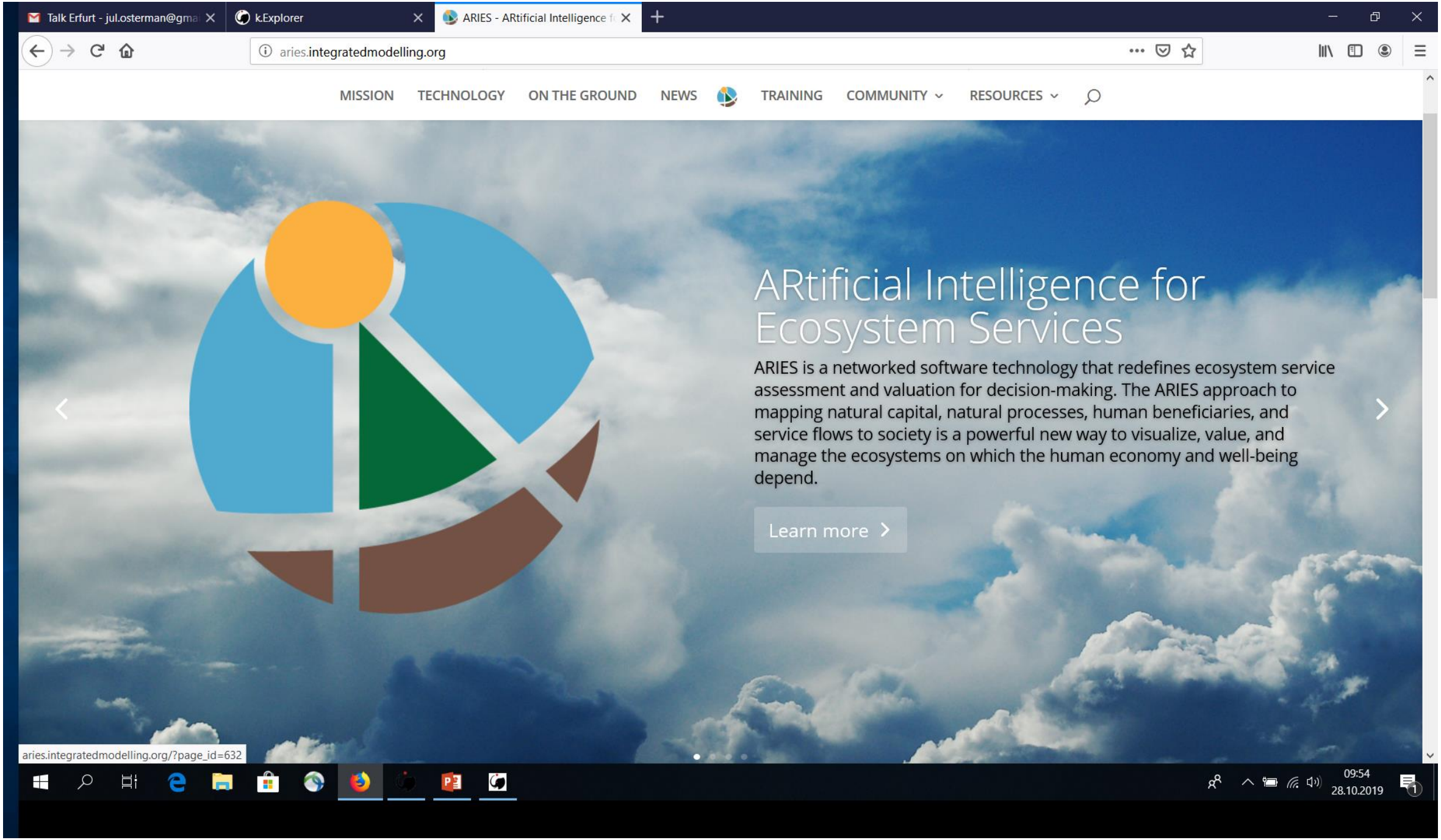
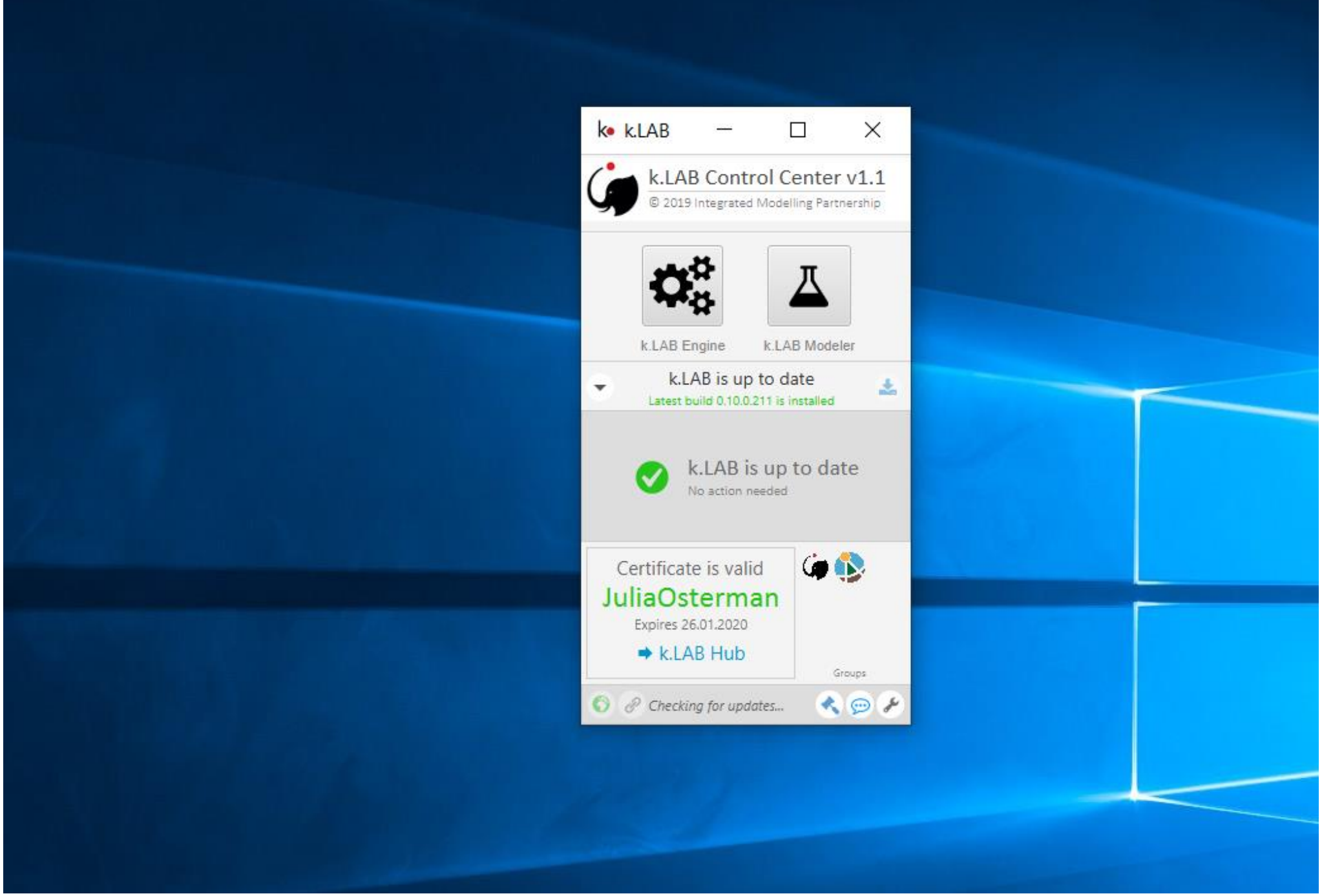
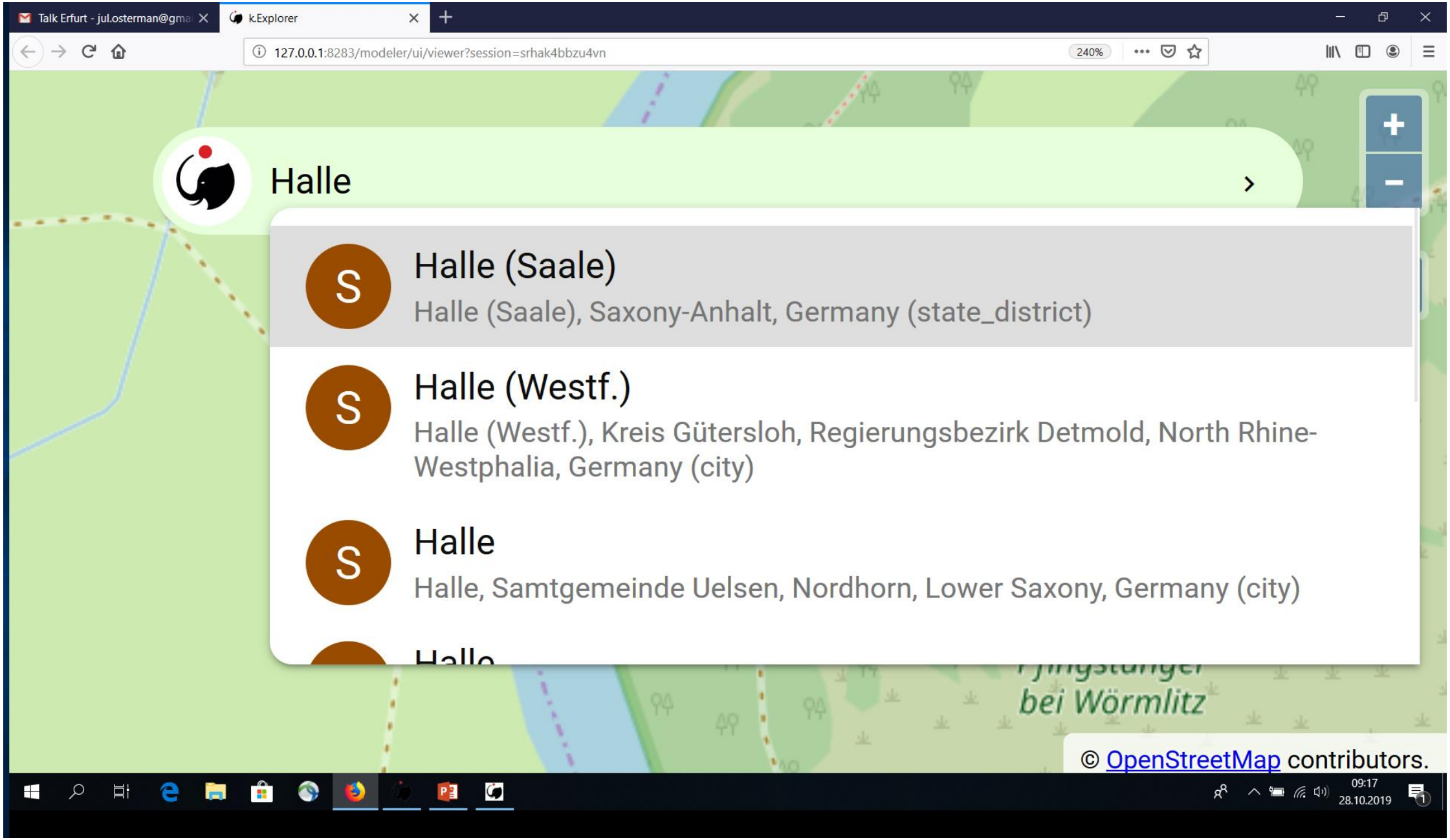

