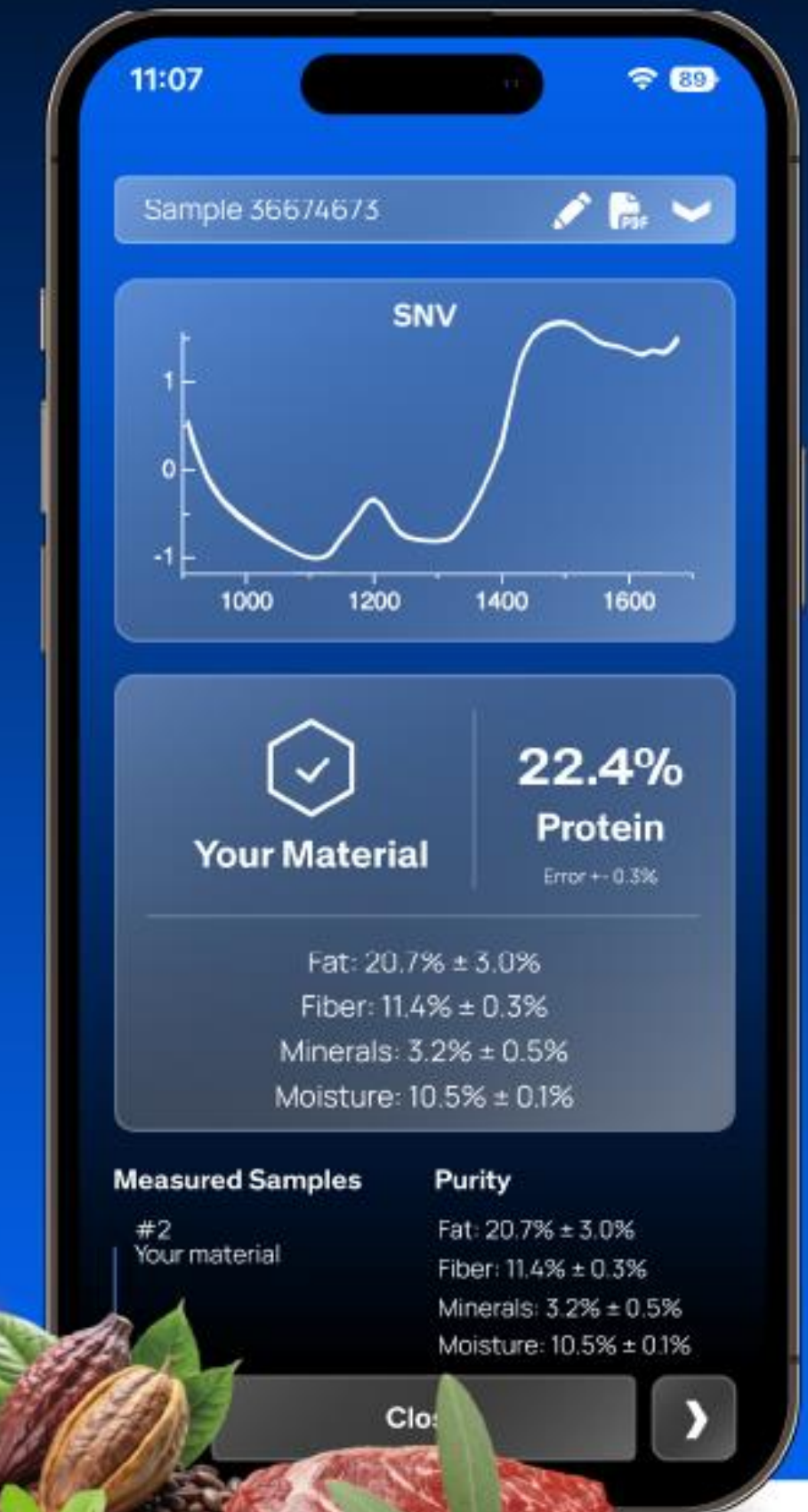


ADVANCING FIELDWORK AROUND THE WORLD

ON-DEMAND SOLUTION

Enabling companies to analyse materials anywhere within seconds.

- ✓ Delivered as a single, unified system
- 🔧 Combining hardware, software, and analytical models



ABOUT NIRLAB



NIRLAB SA is a **Swiss company**, founded in 2018 as a spin-off from the **Forensic Institute** of Lausanne.

We equip organizations with a **handheld NIR solution** for **rapid identification and quantification** of different materials and substances. Connected to a **secure cloud platform**, NIRLAB transforms field data into **actionable intelligence** for our customers worldwide.



SOLUTION

The Problem We Solve

Generic NIR scanners give labs on average 70% accuracy. Our custom models give them $\geq 90\%$ - on their own samples.

GENERIC MODELS FAIL IN THE FIELD

Off-the-shelf calibrations are trained on global datasets. They don't reflect local varieties, regional growing conditions, or individual lab chemistry.

LAB TURNAROUNDS BLOCK DECISIONS

3-day lab results mean grain sits in silos. Livestock feed decisions are delayed. Production lines stall waiting for QC data.

HIGH COST OF CONVENTIONAL TESTING

Wet-chemistry testing costs €15–€80 per sample. For high-volume operations, NIR pays back in weeks — but only if the calibration is accurate.

