HEAnet

Ireland's National Education & Research Network

Strategic Plan
2014 - 2016

"Collaboration - The key to Development and Success"

NDP

National Development Plan

Transforming Ireland

European Connectivity

GÉANT

The pan-European research and education network that interconnects Europe's National Research and Education Networks (NRENs). Together we connect over 50 million users at 10,000 institutions across Europe.

www.geant.net
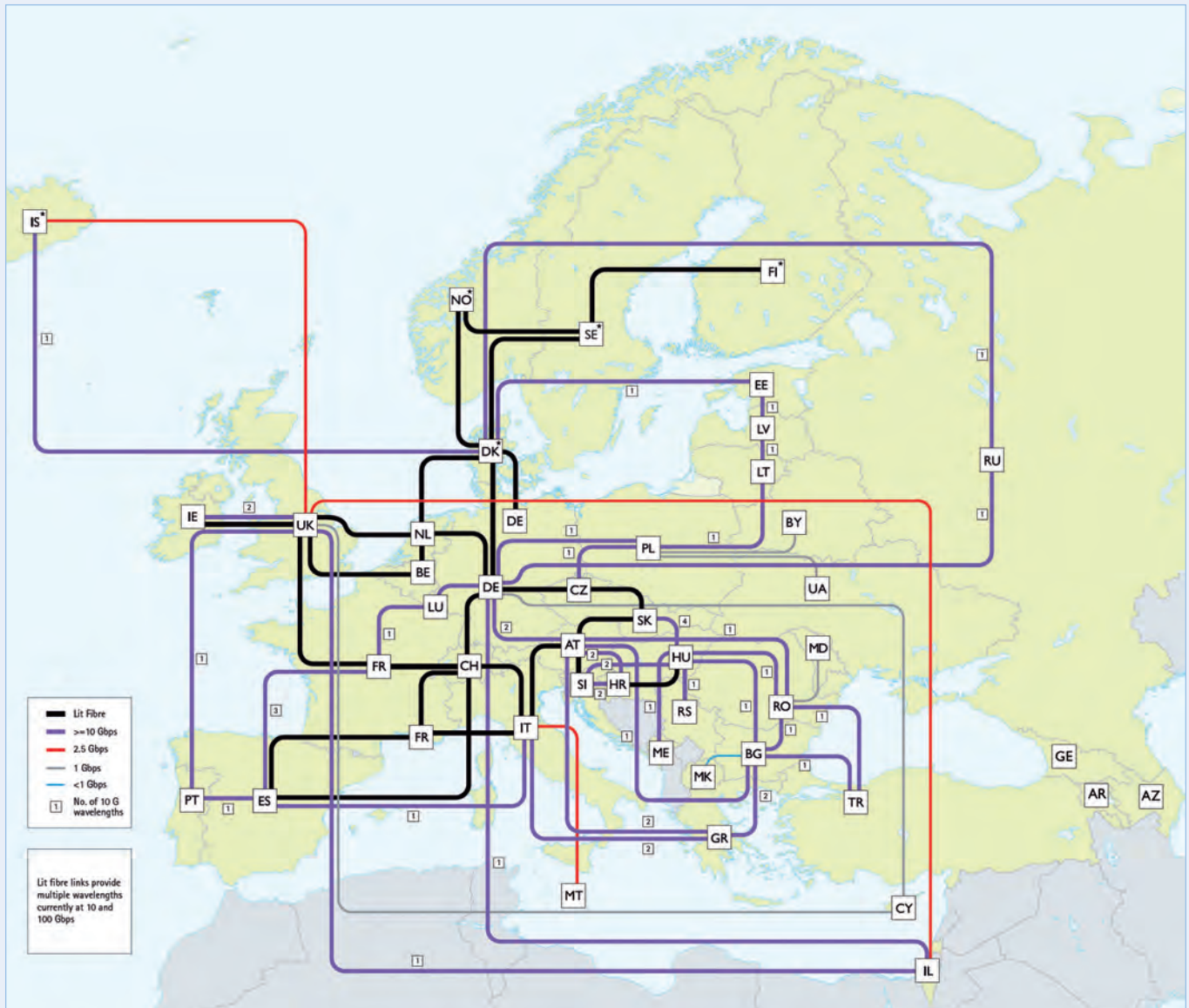
HEAnet has high quality resilient bandwidth connections (at 10 Gbit/s level) to the General Internet and the pan-European education & research network, GÉANT - which is the most advanced international research infrastructure in the world. Furthermore, HEAnet and JANET (UK) are directly connected at 1 Gbit/s level.

