



The tool to make a pig's life cycle transparent

for farmers, researchers
and processors

MANUAL backoffice

LEEO.EU

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The LeeO backoffice

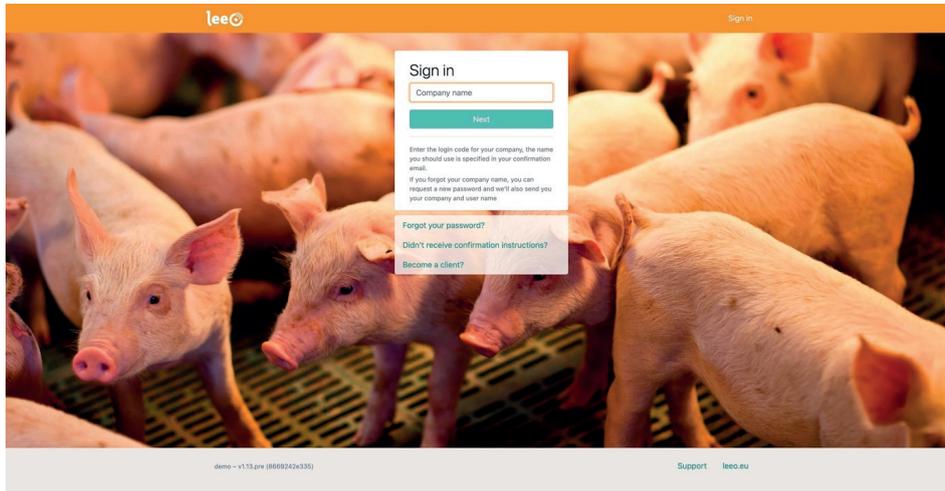
You are reading the LeeO backoffice manual. In this manual, we explain the functions of the backoffice, so you can use it at its full potential. We explain the functions through print screens. Do you have questions after reading the manual, or do you need help with your backoffice, feel free to contact LeeO: support@leeo.eu.

LeeO is an application that can be used by farmers, researchers, and processors. With LeeO, the entire pig cycle can be shown; from birth to slaughtering and processing of the meat. With LeeO, you can register all important moments in the cycle of the pig. Register your actions and the app automatically generates worklists. Your dashboard presents the data you collected with the app.

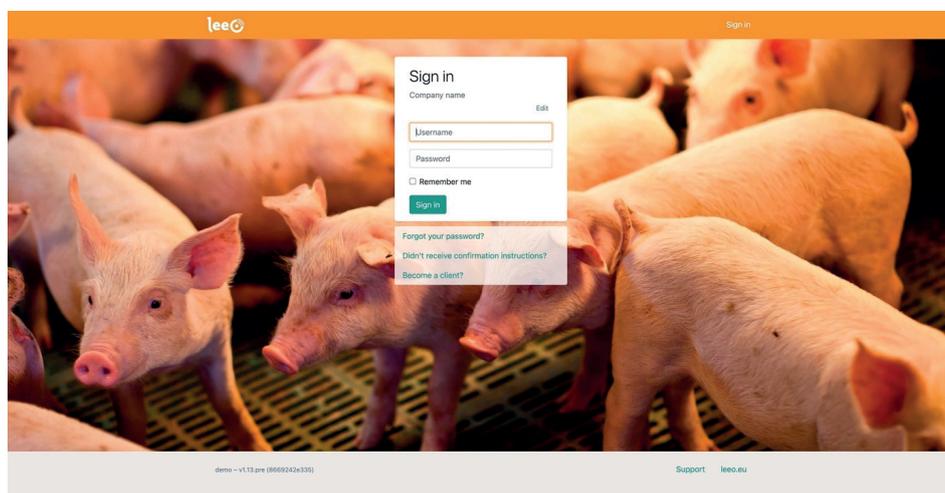
This dashboard can be customized to show the relevant datasets for you and your farm. With the information on your dashboard, you can use data to improve the production at your farm. The more data you collect and register, the more reliable the information the dashboard will be.

Log in

Before using the backoffice, you have to log in. You can go the backoffice in your browser via the URL <https://my.leeo.eu>.



Fill in the company name you registered your LeeO account on (send in account verification mail).



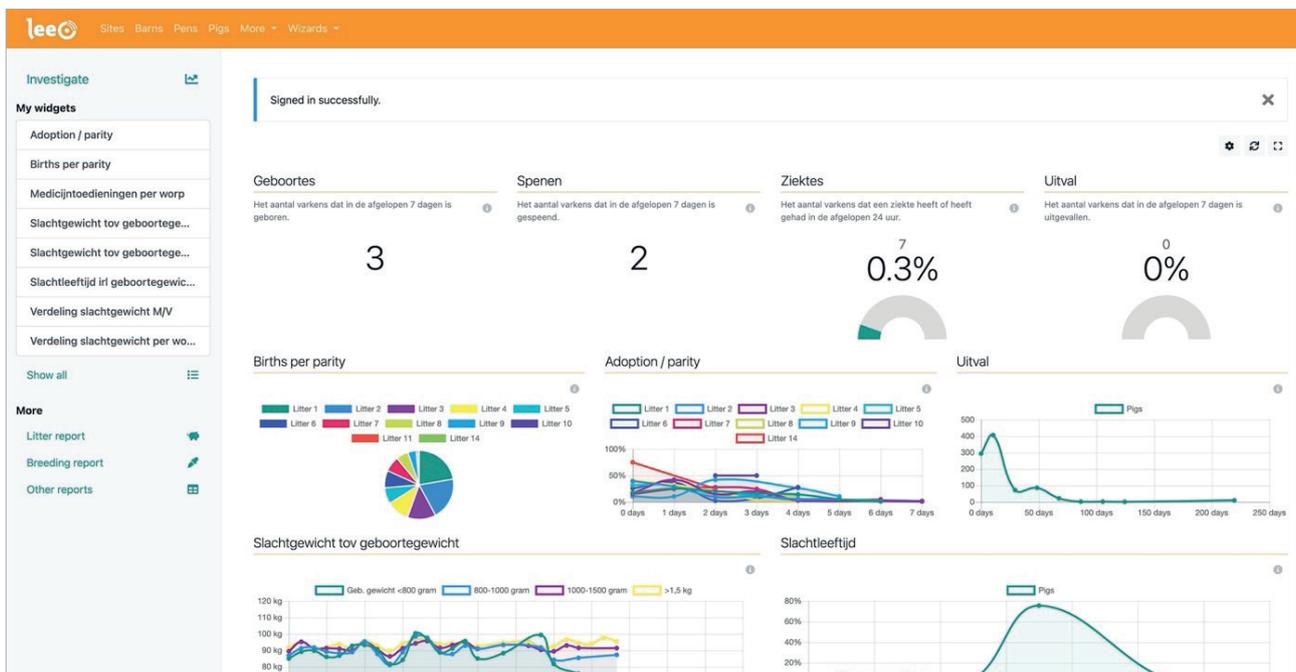
Fill in the username and password and log in.

