An early-warning system for TNE

Understanding the future global network connectivity and service needs of UK higher education

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SUMMARY REPORT
Executive summary

This report for Jisc¹ is based on feedback from the UK higher education (HE) sector on current (2014) transnational education (TNE) activities and future plans, including the locations of such activity. The exercise includes feedback on current and future TNE delivery modes. It is further based on feedback of a more technical nature, for example, on what the network is used for in TNE and how such IT operations are managed abroad. The resulting narrative is a synthesis of these two distinct voices from within UK higher education institutions (HEIs).

The primary data are supplemented (and preceded) by a brief analysis of the international TNE landscape, but with a focus on the UK HE sector, which is by far the most active in TNE in the world when measured by student numbers.

The purpose of this report is to equip Jisc to plan proactively and develop a sustainable strategy for the UK sector’s future TNE activities, including network provision, in the next five or so years.

Some of the findings pose no great surprise to either the researchers or to Jisc but here they are quantified. A good example is the relative significance to HEIs of the various TNE typologies: online and partnership-type operations outweigh branch campuses by a factor of about 30 to 1 according to the Higher Education Statistics Agency (HESA) data. The survey data here are roughly consistent with this, the main departure being that our sample of respondents placed greater weight on online and distance provision than is apparent in the HESA data.

Other findings were perhaps more surprising. The relative isolation of IT staff from TNE activity decision-making, and even overseas network arrangements was a case in point. A large number of IT staff were unable to answer questions on international operations, and a request to explain problems experienced in specific countries elicited a nil return. We therefore were not able to wholly identify which countries will require the most attention in terms of network connectivity.

In order to establish next steps, a SWOT analysis in the final section identifies opportunities for Jisc in the context of both the changing TNE landscape and issues raised by this report. Broadly, the thrust of the next steps for Jisc is around three main areas: developing future plans for TNE support in consultation with its customers and stakeholders; addressing the specific concerns raised by customers from the information gathered for this report, thus developing Jisc’s proposition and infrastructure capability; and in developing and delivering a coordinated communication campaign to its customers to extend knowledge both within organisations and across the sector.

The idea arose during the research that Jisc could provide a guide or toolkit with information for HEI staff involved in developing TNE technical infrastructure. In the recommendations in section 3, this idea has been extended to encompass two-way communications; a guide for example could perform functions ranging from information provision to specific information requests from the sector and individual institutions within it. In this sense, this report points more to enabling through the provision of guidance, best practice and services than to network connectivity per se.

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¹ Janet became part of the Jisc Group in 2012
1 Context

1.1 Introduction

Transnational education (TNE) refers to the provision of education qualifications from institutions in one country to students in another. It is distinct from both international student mobility and international research collaboration. The recent and current growth of TNE is well documented and UK higher education institutions (HEIs) are at the forefront of this expansion.2

In 2013 HM Government identified ‘supporting transnational education’3 as one of five key policy strands in the education component of a broader industrial strategy.4 Jisc’s5 work in supporting TNE has responded directly to this agenda, and is outlined as a case study in the ‘Industrial Strategy: government and industry in partnership – progress report’ published in April 2014.6

Other recent outputs on TNE in the UK include a consultation and report on quality assurance processes for TNE by the Quality Assurance Agency (QAA)7 and reports by the British Council on the future expansion of TNE activities and their impacts on host countries.8 In late 2014 the Department for Business, Innovation and Skills (BIS) released a substantial report on the value of TNE to the UK that arose from a sector-wide ‘census’ of TNE activities in higher education.9 This report placed an estimate of £496 million on TNE revenue in 2012-13, of which just over half came from master’s programmes. Distance learning, including online, is the most common TNE activity and delivers strong revenue. The report also admitted that it ‘cannot offer any reliable estimates of the profitability, or otherwise, of international branch campus activity to UK institutions’.10

The BIS report also provided an additional revenue estimate of £771 million from articulation programmes, whereby students transfer into the UK from overseas institutions. Although this is commonly categorised as TNE, it was separated out here as income earned in the UK rather than abroad.

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5 Janet became part of the Jisc Group in 2012


9 ‘The value of Transnational Education to the UK’, Department for Business, Innovation and Skills, November 2014. www.gov.uk/government/publications/transnational-education-value-to-the-uk. The census data in this report refer to TNE activities in 2012-13, so as to be comparable with the most recent available HESA data.

10 Ibid., p. 99.
Released on the same day as the BIS report was a paper on ‘transnational pathways’ from the Higher Education Funding Council for England (HEFCE), which found that one-third of international first degree entrants in England are recruited via TNE courses, and that a high proportion of these international students subsequently move on to postgraduate education in England. There is no question that many of these international students arrive in the UK via the articulation programmes referred to in the BIS report.

The economic and political significance of transnational education is evident, and growing. It not only provides added resilience to international recruitment when direct entry of international students to the UK comes under pressure, it also meets the needs of new cohorts of students worldwide and is more consistent with the economic development aspirations of partner countries. It thereby has the potential to reinforce UK higher education as a ‘partner of choice’.

When an activity is growing quickly, policy changes are likely to follow in response. There is little international comparative data on TNE, and what little there is, it is not directly comparable. This issue, as well as the problem in collecting and reporting UK TNE provision, are covered briefly in the next section.

Also changing rapidly is the level of demand from the UK HE sector in support of TNE activities abroad. Jisc, which offers digital services to UK education and research, has experienced an increase in such demand. This includes extending Janet, the UK’s national research and education network (NREN), to provide network services abroad. In response, it has been working across the sector with customers and policy stakeholders for a joined-up approach in delivering a TNE support programme.

This report is part of Jisc’s response. The Observatory on Borderless Higher Education, an international higher education research and monitoring unit, was engaged to secure for Jisc a better understanding of the UK HE sector’s TNE plans in the near- to medium-term future (three- five years), including where TNE provision will take place and in which formats. This amounts to an ‘early-warning system’ to facilitate proactive preparations for future requirements, including bandwidth and network connectivity – rather than reacting to these requirements in an ad hoc manner. Given Jisc’s vision of making the UK the most digitally advanced education and research nation in the world, this research is a strategic exercise on behalf of the whole UK HE sector. Jisc also wishes to ensure that UK HEIs know what they can expect from its network service provision.

1.2 Current TNE landscape

Reporting on TNE numbers has been mandatory for UK HEIs since 2007. The UK HE sector is the largest provider of TNE in the world. A snapshot of UK provision is in Figure 1, juxtaposed against TNE provision in Australia and Germany (the only other two countries that publish TNE export statistics) and against onshore provision in all three countries.

