



The Effect of ARIADNE: A Success Story

Why ARIADNE Counts

ARIADNE Final Event, Florence, 16 December 2016

The ARIADNE impact, facts and figures

Success stories from partners and the research community



- Yesterday, you heard about...
 - ARIADNE's approach to making archaeological datasets F-A-I-R
- Today, is about: why ARIADNE counts
 - ARIADNE impacts
 - Success stories
- Tomorrow/future: The ARIADNE story continues...





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**The ARIADNE impact,
facts and figures**

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Guntram Geser
Salzburg Research



Helping others to make a difference

ARIADNE helps as...

- **Energizer** – Size opportunities to innovate archaeological data practices, suggest feasible approaches, invite organisations large and small to participate and contribute
- **Enabler** – Foster community building and cooperation, offer guides to good practice & support in capacity development
- **Opener** – Promote open access data, help open up ‘data silos’ and share datasets
- **Integrator** – Bring together currently dispersed initiatives, enable data interoperability and integrated access



ARIADNE and RI work programme: Impact areas

ARIADNE core

Community building for innovation

- Involvement of archaeological and cultural heritage institutions from Europe and beyond
- Participation of community members (end-users) in project activities
- Innovation Agenda and Action Plan

Fostering awareness and participation

- Events on e-infrastructures, digital archives, data management and sharing
- Dissemination of related information

Skills development / training

- Study visits to centres of expertise for project-related skills development
- Other training provided: tutorials, courses,...
- Guides to good practice

Integrated access to data resources and services

- Volume, richness and integration of data resources
- Portal for cross-archives search and access
- New services for certain types of content (e.g. visual media)

Innovation in digital archaeology

- Progress in data documentation, processing, linking and visualisation, e.g. extended CRM, NLP of grey literature, linked data, 3D web services,...
- Demonstration of new capabilities, e.g. advanced data integration and access

+ RI work programme

Structuring impact on the ERA

- European-level e-infrastructure for archaeology
- Strong mobilization of domain stakeholders
- High-level recognition & support of the initiative

Coordinated evolution of e-RIs

- Coordination and knowledge exchange with related e-infrastructure initiatives
- Collaboration on data policies and integrated services

Improved development, access/use and sustainable operation of data RIs

- Sharing of best practices in the sustainable operation of data archives/centers
- Promotion of new archives/ centers

Cross-disciplinary fertilization stimulated

- Fostering cross-disciplinary fertilization among researchers of different domains
- Collaboration of scholars and technologists on novel tools/services

Sharing of knowledge and technologies

- Across fields of research
- Between academia and industry
- Potential industrial innovation

Community building for innovation /1

- Liaise, inform, involve...
- 66 archaeological and cultural heritage institutions and projects in Europe and beyond
- Main impact...
 - Common understanding of benefits of and route towards many more FAIR archaeological datasets



Community building for innovation /2

- Involvement of 46 European archaeological and cultural heritage institutions and projects
 - Aarhus University, School of Culture and Society, Denmark (CA)
 - Andalusian Institute of Historical Heritage (IAPH), Spain (CA)
 - ArchaeoLandscapes Europe (EU, Culture Programme, -2015), MoU
 - Archaeology Data Service, University of York, UK (partner)
 - ArheoVest Association, Romania (partner)
 - Associazione Internazionale di Archeologia Classica, Italy (partner)
 - Austrian Academy of Sciences, Institute for Oriental and European Archaeology, Austria (partner)
 - DARIAH - Digital Research Infrastructure for the Arts and Humanities ERIC (MoU)
 - Data Archiving and Networked Services, Netherlands (partner)
 - Directorate-General for Cultural Heritage, Portugal (CA)
 - EAGLE - Europeana Network of Ancient Greek and Latin Epigraphy (EU, ICT-PSP, -2016)
 - eCloud - Europeana Cloud (EU, ICT-PSP, -2016), MoU
 - E-RIHS - European Research Infrastructure for Heritage Science (ESFRI project, 2016-)
 - Fédération et ressources sur l'Antiquité (FRANTIQ), CNRS, France (CA)
 - German Archaeological Institute, Germany (partner)
 - Hungarian National Museum, Hungary (partner)
 - IANUS - Research Data Centre for Archaeology and Ancient Studies, Germany (coord. DAI)
 - Institut National des Recherches Archéologiques Préventives, France (partner)
 - Institute of Archaeology of the Academy of Sciences, Czech Republic (partner)



