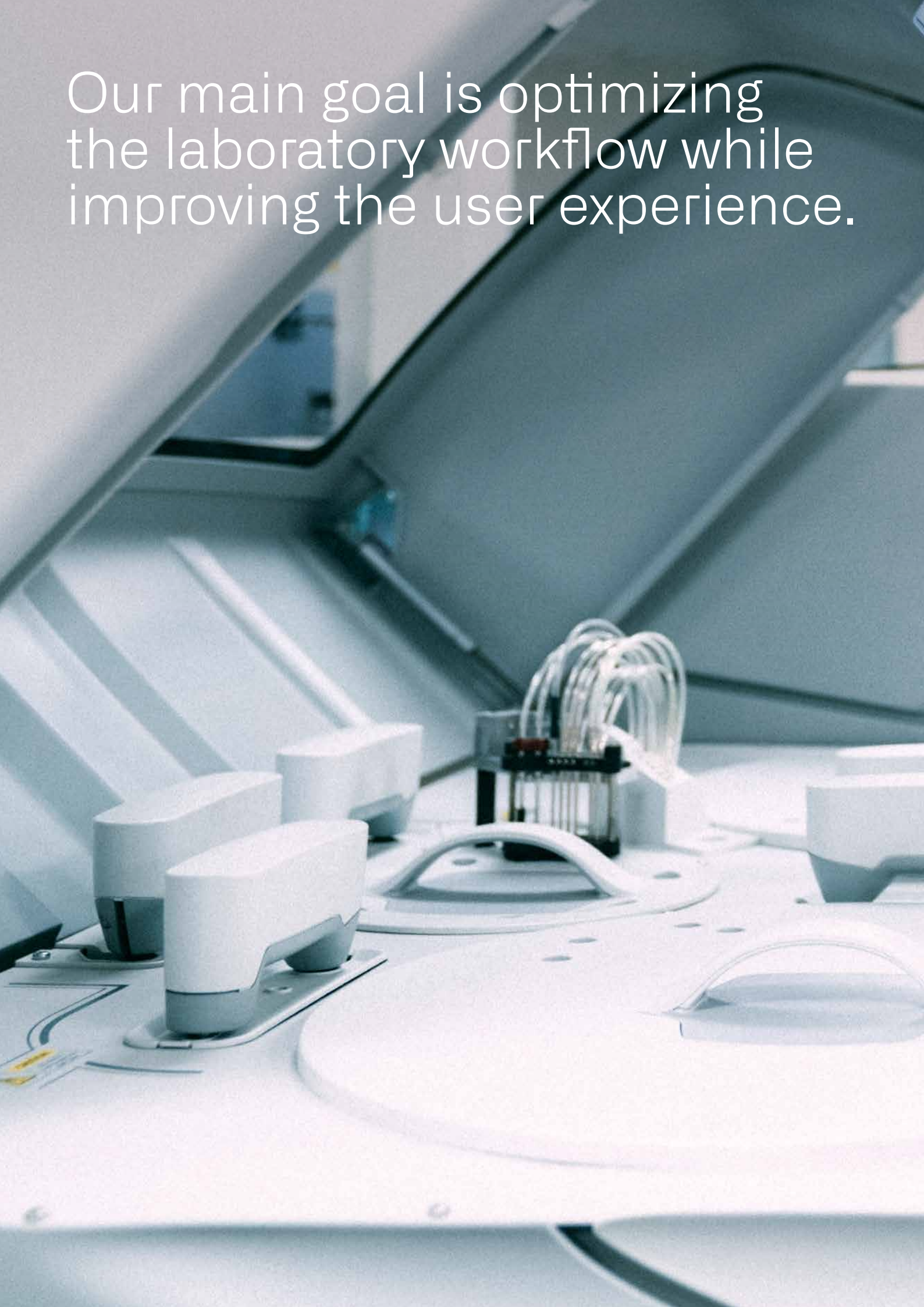
Efficiency & Autonomy

BioSystems

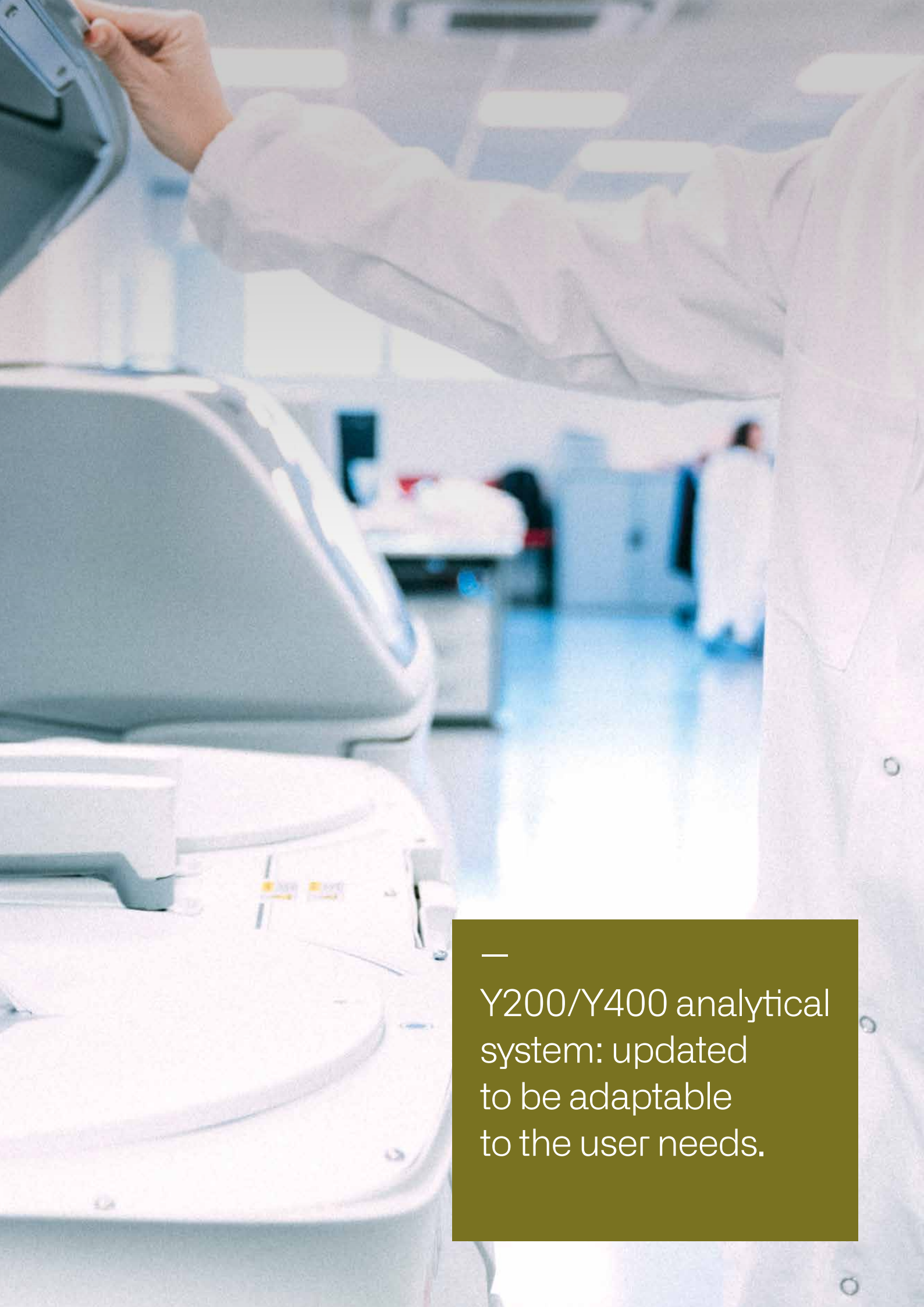
Y200/Y400
Multiparametric analyser

Food & Beverage analysis

human - centred biotech



Our main goal is optimizing the laboratory workflow while improving the user experience.



