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CASPAR

Cultural, **A**rtistic and **S**cientific knowledge for **P**reservation, **A**ccess and **R**etrieval

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DELIVERABLE D5301: CASPAR TRAINING PLAN



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Abstract: This document provides a plan for the CASPAR training programme, outlining modules, dissemination approaches and required resources.



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Summary	This document outlines a plan for the CASPAR training programme. It lists the communities and teaching methodologies which have been defined, the learning objectives and content of individual modules, and the resources that will be required to deliver the courses successfully. It also provides detail on how communities will be encouraged to participate in training events, and the communication channels which will be utilised.
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1 INTRODUCTION

1.1 PURPOSE OF THIS DOCUMENT

The CASPAR 5300 training workpackage aims to provide a dynamic, replicable and extendable educational framework that will ensure professionals in the cultural heritage and scientific communities acquire the necessary knowledge and skills to understand and effectively apply the project's methods and tools to their own collections and datasets. This document outlines a plan for the CASPAR training programme. It lists the teaching methodologies which have been defined, the learning objectives and content of individual modules, the approaches towards targeting communities and promoting training activities, and the resources that will be required to deliver the courses successfully, including online training.

Section 2 outlines the aims and objectives of the workpackage as specified in the Description of Work. It also describes key tasks for the WP5300 and how the workpackage intends to address these.

Section 3 discusses the methods which have been used by the workpackage to research training needs and opportunities, including efforts to establish training initiatives with other digital preservation projects.

Section 4 outlines the individual subject modules which will be used as the basis of the training programme. It describes the approach to establishing future training events, the teaching methods to be used and an event charging plan.

Section 5 discusses the training infrastructure, detailing plans for the training platform and the development of online demonstrations.

Section 6 defines the audiences which will be initially targeted for training events. It describes the strategies which will be used to attract specific organisations, the broader promotion techniques which may be used in marketing training events and the variety of communication channels the workpackage has at its disposal.

Section 7 provides information on the resources that will be required to organise, deliver and evaluate events. It also outlines the quality assurance measures the workpackage intends to put in place to ensure superior course materials are produced.

Section 8 describes how all of the activities outlined in the previous sections will be distributed amongst the workpackage partners. It defines the various roles required and the workflow for ensuring production of quality training materials for online and face-to-face courses.

Appendices provide tools for managing the establishment (A1), running (A2), evaluation (A3, A4) and completion (A5) of courses.





1.2 APPLICABLE DOCUMENTS AND REFERENCE DOCUMENTS

Applicable documents

- [A1] Description of Work, April 2006
http://www.casparpreserves.eu/Members/metaware/ReferenceDocuments/caspar-description-of-work/at_download/file

Reference documents

- [R1] CASPAR proposal, Sept 2005

1.3 GLOSSARY

[Ax]	Applicable Document
[Rx]	Reference Document
CASPAR	Cultural, Artistic and Scientific knowledge for Preservation, Access and Retrieval
DoW	Description of Work
EC	European Commission
EPM	Executive Project Management
IPC	IP Coordinator
IST	Information Society Technologies
PACP	Partner Administrative Contact Point
PO	Project Officer
PPR	Project Progress Report
PQE	Project Quality Engineer
PTCP	Partner Technical Contact Point
R&D	Research and Development
SQE	Stream Quality Engineer
ST	Stream
TN	Technical Note
WP	Work Package
WPL	Work Package Leaders
Designated Community	An identified group of potential Consumers who should be able to understand a particular set of information. The Designated Community may be composed of multiple user communities. (OAIS definition)
Archival Information Package (AIP)	An Information Package, consisting of the Content Information and the associated Preservation Description Information (PDI), which is preserved within an OAIS. (OAIS definition)
Content Information	The set of information that is the original target of preservation. It is an Information Object comprised of its Content Data Object and its Representation Information. An example of Content Information could be a single table of numbers representing, and understandable as, temperatures, but excluding the documentation that would explain its history and origin, how it relates to other observations, etc. (OAIS definition)





Knowledge Base	A set of information, incorporated by a person or system, that allows that person or system to understand received information. (OAIS definition)
Representation Information	The information that maps a Data Object into more meaningful concepts. An example is the ASCII definition that describes how a sequence of bits (i.e., a Data Object) is mapped into a symbol. (OAIS definition)





2 THE DESCRIPTION OF WORK AND WP5300

The CASPAR Description of Work provides detail of the objectives and tasks for the training workpackage. The information is repeated and expanded here in order to offer clarification for the subsequent sections of the document.

2.1 AIMS AND OBJECTIVES OF TRAINING WORKPACKAGE

The CASPAR Description of Work states the following objectives as being central to the training workpackage: -

- 1) *Provide a conduit between the innovations of the project and their exploitation and user communities, to ensure that the CASPAR methods, products and services are widely taken up and can be continued after the end of the CASPAR project.*

The CASPAR training programme occupies a pivotal position within the project. There is a responsibility to the other partners and workpackages within the project to devise a training programme which provides quality knowledge and skills on the key outputs and innovations of the project. There is also a responsibility to provide an innovative and extendable training programme to key user communities, in order to allow them to maximise their use of CASPAR methods, products and services. The programme therefore needs to meet the needs of both these groups, and as such will be a visible and public face of the project.

- 2) *Offer training opportunities to staff in all types of organisations which hold any type of digital data, to promote the take-up of CASPAR methods, practices and technologies, with an initial focus on cultural, artistic and scientific heritage institutions such as archives, libraries, data archives and universities*

The workpackage will design a programme which supports the needs of the core CASPAR communities. However, courses need to be structured in such a way that they also provide the opportunity for knowledge and skills development in other institutions and communities who would benefit from adoption of the CASPAR approach.

- 3) *Provide capability building training for consultancies, SME technology developers, and vendors*

The training programme will be used to train not only staff within organisations who would benefit from using the CASPAR approach, but also groups who will be key in ensuring CASPAR outputs are integrated into other software. This requires a different level of training which is responsive to the needs of these particular audiences.

- 4) *Provide certification for those trained to validate their use of planning tools, templates, construction of new testbeds, and content characterisation*

It is hoped that the workpackage can provide a training programme which is structured in such a way to allow for accreditation of individuals who have attended or completed a series of modules.

- 5) *Define the training infrastructure specifications. Based on the key audiences identified for the training, the user and system requirements will be collected in order to provide a services platform tailored to the “user needs”*





The workpackage aims to provide training not only through face-to-face activities, but also by providing integrated tools for the involved actors through a technological infrastructure.

As CASPAR funding will not cover the full range of training activities proposed, it is hoped that the above work will be co-ordinated with other EU projects, in order to ensure a co-ordinated approach and to avoid unnecessary repetition.

2.2 TARGET COMMUNITIES AND TYPES OF TRAINING

The CASPAR 'Description of Work' outlines a number of specifications which will affect the range of training which is offered. A variety of users are identified for potential take-up of CASPAR services, which could influence who are identified as target audiences for training events: -

- Data creators of all kinds
- Professionals dealing with funding decisions about digital preservation
- Operational people managing preservation activities
- Data owners, data holders and data curators
- Preservation service providers
- End users of digital information

The workpackage's approach to targeting audiences, drawn from these initial suggestions, will be discussed fully in section 6.

A variety of training methods are also suggested in the DoW, based on the knowledge that some audiences respond better to particular learning and teaching methods than others: -

Teaching scenarios: -

- Large and small group teaching
- Self-directed learning
- Remote learning

Approaches to teaching: -

- Lectures
- Worked examples
- Case-based learning
- Practical exercises

2.3 TASKS AND DELIVERABLES

The 'Description of Work' divides the first 18 months of the workpackage into four key tasks, with an initial definition of training needs to be carried out before tasks begin. The tasks are: -





- *Training planning (5301)*: This task will assess the relationship between current community capabilities and the skills that would need to be developed if the community is to take full advantage of the methods and tools CASPAR is developing. This information will lead to the production of a training plan document, which will define courses, the different learning and teaching methodologies which will be adopted to ensure courses achieve their learning outcomes, and provide a schedule of course delivery locations, dates and timings.
- *Training infrastructure (5302)*: This task will develop a technological infrastructure to support the training activities, consisting of contents management and post lessons support. Contents management will offer a collaborative space for teachers to provide course documentation and to access archived lessons. The post lessons support will be an interactive environment where communication facilities can be accessed in order to expand course attendees' knowledge and encourage networking activities. The first 18 months will be dedicated to developing a definition of the training infrastructure specifications.
- *Training material preparation (5303)*: This task will build upon the training courses identified in the training plan by producing more detailed literature and tools to support the organisation and preparation of these events. This will include further development of modules for the first events and the preparation of templates, schedules and programmes.
- *Training delivery and evaluation plan (5304)*: This will deliver the first two training courses, award certificates to those who successfully complete the training, and measure the effectiveness of the courses. **This task has been moved to after month 18.**

There is one deliverable and one milestone associated with these tasks, namely: -

D5301: CASPAR Training Plan (m18)

M#5: Review of preliminary specifications of the platform prototype (m18)

An early output by the workpackage was a detailed workplan for how these early tasks would be addressed, including partner work allocation. A copy of this document can be found in appendix 1. Details of the workflow for the further development of training activities are provided in section 7.





3 TRAINING NEEDS AND OPPORTUNITIES

In order to develop a training programme which is responsive to the needs of core communities and which optimises take-up of the methods and tools CASPAR are developing, the Description of Work specifies the need for a review of training needs and opportunities. The workpackage has addressed this issue through the following initiatives.

3.1 CASPAR TRAINING QUESTIONNAIRE

The partners of CASPAR cover a variety of sectors, including organisations dealing with scientific and cultural data, research institutions and commercial organisations. These partners have a wealth of knowledge about the areas of the project they are involved with, and the types of results they hope to produce. Throughout the duration of the project these partners will also be in close contact with their own communities, identifying requirements and targeting these groups for the take-up of outputs. It was therefore decided that feedback from the project's partners on what they expected the training programme to provide would be extremely valuable. During February 2007 a training questionnaire was sent out to all stream and workpackage leaders in order to identify the key outputs of the project, CASPAR's different audiences and what they may require training on, and the levels of pre-knowledge required. The key findings, which influenced the next stage of the training programme development, were as follows: -

- CASPAR partners outlined which areas of their stream/workpackage needed to be covered by the training programme, and the earliest date from when training on these topics would be feasible
- Several partners specified the need for a number of general, high level courses to inform communities about the key areas of digital preservation
- Training in OAIIS would be needed as part of the overall course programme
- The majority of partners felt that trainers with an in-depth knowledge of the project's outputs (i.e. project partners) should deliver training courses, due to the level of background and technical knowledge required. In particular any training for the scientific, cultural heritage or artistic communities should be delivered by experts from their own domain. Training professionals may only be suitable for more high level courses, or at later stages in the project, but they would need to have sufficient background knowledge to deliver the courses correctly.

3.2 ACTIVITIES WITH EU PROJECTS

The CASPAR training workpackage realises that to deliver the number and level of courses that it would ideally like, co-operation with other projects will be essential. As an FP6 EU project CASPAR has an obligation to work with other projects in this group, such as DPE and PLANETS, and training is a key aspect of the projects where collaboration can be beneficial. CASPAR has taken steps to engage with these and other projects in an attempt to identify and develop collaborative training initiatives. The project will also be investigating work with other relevant projects, such as EPOCH and PRESTOSPACE.

During March 2007 partners from CASPAR organised and participated in a DPE/CASPAR/PLANETS/DCC joint workshop entitled 'Developing an International Curation and Preservation Training Roadmap'. The workshop provided a platform for providers of digital preservation training programmes to begin discussions on how they might best work together to develop a robust shared training programme and infrastructure that will be of benefit to a range of communities of practice. DPE, Planets and CASPAR have continued discussions on collaborative opportunities between the three projects, which it is hoped will lead to future joint events. There is also ongoing work at a wider level to





look at training needs, and ways to streamline activities at a multi-national and multi-project level. The workpackage will continue to provide input to these initiatives and will revise schedules and events accordingly to take advantage of these activities.

The background knowledge generated from this work has allowed the workpackage to define its audiences, course areas and teaching methods, as well as identifying ways to work with other digital preservation projects in organising and delivering training.





4 TRAINING MODULES

This section introduces the CASPAR training modules which will form the basis of the project's training activities. It provides details of the topic areas and learning objectives, as well as suggested module lengths and leaders.

4.1 CONTRIBUTION OF MODULES TO STRUCTURE OF TRAINING PROGRAMME

The programme aims to provide training on how to utilise the results which the project produces, and will follow a modular structure. These modules will be, as far as possible, self-contained units, the majority of which can be delivered either separately or in combination with other modules. This will provide a flexible structure and the opportunity for subject-specific modules to be delivered as part of larger conferences or collaborative events, as well as combined for CASPAR-specific training activities. The modules will also form the basis of the materials for online training, providing a subject structure for the development of tools such as demonstrations.

It must however be recognized that CASPAR methods are applicable to the widest possible range of digital objects, whereas other projects have a different and sometimes narrower focus which omits areas such as the capture of Semantic Representation Information. Care will therefore have to be taken when combining modules from CASPAR with those from other projects to ensure each project's approach is clearly represented.

4.2 MODULES

The workpackage has identified a number of modules which will be used as the basis of any training activities delivered. These vary in coverage from more general introductory sessions on OAIS to those focusing on how to use specific tools produced by the project. The modules have the potential to be combined with other modules for either CASPAR-specific courses or for shorter courses as part of conferences and collaborative training initiatives. It is expected that for the more general modules of CASPAR-1, CASPAR-2 and CASPAR-8 the workpackage will cooperate with other projects such as DPE and PLANETS to ensure the subject matter is sufficiently general to incorporate the work of others.