CALIBRATIONS GO OUT OF DATE

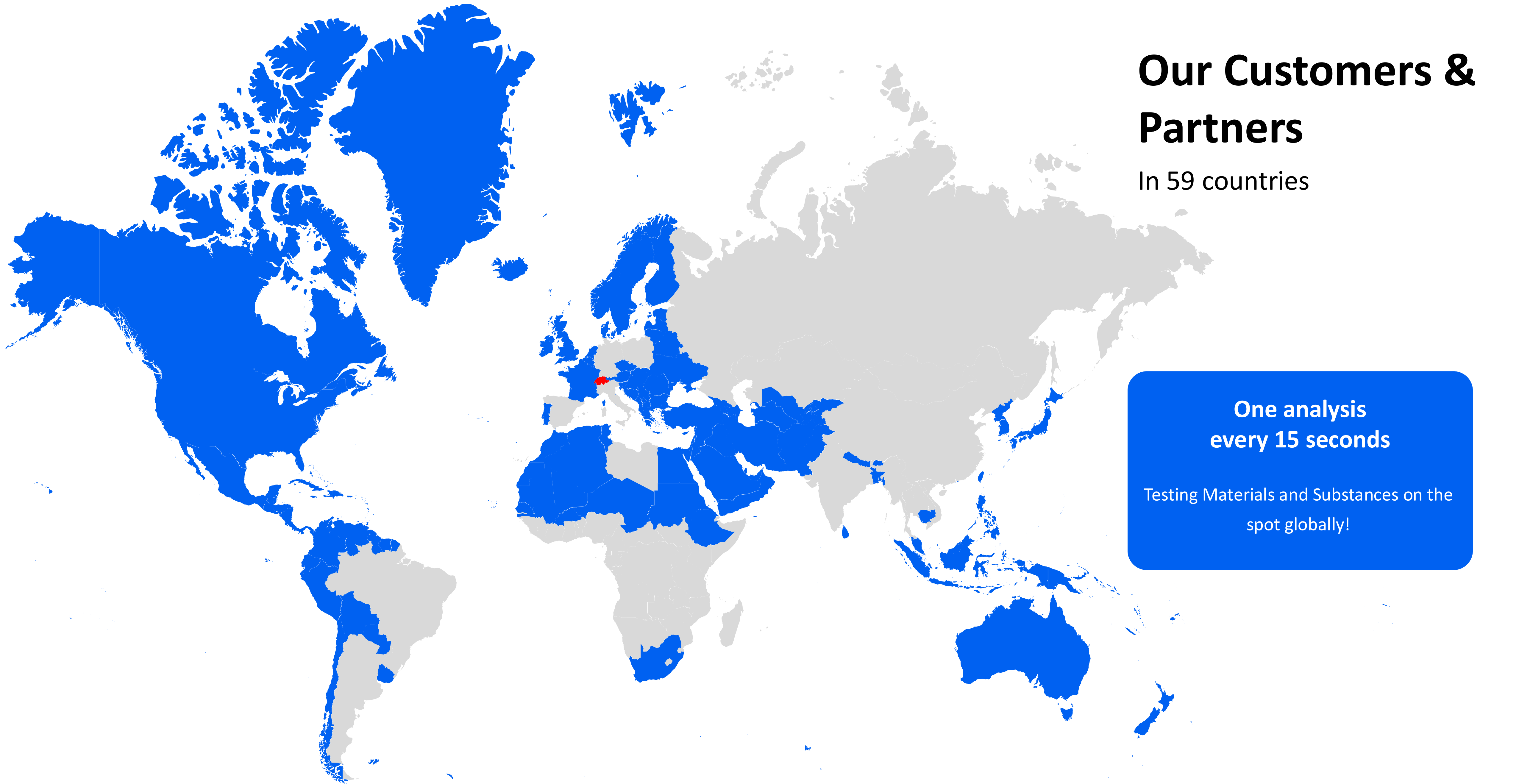
New materials, formulations, and local variants emerge constantly. NIRLAB continuously integrates new reference data — so your models stay accurate as your samples change.

"We tried three generic NIR solutions. None of them matched our reference lab. With a custom calibration on our own samples, we were within $\pm 5.0\%$ on the first run."

