



Simplifying Progress

This is Sartorius

Company Presentation | February 2023

**SARTORIUS**

# Partner of Life Science Research and the Biopharmaceutical Industry

## Our mission


We empower scientists and engineers to simplify and accelerate progress in life science and bioprocessing, enabling the development of new and better therapies and more affordable medicine.



## Our vision


We are a magnet and dynamic platform for pioneers and leading experts in our field. We bring creative minds together for a common goal: technological breakthroughs that lead to better health for more people.

# Sartorius in Brief




60+

Locations worldwide,  
headquartered in Göttingen, Germany




~16,000

Employees<sup>1</sup>




~€4.175bn

Sales revenue<sup>2</sup>



33.8%

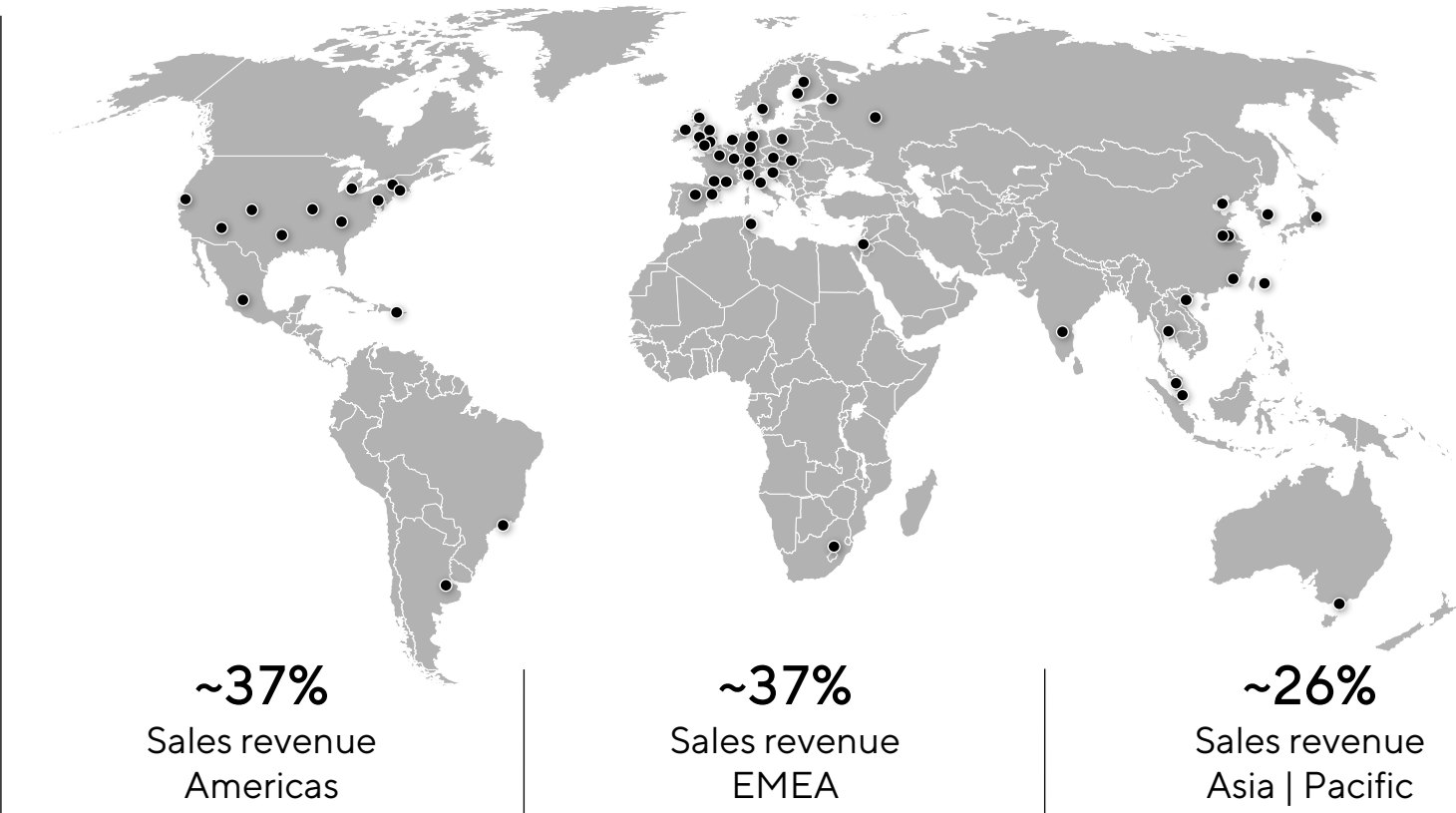
EBITDA margin<sup>2,3</sup>



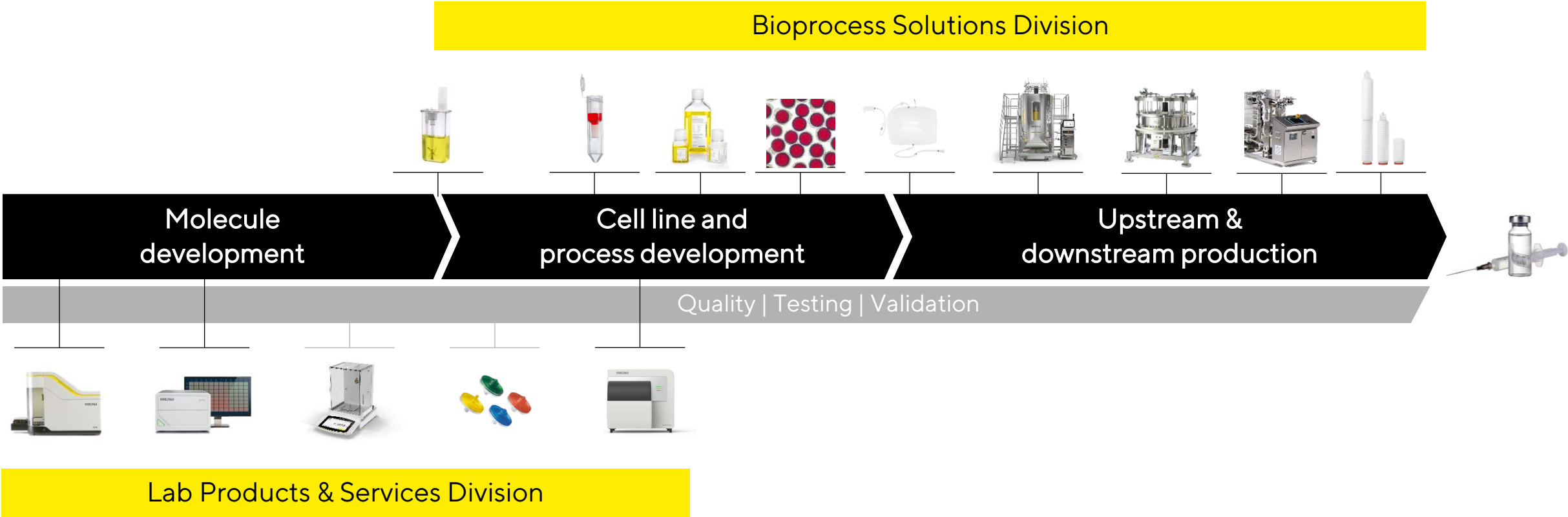
~€24.1bn

Sartorius AG market capitalization<sup>1</sup>;  
listed on the DAX and TecDAX