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13 See www.jisc.ac.uk/about
14 See www.jisc.ac.uk/about and www.ja.net/about-janet/about-us
15 See www.obhe.ac.uk
One problem with these numbers is that each country counts TNE in different ways. Although Australian statistics usually exclude distance and online learning, the numbers used here are international students without visas, i.e. all offshore students. German TNE numbers include neither distance learning nor twinning programmes that lead to double degrees.

But the UK is where the real problem is: the HESA ‘Aggregate Offshore Record’ indicates that the number of students on UK degrees outside the country (599,000 in 2012-13) is greater than the number coming to the UK to study (425,000 in 2012-13). This statement is much-loved by politicians but it is untrue. The 599,000 is ‘grotesquely overstated’ because of an accounting problem called the ‘Oxford Brookes effect’. Of the 599,000 students, 264,000 (44%) were registered with overseas partners for a qualification with the Association of Chartered Certified Accountants (ACCA). The arrangement is that ACCA students are also registered as Oxford Brookes students, unless they opt out. On completion of the ACCA qualification, and for a small fee, they can submit a research paper to Brookes for a BSc in Applied Accounting.

Apart from the UK, the main markets for this arrangement are Singapore, Malaysia, and Pakistan, and the growth markets are Vietnam, Nigeria, Ghana and Kenya. But between 2000, when the arrangement began, to 2013, only 17,000 actually received the BSc in Applied Accounting. The vast
majority of the students counted as Oxford Brookes TNE students in the HESA statistics therefore are not active TNE students. A revision in the way HESA reports TNE is well overdue; the 2014 BIS report on the value of TNE discusses this issue but does not directly recommend a revision. Future TNE reporting should also include that portion of Massive Online Open Courses (MOOCs) activity which becomes integrated into degree programmes, i.e. MOOCs for credit should be counted as TNE.

Even if the rogue numbers are excised from the count, the UK sector remains the largest TNE provider in the world, and it is growing. With the ACCA/Brookes caveat in mind, the UK’s top 20 TNE markets in 2012-13, with the number of students in each country, were as in Figure 2. The (↓) symbol indicates a decrease for this market compared to the previous year.

Figure 2: Top 20 countries for UK TNE, 2012-13 (including Oxford Brookes)18

<table>
<thead>
<tr>
<th>Country</th>
<th>No of students</th>
<th>Country</th>
<th>No of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Malaysia</td>
<td>68,020</td>
<td>11. Oman</td>
<td>12,995 (↓)</td>
</tr>
<tr>
<td>2. Singapore</td>
<td>50,025 (↓)</td>
<td>12. Greece</td>
<td>12,295 (↓)</td>
</tr>
<tr>
<td>3. China (mainland)</td>
<td>42,475</td>
<td>13. Sri Lanka</td>
<td>11,460</td>
</tr>
<tr>
<td>4. Pakistan</td>
<td>41,805</td>
<td>14. Germany</td>
<td>11,060</td>
</tr>
<tr>
<td>5. Hong Kong</td>
<td>29,905 (↓)</td>
<td>15. Mauritius</td>
<td>11,050</td>
</tr>
<tr>
<td>7. Ghana</td>
<td>16,900 (↓)</td>
<td>17. Egypt</td>
<td>10,610</td>
</tr>
<tr>
<td>8. UAE</td>
<td>15,125</td>
<td>18. India</td>
<td>10,125</td>
</tr>
<tr>
<td>9. Ireland</td>
<td>14,725 (↓)</td>
<td>19. Russia</td>
<td>9,525</td>
</tr>
<tr>
<td>10. Trinidad &amp; Tobago</td>
<td>13,435 (↓)</td>
<td>20. Saudi Arabia</td>
<td>8,820 (↓)</td>
</tr>
</tbody>
</table>

Compared to the previous year (2011-12), China registered the largest absolute increase, of some 4,000 TNE students. Sri Lanka had the largest relative increase – from 8,770 to 11,460. Mauritius and Germany also registered healthy increases.

For comparison, the top markets for students coming to the UK in 2011-12 were China (by a large margin), India, Nigeria, US, Germany, Ireland, Malaysia, France, Greece, Hong Kong, Cyprus, Saudi Arabia, Pakistan, Italy, and Poland.

The table in Figure 2 gives a good indication of the relative sizes of the markets. The colour chart (Figure 3) shows that in only a few cases – Malaysia, China, and UAE – a noticeable proportion (in purple) of the total TNE number is comprised of students at UK branch campuses. In almost all other markets, the number of UK campus-based students is small or zero (the purple bar is barely

18 Source: HESA 2014: Table P - Students studying wholly overseas by location (top 20 countries) and level of provision 2012/13

The Observatory on Borderless Higher Education
discernible for Mauritius, but Middlesex and Wolverhampton universities operate campuses there). The Oxford Brookes/ACCA provision would fall into the orange category in Figure 3.

Figure 3: UK TNE provision by type in the top 30 countries, 2011-12

![Figure 3: UK TNE provision by type in the top 30 countries, 2011-12](image)

Figure 4 (categories are from HESA) shows again the comparatively modest scale of the branch-campus offer – only some 15,000 students in total in 2011-12. As the Observatory’s 2012 branch-campus survey report noted, these campuses are the media-friendly end of TNE but they are not in the internationalisation plans of most HEIs. Of the 200 international branch campus (IBC) operations documented in that report, 25 were by UK HEIs. At least 13 more have since been documented.

Measured against the scale of all TNE activities, IBCs are a minority pursuit. Again, this fact was re-established by the 2014 report on the value of TNE: its 'census' of 2012-13 activities yielded a figure of 4% of TNE enrolments at IBCs, only slightly higher than the 3% figure produced by the HESA figures themselves for the same year.

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9 Source: HESA, via HEGlobal website
21 ‘The value of Transnational Education to the UK’, op. cit., p. 56.
Nottingham’s campuses in Malaysia and China accounted for 8,700 of the IBC total in 2011-12, an insufficient number to appear in the earlier top-10 list. By 2013-14, it had 10,400 students on three branch campuses. The public version of the BIS report does not offer a breakdown for each university but its census overall (2012-13 numbers) showed some 23,000 enrolments on 418 programmes at IBCs.

The HESA statistics also show that the vast majority of TNE students are on first degrees – 460,000 in 2011-12, compared to 92,000 postgraduate taught and 3,800 postgraduate research. The 2014 BIS report shows that undergraduate programmes accounted for 72% of enrolments, 26% were taught postgraduates and 2% postgraduate research students. In terms of TNE programmes, 49% reported in the census were at undergraduate level, 41% taught postgraduate and 10% postgraduate research.

The BIS report says that most branch campus programmes are at undergraduate level. The same applies to collaborative or partnership programmes: except distance learning and joint/double degrees, for which the majority of programmes are postgraduate. It suggests there has been relative growth in taught postgraduate provision compared with previous studies.

