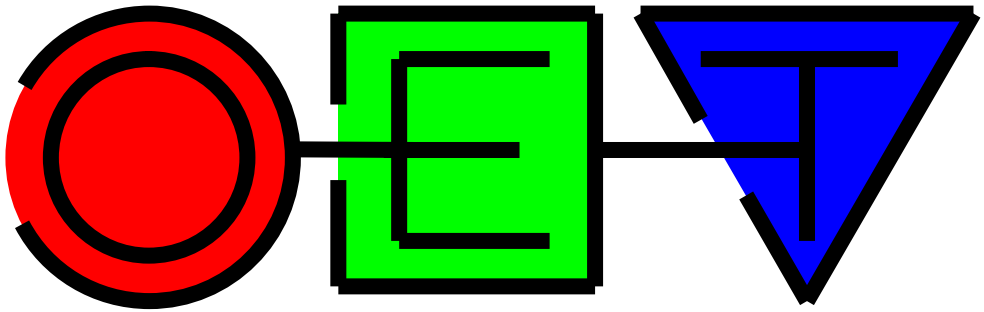


OpenEarthTools

Open source

Data, Models and Tools for

marine & coastal

science & technology

TU Delft

Deltares

EcoShape

building with nature

micore

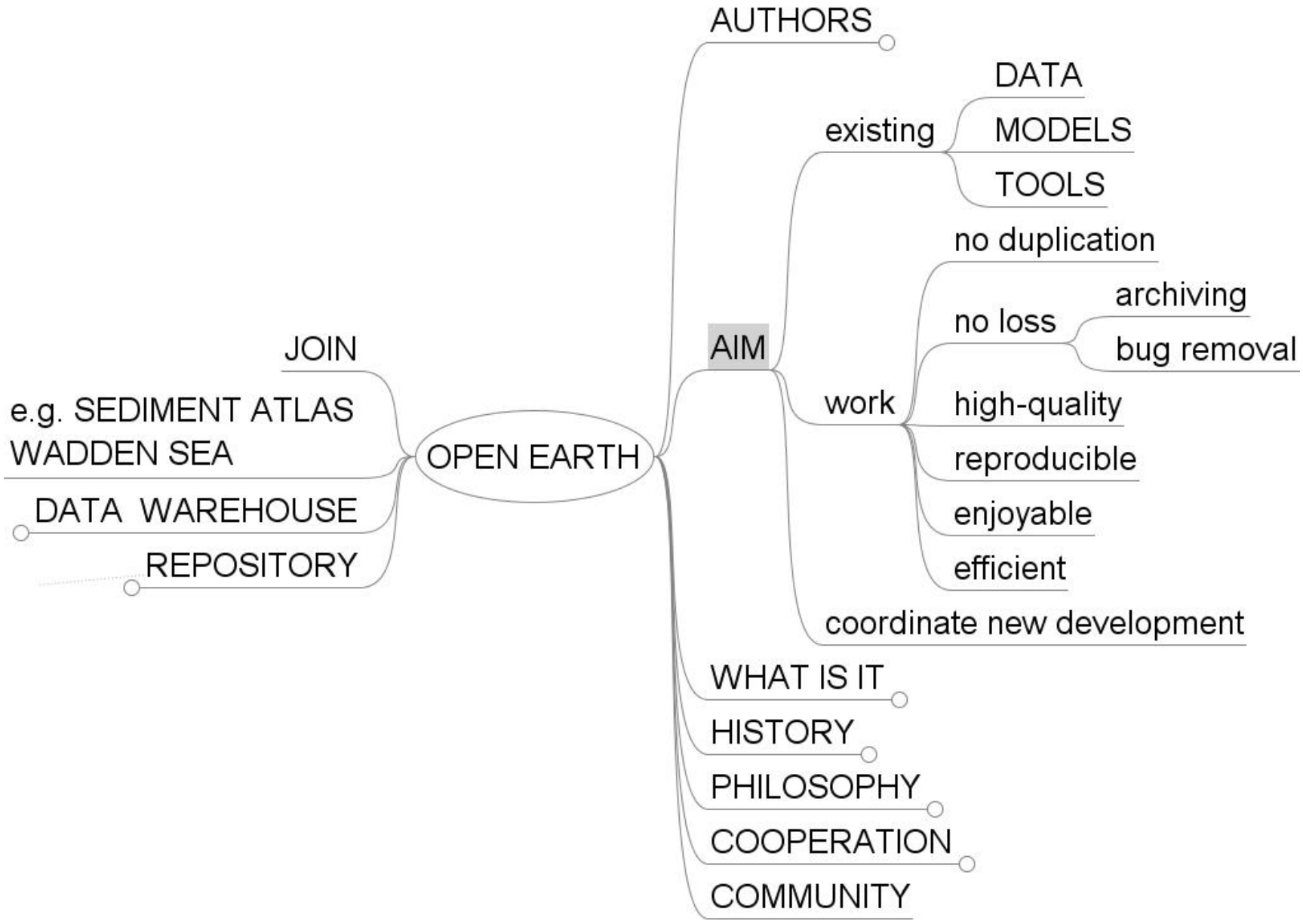
.. and what about

nck

?

Currently sub-optimal: OpenEarth needed

Currently sub-optimal: AIM



Currently sub-optimal: example *coordinates*

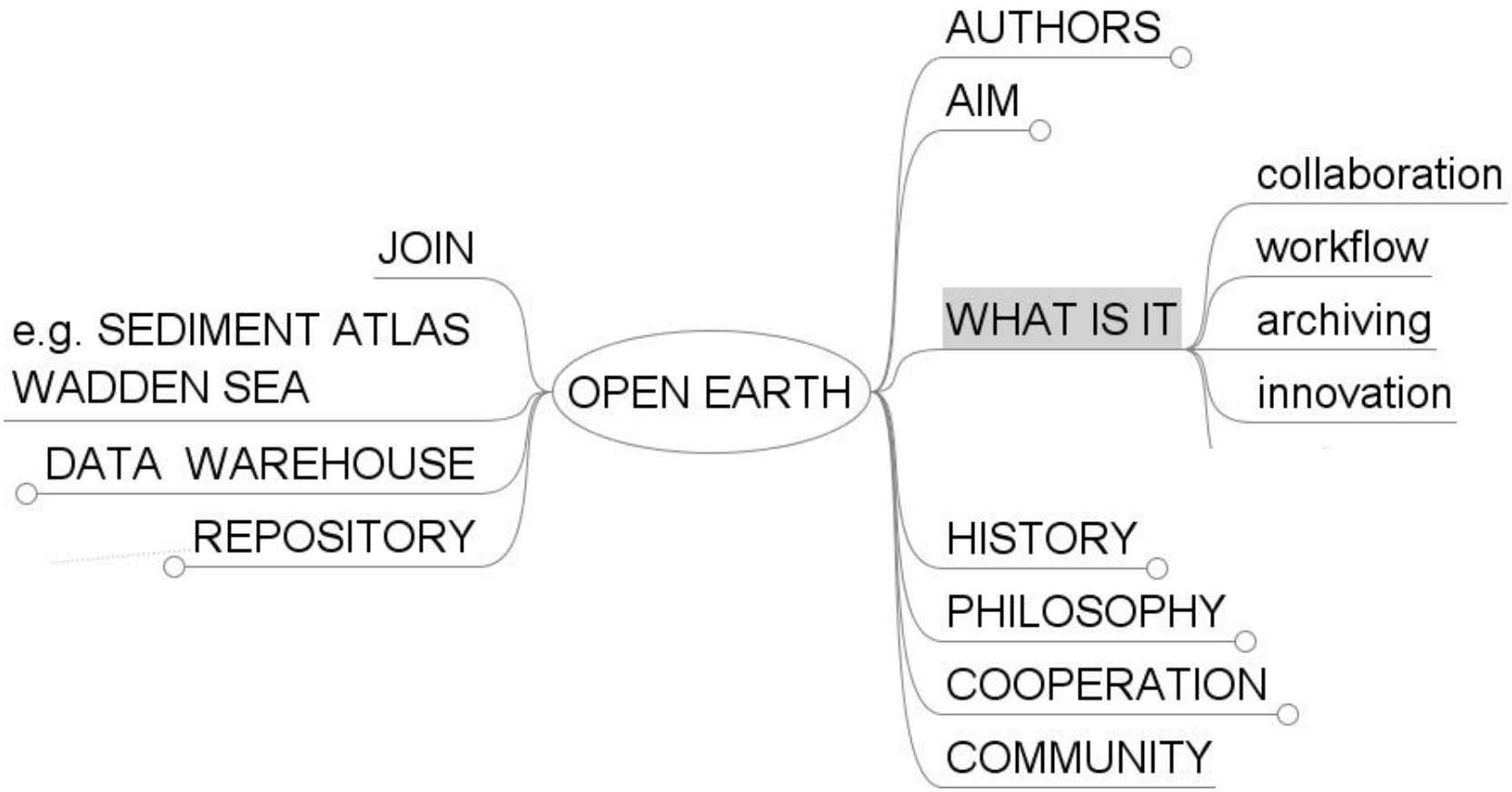
1. PCTRANS marine: much ado with external files
2. General Mapping Toolbox: only *.eps on linux
3. arcGIS: $
4. matlab mapping: $
5. etc.

