



Creating
Industrial Intelligence

Petcore Europe & KÖR

Project introduction

12th September 2023

KÖR participants @ Petcore Europe – KÖR webinar

- Bernd Schwarz – General Manager DACH, Project manager of Petcore Europe
- Ludwig Coenen – Technical Business Development Director DACH, Petcore Europe client manager
- Balázs Kereskényi – Head of Digital Transformation
- Bence Ujlaki – Product Manager
- Mercedesz Trum – Chief Marketing Officer
- Zsolt Puskas – General Manager

KÖR in a nutshell

25+ years industrial background.

Roots from Quality-management.

Focused development in TIC business since 2018.

Branch offices:

- for Western-Europe in Düsseldorf (DE)
- for Central and Eastern Europe in Budapest (HU)

Delivered solutions through Digital marketplace:

- Testing
- Analysis
- Measurement
- Validation
- Calibration
- Failure analysis

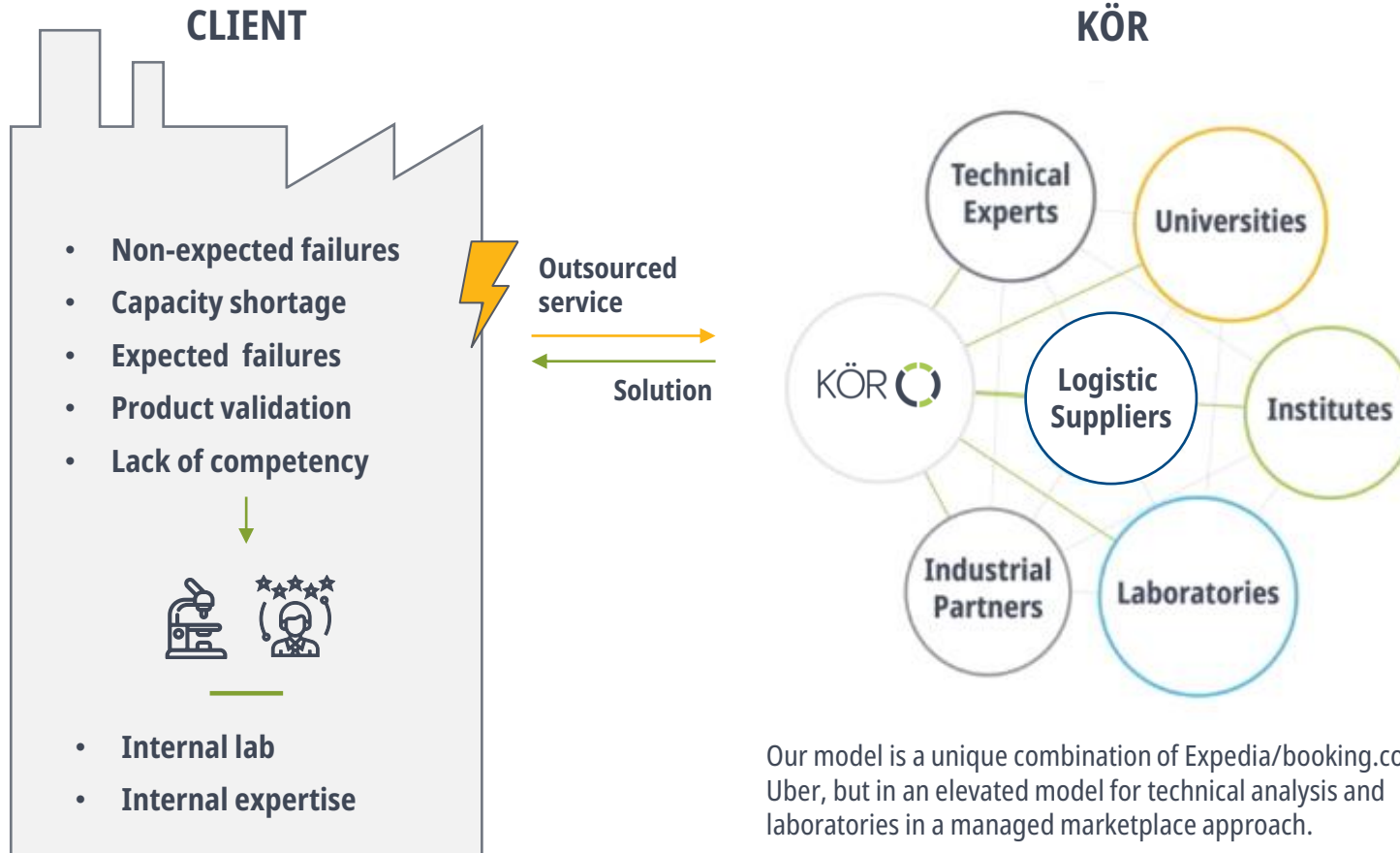
Wide competency network: 3000+ laboratories activated in Europe:

