



Reviewing (traces of) European Virtual Campuses

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Author(s): Paul Bacsich

Contributors to the document All partners
(incl. quality review):

Contact name: Bieke Schreurs

Organisation: EuroPACE ivzw

Address: Kapeldreef 62, B-3001 Heverlee, Belgium

Telephone: +32 16 32 78 15

Email: bieke.schreurs@avnet.kuleuven.be

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Report Critical Success Factors

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Critical Success Factors

If e-learning initiatives are to be sustainable (which includes being cost-effective), it is of the utmost importance to identify the factors that contribute to that sustainability. As the current trend is that online education is shifting from small-scale experiments to large-scale, mainstream operation, this aspect is growing to be even more important. Online education initiatives that are not robust and sustainable might be acceptable in small scale experiments, but not any longer in large-scale mainstream operations.¹ This is most obviously demonstrated by the various “failed” e-universities as analysed by Bacsich² and others.

A Critical Success Factor is defined as “an element that is necessary for an organization or project to achieve its mission”.³ This differentiates it from other factors, which are “important” or “nice to have” but not *necessary*. Benchmarking in e-learning typically looks at a wider range of factors, and quality systems for e-learning at an even wider range. This is sometimes represented as a “pyramid of factors”.⁴

Early Work on Critical Success Factors

Although e-enabled virtual universities are less than 15 years old, and the theory of virtual campuses resembles economics more than physics in that experimentation is hard (the failure of a system cannot be allowed to impact on students), even eight years ago there was enough observational evidence building up that experts could draw some conclusions.

The three analyses below all date from roughly the same era – the early years of this century – prior to the start date even of the planning for Re.ViCa. We present them to show some of the wider currents of thought running through the e-learning literature of the era. All three analyses were originally presented in a TeleLearning conference in Canada in 2001 in a session sponsored by Industry Canada entitled: “Online Post-Secondary Education: A Competitive Analysis”. The topic of Critical Success Factors has had an international dimension since the beginning.

A Top-level Analysis by Bacsich

An analysis by Bacsich in 2001 of UK and European experience (including international consortia impinging on the UK) during the period 1996-2001 (as reported by Bacsich in 2004;⁵ see section 6) concluded that the following four factors were important. (For each factor the description is given in one paragraph, with a following paragraph in parentheses providing clarification.)

If a consortium “really hangs together” as the Americans call it – or more technically, has high binding energy – then it is more likely to succeed.

(Binding energy can be generated in many ways, including top-down and funding-driven methods. It can come from friendship of individuals or a shared vision of what might be. It may or may not have legal strength associated with it.)

The best guarantee of high binding energy is homogeneity or managed diversity (e.g., the OU-BBC partnership in the UK).

(The greater the diversity, the more power there may be to surmount obstacles, yet the greater challenge in mobilising resources.)

In particular, consortia will work better if they are “stratified”, i.e., take in universities at a similar level in the rank order.

(Note that Universitas 21 is all high-rank research-driven institutions. Cardean has a similar model, but GUA was more heterogeneous across countries. WUN has been careful to find an appropriate similar rank for its members.)

Linguistic diversity is a particular problem, although the real problem may be the cultural baggage coming along with the linguistic.

(In particular, there appears to be very few successful examples of a bilingual virtual university – with OUC being a notable counterexample. This is a real issue for Europe.)

Criteria from Kugemann at the Bavarian Virtual University

Walter Kugemann, then of the Bavarian Virtual University, suggested the following list of 10 factors in 2001 (as reported on in Bacsich 2004⁶), using the wording taken from his update in 2004.⁷

First clearly define the mission of the Virtual University. If it is part of an existing University, insure that the Virtual University fits and supports the institution's over all mission (for example, does it support faculty renewal, an institution's commitment to access? Revenue goals?).

Provide adequate capital to finance start-up and growth.

Define the institution's competitive advantage (price, quality, identifying a niche program, client service, convenience?).

Identify the primary client groups and the complete programs that meet their needs.

Invest in top quality offerings by employing first-rate faculty, first-rate learning technologies and approaches and by continually monitoring quality.

Use a learner (client) centred pedagogical model.

Develop sound marketing strategies for growth (international markets?; offerings of new programs?; developing a new client base?).

Create a common learning delivery approach through faculty training and institution-wide platforms.

Provide comprehensive administrative resources for students and instructors.

Implement centralized service standards to ensure responsiveness.

Criteria from Harasim

As an example of a less "managerialist" approach, Linda Harasim (then Network Leader of the TeleLearning research programme) suggested the following list of six factors (using here the version presented in Bacsich 2004):

Bottom-up approaches have much to offer, especially in terms of likely common vision and goals/objectives.

In a bottom-up approach, realistic assessment of what the consortium has to offer, the market for the product(s), and how to market them is key.

If funding is one of the initial motivators, her experience is that success depends on forming a consortium with a common vision, common principles of learning, and clear differentiation of roles, responsibilities and value/contribution. Different talents/skills/inputs can be integrated and mobilised for greater benefit of the whole, but it is important to be clear at the outset what these are. Different models or approaches can be complementary, even when the choice is not to integrate.

Within this strong model and framework, in order to ensure that differences are appreciated and enabled and that complementarity is leveraged, significant funding for management and marketing is required.

Contractual agreements are sound, in place, and accepted by all.

Without a doubt, role models of how other similar organisations achieved success, or overcame failure, are truly essential towards helping new consortia organise and mobilise their strengths and confront the many obstacles.

These factors formed the basis of many subsequent analyses.

An Analysis After UKeU Failed

The next step in the evolution of ideas may well have been the paper by Baccich already cited, reflecting on the failure of the UK e-University in 2004. He proposed that eight more criteria were added to his “classical” list of four critical success factors (listed earlier) – namely, the following.

Understanding and leveraging the brand is crucial.

The right market research, and the willingness to act on it, is crucial.

“Time to market” must be kept short.

Cost of marketing must be kept low.

Realism about differentiators is necessary: “quality” is not a differentiator; price is; platform functionality is not.

An e-university must be a university and a company – doing that well is hard; it affects every aspect.

Good management and staff are essential – ensuring them is hard.

(For English-language organisations.) It is not really an “English-speaking world”.

He made three further recommendations for public-sector organisations, one general and two technical.

There still must be a “business model” even if not a commercial one.

Open source is part of an answer – but no one is yet “betting the farm” on it. (One or two are now.)

Interoperability is getting closer but is not there. (Written in 2005 – but still true today.)

Note that the number of critical success factors had now grown to 15.

Recent Work on Critical Success Factors

Since the flurry of activity up to (but not beyond) 2005, there has been substantial recent literature on critical success factors for e-learning – although the reader should be warned that several papers use the term in a wider sense than we mean here (where we use the “strict” business school definition⁸ of the term). Some references for Further Reading are given at the end of the handbook – but a few papers are key to the development of our ideas and are discussed here.

In particular, in the final book of the [Megatrends](#) project, the authors present 34 important success factors⁹ identified from their in-depth analyses of both the “megaproviders” of e-learning in Europe¹⁰ and the “discontinued” initiatives¹¹ (equivalent to our “Ceased” and “Failed”) identified in their project. The hypothesis of the MegaTrends project was that it is possible to detect specific conditions that increase the possibility of success and sustainability of e-learning programmes; sustainability being defined as programmes offered on a continuous basis and not phased out after a defined project period or after specific subsidies are terminated.

For consortia, the PBP-VC project identified a large number of factors¹² tending towards success of consortia in e-learning.

Finally, benchmarking and quality schemes contain a great deal of “distilled wisdom” on what is important in e-learning. This is most clearly demonstrated in the public schemes for [Pick&Mix](#) and [Excellence](#).

However, none of these schemes and projects produced a list of *Critical* Success Factors – and in particular not a short enough list to be appropriate for a senior management team of an institution to consider in its strategic management functions (around 24 factors). Thus, further investments in research and development in this area were indispensable. The added value of Re.ViCa lies not in the creation of a new virtual campus but in the foundations it will lay for all future and current initiatives, by synthesising the lessons learned from past and ongoing initiatives. Trustworthy research results are needed, in which feedback from all stakeholder groups has been incorporated and which can be used as standard literature. Re.ViCa helps to make the most out of the knowledge gained by each initiative, to foresee hidden traps and to find ways of incorporating successful features of the initiative in the institutional structure itself (should a virtual campus in its original form have to be discontinued).

In a nutshell, the aim of Re.ViCa is to avoid a situation whereby every new virtual campus proponent has to start from the beginning, by providing stakeholders with a validated and comprehensive view of the virtual campus landscape in Europe (and beyond) as evidenced in the last decade. Roadmaps for establishing virtual campuses should be promoted, with exchange of information, expert validation and sharing of good practice as key objectives. Even more concisely, we should look at the past of virtual campus initiatives to enhance their future.

The Re.ViCa Critical Success Factors

As noted above, there have been many projects which have been looking for potential Critical Success Factors. In Re.ViCa we first carried out desk research in order to learn from other projects (see the last three subsections for an overview of the key reports and literature – fuller details are on the project web site) and came to a list of 99 potential candidates for Critical Success Factors. This was far too many, of course, as we knew – but the aim was to not constrain the final scheme by making assumptions about earlier work, including that from our own experts among the Re.ViCa partners.

In June 2008 the first International Advisory Committee (IAC) Meeting took place at the EDEN Annual Conference in Lisbon, Portugal. In this meeting the experts from the IAC and the project worked in teams on this long list, cutting it back to 29 “essential” factors.

In a second meeting in December 2008, at the ONLINE EDUCA Annual Conference in Berlin, we let the International Advisory Committee (17 delegates present) vote on the 29 potential CSFs, using an electronic voting system in which they could give an opinion about the factors whether they must be kept or removed from the list. The possible answers were:

1. *must* be removed
2. should be removed
3. no view
4. should be kept
5. *must* be kept

After each voting round on a factor there was the possibility to have a discussion on that factor. The data collection resulted in a quantitative part (the voting) and a qualitative part (the discussion). This resulted in an even shorter list of Critical Success Factors.

This shorter list of potential CSFs was then checked against (a) our case studies and (b) five other schemes of success factors, benchmarking and quality.

1. [Megatrends](#) (already discussed) is the main study on large-scale virtual campuses done before Re.ViCa. Its final list of factors is quite short, though its earlier draft lists were very long. It has several lessons for us.

2. [PBP-VC](#) (already discussed) is the main study on consortia-based virtual campuses done before Re.ViCa. It has a strong focus on quality issues and on good practice for managing consortia rather than single institutions, but among the details there are a few lessons for Critical Success Factors in the consortial area.

3. [UNIQUE](#) is a scheme for quality/accreditation in e-learning originally developed by a consortium involving EuroPACE. In some ways it is parallel to E-xcellence though it is possibly more oriented currently to on-campus and blended uses of e-learning. Despite many of the criteria being more focused on quality, there are some lessons to be learned, including on rewriting certain Critical Success Factors.

4. [E-xcellence](#) (already briefly mentioned) is a scheme of benchmarking/quality for e-learning developed in 2005-2006 by a consortium led by EADTU. It is often felt to still be most relevant to distance teaching organisations, although work is now underway to extend its reach. It has earlier been taken into consideration for our CSF work but this work was rechecked.

5. The OBHE scheme was used for three rounds of UK benchmarking and a later desk exercise on international benchmarking. Its approach is typical of a number of European schemes.

Three of these cross-correlations – the technical name is [concordances](#) – are summarised in an Annex (not in this Handbook).

Finally, related activity on benchmarking/quality of e-learning in the UK, especially with the Pick&Mix system (which itself had undergone concordance with several other benchmarking schemes across the world) had generated some comments on criterion wording and also some new criteria, which were taken into consideration.

These pieces of work led to 19 criteria (potential CSFs) that received very serious attention. Of these, eight were potential new criteria altogether. In particular there were three criteria related to collaboration that needed more detailed attention – which we provided, drawing on the experience of PBP-VC.

Acting on earlier feedback and intense debate on whether some Critical Success Factors were indeed critical for all types of virtual campus, it was finally decided to split the list of Critical Success Factors into two parts:

1. A list of 17 Critical Success Factors relevant to success of e-learning in *all types of virtual campus*.

2. A list of 14 Key Success Factors - these are Critical Success Factors relevant to success of e-learning in one or more *subsets* (categories) of virtual campus – such as private for-profit providers, consortia, etc.

The tables for these are given in the next section.