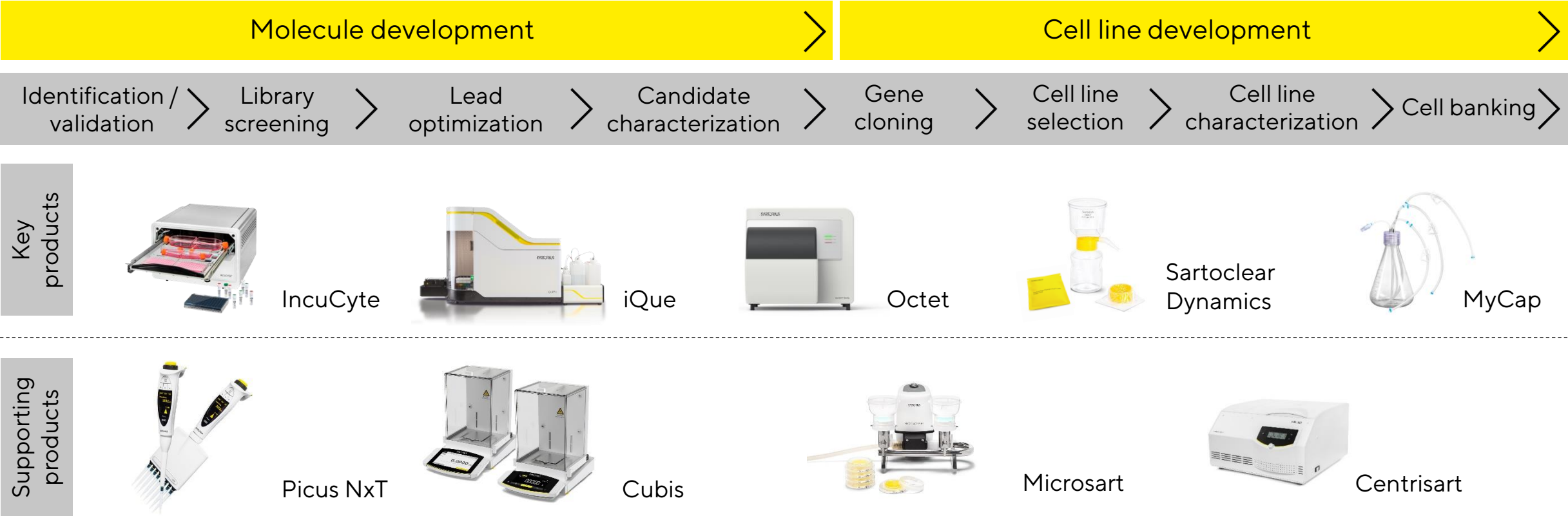
1 As of December 31, 2022, 2 FY 2022, 3 Underlying EBITDA



# Strategic Focus on the Biopharma Market



# Our Solution: Technologies to Accelerate Drug Discovery and Development





# Octet® BLI System for Antibody Characterization

- ✓ Parallel processing of up to 96 samples; non-destructive and in real-time
- ✓ Quantitation or binding kinetics measured directly in unpurified samples
- ✓ Ease of use with minimal maintenance - perfect for multi-user environments



