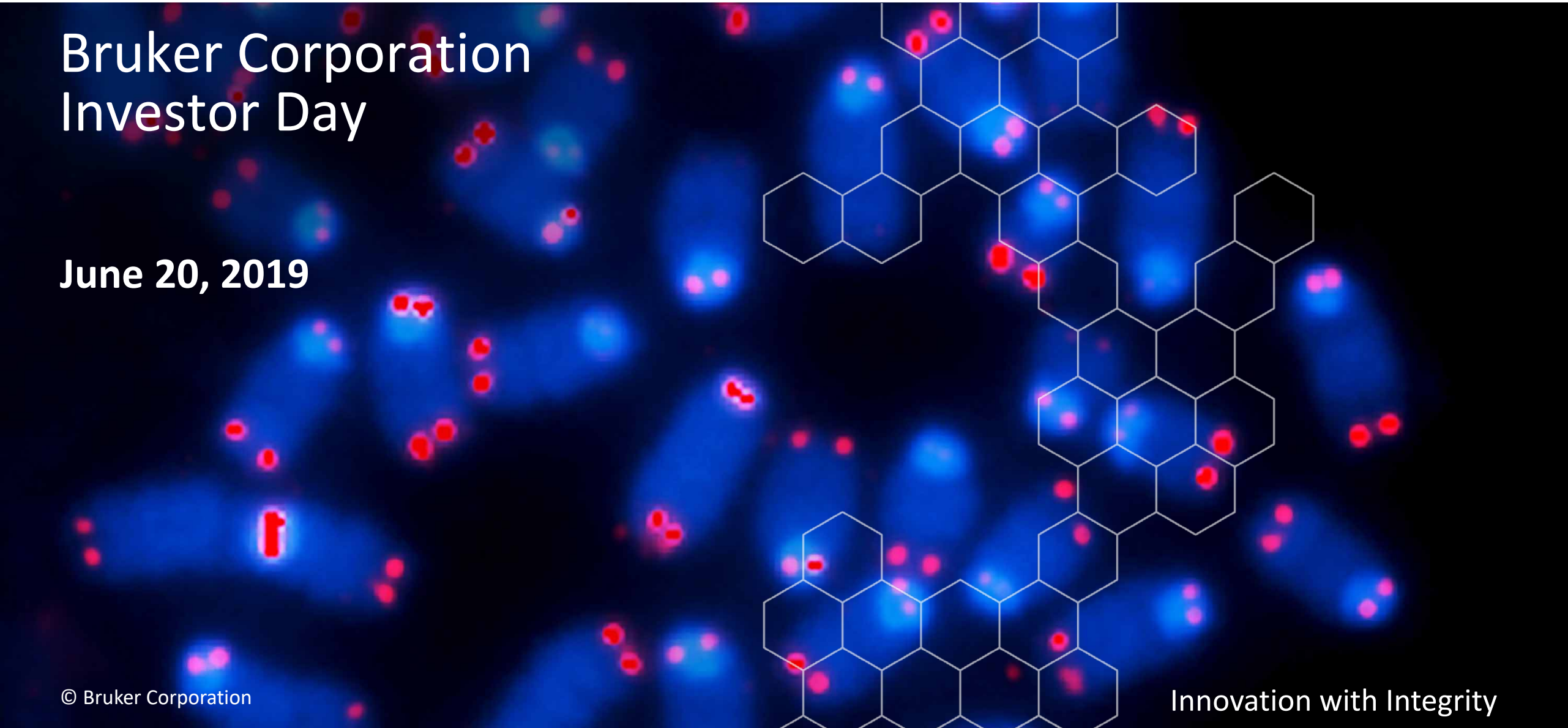
Bruker Corporation Investor Day

June 20, 2019



Innovation with Integrity

Bruker Corporation

Safe Harbor Statement

Any statements contained in this presentation that do not describe historical facts may constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Security Exchange Act of 1934, as amended, including statements regarding management's expectations for future financial and operational performance, expected growth and business outlook; statements regarding our business and investment focus; expected success of our portfolio or technology investments; and payments of any future dividends. These statements include words such as "anticipate", "expect", estimate", "future", "plan", "goals", and similar terms. Forward-looking statements are based on current expectations, forecasts and assumptions of our management and are subject to risks and uncertainties that could cause actual results to differ materially from those indicated, including, but not limited to, risks and uncertainties relating to: adverse changes in conditions in the global economy and volatility in the capital markets; the integration of businesses we have acquired or may acquire in the future; fluctuations in foreign currency exchange rates; implementation of strategies for improving our operating margins, profitability and cash flow; changing technologies; product development and market acceptance of our products; the cost and pricing of our products; competition; dependence on collaborative partners, key suppliers and contract manufacturers; capital spending and government funding policies; changes in governmental regulations; the use and protection of intellectual property rights and other risk factors discussed from time to time in our filings with the Securities and Exchange Commission, or SEC. These and other factors are identified and described in more detail in our most recent reports filed with the SEC, including, without limitation, our annual report on Form 10-K for the year ended December 31, 2018, our most recent quarterly reports on Form 10-Q and our current reports on Form 8-K. We expressly disclaim any intent or obligation to update these forward-looking statements other than as required by law.

Agenda

Time	Subject	Presenter
7:45am	Registration and breakfast	
8:00am	1) Bruker Transformation & New Strategy (30 min)	Frank H. Laukien, President & CEO
8:30am	2) Neuroscience & Cell Microscopy Initiative 3) Semicon Metrology & Nanotech Initiative (25 min)	Mark R. Munch, PhD, President, Bruker NANO Group
8:55am	4) Pharma & Biopharma Initiative 5) After-Market & Software Initiative (25 min)	Dr. Falko Busse, President, Bruker BioSpin Group
9:20am	Questions and Answers (25 min)	Bruker senior management
9:45am	Break	
10:00am	6) Microbiology & Diagnostics Initiative 7) Applied Markets Initiative (25 min)	Juergen Srega, President, Bruker CALID Group
10:25am	8) Proteomics, Phenomics & Spatialomics (25 min)	Frank H. Laukien
10:50am	9) Bruker's Medium-Term Financial Outlook (20 min)	Gerald N. Herman, Chief Financial Officer
11:10pm	Questions and Answers (35 min)	Bruker senior management
11:45pm	Lunch	Tables hosted by Bruker senior management
1:00pm	Adjourn	

1) Bruker Transformation & New Strategy

Frank H. Laukien
President and CEO

Bruker Mission, Purpose & Culture

Our values: Innovation with Integrity

Our Mission

Our high-performance scientific instruments, analytical and diagnostic solutions, and comprehensive support, enable the discoveries and innovation of our customers, and drive their productivity and success.

Our Values

We value integrity, respect and trust within a fast-paced and dynamic environment built around scientific discovery. Ethical behavior, equal opportunity, compliance and personal commitment are at the heart of our business.

Our Purpose

We aim to contribute meaningfully to the health, prosperity and safety of our society at large by technical & business innovation, and highest quality. We create sustainable value for our customers, employees and shareholders.

Our Culture

We foster a dynamic, high-performance and people-oriented culture that encourages innovation and breakthroughs. We operate in a disciplined manner, with clear management processes, and passion for our fields and work.

Unique Culture and Proven Bruker Management Process

Adopted in 2014, our unique Bruker Management Process has been steadily refined over the last 5 years. It has helped create a novel strategy, repositioned our portfolio, accelerated growth and expanded margins.

Our culture fosters disciplined entrepreneurialism and business innovation.

Combined with our unique focus on **high-value scientific instruments**, we have evolved into one of the ***most innovative LST & DX companies.***

- Deep applications knowledge and customer intimacy drive our high-value solutions. We have repositioned Bruker for the attractive secular trends addressed by our **Project Accelerate** initiatives.
- Our experienced leadership and effective strategy process for adaptive business evolution have created new opportunities and major product innovation. We expect to grow faster than our LST&DX markets.
- The cadence and control of our Bruker Management Process drives disciplined execution, financial predictability, and **Operational Excellence**. This includes commercial and product R&D excellence.
- Integrity, sustainability, risk management, good governance and ethical behavior are core to our values. Disciplined financial management, high ROIC and prudent capital allocation are foundational for Bruker.

Bruker History

Approaching 60 years of Innovation

1960

Bruker co-founded by Prof. G. Laukien

1974-today

Development of FTIR/FT-NIR & Raman

1980s-today

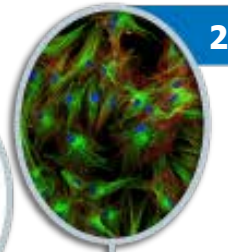
Develops FTMS, ITMS and TOF; adds TQ-MS, invents TIMS;

2000

Bruker Daltonics (BDAL) IPO

2008

Bruker Corp. merges with Biospin into one Nasdaq-traded public company



2013-today

Acquires multi-photon, super-res and light-sheet FM; Bruker forms Semi division, acquires Jordan Valley & Rave

2019-2020

World's first 1.1 GHz LTS/HTS hybrid NMR; 1.2 GHz as *wip*

2005-today

Develops MALDI Biotyper, acquires Hain mDX, Liquid Array technology

2010-today

Acquires AFM, optical metrology; adds tribology, nano-indenting, nano-IR, Bio-AFM

2017-today

rapidfleX 2016; timsTOF Pro 2017; scimaX 2018; timsTOF flex 2019;

Innovation with Integrity

1969-today

World's first FT-NMR, supercon magnets; EPR; Develops shielded & UHF magnets, Cryo-Probes, DNP

1978-today

Preclinical MRI developed; adds uCT, PET/SPECT

1997-today

Acquires analytical X-ray business; adds uXRF, handheld XRF, OES, CGA and microCT

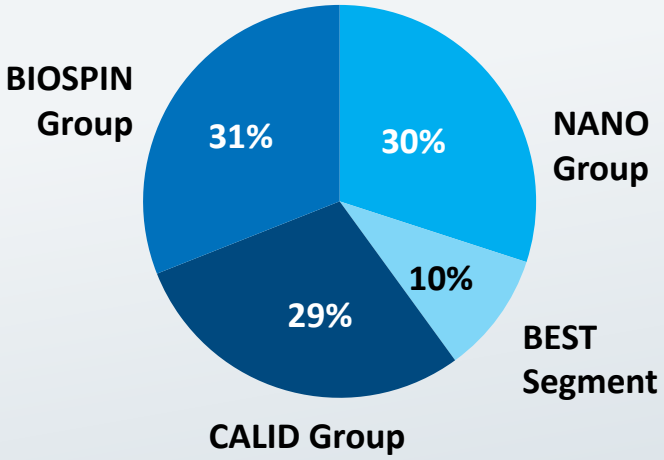
2003-today

Acquires LTS, later HTS and RI, forms BEST segment

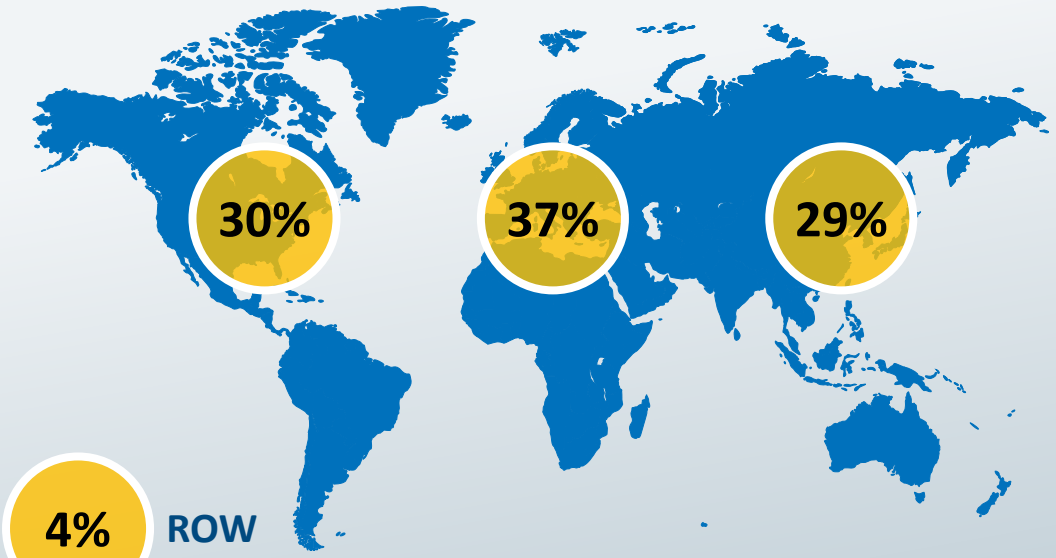
Bruker Overview

Our 2018 revenue mix

Business Group Mix



Geographic Mix



Bruker Scientific Segment Market Mix

Academic & Govnmt Research	47%
Industrial Research & Other Industrial	21%
Pharma & Biopharma	14%
Microbiology & Molecular DX	7%
Semi Metrology & Nanotech	6%
Applied/Food Analysis & Security	5%