For each module a provisional partner has been allocated responsibility for overseeing its development, whilst other partners will be expected to contribute their knowledge and expertise where appropriate. Although the scope of the modules is deliberately broad in order to appeal to a wide range of communities, it is also expected that a partner from each testbed will contribute effort to their development. This will allow for the production of context-specific examples and exercises for each module and any related online demonstrations. Further details of the responsibilities and related workflow are outlined in section 8. Whilst the general framework of the modules can be written at the outset, some modules (e.g. CASPAR-6) will be linked to the timings outlined in the CASPAR implementation plan, so that their development coincides with the outputs of the project. Iterations will also be introduced to the development so that modules are periodically refined based on further findings and results.

CASPAR-1: Digital preservation and the CASPAR approach: sharing the cost

CASPAR-2: The OAIS Reference Model

CASPAR-3: The OAIS Reference Model and preservation analysis





CASPAR-4: Installing, deploying, integrating and extending a CASPAR system

CASPAR-5: Representation Information and PDI Toolkits

CASPAR-6: CASPAR Preservation Infrastructure

CASPAR-7: Validation Techniques for Digital Preservation Techniques

CASPAR-8: Audit and Certification of digital repositories

Module title:	Digital preservation and the CASPAR approach: sharing the cost
Number:	CASPAR-1
Duration:	1 day
Proposed responsible partner:	CNR
Learning objectives:	This module will provide an overview of the key issues related to digital preservation, how CASPAR aims to address a number of these issues, and the various benefits of adopting the approach.
Content:	<ul style="list-style-type: none"> - What is preservation in the digital environment (covering principles from the conceptual model) - Aims of the CASPAR project - Benefits of adopting the CASPAR approach - Sharing the cost of digital preservation - CASPAR Preservation infrastructures and e-Science infrastructures - CASPAR Toolkits - Validation metrics
Target audience:	Decision makers/managers responsible for funding, data owners, holders and curators, digital preservation practitioners, operational posts, service providers
Teaching methods:	Lectures
Dependencies:	Some familiarity with the OAIS Reference Model would be an advantage

Module title:	The OAIS Reference Model
Number:	CASPAR-2
Duration:	½ day
Proposed responsible partner:	UU
Learning objectives:	<p>This module will provide an introduction to the OAIS model, whilst also highlighting its relevance to CASPAR. It will provide details of the core components, information which can then be followed by more in-depth training on other aspects of CASPAR.</p> <p>The module will show the application of OAIS to data, in other words digital objects which are processed such as scientific data, databases, workflows etc, as well as digital objects which are normally simply rendered, such as images and documents.</p>





Content:	<ul style="list-style-type: none"> - Introduction to OAIS its background purpose scope and relevance - OAIS core concepts (OAIS Environment, OAIS Information, OAIS High Level High Level External Interactions) - OAIS Responsibilities Mandatory with real life examples illustrated from Testbeds - OAIS Models (Functional Model, Information Model, Information Package Transformations) - Preservation Perspectives - OAIS Preservation and archive interoperability - Discussion on the limitation of OAIS and potential for enhancements and extension
Target audience:	Decision makers/managers, data owners, holders and curators, digital preservation practitioners, operational posts, service providers
Teaching methods:	Lectures
Dependencies:	Can be used on its own, in conjunction with CASPAR-1, or before other modules to provide the basic knowledge required for understanding of the CASPAR approach

Module title:	The OAIS Reference Model and preservation analysis
Number:	CASPAR-3
Duration:	½ day
Proposed responsible partner:	STFC
Learning objectives:	This module will follow on from the previous with a practical exercise providing participants with the opportunity to begin analysing their own data using the skills they have developed.
Content:	<ul style="list-style-type: none"> - Introduction to CASPAR questionnaire process - Analysis techniques employed on the CASPAR testbeds – e.g. data flow modelling, journal deconstruction - Practical hands-on working on real life examples from testbeds
Target audience:	Practitioners working on the preservation and curation of digital information
Teaching methods:	Initial lecture with supported hands on session working with testbed data
Dependencies:	CASPAR-1, CASPAR-2

Module title:	Installing, deploying, integrating and extending a CASPAR system
Number:	CASPAR-4
Duration:	1 day
Proposed responsible partner:	ENG





Learning objectives:	This module will provide a practical session to facilitate the easy installation, deployment, integration and extension of the CASPAR system
Content:	<ul style="list-style-type: none"> - Installation of CASPAR modules - Deployment options - Integration of external systems into the CASPAR approach - Writing applications to be incorporated into the infrastructure
Target audience:	System administrators, developers
Teaching methods:	Lectures plus practical session with worked example
Dependencies:	CASPAR-1, CASPAR-6 for technical audiences

Module title:	The Representation Information and PDI Toolkits
Number:	CASPAR-5
Duration:	1 day
Proposed responsible partner:	STFC
Learning objectives:	This module will provide knowledge of the Representation Information Toolkit and the PDI Toolkit, their purpose and the variety of tools included. It will also provide examples of discipline-specific tools for the scientific, cultural heritage and artistic environments, to emphasise the diversity available.
Content:	<ul style="list-style-type: none"> - Background to RepInfo - The RepInfo toolkit and its place within the CASPAR infrastructure - Authenticity and Preservation Description Information Toolkit - Toolkit components - Examples from the scientific, cultural heritage and artistic, and other, environments
Target audience:	Data archivists, developers
Teaching methods:	Lecture plus worked examples
Dependencies:	CASPAR-1, CASPAR-2

Module title:	CASPAR Preservation Infrastructure
Number:	CASPAR-6
Duration:	1 day
Proposed responsible partner:	UU
Learning objectives:	This module will cover the key service tools provided by CASPAR, and their purpose. It will also incorporate usage scenarios from the scientific, cultural heritage and artistic environments, to demonstrate the broad applicability of the tools to a diverse range of digital information.
Content:	<ul style="list-style-type: none"> - Introduction to the CASPAR service tools and their purpose within the infrastructure - RepInfo GAP Manager





	<ul style="list-style-type: none"> - Orchestration Manager - Authenticity Manager - Digital Rights Management (DRM) - Access Control - Packaging Manager
Target audience:	Data archivists
Teaching methods:	Lecture plus worked examples
Dependencies:	CASPAR-1

Module title:	Validation Techniques for Digital Preservation Techniques
Number:	CASPAR-7
Duration:	1 day
Proposed responsible partner:	ESA
Learning objectives:	<p>This module will introduce the validation metrics which CASPAR applies to itself and other preservation techniques. This includes the accelerated lifetime techniques used by the CASPAR testbed environment,. It will also provide examples of scenarios and the way these were used to further the work of the project., and how the approach could be developed in the future. Following this module attendees should be able to apply these techniques to other digital preservation techniques.</p>
Content:	<ul style="list-style-type: none"> - Background to the purpose of the CASPAR validation metrics - Techniques used in the CASPAR testbed - Generic testbed elements - Scientific testbed with example scenarios - Cultural heritage testbed with example scenarios - Performing arts testbed with example scenarios - Next steps
Target audience:	Practitioners, developers and system administrators
Teaching methods:	Lectures plus worked example
Dependencies:	CASPAR-1

Module title:	Audit and Certification of Digital Repositories
Number:	CASPAR-8
Duration:	1 day
Proposed responsible partner:	STFC
Learning objectives:	<p>This module will provide training on certification of digital repositories. It could be provided as a one day training session or in conjunction with a larger event on certification, in which CASPAR is a collaborator.</p>
Content:	<ul style="list-style-type: none"> - CASPAR approach to audit and certification - Detailed understanding and use of draft ISO standard on digital repository audit and certification
Target audience:	Developers and IT experts





Teaching methods:	Lectures
Dependencies:	CASPAR-2

4.3 COURSES, DATES AND LOCATIONS

The modules identified above will offer a flexible approach to the training programme, allowing the workpackage to develop self-contained units which can then be used in online training, CASPAR-specific courses or collaborative training opportunities. Further details of the approaches to online training are provided in section 5. In regards to face-to-face courses, the workpackage has concluded it is not yet appropriate to propose provisional events, or assign dates and locations, until timeframes for completion of tools are clearer and further discussions on collaborative opportunities have taken place. The timeframe for such events will therefore be decided by the Project Director at a later date.

The workpackage can nevertheless at this stage outline some of the considered approaches in regards to defining dates and locations. The CASPAR training programme will aim to encompass as many EU member states as possible. However, it recognises that in order to deliver an optimum number of courses it must make suitable use of the resources at its disposal. It is therefore expected that the eventual course programme will deliver a number of events in partner countries, allowing the project to take advantage of the facilities available. In addition CASPAR wishes to collaborate with PLANETS and DPE on training events, so some locations will be decided as part of the organisation for a joint training course. In some of these joint events CASPAR modules will supplement PLANETS' (mostly 'rendered object' focused) training. However it is important that a significant number of training courses have CASPAR providing the main structure supplemented by PLANETS modules. The workpackage would also like to allow for the possibility of co-locating CASPAR training with other significant EU events and training opportunities outside those of the three projects.

It is expected that the timeframe of the courses will allow the training to unfold as methods and tools within the project are finalised, and will help to avoid early courses which lack content and provide training on incomplete tools and products. Initial courses will focus on the more general elements of CASPAR to raise awareness of the work being carried out and how it relates to the OAIS Reference Model. Later courses will concentrate on training for specific tools and services which by this stage will be finalised by the project.

4.4 EDUCATION

The modules and courses outlined above offer practical training on specific outputs of CASPAR, aimed at particular audiences. Another consideration however which needs to be taken into account is the broader context of education, encouraging the creation of new knowledge and innovative thinking in the field of digital preservation. The DPE project has already begun investigations into this area, carrying out research into the European context of digital preservation education and attempting to determine the main priorities in framing and guiding education and training initiatives.¹ The project is continuing to work with a larger grouping of partners to try and establish a model that will meet a wide range of needs. The training workpackage will ensure it maintains close links with this work in order to support any proposals which address the issue of education in digital preservation, and which may feed into training initiatives.

¹ Manzuch, Z et. Al. Outline of training principles and objectives. DigitalPreservationEurope deliverable D 2.1, 2006.





4.5 COURSE FEES

The CASPAR training workpackage aims to provide a series of courses which will develop the knowledge and skills of core communities, promote the importance of digital preservation and educate in the ways that CASPAR methods and tools can help to resolve these issues. The programme does not aim to make a significant financial profit through following this responsibility. However, the workpackage recognises that to cover nominal costs and to ensure attendance from those registered for the event, a small charge for courses will be necessary. The workpackage has also based this approach on experiences reported by the ERPANET and BRICKS training programmes, where partners found a reasonable charge was key in ensuring buy-in to individual events. The following is a proposed list of fees based on covering the resources which will be required to supplement a training event. A rolling discount strategy is proposed for CASPAR partner institutions and the CASPAR Community, and secondly other associated digital preservation projects such as DPE and PLANETS who will be working closely with CASPAR on collaborative initiatives and who have developed a similar pricing approach. The final course fees for external participants total approximately 50 percent over the catering and resource costs, to cover catering expenses of lecturers and to take into account the discount strategy. It should be noted that these are general figures; the catering costs in different European countries will inevitably vary, and course prices will be adjusted accordingly.

Two day courses

Course start: 10:00 day one

Course end: 16:00 day two

Resources covered: Coffee @ €5 (x4)

(per person) Lunch @ €30 (x2)

Dinner @ €50 (x1)

Course handouts and badges @ €25

Room hire @ €30 (per day)

Miscellaneous @ €15

TOTAL: €230

Course price (partner institutions, members of the CASPAR community): €230

Course price (other associated projects) €270

Course price (external participants): €340

Three day courses

Course start: 10:00 day one

Course end: 16:00 day three

Resources covered: Coffee @ €5 (x6)

(per person) Lunch @ €30 (x3)

Dinner @ €50 (x2)

Course handouts and badges @ €25

Room hire @ €30 (per day)

Miscellaneous @ €15

TOTAL: €350

Course price (partner institutions, members of the CASPAR community): €350

Course price (other associated projects): €420

Course price (external participants): €520





5 TEACHING METHODOLOGIES AND ONLINE TRAINING

In order to deliver the CASPAR modules effectively, the workpackage has identified that a variety of teaching methods will need to be used. This section begins by discussing some of the methods which will be used for face-to-face courses, ensuring a variety to cater for differing subject areas. These types of sessions offer attendees valuable contact with project experts and allow for effective dissemination of results. However, in order to provide training for the many individual end users of CASPAR solutions, the workpackage will also endeavour to provide online training. This will consist of a training platform tool to support event activities with value added services, and remote training in the form of online demonstrations and other interactive teaching methods. The platform will support individual courses, provide online tutorials, and ultimately assist in the dissemination of the project's outputs. Online demonstrations will be developed to disseminate the results of the project and to provide training to groups who may not favour attending actual training events, but who the project would still like to target.

5.1 TEACHING METHODOLOGIES FOR FACE-TO-FACE COURSES

The CASPAR programme will use a variety of teaching methods to ensure attendees gain maximum benefits from each training course. Different audiences will suit different levels and styles of training, so this will be taken into consideration when identifying teaching methods for individual courses.

Two levels of teaching can be envisaged: -

Large group training – this will be a mixture of lectures and practical exercises, or ‘break-out’ groups. Large group training offers wider distributed market potential due to the number of places available, but in allowing this the method becomes less suitable for detailed practical courses. It is therefore envisaged that this approach will be used primarily for more general courses.

