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## **Annual Report**

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**[www.virtualpatients.eu](http://www.virtualpatients.eu)**

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***eContentplus***

This project is funded under the *eContentplus* programme<sup>1</sup>,  
a multiannual Community programme to make digital content in Europe more accessible, usable and exploitable.

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<sup>1</sup> OJ L 79, 24.3.2005, p. 1.

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## 2 Project Objectives

The eContentplus programme vision is to support projects that will make digital content in Europe more accessible, usable and exploitable by addressing specific market areas where development has been slow. The programme also aims at facilitating access to digital content, its use and exploitation, enhancing quality of content with well-defined metadata, and reinforcing cooperation between digital content stakeholders. It also aims to tackle multilingual and multicultural barriers. These are all issues that are particularly prominent in the medical and healthcare market area where there is already much existing digital content created by many educational institutions but there has been a slow uptake of these resources by other institutions from the wider community. The eViP project set out to address this issue by joining up eight of the leading e-learning institutions in Europe and repurposing and enriching much of their existing digital content, in the form of Virtual Patients (VPs), to different languages, cultures, disciplines, and contexts in order to create an easily accessible and metadata-enriched bank of 300+ VPs for the improved quality and efficiency of medical and healthcare education across the European Union.

The objectives of the eViP project are to:

- Collate VPs from partners' existing collections and select cases for repurposing to local educational needs
- Promote the inter-professional sharing of VPs between different healthcare disciplines such as medicine, nursing, physiotherapy and dentistry
- Implement common technical standards for all VPs in collaboration with MedBiquitous
- Restructure content to standards-compliant structure, metadata including the culture and language metadata of the partners (English, German, Dutch, Swedish, Polish, Romanian) and content packaging; all to enable "multi-lingual access"
- Further enrich the content of the repurposed VPs with the addition of supporting resources e.g. supporting basic and clinical science resources, clinical skills videos, owned by the partner or in the public domain, or available under an appropriate Creative Commons licence
- Share enriched VPs with the wider EU community through an online referatory
- Evaluate how the repurposed and content-enriched VPs meet the individual needs of the project partners and the wider community
- Share templates and tools within the EU community for the easy creation of new VPs
- Disseminate best practice guidelines for creating and sharing VPs and evaluation instruments for VPs and for learning & teaching activities using VPs
- Embed a sustainable model for the storage and retrieval of VPs beyond the lifetime of the 3-year Project

### 3 Consortium

The eViP project partners are listed below:

- St George's, University of London (England)
- Karolinska Institutet (Sweden)
- Medizinische Fakultät der LMU München (Germany)
- University of Warwick (England)
- Faculty of Medicine Maastricht University (Netherlands)
- Universitätsklinikum Heidelberg (Germany)
- University Iuliu Hatieganu Cluj-Napoca (Romania)
- Faculty of Medicine, Jagiellonian University (Poland)

Due to the complex nature and the transformational change expected as a result of eViP, it was decided to take a Programme approach to the activities proposed. So, the eViP work packages are considered to be project in themselves which are about delivering outputs to time, cost, and at the agreed standard/quality. Whereas, the eViP programme as a whole is about delivering the outcomes from and realising the benefits of the separate projects.

The individual eViP projects that fit underneath the eViP programme 'umbrella' are detailed below:

- Project 1 (WP1) Pilot case study and evaluation (led by St George's, University of London from September 2007 to December 2007)
- Project 2 (WP2) Standards implementation (led by the Karolinska Institutet from November 2007 to December 2008)
- Project 3 (WP3) VP repurposing and enrichment (led by the Karolinska Institutet from December 2007 to July 2010)
- Project 4 (WP4) Awareness and dissemination (led by the University of Warwick from September 2007 to October 2010)
- Project 5 (WP5) Assessment and evaluation (Faculty of Medicine Maastricht University from September 2007 to October 2010)
- Project 6 (WP6) Exit and sustainability (led by Medizinische Fakultät der LMU München from September 2009 to October 2010)

Although each project is led by a partner institution, the work involves the input from all the eViP partners. Evidence-based Programme and Project Management methodology is employed by all partners over the entire course of the eViP lifecycle in order to successfully meet the outcomes of eViP and also to contribute to the outcomes envisaged of the eContentplus programme.

## 4 Project Results/Achievements

### WP1 The pilot study

The purpose of the repurposing and content enrichment pilot (WP1) was to:

- (i) Explore the feasibility of repurposing and enriching VP examples in a variety of different ways, and for different purposes
- (ii) Collect feedback from the staff on repurposing and enrichment process
- (iii) Collect student feedback on use of the repurposed and enriched VPs.