Talk Erfurt - jul.osterman@gma
kExplorer
ARIES - ARtificial Intelligence f
aries.integratedmodelling.org
MISSION
TECHNOLOGY
ON THE GROUND
NEWS
TRAINING
COMMUNITY
RESOURCES
ARtificial Intelligence for Ecosystem Services
ARIES is a networked software technology that redefines ecosystem service assessment and valuation for decision-making. The ARIES approach to mapping natural capital, natural processes, human beneficiaries, and service flows to society is a powerful new way to visualize, value, and manage the ecosystems on which the human economy and well-being depend.
Learn more
aries.integratedmodelling.org/?page_id=632
09:54
28.10.2019


k.LAB
k.LAB Control Center v1.1
© 2019 Integrated Modelling Partnership
k.LAB Engine
k.LAB Modeler
k.LAB is up to date
Latest build 0.10.0.211 is installed
k.LAB is up to date
No action needed
Certificate is valid
JuliaOsterman
Expires 26.01.2020
k.LAB Hub
Groups
Checking for updates...


Talk Erfurt - jul.osterman@gma
k.Explorer
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240%
Halle
Halle (Saale)
Halle (Saale), Saxony-Anhalt, Germany (state_district)
Halle (Westf.)
Halle (Westf.), Kreis Gütersloh, Regierungsbezirk Detmold, North Rhine-Westphalia, Germany (city)
Halle
Halle, Samtgemeinde Uelsen, Nordhorn, Lower Saxony, Germany (city)
bei Wörmlitz
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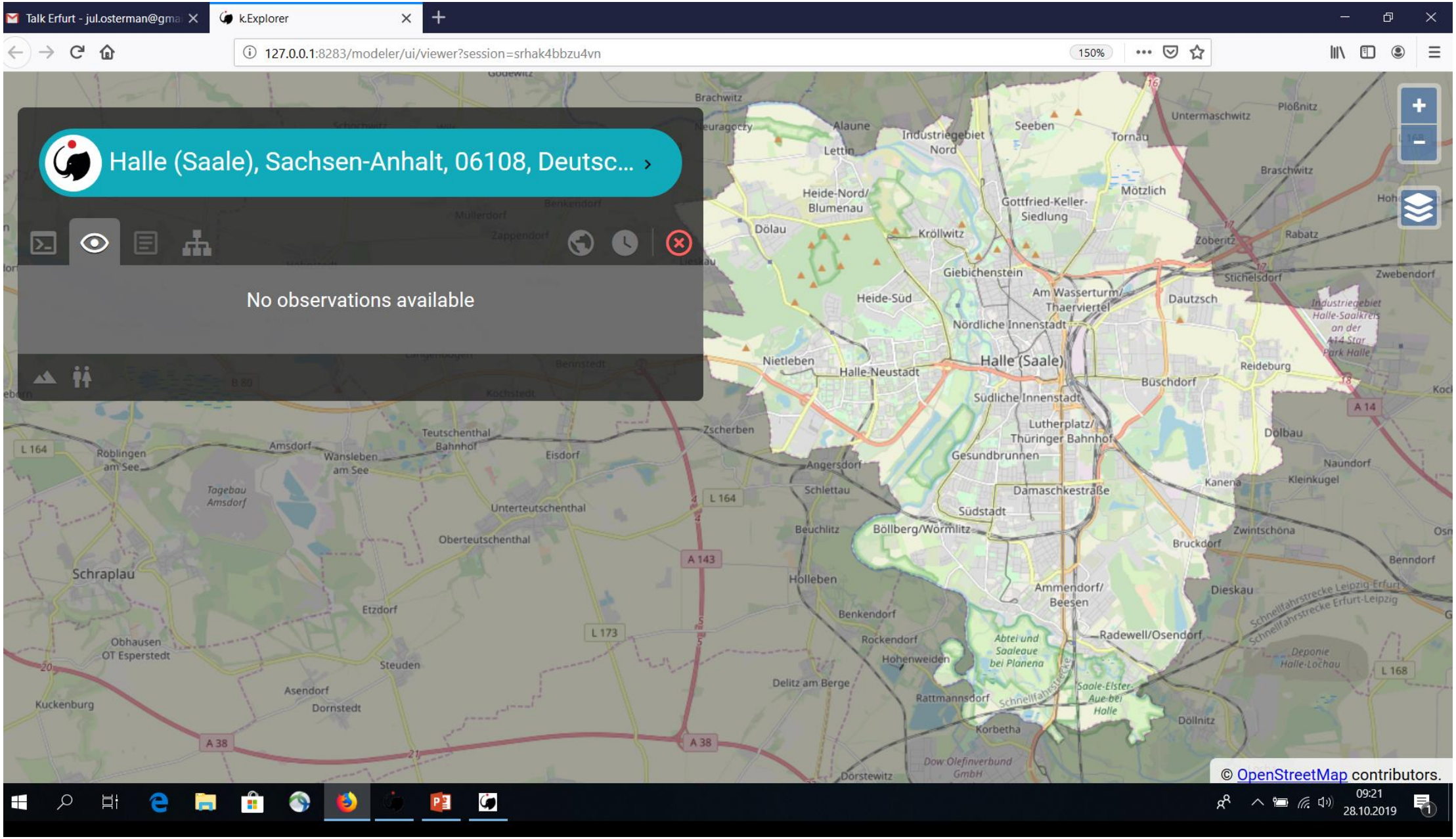
Talk Erfurt - jul.osterman@gma
k.Explorer
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Halle (Saale), Sachsen-Anhalt, 06108, Deutsc...
No observations available
Halle (Saale)
Nördliche Innenstadt
Südliche Innenstadt
Lutherplatz/
Thüringer Bahnhof
Gesundbrunnen
Damaschkestraße
Südstadt
Böllberg/Wörmlitz
Ammendorf/
Beesen
Radewell/Osendorf
Dieskau
Zwintschöna
Bruckdorf
Kanena
Büschdorf
Reideburg
Dautzsch
Am Wasserturm/
Thaerviertel
Giebichenstein
Gottfried-Keller-
Siedlung
Mötzlich
Tornau
Seeben
Industriegebiet
Nord
Alaune
Lettin
Brachwitz
Untermaschwitz
Ploßnitz
Braschwitz
Zoberitz
Rabatz
Stichelsdorf
Zwebendorf
Heide-Süd
Heide-Nord/
Blumenau
Dölau
Kröllwitz
Nietleben
Halle-Neustadt
Dölbau
Naundorf
Kleinkugel
Angersdorf
Schlettau
Beuchlitz
Holleben
Benkendorf
Rockendorf
Hohenweiden
Delitz am Berge
Rattmannsdorf
Korbetha
Döllnitz
Dorstewitz
Benndorf
Osn
Zscherben
Teutschenthal
Bahnhof
Amsdorf
Wansleben
am See
Röblingen
am See
Eisdorf
Tagebau
Amsdorf
Unterteutschenthal
Oberteutschenthal
Schraplau
Etzdorf
Obhausen
OT Esperstedt
Steuden
Asendorf
Dornstedt
Kuckenburg
L 164
L 173
L 168
A 143
A 38
A 14
Abtei und
Saaleaue
bei Planena
Saale-Elster-
Aue bei
Halle
Deponie
Halle-Lochau
Schnellfahrstrecke Leipzig-Erfurt
Schnellfahrstrecke Erfurt-Leipzig
Schnellfahrstrecke
Dow Olefinverbund
GmbH
Industriegebiet
Halle-Saalkreis
an der
A14 Star
Park Halle
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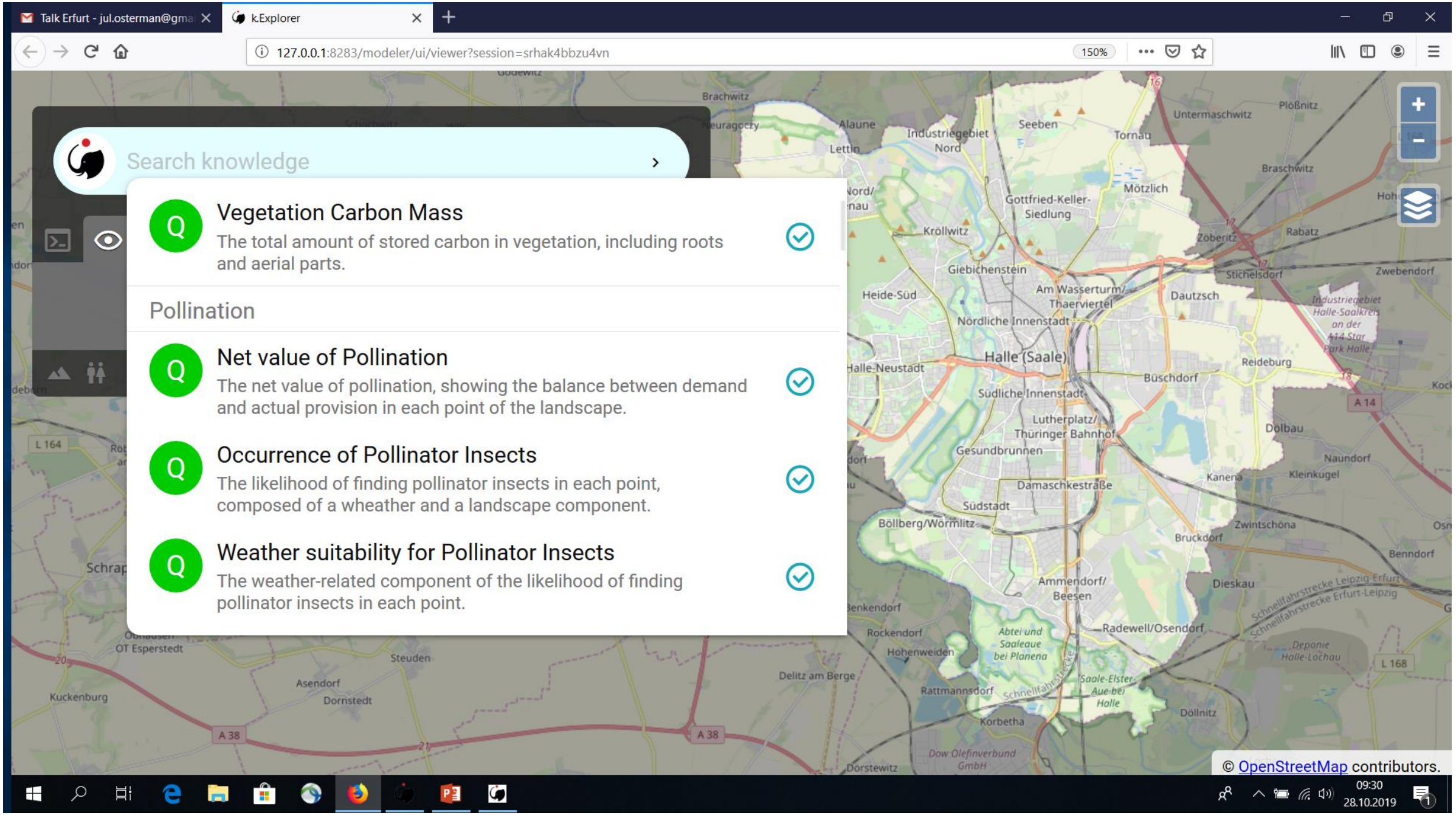
Talk Erfurt - jul.osterman@gma
k.Explorer
127.0.0.1:8283/modeler/ui/viewer?session=srhak4bbzu4vn
150%
Search knowledge
Vegetation Carbon Mass
The total amount of stored carbon in vegetation, including roots and aerial parts.
Pollination