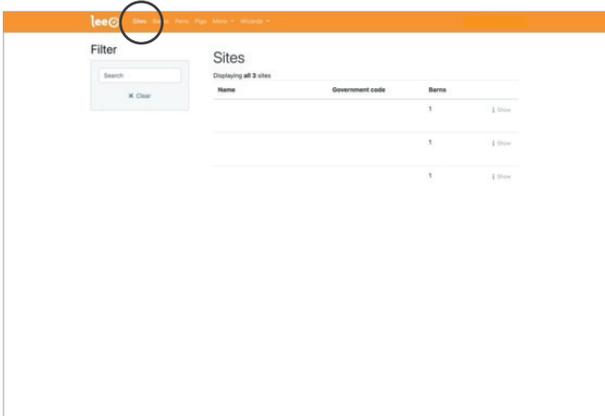
The homepage

After logging in, you enter the application on the homepage. It shows you the dashboard where you can put your widgets. Widgets are graphs or tables, customizable to your wishes. These widgets are getting explained in detail later in the manual.

With the orange part of the homepage, you can easily navigate to your locations, barns, pens, and individual pigs. Select more to adjust the settings to show or hide functions, for example, transports, surveys, and treatments. Import and export data is possible through wizards.

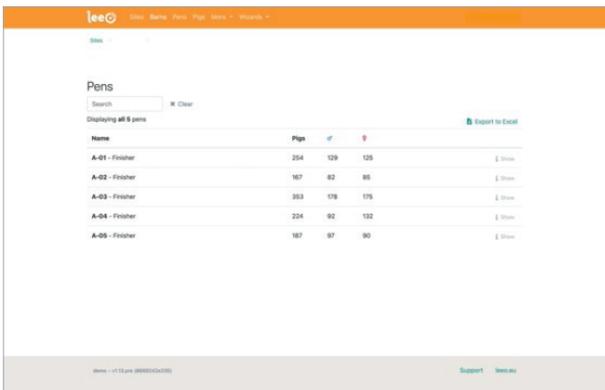
The homepage also offers; the litter report, breeding report, and other reports. The data you collected through using the app can be researched by **investigate**.





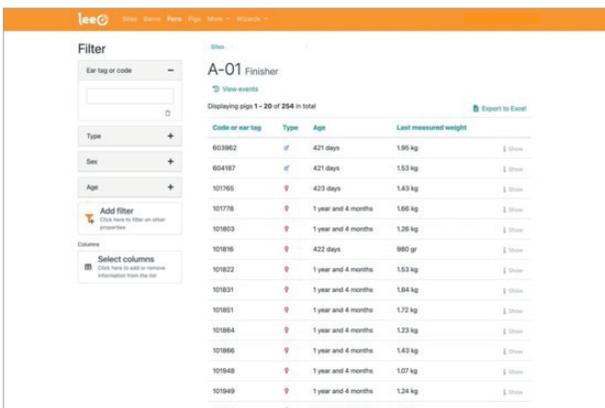
Sites

Does your company has more than one site, select the button **sites**. The screen shows you all available sites.



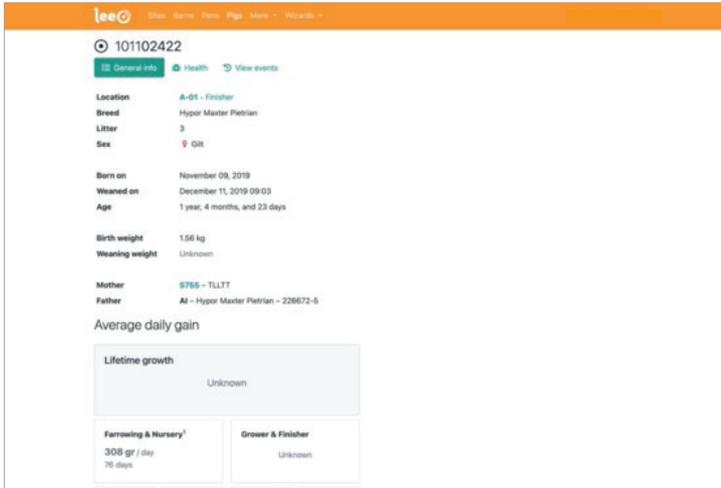
Select the site you want to gather more information about.

The page shows you the pens in this location. In this case, the rooms are created as a pen so the rooms will be shown.



Select a room/pen you want to know more about. The dashboard shows all the pigs in that location.

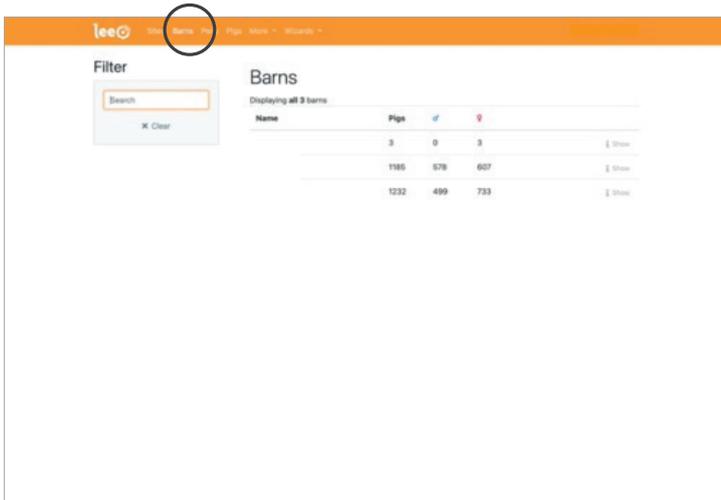
- Filter on ear tag, type, weight, age or add a new filter.
- With the button **export to Excel**, you can export the list to an Excel file.
- With the button **view events**, you can check the events that have taken place on the day or in the week of viewing the list.



Select an animal and find information about that animal.

Check information like:

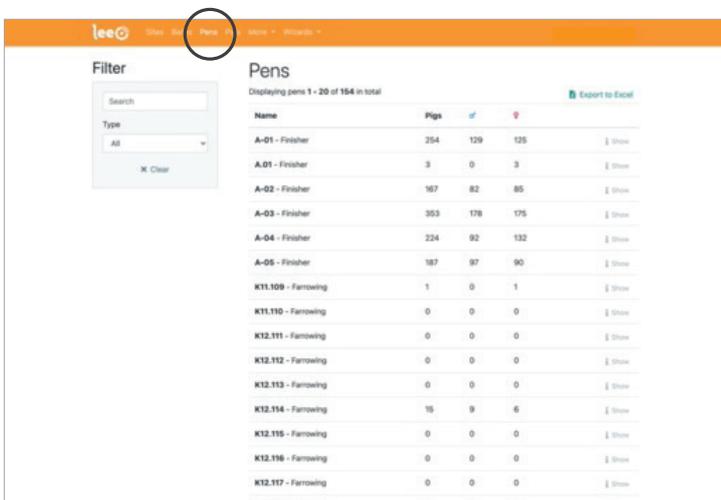
- Average daily gain
- Age
- Weights
- The mother
- Health status and treatments
- Events the animal has gone through



Barns

Do you have 1 site, but more barns, select barns to go to the right location.

