

A photograph of the University of Tartu building, a large, light-colored neoclassical structure with a prominent portico supported by columns. The building is partially obscured by a semi-transparent blue rectangle containing text. The sky is overcast.

LIBRARY AND DATA UNIVERSITY OF TARTU PERSPECTIVE

Maksim Misin
Kristel Uiboaed

Data Management Specialists
University of Tartu Library

PLAN...

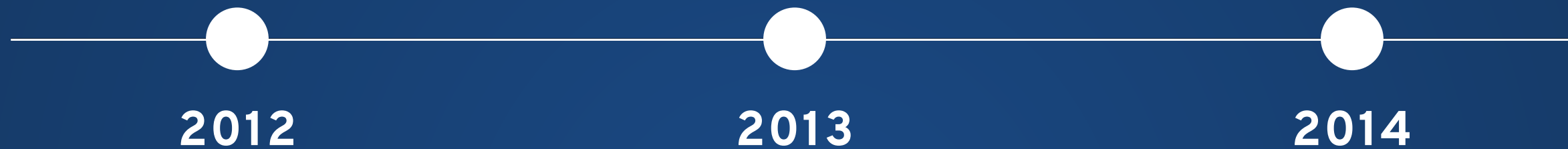
- Creating research data repository
 - Addressing challenges
 - Looking forward
-
- Data literacy



PART I THE STORY SO FAR

<https://unsplash.com/photos/o6GEPQXnqMY>

TIMELINE OF TARTU DATA REPOSITORY



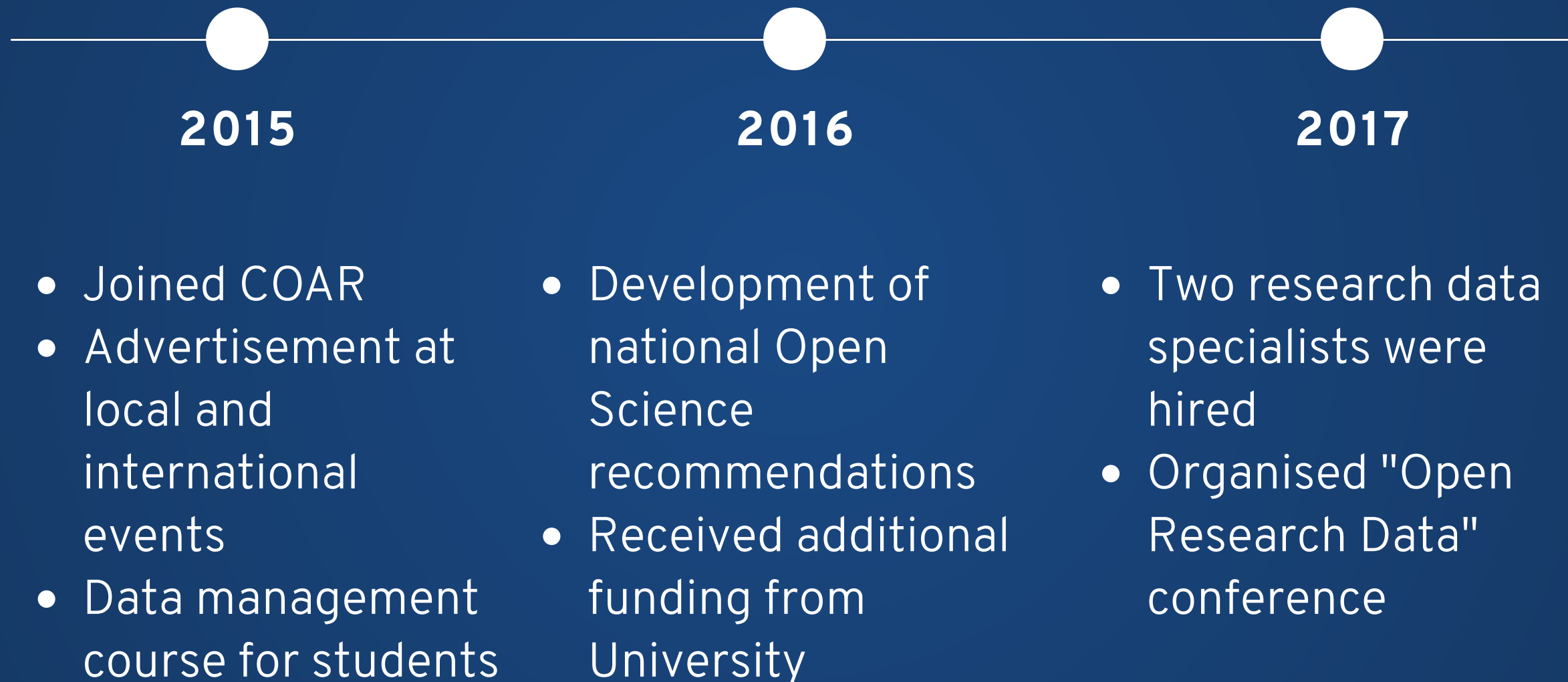
- Scientists approached library
- Funding application
- Received funding for DataCite Estonia
- Created data repository datadoi.ut.ee
- Created a team to support data publication
- Joined DataCite



