# HEAnet

Ireland's National Education & Research Network

# Strategic Plan

# 2017-2018

*"Collaboration - The key to Development and Success"*

# A National Education Network for Shared ICT Services

## National Network

HEAnet provides high speed, resilient Internet connectivity and associated ICT services to education and research organisations throughout Ireland:

**www.heanet.ie/the-network**

## Global Connectivity

HEAnet also provides its clients with international connectivity via GÉANT - the pan-European network; facilitating research collaboration around the world:

**www.geant.org**

## HE and Research Services

HEAnet provides an extensive portfolio of shared services; delivering economies of scale and more cost-effective ways of working for the education and research community:

**www.heanet.ie/services**

## Schools

HEAnet provides Internet connectivity and associated services to all primary and post-primary schools in Ireland:

**www.heanet.ie/schools**

## EduCampus

EduCampus Services, a subsidiary of HEAnet, provides MIS shared services to the higher education sector:

**www.educampus.ie**

# Contents

## Chairman's Foreword

"The shared services and support HEAnet provide for the education and research sector ensure that its clients, their students and staff have a 'fit for purpose' network in place to serve their needs"

HEAnet shared services underpin academic education and research activity in Ireland, with approximately one million users relying on the network each day for their learning and research needs.

The continued growth and development of the organisation is a great asset to the education and research sector in Ireland. The shared services and support it provides for the sector ensure that its clients, their students and staff have a 'fit for purpose' network in place to serve their needs.

This updated strategy and the delivery of the strategic goals and targets will ensure that HEAnet remains relevant, responsive, effective, innovative and a key enabler for the education and research sector.  Furthermore, its focus on providing the best quality support systems and value for money will ensure that it continues to be an exemplar for the delivery of shared services for the sector.

I would like, on behalf of the Board, to express our gratitude to the many stakeholders who so generously gave of their time and energy in contributing to the development of the updated strategy. I would also like to acknowledge the work of the members of the Board, the Chief Executive and staff of HEAnet.

This combined effort and commitment ensures that we continue to achieve our goal of providing a vital piece of the underpinning infrastructure for education and research in Ireland.

**Jim Fennell,**
Chairman, Board of HEAnet

## Message from the Chief Executive

<p style="color:blue">"Our ambition remains clear - we intend to leverage our world class network to enhance our contribution as a valuable resource for our clients in the years to come"</p>

Against a backdrop of ever-accelerating change within the higher education sector, sweeping transformation in the ICT environment and a new economic order, HEAnet has responded by updating its organisation strategy, *"Collaboration - The Key to Development and Success"* covering an additional two years, 2017 - 2018.

The contribution by many of our clients, colleagues and Board members has given this updated strategy a focus and vision that will enable HEAnet to deliver further value and support for our clients.

This is particularly important in the face of reduced resources and the emergence of radical new solutions for ICT service delivery.

We have taken on board the requirements of our stakeholders and their changing service delivery expectations and are very conscious of the role that all of us within the organisation must play in delivering upon these goals. This updated strategy has at its heart a shared vision and a set of strategic goals and targets which will enable us to continually assist our clients in meeting their business challenges.

One of our key challenges is identifying common solutions to our clients' differing needs across the spectrum of cloud based services. This can only be successfully achieved through real partnership and collaboration between HEAnet and its clients. This collaboration is critical for us in delivering on our mission while playing a key role in the education and research sector.

Our staff's commitment, enthusiasm and expertise has contributed to the development of a world class network, supporting education and research in Ireland and becoming a trusted partner for our clients. Our ambition remains clear – we intend to leverage our world class network to enhance our contribution as a valuable resource for our clients in the years to come.

Today, HEAnet stands as a valued provider of ICT shared services across all levels of the Irish education and research sector, serving client needs in a trusted, collaborative, delivery oriented and cost-effective manner.