Net value of Pollination
The net value of pollination, showing the balance between demand and actual provision in each point of the landscape.
Occurrence of Pollinator Insects
The likelihood of finding pollinator insects in each point, composed of a wheather and a landscape component.
Weather suitability for Pollinator Insects
The weather-related component of the likelihood of finding pollinator insects in each point.
Halle (Saale)
Nördliche Innenstadt
Südliche Innenstadt
Giebichenstein
Gesundbrunnen
Damaschkestraße
Südstadt
Böllberg/Wörmlitz
Ammendorf/
Beesen
Radewell/Osendorf
Dieskau
Büschdorf
Reideburg
Dautzsch
Am Wasserturm/
Thaerviertel
Lutherplatz/
Thüringer Bahnhof
Halle-Neustadt
Heide-Süd
Kröllwitz
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Siedlung
Mötzlich
Seeben
Tornau
Untermaschwitz
Plößnitz
Braschwitz
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Rabatz
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Zwebendorf
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Bruckdorf
Benndorf
Döllnitz
Korbetha
Rattmannsdorf
Rockendorf
Hohenweiden
Abtei und
Saaleaue
bei Planena
Saale-Elster-
Aue bei
Halle
Deponie
Halle-Lochau
Industriegebiet
Halle-Saalkreis
an der
A14 Star
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Brachwitz
Delitz am Berge
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Kuckenburg
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Dorstewitz
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Schnellfahrstrecke Leipzig-Erfurt
Schnellfahrstrecke Erfurt-Leipzig
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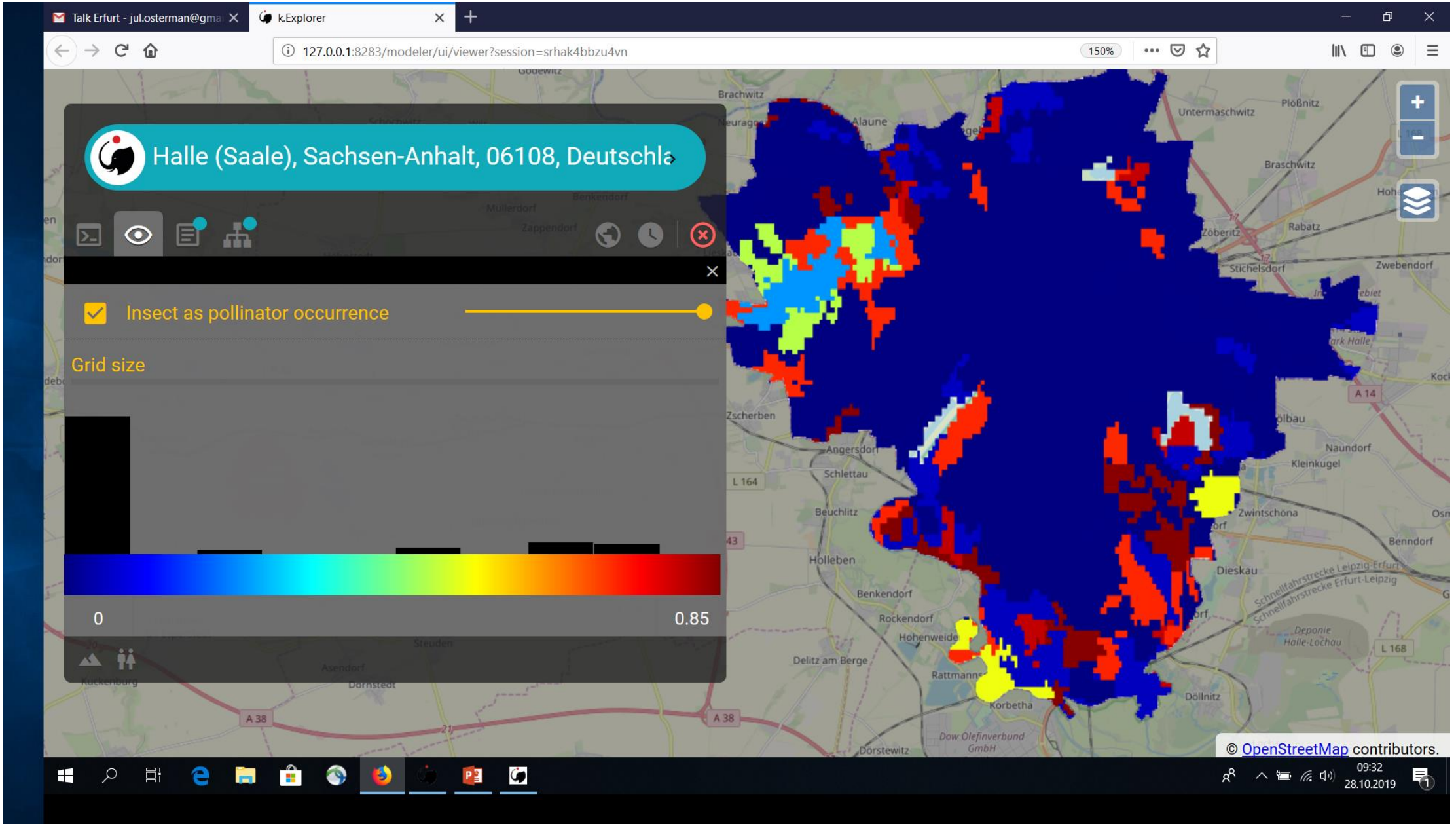
Talk Erfurt - jul.osterman@gma
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Halle (Saale), Sachsen-Anhalt, 06108, Deutschla
Insect as pollinator occurrence
Grid size
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Brachwitz
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Untermaschwitz
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Zappendorf
Zscherben
Angersdorf
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Benkendorf
Rockendorf
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Delitz am Berge
Rattmannsdorf
Korbetha
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Dow Olefinverbund GmbH
Döllnitz
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Naundorf
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Deponie Halle-Lochau
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Schnellfahrstrecke Erfurt-Leipzig
Dornstedt
Asendorf
Steuden
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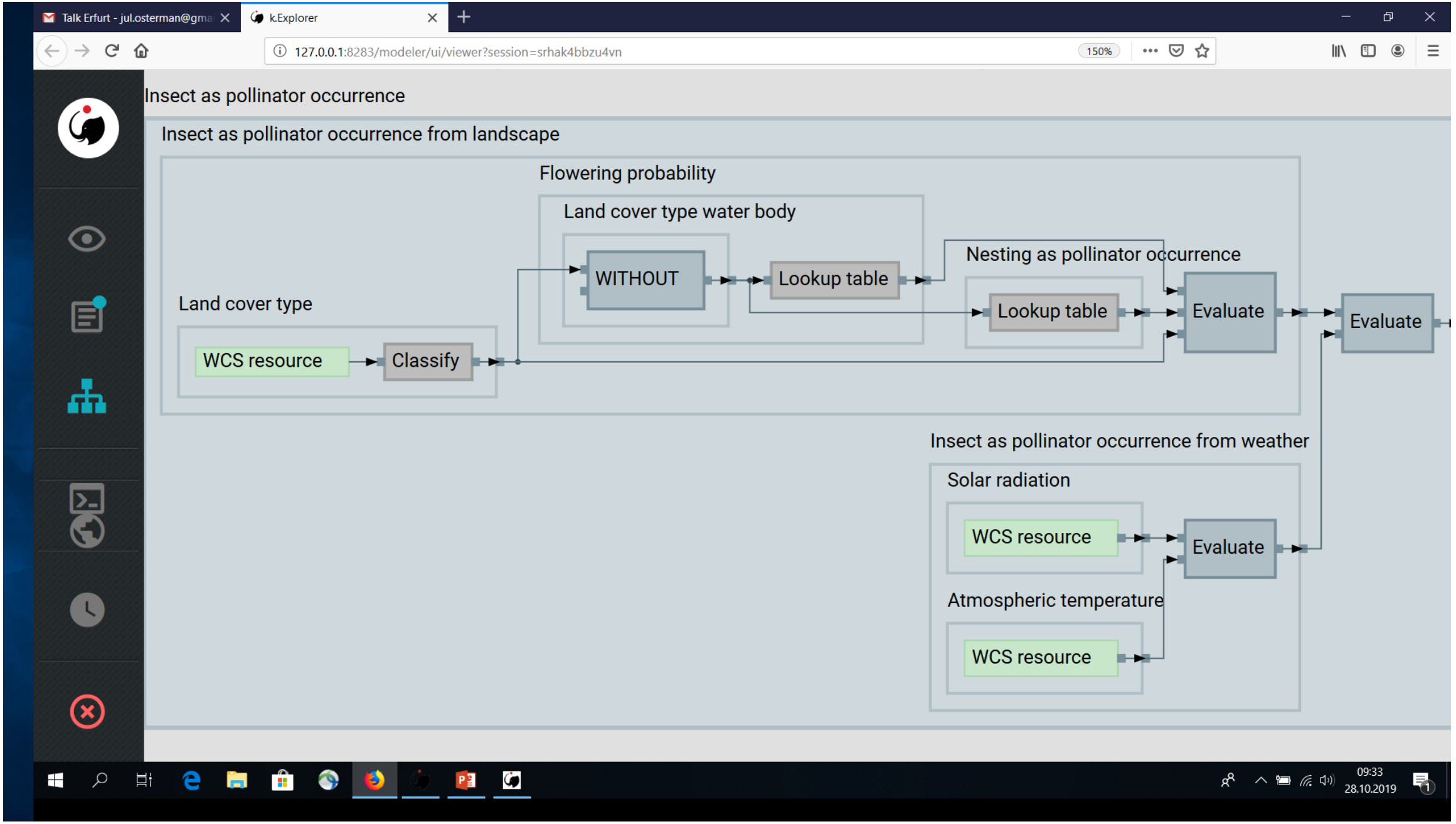
Talk Erfurt - jul.osterman@gma
k.Explorer
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150%
Insect as pollinator occurrence
Insect as pollinator occurrence from landscape
Flowering probability
Land cover type water body
WITHOUT
Lookup table
Nesting as pollinator occurrence
Lookup table
Evaluate
Evaluate
Land cover type
WCS resource
Classify
Insect as pollinator occurrence from weather
Solar radiation
WCS resource
Evaluate
Atmospheric temperature
WCS resource
09:33
28.10.2019

