



FarmBox

**The farmer's toolbox
for climate change
mitigation**

CSA Simulatore

Eine kurze Anleitung zur Nutzung der Plattform.

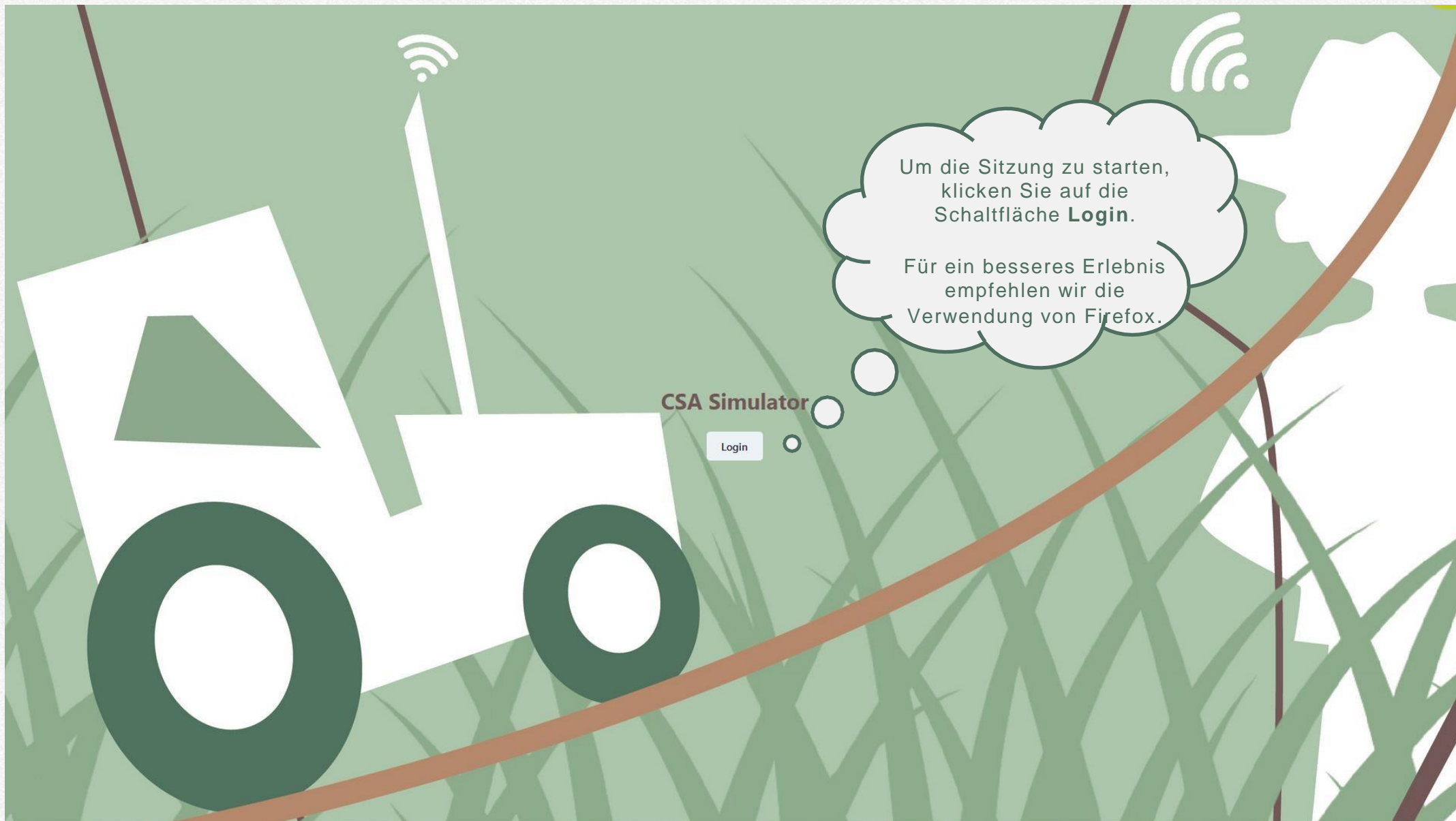


Einführung

Bei dieser Präsentation handelt es sich um eine kurze Anleitung zur Nutzung einer webbasierten Anwendung, die für die Simulation und Umsetzung effektiver agronomischer Praktiken im Zusammenhang mit der klimagerechten Landwirtschaft entwickelt wurde. Der Schwerpunkt liegt dabei auf der Nutzung der konservierenden Landwirtschaft als Instrument zur Abschwächung des Klimawandels.

Anmeldung

So registrieren Sie einen Benutzer und beantragen die Aktivierung



Um die Sitzung zu starten,
klicken Sie auf die
Schaltfläche **Login**.

Für ein besseres Erlebnis
empfehlen wir die
Verwendung von Firefox.

CSA Simulator

Login

UPTO EARTH

Sign in to your account

Email

Password

[Sign In](#)

New user? [Register](#)

Um ein neues Profil
zu erstellen, klicken
Sie auf
Registrieren

UPTOEARTH

Register

First name

Last name

Email

Password

Confirm password

[Back to Login](#)

Geben Sie Ihre
Daten ein und
klicken Sie auf
Registrieren.

Simulator Environment

Home

Logout

Wenn der Vorgang korrekt abgeschlossen ist, sollten Sie diese Webseite sehen.
Um Ihre Anmeldung abzuschließen, klicken Sie auf die Schaltfläche **Logout**.

Welcome

Please select a dashboard



Sobald die Registrierung abgeschlossen ist, senden Sie eine E-Mail an helpdesk@uptoearth.eu, um die Aktivierung Ihres Profils zu beantragen und anzugeben, auf welches Schulungsmodul Sie zugreifen möchten.

Start

Zugang und Navigation im Simulator



UPTOEARTH

Sign in to your account

Email

Password

[Sign In](#)

[New user?](#) [Register](#)

Hier müssen Sie
die Zugangsdaten
eingeben, die Sie
erhalten haben.

Simulator Environment

Home

Sustainable farming

Logout

Der Abschnitt auf der linken Seite enthält Navigationsschaltflächen, insbesondere die Schaltflächen zur Aktivierung der Simulationsfallstudien.

Welcome

This is your personal bulletin board.

Here you will find general messages regarding the operation of the CSA Simulator.

For a better visual experience and proper functionality, you gotta use Firefox as your browser.

Please select a dashboard

Im zentralen Bereich befinden sich Meldungen für den Benutzer, wie zum Beispiel eine Warnung zur Verbesserung der Simulatorfunktionen.

Einrichten des Simulators

Auswahl der richtigen Parameter für Ihre Fallstudie, um sie zu simulieren

Simulator Environment

Home

Sustainable farming

Logout

Scenario description

Introduction

In this simulation, learners will be exposed to different 'Good Agricultural Practices' that are necessary for a successful and efficient farming system. Learners will be required to use the data-driven decision-making tools to make their own decisions to optimise their farming activities. The aim is for learners to understand the importance of making data-driven decisions to achieve sustainable and productive farming systems. Through this simulation, learners will gain insights into how to use data-driven techniques and technologies to produce crops more efficiently and sustainably.

Feedback to learners allows them to reflect on their experience and why they played with the variables provided. The feedback provides an understanding of the importance of data-driven decisions and how they affect agricultural production. In addition, the feedback helps learners to better understand the concepts of smart agriculture and the role that data plays in making informed decisions.

The Content of the Exercise

Simulation title

Evaluate the effectiveness of agronomic practices in increasing the amount of cover crops.

Simulation scope and learning outcomes

The simulation will provide students with access to the Earth's surface and its topography, as well as to data on the area of protein crops declared in different regions of Lithuania, which are available in the databases of the Centre for Agricultural Information and Rural Business.

The simulator uses geo-referenced land cover databases, a digital elevation model and agronomic data from agronomic practices. The simulator will help students to understand the current state of the terrain and the associated farming practices and opportunities. It can be found at will also provide an insight into how agricultural practices vary with different quantities and types of protein crops, can affect soil quality as well as providing knowledge on ways in which data can be used to set priorities to improve farm sustainability.

Finally, the simulation gives students the opportunity to explore and learn about the complexities of land features of soil and land conservation, helping them become better informed and more responsible stewards of the Earth's soil.

Coordinates of the simulation

The region being tested is located in Lithuania and corresponds to the NUTS level 3 zone of Kauno apskritis.

Variables and indexes involved

The simulation includes a range of variables, including land cover, topography, and agronomic practices. Land cover is a physical characteristic of the Earth's surface, and topography refers to the shape and form of the land. Morphology is a measure of the shape and form of land features, such as hills, valleys, and rivers. All these variables are taken into account when determining how land is used. Various practices used in agriculture, such as crop rotation, cover cropping, and soil conservation, can affect soil quality and productivity. The simulation will help students understand the current state of the terrain and the associated farming practices and opportunities. It can be found at will also provide an insight into how agricultural practices vary with different quantities and types of protein crops, can affect soil quality as well as providing knowledge on ways in which data can be used to set priorities to improve farm sustainability.