[The Re.ViCa Critical Success Factors Tables](#)

First, we make some remarks about how we represent Critical Success Factors. All such factors are taken from a broader scheme of benchmarking, Pick&Mix – whose earlier release ([2.0](#), as used

for Phase 2 and [Gwella](#) benchmarking in the UK) was enhanced to encompass the Critical Success Factors which were new to the scheme. Each factor has a concise description (second column). Each factor also has a name (first column), a three-letter code and a number (01 to 99). Earlier work over several years made it clear that despite their apparent lack of meaning, the *numbers* were the identifiers for factors that UK audiences found most useful – they did not at all like the codes and they seemed not very keen on the names. Thus we make no apology for including the numbers, but defer to some sensibilities by putting the numbers in the final column, not the first, as is traditional for Pick&Mix.

CSF NAME	CRITICAL SUCCESS FACTOR DESCRIPTION	CODE
Usability	All systems usable, with internal evidence to back this up.	04
e-Learning Strategy	Regularly updated e-Learning Strategy, integrated with Learning and Teaching Strategy and all related strategies (e.g., Distance Learning, if relevant).	06
Decisions on Projects	Effective decision-making for e-learning projects across the whole institution, including variations when justified.	07
Training	All staff trained in VLE use, appropriate to job type – and retrained when needed.	10
Costs	A fit for purpose costing system is used in all departments for costs of e-learning.	12
Planning Annually	Integrated annual planning process for e-learning integrated with overall course planning.	13
Technical Support to Staff	All staff engaged in the e-learning process have “nearby” fast-response technical support.	16
Decisions on Programmes	There is effective decision-making for e-learning programmes across the whole institution, including variations when justified.	19
Leadership in e-Learning	The capability of leaders to make decisions regarding e-learning is fully developed at departmental and institutional level.	22
Management Style	The overall institutional management style is appropriate to manage its mix of educational and business activities.	29
Relationship Management Upwards	The institution has effective processes designed to achieve high formal and informal credibility with relevant government and public agencies overseeing it.	35
Reliability	The e-learning system is as reliable as the main systems students and staff are used to from their wider experience as students and citizens.	53
Market Research	Market research done centrally and in or on behalf of all departments, and aware of e-learning aspects; updated annually or prior to major programme planning.	58
Security	A system where security breaches are known not to occur yet which allows staff and students to carry out their authorised duties easily and efficiently.	60
Student Understanding of System	Students have good understanding of the rules governing assignment submission, feedback, plagiarism, costs, attendance, etc. and always act on them.	91
Student Help Desk	Help Desk is deemed as best practice.	92

CSF NAME	CRITICAL SUCCESS FACTOR DESCRIPTION	CODE
Student Satisfaction	Frequent (ideally annual) Student Satisfaction survey which explicitly addresses the main e-learning issues of relevance to students.	94

The Key Success Factors are listed in the same way (below), except that there are different factors that apply to the six different genres (types) of institutions that we have considered.

FACTOR NAME	CRITICAL SUCCESS FACTOR (LEVEL 5 STATEMENT)	CODE	TYPES OF INSTITUTIONS
Collaboration for e-Learning	The institution has a reasoned approach to collaboration at various levels to gain additional benefit from sharing e-learning material, methodologies and systems.	24	Consortia National initiatives
Brand Management	The institution has a reasoned approach to managing its brand	25	For-profits
Worldware for Students	Students can on the whole make use of widely used hardware and software thus minimising cost and support issues	32	National initiatives Evolution of existing institutions
Recruitment of Staff	The institution has effective processes designed to attract, for appropriate roles, employees enthusiastic about e-learning	34	Newly created institutions
Pricing	The institution has effective processes which ensure that the prices of its courses are competitive yet sustainable.	36	For-profits Public institutions (maybe)
Innovation Management	The institution has a balanced approach to encouraging innovation and innovators within the constraints of delivering effective services attractive to students.	37	Evolution of existing institutions
Consortia No-Compete	The consortium has taken steps to ensure that issues of competing with its members are resolved	41	Consortia
Consortia Roles Definition	Each member of the consortium has a reasoned, evidenced and documented approach to collaboration with partners.	42	Consortia
Consortia Role Implementation	Each member of the consortium implements the collaboration role it agreed with its partners.	43	Consortia
Foresight	Both look-ahead and lab, working in concert; at least one of these should be a sector leader.	55	Public institutions
Selling	Widespread skill in selling e-learning and the theory to support the skills.	56	For-profits Public institutions (maybe)
Competitor Research	The institution has processes to carefully analyse the relationship of each proposed e-learning offering to existing providers and stakeholders.	59	For-profits Public institutions (maybe)
Dissemination Internal	A systematic managed process of internal dissemination of good practice in e-learning aspects of courses is in place.	82	Evolution of existing situations
Organisational Learning	Institution is a learning organisation on all core aspects of e-learning.	99	For-profits

It should be remembered that the Critical Success Factors and Key Success Factors are drawn from a much larger scheme of benchmarking/quality for e-learning based on an updated version of Pick&Mix. This makes it easy to promote (from the benchmarking layer of the pyramid) or demote (back to benchmarking) Critical Success Factors and Key Success Factors, as further case study and country report information becomes available. It also makes it easy to select Key Success Factors for various kinds of e-learning not covered – in particular distance e-learning.

A spreadsheet for the scheme is available. In fact the [latest stable beta of Pick&Mix](#) is always available on the web. It should be noted that in benchmarking the factors are usually numbered in the form Pnn (P for Pick&Mix) but for Re.ViCa Critical and Key Success Factors they are usually numbered Rnn (R for Re.ViCa).

How an Institution Can Check its Status Against the Critical Success Factors

There are two methods by which an institution can check how well it is conforming to the Critical Success Factors – the Case Study (narrative) method and the Benchmarking method. The first is more straightforward but gives less information suitable for comparative purposes.

In the case study method, the institution produces a narrative report – rather similar to the way it would prepare a case study under various headings such as for Re.ViCa – or indeed a report for a quality review. To prepare the narrative it would consult the key documents in the area and possibly interview key staff with responsibilities covering the area. Such procedures are very familiar now from quality reviews.

We asked our case study institutions to produce such narratives for us. For reasons of confidentiality and conciseness the reports are not complete, focus on CSFs only and are limited to one paragraph per institution for each factor – but there is enough information so that readers can gain a good idea of how the process works.

Critical Success Factors

R06 e-Learning Strategy

Regularly updated e-Learning Strategy, integrated with Learning and Teaching Strategy and all related strategies (e.g. Distance Learning, if relevant).

The psycho-pedagogic model of **UNINETTUNO** was realised by Maria Amata Garito and it is the outcome of her research work and experimentation developed since 1993 with NETTUNO – Network per l'Università Ovunque. The results of this research represent the theoretical bases upon which the new organisational models of the distance teaching and learning system and of the new psychopedagogic and didactic models were realised.

Hibernia College is a dedicated e-learning provider and have in place an explicit e-learning strategy which includes information about how the prescribed teaching strategy results in effective learning. All academic staff has to participate in a training course which includes ensuring their compliance with the principles and practice of this strategy as well as how it is implemented within the structure of Hibernia's courses.

OU-NL has a clear and also long term e-learning strategy. First of all students are at the core of their educational system. Students themselves determine where, when and at what pace they will work through their programme, so that they can find the right balance between studying and their work, their family and their hobbies. The Open University helps by offering students their own space within an advanced electronic learning environment. By 2009 the **OUNL** wants to be a genuine Internet university. They capitalize on the opportunities that the Internet offers in education and for their students, much more than is now the case. Their aims? Online tutoring, online testing, quality assurance, and multimedia. Wherever possible, tutoring, testing, information and counselling will take place online within just a few years time. By 2014 at the latest, they expect their students and staff to have their own personal digital learning and working environment that they can set up to suit their own wishes and requirements. Ultimately, the OUNL wants to be able to describe its selves as a provider of multimedia, interactive distance education in which both the Internet and traditional printed books play an important role. An open channel to flexible and innovative education.

UEF: At the moment, there is no such strategy. However, the first E-learning Strategy of UEF as well as the Learning and Teaching Strategy will be completed during year 2009. In the new university, the role of e-learning will be crucial, when the new university has to rationalize its teaching practices in those schools/departments where academic programs are co-organized on two campuses. Since some of the academic programs will be run simultaneously on two campuses, online learning and broadcasting of lectures and other teaching scenarios will most

likely become a standard way of delivering courses. Equally critical will be to make programs and courses offered on one campus only accessible to students on other campuses through distance and online delivery. The university is currently developing its infrastructure, teaching processes, and e-learning tools and environments to support more extensive use of e-learning. The compilation of the first E-learning Strategy is also part of this work.

R07 Decisions on Projects

Effective decision-making for e-learning projects across the whole institution, including variations when justified.

Although there is an overall standard for e-learning software (**OU-NL** uses Blackboard as an electronic learning environment), in the end the choice of pedagogies and technologies is a responsibility of each different school (for example the school of psychology uses Moodle). Decisions on e-learning projects which are made by the overall institutional management provide enough space for different opinions and individual choices. For example, the faculty is supported by a diverse and large offering of instruments and technologies (like WEB 2.0 software), which is decided on a general management level. But faculty can combine their own tools in a media-mix.

R10 Training

All staff trained in VLE use, appropriate to job type – and retrained when needed.

UNINETTUNO: In the proposed psycho-pedagogic model, the student is at the centre of the educational process, guided by the new profile of the professor – telemetric tutor – who represents a guide and a constant presence during the learning process. Every year, the UTIU, after the tutors' appointment, organises training courses to make the staff acquire specific skills. Tutors are selected by the area professors and chosen among doctor's degree candidates, researchers, study grant holders and experts in the subject. Tailored training is aimed at making them acquire a range of skills that can be grouped into five main areas: Specific disciplinary skills; Specific professional skills; Organisational skills; Communication and relational skills; Pedagogic and didactic skills. The use of ICT tools transforms traditional didactic communication. In the new didactic model, the professors have to learn a new way of explaining, synthesising and presenting his knowledge to a virtual student in order to trigger a critical and reflective learning process. The video lesson requires a specific preparatory work and, in order to exploit all the potentials of the tools, the professor has to work with a team of technicians and experts in language of image. We calculated that each hour of video lesson requires from twenty to thirty hours of preparatory work. This, of course, develops in the professors new communication skills and the use of new languages that area used also to store the results of their own research work. This new training experience has an impact on the way they deliver their lessons also in their traditional academic courses.

Hibernia operates with a small dedicated full-time staff and about 300 part-time academic staff who are paid on a pro-rata basis. Academic staff are chosen based on their subject area knowledge and qualification and then have to take part in a training course as mentioned earlier which covers both Hibernia's e-learning strategy as well as the tools and learning services in use. This includes training in HELMS, Hibernia's proprietary LMS and the other tools and systems in place.

OU-NL has regular meetings on innovative e-learning issues. They have their own journals in which best practices are published (see <http://www.ou.nl/eCache/DEF/15/152.html>.in Dutch language). They organise training sessions for faculty, whenever new software or new educational technology is implemented. There is a training programme in didactical skills for faculty.

UPM has a department called GATE, Gabinete teleeducación, this department is responsible for teacher training, GATE provides the necessary support services to the teachers of the University offering a team that will provide resources and training needed to teach in online distance education via videoconferencing or Moodle for example. There are 20 online courses to teach teachers and administration staff. There is also a virtual community for teachers where they can work together, exchange experiences and knowledge, based on web 2.0. Every teacher that is interested in designing an online course gets a 80 hour training package in order to help him to design online learning materials.

The Learning Centre of **UEF** will be responsible for providing training in e-learning to both students and staff. The following training programmes are available for the staff: University Pedagogy (25 ECTS) and E-learning (20 ECTS). All staff members are encouraged to educate themselves. However, in the end, the development of technical and pedagogical skills lies in the hands of individual staff members and their own activity. In the new university, there will be three campuses hundreds of kilometres apart from each other with fairly low number of students and teachers at each site. So the use of e-learning will be crucial, if the university wants to rationalise its teaching delivery and create new learning opportunities. Thus, the aim is that all staff members will be proficient in using e-learning in their courses at least to some extent.

R16 Technical Support to Staff

All staff engaged in the e-learning process have "nearby" fast-response technical support.

The support of the **KU Leuven Association's** virtual learning environment is based on a layered support model.

The Advisory board makes decisions for the whole Association and consists of 1 representative from each institution, 1 representative from the Toledo Team and the ICT-coordinator of the Association. The Toledo Team is the project leader. They supply both technical support (Hardware and Applications) and didactical support. They create the help desk and the Toledo support courses for the K.U.Leuven staff and local administrations of the other partner institutions. The Toledo Team also creates the data Integration, Building Blocks and bridges. Each institution has their own local administrators who are supported by the Toledo Team.

OU-NL has a one-stop technical help desk. Employees can visit the help desk physically and virtually. Every problem or question is categorised. Help desk employees make visits on the workfloor and come to the individual offices to solve technical problems.