The top 10 UK institutional providers of TNE in 2011-12 were as follows:

<table>
<thead>
<tr>
<th>Type of provision</th>
<th>2010-11</th>
<th>2011-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overseas partner institution</td>
<td>291,575</td>
<td>342,910</td>
</tr>
<tr>
<td>Distance, flexible and distributed learning</td>
<td>113,065</td>
<td>116,535</td>
</tr>
<tr>
<td>Other, incl. collaborative provision</td>
<td>86,630</td>
<td>96,075</td>
</tr>
<tr>
<td>International branch campus</td>
<td>12,305</td>
<td>15,145</td>
</tr>
</tbody>
</table>

Source: HESA. ‘Overseas partner’ category includes Oxford Brookes. ‘Distance, flexible and distributed learning’ includes online learning.

See www.nottingham.ac.uk/spp/student-statistics/student-statistics.aspx


Ibid., p. 38.

Source: HESA, via International Unit
Note that only in the cases of Heriot-Watt and Middlesex (and ‘Others’) do the TNE numbers include branch campus provision. Otherwise the type of provision is a partnership or an online and distance learning variant. Discounting ACCA/Brookes, University of London International Programmes is the largest UK TNE provider and currently (2014) has 54,000 TNE students. Liverpool, in the Russell Group of UK research universities, currently has some 10,000 students on 100% online postgraduate degrees, in 160 countries.

While the former 1994 Group had some campus-based provision, for example, through Lancaster and Reading, the Million+ and University Alliance groupings of institutions have more partnership provision. Million+ includes Staffordshire and Sunderland, which are active in east and south Asia; Oxford Brookes is a member of the University Alliance. A more detailed breakdown and discussion of TNE enrolments by university ‘mission group’ is provided in the BIS report on the value of TNE, including a breakdown by mission group of TNE revenues at both undergraduate and postgraduate levels.27

1.3 TNE, mobility and overall demand

TNE trends can be placed in the contexts of both overall demand for higher education and international student mobility. The British Council suggests that demand for higher education globally will continue increasing over the next decade but at a slower rate (1.4% annually) than in the past two decades (5% annually).28 This, however, does not mean that international student mobility will increase at the same rate. The two main reasons are the increase in domestic HE capacity in some countries (China is a good example) and the growth of TNE options in many countries.

There will be exceptions to this. There are currently (2014) 28 million Indian students in higher education, of which 250,000 (0.9%) study abroad. In 20 years India is projected to have 70 million HE students. This could easily mean some 625,000 Indians looking for an international education.

Consequently, it is the Observatory’s view that India will buck the TNE growth trend by continuing to be more important as a market for internationally mobile students than for TNE. This is in spite of the fact that the number of Indian students coming to the UK has dropped quickly in the last two years. This appears to be a consequence of agents redirecting students to other destinations after the UK government withdrew from international students, in April 2012, the automatic right to work for two years after graduation. But visa regimes come and go; in the longer run, Indian demand and demographics, and India’s inability to expand domestic provision sufficiently, or sufficiently quickly, will ensure continuing growth in recruitment from India. Meanwhile, China will develop into a more important TNE market.

The spread of TNE, including through its online and distance-learning variants, means that students may have fewer reasons to travel for an international education. Or to travel very far: mobility to traditional destinations like North America, Europe and Australia may also be challenged by intra-regional mobility. Asian governments offer incentives to establish western branch campuses in their jurisdictions but they aim to fill them with students from their own regions. The economic integration project in the ASEAN (Association of Southeast Asian Nations) bloc is one to watch in this regard: it is explicitly modelled on European integration and has milestones in 2015 and 2020 for skilled labour mobility and regional integration.29

29 www.asean.org/asean/about-asean/overview
The free movement of skilled labour suggests that the ASEAN bloc will actively encourage the intra-regional mobility of students so as to retain the best brains within. Universities elsewhere may consequently find it a more competitive environment from which to recruit, though of course the effect may be modest. Either way, TNE is a rational response as a long-term strategy for HEIs.

1.4 TNE market projections

The British Council took a broad look at future UK TNE opportunities in the first of two ‘Shape of Things to Come’ reports, in 2012. It identified China, US, France, India, Germany (for dual and joint degrees); Asia, Latin America, and possibly Nigeria (for franchising and validation); the Far East and ‘possibly Middle East’ (for branch campuses); and the Gulf, Asia and ‘possibly Scandinavia’ (for online provision). The Observatory’s international branch campus report of 2012 had already noted the shift in activity from the Middle East to the Far East and said there was every reason to suppose that this shift would continue.

The British Council’s list of potential barriers to TNE included things like legal frameworks, corruption and quality concerns, but made no reference to issues such as connectivity.

A survey of existing joint and double degree programmes by the New York-based Institute of International Education (IIE) in 2011 presents a similar profile. It found that the top five countries preferred by UK HEIs for such partnerships were, in order, China, India, Germany, US, and Australia. Internationally, the top five were claimed to be France, China, Spain, Germany and the US. French institutions as first choice for joint and double degree partners is most unlikely and reflects nothing more than a good many survey responses from France. The UK was in seventh place, behind Italy, as a partner of choice. The most popular subjects were business, management and engineering. For future collaborations, China was again in first place for UK HEIs. For UK institutions, the top reasons for selecting partner institutions were ‘strategic decisions’ (91%), existing contacts among faculty (64%) and existing exchange programme links (61%).

In 2013 the British Council published a much more detailed and campus-focused investigation into the most promising TNE markets for UK HEIs. It excluded online and distance learning. Their summary projections on where TNE opportunities will be found are in Figure 6.

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This hierarchy of future TNE potential was arrived at by assigning scores to three broad factors: policy environment, including national strategy and quality assurance for TNE; market or demand factors; and the ‘mobility environment’, which assesses the level of internationalisation. The conclusion was that Hong Kong, Malaysia, Singapore and the UAE have the most favourable environments for TNE.

Malaysia and Singapore are already the two top countries for UK TNE. Qatar and Korea, in Group 2, are self-described hubs; they have some high-profile American campuses (and UCL in Qatar), but they do not appear in the top 30 TNE markets listed in Figure 3. Ghana is the other way round. As the seventh-largest UK TNE market, its absence from the opportunities matrix suggests that some ‘judgement calls’ supplemented the number-crunching in this report.

Sri Lanka has also explicitly articulated its hub aspirations but was relegated to Group 5 mainly because it lacks a regulatory framework for the establishment of branch campuses. Its recent political and ethnic violence was not flagged, though this has been a factor in criticism of the campus planned by the University of Central Lancashire (UCLan).34

In other groups, strengths and weaknesses were evident. Thailand scored highly for regulatory environment and Korea for the demand environment. India had very favourable demand and, as most in the sector are aware, a most unfavourable regulatory environment (because it lacks clarity and transparency).