Small hands-on group training – this type of training will be primarily suited to more technical courses, which require a higher concentration of practical activities and thus benefit from a smaller number of participants. This will be the key training method used for CASPAR component modules due to their technical nature. This type of training can be broken down into further subcategories: -

- Hands-on tutorials – structured practical exercises working alongside the tutor
- Worked examples – learning about a method or tool by applying aspects to a specific scenario
- Learning by assistant application of technologies – actively applying the technologies which have been taught during the course itself, often to own datasets

5.2 TRAINING PLATFORM

5.2.1 Preliminary Description of Training Platform Requirements

The training workpackage will be developing a training platform, which will act as a further teaching methodology through allowing self-directed learning. The research into individual specifications for the training platform will be carried out fully in task 5302: Training Infrastructure. For the purpose of this document however the workpackage has identified a number of features that the training platform will be expected to provide. Some of the services that will be offered can be preliminarily described as follows: -

Scope - The training platform will be implemented to support both face-to-face training modules and online-only modules, according to the requirements of the trainers. In the early





stages of the training programme rollout the focus will be on support of actual training events, whilst online tutorials will be developed during the later stages of the workpackage, when project outputs have been finalised.

Admission and Access - The user authentication mechanisms will be adapted to the chosen admission policy (i.e. enrolment may be fully automated or dependent on the decision of the platform administrator and/or of the trainer responsible for each module). The people responsible for each training module will receive the role of 'trainers', and will enjoy the widest autonomy regarding the kinds of content that they will be able to incorporate in their modules. It will be possible to create different categories of user roles, with different privilege levels both for trainers and for trainees. This means that it will also be possible to differentiate the access to the training materials themselves and to accommodate the chosen admission policy.

It is hoped that the training platform can be used to provide a lasting legacy to the CASPAR training programme. Training modules and resources will be kept available for subsequent autonomous usage according to the admission policy and the requirements of the trainers. Facilities to support direct interaction among users, such as forums and chats, will be available after the formal module completion to support networking and the creation of a lasting collaborative environment.

Content - Editing of texts will be made very easy by means of a WYSIWYG embedded editor. Powerpoint slides and audio files may be easily incorporated into the courses as well. Beyond the course units, trainers will be able to upload additional material and resources in a variety of formats; this material will be easily displayed within the training platform itself. External content may be easily linked with the course pages. Course units may be presented in a linear, presentation-like manner, or in a branching format. Navigation through the course units will be customisable to some extent.

Support and Evaluation - Several facilities will be available to trainers to assess the trainees' progress, such as: quizzes, assignments, peer-assessment of assignments, and visualisation of statistics. Different kinds of forums, a chat service for synchronous text communication, and full email integration with the training platform may be provided to support interaction among trainers and trainees. A simple system to conduct polls and surveys will be implemented. Both trainers and trainees will have tools to easily visualise progress made and scores. Furthermore, every user will have a personal profile page with the possibility of including a photo and other information.

5.2.2 Course Management System

In order to build a training platform which incorporates all the features listed above, a suitable course management system package needs to be identified. A Virtual Learning Environment (VLE) or Course Management System (CMS) is a software system designed to support tutors in online learning. A variety of systems are available, but the project has decided to adopt the Moodle software package² for the purpose of the CASPAR training programme. Moodle is a free, Open Source course management system, with 23,633 registered sites worldwide. Since its creation in 1999 the system has been adopted by a wide variety of institutions, including higher and further education. One of the most recent adopters of Moodle is the Open University, who are using the software as the foundation of

² Moodle <http://www.moodle.org/>





their new online student learning environment which will be used by 180,000 students. For the purpose of this project studies have also been reviewed which compared Moodle to both commercial alternatives and other OpenSource systems.³ In both cases Moodle proved to deliver superior communication tools and provided a level of usability for both students and tutors unmatched by the other systems available. These demonstrate the superiority of Moodle and its suitability for use as the CASPAR training platform.

Moodle offers a variety of features which aid the e-learning process, and meet the requirements of the CASPAR training programme. Individual course areas can be set up with varying degrees of access, offering the possibility to distinguish between post-event support documentation and publicly accessible complete tutorials. The exact features which will be used may vary depending on the learning objectives and general nature of the individual course, but some of the activity modules which may prove particularly useful include: -

Glossary – this allows a list of definitions to be created, providing assistance in any unique or technical terms used in tutorials and documentation. Tutors can also automatically create links to the glossary entries throughout their course

Forums – these offer an opportunity for course participants to communicate with each other on a variety of issues arising from the training they have received, as well as tutors offering explanations where necessary. The forum facilities include peer rating of postings, and the opportunity for tutors to limit forums to certain groups, ideal for initiating discussion just between attendees of a specific course.

Quizzes – these allow tutors to develop a variety of question types for students. This format could be particularly useful for reaffirming knowledge gained during a face-to-face event or through a detailed online tutorial.

Lessons – these deliver course content in a number of flexible ways. Individual pages are developed with questions and choices that allow students to navigate the lesson and develop their knowledge and skills. This module can be used as a basis for developing online tutorials reliant on self-directed learning.

Surveys – this module allows tutors to gather feedback from students and collate results. This could be an additional mechanism used in the course evaluation process.

The modules will be of value for offering both support to the face-to-face training courses and also more complete online tutorials. It is hoped that the outputs of the CASPAR project will continue to be adopted even after the project itself is completed; therefore the need for accessible and dependable supporting materials and tutorials will still be present. The use of an Open Source online learning support facility provides a digital durability for resources, allowing materials to be accessed and tutorials to be completed even after the face-to-face training programme has concluded. The longevity of tools developed within a course management system therefore allows the core skills provided by the courses to be

³ Reports viewed were Munoz, Kathy D and Van Duzer, Joan. *Blackboard versus Moodle: a comparison of satisfaction with online teaching and learning tools* <http://www.humboldt.edu/~jdv1/moodle/all.htm> and Graf, Sabine and List, Beate. *An evaluation of Open Source e-learning platforms stressing adaptation issues* <http://www.wit.at/people/list/publications/icalt2005.pdf>





continuously accessible, providing a lasting legacy to the programme and the project as a whole.

The partners in the CASPAR training workpackage are well placed to optimise use of the Moodle system. HATII at the University of Glasgow (UG) was an early adopter of the system and has been actively using the software for several years. As a result the workpackage has readily available access to an extremely knowledgeable Moodle team. Metaware, the leader of the training infrastructure task are also highly experienced in the management of online training platforms. Overall the workpackage therefore has the expertise to effectively use the Moodle software and utilise the benefits it has to offer.

5.3 REMOTE TRAINING

Whilst the value of conducting face-to-face training is clear, the workpackage recognises that there are new technologies emerging in training which potentially offer a much more diverse and easily accessible set of teaching and dissemination approaches. The cost and employee time used for face-to-face training can be prohibitive to institutions, with many potential users having insufficient funds and effort available to send staff elsewhere in Europe for events which last several days. The uptake of training activities is therefore compromised. In contrast remote training, which is available to individual students through their own computers, is cost-effective for institutions in terms of both funds and staff time. New technologies which facilitate remote training thus offer the possibility of removing the barriers to uptake which physical events inevitably create.

Whilst sources are still being finalised, the workpackage proposes using a training package such as that provided by WebEx⁴ to develop online demonstrations and bespoke training packages. WebEx offers a number of features which could potentially be utilised by the project, including: -

- Recording of online demonstrations and presentations – several experts will be needed to deliver a face-to-face CASPAR training session, but their work can be combined into one cohesive facility.
- Conducting of remote practical sessions – students can practice with software on remote computers, an exercise which is vital for gaining wide acceptance of a new product.
- Gathering of instant feedback on individual sessions – the impact of the training on user communities can be easily monitored, allowing the workpackage to judge when additional promotional activities will be required.

In addition, these demonstrations and sessions can be incorporated into face-to-face training sessions along with more traditional lectures and other supporting documentation, or even used on more wide-reaching websites such as YouTube.

In order to utilise the facilities a service such as WebEx could offer to the CASPAR training, the project will investigate the possibility of employing a developer in the last year of CASPAR to develop the remote training facility further, and to use the contacts gained from the project to promote the materials available. This proposal will be investigated further during the next phase of the training programme.

⁴ WebEx <http://www.webex.co.uk/>





6 TARGET AUDIENCES, PROMOTION AND DISSEMINATION OF THE TRAINING

The workpackage recognizes that in order to ensure training events are effectively promoted to the right audiences, a clear dissemination strategy is required. The training programme will contribute to the dissemination and validation of the project results and techniques. Training will catalyse the widespread diffusion of project solutions and help further establish CASPAR in the digital preservation domain by boosting the overall visibility of the project. The results from the training events will be beneficial to the project in several distinct ways. The attendees of these courses will become a body that will be instrumental in disseminating project results to diverse users in new professional environments. This group will be able to explain project methodologies and provide new users with background knowledge in complex system services and functionalities. This dissemination of technological proficiency will ideally have a domino effect on the further adoption of CASPAR services to new genres of users in diverse professional settings. This section outlines target audiences, how these will be approached, and the broader dissemination and promotion of training activities.

6.1 DEFINITION OF AUDIENCES TO BE TARGETED FOR TRAINING

The results produced by the CASPAR project will potentially be of benefit to a wide variety of communities, organisations and individuals involved in the digital preservation process. At the same time the workpackage recognises that it does not have the time or resources to effectively train each of these groups. In order therefore to use its resources in the most efficient way the workpackage has acquired assistance both from within and outside the project, to identify the core audiences who would benefit from training on CASPAR methods and tools.

6.1.1 Target audiences identified by CASPAR

The Dissemination and Use Plan produced by WP5100 of CASPAR has identified the following groups as the overall CASPAR reference target market, which the training workpackage has decided to follow when defining its own core audiences⁵: -

⁵ Bertoncini, M et. Al. *Dissemination and Use Plan*. CASPAR deliverable D5101, 2007, p. 82.





Target Groups	Market sectors
Customer Organisations	<ul style="list-style-type: none"> • Ministries, Universities and Government Institutions • Scientific Institutions • Cultural Heritage Institutions <ul style="list-style-type: none"> ○ Museums (including even Small Museums) ○ Archives ○ Public and Private Libraries (University and Specific Libraries), ○ Broadcasters and Audiovisual Institutions • Private Companies <ul style="list-style-type: none"> ○ Regulated Industries (Pharmaceutical, Finance,...) ○ Non-Regulated Industries (ICT, Automotive, Textile,...) • Media (press, communication agencies, exhibitions) • Content Providers for Digital Media and New Media Companies • Technology / Service Providers
Final consumers	<ul style="list-style-type: none"> • Curators, researchers, professors, experts, librarians • Citizens and Tourists • Digital artists • Scientists • Private companies • Government departments • Etc -
Indirect Stakeholders	<ul style="list-style-type: none"> • Funding Bodies • Regulatory Bodies
Infrastructure providers	<ul style="list-style-type: none"> • Alliance for Permanent Access • E-Infrastructure providers

The Dissemination and Use Plan proceeds to focus on potential *customers*, who will be those actually adopting the CASPAR tools and methods – particularly those who are likely to be early adopters. Potential customers are defined as all those organisations and individuals who need to preserve digital objects produced either by themselves or others. One goal of the CASPAR consortium is to embed the CASPAR framework and components within key memory organisations, so as a result CASPAR outputs are addressed in particular to organisations. These institutions may manage digital preservation internally, outsource to external organisations, or have no existing system in place to correctly preserve their digital objects. The levels of training required will therefore vary depending on existing knowledge of operating digital preservation systems.

The training workpackage used the above definitions to identify the particular groups of individuals within these types of organisations who will be interested in or require training on the CASPAR approach, in order to ensure its successful adoption. The categorisation of





these groups is based around those defined for dissemination activities in the Description of Work: -

Professionals dealing with funding decisions in digital preservation – this group will require knowledge of key preservation issues and how the CASPAR results can tackle these issues in a cost-effective manner. They will be a primary target audience for the general courses.

Operational people managing preservation activities/ data archivists – these people will be staff managing preservation systems at an operational level. They will be interested in the core components of the project and the way the system works, and will be a key target audience for more tools-based courses. Those working within the scientific, cultural and artistic communities will also be interested in usage scenarios specific to their domain. In addition the training platform will attempt to accommodate this group through the use of online tutorials.

Data owners, data holders and data curators – this group will include individuals working in a wide variety of organisations that both hold and preserve data. They will require knowledge of the approach to digital preservation and CASPAR's functions, but not necessarily details of how the system itself operates. They will be a core target group for face-to-face training on the more general aspects of the project and how users will interact with the system.

Developers and preservation service providers – this group will be interested in how they can build systems into the CASPAR approach and as such will require training on the specific tools and services developed. A more technical face-to-face course will be provided for this group, but they will also be key targets for the online training facility.

The sectors and audiences that will be targeted for training on CASPAR outputs are therefore defined. In order to deliver a training programme that targets the natural early adopters of the system and optimises use of the resources available, the training workpackage will continue to work closely with the exploitation and take-up workpackage, to monitor the groups defined and to maximise effective take-up and promotion of events.

6.1.2 Target audiences in other EU projects

Reaching the target audiences of the project itself is a fundamental responsibility of the training programme. There are however other projects, namely Planets and DPE, with which CASPAR is required to co-operate on training initiatives, and who also have target audiences. The key groups outlined by these projects for training can be summarised as: -

Planets – Primarily EU national libraries and archives, but also smaller ALM (Archives, Libraries and Museums) institutions, data centres, businesses, government and service providers. Within these sectors the training will target practitioners, researchers, vendors and developers.

DPE – Institutions involved in the national and regional, cultural and scientific heritage activities of Europe. This will include European major libraries and archives, smaller ALM institutions, data archives, government and business. Within these organisations practitioners, researchers and developers will be targeted.

