



# Povezani odprti podatki (LOD) v praksi

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ARIADNE is funded by the European Commission's Seventh Framework Programme

# O projektu ARIADNE

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**Advanced  
Research  
Infrastructure for  
Archaeological  
Dataset  
Networking in  
Europe**



# O projektu ARIADNE

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- 4 letni projekt projekt (začetek 02/2013)
- OP7 - “Integrating Activity”
- 6.5m €
- Koordinatorja
  - Prof. Franco Niccolucci, Univerza Firenze
  - Prof. Julian Richards, Univerza York
- [www.ariadne-infrastructure.eu](http://www.ariadne-infrastructure.eu)



# O projektu ARIADNE

- 24 partnerjev, 18 držav
- 15 pridruženih partnerjev
- Odprto partnerstvo
- Gradimo skupnost
  - “Trans national access”
  - Delavnice
  - Interesne skupine



# O projektu ARIADNE

- ARIADNE je osredotočena na arheološko snovno dediščino
  - želimo preseči fragmentacijo repozitorijev arheoloških podatkov
  - spodbujamo kulturo deljenja in pre-uporabe podatkov
- Imamo skupne točke z digitalnim humanizmom in drugimi raziskovalnimi infrastrukturami



# O projektu ARIADNE

- Omogočiti raziskovalcem enostaven in nadzorovan spletni dostop do:
  - Podatkov in podatkovnih zbirk
  - Spletnih storitev
  - Orodij za sodelovanje
- Preseči politične in institucionalne meje



# O projektu ARIADNE

- Mobilizirati
- Integrirati
- Narediti dostopno

Vaši podatki

Dendrokronološki podatki (DCCD) 5200 vzorcev

INRAP: 27,000 terenskih poročil

SIGECweb: 326,000 arheoloških predmetov

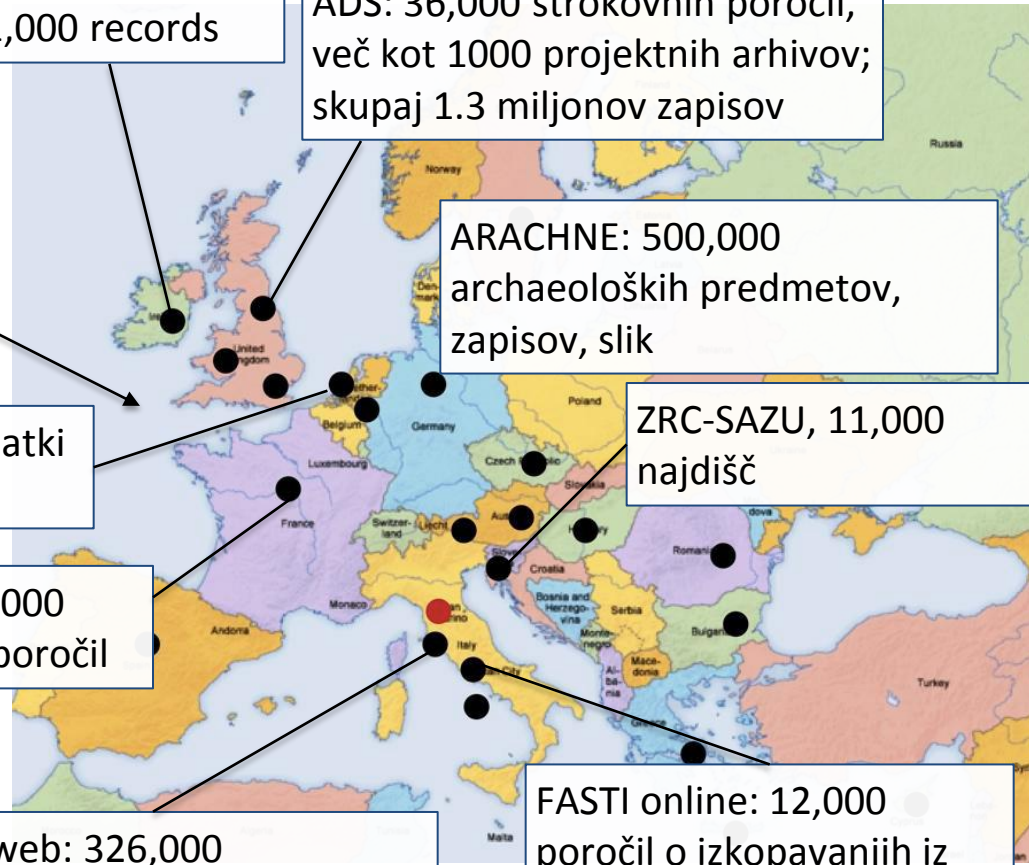
Archaeological Survey of Ireland, 141,000 records