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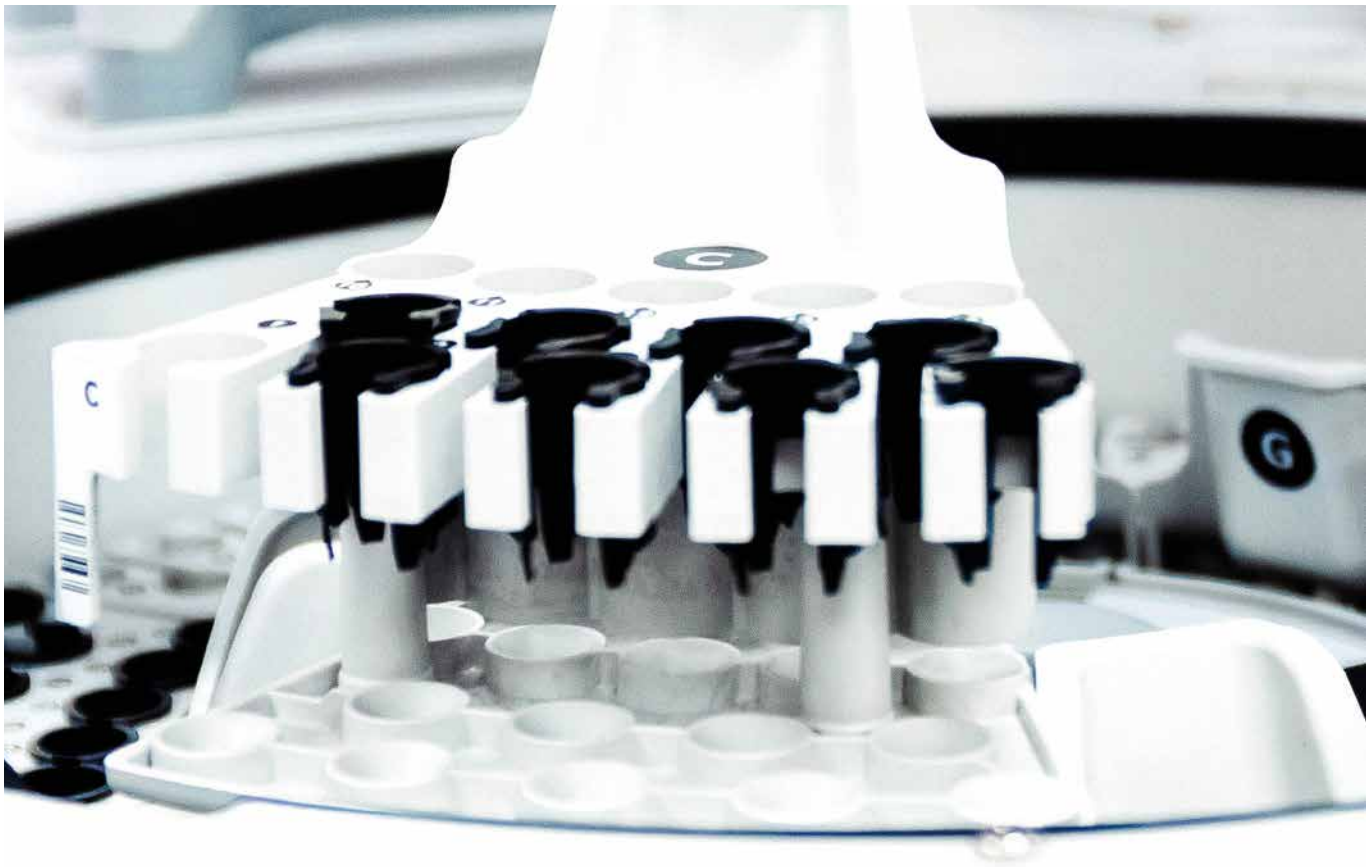
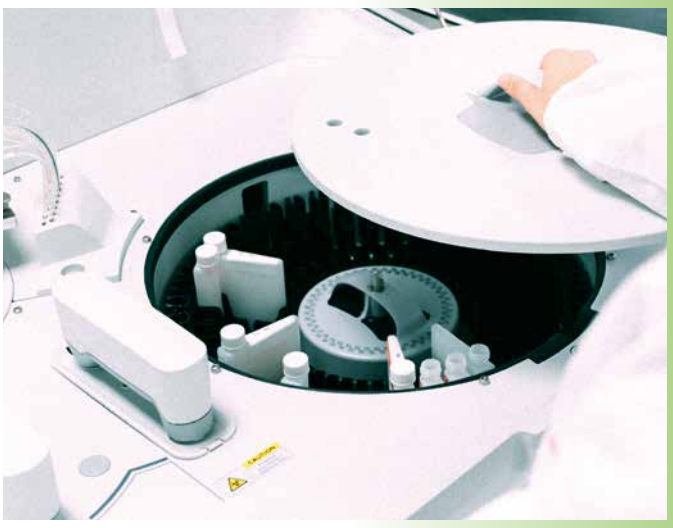
Y200/Y400 analytical system: updated to be adaptable to the user needs.

