

Cover Sheet for Proposals (All sections must be completed)	JISC Capital Programme	
Name of Capital Programme: e-Learning programme		
Name of Lead Institution: Nottingham Trent University		
Name of Proposed Project: VITAL.NET		
Name of Project Partners: Nottingham Trent University, north-51		
Full Contact Details for Primary Contact: Name: Beverley Fearnley Position: Academic Liaison Manager Email: beverley.fearnley@bioknex.org Address: bioKneX, Biocity Nottingham, Pennyfoot Street, Nottingham. NG1 1GF Tel No: 0115 912 4473 Fax No: 0115 912 4476		
Length of Project: 2 years		
Project Start and End Dates: September 2006 to August 2008		
Total Funding Requested from JISC: £200,000		
Funding Broken Down over Project Years: Year 1 £160,324 Year 2 £39,676		
Total Institutional Contributions: £72,538		
Outline Project Description The project will seek to create a flexible e-learning infrastructure VITAL.NET (the Virtual, Interactive, Teaching And Learning Network), built on open standards, which will support a personalised learning experience and allow learning packages to be targeted at an individual or a group of students with specific needs. These packages can be assigned, tracked and monitored for each learner and be time and security sensitive, thus improving monitoring and assessment.		
I have read the Circular and associated Terms and Conditions of Grant at Appendix B (Tick Box)	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>

Project aim

The VITAL.NET project aims to develop, pilot and evaluate an innovative suite of online teaching, learning and assessment tools and features that offer a flexible and tailored e-learning experience for lifelong learners on any course. It supports a more seamless transfer between different learning providers, educational stages and / or courses, and between learning and employment.

Project Start Date: September, 2006

Project End Date: August, 2008

About this Project Partnership

This application is submitted by the East Midlands BioScience Knowledge Exchange (BioKnex), based at Nottingham Trent University and North 51 Limited:

- BioKnex is a new initiative formed through collaboration between Nottingham Trent University, University of Nottingham, University of Leicester and BioCity Nottingham. BioKneX is funded by the three Universities and the East Midlands Development Agency and brings together key stakeholders across the East Midlands (including for example the Education Development Unit at Nottingham Trent University) with an interest in bioscience with the objective of enhancing the region's educational, investment and commercial potential and to enhance the public appreciation and understanding of bioscience.
- North 51 Limited is an ISO 9001 accredited provider of e-business solutions. Each member of the project team has previously worked on the design and development of and support for a leading UK e-learning platform (*Assimilate*) that currently provides the technology behind a significant online learning community in UK primary and secondary schools. In addition, the Company is also developing a bespoke e-learning platform for a leading international pharmaceutical company will also inform this project.

We aim to widen participation and address the large discrepancies in the take-up of higher education opportunities between different social groups both regionally and nationally by ensuring equality of opportunity via VITAL.NET for disabled students, mature students, women and men, and all ethnic groups.

Project description

The project will seek to create a flexible e-learning infrastructure VITAL.NET (the Virtual, Interactive, Teaching And Learning Network), built on open standards, which will support a personalised learning experience and allow learning packages to be targeted at an individual or a group of students with specific needs. These packages can be assigned, tracked and monitored for each learner and be time and security sensitive, thus improving monitoring and assessment.

Matching development in pedagogy and the increasing need to support diversity and flexibility in higher education, this unique suite of online teaching, learning and assessment tools and features will be developed:

- To provide a comprehensive online learning environment that will increase access to courses for a wider audience whilst maintaining a personalised learning approach with an interactive knowledge exchange interface between groups (learner-learner, group-tutor, tutor-tutor, tutor-learner). In broadening participation, the platforms will enable learners from a truly broad geographic area to access courses (and encourage and facilitate participation by under-represented communities, including those for whom English is a second or other language) by supporting parallel multi-lingual course delivery and communication.
- To support continuity in transitional phases of learning, with respect to both content and method (e.g. a foundation degree taught in FE from HE). The structure of the system will allow for a range of teaching styles to be integrated into a programme, supporting different methods of learning. A range of media, including video, audio and animation can be deployed, depending on the requirements of the course and students. The use of mobile and wireless technologies will also be explored. The range of learning methods that can be integrated into the platform will ensure that it is adaptable to learner needs, including those with significant barriers (e.g. learning difficulties, rural isolation, sensory impairment, mobility problems, etc), thereby increasing participation through courses tailored to their specific needs. The flexibility of delivery and transferability of learning undertaken offered through the platform will facilitate and encourage non-traditional routes of progression.
- To be extendible and adaptable, enabling users to develop and build upon the basic structure provided. The system will enable a wide variety of course providers and users (e.g. large businesses, public sector bodies) to provide tailored work-based learning courses (including taster sessions).