Lab Manager
Agricultural wet chemistry laboratory

Our Customers & Partners

In 59 countries



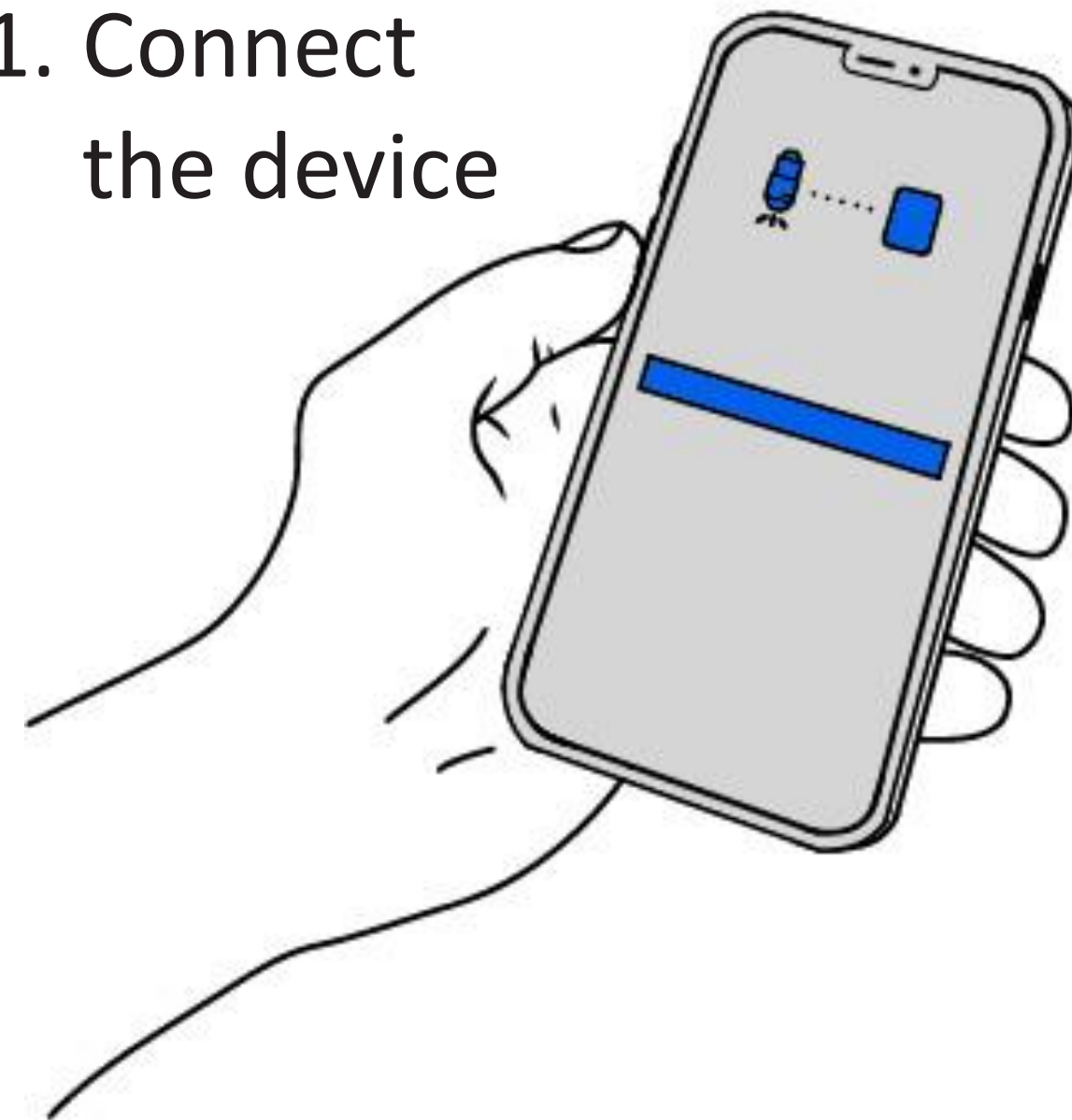
**One analysis
every 15 seconds**

Testing Materials and Substances on the
spot globally!