Instructions to exercise

The following data is provided to help students understand the current state of the terrain and the associated farming practices and opportunities. It can be found at will also provide an insight into how agricultural practices vary with different quantities and types of protein crops, can affect soil quality as well as providing knowledge on ways in which data can be used to set priorities to improve farm sustainability.

Feedback

The aim of the simulation is to help students understand the current state of the terrain and the associated farming practices and opportunities. It can be found at will also provide an insight into how agricultural practices vary with different quantities and types of protein crops, can affect soil quality as well as providing knowledge on ways in which data can be used to set priorities to improve farm sustainability. By manipulating the variables, students can see the potential for improving soil quality through various practices used in agriculture, such as crop rotation, cover cropping, and soil conservation. This exercise will help students understand the current state of the terrain and the associated farming practices and opportunities. It can be found at will also provide an insight into how agricultural practices vary with different quantities and types of protein crops, can affect soil quality as well as providing knowledge on ways in which data can be used to set priorities to improve farm sustainability.

Im Simulator steht eine Schaltfläche zur Verfügung, mit der Aktionen für jede Phase der Simulation festgelegt werden können.

Daraufhin öffnet sich der Navigationsbereich und es besteht die Möglichkeit, weitere Komponenten auszuwählen

Dieser Abschnitt enthält Benutzerhinweise zu Inhalt und Zweck der Simulation

Der Leitfaden enthält den Titel, den Zweck des Planspiels, die Lernziele, die beteiligten Variablen und Indizes sowie Anweisungen zur Durchführung des Planspiels.

Open control panel

The image shows a screenshot of a web-based simulator interface. On the left is a sidebar with the title 'Simulator Environment' and navigation links for 'Home', 'Sustainable farming', and 'Logout'. The main content area is titled 'Scenario description' and contains a list of topics. On the right, a 'Simulation controls' panel is open, featuring a 'View base scenario' button, a 'Parameters' section with a dropdown menu for 'geographical area', and a 'Run simulation' button. A blue button at the bottom of the main area is labeled 'Open control panel'. Two callout boxes provide additional information: one explains that the controls activate the 'Basisszenario' and provide geographical context, while the other lists the tools available in the control panel.

Simulator Environment

- Home
- Sustainable farming
- Logout

Scenario description

Here you will find the information contained in the **Use Case for Simulation - Student present** and **Sustainable farming** scenario.

In particular, the following topics are explained:

1. Simulation title
2. Simulation scope and learning objectives
3. Coordinates of the simulation area
4. Variables and indexes involved
5. Instructions to experiment
6. Feedback and experimental results

Simulation controls

View base scenario

Parameters

1) Identification of the geographical area *

Select

Run simulation

Mit dieser Schaltfläche können Sie das Basisszenario aktivieren, das alle kontextbezogenen Informationen enthält und eine erste Analyse des geografischen Kontextes bietet

In diesem Bereich ist der Simulator aktiviert und es stehen zwei Werkzeuge zur Verfügung:

- Eine oder mehrere Optionen zur Eingabe der Simulationsparameter
- Eine Schaltfläche, um die Simulation nach Auswahl der Parameter zu aktivieren.

Open control panel

Basisszenario

Den geografischen Kontext verstehen: Was man wissen muss

Simulator Environment

Home

Sustainable farming

Logout

Scenario description

Here you will find the information contained in the **Use Case for Simulation - Student document** prepared for the **Sustainable farming** scenario.

In particular, the following topics are explained:

1. Simulation title
2. Simulation scope and learning outcomes
3. Coordinates of the simulation
4. Variables and indexes involved
5. Instructions to execute the simulation

A general description of the information contained in the Scenario Base dashboard and

Regarding the Scenario Base dashboard, it is also important to illustrate the active filters u

With regard to the Simulation dashboard, in addition to describing the active filters durin

6. Feedback and explanation of the executed simulation

Der Benutzer aktiviert das Szenario, indem er auf **Basisszenario anzeigen** klickt.

Simulation controls

View base scenario

Parameters

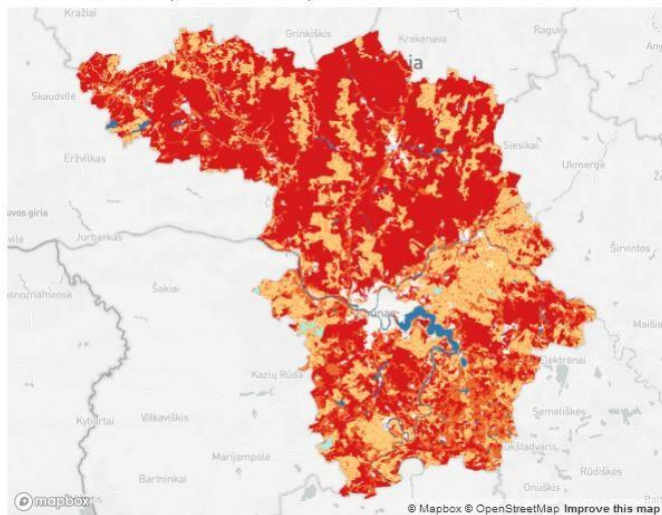
1) Identification of the geographical area *

Select

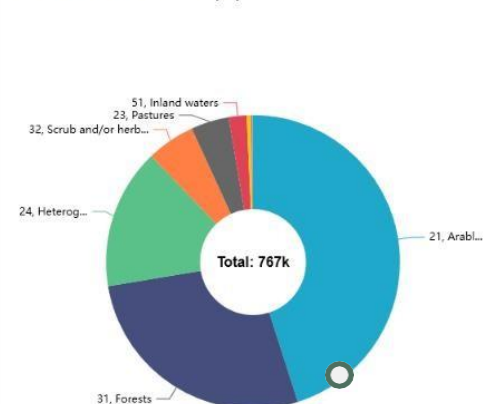
Run simulation

Open control panel

A - Land cover context (no artificial surface)



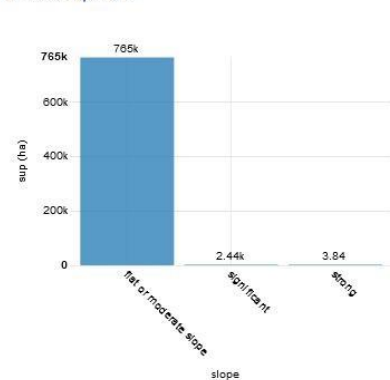
A - Distribution of land cover (ha)



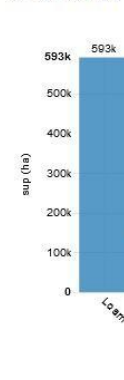
A - General information on land cover

code_18	I3_desc	Sup tot (ha)	% Sup tot
211	Non-irrigated arable land	345,726	45.063%
222	Fruit trees and berry plantations	1,324	0.173%
231	Pastures	32,167	4.193%
242	Complex cultivation patterns	76,379	9.956%
243	Land principally occupied by agriculture, with significant areas of natural vegetation	42,136	5.492%
311	Broad-leaved forest	61,503	8.016%
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313	Mixed forest	94,002	12.253%
321	Natural grasslands	453	0.059%
322	Moors and heathland	320	0.042%
324	Transitional woodland-shrub	40,182	5.237%
333	Sparsely vegetated areas	380	0.050%
411	Inland marshes	318	0.042%
412	Peat bogs	3,135	0.409%
511	Water courses	4,699	0.612%
512	Water bodies	10,477	1.368%
Totals		767,203	

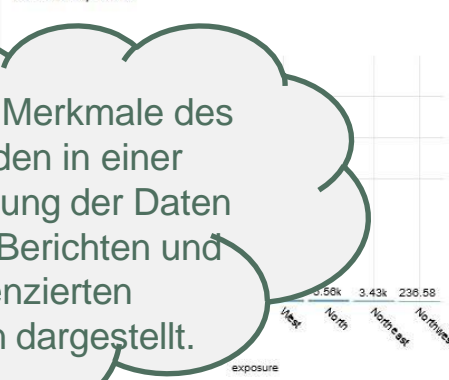
A - Soil Slope level



A - Soil Texture



A - Soil Exposure



Die wichtigsten Merkmale des Gebiets werden in einer Zusammenfassung der Daten mit grafischen Berichten und georeferenzierten Informationen dargestellt.