This work was originally planned to be carried out by six of the eight project partners but in the event was conducted by all project partner institutions.

Partners were free to repurpose and enrich VPs in any way they chose, with the intention of covering most of the needs of the partners during the course of the project. Partners were required to capture feedback on a range of approaches to repurposing and enriching VPs, and thereby inform the process of use by other nations, both during the project, and at the project conclusion.

The eViP application profile created in the workflow of WP2 was tested for technical interoperability in this pilot study.

The study proceeded in a number of distinct steps. Firstly, partners collectively created, agreed, and finalised a comprehensive glossary of project specific definitions for the different types of repurposing, and content enrichment. Following this a VP inventory was created which categorised the different VP types and the way in which they were currently implemented. Partners then repurposed a total of 19 cases selected from the inventory. Partners repurposed and/or content enriched the VPs in a variety of different ways e.g. repurposing to different educational scenarios, to different healthcare or subject disciplines, for different educational levels, for multilingual use, to different structures and finally with content enrichment. All partners obtained feedback from staff involved in the repurposing and content enrichment process; the majority also conducted student evaluations and feedback, using a variety of tools which included web-based-, email-, and paper-based questionnaires, and both face-to-face and online interviews.

The partners successfully demonstrated repurposing and enriching for the full range of different uses described in the original rationale for VPs. In some instances repurposing and enriching was more time consuming than expected, but all types of repurposing were less effort than creating a case 'from scratch'. Content enrichment was a particularly efficient use of time, since in several cases the resources were already available. In most cases the partners had managed to obtain feedback from both staff and students. In all cases, there was strong support from content experts, staff and students for the future use of the repurposed and enriched VPs.

### WP2 Standards implementation

This work package started by developing a technical specification of what is needed to adapt virtual patients (VPs) to a common standard, to enable the VPs to be shared between different virtual patient systems. The main outcome was the eViP implementation profile that includes adaptations of three existing standards/specifications:

- The MedBiquitous MVP Specification which defines how to encode VPs using xml

- Metadata about the VP is expressed using the Healthcare LOM standard
- The VP is packaged using a customized version of the SCORM standard

The eViP implementation profile was then published with appropriate conformance metrics (D2.1). The conformance metrics provided a systematic approach of verifying whether a VP system meets the eViP implementation profile specifications.

The implementation of the eViP profile has already been initiated by all the partners with the aim to complete the implementation in December 2008. A parallel activity is a thorough documentation of the implementation efforts using the project wiki and other means with the aim to produce best practice implementation guidelines.

Another important activity, in collaboration with other work packages, was undertaken to develop a common consent form and a licensing model framework to be used across the project (outputs described later in this report).

This work package has already shown high achievements by being the internationally recognised current leader in the standardisation of VPs. Furthermore the development of a common European consent form will be very valuable to the whole medical education community. Work package 2 plays therefore a substantial role in addressing the programmes' overall objective to tackle organizational barriers and promote take up of leading-edge technical solutions to improve accessibility and usability of digital material in a multilingual environment.

### **WP3 VP repurposing and enrichment**

This work package is led by the Karolinska Institutet but all other partners of eViP are also very active in this main activity of the project. The work started in December 2007 and will be ongoing to July 2010. All members of the eViP consortium have been very active in WP3 and there is a firm commitment to complete the work to time.

WP3 is the backbone of the eViP project and includes eight separate objectives and milestones and six deliverables. Many of these are longer-term goals that are due towards the end of the project.

The Objectives for the whole duration of the WP 3 are identified as:

- 3.1 Identify and set up an inventory of all possible VP cases from partners and identify any IPR issues
- 3.2 Identify which of the existing VPs are to be repurposed, based on medical and healthcare specialties, to different cultures and languages
- 3.3 Re- purpose VPs to be standards compliant, with metadata and packaging, for multi-lingual access: 'normalisation' and enrich content using partner's existing resource collections
- 3.4 Repurpose a subset of normalised new VPs into new disciplines
- 3.5 Repurpose normalised new VPs into new cultures
- 3.6 Peer review VPs in each culture
- 3.7 Evaluate metadata schemes for eViP VPs
- 3.8 Populate the project referatory

For this first year, one deliverable was fulfilled namely, D3.1: Identify and set up an inventory of all possible VP cases from partners and identify any IPR issues. This task has been fulfilled, albeit a few weeks after the initial targeted month. All partners have been active in collecting details of their respective existing VPs that could be candidates for re-purposing. A list of all VPs available has been posted in the eViP Wiki as well as in a new Web-based database that can be accessed through the eViP Wiki.