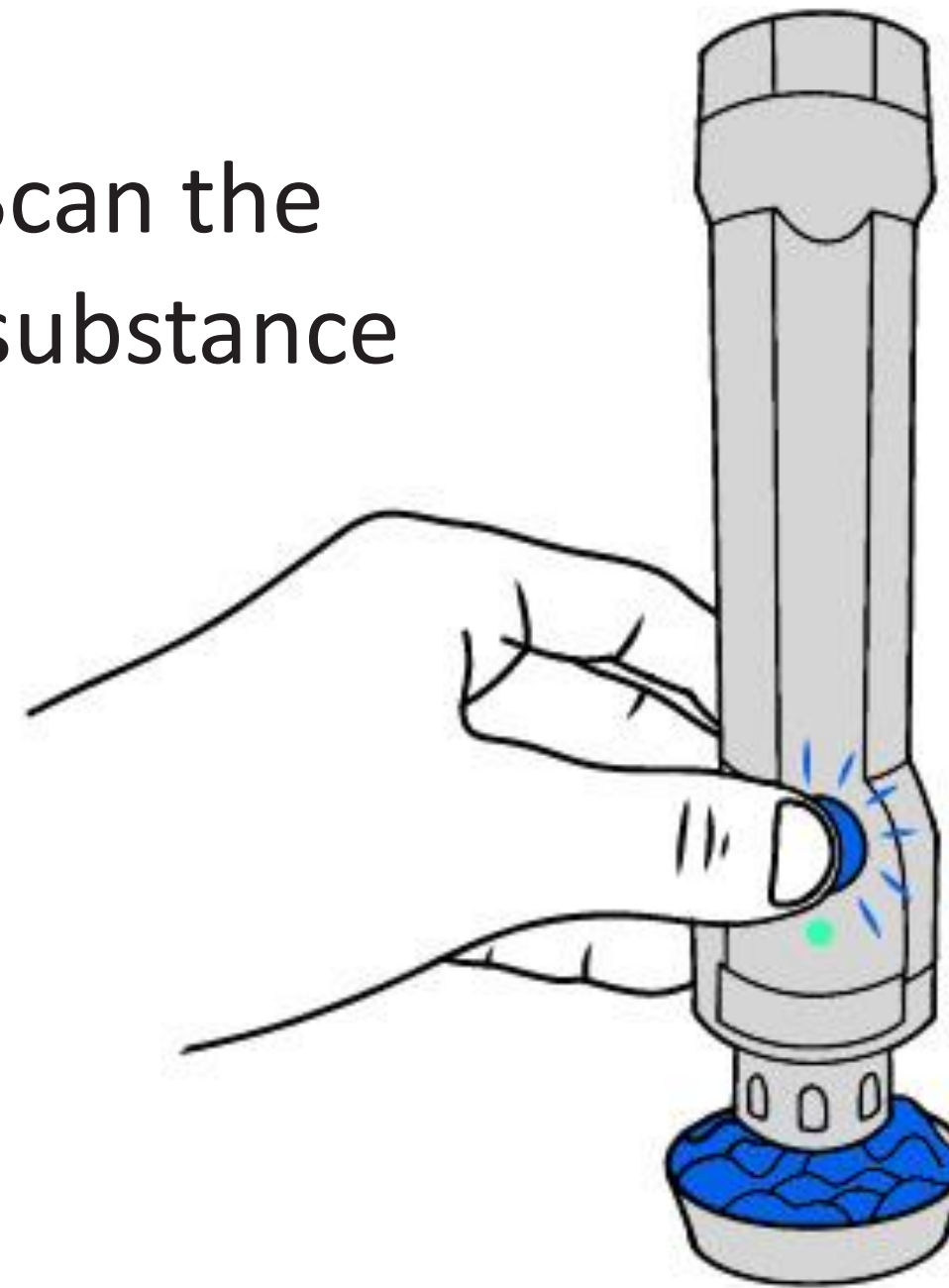
SIMPLICITY OF USE

3 Easy Steps to Reliable Results in Seconds

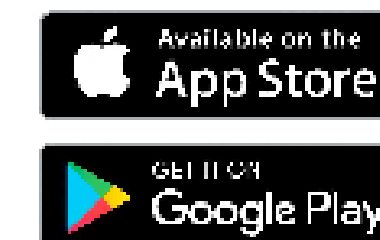
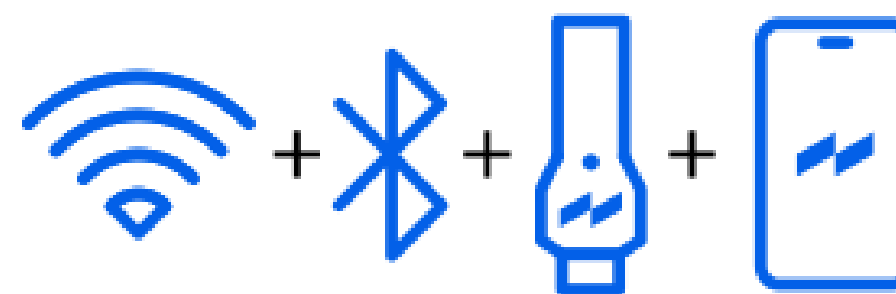
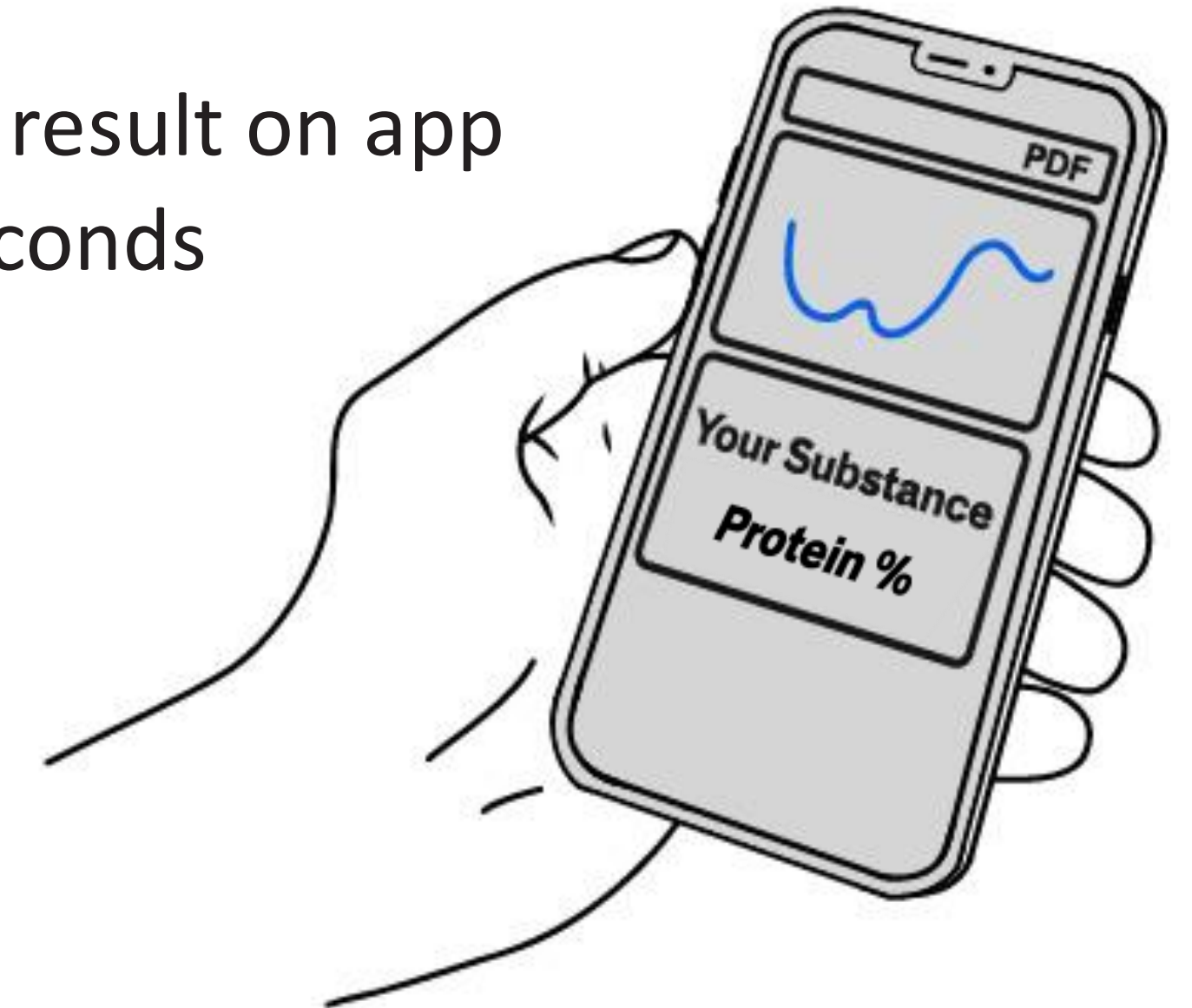
1. Connect the device



2. Scan the substance



3. Read result on app in seconds



What You Get with NIRLAB

A complete solution for fast, safe, and reliable analysis in the field.