UNIVERSITY OF TARTU
Library



TIMELINE OF TARTU DATA REPOSITORY



DATA REPOSITORY POLICIES

MISSION:

Support of research lifecycle in the University of Tartu

CONTRIBUTORS:

University of Tartu faculty, researchers, staff, and students

CONTENT:

All types of research data, with the focus on long-tail data without discipline-specific repositories

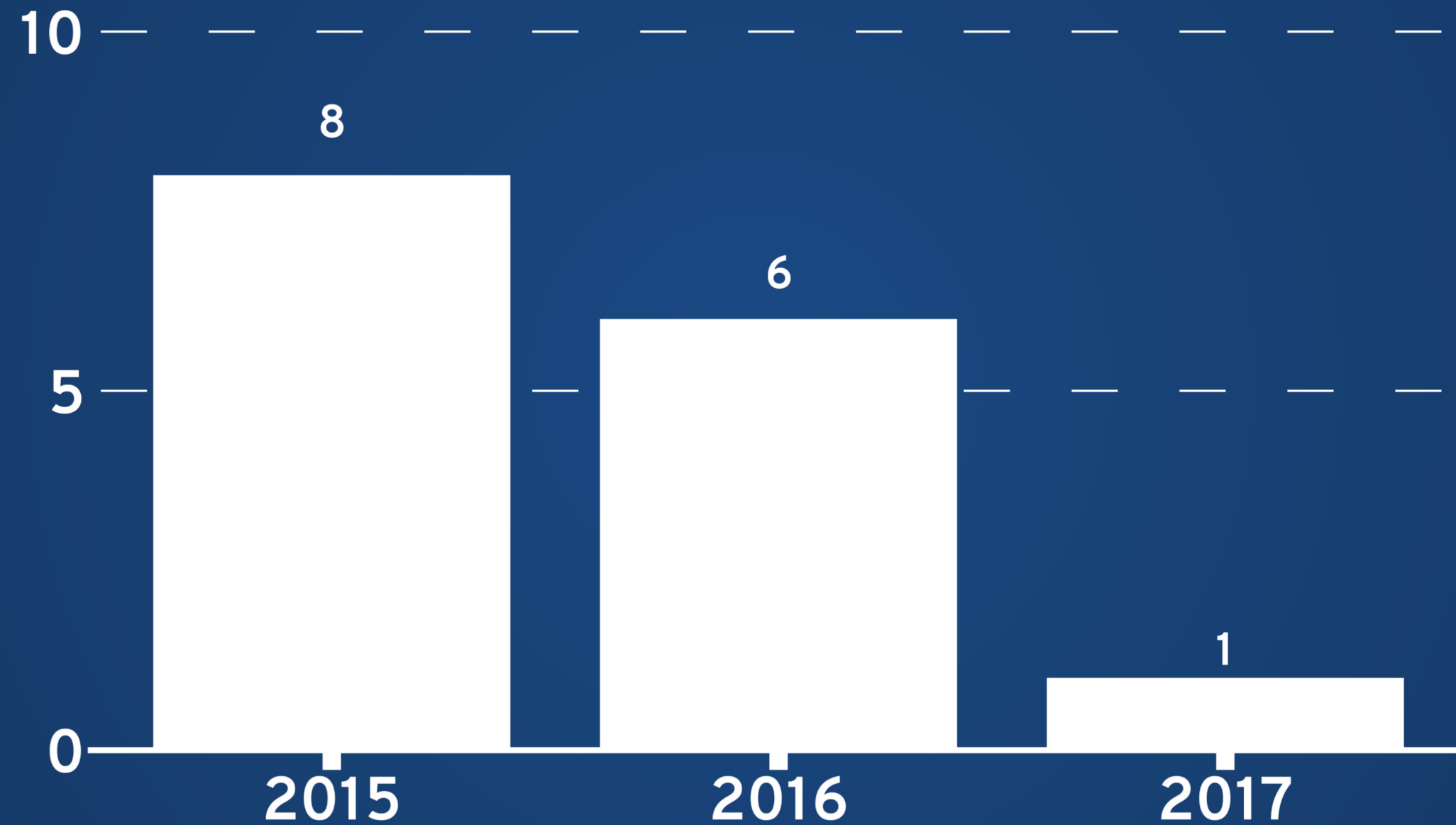
DEPOSITION:

Either with the help of a librarian, or independently. In the later case submitted material should be reviewed before it will be made public

OPEN ACCESS:

Encouraged but not enforced

TIMELINE OF USER SUBMISSIONS





PART II

ADDRESSING CHALLENGES

<https://unsplash.com/photos/dfZbts6B4yw>

A FAMILIAR STORY...

UNIVERSITY OF CAMBRIDGE:

72 datasets over a decade (2005-2015) [1]

UNIVERSITY OF ROCHESTER:

UNIVERS

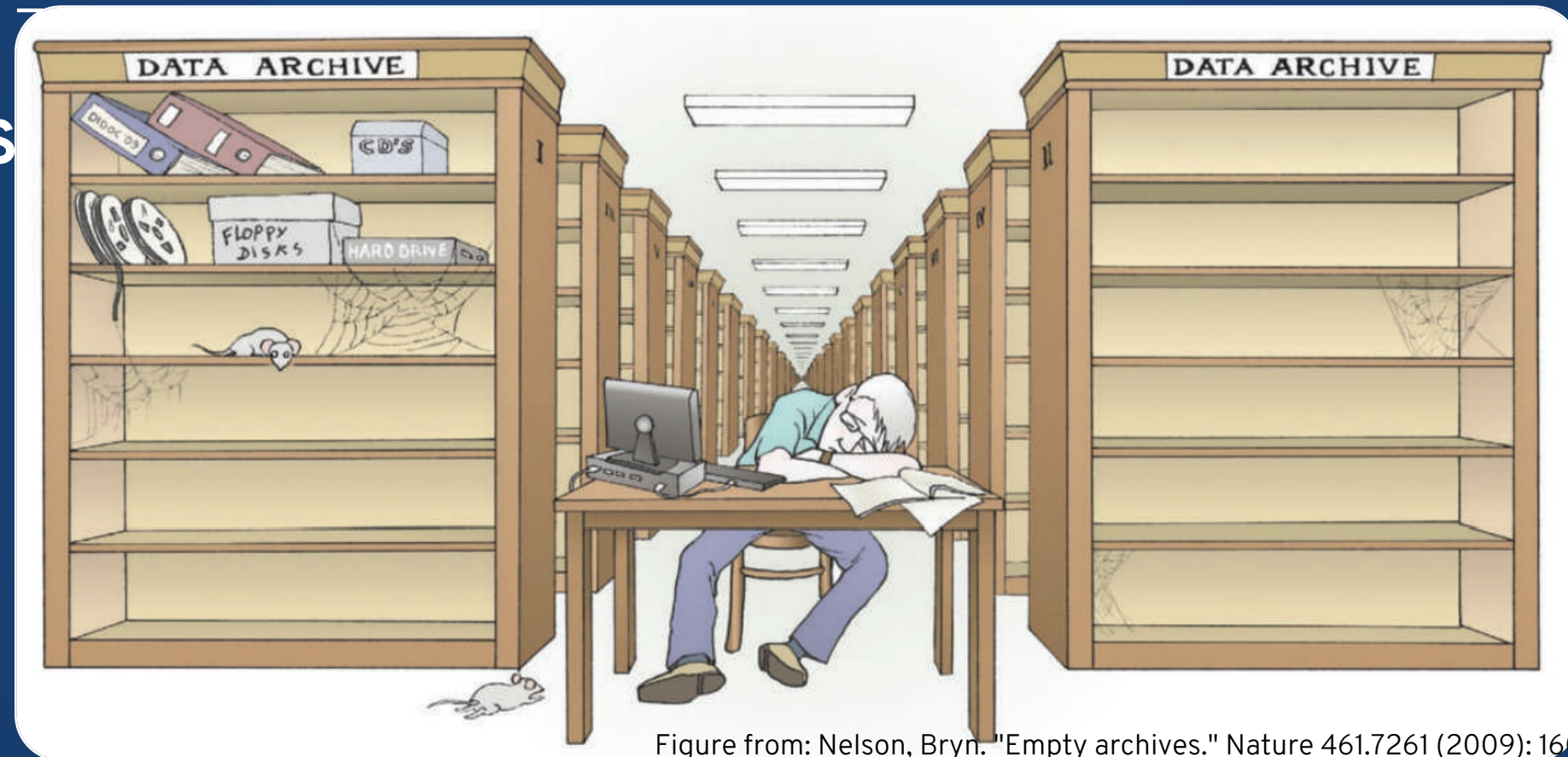


Figure from: Nelson, Bryn. "Empty archives." Nature 461.7261 (2009): 160.



UNIVERSITY OF TARTU
Library

[1] <https://unlockingresearch.blog.lib.cam.ac.uk/?p=221>

[2] <https://urresearch.rochester.edu/viewRepositoryStatistics.action>

[3] <https://ecommons.cornell.edu/browse?value=Dataset&type=type>

PLAN FOR THE NEXT YEAR

- Simplify use and submission
- Engage students
- Engage governmental agencies



DATA DOI.UT.EE TWO MONTHS AGO

Datadoi is a digital service that collects, preserves, and distributes scientific research data. Open data can freely and without any restrictions be downloaded, disseminated and re-used

Communities in Datadoi

Select a community to browse its collections.

- [Füüsika](#)
- [Sotsiaalteadused](#)

Recently Added

[Informatsiooni vahendamise teooria ja praktika probleeme Eesti Raadios](#)

Raudam, K.; Saar, A. (Tartu Ülikool, 1984)