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k.LAB Contextualization report

Computed at Mon Oct 28 09:34:38 CET 2019

1 Introduction

Global supply-demand ecosystem service models for ARIES

The baseline modeling of ecosystem services (ES) supply and demand is conducted in ARIES using a suite of logical statements, data, and models that are used when not enough information is available to build more detailed, dynamic flow models. The models built by ARIES using such statements have, in general, similar resolution and conceptual detail as those available in other ES assessment toolkits such as InVEST or ESTIMAP. They can run anywhere in the world with no user input (using global data and parameters), while offering the option to easily customize models with context-specific data and parameters. This approach enables rapid ES quantification, as models are automatically adapted to the application context and run using the best available data for the context. The models use publicly available global- and continental-scale data as defaults. Advanced users can modify data input requirements, model parameters, or entire model structures to capitalize on high-resolution data and context-specific model formulations.

09:34
28.10.2019

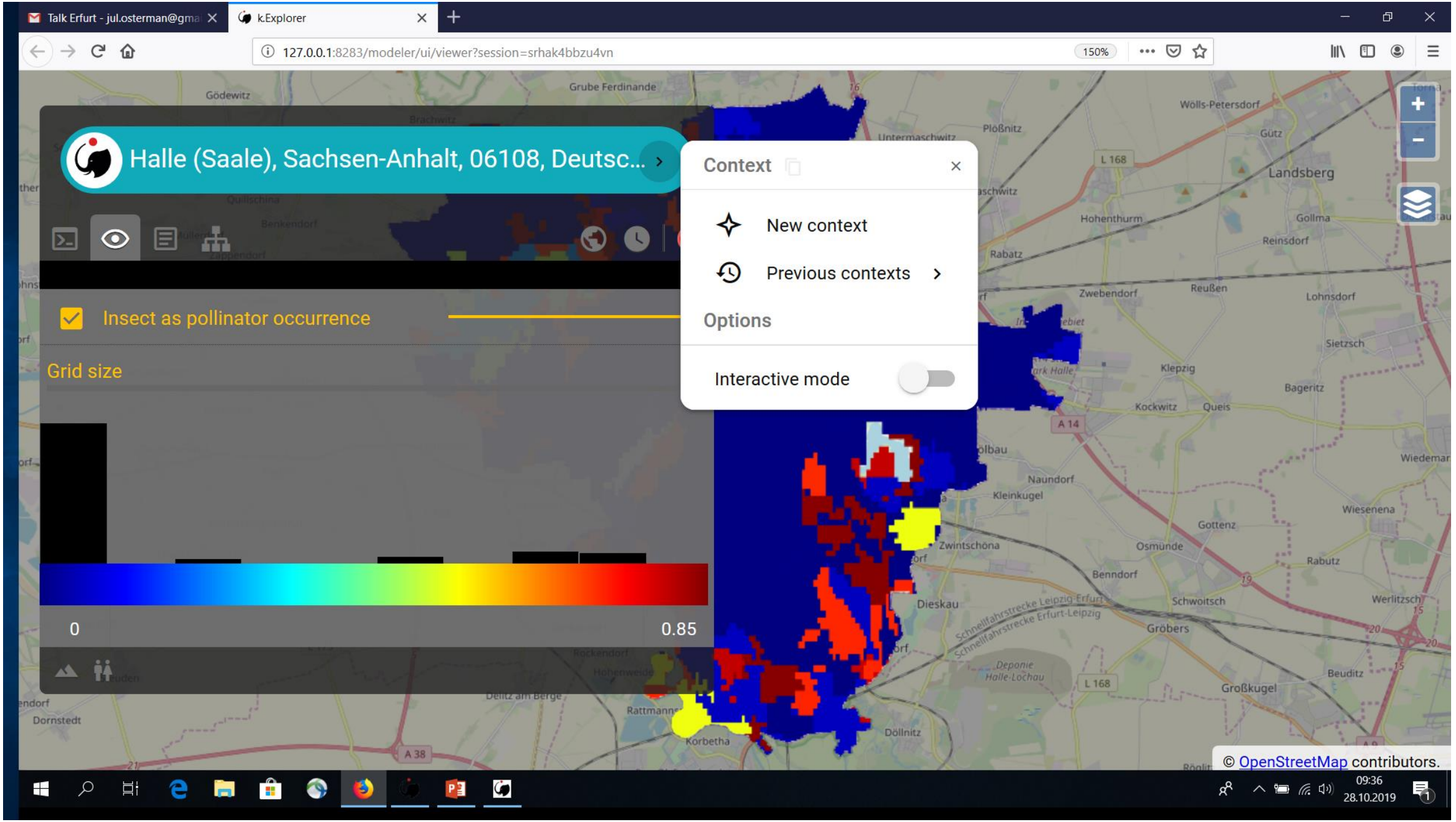
estimates on the supply and demand for insect pollination services based on land cover, cropland, and weather patterns.

2 Methods

2.1 Pollination

Flower availability describes the occurrence of flowers suitable to serve as food for pollinator insects are based on expert opinion and published literature.

