

PARTHENOS

Pooling Activities, Resources and Tools
for Heritage E-research Networking,
Optimization and Synergies

D7.2 Report on training and education activities and updated planning

AUTHOR(s) Claus Spiecker (FHP) (Interim Task Lead)
Jenny Oltersdorf (FHP) (Task Lead until 14.03.17)
Ulrike Wuttke (FHP)
Jennifer Edmond (TCD – Work Package Lead)
Vicky Garnett (TCD)
Stefanie Löpke (CLARIN, University of Leipzig)

DATE 22nd April 2017



PARTHENOS is a Horizon 2020 project funded by the European Commission. The views and opinions expressed in this publication are the sole responsibility of the author and do not necessarily reflect the views of the European Commission.





HORIZON 2020 - INFRADEV-4-2014/2015:

Grant Agreement No. 654119

PARTHENOS

Pooling Activities, Resources and Tools for Heritage E-research Networking, Optimization
and Synergies

Report on training and education activities and updated planning

Deliverable Number	D7.2
Dissemination Level	PU
Delivery date	24 May 2017
Status	Final
Author(s)	Claus Spiecker (FHP) (Interim Task Lead) Jenny Oltersdorf (FHP) (Task Lead until mid-March 2017) Ulrike Wuttke (FHP) Jennifer Edmond (TCD) Vicky Garnett (TCD) Elisabeth Burr (CLARIN, Uni of Leipzig) Stefanie Löpke (CLARIN, Uni of Leipzig)

Project Acronym	PARTHENOS
Project Full title	Pooling Activities, Resources and Tools for Heritage E-research Networking, Optimization and Synergies
Grant Agreement nr.	654119



Deliverable/Document Information

Deliverable nr./title	D7.2
Document title	Report on training and education activities and updated planning
Author(s)	Claus Spiecker (FHP) (Interim Task Lead) Jenny Oltersdorf (FHP) (Task Lead until mid-March 2017) Ulrike Wuttke (FHP) Jennifer Edmond (TCD) (Work Package 7 Lead) Vicky Garnett (TCD) Stefanie Löpke (CLARIN, Uni of Leipzig)
Dissemination level/distribution	PU

Document History

Version/date	Changes/approval	Author/Approved by
V 0.1 19.04.17	First draft submitted for comments and feedback from WP7 members	T7.2 members
V 0.55 22.05.17	Second Draft amended following feedback	TCD & FHP
V 0.5a 22.05.17	Third Draft amended for final formatting	TCD
Final 24.05.17	Final review and editing	PIN

This work is licensed under the Creative Commons CC-BY License. To view a copy of the license, visit <https://creativecommons.org/licenses/by/4.0/>



Table of contents

1. Executive Summary	7
2. Training Plan	8
2.1. Initial Training Plan	8
2.2. Delivery of Training	9
3. Implementation of the Initial Training Plan	10
3.1. Updated Structure for the Training Modules	10
3.2. Training Suite	12
3.2.1. Development of the Training Suite	12
3.2.2. Training Modules layout	13
3.2.3. For Trainers	14
3.2.4. For Learners	15
3.2.5. About Training section	15
3.2.6. Training Suite Launch and Integration into the PARTHENOS Entity Model	16
3.3. Brochure: Policymaker's Guide Leaflet	16
3.4. PARTHENOS Workshop at ESU 2016 at Leipzig	17
4. Feedback on Training Plan: Assessment	19
4.1. Feedback from Expert Focus Group and Peer Review	19
4.1.1. Development and overarching Principles of the Training Plan	19
4.1.2. Audiences	19
4.1.3. Teaching Contents and Modes of Delivery	20
4.1.4. PARTHENOS Workshop at ESU 2016 (Leipzig)	20
4.2. Summary of Assessment of the Training Plan	21
5. Developing of Phase 2 of the Training Plan	23
5.1. Underlying assumptions and approach	23
5.2. Consultation Process	24
5.3. Phase 2 Training Goals and Focus Areas	26
5.4. Delivery of Training in Phase 2	28
5.4.1. Partnering: Cooperation and Events	29
5.4.2. Availability of Materials	30
6. Abbreviations	32





1. Executive Summary

This document is Deliverable 7.2 ‘Report on training and education activities and updated planning’. It reports the results of the joint efforts of the PARTHENOS Task 7.2 members from the Fachhochschule Potsdam (FHP, University of Applied Sciences Potsdam, Task Lead), Trinity College Dublin (TCD, WP7 leader), CLARIN (University of Leipzig), the Koninklijke Nederlandse Academie van Wetenschappen (KNAW-NIOD), and Consiglio Nazionale delle Ricerche (CNR). Work has been led by the FHP.¹

This deliverable provides information on the implementation of the ‘Initial Training Plan’ (D7.1²), outlines updates of the plan, and lists next steps of further implementation. The updates are based on amendments recommended in D2.2 ‘Report on the assessment of the education and training plans and activities’³, which provided structured feedback on the initial plan and its first implementation, as well as changes that have organically developed during the implementation of the Training Plan.

The document is structured in chapters, as follows:

- Section 2 forms the introduction that summarises the main aspects and outputs of the Initial Training Plan. This chapter provides brief information about the training plan development, the target groups, teaching contents and the modes of delivery.
- Section 3 presents the implementation of Phase 1 of the training plan and the development of key outputs, including brochures, workshops and the PARTHENOS Training Suite website.
- Section 4 is about the assessment of the training plan and lists the main results.
- Section 5 describes the consultation process, lists the training goals and focus areas for Phase 2 after the assessment and summarizes the updated planning of the implementation of training.
- Section 6 contains a list of abbreviations.