Responses to the report, at conferences for example, have suggested that other factors, including institutional history, existing academic and research links, and leadership whim are just as likely to determine where TNE is pursued.

www.timeshighereducation.co.uk/news/headaches-for-uclan-over-foreign-campuses/2010068.article
2 The survey

2.1 The research process

The Observatory on Borderless Higher Education, an international higher education research and monitoring unit, was engaged to conduct the research for Jisc. The research had two main components: first, a series of regional focus groups designed mainly to elicit guidance on the most useful and advantageous questions to put to the whole sector in the form of an online survey. The focus groups were also intended to yield indications of current thinking on network connectivity abroad.

The online survey was the second main part of the research project, which was live throughout July 2014. Consistent with the two focus group constituencies, the survey had two streams: one for those working in the International Office (IO) or international strategy and planning, the other for IT-related or technical staff (IT). Invitations to complete the survey were sent via email to 308 named individuals at 154 member institutions of Universities UK and GuildHE. As far as possible it was hoped to elicit two responses from each institution.

There were 118 useable responses – a 38% response rate. This comprised IO responses from 54 HEIs, IT responses from 50 HEIs, for an overall total of 84 distinct HEIs represented by responses – more than half the number of institutions targeted.

This report outlines and interprets the survey responses, and supplements this analysis with selected discussion material from the focus groups.

The first survey question on current TNE engagement attracted the highest response rate: 50 from IO and 40 from IT for a total of 90 responses; base numbers for subsequent questions were lower.

Focus group and survey data enabled a summary of current and planned destinations for TNE to be collated and from the overall responses a SWOT analysis was derived. This, collectively, drew the key messages, conclusions and next steps detailed in section 3.

2.2 Key findings

2.2.1 Current TNE activities

Results from the Observatory’s survey for Jisc can be considered alongside the HESA data. The results are not directly comparable because the categories are worded slightly differently to enable Jisc to obtain particular detail on connectivity requirements across different models. For example, our responses suggest a greater emphasis on online and distance learning, but this may be because the first category referred specifically to online learning and MOOCs, whereas the HESA categories do not.

The first substantive question in the survey (with 90 respondents) was ‘Which of the following broad delivery modes of TNE is your HEI currently engaged in?’ (Figure 7). Of the TNE types listed, ‘online, blended and/or distance learning (including MOOCs)’ was indicated by 54% of respondents as a current activity (29 IO and 20 IT respondents). ‘International Partnership operated jointly with an
overseas HEI partner’ was indicated by 42% of IO and 20% of IT respondents. ‘International Partnership entirely dependent on infrastructure provided by an overseas HEI partner’ was indicated by 40% of IO and 25% of IT staff.

Figure 7: Which of the following broad delivery modes of TNE is your HEI currently engaged in? (n = 90)

![Bar chart showing the distribution of responses.]

The above pattern of responses is similar to that in the HESA data in that non-branch campus activities constitute the great bulk of TNE. A number of respondents indicated ‘other’ TNE delivery modes. These included franchising (although some of the above-listed partnerships are clearly franchises), variations on flying faculty arrangements, and partnerships with non-HE institutions without degree-awarding powers. This demonstrates that it is not always clear, even to those involved at a practitioner level, where one TNE type ends and another begins. The boundaries of TNE types lack definition because no two institutions employ exactly the same business model for TNE.

Overall, 9% said there were no current TNE activities. Nine IT staff and (surprisingly) one IO respondent indicated ‘don’t know’. The higher number of ‘don’t knows’ for IT staff is not surprising here. But its high incidence for IT staff throughout the survey suggests a potential advocacy role for Jisc in trying to ensure that HEIs keep their own IT staff up to speed with international activities.

Another, more proactive, approach could be to try to engage IT staff, for example, by drawing attention to the list of the gaps in knowledge uncovered by this survey.

One participant thought that TNE markets of the future would match those in the report, however added, that ‘serendipity’ played its part and that once something was working, institutions were such that they might not even remember how it started.

2.2.2 Future TNE plans

Questions on planned TNE activities were asked of IO staff only in our survey. 82% of 45 respondents confirmed that they do have plans for new TNE activities in the next five years; this high percentage accords with the Observatory’s view of current trends and TNE expansion.
On the other hand, 21% of IO respondents (9 of 42) said they were considering withdrawing from an existing TNE activity. When prompted, four of these indicated withdrawal from a joint partnership, one from a ‘partnership entirely dependent on infrastructure provided by an overseas HEI partner’, and one from online or distance learning. Four used the ‘other’ box to point out that their withdrawal from a TNE operation would be a decision based on the commercial viability of a specific engagement rather than an issue with a particular delivery model.

In terms of TNE types, again, there is more emphasis on online and distance learning than in the HESA numbers. More than half (24) indicated future online or distance provision. Three-quarters of respondents (30) indicated a ‘partnership operated jointly with an overseas HEI partner’ and 15 indicated a ‘partnership entirely dependent on infrastructure provided by an overseas HEI partner’. The overall summary is in Figure 8.

**Figure 8: In which modes of TNE are you most likely to commence or intensify your activities?**  
(n = 41, IO only)

The campus and partnership options included follow-up questions on campus location and identity of prospective partners. Only four respondents selected ‘international branch campus’, three of which provided future locations including China, Egypt, Malaysia, Mauritius, Nepal, Sri Lanka and UAE.

All but Egypt and Nepal host UK campuses already. Egypt hosts the British University in Egypt, which has programmes validated by Queen Margaret, Loughborough, and London South Bank, but it is not a branch campus *per se* of either of these. The American University in Cairo has run for more than 100 years and the German University in Cairo also operates there. Both are Egyptian institutions rather than branch campuses. Nepal has hosted Manipal University of India for about a decade but no UK institutions yet, as far as we are aware.

The Observatory was told by a UK branch-campus practitioner in early 2014 that the Ministry of Higher Education in Malaysia was sitting on 27 new applications for foreign branch campuses, of which about half a dozen were from the UK. If this is accurate, it appears that Malaysia is slowing down the rate of new entries.

Twenty respondents provided further information on ‘partnerships operated jointly with an overseas HEI partner’, but in many cases they simply named the country rather than the partner institution. In most cases this is probably because they are considering country destinations before
specific prospective partners. The countries named were: Australia, Botswana, China (named by seven respondents), Hong Kong, India, Indonesia, Kuwait, Malawi, Malaysia, Myanmar, Oman, Russia, Singapore, South Korea, Sri Lanka, Tanzania, Turkey, US and Vietnam. Half of these countries are outside the top 20 TNE markets identified earlier: Australia, US, Botswana, Malawi, Tanzania, big countries like Indonesia and Turkey, and up and coming countries like Korea, with its education hub strategy, and Vietnam.