6. matlab CTRANSDV: Rijksdriehoek, UTM, LonLat
   - Zitman > Verploeg > Bonekamp > Elias > de Boer > ?

7. **OpenEarth** SuperTrans
   - Maarten van Ormondt (Deltares)
   - GUI & matlab command line
   - ~ 3000 transfomations
   - free if you join OpenEarthTools

```
>> [x,y]=ConvertCoordinates(5,52,'WGS 84','geo','WGS 84 / UTM zone 31N','xy',...)
```

Currently sub-optimal: What is OpenEarth



Currently sub-optimal: PHILOSOPHY

Journal of Personality and Social Psychology
2009, Vol. 96, No. 1, 83–103

© 2009 American Psychological Association
0022-3514/09/$12.00 DOI: 10.1037/a0012823

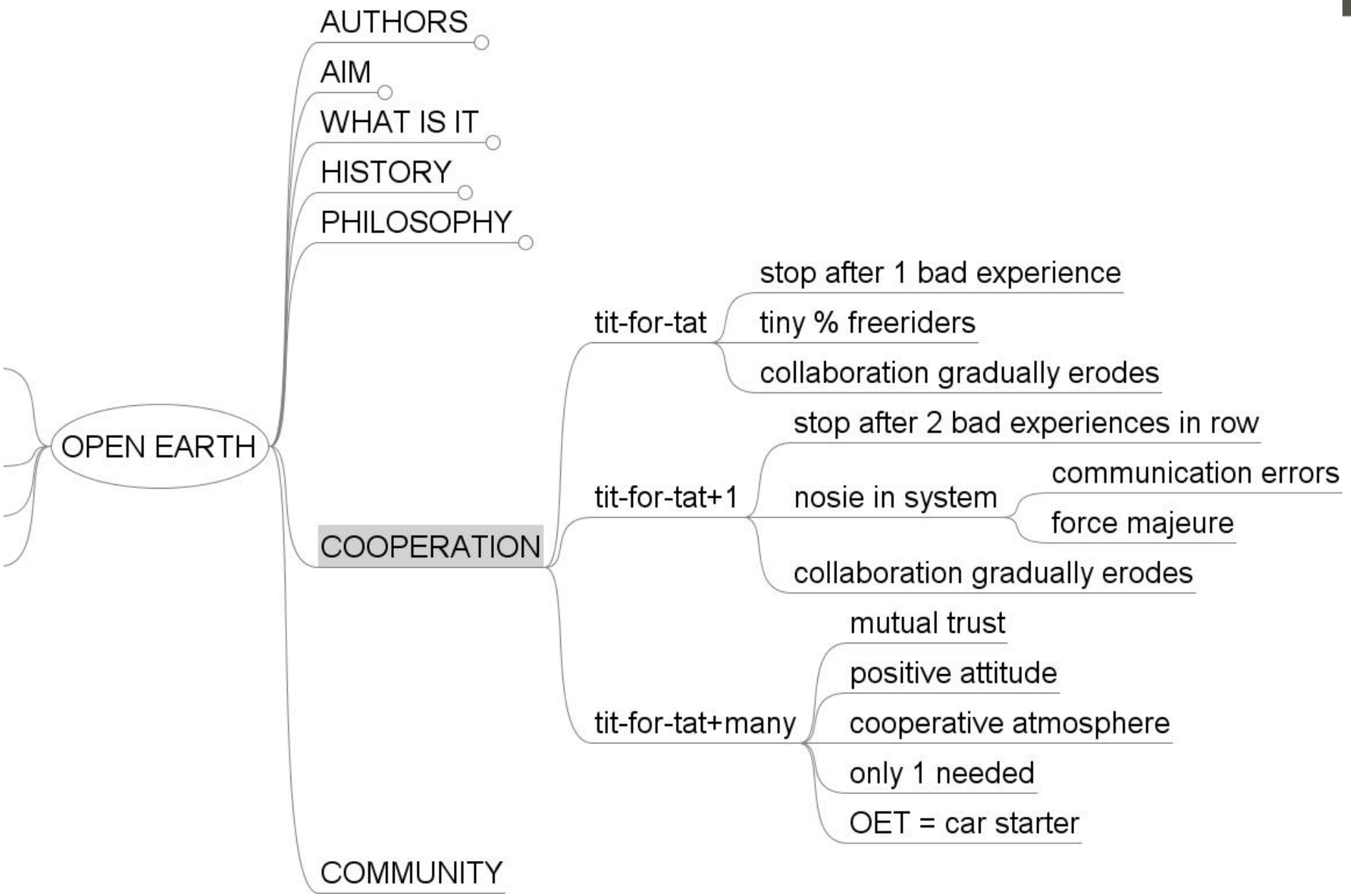
Promoting Cooperation and Trust in "Noisy" Situations: The Power of Generosity

Anthon Klapwijk
VU University Amsterdam

Paul A. M. Van Lange
VU University Amsterdam and Leiden University

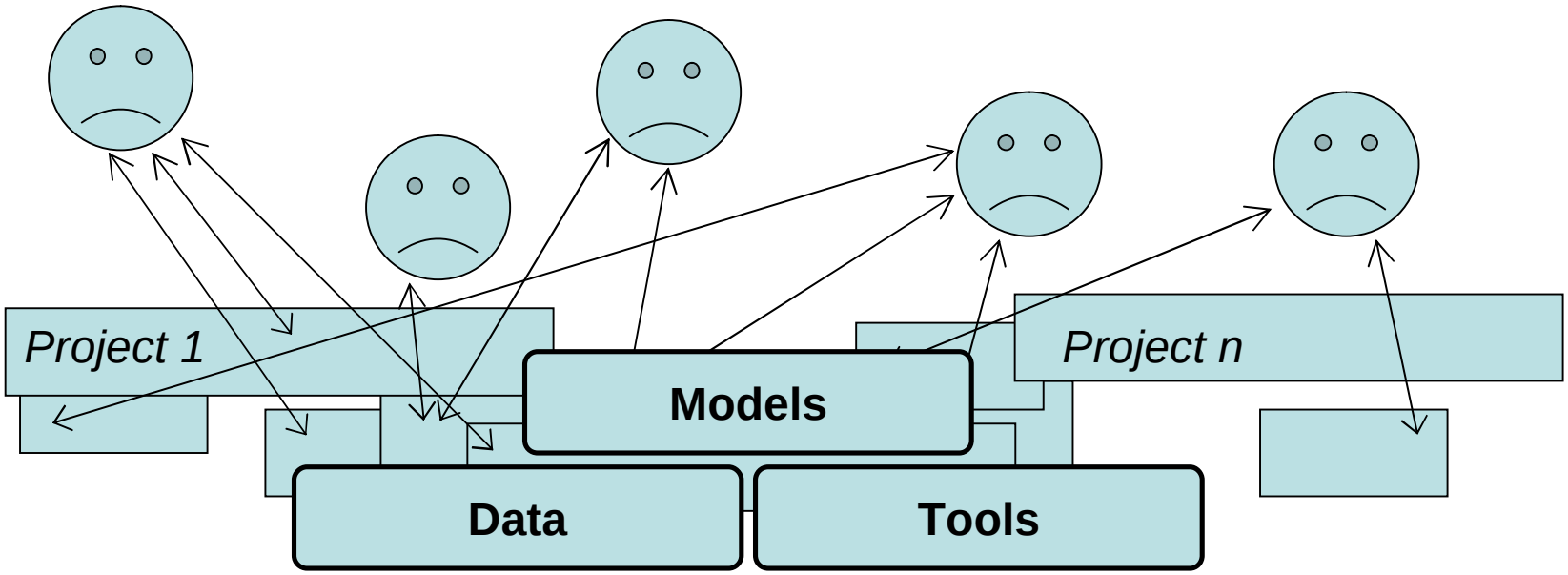
The authors present an interdependence theoretical framework and advance the argument that generosity serves the important purpose of communicating trust, which is assumed to be of utmost importance to coping with incidents of negative noise (i.e., when the other every now and then behaves less cooperatively than intended). Using a new social dilemma task (the parcel delivery paradigm), it was