Technological innovation

Continuous loading
New Y400 segmented rotor, designed for speeding up the samples loading process. Moreover, It saves time required by operator.

Optimizing reactions
The set of pumps, ceramic pistons and stirrers improve the results repeatability and reproducibility. Furthermore, the new automated pre and post dilutions prepared inside the reaction rotor shows better accuracy.





Simplifying your job
The automation saves time and avoid manual procedures. Barcode reader and liquid volume detection helps to manage the reagent amount in any moment.

Reliable and validated system
Dedicated and validated reagents guarantee a robust and reliable analytical system.

Environmentally friendly
Automatic washing station minimize consumables and establishes a continues baseline quality control of the cuvettes. The separated connections of high and low concentration waste save time in your laboratory sustainability.

Highest performance, minimal maintenance
Optic based in LED technology offers reliability and reduces the maintenance.

Smart efficiency
New sensors offer a better control of the analyser performance. The diagnose provides more accurate information about the issues in case of alarms.

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Take care
of your wine,
we take charge
of its analysis.

Analytical solutions

Since 2008, we offer solutions for wine analysis in order to improve the quality and safety of the wine.

From discussions with industry and understanding sector needs, our professional team and technical colleagues help the experts of the wine industry. We develop and validate analytical systems that are accurate and reliable to offer you an excellent user experience.

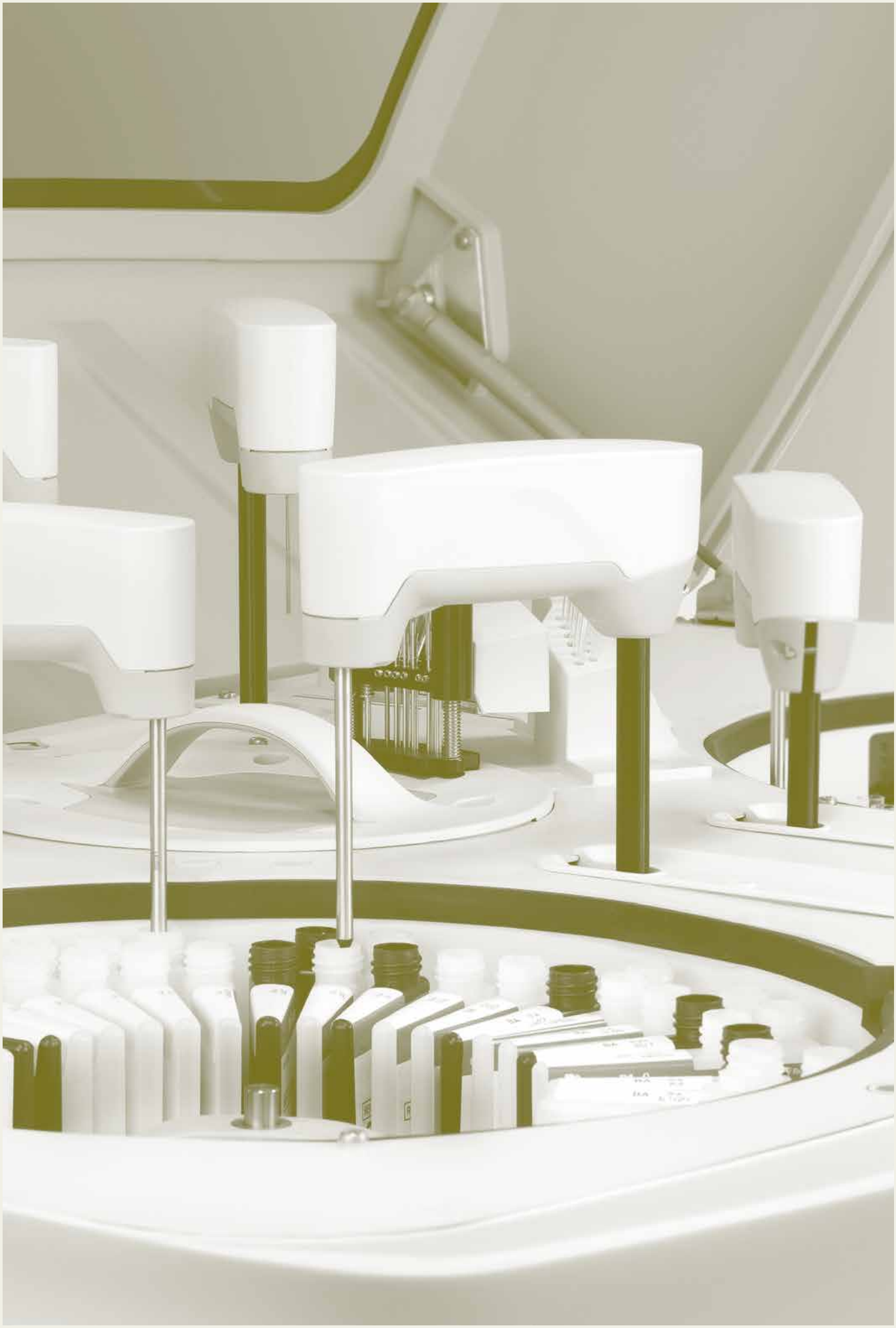
Finding the best solution at the same time we continuously improve together. Thus, we offer a personal assistance, giving you technical and scientific support in any moment.