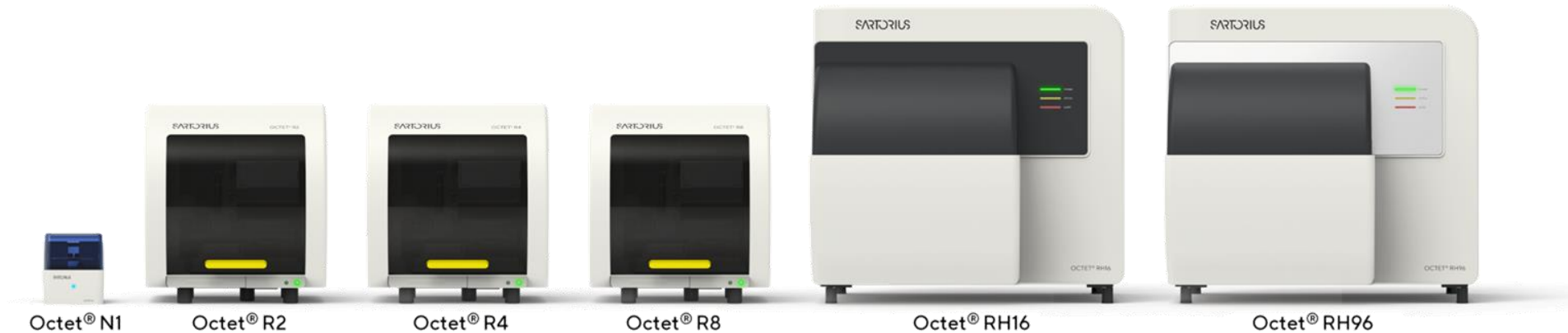
# Octet® Platform Basics

## A label-free biomolecule analysis platform based on Biolayer Interferometry (BLI) Technology

- Biomolecules can be analyzed on this platform in their native versions. They do not have to be labeled with any fluorescent markers/tags/dyes.
  - Label-free technologies provide opportunities for probing biomolecular interactions without spatial interference or the auto-fluorescent or quenching effects of labels.

### BLI Technology

- Proprietary label-free technology platform that enables both quantitative and kinetic analysis of a biologic molecule
- Ability to detect small molecules ~ 150 Da to ~ 1M Da, large proteins, virus particles and bacterial cells
- Analytical capabilities include protein concentration (c), binding specificity (yes / no), affinity ( $K_D$ ) and kinetics ( $k_{on}$ ,  $k_{off}$ )

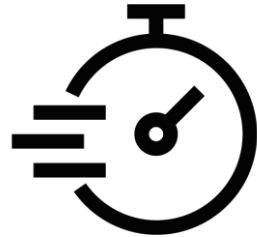


# Types of Information Generated Using the Octet® Platform



## Binding Specificity

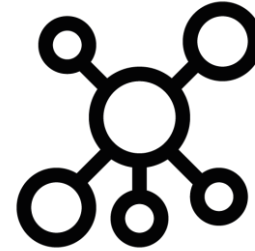
Do the molecules  
interact?



## Binding Kinetics:

What is the rate of the  
interaction?

$k_a$ ,  $k_d$



## Binding Affinity:

How tightly do the  
molecules bind?