The Learning Centre of **UEF** will provide a number of e-learning services to the staff, one of them being (centralised) technical support.

R22 Leadership in e-Learning

The capability of leaders to make decisions regarding e-learning is fully developed at departmental and institutional level.

OU-NL tries to be a frontrunner in open higher distance education and tries to be a leader in educational innovation (the innovation, development and implementation of new technologies and new educational insights), also on an international scope. Leadership in e-learning became obvious after the first phase of institutional development: the Open University came in a more mature phase in 1995 and its innovative targets were reformulated and more pinpointed towards innovation of higher education, meaning innovation of its own curriculum but also from other higher educational institutes in the Netherlands. Nowadays it is a leader nationwide. The OUNL tries also to share their expertise worldwide. Increasingly, they are trying to build long-term relationships with foreign partner institutes and companies, wherever possible in the form of strategic alliances. In fact, they have joined forces in the field of teaching, research and innovation with universities around the world, frequently in projects belonging to European programmes. The Open University of the Netherlands is also a leading member of EADTU (European Association of Distance Teaching Universities), in which open universities and institutions for distance teaching in Europe work together on projects and in task forces to develop business models, quality assurance, lifelong learning, multilingual open resources, cross-border virtual entrepreneurship, and virtual mobility. The capability of leaders to make decisions regarding e-learning is not fully developed at every level of the organisation. For that, management sessions are frequently organised and awareness raising and competency development on the topic of e-learning has always a high priority.

R35 Relationship Management Upwards

The institution has effective processes designed to achieve high formal and informal credibility with relevant government and public agencies overseeing it.

UNINETTUNO: The International Telematic University UNINETTUNO takes origin from the experience of Consorzio NETTUNO and benefits from its know-how that was acquired in over 15 years of practice in the field of distance education and e-Learning. Consorzio NETTUNO was established in 1992 in the form of a nonprofit association, promoted by the Ministry of Education, University and Research, and it united 43 universities to important companies such as Telecom Italia, IRI, RAI, CONFINDUSTRIA with the purpose of realising Distance University Degree Courses. When established, the UTIU took advantage also from the European Project Med Net'U, Mediterranean Network of University, from which it derives a marked Euro-Mediterranean characterisation. UTIU internationality is fundamental characteristic that which permeates all the didactic and research activities and the academic ones as well. The International Telematic University UNINETTUNO is based on a close cooperation with traditional universities, Italian ones and also European, of the Arab World, of the United States, Latin America ones and at present it is concluding new agreements with universities of China, Russia and Africa. The alliance of university institutions of many countries of the world allows supplying wider and more diversified offers as it regards the teaching staff and the subjects and educational contents as well.

Hibernia has had to invest considerable efforts in achieving accreditation from the Irish national accreditation agency, HETAC against a background of suspicion and sometimes downright hostility among the traditional higher education sector in Ireland. The first accreditation by HETAC took place in 2002 and a further quality assessment was carried out in 2004. The next round of accreditation takes place in 2009 and Hibernia has in-place considerable processes and procedures aimed at ensuring the college again succeeds in achieving approval for its courses from HETAC. Furthermore, partnership is fundamental to the ethos of Hibernia and they have been very careful to put in place appropriate partnerships with credible and established agencies and organisation with established reputations in the specific field of study Hibernia enters. This is part of a deliberate strategy to enhance Hibernia's credibility and acceptance among students and stakeholder communities generally.

UEF: At least they are well-rehearsed in the annual so-called target-outcome negotiations between the university management of UEF and the Ministry of Education

R58 Market Research

Market research done centrally and in or on behalf of all departments, and aware of e-learning aspects; updated annually or prior to major programme planning.

Given the nature of its structure and objectives, **Hibernia** only enters markets which it has already investigated fully in terms of demand for courses and learning opportunities. The first course offered by Hibernia, the Higher Diploma in Arts in Primary Education (HDAP) came about in response to an explicit and documented need on the part of non-qualified Irish primary school teachers for a diploma that they could study for in a flexible and part-time manner. Research is always carried out into potential markets along the same lines to establish the real demand for such courses.

OU-NL has a department for marketing research and branding. Research is mainly focused on target groups and impact of marketing campaigns.

R94 Student Satisfaction

Frequent (ideally annual) Student Satisfaction survey which explicitly addresses the main e-learning issues of relevance to students..

UNINETTUNO: In order to evaluate and assure the high-quality standards to the Italian university system, in compliance with the Law n° 370/1999 it was established a National Committee for the Evaluation of the University System. This Committee is an institutional body of the Ministry of the University and Scientific and Technological Research. According to the above-mentioned regulations, the International Telematic University UNINETTUNO appointed its own Board of Evaluation, composed of experts in evaluation procedures coming from the academic environment and from the non-academic one as well. The Board is engaged in evaluating the educational, training and administrative activities and carries on regular surveys on the students' opinions and students' satisfaction. The student opinion survey carried out on the 2006/2007 academic year registers on average a high level of satisfaction with the organisation of the degree courses and the online didactics, with decidedly high percentage. Of considerable significance are the evaluations of the video lessons, exercises and efficacy of online tutoring, these representing the specific tools of the University and not usually found in traditional universities. Such instruments were available in academic year 2006/2007 in already consolidated form. The relevant evaluations are decidedly positive, being around 80-90% in all the Faculties.

Next to their own frequently held student satisfaction surveys, the **OU-NL** takes part in a nationwide annual survey. It is always in the top of the yearly ranking. Students at the OUNL are in general highly satisfied about the content, tutoring and e-learning support.

Key Success Factors

The case study for Key Success Factors is available on request.

Critical Success Factors – the Benchmarking Approach

A more thorough approach than the case study approach is to take a benchmarking approach. This uses the feature that the Critical Success Factors and Key Success Factors are embedded in a benchmarking scheme – Pick&Mix – where each factor can be “scored” at one of six levels.

Note that benchmarking schemes other than Pick&Mix could be used as the “host”, but the Critical Success Factors have to be integrated into the scheme in order for them to avail themselves of the scoring aspects of the scheme. In the exploitation phase of Re.ViCa this integration is likely to be considered for schemes like UNIQUE and E-xcellence.

The table below shows the principles. For simplicity and compactness we ignore level 6 (this is the “excellence” level, the one beyond “good practice”) and take just a small subset of 10 CSFs. The principles are the same for the full schemes of Critical Success Factors and Key Success Factors – however, some further work is needed during the exploitation phase to agree scoring statements for a few of the very new criteria. (This has to be done for the Distance Learning Benchmarking Club of seven institutions that is now active across four countries.)

Nr	06
Criterion Name	e-Learning Strategy
Level 1 Statement	No e-Learning Strategy. No recent Learning and Teaching Strategy.

Level 2 Statement	Some mention of e-learning within the Learning and Teaching Strategy.
Level 3 Statement	e-Learning Strategy produced from time to time, e.g., under pressure from Funding Council or for particular grants.
Level 4 Statement	Frequently updated e-Learning Strategy, integrated with Learning and Teaching Strategy and perhaps some others.
Level 5 Statement	Regularly updated e-Learning Strategy, integrated with Learning and Teaching Strategy and all related strategies (e.g., Distance Learning, if relevant).

Nr	07
Criterion Name	Decisions on Projects
Level 1 Statement	No uniformity in decision-making regarding e-learning projects – “each project is different”.
Level 2 Statement	Decision-making at department level.
Level 3 Statement	Decisions on e-learning projects get taken but some take a long time or may be contested even after the decision is taken.
Level 4 Statement	Effective decision-making for e-learning projects across most of the institution.
Level 5 Statement	Effective decision-making for e-learning projects across the whole institution, including variations when justified.

Nr	10
Criterion Name	Training
Level 1 Statement	No systematic training for e-learning.
Level 2 Statement	Some systematic training for e-learning, e.g., in some departments..
Level 3 Statement	Institution-wide training programme set up but little monitoring of attendance or encouragement to go.
Level 4 Statement	Institution-wide training programme set up with monitoring of attendance and strong encouragement to go.
Level 5 Statement	All staff trained in VLE use, appropriate to job type – and retrained when needed.

Nr	12
Criterion Name	Costs
Level 1 Statement	No understanding of costs of e-learning in any departments.
Level 2 Statement	Understanding of costs of e-learning in some departments.
Level 3 Statement	Understanding of costs of e-learning in most departments.

Level 4 Statement	Good understanding of costs of e-learning in most departments.
Level 5 Statement	Activity-Based Costing or a system with equivalent functionality being used to some extent in all departments for costs of e-learning.

Nr	16
Criterion Name	Technical Support to Staff
Level 1 Statement	No specific technical support for the typical (unfunded) person engaged in e-learning.
Level 2 Statement	A few staff engaged in the main e-learning projects are supported by technical staff.
Level 3 Statement	Key staff engaged in the main e-learning projects are well-supported by technical staff.
Level 4 Statement	Most staff engaged in the e-learning process have “nearby” technical support.
Level 5 Statement	All staff engaged in the e-learning process have “nearby” fast-response technical support.
Nr	19
Criterion Name	Decisions on Programmes
Level 1 Statement	No uniformity in decision-making regarding e-learning programmes – “each programme is different”.
Level 2 Statement	Decision-making at meso level (school, department, faculty, etc.) for most e-learning programmes.
Level 3 Statement	Decisions on e-learning programmes get taken but some take a long time or may be contested or ignored after the decision is taken.
Level 4 Statement	Effective decision-making for e-learning programmes across most of the institution..
Level 5 Statement	Effective decision-making for e-learning programmes across the whole institution, including variations when justified.

Nr	22
Criterion Name	Leadership in e-Learning
Level 1 Statement	Leaders play no role in decisions affecting e-learning.
Level 2 Statement	The capability of leaders to make decisions regarding e-learning is moderately developed at department level but not institutionally.
Level 3 Statement	The capability of leaders to make decisions regarding e-learning is moderately developed at departmental and institutional level.

Level 4 Statement	The capability of leaders to make decisions regarding e-learning is adequately developed at departmental and institutional level.
Level 5 Statement	The capability of leaders to make decisions regarding e-learning is fully developed at departmental and institutional level.
Nr	58
Criterion Name	Market Research
Level 1 Statement	No market research done except centrally for the institution, with no reference to e-learning.
Level 2 Statement	Market research done centrally and in or on behalf of a few departments, and aware of a few e-learning aspects.
Level 3 Statement	Market research done centrally and in or on behalf of some departments, and aware of some e-learning aspects e.g., on major programmes; updated from time to time.
Level 4 Statement	Market research done centrally and in or on behalf of most departments, and aware of many e-learning aspects.
Level 5 Statement	Market research done centrally and in or on behalf of all departments, and aware of e-learning aspects; updated annually or prior to major programme planning.

Nr	91
Criterion Name	Student Understanding of System
Level 1 Statement	Students have little understanding of the rules governing assignment submission, feedback, plagiarism, etc – perhaps because the rules are not clear or clear but not enforced.
Level 2 Statement	Students have some understanding of the rules governing assignment submission, feedback, plagiarism, etc and usually act on them.
Level 3 Statement	Students have reasonable understanding of the rules governing assignment submission, feedback, plagiarism, etc and usually act on them.
Level 4 Statement	Survey done every year which contains many of the most relevant e-learning questions
Level 5 Statement	Annual Student Satisfaction survey which explicitly addresses the main e-learning issues of relevance to students.

Nr	94
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Criterion Name	Student Satisfaction
Level 1 Statement	No attempt made to measure this.
Level 2 Statement	Survey done occasionally which contains some relevant e-learning questions
Level 3 Statement	Survey done every few years which contains some relevant e-learning questions
Level 4 Statement	Survey done every year which contains many of the most relevant e-learning questions
Level 5 Statement	Annual Student Satisfaction survey which explicitly addresses the main e-learning issues of relevance to students.

The preferred type of engagement approach used in benchmarking is not quite the same as some institutions are used to from national quality bodies. The version is called “The Iterative Self-Review Process” with use of expert moderators. It has four distinctive features.

1. It encourages a more senior level of participation from the institution: the result is “theirs”, not the moderators.
2. It allows them to get comfortable over time with the criteria as they apply to their institution.
3. It helps them move *directly* to implementation of change.
4. However, it requires more effort from moderators, and more than one meeting (face-to-face or virtual) with them.

Typically there would be five meetings held at an institution. These are described below. It is helpful if the moderator can attend at least the first meeting, the scoring meeting and the reflection meeting (if any).