**John Boland,**
Chief Executive, HEAnet

## HEAnet's Mission

**To realise Ireland's education and research goals in partnership with our clients**

**by providing advanced infrastructure and services**

## HEAnet's Guiding Principles

| | |
|---|---|
| **Integrity** | **Service Centric** |
| **Openness & Transparency** | **Delivery Oriented** |
| **Collaboration & Enthusiasm** | **Value for Money** |
| **Client Focus** | **Innovative** |

## HEAnet's Vision

**Collaborative Partner**

**Trusted Provider**

**Cloud Competence**

**Innovative Solutions**

**Shared Services**

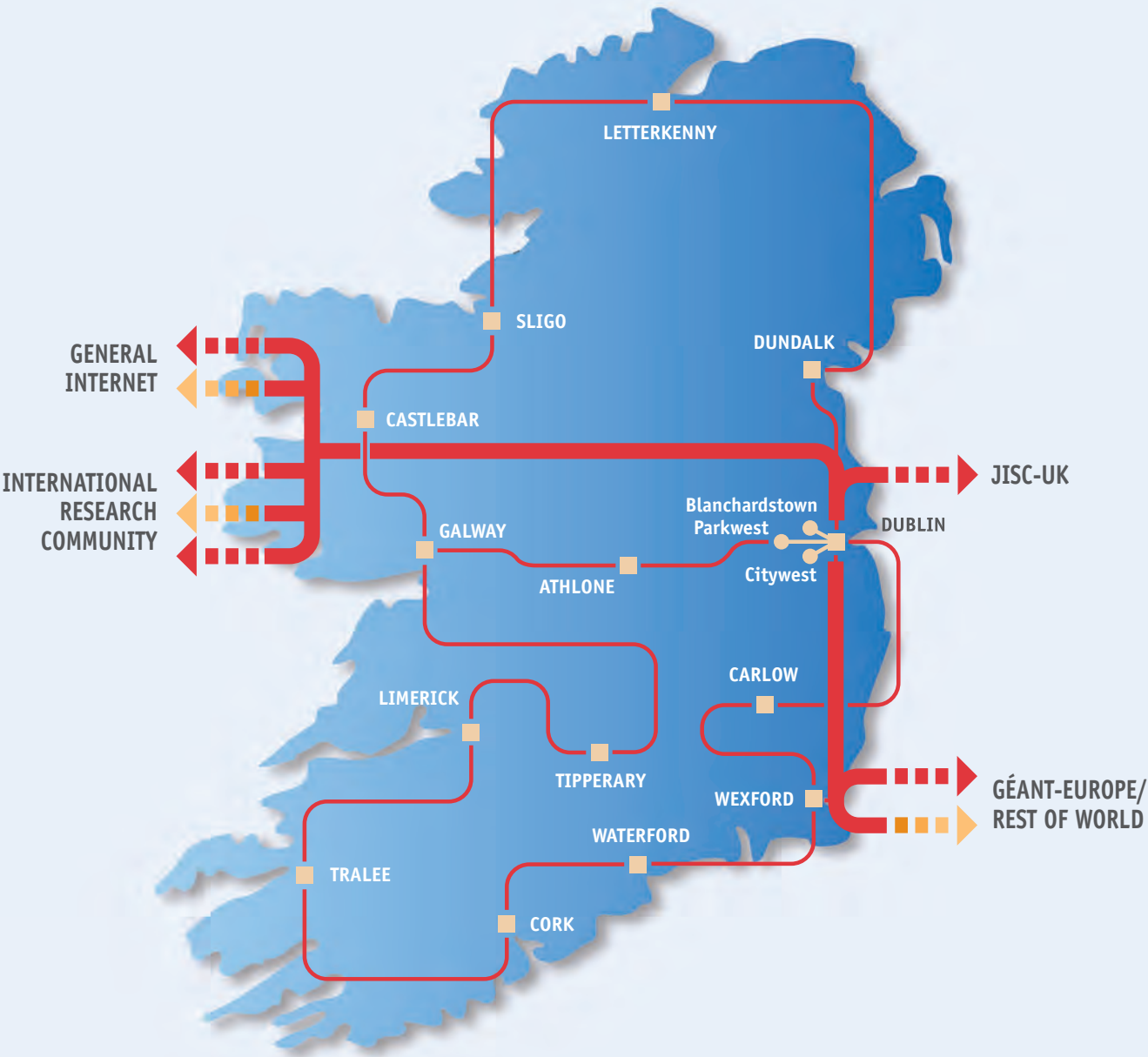**Identity Federation**

**Brokerage**

**Key Advisor**

**Conduit to Europe**

**Excellent Place To Work**

We have developed strategic goals and targets for each element of our vision.
Please see pages 14 to 23 for a full development of each one.