$K_D$ ,  $K_A$   
Relative Ranking



## Concentration

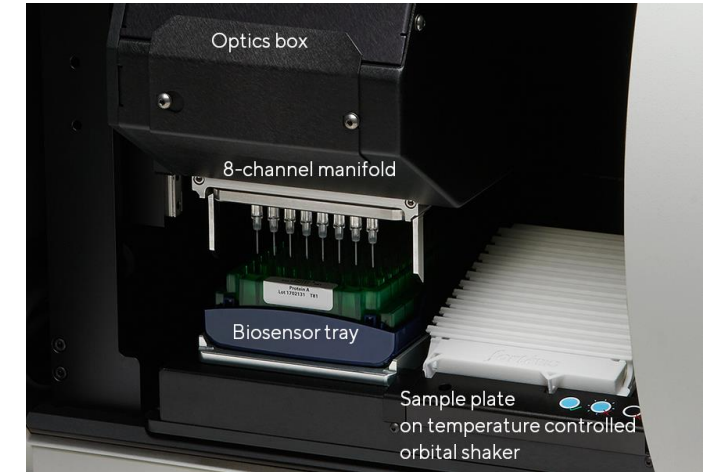
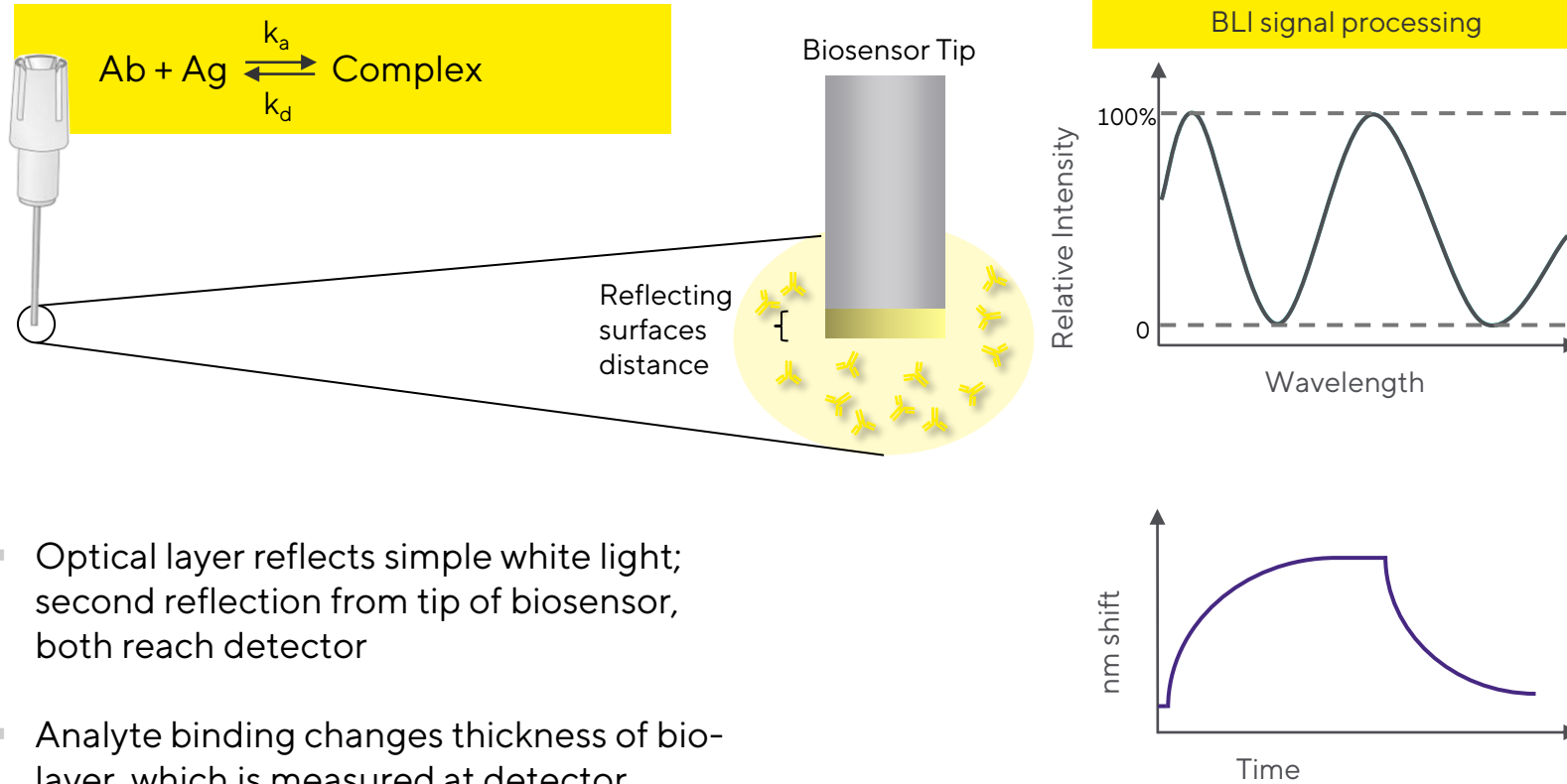
### Analysis:

How much analyte  
is there?