For more details of benchmarking readers are referred to one or more of the case studies of this process – of which we particularly recommend the public report from the University of Worcester.¹³ For more general descriptions of benchmarking and its links to quality, etc., see the papers by Bacsich.^{14 15}

Introductory Meeting

This meeting sets the scene for the benchmarking. Institutions will agree what particular Critical Success Factors they will consider – it is best if they use all 17. They should also agree which other criteria to consider – in particular, whether to consider the appropriate set of Key Success Factors for their genre of distance learning. In some countries (England, Wales, Australia, Sweden) there are national indicators for e-learning and institutions often wish to ensure coverage of these by the criteria they choose – in particular in England and Wales, it is normal to choose the full set of the first 20 criteria (called the UK Core Criteria).

Institutions will also consider which “slices” of the institution to benchmark – in addition to benchmarking the complete institution. Typically if there are five or fewer major groups (like faculties), all are benchmarked – if there are more, some selection has to be made. There is often value in choosing a particular genre of e-learning (in particular distance e-learning) as a virtual slice to benchmark.

Consideration also needs to be given to where the evidence can be found. Does the institution have good documentation? (Lack of documentation is a particular problem with recently merged institutions.) Does it have managers who are supposed to be in charge of the various functions and have deep knowledge of them? Will specific interviews be needed? Is there a committee, task force or informal network of e-learning coordinators and/or experts across the university who can be

in the UK to a number of JISC and related studies (including from ministries) on adoption and maturity in schools and the college sector. The approach remains attractive to a number of experts in information systems departments of universities interested in theories of IT-induced change. It has provided a useful contextual scheme for benchmarking and is a gentler framework for academic transformation than BPR was or is.

In universities, MIT90s was used for benchmarking e-learning, by the University of Strathclyde in 2006, and in 2007 (after substantial reworking) by a consortium of four universities: Bradford, Brighton, Thames Valley University, and the University of Glamorgan in Wales.

One key notion of MIT90s is the idea of categories under which an institution can be analysed: these include external environment (this one is often ignored); organisational strategy; individuals and their roles (leaders, staff, students); organisational structures; technology; and management processes. These categories form the basic classification for the case study template used in Re.ViCa. They are also built into the Pick&Mix benchmarking system and are thus inherited by the Re.ViCa Critical and Key Success Factors.

The other key notion is that of the five “transformation levels” which forms the basis of the scoring schemes used in Pick&Mix and several other schemes – including what we proposed in the last section for benchmarking Critical Success Factors.

Some critics say that MIT90s is good for *analysing* change, but not very good for engendering or *fostering* change. There is a literature survey¹⁷ on MIT90s from which readers can make up their own minds.

Academic Transformation

A particular approach to academic transformation was pioneered by a team in the USA under the direction of Carol Twigg, with funding from the Pew Foundation. Later, the [National Center for Academic Transformation](#) was set up, with Carol Twigg as the Founding Director. The methodology was taken seriously by the relevant ministry in England but in the end it was decided not to go ahead with a trial. However, in Scotland, the approach was more directly taken up in the [Scottish Transformation Programme](#), although the extent to which this followed a strict Twigg model is a subject of some debate:¹⁸

The scale of these two programmes [Transformation and [Pathfinder](#)] is comparable to the Pew Grant programme in course redesign in USA higher education, which claimed both improved learning and reduced costs through the introduction of technology enhancements. This paper considers how these claims influenced the UK initiatives, and how divergent strategic considerations led the national programmes to be defined differently. A conclusion is that the way the initiatives were framed has influenced their outcomes. However, both programmes have succeeded in building a cross-institutional level of capacity development that offers a policy direction for the future.

Despite a number of setbacks and false starts outside the USA, the ideas of Twigg surface from time to time in various ways.

Tony Bates

Since 1999, Tony Bates has published several standard text-books on the challenges of managing institutional change engendered by distance learning and e-learning: from *Managing Technological Change* in 1999 through to *Technology, E-Learning and Distance Education* in 2005.^{19, 20} Since he retired from the University of British Columbia he has been an advisor to several European and North American institutions featured in the Re.ViCa wiki, and a substantial contributor to IAC agendas. His blog is running a series of articles on the topic including a recent posting on 26 October 2009.²¹

Consequently his resources form a natural source of advice and guidance to implementers of step-change in institutions.

Carpe Diem

Another approach to change management has been taken by those who decide to focus on staff development as a key to change (this is one of the “change trajectories” suggested by MIT90s). However, rather than putting on massive (and unsustainable) training courses for staff “just in case” – as was often the case in the richer institutions in the late 1990s and early 2000s – the approach is to put on targeted training events for small numbers of staff “just in time”, the key time being just when curriculum update (and, hopefully, redesign in a more e-enabled way) is on the agenda for these staff. This brings the approach quite close to some of the JISC [Curriculum Design](#) projects.

The name [Carpe Diem](#) (Latin for “seize the day”) for such an approach is closely associated with the name of Professor Gilly Salmon of the University of Leicester. A brief description follows, adapted from her web site.

Carpe Diem is a well-researched, well-rehearsed team-based model for promoting change in learner-centred e-learning design and assessment, institutional capacity building and innovation.

At the heart of Carpe Diem is a two-day workshop in which discipline-specific course teams, in collaboration with subject librarians and learning technologists, plan, implement and review student-centred e-learning designs, focusing on learner activity, group work and assessment for learning. By the end of the second day, course teams have a blueprint and storyboard for their course, a set of peer-reviewed online learning activities (or e-tivities) running on their institutional virtual learning environment (VLE), a transferable model for e-tivity design and a practical action plan.

The Carpe Diem process comprises:

- **A pre-workshop meeting** for motivation and preparation. Our facilitator will meet with core members of the course team to clarify the aims of the course they intend to design for, explore what material already exists and what ideas the course team have agreed on.
- **The two-day Carpe Diem workshop:** The practical workshop involves a small course team in a single discipline (4 to 20 participants), a subject librarian and a learning technologist. The workshop takes place on two consecutive days, normally from 10 to 4.30. All team members must attend on both days. The workshop is run in a computer lab...
- **Follow-up meeting** to review the latest state of the online course with the course team, and fine-tune the work done at and since the workshop. This normally takes between half a day and one day. It is conducted in a computer room.

There are a number of other experts and institutions who adopt a similar approach, but few are as well-supported by research input as the one at Leicester.²²

Work by Bacsich and Karran

There is another scheme for discussing change management that is due to Bacsich and Karran (Terence Karran is on the IAC also).²³

It would not be difficult to update this and to correlate it with the Re.ViCa Critical Success Factors – if such a development were thought by our audience to be useful during the Re.ViCa exploitation phase.

Final Thoughts

The above summary of various approaches is brief and considers only the minimum set of approaches. In particular it does not consider the recent resurgence of interest in costs of e-learning and its relation to Critical Success Factors – in particular R12 “Costs”. For more on this see Bacsich²⁴ (within the European context) and Laurillard.²⁵ The paper by Tony Toole²⁶ takes forward some of these ideas in a useful direction.

Apologies are also due to other eminent thinkers on change management, such as Stephen Ehrmann of the [TLT Group](#), for not having space to consider their theories. In particular the TLT Group’s recent espousal of “Frugal Innovation”²⁷ may have many lessons for the next decade.

Comparison exercise with five other schemes of success factors, benchmarking and quality.

Megatrends to Re.ViCa Critical Success Factors concordance

Megatrends	Re.ViCa CSF	Commentary	Action	
MG01 Learn from institutions with a long history and tradition of dealing with distance education	Covered by the complete set of CSFs.	I feel it is embedded in the set of CSFs we offer, which is “distilled wisdom” from earlier initiatives. Is this really an overall CSF? Would it be relevant to <i>Evolution of existing institutions</i> (if face to face)?	None.	1.
MG02 Build high competence and tradition in online education		Is this really not a <i>result</i> not a CSF? As we often say, not quite jokingly, longevity is a strong guarantee of success. Tradition cannot be built quickly.	None.	2.
MG03 Focus on evolutionary step-by-step development and scalability		This could be relevant to <i>Evolution of existing institutions</i> . But it seems to rule out <i>step-change</i> (rapid discontinuous change) which is what governments often want.	Consider as CSF for <i>Evolution of existing institutions</i>, but not e.g. for <i>National initiatives</i>.	3.

Megatrends	Re.ViCa CSF	Commentary	Action	
MG04 Promote continuing research and evaluation related to online education	See R68 <i>Research Out</i> and also R14 <i>Evaluation</i> .	<p>This is <i>double-headed</i> (two separate topics – research is not evaluation).</p> <p>R68 is not a CSF for us. My feeling is that research often gets in the way of operational activity as it distracts the academics.</p> <p>R14 is also not a CSF for us – because evaluation usually comes too late to save one from early serious mistakes.</p>	None. We disagree with Megatrends.	4.
MG05 Develop high competence in information and communication technology (ICT)	Covered by the set of ICT-related CSFs.	<p>Also begs the question of what “competence” is and how to measure it.</p> <p>Competent people can deliver a bad system – cf. UKeU.</p>	None. We disagree with Megatrends.	5.
MG06 Use standard and widely-used technologies; widely-used technologies enable students to apply the software and hardware they have at their disposal with little need to buy and install additional equipment	Not covered.	This is essentially the “worldware” argument of Ehrmann and certainly followed e.g. by UKOU over the years.	Consider for inclusion.	6.
MG07 Acquire well integrated ICT systems that support online education	See R62 <i>Integration</i> .	<p>“Acquire” is a strange world, one might develop them. Few systems interoperate when acquired, including Moodle.</p> <p>Note that R62 is not a CSF for us.</p>	None. We disagree with Megatrends.	7.

Megatrends	Re.ViCa CSF	Commentary	Action	
MG08 Develop effective administrative systems	Not covered.	<p>Need to define “effective” in a measurable way.</p> <p>There is a lack of case study material that ineffective (e.g. unintegrated) administrative systems have caused failure.</p>	Possible consideration for inclusion if case study material confirms.	8.
MG09 Provide a wide range of subjects and levels that are attractive to students and lead to employment	Not covered – not seen in scope for an ICT-oriented list of CSFs.	There are many specialist institutions around the world – medical schools, art colleges, that are successful. Also some specialist virtual campuses – e.g. Hibernia. Also many OUs started with very limited offerings.	None. We disagree with Megatrends.	9.
MG10 Select a wise choice of topics, courses, and programs that are onlineable	Covered, but in another way, in R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i> .	It has always been nearly impossible to get consensus – even, perhaps especially, among experts, on what is “onlineable”.	An interesting idea but fundamentally unmeasurable.	10
MG11 Weigh the potential benefits of flexible start-up and progression against the advantages of being able to work with stable groups in virtual classrooms	Seen as too detailed a factor for inclusion in a Re.ViCa but in general see R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	This is a real aspect for several institutions including TRU and OuN. But is it a show-stopper? I don’t think so.	Relevant, but too detailed for inclusion – pick up in quality guidelines.	11
MG12 Focus on asynchronous communication (students’ time flexibility leads to asynchronous communication and little focus on synchronous communication technologies)	Seen as too detailed a factor for inclusion in a Re.ViCa but in general see R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	Many experts do accept this limitation but there is always a voluble minority of self-styled experts who challenge it.	Relevant, but too detailed for inclusion – pick up in quality guidelines.	12

Megatrends	Re.ViCa CSF	Commentary	Action	
MG13 Make sure to receive support from top management	Covered by a range of CSFs which would not be valid if top management did not support the initiative. See in particular R6, R10, R13, R15...	This is a sudden lurch to a viewpoint that the virtual campus team is somehow <i>separate</i> from top management – but our definition of a MELI makes this impossible. Is it support we want?– or funds, participation in decision-making, etc.	Even if seen as relevant it is covered by other CSFs.	13
MG14 Attract enthusiastic employees who believe in online education	Covered – but only to some extent – by R10 <i>Training</i> and R18 <i>Staff Recognition and Reward</i> .	The classic counterexample is UKeU where the employees were enthusiastic and talented and believers, but the management much less so. But maybe that was a one-off.	Consider for inclusion in a new <i>Recruitment</i> criterion. This would be not uncommon in other schemes.	14
MG15 Develop strategies that support online education and make sure that the employees are loyal to the strategy	For strategy see R6 <i>E-Learning Strategy</i> . Loyalty is covered mostly by R10 <i>Training</i> and R18 <i>Staff Recognition and Reward</i> .	This is double-headed – strategies and loyalty – and the two heads are not close relatives. Each head is by and large covered.	Relevant – but covered already.	15
MG16 Focus on quality	Covered by R17 <i>Quality Assurance</i> which is a CSF.	I have some reservations about whether too much focus on quality might be an anti-CSF but certainly one has to conform to minimum level. This is one reason why R20 Quality Enhancement is not a CSF for us.	Relevant – but covered already.	16