ADS: 36,000 strokovnih poročil, več kot 1000 projektnih arhivov; skupaj 1.3 milijonov zapisov

ARACHNE: 500,000 arheoloških predmetov, zapisov, slik

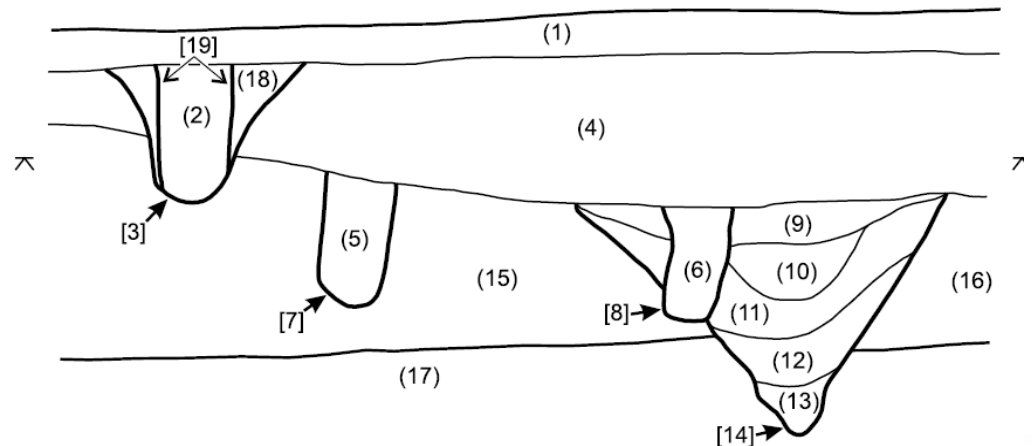
ZRC-SAZU, 11,000 najdišč

FASTI online: 12,000 poročil o izkopavanjih iz 3,300 najdišč v 14 državah



# Povezovanje podatkov

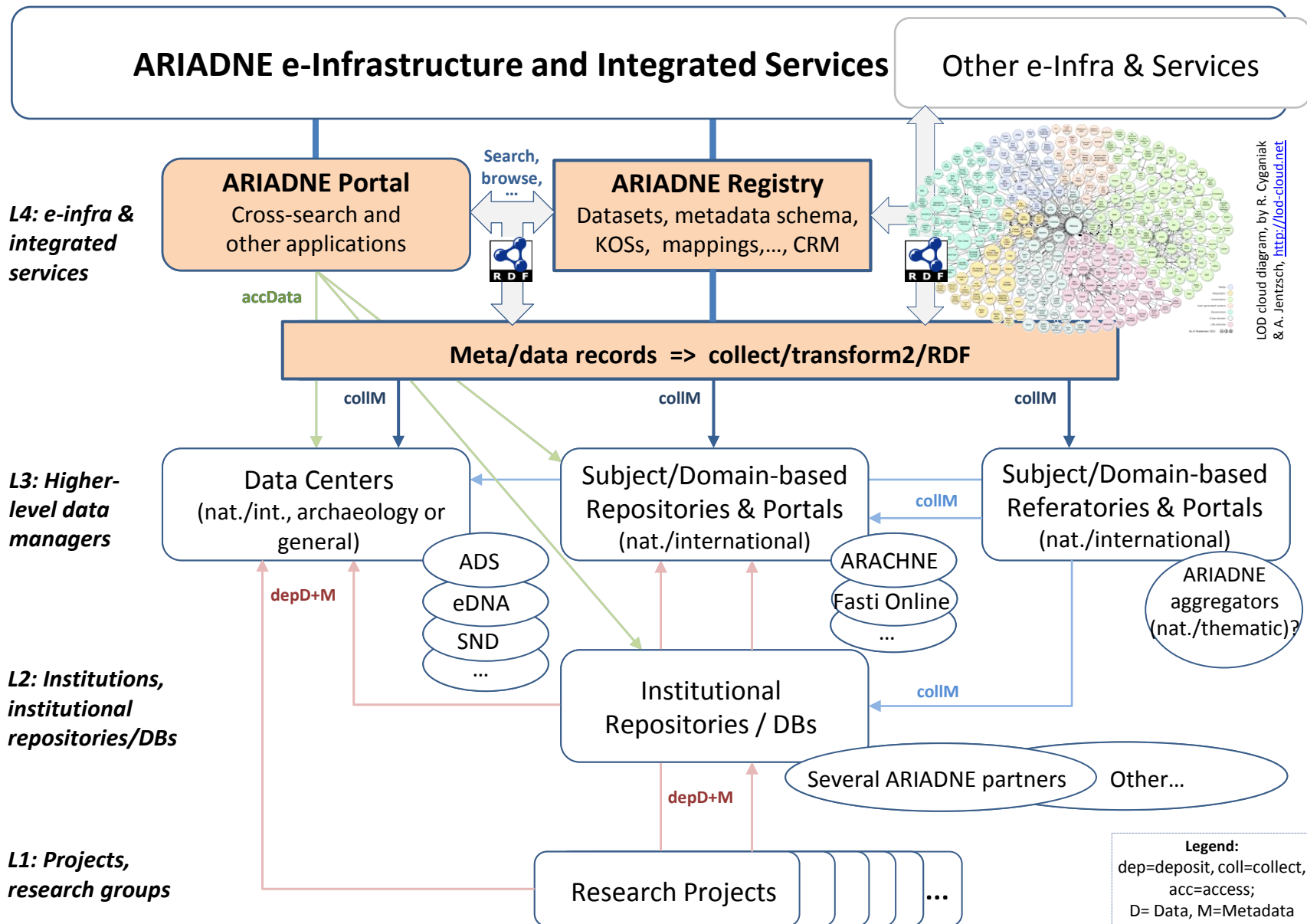
- Povezujemo podatke v številnih (naravnih) jezikih in standardih
- ARIADNE za integracijo podatkov uporablja CIDOC CRM z dodatkom za arheologijo
  - Obstoječi podatki so mapirani na “ARIADNE data model”
  - Koncepti so mapirani na Getty AAT tezaver





# Povezovanje podatkov

## ARIADNE Users Framework





All fields ▾ tumul

tumuli / tumuli / tumulus ⓘ

## Welcome

ARIADNE brings together and integrates existing archaeological research data infrastructures so that researchers can use the various distributed datasets and new and powerful technologies as an integral component of the archaeological research methodology.

## Browse the Catalog

Where

When

What

farmhouses

archaeology cairns fosse

Church

burials

pits (earthworks)

- Pojmi iz “Getty Art & Architecture Thesaurus” (AAT) kot ponujeni pojmi
  - Omogoča razširitev poizvedbe
  - Večjezična podpora (brez Slovenščine, samo “veliki” jeziki)

[Catalog](#)[Services](#)[About](#)