Informatsiooni vahendamist Eesti Raadios on käesolevas töös käsitletud keskse infosaate "Päevakaja" baasil, sest selles väljenduvad kõige selgemalt probleemid, mis on seotud informatsiooni edastamisega kuulajale. Selleks ...

[Päeviku 3/93 lisaleht](#)

Kaldaru, Hella (Tartu Ülikool, 1993-11)

Uuring Eesti venekeelse telepubliku eelistuste kohta eesmärgiga saada teada, kui vaadatav on VENE VIDEOKANAL ja mille järgi tehaksi valik kanali ning saate osas. Küsimustikus osales 198 inimest.

[ENSV MN Koondise "Eesti Põllumajandustehnika sotsiaalse arengu aluste väljatöötamine. ITP enesetäiendussüsteem EPT süsteemis tervikuna.](#)

Auväart, L.; Mikson, M.; Lupp, E.; Titma, Mikk; Trummal, M. (Tartu Ülikool, 1975)

Aruanne sisaldab ülevaadet koondise „Eesti Põllumajandustehnika“ personaliuuringust, mille eesmärgiks oli inoanortehniliista töötaista enesetäiendussüsteemi väljatöötamine. Uurimustöö on täidetud leningus A 2060 järgi

Search Datadoi

Browse

All of Datadoi
[Communities & Collections](#)
[By Issue Date](#)
[Authors](#)
[Titles](#)
[Subjects](#)

My Account

[Login](#)
[Register](#)

Discover

Author
[Tammet, Hannes \(4\)](#)
[Jakobson, Erko \(2\)](#)
[Palo, Timo \(2\)](#)
[Auväart, L. \(1\)](#)
[Hõrrak, Urmas \(1\)](#)
[Järv, J. \(1\)](#)
[Kaldaru, Hella \(1\)](#)
[Kallikorm, A. \(1\)](#)
[Kenkmann, P. \(1\)](#)
[Kulmala, Markku \(1\)](#)