Megatrends	Re.ViCa CSF	Commentary	Action	
MG17 Develop effective administrative routines	Not covered – not seen in scope for an ICT-oriented list of CSFs.	See MG08 <i>Develop effective administrative systems</i> . Presumably “routines” are the human parts of the processes. But many providers are not in fact very efficient at routines.	Discuss in conjunction with MG08 and MG21.	17
MG18 Focus on predictable and manageable teacher workload	See R11 <i>Academic Workload</i> .	This seems a slightly different wording of the approach in our R11 <i>Academic Workload</i> – but that is not a CSF.	Reconsider R11 for a candidate for CSF – perhaps just for <i>Evolution of existing institutions</i>.	18
MG19 Consider collaboration with other educational institutions	As phrased it is impossible to measure.	It is a good idea but as phrased it seems too vague to discuss.	None – too vague for consideration.	19
MG20 Strive for high formal and informal credibility with the government and public administration	This seems like a softer version of R25 Brand Management oriented to national initiatives.	This is known to be important and is more than normally meant by fostering the brand. Could it be called <i>Relationship Management? with Stakeholders?</i>	Rewrite R25 <i>Brand Management</i> to give it wider scope for all kinds of virtual campus.	20
MG21 Establish some sort of industrialization such as division of labour, systemization, automation, rationalization, and work flow management	Not covered – not seen in scope for an ICT-oriented list of CSFs.	This could be most relevant to <i>Evolution of existing institutions</i> . Typically an open university would have this already, but a face to face institution in many countries would not – but would find the language here	Discuss in conjunction with MG08 and MG17.	21

Megatrends	Re.ViCa CSF	Commentary	Action	
MG22 Focus on cost-effective courses that give much learning for the money	None. There was discussion at IAC on a <i>Pricing CSF</i> but no consensus. Note that P12 Costs and P19 Decisions on Programmes should produce cost-effective courses.	This as written seems to confuse costing with pricing – a classic error in a public funded “cost+” regime. The Re.ViCa discussions at IAC on similar topics (R27 and R28) was heated.	Consider as a possible CSF on pricing for <i>Private providers</i>.	22
MG23 Secure stable and predictable sources of income from operation of online education	Appear aspirational rather than realistic and so is not including in our list of CSFs.	I am not sure that this is realistic nowadays even for public providers – cf. US, Wales, etc.	None – too idealistic for consideration.	23
MG24 Utilize the pressure on the necessity to change as a means to be flexible, to stay in business and to adapt to the changing market	See R58 <i>Market Research</i> (a CSF) and R59 <i>Competitor Research</i> (not a CSF).	There is something underlying this not covered by R58 and R59 – which is sometimes called “Innovation” – but notoriously hard to define. See also R99 (not a CSF).	Have a go at a CSF on <i>Flexibility and Innovation</i>.	24
MG25 Prefer contracts with part-time tutors and course developers that allow flexible employment and use of staff to adapt to changes in markets	Too detailed to be in scope for an ICT-oriented list of CSFs.	A well-known good idea. However, impossible in some countries (e.g. Netherlands) and increasingly difficult in many EU countries under tightening labour laws.	Cannot include.	25
MG26 Develop high competence and good practice in marketing	See R56 <i>Selling</i> (which is a CSF but only just).	There was a heated debate about this at IAC. Relevant for private for-profit providers – but also for public providers in some regimes (US, Australia, UK especially) but allegedly not others (France, Finland).	Consider a rewrite of R56 <i>Selling</i> to broaden its scope, but it is unlikely that a CSF can be found that would cover all types of virtual campus.	26

Megatrends	Re.ViCa CSF	Commentary	Action	
MG27 Treasure well known brand names		Not sure what this means. How does it relate to MG20 <i>Strive for high formal and informal credibility with the government and public administration?</i>	Subsume into the discussions on MG20.	27
MG28 Realize that hard-nosed market research is essential for the success of any e-learning initiative	Exactly P58 <i>Market Research</i> .	Note that from now on the Megatrends CSFs come from Recommendations derived from analysis of “Discontinued initiatives” (our CELIs and FELIs). You got it! But as written here it is not in a form consistent with other Megatrends CSFs.	Key – but covered already.	28
MG29 Plan carefully for and control carefully the revenue and expenses Seeding funding dries up quickly	See R13 <i>Planning Annually</i> and R12 <i>Costing</i> , but also R7 <i>Decisions on Projects</i> and R19 <i>on Decisions on Programmes</i> .	This is double-headed at least – plan and control – with a further contextual remark at the end.	Covered in another way already.	29
MG30 Choice of courses and their accreditation is crucial	See R19 <i>Decisions on Programmes</i> , but also R58 <i>Market Research</i> .	Agreed in general, except for the part on accreditation – the evidence for that part is much weaker. Indeed some training or lifelong learning programmes may be a vital part of the offering of many virtual campuses – cf. Phoenix, Ufi, UKOU etc.	The part we agree with is covered in another way already.	30

Megatrends	Re.ViCa CSF	Commentary	Action	
MG31 Define precisely the relationships of your initiative to existing providers and define precisely the institutional model you will adopt	The first part is a long way of describing R59 <i>Competitor Research</i> , but the second seems more to do with aspects of R15 <i>Organisation</i> ?	As written it seems mainly to apply to <i>Newly created institutions</i> ?	Consider rewriting R58 <i>Competitor Research</i> in a “softer” way to apply to a wider range of virtual campuses.	31
MG32 Plan carefully to manage both educational and business activities	See the constellation of R6, R13, R12, R7 etc	There are also elements of R29 <i>Management Style</i> in the phrase as written.	Consider rewriting R29 <i>Management Style</i> to be less double-headed (or split it in two?) and “softer”.	32
MG33 Avoid top-down political and boardroom initiatives	The core of this seems to be R22 <i>Leadership in E-Learning</i> . but there is an emotive and judgemental penumbra.	<p>This is written in emotive language and begs various questions. A more constructive formulation would be about fostering communication, planning, etc – and exercising R22 <i>Leadership in E-Learning</i>.</p> <p>For example, national governments like to think that they consult institutions before announcing initiatives – Swiss Virtual Campus etc. But surely national initiatives are by definition top-down? Does top-down apply also to EU initiatives?</p> <p>If a new rector takes office, it is quite common for them to wish to be remembered for a variety of new initiatives – library, medical school, virtual campus, saving Africa, etc. Should staff then leave?</p>	The phrasing is too emotive and vague to be useful. The useful core is covered by R22.	33

Megatrends	Re.ViCa CSF	Commentary	Action	
MG34 Avoid consortia of institutions that compete with each other and the consortium	Not covered by our two collaboration factors R24 <i>Collaboration for E-Learning</i> and R79 <i>Collaboration Roles</i> .	<p>The phrase “avoid” is emotive and not useful to staff and leaders placed in the position of having to decide.</p> <p>This is really about market/competitor research prior to collaboration.</p> <p>This was certainly a factor with UKeU and IU – and a live EADTU issue in more than one EU project in the past.</p>	Consider adding a new CSF on this topic for Consortia	34

OBHE Phase 1 to Re.ViCa Critical Success Factors concordance

This paper provides a mapping of OBHE Phase 1 good practice statements to the Re.ViCa Critical Success Factors scheme (based on Pick&Mix).

It had been originally intended to first consolidate the criteria from all four phases of OBHE work into one harmonised scheme – and to do this in a way which removed any charges of individual bias by pulling together a team of benchmarking experts to do this in a consensual way. However, this activity could not be funded and it was a busy time for the experts – consequently no real progress was made on this and the effort was abandoned. After consideration of options, the fallback position was taken of working on the Phase 1 criteria alone. The reasons for this were as follows:

1. The Phase 1 group of institutions was the largest; it also contained a number of institutions regarded as expert in the operational deployment of e-learning – including Greenwich, Lincoln, Middlesex and Wolverhampton. They came up with 32 criteria which is a good number to process – any more suggests that the institutions were operating at too diffident or detailed a level and straying into the area of quality guidelines not benchmarking.
2. The Pilot Phase was dismissed as it consisted of only four institutions of which only two had centrally directed e-learning activity – thus too small to guarantee a lack of distortion.
3. Phase 2 consisted of 11 institutions but several are rather new to e-learning, small, recently merged or otherwise conservative – though there are some notable initiatives including at Sheffield Hallam University and notable research at Glasgow Caledonian University. They came up with 49 criteria, usually a sign of working at too detailed or diffident a level.
4. The OBHE-WCET cohort consisted of just six institutions (plus one observer). It had the advantage of a balance of UK and US institutions. However, new information emerged that the activity was essentially a paper exercise done by experts at a workshop and not grounded back in the institutions. Thus it was not considered further.

The OBHE harmonised tabulation has not been forgotten but will be done at a later date.

Phase 1

Phase 1 of OBHE developed its criteria (good practice statements) with the following 21 institutions, 7 old and 14 new (using UK terminology):

<i>old universities</i>	<i>new universities</i>
Brunel University	Bournemouth University
University of Birmingham	Buckinghamshire Chilterns University College, now Buckinghamshire New University
University of Cambridge	De Montfort University

University of Exeter	Edge Hill University
University of Hull	London South Bank University
University of Keele	Middlesex University
University of Reading	University of Central Lancashire
	University College of St. Mark and St. John, more correctly called University College Plymouth St Mark & St John
	University of Greenwich
	University of Lincoln
	University of Northampton
	University of Westminster
	University of Wolverhampton
	Trinity College, Carmarthen (Wales)

OBHE Phase 1	Re.ViCa CSF containing	Commentary	Action
<i>1. e-learning Strategy Development</i>			
OB1.1.1 The key institutional drivers for engaging with e-learning have been identified, and a vision for e-learning clearly articulated.	R06 E-Learning Strategy	part of it	none
OB1.1.2 Where an institution has prioritised the development of e-learning, an agreed e-learning strategy exists – appropriate to its culture – which sets down the key elements on how and why e-learning is being introduced, implemented and monitored.	R06 E-Learning Strategy	The cautious phrase “Where an institution has prioritised the development of e-learning” is not relevant in the Re.ViCa context.	none
OB1.1.3 There is close integration and consistency between the e-learning strategy, the learning and teaching strategy, and other relevant strategies (e.g. HR, estates, and finance) at all levels within the institution.	R06 E-Learning Strategy		none
OB1.1.4 The nature and extent of participation in the development of the e-learning strategy and its communication has been appropriate to the expectations of staff and students in the institution.	new	very vaguely phrased	consider as KSF relevant to some types of virtual campus – e.g. Evolution
<i>2. Collaboration and Partnerships</i>			
OB1.2.1 When considering collaboration, the institutions involved have detailed discussions to ensure that e-learning needs (e.g. resources and support services) are clearly understood and quantified.	R24 Collaboration for E-Learning		none

OBHE Phase 1	Re. ViCa CSF containing	Commentary	Action
OB1.2.2 When engaging in collaboration, the institutions involved have effective quality enhancement processes in place to ensure that e-learning programmes, resources, support and services have been made available in a way that was consistent with the aims and spirit of the partnership.	R06, R07, R17, etc	the phrase “quality enhancement” would read better as “quality assurance” this seems rather specific – if QA applies to an institution it applies to all its activity but the criterion seems closer to R06, R07, R17 etc applied in a consortial context	<i>none (but ensure there is a scope note to cover consortia)</i>
<i>3. Management and Leadership of e-learning</i>			
OB1.3.1 A Pro Vice Chancellor (or equivalent) has overall leadership responsibility for the e-learning strategy, whether it is part of the learning and teaching strategy or not.	a signifier of a MELI	broader than R15	add
OB1.3.2 There is a clear and agreed institutional rationale for determining the most appropriate forms of e-learning support, whether provided centrally or not.	R15 Organisation	see also R06 Strategy	none
OB1.3.3 There are effective mechanisms for coordinating (where necessary) e-learning support across the institution to ensure consistent service delivery.	R15 Organisation		none
OB1.3.4 A senior committee has responsibility for proactively addressing strategic e-learning issues.		rather weak on its own consider with OB1.3.1 – related to R13 Planning Annually	<i>consider scope of OB1.3.1?</i>
OB1.3.5 There is an effective institutional process for collecting and disseminating information about the implementation of e-learning, and the amount and type of activity.	overlaps with R14 but goes beyond R14 for the aspects outside specific courses	related to R14 but “collecting” is distinct from “disseminating”	<i>consider – but not for CSF as evaluation is not a CSF</i>
OB1.3.6 There is an effective institutional process for monitoring the implementation and achievement of the e-learning strategy.	none	this is the parallel criterion to R14 for courses	link to the previous