## tumuli

**Getty AAT ID** 300391495

**Note** Ancient sepulchral mounds, particularly those created by the Bronze Age Tumulus culture evident in Europe from around 1600 BCE.

**URI** <http://vocab.getty.edu/aat/300391495>

**Broader** burial mounds

## Connected resources

Search connected resources **354**

## Terms

English

tumuli

tumulus

## Provider mapping

### Tumulus

**Match URI** <http://www.w3.org/2004/02/skos/core#closeMatch>

**Source URI** <http://www.fastionline.org/concept/attribute/tumulus>

## gomila (neopredelje...

**Match URI** <http://www.w3.org/2004/02/skos/core#closeMatch>

**Source URI** <http://tempuri/aat-mappings-zrc-sazu-arkas/gomila%20%28neopredeljena%29>

## gomilno grobišče

**Match URI** <http://www.w3.org/2004/02/skos/core#broadMatch>

**Source URI** <http://tempuri/aat-mappings-zrc-sazu-arkas/gomilno%20grobi%C5%A1%C4%8De>

### Tumulus

**Match URI** <http://www.w3.org/2004/02/skos/core#exactMatch>

**Source URI** <http://tempuri/DAI/Tumulus>





ARIADNE Portal interface showing search results for 'tumuli'. The interface includes a search bar, navigation links (Catalog, Services, About), and a list of search results. A callout box highlights the following resource types: Native Subject, Keyword, Contributor, Publisher, Place, and Dating.