DATA DOI.UT.EE TODAY



DataDOI

English ▾ Login

The DataDOI is an open access repository for
publishing research data from the University of Tartu

Search

Submit Dataset

🏠 DataDOI



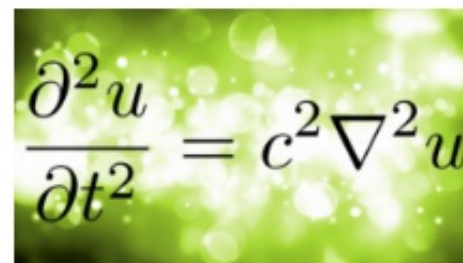
Communities in DataDOI



Humaniora



Medicina



Realia



Socialia



Teised/Others

ITEM VIEW TWO MONTHS AGO

Vertical profiles of atmospheric variables based on tethersonde soundings from Ny-Ålesund

Palo, Timo; Jakobson, Erko

URI: <http://dx.doi.org/10.15155/repo-6>

<http://datadoi.ut.ee/handle/33/11>

Date: 2015-04

Abstract:

The melt of snow and sea ice in Svalbard and its fjords is strongly controlled by the radiative and turbulent surface fluxes. The fluxes depend, among others, on the structure of and processes in the ABL. Over a complex topography, such as Svalbard mountains and fjords, the state of the ABL is not well known. It is affected by the synoptic-scale flow conditions, which vary between cases of advection of warm, marine air masses from open ocean and cold-air outbreaks from the north or east. Data of vertical profiles of atmospheric variables were collected as a part of the project "Atmospheric boundary layer and its interaction with snow and sea ice in Svalbard fjords". The principal objective of the project was to better understand and quantify the processes in the atmospheric boundary layer (ABL) over complex topography in Svalbard and their interaction with the snow and sea ice surface. Soundings archive consists 17 high-resolution vertical profiles of the measured atmospheric characteristics (air temperature, relative humidity, wind speed and direction, and air pressure) acquired from the tethersonde soundings campaign in Ny-Ålesund (Svalbard archipelago) between 21 March and 2 April in 2009.

Description:

Soundings were carried out on daily basis by using Vaisala tethersonde system DigiCORA TT12 with maximum altitude of 2000 m. The instrumentation consisted of 7 m3 helium filled balloon for lifting sondes, an electrical winch, three sondes suspended on the tether line below the balloon at approximately 20 m vertical intervals, and a ground station. Limited by the wind speed, however, soundings were not possible to perform every day. Each profile in dataset includes ascending and descending profiles of variables. Dataset presents raw data where no averaging over the sondes and heights is done. Yet, data is checked manually for errors. Some distinct obviously erroneous signals and spike values were removed from the data. More about the methods is described in ReadMe text file.

[Show full item record](#)

Files in this item

	Name: ReadMe_vert_profi ... Size: 19.49Kb Format: PDF	View/Open
	Name: vert_profiles_Ny_ ... Size: 5.064Mb Format: Microsoft Excel	View/Open

Search DataDOI

- ☒ Search DataDOI
☐ This Collection

Browse

All of DataDOI

[Communities & Collections](#)
[By Issue Date](#)
[Authors](#)
[Titles](#)
[Subjects](#)

This Collection

[By Issue Date](#)
[Authors](#)
[Titles](#)
[Subjects](#)

My Account

[Login](#)
[Register](#)

Statistics



[View Usage Statistics](#)

ITEM VIEW TODAY

Vertical profiles of atmospheric variables based on tethersonde soundings from Ny-Ålesund

Palo, Timo; Jakobson, Erko

Export

Name	Size	Description
 ReadMe_vert_profiles_Ny_Alesund.pdf	19.49Kb	
 vert_profiles_Ny_Alesund.xls	5.064Mb	



Date
2015-04

URI
<http://dx.doi.org/10.15155/repo-6>
<http://datadoi.ut.ee/handle/33/11>

Metadata
[Show full item record](#)