GENERAL
INTERNET

INTERNATIONAL
RESEARCH
COMMUNITY

JISC-UK

LETTERKENNY

SLIGO

DUNDALK

CASTLEBAR

Blanchardstown
Parkwest

DUBLIN

GALWAY

ATHLONE

Citywest

CARLOW

LIMERICK

TIPPERARY

WEXFORD

GÉANT-EUROPE/
REST OF WORLD

WATERFORD

TRALEE

CORK

## About HEAnet

# HEAnet is Ireland's National Education and Research Network, providing Internet connectivity and shared ICT services to educational and research organisations throughout Ireland.

HEAnet's ICT services underpin academic research and education activity in Ireland with just over one million people (210,000 third-level students & staff and 800,000 first and second-level students & staff) relying on the HEAnet network each day for their learning and research needs.

It is HEAnet that connects these Irish based learners and researchers to the Internet, on-line educational resources, and to fellow national educational and research networks in Europe, the USA, Asia and the rest of the world.

The company was established in 1983 by the Irish Universities with the support of the Higher Education Authority. Since its incorporation in 1997, it has successfully provisioned a robust 100 Gbps capable, high-bandwidth network connecting all Irish Universities, Institutes of Technology, other higher education institutions (HEIs), research organisations, and all primary and post-primary schools across Ireland.
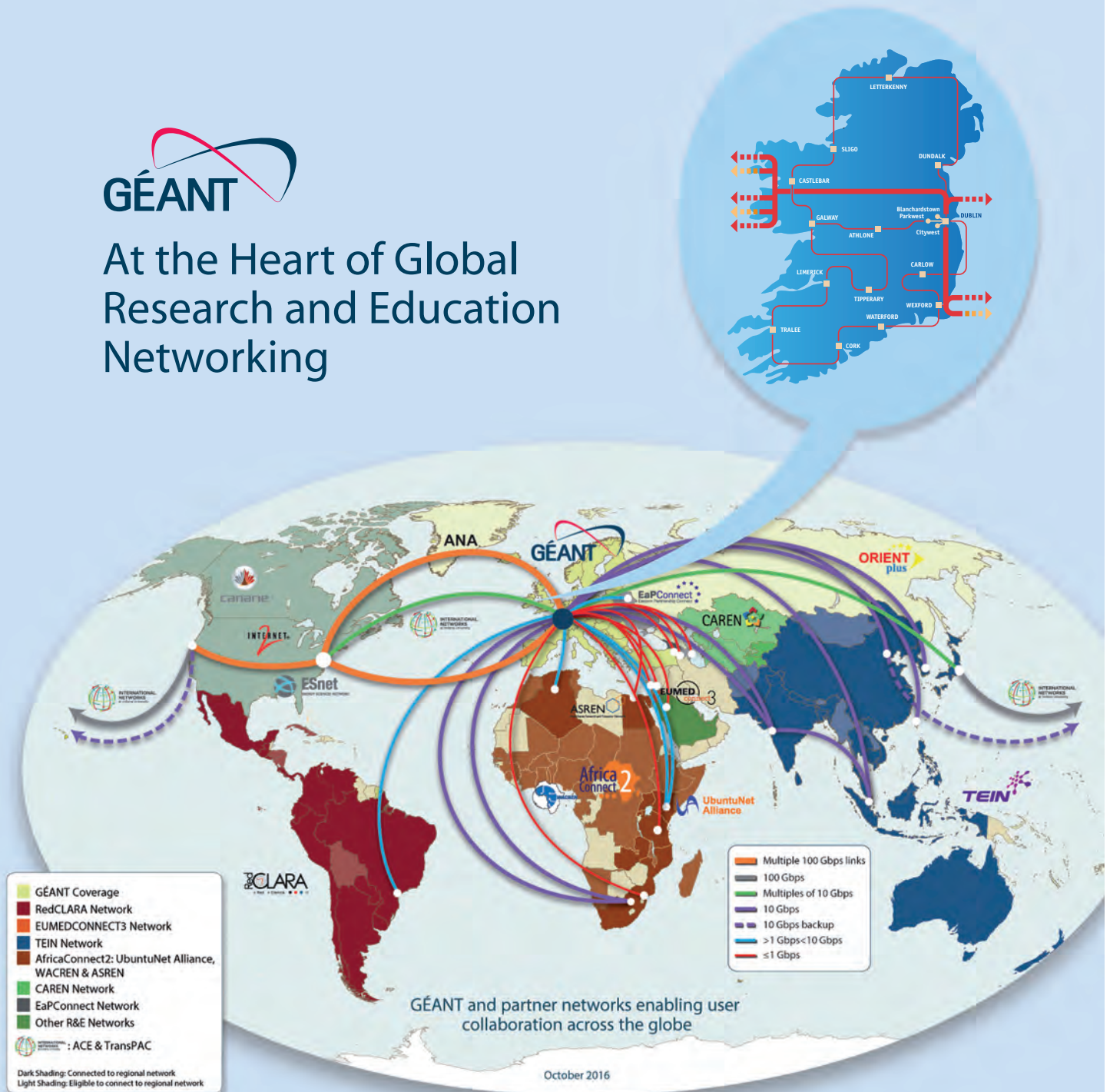
HEAnet is guided by the principles of integrity, openness & transparency and collaboration & enthusiasm. It is also client focused, service centric, delivery oriented and innovative.