The ‘Final Report on Training and Education Activities’ (D7.3) will serve as a further update to this report, covering all progress in the delivery of training through PARTHENOS

¹ Task Lead: Jenny Oltersdorf (until mid March 2017); interim Task Lead (commissary for delivery of report): Claus Spiecker; new Task Lead: Ulrike Wuttke (from mid April 2017)

² D7.1: http://www.parthenos-project.eu/Download/Deliverables/D7.1_Initial_Training_Plan.pdf

³ D.2.2: http://www.parthenos-project.eu/Download/Deliverables/D2.2_Report_Assessment_Education_Training.pdf



in the final period of the project, including any further adjustments in strategy or conceptual framework resulting from sustained review and consultation. It will be delivered in Month 48 of the PARTHENOS, providing a final assessment.

2. Training Plan

2.1. Initial Training Plan

The PARTHENOS Initial Training Plan (D7.1) was published in June 2016 with the objective of collecting information about common issues across the PARTHENOS Infrastructure partners with regards to training, coaching and knowledge needs within a Digital Humanities context. Having reviewed information provided by WP2 (“User Requirements”⁴), WP7 identified four key audience types at whom training could be targeted. They were:

1. Researcher Practitioners
2. Cultural Heritage Practitioners
3. Developers and Technicians as Practitioners
4. Executive Level: Managers and Policy Makers

The development of the PARTHENOS Initial Training Plan was guided by four principles:

1. It targets users of digital humanities research infrastructures
2. It addresses two levels of user needs: the ‘need to know about’ (awareness raising) and the ‘need to know how to do’ (skills building).
3. Even though PARTHENOS is a research infrastructure project, training interventions are received as relevant far more broadly than to researchers only.
4. Its training activities focus on asynchronous delivery of training, ‘train the trainers’ approaches and partnerships with other projects and initiatives to accomplish maximum impact.

Accordingly, the plan splits the training themes and distinguishes two phases:

⁴ D2.1: ‘Report on User Requirements’: <https://goo.gl/3lw15J>



Phase 1 concentrates on the broad skills and approaches needed to understand what RIs do in general, what benefits they can create for the respective target groups and what kind of knowledge is needed to successfully work with RIs.

Phase 2 of the training plan will focus on the concrete outputs of the PARTHENOS work packages and the need for training and education that comes with that output. As work in PARTHENOS has to progress sufficiently before training can be developed to accompany it, the work on Phase 2 of the Training Plan will be continued after project month 24.

2.2. Delivery of Training

As the PARTHENOS training programme was never envisioned to be all-encompassing, either in terms of digital humanities requirements, nor in terms of a fully-fledged training programme, the mode of delivery of training is through partnering with other projects, providing printed and online materials, and structured modules and curricula via its website. The main activities concentrate on maintaining a focus on the unique affordances of infrastructure projects, deriving maximum value from creating frameworks for curricula, asynchronously available baseline modules, and ‘train the trainers’ opportunities (largely delivered in cooperation with other projects and networks).

Accordingly, the following instruments shape the approach to training:

Partnering: WP7 is in contact with a number of projects and initiatives that contribute to its ability to provide a recognisable and sustainable programme. WP7 particularly envisages opportunities to provide asynchronous modules alongside similar content with the #dariahTeach and RItrain projects. Cooperation with existing summer schools such as the European Summer School (ESU) at Leipzig⁵ have already been undertaken, and future collaborations are being investigated. For the final phase of the PARTHENOS project it is also planned to harness the internal networks of the partners to further test and extend our modules (e.g. by integrating materials developed in the context of PARTHENOS into the under- and postgraduate curriculum of King’s College London as part of T7.4 within this Work Package).

⁵ ESU in Digital Humanities: http://www.culingtec.uni-leipzig.de/ESU_C_T/node/97



Printed materials: For some awareness-raising purposes, only a small amount of text delivered in a memorable format will be required. In these cases (such as would be required for conveying basic knowledge to policy and decision makers), it is intended to use short informational brochures as an effective tool.

Structured modules and recommendations for curricula: The development of online modules with a structure specific to more formalised learning provides more in-depth input. These framework modules (for individual use, or for use by instructors as a basis for their own curricula) include (where appropriate): learning outcomes, short video illustrations, text, assessment, examples / case studies, references, and resources for further study.

The evaluation of the Initial Training Plan was conducted through assessment, evaluation of modules and feedback through an online form and targeted input from expert colleagues outside the PARTHENOS project⁶.

3. Implementation of the Initial Training Plan

Over the course of the period covered by this report, most of the initial objectives outlined in the initial training plan were achieved (although many of the materials developed can and should be viewed as open-ended, and as platforms for further enrichment).

3.1. Updated Structure for the Training Modules

The implementation of Training Modules was described in the original training plan as following a two-phased approach. Phase 1 concentrated on the broad skills and approaches to understand what RIs do in general, what benefits they can create for the respective target groups and what kind of knowledge is needed to successfully work with RIs. In specific, the topics foreseen for development were: “Infrastructure 101” (an introduction to research infrastructures); Sharing Data With and Through Research Infrastructures; Humanistic Knowledge Creation and Research Processes; and Sustainability for Research Infrastructures.

⁶ See chapter 4 below and D2.2, chapters 4-5.



In the course of developing and organising materials around these topics, a certain amount of restructuring was deemed necessary. While the introductory module was delivered as planned (albeit under a slightly different name), the issues of data sharing and collaboration gradually converged, resulting in a module on collaborations within research infrastructures that addresses both the researcher-collections holding institution relationship and that between computer scientists and humanists. The sustainability module took on a greatly expanded scope, however, as it became clear that there were many aspects of sustainability that deserved specific mention in the context of the processual challenges of managing research infrastructures. Sustainability, therefore, became a subtheme in the larger module on Managing RIs, sitting alongside materials relating to communicating the value of RIs and engaging with users.