Currently sub-optimal: COOPERATION

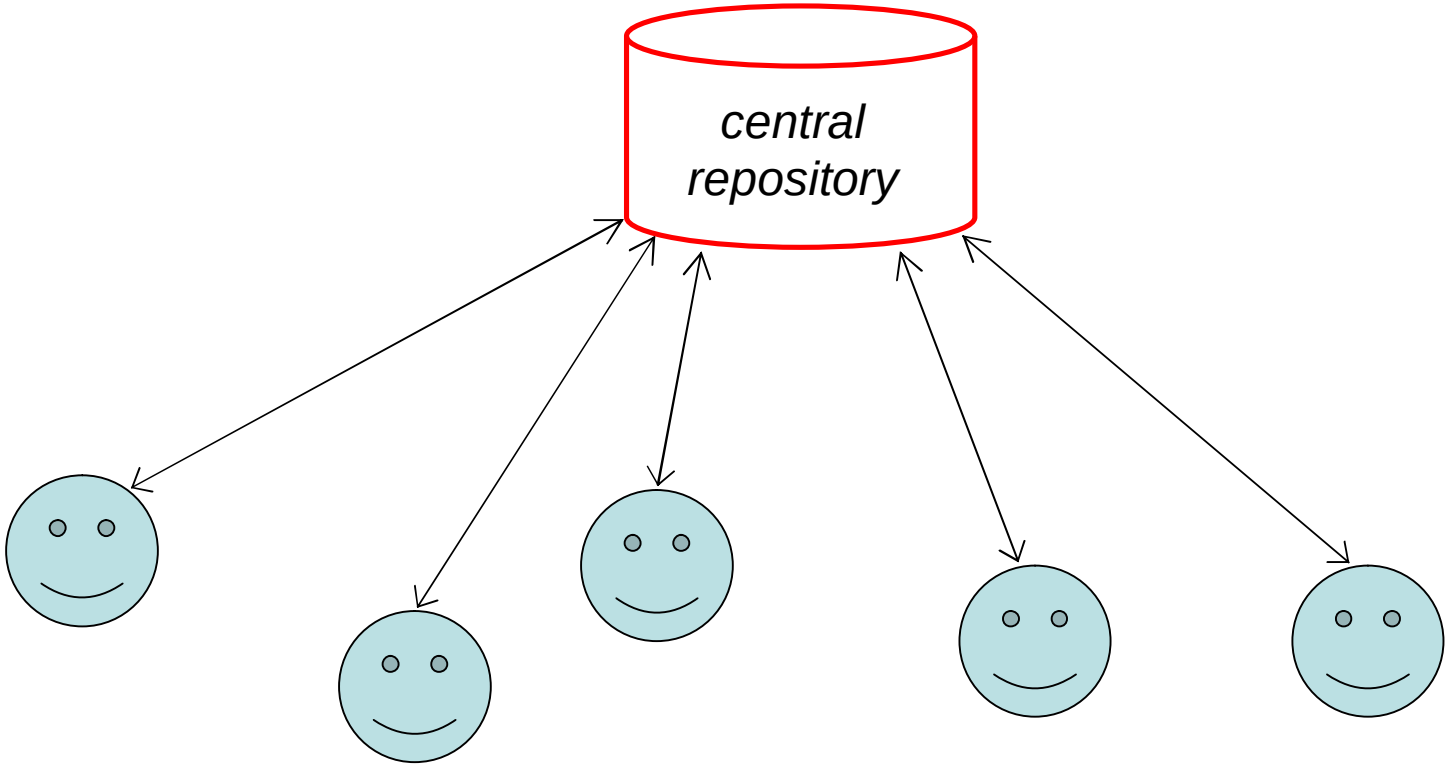


Currently sub-optimal: COMMUNITY

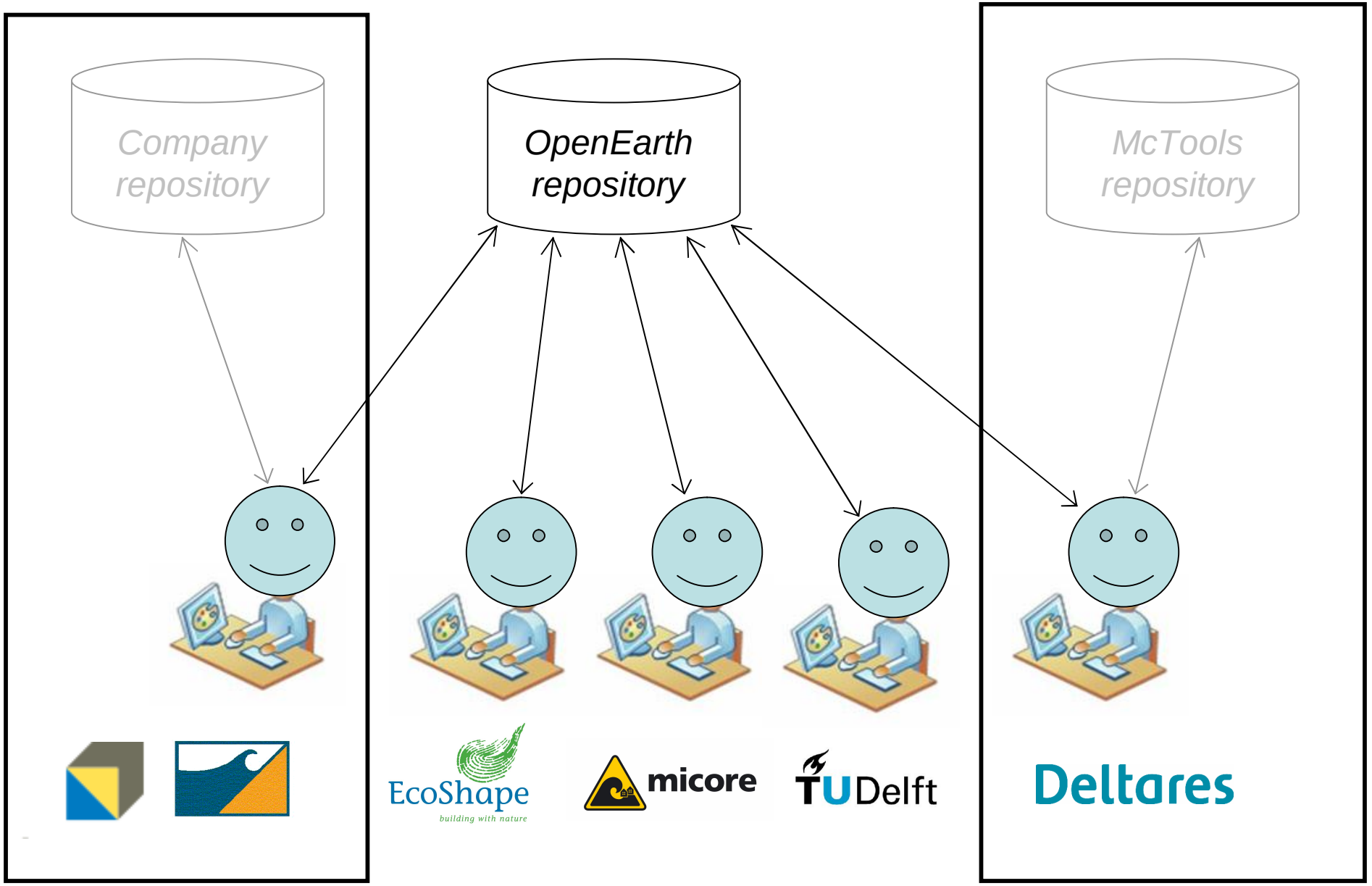
- **all collaborating not enough**
- **chaos**
- **coordination needed**
- **but no overall boss**
- **like wikipedia**