It is clear that while there is significant overlap in the types of individuals who will be targeted, there are also clear differences in the focus of each individual project. Any joint training events will inevitably therefore attract other groups in addition to the ones targeted by CASPAR, and the workpackage believes it can utilise these opportunities in a number of ways. Firstly it can ensure the training of CASPAR's own target audiences in other areas of digital preservation, including the more high level aspects which will be focused on by DPE. These areas may be out of the scope of the project's own programme and resources, but if delivered in conjunction with CASPAR-specific modules would greatly increase the overall awareness of key issues. Secondly, CASPAR will be able to raise awareness of its own services and tools with audiences outside the core focus of the project. Due to the wide applicability of the CASPAR approach these groups could also become eventual users of





the end results, so the workpackage is provided with a good opportunity to provide early training on its methods and services.

6.2 TARGETING INITIAL AUDIENCES AND ORGANISATIONS

Although potential audiences have been identified in the above section, it is important to characterise the most viable early adopters (and therefore key training and dissemination targets) of the CASPAR system. The project requires identification of the bigger players in the data holding landscape who can extract the maximum benefit from CASPAR, and needs to concentrate on understanding these better. Working alongside the Dissemination workpackage as well as the other partners in CASPAR, the workpackage is currently identifying organizations who have been effectively mandated or expressed a strategic interest in preserving their digital assets, and who have the ability in resource terms to adopt CASPAR, such as potentially gaining funding through the EU, JISC or a similar body to use the CASPAR system.

The result of this work will be the identification of the project's top named 200 targets, with suitable contacts in these organizations named. These contacts will be grouped into categories based on the groups outlined in section 6.1.1 and on the three testbed subject areas, to ensure subsequent dissemination and training materials are tailored to provide context-specific examples with which these groups can identify. The workpackage will then develop a process for disseminating information on upcoming training events and software releases to these targets, such as emails and telephone calls, always ensuring it is proactive and flexible in its approach should the strategy need to be amended.

6.3 BROADER DISSEMINATION AND PROMOTION OF TRAINING ACTIVITIES

Alongside the initial target organisations, the dissemination of the training programme will be delivered to the widest possible audience in order to stimulate a proactive participation with both CASPAR internal and external actors. This will be done by utilising existing marketing channels which have been established throughout the project so far.

Promotion of the training programme will be pursued in many different ways. The initial promotion will be made on the CASPAR public website. The section found at <http://www.casparpreserves.eu/training> will feature a complete description of the overall programme and contact details; each course will be presented on a specific page using a schema consistent across all the courses; every specific course description will have a link to an online registration form to enrol in the course. Registrations and the other information submitted through the online form will be automatically forwarded to the responsible partners for the overall training programme, for the specific course, and for the training platform.

A preliminary issue that needs to be addressed at an early stage, however, is what admissions policy should be adopted. Communication channels and messages will vary in the case that previous membership in the CASPAR Preservation User Community will be required to take part in the CASPAR training programme, or in the case that every interested party will have access to it. Furthermore, the online platform that will support the training programme may be set up by the platform administrator or the trainers to allow a range of authentication mechanisms, from fully automated and anonymous enrolment to manual registrations.

Two scenarios are possible in this regard:





1) The CASPAR training programme may be presented as a service to the CASPAR Community; admission to training modules would therefore be dependent on the previous membership in the CASPAR Community. Prospective trainees who are not Community members would first need to register using the online form found on the public website at: http://www.casparpreserves.eu/join_form.

By joining the Community, new members would have immediate access to the CASPAR website, including the training programme, and would be able to follow new developments and training events that are being offered. Members would be able to register into training courses and events online, by using the services offered directly within the project website. This option would be ideal for the entire project by increasing the influx of new registrations, further disseminating project information among new members, and maintaining contact with members after the formal end of training activities. Members of the PLANETS or DigitalPreservationEurope (DPE) communities may be admitted to the CASPAR training without requiring the registration as members of the CASPAR Community.

2) The second option is offering the opportunity for every interested party to have immediate and autonomous access to the CASPAR online training platform. This option may increase the number of people that would be involved with CASPAR activities, and extend the action of dissemination activities to new circles; but may also be in contradiction with the CASPAR dissemination strategy that is based on a formal membership in the CASPAR Community, and on the possibility for Community members to have access, albeit free of charge, to exclusive information and training resources.

The promotion of CASPAR training activities will include sending direct invitations to specifically targeted groups, announcements in relevant newsletters and media publications, advertisements at relevant events, and the distribution of professionally crafted dissemination materials (brochures, pamphlets, flyers, etc.). Consortium partners will be involved in the process and asked to provide relevant contact information, and Community members will also be systematically contacted in order to recruit new trainees.

Online information will play a vital role in the recruitment of new trainees. Beyond CASPAR's own communication channels, online sources such as: event calendars, online forums, discussion mailing lists and project mailing lists, weblogs, magazines, and summaries will be researched to find suitable trainees. The following venues represent some possible resources:

Online event calendars:

Digital Curation Centre – http://www.dcc.ac.uk/events/events_nondcc

Digital Preservation Coalition - <http://www.dpconline.org/graphics/diary>

DPE - <http://www.digitalpreservationeurope.eu/events>

European Preservation Information Center – <http://www.knaw.nl/ecpa/calendar.html>

Planets - <http://www.planets-project.eu/events>

Online Forums:

DCC – Digital Curation Centre - <http://forum.dcc.ac.uk>

Discussion lists:





ARSC Recorded Sound Discussion List – <http://palimpsest.stanford.edu/byform/mailling-lists/arsclist/>

DIGIPRES – <http://lists.ala.org/wws/info/digipres>

EPIC-LST – <http://www.knaw.nl/ecpa/activities.html>

RLG-PRESERVATION – <http://lists2.rlg.org/cgi-bin/lyris.pl?enter=rlg-preservation>

PADI-FORUM – news and discussion - <http://listserv.nla.gov.au/wws/info/padiforum-l>

TAPE - <https://listserv.surfnet.nl/archives/tape.html>

AMIA-L - <http://lsv.uky.edu/archives/amia-l.html>

DIGLIB – (IFLA-related) – <http://infoserv.inist.fr/wwsympa.fcgi/subrequest/diglib>

SCAVM-L – (IFLA-related) – <http://infoserv.inist.fr/wwsympa.fcgi/info/scavm-l>

Project mailing lists:

digital-preservation - Digital-preservation@jiscmail.ac.uk

MLA News Ebulletin – <http://www.jiscmail.ac.uk/lists/mlanews.html>

Repositories - repositories@jiscmail.org

DPE (internal) – dpe-all@ gla.ac.uk

Planets (internal) – all@planets-project.eu

Weblogs:

Digitizationblog – News on digitization in libraries and allied institutions

http://digitizationblog.interoperating.info/?page_id=149

StorageSwitched! <http://www.storageswitch.com/blog/>

Digitization 101 <http://hurstassociates.blogspot.com>

DAVA – Digital Audiovisual Archiving <http://av-archive.blogspot.com>

File Formats Blog <http://fileformats.blogspot.com>

The Ten Thousand Year Blog <http://www.davidmattison.ca/wordpress>

Digital Curation Blog <http://digitalcuration.blogspot.com/>

DCC Blawg -The Legal Blog of the UK's Digital Curation Centre

<http://dccblawg.blogspot.com/>

Magazines & Journals:

Computers in Libraries – <http://www.infotoday.com/cilmag/default.shtml>

D-Lib Magazine – <http://www.dlib.org>

IFLA Journal – <http://www.ifla.org/V/iflaj/index.htm>

International Journal of Digital Curation – <http://www.ijdc.net/.ijdc/issue/current>

RLG DigiNews (Announcements section) http://www.rlg.org/en/page.php?Page_ID=12081

Summaries:

DPC/PADI What's new in digital preservation

<http://www.dpconline.org/graphics/whatsnew/>





7 ORGANISATION, DELIVERY AND EVALUATION OF TRAINING EVENTS

When a face-to-face event (whether collaborative or CASPAR-specific) has been proposed a degree of work will be required to ensure effective preparation, delivery and evaluation of the event. This section will outline some of the resources the workpackage will be required to produce in order to support the organisation of such training courses. It outlines the variety of materials which will be needed for each course, the evaluation mechanisms which will be put in place, and what steps will be taken to ensure quality assurance of the training materials produced. The next phase of the workpackage, task 5303, will concentrate on developing these initial plans into a sophisticated and coherent package, but for the purpose of this document primary ideas and templates are provided.

7.1 ORGANISATION AND PREPARATION

Each CASPAR course will require supporting materials that enable thorough organisation and preparation for an event. The following are templates identified by the workpackage as being essential, though by no means definitive, for efficient organisation: -

Course initiation form – this form will allow the workpackage to describe the exact structure of the course and the effort and resources that will be required. The form will be completed prior to any formal announcement of an event to ensure a clear image of the course, and three members of the workpackage will always view the document for approval, to ensure quality assurance. A template for this form can be found in appendix 1.

Course checklist – this form will provide a detailed list of activities which may need to occur in order to ensure an event is organised correctly. It includes areas such as logistics, speaker preparation, promotion of event and event materials. The list will aim to provide a level of detail which ensures any partner preparing for an event is aware of all the activities necessary to guarantee a high level of organisation. It also contains a list of the organisational elements which should be considered during and immediately after an event. An initial checklist template, based on a model developed by the DCC (Digital Curation Centre), can be found in appendix 2.

Pre-course questionnaire – a questionnaire for participants prior to an event will be necessary to ensure that the course level is appropriate, and in certain instances so that the event can be tailored towards the needs of its attendees. The form will be provided online for easy completion and compilation of results. It will be based on questionnaires produced in other projects such as the DCC, whilst at the same time allowing a level of granularity efficient for identifying knowledge requirements for a specific CASPAR course.

7.2 COURSE DELIVERY

There will be a variety of teaching methods and documentation required for efficient delivery of the event itself. The main aim of the training development task is to develop these methodologies and templates in order to ensure a high quality of training and supporting materials. The workpackage can, however, outline its primary considerations for the purpose of this document, which will then be designed and developed during task 5303.

Once the course content has been finalised, course tutors will be required to produce a range of course documentation to support the teaching. The course development task will





design these templates. This document has already outlined some of the features of the training platform which will be used to support an event, but a degree of course material will also be required for use at the event itself. Whilst further templates may be identified during the development task, the key materials defined by the workpackage as being essential to high quality delivery include: -

PowerPoint templates – regardless of the combination of teaching methods that are selected for a certain course, a degree of presentations and lectures will be inevitable. A structured template for presentations will therefore be essential. The workpackage will use the general presentation template produced by the project as a basis for its own designs.

Presentation abstracts – each speaker will be required to produce a short abstract outlining the purpose and content of their session, for the benefit of attendees. A template for this information will be developed to ensure consistency across the courses.

Worksheets – a variety of worksheets will be required to support training exercises, such as example scenarios, questions or handouts on key principles. The design task will work to produce templates for each of these types, which are structured in such a way that they are easy to complete, and that participants attending a number of courses will build up a set of compatible supporting documentation.

Agenda and course programme templates – these templates will ensure that each course follows a similar structure, and allows adequate time for breaks as well as individual sessions.

Certificates – participants who complete the course will be provided with a certificate. A template will need to be designed which will allow for a cost-effective yet professional document.

7.3 COURSE EVALUATION

The CASPAR training workpackage will apply a series of measures to ensure that the course programme is continually evaluated and revised, thus providing the best possible knowledge and skills development for the core communities.

The methods used to carry out evaluation will be finalised in the course development phase and constantly monitored as the programme progresses, but at present it is envisaged that the following approaches will be included: -

Online evaluation form – Attendees of each course will be asked to complete an online evaluation form providing feedback on a number of aspects of the course including structure, organisation, speakers, documentation and content. The workpackage will develop the contents of the form based on examples from other projects the partners have had involvement in, such as the DCC. An initial evaluation form template can be viewed in appendix 3.

Report template – once the results of evaluation forms have been analysed an evaluation report will be produced, consolidating the feedback on the course and highlighting its successes and areas for improvement. A template for this report is provided in appendix 4.





Course completion form – this form will be completed after each course. It will provide information on the course and its outcomes, and well as details of attendees and lecturers essential for statistical purposes. As such this form will ensure that each aspect of the course has been considered and in conjunction with the evaluation report will provide complete documentation on an event against which its success can be measured. The form template can be found in appendix 5.

The Description of Work specifies that after the first two training courses have been delivered a report on the events will be produced, which measures the effectiveness of the courses. The delivery of this report will also provide an opportunity to test whether the evaluation mechanisms put in place are themselves sufficient, and allow any alterations to be made as necessary.

This evaluation report will allow the workpackage to move into the next phase of training with a refined approach to the programme. After the report evaluation will continue to play a key role in the work of WP5300, with modules consistently assessed and revised. Feedback and analysis will also be used to tackle the extra training needs of those who have already completed CASPAR courses, and assist partners in expanding remote skills development services to support these groups.

7.4 QUALITY ASSURANCE

The CASPAR training workpackage will be producing a high volume of materials, both online and printed, with a significantly wide distribution level. It is therefore essential that these materials are of the highest quality, as they reflect the image of the training programme and the project as a whole. In order to address this issue the workpackage will develop rigorous quality assurance mechanisms, ensuring materials pass through a degree of approval appropriate to their potential dissemination level. Quality assurance levels will be finalised in the training development task, but at this stage the workpackage envisages the following level of approval for the materials produced: -

Completed template/form	QA approval level
Pre-course questionnaire	2 reviewers (also speakers at event)
Presentation abstracts	1 reviewer
Worksheets	2 reviewers (1 other speaker, 1 not participating in event)
Agendas	2 reviewers (1 other speaker, 1 not participating in event)
Online tutorials	2 reviewers (1 other partner experienced in this area, 1 with more limited knowledge)

As outlined in the table above, where materials are being produced that directly influence the knowledge and skills development of the participants, one reviewer should always be an individual not directly involved in the design of the event or tutorial. This will ensure an objective viewpoint essential to developing materials that avoids pre-course knowledge assumptions.