**Current search:** tumuli

**Filters:**

- Where:** Map showing search results across Europe.
- When:** Histogram showing the distribution of search results over time, peaking around 0 AD.
- Resource type:** Sites and monuments databases or inventories (926)

**Total results:** 1,290

**Order By:** Score

**Search Results:**

- Bailar Kairyak Tumuli 2010**  
Type: Event/intervention resources Publisher: International Association for Classical Archaeology  
Fasti record for interventions in the year 2010 at Bailar Kairyak Tumuli  
Derived Subject: tumuli  
resource.aatSubjects.label: tumuli  
Derived Subject: tumuli
- Isperih Tumuli 2009**  
Type: Event/intervention resources Publisher: International Association for Classical Archaeology  
Fasti record for interventions in the year 2009 at Isperih Tumuli  
Derived Subject: tumuli  
resource.aatSubjects.label: tumuli
- Isperih Tumuli 2010**  
Type: Event/intervention resources Publisher: International Association for Classical Archaeology  
Fasti record for interventions in the year 2010 at Isperih Tumuli  
Derived Subject: tumuli  
resource.aatSubjects.label: tumuli
- Borisovo Tumuli 2011**  
Type: Event/intervention resources Publisher: International Association for Classical Archaeology  
Fasti record for interventions in the year 2011 at Borisovo Tumuli  
Derived Subject: tumuli  
resource.aatSubjects.label: tumuli
- Ravnishteto Tumuli 2005**  
Type: Event/intervention resources Publisher: International Association for Classical Archaeology  
Fasti record for interventions in the year 2005 at Ravnishteto Tumuli  
Derived Subject: tumuli  
resource.aatSubjects.label: tumuli

Resource type  
Native Subject  
Keyword  
Contributor  
Publisher  
Place  
Dating

# ARIADNE in PeriodO

- PeriodO je gazetar odprtih povezanih podatkov (LOD gazetteer)
  - Strokovne definicije zgodovinskih, umetnostno-zgodovinskih in arheoloških obdobj
  - Sedaj vsebuja definicije arheoloških obdobj partnerjev ARIADNE
  - Pojmi imajo PeriodO URI naslove
- Omogoča lažje povezovanje podatkov z različno definiranimi obdobji
  - (arheologija = časoprostor)

The screenshot shows the PeriodO web application interface. At the top, it says "PeriodO" and "Current backend: Canonical [switch]". There are "Sign in" and "Menu" buttons. Below that, there are tabs for "Browse by: Period" and "Collection". The main section is titled "Periods" and shows "Viewing 1 - 25 of 3745". There is a "Show" dropdown set to "25" and "periods at a time." Below that are "Previous" and "Next" buttons, and a pagination bar with numbers 1, 2, 3, ..., 149, 150. The main content is a table with columns "Label", "Earliest start", and "Latest stop".

Label	Earliest start	Latest stop
2nd Millenium BCE	-2000	-1000
2nd Millenium BC Egypt (2000-1000 BC)	-2000	-1000
2nd Millenium BC Levant (2000-1000 BC)	-2000	-1000
3rd millenium BC	-3000	-2000
4th millenium BCE	-4000	-3000
13th Century AD Eastern Mediterranean (AD 1200-1300)	1200	1300
16th Century	1500	1600
17th Century	1600	1700
17th Century (1600 - 1699)	1600	1699

On the right side, there are "Filters" and "Text" sections. The "Filters" section has a "Time range" filter with a "Hide outliers?" checkbox and a "Hiding range from -2600000 to -49942" label. Below that is a "Text" section with a "Match string" input field. At the bottom right, there is a "Source" section with a "Reset" button and a list of sources:

- 944 British Museum.
- 659 ARIADNE Consortium. ARIADNE Data Collection. 2015.
- 525 David G. Anderson. Digital Index of North American Archaeology (DINAA). 2012.
- 212 AIAC and L - P : Archaeology. FASTI - Home. 2004.
- 116 Roger Bagnall. Pleiades: A community-built gazetteer and



<http://perio.do/>

## ARIADNE visual media service

Create your online showcase for 3d models, images and RTI.

[Upload »](#)

[Browse »](#)

### 3D models

3D representations produced with 3D scanners or photogrammetry are extremely high-resolution and hard to visualize at interactive rate. This service produces a web page that supports interactive visualization of your data, after converting it into an efficient multiresolution encoding.