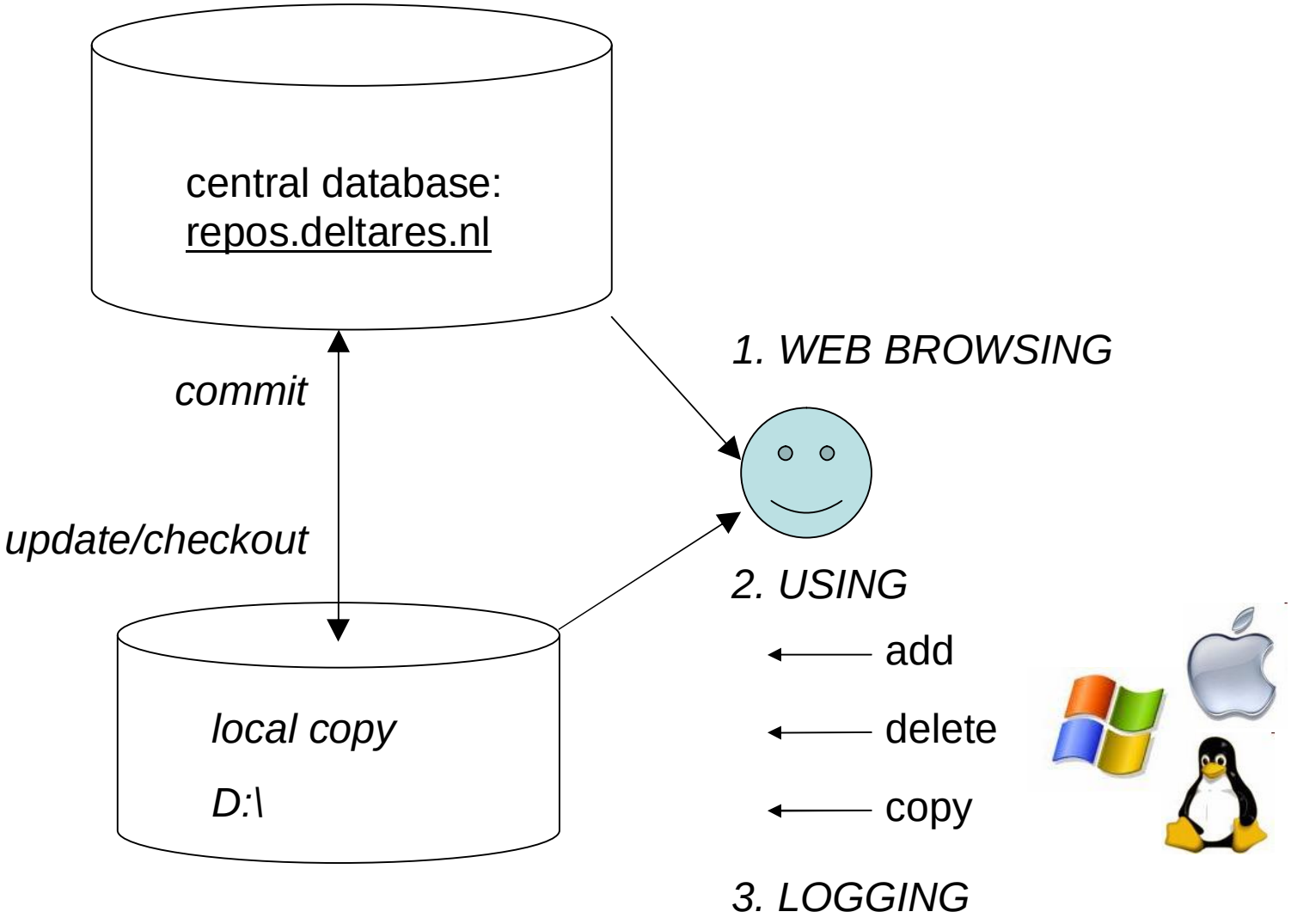
Optimal = possible: REPOSITORY



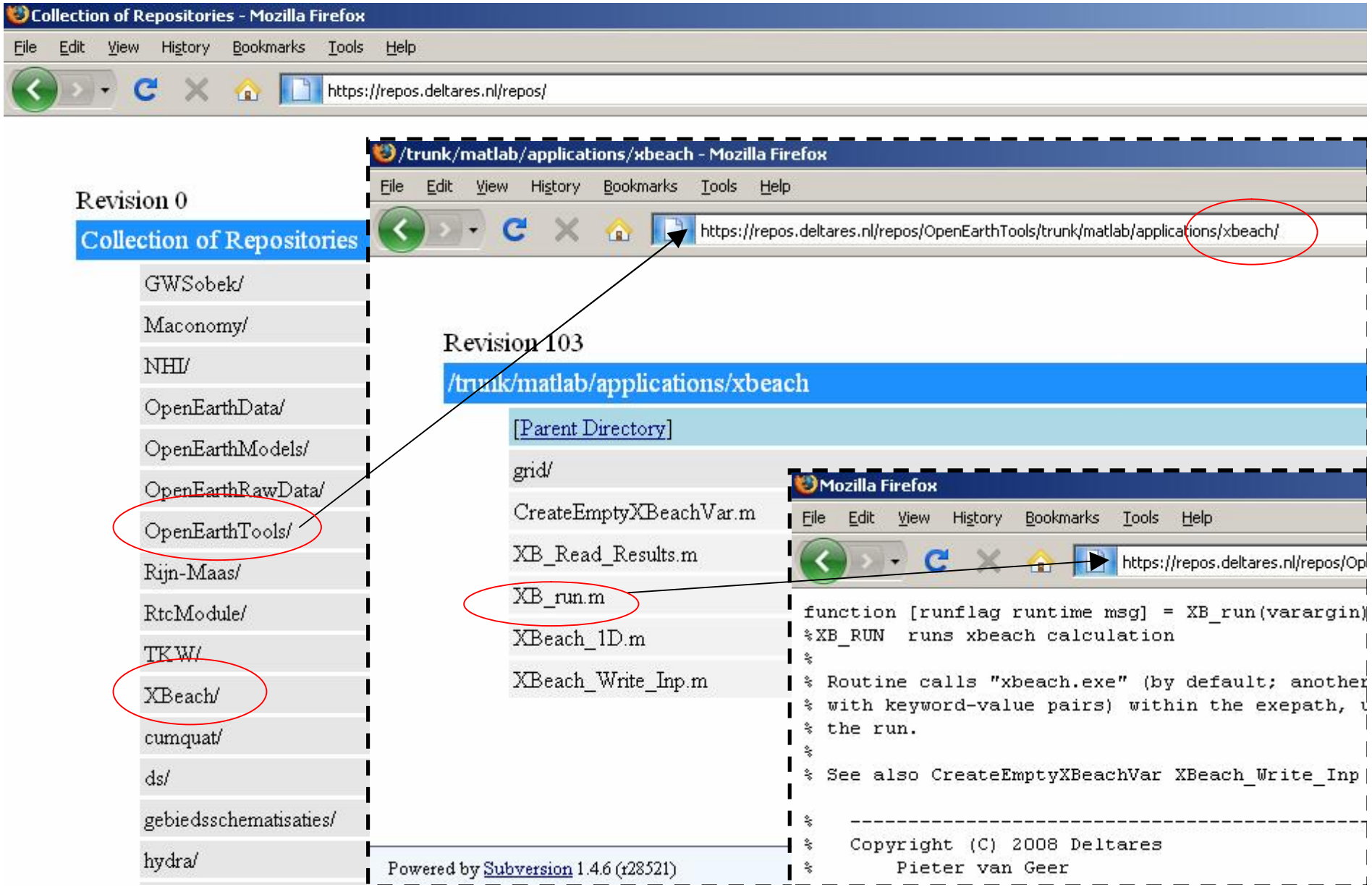
Optimal = possible: REPOSITORY



Optimal = possible: REPOSITORY *basics*



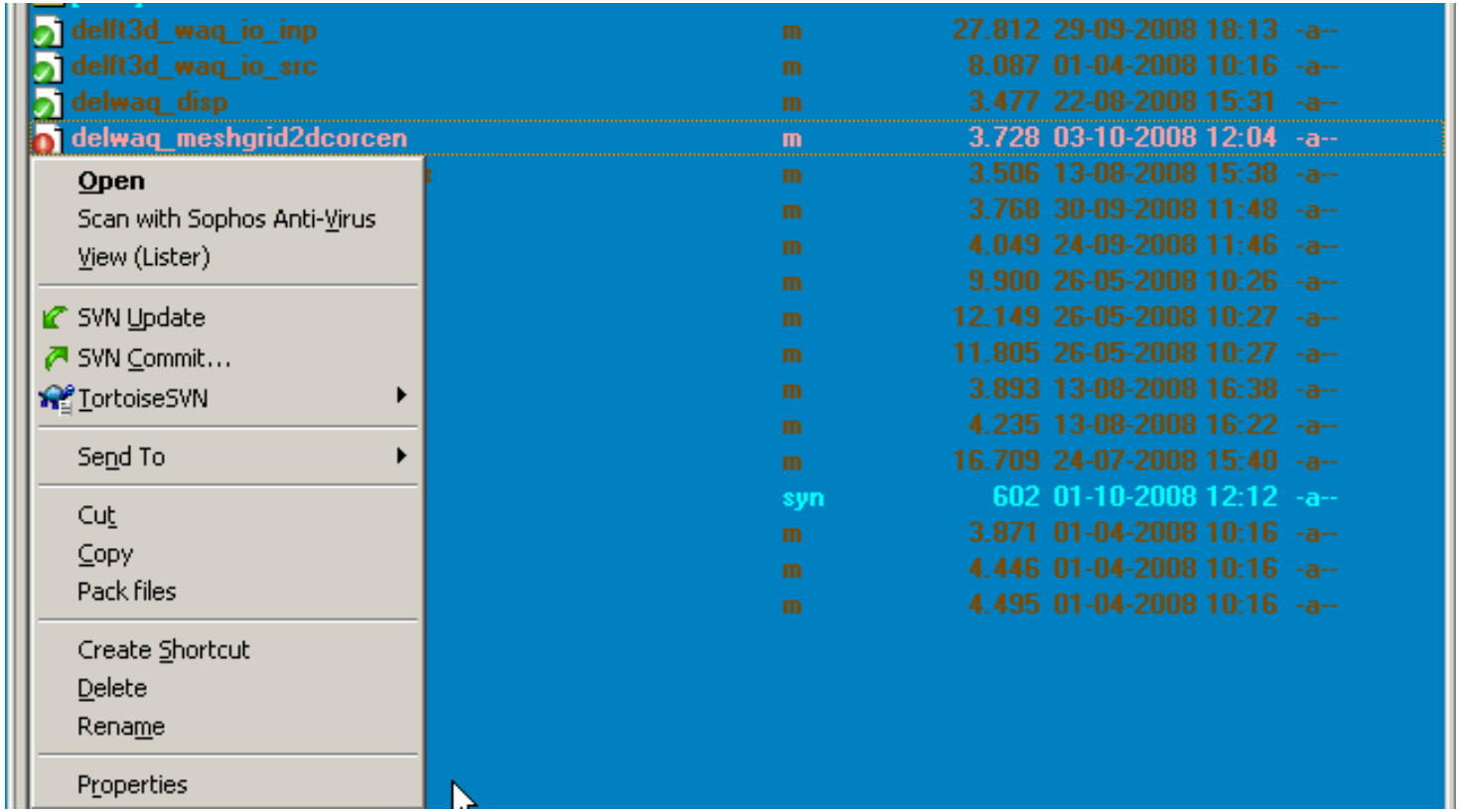
Optimal = possible: REPOSITORY *web access*