Dissemination materials and reports will also require a level of quality assurance. The workpackage will ensure that each course initiation form, evaluation report and course completion form is approved by two other members of the workpackage before the final version is distributed.





8 EFFORT DISTRIBUTION AND WORKFLOW FOR DEVELOPMENT OF TRAINING PROGRAMME

All of the approaches and activities outlined in the above sections will require a significant amount of effort from workpackage partners to ensure they are carried out effectively. The nature of the training workpackage is such that while a limited number of partners have significant effort assigned throughout the duration of the project, the majority of project partners have a limited amount of time allocated. Careful consideration therefore needs to be made of how to utilise this effort effectively. This section provides details of the proposed effort distribution and the related workflow for guaranteeing effective development of the training programme.

8.1 PARTNER EFFORT DISTRIBUTION

As outlined in section 4, the workpackage has proposed responsible partners for each module, or 'module leaders'. These will be partners with a significant amount of effort dedicated to the workpackage, and who will ensure the effective development of their designated module whether through preparing materials themselves, or enlisting the help of other partners who have a detailed knowledge of that module's subject area. In each instance one individual from each testbed will also contribute effort to the development of example scenarios to offer clear examples of how tools and services can be applied in certain settings. The module leader will also be responsible for delivering, or identifying another individual for delivering, face-to-face training sessions.

Of the two partners with the most effort in the workpackage (MW and UU), the first will concentrate their effort on ensuring effective dissemination of the training programme, in conjunction with their leadership of the Dissemination workpackage. As task leaders for the training infrastructure they will also be responsible for developing the materials supplied by the module leaders into online demonstrations and sections for the training platform, whilst always ensuring the key messages of the modules are clear. UU's role will consist of developing and leading the Quality Assurance process for materials supplied by the module leaders. These materials will be exercises and documentation to support cascade training, which can then be added to the training platform as well as used in face-to-face events. Initial ideas for some of the documentation that will be required are described in section 7. UU will also be leaders on a number of modules.

Remaining partners will make up the rest of the Quality Assurance team, contribute to the identification of collaborative training opportunities, and engage in the organisation and delivery of events.

The degree of partner effort to be allocated to each of these tasks and the clarification of module leaders will be decided once overall partner effort allocation for the project and workpackages has been finalised. Only at this stage can clear plans be made and the work outlined begin. The result of the effort distribution will be high quality modules and documentation which can then be used in both online and face-to-face training initiatives.

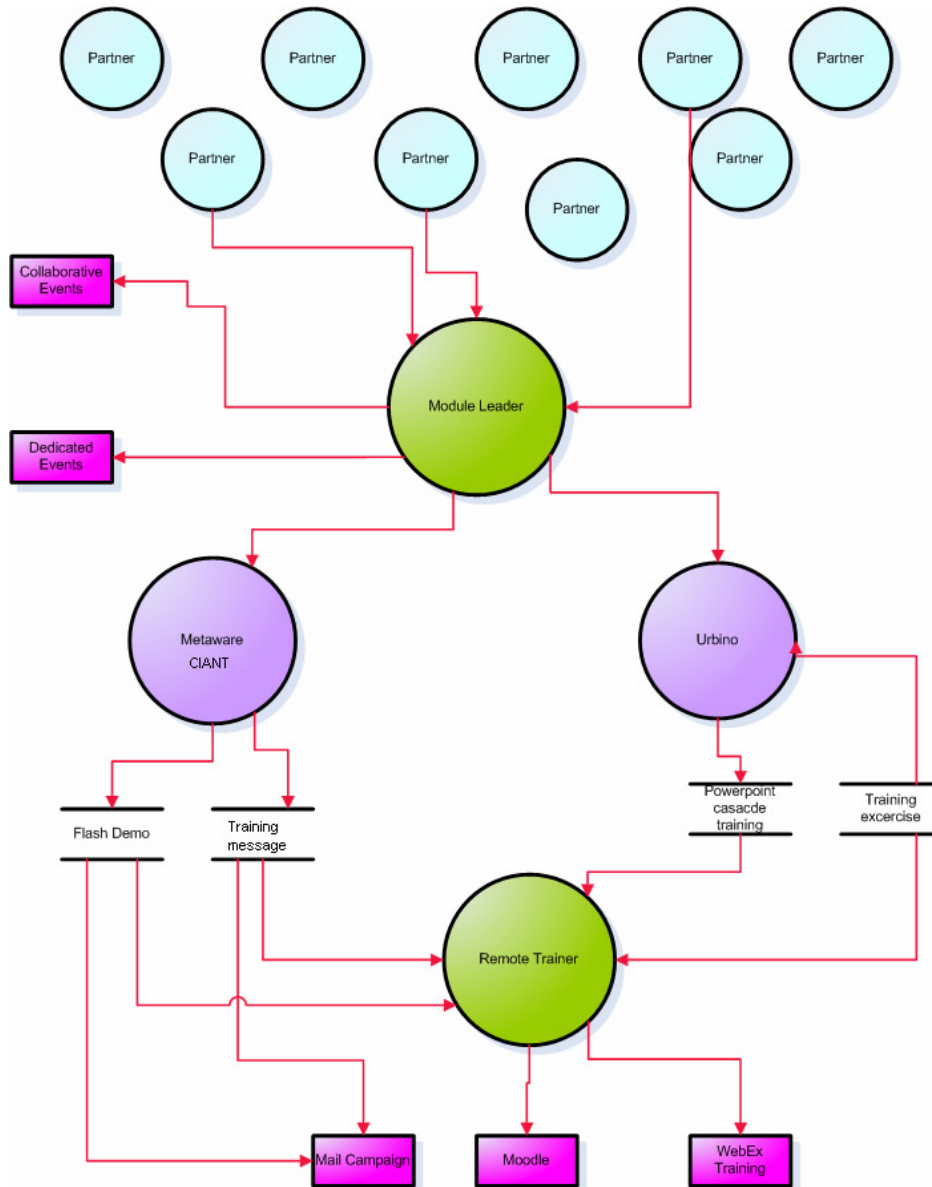
8.2 WORKFLOW

The distribution of effort outlined above can be linked together into a seamless process which leads to the release of online training materials or the organisation and delivery of a training event. The process will follow the development of materials by the module leaders





(with help from other partners), which are then expanded, evaluated and released by the dissemination and quality assurance teams. The following diagram outlines the workflow: -



The formation of this ‘training team’, with partners allocated set roles throughout the duration of the project, will ensure consistency throughout the workpackage and avoid tasks becoming splintered through the involvement of a high number of partners. Modules will be continually developed and updated by leaders as the various tools and services produced by the project are finalised. With specific partners dedicated to quality assurance and dissemination, it will also be guaranteed that the highest quality training materials reach the widest and most appropriate audiences, in line with the project’s overall dissemination strategy.





APPENDICES

A Course Initiation Form

Project Name	<i>[Name of the Project, e.g. PLANETS, CASPAR, DPE, DCC]</i>		
Course Title	<i>[full title of course]</i>		
Dates	Start date	End date	
	<i>[format: dd/mm/yyyy]</i>	<i>[format: dd/mm/yyyy]</i>	
Learning hours	Pre-Course learning anticipated hrs	Actual learning hrs	Post-course learning anticipated hrs
		course contact	
Venue	<i>[venue where the course was held]</i>		
City	<i>[city where course was held]</i>		
Country	<i>[country where course was held]</i>		
Lead Partner	<i>[partner who lead training]</i>		
Key Participating Partners	<i>[names of other partner organisations]</i>		
Possible Hosting Organisation	<i>[organisation which provided venue or sponsored venue]</i>		
Possible Names of Sponsors	<i>[names of non-project partner organisation that sponsored the meeting]</i>		
Description of Intended (targeted) Audience	<i>[description of the audience]</i>		
Description of Course (including purpose)	<i>[300 wd description of the course]</i>		
Course Objectives	<i>[list up to 5 objectives of the course]</i>		
Course Aims	<i>[list up to 5 aims of the course]</i>		
Benefits for attending	<i>[list between 5 and 7 benefits for having attended the course]</i>		
Required experience or prior knowledge	<i>[describe any background experience or skills that participants should have if they are to take part]</i>		
Teaching and learning approaches used	<i>[list teaching and learning approaches used]</i>		
Possible teachers	Name of Lecturer	Institutional Affiliation	Area of expertise
	<i>[Add additional rows as necessary]</i>	<i>[Add additional rows as necessary]</i>	<i>[Add additional rows as necessary]</i>





Intended No. of Participants	Students	Lecturers	Total	
Description of characteristics of training materials	<i>[format, scale, interactive, printed, pdf/ppt or other, number of slides, length of time material was intended to be used for]</i>			
Didactic methodologies	<i>[statement about where the training materials are available including a web address for them.]</i>			
Language of the Teaching	<i>[e.g. English, French, German]</i>			
Material to be delivered before course with dates	<i>[e.g. lists of readings or pre-course exercises]</i>			
Registration	Date Registration system initiated	Date Registration system passed test	Date Registration Opens (system goes live)	Date registration closes (date on which system taken down)
	<i>[format dd/mm/yyyy]</i>	<i>[format dd/mm/yyyy]</i>	<i>[format dd/mm/yyyy]</i>	<i>[format dd/mm/yyyy]</i>
Funding	Amount of funding from Project	Income from course fees	Actual Income from Sponsors	Financial value of in-kind contributions
Course Business Plan	<i>[Has the course business plan been prepared and approved. This should include details of costs, income, etc. Include course business plan as an appendix and indicate whether this is profit or loss position.]</i>			
Notes/Additional Comments	<i>[add any additional notes that you think would be useful]</i>			
Course Preparation Checklist	<i>[is course preparation checklist prepared, and what is its file name]</i>			
Compiler of Report	<i>[name of the compiler of the report]</i>			
Date report completed	<i>[Format, dd/mm/yyyy]</i>			
Name of signing off proposal	<i>[name of person who checked report]</i>			
Date proposal agreed	<i>[Format, dd/mm/yyyy]</i>			





B Course Checklist Template

Checklist	Details	Date completed
<u>Logistics</u>		
Research potential venues and compare prices and availability		
Send purchase order to venue with event details		
Identify any special requirements for the event (wireless access, accommodation on-site, table for panel session, roaming microphones, recording of event, evening reception)		
Arrange timings for catering		
If providing an event dinner, select venue and make payment arrangements via invoice		
Arrange for a registration desk to be set up		
<u>Speaker Communications</u>		
Ongoing communication with speakers regarding event, travel and accommodation		
Create announcement for the event outlining themes, dates, benefits from attendance		
Compile list of hotels in the area		
Create map(s) of venue and if necessary for dinner location		
Compile list of travel options for participants		
Have registration page created		
Have feedback page created		
Create and maintain database of registrants and log payments		
Create invoice template for event and email to registrants		
Email all participants with final details a few days before the event		
<u>Event materials</u>		
Select and inform speakers of due date for event materials to be delivered for printing		
Create list of participants for packs		
Create badges for event		
Create final programme for event		





Make copies of materials for packs		
Collate materials, flyers, badges		
Make back-up copies of print materials on memory stick		
Create sign-in sheet for participants		
<u>At the event</u>		
Meet and liaise with venue contact		
Set up registration desk and banners		
Distribute packs and monitor sign-in sheet		
Meet and liaise with speakers and ensure that they understand the format and timings		
Meet and liaise with venue technical staff		
Ensure that all presentations are loaded to pc or arrange that speaker use their own laptop		
Liaise with catering staff		
Following the event, ensure that all presentations have been saved to memory stick		
<u>After the event</u>		
Email participants and thank them for participation and encourage feedback submission		
Set up pages in Moodle with presentations and course documentation		
Set up Moodle Forum threads to allow continued discussion		
Ensure that all invoices are paid for venue hire and catering		
If applicable, send thank you letter to co-sponsoring organisation(s)		
Analyse feedback returns		
Produce event report		
Plan follow-up activity if applicable		





C Evaluation Form Template

FEEDBACK FORM

This form is intended to gather information about the event from the participants. It will only take a couple of minutes to fill in, and will provide us with valuable information about the usefulness and benefits of the event.

Please rate some of the aspects of the seminar by circling one of the numbers where:
1=Poor and **5=Excellent**

Event Title

Date

Location

About the Event

1=Poor and **5=Excellent**

1. How effective were the speakers?

1 2 3 4 5

2. How would you rate the structure of the event?

1 2 3 4 5

3. How useful was the background documentation?

1 2 3 4 5

4. How would you rate the organisation of the event?

1 2 3 4 5

5. How well did you feel that the event addressed the main topic?

1 2 3 4 5

6. Was the cost acceptable? (Please circle one)

Yes No





7. Did this event meet your expectations? (Please circle one)

Yes No

If not, why not?

8. What will you be able to take from this event back to your own organisations?

9. What else would you like to have seen covered at this event?

10. What did you like best about this event?

11. What did you like least?

About you

12. Do you work for a

- National Library
- National Archive
- Public Sector Organisation
- Commercial company
- Academic Institution
- Consultancy
- Other (Please specify) _____

13. What is your function?

(Please specify; e.g. Librarian, Digital Archivist, Software Developer, etc.)