Through the provision of 'personal' 'social' and 'communal' spaces, the project will create opportunities for geographically disparate learners to benefit from direct formal and informal interaction. Through this private space, students will be able to upload and store their work securely, publish selected work to a 'communal' area, access learning materials (including video and audio) and tutor / teacher assessments and be able to set up and maintain a blog. Teacher / tutor private workspace will enable them to upload and publish course materials (including video and audio and assessments), create learning 'packages' and undertake e-assessment of student work and provide feedback.

By integrating e-assessment and e-portfolios, the system will enable support for flexible and tailored assessment of non-traditional and work-based learners. Furthermore, e-portfolios will provide auditable evidence of learning undertaken and completed; supporting student transition from one educational stage or course to another via easily transferable data; and assist educational providers (e.g. HE and FE colleges) and course purchasers (e.g. employers) in providing students with support in making decisions about their progression and professional development.

Teachers can publish lessons (including several documents) as 'packages' for use / adaptation by others (packages can likewise encompass an entire course, including many lessons) in a 'communal' area for teachers / tutors / lecturers.

The platform will allow learning packages to be tailored and targeted at individuals or a group of students with specific learning needs, which can be assigned, tracked and monitored for each learner and be time and security sensitive thus improving monitoring and assessment.

Each student will be able to work through the package and add their own work for review by the teacher.

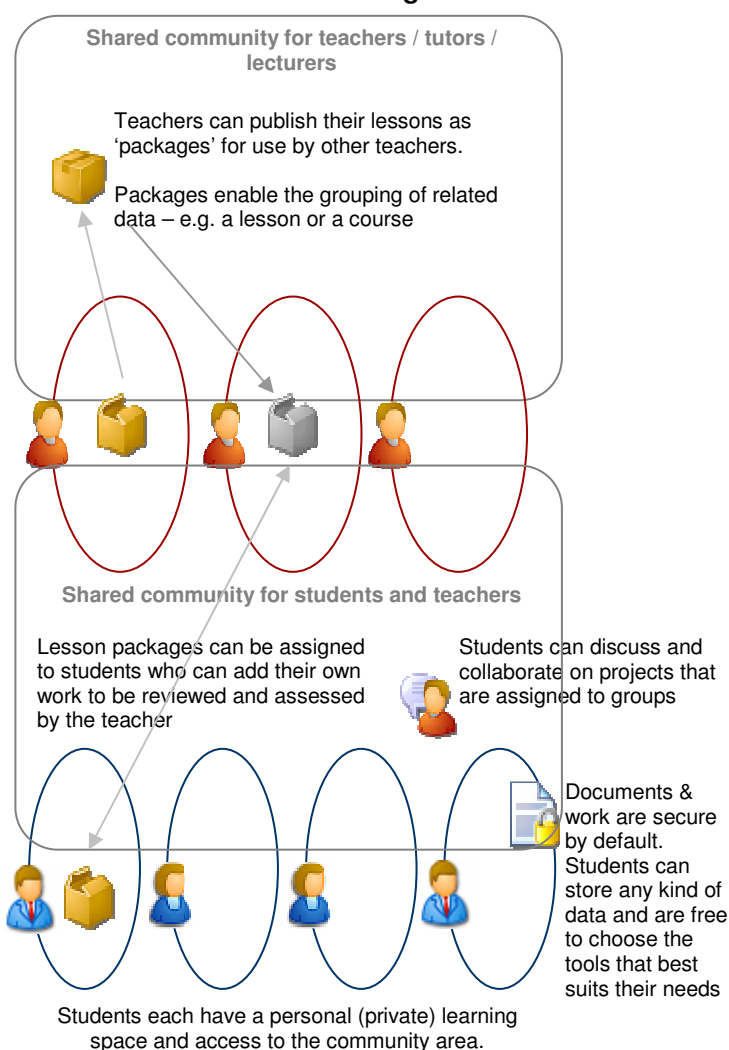
A community structure will exist for both students and teachers, designed to encourage discussion and collaboration.

The environment will provide an interactive knowledge exchange interface between groups (learner-learner, group-tutor, tutor-tutor, tutor-learner).

The structure of the environment (including the 'communal' space) will be designed to stimulate meaningful collaboration. For instance, it could be used by groups working collaboratively (e.g. a research department in a university and a business working on a joint project) as a means to significantly improve communication within and between the groups.

Each student and teacher will also have access to private workspace.