Optimal = possible: REPOSITORY *local copy*

up to date

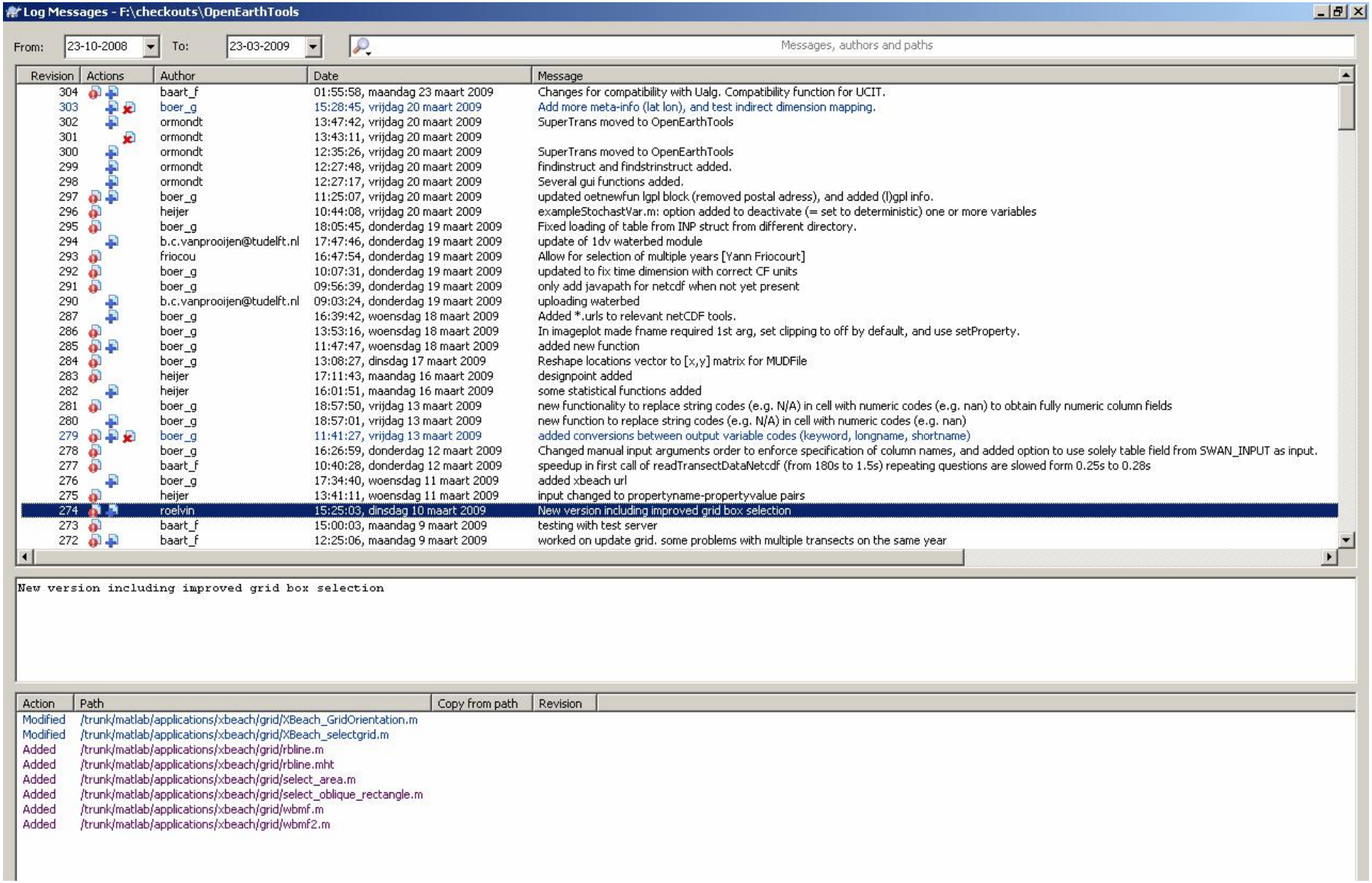
modified



Optimal = possible: REPOSITORY *documentation*

```
>> help applications

OpenEarth applications
 rijkswaterstaat - data: rijkswaterstaat data types (donar)
 delft3d         - delftd file formats
 knmi            - read knmi wind and meteo timeseries
 swan            - swan toolbox


>> help rijkswaterstaat

donar_read              - read ASCII text file from www.waterbase.nl
getwaterbase            - get data from waterbase.nl
getwaterbasestation     - get stations names for parameter
getwaterbaseparameter   - get parameter from waterbase.nl
hmcz_read               - read meteo file from hmcz@ rws


>> help donar_read

DONAR_READ  read ASCII text file from www.waterbase.nl

DAT = donar_read(fname,<keyword,value>)

See also: getwaterbase, www.waterbase.nl
```

Optimal = possible: REPOSITORY *logging*



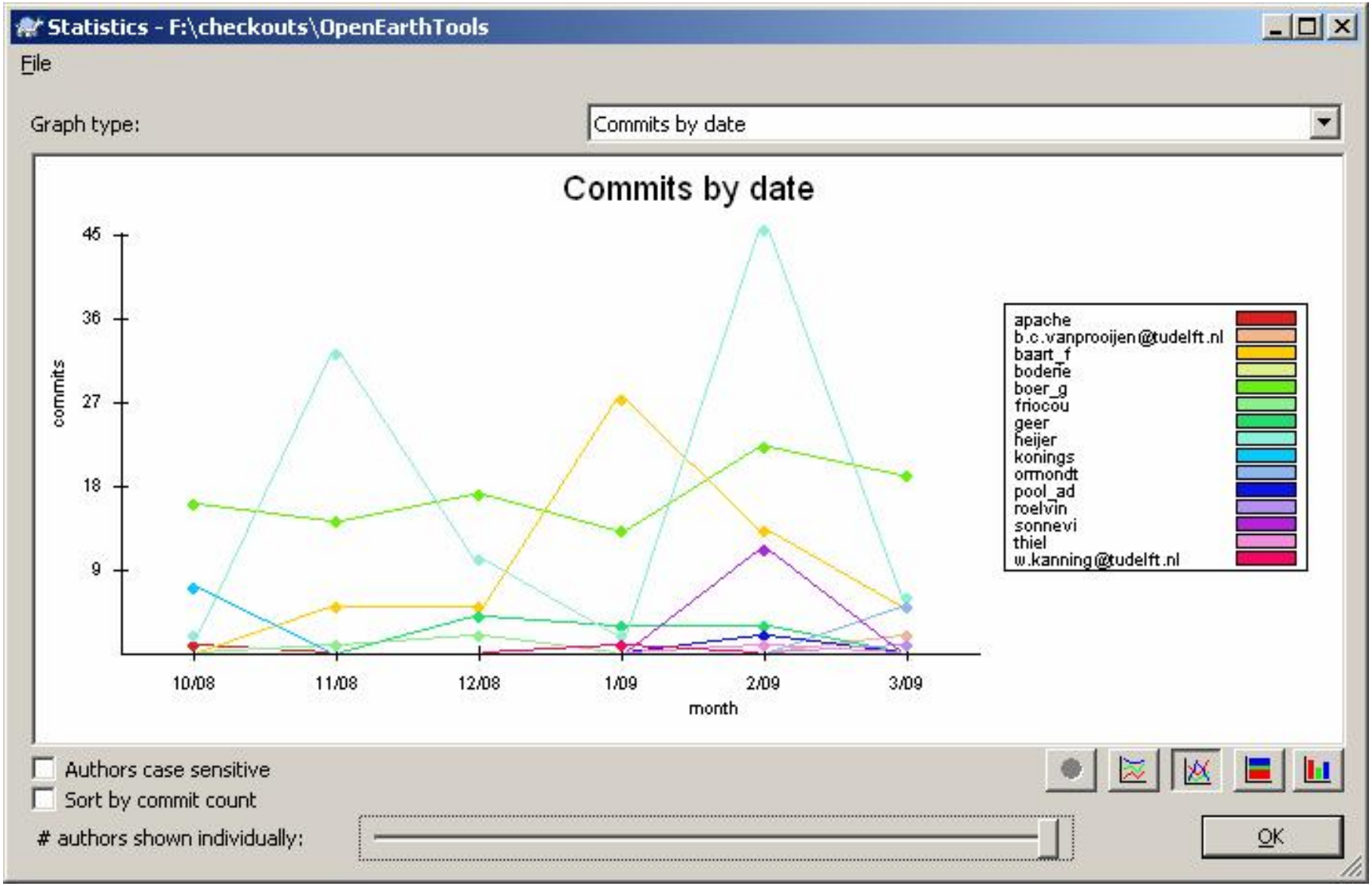
Optimal = possible: REPOSITORY *blaming*