This global reach provides HEAnet's client base with the optimum network for cooperating and collaborating with both national and international research communities.

HEAnet's National Network Infrastructure and Clients can be seen on pages 16 and 17.

Contents

Réamhrá ón gCathaoirleach

"Fágfaidh fís nua agus spriocanna straitéiseacha HEAnet go leanfaidh an eagraíocht de bheith ag feidhmiú mar phríomhbhonneagar cumasaithe de chuid na hearnála oideachais - agus í iomchuí, freagrúil, éifeachtach agus nuálach"

Cuireann bonneagar líonraithe HEAnet taca faoi ghníomhaíocht agus nuálaíocht sa taighde ardoideachais agus cuidíonn sé go díreach le torthaí ardchaighdeáin a bhaint amach i réimse an ardoideachais i dtaca le céimithe, nuálaíocht agus aistriú eolais - ar nithe iad go léir a chuireann le forbairt eacnamaíoch agus shóisialta.

Thairis sin, tá cinneadh an Rialtais infheistíocht a dhéanamh i rochtain idirlín ardluais do gach aon scoil in Éirinn ag brath ar líonrú ceangailte HEAnet, lena ndéantar na leibhéil oideachais uile, ón mbunscoil go dtí an taighde iardhochtúireachta, a nascadh le chéile.

Fágfaidh fís nua agus spriocanna straitéiseacha HEAnet go leanfaidh an eagraíocht de bheith ag feidhmiú mar phríomhbhonneagar cumasaithe de chuid na hearnála oideachais - agus í iomchuí, freagrúil, éifeachtach agus nuálach.

Tá an Straitéis seo á heisiúint ag am tábhachtach don ardoideachas agus don taighde. Tá an córas á athchóiriú go suntasach faoi láthair chun córas níos comhordaithe d'institiúidí atá dírithe ar mhisin shonracha a chruthú, d'fhonn eispéireas ardchaighdeáin a chur ar fáil do mhic léinn

agus torthaí ardchaighdeáin a bhaint amach a bheidh ar aon dul leis na spriocanna náisiúnta. Beidh clár suntasach um institiúidí agus cláir a chomhdhlúthú ag teastáil chun an t-athchóiriú sin a chur i gcrích. Ina theannta sin, tá an Straitéis seo á cur ar fáil ag tráth nuair atá béim mhór á leagan ag an Rialtas ar sheirbhísí comhroinnte agus ar sholáthar comhroinnte toisc é a bheith riachtanach an táirgiúlacht a bhaintear amach le cistí poiblí a mhéadú. Nuair a bhunaigh an earnáil ardoideachais HEAnet, ba ghníomh ceannródaíoch é, agus is eagraíocht í atá tagtha i dtreis agus atá mar eiseamláir don tseirbhís phoiblí i gcoitinne anois.

Tá an Straitéis seo bunaithe ar chuntas teiste láidir maidir le luach ar airgead a fháil ar infheistíocht phoiblí agus seirbhís ardchaighdeáin a chur ar fáil do chustaiméirí ag gach céim den leanúntas oideachais. Cuirfidh na seirbhísí agus an tacaíocht atá molta ag HEAnet sa straitéis seo ar a chumas leanúint ar aghaidh leis an obair seo agus a chinntiú go mbeidh bonneagar 'oiriúnach don fheidhm' ag cliant, mic léinn agus baill foirne acadúla agus tacaíochta, ar bonneagar é a fhreastalóidh ar a riachtanais i dtimpeallacht dhúshlánach a bhíonn ag síorathrú.

Thar ceann an Bhoird, ba bhreá liom an deis seo a thapú buíochas a ghabháil leis na páirtithe leasmhara go léir a chaith dua agus dúthracht le forbairt na straitéise nua. Mar gheall ar an gcomhiarracht agus an tiomantas sin, níl aon amhras ach go n-éireoidh linn ár spriocanna a bhaint amach agus comhpháirt riachtanach de bhonneagar fothaca an ardoideachais agus an taighde in Éirinn a chur ar fáil.