HEAnet is publically funded through the Higher Education Authority (HEA), the Department of Education and Skills (DES), the Department of Communications Energy and Natural Resources (DCENR), the European Commission (EU) and its third-level sector client charges.

Value for money remains at the heart of the HEAnet operation and we are committed to delivering ICT services to support the needs of our client community.

GÉANT

# At the Heart of Global Research and Education Networking

GÉANT and partner networks enabling user collaboration across the globe

October 2016

**GÉANT Coverage**
**RedCLARA Network**
**EUMEDCONNECT3 Network**
**TEIN Network**
**AfricaConnect2: UbuntuNet Alliance, WACREN & ASREN**
**CAREN Network**
**EaPConnect Network**
**Other R&E Networks**

: ACE & TransPAC

Dark Shading: Connected to regional network
Light Shading: Eligible to connect to regional network

Multiple 100 Gbps links
100 Gbps
Multiples of 10 Gbps
10 Gbps
10 Gbps backup
>1 Gbps<10 Gbps
≤1 Gbps

GÉANT
Networks · Services · People
www.geant.org

Funded by the European Union

## The Environment within which HEAnet Operates

In devising our updated HEAnet strategy, an understanding of both the changing technological and educational landscape is needed as these developments are driving new educational processes.

Cloud computing and the continued proliferation of anytime-anywhere access is having a profound effect on how education services will be delivered in the future. New technologies are presenting new challenges for education institutions. However, with these challenges come real benefits.

Technological developments are enabling students to learn in a more effective manner while also allowing the teacher or lecturer to deploy technological tools in a manner more conducive to improved learning outcomes. Students can access high quality learning materials anytime, anywhere from their home, college and mobile devices, at a pace appropriate to their learning needs.

This changing technical environment is having a fundamental impact on how education is being delivered by our educational institutions, while also impacting how students access education services.

Having developed a world-class network to underpin education and research services, the requirement now is for HEAnet to further develop ICT services to support the delivery of shared services for this new environment.

HEAnet is committed to delivering ICT services which meet the business needs of our clients and recognises that 24 X 7 on-call support for key services is a fundamental requirement.

**The key challenges facing HEAnet include:**

- Adapting to the Digital transformation and sustainable digtal campus strategies being planned and implemented by many of our clients

- The critical move into cloud services and the cloud brokerage arena

- The demand for 24 X 7 on-call support

- Adapting to the fast pace of change in the educational environment including access to virtual learning environments

- The need for future-proofed, resilient, reliable, high-capacity network provisioning to both the physical campus and internationally based services

- The requirement for cyber security services and professional services in this arena to mitigate against the risks faced by our client community

- The ability to secure funding to enable continued investment in the HEAnet network while acknowledging the fiscal constraints and restructuring of Irish Higher Education Institutions

- The requirement for the provision of professional services in the area of identity management

- Adapting to the fast pace of change in the technical environment including consumerisation of ICT services and the Internet of Things

HEAnet is in a unique position to act as a leader and aggregator of cloud computing and ICT services for its community, solidifying its established reputation as a trusted provider of world-class networking and ICT shared services.

## Process of Strategy Development

A recognised characteristic of HEAnet's normal working practice is credible stakeholder engagement and this was again the case in the development of our updated strategy. In determining our future direction, we initiated a process of research and consultation.

A number of our clients and stakeholders were invited to contribute their external perspective to the process of developing and informing our updated strategy.

Amongst them, we were fortunate to gain insights from a range of stakeholders within the Information Services community. This was complemented by the involvement of our own staff, managers and Board members in the process.