The VITAL.NET learning environment



Project Outcomes

For learners: *The VITAL.NET learning experience*

- Students will be able to study in a way that integrates with their lifestyle and personal circumstances, assisting them to overcome barriers to their participation in lifelong learning (e.g. childcare issues, anti-social working hours, rural locations, other physical barriers, etc). VITAL.NET will allow students and tutors to configure and maintain their own secure learning space, where they can build their personal course portfolio.
- To stimulate meaningful collaboration, students will be able to participate in an online community of learning 'buddies', private messaging, live chat, discussion forums and blogs.
- The system will allow study rooms to be created, where defined sub-groups of students can collaborate on a project.
- Particular emphasis will be placed on developing integrated context sensitive help and training tools that will assist users throughout their interaction.

In addition, to encourage participation by under-represented communities, including those for whom English is a second or other language, VITAL.NET will support parallel multi-lingual course delivery.

For teachers: *The VITAL.NET teaching environment*

To match developments in pedagogy and the increasing need to support diversity and flexibility in higher education the project, VITAL.NET will support lifelong learning by extending, enhancing or, where necessary, replacing traditional face-to-face teaching methods. Developed in consultation with teachers, administrators and other stakeholders (e.g. HE Academy, QAA, etc) VITAL.NET will offer a single-source e-learning solution that will be deployed with a single administrator account, from which the product can be configured to support the delivery of any HE course (This feature will support the full roll out and rapid adoption by all relevant parties).

Key features shall include:

- Administrators will be able to add, categorise and group students using a flexible and infinitely configurable system of permissions and role assignment tools.
- The concept of packages will enable tutors to prepare and deliver digital content in a natural and productive way, both on a one-to-one or one-to-many basis.
- Particular consideration will be given to the passing of packages between tutor and student and the tracking of packages that are assigned.
- E-assessment tools and wizards will enable tutors to create and deploy evaluation modules and to monitor and measure student uptake and performance.
- VITAL.NET will provide a community environment for tutors to share assets, packages and experiences.
- A comprehensive Digital Asset Management module will allow users to manage the full lifecycle of an asset including the upload, categorisation, workflow, delivery and archiving of any type of digital content.
- VITAL.NET will be able to deliver a full range of digital media, including video and audio; ensuring that students can access "on-demand" quality content.

For other stakeholders:

This platform will support a range of pedagogical tools that will enable effective and appropriate collaborative communication in ICT for learning and teaching. Moreover, the project will support seamless transfers for learners (via personal e-portfolios) between:

- different learning providers and phases of education,
- learning and employment,
- one course/learning package and another

The platform will support continuity in transitional phases of learning with respect to both content and method (e.g. a foundation course taught in FE from HE) and allow learners (e.g. non-traditional and workplace learners and/or those learning in more than one institution or context) to study at their convenience in ways that suit their lifestyle or personal circumstances.

Furthermore, the Platform will enable HE, FE and business to deliver flexible work-based learning courses (including taster courses) to be accessed remotely and monitored collaboratively. Moreover, the platform, which will be able to provide and support learning activities in a multitude of formats will accommodate a range of learning styles to suit the learner. The platform will enable geographically separated learners to access courses on a global basis by supporting multi-lingual communications that will allow a course to run in parallel in different locations worldwide (in different languages).

The open source agreement will ensure that source code is freely available to HE bodies and VITAL.NET will be coded in a way that allows HE bodies and other users to commission (independently) the development of additional plug-in modules.

A robust programme of testing and evaluation will provide guidance for practitioners, institutions and subject communities on the use of e-learning and will ensure consistency in standards and the quality of the delivery of courses by institutions adopting VITAL.NET.

Project rationale & how this project meets the JISC capital e-learning programme

Whereas e-learning has been criticised for being technology led, with a focus on providing materials, VITAL.NET (the Virtual, Interactive, Teaching And Learning Network) is focused more on the learner with the aim of enabling students and other users to develop more independence in learning and to share resources.

In accord with the e-learning programme (JISC Circular 3/06: Appendix C 'Cross-institutional use of e-learning to support lifelong learners'), the project will build upon the core programme through "a technical infrastructure that supports flexibility, diversity and extendibility" with a focus on "helping institutions to meet the diverse needs of learners throughout their lives".

This project will be delivered by bioKneX (Nottingham Trent University) and north 51, "practitioners with confidence and skills in managing and facilitating e-learning in different contexts and with different pedagogical approaches". The project will particularly seek to address the need for a "personalised learning experience" and will utilise "e-portfolios, e-assessment and social software", including 'communal' areas for shared working.