Tom Boland, Uachtarán, An Líonra Oideachais agus Taighde Náisiúnta na hÉireann, Príomhfheidhmeannach, An tÚdarás um Ard-Oideachas

Chairman's Foreword

"HEAnet's new vision and strategic goals will ensure that the organisation remains a key enabling infrastructure for the education sector - relevant, responsive, effective and innovative"

HEAnet's networking infrastructure underpins higher education research activity and innovation and contributes in a very direct way to producing high quality outcomes from higher education in terms of graduates, innovation and knowledge transfer - all of which contribute to economic and social development

Furthermore, the Government's decision to invest in high speed internet access for all schools in Ireland depends on HEAnet's joined up networking which links all education levels, from primary schools to post-doctoral research.

HEAnet's new vision and strategic goals will ensure that the organisation remains a key enabling infrastructure for the education sector - relevant, responsive, effective and innovative.

The Strategy comes at an important juncture for higher education and research. At present the system is undergoing a major reform process with the objective of creating a more coordinated system of mission specific institutions, the better to provide a quality student experience and quality outcomes aligned with national objectives. Reform will involve a substantial programme of institutional and programme consolidation. The Strategy also comes at a time when the Government, due to the demands for greater productivity from public funds, is placing strong stress on shared services and shared procurement.

In establishing HEAnet, the higher education sector was ahead of their time and now the organisation has come into its own as an exemplar to the rest of the public service.

This Strategy builds on a strong record of delivering value for money from public investment and a high quality service to its customers right across the education continuum. The services and support HEAnet proposes in this strategy will enable it to continue that fine record and ensure that clients, students and academic and support staff will have a 'fit for purpose' infrastructure in place to serve their needs in a demanding and ever changing environment.

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

Tom Boland, Chief Executive, Higher Education Authority & Chairman, Board of HEAnet

Message from the CEO

"Our ambition is clear - we intend to build on our world class infrastructure and enhance our contribution as a valuable resource for our clients in the years to come"

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 developed a responsive organisational strategy, "Collaboration - The Key to Development and Success".

The contribution of so many of our clients, colleagues and Board members has given this new 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. HEAnet as a shared service provider values its unique position as a vehicle for the education and research sector. This strategy has at its heart a shared vision and a set of strategic goals which will enable HEAnet to assist our clients in meeting their business challenges.

Our staff's commitment, enthusiasm and expertise has enabled us to develop a world class network infrastructure, to support education and research in Ireland and to become a trusted partner for our clients.

We have taken on board the requirements of our stakeholders regarding their changing service delivery expectations and we are very conscious of the role that all of us within the HEAnet organisation must play in meeting these goals.

One of these challenges is identifying common solutions to our clients' differing needs across the spectrum of emerging 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 and playing a key role in the education and research sector.

Our ambition is clear - we intend to build on our world class infrastructure and enhance our contribution as a valuable resource for our clients in the years to come.

John Boland, CEO, HEAnet

1. About HEAnet

HEAnet is Ireland's National Education and Research Network, providing cutting edge Internet, associated ICT and e-Infrastructure services to educational and research organisations throughout Ireland.

HEAnet's e-Infrastructure services underpin academic research and education activity in Ireland with approximately 200,000 students & staff (third-level) and approximately 800,000 students & staff (first and second-level) relying on the HEAnet network each day for their learning and research needs.

Established in 1983 by the Irish Universities with the support of the Higher Education Authority, HEAnet now provides essential e-Infrastructure services across all levels of the Irish education system. Our high quality resilient network connects all Irish Universities, Institutes of Technology and other higher education institutions (HEIs), along with research organisations, and all primary and post-primary schools across Ireland. HEAnet is guided by corporate values of integrity, openness & transparency, collaboration and enthusiasm amongst its staff.

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

HEAnet's funding comes from Universities, Institutes of Technology, The Higher Education Authority, The Department of Education and Skills, The Department of Communications Energy and Natural Resources, other education and research organisations in the Republic of Ireland, the National Development Plan (NDP), the European Commission, and through successful tenders and proposals.

Cost-efficiency remains at the heart of the HEAnet operation and we are committed to providing e-infrastructure platforms to support the needs of our client community.

2. The Environment within which HEAnet Operates

In devising a new 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 device, 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 built a world-class networking infrastructure to underpin education and research services, the requirement now is for HEAnet to further develop e-infrastructure platforms to support the delivery of shared services for this new environment.