TortoiseBlame - getDuneErosion.m

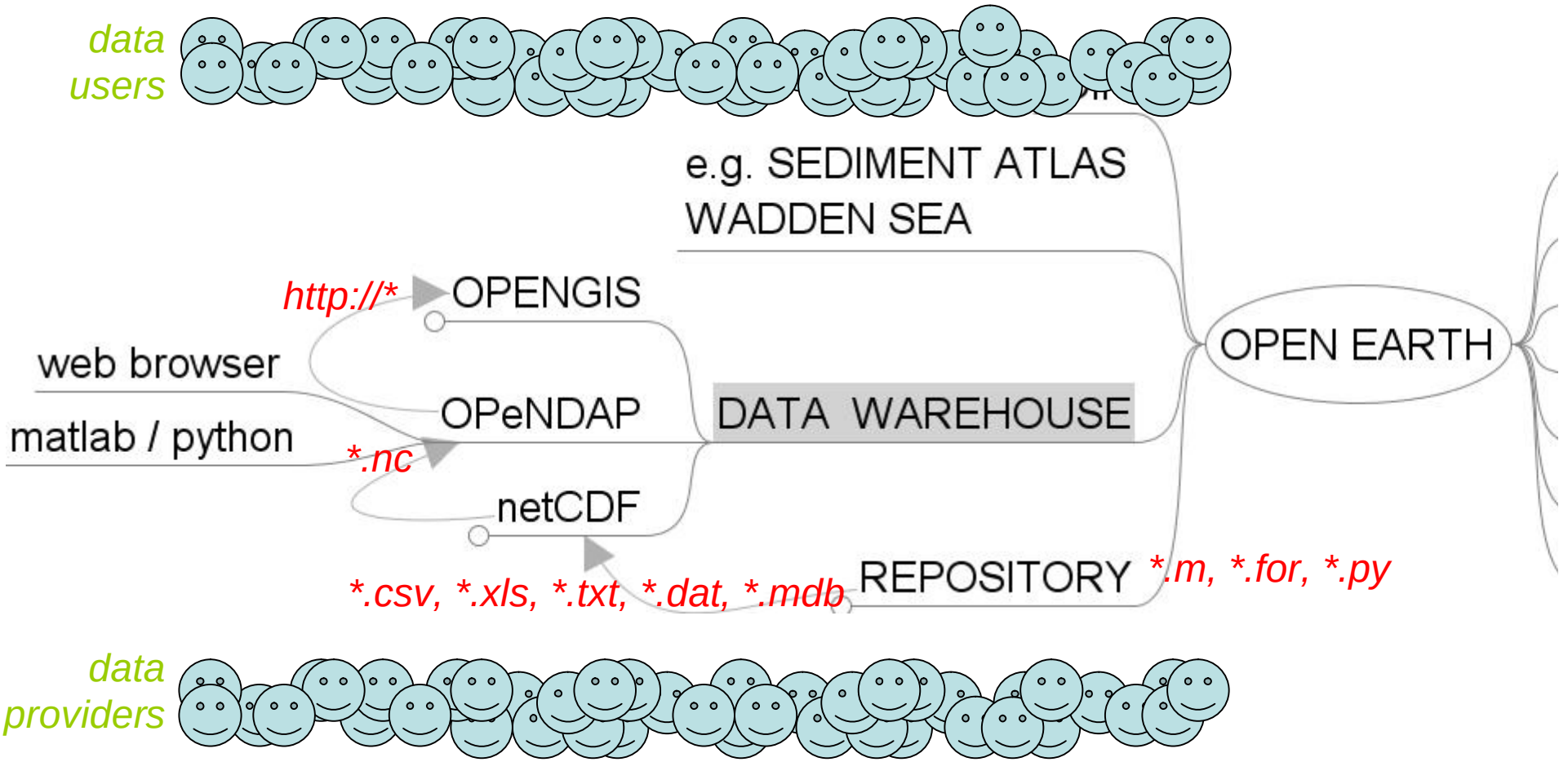
File Edit View

Revision	Author	Line	
2120	geer	93	%% Initiate variables
975	heijer	94	writemessage('init');
975	heijer	95	
1724	geer	96	NoDUROSResult = false;
1307	heijer	97	getdefaults(...
1307	heijer	98	'xInitial', [-250 -24.375 5.625 55.725 230.625 1950]', 1,...
1307	heijer	99	'zInitial', [15 15 3 0 -3 -14.4625]', 1,...
1307	heijer	100	'D50', 225e-6, 1,...
1307	heijer	101	'WL_t', 5, 1,...
1307	heijer	102	'Hsig_t', 9, 1,...
1307	heijer	103	'Tp_t', 12, 1);
975	heijer	104	AdditionalErosionMax = DuneErosionSettings('get', 'AdditionalErosionMax');
975	heijer	105	Bend = DuneErosionSettings('get', 'Bend');
975	heijer	106	SKIPBOUNDPROF = false;
975	heijer	107	
2120	geer	108	%% Check input
2120	geer	109	[xInitial,zInitial,D50,WL_t,Hsig_t,Tp_t] = DUROSCheckConditions(xInitial,zInitial,D50,WL_t,Hsig_t,Tp_t);
2120	geer	110	
2120	geer	111	%% debug plot initial profile
975	heijer	112	if dbstate
975	heijer	113	dbPlotDuneErosion('new');
975	heijer	114	end
975	heijer	115	
2120	geer	116	if DuneErosionSettings('get', 'DUROS')
975	heijer	117	%% STEP 1: get DUROS erosion
1694	heijer	118	writemessage(100,'Start first step: Get and fit DUROS profile');
1866	geer	119	[result, Volume, xOOmin, xOmax, xOexcept] = getDuneErosion_DUROS(xInitial, zInitial, D50, WL_t, Hsig_t, Tp_t,fal
2138	heijer	120	
2138	heijer	121	% update initial profile with minor modification by findCrossings
2138	heijer	122	[xInitial zInitial] = deal(...
2138	heijer	123	[result(1).xLand; result(1).xActive; result(1).xSea],...
2138	heijer	124	[result(1).zLand; result(1).zActive; result(1).zSea]);
2138	heijer	125	
1724	geer	126	if isempty(Volume)
1724	geer	127	NoDUROSResult = true;
1724	geer	128	end
975	heijer	129	%% STEP 2: get profile shift due to coastal Bend
1724	geer	130	if result(1).info.resultinboundaries && ~NoDUROSResult
976	heijer	131	TargetVolume = eval(DuneErosionSettings('AdditionalVolume')); % Attention, TargetVolume represents an addit
975	heijer	132	AdditionalErosionforCoastalBend = Bend > 6;
975	heijer	133	if AdditionalErosionforCoastalBend
975	heijer	134	G = getG(TargetVolume + Volume, Hsig_t, w, Bend);
975	heijer	135	result(end+1) = getDUROSprofile(xInitial, zInitial, result(1).info.xO - G, Hsig_t, Tp_t, WL_t, w);