Through barns, you can follow the same steps as in the function sites.



Pens

Select the button pens and you will find all the pens registered on your farm.

lee | Sites | Farms | Pens | Pigs | Maps | Reports

Filter

Ear tag or code

Type

Sex

Age

Add filter

Select columns

K12.118 Farrowing

View events

Displaying all 14 pigs

Export to Excel

Code or ear tag	Type	Age	Last measured weight
3521		3 years and 8 months	399 kg
169935		47 days	1.21 kg
170226		47 days	1.44 kg
170243		47 days	1.61 kg
170658		47 days	1.43 kg
170706		47 days	1.48 kg
804774		47 days	1.08 kg
804916		47 days	920 gr
804927		47 days	1.05 kg
805023		47 days	1.11 kg
805043		47 days	1.45 kg
805148		47 days	1.54 kg
805334		47 days	1.59 kg
805666		47 days	1.59 kg

Select a pen and get an overview of all the animals in the selected pen.

- Filter on ear tag, type, weight, age, or add a new filter
- Look at the events that occurred in the pen, or export the pen list to Excel
- Select an animal and look at the information about that animal

lee | Sites | Farms | Pens | Pigs | Maps | Reports

Filter

Ear tag or code

Type

Sex

Age

Add filter

Select columns

Pigs

Displaying pigs 1 - 20 of 2854 in total

Export to Excel

Code or ear tag	Type	Age	Last measured weight	Pen
603962		421 days	1.95 kg	A-01
604167		421 days	1.53 kg	A-01
101765		423 days	1.43 kg	A-01
101778		1 year and 4 months	1.66 kg	A-01
101903		1 year and 4 months	1.26 kg	A-01
101816		422 days	980 gr	A-01
101822		1 year and 4 months	1.53 kg	A-01
101831		1 year and 4 months	1.84 kg	A-01
101851		1 year and 4 months	1.72 kg	A-01
101864		1 year and 4 months	1.23 kg	A-01
101866		1 year and 4 months	1.43 kg	A-01
101948		1 year and 4 months	1.07 kg	A-01
101949		1 year and 4 months	1.24 kg	A-01
101950		1 year and 4 months	1.82 kg	A-01
101958		422 days	1.45 kg	A-01

Pigs

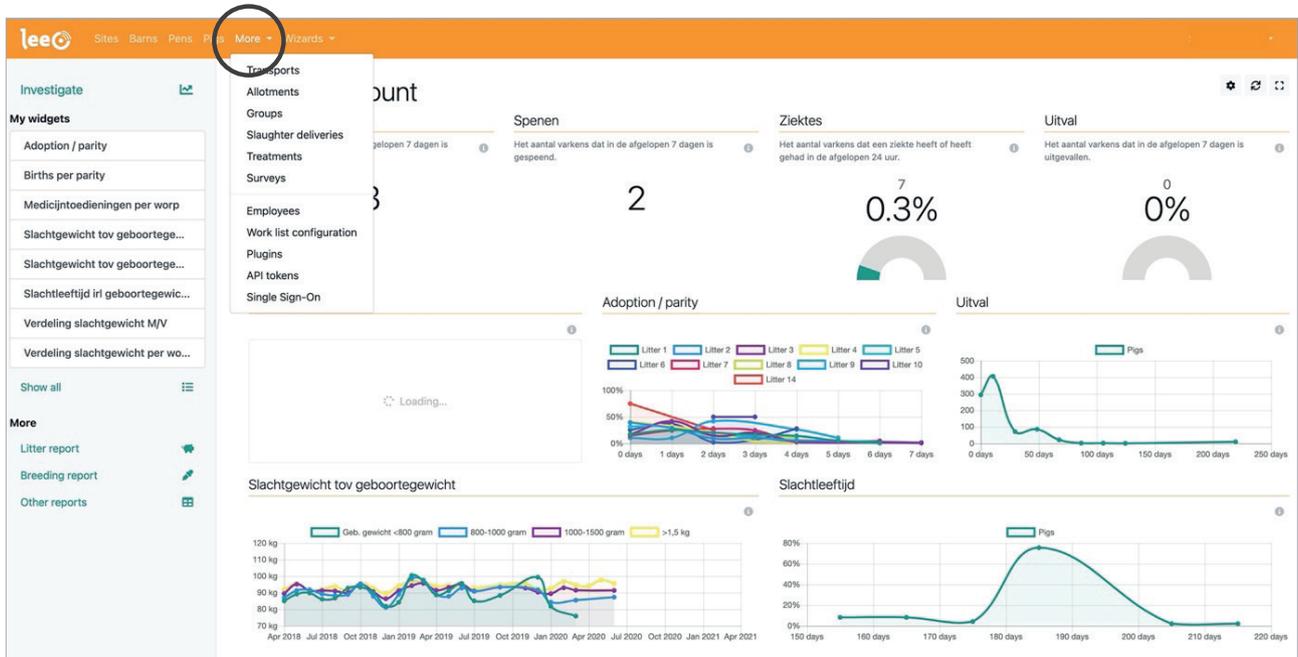
Select the button **pigs** and you will see a list of all the pigs on your farm.

Filter the pigs with the filter function on the left side of your screen or export your pig list to Excel.

Select a pig to see all information about that animal.

More

Through the option **more** you can arrange transports, allotments, groups, slaughter deliveries, treatments, and surveys.



The screenshot shows the Leeo 'Transports' page. The table displays the following data:

Created	Name	From	To	Pigs	of	of
April 01, 2021 10:08	Transport			39	20	19
April 01, 2021 09:55	Eigen Tags			30	10	20
March 31, 2021 15:26	Transport		Unknown	2	0	2
March 29, 2021 14:11	No name			5	0	5
March 23, 2021 14:11	Transport		0223445	31	11	20
March 17, 2021 11:30	K12.116		Unknown	34	11	23
March 15, 2021 11:00	No name			6	0	6
March 15, 2021 10:49	Groente			7	1	6
March 08, 2021 15:52	No name	Demo Account	Unknown	0	0	0
March 08, 2021 15:52	No name	Demo Account	Unknown	0	0	0

-
- Transports
 - Allotments
 - Groups
 - Slaughter deliveries
 - Treatments
 - Surveys
 - Employees
 - Work list configuration
 - Plugins
 - API tokens
 - Single Sign-On

Transports

Select **transports** and get an overview of the transport of animals to and from your farm.