For ‘partnerships entirely dependent on infrastructure provided by an overseas HEI partner’, the prospective countries named were branch-campus destinations: China, Malaysia, Singapore and UAE. Actual partner institutions named were Hainan University, Nankai University, University of Electronic Science and Technology of China (Chengdu), the private Legenda Education Group in Malaysia, and Singapore Institute of Technology.

### 2.2.3 How TNE is delivered

The survey asked both cohorts of staff to indicate their institutions’ delivery mechanisms for TNE, as well as desired changes to this if network connectivity were better. The message from this section is that connectivity is a real issue when HEIs work abroad, and this was supported by the focus group discussions.

Although a surprising one-third of respondents said that flying faculty staff were used at branch campuses, a greater number said that they use UK-based lecturers via video streaming or conferencing and also that local staff deliver teaching material hosted in the UK (see Figure 9).

![Figure 9: How has your TNE activity been delivered? (n = 83)](image)

One-quarter of 80 respondents also indicated wanting changes to delivery mechanisms – a shift to real-time online teaching delivery figured prominently in their examples (clearly more cost-efficient than flying faculty). The view was that if local network infrastructure were sufficient, more live video streaming, webinars, and peer-group workshops could be employed. A Dean-level respondent said better connectivity would ‘immensely help in improving and innovating delivery of taught and research programmes (especially in Africa)’. Online examinations could also be used more, though the connectivity problem was ‘often client rather than server side’. It was emphasised that in every
case the failing lay with local provision. Another respondent commented in the survey that many partner institutions had poor connectivity, as did their students when offsite.

### 2.2.4 Latency issues

One respondent commented specifically that ‘occasional technical issues’ caused delays with students registering their usernames and passwords. The issue of latency also arose in two of the focus groups in which the need for ‘predictable latency’ was flagged, for example, in upgrading from just ‘basic Blackboard’ to embedding videoconferencing in a course. It was also pointed out that with international videoconferencing with Africa, for example, ‘if you have latency on one it screws up all the rest’. They went on to note that Jisc had done ‘some very interesting stuff’ with the network in 2013, with ‘tremendously low latency’. The example was of two musicians in different countries playing a piece of music together successfully ‘as if they were in the same room’.

The latency issue was also related to internet security in the context of what was understood to be Jisc’s ethos of being as open as possible (‘no firewalling Janet on the Janet network’) so as to maximise network speed and avoid bottlenecks in the infrastructure. A Jisc representative noted that the no-censorship ethos came from what the HE sector wanted but that encryption capacity at different impact levels was available to the sector.

A respondent suggested that the sheer magnitude of data to be exchanged would increasingly become an issue, especially in research on informatics, bioinformatics, astronomy and computational science in general. They were unsure whether it was an issue at the moment but anticipated that exchanging big data would become required ‘as part of the teaching process’.

Another respondent indicated in the survey that for courses delivered internationally by local (non-UK) lecturers, they would like to move to hosting material in the UK, but there were currently ‘challenges in restricting access to licensed resources where the license does not allow international use. We would also like to have confidence that the delivery of material will not be impacted by network performance.’

The common message in the above excerpts is that real-time delivery is highly valued by the sector and requires top network performance. Figure 10 shows the actual TNE-related activities for which institutions use the network.

**Figure 10: What is the network currently used for in terms of TNE activity? (n = 85)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>IO staff (%)</th>
<th>IT staff (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to library systems in the UK</td>
<td>56</td>
<td>38</td>
</tr>
<tr>
<td>Email/web browsing</td>
<td>54</td>
<td>51</td>
</tr>
<tr>
<td>General internet access</td>
<td>48</td>
<td>30</td>
</tr>
<tr>
<td>Access to registration systems in the UK</td>
<td>46</td>
<td>35</td>
</tr>
<tr>
<td>Access to online courses hosted in the UK</td>
<td>42</td>
<td>46</td>
</tr>
<tr>
<td>Management meetings</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>Access to exam systems in the UK</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>Don’t know</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
<td>14</td>
</tr>
</tbody>
</table>
These answers show simply that in addition to video streaming, the other largest uses of the network – apart from ‘general internet access’ – require good network performance. ‘Video-conferencing’ and ‘access to VLEs’ were in fact added by respondents under the ‘Other’ category.

### 2.2.5 Managing international operations

The IT cohort were asked a series of questions on their contractual and funding arrangements for their international partnership networks. Figure 11 shows that the most common response was ‘don’t know’. The next largest group selected ‘network connectivity provided at the joint school and funded by the partner institution’. Only two indicated joint funding and only two said the network was fully funded by the UK institution.

**Figure 11: What network arrangement does your institution currently have in place?**

\[(n = 40, \text{IT only})\]

As for branch campuses, only five said that their own institution procured network connectivity for the branch campus. There was evidently confusion here, as four of the five do not actually operate branch campuses.

A follow-up question for the ‘partnership’ answers asked if the partnership agreement specified responsibilities and requirements for the network. Only 18 tackled this, of which nine said no, one said yes, and eight did not know. It may be fairly safe to assume that the non-respondents did not know either. This again suggests a communication and education role for Jisc.

Thirty-two IT staff tackled the question on who manages international IT operations. One-third said it was not done by their own institution; the branch campus arranged its own IT service contract locally (the green portion of the pie chart, Figure 12). Only two said yes, it was ‘all done by our IT department in the UK’, one of which must have been referring either to domestic operations or...
international recruitment efforts, as they earlier indicated having no TNE and this seems indeed to be the case.

**Figure 12: Does your HEI manage its own IT operations internationally? (n = 32, IT only)**

Two respondents said IT service was included in the building leasing and managed by the overseas campus. Two said it was done by the IT team at the branch campus with some support from the UK campus. No one indicated contracting an IT company to provide service at an overseas campus managed by the UK institution.

Surprisingly, one in five did not know. Nine specified ‘other’; a number of these indicated not operating branch campuses. Two said that their overseas partners – as opposed to campuses – operated the IT services abroad. One noted that various options from those in the list provided were used at different locations.

In response to a question about procuring network connectivity from an ISP (internet service provider) (other than Janet), only one out of 35 respondents said that they did, but the other ISP was not named and no information was offered on the contract. This is perhaps not surprising, and commercial confidentiality emerges as a key challenge for Jisc in addressing the sector’s TNE requirements.

Similarly, only three out of 24 IT respondents said their HEIs were ‘considering new or alternative ISPs’ (including Janet network services) for future TNE provision. One indicated Janet as a consideration; another said it ‘depended on location’ but it would be a private provider. Half of the respondents said no, they were not considering a new ISP, and nine of the 24 did not know.