**This consultation process consisted of:**

- A series of one-to-one interviews;
- Internal staff and management workshops;
- Meetings with University IT Directors;
- Meetings with Institutes of Technology IT Managers;
- Consultations with HEAnet Board members.

**The purpose of these consultations was to:**

- Take a critical look at the HEAnet strengths and weaknesses;
- Examine its relevance to and relationship with the education and research community;
- Test and inform HEAnet's understanding of the needs of and challenges facing its clients;
- Identify opportunities and threats to the organisation's continued success;
- Invite suggestions for the organisation's future direction.

The information and understanding gained during the process was both encouraging and vital to the ultimate development of our updated strategy.

By inviting a number of stakeholders to partake in this consultation, the intention was to demonstrate the openness, transparency and inclusiveness that has been the mainstay of our culture since the company's inception.

The response received from our stakeholders was generous and invaluable and the insights, time and energy that they readily donated in contributing to the process was very much appreciated by us and we would like to thank them all most sincerely for their inputs.

## Introduction to our Updated Strategy

This updated strategy covers the two-year period 2017 - 2018 with a fundamental review to take place in 2018.

The HEAnet Strategic Plan 2014 - 2016 was reviewed at the end of 2015 and a number of recommendations were provided to the Board and approved by them as follows:

1. To extend the 2014 - 2016 strategic plan by a further two years covering 2017 - 2018.

2. To adopt a rolling planning strategy model.

A rolling planning approach allows HEAnet to be flexible and responsive to the dynamic environment in which it operates and will incorporate an annual review and renew process, periodic fundamental reviews and consultation with the stakeholders.

The rolling planning strategy model facilitates the revision and development of our strategic goals, where necessary, while maintaining a focus on our stated mission, vision and guiding principles.

| HEAnet's Vision | | |
| --- | --- | --- |
| Collaborative Partner | Trusted Provider | Cloud Competence |
| Innovative Solutions | Shared Services | Identity Federation |
| Brokerage | Key Advisor | Conduit to Europe |
| | Excellent Place To Work | |

## 1. Collaborative Partner

**Be a collaborative partner who delivers services intrinsic to the business of our clients**

| Goals | Targets |
|-------|---------|
| Continued provision of appropriate Cyber Security Services | Agree and deliver upon SLAs for Cyber Security Services |
| Provision of 24/7 on-call support for mission critical services | 24/7 on-call support arrangements extended to three (03) additional services |
| We are delivering services that support the businesses of our clients | Improved Net Promotor Score (NPS) i.e. greater than NPS 60 |

## 2. Trusted Provider

**Continue to be the trusted provider of advanced networking and infrastructure services on a value for money basis**

| Goals | Targets |
|---|---|
| Replacement of HEAnet Metropolitan Area Network Equipment (RMAN) to deliver advanced networking services | Clients using edge-to-edge advanced Ethernet services in 2018 |
| | Old network decommissioned and removed in 2018 |
| Integrate public cloud infrastructure services with client requirements and existing/emerging HEAnet services | Facilitate connectivity with cloud providers |
| | Trial use of public cloud for Disaster Recovery services by Q3, 2017 |
| Lead the delivery of advanced infrastructural services | Annual service plan circulated to clients in Q1 of relevant year |
| | Service infrastructure strategy revised by Q2, 2017 |

# 3.  Cloud Competence

------------------------------------------------------------

## Become a centre of excellence for cloud competence

| Goals | Targets |
|---|---|
| Be a source of independent cloud competence for our clients | HEAnet to lead at least one (01) major cloud consultancy engagement with a HEI on an annual basis |
| Provision HEAnet Services leveraging public cloud providers | Migrate one or more service(s) to a public cloud provider |
| Staff to hold expertise in major cloud technologies | Staff to hold expertise across three (03) major cloud vendor offerings |

## 4. Innovative Solutions

**Deliver opportunities for clients to collaborate on innovative solutions**

| Goals | Targets |
|---|---|
| High engagement from our clients with us in collaborating on strategic service development | HEAnet clients are included in the process of our strategic service development |
| The creation of working groups to enable clients to come together to share expertise | Establish appropriate working groups to foster client collaboration on innovative solutions |
| Clear evidence of collaborative outcomes | Tangible output from collaboration leading to the provision of service enhancements or new services |

