Výzkumný ústav živočišné **výroby, v.v.i.**
Přátelství 815
104 00 Praha - Uhříněves   (3)

30-10-2020
Dr. J. Bartosova
NQ.20.1212.2
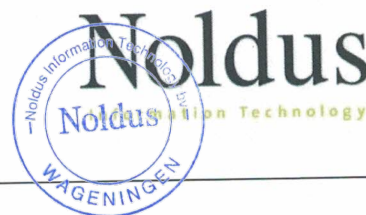
REG č.

343/2020

Noldus
Information Technology

ITEMS IN PROPOSAL

A complete overview of all items offered in this quotation

Tracklab Animal Cattle UWB

Item no.	Description	Quantity
XPCD-3630	Processing unit T3630 PC	1
XTFT-23I1	Monitor 23.6" height adjustable	1
XNIC-0003	Network card	1
XKEY-B004	Keyboard Qwerty, Standard	1
TLSE-PC-3430	TrackLab server PC	1
XNDS-GS310	Switch PoE 8 ports, standard	1
XCAC-0010	Cables & Connectors	2
TLSE-SWA08	TrackLab Anchor - Outdoor	6
TLSE-SWW01	TrackLab Anchor License	6
TLSE-SWC11	TrackLab Anchor Acc - Outdoor Holder and Bracket	6
TLSE-SWC10	TrackLab Anchor Acc Wall Mount Metal Bracket - L	6
TLSE-SWT06	TrackLab Tag - Leonardo iMU OEM multi-sensor	6
TLSE-QICC	TrackLab Tag - Leonardo wireless QI charger	2
TLSE-EIP65	TrackLab Tag - Enclosure	6
TLHW-TAGA	TrackLab Tag Solution / Tag Adapter	6
TLHW-CHCO	TrackLab Tag Solution / Cattle & horse - Collar	6
TLHW-CHCW	TrackLab Tag Solution/Cattle&horse-Counter weight	6
TLHW-CHRE	TrackLab Tag Solution / Cattle & horse - Retainer	6

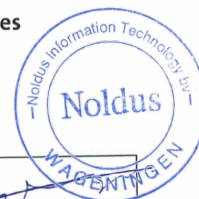# PURCHASE AGREEMENT CONTRACT

PLACING THE ORDER

By signing this order form you agree to the General Terms and Conditions http://www.noldus.com/legal/noldus_gtc.pdf.

Please mark the item(s) that you would like to order and the NoldusCare duration you choose.
First year of NoldusCare is included for free with all new purchases!

Mark choice [X]	Description	1 year NoldusCare
[X]	Tracklab Animal Cattle UWB • Track up to 6 animals • TrackLab software included • On-site training and installation included • Hardware tags, beacons, chargers, and workstation	€ 15.550

All amounts in EUR ex works Wageningen (VAT, shipping and handling not included). Sales tax and/or import duties may apply in the country of destination.

In order to process your request, please agree to our privacy policy below.

[X]	I have read and agree to the Noldus Information Technology privacy policy https://www.noldus.com/legal/privacy-policy. The personal data required below is needed to process this order. Our privacy policy describes what personal data is collected and stored, what legal basis we have for this and how this data might be shared. Your personal data is kept safe!
[X]	**The customer agrees with the terms of the above order** Name of authorized person: doc. Ing. Petr Homolka, CSc., Ph.D., director of the Institute of Animal Science Signature:

PLEASE FILL OUT AND SIGN

Name authorized person	Jitka Bartošová
Date	November, 13th, 2020
Your order number	
Your VAT number	CZ00027014

Noldus
Information Technology

PURCHASE AGREEMENT CONTRACT

Your billing address	Institute of Animal Science Pratelstvi 815, CZ-104 00 Praha - Uhrineves
I wish to receive the invoice via	[ ] Regular mail [X] Email: bartosova.jitka@vuzv.cz
Your shipping address & email	Institute of Animal Science Pratelstvi 815, CZ-104 00 Praha - Uhrineves
Signature	Výzkumný ústav živočišné výroby, v.v.i. Přátelství 815 104 00 Praha - Uhříněves (2)

ORDER DETAILS

Prices
All amounts in EUR, ex works Wageningen (shipping and handling not included). CIF prices can be quoted upon request.

Sales Tax
VAT not included. For EU countries only: Mention your sales tax (VAT) number on the purchase order.
If no sales tax number is provided, 21% tax will be added to the invoice. Sales tax and/or import duties may apply in the country of destination.

Direct transaction
Quoted prices are only valid if the recipient of this quotation orders directly from Noldus Information Technology (any intermediary commission will be added to the price).

Discount
A special discount for non-profit organizations is included in the mentioned prices

Compatibility
If you want to use one of our software products in combination with your own computer, please refer to the technical specifications of your Noldus software for compatibility. You can see an up-to-date set of requirements on www.noldus.com/downloads.