The full final structure of these initial content units now forms the basis of the PARTHENOS training suite, and is as follows⁷:

1. Introduction to Research Infrastructures –
 - Main purpose: to introduce in layperson's language the essential concepts underpinning a RI.
 - Topics covered are: What is Infrastructure, Interoperability, Sustainability, Methods and Tools, Networks, Critiques and Issues.
2. Management Challenges in Research Infrastructure –
 - Main purpose: to address management challenges from the research infrastructure and the cultural heritage institutional perspectives.
 - Topics covered are: Sustainability for RIs, User Engagement, Macro-level Issues Facing the RI, Audiences and Communication.
3. Collaborations in Research Infrastructures –
 - Main purpose: to provide information about data exchange from both the research infrastructure and the cultural heritage institutional perspectives.
 - Topics covered: Collaborations between Humanist and Computer Scientists, Collaboration between RIs and CHIs.

⁷ See below: chapter 3.2, Training Suite.

3.2. Training Suite

The main output of Work Package 7 is in the form of an online Training Suite, available at <http://training.parthenos-project.eu/>. This website primarily hosts the training modules developed in Phase 1 of the training plan, as described above. Modules are structured to feature learning objectives, small units of text and video, links to relevant training materials, and references to additional sources for further information.

3.2.1. Development of the Training Suite

The Training Suite was developed throughout 2016 with support and assistance from PARTHENOS WP8 team members, and officially launched in March 2017. Using a Wordpress.org-based platform, the initial design divided the Training Suite into four key areas (plus a Contact page), based on interest of those visiting the site, as identified in D7.1:

- Training Modules
- For Trainers
- For Learners
- About PARTHENOS Training

The intention with this structure is to provide the easiest access to the most relevant area of the site depending on the user's needs. The sections then contain material and content that most comfortably sits within those headings. An image of the results of the initial 'brainstorm' site-map can be seen in Figure 1. These sections were linked to via both the menu, and also through hyperlinked images displayed on the home page (see **Error! Reference source not found.**).



Figure 1 - Results of brainstorming the PARTHENOS Training



Figure 2 - Home page of the PARthenOS Training Suite

3.2.2. Training Modules layout

As already mentioned, the initial offering of training modules from Phase 1 of the Training Plan covered “Introduction to Research Infrastructures”, “Management Challenges in Research Infrastructures”, and “Collaborations within Research Infrastructures”. These can all be accessed from the ‘Training Modules’ page on the Training Suite.

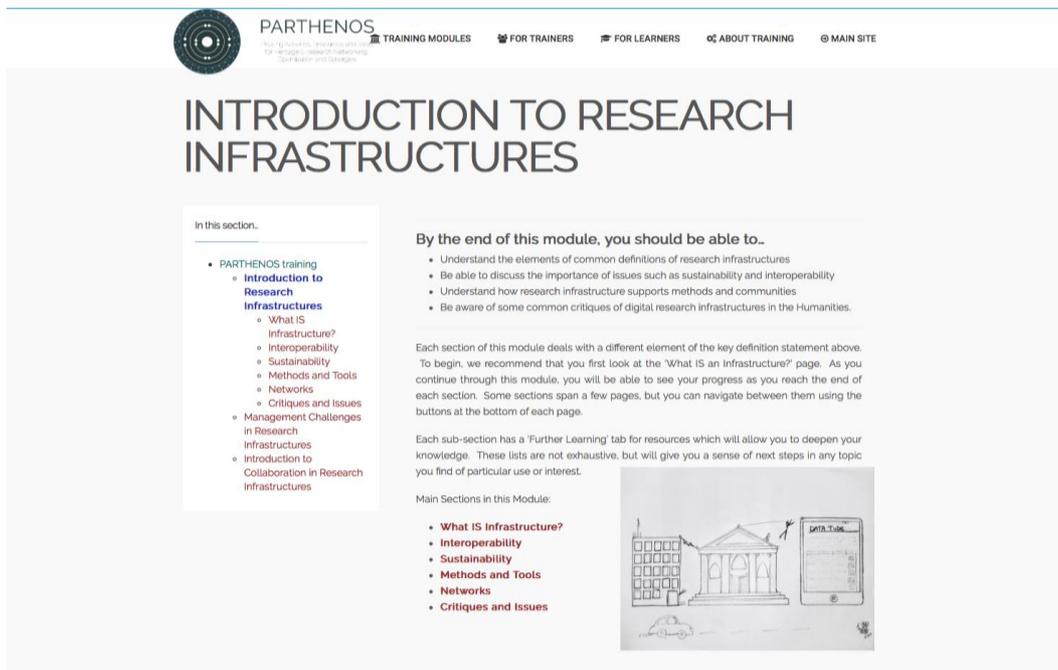


Figure 3 - Typical module page layout



Content for each of the modules consists of video lectures (approximately 15-25 minutes each in duration) filmed specifically for these modules, and edited by the TCD team. These were designed to stand alone as video lectures, as well as within a more linear programme of study. The videos were uploaded to the PARTHENOS YouTube channel⁸, and embedded into the relevant module section page on the Training Suite from there. Similarly, all slideshows used in the video lectures were uploaded to SlideShare⁹, and embedded into the Training Suite with links from the relevant module section. All materials on the site are flagged as available for reuse under a CC-BY license.

The design of the layout for the Training Modules was created to allow for both a linear progress through the module sections, or for users to select the section most relevant to their requirements. To enable this, a 'side-menu' was added which indicates where in the module the learner is. This allows the user to link to another section if they want to skip ahead, or review a section they have already visited (see **Error! Reference source not found.**). In addition, for those undertaking the more linear approach to these modules, a notification bar appears at the end of each section. Pages within the modules can also be reached with 'Next Page' and 'Previous Page' buttons at the bottom of each page.

Each module section also offers suggested further reading on the subject addressed on that page, thereby allowing the user to expand their learning should they so wish.

The Training Modules section of the Training Suite has specifically been designed to allow for the addition of further modules and sections as the training develops through the course of the PARTHENOS project.

3.2.3. For Trainers

The 'For Trainers' section of the website houses many of the training materials and supports the 'Train the Trainers' approach by providing suggested course outlines. Information is provided on the front page of this section to explain how the materials are targeted at different user groups, typically by level of expertise.