landcovertype	flowers
landcover:ArtificialSurface	0.05
landcover:ArableLand	0.05
landcover:PermanentCropland	0.6
landcover:Pastureland	0.2
landcover:AnnualCroplandAssociatedWithPermanent	0.5
landcover:ComplexCultivationPatternedLand	0.4
landcover:AgriculturalLandWithNaturalVegetation	0.75
landcover:AgroForestryLand	0.5
landcover:BroadleafForest	0.9
landcover:ConiferousForest	0.3
landcover:MixedForest	0.6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Halle (Saale), Sachsen-Anhalt, 06108, Deutsc...
Context
New context
Previous contexts
Options
Interactive mode
Insect as pollinator occurrence
Grid size
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0.85
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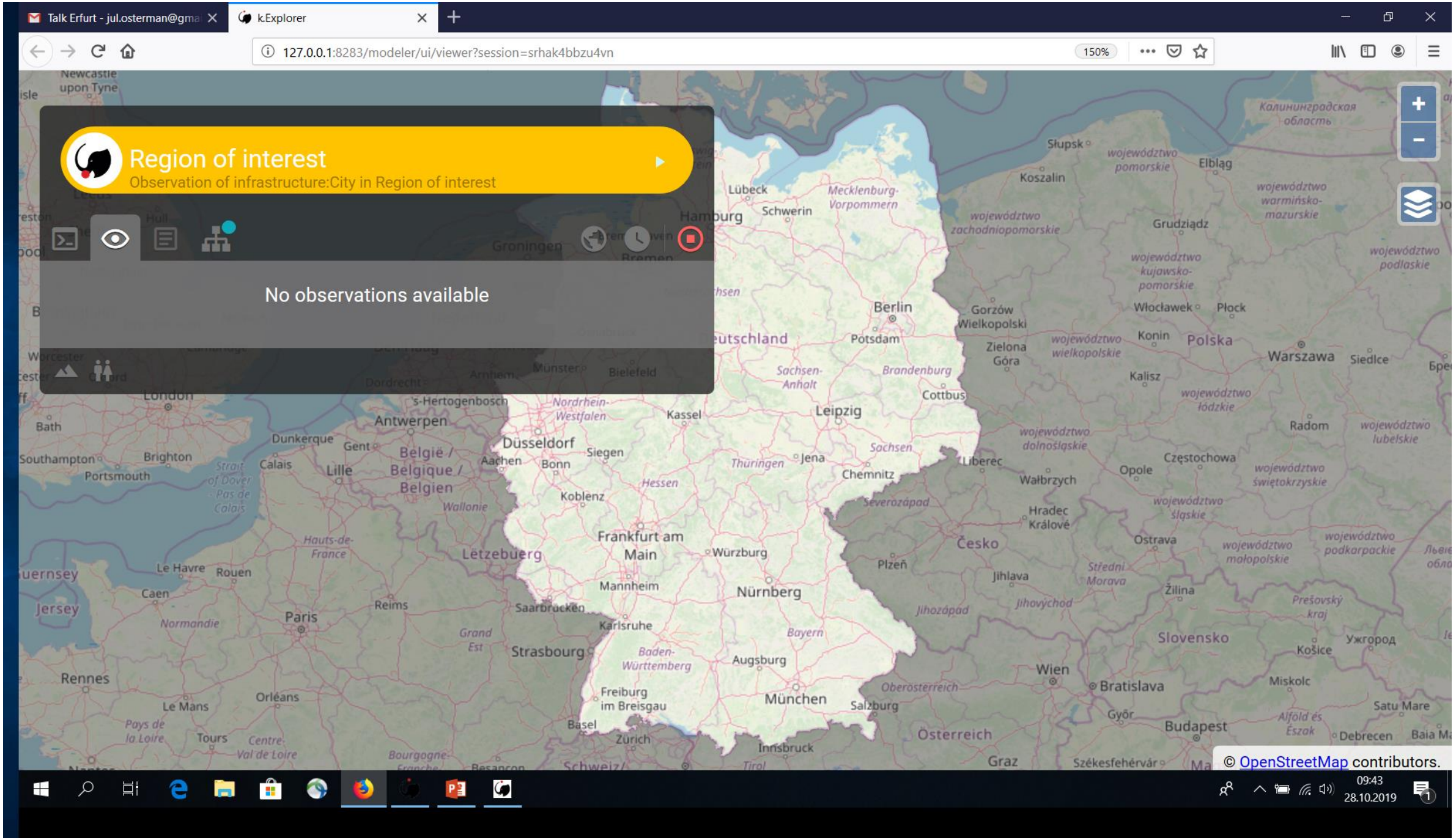
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Region of interest
Observation of infrastructure:City in Region of interest
No observations available
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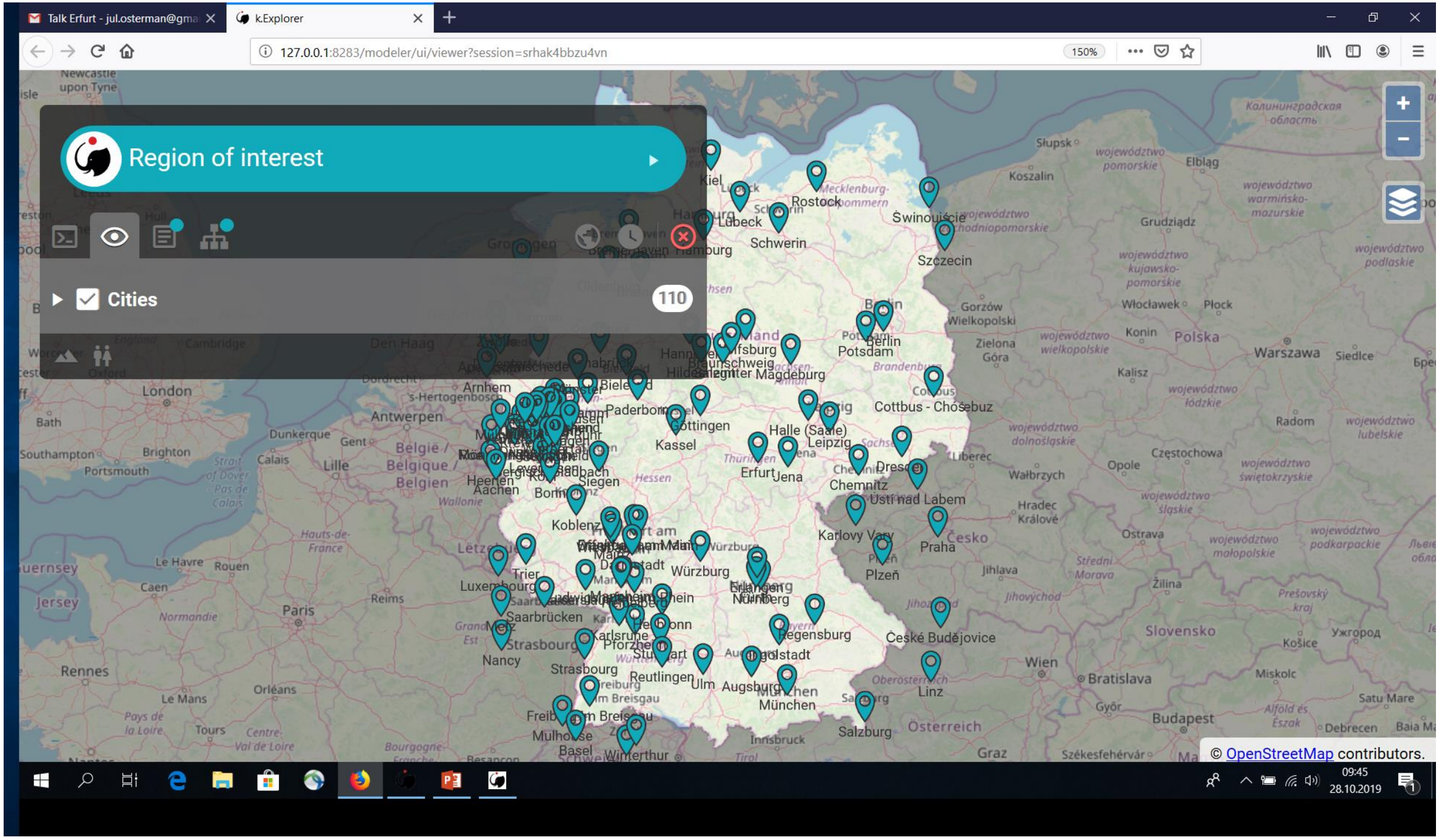
Talk Erfurt - jul.osterman@gma
k.Explorer
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150%
Region of interest
Cities
110
Kiel
Rostock
Lübeck
Schwerin
Świnoujście
Szczecin
Berlin
Potsdam
Braunschweig
Magdeburg
Cottbus - Chóśebuz
Paderborn
Göttingen
Kassel
Halle (Saale)
Leipzig
Erfurt
Jena
Dresden
Chemnitz
Ústí nad Labem
Karlovy Vary
Praha
Plzeň
Würzburg
Nürnberg
Regensburg
České Budějovice
Linz
Salzburg
Innsbruck
Augsburg
München
Ulm
Reutlingen
Freiburg im Breisgau
Basel
Wimerthur
Mulhouse
Strasbourg
Nancy
Karlsruhe
Saarbrücken
Trier
Luxembourg
Koblenz
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Siegen
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Portsmouth
Brighton
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Le Havre
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Orléans
Tours
Jersey
Guernsey
Hauts-de-France
Normandie
Pays de la Loire
Centre-Val de Loire
Bourgogne-Franche-Comté
Grand Est
Wallonie
België / Belgique / Belgien
Nederland
Hessen
Baden-Württemberg
Bayern
Sachsen
Thüringen
Brandenburg
Mecklenburg-Vorpommern
Niedersachsen
Sachsen-Anhalt
Polska
Słupsk
Koszalin
Elbląg
Grudziądz
Gorzów Wielkopolski
Włocławek
Płock
Konin
Warszawa
Siedlce
Kalisz