- Independent laboratories
- Universities
- Institutes
- Manufacturers

Supported industrial sectors:

- Chemical
- Automotive
- Electronics
- Aerospace
- Heavy and other transportation

Our concept to support clients



KÖR organizes its vast vendor base as an integrator with their competencies to a network for its clients' disposal.

Our strategic pillars



Driving operational innovation

Two-sided marketplace provides a new, standardized method for KÖR clients and testing laboratories to find each other, communicate, exchange data, and do business.



Providing value-added solutions

Currently there is no market player that besides operating a two-sided marketplace also provides solution on top that covers the rest of the workflow.



Understanding the power of data & data security

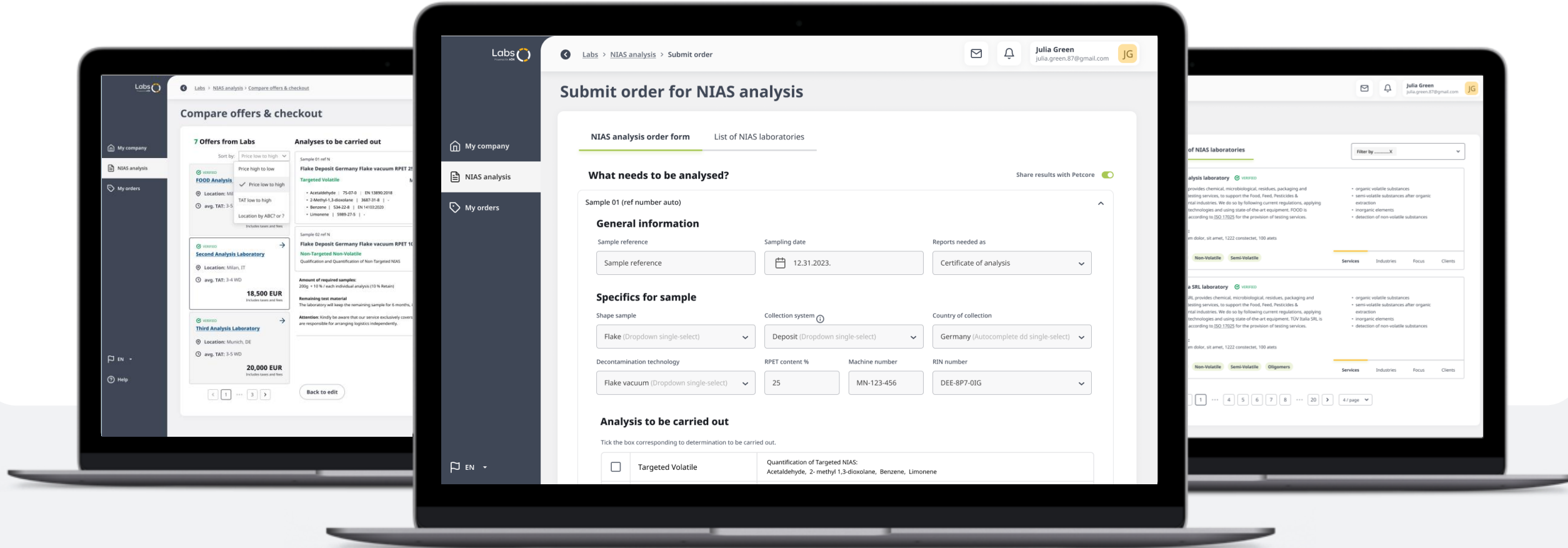
Labs was designed with data privacy in mind. The implemented multi-level user permission solution ensures that valuable information is always in the right hands for insightful decision-making.



Creating a market network

KÖR's two-sided marketplace - **Labs** will create a true potential of a market network of industrial players, where transactions can happen between everyone and everything.

Labs: Your testing platform.