Abstract

The melt of snow and sea ice in Svalbard and its fjords is strongly controlled by the radiative and turbulent surface fluxes. The fluxes depend, among others, on the structure of and processes in the ABL. Over a complex topography, such as Svalbard mountains and fjords, the state of the ABL is not well known. It is affected by the synoptic-scale flow conditions, which vary between cases of advection of warm, marine air masses from open ocean and cold-air outbreaks from the north or east. Data o... [Show more](#)

Keyword

vertical profiles of air temperature; realtive humidity; wind speed and wind direction; Svalbard; Spitsbergen; Ny-Ålesund; tethersonde soundings; atmospheric boundary layer; Arctic; atmosphere; Arctic climate

Item type

Dataset info:eu-repo/semantics/dataset

Collections

[Füüsika instituut](#) [9]

Search



- ☒ Search DataDOI
- ☐ This Collection

BROWSE

[Communities & Collections](#)

[By Issue Date](#)

[Authors](#)

[Titles](#)

[Subjects](#)

[This Collection](#)

[By Issue Date](#)

[Authors](#)

[Titles](#)

[Subjects](#)

MY ACCOUNT

[Login](#)

[Register](#)

STATISTICS

[View Usage Statistics](#)

FURTHER WORK

- Additional functionality
- Tutorials and policies
- First stage should be completed
by June 2017



MAKING STUDENTS SHARE DATA

- Might be simpler than with academics
- Planned for autumn
- Start with Bachelor and Master's students
- Should include lectures for students
- ... and for faculty



WORKING WITH RESEARCH COUNCIL

- Might be simpler than with academics
- Probably more effective
- The aim is mandatory data archiving for projects funded by Estonian government

