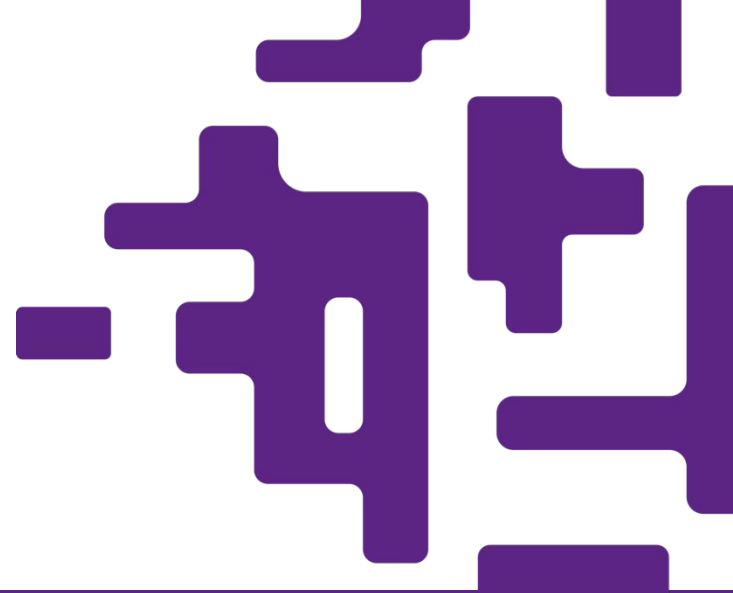




**NORMENT**  
Norwegian Centre for  
Mental Disorders Research



# Genotype and phenotypes storage

+ how to use TSD?

# Outline

- Wiki
- TSD basics
- Data on TSD
- Technicalities

# Wiki

- Purpose
  - Central place for documentation of procedures and data
  - Previously: email attachments and googledoc links
  - Easy to contribute
  - Scalable
  - Easy to give access to partners

Not suitable for sensitive data!

tsd-faq [Norment Wiki] - Mozilla Firefox (Private Browsing)

tsd-faq [Norment Wiki] ×

<https://norment.awiki.org/dokuwiki/tsd-faq>

Norment Wiki

Logged in as: Florian (fknull)
Admin
Update Profile
Logout

[Recent changes](#)
[Media Manager](#)
[Sitemap](#)

Trace: • start • tsd-faq

Home
Sidebar

**TSD**

- TSD-FAQ
- TSD directory structure
- How to get access to TSD
- TSD meeting minutes

**Genotypes, GWAS, PGS**

- Where to find summary stats
- UK Biobank
- Polygenic scores
- Genotype cohort overview
- Reference data (1kG, HRC)
- From deCODE to TSD
- Genotype QC Protocol

**Phenotypes**

- In-house database
- Phenotype categories
- Phenotype QC
- REK\_agreements

**MRI**

**EEG**

**Registry data**

- Available registries
- Currently at NORMENT

**Miscellaneous**

- Code on github and TSD
- UiO mailing lists
- PhD tips and trix
- How to apply for NIRD account
- How to use Abel (HPC)
- How to get access to this wiki

**Group internal**

- Biostat

<https://norment.awiki.org/dokuwiki/start>

# TSD-FAQ

Our sensitive data is stored on TSD (Tjenester for Sensitive Data).

[Official User Guide](#) Edit

## General

### Logging in to TSD

In your internet browser, open one of the following addresses:

- <https://view.tsd.usit.no/portal/webclient/index.html>  
(to work on a TSD-Windows desktop)
- <https://login.tl.tsd.usit.no/>  
(to work on a TSD-Linux desktop)

You will need to provide your username, your one-time code and your password. Edit

### Where to store data?

For personal stuff we use `/tsd/p33/data/durable/characters/<username>` (make your own `<username>` directory there if it is not there already). See [tsd\\_directory\\_structure](#) for more info.

If you store temporary data, please put it in a parent directory called `no-backup` or use the existing directory `/tsd/p33/data/no-backup/`. This will exclude the data from the backup services and lowers the costs to store data. Edit

### Uploading files to TSD

Different methods exist to upload files to TSD. They are documented in the [official TSD user guide](#).