Petcore Europe & KÖR Accompany Letter

Accompany Letter

Petcore Europe, NIAS Working Group, KÖR official Accompany Letter

Signed by:

- **Casper van den Dungen** – Chairman, NIAS Working Group
- **Martin Stephan** – Secretary General, Petcore Europe
- **Gyula Tóth** – CEO, KÖR

Members will receive this Accompany Letter.



Introduction of Labs platform for Monitoring PET NIAS Accompany Letter

Working group NIAS of Petcore; Harmonized NIAS measurements - Offering Labs, KÖR's online platform for the PET value chain to harmonize compulsory measurements.

As Petcore Europe is representing already more than 170 members of the PET value chain, it has decided to create an online platform that offers supply and demand for harmonized NIAS measurements. The basis of the measurements was already set by the published guidelines for NIAS measurements* back in 2020. Trails of these measurements have been performed by taskforce which was presented on the Petcore Europe conference in 2023. The NIAS Working Group is responsible for organizing the introduction of this platform.

By the introduction of the new regulation for direct food contact applications EN 2022/1816, extra NIAS data are requested for the development of the novel technology but also for the monitoring of the suitable technology. The target of the platform is to create a harmonized concept which enables all members of the value chain to order PET NIAS measurements. The reports will be in a standard digital format which will facilitate the monitoring function of the various results in time. A special database function will be integrated which can be used to manage the monitoring function. As different reports and monitoring will be required 3 different Databases will be created individually have secured and limited access. These sub-platforms are the following:

- **Functional Barrier Group** (to facilitate the novel technology reporting to DG Sante and it's monitoring)
- **Depolymerization Working Group** (to facilitate the BHET reporting to DG Sante and it's monitoring)
- **Geni Group** (to facilitate the NIAS reports and monitoring of bottles and trays throughout the PET value chain)

For the demand of NIAS measurements all Petcore Europe members of these groups will be offered to contribute to use the Labs online platform.

For the supply of NIAS measurements, many laboratories are targeted to contribute to this platform as the required capacity and the today presented ones will require this. As the harmonization requires a validated level playing field, it is required that the different laboratories need to comply to base the monitoring of the results on a repeatable quality level. A proficiency test is required for the laboratories to secure the contribution of the results to this platform. We do understand that PET NIAS measurements can consist of targeted and non-targeted substances. The proficiency test will need to address both options to assure consistency in the results.

The Labs online platform is provided by KÖR (www.kor-group.com), a company that has been selected to tailor-made their existing and proven, cloud-based supply and demand solution to all Petcore Europe Members. They need to be able to order NIAS measurements at various laboratories. As KÖR is working in a 17085 ISO and in a 27001 ISO environment, specific requests are needed to build the functionality of the platform. As Petcore Europe we seek the support and cooperation of facilitating information and opportunities to help building this harmonized concept of supply and demand for NIAS measurements.

Casper van den Dungen
Chairman - NIAS Working Group

Martin Stephan
Secretary General - Petcore Europe

Gyula Tóth
CEO - KÖR

Understanding the challenge

The screenshot shows the 'Submit order for NIAS analysis' page. It includes a sidebar with 'My company', 'NIAS analysis', and 'My orders'. The main content area has a header 'Submit order for NIAS analysis' and a sub-header 'NIAS analysis order form'. Below this, there's a section 'What needs to be analysed?' with a 'Sample 01 (ref number auto)' and a 'List of NIAS laboratories'. The form is divided into several sections: 'General information' (Sample reference, Sampling date, Reports needed as), 'Specifics for sample' (Shape sample, Collection system, Country of collection, Decontamination technology, RPET content %, Machine number, RIN number), 'Analyses to be carried out' (a table of checkboxes for various analyses), and 'Migration assessment' (Overall migration (OMT), Specific migration (SMT)).

Submit order for NIAS analysis

NIAS analysis order form

What needs to be analysed?

Sample 01 (ref number auto)

General information

Sample reference

Sampling date

Reports needed as

Specifics for sample

Shape sample

Collection system

Country of collection

Decontamination technology

RPET content %

Machine number

RIN number

Analyses to be carried out

Tick the box corresponding to determination to be carried out.