NoldusCare
NoldusCare for the 1st year: including upgrades, updates and technical support via phone, fax or email.
Manufacturer's warranty on all hardware. NoldusCare Extended Warranty on specific hardware items is included.
NoldusCare is subject to the NoldusCare conditions included in the General Terms and Conditions. Depending on your subscription period, you are entitled to additional years of NoldusCare.

Validity
30 days after quotation date, unless specified otherwise

Ordering & Payment
Ordering by an officially signed purchase order, with reference to our quotation number, or by returning this order form.
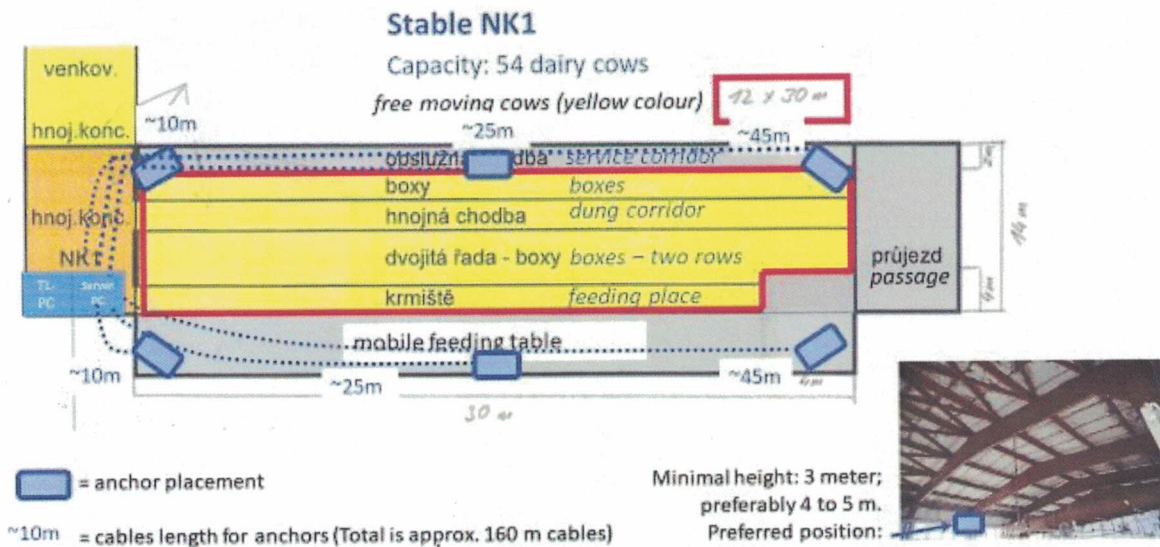Payment after receipt of the goods and invoice, 30 days net.

Delivery
30-60 days after receipt of order, unless stated otherwise.
Delivery times are an estimate only, and may not account for possible delays in the supply chain due to COVID-19
Installation possible if border crossing from the Netherlands to the Czech Republic is freely possible.
If Noldus IT is more than 15 days late with the delivery of the goods, we undertake to pay the customer a contractual penalty of EUR 37 for each day of delay.

All our transactions are subject to our General Terms and Conditions (http://www.noldus.com/legal/noldus_gtc.pdf), a copy will be sent to you upon request. The General Terms and Conditions include:

1. NoldusCare Conditions
2. Consultancy Conditions

Noldus
Information Technology

INFRASTRUCTURE OF ANCHORS OR CABLES

Infrastructure of anchors (please consult Noldus IT before executing)

Stable NK1

Capacity: 54 dairy cows

free moving cows (yellow colour)

☐ = anchor placement

~10m = cables length for anchors (Total is approx. 160 m cables)
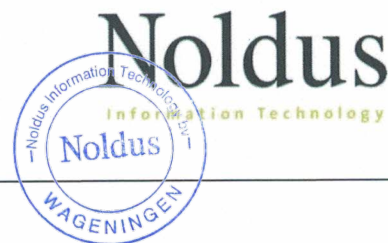
Minimal height: 3 meter;
preferably 4 to 5 m.
Preferred position:

- 160 meters of Ethernet cable provided by Noldus IT
- Distance of 10, 25, and 45 meters respectively 2 times
- The 6 beacons in blue will need to be placed at a height of 3 meters, preferably 4 or 5 meters is possible. Placed at the locations indicated in the schematic above
- It would be appreciated if 1 or 2 local integrators could help on-site to speed up the process

Noldus
Information Technology

NOLDUS CARE

Worry Free – Smart Choice

Achieve maximum return on your investment with NoldusCare. Our service is fast, reliable, and available worldwide. Subscription for one year is offered to you for free.

FREE TECHNICAL SUPPORT

FREE SOFTWARE UPDATES

EXTENDED WARRANTY ON HARDWARE

Personalized helpline via phone and email.