A - Distribution of Arable land vs Agricultural area (%)

lau_name	arable_land_ha	agricultural_areas_ha	% Sup vs Sup Tot
Kėdainių rajono savivaldybė	102,803	116,507	88.2%
Raseinių rajono savivaldybė	88,203	111,921	78.8%
Kauno rajono savivaldybė	59,886	84,056	71.2%
Jonavos rajono savivaldybė	33,712	46,188	73.0%
Prienų rajono savivaldybė	30,283	68,201	44.4%
Kaišiadorių rajono savivaldybė	28,305	63,785	44.4%
Birštono savivaldybė	2,331	5,323	43.8%
Kauno miesto savivaldybė	203	1,751	11.6%
Totals			56.9%

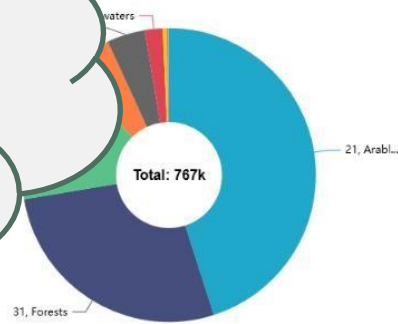
Open control panel

A - Land cover context (no artificial surface)



Detaillierte Informationen
zur Analyse und Auswahl
spezifischer
Interessensgebiete finden
Sie hier

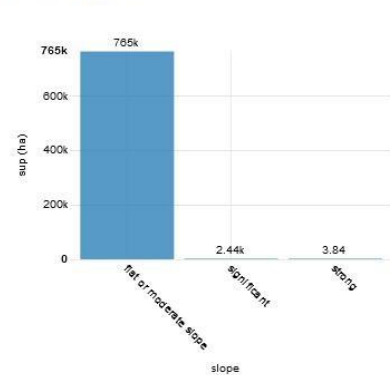
A - Distribution of land cover (ha)



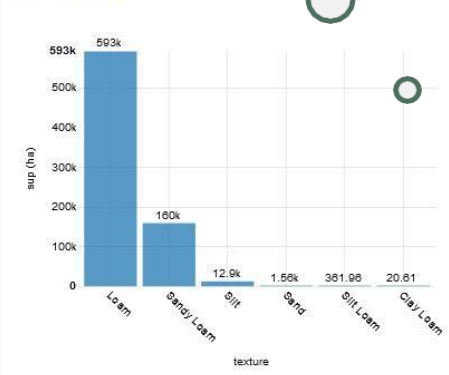
A - General information on land cover

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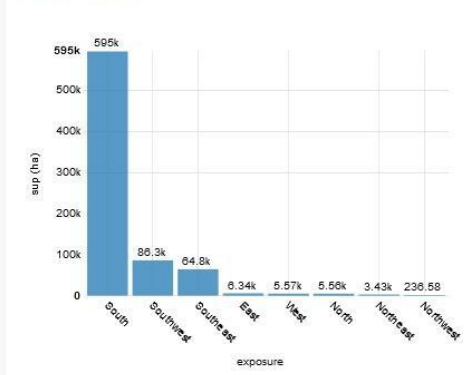
A - Soil Slope level



A - Soil Texture



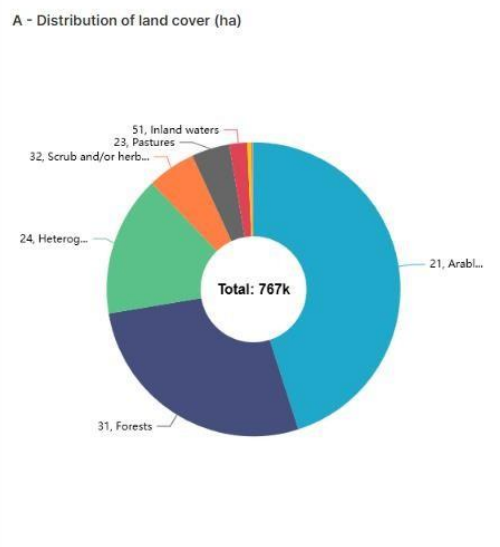
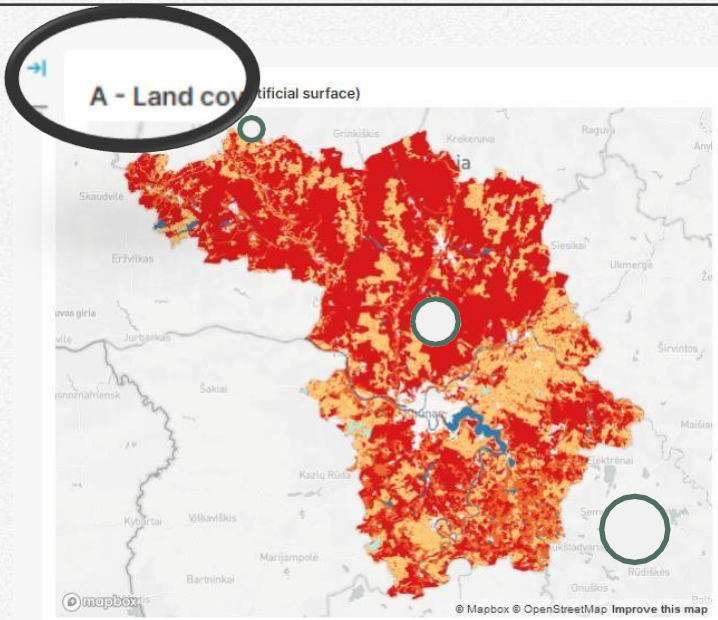
A - Soil Exposure



A - Distribution of Arable land vs Agricultural area (%)

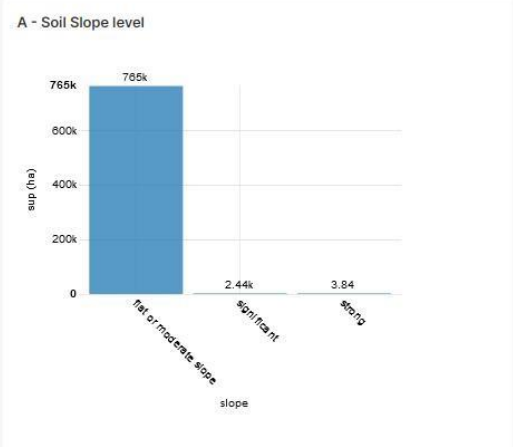
lau_name	arable_land_ha	agricultural_areas_ha	% Sup vs Sup Tot
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Open control panel



A - General information on land cover

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Totals		767,203	



Der Bereich Filter kann durch Anklicken der entsprechenden Schaltfläche aktiviert werden und ermöglicht die Analyse des interessierenden Gebiets, indem nur die Gebiete analysiert werden, die unter bestimmte Klassifizierungen fallen.

A - Distribution of Arable land vs Agricultural area (%)

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Totals			56.9%

Open control panel

Filters

Geographical area

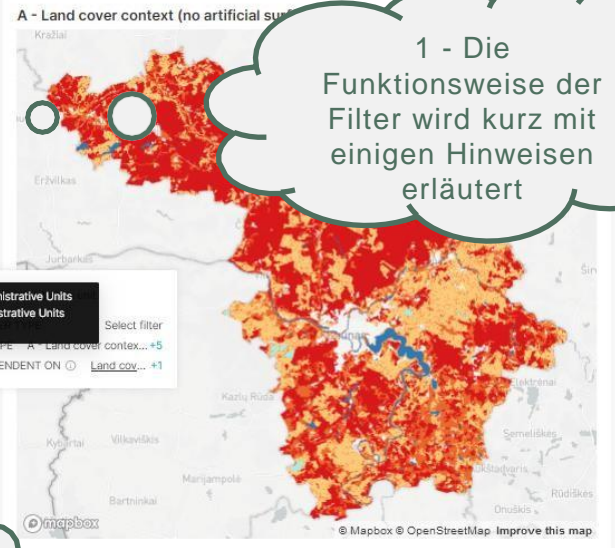
Hierarchy of filters for selecting areas of interest: Areas with level 1 CLC classification broken down into areas with level 2 CLC classification falling within local administrative units.

Land cover L1
4 options

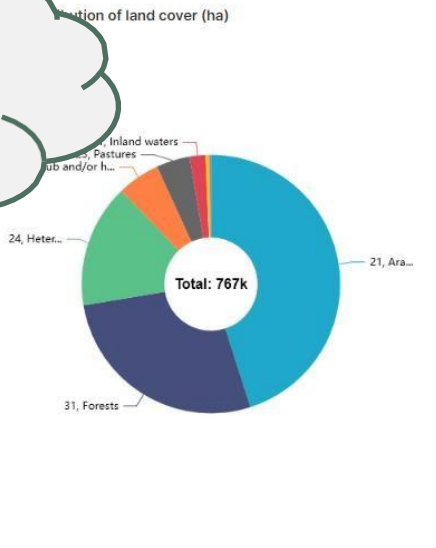
Land cover L2
13 options

Administrative unit
8 options

Based on Local Administrative Units (LAU), 2020 - Administrative Units Dataset



1 - Die Funktionsweise der Filter wird kurz mit einigen Hinweisen erläutert

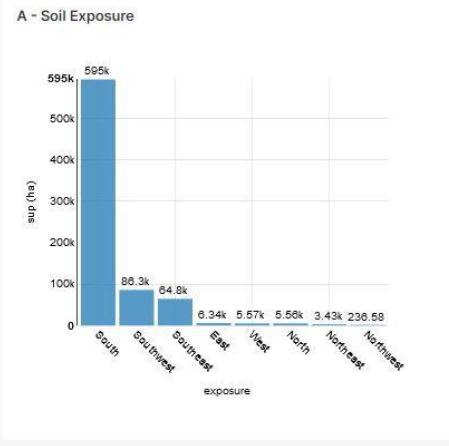
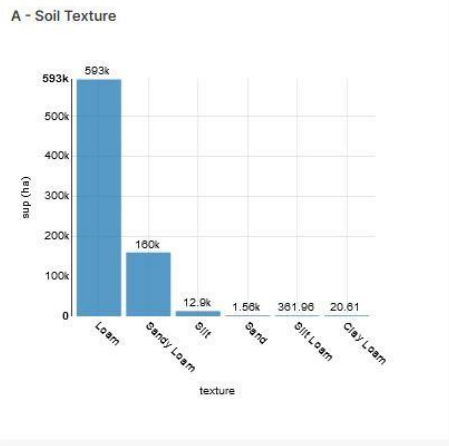


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2 - Weitere Informationen erhalten Sie, wenn Sie auf das Symbol "i"



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Kauno miesto savivaldybė	203	1,751	11.6%
Totals			56.1

APPLY FILTERS

CLEAR ALL

Open control panel

Filters

Geographical area

Hierarchy of filters for selecting areas of interest: Areas with level 1 CLC classification broken down into areas with level 2 CLC classification falling within local administrative units.