NIRLAB SOLUTION

One Integrated System



Measurement Layer

NIR spectroscopy device capturing spectral data in the field

HARDWARE

The NIRLAB Solution operates as a **unified analytical system** combining measurement, analytics and operations into a seamless workflow.



Application Layer

Guided measurement workflow and instant results on the smart phone

MOBILE APP



Management Layer

Centralized control of data, analytical modes and user permissions

WEBPORTAL

Note: The NIRLAB solution is delivered as a complete package and is not offered as a standalone component

ANALYTICAL CAPABILITIES

Type of Analysis Supported

- Quantitative analysis**
Measurement of defined parameters
 for example, Protein, Fat, NPK, Organic Matter, etc
 (e.g., %, mg/kg)

- Qualitative analysis**
Identification and authentication of material types
 for example, Polymers, Food Supplements, etc

- Material Composition**
Simultaneous measurement of multiple components
 for example, Moisture, Fat, Protein, Fibre, Sugar
 (e.g., %, mg/kg)

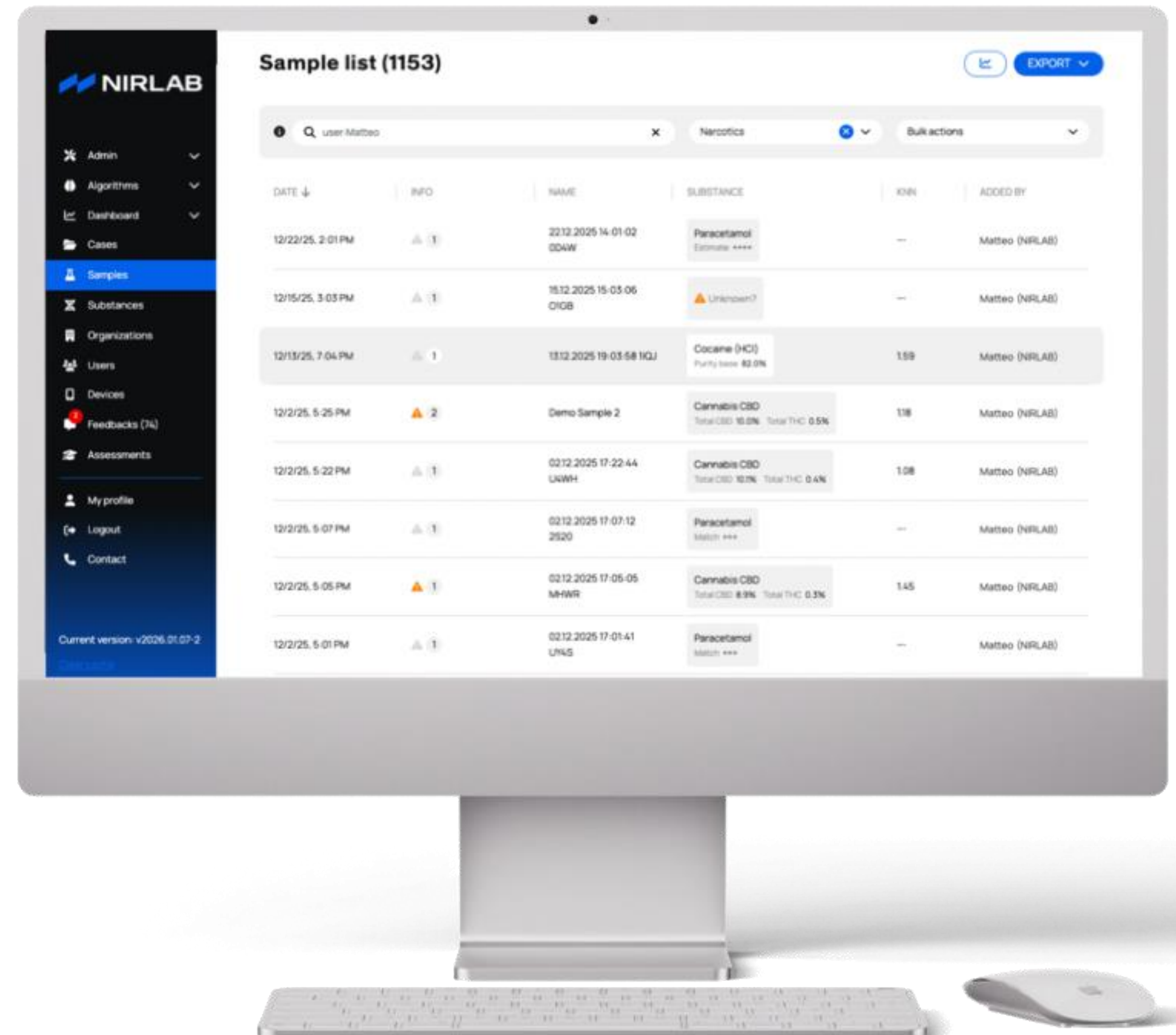


ANALYTICAL CAPABILITIES

NIRLAB Web App

Desktop app- and browser-accessible platform for data management.

- **Report history**
Centralized tracking and comparison of scans.
- **Simple data management**
Modify or clean up analysis records.
- **Export of data**
Easily export data to Excel.
- **Save as PDF**
Generate downloadable reports.
- **User Management**
Admin tools for organizations and users.



INDUSTRIES

We Deliver Instant Analysis across Industries

Our solution is suitable for industries where instant material analysis is required.