[View details »](#)

[Demo](#)

### RTI images

Relightable images (called Reflection Transformation Images, RTI, or Polynomial Texture Maps, PTM) are becoming an [increasingly used media](#). This service closes a current gap, giving support for easy publication on the web and interactive visualization of RTI images.

[View details »](#)

[Demo](#)

### High-resolution images

High-resolution images are a commodity resource in archaeology. Unfortunately, they are most often disseminated and published on the web by using low-resolution versions (a single 40Mpixel images is 120MB in uncompressed format and around 10MB when lossy compressed).

[View details »](#)

[Demo](#)



<http://visual.ariadne-infrastructure.eu/>

# Storitve za objavljanje vizualnih medijev

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Konverzija podatkov v format primeren za splet olajša spletno objavo oz. vizualizacijo:

- 3R modeli
- Računalniško upodabljanje pretvarjanja odbojnosti (RTI)
- Visokoločljive 2R slike



<http://visual.ariadne-infrastructure.eu/>

# Storitve za objavljanje vizualnih medijev

## Nalaganje lastnih podatkov

- Za vsako enoto uporabnik izpolni enostaven obrazec (metapodatki)
- Izberemo datoteko
- Sprejmemo pogoje (© ostane vaš!)
- Upload!

### Upload your media

For the list of supported filetypes see the [help page](#).

#### Information about you

**Email**

**Name**

**Institution**

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#### Information about the digital object

**Label**

**Title**

**Description**

**Tags**

**Web resource**

**Collection/Dataset**

**Copyright owner**

**Private**  Keep this object private.

**File**

I have read and accepted the [usage terms](#).



<http://visual.ariadne-infrastructure.eu/>












# Storitve za objavljanje vizualnih medijev

- Iskanje z brskanjem

## Media

Search...

[3D models](#) [Images](#) [RTI](#)

type	title	size	
	-	111.13 MB	<a href="#">View</a>
	3D model of the Arringatore	80.23 MB	<a href="#">View</a>
	Alchemy high-res image of right-side spiral	44.87 MB	<a href="#">View</a>
	Alchemy high-res image of top-left angle	40.22 MB	<a href="#">View</a>
	Amarna Figurine	28.71 MB	<a href="#">View</a>
	Apollo - Luni Temple.	6.12 MB	<a href="#">View</a>
	Askos	29.23 MB	<a href="#">View</a>
	Askos	128.91 MB	<a href="#">View</a>
	A small bronze horse	26.87 MB	<a href="#">View</a>



<http://visual.ariadne-infrastructure.eu/>

# Storitve za objavljanje vizualnih medijev

## 3R modeli:

- 3R model kipa “Frontone A” iz templja Luni, terracota, 2. st. pr. n. št.
- National Archaeological Museum in CNR-ISTI



<http://visual.ariadne-infrastructure.eu/3d/apollo>

# Storitve za objavljanje vizualnih medijev

RTI model:

- 46,7 mb
- Bizantinski kovanec
- ISTI-CNR

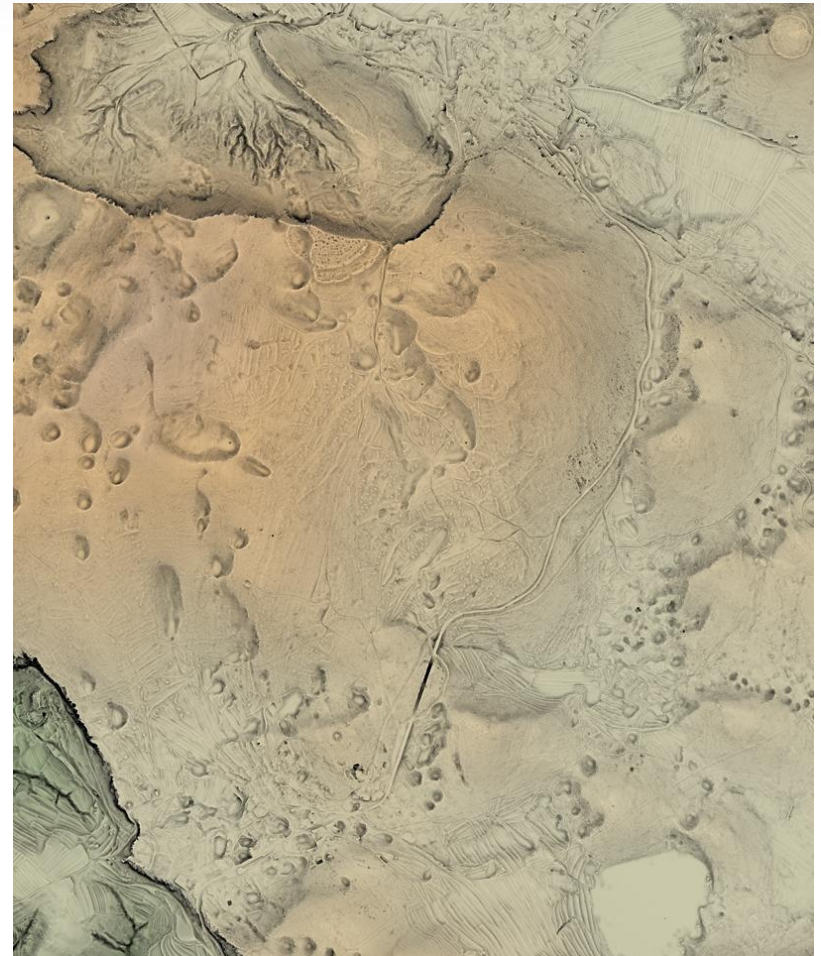


[http://visual.ariadne-infrastructure.eu/rti/testnomprojetmj30052016\\_02](http://visual.ariadne-infrastructure.eu/rti/testnomprojetmj30052016_02)

# Storitve za objavljanje vizualnih medijev

Visokoločljive 2D slike:

- 138,2 mb
- Vizualizacija lidarskih podatkov, Gradišče nad Knežakom
- ZRC SAZU



[http://visual.ariadne-infrastructure.eu/img/lidar\\_a](http://visual.ariadne-infrastructure.eu/img/lidar_a)