⁸ PARTHENOS YouTube channel: https://www.youtube.com/channel/UCnKJnFo_IFoAI3VH51t1hw

⁹ PARTHENOS SlideShare profile: <https://www.slideshare.net/Parthenos>

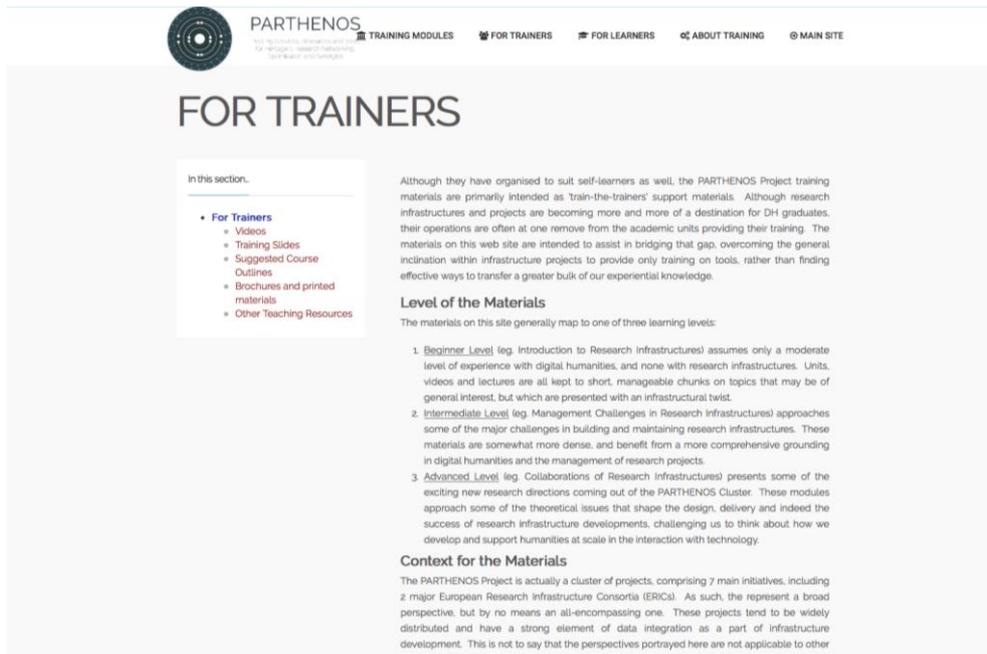


Figure 4 – The ‘For Trainers’ page

The training materials on offer in this section are available here for quick selection, as well as for being placed in context through the Training Modules section. Once again, navigation through this section is by a sidebar menu (see Figure 4).

3.2.4. For Learners

The ‘For Learners’ section is very brief, outlining the rationale behind the structure of the Training Modules in Phase 1, and linking to them.

3.2.5. About Training section

This section showcases the lecturers and course developers, as well as the Initial Training Plan itself, which informs the PARTHENOS Training Suite. It also provides a link to the feedback form about the website, where users are encouraged to give their impressions of the Training Suite, both positive and negative. This allows for continual engagement with the audiences, and continual development to ensure the Suite meets their needs.

3.2.6. Training Suite Launch and Integration into the PARTHENOS Entity Model

The Training Suite was launched in February 2017 via the overall PARTHENOS project website¹⁰. It was also promoted via a direct email announcement to course providers in Higher Education Institutions across Europe.

To make the Training Suite more visible, it is also linked via the main PARTHENOS website as part of the main menu. In addition to this, the individual elements of the Training Suite are being integrated into the PARTHENOS Entity Model, as per work undertaken by Work Packages 5 and 6.

3.3. Brochure: Policymaker's Guide Leaflet

Under the training plan outlined in D7.1, one aim was to address different audiences within



Figure 5 - PARTHENOS Brochure side 1



Figure 6 - PARTHENOS Brochure side 2

the typical Cultural Heritage Institute (CHI) structure and within important stakeholder communities that must make decisions about research infrastructures, but may not actively use or understand them (research councils, government departments, university management, etc.). Since it is understood that channels and descriptions useful for students and researchers would not be appropriate for this audience, it was decided to write and design a tri-fold brochure specifically aimed at those people who would be more likely to make decisions over funding, either at a national level, or at an institutional level. Therefore, the brochure was framed in a way that responded to the question “Why Invest in Humanities Research Infrastructures?” Broken down into small passages of text, it addresses questions around why the Humanities need Research Infrastructure, how Research Infrastructures can help research teams within the

¹⁰ <http://www.parthenos-project.eu/introducing-parthenos-training-suite/>



Humanities to implement interoperability, sustainability and innovative methodologies that enhance the impact of research outputs (and in turn, how this translates to research outputs at the institutional and national level).

PARTHENOS WP7 created this brochure in conjunction with WP8. This policy maker guide is in the form of tri-fold A4 colour leaflet. It is available both in hard copy, which has been distributed to all PARTHENOS partners for dissemination at conferences, workshops and within their institutions, and in digital form: <http://training.parthenos-project.eu/trainers/brochures-and-printed-materials/>.

3.4. PARTHENOS Workshop at ESU 2016 at Leipzig

The PARTHENOS-workshop ‘Digital Research Infrastructures in the Humanities: How to Use, Build and Maintain Them’¹¹, led by Dr Jennifer Edmond took place in the second week of the European Summer University in Digital Humanities “Culture and Technology” (ESU) at Leipzig and lasted five days (25-29 July 2016). The workshop was attended by five participants who all came from countries outside of Europe (US, Egypt, Canada, Russia, and Lebanon) and all had various disciplinary backgrounds and levels of experience. This was the first time (to our knowledge) that a focussed course on research infrastructures had been offered in any venue, and provided an excellent opportunity to test some of the materials in development. The students were in some ways not a perfect match for the material, however, as the fact that none of them were normally based in Western Europe meant that they would not have access to the very European ‘top-down’ developments around building and maintaining research infrastructures. This challenge gave us an opportunity, however, to explore what lessons could be learned from the European context by other forms of RI, such as research centres, projects, and digital libraries.