STANDARD APPLICATIONS

Ready-to-Use Solutions



Polymers



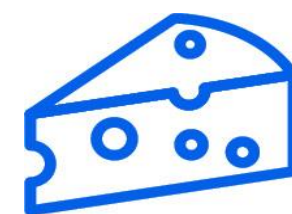
Rapid identification and classification of plastic types for recycling and QC.

Beef, Pork and Poultry Meat



Composition analysis for fat, protein, moisture and salt content in real-time.

Dairy



Quality assessment of cheese and composition monitoring during production and aging.

Olive



Quality parameters and authenticity verification for olives and oils.

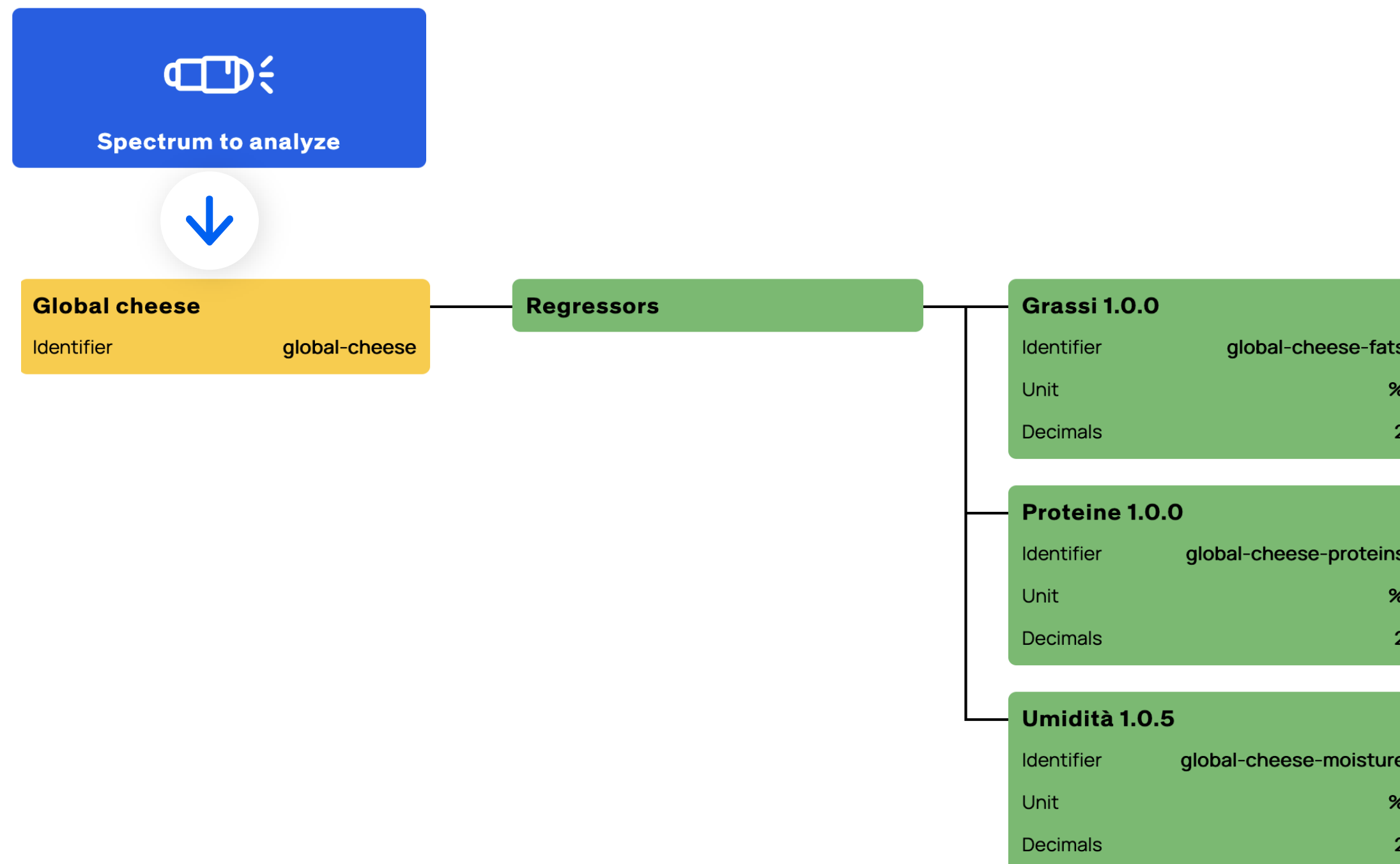


These applications are delivered within the integrated NIRLAB system and require **no additional development time.**

MODEL OWNERSHIP

Customer-Specific Models

Our approach to model development prioritizes data sovereignty and performance specificity. We treat each customer’s analytical needs as a unique environment.



Dedicated Development

Calibration models are developed specifically per customer and per application.



Exclusive Ownership

Customers retain full ownership of their models within the NIRLAB system.
Your data – your insights!



No Cross-Pollination

Models and reference data are never reused, shared or “anonymized” for use with other clients.

Adding Your Own Material

**01****Reference Samples**

Models are built using customer-specific reference samples to ensure the spectral data matches the exact material properties.

**02****Calibration & Validation**

Spectral data is correlated against certified lab results provided by customer to create robust algorithms, which are then validated for accuracy.