Currently, the database holds a list of VPs in English, Romanian, Swedish, Dutch, German and Polish. These VPs were originating from five different VP authoring systems, namely Open Labyrinth, Web-SP, Casus, Ivimeds and Campus. These cases cover mainly the Medical discipline, but VPs from Nursing, Dentistry, Midwifery, Paramedicine as well as some other disciplines are represented.

In addition, the work has also been targeting parts of the upcoming Deliverables listed below:

D3.2 focused on producing a populated repository of VPs as selected in D3.1. This deliverable is well on its way and we are convinced that the deadline for this deliverable will be met, since the re-purposing efforts are already well advanced.

D3.3 & D3.4 are Reports on a set of new repurposed standards compliant VPs with metadata and packaged for multilingual access, and a set of localised new VPs into new disciplines and new cultures and approved peer review process. The work to reach these two deliverables is already on its way, many of the partners have a number of new, re-purposed VPs available, and many more are coming up soon. The DOW indicated numbers of VPs available in August 2008 (D3.1 - 1003.3 New set of repurposed/enriched VPs (50 new VPs January 2009) and D3.4 New set of localised VPs in new disciplines (5-10 cases in 6 different/new cultures Jan 2009) will be reached.

Initial work on the D3.5 Report on and creation of metadata schemes for eViP VPs as well as D3.6 , Complete referatory of repurposed, standardised and localised VPs for different disciplines, including metadata descriptions, has also begun.

A protocol and pilot versions of a metadata scheme for eViP are available, and discussions about how to refine the metadata is ongoing with WP2 technical experts.

Both technical and practical issues regarding the eViP referatory are also being discussed and, as stated above, a large number of new VPs are already available. The month 34 deliverable of a complete referatory remains practical and achievable.

### **Unexpected outcomes and benefits**

A number of interesting and positive additional outcomes of the eViP WP 3 work have also been reached. Among these the following seven results have been achieved

- Most pre-eViP cases have been re-validated and re-checked for any inconsistencies
- At least some of the partners have been able to solve and verify solutions to IPR issues for existing cases
- Content validation of existing English cases have been made
- The contact between teachers at the local universities of the eViP partners and the eViP team has been improved
- A number of interesting research possibilities have been recognised and in some cases are already underway e.g. the REVIP project funded by the UK Joint Information Systems Committee for evaluation of case exchange between Heidelberg and St Georges

- Registration of new PhD students within the field of VPs
- Increased visibility and impact on the teaching community (at universities and at conferences) even before the release of content.

#### **WP4 Awareness & dissemination**

This work package started by producing the project's public website and private wiki (D4.1). The public website had been reviewed by an EU independent assessor and passed as being fit for purpose. The project has a high profile on Google and is currently the top search result for acronym and project name, and currently 5th place for the generic term 'virtual patients', which is a major achievement for such a rapidly expanding field. There is a plan for improving the public web site following feedback from project members, users and the independent assessor. Improvements include a stronger visual brand, better in-site navigation and a public collaborative space based around a wiki. The private project wiki has proved to be an extremely efficient way of document project progress and is a comprehensive record of all aspects of project activity.

The six-month stage of the project saw the publication of a public report on virtual patient case studies drawn from project partner institutions. This comprehensive report is an excellent starting point for any group exploring the current use of virtual patients in medical education. The report can be found on the projects public deliverables web page:

<http://www.virtualpatients.eu/about/timeline/>

The end of the first year of eViP saw the publication of a comprehensive virtual patient survey covering areas such as current use of virtual patients and virtual patient systems, the range of education scenarios using virtual patients, and some of the business issues behind accessing a repository of virtual patients and related materials. Results of the survey can be found in D4.3 on the projects public deliverables web page:

<http://www.virtualpatients.eu/about/timeline/>

All partner schools in the eViP consortium have been actively involved in academic and technical meetings to raise awareness of eViP and virtual patients in general. A summary of presentations given and major conferences attended can be found on the project's weblog:

<http://www.virtualpatients.eu/weblog/>

#### **WP5 Assessment and evaluation**

This work package started with a detailed inventory of the existing Virtual Patient (VP) types and VP implementation scenarios within the eViP consortium. The findings were reviewed by all partner and the key results were presented to the EC as part of the 1st half year report of the project (D5.1). The inventory provided the consortium with an overview essential for planning the repurposing activities in WP3, but it also raised, in an early stage of the project, the awareness of the manifold aspects regarding the development and implementation of VPs.