¹¹ http://www.culingtec.uni-leipzig.de/ESU_C_T/node/655



Research Infrastructures Summer School Course
Leipzig, July 2016
Dr Jennifer Edmond

	Monday	Tuesday	Wednesday	Thursday	Friday
	What is infrastructure 1?	Designing and Managing Infrastructure 1	Designing and Managing Infrastructure 3	The Collaborations of Infrastructure 2	Framework Conditions for Infrastructure in Europe
10AM - 11AM	Introductions and discussion 1: what do we think of when we think of infrastructure?	Getting 'below the Level of the work'	Theme 3: Sustainability Planning	"He said, She Said" Epistemic Cultures in Action. Part 2: Humanities Interview	Infrastructure development and funding in Europe (and somewhat beyond)
11AM - 12PM	The "Dummies Guide" to Infrastructure	Theme 2: Finding, Understanding and Engaging with users	Asset auditing	What is your 'epistemic culture'?	Career Pathways and infrastructural disruption
12PM - 1PM	Applying the "Infrastructure Scorecard"	Who is the user?	Wrap up, Designing and Managing Infrastructure: Differences of degree or kind?	Discussion of Epistemic cultures in research	Open Science: Threat or Opportunity for Humanities Research Infrastructure?
1PM - 2PM	Lunch	Lunch	Lunch	Lunch	Lunch
	What is infrastructure 2?	Designing and Managing Infrastructure 2	The Collaborations of Infrastructure 1	The Collaborations of Infrastructure 3	Infrastructures, Portals, Centres, Tools ... the future?
2PM - 3PM	Results of the Infra Scorecard	Theme 2: The audiences of an Infrastructure	What do we know about DH Collaborations?	Working with CHIs (Research Visit) - Sharing Data through Ris	Mapping the Landscape, Finding the edges: am I an infrastructure worker?
3PM - 4PM		Developing a communications plan	Epistemic Cultures in research		
4PM - 5PM	The Infrastructural Turn in Humanities Research: History, Theory, Critiques	Discussion: user engagement and communication	He said, She Said Epistemic Cultures in Action. Part 1: Computer Science Interview		Discussion: What is the future trajectory of the infrastructural turn? Can we democratise digital humanities through infrastructure?
	Lecture Guest Lecture	Discussion Workshop			

Figure 7 - ESU Summer School 2016 PARTHENOS Course Outline

Sessions were divided up into four types: Lectures, Discussions, Guest Lectures and Workshops. The course took place over five full days, and covered topics across Phase 1 of the Training Plan.

The sessions were videoed with the intention of including these as distinct lectures on the Training Suite. However, once the videos were returned for editing, it became apparent that the nature of an in-situ training module is quite different from that which might be useful to someone visiting the Training Suite to learn about a small element of a module. In other words, the context of the classroom worked well in the classroom as it allowed for questions and discussion, but this does not translate well outside that context.

Furthermore, after completing the ESU Summer School, it was decided that the programme needed to be re-organised to make it more useful to visitors to the website who were not necessarily following an entire course. Therefore the modules, as already described above, were devised to meet that need.



4. Feedback on Training Plan: Assessment

The initial training plan was assessed by Task 2.4. and the results presented in Deliverable 2.2 - 'Report on the Assessment of the Education and Training Plans and Activities'¹² published in October 2016. This report was based on feedback from experts in four key areas of research: Research Practitioners, Content Specialists in CHIs, Technical Managers / Computer Scientists involved in DH projects, and project/institutional managers. It also includes project-internal feedback from PARTHENOS Work Package leaders. A brief review of the findings of this report follows here.

4.1. Feedback from Expert Focus Group and Peer Review

4.1.1. Development and overarching Principles of the Training Plan

The 'Two-phase' approach adopted in the Training Plan was considered practical and realistic. All experts saw the 'train the trainers' approach as especially useful because it allows for longer-term and sustained networks to reuse and disseminate these materials beyond the lifespan of the PARTHENOS project. However, there was a concern with the barrier of accessibility of asynchronous training programmes, especially as it was unclear how the content will be made available and sustainable after the project has ended.

The need for raising awareness of RIs was discussed in depth. The difference between 'Digital Humanists' and 'Digital Humanists who use infrastructures' was questioned, especially regarding the level of experience. The experts recommended a careful examination of how the career stages (early, mid, and advanced carrier) relate to the engagement with the notion and use of infrastructures, as it is not necessarily true that the idea of increasing digital maturity along the typical career trajectory is valid anymore.

4.1.2. Audiences

Overall, the target groups and audiences outlined in the training plan were evaluated as being clear and sufficient, reflecting the complexities within these groups. The reviewers suggested, however, to describe some areas and disciplines in more detail and specifically

¹² D2.2: http://www.parthenos-project.eu/Download/Deliverables/D2.2_Report_Assessment_Education_Training.pdf



recommended consideration of the role of an archivist, perhaps addressing archivists as a separate group.

While the decision to go for a wide audience was strongly supported by experts and peer reviewers, it was suggested that, in the second iteration of the Training Plan, a distinction might be made between technical developers that are engaged in advancing the state of the art in computer science with digital humanities infrastructures, and those who are engaged in the development and maintenance of digital tools or infrastructures as an enduring service.

4.1.3. Teaching Contents and Modes of Delivery

The four topics (Infrastructure, Sharing Data With and Through Research Infrastructures, Humanistic Knowledge Creation and Research, Sustainability for RIs) were all considered relevant and important. Data sharing, knowledge creation, and sustainability were assessed as being the core aspects of dealing with RIs, with a recommendation to include more subject-specific input on security issues such as authorisation, authentication and sustainability. The experts also recommended that PARTHENOS should elaborate as to how the modules differ in content from training materials already available on other websites, and also how to promote the life cycle of engagement in RIs in general.

“Hands on sessions” were recommended as a mode of training delivery, along with emphasis on linking theoretical work and existing projects, particularly for people at the early stage of their career.