14. How did you hear about this seminar?

- Listserv (Please specify)
- An Organisation or Institution (Please specify)
- Colleague
- Web search
- CASPAR Website
- Other (Please specify) _____

15. What motivated you to attend? (please tick as appropriate)





- Interest in the topic
 - Interest in the CASPAR Project
 - Interest in digital preservation
 - Location
 - Speakers
 - Other (Please specify)
-

16. Are you likely to attend other CASPAR events in the future?

17. Please feel free to make any additional comments.





D Evaluation Report Template

Course Title:		Dates:	
Venue:	City:	Country:	
Lead Partner:		Participating Partners:	
Audience: <i>[brief description of attendees]</i>			
Description of course: <i>[summary of course and main content]</i>			
Organisation of event: <i>[review of attendee feedback and overall success of organisation]</i>			
Structure of course: <i>[analysis of attendees' feedback on structure of the course]</i>			
Learning and teaching methodologies: <i>[were the teaching methods used the most suitable for the nature of the topic, did they suit the level of the audience etc]</i>			
Speakers: <i>[analysis of feedback, how well did speakers convey the main learning outputs]</i>			
Supporting material and documentation: <i>[how useful did participants find the materials, were any unsuitable, should any extra materials have been provided?]</i>			
Effectiveness of communication channels used to promote event:: <i>[how did most attendees hear about the course, were any communication channels particularly successful]</i>			
Key areas for improvement:			
Actions:			
Compiler of report:		Date of report:	





E Course Completion Form

Project Name	<i>[Name of the Project, e.g. PLANETS, CASPAR, DPE, DCC]</i>			
Course Title	<i>[full title of course]</i>			
Dates	Start date	End date		
	<i>[format: dd/mm/yyyy]</i>	<i>[format: dd/mm/yyyy]</i>		
No hrs of training	<i>[number of contact hours]</i>			
Venue	<i>[venue where the course was held]</i>			
City	<i>[city where course was held]</i>			
Country	<i>[country where course was held]</i>			
Description of Course	<i>[300 wd description of the course, even though this is on the initial documentation it should appear here again as this document is likely to be distributed separately from the initiation document.]</i>			
Lead Partner	<i>[partner who lead training]</i>			
Key Participating Partners	<i>[names of other partner organisations]</i>			
Hosting Organisation	<i>[organisation which provided venue or sponsored venue]</i>			
Names of Sponsors	<i>[names of non-project partner organisation that sponsored the meeting]</i>			
Description of Audience	<i>[description of the audience]</i>			
No of Participants	Students	Lecturers	Total	
Origin of Lecturers	No. from host country	No. from other Europe	No from outside Europe	Total
Origin of Students	No. from host country	No. from other Europe	No from outside Europe	Total
Institutional background of participants	No. from Academic Institutions	No. from Commercial (but non-vendor/software developers)	No. from vendors/software developers	No. from public sector institutions
Gender	No. of MALE Participants		No. FEMALE Participants	





Distribution				
Description of characteristics of training materials	<i>[format, scale, interactive, printed, pdf/ppt or other, number of slides, length of time material was intended to be used for]</i>			
Availability of Training materials	<i>[statement about where the training materials are available including a web address for them.]</i>			
Language of the Training Materials	<i>[e.g. English, French, German]</i>			
Licensing arrangements for the training materials	<i>[e.g. copyrighted, creative commons]</i>			
Planned or completed publications	<i>[list any publications that might be planned from the event, or of the materials]</i>			
Registry	<i>[is there a registry of students who took the course]</i>			
Funding	Amount of funding from Project	Income from course fees	Actual Income from Sponsors	Financial value of in-kind contributions
Summary of Course Evaluation	<i>[general description of the findings of the evaluation, say 300 wds]</i>			
Location and file name of Evaluation Report	<i>[url where the analysis of the course evaluation is located and its file name]</i>			
Follow-up	<i>[are there any next steps or outcomes]</i>			
Notes/Additional Comments	<i>[add any additional notes that you think would be useful]</i>			
Compiler of Report	<i>[name of the compiler of the report]</i>			
Date report completed	<i>[Format, dd/mm/yyyy]</i>			
Name of person checking report	<i>[name of person who checked report]</i>			
Date report checked	<i>[Format, dd/mm/yyyy]</i>			





F WP5300 Workplan m1 to m18

Project	CASPAR
Workpackage	5300 Training Activities
Document	Workplan
Date	14 th December 2006
Author (primary)	Kellie Snow (HATII, U of Glasgow)
Authors (contributory)	Seamus Ross (HATII, U of Glasgow)





5300 Proposed Workplan

1. Introduction

The 5300 workpackage will deliver a range of training in order to provide a conduit between the innovators of the project and user communities. It will provide training opportunities to staff in cultural, artistic and scientific heritage institutions such as libraries, archives, data archives and universities, as well as capability building training for consultancies, SME technology developers and vendors.

The integrated project will approach the overall activity in four stages, of which three are concentrated in the first eighteen months and one of which begins in the first eighteen months and runs beyond the end of the project. For each of the four core training domains CASPAR will identify an approach to training that is responsive to the learning and teaching needs of the particular group being trained, offered in the most appropriate training environment, most effective in the methods it uses, and matched in the level of detail and intensiveness to the ways in which the participants are likely to use the knowledge and skills acquired through the training.

The CASPAR training infrastructure will also deploy a technological platform in order to support the traditional face-to-face training activities with value added services. The web-based platform will allow trainers and trainees to use multimedia and training aids, whilst also being a useful tool for post-project dissemination.

1.1 Specifications

The CASPAR 'Description of Work' outlines a number of specifications which will affect the range of training which is offered. These can be summarized as: -

Communities: -

- Cultural heritage
- Artistic
- Scientific

Users: -

- Data creators of all kinds
- Professionals dealing with funding decisions about digital preservation
- Operational people managing preservation activities
- Data owners, data holders and data curators
- Preservation service providers
- End users of digital information

Variety of teaching scenarios: -





- Large and small group teaching
- Self-directed learning
- Remote learning

Approaches to teaching: -

- Lectures
- Worked examples
- Core-based learning
- Practical exercises

Training areas: -

CASPAR will be delivering an approach to preservation based on OAIS. It will provide a significant amount of components both generic and community-specific, a wide range of systems for which training should be provided.

A knowledge and skills development portfolio is envisaged which would enable participants to complete individual CASPAR training modules on an ad hoc basis. Others would achieve CASPAR stars and when a certain amount of training and abilities in CASPAR methods and technologies had been collected they would be granted the status of CASPAR Certified Engineers. This indicates that a modular approach to the training will be vital to ensure consistency throughout the programme.

It is anticipated that CASPAR funding will not cover all the training activities required, but it is hoped that by co-ordinating the work with other EU projects the full training programme can be delivered.

1.2 Goals

The 'Description of Work' divides the first 18 months of the workpackage into four key tasks, with an initial definition of training needs to be carried out before tasks begin. The tasks are: -

- Training planning (5301)
- Training infrastructure (5302)
- Training material preparation (5303)
- Training delivery and evaluation plan (5304)

The workpackage also has one deliverable and one milestone for the first 18 months of activity: -

D5301: CASPAR Training Plan (m18)

M#5: Review of preliminary specifications of the platform prototype (m18)

The infrastructure and material preparation tasks are reliant on the output of the training planning task, so after consideration it has been decided to change the date of deliverable D5301 to month 14, to allow the infrastructure and material





preparation tasks to be completed by month 18. Due to the limited amount of time available to complete all the tasks, it has also been decided to move the 'Training delivery and evaluation plan' task to the period after month 18, along with the review of the platform prototype specifications milestone. The revised tasks and deliverables for the first 18 months, which will be used throughout this document, are therefore: -

- Training planning (5301)
- Training infrastructure (5302)
- Training material preparation (5303)

D5301: CASPAR Training Plan (m14)

In order to carry out these tasks and to meet deadlines a structured approach to the workpackage needs to be developed. Below is an identification and suggestion of the key stages and outputs for the first 18 months, which will need to be completed in order to achieve the deliverables.

General stages/outputs

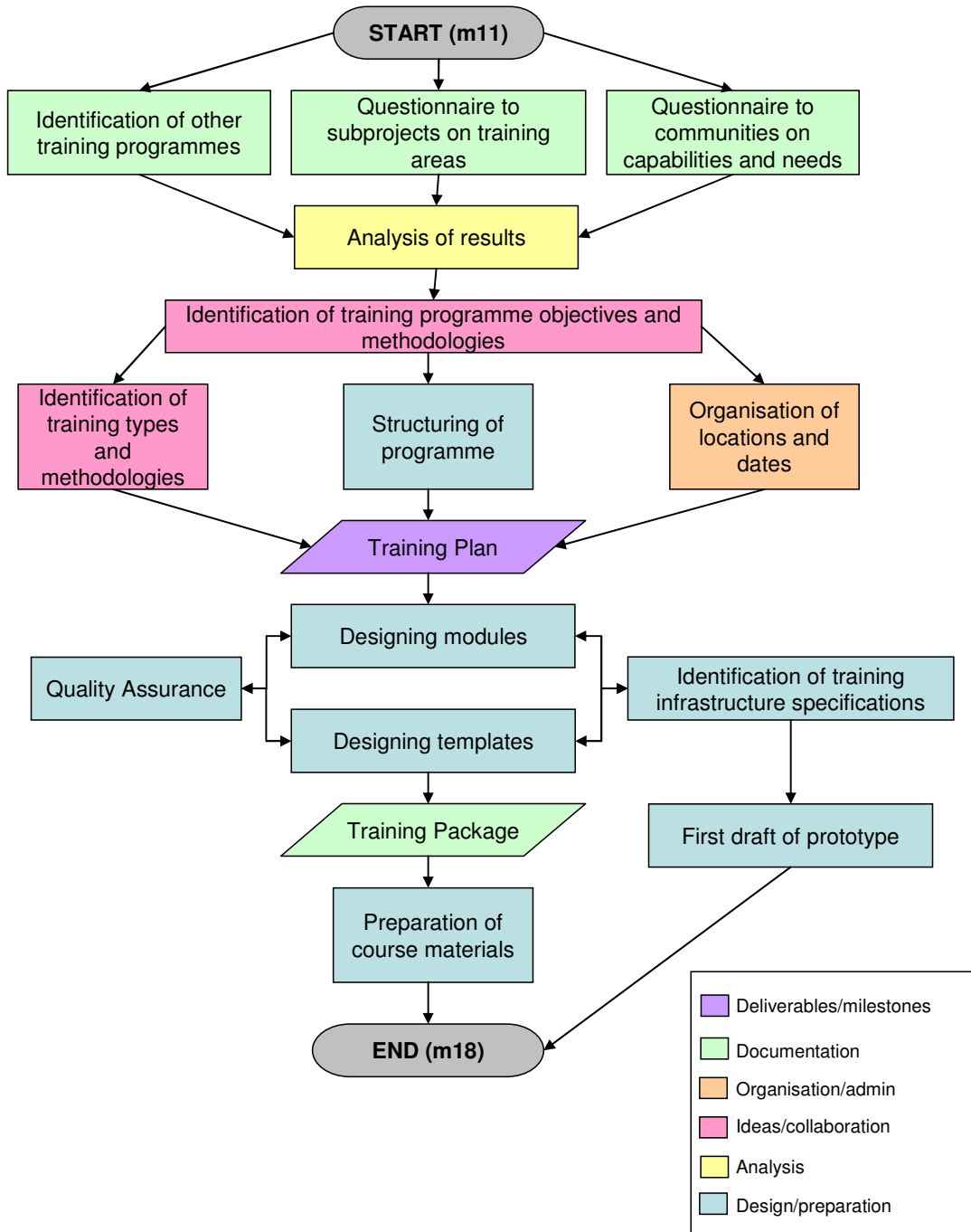
- Questionnaires to envisaged communities on current capabilities and training needs
- Questionnaire and communications with subprojects on areas for training
- Identify training objectives/intended programmes of other digital preservation projects and institutions
- Identify training programme objectives and methodologies
- Identify types of training and teaching methods
- Structure training programme
- Organise course dates and locations
- Produce training plan document
- Design training modules
- Design templates
- Identify and define training infrastructure specifications
- Produce first draft of prototype
- Prepare supporting course materials for first two events

The diagram below outlines the flow of activity for these stages, along with the nature of the activities themselves, demonstrating the variety of skills which will be required.





Diagram of workflow for WP5300, m11 to m18





2. Proposal for first 18 months

2.1 Phase 1: Needs definition and training planning (m11 to m14)

During this phase the partners will define what CASPAR aims to achieve through its training, which communities would benefit and the areas of the project where training could be offered. Work will then move towards the production of the training plan document which will develop these definitions, as well as containing more specific details such as outlining the courses that will be running, individual course objectives and locations, dates and times. [For more detailed subtask work allocation please see appendix B].

Needs definition – The work will begin with a questionnaire to the current CASPAR communities in order to ascertain current capabilities and user needs, as well as to identify other potential communities that would benefit from training. It is hoped that collaboration with the Dissemination Activities and Testbed workpackages will highlight any other communities or institutions which CASPAR should send the questionnaire to. This will lead to a knowledge of the target communities which will ensure that the training programme is appropriately structured to meet learning needs.

An online questionnaire to subproject leaders will also be used to identify areas for training and possible timescales. More in-depth communications with the subprojects may be carried out as necessary. Analysis of responses will allow 5300 to plan the training programme in line with the outputs of the subprojects.

As stated in the Description of Work, CASPAR funding will not cover the full range of training activities which the project hopes to deliver, so work with other EU projects will be required. As the audience for CASPAR methods and services is potentially so wide, a co-ordinated approach between CASPAR and other projects will be essential. At this stage the workpackage will identify other projects where collaboration could be fostered, and make initial contacts with these groups to lay the foundation for a collaborative training framework. These relationships will continue to be developed throughout the project.

At the same time as the above activities, workpackage partners will identify overall training aims and objectives which will allow objectives for individual courses to then be defined. These aims and objectives will be stated in the training plan.