Select a specific transport and get info about that transport.

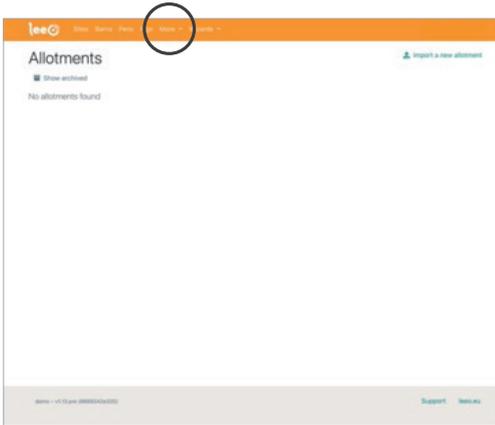
Select view to show individual information of the animals.

The screenshot shows the Leeo 'Transport' detail page. The transport details are:

- From:** 0227064
- To:** 0223445
- Sent at:** March 23, 2021 14:14
- Received at:** Unknown

The table displays the following data for individual pigs:

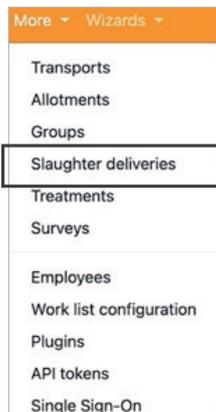
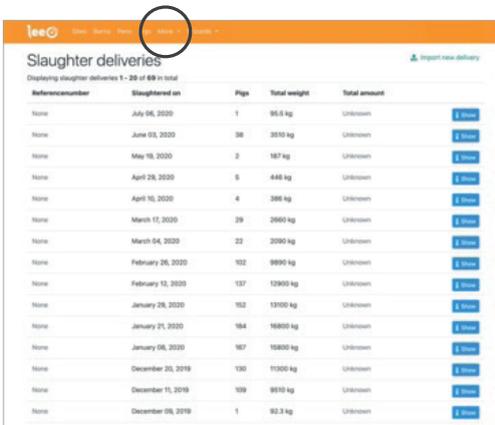
Ear tag	Age	Weight
0433	2 years and 4 months	None
2168	1 year and 6 months	None
805900012008805000036705	45 days	None
805900012008805000036741	Unknown	None
102168842	45 days	None
1021689138	45 days	None
1021689224	45 days	None
1021689371	45 days	None



Allotments

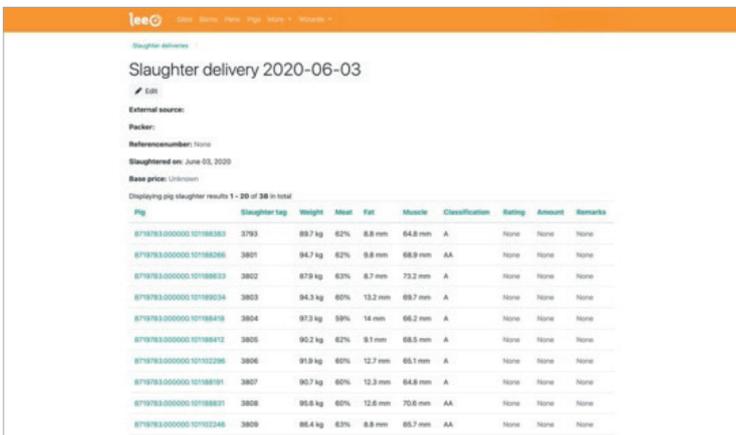
Allotments are often made in research settings.

Import an allotment of animals in the backoffice, synchronize the app and the app will assign the scanned animals to the right pen. The backoffice will also give you information about allotments you have made before.

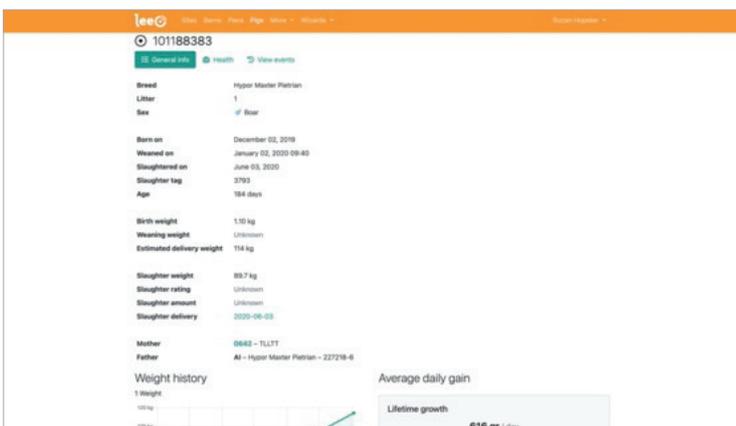


Slaughter deliveries

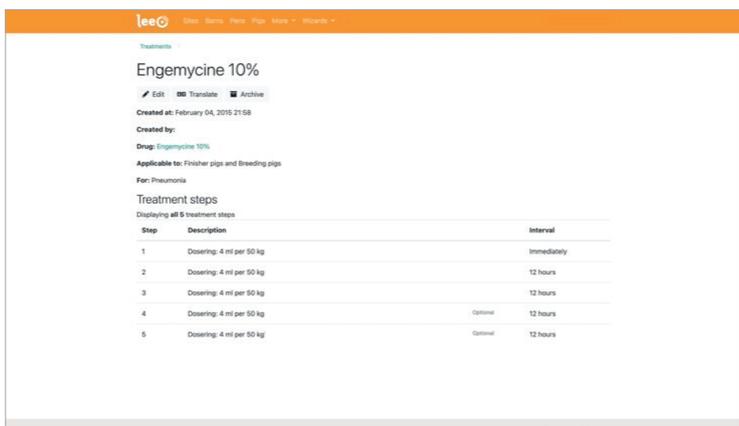
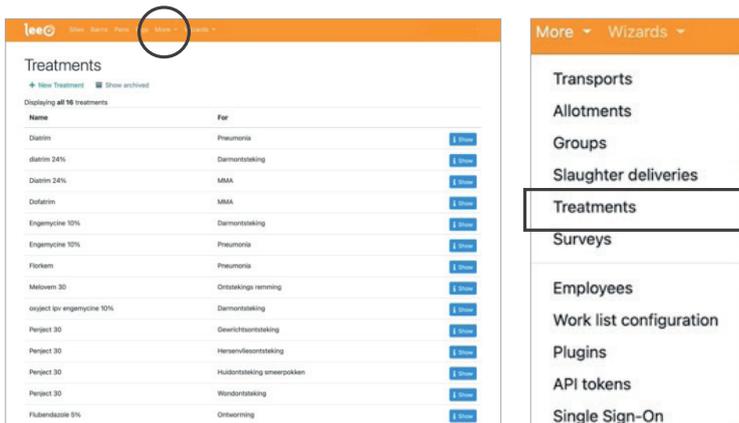
Your deliveries to the slaughterhouse are shown in a list.