Our technical experts are ready to assist. Contact our world-wide Support staff anytime you have a question, and we'll respond within 24 hours, guaranteed.

Always work with the latest version.

We listen to YOU! New software releases help you get the most out of your research. With each version update, we include new functionalities based on input from our global customer base.

Quick repair or replacement, free of charge.

If hardware breaks down due to defects in workmanship or materials, we'll take care of it – simple as that. We'll do our best to ensure your project's continuity. Please check the GT&C or ask your account manager about 3rd party hardware specific rules.

PROTECT YOUR INVESTMENT

GUARANTEED PROJECT QUALITY AND CONTINUITY

EXPERIENCE PEACE OF MIND

WHAT DO OUR CUSTOMERS SAY ABOUT OUR SUPPORT TEAM?

"Would also like to say thanks for the excellent support I have gotten from Rolf Leurink in the weeks before Christmas." - Mr. Eirik Ofstad, Norway

"The response time for questions is fast. The personal contact is very good." - Dr. Geir K. Knudsen, Norway

"Great experience. A single email immediately solved a problem I had been working on for days." - Dr. Drake Morgan, USA

"My technical support was excellent, and there was never a problem getting a response" - Dr. Cynthia Smeraski, USA

"The technical support and product knowledge of Noldus' staff is superior and platinum standard. Their commitment to helping customers troubleshoot software and hardware problems and their persistence in making sure a solution is found, is the reason labs like my own go to them for software and hardware." - Dr. Stephen Bonasera, USA

The NoldusCare General Terms & Conditions apply.

Noldus
Information Technology

NOLDUSCARE EXTENDED HARDWARE WARRANTY

A complete list of all items covered by the extended hardware warranty of NoldusCare

The NoldusCare service program provides the following added value:

- Hardware Items receive extended warranty up to 3 years depending on the duration of purchased NoldusCare contract duration.
- Noldus software licenses and modules receive free upgrades to newer versions for the duration of the NoldusCare Contract.

The List below indicates all items in your quotation included in the optional NoldusCare offer.

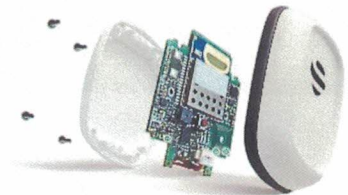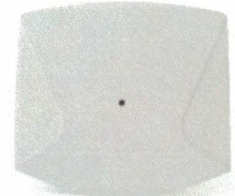| Item no.	Description	Quantity
XPCD-3630	Processing unit T3630 PC	1
XTFT-23l1	Monitor 23.6" height adjustable	1
XNIC-0003	Network card	1
XKEY-B004	Keyboard Qwerty, Standard	1
XNDS-GS310	Switch PoE 8 ports, standard	1
TLSE-SWA08	TrackLab Anchor - Outdoor	6
TLSE-SWC11	TrackLab Anchor Acc - Outdoor Holder and Bracket	6
TLSE-SWC10	TrackLab Anchor Acc Wall Mount Metal Bracket - L	6
TLSE-SWT06	TrackLab Tag - Leonardo iMU OEM multi-sensor	6
TLSE-QICC	TrackLab Tag - Leonardo wireless QI charger	2
TLSE-EIP65	TrackLab Tag - Enclosure	6
TLHW-TAGA	TrackLab Tag Solution / Tag Adapter	6
TLHW-CHCO	TrackLab Tag Solution / Cattle & horse - Collar	6
TLHW-CHCW	TrackLab Tag Solution/Cattle&horse-Counter weight	6
TLHW-CHRE	TrackLab Tag Solution / Cattle & horse - Retainer	6

TRACKLAB 2

Hardware for the monitoring and analysis of spatial behavior

COMPONENTS INCLUDED

Hardware

- 6 Sewio anchors
- 6 Sewio Leonardo tags
- Professional desktop
- Network switch, cables, and connectors

TRACKLAB
CATTLE TAG SOLUTION (CALF)

TAG   TAG ADAPTER   BREAK-FREE   COUNTER WEIGHT /
                              SAFETY COLLAR /   CALF (340G)
                              CALF SIZE
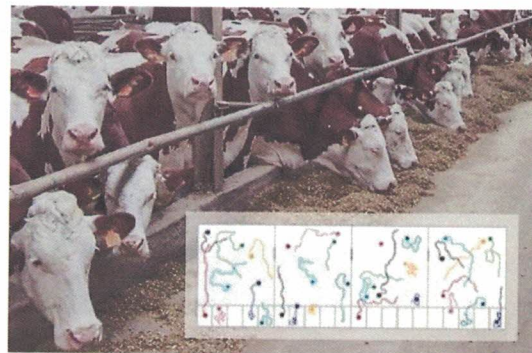
Noldus

TRACKLAB 2 [CONTINUED]

Software for the monitoring and analysis of animal behavior

DESCRIPTION

TrackLab is the complete tracking solution for your research with livestock or other animals. Rely on highly accurate tracking data to gain real time insights into the activity, welfare, and health of your animals.