OBHE Phase 1	Re. ViCa CSF containing	Commentary	Action
<i>4. Resources for e-learning and Value for Money</i>			
OB1.4.1 The institution has a reasonable estimate of what the resource implications are of pursuing its e-learning strategy, including the underlying infrastructure requirements.	R06, R13, R07, R17	all covered	none
OB1.4.2 The institution has articulated the benefits of its investments in e-learning.	R07	good practice to have R07 processes cover this	none
OB1.4.3 The recurring costs of any central support for e-learning have been recognised and accepted as part of on-going budgetary provision.	R13, R07		none
OB1.4.4 Schools and faculties routinely consider the financial and individual workload implications of embedding e-learning in learning and teaching.	R13/R17 and R11	double-headed, financial and workload	none
OB1.4.5 Effective guidance has been provided for the procurement and development of e- learning resources, tools and services.	included in R07 but some aspects might be burst out	double-headed, procurement and development – and maybe even more complex	<i>consider adding a Procurement criterion but not likely to be CSF</i>
<i>5. e-learning Delivery</i>			
OB1.5.1 Effective processes are in place to ensure that e-learning provision is compliant with all appropriate legislation.	R05	the phrase “appropriate legislation” could cover all sorts of things – we assume it is code for legislation on disabilities	none
OB1.5.2 Effective processes are in place to ensure online security and system integrity.	R60 Security		none
OB1.5.3 The institution has developed and implements effective policies to support e- learning delivery.	R06	no need to single out delivery especially	none
OB1.5.4 Effective guidance and support is provided for staff and students to enable the development and delivery of e-learning, which is actively promoted, monitored, and reviewed.	R08/R10 for staff, R92 for students	bad move to lump staff and students together – they have very different support needs and priorities	none

OBHE Phase 1	Re. ViCa CSF containing	Commentary	Action
OB1.5.5 E-learning development and delivery aligns with institutional pedagogical guidelines.	R06 and R17 in synergy	link to R08 also	none
OB1.5.6 The institution has effective processes to identify good practice in e-learning, and to disseminate the resulting information.	R14 and R82 respectively	double-headed, identify and disseminate	none
<i>6. e-learning and Students</i>			
OB1.6.1 Support is provided at the earliest appropriate time to enable students to access the VLE and other learning resources.	R92	too detailed	none
OB1.6.2 Effective coordinated support and guidance is made available by a variety of means to support the needs of e-learners.	R92	too detailed	none
OB1.6.3 The institution provides clear guidance to students on the application of e- assessment processes.	R91 Student Understanding of System	R91 is wider than OB1.6.3	none
OB1.6.4 There are clearly articulated methods for gathering and responding to feedback from students regarding e-learning.	R14	written for institutions where QA is not embedded – but see R93 and R94 for wider aspects	none
<i>7. e-learning and Staff</i>			
OB1.7.1 A full range of professional development opportunities related to e-learning for both new and existing staff, is regularly reviewed and revised, and informed by a strategic needs analysis.	subsumed in R10 processes	this is why “appraisal” is implicit in R10	none
OB1.7.2 The institution has a range of effective incentives (both formal and informal) to reward and recognise the use of e-learning.	the famous R18 R&R		none
OB1.7.3 The institution provides clear guidance to staff on the development and use of e-assessment.	subsumed in R10 and R08	too specific – but a current focus in the UK which is why it may have been included	none

OBHE Phase 1	Re.ViCa CSF containing	Commentary	Action
OB1.7.4 The institution ensures that the implications of delivering and supporting e- learning are taken into account in determining staff workloads.	R11 Academic Workload	refer back to OB1.4.4 – it is bad practice to have two criteria on the same topic	none
OB1.7.5 The institution has strategically acknowledged the HR and career development implications of e-learning.	subsumed in R06	not sure what this would mean in practice – must be judged by deeds (processes) not words	none
OB1.7.6 Where relevant, competence in ICT and its application to learning and teaching is an explicit expectation within the person specification when recruiting staff.			consider a new criterion on Recruitment which may be CSF (compare UKeU)
<i>8. Communications, Evaluation and Review</i>			
OB1.8.1 The institution systematically collects key data and performance indicators to measure the effectiveness and implementation of its e-learning strategy.		see back to OB1.3.5	<i>consider adding, but will not be CSF</i>
OB1.8.2 The results of the evaluation of e-learning, and its contribution to the enhancement of student learning, are considered regularly by relevant stakeholders. The outcomes are communicated widely within the institution, and appropriate action is taken.	subsumed in R99 (a catch-all) but that might be too broad		<i>there may be something worth adding here but more to do with stakeholders including upper Board</i>

PBP-VC Principles to Re.ViCa CSFs concordance

	PBP-VC principle	Re.ViCa CSF containing	Commentary	Action
N o.	<i>Pedagogical Principles</i>			

	PBP-VC principle	Re. ViCa CSF containing	Commentary	Action
1	P Course materials take into account the background of the learners, their profile and their ability/competency levels.	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
2	P The layout and structure of all course and learning materials is logical, appropriate to the subject area and needs of learners, and the functions of all buttons, icons are clearly explained and learners can find key information quickly. The content of courses has been checked for technical accuracy (Wright, n. d.).	R17 <i>QualityAssurance</i> and R9 <i>Learning Material</i>	quality	none
3	P Course objectives, learning outcomes, key tasks, skills, competencies are clearly articulated to the student and their significance to the real world subject of study (e.g., engineering, language skills, teacher training etc) is clearly explained.	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
4	P Essential course elements are clearly identified to the learners and delineated from those that are supplementary and links to external sources and course elements have been tested and are current.	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
5	P Opportunities for learners to use self tests and automated testing and scoring are provided, particularly when learning remotely.	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
6	P Where appropriate, a suitably experienced and qualified external examiner or assessor has been appointed to ensure that the quality of the learning materials and teaching, fairness of assessments and quality of student work produced is consistent with the level of similar courses and learning experiences provided elsewhere (QAA, 2004).	R17 <i>QualityAssurance</i>	This seems too UK-specific (note the QAA reference). Very few countries have external examiners.	none
7	P An agreed set of formal quality standards and principles is produced that all partners must adhere to in the production of all learning materials, teaching and assessments.	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
8	P A variety of appropriate learning activities and styles are adopted to promote interactivity and collaboration (e.g., learner-learner, learner-teacher, learner-system) through online discussions, online conferencing, collaborative assignments (Connolly & Stansfield, 2007).	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none

	PBP-VC principle	Re. ViCa CSF containing	Commentary	Action
9	O Opportunities are provided for learners to experience and appreciate other perspectives with learners and teachers from different cultural backgrounds (particularly useful within the context of transnational virtual campus projects and initiatives) (Connolly & Stansfield, 2007).	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
10	P Learners are encouraged to reflect on their activities both during a project/activity and after completion – enabling both group-based and individual-based reflection. Opportunities are provided for debriefing, feedback and evaluation at the end of the course/project (Connolly & Stansfield, 2007).	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
11	P The learning environment motivates, engages, and challenges the learner. The environment should support the cognitive preference of the learners (Connolly et al., 2007).	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
12	P For group-based work, there must be ‘group goals’ and ‘individual accountability’ for effective collaborative learning (Slavin, 1989).	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
13	P Learners are encouraged to take responsibility for their learning and to be aware of the knowledge construction process (Connolly & Stansfield, 2007).	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
14	P Integrated assessments are provided that are clearly linked to learning outcomes.	R17 <i>QualityAssurance</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
15	P Constructive, relevant and timely feedback is provided to learners in which their grades are clearly explained and areas for improvement clearly identified.	R91 <i>Student Understanding of System</i> R8 <i>Pedagogy</i> and R19 <i>Decisions on Programmes</i>	quality	none
16	P Where appropriate, support and opportunities are provided for course content reuse/sharing across the virtual campus <i>partnership</i> in order to maximise the benefit and reduce the costs of designing and developing course materials and content.	R24 <i>Collaboration in E-Learning</i>	See also R97 <i>Open Educational Resources</i>	none
o.	N <i>Technological Principles</i>		There is a separate set of VLE procurement guidelines I can supply.	

	PBP-VC principle	Re. ViCa CSF containing	Commentary	Action
1	T Decisions on the selection of appropriate technology platforms and software (e.g., open source or propriety) have been based on detailed investigation across the virtual campus partnership and take into account independent reviews, experiences of other institutions as well as access to trial versions. Suppliers are reputable and recognised in the field (Wright, 2006).	R7 <i>Decisions on Projects</i>		none
2	T Technology adopted conforms to recognised standards (e.g., SCORM, IMS) and is compliant with common web technology and enables suitable adaptation/modification and future development (Wright, n. d.).	R7 <i>Decisions on Projects</i>	Double-headed. There is no CSF on standards and no evidence that this would be valid. No benchmarking HEI has ever requested one.	none
3	T Maintenance agreements have been finalised and suitable multilingual technical support is available when required.	R7 <i>Decisions on Projects</i>		none
4	T Infrastructure and server will handle anticipated maximum number of learner/users across the virtual campus partnership.	R54 <i>Performance</i>	Not seen as CSF	Reconsider status of R54.
5	T The virtual campus platform has been rigorously tested to ensure that it is reliable and secure, with suitable antivirus and security measures agreed and implemented by all virtual campus partners.	P53 <i>Reliability</i> and P69 <i>Security</i> – both CSFs	Double-headed – reliable and secure.	none
6	T A user centred design approach to the development of suitable learning technologies has been agreed and implemented.	R4 <i>Usability?</i>	No evidence of the usefulness of this – and some evidence again as it can delay “time to launch”.	none
7	T Functionality and user interface are compatible with learning styles adopted, aims and objectives of courses, as well as the profile and needs of the learners.	R4 <i>Usability</i>		none
8	T Consideration and enabling support is given to learners/users with special needs and learning challenges (Wright, n. d.).	R5 <i>Accessibility</i> – not a CSF	No evidence that this is a CSF – and some evidence against (e.g. UK NLN)	none

	PBP-VC principle	Re. ViCa CSF containing	Commentary	Action
9	T Sufficient learner/user documentation and instruction guides are available.		An old-fashioned view – standard systems and modern users should not need as much guides	none
10	T Adequate contingency plans have been developed and tested in the event of a system failure both at local, national and transnational level across the virtual campus.	R53 <i>Reliability</i>	Overlap with T5. R53 judges outputs, not the approach.	none
11	T Learners/users are informed of special technology requirements needed to effectively use the virtual campus platform (e.g., minimum hardware specification, software required and versions, browser specification etc.).	R91 <i>Student Understanding of System</i>		none
12	T Learners/users are directed to a Frequently Asked Questions section within the virtual campus platform that provides information on technical and learner support, online security policies such as virus protection and firewalls.	R92 <i>Student Help Desk</i>	The proposed approach is just <i>one</i> way of ensuring that student queries are answered promptly.	none
13	T As far as possible, any Content/Learning Management Systems adopted are compatible with other systems used by partner institutions such as student records, accounts, student support etc to provide more effective and seamless administration.	R62 <i>Integration</i> – not seen as CSF		Reconsider status of R62.
14	T The technology adopted provides a cost effective means of enhancing learning experiences and providing opportunities to learners that is both affordable and sustainable.	R7 <i>Decisions on Projects</i>	Overlap with T1. Phrasing is too general and unmeasurable.	none
o.	N <i>Learner/User Principles</i>			
1	L Administrative tools enable learners/users to be registered on courses, details amended and course monitoring across the virtual campus partnership in a clear and effective manner.	R17 <i>Quality Assurance</i>		none
2	L Learners receive clear explanations and guidance in terms of learning styles adopted and what is expected of them as learners.	R91 <i>Student Understanding of System</i>		none
3	L Clear guidelines are provided to learners on how to interact online with other learners and staff in terms of appropriate behaviour and language (Wright, n. d.).	R91 <i>Student Understanding of System</i>		none

	PBP-VC principle	Re. ViCa CSF containing	Commentary	Action
4	L Easily accessible and clear information is provided to learners in relation to the availability of online and offline support in terms of technology and learning.	R91 <i>Student Understanding of System</i>		none
5	L Staff providing both learning and technology support have been adequately trained and have the necessary skills and experience in dealing with learners and users from diverse backgrounds and cultures (QAA, 2004).	R10 <i>Training</i> and R8 <i>Pedagogy</i>		none
6	L Learners and staff have the necessary access to relevant course related documentation in relation to learning outcomes, schedule of delivery, assessment methods etc.	R91 <i>Student Understanding of System</i>		none
7	L To assist those learners/users who use screen readers descriptions all non text elements (e.g., images, graphics, audio, video) are available as a detailed text equivalent (Wright, n. d.).	R5 <i>Accessibility</i>		none
8	L All learners/users are given the opportunity to provide both informal and formal feedback in relation to their experiences in participating in the virtual campus through a range of appropriate feedback mechanisms (e.g., online surveys, local learner online support groups, discussion boards (private and public), face-to-face learner/staff liaison meetings).	R93 <i>Student Experience</i> and R14 <i>Evaluation</i>		none
9	L Adequate procedures across an initiative are in place to ensure that all learner/user entry requirements are met, as well as areas such as overseas credits and qualifications, prior learning and cultural backgrounds of learner/users are recognised as considered appropriate (QAA, 2004).	R17 <i>Quality Assurance</i>		none
10	L Learner/user tracking features are available (e.g., when/how long they have been logged on, pages visited etc.).		Why? Increasingly discredited when so much student work is on external systems.	none
11	L All learners/users are informed of the virtual campus privacy policy in relation to what information is stored about them, who has access to it and circumstances under which their submissions to online forums are made accessible and shared with others.	R60 <i>Security</i>		none