## 5. Shared Services

### Deliver shared services in a fast, agile and effective manner

| Goals | Targets |
|---|---|
| Delivery to agreed project timelines | Projects delivered to agreed project timelines |
| Develop the maturity of the HEAnet Project Management Governance framework | Consistent application of project management methodologies and regular reporting to the HEAnet Board on key projects |
| Contribute to the achievement of the third National Energy Efficiency Action Plan (NEEAP 3) | Reduce energy usage by 20% in the HEAnet network backbone by 2018 |

# 6. Identity Federation

**Be the driver of Identity Federation across the education and research sector and to develop the provision of extended expertise in the wider identity management domain**

| Goals | Targets |
|---|---|
| Expansion of Edugate (eduGAIN) service across all HEAnet clients | Evidence a 10% increase in authentications (annually) |
| Edugate to support one (01) additional Single Sign-On (SSO) protocol (e.g. Open ID Connect) so as to attract new service providers | Implement one (01) additional SSO protocol across Edugate services |
| HEAnet to provide extended professional services in the area of general Identity Management expertise | Deliver Identity Management best practice design for IS Services audience with external third-party support as appropriate |

BROKERAGE                    SERVICES

## 7. Brokerage

**Continue to be a key provider and broker of cost-effective procurement for the education and research sector**
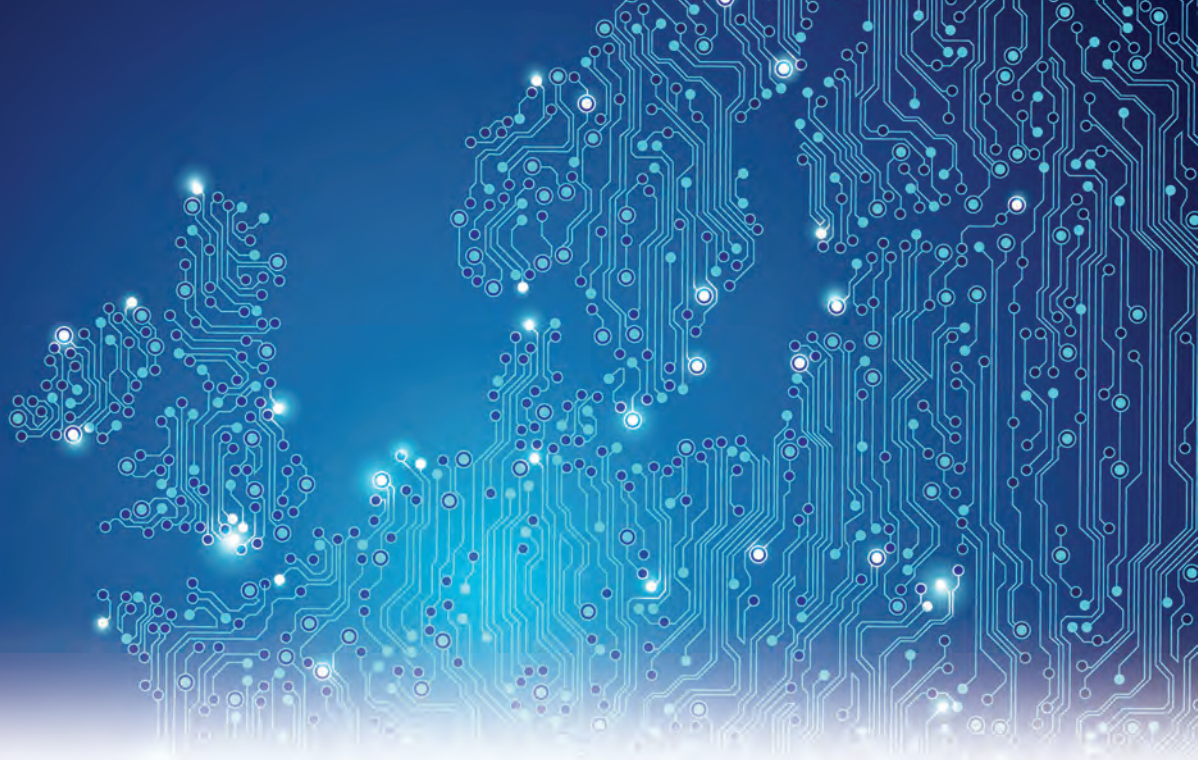
| Goals | Targets |
|---|---|
| Delivery of financial savings | Brokerage Services to deliver savings in excess of €3m annually |
| Delivery of the volume of tenders, frameworks, agreements and brokered services in line with client requirements | To maintain the current level of agreements across HEAnet, the Office of Government Procurement (OGP) and GÉANT catalogues |
| | To add one (01) new Brokerage Services Agreement per quarter (via HEAnet, OGP or GÉANT source) |
| Increase the uptake (by number of clients) of the frameworks, agreements and brokered services | HEAnet to offer brokerage advice and guidance to a minimum of ten (10) clients in order to increase the uptake of brokered services |