**03****System Deployment**

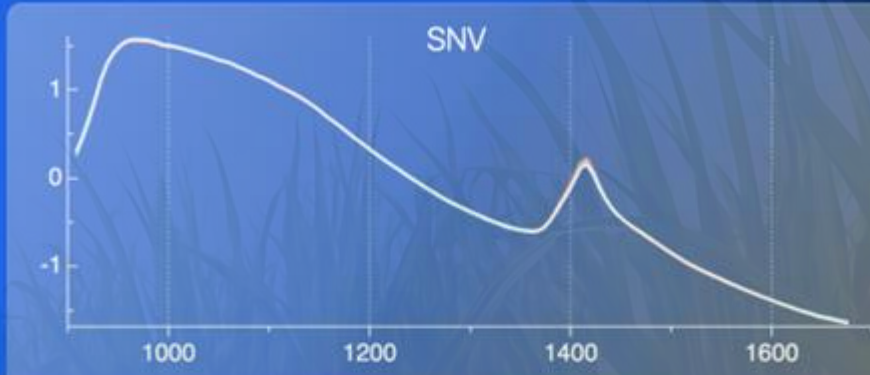
Validated models are deployed directly to the customer's specific NIRLAB system instantly, ready for field use.


USE CASES

Agriculture



740928
PDF





Soil - Denmark

6.5a.u.

PH

Error: ± 0.2a.u.

Phosphor:	2.3mg/100g	± 0.6mg/100g
Kalium:	13.6mg/100g	± 3.1mg/100g
Magnesium:	11.2mg/100g	± 1.8mg/100g
ORGS:	2.0%	± 0.5%
TOC:	0.6%	± 5.0%
TON:	13.6%	± 1.9%
Schluff:	15.3%	± 1.5%
Feinsand:	41.4%	± 2.7%
Großsand:	35.3%	± 4.7%

Measure list
Purity

<
Close
>



04.03.2026 15:59:49 XSBC
PDF





Olive

16.1%

Fat

Error: ± 1.2%

Fiber:	4.1%	± 0.5%
Moisture:	70.2%	± 0.9%
Protein:	0.8%	± 0.2%
Salt:	2.3%	± 0.4%

Measure list
Purity

#1

Olive

Fat : 16.1%

Fiber : 4.1%

Moisture : 70.2%

Protein : 0.8%

Salt : 2.3%

<
Close
>

USE CASES

Food



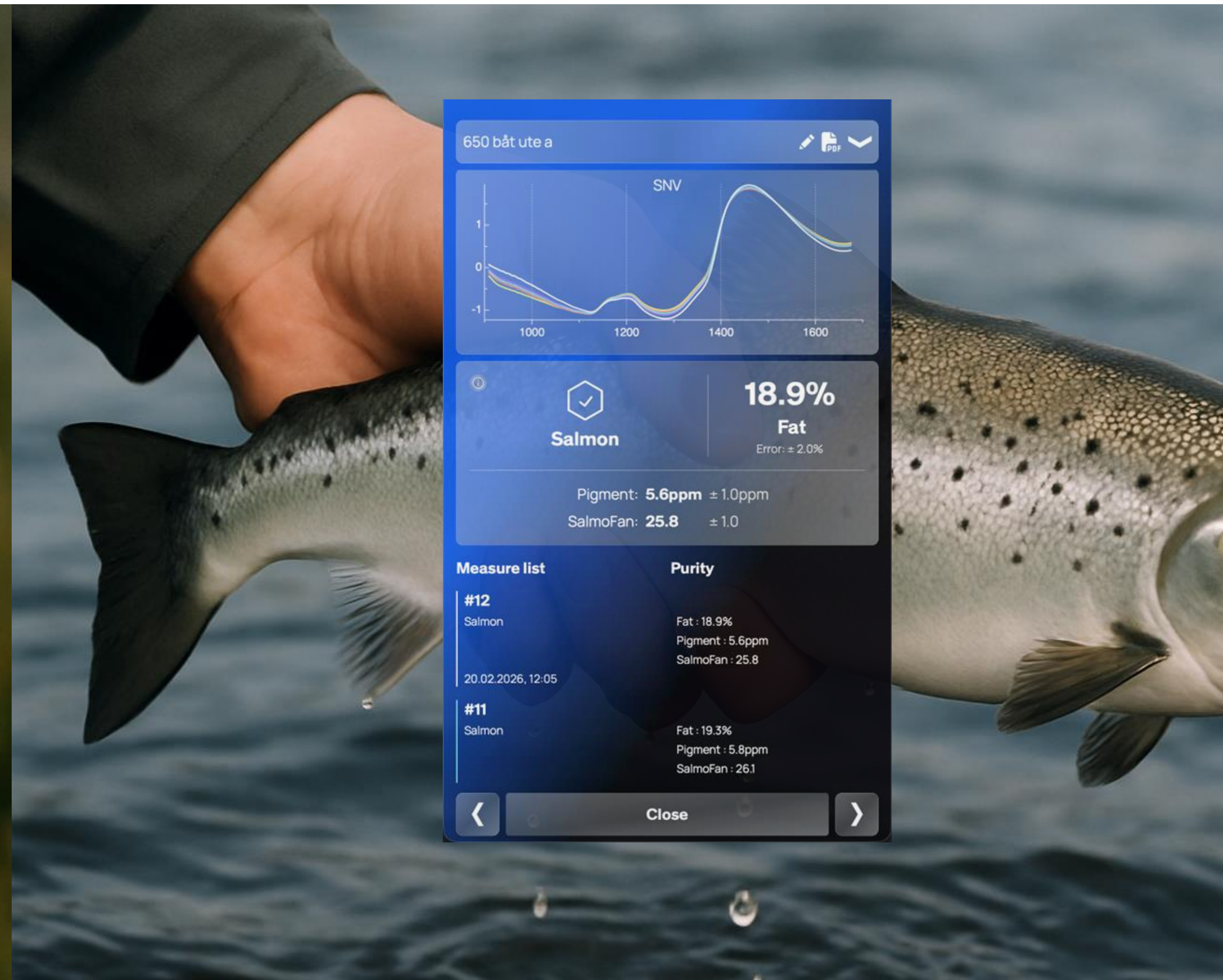
11/11/2025 10:23:29 AM ICVS

Global cheese **Fats** **29.45%**
Error: ± 2.88%

Proteins: **36.78%** ± 0.6%
Moisture: **28.98%** ± 2.62%

Measure list	Purity
#1 Global cheese	Fats : 29.45% Proteins : 36.78% Moisture : 28.98%
11.11.2025, 10:23	