The key challenges facing HEAnet include:

- the ability to secure funding to enable continued investment in the HEAnet network and the move into the cloud infrastructure and cloud brokering arenas

- the combined impact of mobile access and cloud computing

- the need for resilient high-capacity network provisioning to both the physical campus and internationally based services

- adapting to the fast pace of change in the technical environment, including consumerisation of ICT services

- adapting to the fast pace of change in the educational environment including access to virtual learning environments, the advent of MOOCs etc (Massive Open Online Courses)

- the fiscal constraints and restructuring of Irish Higher Education Institutions

The combination of these forces places HEAnet in a unique position to act as a leader and aggregator of cloud computing and e-infrastructure services for its community, building on its established reputation as a trusted provider of world-class networking and ICT shared services.

3. 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 new strategy. In determining our future direction, we initiated a process of robust research, consultation and analysis.

A large number of our clients, users, peers and industry partners were invited to contribute their external perspective to the process.

Amongst them, we were fortunate to gain insights from a broad range of stakeholders within the Teaching & Learning, ISS, Library Services, Research and Educational Services communities. This was complimented by the involvement of our own staff, managers and Board members in the process.

This consultation process consisted of:

• Regional stakeholder workshops;

• A series of one-to-one interviews;

• Internal staff and management workshops;

• Research into the strategies of other NRENs;

• Fact-finding conversations with key industry representatives;

• Meetings with University Computer Centre Directors and Institutes of Technology IT Managers;

• A HEAnet Board workshop.

The purpose of these consultations was to:

• Take a critical look at HEAnet strengths and weaknesses;

• Examine its relevance to and relationship with the education & research community;

• Test and inform HEAnet's understanding of the needs of and challenges facing its clients;

• Identify opportunities for and threats to the organisation's continued success;

• Invite suggestions for the organisation's future direction.

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

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

The response received from our stakeholders was generous and invaluable, insofar as 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.

4. Introduction to our New Strategy

Consultations with stakeholders over the past number of months have made it clear that this strategic plan must require HEAnet to make a step change in terms of its service offering, performance and agility so that, in a rapidly changing environment, it continues to make a significant contribution to the education and research community in Ireland.

This strategy will cover the 3-year period 2014-2016 with a substantial review at the end of 2015 - at which time, it may be extended for a further 2 years if deemed appropriate.

HEAnet's Mission is:

**To realise Ireland's education and research goals
in partnership with our clients
by providing advanced infrastructure and services**

VISION

- **Be a collaborative partner who is intrinsic to the business of our clients;**

  - continue to be the trusted provider of networking and infrastructure services;
  - be the preferred broker of cloud and other services to our clients;
  - be the link that facilitates clients to collaborate on innovative solutions;

- **Be recognised for fast, agile and efficient delivery of shared services;**

- **Be the driver of Identity Federation across the education & research sector and into the wider public service;**

- **Continue to be a key provider of cost-effective procurement for the education and research sector;**

- **Be a key advisor in the development and emergence of new and disruptive technologies;**

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

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

5. Success Indicators

To measure and evaluate the degree to which we deliver our strategy, success indicators for each element of our vision have been defined against which we will continuously evaluate our performance.

> **" Be a collaborative partner who is intrinsic to the business of our clients"**

- to be part of the team that our clients rely on for strategic service planning;
- clients rely on us for service implementation;
- we are a partner in planning and funding shared services;
- we are delivering services that support the businesses of our clients.

- continue to be the trusted provider of networking and infrastructure services

- be the first port of call for a client to improve their network connectivity;

- have the reputation for independent, neutral and quality advice;

- significant usage by clients of our shared infrastructure services;

- we are the client's partner in developing new infrastructure services;

- we deliver to an extended set of SLAs.

- be the preferred broker of cloud and other services to our clients

- primary partner for clients when investigating new cloud and related services;

- a track record of brokered service adoption by clients;

- establishment of a team with outsourcing and brokering expertise;

- provide the procedural infrastructure for clients to access cloud and infrastructure suppliers;

- deliver a wide portfolio of relevant brokered solutions which are delivering cost savings.

- be the link that facilitates client collaboration on innovative solutions

- the creation of task forces to enable clients to come together to share expertise;

- project leadership for clients to collectively explore innovative solutions;

- high engagement by our clients with us in collaborating on strategic service development;

- clear evidence of collaborative outcomes.

" Be recognised for fast, agile and efficient delivery of shared services"

• deliver to agreed project timelines and expectations;

• level of client uptake;

• simple, open, transparent service evaluation process;

• time taken to qualify an opportunity "in" or "out";

• timely internal/Board/HEA funding of proposals;

• delivery of Service Level Agreements;

• provision of 24/7 support as appropriate.