No IT staff answered yes to a question on whether IT/connectivity issues had caused an international activity ‘to be put on hold, delayed or cancelled’. Eleven of the 27 respondents indicated no, ten did not know, and six said the question was not applicable. This seems pretty positive, though the number of don’t knows suggests some complacency in regard to the potential consequences of inadequate network connectivity.
In response to an invitation to choose from a supplied list of IT-related problems experienced, more than half of the IT respondents said ‘don’t know’. In order of frequency, problems identified were as follows:

- Poor network performance, e.g. slow response
- Protection of copyright data and intellectual property
- Integration of IT with partner institutions

In addition, a single respondent indicated each of the following problems:

- Internet connectivity did not meet expectations at planning stage
- Data protection issues relating to student records and their transfer across borders
- Problems relating to different time zones
- Defining who ‘owns’ the system and boundaries of responsibilities
- Government control of internet
- Data storage and/or security

Four respondents selected ‘other’ issues. Two of these said no problems or not applicable; one indicated ‘access to library resources limited by license’; and a further said that their organisation uses ‘a different model than the one assumed’.

Interestingly the following issues were not selected by any IT respondents:

- Insufficient system support from network provider
- Contractual agreements on IT provisions with partner institutions
- Predatory pricing by local providers
- Procurement cycles (international procurement issues)

2.2.6 UK institutional knowledge of networks in TNE markets

IT staff were asked to ‘name and assess up to five countries’ in regard to the quality of network services where they are engaged. The response rate for this question was unfortunately low – only 15. China was named by six respondents, India four, Malaysia three, and Australia and Singapore by two each.

For each country selected, a follow-up question appeared which requested an assessment of their own institution’s knowledge of network quality in that country. Options ranged from ‘very good’ to ‘very poor’ and included ‘can’t tell’. No respondents selected ‘very poor’. The most frequent responses were ‘good’ and ‘can’t tell’. Two respondents named countries but offered no assessments. One named the UK as a TNE country. Responses for these two questions are summarised in Figure 13.
Figure 13: Countries named in regard to the quality of network services, and assessments of institutional knowledge there

<table>
<thead>
<tr>
<th>Country</th>
<th>Self-assessment responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very good</td>
</tr>
<tr>
<td>Australia</td>
<td>1</td>
</tr>
<tr>
<td>Barbados</td>
<td>1</td>
</tr>
<tr>
<td>Brazil</td>
<td>1</td>
</tr>
<tr>
<td>China</td>
<td>1</td>
</tr>
<tr>
<td>Egypt</td>
<td>1</td>
</tr>
<tr>
<td>France</td>
<td>1</td>
</tr>
<tr>
<td>Germany</td>
<td>1</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Good</td>
</tr>
<tr>
<td>India</td>
<td>1</td>
</tr>
<tr>
<td>Ireland</td>
<td>Good</td>
</tr>
<tr>
<td>Italy</td>
<td>1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1</td>
</tr>
<tr>
<td>Mexico</td>
<td>1</td>
</tr>
<tr>
<td>Singapore</td>
<td>1</td>
</tr>
<tr>
<td>UAE</td>
<td>1</td>
</tr>
<tr>
<td>United States</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>1</td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
</tr>
</tbody>
</table>

Respondents who chose ‘poor’ institutional knowledge of the countries in which they operate were further prompted to say why that was so. This applied to only three respondents, of whom two offered comments.

One respondent stated that it was an ‘odd question’, stating that knowledge in regard to China was poor: ‘most people don’t know much. I know a little from previous roles where I supported offices in China. China has patchy provision especially outside cities. We operate in rural areas as well as cities. This is only a small part of our activity but I feel it is our weakest overseas provision.’ Another said that their knowledge of network service quality in Italy was poor. By way of explanation, they added that it was ‘managed by a local office manager. No IT involvement.’

### 2.2.7 TNE decision-making

The survey contained a series of questions for both cohorts on the decision-making processes used for developing TNE, including who actually makes the decisions (see Figure 14). Almost twice as many IO staff answered, and a variety of responses came back. For the ‘development of TNE’, IO staff ranked high (83% of both cohorts said they were involved) and IT staff ranked low (only 27% said they were involved).
For deciding on future TNE activities, IO staff were well down the institutional hierarchy (44% of both cohorts said they were involved) and IT staff pretty much vanished (1% said they were involved). Figure 15 demonstrates the profile of responses.

Figure 15: Who makes the decisions on future TNE/international activities at your institution? (n = 69, both cohorts)
Within these numbers, the answers from IT staff themselves show their exclusion even more starkly. 21% of IT staff said they were involved in the ‘development of TNE’ but none at all said they had a role in planning future TNE. Perhaps unsurprisingly, PVCs, VCs, academic staff and IO staff ranked the highest for planning TNE.

‘Other’ decision-makers figured prominently in both questions, especially among IO respondents. For the most part, ‘other’ meant various combinations of the categories provided, as well as numerous references to a more collectivist, committee-based decision-making structure. A few noted that decision-making processes vary according to activity or that there were ‘levels of decision-making according to the scale and complexity of the undertaking’. One said specifically that final decisions were made by the University Board, led by the Deputy Vice Chancellor and advised by Quality and International Directors. There are always a few anomalies in survey responses and one in this case could not help remarking that it was unclear that anyone was involved in decision-making.

This is a fairly complex portrait of decision-making on international activities. Although mailing lists are difficult to get right and to maintain, Jisc will need to ensure that in its future communications, using lists based on the same type of personnel for all HEIs will probably not reach the right people.

On the question of when IT staff are brought into decision-making, there was a significant discrepancy between the two cohorts of respondents. None from the larger IT cohort said they were involved from the start of international activities planning. The rest of the responses were scattered across the answer options: six IT respondents said they were involved ‘when the agreement for partnership or the deal is close to the signing stage’. Nine said they were involved only at the ‘late stages of the process’, six said that IT is not involved at all, and three did not know.

One particular focus group provided some further texture to decision-making processes, highlighting one institution in particular which may be an exception to the more general isolation of IT staff and connectivity issues from TNE planning. A representative from the institution stated that ‘the affordability of internet connectivity, of a high enough standard to work the way it needs to work’ was a core factor in siting two branch campuses in Dubai and Malaysia. They did not have campuses in South America or Africa for the same reason.

The participant went on to note that the national telecoms in Dubai and Malaysia can charge what they like and that talking to Jisc was useful because Jisc could ‘in effect act as a purchasing consortium’ and beat those prices. This relates back to the Jisc presentation given at all focus groups, which suggested that ‘aggregating demand and requirements’ could improve the community’s negotiating position and deliver economies of scale.

2.2.8 Janet services and support

The final section of the survey, for both cohorts, focused on Janet’s services and perceptions of Janet.