Bruker Overview

Our people, production and R&D

6,900

Employees

14

Major manufacturing sites in N. America, Europe and Asia

1,200

Employees dedicated to R&D

4,000 +

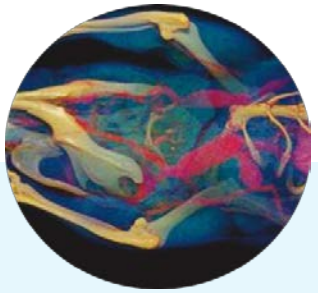
Patents pending or granted

Bruker Overview

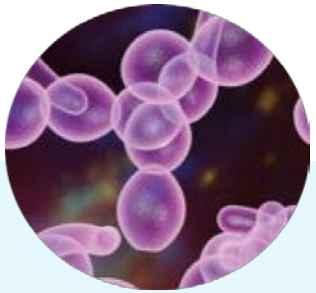
Market leading positions

Bruker holds **#1** or **#2** market positions in **~70%** of our portfolio

NMR and EPR Spectroscopy



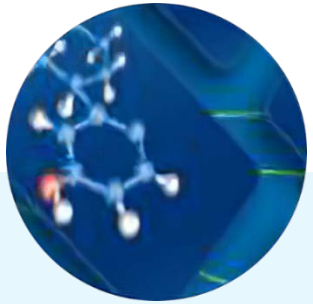
Preclinical Imaging: MRI, MPI, PET/MR, microCT



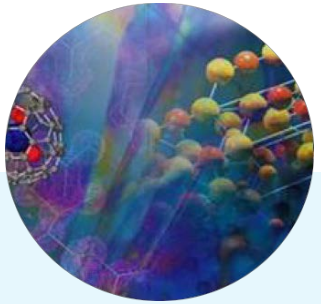
MALDI BioTyper for Microbiology

Mass Spec Imaging, MALDI-TOF and MRMS

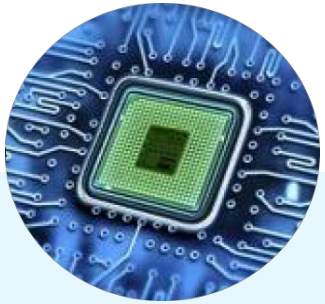
Atomic Force Microscopy (AFM)



FT-IR/NIR Spectroscopy and Microscopy



X-Ray Diffraction (XRD) and Crystallography



Next-Gen AAFM and X-ray Semicon Metrology

BEST Superconductors and 'Big Science' Technologies

BEST Segment

Technology, customers & markets

Technology Areas of Bruker EST Segment

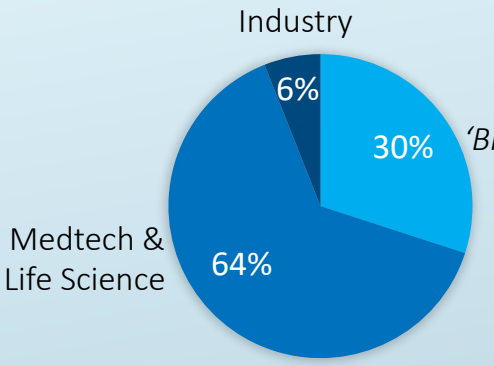
- Low-Temperature Superconductors (LTS) for Clinical MRI
- High-performance superconductors for NMR, EPR, MRI, MRMS, as well as for fusion research and '*Big Science*'
- High-Temperature Superconductors (HTS) for GHz+ magnets
- Particle Accelerators and beamlines: subunits & turn-Key
- EUV Subsystems for EUV Research and Metrology

High Performance LTS & HTS

Key Customers

SIEMENS, iter, GE, PHILIPS, CERN, VARIAN medical systems, BRUKER, MITSUBISHI ELECTRIC

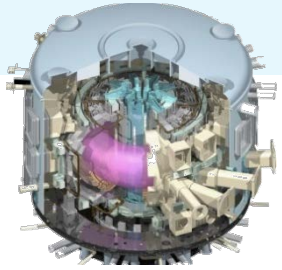
BEST Revenue 2018: $189m



BEST 2018 Revenue is net of intercompany revenue

A market and technology leader in:

LTS for **Clinical** MRI



Fusion LTS and Components

HTS and LTS for NMR

Particle Accelerators

EUV Metrology Subsystems

HTS and LTS for 'Big Science'

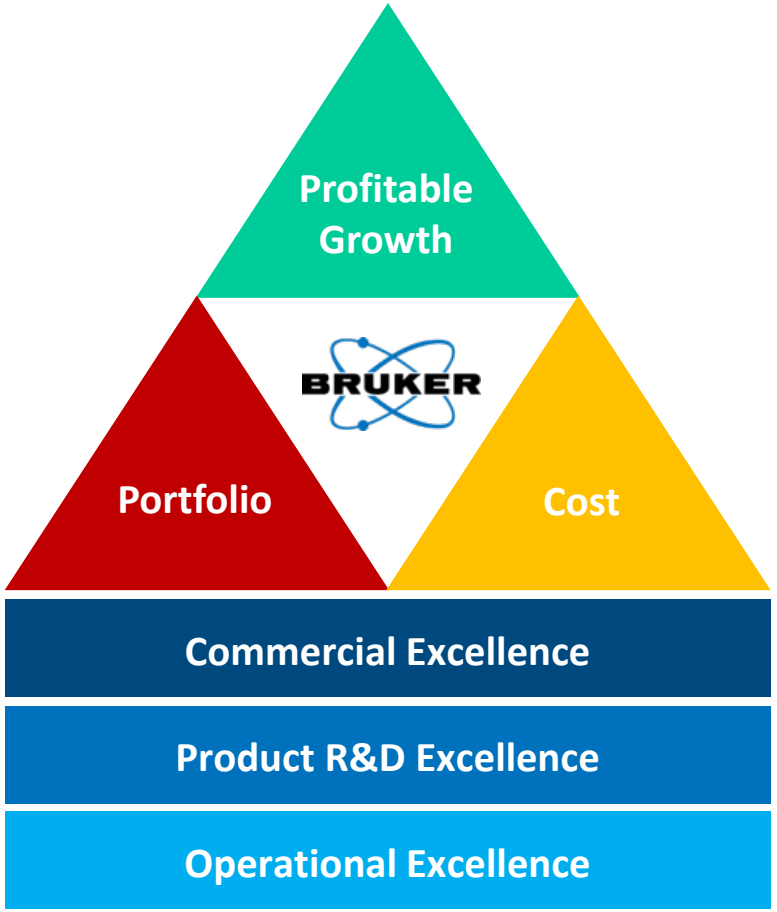
Selected Acquisitions in Recent Years

Strategically focused expansion and synergistic ‘bolt-on’ M&A

Neuroscience & Cell Microscopy	Biopharma & Applied	Microbiology & Diagnostics	Consumables & Scientific Software	Semi Metrology & NANO Group ‘bolt-on’
LUXENDO A BRUKER COMPANY	sierrasensors™ A Bruker Company	HAIN LIFESCIENCE	Mestrelab Research chemistry software solutions	JORDAN VALLEY
vutara™	LACTOTRONIC	MERLIN	Arxspan	alicona
PRAIRIE TECHNOLOGIES		Bruker Molecular Diagnostics (Glasgow)	SCiLS	ANASYS INSTRUMENTS The nanoscale spectroscopy company
JPK Instruments			INVIVO InVivo BioTech Services GmbH a BRUKER company	HYSITRON
				RAVE

Bruker's New Strategy

Project Accelerate & Operational Excellence **drive customer success and profitable growth**



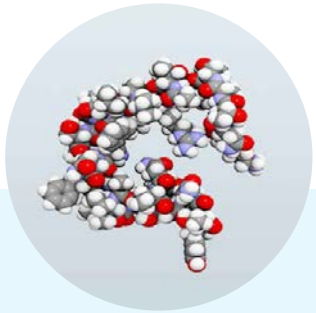
Bruker Core Values: Innovation with Integrity

- ***Transforming our portfolio*** for attractive secular growth trends
- Driving key product innovation cycles
- Advancing six high-growth, high-margin ***Project Accelerate*** initiatives
- Positioning company for potential break-out opportunities
- Implementing ***Operational Excellence,*** incl. commercial and R&D excellence
- Managing core for ***profitable growth*** and gains in market share

Bruker is very well positioned in diverse and attractive life science tools and diagnostics markets.

Bruker Repositioned for Key Secular Growth Trends

Crucial growth drivers do not depend significantly on macro or geography

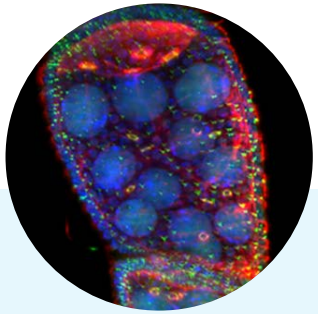


Next-generation proteomics and phenomics; emergence of spatialomics; functional structural biology and IDPs

Beyond ss-RNA-Seq: Human Cell Atlas & functional, single-cell biology

Human Brain Project drives neuroscience and cell biology microscopy

Precision Medicine drives clinical phenomics and pharmaco-proteomics, emerging clinical proteomics



In vivo life-cell microscopy, in vivo preclinical imaging, in situ molecular mapping

Biopharma: label-free uHTS, biologics R&D, drug & metabolite imaging, pharmaco-proteomics, PAT

Applied: food analysis, authenticity and brand protection, forensics

Microbiology & Infectious Disease: fast ID & AST, molecular DX, affordable syndromic panels

Tech Mega-trends: cloud, big data, social media, gaming, crypto, 5G, IoT, AI/ML

Bruker Scientific Instruments Innovation:

Compelling new product cycles and superior solutions innovation

timsTOF Pro & flex,
rapiflex, scimaX

MALDI Biotyper, Molecular
DX & LiquidArray SPs

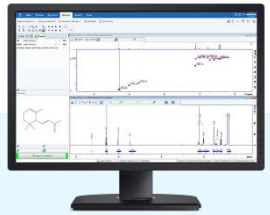
GHz-class NMR,
UHF MRI , Avance NEO

Unique NMR & MS
biopharma solutions

Unique NMR & MS
phenomics solutions

Super-resolution, light-
sheet & multiphoton FM

Next-gen Nanotechnology,
e.g. XCD, AAFM, Rave



Services, Assays,
Consumables & Software

Project Accelerate

Seeking faster revenue growth from six targeted high-growth, high-margin initiatives

After Market & Scientific Software

Services, consumables for Bruker LST & DX solutions; emerging scientific software initiative

Next-gen Nanotech & Semi Tools

Enabling development and production of next-gen chips, memory, displays, solar, nanotools

Neuroscience & Cell Microscopy

Next-gen microscopy systems for neuroscience research, cell biology and high-resolution live cell research