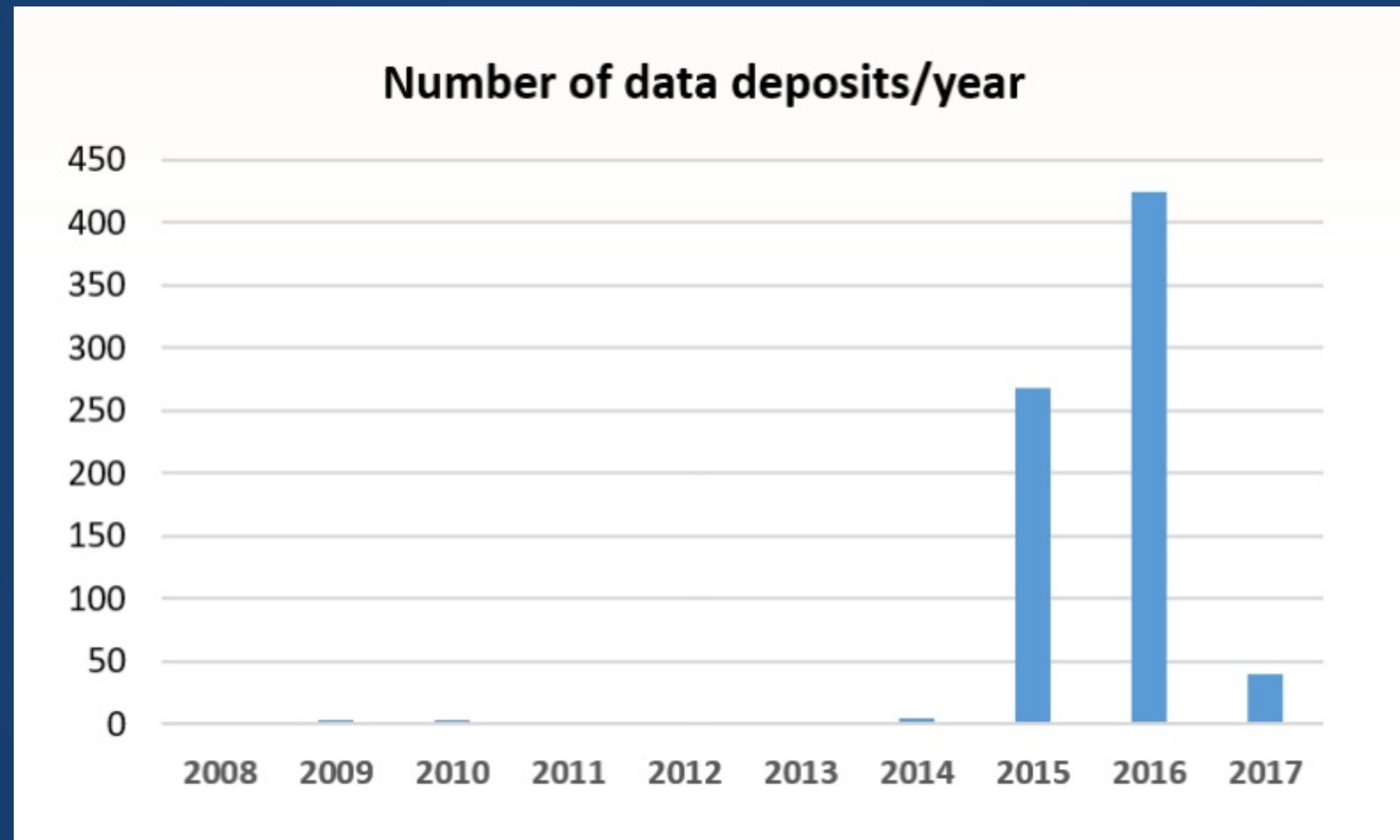


A photograph of a wooden boardwalk made of weathered planks leading from the foreground towards a beach. The boardwalk is flanked by green dune vegetation, including tall grasses and small purple flowers. In the background, the ocean waves are visible under a bright sky. A semi-transparent blue rectangular box is overlaid on the upper half of the image, containing the text 'PART III' and 'LOOKING FORWARD' in white.

PART III

LOOKING FORWARD

BOTTOM-UP SUCCESS STORY: CAMBRIDGE



BOTTOM-UP SUCCESS STORY: CAMBRIDGE

INGREDIENTS:

- Direct discussions with researchers
- Structured interviews and surveys
- Open door meetings with funders
- Central RDM website
- RDM training and support
- Data repository
- Data champions



TOP-DOWN SUCCESS STORY: NETHERLANDS

7 120 datasets across 4 universities in science and
engineering research data repository

36 289 datasets in national data repository for
humanities and social sciences



UNIVERSITY OF TARTU
Library

<https://data.4tu.nl/repository>
<https://easy.dans.knaw.nl/ui/home>
<http://www.openaccess.nl/en/wat-is-open-access/open-data>

TOP-DOWN SUCCESS STORY: NETHERLANDS

INGREDIENTS:

- DANS: institute for permanent Access to Digital Research Resources
- Mandatory DMPs and data publications by majority of funders (ZonMW, KNAW, NWO)
- DMP requirements for doctoral students
- Extensive governmental support
- Even stricter requirements at university levels



POSSIBLE LONG-TERM OPEN DATA SOLUTIONS

- Following University of Cambridge, establish a more active advertisement campaign and get individual researchers involved
- Integrate data archiving in other university data management systems such as OwnCloud
- Make data publications equivalent to article publications (very long term)



POSSIBLE LONG-TERM OPEN DATA SOLUTIONS

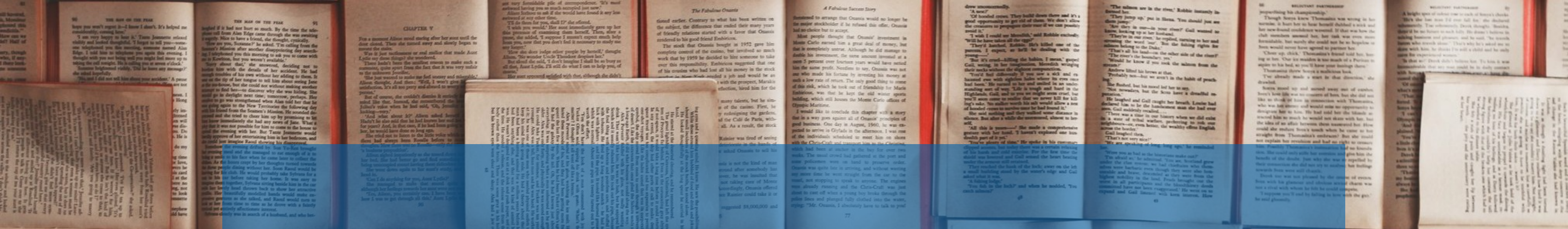
- Move away from institutional data repositories to national archives
- Switch to cloud solutions (Zenodo, EUDAT, Dryad)
- Wait for EU-wide regulations to get implemented