The Observatory on Borderless Higher Education
Figure 16: What other services/support would you consider to be beneficial from Janet in relation to your TNE activities? (n = 49)

Two IO staff indicated 'other'; one did so to indicate they did not know about other potential services.

33 IO staff and 21 IT staff answered a question on what would influence a decision to involve Janet in current and future TNE activities. The factors in Figure 17 were provided in the survey.

Figure 17: What would influence your decision to involve Janet in your current and future TNE activities? (n = 54)

Only three respondents selected 'other'; two did so to indicate they did not know the answer and the third said 'integration with existing services – existing relationship'. This presumably means that the quality of the existing relationship with Jisc is important in its continuation.
The risk management item is interesting and could suggest a higher level of risk-awareness among international office staff, however a Jisc representative also suggested that a higher rating for risk management may indicate a lower level of knowledge of actual risks.

The survey also asked both cohorts whether institutional risk assessments for international activities included IT infrastructure. Twenty-three IT staff and only four IO staff answered. Of the IT majority, only one said that yes, risk assessments for international activities incorporated IT infrastructure. Nine said they did not and 13 (more than half) did not know. None indicated that risk assessments were not done, which was one of the provided answer options.

2.2.9 Contributing to a toolkit

Respondents were asked if they would be willing to contribute to developing a toolkit on setting up overseas campuses. Of the 65 respondents, seven IO respondents and two IT respondents said yes.

As is normal, the survey ended with an invitation for open comments. Few were offered and none added value, possibly because of the direct reference to ‘Janet’s service provision’ in the question. Two IO respondents said they did not know enough about Janet’s services to feel qualified to comment. One respondent added ‘Some questions really needed different answers depending on the complexity of the TNE operation being planned or implemented. I have just taken a broad brush approach in these cases.’

2.2.10 Don’t knows

A consistent feature of the survey was the high rate of ‘don’t knows’. For many questions this option was by far the most common answer. It is not surprising that IT staff should be less familiar with TNE than IO staff. The following numbers in regard to IT respondents, however, are worth noting:

- 45% of IT staff don’t know how TNE is delivered at their institution,
- 38% don’t know their own network arrangements for partnerships abroad,
- 44% don’t know if network requirements and responsibilities are included in partnership agreements,
- 24% don’t know which aspects of TNE their network is used for,
- 19% don’t know if their institution manages its own IT operations abroad,
- 31% don’t know if their institution has procured connectivity from an ISP provider other than Janet,
- 52% don’t know which data-related problems have been encountered abroad,
- 57% don’t know if their institutional risk assessments include IT infrastructure.

If 52% of IT staff do not know which data-related problems have been encountered abroad, how is Jisc to know? For Jisc, these gaps in knowledge mean that there is some work to do in regard to communicating to HEIs which types of information are required for Jisc to deliver services most effectively. Perhaps a standard system of monitoring and reporting back to Jisc is required.
2.2.11 Teaching v research connectivity

One focus group ended with a discussion of the internet’s prioritisation of connectivity for research over that for TNE. The view was that ‘All the money that goes into the global connectivity is specifically there for research, and education doesn’t get a look in.’ ‘Money, it was said, followed research, not teaching. Trying to get investment into the national infrastructures of Malaysia, Vietnam and Burma was characterised as a policy problem. ‘What we’re trying to do at the moment is to... support education on an infrastructure that’s designed for research.’

A counterpoint flagged up was the Square Kilometre Array, a planned radio telescope development, with hubs in southern Africa and Australia, which would bring ‘phenomenal amounts of capacity’ into these places and thereby help African education. At present, much of Africa was dependent on wireless connections rather than fixed lines.

3 Conclusions and next steps

3.1 Conclusions

The rapid growth of UK TNE has implications for all aspects of higher education internationalisation, and is clearly an important area for Jisc to address and support the sector’s needs in delivering connectivity and services and provide, where possible, the digital architecture to support TNE. This research aimed to provide a better understanding of the implications for network connectivity between the UK and TNE destinations.

The responses indicate a good level of interest and willingness to work with Jisc in this area, which can be seen by the active engagement in focus groups and positive comments to the survey, with over half of UK HEIs participating.

The responses, however, also demonstrate that there is significant work to be done and there remain many institutions still to reach. We set our expectations high in identifying current arrangements and future locations for TNE, however the lack of detailed response received in many cases, and the prevalence of ‘don’t knows’ has been clear feedback in itself.

A key issue for Jisc is that branch campus activities will be responsible for only a small portion of future connectivity demands from the sector. This is mainly because branch campuses are a minority pursuit in comparison with the breadth of TNE. This was recently reaffirmed in the 2014 report for BIS on the value of TNE. It may also be the case that branch campuses will pose fewer challenges for Jisc, as it appears that HEIs consider and plan their network requirements more fully when it comes to campus operations (Heriot-Watt was a case in point). Even so, it is critical that the IBC model has good connectivity.

Beyond branch campuses, both the HESA statistics and our own survey show that partnerships along with online and distance activities will continue to constitute the bulk of TNE provision.

A core message from the focus group discussions is that real-time delivery of courses is both highly valued and an existing problem, requiring top network performance. More routine functions like email are not at issue. There is also a clear demand for broader services and support for TNE.

37 Janet became part of the Jisc Group in 2012
activities overseas outside network connectivity, namely eduroam\textsuperscript{38 39}, videoconferencing and cloud services.

For International Office (IO) staff, one issue is the broader imprecision with regard to how TNE is defined and understood, which follows naturally from the diversity in business models employed by HEIs. The impact here was that staff from different HEIs interpreted the survey questions differently and gave diverse answers when it was fairly clear that they meant the same thing in terms of TNE provision type. This issue, which was discussed in section 1.2, also arose in the census undertaken for the BIS value of TNE report. The authors note that they employed a more granular approach than that used by HESA (i.e. with more TNE categories and sub-categories). They also note that they wished to highlight major discrepancies in enrolments with HESA data, concluding that most differences reflected their own wider scope and 'different classifications of transnational education types\textsuperscript{40}, although did not address the lack of clear boundaries around TNE types further.

Surprisingly, the survey demonstrated that many IT staff have a low level of awareness of their own institution’s TNE activities – let alone the sector’s. A large number of IT staff were unable to answer questions on international operations or problems experienced in specific countries. A small number do not know what TNE is at all. Although ‘transnational education’ is a common phrase in the UK HE sector, it is not universal here.

IT staff also have little or no part in TNE planning and decision-making, and that their actual level of involvement is lower than IO staff believe. This is never straightforward and it is made more complex because of the collectivist, committee-based decision-making structures noted in some institutions.