Proteomics & Phenomics

High-performance NMR and MS solutions for structural biology, proteomics, phenomics; now also for non-targeted spatialomics

Biopharma & Applied

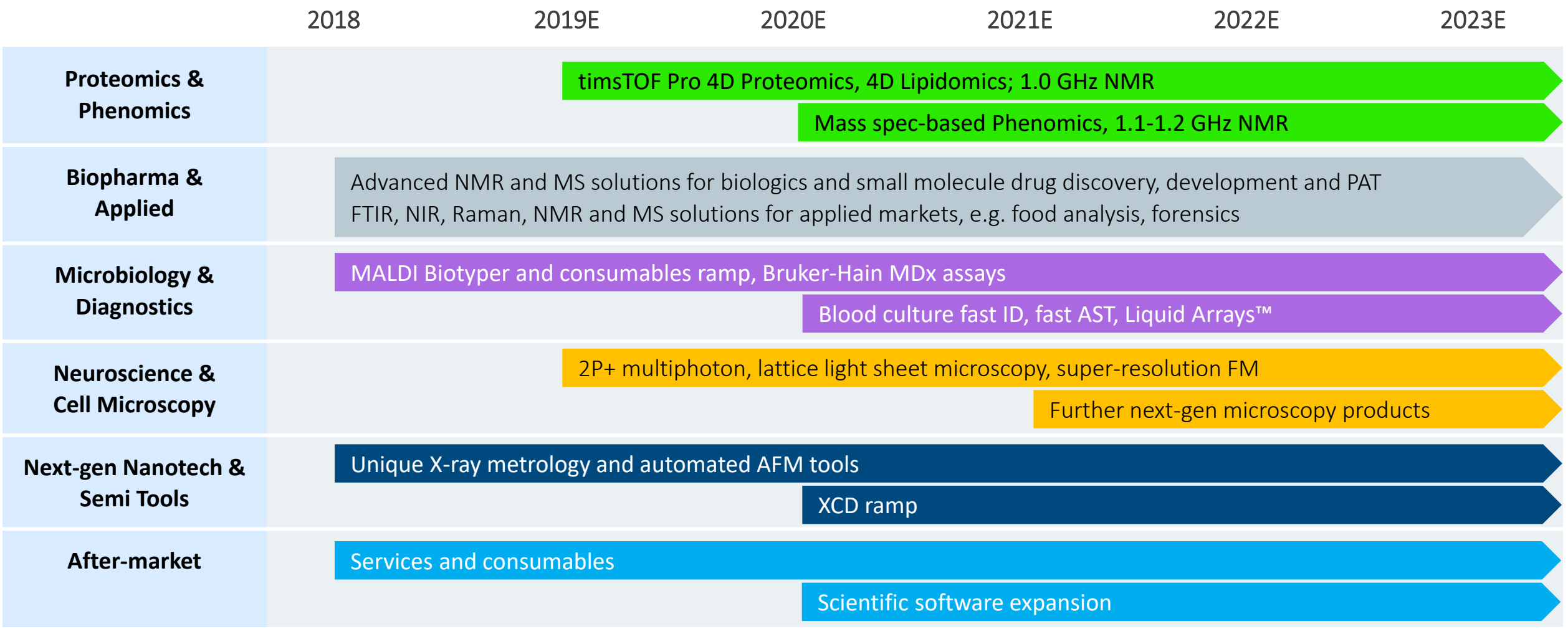
High-value NMR, MS and FTIR/NIR solutions for drug discovery, development and pharma PAT; Applied food quality, authenticity and safety; forensics

Microbiology & Diagnostics

High-value solutions for faster, more accurate and broadly affordable infectious disease diagnostics

Project Accelerate Portfolio Roadmap

Reshaping our portfolio for faster growth and higher margins*



* Chart shows approximate timeline for financially relevant contributions from Project Accelerate initiatives and product cycles.

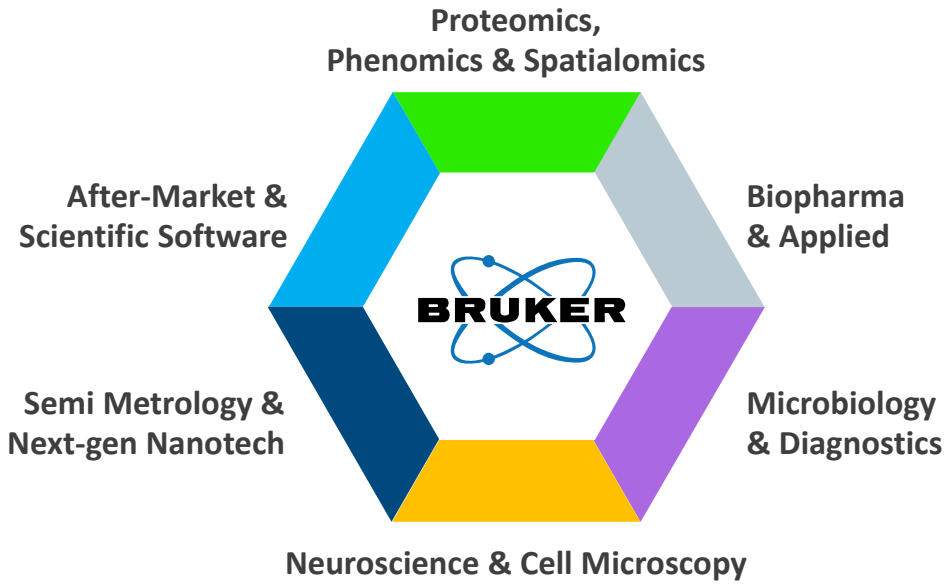
Bruker Goals:

Key Objectives for 2019 –2022

Deliver industry-leading non-GAAP operating margin expansion and strong earnings growth

1. **Accelerate high-quality revenue growth to above market organic CAGR**
   - Enhance growth with *Project Accelerate*, drive *key secular growth opportunities*, further advance *innovative product cycle*, develop break-out opportunities;

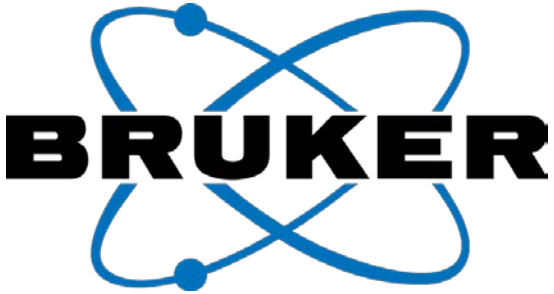
2. **Transform portfolio with six *high-growth, high-margin Project Accelerate* initiatives**



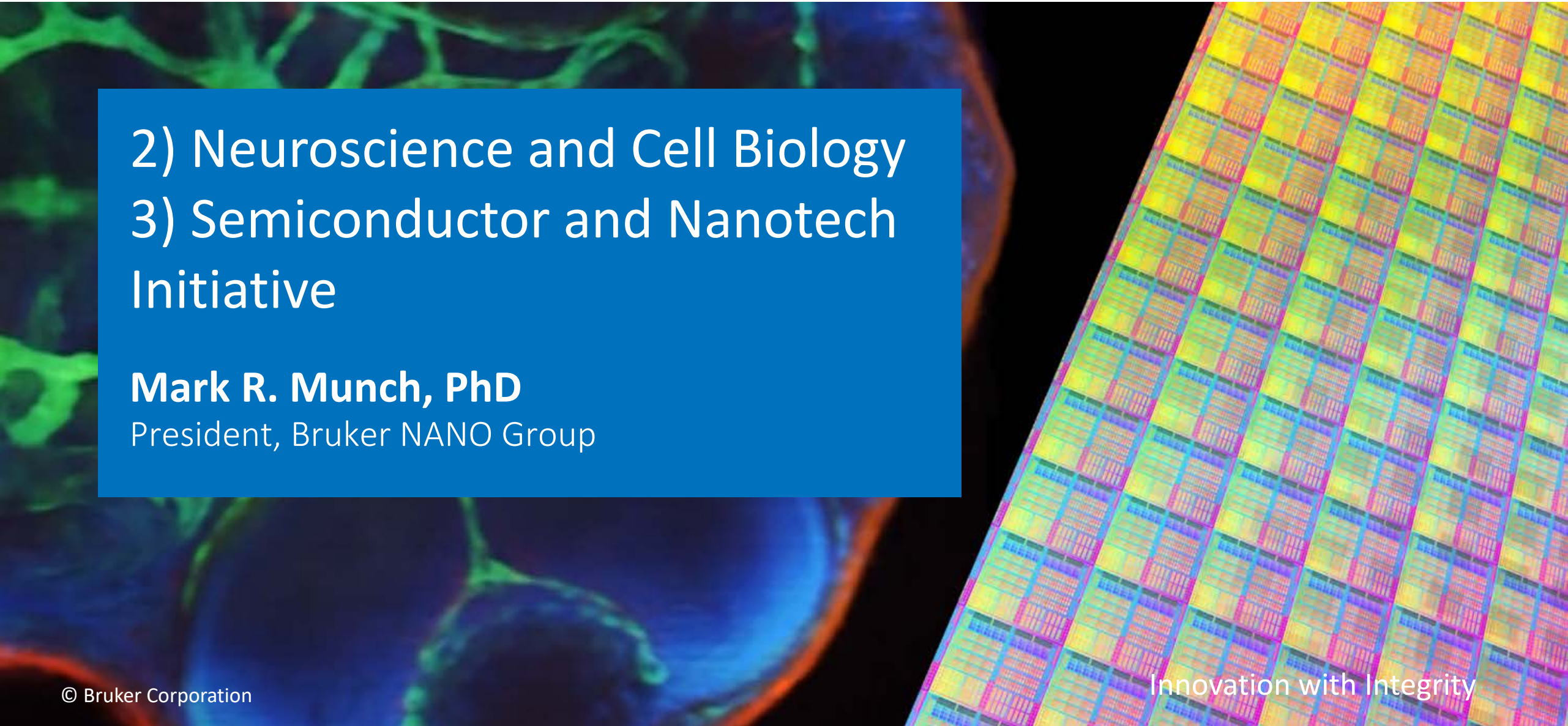
3. **Drive *Operational Excellence*, sustain multi-year margin expansion**
   - Expect to expand non-GAAP operating margin 75–100 bps per year, on average
   - Continuous improvements for commercial, product R&D and operational excellence
   - Anticipate strong non-GAAP EPS growth in 2019-2022

4. **Disciplined capital deployment and high ROIC objectives**
   - Strategically focused and synergistic, bolt-on M&A
   - Annual dividend of $0.16 per share, periodic share repurchases
   - Expect to maintain ROIC >20% and conservative debt leverage

A reconciliation of non-GAAP OPM, non-GAAP EPS and ROIC to the most directly comparable GAAP measures is available at the end of this presentation.



Innovation with Integrity



2) Neuroscience and Cell Biology
3) Semiconductor and Nanotech Initiative

Mark R. Munch, PhD
President, Bruker NANO Group

Innovation with Integrity

EXECUTIVE BIO

Mark R. Munch, PhD

President, Bruker NANO Group

- President, Bruker Nano Group, consisting of four global divisions
- Executive Vice President of Bruker Corporation, focus on *Bruker Management Process* and IT oversight
- Over 25 years managing significant businesses of multi-national corporations
- Strong track record of building high-growth, high-margin organizations that foster organizational, operational, and commercial excellence. Deep expertise in product development, mergers and acquisitions, and global manufacturing.