	PBP-VC principle	Re. ViCa CSF containing	Commentary	Action
N o.	<i>Financial Principles</i>			
1	F Appropriate costing methods have been adopted in relation to evaluating costs (e.g., technology, pedagogy, staffing, administration etc.) both in term of direct costs and indirect costs.	R12 <i>Costs</i>		none
2	F Appropriate sources of external and internal funding and potential revenue streams have been identified and secured.	R13 <i>Planning Annually</i> R58 <i>Market Research</i>		none
3	F Formal agreement has been secured in terms of how external funding and revenue will be divided among virtual campus partners.	R79 <i>Collaboration Roles</i>	Surely this is good practice – part of the <i>Partnership Agreement</i> for any such consortium?	none
4	F A clear, efficient and transparent financial reporting system has been identified and agreed by all partners (Bienzle, 2001).	R12 <i>Costs</i>	Surely this is good practice – part of the <i>Partnership Agreement</i> for any such consortium?	none
5	F All necessary financial documentation is clearly understood and implemented by all partners in the reporting and documenting of all financial issues (Bienzle, 2001).	R12 <i>Costs</i>	Surely this is good practice – part of the <i>Partnership Agreement</i> for any such consortium?	none
6	F Detailed financial risk management has been conducted before the development of the virtual campus and is conducted at regular intervals (e.g., quarterly) across all areas.	R67 <i>Risks</i>	Surely this is good practice – part of the <i>Partnership Agreement</i> for any such consortium?	none
7	F Contingency plans and procedures have been developed and agreed upon by all virtual campus partners in relation to reporting and addressing any areas of potential financial mismanagement or malpractice across the virtual campus partnership (QAA, 2004).	R17 <i>Quality Assurance</i>	Surely this is good practice – part of the <i>Partnership Agreement</i> for any such consortium?	none
N o.	<i>Organisational Principles</i>			

	PBP-VC principle	Re. ViCa CSF containing	Commentary	Action
1	<input type="radio"/> Virtual campus partners are well matched and provide a range of diverse as well as complimentary and compatible knowledge and skills that one partner cannot provide alone.	None.	See the discussion on Megatrends MG34	Consider inclusion of a new CSF in this area for consortia only
2	<input type="radio"/> A formal and legally binding agreement/contract sets out the roles and responsibilities of the virtual campus partnership that is signed by a legal representative from each partner that also covers issues relating to copyright, intellectual property rights and ownership of materials.		Surely this is good practice – part of the <i>Partnership Agreement</i> for any such consortium?	none
3	<input type="radio"/> Clear and effective systems and lines of communication have been agreed and established throughout the partnership that provide easily understood procedures for reporting (Bienzle, 2001).	<i>R79 Collaboration Roles</i>	Surely this is good practice in any consortium?	none
4	<input type="radio"/> Clear and detailed project plans outlining areas of work, roles, responsibilities, deliverables, milestones and areas of evaluation among the virtual campus project.		Surely this is good practice in any consortium?	none
5	<input type="radio"/> A clear and rigorous system of evaluation that is agreed upon and adopted in terms of the evaluation of all aspects (e.g., financial, management, pedagogy, technology, learner/user) of the virtual campus initiative. Evaluation is carried out through different means such as peer review among project partners, an experienced external evaluator or evaluation team, learner/user representatives etc.		Surely this is good practice in any consortium?	none
6	<input type="radio"/> An agreed set of procedures and principles that deal with any potential areas of conflict and crisis management among the virtual campus partnership and any third parties (e.g., suppliers), in terms of termination and mediation.		Surely this is good practice in any consortium?	none
7	<input type="radio"/> The virtual campus initiative is led by an experienced and strong leader with a clear vision. The project leader has the recognition, approval and respect of all project partners and is able to implement a pro-active approach to management.	<i>R22 Leadership in E-Learning</i>	This requires defining the leader of the consortium as a “Leader” in institutional terms.	none
8	<input type="radio"/> A sense of team spirit is developed across the entire virtual campus partnership that all members can relate to and provides the partnership with a sense of identity that can be used to motivate its members and promote its activities.		Well-known good practice but surely not specific to e-learning?	none

	PBP-VC principle	Re. ViCa CSF containing	Commentary	Action
9	O Recognition and management of cultural diversity across the entire virtual campus initiative through providing clear inter-cultural dialogue and drawing upon the strengths and opportunities that cultural diversity provides for both students/learners, as well as staff and project members to learn from each other and experience different ways of thinking, managing and carrying out tasks.		Surely this is good practice in any consortium?	none
10	O Detailed and effective market research is conducted to determine the extent and scope of local, national and transnational markets in terms of potential learners/students/users of a virtual campus, most appropriate subject areas and the potential level of income that might be generated (Keegan et al., 2007).	R58 <i>Market Research</i>	Some institutions in some regimes seem antipathetic to this approach. It was an issue at IAC.	none
11	O Formation of strong partnerships with both internal and external key stakeholders such as among academic institutions, business/ industry, government and professional institutions.		Important.	See the suggested rewrite of R25 <i>Brand Management</i> into a <i>Relationship Management</i> approach.
o.	N <i>Sustainability Principles</i>			
1	S The development and implementation of a dissemination strategy at an early stage that targets key internal and external stakeholders and target groups in addressing their key needs.	R82 <i>Dissemination Internal</i> – a CSF.	No evidence that dissemination <i>outside</i> the institution helps success.	none
2	S The early development and implementation of a marketing and commercialisation plan aimed at generating interest and potential revenue for the products, courses, services and expertise of a virtual campus partnership that enables continued development in the future.	R56 <i>Selling</i> – not a CSF.		Reconsider status of R56.
3	S The use of questionnaires and focus groups in reaching key stakeholders and target groups in ensuring that their current and future needs can be met, as well as identifying potential new trends and potential markets.	Part of R58 <i>Market Research</i> . See also R85 <i>Employer Engagement</i> – not a CSF.		none

	PBP-VC principle	Re. ViCa CSF containing	Commentary	Action
4	S Ensure that all virtual campus project partners play a key role in dissemination, marketing and commercialisation activities which can often be local, national and transnational in their scope.		No evidence that this is valuable – some without a track record or in a small country might well be better employed doing more specific work.	none
5	S Before commercialisation plans are implemented, issues of copyright, patents, ownership, intellectual property rights, confidentiality have been addressed and agreed upon among all project partners.	Part of R79 <i>Collaboration Roles</i> . See also R57 IPR – not a CSF.		none
6	S The development of plans for dissemination, marketing and commercialisation are updated and refined throughout the implementation of the virtual campus project to take into account changing internal and external circumstances and new developments and trends in relation to key stakeholder and target groups.	A consequence of R6 <i>E-Learning Strategy</i> .	The wording of the CSF requires regular updating.	none
7	S An ability to identify best practices and new trends and explore them in providing new and improved courses, products and services that stand out in local, national and transnational markets – developing a reputation as a centre of excellence .	A consequence of R14 <i>Evaluation</i> .		none
8	S Maximise the potential for embracing best practices and innovation within e-learning and virtual campuses by introducing them within more ‘mainstream’ physical campus based courses within the partner institutions, thereby contributing to wider organisational development and transformation.	Possibly R63 <i>Pedagogy Research In</i> .	A typical approach in Australia, but rarely found in other countries. No evidence that it is useful or popular.	none
9	S Continue to conduct detailed market research to determine changes in demand for courses, products and services, as well as identifying potential new markets that might be worth exploring (Keegan et al., 2007).	See R58 <i>Market Research</i> .	Already covered in earlier Principles.	none

UNIQUE Principles to Re.ViCa CSFs concordance

	UNIQUE principle	Re.ViCa CSF containing	Commentary	Action	Paul's comment
1.	Evidence is available that eLearning is an integral part of the institutional strategy	e-Learning Strategy (ELS) - The organization regularly updates it's e-Learning Strategy. That strategy is integrated with an learning- and teaching strategy (and all other related strategies such as IT etc).	Rewrite CSF :	e-Learning Strategy (ELS) - The organization regularly updates it's e-Learning Strategy. That strategy is integrated with the institutional and/or policy strategy	CSF now reads: Regularly updated e-Learning Strategy, integrated with Learning and Teaching Strategy and all related strategies (e.g. Distance Learning, if relevant)
2.	Education/training quality policy is in place	Quality Assurance (QAS) - Conformance to external quality agency precepts for the country or region, and to institutional guidelines for e-learning within an overarching methodology of quality (for example EFQM or other)	Delete the (for example) make CSF more general. Use examples of case-studies to explain the CSF	none	Change was made already: Conformance to external quality agency precepts and local guidelines for e-learning within an overarching methodology.

	UNIQUE principle	Re.ViCa CSF containing	Commentary	Action	Paul's comment
3.	The Institution has established a dissemination policy for eLearning and regularly disseminates results	Dissemination Internal (DIN) - The institution has a systematic managed process of internal dissemination of good practice. (on the workflow criteria)	Generalize 'good practices' to dissemination strategy	Dissemination Internal (DIN) The Institution has established a dissemination policy for eLearning and regularly disseminates results	The focus of the CSF is on <u>Internal</u> dissemination. There is no evidence that external dissemination is mission-critical
4.	Adequate mechanisms and procedures that support effective coordination between the different eLearning Units/Departments are in place	Collaboration for e-Learning (CFE) - The institution has a reasoned approach to collaboration at various levels to gain additional benefit from sharing e-learning material, methodologies and systems (for example within an OER approach or via other methods, not excluding payment).	Phrasing in Unique to be considered:	Adequate mechanisms and procedures that support effective coordination between the different eLearning Units/Departments are in place	The CSF is about collaboration between <u>Partners</u> , not within the institution. See the CSF R15 Organisation.
5.	The roles and tasks of all parties involved in eLearning (including students) are both clearly defined and transparent	Collaboration Roles (COL) - In each collaboration, the roles and responsibilities of each collaborative partner are clearly defined and the procedures always followed.	The UNIQUE criteria concerning roles is more general, to be considered		The CSF is about collaboration between <u>Partners</u> , not within the institution.

	UNIQUE principle	Re.ViCa CSF containing	Commentary	Action	Paul's comment
6.	Innovation, both in the delivery of content and its implementation later in the classroom is promoted and supported	Foresight (FOR) - The institution has look-ahead capability and for example developmental labs so that new styles of e-learning can be to some extent predicted and piloted.	Delete example or unique criteria is also a good alternative		This CSF should be discussed. We need to define "innovation" and discuss why it is worthwhile rather than a distraction.
7.	Initiatives in the creation and distribution of content online is promoted and supported	Staff Recognition and Reward (SRR) - All e-learning experts have been explicitly recognized and rewarded (in a financial way) appropriate to their contribution to the institution, with a regular appraisal process.	Delete in a financial way		Disagree: finance is crucial and much UK evidence shows this. In the UK anyway.
8.	Collaborative working procedures and tools are adopted in order to share knowledge developed with other Institutions	Collaboration for e-Learning (CFE) - The institution has a reasoned approach to collaboration at various levels to gain additional benefit from sharing e-learning material, methodologies and systems (for example within an OER approach or via other methods, not excluding payment).	Delete for example		Agreed
9.	Market analysis and review on potential demand on technology supported learning are regularly carried out	Market Research (MRE) - Market research is done centrally and in or on behalf of all departments, and is aware of e-learning aspects; it is updated annually or prior to major program planning.		Compare both phrasings	Little to choose – the default should be to stick with ours to preserve a consistent tone

	UNIQUE principle	Re.ViCa CSF containing	Commentary	Action	Paul's comment
10.	Tools for monitoring the costs related to learning resources are implemented	Costs (CNL) – The institution uses a costing system based on principles of activity-based costing (and that is used throughout the institution).	To concrete, a more general phrasing is necessary	Tools for monitoring the costs related to learning resources are implemented	CSF now reads Activity-Based Costing or a system with equivalent functionality being used to some extent in all departments for costs of e-learning. We could discuss.
11.	Reliability of the delivery system is guaranteed and back-up procedures are in place	Reliability (REL) -The e-learning system is highly reliable - typically 0.999 (99.9% availability on a 24x7x365 basis).	Delete from typically ... too specific,	none	Good idea.
12.	Area 2: Learning resources Criteria: Students				
13.	Students have access to different communication resources (on-line databases, news, bulletin) and facilities			none	
14.	Within the University strategic documents, the faculty, on-line tutors, and facilitators are explicitly mentioned	Staff Recognition and Reward (SRR) - All e-learning experts have been explicitly recognized and rewarded (in a financial way) appropriate to their contribution to the institution, with a regular appraisal process.	Unique criteria can be considered	Replace by unique criteria	these criteria do not overlap

Original list of 99 Critical Success Factors for Major E-Learning Initiatives

The following table has been derived from the latest version of the leading UK system for benchmarking e-learning, ELDDA,¹ which is being and has been used by 24 higher education institutions in the UK over the last three years/ (The former name of ELDDA is Pick&Mix.²) It incorporates the author's earlier synthesis of Critical Success Factors based on his analysis of large e-university initiatives.³

Criteria in blue are recent additions to ELDDA, mainly focussing on employer issues.