In line with the anticipated outcomes and benefits of the programme, the project will "pilot new e-learning technologies to support lifelong learning", stimulating positive and informed changes in the sector. In particular the project will support "flexible delivery to support progression". In doing so it will seek to "widen participation and work-based learning" and inform JISC opinion and guidance.

As expected of funded projects, this collaboration will "contribute business cases, use cases and good practice guidelines" and will seek to stimulate "greater uptake of e-learning". The high-degree of adaptability built into the system is designed to give companies and institutions "access to... transferable models" and "learners... with a personalised learning experience".

The system will help to remove "barriers for learners progressing between courses and institutions" through interoperability and open standards to facilitate data transfer. In accord with 'JISC Circular 3/06: Appendix C' para C15, the project will support "the provision of higher education to all who can benefit from it, at any point in their life, in a form appropriate to their circumstances". The project will carry out all technical development within the service-oriented approach of the e-Framework. The technical solution adopted is intended to facilitate and encourage participation and progression (particularly through non-traditional routes) by means of "flexible delivery" and a personalised learning experience.

Project Plan

Activities	Summary & Deliverables	Timetable Month(s) Year	Days
Develop and Produce Project Plan	Produce 1) Evaluation Plan ; 2) Quality Plan, Dissemination Plan , and Exit Sustainability Plan	09-11.06	5
Produce Consortium Agreement	Author and Agree Consortium Agreement	09.06	2
Create functional and design specifications	Produce documentation describing the proposed scope, features and functionality and detailing the interaction of the modules within the solution. The design documentation will explain the design requirements for coding and any decisions (with justification) made on the methods of implementation. Documentation in place and signed off.	09.2006	15
Visual design	The proposed look and feel of the site will be produced. The design will include a navigation framework of the solution that is both functional and intuitive. Visual design concepts produced and signed off.	09-10.2006	10
Page delivery framework <ul style="list-style-type: none"> • Accessibility compliance • CSS • Browser compatibility • RSS • XML standard 	Development of a pluggable core solution framework that can deliver pages and assets to the required standards. Ability to deliver pages to required standards, demonstration and sign off.	09-10.06	25
Project Web page for JISC	Author content for JISC web-site	10.06	1
Security framework <ul style="list-style-type: none"> • SSL integration • ISAPI filters • Encryption 	Enable the secure interaction between the product and the user by tightly integrating security technologies such as SSL (data transmission) and encryption (data storage) into the core framework of the site. Functioning security model in place in and signed off.	10-11.06	20
Digital asset framework <ul style="list-style-type: none"> • Digital asset management • Asset version controlling • Asset work flow • Content management tools • HTML creator • Administration tools 	Develop the suite of tools that will allow a user with the appropriate permissions to manage the full lifecycle of an asset including the upload, categorisation, workflow, delivery and archiving of any type of digital content. Functioning digital asset framework in place in signed off.	10-12.06	50
User management framework	Develop the framework that will enable administrators to add, categorise and group users using a flexible and infinitely configurable system of permissions and role assignment. Functioning user admin tools in place and signed off.	11.06	25
Testing	Development of test plan, testing of modules, fixing and re-testing . Sign off test plan.	11-12.06	30
Develop and Launch Project Web-site	Author Project Home Page and Launch	09.06-03.07	3
Lesson package builder tools <ul style="list-style-type: none"> • Lesson/Module/Course delivery 	Develop the tools that allow users to prepare and group digital assets in the form of a lesson. Enable lessons to be grouped into modules and modules to be grouped into a course.	01-03.07	60