## 8. Key Advisor

**Be a key advisor on emergent and disruptive technologies**

| Goals | Targets |
|---|---|
| Establish best practice guidelines for cloud based application hosting | In collaboration with our clients, migrate a service to a cloud based environment |
| Actively follow national & international developments with the aim to determine the impact on HEAnet's client environment | In collaboration with our clients, publish a position paper on an emergent technology or service |
| Be a source of independent advice on multimedia communication for our clients | In collaboration with our clients, implement the HEAnet Multimedia Communication strategy by 2018 |

## 9. Conduit to Europe

**Be the conduit to Europe for the promotion of Irish education and research ICT interests and the trusted gateway to world-wide infrastructural services**

| Goals | Targets |
|---|---|
| Maintain strong links to services (VLE, Databases, Cloud), both R&E and commercial, via the GÉANT network | Work with GÉANT Operations to exceed the SLA uptime of 99.99% and ensure an awareness of the criticality of these links |
| Activate participation in relevant GÉANT projects | HEAnet staff working in their assigned GÉANT project tasks and bringing appropriate knowledge back to the company and HEAnet clients |
| Leverage pan-European knowledge and experience to help clients expand their international R&E involvement and offerings | Improve, pilot and iterate the Transnational Education (TNE) process via at least two (02) clients |

# 10. Excellent Place To Work

**Be recognised as an excellent place to work**

| Goals | Targets |
|---|---|
| Leading by Example | Management team and team managers working together to ensure that everyone is managed consistently and fairly and all employees treat each other respectfully and in line with HEAnet's guiding principles |
| Ensure that HEAnet is resourced appropriately to deliver upon the HEAnet mission | Secure adequate level of funding in order to deliver upon the HEAnet mission<br><br>Maintain the reputation of HEAnet for our association with leading edge technological developments in Ireland |
| Become an Employer of Choice | Develop and implement strategies aimed at achieving an Employer of Choice status |

# HEAnet Client List

- Athlone Institute of Technology
- Ballyfermot CFE
- Carlow College
- Central Applications Office
- College of Anaesthetists of Ireland
- Cork Institute of Technology
- Dublin City University
- Dublin Institute for Advanced Studies
- Dublin Institute of Technology
- Dundalk Institute of Technology
- Dun Laoghaire Further
  Education Institute / DFEI
- Economic and Social Research Institute
- Education & Training Boards Ireland
- EduCampus Services
- Environmental Protection Agency
- Galway-Mayo Institute of Technology
- Health Research Board
- Higher Education Authority
- Houses of the Oireachtas
- IE Domain Registry
- Irish Centre for High End
  Computing / ICHEC
- Institute of Art, Design and
  Technology Dun Laoghaire
- Institute of Public Administration
- Institute of Technology Blanchardstown
- Institute of Technology Carlow
- Institute of Technology Sligo
- Institute of Technology Tallaght, Dublin
- Institute of Technology Tralee
- Irish Universities Association
- Letterkenny Institute of Technology
- Limerick Institute of Technology
- Marine Institute
- Maynooth University

- Mountbellew Agricultural College
- National Cancer Registry, Ireland
- National College of Art and Design
- National College of Ireland
- National Digital Research Centre
- National Forum for the Enhancement of Teaching
  & Learning in Higher Education
- National University of Ireland
- National University of Ireland Galway
- PDST Technology in Education
- Post-Graduate Applications Centre
- Quality & Qualifications Ireland / QQI
- Royal College of Physicians of Ireland
- Royal College of Surgeons in Ireland
- Royal Irish Academy
- Royal Irish Academy of Music
- Smartbay Ireland
- St. Patrick's College, Thurles
- Technological Higher Education Association
  Ireland / thea
- Trinity College Dublin
- University College Cork
- University College Dublin
- University of Limerick
- Waterford Institute of Technology

## SCHOOLS

- **Broadband for Schools Programme**
- **Schools 100 Mbps Project**

4,000 primary and post-primary schools, through
the Department of Education & Skills.