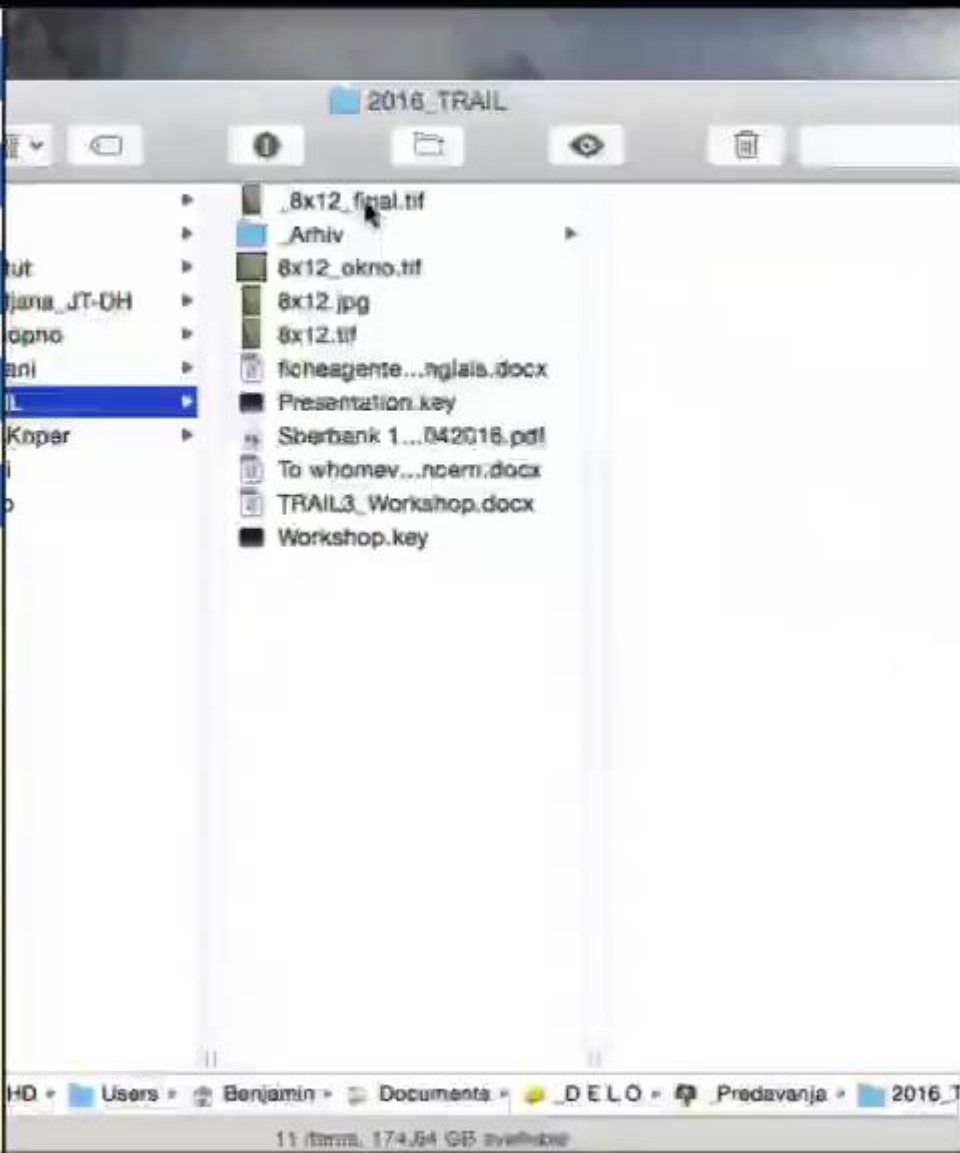
# Online

	2.86 MB	<a href="#">View</a>
Photograph	12.29 MB	<a href="#">View</a>
Rendering	13.91 MB	<a href="#">View</a>
St. Helena Chapel	36.19 MB	<a href="#">View</a>
Billforts	55.58 MB	<a href="#">View</a>

Billforts depicted is situated in western Slovenia (central coordinate to see <http://gis.arso.gov.si/evode/profile.aspx?Extent=442261.61,52763.74,13.22917>). High-Resolution the 84 km2 area has been derived from lidar data collected during of Slovenia project"

[u.gov.si/pageuploads/novice/Teksti\\_novic/LIDAR\\_opis.pdf](http://u.gov.si/pageuploads/novice/Teksti_novic/LIDAR_opis.pdf); cloud has been filtered with lasground software (settings: clarity - ultra fine; ignore points with classification 7). 1 m ordinary kriging (settings: No. of sectors to search - 4, sectors 64, maximum No. of data from each sector 16, radius - 8, blank node if more than 3 sectors are empty, radius merging RVT software derived visualizations sky-view both: No. of search directions 16, radius 10 pixels, low level GIS software derived deviation from mean elevation source: <http://gis.arso.gov.si/evode/profile.aspx?Extent=442261.61,52763.74,13.22917>). Data processing

# Desktop





# Storitev za prostorske podatke

Landscape Services

Cloud Service

3D Terrain Service

Help

Contacts

ARIADNE

## Landscape Services

*Landscape Services* for **ARIADNE** are a set of responsive web services that include large terrain datasets generation, 3D landscape composing and 3D model processing, leveraging on powerful open-source frameworks and toolkits such as **GDAL**, **OSGjs**, **OpenSceneGraph** and **ownCloud**. Here a few examples of 3D datasets produced by the services:



### Cloud Service

This is the main service to **access**, **manage** and eventually **share** your online data. This includes DEM input data, Geo-images, 3D models, etc.

Cloud Service



### 3D Terrain Service

You can use this service to process DEM, geo-images and shapefiles to produce large 3D terrain Datasets optimised for real-time visualization and web streaming.

3D Terrain Service



### Terrain Gallery

View, download or delete your generated 3D Terrain datasets. You can also interactively explore a 3D dataset online and present it in your web site, through desktop browsers, smartphones or tablets.

Terrain Gallery



<http://landscape.ariadne-infrastructure.eu/>

Ariadne, princesa Krete, hči kralja Minosa in kraljice Faziphae.

Ko se je Tezej, sinj kralja Egeja, javil, da ubije Minotavra, se je Ariadne vanj zaljubila na prvi pogled. Pomagala mu je ubiti Minotavra tako, da mu je podarila čarobni meč za boj z Minotavrom ter klobčič niti, s pomočjo katerega se mu bo uspelo rešiti iz labirinta.



# Hvala za pozornost

e-pošta: [info@ariadne-infrastructure.eu](mailto:info@ariadne-infrastructure.eu)

<http://www.ariadne-infrastructure.eu>

<http://portal.ariadne-infrastructure.eu>

Twitter: @ariadne-infrastructure

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