" Be the driver of Identity Federation across the education and research sector and into the wider public service"

• expansion of Edugate service across all HEAnet clients;

• collaboration/engagement with interested parties in the wider public service regarding federation opportunities;

• achievement of support and funding for federation projects and federated identity at schools level;

• all new HEAnet-originated services delivered and accessible via federation.

" Continue to be a key provider of cost-effective procurement for the education and research sector"

- the volume of tenders, frameworks, license agreements and brokered services;
- uptake (by number of clients) of the frameworks, license agreements and brokered services;
- financial savings delivered;
- an independent study to assess the value being created by HEAnet for its clients;
- we deliver to an extended set of SLAs.

" Be a key advisor in the development and emergence of new and disruptive technologies"

- through national and international collaborations, ensure that HEAnet has visibility of new and emerging technologies;
- the extent to which we are involved with emerging technologies with clients;
- being regarded as a key partner in relevant internationally funded collaborative projects;
- conversion into operational service or tangible output.

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

- 99.999% uptime to the GÉANT network and associated services;
- provision of reliable connectivity to international commercial services (e.g. VLEs, library databases, etc.);
- active participation by HEAnet in European projects such as GÉANT and Terena etc;
- increased participation by clients in European conferences and task forces;
- we deliver to an extended set of SLAs.

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

- level of staff retention;
- level of staff satisfaction;
- reputation for our association with leading edge technological developments in Ireland;
- successful recruitment of people with key skills;
- management team recognised for managing people well - making employees feel valued and leading by example.

HEAnet Staff - November 2013

Front Row: (l to r): Pawel Wadja, Janusz Ulanowski, Garwin Liu, John Boland, Donal O'Cearbhaill, Kevin O'Riordan, Daniel Lete and Paul McDonnell.

2nd Row: (l to r): Orla McGann, Katie Harris, Marie O'Sullivan, Rhian Williams, Luis Naia, Elaine Lynch, Fi Coyle, Aideen Kelly, Cliona Mullins, Victor Reijs and Justin Hourigan.

3rd Row: (l to r): Kevin Brew, Garreth Malone, Kevin Dermody, Garvan McFeeley, Andrew Mackarel, Brian McArdle, Liam Kennedy and Karen Duffy.

Back Row: (l to r): Eamonn Wilson, Aidan Carty, Damian Furlong, Eoin Kenny, Brian Boyle, Matus Banas, Robert Hackett, Brian Nisbet, Rob Gallagher, Cormac Ó Cianáin, Cillian Sharkey, Susie Leacy, Dave Wilson, Glenn Wearen and Ronan Byrne.

Missing from Photograph: Conor Quigley, David Stafford, Gillian Warren, Louis Twomey, Paul Cormack, Samantha Armstrong and Tony Gray.