Land cover L1

4 options

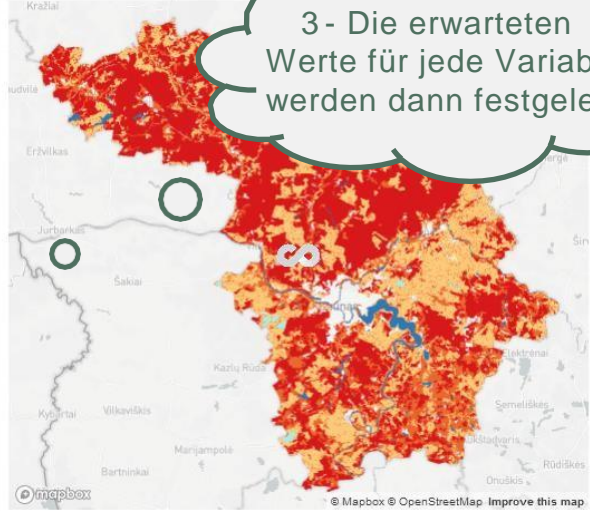
Land cover L2

13 options

Administrative unit

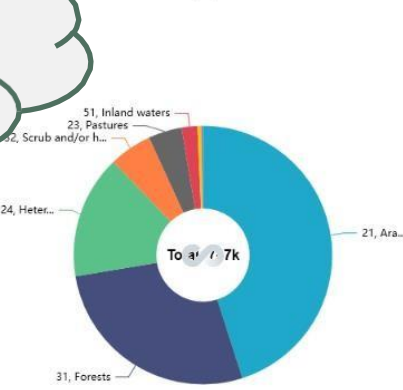
Birštono savivaldybė x

A - Land cover context (no artificial s...



3 - Die erwarteten Werte für jede Variable werden dann festgelegt

A - Distribution of land cover (ha)



A - General information on land cover

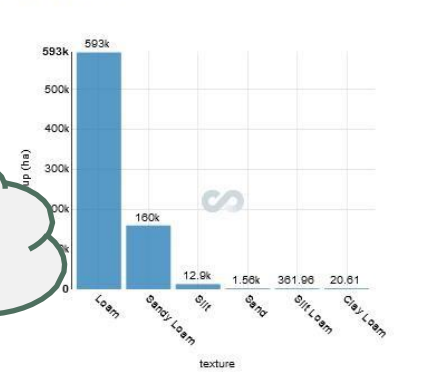
code_18	I3_desc	Sup tot (ha)	% Sup tot
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A - Soil Slope level

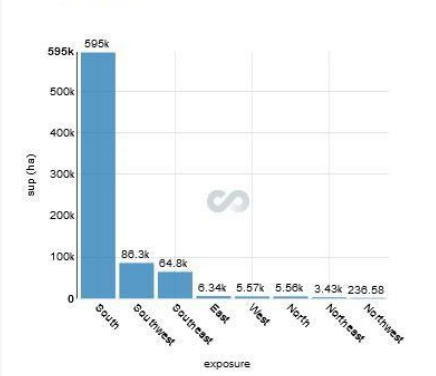


4 - Klicken Sie auf Filter anwenden

A - Soil Texture



A - Soil Exposure



A - Distribution of Arable land vs Agricultural area (%)

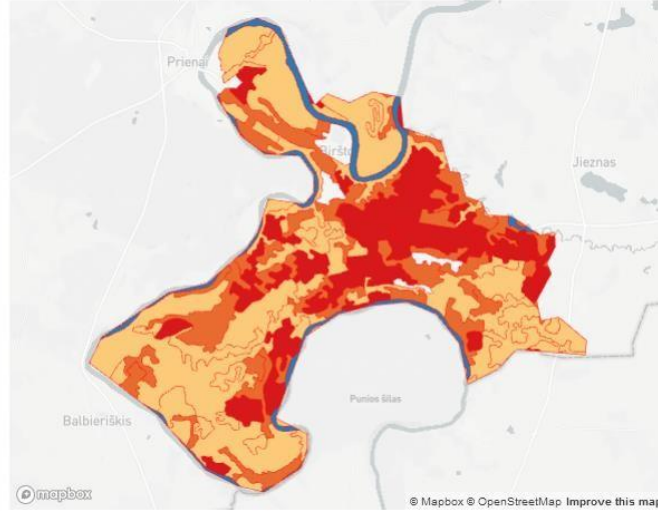
lau_name	arable_land_ha	agricultural_areas_ha	% Sup vs Su
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APPLY FILTERS

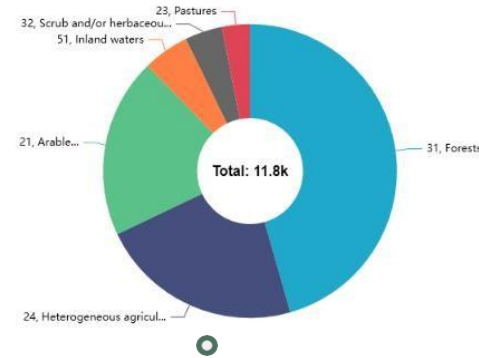
CLEAR ALL

Open control panel

A - Land cover context (no artificial surface)



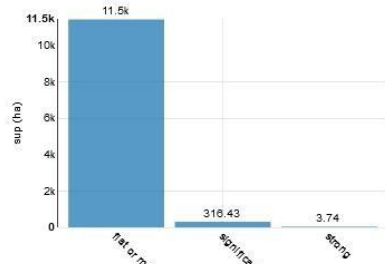
A - Distribution of land cover (ha)



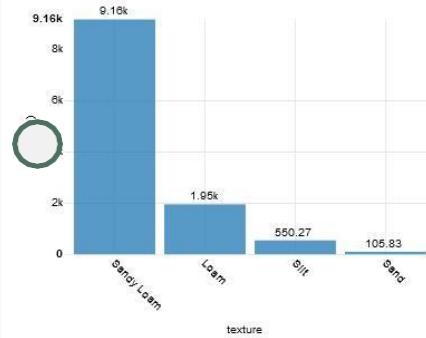
A - General information on land cover

code_18	I3_desc	Sup tot (ha)	% Sup tot
211	Non-irrigated arable land	2,331	19.801%
231	Pastures	360	3.061%
242	Complex cultivation patterns	1,558	13.232%
243	Land principally occupied by agriculture, with significant areas of natural vegetation	1,074	9.121%
311	Broad-leaved forest	117	0.990%
312	Coniferous forest	3,843	32.645%
313	Mixed forest	1,406	11.939%
324	Transitional woodland-shrub	488	4.142%
511	Water courses	597	5.069%
Totals		11,773	

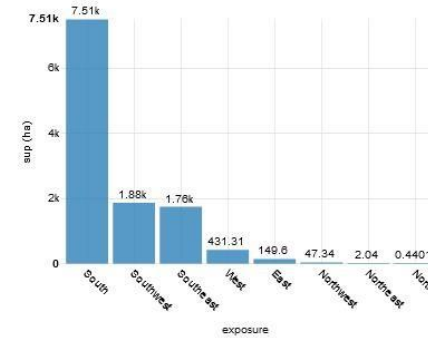
A - Soil Slope level



A - Soil Texture



A - Soil Exposure



A - Distribution of Arable land vs Agricultural area (%)

lau_name	arable_land_ha	agricultural_areas_ha	% Sup vs Sup Tot
Kėdainių rajono savivaldybė	102,803	116,507	88.2%
Raseinių rajono savivaldybė	88,203	111,921	78.8%
Kauno rajono savivaldybė	59,886	84,056	71.2%
Jonavos rajono savivaldybė	33,712	46,188	73.0%
Prienų rajono savivaldybė	30,283	68,201	44.4%
Kaišiadorių rajono savivaldybė	28,305	63,785	44.4%
Birštono savivaldybė	2,331	5,323	43.8%
Kauno miesto savivaldybė	203	1,751	11.6%
Totals			56.9%