# The Octet<sup>®</sup> Technology

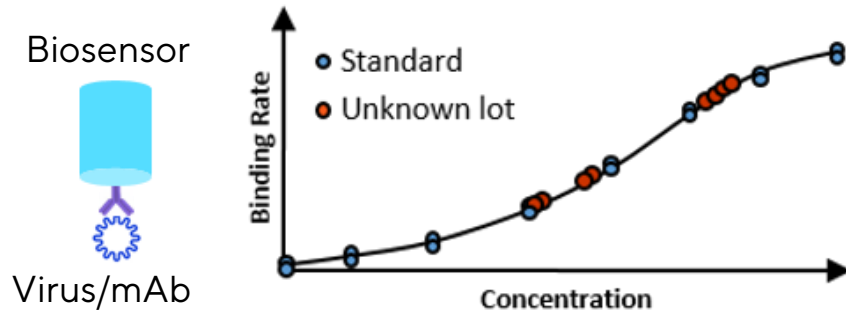
## Monitoring bio-layer thickness shift (nm-shift) over time



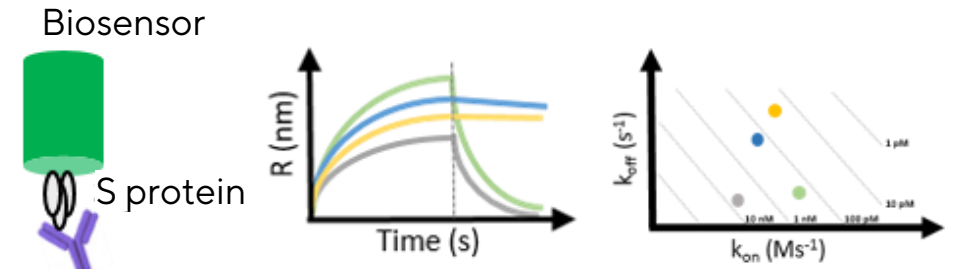
Binding response is measured in real time as a function of increasing biomolecular density on the biosensor surface

# Octet® Platform Usage in Antibody and Vaccine Research

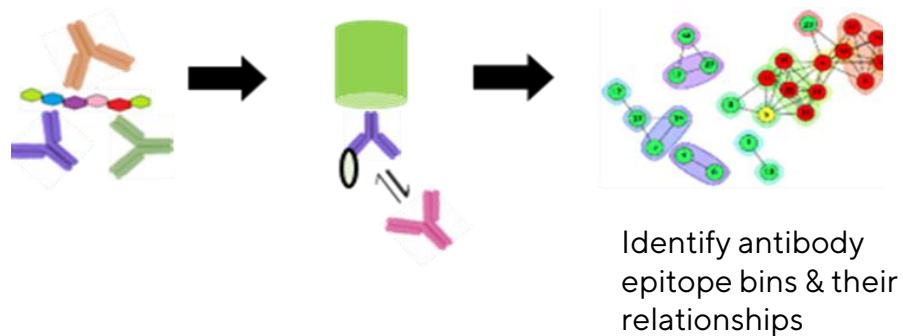
## Monitor Titer, Vaccine Potency & Stability



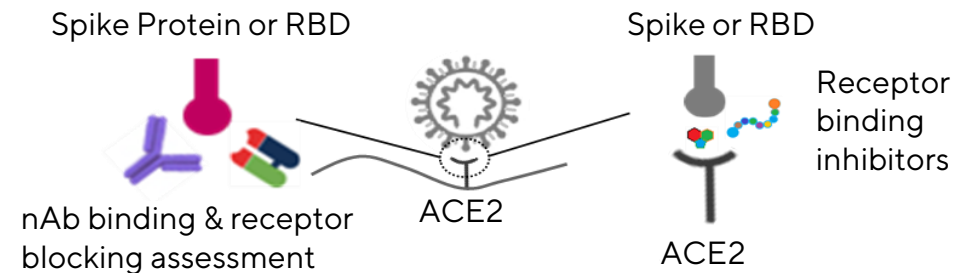
## Screen & Evaluate Binding Kinetics & Affinities of Antigens in Real-time



## Assess Epitope Diversity & Coverage



## Investigate Virus – Human Receptor Interactions, nAb & Inhibitor Development



Thank you.

**SARTORIUS**