Close



650 bắt ute a

Salmon **Fat** **18.9%**
Error: ± 2.0%

Pigment: **5.6ppm** ± 1.0ppm
SalmoFan: **25.8** ± 1.0

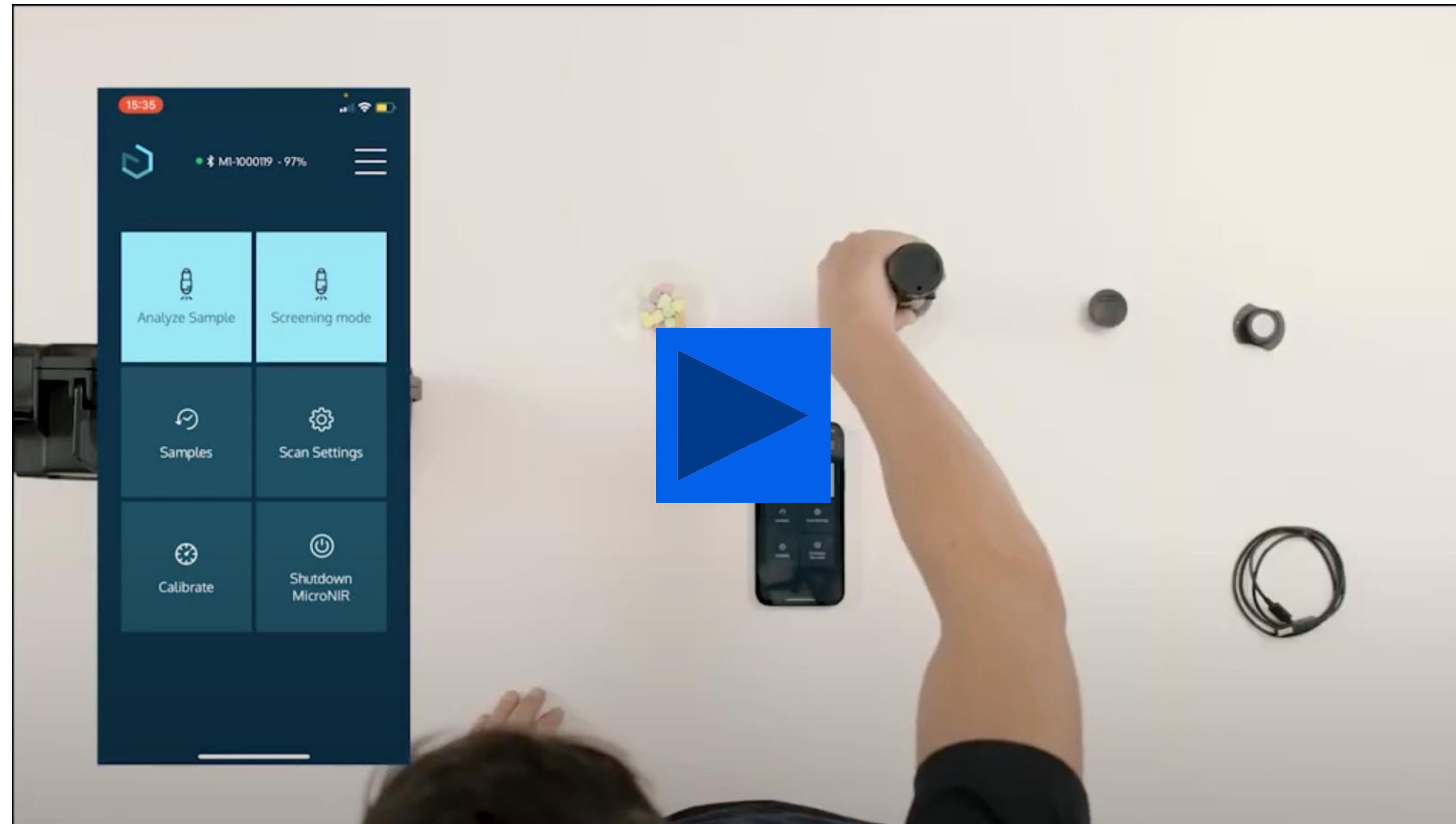
Measure list	Purity
#12 Salmon	Fat : 18.9% Pigment : 5.6ppm SalmoFan : 25.8
20.02.2026, 12:05	
#11 Salmon	Fat : 19.3% Pigment : 5.8ppm SalmoFan : 26.1

Close

DEMO

Product Demo

Watch here....



<https://www.youtube.com/watch?v=eMlzH3ltd14>

**READY TO GET
STARTED?**

Contact Our Team

contact@nirlab.com
www.nirlab.com

Headquartered in Switzerland
Serving Clients Globally


YOUR SOLUTION

- 1** **Scope Definition**
Define specific, application requirements,
target materials and parameters.

FEASIBILITY

- 2** **Project Execution**
Establish feasibility, outline the deployment
roadmap and agree on the timelines and
milestones.

BUILDING

-  **Deployment**
System delivery, user training and go-live
support for your team.

GO-LIVE