PRIOR TO BRUKER

- Executive Vice President, Veeco Instruments, Inc.
- Senior Vice President, Coherent, Inc.
- President and Chief Executive Officer, Cooligy, Inc. (became a subsidiary of Emerson Electric)
- VP/GM, CTO Photonics, Corning, Inc.
- CTO, VP/GM, Tyco International
- Various executive positions, Raychem Corporation

EDUCATION

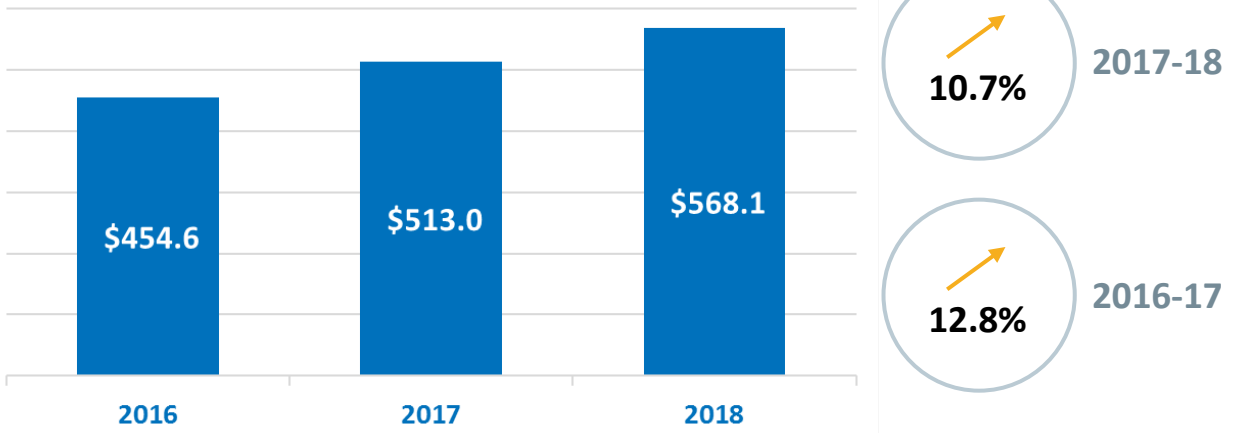
- BS, Chemical Engineering, University of Colorado
- MS, Chemical Engineering, Stanford University
- PhD, Chemical Engineering, Stanford University

Bruker NANO Group Overview

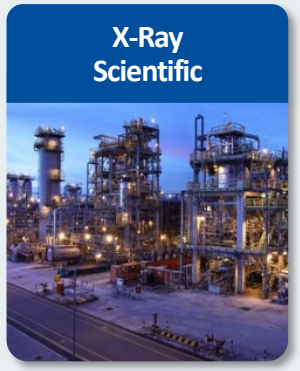
Technology Areas of Bruker NANO Group

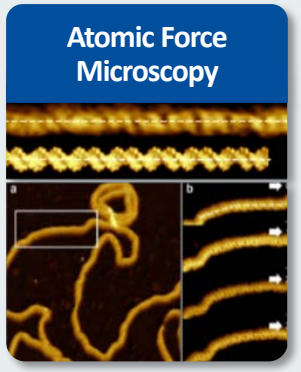
- X-ray Diffraction and Elemental Analysis
- Surface and Dimensional Analysis
- X-Ray Microscopy
- Semiconductor Metrology
- Advanced Fluorescence Microscopy (FM)

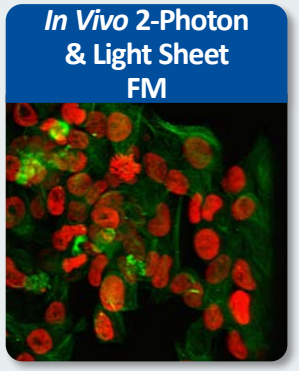
Bruker NANO Revenue (in $M)

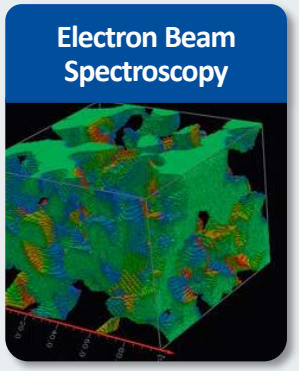


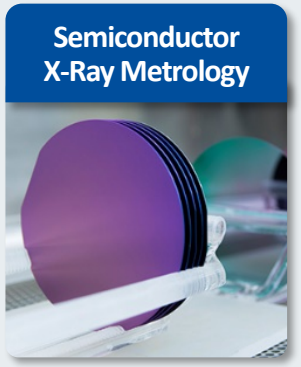
Market leader in:











Bruker NANO Group Overview

Commercial, operations, and product development excellence:

- **Continuous stream of new products**
- **Top-line growth while delivering op profit expansion**
- **Best-cost manufacturing strength, including Bruker Penang**
- **Supplemented accretive and strategic acquisitions**

> 20 new products launched over last 3 years

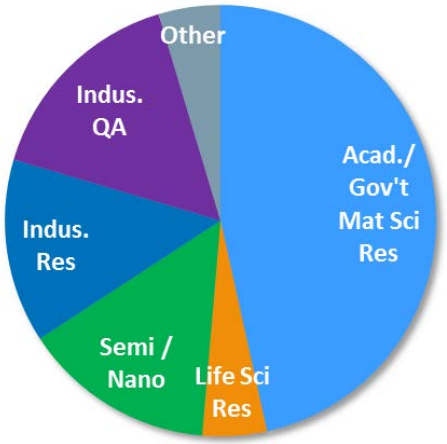
Stream of new products

Acquisitions

Bruker Penang

Key Growth Initiatives, Evolving the End-Market Portfolio

- **Neuroscience & Cell Biology Fluorescence Microscopy**
- **Semiconductor Metrology and Nanotech**



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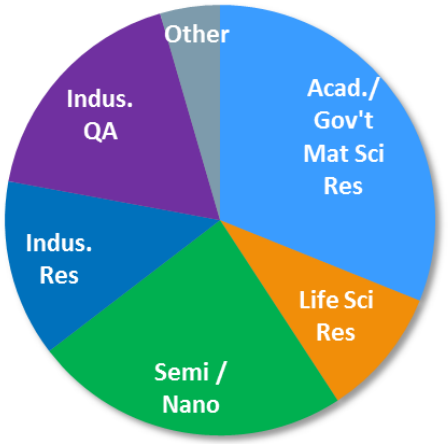

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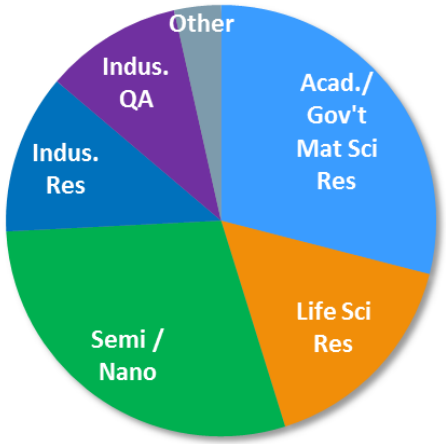

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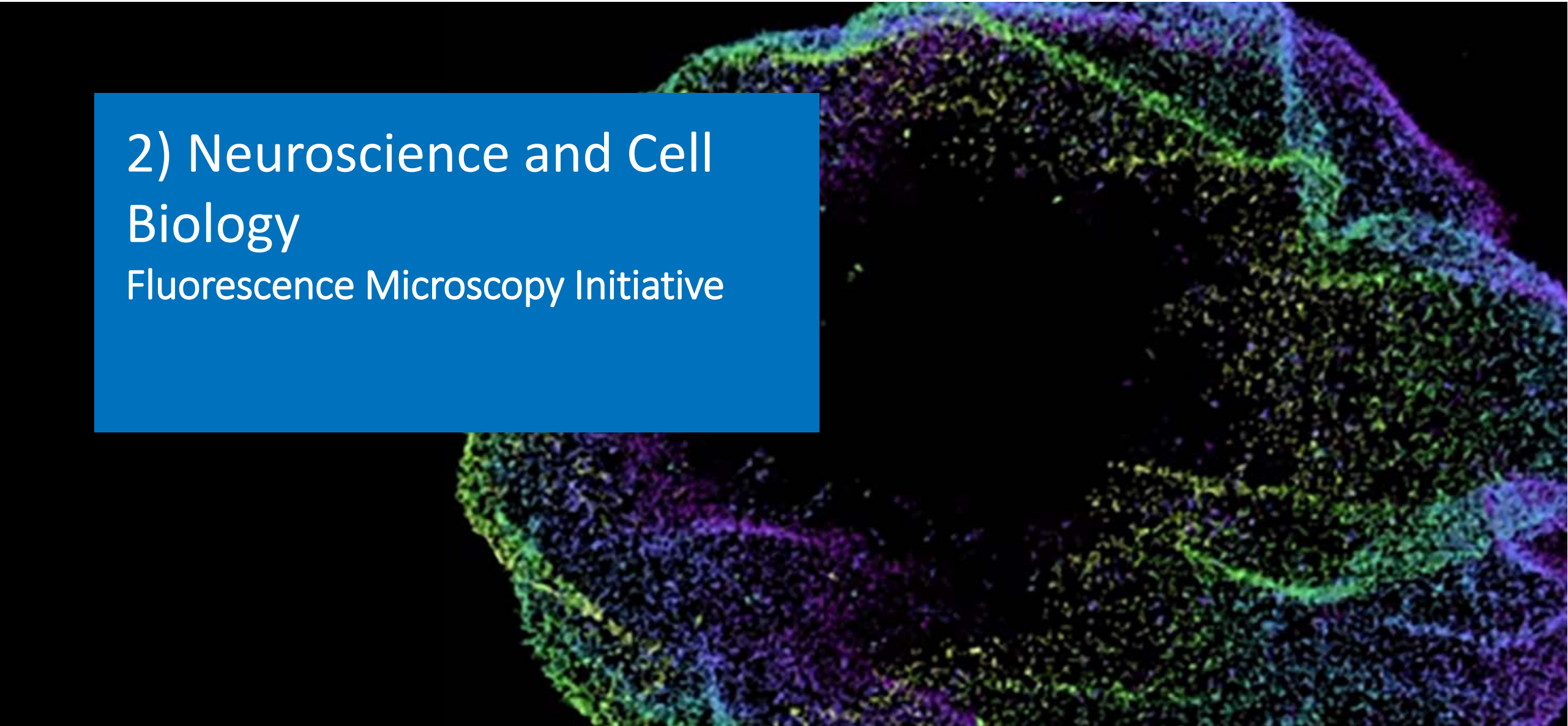
2) Neuroscience and Cell Biology

