duplication, and maximise impact. This structured approach fosters transparency, enables efficient resource allocation, and accelerates project success. Additionally, continuous monitoring helps identify gaps, measure progress, and adapt strategies to evolving challenges, ultimately driving sustained innovation and economic growth within the ecosystem.

University of the West of Scotland (UWS)

- Lead in development of 5GIR Project 6 – Ayrshire Digital Economy Ecosystem
- Ecosystem framework development
- Digital Ambassador Programme Pilot co-ordination
- Stakeholder engagement and research
- Development of the 5GIR Project 2 – Digital Connectivity and Innovation Centre (DCIC) at UWS Ayr campus for the aerospace sector in South Ayrshire
- Mobile Private Network for portable private sector use case demonstration & development
- Open RAN for open source 5G educational access
- Use case development and company engagement

National Manufacturing Institute Scotland (NMIS)

- Development of the 5GIR Project 1 - Digital Process Manufactuing Centre (DPMC) at Booth Welsh, Irvine
- MPN and MEC installation
- Use case development

Ayrshire College

- Development of 5GIR Project 5 - Immersive Education
- Immersive torquing scenario use case
- Extended campus

Scotland 5G Centre

- Support of 5GIR Project 1
- Support of 5GIR Project 2
- Management of 5GIR Project 3
- Coordination of the Digital Innovation Accelerator

Vodaphone

- Deployment of MPN at DCIC
- Deployment of DPMC use cases
- Deployment of MPN and MEC at DPMC

South Ayrshire Council

- Regional support for 5GIR Project 2
- A regional collaborator of 5GIR Project 4

North Ayrshire Council

- Digital Economy Framework development
- A regional collaborator of 5GIR Project 4
- Marketing

East Ayrshire Council

- Regional lead of 5GIR Project 3
- A regional collaborator of 5GIR Project 4

Farrpoint

- Project monitoring
- Benefits realisation
- Management of 5GIR Project 4
- Regional connectivity study
- Marketing

Regional Stakeholder Study

Methodology

To better understand the 5G landscape of the Ayrshire region, a study is conducted focusing on trends and interest in adoption of 5G and advanced wireless technologies among regional organisations. Organisations in private and public sectors, and project partners are researched separately.

First, contact details of Ayrshire organisations were gathered. This was achieved through branching outreach from 5GIR project partners and utilisation of existing networks. This included UWS Business Innovation connections to the Prestwick Airport Operations Group, Ayrshire council business development connections, and prior registrations of interest in the 5GIR project.

Initially, a consent form was distributed[1] to **130** of these gathered contacts covering **67** organisations across North, South and East Ayrshire. Engaging multiple contacts per organisation enabled a deeper intra-organisational insight into 5G knowledge and adoption.

This initial form allowed us to capture contacts' consent to gather their data for the study, alongside self-categorisation questions which asked about their roles and organisational sector. Of the 130 contacts, **32** responded.

From these consented stakeholder contacts, appropriate questionnaires were distributed depending on their responses in the initial form. Private sector companies were broadly asked about 5G adoption in terms of business incentives and innovation, and public sector were asked more about the regional impact and challenges. **6** private sector contacts and **2** public sector contacts completed the surveys.

Content

The private sector survey covered the following topics surrounding 5G and advanced wireless technology adoption; driving factors, challenges, strategies for implementation, outcomes and goals, and future plans. Additionally, questions about issues in their sector and confidence of 5G knowledge were asked.

The public sector survey covered questions relating to regional skills gaps, digital inclusion and regional interest in 5G adoption.

Results

Although the response rate for the survey studies were low, valuable qualitative data was gathered.