TrackLab works with ultra wideband (UWB) and GPS sensors, to accommodate both indoor and outdoor tracking. The software includes various features to automate data collection, and allows you to easily access, visualize, analyze, and export your data.
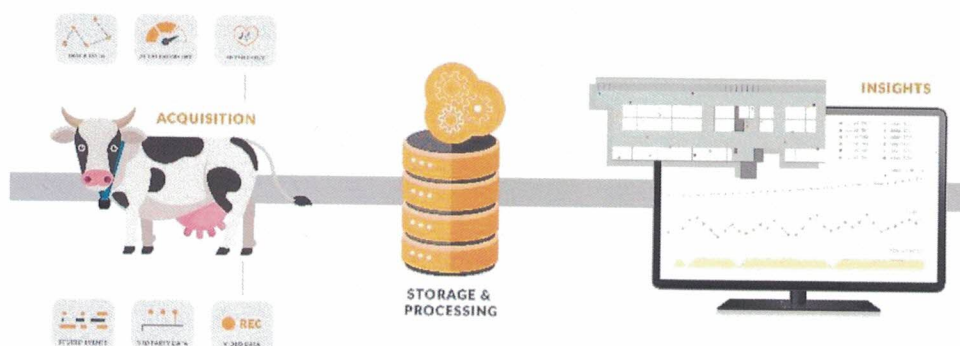
FEATURES | RELEASED IN 2019

- Automated data collection, with options for continuous and scheduled tracking
- Accurate short-range indoor and outdoor tracking with UWB tags
- Long range outdoor tracking with GPS tags, covering a range of at least two kilometers
- Real time data import and processing
- Capacity to track multiple animals in multiple farm environments
- Automatic detection of animals' presence in user-defined regions
- Automatic labelling of animal activity
- Data analysis from any location, accessible for multiple software users
- Insights into social behavior, place preference, feeding and drinking behavior, animal movement, and much more
- Data visualization with heatmaps, graphs, and diagrams
- Results per individual animal, experimental group, region, and time interval
- Export of data and results to statistical programs like SPSS and The Observer XT

BENEFITS

- Integrated solution, including hardware, software, and onsite installation
- Easy to use and non-intrusive
- Reliable data for your research
- Meaningful insights into animal movement and behavior
- Access to all data, from any location
- Easy visualization, analysis, and export of your data
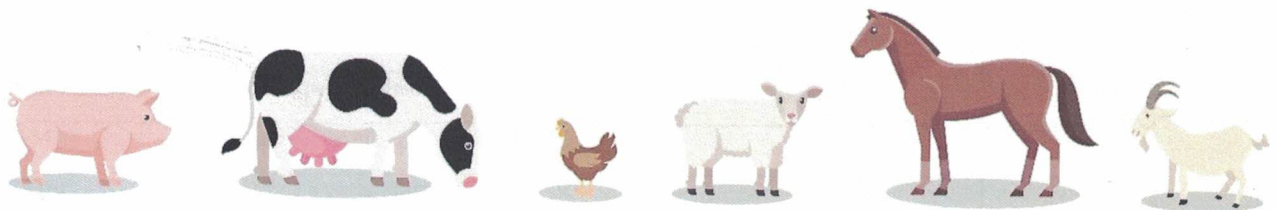- Professional hands-on training

TRACKLAB 2 [CONTINUED]

Software for the monitoring and analysis of animal behavior

MONTHLY UPDATES

The TrackLab software is developed continuously in close cooperation with three Dutch testing sites. You will receive the latest features of the software through monthly updates, which are included in your purchase.

For the release status of TrackLab features, please see https://www.noldus.com/tracklab-animal/upcoming-functionality.

USER STORIES

Are you curious about how other people use TrackLab in their research?

Examining spatial behavior in sheep

At the Aberystwyth University's Institute of Biological, Environmental and Rural Sciences (IBERS), TrackLab was used to to examine the spatial behaviors of sheep. Specifically, researchers were interested in the animals' location, eating and drinking patterns, and exploratory behaviors. Other observations included social interactions and affective states in different circumstances.

Read about the installation of the TrackLab system here:
https://www.noldus.com/blog/tracking-sheep.

Tag-based research in broiler chickens

At the Flanders Research Institute for Agriculture, Fisheries and Food (ILVO), scientists examined whether TrackLab could be used to study the (feather-pecking) behaviors of broiler chickens. They found that using the tags did not substantially influence animal activity, and that TrackLab produced reliable tracking data.

Read more about their research here:
https://www.noldus.com/blog/tracking-chickens.