Over the second half year of the project this work package developed two instruments to evaluate the quality of VPs that the partners were going to repurpose and enrich. One is a checklist for developers and teachers to audit the construction of a VP. With this instrument each VP could be characterized with a 'fingerprint'. The other is a questionnaire for students recording their experiences with a specific VP. Both instruments are reviewed by all partners. The student questionnaire is published on the project wiki in the 5 languages of the partners. For feasibility and validity reasons the checklist is only published in English. All partners agreed that they would characterize each VP they repurpose with the checklist before it is added to the final repository. In addition each use of a repurposed VP by a student will be



evaluated with the questionnaire. To facilitate this continuous evaluation process WP5 started to build online forms that will be linked to both the VPs and the repository.

## 5 Target Users & their Needs

The project's current user group is well known as a result of the needs analysis survey (D4.3). Based upon 216 survey responses collected, the demographic profile of users engaged with the eViP project so far is:

Region	Percent
Europe	35%
USA & Canada	48%
Rest of world	17%

User's Role	Percent
Non-clinical	25.6%
Clinical	62.5%
Professionalism	34.4%
Skills	40.6%
Curriculum	53.1%
Technology	35.6%
Assessment	42.5%
Management	29.4%
Accreditation	25.6%
Evaluation	35.0%

Level	Percent
Undergraduate	61.9%
Postgraduate	56.9%
CME/CPD	39.4%
Interprofessional	23.8%

Age of respondent	Percent
<21	1.2%
21-30	13.8%
31-40	18%
41-50	29.3%
51-60	25.1%
>60	12.6%

Based upon this profile information we have a very clear idea of the individuals currently engaged with eViP. Perhaps it is to be expected that the majority of individuals interested in virtual patients is still biased towards the US & Canada. The likely explanation for this is that the US hosts the MedBiquitous virtual patient working group, the largest formal group researching in this area. One aim is to raise the profile of eViP across the EU and this will be done according to the WP4 action plan for awareness & dissemination.

It is also interesting to note that the age profile of survey respondents shows that eViP is engaging more established teachers and clinicians. Students are not currently the main priority for eViP but reaching younger teachers, clinicians and academics will be an aim, again through the WP4 activities.

The wide range of roles of survey respondents has shown that professionalism and skills are well represented. These two areas have perhaps not been addressed by virtual patient scenarios as well as some of the other areas in eViP so partners will re-examine their contributed virtual patients and look for opportunities to include aspects of professionalism and skills-based training in their scenarios.