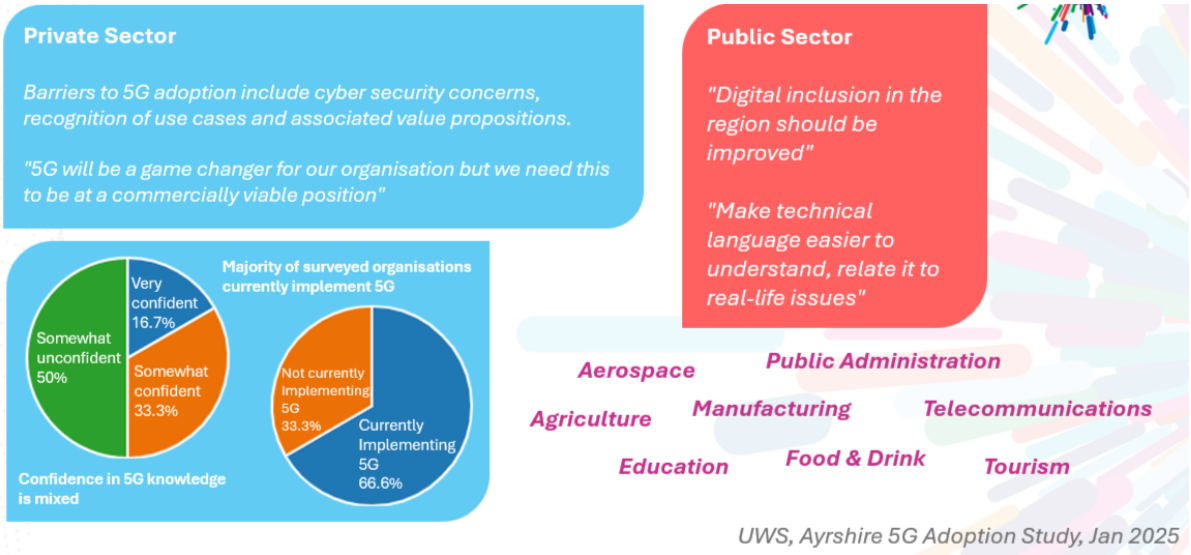

Fig. 1 – Summary of key highlights of regional survey

Private Sector

The Private Sector Study provides insights into the adoption and implementation of 5G and advanced wireless technology (AWT) across various industries. Summarised are the key findings and trends from the study:

Industries represented:

- Aerospace: 33.3%
- Manufacturing/Renewables: 16.7%
- Building Materials: 16.7%
- Energy and Manufacturing: 16.7%
- Construction & Building Maintenance: 16.7%

Personal confidence in 5G knowledge:

- Somewhat confident: 33.3%
- Somewhat unconfident: 33.3%
- Very confident: 16.7%
- Unconfident: 16.7%

Organisation Implementation Status of AWT:

- Currently implementing 5G or AWT: 66.7%
- Not implementing: 33.3%

Barriers to adoption of AWT:

- Lack of availability
- High initial costs
- Security concerns

Driving factors for adoption of AWT:

- Faster data speeds
- Support for a large number of connected devices
- Enabling innovative applications (e.g., AR/VR)
- Increased network reliability
- Potential cost savings

Challenges of adopting AWT:

- Initial implementation costs
- Uncertainty about ROI
- Limited skilled workforce
- Security risks
- Regulatory issues

Implementation strategies for AWT adoption:

- Investing in infrastructure
- Collaborating with industry partners
- Providing training
- Engaging with regulatory authorities
- Conducting pilot projects

Expected outcomes and future outlook of AWT adoption:

- Improved operational efficiency
- Enhanced competitiveness
- Accelerated innovation
- Increased revenue
- Better customer satisfaction

Organisations are committed to investing in 5G to remain competitive and address any challenges that arise.

Key Quotes

How successfully and for what purpose has 5G and AWT been adopted within your business?

- *"We are undertaking a R&D project wherein we are deploying 5G and AWT compatible IoT sensors to monitor and record wind turbine performance information in a central database. This will improve pre-emptive maintenance, reduce turbine downtime and enable product enhancements through access to real time data in a variety of environments: some extremely remote and unconnected (e.g. Ben Nevis or Antarctica)."*
- *"We are at the early stages of implementations; we are using consultants to support and strengthen our knowledge."*
- *"We help clients on their digital journey to embed IoT on their critical assets to gather machine condition data. We currently do the communication via 4G as 5G not widely available."*
- *"It has been successful since our corporate upgrade early 2024."*

Are there any barriers you aware of which are stopping the adoption of 5G and AWT in your business?

- *"We do not have 5G available in the location we work from."*
- *"Lack of understanding of cyber-security considerations. Need to integrate with global IT systems. Lack of recognition of beneficial use cases and details of associated value propositions."*

What are the key issues facing your organisation's industry sector?