Fluorescence Microscopy Initiative



Neuroscience and Cell Biology Fluorescence Microscopy Initiative

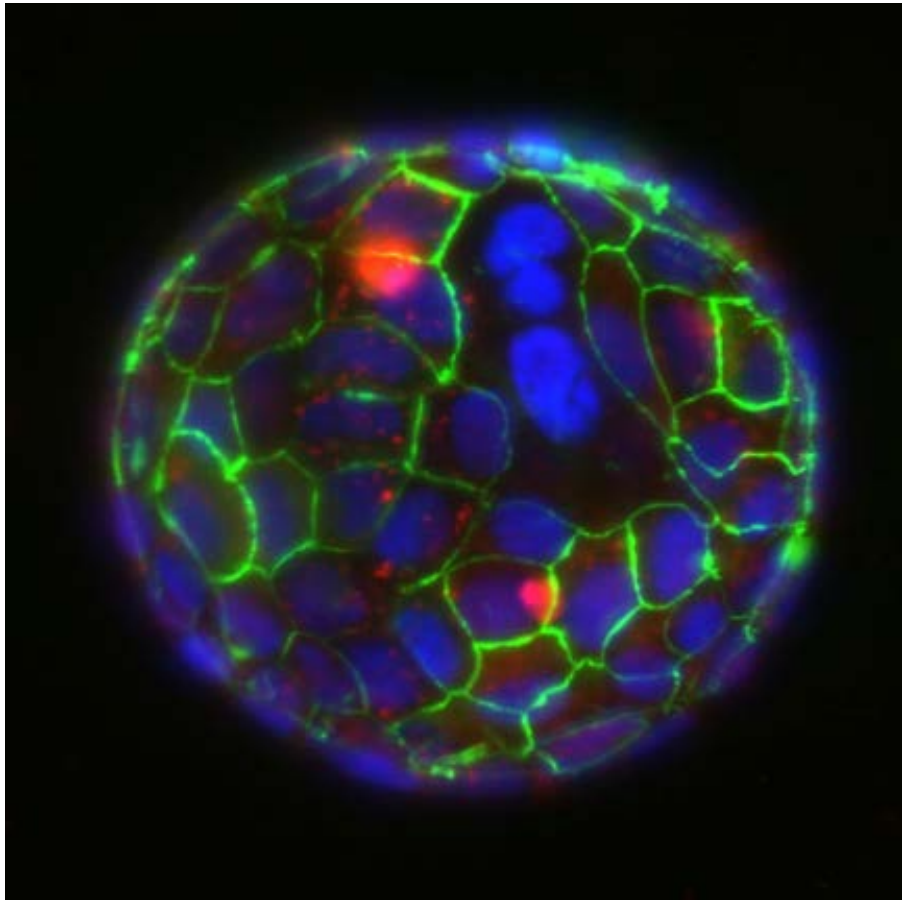
Helping visualize how life works

Growth Segment with Focus on Advanced Technologies

- Trend towards live-cell, *in vivo* imaging
- Strong trend towards more spatial and temporal information
- Strong funding for neuroscience, e.g., *Brain Initiative*
- Strong funding for linking molecular and cellular function to disease, e.g., *Human Cell Atlas*

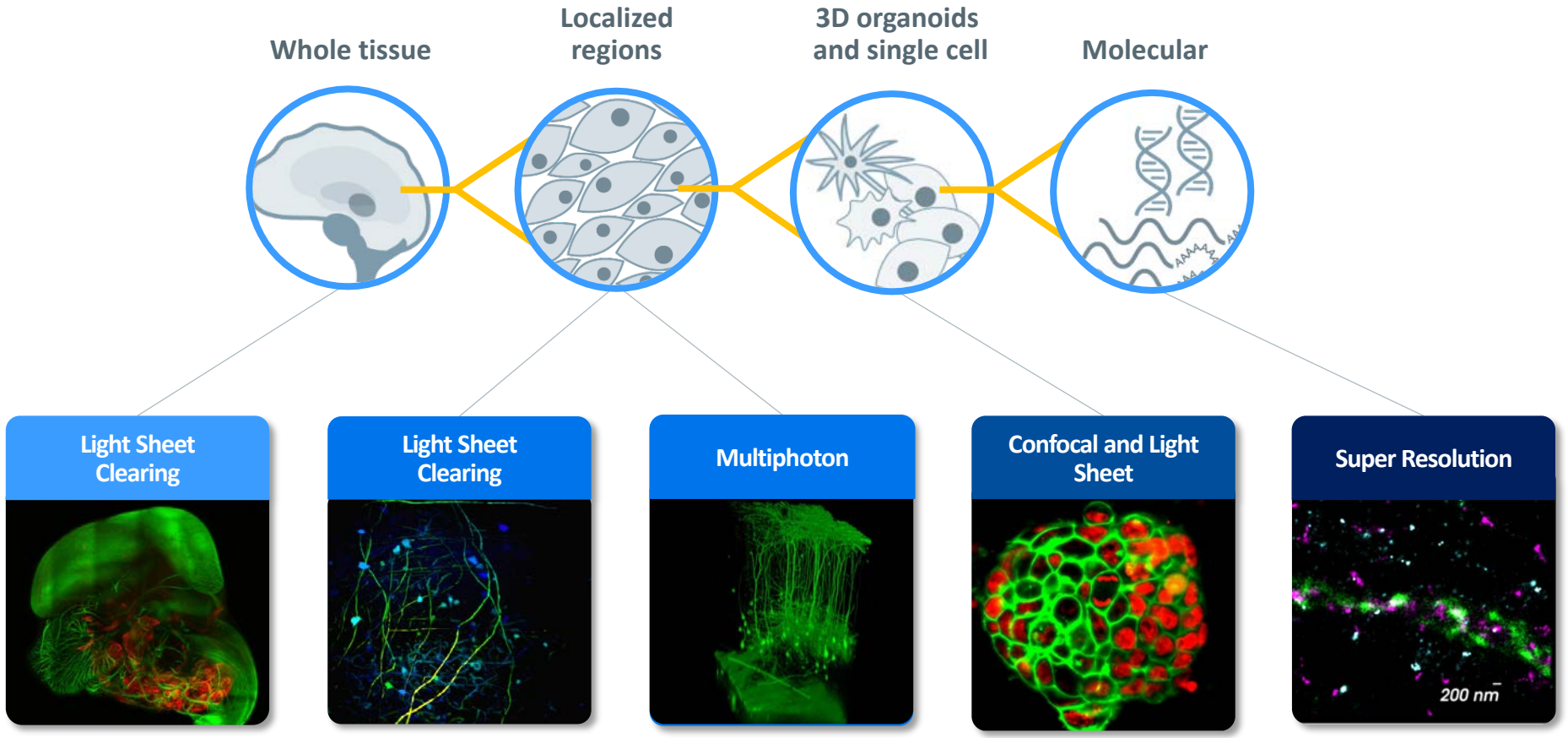
Focused on Advanced Microscopy Technologies to intersect and enable these key drivers

3D Cell Spheroid



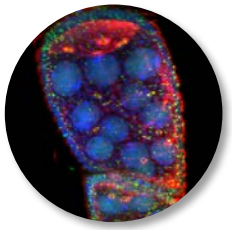
Expand our Fluorescence Microscopy Portfolio To See Spatial Relationships in Live Cells

Advanced Technologies for Live-Cell Imaging Across Spatial Length Scales

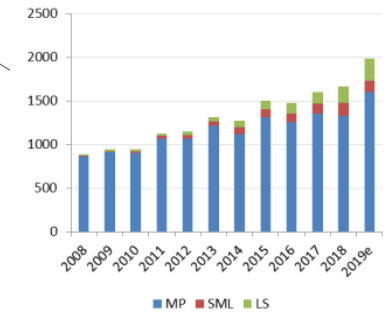


Advanced Portfolio for *In Vivo* and Live-Cell Imaging

Leveraging the trend towards 'Seeing' Living Specimens, 3D Cultures, In Vivo



- **Strategic acquisitions of key technologies**
- **High growth market (strong publication rate)**
- **Advanced technology portfolio with Key Opinion Leaders**



HIGH GROWTH MARKET

Total available market	$0.8B
Estimated 5-yr TAM CAGR	~8%

STRATEGIC ACQUISITIONS

PRAIRIE TECHNOLOGIES — vutara — LUXENDO the light-sheet company

2013

Ultima Multiphoton
Deep tissue imaging; optogenetics; neuro-photostimulation

Opterra Multipoint scanning confocal
Fast with no vibration; imaging of high scatter specimens

2014

Vutara Super Resolution
3D, super high resolution; single molecule localization (SML); live-cell super resolution

2017

Luxendo Light Sheet
Fast 3D volumes; gentle for long-term observation; large applied microscopy potential

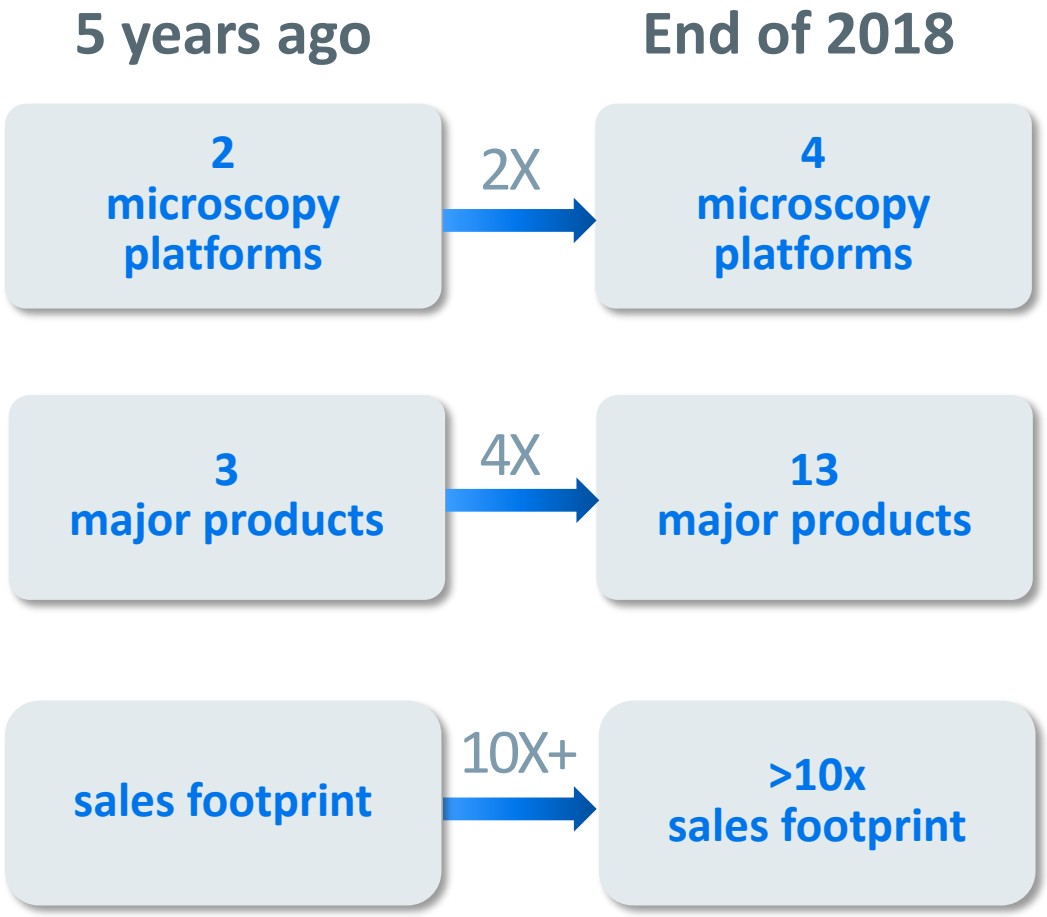
ADVANCED PRODUCT PORTFOLIO

- Ultima 2Pplus
- Ultima In Vitro
- Ultima Investigator
- MuVi SPIM
- InVi SPIM, InVi Lattice Pro
- QuVi SPIM
- Opterra
- Vutara 352

Recent FM Highlights

Continued Product Innovation
Continued Sales and Sales Applications Expansion

- Launched **Ultima 2Pplus** for leading neuroscience
- Launched light-sheet **MuVi CS** (cleared sample) for neuroscience and whole tissue imaging
- Launched light-sheet **InVi Lattice Pro** for first tailorable illumination sheet: an advance over traditional Lattice
- Launch of **Lux Data** large data processing and storage solution with 150TB capacity
- Contributed to seminal work with **Harvard's Wu Lab**, PLOS Genetics, Dec. 2018 based on Vutara 352 with fluidics
- Further **expansion** of **Sales channel**



Enabling visual understanding of brain function and neurological diseases:

Multi-Photon Imaging in Neuroscience

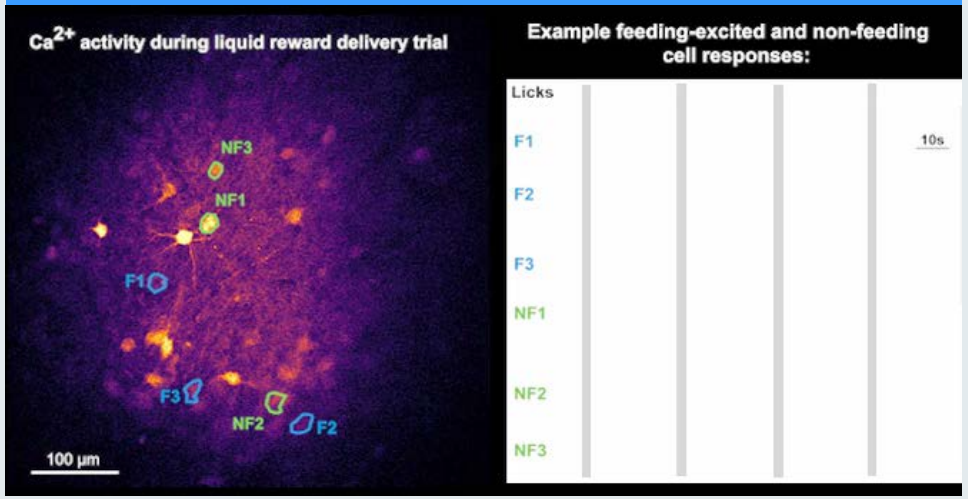
Leader in innovation for imaging in neuroscience: Multi-photon imaging for optogenetics, deep-tissue imaging, and neuro-photostimulation

- Success with key opinion leaders using **Bruker Ultima Multi-Photon microscopes** to carry out live, *in vivo* imaging of interacting nerve signals in mice
- Series of firsts:
  - Spatial light modulator
  - Synchronized field of view with photostimulation
  - Multiple 3D planes simultaneously

KEY OPINION LEADER SPOTLIGHT

Deisseroth Lab, Stanford University

In vivo imaging of interacting brain neuronal signals in mice



JH Jennings, et al., Karl Deisseroth, Nature, 2019

Helping visualize how life develops:

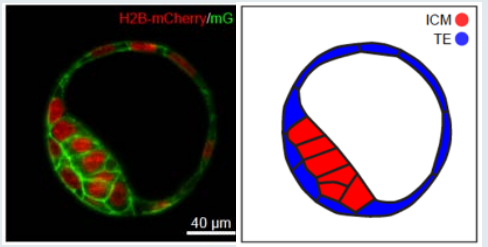
Light-Sheet Imaging in Developmental Biology

Leader in low phototoxicity, long-time studies:
High resolution, fast imaging that is gentle

- Light-sheet solutions **(Luxendo MuVi, Invi and QuVi platforms)** for 3D imaging over long time scales to study embryo development (developmental biology)
- Gentle, high-speed, 3D volumes, and long times are unique to light sheet and enable first-time discoveries
- Enabling research in:
  - Mammalian embryo development
  - Normal / abnormal development
  - Fertilization studies and understanding

KEY OPINION LEADER SPOTLIGHT

Hufnagel and Ellenberg Lab, EMBL, Heidelberg



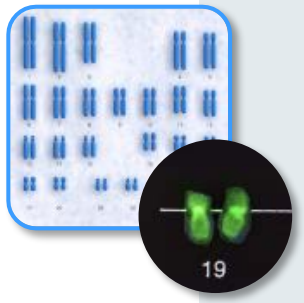
Strnad et al., 2016, Nat Methods 13:139

Helping visualize how molecular life works:

Super-Resolution Imaging in Genomics

Leader in multiplex labeling experiments:
Imaging with coordinated automated fluidics

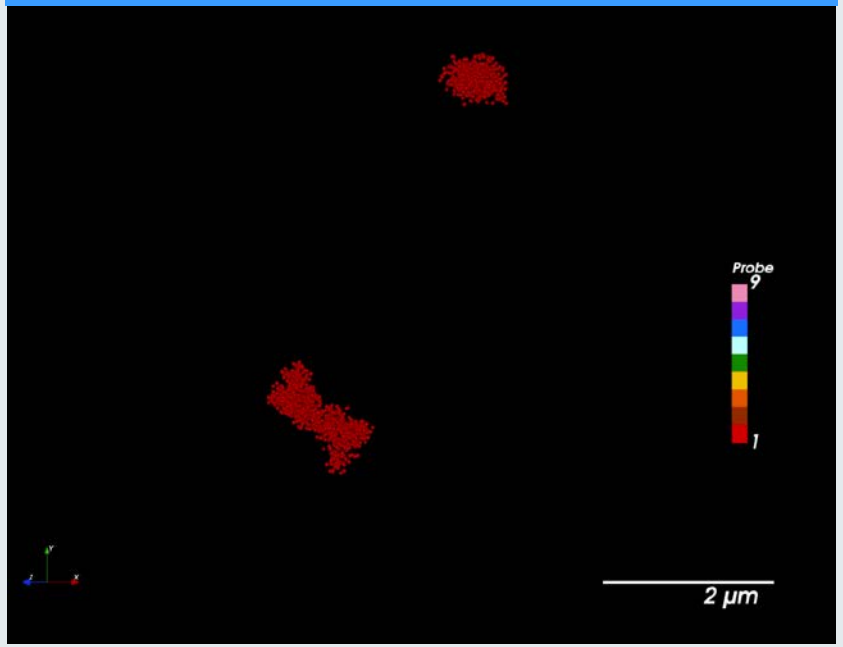
- Key opinion leaders using **3D super-resolution Vutara** to image chromosome compartments
- SRX software controls coordinated fluidics to paint/visually barcode DNA
- Enabling research in spatial omics:
  - Chromosome/Chromatin 3D structure
  - Epigenetics
  - Chromosome activity



KEY OPINION LEADER SPOTLIGHT

Wu Lab, Harvard University

Imaging DNA Compartments
Chromosome 19



Guy Nir, Ting Wu, Harvard, 2018

What Differentiates Bruker

- **Well-funded end markets**
- **Continued collaboration and innovation with Key Opinion Leaders**
- **Focus on unique, advanced technologies**
- **Continued expansion of channel**
- **Leverage best-cost supply chain**

~$3B / year

BRAIN INITIATIVE — BRAIN RESEARCH THROUGH ADVANCING INNOVATIVE NEUROTECHNOLOGIES

HUMAN CELL ATLAS

Human Brain Project

Brain/MINDS

CHINESE ACADEMY OF SCIENCES

HuBMAP — The Human BioMolecular Atlas Program

EURO-BIOIMAGING

LELAND STANFORD JUNIOR UNIVERSITY

UNIVERSITY OF OXFORD

EMBL

HARVARD UNIVERSITY

COLUMBIA UNIVERSITY

Institut Pasteur

UCL

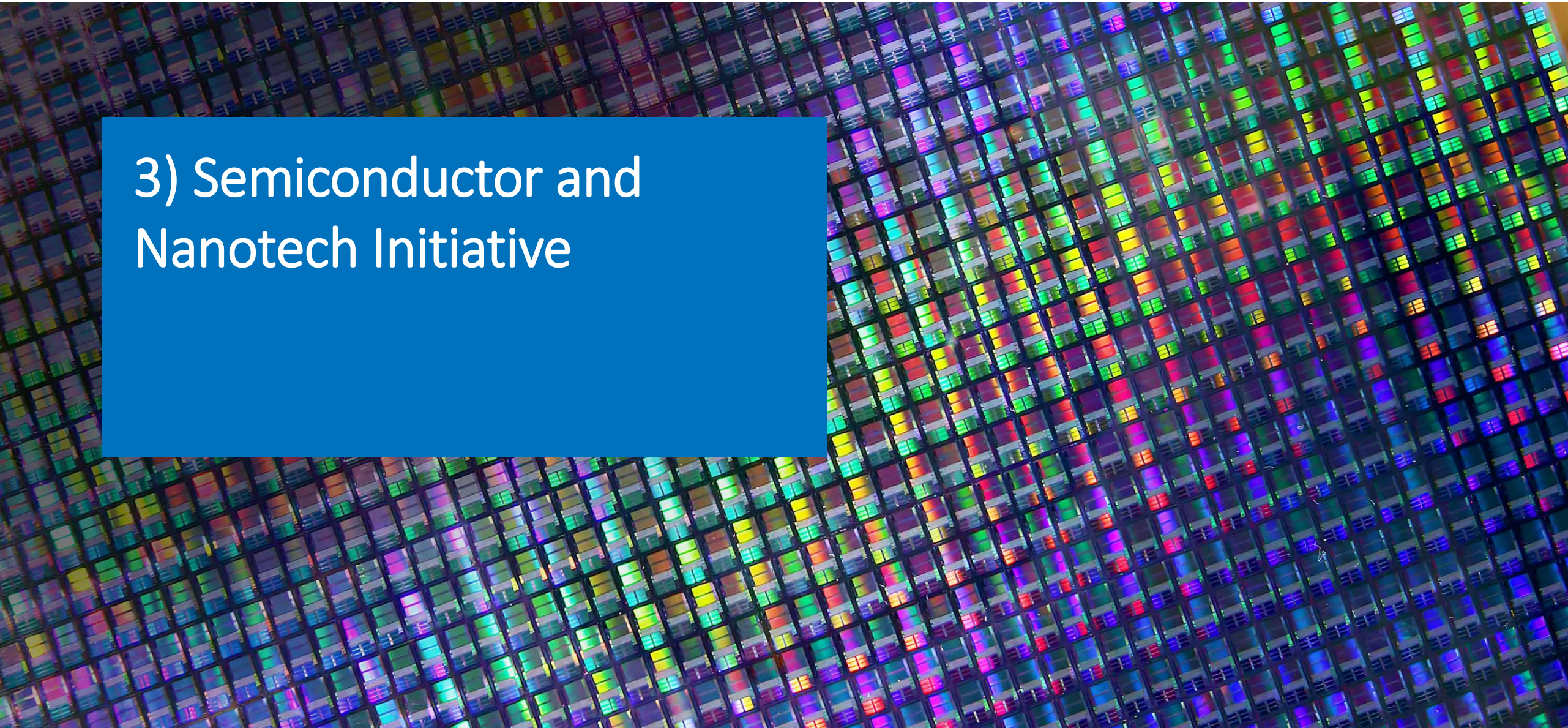
Yale University

THE UNIVERSITY OF UTAH

NIH — National Institute of Mental Health

USC University of Southern California

3) Semiconductor and Nanotech Initiative



Semiconductor Metrology and Nanotech Initiative

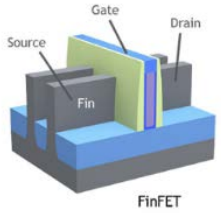
Market Driver: Growth in “distributed computing and storage”

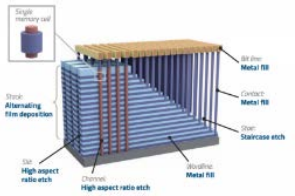
Tremendous growth in need for distributed computing and data storage…

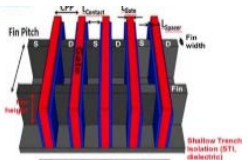
…demands development of “faster/more compact” chips…

- Computational Processing Chips
- DRAM Memory Chips
- 3D NAND Memory Chips
- Wireless Communication Chips

…which requires new chip structures and materials…







…in turn, requiring new measurement tools to meet the challenges.