Optimal = possible: REPOSITORY *statistics*

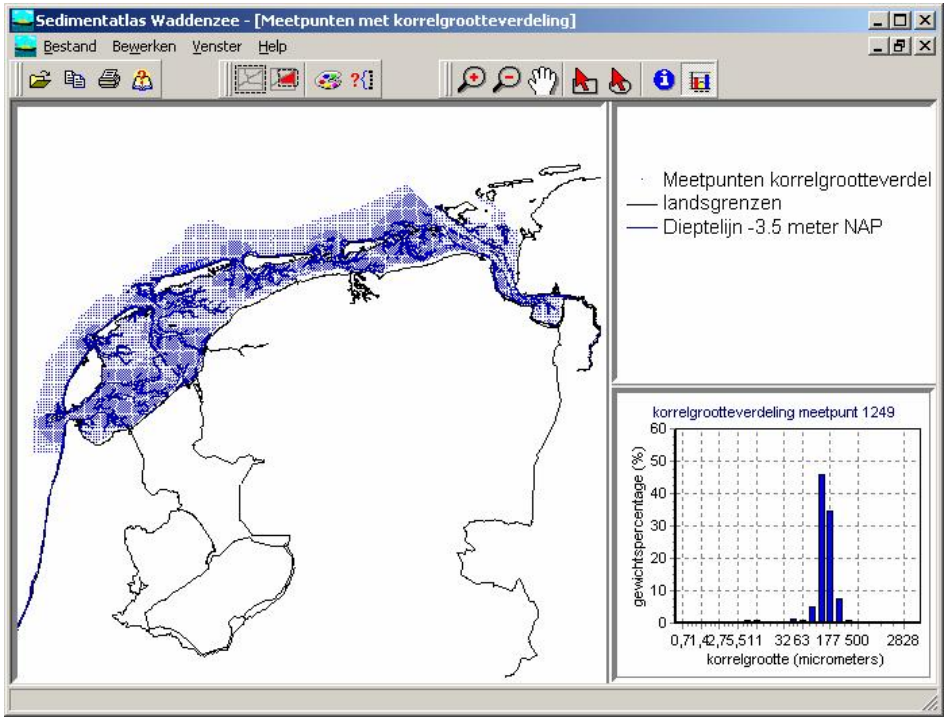


Optimal = ongoing: DATA WAREHOUSE

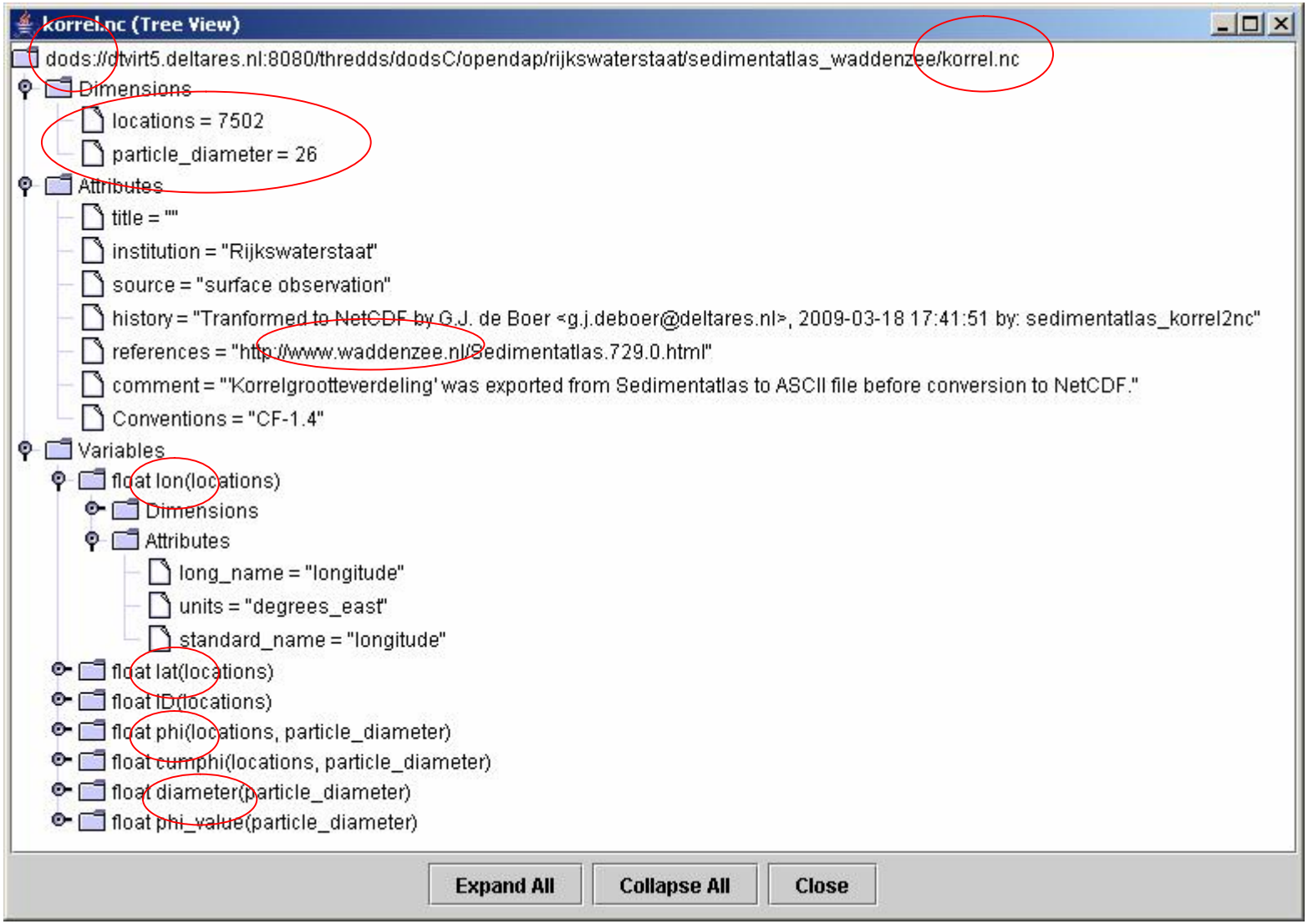


Optimal = ongoing: example: Sedimentatlas WaddenZee

- Example: Sediment Atlas Wadden Zee (Rijkswaterstaat)
- www.waddenzee.nl:
- from handy GUI
- get **raw data**
- transform into **netCDF**
- put on **OPeNDAP** server
- to use in **matlab**
  - to validate model
  - detailed analysis
  - plot



netCDF: ncBrowse tree (free)



netCDF: matlab command line access

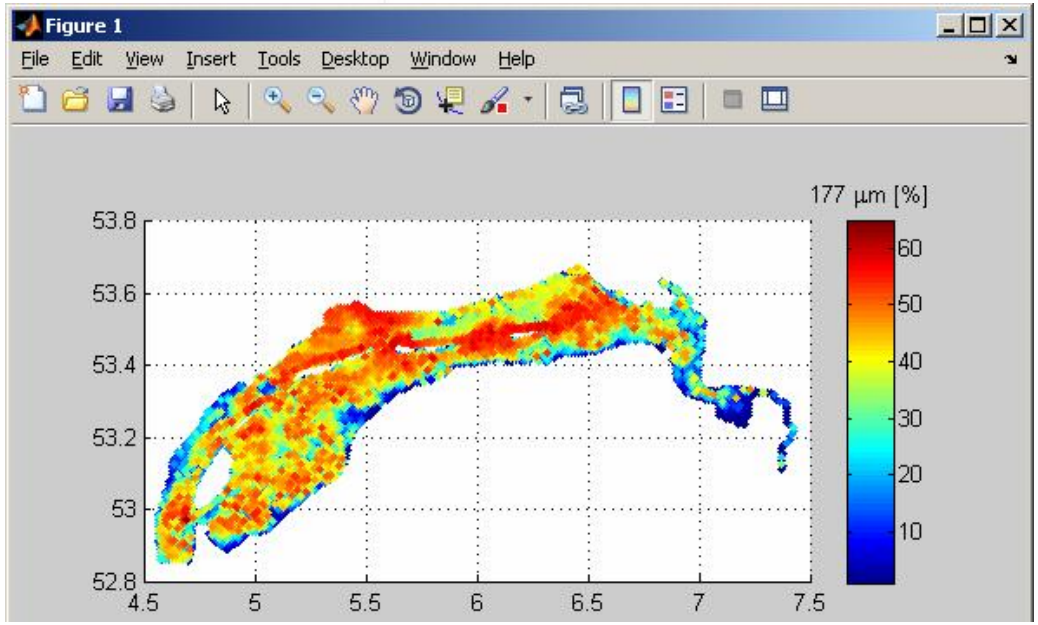
Editor - F:\checkouts\OpenEarthRawData\rijkswaterstaat\sedimentatlas_waddenzee\sedimentatlas_korrel2nc_plot.m