CONCLUSIONS

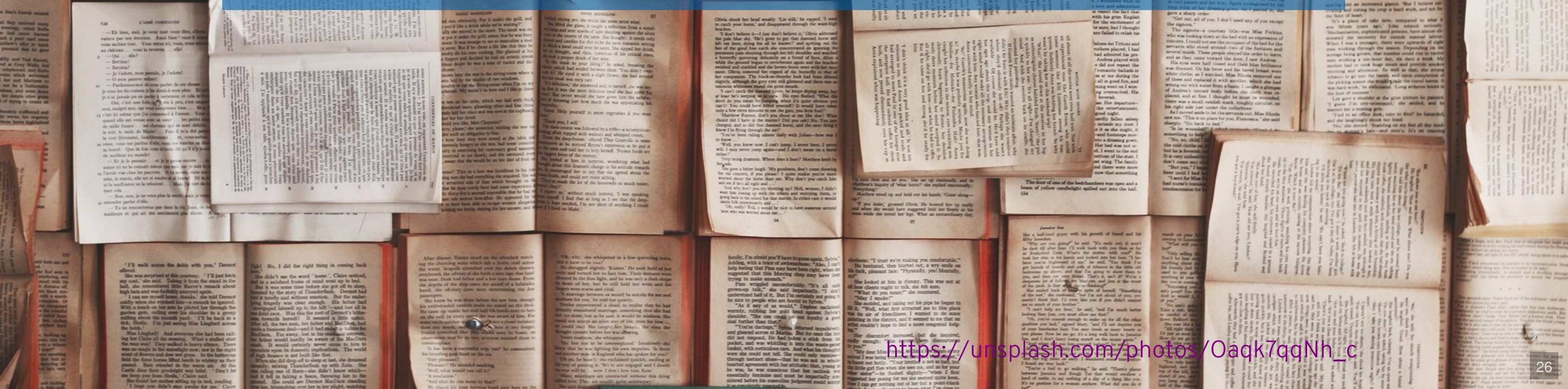
- We built a data repository but (almost) no one is using it
- To promote it we will need to improve design and functionality as well as help from other people
- Judging from the experience of other universities widespread data archiving *is possible*, but takes years to cultivate





PART IV

DATA LITERACY



https://unsplash.com/photos/Oaqk7qgNh_c

TODAY LIBRARIES ARE LARGE INFORMATION AND DATA CENTERS

- Store both physical and digital information
- Preserve and archive cultural and scientific heritage
- Promote and distribute access to information
- Expertise in information search and retrieval



TODAY LIBRARIES ARE LARGE INFORMATION AND DATA CENTERS



LIBRARY AS A CENTRE OF DATA LITERACY

- Teaches
- Consults
- Provides expertise in hardware and software
- Offers different ways to access its data (departure from traditional book borrowing)
- Publishes and promotes its research data



DID ANY LIBRARY MANAGE TO DO THIS?

- University of Virginia <https://data.library.virginia.edu/statlab>
- The University of Queensland <https://web.library.uq.edu.au/locations-hours/centre-digital-scholarship>
- Duke University <http://library.duke.edu/data>
- Pennsylvania State University
<https://libraries.psu.edu/services/research-data-services>
- Michigan State University <http://libguides.lib.msu.edu/dataanalysis>
- Georgia State University <http://research.library.gsu.edu/dataservices>



UT LIBRARY PLANS

- We have surveyed researchers data storage and analyses needs
- Research productivity course is planned for this autumn
- Further courses are planned in the future
- In the long run we hope to develop sustainable research support team that will provide consulting services
- Additionally, we plan to create automated web services for text mining

See it again:

<https://slides.com/maksimmisin/tartu-dr-riga>

Check out DataDOI code:

<https://github.com/University-of-Tartu-Library/DataDOI-Theme>



UNIVERSITY OF TARTU
Library

THANK YOU!

Maksim Misin; Kristel Uiboaed
maksim.misin@ut.ee
kristel.uiboaed@ut.ee



UNIVERSITY OF TARTU
Library