Select **show** to show the slaughter results of that delivery.



Select an animal from that list to see information about that animal.



Treatments

In treatments, you find a list of treatments you assigned to the diseases on your farm.

- Select **show**, and see the treatment steps.
- Select edit to change the treatment, the medicine, or the group of animals you use the medicine on.
- Do you not use the treatment on your farm anymore? Select archive to delete the treatment from your treatment list, it will not be shown in the app anymore. You can always undo this action by selecting **dearchive**.



leeO Home Home Farm Pigs More Wizards

New Treatment

Name

Description

Drug

For

- Select all
- Gevoelstoesteking
- Pneumonia
- Hersenvliesontsteking
- Huidontsteking smeerpokken
- Darmontsteking
- Wondontsteking
- Ontworming
- Ontstekings remming
- MMA

Applicable to

- All
- Farrowing piglets
- Nursery piglets
- Finisher pigs
- Breeding pigs

Precautionary treatment

Precautionary

Make a new treatmentplan:

1. Select **new treatment**
2. Give the treatment a name
3. Optional: give treatment a description
4. Search for the right drug for your treatment. The drug has to be on your drug list to use in a treatment.
Select the disease you use the drug for.
5. Select the group of animals you normally use the drug for.
6. Select if the treatment is a precautionary treatment or not. A precautionary treatment is for example deworming your animals, give your animals a vaccine or give pigs a drug to prevent diarrhea.

leeO Home Home Farm Pigs More Wizards

Surveys

Home Home Farm Pigs More Wizards

More

- Transports
- Allotments
- Groups
- Slaughter deliveries
- Treatments
- Surveys**
- Employees
- Work list configuration
- Plugins
- API tokens
- Single Sign-On

Surveys

Make surveys and see the results of your filled in surveys.

leeO Home Home Farm Pigs More Wizards

New Survey

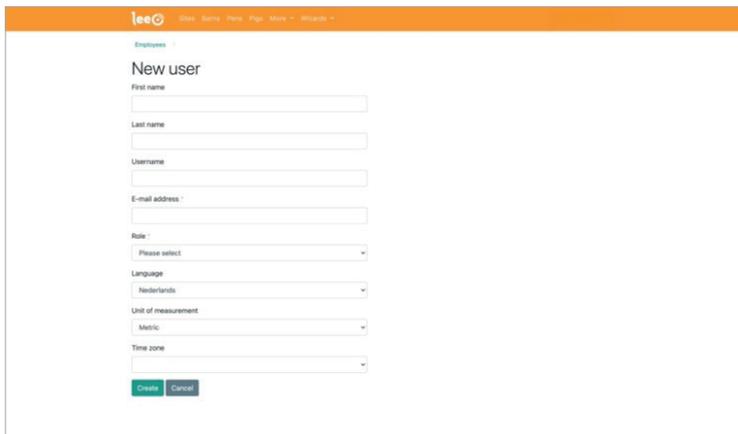
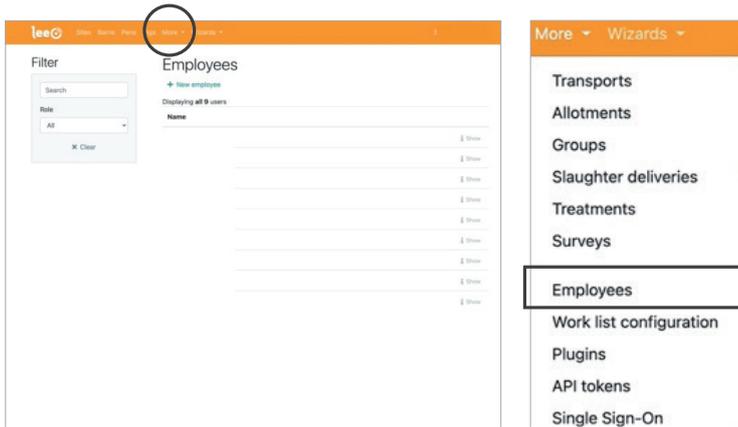
Name

Export code

Items

Item	Value type
<input type="text"/>	Text

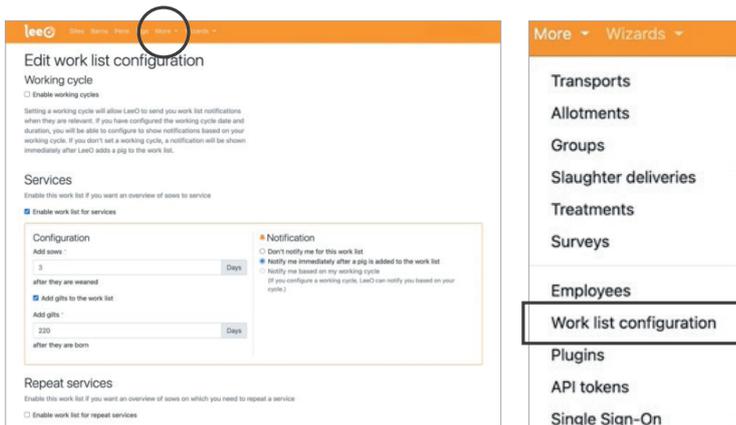
Select **make survey** to make your survey.



Employees

Select employees to see an overview of all users that have access to your company account. Select **show** to get user information. All events can be traced back to the user that registered the action, and the account can be edited at **edit**.

Create a new user. Fill in the fields. If you want to limit the authorization of the user on your locations, you have to select the role Customer employee.



Work list configuration

In the work list configuration, you can edit your worklists which can be used in the app for guidance. The work list assists you in the LeeO app, with treatments, inseminations, sows that have to be moved to the farrowing pens, and sows that are about to give birth. You can choose which work lists you want to be shown/activated in the app.