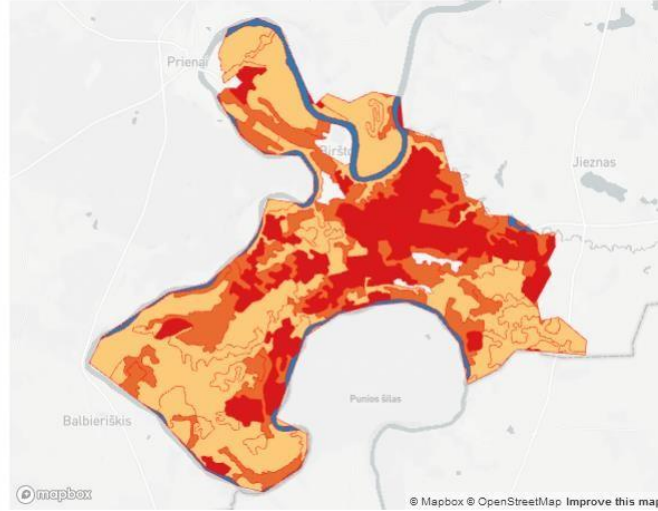
5 – Neue Informationen werden angezeigt und können abgerufen werden

Open control panel

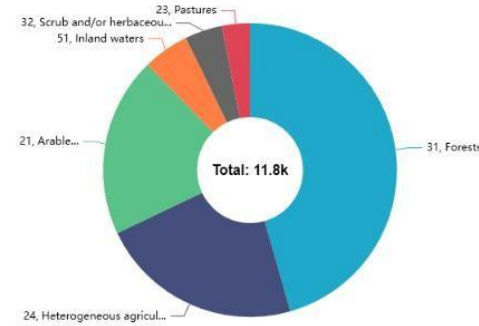
Simulationsszenario

Starten Sie die Simulation und beobachten Sie die Ergebnisse

A - Land cover context (no artificial surface)



A - Distribution of land cover (ha)

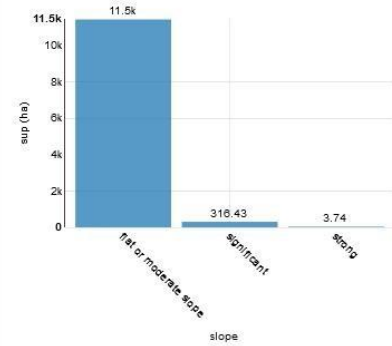


A - General information on land cover

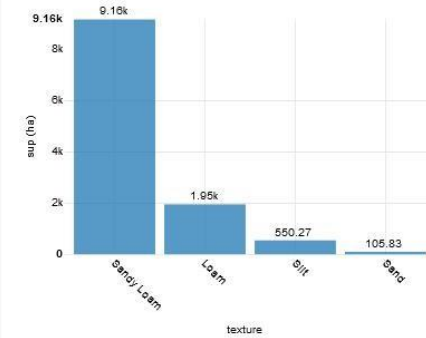
code_18	I3_desc	Sup tot (ha)	% Sup tot
211	Non-irrigated arable land	2,331	19.801%
231	Pastures	360	3.061%
242	Complex cultivation patterns	1,558	13.232%
243	Land principally occupied by agriculture, with significant areas of natural vegetation	1,074	9.121%
311	Broad-leaved forest	117	0.990%
312	Coniferous forest	3,843	32.645%
313	Mixed forest	1,406	11.939%
324	Transitional woodland-shrub	488	4.142%
511	Water courses	597	5.069%
Totals		11,773	

Aktivieren Sie die Simulation, indem Sie auf die Schaltfläche Systemsteuerung öffnen klicken.

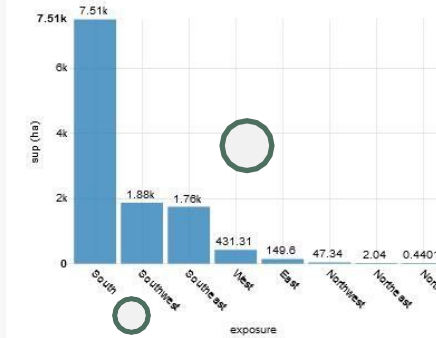
A - Soil Slope level



A - Soil Texture



A - Soil Exposure



A - Distribution of Arable land vs Agricultural area (%)

lau_name	arable_land_ha	agricultural_areas_ha	% Sup vs Sup Tot
Kėdainių rajono savivaldybė	102,803	116,507	88.2%
Raseinių rajono savivaldybė	88,203	111,921	78.8%
Kauno rajono savivaldybė	59,886	84,056	71.2%
Jonavos rajono savivaldybė	33,712	46,188	73.0%
Prienų rajono savivaldybė	30,283	68,201	44.4%
Kaišiadorių rajono savivaldybė	28,305	63,785	44.4%
Birštono savivaldybė	2,331	5,323	43.8%
Kauno miesto savivaldybė	203	1,751	11.6%
Totals			56.9%

Open control panel

A - Land cover context (no artificial surface)

A - Distribution of land cover (ha)

A - General information on land cover

code_18	I3_desc
211	Non-irrigated arable land
311	Pastures
312	Complex cultivation patterns
313	Land principally occupied by agriculture
324	Broad-leaved forest
511	Coniferous forest
	Mixed forest
	Woodland
	Water courses
Totals	

A - Soil Slope level

A - Soil Texture

A - Soil Exposure

Open control panel

1—Auf der Grundlage der im **Baseline-Szenario** gewonnenen Informationen sollten hier die Simulationsparameter eingegeben werden

2—Klicken Sie auf die Schaltfläche **Simulation aktivieren.**

Simulation controls

Back to scenario description

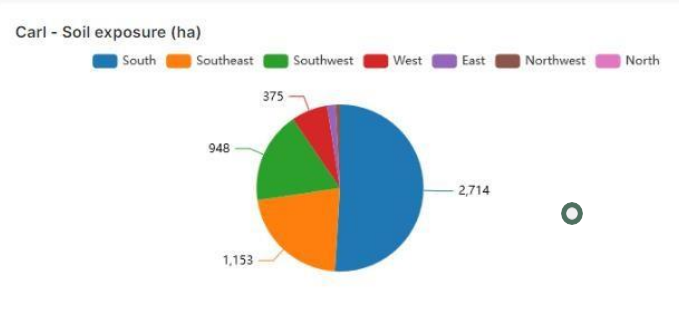
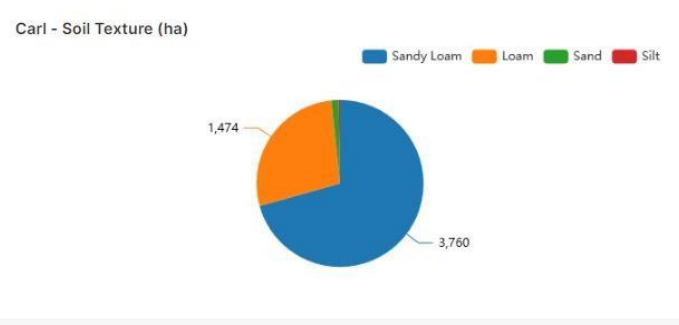
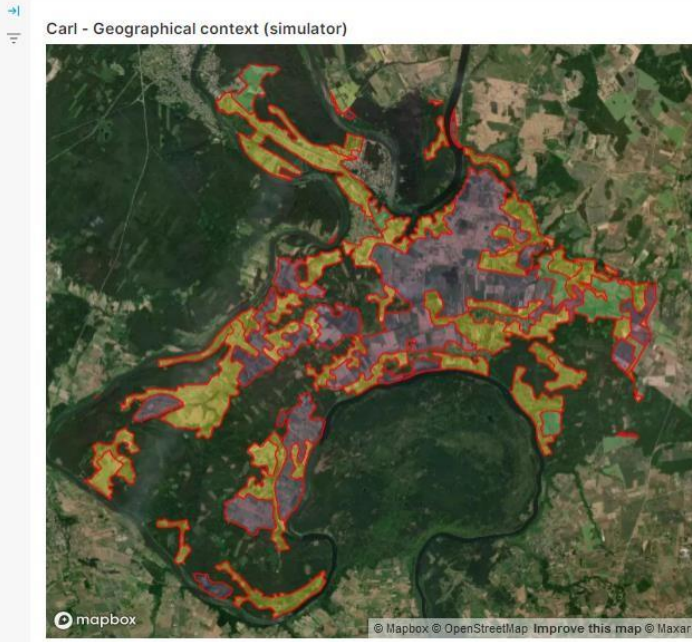
Back to home

Parameters

1) Identification of the geographical area *

Birštono savivaldybė

Run simulation



Carl - Simulation Parameter: Area of interest

lau_name : Birštono savivaldybė

Carl - General information on LAU

I2_desc	code_18	Area (ha)	Percentage (%)
Arable land	211	1,474	27.72%
Pastures	231	1,153	21.63%
Heterogeneous agricultural areas	242	948	17.57%
Heterogeneous agricultural areas	243	375	6.94%
Totals		5,323	100%

1– In diesem Abschnitt werden die Simulationsergebnisse vorgestellt.