At BioSystems, our main aim is to help our users and customers in their daily job monitoring wine processes to make the right decisions during the winemaking.

Technical & scientific support

Remote assistance

Customized assessment



Y200/Y400 parameters

Organic acids
Acetic Acid
Ascorbic Acid
Citric Acid
D-Gluconic Acid
L-Lactic Acid
L-Malic Acid
Sorbic Acid
Tartaric Acid

Sugars
D-Glucose/D-Fructose/Sucrose
D-Glucose/D-Fructose

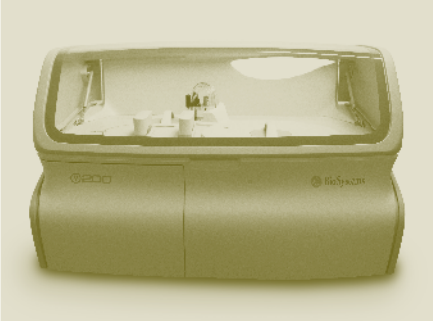
Ions
Calcium
Copper
Iron
Potassium

Calibration and control materials
High Glucose/Fructose Control
Ions Multical
Multical
Sulfite Control
Red/White wine control

Other parameters
Acetaldehyde
Anthocyanins
Catechins
Colour
Glycerol
PTI (Total Polyphenols Index)
pH
Polyphenols
Total Acidity

Nitrogenous substances and sulfites
Ammonia
PAN
Free Sulfite
Total Sulfite

Y200



Y400

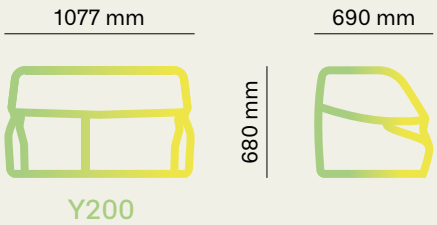
Technical specifications

Highlights

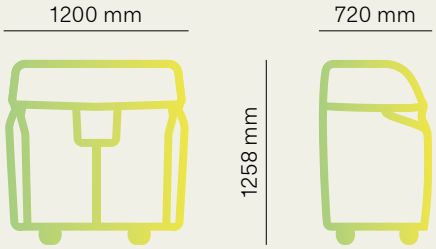
- Speed of 200 cycles/h (Y200) and 400 cycles/h (Y400).
- Mean throughput of 200 results/h (Y200) and 400 results/h (Y400).
- High capacity of samples and reagents (refrigerated).
- LIS/LIMS system adaptability for ASTM, HL7.
- Washing station system and quality control for cuvettes.
- LED optic technology with dynamic baseline.