Easy to use is <https://data.tsd.usit.no/>.  
Uploaded files will be available in `/tsd/p33/data/durable/file-api/`.  
(Check `/tsd/p33/fx/import/` if you use other upload methods). Edit

### Downloading files from TSD

**Table of Contents**

- TSD-FAQ
  - General
    - Logging in to TSD
    - Where to store data?
    - Uploading files to TSD
    - Downloading files from TSD
    - Contact information
  - Linux
    - Various scripts to work on genotypes
    - Where to find plink?
    - What Python version to use?
    - Best practices

# Wiki - how to get access


For employees - NORMENT: Norwegian Centre for Mental Disorders Research - Mozilla Firefox (Private Browsing)

For employees - NORMENT: Norwegian Centre for Mental Disorders Research - Mozilla Firefox (Private Browsing)

Read more about [how the University of Oslo processes personal information, your privacy rights at UiO and why we use cookies](#).


Home UiO > Faculty of Medicine > NORMENT: Norwegian Centre for Mental Disorders Research

For employees Norwegian website Florian Krull Search

 **UiO: NORMENT: Norwegian Centre for Mental Disorders Research**  
Faculty of Medicine

Home Research About the centre People

## For employees

 **NORMENT Intranet**

**General information**

- Logos, templates, photos
- Publications, reporting, open access
- Staff details Oslo / Bergen
- Institutional addresses
- Wiki and collaboration platforms