Training Plan (5301) - From the results of the questionnaires outlined above the workpackage will define the training programme and for each potential course address a number of issues, including: -

Approaches and delivery

- When is the best time to offer the course, based on the audience it is hoped to attract?
- What educational environment would best ensure that these learning outcomes are delivered and achieved?
- What will be the most effective combination of teaching methods?
- What resources will be required to deliver the training?





- Should the course be designed as one which would be offered on a one-off basis or on repeat occasions, or should it be designed to train other trainers, given substantial distributed market potential?

Partner involvement

- Which of the partners will be best placed to contribute to the delivery of the training?
- Should the course be delivered in collaboration with other projects, in an attempt to ensure wide take-up?
- Which partners will contribute to the specific training course?
- What kind of trainers will be needed to deliver the training (e.g. professional trainers, practitioners, researchers)?

Attendees

- What is the likelihood of attracting attendees to the course and what is the most effective method of making the community aware of the course?
- What is the optimum size of the cohort to be trained?

Content and evaluation

- What are the learning outcomes of the particular training course?
- What is the course's value (e.g. statement of benefits)?
- What content, at a high level, needs to be delivered to achieve these learning outcomes?
- How long will it take for participants to acquire the knowledge and skills required?
- What content, at a detailed level, will be delivered in the course?
- What pre and post-course support should be provided, namely through the technological platform?
- How will the success of the participants in achieving the learning outcomes be measured (e.g. assessment exercise, follow up questionnaire)?
- How will the effectiveness of the training and its impact be accessed?

The answers to these questions will allow a firm and consistent training programme to emerge, with clear training types and methodologies that ensure learning outcomes are achieved. They will allow the workpackage to establish course time lengths and locations, taking into consideration both who will be delivering the training and the need to reach as many communities and European countries as possible. Dates will also be established in line with the outputs of the subprojects. The final document is likely to consist of the following sections: -

- The aims of the CASPAR training and what it hopes to achieve
- Benefits to different communities
- How take-up of training will be encouraged
- Teaching and learning methodologies
- Collaboration with other projects
- Countries where training will be held
- Individual aims, objectives and learning outcomes of each course
- Locations and dates
- Charging plan





This detailed plan will thus provide a step-by-step programme for the running of the CASPAR training, and allow for a seamless move to the training material preparation and infrastructure tasks.

2.2 Phase 2: Training material preparation and infrastructure (m14 to m18)

This phase will build upon the training courses identified in the training plan by producing more detailed literature and tools to support these events. This will include agreeing a training methodology, developing modules and templates, preparing briefing documents, schedules and programmes, and the organising of the first two training courses. Alongside this a draft prototype of the training infrastructure will be produced. [For more detailed subtask work allocation please see appendix B].

Training material preparation (5303) - This development phase will require a significant amount of work in order to produce a variety of supporting literature that covers every aspect of the organisation and delivery of a training event. It is essential that a methodology is established from the outset, and that templates are agreed upon to ensure documentation is consistent. The following tasks will need to be addressed: -

- Design of modules – this will follow on from what is outlined in the training plan, by developing each course into a more cohesive module. This allows for a flexible programme, enabling some participants to complete modules on an ad-hoc basis while others will participate in a series of events and collect CASPAR stars to achieve the status of CASPAR Certified Engineers.
- Design of templates – knowledge of what each module will contain will allow for the development of generic templates, which can be used for the variety of training methods and events. Although somewhat dependent on the modules which are identified, it is anticipated that at the most basic level the templates will include PowerPoints, manuals and a variety of worksheets. The workpackage will draw upon experience from other projects, such as ERPANET and the DCC, to design templates that can be used by any CASPAR partner or trainer to organise and deliver an event. The level of detail should be such that every aspect of organising and delivering an event will be covered by these templates. As well as templates for the documentation at the course itself, an event management tool will also be developed that provides all the guidance necessary in organising an event, as well as lists of contacts and attendees which may be used to promote future courses.
- Quality assurance – this will be considered in the design of each module and template, and clear measures will be introduced to ensure the courses and their supporting literature are of the highest quality. Again experiences and procedures from other projects will be drawn upon.
- Preparation of course materials – this will focus on using the templates to produce supporting documentation for the first two training events

Training infrastructure (5302) – The design of the course modules will provide a clear structure to the training programme, which will allow for the creation of a web-based technical infrastructure to support the training activities. The 'Description of Work' specifies two types of service that will be deployed by the framework; a





collaborative space where lesson documentation can be accessed, and a post lessons support interactive environment which will provide tools to expand actors' knowledge and encourage working relationships.

During the development stage the initial identification of the specifications needs to be made. This will require the task to work closely alongside the training material preparation task, to ensure that for each aspect of the training a decision of its coverage in the technological infrastructure can be made. The work will lead to a first draft of the prototype, which can be tested in conjunction with the first two training courses. A review of the specifications will then be made during month 18, alongside the rest of the course evaluation.

2.3 Phase 3 (m19 onwards)

The work in the first 18 months will prepare the way for the next phase of the training workpackage. This will begin with the delivery of the first two training courses and their subsequent assessment. A whole series of modules will then be developed based on the outcomes of the first two events.

Training delivery and evaluation plan (5304) - The outputs which have been produced in the development stages will be tested and evaluated through the organisation and delivery of the first two training events. The task will involve the following sub-tasks: -

- Organisation of events – this will involve arranging the practicalities of the event using the templates developed, as well as lining up speakers etc. Timely promotion of the events will also be key; 5300 will use the contacts of other workpackages such as Dissemination Activities, as well as those of collaborative projects, to ensure news of events reaches as wide and as suitable an audience as possible.
- Delivery of training courses – partners will be allowed adequate time to prepare presentations and workshops, and to deliver the course itself. We will work on the premise that for every hour of teaching, eight hours of preparation is required.
- Feedback and interpretation – as part of the delivery, partners will gather feedback on the events, and the results will be interpreted as part of a general course evaluation in preparation for inclusion in the training evaluation plan.
- Evaluation plan – this will provide a synopsis of the first two training events, and more importantly evaluate the effectiveness of these early courses. It will analyse feedback on the events and highlight any changes which need to be made to templates to ensure the effectiveness of the rest of the training programme.
- Review of preliminary specifications of platform prototype – this stage, which is part of the training infrastructure task, will be carried out at the same time as the work on the evaluation plan.

Once the evaluation has been completed work will concentrate on the development of a whole series of modules, modelled on the first two courses and their assessment. The training plan will have outlined which partners are responsible for the delivery of which modules, as well as the courses which will be collaborative efforts between CASPAR and other projects. The locations and dates of each





training event will also have been identified. A dynamic support package and technological platform will have been created which will allow any partner, institution or collaborators to effectively plan and deliver a training event. The result will be a replicable and extendable educational framework that will last throughout and beyond the project.





3. Work Allocation

The CASPAR training workpackage is extensive, involving the majority of partners. The below tables show the original person-months effort for each partner over various periods of the workpackage, taken from the 'Description of Work'.

IP Efforts (adapted from the "Description of Work")

Full Duration of Project

Partner	CCLRC	ESA	UG	UU	UNESCO	ACS	ASMX	IBM	CNR	MW	INA	UL	ENG	Forth	CNRS	IRCAM	CIANT	Total
Mths	1	1	5	10.5	2	0	0	3	5	11	1	1	4	3	1	1	6	55.5

First 18 months

Partner	CCLRC	ESA	UG	UU	UNESCO	ACS	ASMX	IBM	CNR	MW	INA	UL	ENG	Forth	CNRS	IRCAM	CIANT	Total
Mths	0.9	1	1.4	4.3	1	0	0	0.5	1.5	5.4	0.5	0.5	1	0.5	0.5	0.5	3.4	22.9

Last 28 months

Partner	CCLRC	ESA	UG	UU	UNESCO	ACS	ASMX	IBM	CNR	MW	INA	UL	ENG	Forth	CNRS	IRCAM	CIANT	Total
Mths	0.1	0	3.6	6.2	1	0	0	2.5	3.5	5.6	0.5	0.5	3	2.5	0.5	0.5	2.6	32.6

The following table shows the amended IP efforts for the first 18 months, based on the training delivery and evaluation task being moved to after month 18, and an alteration to the effort of UG. It has been decided that the delivery and evaluation task, along with the preliminary specifications review for the platform prototype, will take 6.2 months of effort, so this has been subtracted from the total for the first 18 months.





First 18 months

Partner	CCLRC	ESA	UG	UU	UNESCO	ACS	ASMX	IBM	CNR	MW	INA	UL	ENG	Forth	CNRS	IRCAM	CIANT	Total
Mths	0.4	0.6	2	3.1	0.6	0	0	0.5	1	4.4	0.5	0.5	0	0.5	0.5	0.5	2.2	17.3

In order to designate workloads which will be both realistic for the large number of partners but also ensure deliverables are met, a clear work allocation plan needs to be developed. Based on a consideration of the key tasks in the workpackage, an overall person-months time for each task was suggested. These times were then separated further between each of the partners, as displayed below. Task leaders have their effort allocated mostly to their specific tasks. Partners with a significant proportion of time allocated to the workpackage as a whole are mostly involved in all tasks, whilst partners with less time only have effort concentrated in one or two tasks.

Overall time allocations for each partner (per task)

	CCLRC	ESA	UU	UNESCO	UG	IBM	MW	ENG	CNR	Forth	CNRS	INA	IRCAM	UL	CIANT	Total time
Needs definition and Training plan		0.2	2	0.2	1.4		0.9								0.7	5.4
Training material preparation		0.4	1.1	0.4	0.6		1.6		0.5			0.5	0.5		1.2	6.8
Training infrastructure	0.4					0.5	1.9		0.5	0.5	0.5			0.5	0.3	5.1
Total time	0.4	0.6	3.1	0.6	2	0.5	4.4	0	1	0.5	0.5	0.5	0.5	0.5	2.2	17.3





To allocate time more specifically, the following table revisits the key stages outlined earlier in this document, and provides suggested dates for completion of each stage. It also specifies which partners will be responsible for each stage and the amount of effort involved. A revised date of m14 has been suggested for the training plan deliverable in order for the completion of all tasks in month 18 to be feasible, as several other tasks rely on the content of the plan. For month-by-month partner effort for each subtask, please see appendix A.

Workplan for stages/outputs in workpackage

Stage/output	Partners responsible	Expected date of completion	Effort
<u>Training needs definition and plan</u>			
Questionnaire/communications with subprojects on areas for training	UU, UG	31/01/07	0.5
Questionnaires to envisaged communities on current capabilities and training needs	UU, UG, ESA, UNESCO, CIANT	14/02/07	0.5
Identify training objectives/intended programmes of other projects	UU, UG	28/02/07	0.5
Identifying training programme objectives and methodologies	UU, UG, ESA, UNESCO, CIANT, MW	31/03/07	1.2
Identifying types of training and methodologies	UU, UG, MW	31/03/07	
Structuring of training programme	UU, UG	30/04/07	1.7
Organising of dates and locations	MW, CIANT	30/04/07	
Production of training plan document	UU, UG	31/05/07	1
<u>Training material preparation</u>			





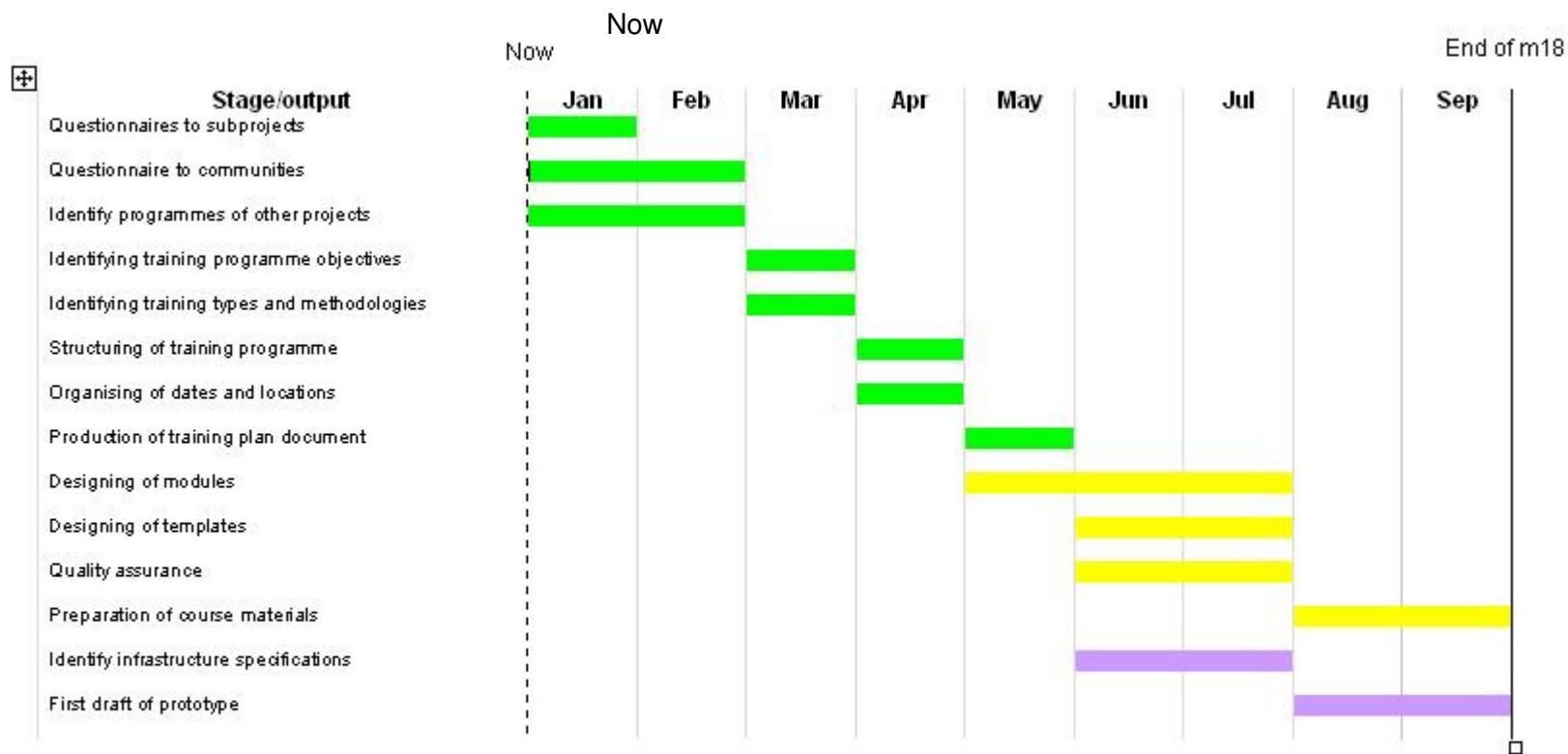
Designing of modules	UG, UU, MW, CIANT, CNR	31/07/07	4.1
Designing of templates	UG, UU, MW, INA, IRCAM	31/07/07	
Quality assurance	UG, UU	31/07/07	0.4
Preparation of course materials	ESA, UNESCO, CIANT, MW	30/09/07	2.3
<u>Training Infrastructure</u>			
Identify and define infrastructure specifications	MW, Forth, CNRS, UL	31/07/07	2.4
First draft of prototype	MW, IBM, CCLRC, CNR, CIANT	30/09/07	2.7

Finally, the chart on the following page shows which tasks and stages will have dedicated partner effort during each month, through to month 18.