- *"Slow connectivity."*
- *"Small wind turbines require significant initial investment, which can deter potential buyers; support for small wind varies widely across regions and policies are inconsistent, with some areas offering subsidies or tax incentives, while others do not; limited grid access; maintenance challenges associated with remote locations or lack of specialised technicians which can make maintenance costly and logistically difficult; technological maturity - some small wind systems lag behind other renewables in terms of efficiency and reliability improvements."*
- *"Main concern is amount of housing being built and consumer confidence in market. This will not be tackled by 5G and AWT. The area we are focusing on is improving manual process, reducing paper consumption and speed of access to data."*
- *"Getting access to relevant data to allow strategic decisions to be made. This is what we are helping with by the implementation of digital technologies to get continuous data from their assets."*

- *"In a time of massive growth within the market our primary challenge is growing to meet the demand. This includes the growth of physical infrastructure (everything from building to digital) and the growth of the workforce. Additionally, the increasing demand of use digital technologies drives a different skills mix into the workforce."*
- *"Capacity"*

Public Sector

The public sector study provides insights into the adoption and implementation of 5G and advanced wireless technology (AWT) within public sector organisations. Here are the key findings and trends from the study:

- Personal confidence in 5G Knowledge is broadly unconfident
- One organisation is currently implementing AWT, one is unsure of current status.
- One organisation is in early collaboration with the Ayrshire 5GIR project, one is unsure of status.
- In terms of skills gaps, many are described to exist across the dairy supply chain "from primary production to science and research input", otherwise respondents are unaware of metrics

Do you believe digital inclusion in the region could be improved?

- *"Yes - Rural and island areas, tackle social isolation, health and wellbeing, older population. Transport and infrastructure. Climate and environment. Relating to - access, skills / training, awareness of options and benefits, better promotion, engagement. Make technical language easier to understand. Relate it to real life issues, examples, pilots. Monitoring and data collection, assessed and interpreted to be useful i.e. roads, ferries, environmental and marine conditions, species monitoring etc."*
- *"5G and AWT could have an impact on digital inclusion"*

Regional Interest and Challenges

- Slight agreement that Ayrshire organisations are interested in adopting AWT in their operations
- Unsure if Ayrshire organisations can access support for AWT adoption
- Slight Agreement that digital inclusion in Ayrshire can be improved by AWT adoption
- Disagreement that Ayrshire businesses are sufficiently educated in the potential of AWT
- Strong disagreement that the regional public is sufficiently educated in AWT
- Agreement that there are concerns about the initial cost of implementing AWT in the region
- Agreement that there is uncertainty about the return on investment of AWT adoption in the region
- Strong agreement that there is limited availability of skilled workforce with expertise in AWT in the region.
- Strong agreement that there are challenges related to the integration of existing infrastructure with AWT in the region.
- Unsure if there are regulatory and compliance issues that may delay the adoption of AWT in the region.
- Strong agreement that there is a lack of awareness and understanding about the capabilities and benefits of AWT in the region.

Conclusion

In conclusion, the study highlights both the enthusiasm and the challenges faced by various industries in Ayrshire regarding the adoption of 5G and advanced wireless technology (AWT). While a significant portion of organisations are actively implementing these technologies to enhance operational efficiency, competitiveness, and innovation, barriers such as high initial costs, security concerns, and a lack of skilled workforce persist. The findings underscore the need for continued investment in infrastructure, collaboration with industry partners, and comprehensive training programs to overcome these obstacles. By addressing these challenges, Ayrshire can fully leverage the potential of 5G and AWT to drive economic growth and improve digital inclusion across the region.

Digital Ambassador Programme

Further valuable stakeholder engagement was conducted as part of the Digital Ambassador Programme workshops. This included breakout session discussions and individual feedback questions.

Following positive feedback from the Digital Ambassador Programme pilot workshops, this programme of the ecosystem has been seen to impact some of the key concerns found in this study. The overall majority of attendees indicated they felt more knowledgeable of 5G and advanced wireless technologies after attending the workshops.

Described further in ADEE paper 5, breakout session interactive quizzes were conducted on various aspects of regional 5G adoption:

- A digital transformation strategy was found to be the most common focus of business engagement with digital technologies.
- Ways in which businesses could collaborate with the public sector regarding AWT include connections with innovation hubs, funding to de-risk investment and engagement with local advisors.
- Required infrastructure to support 5G deployment was found to be funding, partnerships and network coverage.
- Attendees were mostly aware of government incentives as funding opportunities over other options.
- The skills needed to adopt 5G were found to be network fundamentals, AI & automation and project management.
- CPD training is the majority of the expectation from universities regarding business upskilling.
- The top three challenges highlighted were scaling of IoT & connectivity, poor network access in rural areas, and cybersecurity risks
- The biggest barrier to adopting 5G was found to be the lack of perceived need in the region.
- The most appealing financial benefits were found to be reduced operational costs, followed by increases efficiency and improved reliability.