Carl - Average SOC content (dg / kg)

Pre-simulation data (Soil Grids, 2020 Dataset)

897.84

Carl - Average SOC content recalculate (dg / kg)

Post-simulation data

905.76

Carl - Five-year change in SOC content (%)

Variation in %

4.4%

Carl - Soil Ph acidic (avg pH x 10)

Pre-simulation data (Soil Grids, 2020 Dataset)

53.84

Carl - Soil Ph acidic (ha)

Pre-simulation data (Soil Grids, 2020 Dataset)

3,580

Carl - Soil acidity reduction target (avg pH x 10)

Post-simulation data (when liming is applied to the soil)

6.16

Carl - Lime Product Required (t x ha)

Post-simulation data (when liming is applied to the soil)

1.23

Impact of agronomic practices on soil carbon sequestration

Impact of agronomic practices on soil acidity reduction.

Open control panel

Filters ←

Aim to achieve
 The addition of compost and manure and soil liming can have positive impacts on both soil carbon sequestration and rebalancing the acidity of agricultural soils. Compost and manure can increase soil organic matter content, which helps sequester carbon in the soil, and also rebalance soil acidity by increasing basic cations. Soil liming can also rebalance soil acidity and improve soil structure, leading to increased plant growth and biomass production, which contributes to carbon sequestration.

Land cover ⓘ

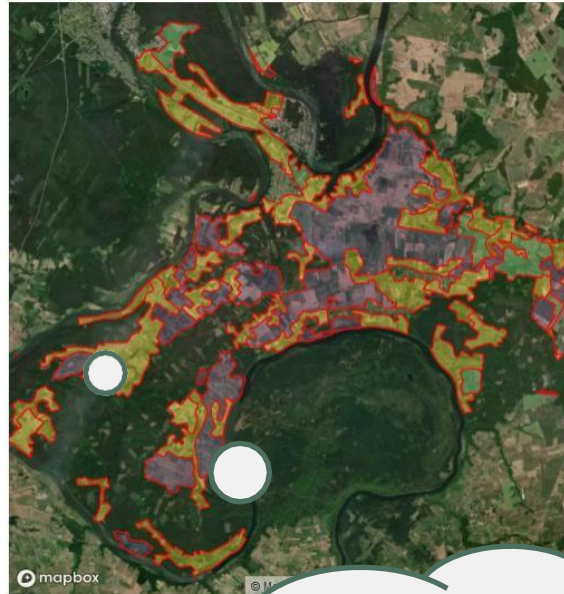
Arable land

Arable land ✓

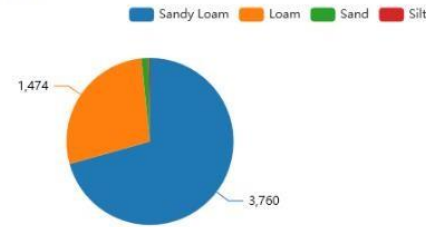
Heterogeneous agricultural ...

Pastures

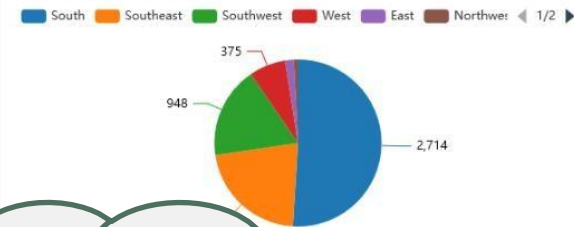
Carl - Geographical context (simulator)



Carl - Soil Texture (ha)



Carl - Soil exposure (ha)



Carl - Simulation Parameter: Area of interest

lau_name ⓘ

Birštono savivaldybė

Carl - General information on LAU (simulator)

I2_desc ⓘ	code_I8 ⓘ	I3_desc ⓘ	Tot Sup (ha) ⓘ	% Tot Sup ⓘ
Arable land	211	Non-irrigated arable land	2,331	43.793%
Pastures	231	Pastures	360	6.771%
Heterogeneous agricultural areas	242	Complex cultivation patterns	1,558	29.265%
Heterogeneous agricultural areas	243	Land principally occupied by agriculture, with significant areas of natural vegetation	1,074	20.172%
Totals			5,323	

Carl - Average SOC content (kg)

897.8

Carl - Soil Ph acidic (avg pH x 10)

8.4

Carl - Soil Ph acidic (ha)

3,580

Carl - Soil acidity reduction target (avg pH x 10)

6.16

Carl - Lime Product Required (t x ha)

1.23

2 – LDer Bereich Filter ermöglicht eine detailliertere Analyse des Gebiets. Auch hier wählen Sie einfach die Filter aus und wenden sie wie im Basisszenario an

Pre-simulation data (Soil Grids, 2020 Dataset)

Post-simulation data

Variation in %

Pre-simulation data (Soil Grids, 2020 Dataset)

Post-simulation data (when liming is applied to the soil)

Impact of agronomic practices on soil carbon sequestration

Impact of agronomic practices on soil acidity reduction.

APPLY FILTERS

CLEAR ALL

Open control panel

Filters

Aim to achieve

The addition of compost and manure and soil liming can have positive impacts on both soil carbon sequestration and rebalancing the acidity of agricultural soils. Compost and manure can increase soil organic matter content, which helps sequester carbon in the soil, and also rebalance soil acidity by increasing basic cations. Soil liming can also rebalance soil acidity and improve soil structure, leading to increased plant growth and biomass production, which contributes to carbon sequestration.

Land cover

Arable land

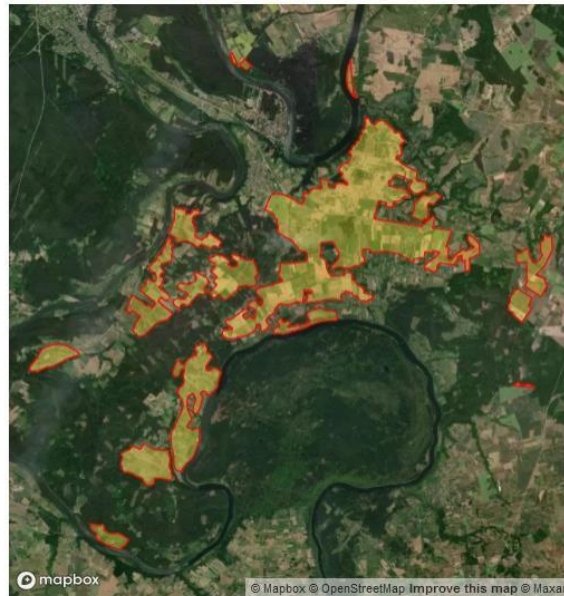
Agronomic practice

Soil liming

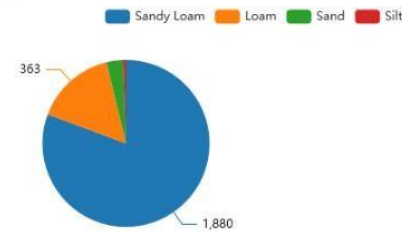
APPLY FILTERS

CLEAR ALL

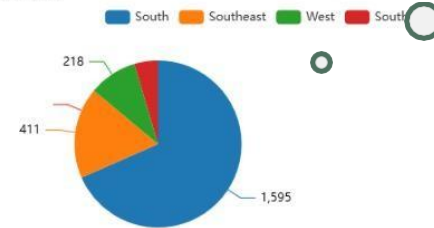
Carl - Geographical context (simulator)



Carl - Soil Texture (ha)



Carl - Soil exposure (ha)



Carl - Simulation Parameter: Area of interest

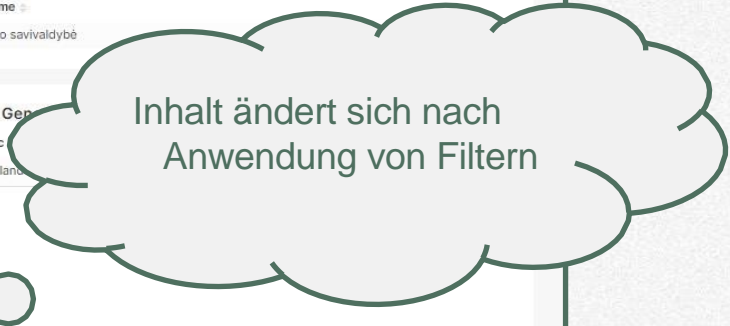
lau_name
Birštono savivaldybė

Carl - Gen

I2_desc

Arable land

Totals



Carl - Average SOC content (dg / kg)

815.33

Pre-simulation data (Soil Grids, 2020 Dataset)

Carl - Average SOC content recalculate (dg / kg)

818.3

Post-simulation data

Carl - Five-year change in SOC content (%)

1.8%

Variation in %

Carl - Soil Ph acidic (avg pH x 10)

49.84

Carl - Soil Ph acidic (ha)

796

Pre-simulation data (Soil Grids, 2020 Dataset)

Carl - Soil acidity reduction target (avg pH x 10)

10.16

Impact of agronomic practices on soil acidity reduction.

Carl - Lime Product Required (t x ha)

2.03

Post-simulation data (when liming is applied to the soil)

Impact of agronomic practices on soil carbon sequestration

Open control panel

Filters



Aim to achieve

The addition of compost and manure and soil liming can have positive impacts on both soil carbon sequestration and rebalancing the acidity of agricultural soils. Compost and manure can increase soil organic matter content, which helps sequester carbon in the soil, and also rebalance soil acidity by increasing basic cations. Soil liming can also rebalance soil acidity and improve soil structure, leading to increased plant growth and biomass production, which contributes to carbon sequestration.