Ordering information

Description	Code	Format
Y200 analyser	83020	-
Y400 analyser	83040	-
Extra segmented rotors + sample wells (pediatric cups) adaptors (Y400)	AC17457	3 units
Reaction rotor	AC11485	10 units
Wheeled table + computer support	AC17346	1 unit
Wheeled table	AC17345	1 unit
Concentrated washing solution	AC16434	500 mL
Acid washing solution (WS1)	AC17201	4 x 20 mL
Alkaline washing solution (WS2)	AC17205	4 x 15 mL
Concentrated alkaline washing solution (WS3)	AC17800	2 x 60 mL
Sample wells (pediatric cups)	AC10770	1000 units
Reagent bottles 60 mL + caps	AC16362	10 units
Reagent bottles 20 mL + caps	AC16363	10 units
Amber reagent bottles 60 mL + caps	AC16364	10 units
Amber reagent bottles 20 mL + caps	AC16365	10 units
Sample/Tube opened adaptor	AC16360	90 units
Sample/Tube closed adaptor	AC16361	45 units
Sample adaptor for sample/reagent shared rotor	AC17268	45 units



Y200



Y400

Throughputs

Speed	200 cycles/h (Y200) and 400 cycles/h (Y400)
Mean throughput	200 results/h (Y200) and 400 results/h (Y400)*

Samples rotor

Samples rotor capacity	88 positions in shared samples and reagents rotor (Y200). 126 samples positions in 9 segmented rotors (Y400).
Barcode reader	External
Samples position available for barcode	9/segmented rotor
Size of primary tubes	Size of primary tubes 12 mm or 16mm (max. height 100 mm)
Sample well diameter	13.5 mm
Sample types	Grape-juice, sulfited grape-juice, white wine, rosé wine, red wine, beer, cider, and other alcoholic beverages.
Dispensing pump	Ceramic pump of high durability
Sample pipetting volume	From 2 µL to 40 µL
Pipetting resolution	0.1 µL
Predilution ratio	From 1:2 to 1:40
Clot sensor	Yes
Tip wash	Inside and outside

Reagents rotor

Volume of reagent bottles	20 mL, 60 mL
Reagents rack capacity	88 (44 bottles of 20 mL or 60 mL + 44 reagent bottles of 20 mL) (Y400). Share samples and reagent rotors with the same positions (Y200).
Cooled reagent	Yes
Temperature range of fridge	6 to 11 °C (at 21 °C)
Barcode reader	Yes
R1 volume	90 µL to 300 µL (Y200) 120 µL to 450 µL (Y400)
R2 volume	10 µL to 100 µL (Y200) 10 µL to 300 µL (Y400)
Dispensing mode	Ceramic pump without maintenance
Pipetting resolution	1 µL
Tip wash	Inside and outside

Reaction rotor

Reaction volume range	From 180 µL to 440µL (Y200) From 180 µL to 600 µL (Y400)
Number of wells	120
Well material	UV methacrylate
Type of incubation	Dry without maintenance
Temperature	37.0 °C
Temperature accuracy	± 0.2 °C
Stirrers	2
Washing station for cuvettes	7 tips (2 washers, 3 cleaners and 2 aspirators)

Optical system

Light Source	LED
Lightpath	6 mm
Wavelengths	340, 405, 420, 430, 505, 520, 560, 600, 620, 635, 750 nm
Photometric range	-0.2 to 3.5 A
Internal resolution	0.0001 A
Reading accuracy	CV <1% to 0.1 A
(for 340, 405 and 505 nm)	CV <0.1% to 2 A

Size and weight

Size (w., d., h.)	1077 x 690 x 680 mm (Y200) 1200 x 720 x 1258 mm (Y400)
Weight	166 Kg (Y200) / 210 Kg (Y400)

Electrical and environmental requirements

Mains voltage	115 to 230 V
Mains frequency	50 or 60 Hz
Electric power	500 VA
Ambient temperature	De 10 a 35 °C
Relative humidity	<85% non-condensing
Altitude	<2500 m

Fluid requirements

Water inlets	External tank or main net
Water type	Distilled Water Type II
Water consumption	<9 L/h (Y200) / <14 L/h (Y400)
High concentrated waste	3 L (Y200) / 5 L (Y400)
Washing solution	3 L (Y200) / 5 L (Y400)