3: ADEE Delivery Framework

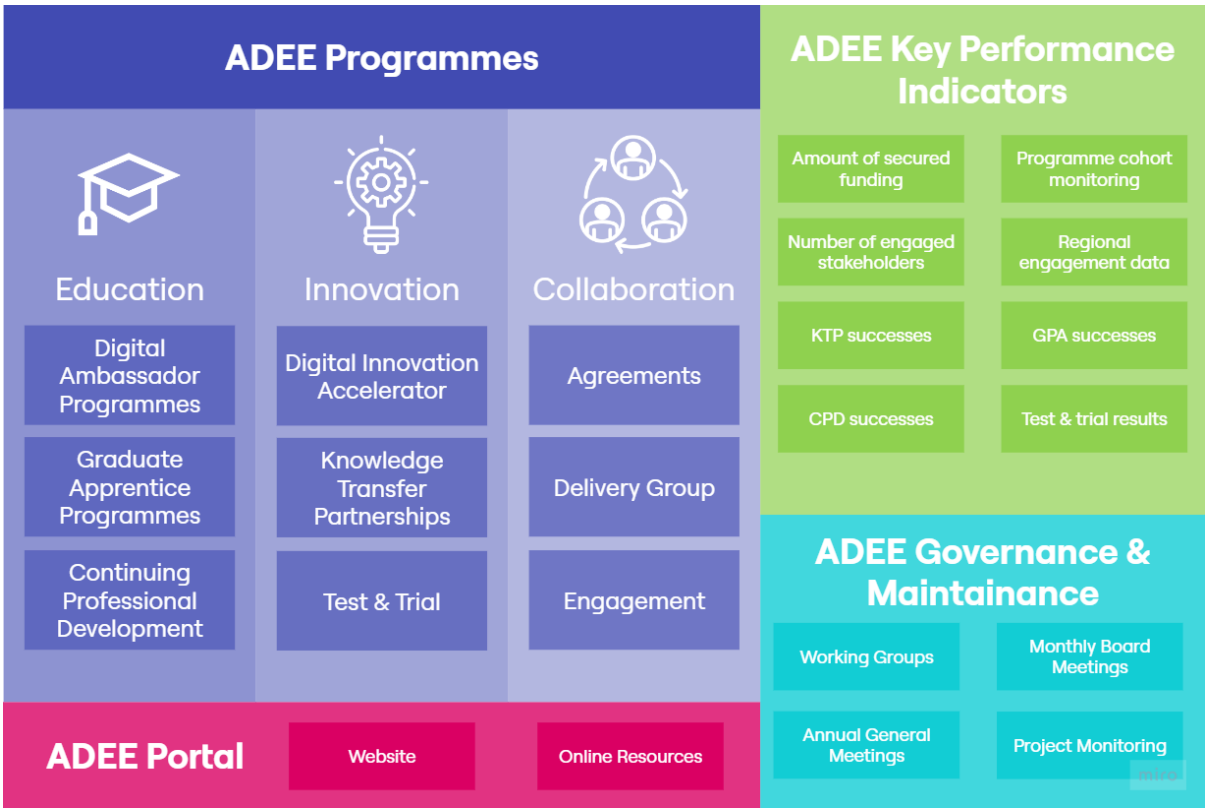

Fig. 1 – ADEE delivery framework diagram

The Ayrshire Digital Economy Ecosystem (ADEE) delivery framework is designed to ensure the effective implementation and management of ADEE framework. Below is a detailed breakdown of the key components of the delivery framework:

ADEE Programmes

Innovation

Digital Innovation Accelerator: Accelerates digital innovation by supporting new technologies and processes.

A structured pipeline is essential for businesses to effectively engage with partners and access the innovation hubs across the Ayrshire Innovation Region, ensuring they are prepared to leverage emerging technologies and collaboration opportunities.

A structured 6–12-week accelerator programme designed to stimulate investment in advanced wireless, AI, and digital transformation, helping businesses develop a clear, investment-ready and change management roadmap to adopt these technologies.

Test & Trial: Facilitates the test and trial of new technologies and processes to ensure their effectiveness before wider implementation.

The Digital Connectivity and Innovation Centre (DCIC) at the University of the West of Scotland (UWS) provides a structured test and trial process to accelerate 5G adoption and drive digital innovation. By leveraging a private mobile network (MPN), the centre enables businesses to experiment with and develop 5G-enabled solutions in a controlled environment before full-scale deployment.

Education

Digital Ambassador Programme (DAP): Promotes digital adoption and awareness across the region.

Further described in ADEE paper 5, the Digital Ambassador Programme (DAP) is a strategic pilot initiative under the Ayrshire Digital Economy Ecosystem (ADEE) education programme. It plays a crucial role in promoting the Ayrshire 5G Innovation Region (5GIR) project by showcasing its progress, sharing learnings and challenges from project delivery, and broadening horizons on 5G and Advanced Wireless Technologies (AWT) and related use cases at both national and international levels.