File Edit Text Go Cell Tools Debug Desktop Window Help

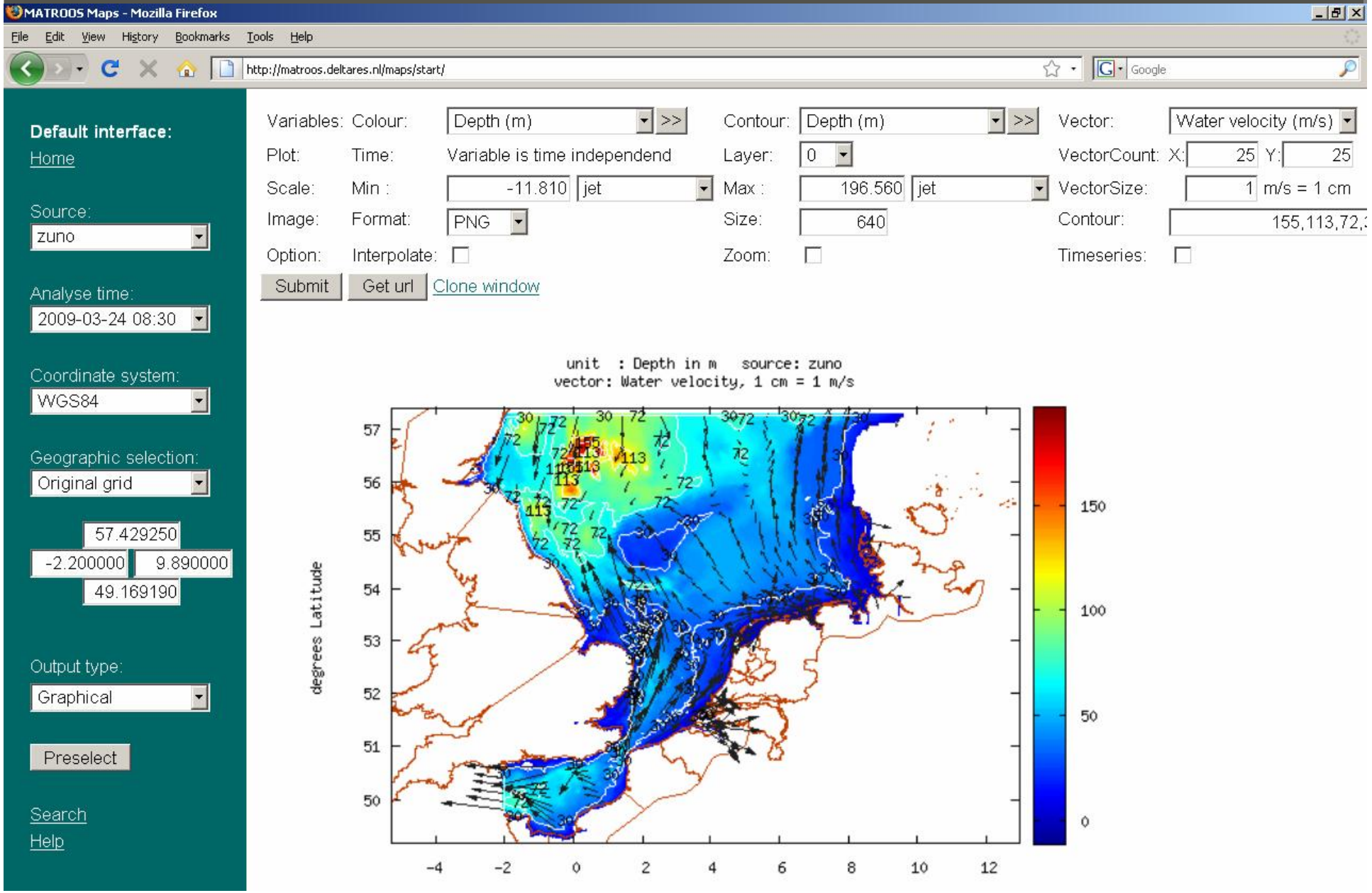
Stack: Base

1.0 1.1

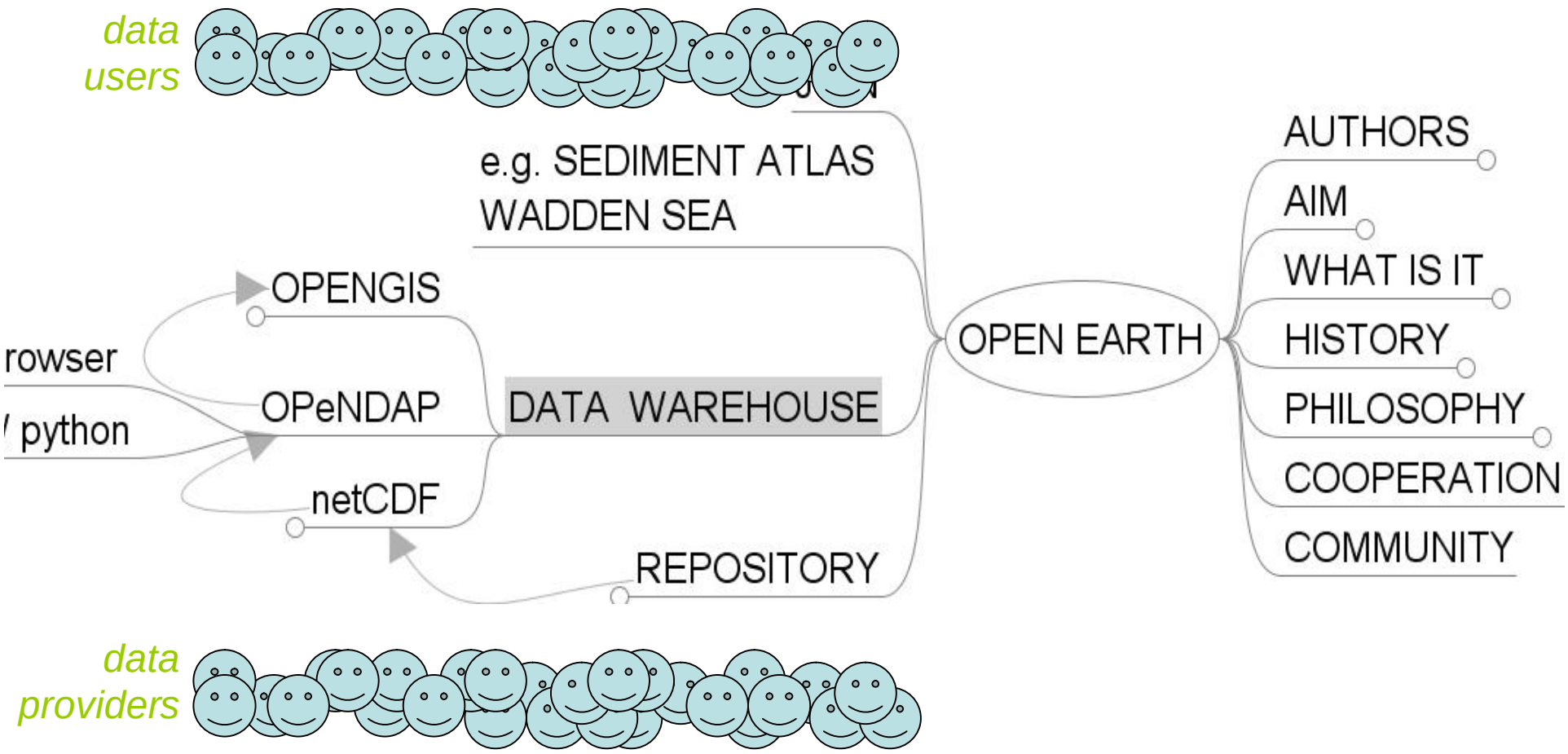
```
1
2 -     F = 'http://dtvirt5.deltares.nl:8080/thredds/dodsC/opendap/rijkswaterstaat/sedimentatlas_waddenzee/korrel.nc';
3
4 -     nc_dump(F);
5
6 -     D.lon          = nc_varget(F,'lon');
7 -     D.lat          = nc_varget(F,'lat');
8 -     D.phi          = nc_varget(F,'phi');
9 -     D.diameter     = nc_varget(F,'diameter');
10
11 -    plotc  (D.lon,D.lat,D.phi(:,10),'.')
12 -    axislat(52)
13 -    colorbarwithtitle([num2str(D.diameter(10)),' \mum [%]'])
```



netCDF: OPeNDAP > MATROOS OPENGIS



Summary


data
users
e.g. SEDIMENT ATLAS
WADDEN SEA
OPENGIS
rowser
OPeNDAP
DATA WAREHOUSE
python
netCDF
REPOSITORY
OPEN EARTH
AUTHORS
AIM
WHAT IS IT
HISTORY
PHILOSOPHY
COOPERATION
COMMUNITY
data
providers

OpenEarth.Deltares.nl

JOIN

e.g. SEDIMENT ATLAS WADDEN SEA

DATA WAREHOUSE

REPOSITORY

AUTHORS

AIM

WHAT IS IT

HISTORY

PHILOSOPHY

COOPERATION

COMMUNITY