Zielona Góra
Radom
Częstochowa
Opole
Wałbrzych
Liberec
Hradec Králové
Ostrava
Jihlava
Žilina
Česko
Slovensko
Wien
Bratislava
Miskolc
Košice
Győr
Budapest
Debrecen
Satu Mare
Székesfehérvár
Graz
Österreich
województwo pomorskie
województwo zachodniopomorskie
województwo kujawsko-pomorskie
województwo warmińsko-mazurskie
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województwo świętokrzyskie
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województwo podkarpackie
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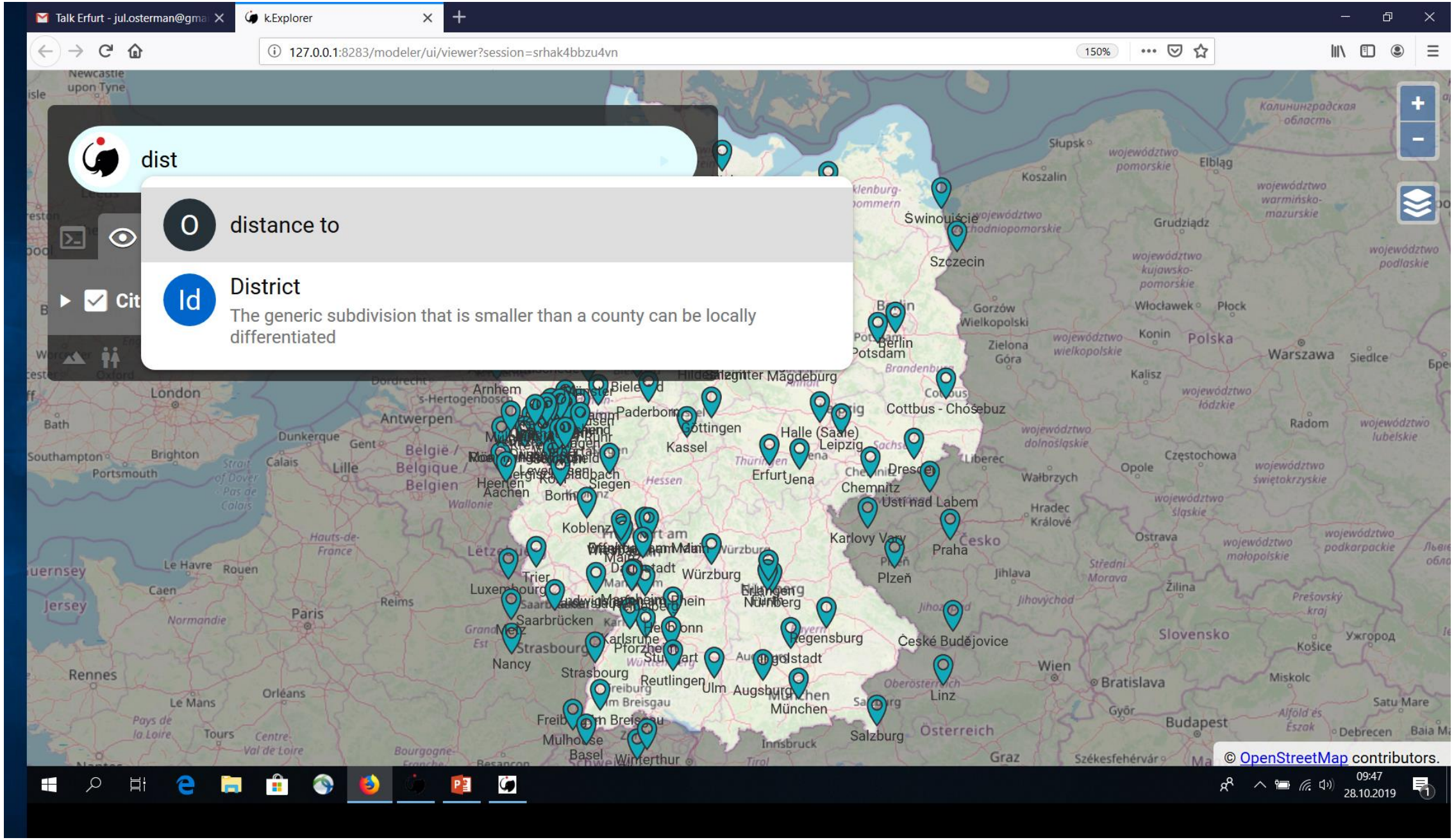
Talk Erfurt - jul.osterman@gma
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dist
distance to
District
The generic subdivision that is smaller than a county can be locally differentiated
Świnoujście
Szczecin
Berlin
Potsdam
Cottbus - Chóśebuz
Magdeburg
Halle (Saale)
Leipzig
Dresden
Chemnitz
Erfurt
Jena
Kassel
Göttingen
Paderborn
Siegen
Koblenz
Würzburg
Trier
Saarbrücken
Karlsruhe
Strasbourg
Nancy
Reutlingen
Ulm
Augsburg
München
Regensburg
Ingolstadt
Nürnberg
Karlovy Vary
Plzeň
Praha
České Budějovice
Linz
Salzburg
Innsbruck
Wien
Bratislava
Budapest
Warszawa
Gdańsk
Szczecin
Poznań
Wrocław
Katowice
Kraków
Łódź
Lublin
Białystok
Gorzów Wielkopolski
Zielona Góra
Kalisz
Konin
Włocławek
Płock
Elbląg
Koszalin
Słupsk
Grudziądz
Częstochowa
Radom
Opole
Ostrava
Hradec Králové
Pardubice
Jihlava
Žilina
Košice
Miskolc
Debrecen
Satu Mare
Győr
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Székesfehérvár
Amsterdam
Rotterdam
Arnhem
Antwerpen
Gent
Brugge
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Paris
Rouen
Le Havre
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Tours
Rennes
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Guernsey
Luxembourg
Metz
Mulhouse
Basel
Zürich
Freiburg im Breisgau
Aachen
Heerlen
Eindhoven
Dordrecht
Hessen
Thüringen
Sachsen
Brandenburg
Mecklenburg-Vorpommern
Sachsen-Anhalt
Niedersachsen
Nordrhein-Westfalen
Rheinland-Pfalz
Saarland
Baden-Württemberg
Bayern
Österreich
Česko
Slovensko
Polska
Wallonie
België / Belgique / Belgien
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Normandie
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Centre-Val de Loire
Bourgogne-Franche-Comté
Grand Est