Graduate Apprenticeship Programme: Develops future talent through apprenticeship programs and SQA.

The University of the West of Scotland (UWS) Graduate Apprenticeship (GA) programme combines academic study with hands-on industry experience, enabling apprentices to earn a degree while working in a relevant sector. Designed to address skills gaps, the programme partners with businesses to develop workforce-ready graduates in fields like computing, engineering, and digital technologies. With the launch of the Digital Connectivity and Innovation Centre (DCIC), the GA programme can integrate advanced wireless technology, 5G, and IoT into its curriculum, offering apprentices real-world experience in cutting-edge digital connectivity solutions. By engaging with DCIC's testbed and industry collaborations, apprentices gain expertise in emerging technologies, positioning them as future leaders in Scotland's digital economy.

Continuing Professional Development (CPD): Provides ongoing education and training for professionals to enhance their digital skills.

The Continuous Professional Development (CPD) programme at the University of the West of Scotland (UWS) offers industry-focused training to upskill professionals in emerging technologies, fostering lifelong learning and workforce development. Covering areas such as digital transformation, cybersecurity, and data analytics, the CPD programme ensures businesses and individuals stay ahead in a rapidly evolving digital landscape. With the launch of the Digital Connectivity and Innovation Centre (DCIC), UWS can expand its CPD offerings to include advanced wireless technologies, including 5G, private networks (MPNs), IoT, and AI-driven connectivity. This integration allows professionals and businesses to gain hands-on experience with cutting-edge digital infrastructure, bridging the skills gap and accelerating regional innovation in Ayrshire's digital economy.

Collaboration

Processes and support to enable partner engagement and collaboration across ecosystem projects. This includes development of Memoranda of Understanding and project charters to align ecosystem partnerships.

ADEE Portal

Online Tool and Website: The ADEE Portal serves as a central hub for partners and stakeholders to access resources, share knowledge, and collaborate on projects.

Support Mechanism: The portal provides support through online tools, documentation, and communication channels, enabling stakeholders to stay informed and engaged with ADEE initiatives.

Resource Sharing: Partners can share best practices, research findings, and project updates, fostering a collaborative environment.

KPI and Performance Monitoring

Key Performance Indicators (KPIs): ADEE uses a set of KPIs to measure the success and impact of its programs. These indicators help in assessing progress towards strategic goals.

The University of the West of Scotland's (UWS) strong Knowledge Transfer Partnership (KTP) programme can play a pivotal role in the Ayrshire digital economy ecosystem by driving 5G adoption and fostering innovation, collaboration, and education in the region. Through KTPs, UWS can partner with local businesses, public sector organizations, and technology providers to develop and implement cutting-edge 5G applications, enhancing connectivity and digital transformation. This collaboration can lead to the creation of smart infrastructure, IoT solutions, and digital health innovations, positioning Ayrshire as a leader in the UK's 5G landscape. Additionally, UWS can leverage its expertise to upskill the local workforce, offer research-led solutions, and establish Ayrshire as a hub for digital innovation, ultimately boosting economic growth and attracting investment.

Performance Monitoring: Regular monitoring of program performance ensures that objectives are being met and allows for timely adjustments to improve outcomes.

Data-Driven Decision Making: Performance data is used to make informed decisions, optimize resource allocation, and enhance the effectiveness of ADEE initiatives.

Governance of ADEE

Working Groups: Specialized groups focus on different aspects of the ecosystem, ensuring that all areas receive adequate attention and expertise.

The Ayrshire Digital Economy Ecosystem **Delivery Group** consists of key 5GIR project partner members and gathers to establish and co-create the ecosystem framework. These sessions consist of presentations of framework documentation followed by discussion on key ecosystem elements.

Board Meetings: Regular board meetings are held to review progress, discuss strategic initiatives, and make decisions on the direction of ADEE programs.

Annual General Meetings (AGMs): AGMs provide a platform for broader stakeholder engagement, where achievements are reviewed, and future plans are discussed.

Governance Structure: A structured governance framework ensures accountability, transparency, and effective management of ADEE programs and resources.

4: Strategy of the DCIC

Overview of how the DCIC implements the ADEE framework.

Ayrshire 5G Innovation Region Project (5GIR)

The Ayrshire 5G Innovation Region Project is a £3.8 million initiative aimed at transforming Ayrshire into a leading digital innovator. Funded by the Department of Science, Innovation and Technology (DSIT), and delivered by the three Ayrshire councils (North, South, and East), the project focuses on five key workstreams: advanced manufacturing, aerospace, business, tourism, and immersive learning. It aims to create a 5G innovation ecosystem to benefit local businesses, upskill the workforce, and ensure regional competitiveness.