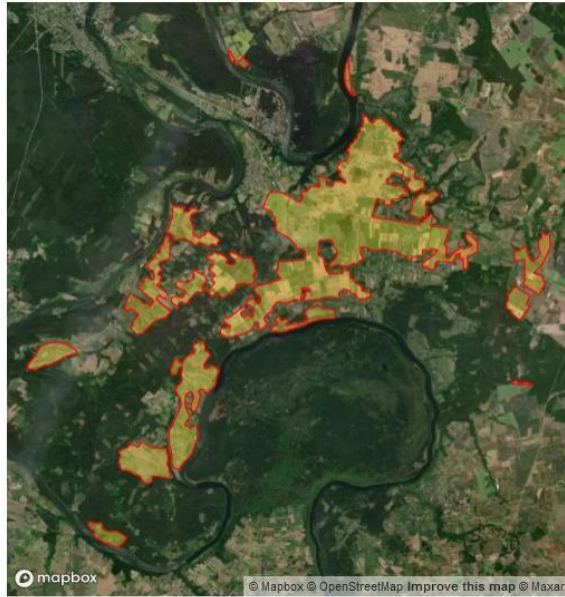
Land cover

Arable land

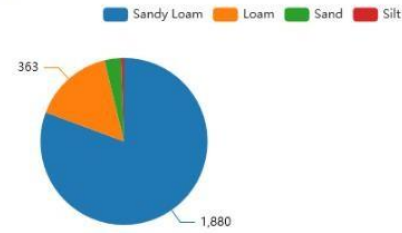
Agronomic practice

Soil liming

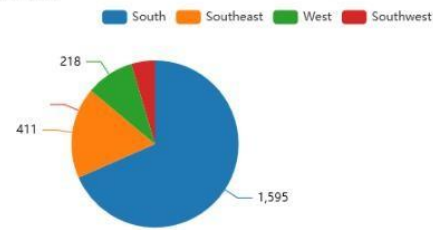
Carl - Geographical context (simulator)



Carl - Soil Texture (ha)



Carl - Soil exposure (ha)



Carl - Simulation Parameter: Area of interest

lau_name

Birštono savivaldybė

Carl - General information on LAU (simulator)

I2_desc	code_18	I3_desc	Tot Sup (ha)	% Tot Sup
Arable land	211	Non-irrigated arable land	2,331	100.000%
Totals			2,331	

Carl - Average SOC content (dg / kg)

Carl - Average SOC content recalculate (dg / kg)

Carl - Five-year change in SOC content (%)

Carl - Soil Ph acidic (avg pH x 10)
49.84

Carl - Soil acidity reduction target (avg pH x 10)

Carl - Lime Product Required (t x ha)

Um die Simulation zu wiederholen, klicken Sie auf die Schaltfläche Systemsteuerung öffnen

18.3

1.8%

Carl - Soil Ph acidic (ha)
796

10.16

2.03

APPLY FILTERS

CLEAR ALL

Impact of agronomic practices on soil carbon sequestration

Variation in %

Pre-simulation data (Soil Grids, 2020 Dataset)

Post-simulation data (when liming is applied to the soil)

Open control panel

Filters

Aim to achieve
The addition of compost and manure and soil liming can have positive impacts on both soil carbon sequestration and rebalancing the acidity of agricultural soils. Compost and manure can increase soil organic matter content, which helps sequester carbon in the soil, and also rebalance soil acidity by increasing basic cations. Soil liming can also rebalance soil acidity and improve soil structure, leading to increased plant growth and biomass production, which contributes to carbon sequestration.

Land cover
3 options

Agronomic practice
2 options

APPLY FILTERS

CLEAR ALL

Carl - Geographical context (simulator)

Carl - Soil Texture (ha)

Carl - Average SOC content (ug / kg)

897.84

Pre-simulation data (Soil Grids, 2020 Dataset)

Carl - Average SOC content (ug / kg) recalculate

905.76

Post-simulation data

Carl - Five-year change in SOC content (%)

4.4%

Variation in %

Carl - Soil Ph acidic (avg pH x 10)

53.84

Pre-simulation data (Soil Grids, 2020 Dataset)

Carl - Soil Ph acidic (ha)

3,580

Pre-simulation data (Soil Grids, 2020 Dataset)

Carl - Soil Ph acidic (ha)

3,580

Pre-simulation data (Soil Grids, 2020 Dataset)

Impact of agronomic practices on soil carbon sequestration

Impact of agronomic practices on soil carbon sequestration

Open control panel

Simulation controls

View base scenario

Back to scenario description

Back to home

Parameters

1) Identification of the geographical area *

Kauno miesto savivaldybe

Run simulation

Wiederholen Sie die Simulation, indem Sie neue Werte eingeben, und aktivieren Sie die Simulation, indem Sie auf **Simulation aktivieren** klicken.

Filters



Aim to achieve

The addition of compost and manure and soil liming can have positive impacts on both soil carbon sequestration and rebalancing the acidity of agricultural soils. Compost and manure can increase soil organic matter content, which helps sequester carbon in the soil, and also rebalance soil acidity by increasing basic cations. Soil liming can also rebalance soil acidity and improve soil structure, leading to increased plant growth and biomass production, which contributes to carbon sequestration.

Land cover

3 options

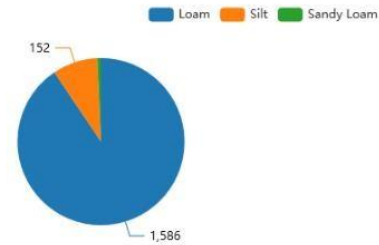
Agronomic practice

2 options

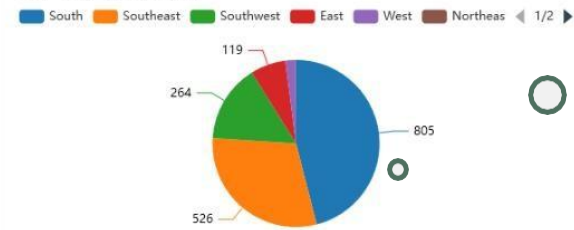
Carl - Geographical context (simulator)



Carl - Soil Texture (ha)



Carl - Soil exposure (ha)



Carl - Simulation Parameter: Area of interest

lau_name
Kauno miesto savivaldybė

Carl - General information

I2_desc		Area (ha)		Percentage (%)	
Arable land	-	-	-	-	-
Permanent crops	-	-	-	-	-
Pastures	25	-	-	-	-
Heterogeneous agricultural areas	242	Completed	-	-	-
Heterogeneous agricultural areas	243	Land principally occupied by agriculture, with significant areas of natural vegetation	391	22.325%	-
Totals			1,751		

1- In diesem Abschnitt werden die Ergebnisse vorgestellt

Carl - Average SOC content (dg / kg)

785.87

Pre-simulation data (Soil Grids, 2020 Dataset)

Carl - Average SOC content recalculate (dg / kg)

794.88

Post-simulation data

Carl - Five-year change in SOC content (%)

5.7%

Variation in %

Carl - Soil Ph acidic (avg pH x 10)

44.09

Carl - Soil Ph acidic (ha)

727

Pre-simulation data (Soil Grids, 2020 Dataset)

Carl - Soil acidity reduction target (avg pH x 10)

15.91

Impact of agronomic practices on soil acidity reduction.

Carl - Lime Product Required (t x ha)

3.18

Post-simulation data (when liming is applied to the soil)

APPLY FILTERS

CLEAR ALL

Impact of agronomic practices on soil carbon sequestration

Open control panel

Schließen Sie die Simulationssitzung

So beenden Sie die Simulatorsitzung

Filters

Aim to achieve

The addition of compost and manure and soil liming can have positive impacts on both soil carbon sequestration and rebalancing the acidity of agricultural soils. Compost and manure can increase soil organic matter content, which helps sequester carbon in the soil, and also rebalance soil acidity by increasing basic cations. Soil liming can also rebalance soil acidity and improve soil structure, leading to increased plant growth and biomass production, which contributes to carbon sequestration.