mechanisms	Functioning tools in place and signed off.		
Profiling tools <ul style="list-style-type: none"> • My favourites/ tasks/ lessons • Subscription to information streams • My collaboration • My tools • My look and feel • My links 	Develop tools that allow users to personalise their homepage and user experience. Functioning tools in place and signed off.	01-05.07	50
Collaboration tools <ul style="list-style-type: none"> • Learning buddies • Study groups • Discussion forums • Private messaging • Newsletter tool • Blogs • Events diary 	Develop the collaboration tools that will encourage and enhance interaction between users of the system. Functioning tools in place and signed off.	01-04.07	100
Multi-lingual functionality	Develop the platform that enables users to select the language in which the system is presented to them. Facility to categorise Digital Assets according to language. Functioning tools in place and signed off.	01-03.07	45
Online training and help function	Design and integrate context sensitive help tools and training functions that guide and assist users throughout their interaction. Help functions in place for existing features.	01-03.07	45
Testing	Development of test plan, testing of modules, fixing, re-testing and sign off.	02-04.07	30
Reporting and management tools	Develop tools to assess the effectiveness of lesson modules , and monitor usage and uptake of different materials.	04-06.07	50
Interactive applications <ul style="list-style-type: none"> • Survey and questionnaire tools • Assessment and examination wizards 	Develop a set of flexible assessment tools that enable tutors to assess understanding and gather information.	05-07.07	65
Online training and help function	Design and integrate context sensitive help tools and training functions that guide and assist users throughout their interaction.	05-06.07	45
Testing	Development of test plan, testing of modules, fixing and re-testing . Sign off test plan.	04-06.07	30
Search tools	Develop a comprehensive search tool that allows users to quickly locate information relevant to their course or lesson. Users can search for content.	07.07	20
Visual design integration	Integration of the visual design inline with development. Look and feel in place and signed off.	05-07.07	45
Online training and help function	Design and integrate context sensitive help tools and training functions that guide and assist users throughout their interaction. Help functions in place for existing features.	06-08.07	45
Content Production	Development of “higher Tech” – i.e. audio visuals [pod casts etc]	07.07	10
Final testing	Development of final and full test plan, testing of modules, fixing, re-testing and sign off.	07-08.07	45
Platform introduction and training for NTU staff	Training packages and workshops . Staff are competent in using the system.	07.07	4

Training for NTU Staff and students for use	Staff and students are ready to use the system and module delivery is ready.	10.07	4
Release to pilot users	The solution will be released to a pilot group of users. Delivery of course module (Level 1 module form the Foundation degree in Applied Biology to 15 students.)	10.07-03.08	10
Monitoring of delivery	Produce 2 Project Progress Reports per annum including financial statements	09.06-08.08	3
Evaluation	Evaluation of training workshops and packages	07.07	3
	Evaluation of user ability for content upload	08.07	3
	Ongoing Evaluation of the use of the platform	10.07-03.08	8
	Final Evaluation of project impact. Completion of evaluation report.	04.08-07.08	5
Dissemination	Engagement of FE and HE community via workshops and through existing networks	08.08	8
Project Management	Project Management Group to meet quarterly with Technical partners	09.06-08.08	8
Final Report	Produce Final Report	07.08	10
Completion Report	Produce Completion Report including financial statement	08.08	2

Delivery Risks

Nature of Risk	Rating	Risk Mitigation
1. Failure to engage stakeholders	Low	Credibility and pedigree of project partners
2. Scheduling (slippage)	Med	Managed by robust project management
3. Technology focus prevailing over user utility	Low	Iterative design and full consultation
4. Failure to achieve interoperability	Low	Iterative design and full consultation
5. Under-deliver on impact of functionality resulting in low adoption	Low	Product specification in consultation with user groups
6. e-portfolio not truly portable	Low	Full consultation
7. Product proves not to be versatile enough for use across different courses	Low	Full consultation and generic design objectives
8. System reliability	Low	Systematic test plan and pilot
9. Low adoption in broader community and beyond	Low	Evaluation evidence, instruction and training, ongoing support

Project Budget: The project has been costed using the TRAC methodology

Quarters	1	2	3	4	5	6	7	8
Budget Heading								
Staff	36,977	51,377	62,417	64,575	6,108	6,836	7,928	16,435
Equipment & Consumables	294	168	168	168	910	910	909	910
Travel & Subsistence	250	250	250	250	250	250	250	250
Evaluation	0	0	0	0	2313	2548	2547	2547
Other Costs	332	331	331	331	542	542	542	542
Total	37853	52126	63166	65324	10123	11086	12176	20684

Project Cost: £272,538
Total Grant Requested: £200,000
Intervention Rate: 73.38%
Partner Contributions: £72,538
BioKneX (Nottingham Trent University) £12,233; North 51 Limited: £60,305

Sustainability

The sustainability of VITAL.NET will be assured through a programme of iterative development and testing throughout year 1 and a pilot programme in year 2 that will conclude with a detailed evaluation. This will ensure that VITAL.NET is designed and configured to learner needs and stakeholder requirements and provide a positive personalised learning experience supporting student progression. This will be complimented by a programme of dissemination and demonstration that will engage stakeholders during the development phase and during and upon completion of the pilot. Dissemination and demonstration will target a range of stakeholders within institutions (in the first instance universities and FE providers, e.g. students, teaching, administrative and technical staff, librarians, etc) with a view to supporting taught courses and open and distance learning programmes) and with external stakeholders such as other software developers, online hosts, publishers and funding agencies.