1. Working cycle. Setting a working cycle will allow LeeO to send work list notifications when they are relevant.
2. Services. Enable this work list if you like to get an overview of sows to service.
 - Add sows x days after weaning
 - Select if you want to add gilts to the worklist
 - Select at what age you want to add gilts to the worklist
 - Select when and how you want to be notified
3. Repeat services. Enable this work list if you like to get an overview of sows which need a second insemination.
 - Do you like to activate this worklist, turn on the option
 - Fill in the number of hours after the first insemination to added sows to the repeat service list.
 - Select when and how you want to be notified
4. Pregnancy check. Enable this work list if you like an overview of sows that are eligible for a pregnancy check.
 - If you want to activate the list, turn on the option
 - Select after how many days after insemination you like to do pregnancy check.
 - Select when and how you want to be notified
5. Move to farrowing. Enable this work list if you like an overview of sows that need to be moved to a farrowing pen.
 - Select if you want to activate the worklist
 - Fill in after how many days you like to do move the sows to the farrowing room after insemination
 - Select when and how you want to be notified
6. Farrowing. Enable this work list if you want an overview of sows on which are expected to farrow.
 - Select if you want to enable the worklist for farrowing
 - Fill in the number of days after insemination you expect the sows to give birth
 - Select when and how you want to be notified
7. Weaning. Enable this work list if you want an overview of piglets you need to wean.
 - Select if you want to enable the worklist for weaning
 - Fill in how many days after birth you want to wean
 - Select when and how you want to be notified

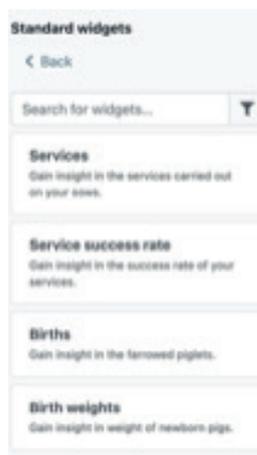
Widgets

In the dashboard configurator, you can customize graphs and tables shown on the dashboard. This way you can create information relevant to you and your company.

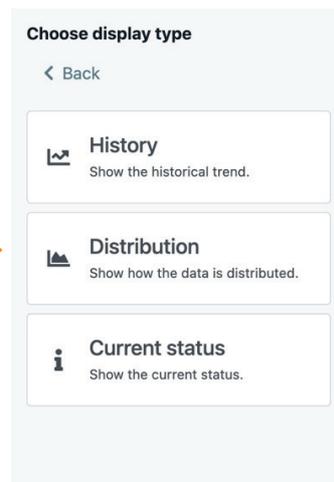


Create standard widgets

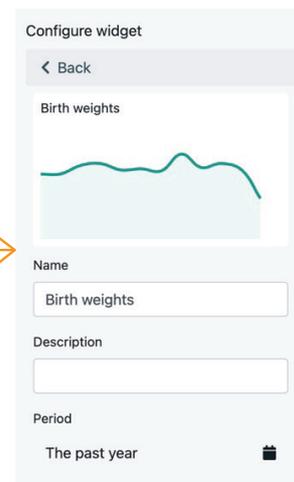
1. Log in to your dashboard.
2. Select the rattle to change your dashboard
3. In the column on the left side of your screen you can see the standard widgets you can create
4. Select a widget you want to be shown
5. Select history, distribution, or current status
6. The dashboard creates the widget
7. Haul the widget to your dashboard



(4)



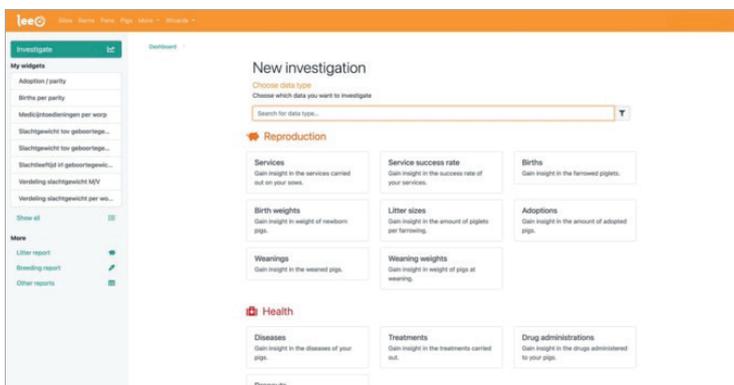
(5)



(6)



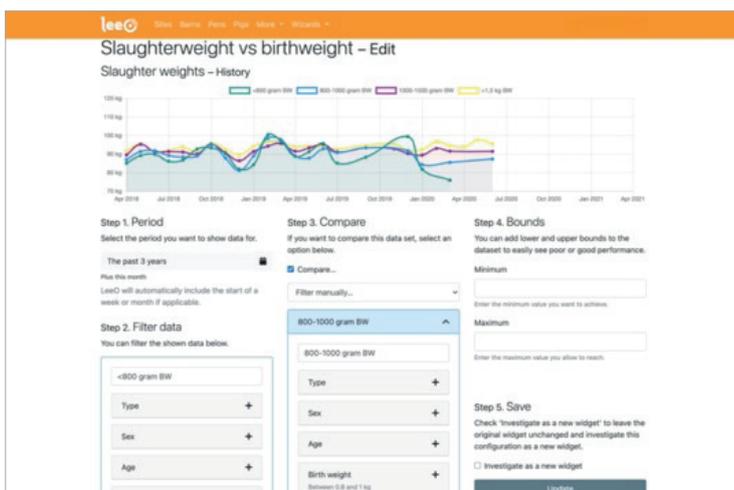
- Drag the widget to a place in the dashboard you like the widget to be shown and press save. The widget will be presented on your dashboard from now on.

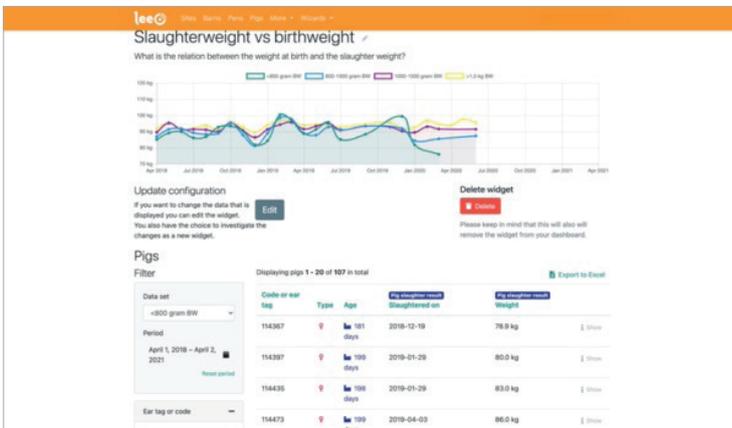
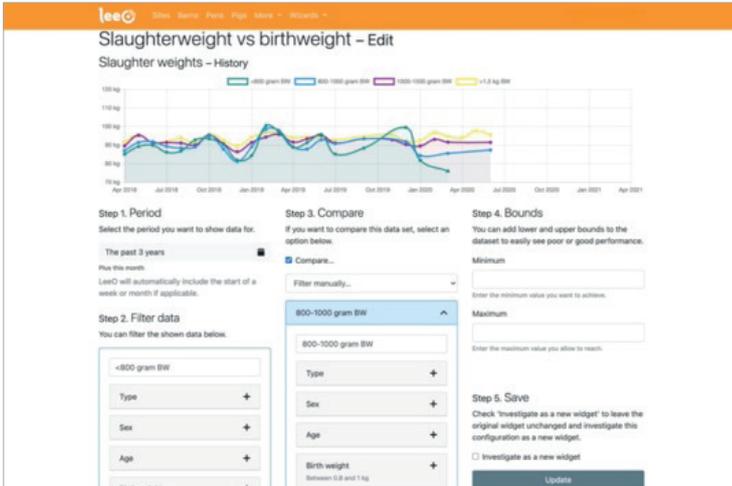


Investigate

Besides the standard widgets, it is also possible to investigate your data on a deeper level. Select **investigate** to make advanced widgets from the data you have collected with the app.