Digital Connectivity and Innovation Centre (DCIC)

The Digital Connectivity and Innovation Centre (DCIC), established by the University of the West of Scotland (UWS), is part of the Ayrshire 5G Innovation Regions Project. With £1 million in funding from North Ayrshire Council, the DCIC aims to create a "wireless factory of the future" within the Prestwick Aerospace Cluster. The centre focuses on demonstrating the uses and benefits of 5G mobile private networks (MPN) and Open RAN (O-RAN) in aerospace and engineering, advancing research in 5G and 6G technologies, and supporting local businesses in building 5G capacity and skills.

About Us

A wireless “factory of the future” that will demonstrate the uses and benefits of a 5G mobile private network within aerospace and engineering in the Prestwick Aerospace cluster is to be created by the University of the West of Scotland’s (UWS) Digital Connectivity and Innovation Centre (DCIC).

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Our Goals

The goals of DCIC include the development of 5G for aerospace businesses through 5G mobile private networks (MPN), to advance research innovation in next generation 5G and Beyond 5G

networks through open-source radio access networks (O-RAN) and collaboration with national projects. These aim to build capacity and skills within businesses to support adoption of 5G, leading to improved efficiency.

Our Vision

"Building on our world-leading research in 5G and previous successful collaboration with businesses, the DCIC will collaborate with national telecommunications facilities, drive innovation in 6G research, and foster skills and capacity development. The centre will not only support the region, but also enhance collaboration, innovation, and education for all stakeholders."

Our Offer

- **5G and Digital Tech Testing and Trial Opportunities:** Access to state-of-the-art facilities for testing and trialling 5G and other digital technologies.
- **Tailored Training Programmes and Industry-Focused Degrees:** Customised training programmes and degrees designed to meet the specific needs of the industry.
- **Knowledge Transfer Opportunities:** Platforms for sharing expertise and innovation between academia and industry to drive growth and development.

Delivery Programme Impact

As part of the Ayrshire 5G Innovation Regions project, UWS Ayr campus is the location of the Digital Connectivity and Innovation Centre (DCIC). One of the ambitions of the centre is to demonstrate the many benefits and solutions that a wireless 5G Mobile Private Network (MPN) can offer. DCIC has a portable MPN that can be deployed locally or on site to provide real world environment tests and validation of the system without the need to procure expensive capex. DCIC are keen to work with businesses operating within the Aerospace sector based within the Prestwick Airport cluster. DCIC are looking to work with partners to define and develop use cases and improve business processes, enabling transformation and future innovation.

The DCIC utilises the framework of the ADEE to deliver the principal ecosystem themes of education, innovation and collaboration:

- **Education** – Facilitation of the Digital Ambassador Programme, providing foundations for support of future advanced wireless technology educational programmes including CPD, Graduate apprenticeships and SQA qualifications.
- **Innovation** – Facilitation of programmes and process for regional innovation including Test & Trial of technology, a Digital Innovation Accelerator programme, and route to UWS Knowledge Transfer Partnerships.
- **Collaboration** – Facilitation of regional stakeholder engagement and partner collaboration agreements.

Future Funding

Securing 3 to 5 short-term partnership opportunities (4 to 6 months), such as Accelerated Knowledge Transfer from Innovate UK and Scottish Enterprise with up to £50,000 per use case by partnering with Prestwick Aerospace hub and emerging cluster.

Securing at least one mid-term opportunity (12 to 24 months), such as 5G Innovation Regions from DSIT, with up to £5,000,000 for phase 2 for The Ayrshire 5G Innovation Region project, and

additional funds from KTP projects, Scottish Government through consortium creation. DCIC membership scheme for existing partners.

Securing at least one long-term sponsorship opportunity (3 to 5 years) from DSIT, with up to 50,000,000 for Beyond 5G and Future 6G MPN for the UK Aerospace industry by lobbying in Whitehall for this as a new strand of funding. Founding and positioning The Scotland 6G Centre serving Prestwick Aerospace hub and emerging cluster by lobbying at Holyrood for additional funding.

Term	**Duration**	**Budget**	**Organisations**	**Type**
Short-Term	4 – 6 months	< £50K	AKT, Innovate UK, Scottish Enterprise	Partnership
Mid-Term	12 – 24 Months	< £5M	DSIT, Innovate UK, Scottish Government	Membership
Long-Term	3 – 5 Years	< £50M	UK and Scottish Governments	Sponsorship

5: Digital Ambassador Programme

Overview of the DAP and how it delivers the ecosystem themes and impacts 5G skills and adoption on the region.