Analysis	Description
<input type="checkbox"/> Targeted Volatile	Quantification of Targeted NIAS: Acetaldehyde, 2-methyl-1,3-dioxolane, Benzene, Limonene
<input type="checkbox"/> Non-Targeted Volatile	Qualification and Quantification of Non-Targeted NIAS
<input type="checkbox"/> Targeted Semi-Volatile / Non-Volatile	Quantification of Targeted NIAS: Bisphenol A, Ortho-phthalates
<input type="checkbox"/> Non-Targeted Semi-Volatile	Qualification and Quantification of Non-Targeted NIAS
<input type="checkbox"/> Non-Targeted Non-Volatile	Qualification and Quantification of Non-Targeted NIAS
<input type="checkbox"/> Oligomer	Qualification of Oligomers

Migration assessment

Overall migration (OMT) ☒ Specific migration (SMT)

10 days 20°C Terephthalic acid (Dropdown single select) Metal Type your...

- Performing testing
- Mandatory reporting - secured database
- Sustainable production

The screenshot shows the 'Compare offers & checkout' page. It includes a sidebar with 'My company', 'NIAS analysis', and 'My orders'. The main content area has a header 'Compare offers & checkout'. Below this, there's a section '7 Offers from Labs' with a 'Sort by' dropdown (Price low to high, Price high to low, Price low to high, TAT low to high, Location by ABC? or ?). The offers are listed in a table with columns for 'Offer', 'Price', 'Location', and 'TAT'. The offers are: 'First Analysis Laboratory' (18,500 EUR), 'Second Analysis Laboratory' (20,000 EUR), and 'Third Analysis Laboratory' (20,000 EUR). To the right, there's a section 'Analyses to be carried out' with a table of checkboxes for various analyses. At the bottom, there's a 'Back to edit' button.

Compare offers & checkout

7 Offers from Labs

Sort by: Price low to high

Price high to low

Price low to high

TAT low to high

Location by ABC? or ?

Includes taxes and fees

Offer	Price	Location	TAT
First Analysis Laboratory	18,500 EUR	Milan, IT	3-4 WD
Second Analysis Laboratory	20,000 EUR	Munich, DE	3-5 WD
Third Analysis Laboratory	20,000 EUR	Munich, DE	3-5 WD

Analyses to be carried out

Sample 01 ref N

Flake Deposit Germany Flake vacuum RPET 25%

Targeted Volatile

Migration assessment

Sample 02 ref N

Flake Deposit Germany Flake vacuum RPET 100%

Non-Targeted Non-Volatile

Qualification and Quantification of Non-Targeted NIAS

Amount of required samples: 200g + 10 % / each individual analysis (10 % Retain)

Remaining test material

The laboratory will keep the remaining sample for 6 months, in suitable conditions

Attention: Kindly be aware that our service exclusively covers the core offering, and are responsible for arranging logistics independently.

Back to edit

Our solution

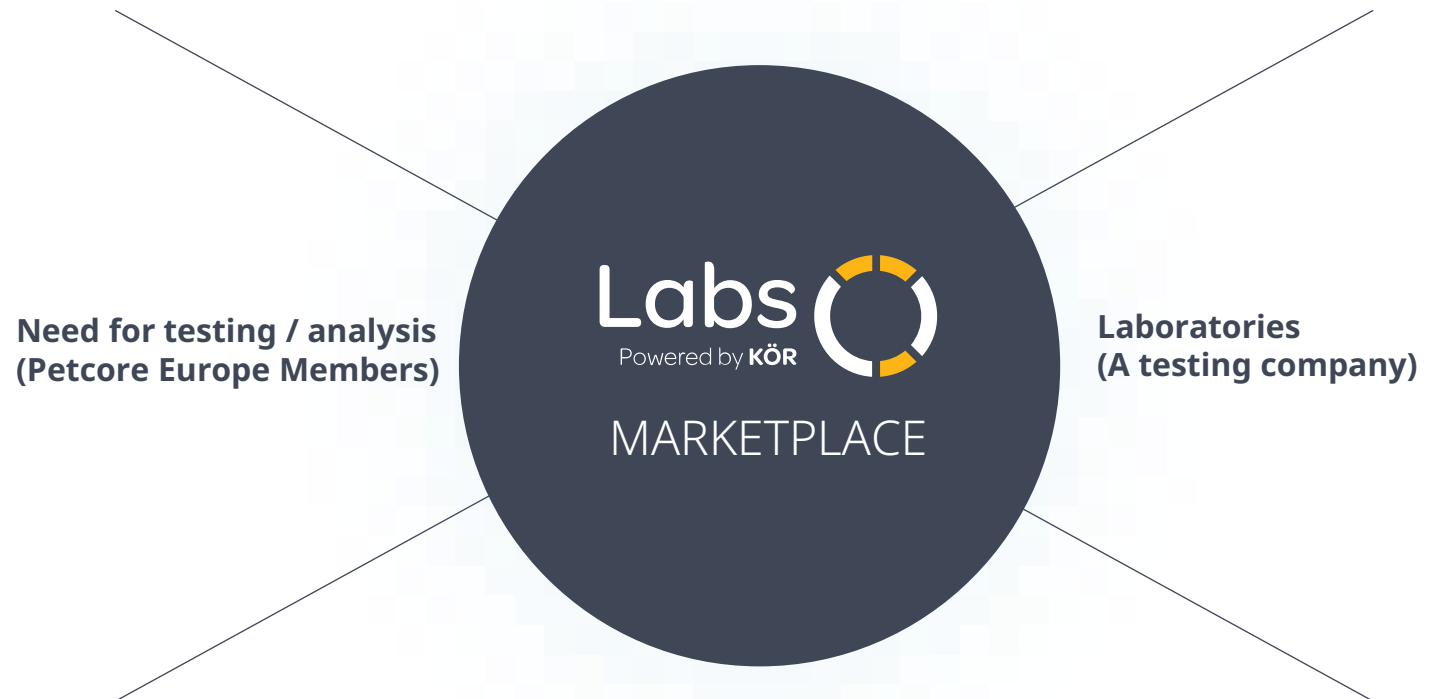
Digital marketplace for lab request.