## 6 Underlying Content

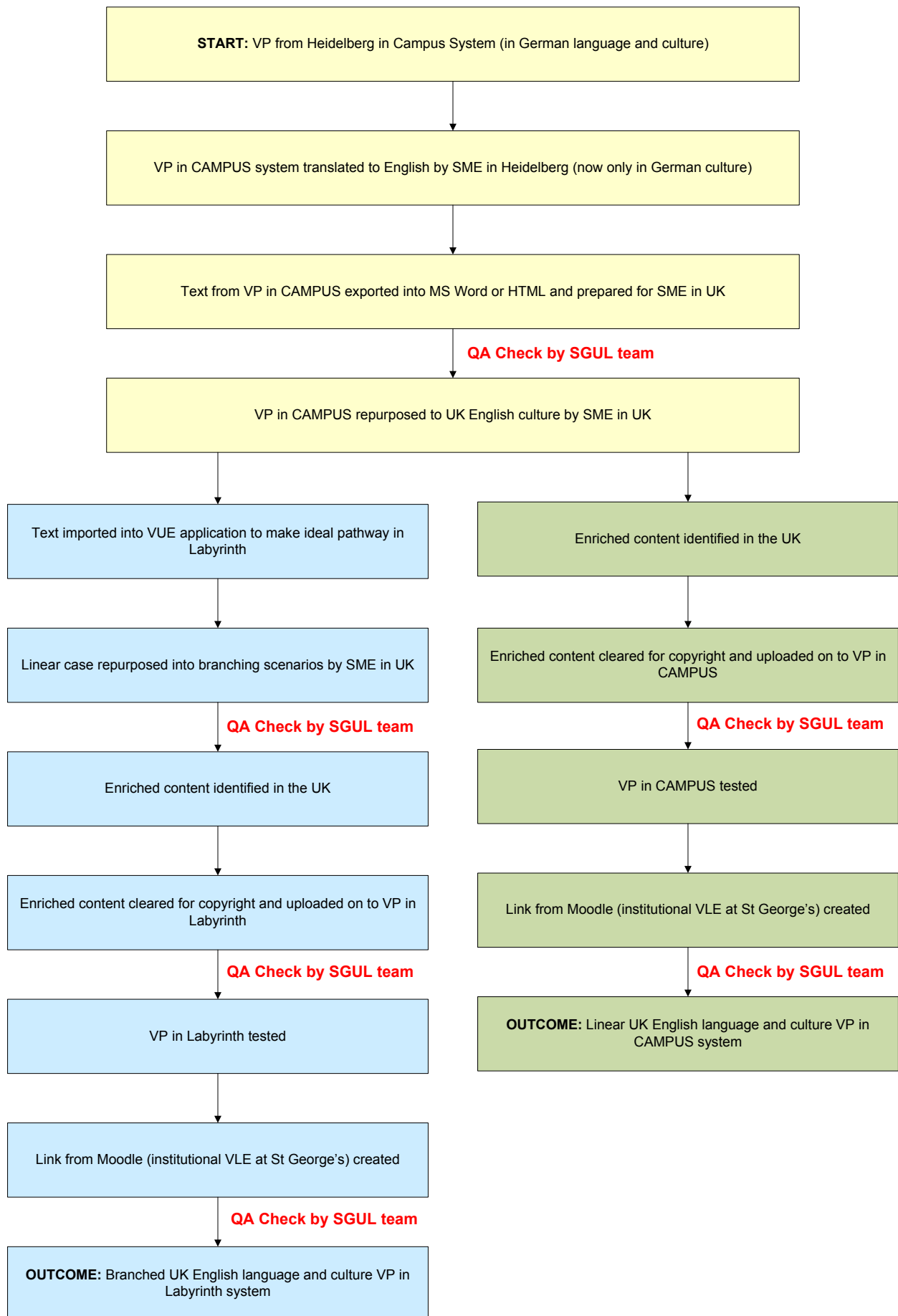
As per the agreed description of work, the eViP partners have ALL contributed to the 300+ VPs and associated digital resources to the consortium for repurposing and enriching. These resources are available in all partner languages.

All of these VPs have been collated in the eViP referatory:

<http://www.virtualpatients.eu/referatory>. In addition, each of these have been further enriched with metadata. Below is a list of all the mandatory eViP metadata associated with each VP along with a short note providing more information:

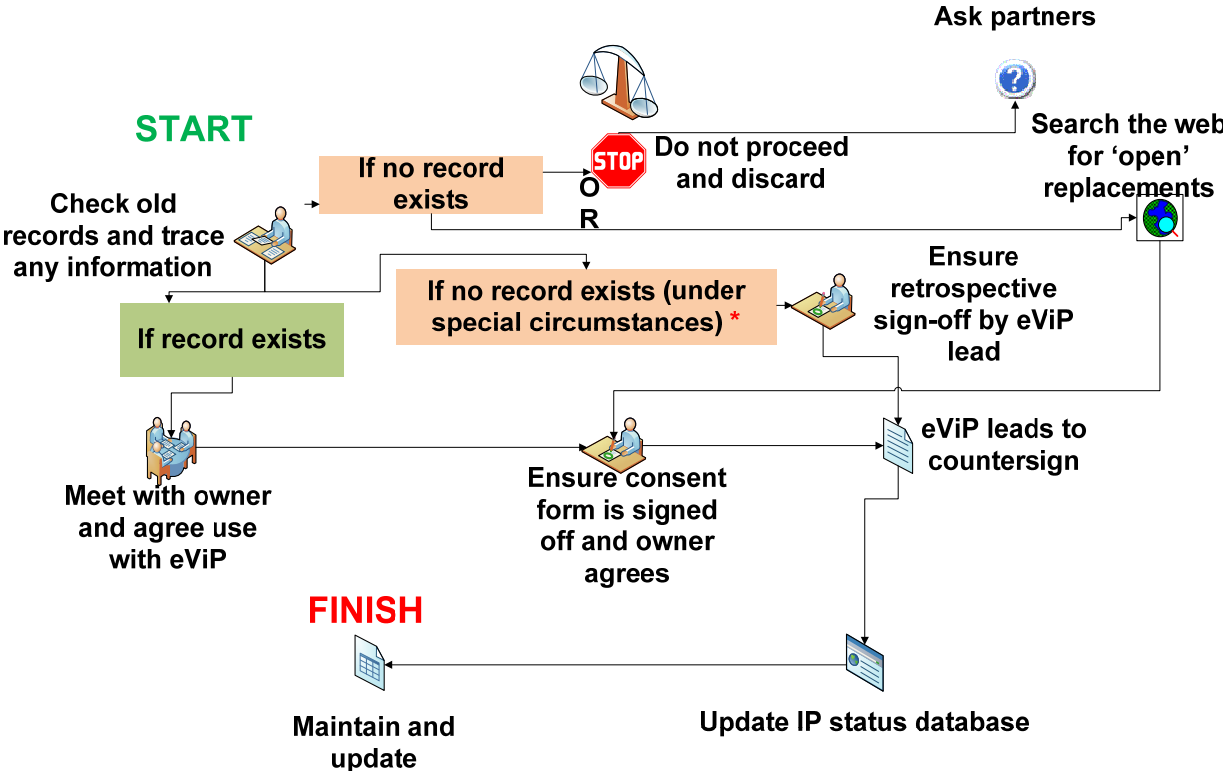
Field	Notes
LOM 1.1 repository id	Unique ID generated by referatory
LOM 1.2 title	In English please
LOM 1.3 language of resource	in the format en-gb, en-us etc
LOM 1.4 description	In English please.
LOM 2.3.1 role of contributor	e.g author of VP, owner, etc - not the same as the person creating the inventory record
LOM 2.3.2 author	Name of contributor
LOM 2.3.3 date	Date of contribution
LOM 3.2.1 role of metadata contributor	e.g creator or validator (of metadata record - not the VP!)
LOM 3.2.2 author	Name of metadata creator
LOM 3.2.3 date	Date of metadata record creation
LOM 4.1 technical format	use MIME type e.g application/zip for content packages
LOM 4.2 object size in bytes	estimate if not known exactly
LOM 4.3 location of object	must only be URL/URI to object if available
LOM 4.6 special requirements for use	defaults to 'eViP compliant player'
LOM 5.2 type of resource	defaults to 'Virtual Patient'
LOM 6.1 payment required	yes/no only
LOM 6.2 subject to copyright	yes/no only
LOM 6.3 statement of copyright	free text describing copyright statement
LOM 9.2 classification purpose	'discipline', 'educational objective' or 'competency'
LOM 9.2.1 classification source	e.g 'MeSH'
LOM 9.2.2.1 classification node identifier	e.g C14.280.434
LOM 9.2.2.2 classification label	e.g 'Heart failure'
eViP 11.1 id in original system	ID in local system
eViP 11.1.1 originating vp system	name of originating VP system e.g 'Labyrinth'
eViP 11.2 sex of vp	Male/Female
eViP 11.3 age of vp	Please either enter a numerical age or 'Neonate' (<4 weeks), 'Child' (<16), 'Adult' (<70), 'Elderly' (>70)
eViP 11.4 learning	What did we agree in Munich should go in here?
eViP 11.5 used by students	We used this in the original inventory but we agreed not to make it mandatory from now on
eViP 11.6 institution	Temporary field including institution that owns the VP - will be replaced by vCard
eViP 11.7 contact email address	Temporary field with email contact - will be replaced by vCard

The quality assurance of the repurposed and enriched VPs was key to the overall success. Using the repurposing and enrichment flow diagram between SGUL and HD as an example, this highlights the number of areas where partners implemented quality assurance checks to ensure that all VPs and their associated resources were of high quality.