The Digital Ambassador Programme (DAP) is a strategic pilot initiative under the Ayrshire Digital Economy Ecosystem (ADEE) education programme. It plays a crucial role in promoting the Ayrshire 5G Innovation Region (5GIR) project by showcasing its progress, sharing learnings and challenges from project delivery, and broadening horizons on 5G and Advanced Wireless Technologies (AWT) and related use cases at both national and international levels.

Key Objectives

- Showcase the progress, achievements, and ongoing work of all 5GIR projects, providing a transparent view of their impact on Ayrshire's digital landscape.
- Educate participants about 5G related technology, and emerging digital technologies, highlighting real-world use cases and inspiring innovative thinking.
- Connect participants with national and international perspectives on digital transformation and technology adoption.
- Provide platforms for intense discussions on multi-faceted challenges faced by both public and private sectors, gaining deeper insights into regional industry difficulties.
- Collect feedback and insights to support the long-term development of the digital economy in Ayrshire, driving sustainable growth and innovation.

Programme Design

- **Three Workshops**: Designed to achieve the promotion and education goals, these workshops include:
- **Expert Presentations**: Sharing knowledge on 5G and related digital technologies.
- **Breakout Sessions**: Facilitating vigorous discussions on challenges facing the public and private sectors, fostering a deep understanding of industry pain points.
- **Collaborative Networking**: Encouraging participants to build connections and share experiences, promoting continuous knowledge exchange.
- **Virtual Learning Platform**: An OpenUWS online learning platform is established as a central hub for participants to access educational resources, eneage in collaborative discussions and complete workshop-related activities.
- It serves as a collaborative space for participants to discuss real-world applications of the 5G and Advanced Wireless Technologies, promoting knowledge transfer within their organisations.
- It intended to become an open-access resource for lobal businesses even after the project's completion, ensuring the continued availability of educational materials and best practices as a lasting legacy to support the digital transformation of Ayrshire's economy.

Long-Term Vision

The long-term goal of DAP is to:

- **Sustain Technical Exchange**: Maintain continuous technical exchanges among collaborators, keeping all parties updated on the latest industry trends and innovations.
- **Promote Successful Use Cases**: Showcase successful digital adoption case studies to demonstrate the tangible benefits of technology, driving public awareness and industry upgrades.
- **Catalyse Regional Development**: Use insights from discussions and feedback to inform strategic decision-making and support the long-term digital economy development in Ayrshire.
- **Strengthen Regional Leadership**: Establish Ayrshire as a leader in digital transformation by leveraging 5G and AWT to drive industry modernization and economic growth.

UWS's Role

As the lead in delivering the Digital Ambassador Programme, UWS is committed to:

- Promoting an inclusive and collaborative digital economy.
- Enhancing regional digital literacy and innovation capacity.
- Driving sustainable economic growth by leveraging its leadership in 5GIR and ADEE.

Through DAP, UWS reinforces its role as an anchor university and catalyst for digital transformation in Ayrshire, contributing to its place-making mission and economic sustainability. UWS collaborates closely with Ayrshire College and wider education providers to bridge the skills gap in the digital economy, ensuring that educational pathways at all levels are aligned with industry needs. This partnership supports the development of a skilled workforce, enhancing the regional talent pipeline to drive economic growth and innovation in Ayrshire.

Presenters and Topics

	Workshop 1 12th February	Workshop 2 26th February	Workshop 3 12th March
10-12:00	- 5GIR overview, subprojects and the SAC context - ADEE and RES - What is 5G - Project 1 DPMC Introduction, projects by NMIS - Project 2 DCIC Introduction, use cases development plan by UWS	- ADEE Objective and structure, NAC context - Digital Twinning Technology by UWS - Project 5 Ayrshire College Extended Campus - 3D Laser Scanning in Aerospace by UWS	- 5GIR EAC context and SME project - 5G Networks from Vodafone - Public use case from Project 4 - The "Future Scotland" VisitArran project and Synthetic Tourism
12-13:00	Lunch		

13-14:30	- Q1: How does your business currently engage with digital technologies? - Q2: How can your business collaborate with councils & universities on 5G technologies? - Q3: What infrastructure is needed to support your 5G use case deployment? - Q4: What funding opportunities exist for businesses that you are aware of? - Q5: What new skills will your workforce need to adopt 5G technologies? - Q6: How do you expect universities to support business up-skilling? -	- Heathrow Airport Case Study and RoI formular - Q1: What are the top 3 challenges that are most relevant to your organisation? - Q2 : What is the biggest barrier your organisation faces in adopting 5G? - Q3 : Which financial benefit of 5G is most appealing to your sector? - Q4 : If your organisation delays 5G adoption, what do you think will be the most significant cost of inaction? -	-