VITAL.NET will be made available to stakeholders free of charge, on disk along with source code and installation instructions. The installation instructions will be designed with the intention of enabling the local IT department to perform the full installation, to ensure that VITAL.NET is embedded within post 16 and higher education. If additional technical support is requested (either telephone or onsite), it will provided by north 51 it at £50 per hour. For onsite visits, mileage will be charged at 45p per mile and any other expenses, such as accommodation will be charged at cost.

The long term sustainability of VITAL.NET shall be supported by north 51's commitment to a programme of further development and adaptation for other markets that shall include:

- providers of primary, secondary education (including education authorities), adult education and lifelong learning e.g. the Prisons Service (e.g. as provided for specific groups and communities the, etc)
- private sector providers of technical and vocational training and continuous professional development,
- professional associations and institutes with responsibility for professional qualifications and standards (e.g. Institute of Chartered Accountants for England and Wales, Law Society, Royal College of Nursing, Royal College of General Practitioners)
- government agencies (e.g. Learning Skills Councils, Sector Skills Councils, Business Links, etc)

In addition to the free licences granted, the partners agree that they will endeavour to exploit commercially the Deliverables and Products worldwide.

Qualitative Benefits to Applicants

The project will enable the partners to playing a leading role in:

- the development of learner focused e-learning solutions matching developments in pedagogy
- enabling students and other users to develop more independence in learning and to share resources
- supporting diversity and flexibility in higher education.

Both individually and collectively (via bioKneX) Nottingham Trent University, University of Nottingham (who are a partner in the e-china programme), and the University of Leicester are committed to widening participation and opening up higher education to more people on-line and providing students with a rich and blended learning environment that utilises on-line technologies to enhance learning outcomes for all students. The flexibility this platform provides means it can be applied to many courses and support the diversity of the student learning experience and different pedagogies.

In summary the key benefits of this project to Nottingham Trent University are:

- The ability to provide more flexibility to students regarding the time, place and pace of their learning; the opportunity to offer a more diversified product portfolio that reaches new markets, domestic, corporate and international;
- The opportunity to enhance the skills of students by using online technologies and working in virtual teams thus enhancing employability and developing lifelong learning skills;
- The ability to provide a consistent virtual learning environment for students and staff;
- The opportunity to support innovative learning and teaching strategies through appropriate resourcing and leveraging of investments in content development, new technologies, and a skilled academic work force leading the utilisations of technology to enhance learning and teaching.
- The extension and enhancement of the University's Virtual Learning Portal

In addition, the development of the system will support the recruitment of non EU students via open and distance learning programmes while the content selected for the pilot will support Nottingham Trent University's School of Biomedical and Natural Sciences in its aim to establish distance learning courses

(initially in the Biosciences) whilst also reinforcing bioKneX's contribution to the City of Nottingham which has been designated a Science City

In summary, the key benefits to north 51 are:

- VITAL.NET will support north 51 to extend capability and capacity and shall inform subsequent iterations of VITAL.NET for the HE and FE market.
- The project represents a unique opportunity for north 51 to engage in a collaborative venture on a non-commercial basis, that wouldn't otherwise be possible.
- It will assist north 51 in developing a better understanding of student/ teacher institutions and how the e-learning Framework is evolving, as well as providing a vehicle for sharing knowledge and expertise with the HE Academy and QAA.
- Finally, delivering the VITAL.NET project will inform the work north 51 is undertaking in the provision of commercial training and position us to exploit synergies with the use of e-assessments and e-portfolios.

Quantitative Benefits to Applicants

- In the first instance VITAL.NET and subsequent enhancements may be taken up by 130 higher education institutions, (including 86 universities plus 44 specialist institutions and general colleges) and 146 directly funded further education colleges.
- The market for VITAL.NET includes more than 2 million students at higher education institutions and the 96,000 full-time and 38,000 part-time academic staff.
- In terms of commercial prospects, if the pilot is successful and leads to wide spread adoption, it will significantly improve north 51 company growth and improve our position to develop systems and products for the UK and international markets.