# HEAnet

## Ireland's National Education & Research Network
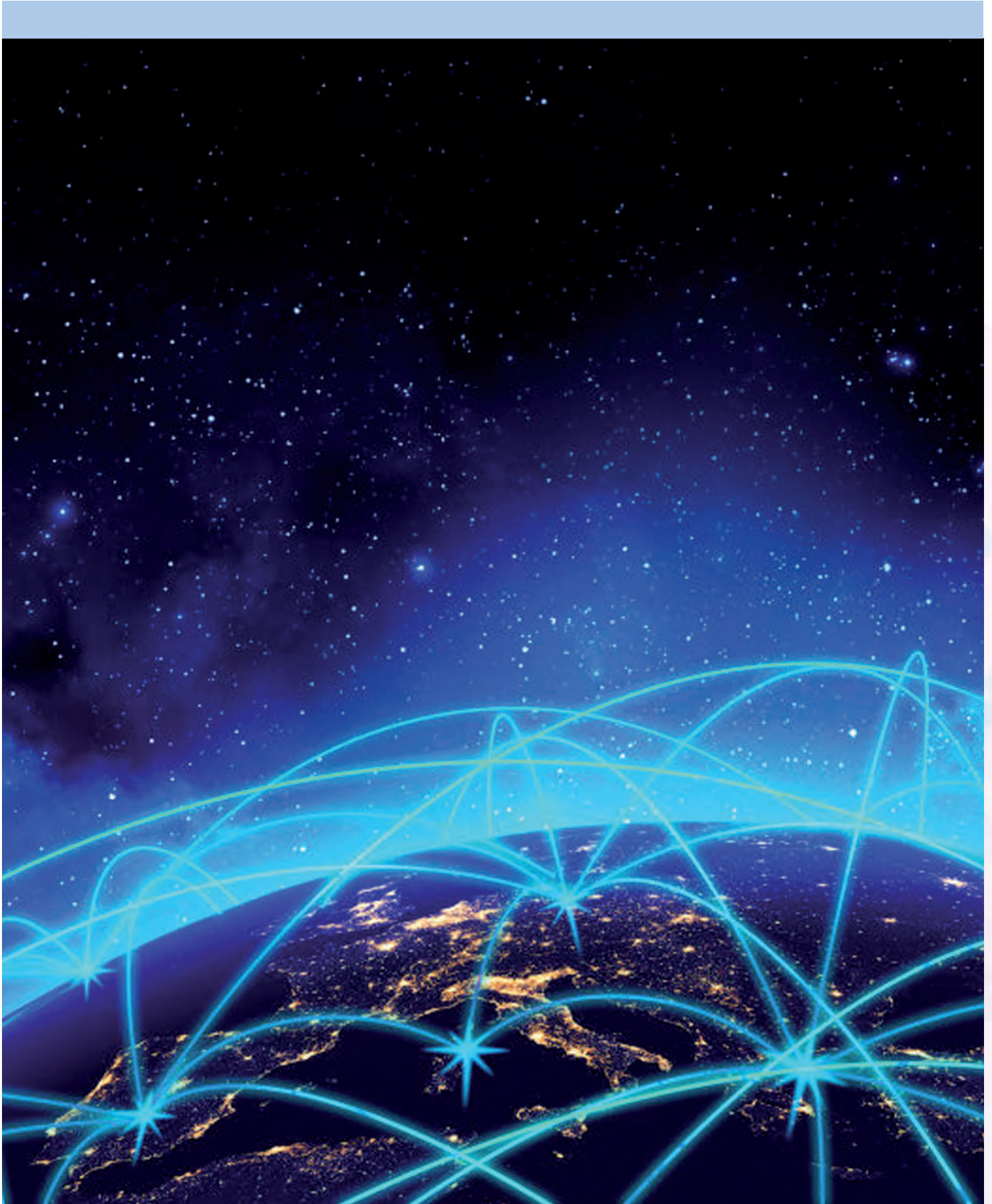
**HEAnet Limited,** 5 George's Dock, I.F.S.C., Dublin D01 X8N7, Ireland.
Tel: 01 660 9040. Email: info@heanet.ie

**www.heanet.ie**