Criteria in green are from the Critical Success Factors synthesis and recent consideration of other large initiatives.

Readers are invited to comment on the criteria and grades.

The CSF grade is defined as follows:

1. Critical Success Factor
2. Key Success Factor
3. Irrelevant to success of major initiatives
4. Counter-productive to success of major initiatives.

To avoid too much detail, only the potential grades of 1 have been included in this version.

The table of criteria

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
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¹ See <http://www.matic-media.co.uk/ELDDA/ELDDA-2pt1-beta3b-wbl.xls>.

² See <http://elearning.heacademy.ac.uk/wiki/index.php/Pick%26Mix>.

³ Lessons to be learned from the failure of the UK e-University, ODLAA, 2005, <http://www.unisa.edu.au/odlaaconference/PDFs/32%20odlaa2005%20-%20bacsich.pdf>.

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
1	Adoption	ADO	All taken it up except some laggards.	Individuals (Staff)	Delivery	
2	VLE stage	VLE	One VLE.	Technology	Delivery	
3	Tools	TOOLS	Institution-wide use of several tools.	Technology	Delivery	
4	Usability	USAS	All services usable, with internal evidence to back this up.	Technology	Delivery	1
5	Accessibility	ACCESS	All e-learning material and services are accessible, and key components validated by external agencies.	Technology	Delivery	
6	e-Learning Strategy	ELLS	Regularly updated e-Learning Strategy, integrated with Learning and Teaching Strategy and all related strategies (e.g. Distance Learning, if relevant).	Strategy	Strategy development	1
7	Decisions on Projects	DEPR	Effective decision-making for e-learning across the whole institution, including variations when justified.	Processes	Management and leadership	1
8	Pedagogy	PED	Pedagogic guidelines for the whole institution and acted on.	Individuals (Staff)	Staff	

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
9	Learning Material	LM	Institution-wide standards for learning material, which are adhered to and embedded at an early stage, e.g. by style sheets.	Processes	Delivery	
10	Training	TRG	All staff trained in VLE use, appropriate to job type - and retrained when needed.	Individuals (Staff)	Staff	1
11	Academic Workload	AWK	Work planning system which recognises the main differences that e-learning courses have from traditional.	Processes	Resources and value for money	1
12	Costs	CNL	Activity-Based Costing or a system with equivalent functionality being used to some extent in all departments.	Processes	Resources and value for money	1
13	Planning Annually	PLA	Integrated annual planning process for e-learning integrated with overall course planning.	Processes	Management and leadership	
14	Evaluation	EVA	Regular evaluation of all courses using a variety of measurement techniques and involving outside agencies where appropriate.	Processes	Communication, evaluation and review	
15	Organisation	ORG	Central unit has Director-level institution manager in charge and links to support teams in departments.	Organisation	Management and leadership	1

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
16	Technical Support to Staff	TSS	All staff engaged in the e-learning process have "nearby" fast-response tech support.	Individuals	Delivery	
17	Quality Assurance	QAS	Conformance to external quality agency precepts and local guidelines for e-learning within an overarching methodology (EFQM, etc).	Processes	Communication, evaluation and review	1
18	Staff Recognition and Reward	SRR	All informally recognised e-learning experts have been explicitly recognised in a financial way.	Individuals (Staff) (NOT Technology)	Staff	1
19	Decisions on Programmes	DPG	Effective decision-making for e-learning across the whole institution, including variations when justified.	Processes	Management and leadership	1
20	Quality Enhancement	QEN	Total integration of "traditional" quality enhancement work with e-learning.	Processes	Communication, evaluation and review	
21	Adoption by Staff of Enhanced Learning	AEL	All staff except laggards are delivering "enhanced learning" via appropriate use of e-learning and can evidence their claims.	Processes	Staff	
22	Leadership in e-Learning	LEL	The capability of leaders to make decisions regarding e-learning is fully developed.	Individuals (Leaders)	Management and leadership	1

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
23	Teaching 2.0	T20	The institution is fully comfortable using web 2.0 tools where appropriate.	Technology	Staff	
24	Collaboration for e-Learning	CFE	The institution has a reasoned approach to collaboration at various levels to gain additional benefit from sharing e-learning material, methodologies and systems.	External environment	Partnership and collaboration	1
25	Brand Management	BMG	The institution has a reasoned approach to managing its brand	External environment	Management and leadership	1
26	USP Management	USP	The institution has a reasoned approach to managing its Unique Selling Propositions	External environment	Management and leadership	1
27	Time to Market	TTM	Time to market is low compared with comparators	External environment	Management and leadership	1
28	Cost of Sales	CSL	Cost of sales is low compared with comparators	External environment	Management and leadership	1
29	Management Style	HYB	The management style is a hybrid of academic and corporate, accepted by staff	Individuals (Leaders)	Management and leadership	1
30	Language Choice	LAC	The choice of languages for teaching is evidence-based not e.g. politically determined	External environment	Management and leadership	1

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
50	Learning Outcomes	LO	Learning outcomes across all courses are provably unaffected by the extent to which e-learning is a component of each course.	Individuals (Students)	Delivery	
51	Uniformity	UNI	Institution offers the same service level (pedagogic and administrative) to all students irrespective of mode or location of study (including DL and WBL).	Technology	Delivery	1
52	Ubiquity	UBI	Institution offers a pervasive seamless network/service to all its students, on- and off-campus and via wireless on campus also.	Technology	Delivery	
53	Reliability	REL	0.999 (99.9% availability)	Technology	Delivery	1
54	Performance	PER	All e-learning systems operate in all uptime within documented and accepted response guidelines.	Technology	Delivery	
55	Foresight	FOR	Both look-ahead and lab, working in concert; at least one of these should be a sector leader.	External environment	Management and leadership	1

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
56	Selling	SEL	Widespread skill in selling e-learning and the theory to support the skills.	Processes	Management and leadership	1
57	IPR	IPR	IPR embedded and enforced in staff, consultant and supplier contracts.	Processes	Management and leadership	
58	Market Research	MR	Market research done centrally and in or on behalf of all departments, and aware of e-learning aspects; updated annually or prior to major programme planning.	External environment	Communication, evaluation and review	1
59	Competitor Research	CR	Competitor research done centrally and in or on behalf of all departments, and fully aware of e-learning aspects.	External environment	Communication, evaluation and review	1
60	Security	SEC	A system where security breaches are known not to occur yet which allows staff and students to carry out their authorised duties easily and efficiently.	Technology	Delivery	
61	Pedagogy Research	PRC	The institution is fully aware of outcomes of research which will enhance the experience of its students by suitable use of e-learning.		Communication, evaluation and review	

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
62	Integration	INT	Seamless integration with total uniformity of data formats, interface and response time.	Technology	Delivery	
63	Leverage	LEV	Annual student surveys and focus groups are used to determine skill levels and this is taken into account for programme proposals and e-learning support.	Individuals (Students)	Students	
64	Plagiarism Avoidance	P/AV	Sustained universal campaign to brief students against plagiarism in the e-learning context and to set more suitable assignments.	Individuals (Students)	Students	
65	Plagiarism Detection	P/DT	All departments operate an electronic system for the detection of plagiarism and an associated human process to confirm diagnoses and take corrective action.	Individuals (Students)	Students	
66	Physical	P/HY	Integration of e-learning strategy, plans and decisions with the space management processes.	Strategy	Strategy development	
67	Risks	R/SK	Projects and programmes integrate pro-active risk management at all levels.	Processes	Management and leadership	
68	Research Out	R/OU	Essentially RAE 4*.	Individuals (Staff)	Staff	

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
69	Research In	RIN	Programme offerings via e-learning as equally as informed by research as offerings of a more traditional nature.	External environment	Delivery	
70	Widening Participation	WPR	Integration of e-learning strategy, plans and decisions with Widening Participation processes, within a framework of cost- and income-awareness.	Strategy	Strategy development	
71	Disadvantaged	DSA	Full integration of e-learning strategy, plans and decisions with support for disadvantaged students (other than disabled - see 05 - and WP - see 70).	Strategy	Strategy development	
72	Personalisation	PRS	An approach to personalisation in e-learning which balances pedagogy, access and government desires within an agenda of cost-effectiveness, quality assurance and the grounded research literature.	Individuals (Students)	Students	
73	Eco-Sustainability	ESU	A culture where sustainability is built into decision-making and operation of large e-learning projects.	Processes	Strategy development	

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
79	Collaboration Roles	COL	The roles and responsibilities of each collaborative partner are clearly defined and the procedures always followed.	External environment	Partnership and collaboration	1
80	Computer Based Assessment	CBA	A systematic managed process is in place of using CBA across the institution in ways appropriate to each programme.	Technology	Students	
81	Computer Managed Assessment	CMA	A systematic managed process is in place of using Computer Managed Assessment and feedback of assignments (including dissertations) across the institution in ways appropriate to each programme.	Technology	Delivery	
82	Dissemination Internal	DIN	A systematic managed process of internal dissemination of good practice is in place.	Processes	Communication, evaluation and review	1
83	Staff Experience	SEP	All courses using significant e-learning measure the staff experience aspects of this.	Individuals (Staff)	Staff	
84	Staff Satisfaction	ST	Annual Staff Satisfaction survey which explicitly addresses the main e-learning issues of relevance to staff (e.g. support, workload)	Individuals (Staff)	Staff	

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
85	Employer Engagement	EN	A managed approach to involvement of employers of students in creating or updating WBL courses to include appropriate amounts of e-learning.	Processes	Management and leadership	
86	Employer Experience	EP	All WBL courses using significant e-learning measure the employer experience aspects of this.	Processes	Management and leadership	
87	Employer Satisfaction	EST	Annual Employer Satisfaction survey which explicitly addresses the main e-learning issues of relevance to employers of students on WBL courses.	Individuals (Students)	Management and leadership	
89	Employability	EMP	The institution takes care to ensure that e-learning is used in a reasoned way to enhance the employability of students including in their own businesses.	Individuals (Students)	Delivery	
90	Student Engagement in Design	SED	A managed approach to involvement of students in updating the design of e-learning courses across many courses.	Individuals (Students)	Students	

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
91	Student Understanding of System	SUS	Students have good understanding of the rules governing assignment submission, feedback, plagiarism, costs, attendance, etc and always act on them.	Individuals (Students)	Students	1
92	Student Help Desk	SHD	Help Desk is deemed as best practice.	Individuals (Students)	Delivery	1
93	Student Experience	SXP	All courses using significant e-learning measure the student experience aspects of this.	Individuals (Students)	Students	
94	Student Satisfaction	SAT	Annual Student Satisfaction survey which explicitly addresses the main e-learning issues of relevance to students.	Individuals (Students)	Students	
95	e-Portfolios	EPO	Use of e-portfolios in all departments.	Processes	Students	
96	Learning Objects	LOB	An approach to use of learning objects which balances pedagogy and technology within an agenda of cost-effectiveness, quality assurance and the grounded research literature.	Technology	Delivery	
97	Open Educational Resources	OER	The institution has a reasoned approach to the use of OER and is using them across the institution.	Technology	Delivery	

No.	Criterion name	Code	Best practice statement	MIT90s category	OBHE category	CSF grade (1-3)
98	Benchmarking	B MK	The institution has recently benchmarked its e-learning and is working through the implications of the results.	Processes	Management and leadership	
99	Organisational Learning	O LG	Institution is a learning organisation on all core aspects of e-learning.	Processes	Staff	

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