**Project descriptions**

- PhD projects
- Postdoc projects
- Synergy projects
- Other projects

**Meetings and events**

- Description of all NORMENT meetings

**Internal news**

- Video from NORMENT event at Arendalsuka 2018  
Sep. 6, 2018 2:28 PM

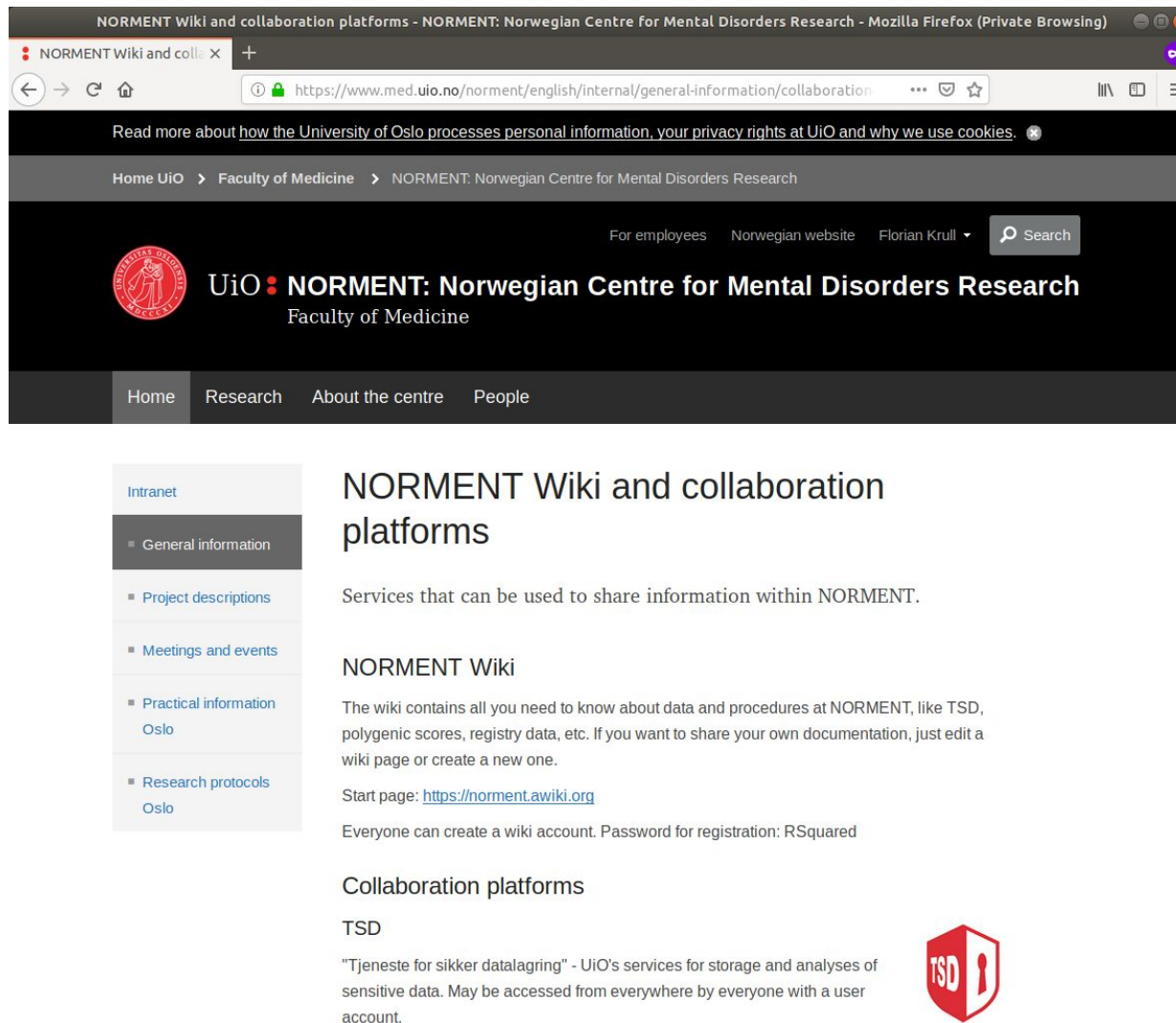
**Online forum**

- Plan S  
Nov. 29, 2018 9:42 AM
- 4 episoder tilgjengelig fra psykopoden  
Nov. 27, 2018 9:46 AM

**Upcoming events**

- Synergy meeting: Genetics

# Wiki - how to get access



The screenshot shows a web browser window with the title "NORMENT Wiki and collaboration platforms - NORMENT: Norwegian Centre for Mental Disorders Research - Mozilla Firefox (Private Browsing)". The address bar shows the URL <https://www.med.uio.no/norment/english/internal/general-information/collaboration>. The page content includes a navigation bar with links to "Home UiO", "Faculty of Medicine", and "NORMENT: Norwegian Centre for Mental Disorders Research". Below this is a search bar and a list of links: "For employees", "Norwegian website", "Florian Krull", and "Search". The main header features the UiO logo and the text "UiO : NORMENT: Norwegian Centre for Mental Disorders Research Faculty of Medicine". A sidebar on the left contains a menu with "Intranet" and several sub-items: "General information", "Project descriptions", "Meetings and events", "Practical information Oslo", and "Research protocols Oslo". The main content area has the heading "NORMENT Wiki and collaboration platforms" and a sub-heading "Services that can be used to share information within NORMENT." Below this is a section titled "NORMENT Wiki" which states: "The wiki contains all you need to know about data and procedures at NORMENT, like TSD, polygenic scores, registry data, etc. If you want to share your own documentation, just edit a wiki page or create a new one." It also provides a "Start page: <https://norment.awiki.org>" and mentions that "Everyone can create a wiki account. Password for registration: RSquared". A section titled "Collaboration platforms" includes a sub-heading "TSD" and a description: "'Tjeneste for sikker datalagring' - UiO's services for storage and analyses of sensitive data. May be accessed from everywhere by everyone with a user account." To the right of this text is a red shield logo with the letters "TSD" and a keyhole icon.

# Wiki - how to get access

## Current options:

- Description on NORMENT intranet
  - Go to “Wiki and collaboration Platforms”
- URL: [norment.awiki.org](http://norment.awiki.org)
  - Registration password: “Rsquared”
- Ask Florian or the Biostat group

When creating a user account:  
Check your spam folder!

# Wiki - technicalities

- Works well on a phone
- Hosted at USIT on a IaaS VM
- Https via letsencrypt.org
- On-site backups + manual remote-site backups



# TSD basics



## Tjenester for Sensitive Data

- Login machines
  - Windows + Linux
- Computer cluster
  - currently ~1200 CPUs
- 3x96TB disk space (+ 1x100TB)
- Supportive staff
  - Regular meetings

VMware Horizon - Mozilla Firefox (Private Browsing)