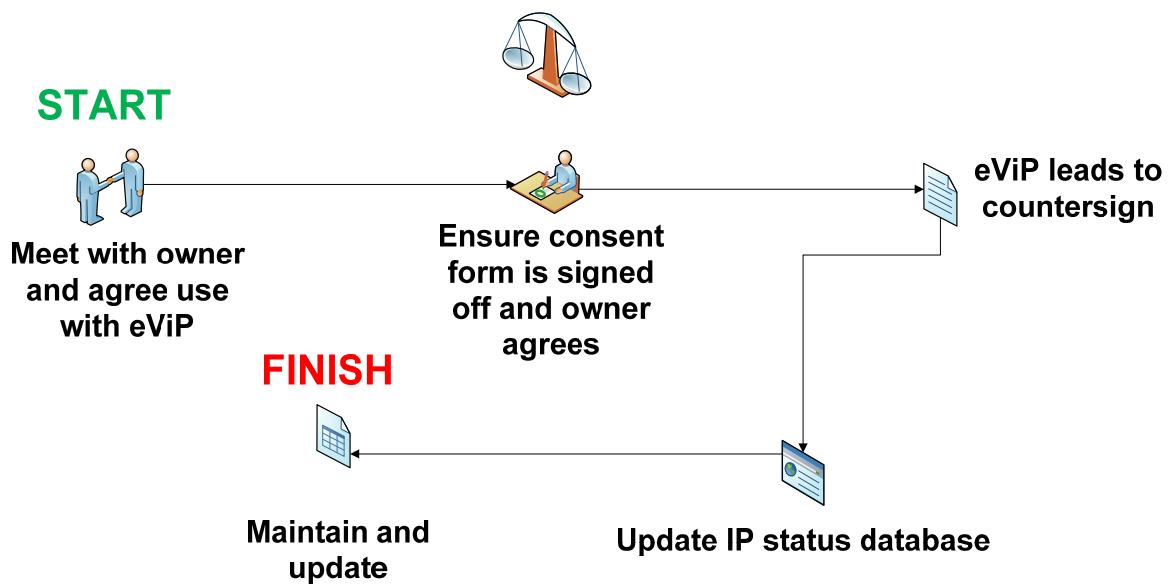


In addition ALL partnering institutions had agreed to adopt the Creative Commons as the licensing model of choice for eViP and also agreed to make sure all content to be repurposed and enriched (both the original and repurposed) were cleared for intellectual property use in the context of eViP. Using the flow diagrams shown below, partners agreed to clear off any outstanding issues relating to IP retrospectively for existing content but also managed to develop a workflow to inform the wider community for sharing new content. The team worked very closely with the Creative Commons to ensure that these workflows were quality assured and approved by an international licensing organisation as well as all the jurisdictions relating to each of the partner countries.

**Clearing IP relating to old digital content retrospectively:**



**Clearing IP relating to new digital content:**



These workflows will be explained in more detail in forthcoming reports and deliverables about IP.

## 7 Summary of Activities

All activities and tasks carried out by the partners are available in MS Project plans. However, for the purposes of this report, the key activities have been summarised below:

- Partners collectively created, agreed, and finalised definitions for the different types and uses of VPs, and defined content enrichment.
- Partners agreed a metadata schema for the description of all existing and repurposed VPs.
- A model was agreed upon for a referatory for the collated VPs at the end of the project.
- Following this an inventory of partners VP collections was created, and the VPs categorised according to the VP definitions, including the way in which they were currently implemented.
- Partners then selected a total of 19 cases from the inventory, and repurposed and/or content enriched these VPs in a variety of different ways e.g. repurposing to different educational scenarios, to different healthcare or subject disciplines.
- On the basis of this trial, workflow guidelines were produced for the different types of repurposing models, to streamline further repurposing and enrichment.
- During this time, partners began the process of embedding of VPs directly into curriculum a step forward from previous uses of VPs which were largely confined to use by students as optional supplementary resources.

- An agreed model for patient consent was obtained, compliant with the national regulations of each partner, and included the production of a common consent form.
- Partners initiated knock-on projects which used the repurposing models produced in the project so far.
- A major end-of-year dissemination activity demonstrated the significant increase in awareness of VPs and the objectives of eViP, which could be largely attributed to this project.
- A comprehensive survey was undertaken which successfully reached an international audience and provided invaluable background information on the current use of virtual patients, as well as gathering opinion on the potential future use of VPs.
- The next steps will concentrate on the continuation into the adaptation of the VP players to the common European standard, and the continuation of the repurposing of VPs, with the main part of the programme in the 2nd year, repurposing the bulk of the virtual patients.

## 8 Impact & Sustainability

At this stage, with content in the early stages of being repurposed and enriched, the impact of eViP on Europe is chiefly a result of:

**1. Dissemination.** Evidence of the impact that eViP and the eViP partner consortia has had both in Europe and globally comes from the extraordinary impact of the eViP collaboration on the international profile of virtual patients in the year since the project began.

In October 2007 eViP was only granted a poster presentation at AMEE, the leading conference in medical education; there was a single session including virtual patients, and with a total of six virtual patient presentations throughout the conference.