Tirol
Oberösterreich
Salzburg
Jihovýchod
Střední Morava
Moravskoslezský kraj
Olomoucký kraj
Zlínský kraj
Jihomoravský kraj
Vysočina
Královéhradecký kraj
Pardubický kraj
Liberecký kraj
Ústecký kraj
Karlovarský kraj
Plzeňský kraj
Středočeský kraj
Jihočeský kraj
Województwo pomorskie
Województwo kujawsko-pomorskie
Województwo warmińsko-mazurskie
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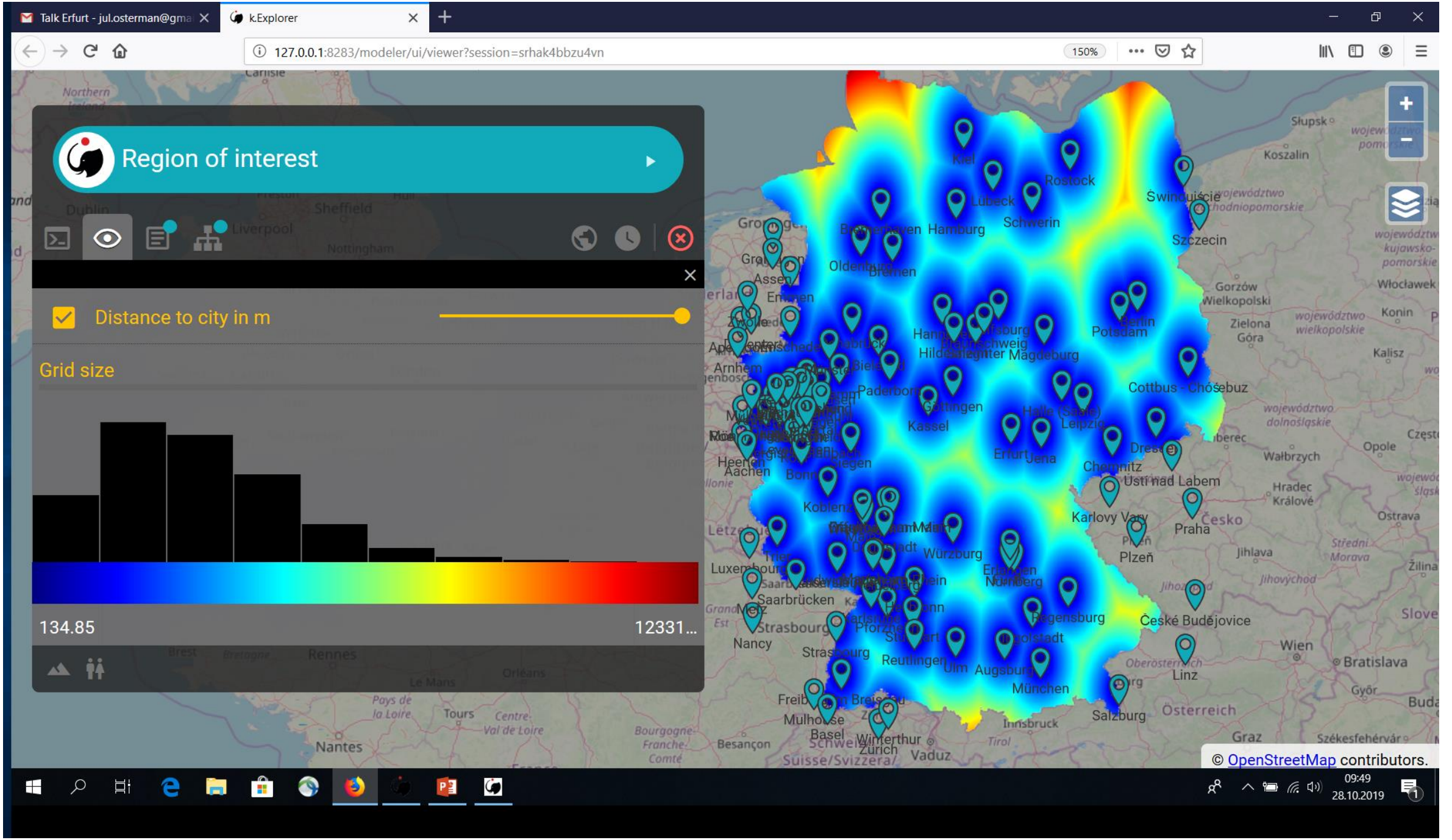
Talk Erfurt - jul.osterman@gma
k.Explorer
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150%
Region of interest
Distance to city in m
Grid size
134.85
12331...
Kiel
Rostock
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Schwerin
Hamburg
Bremen
Oldenburg
Świnoujście
Szczecin
Koszalin
Słupsk
Gorzów Wielkopolski
Zielona Góra
Włocławek
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Kalisz
Potsdam
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Göttingen
Kassel
Halle (Saale)
Leipzig
Erfurt
Jena
Chemnitz
Dresden
Ústí nad Labem
Karlovy Vary
Praha
Plzeň
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Opole
Hradec Králové
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Zürich
Innsbruck
Nantes
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Tours
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Orléans
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Assen
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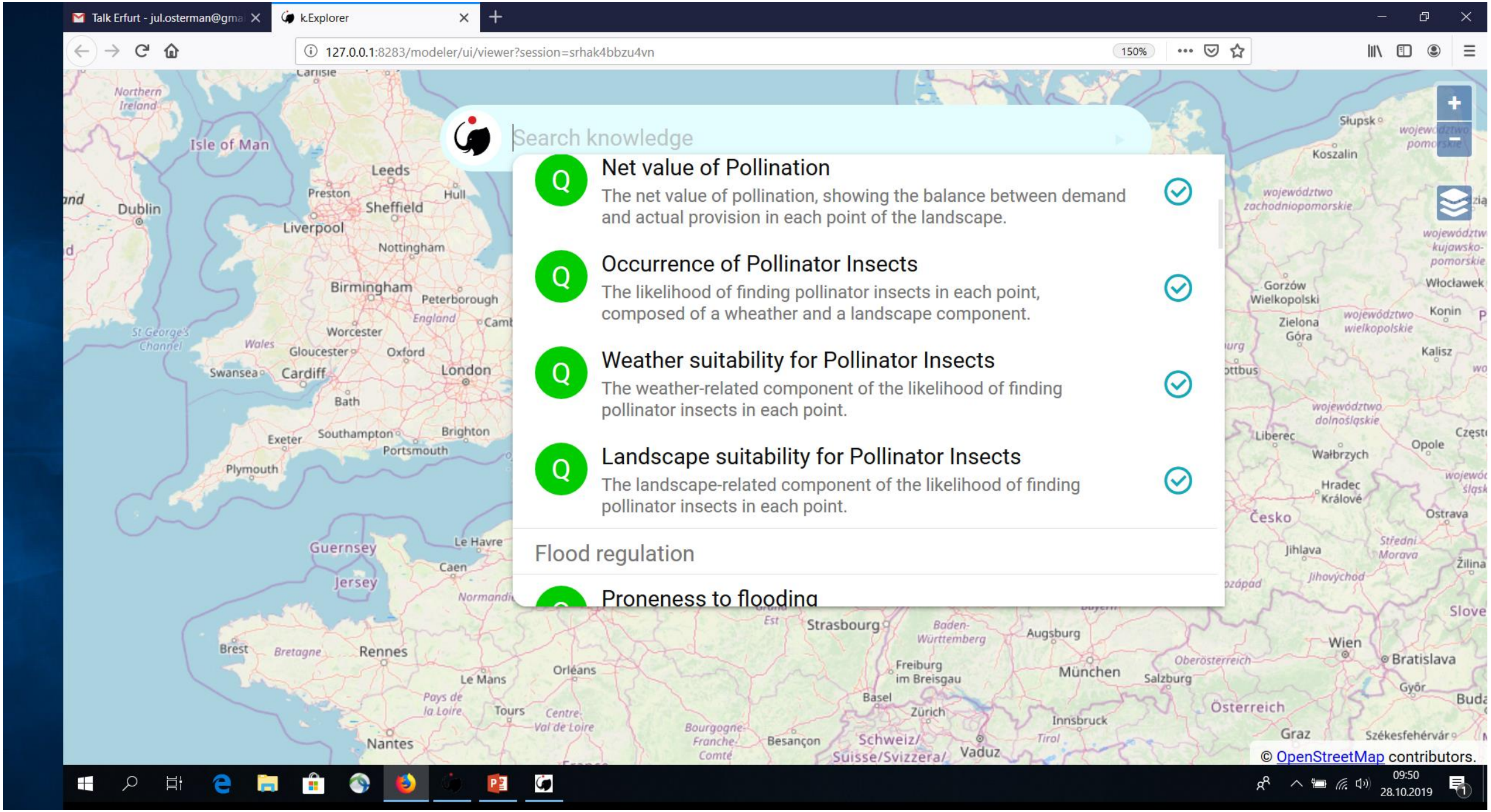
Talk Erfurt - jul.osterman@gma
k.Explorer
127.0.0.1:8283/modeler/ui/viewer?session=srhak4bbzu4vn
150%
Search knowledge
Net value of Pollination
The net value of pollination, showing the balance between demand and actual provision in each point of the landscape.
Occurrence of Pollinator Insects
The likelihood of finding pollinator insects in each point, composed of a wheather and a landscape component.
Weather suitability for Pollinator Insects
The weather-related component of the likelihood of finding pollinator insects in each point.
Landscape suitability for Pollinator Insects
The landscape-related component of the likelihood of finding pollinator insects in each point.
Flood regulation
Proneness to flooding
Isle of Man
Dublin
Leeds
Preston
Sheffield
Hull
Liverpool
Nottingham