VMware Horizon x +

https://view.tsd.usit.no/portal/webclient/index.html#/desktop

Recycle Bin Kleopatra R x64 3.0.3 home - Shortcut

Gpg4win Document... Mozilla Firefox R x64 3.2.3 import - Shortcut

Beeline 2.0 PSPP Manual R x64 3.4.1 PGS query tool

Encryption... PSPP StataMP15-64 IBM SPSS Statistics 25

GenomeStu... 2.0 PuTTY VLC media player

GenomeStu... R i386 3.0.3 CLEANFILES - Shortcut

Google Chrome R i386 3.2.3 data - Shortcut

GPA R i386 3.4.1 fx - Shortcut

CLEANFILES

File Home Share View

< > << >> vault > clinicals > projects > top > CLEANFILES >

Search CLEANFILES

Name	Date modified	Type	Size
OldVersions	01.11.2018 12:52	File folder	
CLEAN1700basic	15.03.2018 11:43	Microsoft Excel C...	1 93
CLEAN1700basic	18.10.2018 10:12	SPSS Statistics Dat...	2 46
CLEAN1700basic	29.08.2018 08:59	Microsoft Excel 97...	4 77
CLZ_sample_TOP	21.06.2018 14:44	Microsoft Excel W...	2
READMEclinicaldata	03.10.2017 09:31	Text Document	
TOPsampleBasic	03.09.2018 15:27	Microsoft Excel W...	14
TOPsampleBasicSep18	03.09.2018 15:28	SPSS Statistics Dat...	20