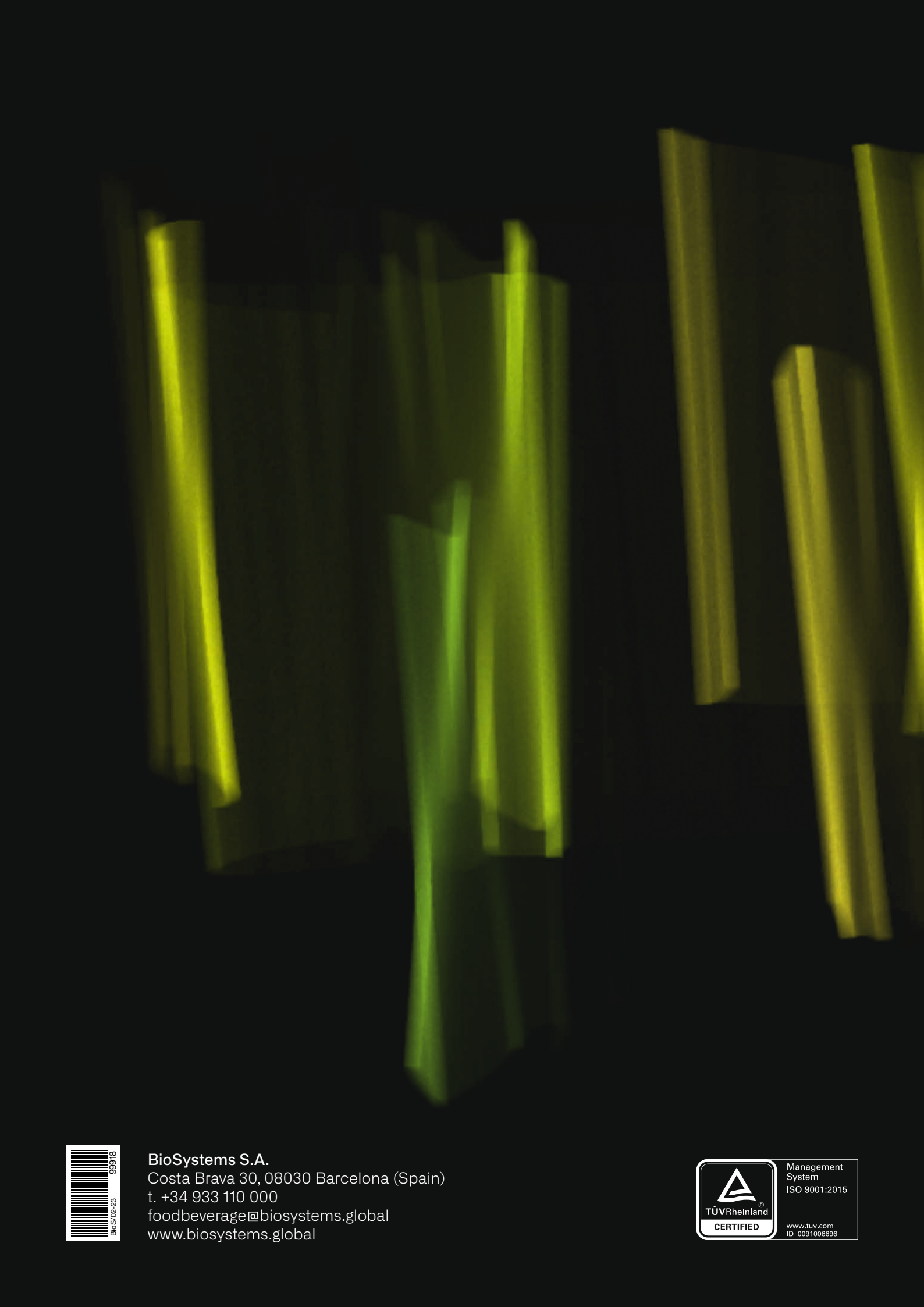
Minimum computer requirements

Operative system	Windows® 10/11 64 bit (x64)
CPU	Intel Core i3 equivalent @3.10 GHz or higher
RAM	8 GB
Hard Disk	40 GB or higher
Monitor minimum resolution	1024x768
Connector of serial channel	USB

Laboratory inform on systems (LIS)

Connectivity to LIS	HL7 and ASTM Protocol

*Average value, final throughput will depend on the configuration of the worklist and the analyte.



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