Birmingham
Peterborough
England
Worcester
Wales
Gloucester
Oxford
Swansea
Cardiff
London
Bath
Exeter
Southampton
Brighton
Portsmouth
Plymouth
Guernsey
Jersey
Le Havre
Caen
Brest
Bretagne
Rennes
Le Mans
Orléans
Pays de la Loire
Tours
Centre-Val de Loire
Nantes
Bourgogne-Franche-Comté
Besançon
Schweiz/Suisse/Svizzera/
Vaduz
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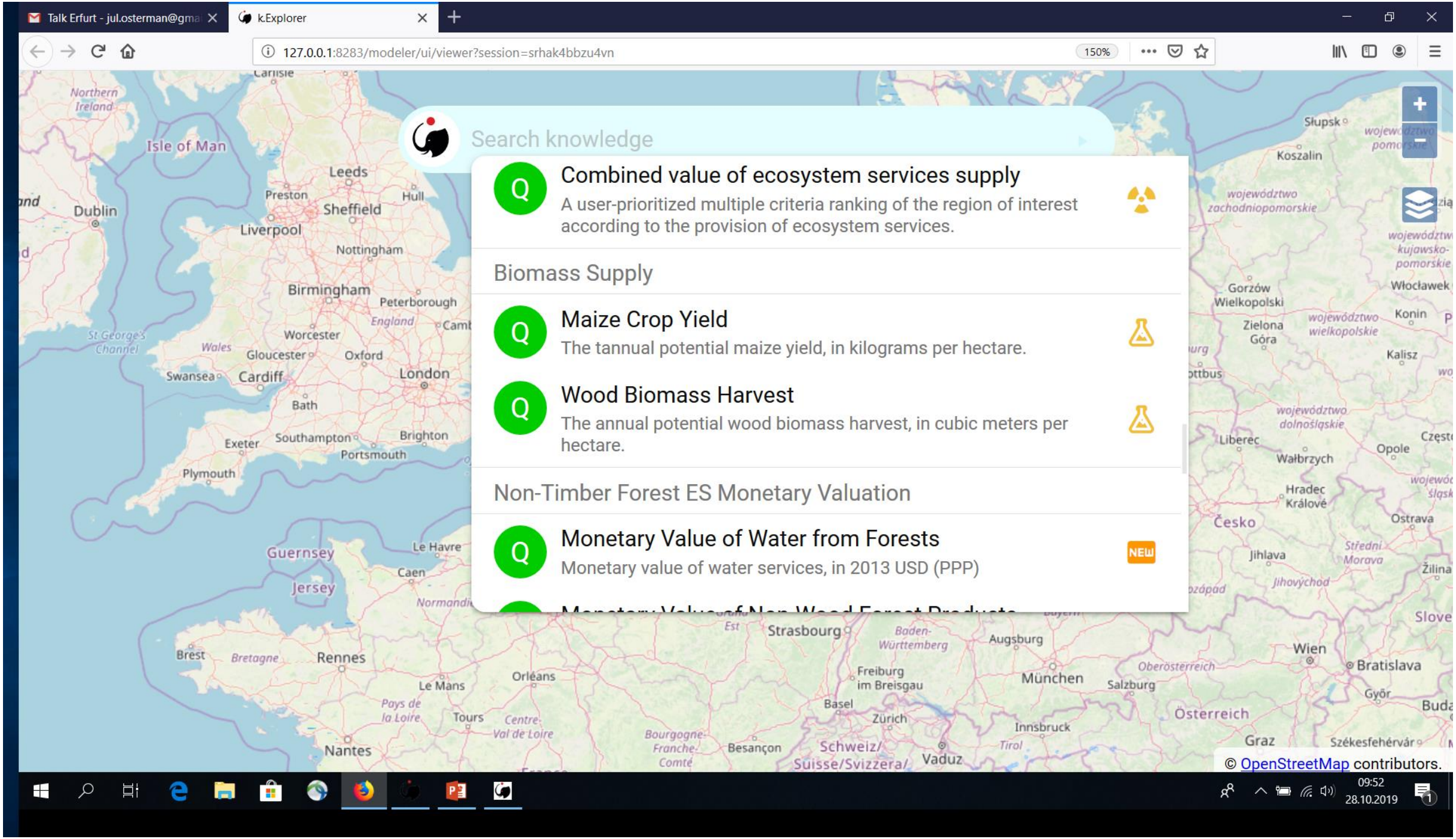
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Search knowledge
Combined value of ecosystem services supply
A user-prioritized multiple criteria ranking of the region of interest according to the provision of ecosystem services.
Biomass Supply
Maize Crop Yield
The tannual potential maize yield, in kilograms per hectare.
Wood Biomass Harvest
The annual potential wood biomass harvest, in cubic meters per hectare.
Non-Timber Forest ES Monetary Valuation
Monetary Value of Water from Forests
Monetary value of water services, in 2013 USD (PPP)
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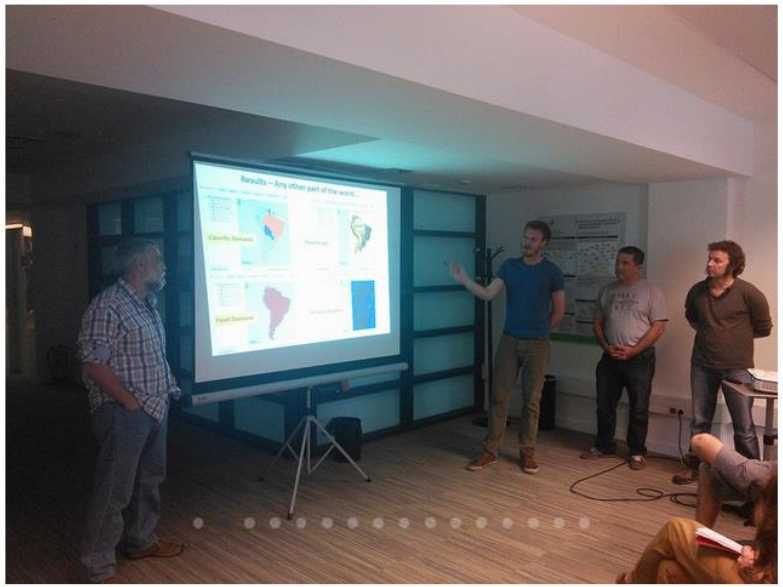

Custom training opportunities

We can also deliver other types of training of varying length and technical content. These can be tailored to a specific case study, scientific, or policy problem. Please contact us if you are interested in discussing custom training options.

1-week ARIES training

Bilbao, 20th – 24th May 2019

The International Spring University (ISU), an initiative of the Basque Centre for Climate Change (BC3), announces a 1-week training on Ecosystem Services Modeling.

The 2019 event is directed to a new generation of scientists and policy analysts who can effectively use coupled human-environmental models in research, policy and management to address and solve sustainability problems. This year´s event will make use of both k.LAB components: the simple, yet powerful, user interface – k.EXPLORER – and the interface for modellers – k.MODELLER.

Time remaining to apply

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My idea:

Mapping the ecosystem service of polliation: usefull tool or room for improvement

1. Can we compare pollination services between ecosystems?
2. Can we compare pollination services within ecosystems?