8 items

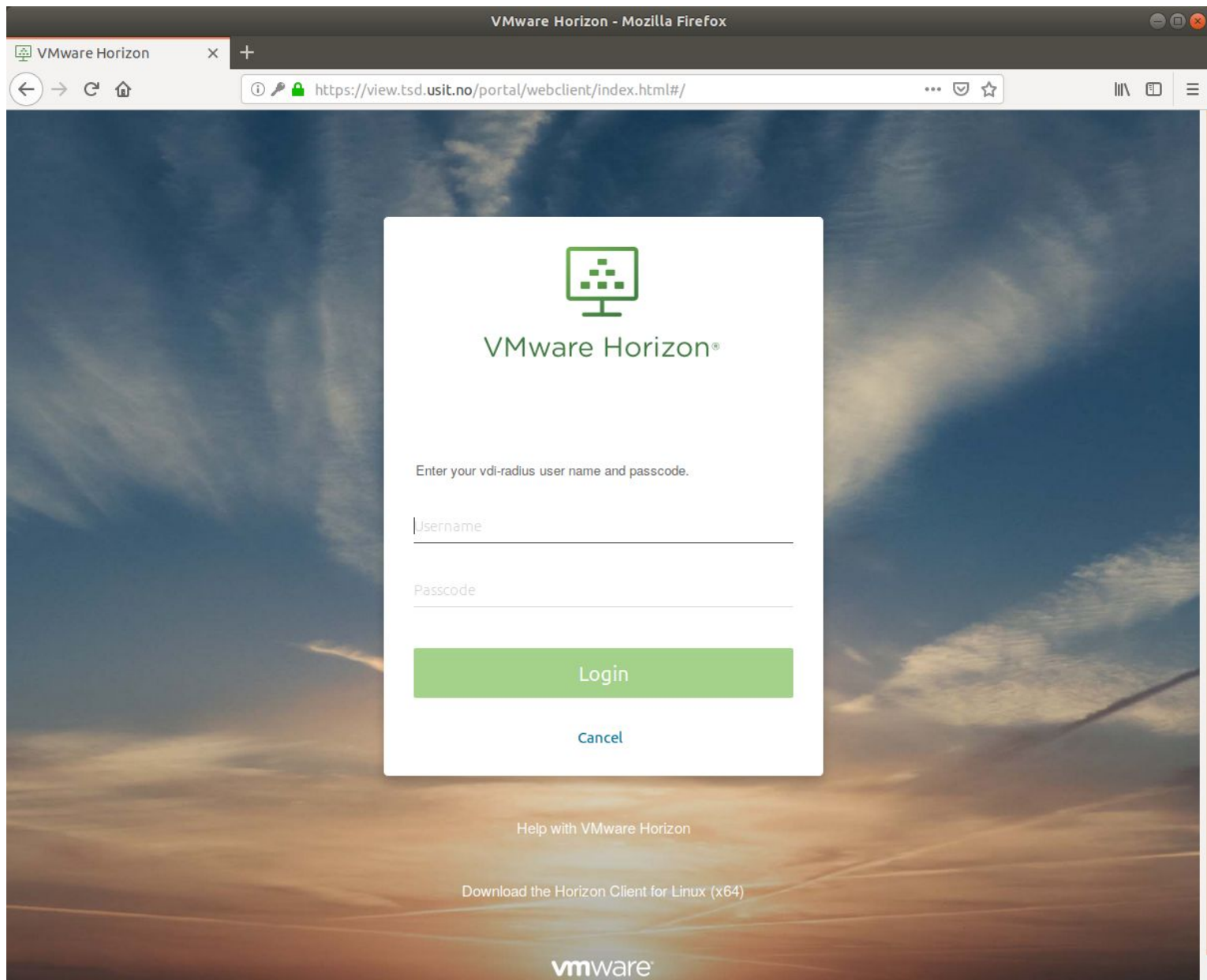
17:13 10.12.2018



# TSD...

- Easy to work with
- Difficult to get stuff in and out







# TSD - Where to find data?

Currently:

- /tsd/p33/data/durable/vault/
- Documented on the wiki
  - “TSD directory structure”
- Additional info on dat specific wiki pages

Future plans:

- Now, new hard disks + access from windows are in place
- Restructure directory structure and move data to /cluster
- Lock directory structure
  - read-only access with a few maintainers
- Wiki will be updated too

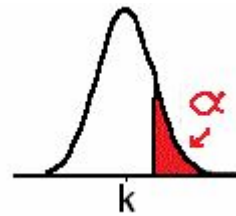


## TSD - more future plans

data

[illegible]

analyses

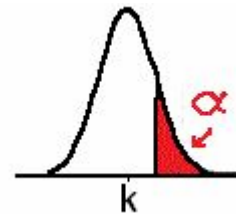
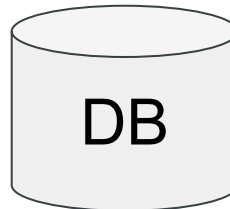