Network Infrastucture
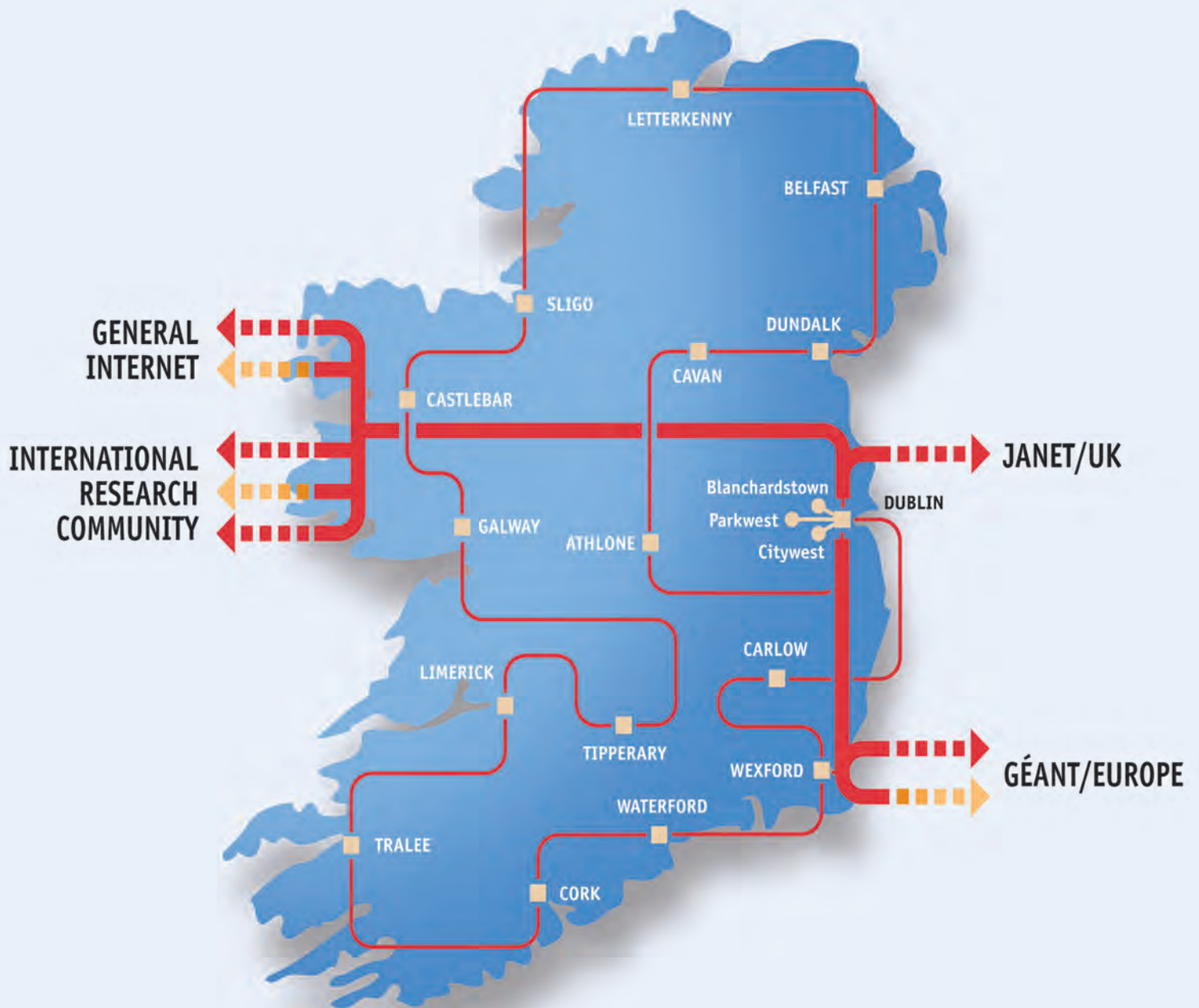
Client List

- Athlone Institute of Technology
- An Chéim
- Carlow College
- Cavan & Monaghan ETB
- Central Applications Office
- City of Dublin ETB (Ballyfermot CFE, Killester, Whitehall)
- Coláiste Stiofáin Naofa
- College of Anaesthetists of Ireland
- Cork ETB
- Cork Institute of Technology
- Dublin City University
- Dublin & Dun Laoghaire ETB
- Dublin Institute for Advanced Studies
- Dublin Institute of Technology
- Dundalk Institute of Technology
- Economic and Social Research Institute
- Education & Training Boards Ireland
- Environmental Protection Agency
- Galway/Mayo Institute of Technology
- Georgia Tech Ireland
- Grangegorman Development Agency
- Health Research Board
- Higher Education Authority
- 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

- Institutes of Technology Ireland
- Irish Universities Association
- Kildare & Wicklow ETB
- Laois & Offaly ETB
- Letterkenny Institute of Technology
- Limerick & Clare ETB
- Limerick Institute of Technology
- Louth & Meath ETB
- Marine Institute
- National Cancer Registry, Ireland
- National Centre for Technology in Education
- National College of Art and Design
- National College of Ireland
- National Digital Research Centre
- National University of Ireland
- National University of Ireland Galway
- National University of Ireland Maynooth
- Post-Graduate Applications Centre
- Quality & Qualifications Ireland/QQI
- Royal College of Physicians of Ireland
- Royal College of Surgeons in Ireland
- Royal Irish Academy
- Smartbay Ireland
- St. John's Central College, Cork
- St. Patrick's College, Thurles
- Trinity College Dublin
- University College Cork
- University College Dublin
- University of Limerick
- Waterford Institute of Technology

- 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 1, Ireland.
Tel: 01 660 9040. Fax: 01 660 3666. Email: info@heanet.ie

www.heanet.ie

NDP
National Development Plan
Transforming Ireland