At AMEE 2008 (attended by 2,500 delegates), there were four oral sessions on virtual patients, including two workshops led by eViP partners, a VP poster session, and other special presentations. The Executive of the AMEE conference acknowledged the central role of the eViP consortia in this change. There were a total of 18 oral VP presentations, more than half involving eViP partners, and the eViP programme director was asked to arrange all chair persons and discussants for e-learning at the meeting. Both workshops, run by eViP partners and involving the creation and usage of VPs were the first workshops to be fully booked out, and all VPs sessions were heavily attended. There was an additional main symposium presentation on e-learning standards in Europe, by the director of eViP, featuring eViP.

**2. Common European standards.** Part of the groundwork for the VP dissemination arose from the standards development phase (WP2). The eViP partners began the year with a strong presence and strong impact at the conference on international IT standards in healthcare (the MedBiquitous Annual Conference) at which the eViP team received the international Innovation award for the outstanding vision of the eViP objectives. By early 2008 eViP had become the main driver for the global VP standards development based within the VP working group at MedBiquitous.

eViP shared an exhibition stand with MedBiquitous Europe at AMEE 2008, the newly formed organisation set up to allow inclusion of those institutions who are not part of the eViP consortia, but who wish to take part in the business relating to the eViP consortium. This stand was one of the busiest exhibition stands at the conference, and a focus of this stand was

the regular timetabled demonstrations by individual eViP partners of the way in which their respective VP author/player tools in Europe were being adapted to share VPs.

**3. The structured repurposing and curriculum embedding of VPs.** This is an important issue, at which stage do VPs become more than just a supplementary learning resource, and take their place as a corner-stone in the curriculum? During the pilot study, partners increased their efforts to demonstrate the different ways that VPs could be used in the curriculum, and this is having a noticeable impact, since most VP users in Europe will be a relationship or connection with at least one of the eViP partners. For example several partners began to use VPs 'in-session', in tutorial settings, and in one case successfully experimented with the replacement of paper cases in Problem-Based Learning. Partners also experimented with VPs in assessment, and in the break-out sessions at the AMEE workshop, it was this usage which attracted the greatest interest. A high proportion of the 18 VP presentations at AMEE were devoted to curriculum embedding of VPs, and the eViP workshop break-out session concentrated on the ways in which VPs could be used, and barriers to use.

**4. Intellectual Property models and workflows.** The increasing use of the Internet for learning and teaching challenges the traditional approaches for the protection of digital content created with the intention of being shared. This is a persistent issue in medical and healthcare education where, in addition to traditional ownership of the content and jurisdictional differences, there is the added complexity of maintaining patient anonymity. eViP explored some of the obstacles faced by European institutions wishing to share digital content for medical and healthcare education and proposed an early draft of a framework for a licensing model that will address some of these difficulties.

The work carried out by the eViP team on Intellectual Property issues, is having a considerable impact on the wider community, in Europe and across the world. The team is now engaged with the Creative Commons, the Association of American Medical Colleges and other key players in this arena, working towards a new Clinical Commons model to tackle this important issue on a global scale. As a result of this initiative, and forming a key part of our sustainability, all eViP partners are fully committed to ensuring that any content associated within every eViP repurposed and enriched VP will be clear of any intellectual property issues that govern wider dissemination on the Internet.

**5. Sustainability model.** The experiences from all partners with different sustainability models were collected and discussed online and during the project meetings in Munich and Prague. It became clear that eViP can draw from this strong empirical background. Through this process eViP partners have reached a common understanding of their own and each others' models for sustainability of their existing projects. A process of condensation and joint agreement will follow, to achieve a business model that will be supported by all partners and ensures sustained use of eViP-products in the broadest possible community. We expect to come to an agreed exit and sustainability model during the second project year and much earlier than the project timeline requires. In consequence we will then have the chance to test and refine the model during the third project year.

**6. Survey of VP knowledge and usage.** The end of year survey described in detail elsewhere showed that, after only one year, 33.5% of respondents had already heard of eViP. Awareness will have been further raised by the survey itself, the dissemination events at the AMEE conference, and the close link with MedBiquitous Europe.

## 9 Further Information

To further enhance the profile of VPs and an increased understanding of their potential for use in medical and healthcare curricula, partners have agreed to release a minimum 10% of their



repurposed VPs onto the publicly available eViP website, at the earliest opportunity. The target time is January 2009, but it is to be expected that some of these VPs will appear shortly.