Auto-AFM

X-Ray

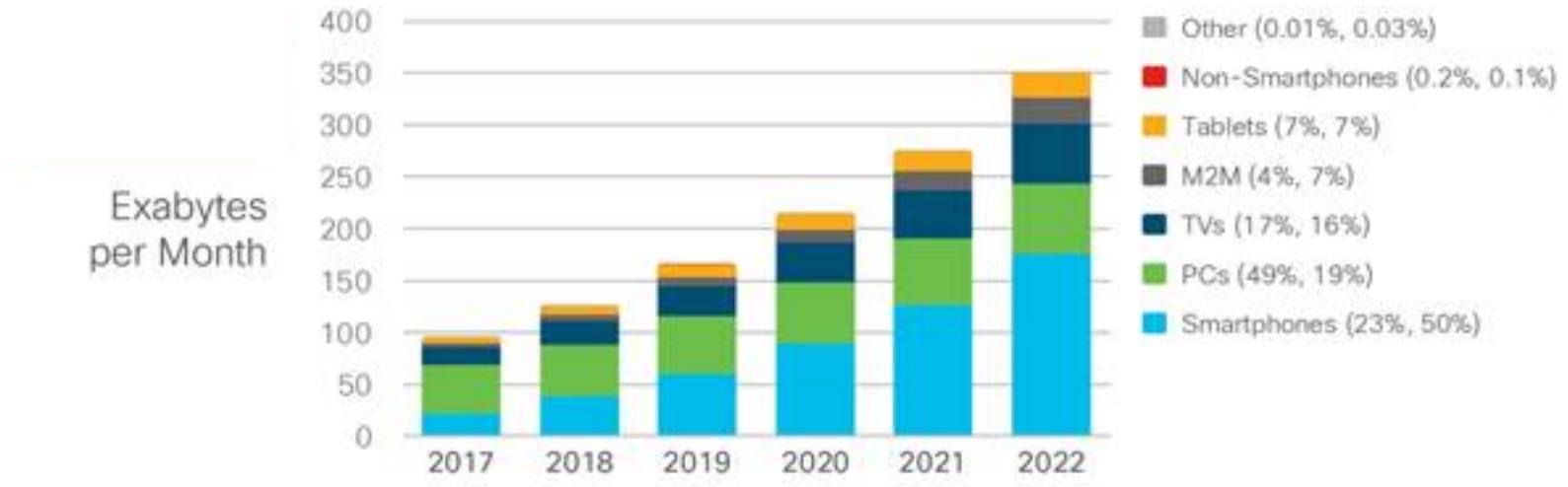
Nanomachining

Semiconductor Metrology and Nanotech Initiative

Market Driver: Growth in “distributed computing and storage”

Tremendous growth in need for distributed computing and data storage…

30% CAGR in internet growth



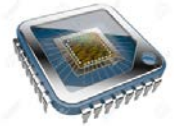
* Figures (n) refer to 2017, 2022 traffic share

Source: Cisco VNI Global IP Traffic Forecast, 2017–2022

Semiconductor Metrology and Nanotech Initiative

Growth in "distributed computing and storage" will drive increase in fab equipment spend

…demands development of "faster/more compact" chips…

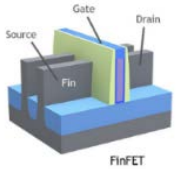


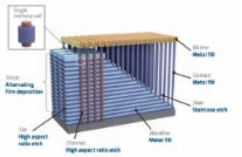
- Computational Processing Chips
- DRAM Memory Chips
- 3D NAND Memory Chips
- Wireless Communication Chips

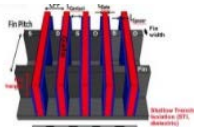
DRIVE TO IMPROVE:

Speed
Bit density
Power consumption

…which requires new chip structures and materials.

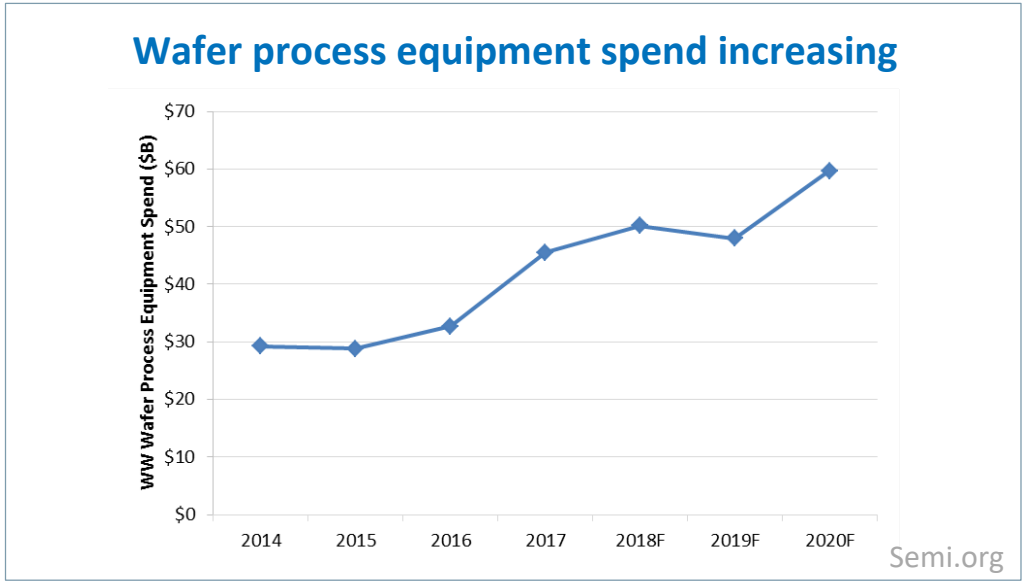


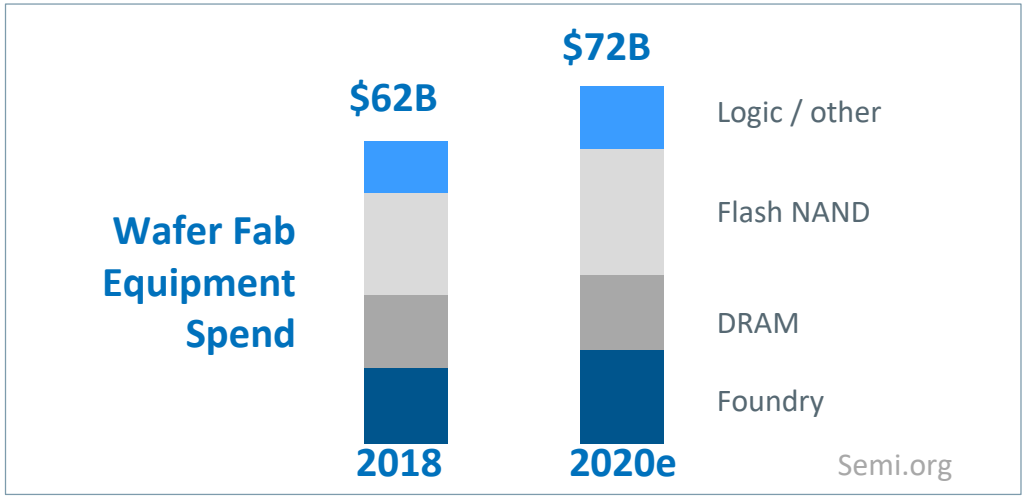




TRENDS IN NEW CHIP DESIGN:

- 3D Structures
- Smaller line widths
- Higher aspect ratios
- New materials





Semiconductor Metrology and Nanotech Initiative

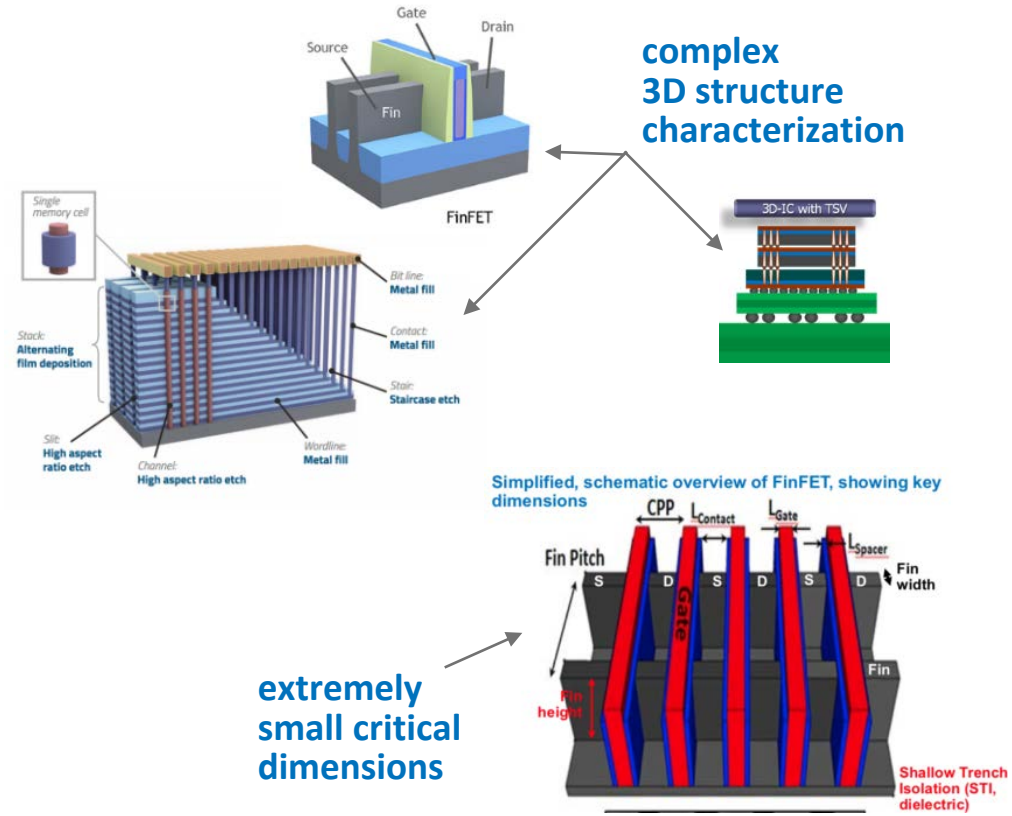
Where Nanotech meets manufacturing – 3D and new materials

Where Bruker NANO fits in:

New chip structures/materials pose measurement and characterization challenges:

- more complex, 3D Structures
- extremely small dimensions (nanometer)
- new materials characterization

Today	Future
96 NAND layers ramping	256 NAND layers in R&D
NAND hole aspect ratio 60:1	NAND hole aspect ratio 120:1
10nm FinFET	5 and 3 nm nanowire FinFET

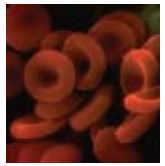


Bruker Auto-AFM, X-Ray, and Rave tools help solve those measurement challenges.

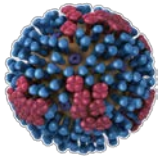
Semiconductor Metrology and Nanotech Initiative

Where Nanotech meets manufacturing – measurements at nanoscale


Human hair


Red blood cell


Mitochondria


Flu virus

Semi 10nm, 7nm, 5nm, 3nm nodes

X-Ray and AAFM Estimated 5-yr business CAGR

>12%

100,000nm | 10,000nm | 1000nm | 100nm | 10nm | 1nm | 0.1nm (1 angstrom)

Visible | Ultra-violet

X-rays

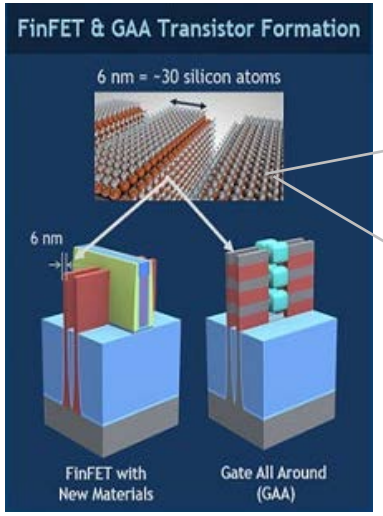
Atomic Force Microscopy

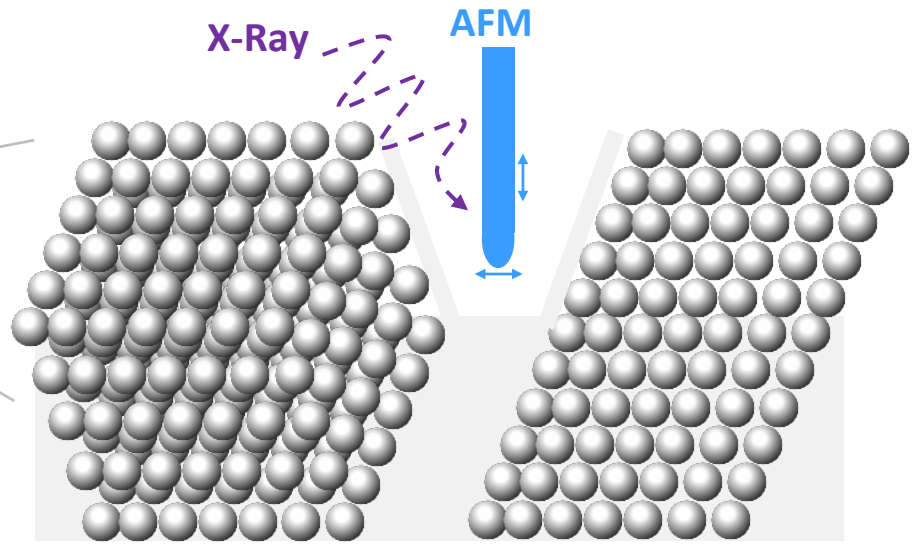
Bruker NANO tools take measurements in the nanoscale ranges required.