- Select investigate
- Choose a subject you want to investigate. In this example, we look into the relation of birth weight on the slaughtering weight.
- In step 1, select the period you want to get data from.
- In step 2, select the data you want to investigate. In this case, we start with the birth weights below 800 grams.
- At step 3, fill in the group you want to compare with. In this example, we selected filter manually and filled in piglets with a birth weight between 800 grams and 1 kg (steps: filter manually → add filter → birth weight → minimum 0,8 kg, maximum 1 kg).
- Do you want to compare more groups? Select **add data** set and repeat the previous step.
- In step 4, you can add bounds. Add a lower and upper bound to the dataset to easily decide poor or good performance.





8. Are you happy with your widget?
Select **next** at step 5.

9. You have created your own widget. In the widget, you can filter animals, edit the widget and save it to show it on your dashboard. In the case of this example, we save the widget.

Be careful, the title of the widget has a maximum of 24 characters. You can add a larger description in the field below the title.

10. Go back to the start screen of your dashboard by clicking on the LeeO logo.

11. Select the settings button. ⚙️

12. Drag your new widget from the left column of your dashboard to the middle of your screen.

13. Save the page.

14. The dashboard will show your widget.

Litter report

The litter report shows a weekly overview with data from your app. The litter report shows all data from the animals in the farrowing rooms from that week.

The screenshot shows a web interface for a 'Litter report'. At the top, there's a navigation bar with 'leeo' logo and menu items: Sites, Barns, Pens, Pigs, More, Wizards. Below the title 'Litter report', it shows 'W13 2021 2021-03-29 — 2021-04-04' and a 'Week' dropdown menu. There are buttons for 'Previous week' and 'This week'. The main content is a table with columns for weeks W9 2021, W10 2021, W11 2021, W12 2021, and W13 2021¹. The table is divided into four sections: Insemination, Farrowing, Adoption, and Weaning. Each section contains several rows of data with units like 'Pigs', 'kg', and 'days'.

	W9 2021	W10 2021	W11 2021	W12 2021	W13 2021 ¹
Insemination					
Total inseminations	4	3	None	1	None
Avg. inseminations per cycle	1.3	1.5	n/a	1	n/a
Avg. sow weight at insemination	Unknown	Unknown	n/a	Unknown	n/a
Farrowing					
Total litters	4	2	2	2	1
Total liveborn	4 Pigs	2 Pigs	2 Pigs	2 Pigs	2 Pigs
Avg. liveborn per litter	1 Pig	1 Pig	1 Pig	1 Pig	2 Pigs
Avg. stillborn per litter	0.3 Pigs	1 Pig	0 Pigs	0 Pigs	1 Pig
Avg. mummies per litter	0 Pigs	0 Pigs	0 Pigs	0 Pigs	0 Pigs
Avg. birth weight	Unknown	Unknown	Unknown	Unknown	1.29 kg
Avg. sow weight at farrowing	295 kg	307 kg	Unknown	Unknown	Unknown
Avg. gestation period	115.5 days	117 days	127 days	115 days	119 days
Adoption					
Total adoptions	1 Pig	None	2 Pigs	None	None
Avg. adoption age	0 days	n/a	31 days	n/a	n/a
Weaning					
Total weaned	19 Pigs	None	3 Pigs	25 Pigs	49 Pigs
Total maternity loss	5 Pigs	n/a	2 Pigs	5 Pigs	8 Pigs
Avg. weaned per sow	9.5 Pigs	n/a	3 Pigs	5 Pigs	9.8 Pigs
Avg. maternity loss per sow	2.5 Pigs	n/a	2 Pigs	1 Pig	1.6 Pigs
Avg. maternity period	18 days	n/a	32 days	36.2 days	36.4 days

The litter report can be shown per day, per week, quarter, and year. Do you want to change the settings of the overview? Select (in the case of this example) **week**. Do you like to have information about a specific period, click on the calendar and fill in the requested period.

You can switch between weeks by clicking on the **previous week** or **next week**.

Breeding report

The breeding report is based on the same principles as the litter report. It gives you an overview of the inseminated animals, the deviation in parities, and if the inseminations were successful.

lee Sites Barns Pens Pigs More Wizards

Breeding report

W8 2021 2021-02-22 — 2021-02-28

Week [v] [calendar icon]

← Previous week Next week → This week

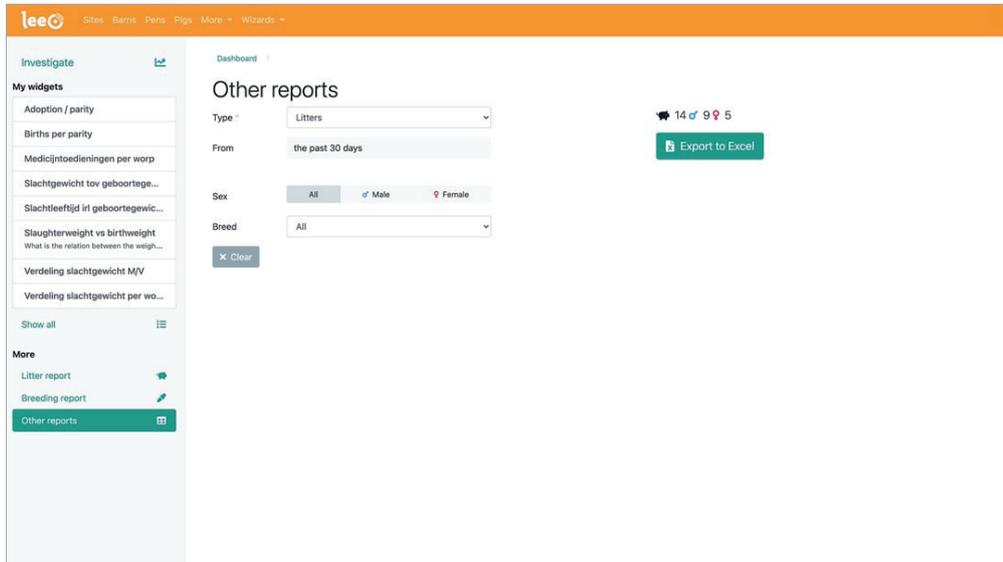
Parity	Available	Serviced	Insemination failed	Insemination succeeded ¹	Died	Culled
Gilt	2	1 (50%)	0	1 (100%)	0	0
Parity 1	11	4 (36%)	0	4 (100%)	0	0
Parity 2	23	14 (61%)	1	13 (93%)	0	0
Parity 3	16	6 (38%)	0	6 (100%)	0	0
Parity 4	8	4 (50%)	0	4 (100%)	0	0
Parity 5	4	1 (25%)	0	1 (100%)	0	0
Parity 6	5	2 (40%)	0	2 (100%)	0	0
Parity 7	5	1 (20%)	0	1 (100%)	0	0
Parity 8	10	2 (20%)	0	2 (100%)	0	0
Parity 9	8	0 (0%)	0	0 n/a	0	0
Parity 10 and up	1	0 (0%)	0	0 n/a	0	0
Total	93	35 (38%)	1	34 (97.1%)	0	0