Land cover

3 options

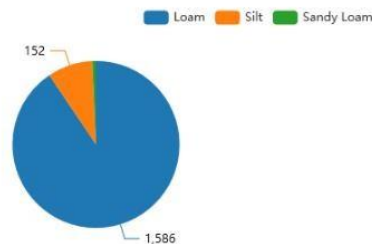
Agronomic practice

2 options

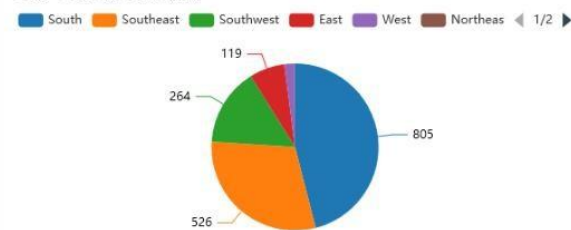
Carl - Geographical context (simulator)



Carl - Soil Texture (ha)



Carl - Soil exposure (ha)



Carl - Simulation Parameter: Area of interest

lau_name

Kauno miesto savivaldybė

Carl - General information on LAU (simulator)

I2_desc	code_I8	I3_desc	Tot Sup (ha)	% Tot Sup
Arable land	211	Non-irrigated arable land	203	11.615%
Permanent crops	222	Fruit trees and berry plantations	37	2.123%
Pastures	231	Pastures	221	12.627%
Heterogeneous agricultural areas	242	Complex cultivation patterns	898	51.310%
Heterogeneous agricultural areas	243	Land principally occupied by agriculture, with significant areas of natural vegetation	391	22.325%
Totals			1,751	

Carl - Average SOC content (dg / kg)

Carl - Average SOC content recalculate (dg / kg)

14.88

Carl - Five-year change in SOC content (%)

5.7%

Carl - Soil Ph acidic (avg pH x 10)

44.09

Carl - Soil Ph acidic (ha)

727

Carl - Soil acidity reduction target (avg pH x 10)

15.91

Carl - Lime Product Required (t x ha)

3.18

Um die Sitzung zu beenden, klicken Sie auf die Schaltfläche **Systemsteuerung** öffnen.

APPLY FILTERS

CLEAR ALL

Impact of agronomic practices on soil carbon sequestration

Variation in %

Pre-simulation data (Soil Grids, 2020 Dataset)

Post-simulation data (when liming is applied to the soil)

Impact of agronomic practices on soil acidity reduction.

Open control panel

Filters |←

Aim to achieve
The addition of compost and manure and soil liming can have positive impacts on both soil carbon sequestration and rebalancing the acidity of agricultural soils. Compost and manure can increase soil organic matter content, which helps sequester carbon in the soil, and also rebalance soil acidity by increasing basic cations. Soil liming can also rebalance soil acidity and improve soil structure, leading to increased plant growth and biomass production, which contributes to carbon sequestration.


Land cover ⓘ
3 options ▾

Agronomic practice ⓘ
2 options ▾

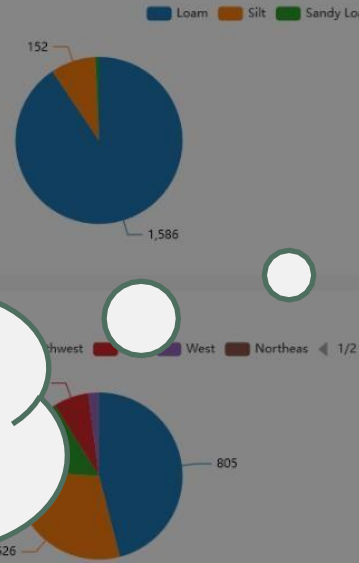
APPLY FILTERS

CLEAR ALL

Carl - Geographical context (simulator)



Carl - Soil Texture (ha)



Carl - Average SOC content (ug / kg)

785.87

Pre-simulation data (Soil Grids, 2020 Dataset)

Carl - Average SOC content (ug / kg) recalculate (ug / kg)

794.88

Post-simulation data

Carl - Five-year change in SOC content (%)

5.7%

Variation in %

Carl - Soil Ph acidic (avg pH x 10)

44.09

Pre-simulation data (Soil Grids, 2020 Dataset)

Carl - Soil Ph acidic (ha)

727

Pre-simulation data (Soil Grids, 2020 Dataset)

Impact of agronomic practices on soil carbon sequestration

[Open control panel](#)

Simulation controls ×

View base scenario

Back to scenario description

Back to home

Parameters

1) Identification of the geographical area *

Kauno miesto savivaldybė ▾

Run simulation

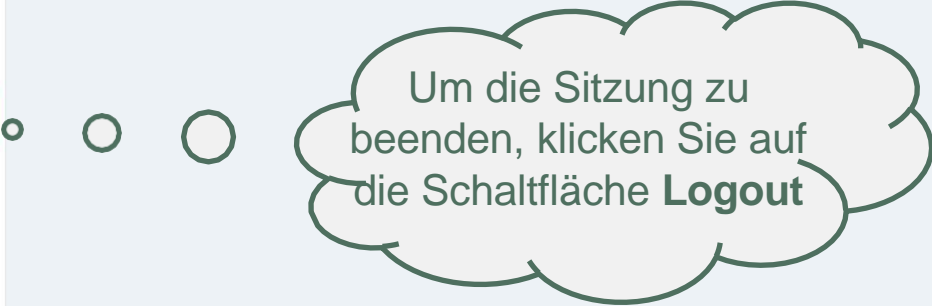
Hier kann der Benutzer wählen, ob er eine neue Analyse- und Simulationssitzung starten (Schaltfläche **Basisszenario anzeigen** oder **Zurück zur Szenariobeschreibung**) oder die Sitzung beenden möchte (Schaltfläche **Zurück zur Startseite**).

Simulator Environment

Home

Sustainable farming

Logout



Um die Sitzung zu beenden, klicken Sie auf die Schaltfläche **Logout**

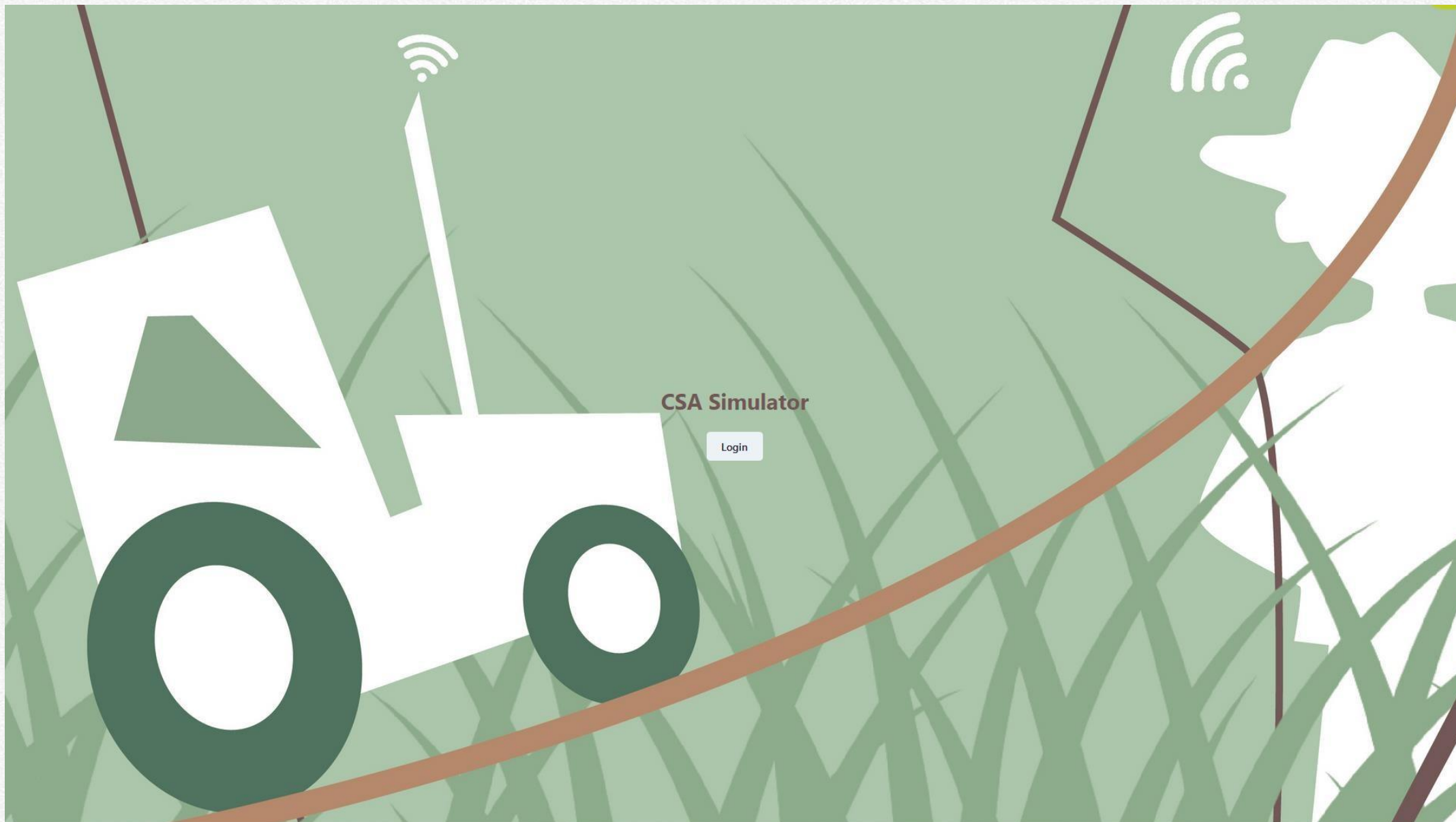
Welcome

This is your personal bulletin board.

Here you will find general messages regarding the operation of the CSA Simulator.

For a better visual experience and proper functionality, you gotta use Firefox as your browser.

Please select a dashboard



CSA Simulator

Login



FarmBox

**The farmer's toolbox
for climate change
mitigation**

Vielen Dank für Ihre Aufmerksamkeit!