Community building for innovation /3

- Involvement of 46 European...
 - Institute of Archaeology, Scientific Research Centre of the Slovenian Academy of Sciences and Arts, Slovenia (partner)
 - Institute of Cultural Heritage, Regione Emilia Romagna, Italy (CA)
 - Heritage Council, Ireland
 - Italian Ministry of Cultural Assets and Activities, Central Institute for the Union Catalogue, Italy (partner)
 - Leiden University, Faculty of Archaeology, Netherlands (partner)
 - Maison de l'Orient et de la Méditerranée (Université Lyon 2, CNRS), France
 - MAPPA Open Data Repository, University of Pisa, Italy
 - National Institute of Archaeology with Museum, Bulgarian Academy of Sciences, Bulgaria (partner)
 - National Research Centre on Human Evolution, Spain (CA)
 - NEARCH - New ways of Engaging... (Culture Programme, 2013-2018), public archaeology project
 - PARTHENOS - Pooling Activities, Resources and Tools for Heritage E-research... (H2020, 2015-2019)
 - SEAHA - Centre for Doctoral Training in Science and Engineering in Arts Heritage and Archaeology, UK
 - Soprintendenza Speciale per il Colosseo (SSCol), Il Museo Nazionale Romano e l'Area Archeologica di Roma, Italy (CA)
 - Spanish National Research Council, Institute of Heritage Sciences, Spain (partner)
 - Swedish National Data Service, University of Gothenburg, Sweden (partner)
 - The British School at Athens, Greece
 - The Cyprus Institute, Science and Technology in Archaeology Research Center, Cyprus (partner)
 - The Discovery Programme, Ireland (partner)



Community building for innovation /4

- Involvement of 46 European...
 - The Institute of Archaeology, Iceland (CA)
 - University of Oslo, Museum of Cultural History, Norway (CA)
 - University of Oulu, Memornet Doctoral Programme: Archaeology, Finland
 - University of Umea, SEAD - The Strategic Environmental Archaeology Database, Sweden (MoU)
 - University of Verona, SITAVR - Sistema informativo territoriale archeologico di Verona, Italy (CA)
 - University of Vilnius, Faculties of Communication and History, Lithuania (CA)
 - University Research Institute for Iberian Archaeology, University of Jaén, Spain (CA)
 - Vrije Universiteit Amsterdam, Spatial Information Laboratory, Netherlands (CA)
 - Vrije Universiteit Brussel, Dept. Art and Archaeology, Medea project, 2014-2017, Belgium
- 20 institutions /projects beyond Europe, e.g.
 - FAIMS - Federated Archaeological Information Management Systems, Australia
 - ICCROM - International Center for the Study of the Preservation and Restoration of Cultural Property
 - Institut National du Patrimoine, Tunisia
 - Israel Antiquities Authority, Israel
 - MAGIS - Mediterranean Archaeology GIS, DePauw University, USA
 - National Institute of Anthropology and History, Mexico
 - Open Context, USA
 - PeriodO, USA
 - tDAR - The Digital Archaeological Record, USA
 - ...



Fostering awareness and participation /1

- Importance of...
 - Sharing open/FAIR data
 - Data archives for long-term curation and access
 - Integrating e-infrastructure services
- Developing capacity
 - Organise own efforts towards data sharing
 - Stocktaking, e.g. what data resources are available, how can they be made accessible, ...
 - Participate in national and European initiatives, ARIADNE



Fostering awareness and participation /2

Archaeologists working
in Europe
(DISCO estimate)
33,000

European Association
of Archaeologists
members
2000+

CAA annual
conference
delegates
350

Participation in selected ARIADNE activities:

12.501 Participants of conference sessions, workshops, etc.
(3.010) - (Co-)organised events, incl. stakeholder meetings (65)
(9.491) - Other events, with at least 1 partner presentation (149)
692 Participants of user requirements surveys
537 Participants of TNA study visits and other trainings
13.730

Communication channels:

34.270 Project website visits since 2/2013, 37% returning
9.936 Data portal visits since 12/2015, 31% returning
743 Twitter followers (potential reach of 1.6 million)

Reach of products:

65.875 Total views of 97 presentations and documents on SlideShare, e.g. 'ARIADNE - The way forward...', 6.360; 'Ariadne Introduction', 3.477; 'First report on user needs', 2.087; 'Open Data in Archaeology', 1.541; 'Report on project standards', 1.365;...



Skills development / training

- Transnational access to centers of expertise, training and guidance material
 - TNA study visits for project-related skills development
 - Other training provided: tutorials, short courses,...
 - New guides and case studies added to the ADS & Digital Antiquity 'Guides to Good Practice'

Developing skills: 357 researchers and data curators trained

"I have often worked alongside people using different methods of 3D recording, but never actually completed it myself; I now feel that I have the knowledge and understanding to undertake this type of work myself".

Young researcher, Ireland



Development of data archives /1

- Improved development, access/use and sustainable operation of data archives
 - Cross-archive discovery of and access to archaeological datasets, ARIADNE
 - Sharing of best practices in the development and sustainable operation of data archives
 - Core requirements:
 - state-of-the-art data archives,
 - mandated,
 - long-term funding commitments

Promoting new, state-of-the-art data archives

- Community of data archives/curators
- Informal working group on data archiving guidelines
- Support „leapfrogging“ to an optimal solution
- Development of new data archives encouraged in some countries: Austria, Ireland, Slovenia,...