4.1.4. PARTHENOS Workshop at ESU 2016 (Leipzig)

Feedback from the ESU in Digital Humanities was gathered on the topics in general and the module’s ability to enhance the participants’ daily work. There was a high level of satisfaction with the workshop topics. The introduction to infrastructures, specific approaches to managing infrastructures and on harnessing and understanding the collaborations within infrastructures were rated ‘useful’ or ‘very useful’.

Given the low number of participants of this workshop (which was mostly by design as the ESU workshops are kept to small numbers to enable a better interaction between trainer



and participants), the data gives only a very limited view of the evaluation of the workshop. There are no hints from these results that could point to a topic that is of minor utility or not useful at all.¹³

The overall feedback from the participants of the PARTHENOS workshop was consistently positive¹⁴: one comment among the feedback included “Meaningful, useful, and even a unique course content that is not described in publications in such a ready-to-use and comprehensive format”. This “ready-to-use and comprehensive format” allowed WP7 to adapt the course content and make it available on the training website, benefiting from the ESU experience and the feedback from the participants. The lectures held at Leipzig were slightly modified to be presented in a condensed, more suitable format for the PARTHENOS training website. The video recordings (condensed to 10-15 minutes) as well as the slides from the workshop held in Leipzig are available on the PARTHENOS Training Suite as part of the module ‘Introduction to Research Infrastructures’¹⁵.

4.2. Summary of Assessment of the Training Plan

An overview of relevant feedback from both the external Expert Reviews and the internal Work Package reviews is presented in the following table:

¹³ See D2.2, section on assessment of ESU 2016.

¹⁴ For more details see also D2.2 evaluation, chapter 5.1.

¹⁵ See Training Suite: ‘Introduction to Research Infrastructures’: <http://training.parthenos-project.eu/sample-page/intro-to-ri/what-is-infrastructure/>.



Section	Reviewer comments	Recommendation
Overarching Principles	Overall approach seen as valid, well-thought, distinction in Phase 1 and Phase 2 seen as practical and realistic.	
	Asynchronous mode of content delivery: advantage Early stage researchers: Concern that asynchronous mode of delivery, while flexible, might mean that the training programmes will face same issue of access and uptake all resources face	Enhance embedding of material on Training Suite, promote uptake, building on mandate in the PARTHENOS DOW to 'Train the Trainers'
	Early stage researchers: useful to have a small rationale on why the resources are effective and adequate to 'train the trainers'	Provide context in appropriate places, particularly in regard to the 'Train the Trainers' material
	Raising awareness: need to distinguish communities in RI users or not	Examination of how the career stages (early, mid and advanced) relate to engagement with the notion and use of infrastructure
Audiences	Breakdown of target groups clear and sufficient. Input from Cultural Heritage: more details needed	Consider the role of an archivist as a potential separate 'audience'
	Wide audience including technically-orientated researchers supported, investing effort in communication channels between computer scientists and humanities researchers valuable	Elaborate on the target group of technical developers, might be necessary to distinguish between the two sub-groups
Mode of delivery	Suggestion for an annotated reading list and short video sequences based on a sample of questions put together to one video clip	
	Make clear how the modules developed in Phase 1 differ in content to offers of other websites	Add information at appropriate places
	Investigate how it is possible to promote the life cycle of engagement in RIs in general	Provide additional information, integrate in module
	Consider "hands on sessions" and place emphasis on the links between theoretical work and existing projects	Check modules accordingly and embedding of material



5. Developing of Phase 2 of the Training Plan

5.1. Underlying assumptions and approach

As was foreseen in the 'Initial Training Plan', by the end of year 2 of the PARTHENOS project, Task and Work Package Leaders from across the areas of development in the project were far better able to envision what transferable knowledge their work might create.

For this reason, five guiding principles were adopted to underpin our approach to the development of a plan for Phase 2:

1. Use the feedback from the review and initial implementation of the PARTHENOS training materials to sharpen our delivery and perspective on users and their needs. This emphasis may not change what we do, but has a significant impact on the overall conceptual frameworks we apply.
2. Ensure we are able to maintain a focus on what PARTHENOS can uniquely provide, but move beyond our initial narrow focus on learning about research infrastructures to learning through them.
3. Interact directly with each PARTHENOS Work Package to create fit-for-purpose workflows to help them expose their knowledge to a wider audience.
4. Interact directly with the PARTHENOS Cluster partners (especially CLARIN and E-RIHS) to ensure that a balanced perspective on research infrastructures is presented.
5. Seek out opportunities for convergence between the goals of Task 7.2, Task 7.3 and Task 7.4. Tasks 7.3 and 7.4., which look at transnational access and higher education curricula respectively, have the potential to create a wider audience for the PARTHENOS materials and knowledge base, but also to assist us in exploring new forms of training that infrastructures might be very well suited to, and that could potentially emerge in a manner distinct from what is offered by higher education institutions and projects to date.



5.2. Consultation Process

PARTHENOS Work Package Leaders were approached for their input into the Training Plan. This was done through consultation, both through emails, and through conference calls with the relevant parties in each work package.

Each was asked to read the Initial Training Plan, and consider how the approach offered best matched both work and outputs they had developed already within their Work Packages, and how WP7 might develop modules in Phase 2 to suit the issues being raised through their research.

Some Work Packages were not available for consultation, however. Work Packages with whom we were able to hold consultations included WP2, WP3, WP4, and WP8. Prior to this assessment, Work Packages 5 and 6 had already indicated an intention to develop training around CIDOC-CRM. They were unavailable to review and provide feedback on the Training Plan. The following section gives an overview of the general results of these discussions.

WP2 acts as a link between all Work Packages. It actually does not develop its own services or tools, but concentrates on delivering a project-wide knowledge base and collecting use cases to enable the other Work Packages to start their work.¹⁶ For this reason, WP2 was so far unable to offer any stand-alone module material. However, it is working with cluster partners, most notably CLARIN, to identify how they can contribute to the Phase 1 module 'Management Challenges in Research Infrastructures' module, focussing on approaches to gathering user requirements.