Intellectual Property Rights

- **Ownership** : Nothing in this Project will affect the ownership of Background Intellectual Property. North-51 will own all Non-Severable and Severable Intellectual Property; All Deliverables, and the materials contained therein, not incorporated into a Product shall be owned by the project partner generating the Deliverables. Each partner shall obtain the necessary assignments of intellectual property rights from all staff, students or agents involved in the development and production of the Deliverables on its behalf. The partners warrant to each other that it is the owner of the copyright and/or database rights in the Deliverables or that it is duly licensed to use the Deliverables and that the content of the Deliverables used as contemplated in this project do not infringe any copyright or other proprietary or intellectual property rights of any natural or legal person. Any Product shall be owned by North-51.
- **Marking**: The partners agree that all Deliverables and Products shall be clearly marked identifying that the copyright is owned by North-51. The Parties agree that the Management Committee will produce a suitable form of words acknowledging the involvement of the partners, JISC's financial contribution to costs of developing and producing the product. Ownership of the copyright shall appear on all copies of the Deliverables and Products.
- **Access Rights**: Each Partner hereby grants to the other partner a non-exclusive free licence to use the Deliverables and Products for the purposes of carrying out the Project and for teaching and research purposes during the Project. After completion of the Project all partners shall continue to have the right to use the Deliverables or Product at no cost for the purposes of exploiting the materials in the carrying out of their usual educational activities. After completion of the Project, north 51, having sole ownership of all Project Intellectual Property, Deliverables and Product, shall have exclusive rights to the commercial exploitation, with the exception that:
 - north 51 will grant bioKneX a single irrevocable, exclusive world-wide, royalty-free license to all the Project Intellectual Property, Deliverables and Product and any subsequent versions developed by north-51 to use commercially as part of its business services.
 - The Parties agree to cooperate fully with the JISC to make the Deliverables and Product available free at the point of use to the UK teaching, learning, and research communities. The partners hereby agree to supply such copies and to grant such non-exclusive licences as may be required by HEFCE.

Project Team:

BioKneX

Dr Steve Beasley, Chief Executive & Project Director, (GRSC CChem MRSC, DPhil. MIOd,): Steve has 24 years experience within biopharmaceutical discovery, Business Development and Licensing gained from Global Pharmaceutical and Chemistry intensive Companies and Leading Biotechnology Companies in the UK. His role will be to oversee the partnership and chair the management committee.

Beverley Fearnley, Academic Liaison Manager, (BSc, PGCE): Beverley is an experienced Science Teacher and Head of Careers. More recently she has worked with Nottingham Trent University and the Life Education Centres in Nottinghamshire, developing and delivering science based educational initiatives. She has developed a broad network of contacts within the education and science outreach community. Her role will to manage the day to day running of the project.

Melanie Crofts, Business Development Manager, (BSc): Melanie has worked within the pharmaceutical industry in business development for three years, From this and as part of her role in bioKneX, Melanie has developed a broad network of contacts and skills. Her role will be supporting project evaluation and dissemination.

Sandra Helen Kirk, Academic Team Leader for Biosciences, Nottingham Trent University (BSc (Hons), Medical Biochemistry, PhD Biochemistry): Sandra has led multiple HEFCE-funded e-learning development projects, and implemented the University Student Progress File at postgraduate level in the former Faculty of Science. She is currently leading the introduction of MSc Biomedical Science by flexible/distance learning within the School of Biomedical and Natural Sciences at Nottingham Trent University.

north 51

Phil Randall, Joint Managing Director: Phil is responsible for the overall performance of the e-business team and ensures the delivery of software on time, on specification and on budget. Phil's 15 year corporate career started in business information with Boots and ended as Global Marketing Director for a leading pharmaceutical company.

Rob Miller, Director & Consultant Occupational Psychologist (BA (Hons), DipHSM, MBA, MSc): Rob is an Occupational Psychologist with a robust track record of success in various management positions within the NHS, Pharmaceutical industry and international healthcare sector over some 15 years. His specialisms include researching published evidence in the field of e-learning, selection, learning/training, career development, organisational development & change, and personal development.

Christina Behle, Key Account Manager: Christina will manage the day-to-day activities of the technical team to ensure performance. She has 10 years experience in account management and project management, delivering results according to agreed plans. Prior to joining north 51, as a manager for an IT security company, Christina was responsible for the commercial and technical development of strategic partners in Europe.

Oliver Jackson, IT Director (BSc (Hons)): Oliver has responsibility for the strategic design and development decisions. Over 10 years he has developed a number of internet based solutions for clients within the defence, construction, food and retail, education, health, legal, manufacturing and public sectors.

Tony Gamble, Senior Developer (BSc (Hons)): A Microsoft Certified Solution Developer, Tony has 10 years IT experience. His project role: is input to and implementation of the technical and functional specification. With 4 years ASP.NET experience, Tony is a published web author on .NET and is fluent in C#, VB.NET, SQL, BizTalk Server, XSLT and XML. Tony has a 1st class honours degree from the University of Nottingham.