## TSD - more future plans

data

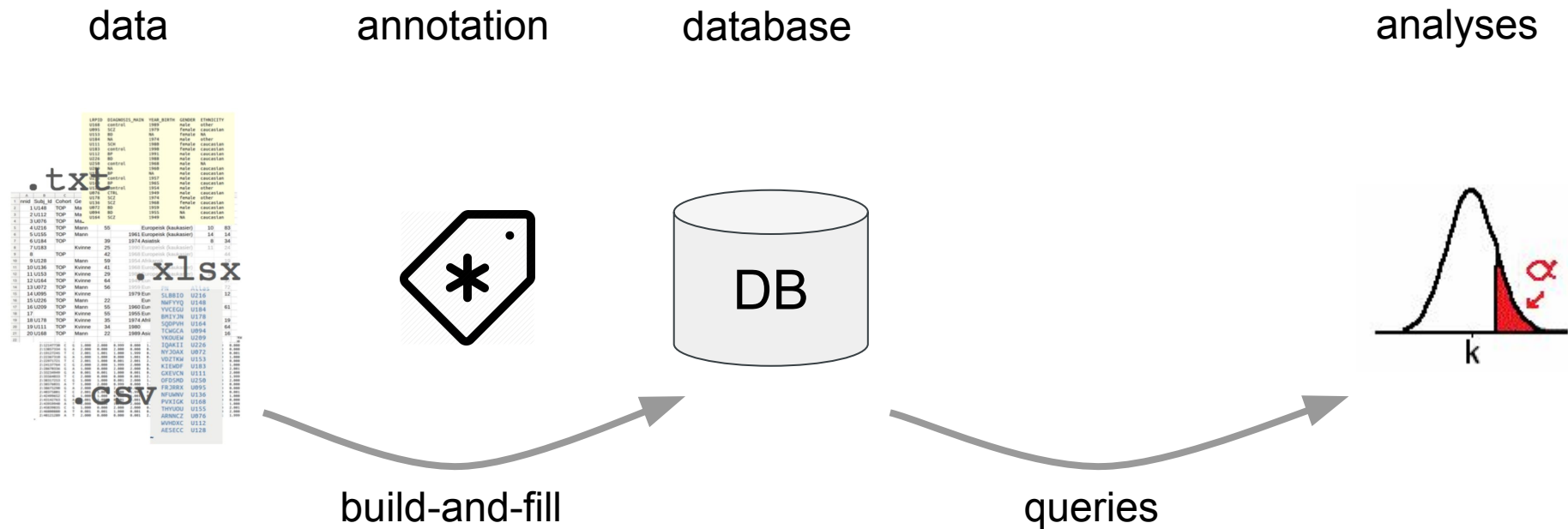
database

analyses

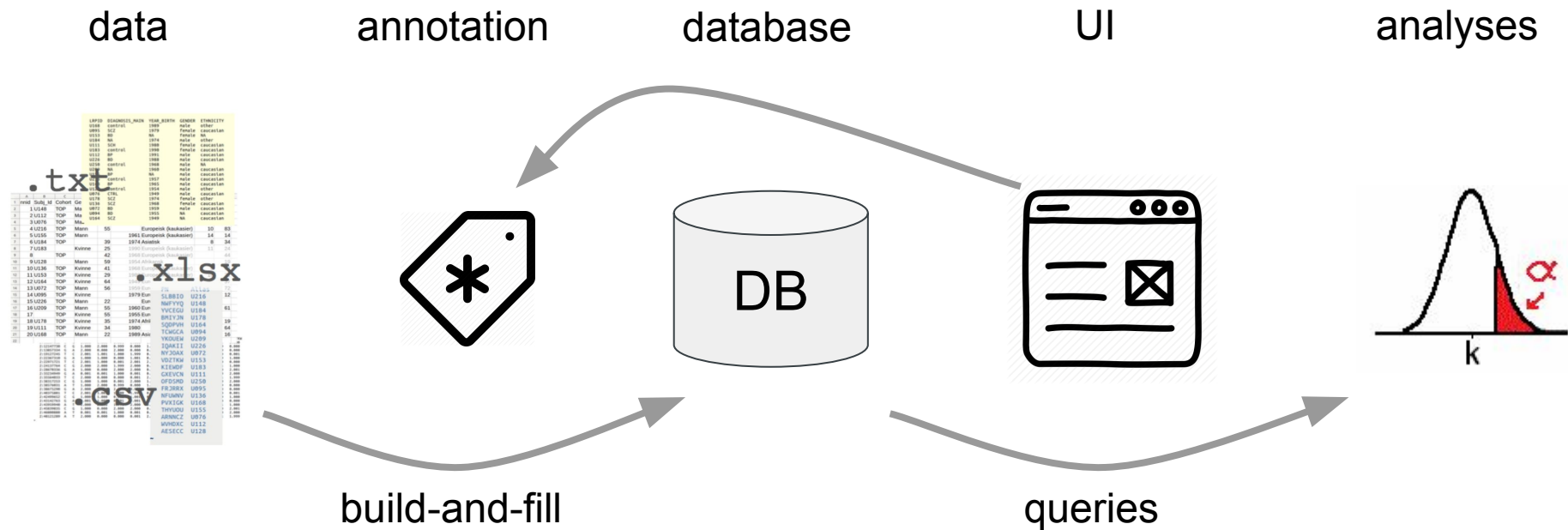
[illegible]



# TSD - more future plans



# TSD - more future plans



VMware Horizon - Mozilla Firefox (Private Browsing)

VMware Horizon x +

https://view.tsd.usit.no/portal/webclient/index.html#/desktop

NoDa - Norment Database x +

p33-tl01-l-8888

Search

Norment Database Query Upload Create Reports Participants Rebuild DB

▼ Participants (n=25116)

- ☒ Subject ID
- ☒ Cohort
- ☐ Sub-cohort
- ☒ Diagnosis
- ☐ Sub-diagnosis
- ☒ Sex
- ☐ Year of Birth
- ☒ Age

► TOP Telomere Length 2017 (n=1037) ⚠ ? ⚙ 🗑

► Test Metabolomics (n=452) ? ⚙ 🗑

► Test Telomere Length (n=625) ⚠ ? ⚙ 🗑

▼ Query Options

☐ union of datasets (more n and more missing values)

☒ intersection of datasets (fewer n and less missing values)

Submit

17:11  
10.12.2018





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