In terms of sector support from Jisc, one survey respondent mentioned the need for basic in-country intelligence. This has always been part of the British Council’s mandate and, more recently, was one rationale for the creation of the UK HE International Unit in 2007 (and later its TNE resource, the HEGlobal Integrated Advisory Service\textsuperscript{41}). The notion which arose in the focus groups that Jisc could provide a guide or toolkit with information for both IO and IT staff received an encouraging response from the survey, with specific individuals keen to offer support.

Finally, it was reassuring for Jisc to observe from respondents that the main reason for being involved in supporting the HE sectors TNE current and future activities was due to reputation and quality of network provision.

3.2 SWOT Analysis

A SWOT analysis helped focus the main conclusions from the research and inform recommendations for the report; strengths, weaknesses, opportunities and threats for Jisc as a provider of services to support TNE activities overseas are detailed in Figure 18.

\textsuperscript{38} https://www.eduroam.org/
\textsuperscript{39} https://www.ja.net/products-services/janet-connect/eduroam
\textsuperscript{40} ‘The value of Transnational Education to the UK’, op cit., pp. 18, 20.
\textsuperscript{41} http://heglobal.international.ac.uk
**Figure 18: SWOT analysis of Jisc’s position as a provider of services for TNE activities overseas**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jisc is an integral part of the UK Higher Education (HE) sector. It is established in the UK, with a large client base and excellent reputation domestically. Its position appears to be secure.</td>
<td>Jisc TNE service offering needs to take shape and a clear vision and value proposition articulated to ensure customer buy-in</td>
</tr>
<tr>
<td>No direct complaints about Jisc or its services were made in any of the four focus groups or survey comments.</td>
<td>Customer knowledge of what Jisc can offer in terms of support overseas is limited.</td>
</tr>
<tr>
<td>Jisc has highly skilled staff that demonstrate ability to deliver innovation in the service portfolio (e.g. Jisc’s videoconferencing service, v-scene).</td>
<td>Few institutions currently turn to Jisc for TNE connectivity requirements, although this is increasing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>The growth of TNE presents opportunities to many in the HE sector. For Jisc, the central opportunity is with regard to reputation enhancement by ‘getting it right’ in terms of anticipating the international requirements of the sector.</td>
<td>Some loss of ‘market share’ is inevitable, either as HEIs consider alternative ISPs in international activities, or if they are dependent on infrastructure provided or managed by an overseas HEI partner or campus. There is no reason why Jisc should capture all of this business beyond the UK.</td>
</tr>
<tr>
<td>Reputation enhancement also involves diversification of the service portfolio and controlling costs through aggregating demand.</td>
<td>Growing expectations for service provision throughout the sector, perhaps especially in the context of having started this conversation on TNE.</td>
</tr>
<tr>
<td>A more TNE-aware service portfolio offers more opportunities to engage directly with more decision-makers at HEIs, beyond the core IT clientele.</td>
<td>Threats to public funding may be exacerbated if TNE activities do not demonstrate relevance to the sector by staying ahead of the curve in TNE service provision.</td>
</tr>
<tr>
<td>Such enhanced engagement may provide an opening for Jisc’s integration into sector-level decision-making and risk management on future TNE provision.</td>
<td></td>
</tr>
</tbody>
</table>
- There may be an opportunity to make capital of the fact that Jisc can provide a forum for International Office (IO) and IT staff to exchange ideas, possibly for the first time in the sector.
- There is an opportunity for Jisc to publish and provide basic information on network connectivity in top TNE markets.
- Such reputation enhancement and support for the sectors international activities may translate into greater security for Jisc’s public funding stream.
- There may be opportunities to extend provision to other parts of the sector as a consequence of this work, e.g. further education (FE) and HE-FE collaborations.
- New strategic alliances could lead to further opportunities to engage and influence on the global stage, for example, for UK HEIs or with national research and education networks (NRENs).
- Greater investment in network infrastructure may be difficult to secure while the sector’s funding is shifting in the current political environment. Insufficient investment could undermine Jisc’s standing in the sector.

3.3 Next steps

Jisc’s vision, in the next five years, is to enable the community to deliver its TNE activities within the global markets of interest, addressing requirements for cost-effective, appropriate and reliable connectivity services overseas. Services will, where possible, be integrated with UK-based operations, positioning Jisc as the go-to place for connectivity and related services, whether in the UK or overseas.

Jisc will achieve this by developing new partnerships and establishing new infrastructure, promoting opportunities for collaboration. Jisc will lead the way for the UK by supporting TNE through global digital infrastructure, influencing and negotiating politically, in addition to assisting with dissemination of knowledge and expertise, best practice and being a trusted advisor for technical information for the sector.

The Observatory, in consultation with Jisc, offers the following recommendations:

Jisc will develop its future strategy and plans for TNE support in consultation with the sector, building relationships with UK institutions with an interest, and extend Jisc’s leadership and influence to other organisations and stakeholders, both in the UK and internationally.
Jisc will do this through developing relationships further with key policy institutions, e.g. British Council, BIS, International Unit and the GÉANT Association. Other considerations include engagement of specific individuals with expertise in developing plans and delivering TNE operations to act as an informal advisory group; many participants in the focus groups and survey indicated an interest in further involvement with Jisc’s activities. Jisc will also consider repeating the online survey for the HE sector and extending this to the FE sector, as the latter seeks to initiate or expand TNE activities.

Jisc will develop its value proposition to enable sustainable support for TNE activities, including extending its network connectivity and service portfolio and extending these to the breadth of the UK education sector and Jisc’s customer base.

Jisc will endeavour to carry out this recommendation through initially addressing specific concerns and points raised during the course of this research. In the medium-term, Jisc will develop its infrastructure capability and support to meet the sector’s future requirements for example for live video streaming, webinars, peer group workshops and online examinations. Broader challenges such as international licencing issues will also be considered.

Jisc’s initial role is in the communication of the importance of network connectivity to support high quality TNE delivery, in joining up the internal processes within HEIs, enhancing knowledge, and providing mechanisms to obtain information from HEIs requiring TNE support in a consistent manner to take forward.

Jisc will implement this through a coordinated series of communications. This will be initiated by dissemination of this report to UK institutions to engage IO and IT staff, address initial gaps in knowledge and facilitate internal communications. The manner in which Jisc communicates needs to be comprehensible to non-IT staff as the targets reach beyond the normal constituency, and include Jisc services more generally. Jisc also needs to communicate to the HE sector the types of information it requires back in a standard format.

Jisc will also consider a series of workshops to collectively engage IO and IT staff in HEIs, providing a forum to promote internal discussion and exchange plans and ideas. Jisc will devise a ‘toolkit’ for the sector as a relationship building and knowledge sharing/best practice vehicle; there may be also be a role for Jisc in the provision of specific technical and infrastructure information in-country, working with stakeholders, such as the British Council and International Unit.

42 http://www.geant.org/Pages/Home.aspx