Participants

Russell Wilson	Ayrshire College	5GIR Team
Sarah Smillie	East Ayrshire Council	5GIR Team
Derek Graham	FarrPoint	5GIR Team
Ross Miller	NMIS/DPMC	5GIR Team
Kenneth Johnston	NMIS/DPMC	5GIR Team
Julia McMurdie	North Ayrshire Council	5GIR Team
Kirsty Scott	S5GC	5GIR Team
Ian Sharp	S5GC	5GIR Team
Derek Johnstone	South Ayrshire Council	5GIR Team
Ashleigh Jordan	Vodafone	5GIR Team
Steve Smith	FarrPoint	5GIR Team
John Harman	NMIS/DPMC	5GIR Team
Gabriel Okolo	Booth Welsh	Private
Stephen Cook	Booth Welsh	Private
Scott Johnstone	Collins Aerospace	Private
Andrew Buchan	GE Aerospace	Private
Geraldine Ward	Glasgow Prestwick Airport	Private
Craig Foster	H&V Commissioning Services Ltd	Private
Scott Sneddon	Anderson Stewart Castings	Private
Adrienne McGeechan	East Ayrshire Council	Public Sector
Anthony Baker	East Ayrshire Council	Public Sector
Nicola McMurdie	North Ayrshire Council	Public Sector
Analene Swan	Scottish Enterprise	Public Sector

Faiz Syed	Scottish Enterprise	Public Sector
Connor Pattie	South Ayrshire Council	Public Sector
Matt Broadbent	SRUC	Public Sector
Stephen Andrade	UWS	UWS - School Engagement
Xin Guo	UWS	UWS - School Engagement
Sabrina Azzi	UWS	UWS - School Engagement
Maryam Khan	UWS	UWS - School Engagement
Theofilos Tzanidis	UWS	UWS - Showcase
Matthew Frew	UWS	UWS - Showcase
Leon Irving	UWS	UWS - 5GIR Team
Luna Chao Guo	UWS	UWS - 5GIR Team
Muhammad Shakir	UWS/DCIC	UWS - 5GIR Team
Nuredeen Salau	UWS/DCIC	UWS - 5GIR Team
Pablo Salva Garcia	UWS/DCIC	UWS - 5GIR Team
Yingbo Zhu	UWS/DCIC	UWS - 5GIR Team
Ahren Hart	UWS/DCIC	UWS - 5GIR Team
Parag Vichare	UWS/DCIC	UWS - 5GIR Team
Hamish Sturley	UWS/DCIC	UWS - 5GIR Team
Ivan Marjanovic	UWS/DCIC	UWS - 5GIR Team
Shahriar Al-Ahmed	UWS/DCIC	UWS - 5GIR Team

Virtual Learning Environment (VLE):

All educational resources produced for and during the Digital Ambassador Programme Pilot are available online at:

https://open.uws.ac.uk/course/view.php?id=22

6: Tools & Support

Overview of technology and processes to facilitate building of capacity and facilitation of collaboration within the ecosystem.

Project Monitoring

5GIR Monthly Board

The 5GIR board meets once a month for 1 hour to present updates, highlights and issues for all 6 core projects. Information is prepared beforehand in 3 slides for each project. The first slide contains key updates for this month for a project. This includes highlights, lowlights, overview statement, RAG status, risks with mitigations and planned work for the next month. These meeting also cover key 5GIR updates, financial information and deadlines.

Resources

Project Mapping

The impact of the 5GIR projects is being influenced and measured through a mapping of project activities to the pillars of the Ayrshire Digital Economy Workstream. This includes tracking of benefits and measuring of KPIs and their impact on digital infrastructure, connectivity, innovation, skills and inclusion in the Ayrshire region.

Social Media

The ADEE maintains an online presence for the benefit of engagement, networking and marketing, through which events and news in the ecosystem are shared.

https://www.linkedin.com/company/ayrshire-digital-economy-ecosystem

Email Address

The ADEE has access to a dedicated email address for the purposes of marketing, newsletters, and other official communications, alongside contacting the ADEE management team for questions or support:

adee@uws.ac.uk

DAP on OpenUWS

All educational resources produced for and during the Digital Ambassador Programme Pilot are available online at:

https://open.uws.ac.uk/course/view.php?id=22