Chart showing project schedule



Key

Green	Needs definition and training planning
Yellow	Training material preparation
Purple	Training infrastructure
Cyan	Training delivery and evaluation plan





Appendix A – Partner effort tables for subtasks

Needs definition and training plan

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Partn er Total	Sub- task Total
Questionnaires to envisaged communities on current capabilities and training needs	UG	0.1									0.1	0.5
	UU	0.1									0.1	
	M W											
	ES A		0.1								0.1	
	UN E		0.1								0.1	
	CIA		0.1								0.1	
Questionnaire/ communications with subprojects on areas for training	UG	0.25									0.25	0.5
	UU	0.25									0.25	
	M W											
	ES A											
	UN E											
	CIA											





		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Partn er Total	Sub- task Total
Identify training objectives/ intended programmes of other projects	UG		0.25								0.25	0.5
	UU		0.25								0.25	
	M W											
	ES A											
	UN E											
	CIA											
Identify training programme objectives and methodologies	UG			0.1							0.1	0.7
	UU			0.1							0.1	
	M W			0.2							0.2	
	ES A			0.1							0.1	
	UN E			0.1							0.1	
	CIA			0.1							0.1	





		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Partn er Total	Sub- task Total
Identifying types of training and methodologies	UG			0.1							0.1	0.5
	UU			0.2							0.2	
	M W			0.2							0.2	
	ES A											
	UN E											
	CIA											
Structuring of training programme	UG				0.2						0.2	0.7
	UU				0.5						0.5	
	M W											
	ES A											
	UN E											
	CIA											
Organising of dates and	UG											1
	UU											





		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Partn er Total	Sub- task Total
locations	M W				0.5						0.5	
	ES A											
	UN E											
	CIA				0.5						0.5	
Production training document of plan	UG					0.4					0.4	1
	UU					0.6					0.6	
	M W											
	ES A											
	UN E											
	CIA											





Training material preparation

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Partn er Total	Sub- task Total
Designing modules	UG					0.2					0.2	2.1
	UU						0.2	0.2			0.4	
	M W					0.2	0.2				0.4	
	ES A											
	UN E											
	CIA						0.3	0.3			0.6	
	CN R							0.5			0.5	
	INA											
Designing templates	IR C											
	UG						0.2				0.2	2
	UU							0.2			0.2	
	M W						0.3	0.3			0.6	
ES A												





		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Partn er Total	Sub- task Total
	UN E											
	CIA											
	CN R											
	INA						0.5				0.5	
	IR C							0.5			0.5	
Quality assurance	UG							0.2			0.2	0.4
	UU						0.2				0.2	
	M W											
	ES A											
	UN E											
	CIA											
	CN R											
	INA											
	IR C											





		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Partn er Total	Sub- task Total
Preparation of course materials	UG											2.3
	UU								0.3		0.3	
	M W								0.3	0.3	0.6	
	ES A								0.2	0.2	0.4	
	UN E								0.2	0.2	0.4	
	CIA								0.3	0.3	0.6	
	CN R											
	INA											
	IR C											





Appendix B – Detailed sub-task work allocation

Training needs definition and plan

Sub-task: Questionnaires to subprojects	Expected completion date: 31/01/07
Partners (m): UG (0.25); UU (0.25)	
<p>Work Allocation:</p> <p>This subtask will draw together a set of questions for subproject leaders to identify which areas of the project should be repackaged as training modules. These will be presented to subproject leaders as an online form. Results will then be interpreted in preparation for identifying programme objectives and methodologies, and a draft of the findings will be produced for inclusion in the training plan. Further discussions with subprojects can be conducted as necessary. Though individual duties have been allocated, it is expected that partners will work closely together on this sub-task and participate jointly in duties where appropriate.</p> <p>UG: Drafting of questions, designing and uploading of form, further discussions with subprojects (where necessary)</p> <p>UU: Input on questions, interpretation and write-up of results, further discussions with subprojects (where necessary)</p>	

Sub-task: Questionnaire to communities	Expected completion date: 14/02/07
Partners (m): UG (0.1); UU (0.1); ESA (0.1); UNESCO (0.1); CIANT (0.1)	
<p>Work Allocation:</p> <p>This sub-task will draw together an online questionnaire which will be presented to the current CASPAR communities to identify current capabilities, user needs, plus other potential communities that would benefit from training. The result will be knowledge of the target communities that will ensure an appropriately structured training programme. It is hoped that collaboration with the Dissemination Activities and Testbed workpackages can also highlight other potential institutions that could complete the questionnaire. The results will be interpreted in preparation for identifying programme objectives and methodologies, as well as individual courses. As each partner has a limited amount of time allocated to the task it is expected that the bulk of the work can be carried out during a joint meeting, with separate duties allocated where necessary.</p> <p>UG: Input on questions, designing and uploading of form, interpretation of results</p> <p>UU: Interpretation and write-up of results</p> <p>ESA: Drafting of questions, mailing to relevant communities</p>	





UNESCO: Drafting of questions, mailing to relevant communities

CIANT: Drafting of questions, mailing to relevant communities

Sub-task: Identify programmes of other projects	Expected completion date: 28/02/07
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Partners (m): UG (0.25); UU (0.25)

Work Allocation:

As stated in the 'Description of Work', CASPAR funding will not cover the full range of training activities which the project hopes to deliver, so work with other EU projects will be required. This subtask will identify other projects' training programmes, and make initial contacts in an attempt to foster working relationships with the relevant individuals/institutions. The partners will be expected to draw on already-established contacts, as well as identifying new projects. The results of these initial findings will be incorporated into a section of the training plan document and into subsequent development of the courses.

UG: Identification of training programmes and initial contacts, draft of findings for training plan

UU: Identification of training programmes and initial contacts

Sub-task: Identifying training programme objectives	Expected completion date: 31/03/07
--	---

Partners (m): UG (0.1); UU (0.1); MW (0.2); ESA (0.1); UNESCO (0.1); CIANT (0.1)

Work Allocation:

Based on the findings of the above subtasks, partners will identify overall objectives and methodologies for the training programme. Partners will be expected to draw upon their previous experiences and knowledge of other training programmes to ensure the objectives and methodologies identified are comprehensive and detailed. The results will allow objectives for individual courses to then be defined, and a final draft will be stated in the training plan. As each partner has a limited amount of time allocated to the task it is expected that the bulk of the work can be carried out during a joint meeting, with separate duties allocated where necessary.

UG: Identifying and drafting objectives and methodologies, knowledge of other training programme objectives

UU: Identifying and drafting objectives and methodologies, knowledge of other training programme objectives

MW: Identifying and drafting objectives and methodologies, compilation of final draft for





inclusion in training plan

ESA: Identifying and drafting objectives and methodologies

UNESCO: Identifying and drafting objectives and methodologies

CIANT: Identifying and drafting objectives and methodologies

Sub-task: Identifying training types and methodologies	Expected completion date: 31/03/07
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Partners (m): UG (0.1); UU (0.2); MW (0.2)

Work Allocation:

Based on the information produced in all the above subtasks, the partners will look in more detail to identify specific training types and methodologies, along with potential courses for the training programme. It is expected that partners will work closely together on this sub-task and participate jointly in duties, possibly carrying out the work through joint meetings. A draft of the results will be produced for inclusion in the training plan.

UG: Identify training types and specific courses

UU: Identify training types and specific courses

MW: Identify training types and specific courses, drafting of results for training plan

Sub-task: Structuring of training programme	Expected completion date: 30/04/07
--	---

Partners (m): UG (0.2); UU (0.5)

Work Allocation:

This subtask will follow on from the previous in asking a set of questions for each course identified. The answers to these questions will allow a firm training programme to emerge, along with ensuring learning outcomes are achieved. Course time lengths will also be decided. The results of this work will be drafted for inclusion in the training plan.

UG: Analysis of potential courses

UU: Analysis of potential courses, drafting of results for training plan

Sub-task: Organising of dates and locations	Expected completion date: 30/04/07
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Partners (m): MW (0.5); CIANT (0.5)

Work Allocation:

As the structure of the training programme emerges, this subtask will work to organise dates and locations for the courses. It will ensure that the locations reach as many EU countries as possible, and that the dates correspond with the outputs of the other subprojects. As a result of this collaboration with the other subprojects will be important. Close work with the structuring of training programme subtask will also be essential.

MW: Organise dates and locations for half of the courses

CIANT: Organise dates and locations for half of the courses

Sub-task: Production of training plan document	Expected completion date: 31/05/07
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Partners (m): UG (0.4); UU (0.6)

Work Allocation:

This subtask will bring together all the work of the previous subtasks with the production of the training plan document. As already outlined, certain sections of the document will already have been drafted, so editing will be a key area of the work. It is expected that the partners will each concentrate on finalising certain sections of the plan, as agreed amongst themselves and dependent on the time they have allocated. The workpackage leader will proof read the final draft of the document.

UG: Compose/edit sections of plan, final proof-read

UU: Compose/edit sections of plan

Training material preparation

Sub-task: Designing of modules	Expected completion date: 31/07/07
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Partners (m): UG (0.2); UU (0.4); MW (0.4); CIANT (0.6); CNR (0.5)

Work Allocation:

This subtask will develop each course outlined in the training plan into a more cohesive module. This will require the identification of what various modules should contain, and details for each individual module. The amount of time and partners involved reflects the significant amount of work required.

UG: Identification of module content, input of experience from other projects

UU: Details for specific modules, knowledge of other EU training programmes





MW: Identification of module content, details for specific modules

CIANT: Details for specific modules

CNR: Details for specific modules

Sub-task: Designing of templates	Expected completion date: 31/07/07
Partners (m): UG (0.2); UU (0.2); MW (0.6); INA (0.5); IRC (0.5)	
Work Allocation:	
<p>In conjunction with the modules which are designed, this subtask will produce suitable generic templates which can be used throughout the training programme. It will also produce an event management tool. The result will be a complete package which can be used by any partner to organise and produce documentation for a training course. This subtask will require a significant amount of effort, and the designing of templates should be allocated between partners based on effort assigned.</p>	
<p>UG: Identification of types of templates, input of experience from other projects, event management tool</p>	
<p>UU: Design of allocated template(s)</p>	
<p>MW: Identification of types of templates, design of allocated template(s), event management tool</p>	
<p>INA: Identification of types of templates, design of allocated template(s)</p>	
<p>IRC: Design of allocated template(s)</p>	

Sub-task: Quality assurance	Expected completion date: 31/07/07
Partners (m): UG (0.2); UU (0.2)	
Work Allocation:	
<p>This subtask will introduce clear measures to ensure courses and their supporting literature are of the highest quality. It will draw on experiences from other projects which the partners have been involved in. It is expected that partners will work closely together on this subtask and share duties equally.</p>	
<p>UG: Identify quality assurance measures to be used, apply measures to modules and templates</p>	





UU: Identify quality assurance measures to be used, apply measures to modules and templates

Sub-task: Preparation of course materials	Expected completion date: 30/09/07
Partners (m): UU (0.3); MW (0.6); ESA (0.4); UNESCO (0.4); CIANT (0.6)	
Work Allocation: Once the training package is in place, the partners will use the information and tools compiled in the rest of the task to produce all the documentation necessary for the first two training courses. The first two courses will have been identified in the training plan, along with the partners who will conduct the training.	

Training infrastructure

Sub-task: Identify infrastructure specifications	Expected completion date: 31/07/07
Partners (m): MW (0.9); Forth (0.5); CNRS (0.5); UL (0.5)	
Work Allocation: This subtask will identify the specifications required for the training infrastructure, based on the design of the course modules. Partners will be required to work closely with the module and template design subtasks, to ensure a calculated decision is made on what aspects of the package should be included in the technological structure.	

Sub-task: First draft of prototype	Expected completion date: 30/09/07
Partners (m): MW (1); IBM (0.5); CCLRC (0.4); CIANT (0.3); CNR (0.5)	
Work Allocation: The work in the previous subtask will allow for the production of a first draft of the prototype. The end result will include a collaborative space and a post lessons support environment. The draft will be based around the first two training courses, to allow for review of the infrastructure specifications once the courses have been delivered.	