The collection of user requirements in and for RIs was a main focus area for WP2. To facilitate this work, CNR and WP6 provided an online tutorial for PARTHENOS members on how to write use cases. Considering this, the handling of user requirements by research infrastructures is something that could require training at a more general level, and the CNR-sponsored session, which was recorded at the time, could be considered for reuse by audiences of the PARTHENOS training materials.

¹⁶ See: D2.1. 'Report on User Requirements'.



WP3 works on policies and implementation strategies, a field of knowledge where training intervention would clearly be of benefit. The activities in this work package started later and, therefore, its input will go in a module to be designed in Phase 2.

In the centre of the work of **WP4** are issues like the advantages of common standards for sharing data, interoperability, and the role of relevant communities and institutions in standards recommendations. These topics can be located in the Phase 1 module ‘Sharing Data With and Through Research Infrastructures’ as well as in the short videos¹⁷.

In addition, WP4’s ‘Standard Survival Kit’ (SSK) raises the question of how to highlight the role standards can play in any researcher’s project from the arts and humanities, at each step of the research data lifecycle.

In the centre of the work of **WP5** is the definition of a conceptual architecture of a RI as well as a model for representing the resources handled by such an architecture. Main aspects of this work went into the ‘Infrastructure 101’ module - to raise the awareness of the potential of RIs within the humanities and to explain their functionalities to the new users. Input from WP5 went also into the Phase 1 module on ‘Humanistic Knowledge Creation and Research Processes’ that later become a part of a revised module.

Main topics of **WP8** such as dissemination and scientific communication are covered in the Phase 1 module on ‘Sustainability for Research Infrastructures’. Regarding sustainability, WP7 team shall take into account that sustainability is often dependent on maximising socio-economic, political and cultural impact. It was suggested that this topic could be made more explicit in the update of the training plan. Training on how to measure, maximise and demonstrate impact, and in particularly non-academic impact, is a part of the work and knowledge of WP8, and could be potentially developed as a training focus.

In addition to consultation with PARTHENOS WP leaders, additional contacts were made with leaders of the cluster partner ERICs, primarily CLARIN and E-RIHS (the WP lead is herself a Director of DARIAH, so this perspective is already well-represented). As of the publication of this Deliverable, this consultation is still on going, but making good progress. In specific, the following approach has been agreed on:

¹⁷ PARTENOS videos: <http://training.parthenos-project.eu/for-trainers/videos/>



1. Each RI will contribute to the development of a short video introducing their approach and work.
2. Each RI will be assisted to contribute to the existing units on collaboration and user engagement, as well as contributing to materials addressing the specific data challenges of their community.
3. WP 7 will sustain communication with the RIs toward the goal of developing specific modules reflecting their perspectives. In particular, the idea of capturing some aspects of an (E-RIHS) IPERION summer school for later delivery as a training module has been agreed in principle.

In addition to these concrete actions, additional opportunities for collaboration will be sought, for example in the context of the development of the E-RIHS training strategy.

5.3. Phase 2 Training Goals and Focus Areas

The PARTHENOS Training Plan in Phase 1 had the advantage of being largely an internal exercise: while many colleagues from across the WPs were involved and included, the training team was mainly able to use content they themselves were producing as the initial set of materials around which to form and test the platform and assumptions underlying their work.

For Phase 2, the integration of requirements and outputs of specific PARTHENOS Work Packages and Cluster partners will require much more consultation and input from them. There is a risk inherent in this strategy, which we will manage through opportunism (capturing material at events and presentations being planned for other purposes) and by making participation in WP7 activities as easy and enriching for our PARTHENOS collaborators as possible.

Continuous feedback will be used to (re-)check the original target groups ('Researcher Practitioner', 'Cultural Heritage Practitioner', 'Developers and Technicians as Practitioner', 'Management and Policy Makers'). It will, for example, be examined if the new role of 'archivist' as suggested in the assessment and a description of some areas and disciplines in more detail that make up the audiences is needed in some or all modules as recommended by experts.



Adding more modules with more materials will help to increase the granularity and variety of the materials provided for trainers and learners, e.g. by distinguishing in material for beginner, intermediate and advanced level or for very specific needs of the target groups.

WP 2 (User Requirements) and **WP 8 (Dissemination)** provide support work within the project and will not have any user-facing end results per se. Both of these activity streams represent a wealth of knowledge that could be of great value to future project leaders. Therefore the intention is to integrate the work of these teams into the Phase 1 module ‘Sustainability for Research Infrastructures’.

In cooperation with WP2 (User Requirements) planning to provide additional information on ‘use case handling’ and on ‘conducting interviews’ is underway. This will be achieved by re-using and updating an online tutorial on use-cases originally provided by CNR and WP6 as part of their work in the early stages of the PARTHENOS project. Initial planning between WP7 and the appropriate project partners in different WPs is planned for the beginning of May 2017. The produced material (information and tutorial) will be integrated in the Module ‘Management Challenges in RI’s’.

WP 3 (Common policies and implementation strategies) was very much at a scoping phase at the time of the writing of the initial plan, but the content of this WP represents a field of knowledge where training interventions would clearly be of benefit. Therefore, the modality for moving this forward will be explored further.

WP3 (Common Policies and Implementation Strategies) already contributed text and tables in the module ‘Introduction to RIs’ to the section on sustainability. Furthermore, it is planned to develop a module on the basis of D3.1 (‘Guidelines for Common Policies Implementation’). It is planned to include this module if possible as a half-day workshop at a HaS/DARIAH winter school. Contact with HaS/DARIAH has been established.

WP 4 (Standardization) has developed an informational comic, the ‘Standard Survival Kit’ (SSK), and is working on a ‘Standard Helpdesk’. The intention of WP7 is to find ways of promoting, integrating and extending this work. It is intended to use the programme from the 3D Objects Workshop held in November 2016 as a guide or structure for a module on



standards. Further training materials and slides based on the work of WP4 will be developed and implemented according to the needs.