Labs, a two-sided managed marketplace. Integrated bubble especially tailored for **Petcore Europe members**

- to find the right testing partners,
- to order tests,
- to optimize laboratory costs,
- to have centralized results,
- to have standardized results,
- to support the mandatory reporting for NT as per Art 10 and 32 of EU 2022/1616
- to have accessible and secured data

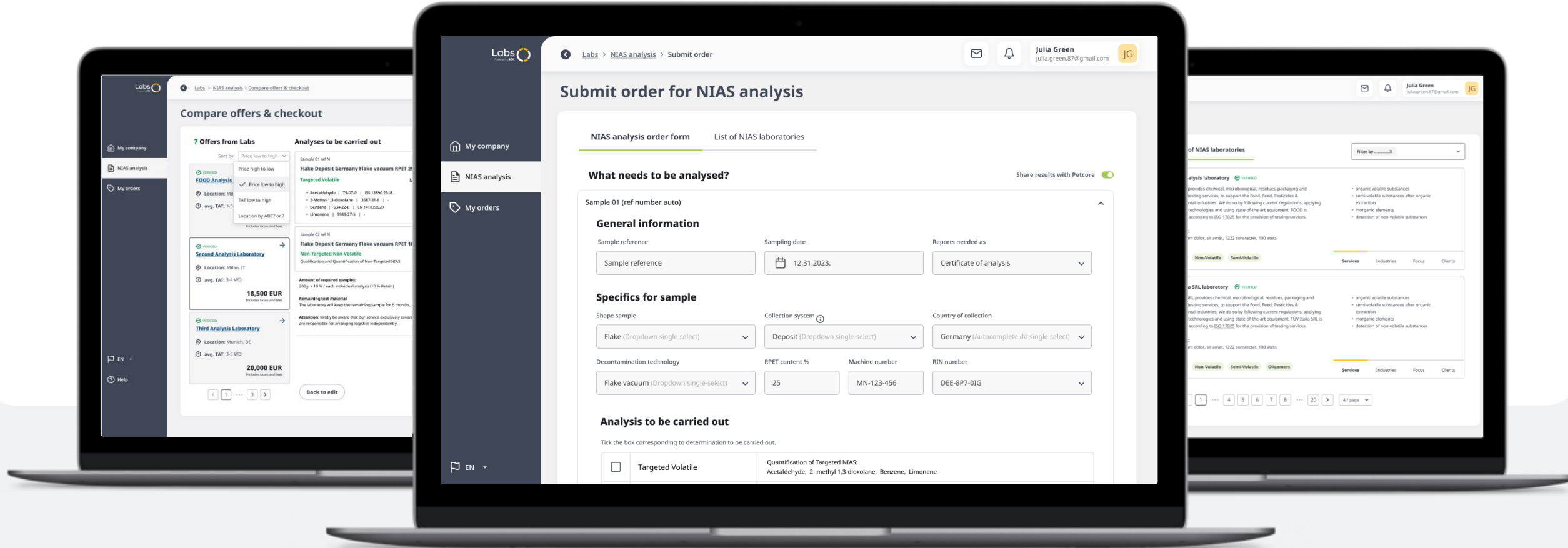
All in all:

- to be able to simplify and optimize the process of **Food Content Material Testing** through our **Labs Marketplace**.