Phil Dando, Senior Developer (BSc (Hons)): Phil's role includes input to and implementation of the technical and functional specification. With 5 years development experience, Phil is an accomplished ASP.NET developer. He has an excellent track record in the development of e-business solutions for i-education authorities and leading blue chip clients.

Leo Coombes, Multi-Media Developer: Leo has responsibility for solution architecture and visual design. He has ten years experience in the design industry, including developing careers guidance software for schools. Leo is highly experienced in the use of design programmes such as Flash, Dream Weaver, Photoshop, Fireworks and 3D software. Prior to joining north 51, Leo worked as a manager in a busy design studio, producing multimedia solutions for the likes of Nissan, Audi, Prospects and Wilson Sporting goods.

David Spencer, Quality Manager: As a tester, David's responsibilities will include solution testing and maintaining the implementation of ISO 9001 throughout the project.

Letter of Support for the VITAL.NET

22.06.2006

Dear Sir/Madam,

I am writing to indicate the full support from Nottingham Trent University for the submitted proposal for JISC funding for the VITAL.NET project.

The development of such e-learning applications supports one of the strategic aims of NTU, to transform the learning and working environment to create an inspiring and innovative culture. In addition, it supports NTUs strategic mission to promote fair access and widening participation to under-represented groups. The application also furthers the aim of preparing students for lifelong learning.

NTU is committed to flexibility in delivery and opening up higher education to more people on-line. It is also committed to providing students with a rich and blended learning environment and will use on-line technologies to enhance learning outcomes for all students. The flexibility this platform provides means it can be applied to many courses and reflects the diversity of the student learning experience and different pedagogies. Transition through a learning pathway is therefore supported by the system use as a learner proceeds. The capability for monitoring and assessments also builds towards providing a portfolio of progress accessible by learner and tutor.

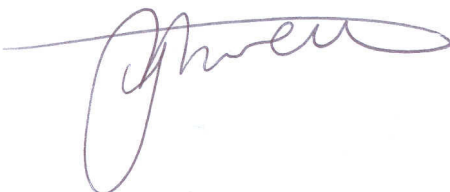
The comprehensive learning platform also facilitates a virtual community of learners and educators that removes some of the barriers of traditional learning pathways that can be restrictive to certain groups in society. It extends and enhances features of the present Virtual Learning Portal the university has in place.

The recruitment of non EU students has been identified as an area of development for the university. Using this facility, teaching and learning could place across physical or geographic boundaries thus giving global access to excellence in teaching and learning to a global community.

NTU has received the highest commendation from the 2004 Quality Assurance Agency review for its commitment to supporting students and their learning and for its student centred approach. The nature of the personalised learning aspect of this project is particularly exciting as all learners have individual needs. Learning also depends on relationships between educators and learners. The interoperability of this system facilitates this important aspect of the learning process.

In summary, the key benefits of this project to NTU are: the ability to provide more flexibility to students regarding the time, place and pace of their learning; the opportunity to offer a more diversified product portfolio that reaches new markets, domestic, corporate and international; the opportunity to enhance the skills of students by using on-line technologies and working in virtual teams thus enhancing employability and developing life-long learning skills; a consistent virtual learning environment for students an staff; the opportunities to support innovative learning and teaching strategies through appropriate resourcing and leveraging of investments in content development and new technologies and a skilled academic work force that is at the leading edge of using technologies to enhance learning and teaching.

Yours Faithfully,

A handwritten signature in blue ink, appearing to read 'Y Barnett', written over a horizontal line.

Professor Yvonne Barnett
Pro Vice-Chancellor and Head of College of Science & Technology



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June 22nd 2006

Re: Support for VITAL.NET

Dear Sir/ Madam

I am delighted to offer my complete support for the proposal from Nottingham Trent University working with north 51 for funding of the development, piloting and evaluation of VITAL.NET.

This initiative fits perfectly with the north 51 commitment to research and deliver cutting edge e-learning solutions. The opportunity to work with Higher Education bodies to develop a solution that can be used nationally to support lifelong learning is something we would be exceptionally proud of.

I can guarantee the 100% backing from myself, my co-Directors and the e-business team and, if required, we would be committed to supporting an evolving VITAL.NET product and service, well beyond the period of the pilot; thus continuing to advance the use of technology in this sector.

Finally, supporting the project provides us with the exciting opportunity of taking the VITAL.NET product to market in the commercial sector; a very attractive proposition, which will further strengthen our desire to develop an extremely effective solution.

If you have any questions, please do not hesitate to contact me.

Yours faithfully,

A handwritten signature in black ink, appearing to read "Phil Randall".

Phil Randall
Joint Managing Director