¹ These pigs did not farrow yet. None of the pigs have been checked for pregnancy.

The breeding report can also be shown per day, week, term, and year. Do you want to adjust the settings, select in this case **week**. Do you want to see the breeding report for a specific period? Click on the calendar and fill in the requested period.

Other reports

Do you want to export other reports than the litter report or breeding report, select other reports.



1. Select the type of report you like to have.
 - a. Litters
 - b. Dropouts
 - c. Weights
 - d. Drug administrations
2. Select a period you want to get info from
3. [optional] select a sex
4. [optional] select a breed
5. Select **export to Excel**
6. Your computer will download an Excel file with the list of animals you have exported

Sow cards

A sow or gilt gets a sow card when she is inseminated for the first time, or when the animal is marked as a breeding gilt. The sow card gives information about the sow and her production. It shows the inseminations, litters, adoptions, weaning information, and the results of the offspring of that sow.

Parity	Average	1	2	3	4	5	6
Insemination							
Quantity	2	2	2	2	2	2	3
Date	2017-09-18	2018-02-07	2018-07-04	2018-11-28	2019-04-24	2019-08-16	2020-01-24
Breed	PIC 408G	PIC 408G	Hypor Maxter Pietrian				
Gestation	115.4 days	117 days	115 days	116 days	115 days	114 days	114 days
Sow weight	271 kg	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
Litter							
Born on	2018-01-13	2018-06-02	2018-10-28	2019-03-23	2019-08-16	2019-12-16	2020-05-11
Liveborn	14.9 Pigs	7 Pigs	15 Pigs	13 Pigs	18 Pigs	16 Pigs	19 Pigs
Stillborn	1 Pigs	0 Pigs	1 Pigs	0 Pigs	2 Pigs	1 Pigs	0 Pigs
Mummies	0.4 Pigs	0 Pigs	0 Pigs	0 Pigs	0 Pigs	0 Pigs	2 Pigs
Avg. weight	1.44 kg	Unknown	1.36 kg	1.74 kg	1.35 kg	1.56 kg	1.3 kg
Sow weight	336 kg	Unknown	Unknown	Unknown	Unknown	339 kg	315 kg
Adoption							
Inbound	2.1 Pigs	2 Pigs	0 Pigs	15 Pigs	0 Pigs	0 Pigs	0 Pigs
Outbound	3.1 Pigs	0 Pigs	0 Pigs	12 Pigs	3 Pigs	1 Pigs	3 Pigs
Weaning							
Weaned on	2018-02-07	2018-07-04	2018-11-28	2019-04-16	2019-09-18	2019-12-16	2020-05-11
Maternity period	28.5 days	25 days	32 days	31 days	24 days	33 days	23 days
Weaned	12.9 Pigs	9 Pigs	15 Pigs	15 Pigs	14 Pigs	14 Pigs	15 Pigs
Maternity loss	1	0	0	1	1	1	1
Avg. weight	7.23 kg	Unknown	Unknown	Unknown	7.79 kg	Unknown	Unknown
Sow weight	275 kg	Unknown	Unknown	Unknown	Unknown	265 kg	Unknown

Sow card on your computer

Parity	Average	4	5	6	7	8	9
Insemination							
Quantity	2	2	2	3	2	2	1
Date	2018-11-28	2019-04-24	2019-09-19	2020-02-12	2020-07-08	2020-12-02	2021-04-24
Breed	Hypor Maxter Pietrian	Hypor Maxter Pietrian	Hypor Maxter Pietrian	Hypor Maxter Pietrian	PIC 408G+	PIC 408G+	PIC 408G+
Gestation	115.4	115	114	116	115	115	115
Sow weight	271 kg	Unknown	Unknown	265 kg	261 kg	277 kg	283 kg
Litter							
Born on	2019-03-23	2019-08-16	2020-01-13	2020-06-06	2020-10-31	2021-04-24	2021-09-18
Liveborn	14.9	18	16	19	17	14	14
Stillborn	1	2	1	0	2	2	2
Mummies	0.4	0	0	2	0	1	1
Avg. weight	1.44 kg	1.35 kg	1.56 kg	1.35 kg	1.33 kg	1.50 kg	1.3 kg
Sow weight	336 kg	Unknown	339 kg	315 kg	329 kg	360 kg	315 kg
Adoptions							
Inbound	2.1	0	0	0	0	0	0
Outbound	3.1	3	1	3	3	3	3
Weaning							
Weaned on	2019-04-16	2019-09-18	2020-02-05	2020-07-08	2020-11-28	2021-05-11	2021-10-05
Maternity period	28.5	24	33	23	32	28	28
Weaned	12.9	14	14	15	11	10	10
Maternity loss	1	1	1	1	3	1	1
Avg. weight	7227.9	7785	Unknown	6708	Unknown	Unknown	Unknown
Sow weight	275 kg	Unknown	265 kg	Unknown	277 kg	283 kg	Unknown
Life							
Dropouts	0.5	0	0	3	0	1	1
Slaughtered	5.4	1	12	0	0	Unknown	Unknown
Avg. slaughter age	171.5	179	175	Unknown	Unknown	Unknown	Unknown
Avg. carcass weight	95.2 kg	92.0 kg	97.8 kg	Unknown	Unknown	Unknown	Unknown

Sow card in print mode

Combining systems with LeeO

LeeO can connect with the following systems:

- Schippers scales (with Bluetooth)
- Henk Maas scales (with Bluetooth)
- FAS (Feed Allocation System) Prairie Systems (Plugin)
- Nedap weighing stations (plugin)
- TEWE feeding stations (imports)

LeeO also support Public APIs and Excel/CSV imports. Go to <https://api.leeo.eu/docs> to see all available options.