Showtime 😊

Building the right platform with a standardized Petcore Europe layout concept



Data flow and data privacy

All data flows are protected by NDAs between each parties:

- Laboratories only see the data which is required to perform an analysis
- Analysis results are private to members or shared with Petcore Europe
- KÖR provides a dedicated Data Bank for Petcore Europe
- Data access authorization strategy differentiated per stakeholder



Customer

A screenshot of a web application interface for submitting an order for NIAS analysis. The form is titled "Submit order for NIAS analysis" and includes sections for "General information", "Specimens for sample", "Analysis to be carried out", and "Migration assessment". The "General information" section includes fields for "Sample reference", "Sampling date", and "Reports needed as". The "Specimens for sample" section includes a table with columns for "Sample", "Collection system", "Country of collection", "Decomposition technology", "RFET content N", "Machine number", and "Kit number". The "Analysis to be carried out" section includes a table with columns for "Analysis" and "Quantification and Qualification of Non-Targeted NIAS". The "Migration assessment" section includes a table with columns for "Migration assessment" and "Analysis".

Safety of data & data confidentiality

- KÖR is ISO 27001 certified, and any software solution we build complies with that, thanks to our robust internal quality management system.
- **Labs** is a cloud-based software, hosted in EU-based servers.
- Production data is separated from testing data, and there are well-defined access levels within the company to make sure even KÖR colleagues won't have unjustified access to customer data.
- According to data flows, and data protection policies, we have a closed system that won't get any 3rd parties tapping into customer data accidentally.

	Customer	Laboratories	FBTF subcontractor For monitoring reports
Lab name			
Company Name			
Sample reference			
Sample reception date			
Date of request			
Date of analysis			
Sample supplied (Flakes, pellets, preform, bottle, sheet, tray)			
Country of collection			
Collection system			
Decontamination technology			
rPET content (%)			
Results (for targeted NIAS = value in ppm)			
Results (for screening = GC/LC curve)			
Sample preparation conditions, thermal desorption conditions or solvent extraction conditions, GC or LC equipment brand and type, and type of detectors, Calibration method, Mass spectroscopy conditions with library reference)			
LOD and LOQ for each targeted substance, individual results of triplicates			
For non targeted : Identification, molecular weight, elemental composition, (level of confidence), CAS number, CMR or not			

Marketplace related release plan

The initial version of the NIAS analysis in **Labs** will roll out by **the end of October**.

The **following features** will be available for all Petcore Europe members:

- ordering NIAS analysis, including migration assessments
- access to multiple laboratories, with real-time pricing
- repetitive ordering
- access to reports and certificate documents

Beta testing - volunteering

- Being a beta tester, is a closed early adopter program, run by Petcore Europe and KÖR jointly.
- Beta testers are more than welcome, and if you are interested, please reach out to **Raphael Jaumotte**.
- It is only a couple of hours of your time.
- Deadline: 15th September 2023.

Based on Petcore Europe members' feedback, we plan to **roll out more features to Labs** later.

Next steps involving members and laboratories

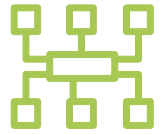
FOR PETCORE EUROPE MEMBERS

1. Project kick-off for Petcore Europe Members (today)
2. Onboarding Petcore Europe Members
3. Live system by end of October
4. Order you tests happily :-)

FOR LABORATORIES

1. Lab search and identification (from July 2023 continuously)
2. Qualification (Round Robin Tests)
3. Onboarding the pre-selected/early adopter Laboratories
4. Onboarding Laboratories by end of October and beyond

Working with KÖR you will have benefits



Single gate service complying to
Petcore Europe/ EU regulations



Standardized, good quality data



Saving cost & time
to focus on core competencies



Comparable data network



Wide laboratory network
competitive test-prices guaranteed



Certified Laboratories



Data security and accessibility acc.
to ISO27001 requirements



Technical support along your testing needs

KÖR contacts



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Thank you!

www.kor-group.com

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