Development of data archives /2

- Community of data archives / curators
 - 11 conference sessions and meetings, participants...
 - Archaeology Data Service (ADS), UK
 - Data Archiving and Networked Services (DANS), E-Depot for Dutch Archaeology, Netherlands
 - IANUS - Research Data Centre for Archaeology and Ancient Studies, coord. German Archaeological Institute
 - MAPPA Open Data Repository, University of Pisa, Italy
 - Open Context, Alexandria Archive Institute, USA
 - PANGAEA - Data Publisher for Earth & Environmental Science
 - Swedish National Data Service (SND), Sweden
 - tDAR - The Digital Archaeological Record, Digital Antiquity Consortium, USA
 - African Archaeology Archive Cologne, Germany
 - FAIMS - Federated Archaeological Information Management, Australia
 - heiDATA Repository, Heidelberg University, Germany
 - media.REIFF Database, Germany
 - PHAIDRA Repository, University of Vienna, Austria
 - TextGrid & DARIAH-DE Repository, Germany
 - ...



Coordination between E-infrastructures /1

- Coordinated evolution of research e-infrastructures



- Coordination and knowledge exchange with related e-infrastructure initiatives
- Collaboration on data policies and integrated services

Enabling common strategies

- Prevent ,balkanization‘
- Foster synergies
- Agree on common data policies
- Promote principles of open/FAIR data
- Adoption of ARIADNE dataset catalogue model by other initiatives
- ...



Coordination between E-infrastructures /2

– 12 conf. sessions, meetings and workshops, participants...

- ALLEA
- CENDARI
- CESSDA
- CHARISMA
- CLARIN
- DARIAH
- DASISH
- Data Without Boundaries
- EGI.eu
- EHRI
- EIROForum
- ENVRIplus
- E-RIHS
- Europeana Foundation
- German Data Forum
- Iber civis (citizen science)
- InGRID
- IPERION-CH
- JPI on Cultural Heritage and Global Change
- OpenAIRE
- PARTHENOS
- Research Data Alliance (RDA)
- SHARE
- Socientize (citizen science)
- ...



Structuring impact on the ERA

- Impact on the European Research Area
 - European-level e-infrastructure for archaeology
 - Strong mobilization of domain stakeholders
 - High-level recognition & support of the initiative

European Archaeological Council:

*“It is essential to encourage the development of **European data-sharing networks and projects** in the field of archaeology. The **ARIADNE** project is an excellent European initiative in this regard and **participation** in this project should be **strongly encouraged**”.*

Amersfoort Agenda – Setting the agenda for the future of archaeological heritage management in Europe, 2015, p.21





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Short presentations



Short presentations /1

- Italian Ministry of Cultural Assets and Activities, Central Institute for the Union Catalogue, Italy – *Sara di Giorgio*
- Institut National des Recherches Archéologiques Préventives, France – *Kai Salas Rossenbach*
- The Discovery Programme, Ireland – *Anthony Corns*
- Austrian Academy of Sciences, Institute for Oriental and European Archaeology, Austria – *Edeltraud Aspöck*
- Arheovest Association, Romania – *Anamaria Vălcăneanț*
- University of York, Archaeology Data Service, United Kingdom – *Julian Richards*

Coffee Break



Short presentations /2

- German Archaeological Institute, Germany – *Philipp Gerth*
- Netherlands Academy of Arts and Sciences, Data Archiving and Networked Services, Netherlands – *Hella Hollander*
- The Cyprus Institute, Science and Technology in Archaeology Research Center, Cyprus – *Sorin Hermon*
- Institute of Archaeology of the Academy of Sciences, Czech Republic – *Martin Kuna*
- Scientific Research Centre of the Slovenian Academy of Sciences and Arts, Institute of Archaeology, Slovenia – *Benjamin Štular*
- National Institute of Archaeology with Museum of the Bulgarian Academy of Sciences, Bulgaria – *Nadezhda Kecheva*
- Swedish National Data Service, Sweden – *Ulf Jakobsson*
- Hungarian National Museum, Hungary – *Attila Kreiter*
- Associazione Internazionale di Archeologia Classica, Italy – *Elizabeth Fentress*



References

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- DISCO - Discovering the Archaeologists of Europe (2014): Transnational Report. York Archaeological Trust, November 2014, http://www.discovering-archaeologists.eu/national_reports/2014/transnational_report.pdf



ARIADNE is a project funded by the European Commission under the Community's Seventh Framework Programme, contract no. FP7-INFRASTRUCTURES-2012-1-313193.



The views and opinions expressed in this presentation are the sole responsibility of the authors and do not necessarily reflect the views of the European Commission.