WP 5 (Interoperability and semantics) and **WP 6 (Services and tools)** each have a specific set of six categories of technical training needs defined, which they seek to meet for an immediate user group. These categories include: CIDOC-CRM, Infrastructure Operation, Resource Registry, 3M and X3ML, D-Net, and Resources Discovery Tools. Given the specialist nature of these tools and approaches, WP7 will not necessarily be able to provide this training themselves, but will seek to capture the training provided by these WPs and find ways of extending their outreach.

With **WP 8** planning has begun for a **(sub)module on impact measurement and success criteria** that will be integrated in the already existing training module 'Management Challenges for Research Infrastructures'. It is foreseen that this section will consist of a short video lecture (10 minutes), created through the close collaboration of WP7 and WP8. A Zotero library has already been set up by WP7 where relevant publications and tools related to impact measurement and success criteria are collected (ongoing work). The next step will be a deep analysis of this literature as the basis for the training module section. WP7 and WP8 will collaborate to determine the content of the video lecture, while the lecture itself will probably be presented by WP8. WP7 and WP8 will also collaborate closely to produce the related text content for the training website. The module section should be finalised by the end of May and will be available soon after on the PARTHENOS training website.

5.4. Delivery of Training in Phase 2

One of the most important success criteria for the implementation of the training plan is to get people to (re-)use the developed modules and to raise the awareness of the importance of research infrastructures and the use/handling of RIs. For this reason, WP7 will augment its on-line offerings through partnering and provision of additional material and novel opportunities. Therefore, PARTHENOS is continuously looking for partners for cooperation and for events where modules can be put into practice. The feedback collected at these events will help to develop further modules and enhance existing modules.



5.4.1. Partnering: Cooperation and Events

Cooperation with diverse partners is the best way to test training modules developed by PARTHENOS at various events and raise awareness of their content and availability. Depending on the type of event (Summer/Winter school, PhD-training, Master Classes, etc.) audiences and target groups differ considerably. Participating at these events has the advantage to test materials on beginner, intermediate or advanced level and with different audiences with different needs.

The cooperation with the European Summer School (ESU) on Digital Humanities at Leipzig is now established. For 2017 PARTHENOS will participate at the ESU by giving a public project presentation (20 minutes of presentation, 10 minutes of discussion) of the PARTHENOS project in general and the PARTHENOS training possibilities in particular. For 2018 the participation at the ESU with another PARTHENOS module is to be considered. The exact nature of this participation will be discussed in more detail at the end of 2017 and beginning of 2018.

WP7 is already in close contact with HaS/DARIAH to explore the possibilities to participate at different Summer/Winter Schools and Master Classes organized by HaS/DARIAH. Envisaged opportunities are e.g. a HaS Master Class on Data Management (September 25 to 29, Paris 2017). It might be possible to participate here with a new module currently being set up in cooperation with WP3. Other possible events of cooperation are the HaS Summer Schools (August 2017, Tours; Prague, September 2017).

There is a negotiation process ongoing with CLARIN concerning the possibility to contribute to CLARIN events in a similar way. WP7 is also currently negotiating with the IPERION CH (Integrated Platform for the European Research Infrastructure ON Cultural Heritage). IPERION offers two sorts of training and education activities: summer schools for post-graduate and PhD students with a duration of three days with lectures and presentations and Training Camps with work on real objects, including hands-on sessions. WP7 also plans to be present as an observer at the IPERION PhD Summer School 2017 to estimate the potential to implement a PARTHENOS module in 2018.

Other big infrastructures and institutions providing active training will be approached similarly to explore participation and contributions by PARTHENOS. For example, LIBER



(Europe's largest network of research libraries) has asked for a PARTHENOS contribution to their training workshop in November 2017, which would offer an excellent opportunity to access key audiences within the library community.

5.4.2. Availability of Materials

All materials developed in PARTHENOS are available on the project website. Training materials are provided on the pages of the PARTHENOS Training Suite.

We recognise, however, that our own materials can be made stronger when viewed in the context of the full landscape of DH training materials. Some of these materials are not specifically flagged for training, such as the DARIAH collections in HAL or Zenodo, or the CLARIN contributions to VideoLecture.org. In other cases, a pedagogical frame is far more central. For example, PARTHENOS WP7 has engaged from the beginning of its work with the DARIAH Teach project, which launched its own platform (quite different from the PARTHENOS Training Suite) in early 2017.¹⁸

Integrating access and synergies with such diverse resources is not easy, however. After intensive discussion between WP7 and the developers of the CLARIN-ERIC / DARIAH-EU DH course registry, the initial idea of establishing a registry for teaching materials (which was assessed while developing the Training Plan and its implementation) was disregarded because it bears an inherent claim to completeness that is nearly impossible to fulfil.

As an alternative model, the idea is being pursued to develop not a registry, but an overlay journal that could offer curated 'issues' focussing on one or several perspectives on a coherent pedagogical challenge. This approach would provide several valuable services to the community: it would highlight existing material, document reuse scenarios, as well as provide a nucleus for a future platform for open learning objects to be taken on by the broader community. This idea is still in discussion phase, but there is broad agreement between WP7 and 8 that this could potentially be a valuable output for PARTHENOS, possibly with further input the Humanities at Scale/DARIAH project, which is setting up a meta-blog to meet similar needs.

¹⁸ See: <http://dariah.eu/teach/>.





6. Abbreviations

CENDARI	Collaborative European Digital Archival Infrastructure
CHI	Cultural Heritage Institution
CNR	Consiglio Nazionale delle Ricerche
DigCurV	Digital Curator Vocational Education Europe
DH	Digital Humanities
EHRI	The European Holocaust Research Infrastructure
ESU	European Summer University
FHP	University of Applied Sciences Potsdam
HaS	Humanities at Scale
KNAW	Koninklijke Nederlandse Academie van Wetenschappen
RI	Research Infrastructure
SSK	Standard Survival Kit
TCD	Trinity College Dublin