Important Problems We Solve (at nm and sub-nm scales)

- Critical dimensions
- New Materials: Composition and strain
- Film thicknesses
- Voids/Defects
- Electrical characteristics

Semi 7nm node

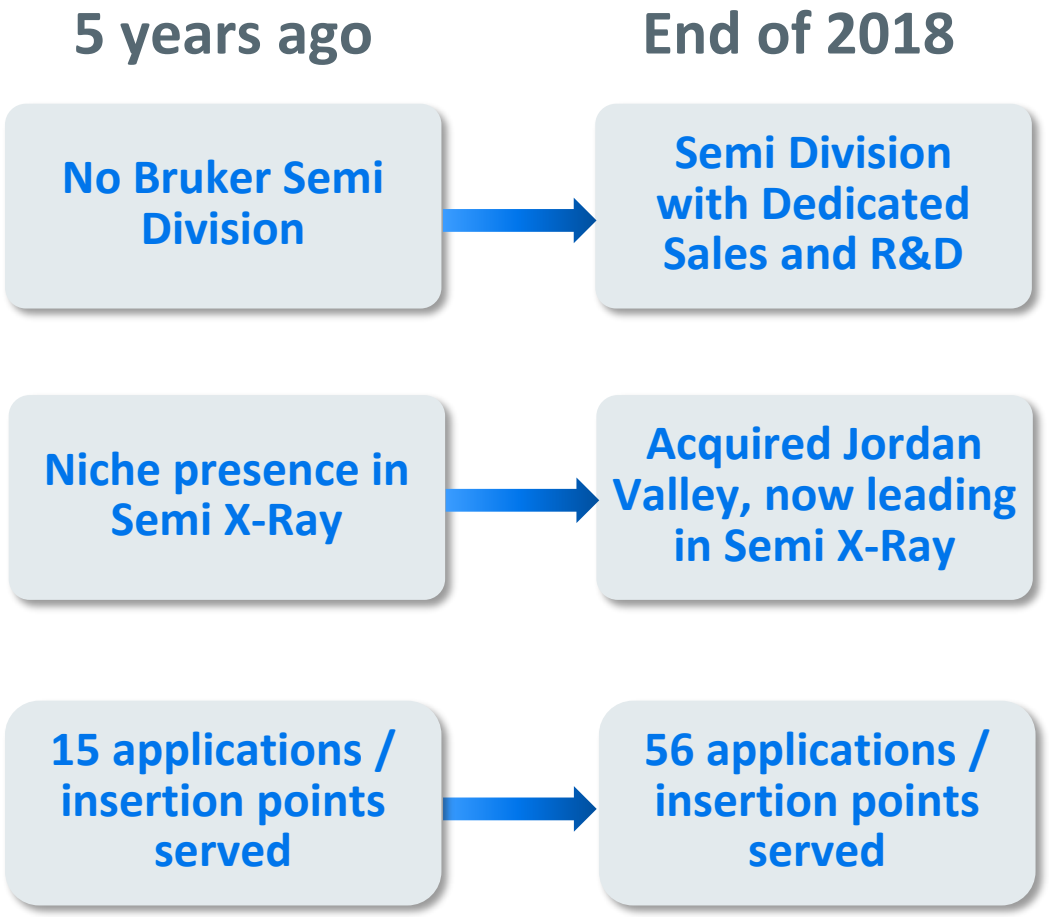




Recent Semi/Nano Highlights

Continued Product Innovation
Continued Application/Insertion Point Penetration

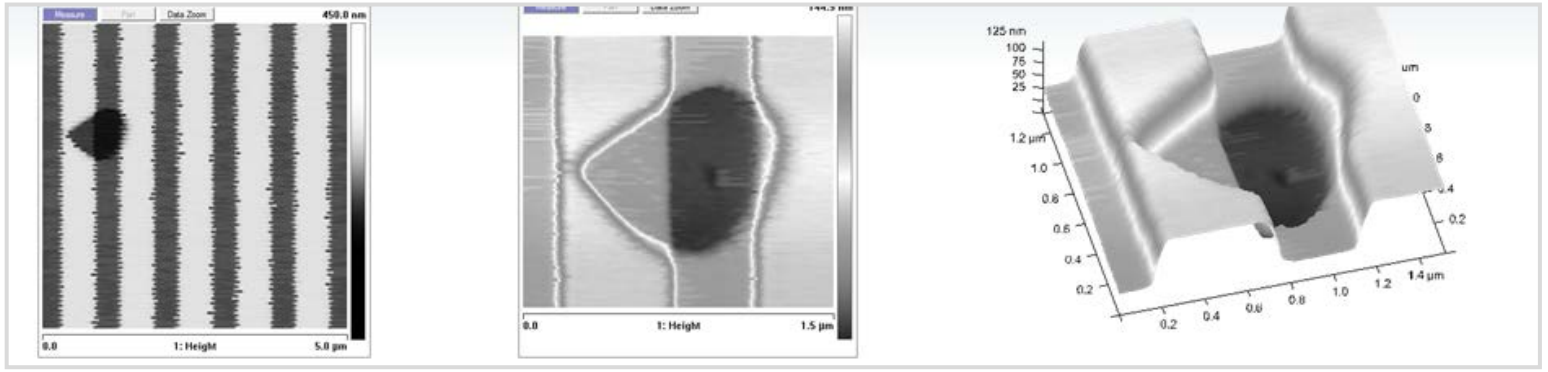
- Revenue growth of 24% over 2017 on new automated **AFM Insight CAP** tool
- Greater than 20% revenue growth in **Internet of Things** (IoT) and **Automotive** chip manufacturing segments
- **First order** for X-Ray critical dimension (**XCD**) metrology
- Expanded Auto AFM mask defect review to include nano-manipulation with the **Insight NanoMet**
- Asset purchase of **Rave LLC** business for photomask repair



Semiconductor Metrology and Nanotech Initiative

Photomask Defect Review, Characterization and Repair

Automated AFM defect review and characterization:

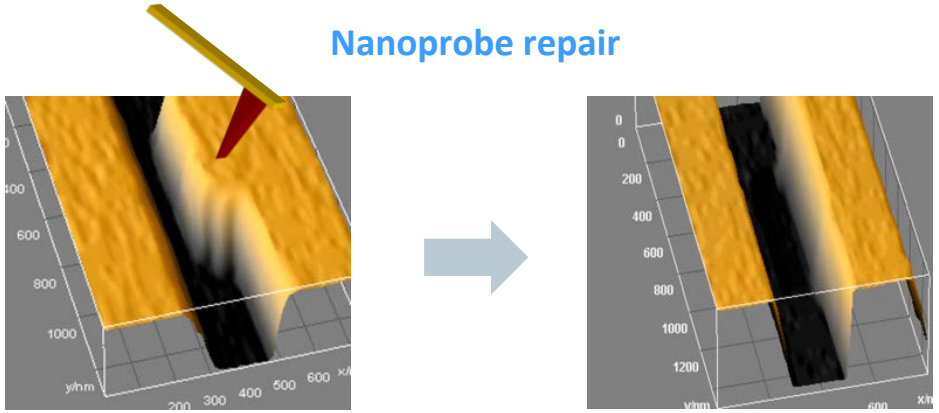


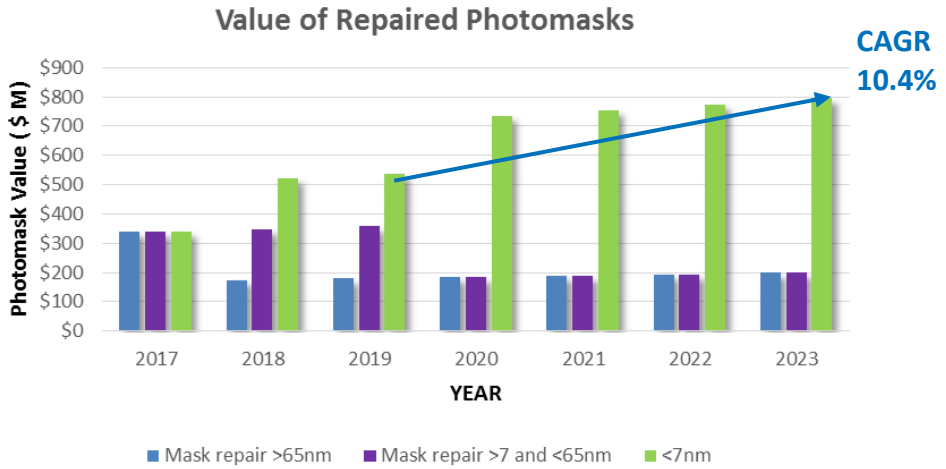
3D characterization of photomask defect

Drivers:

- Smaller nodes
- Complex masks
- Extreme UV (EUV)

Rave nano-repair tools, including nanomachining:

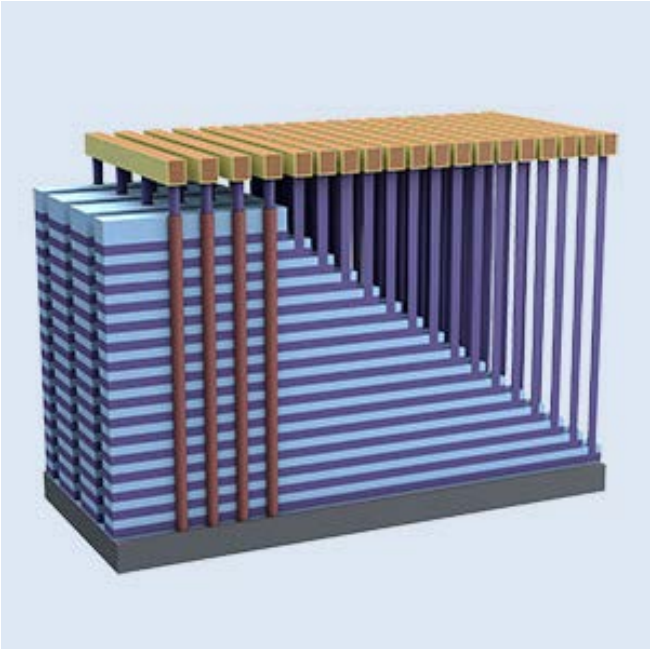




Semiconductor Metrology and Nanotech Initiative

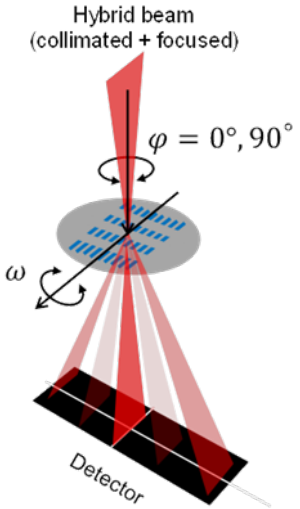
X-Ray Critical Dimension (XCD) Metrology

>$100M opportunity

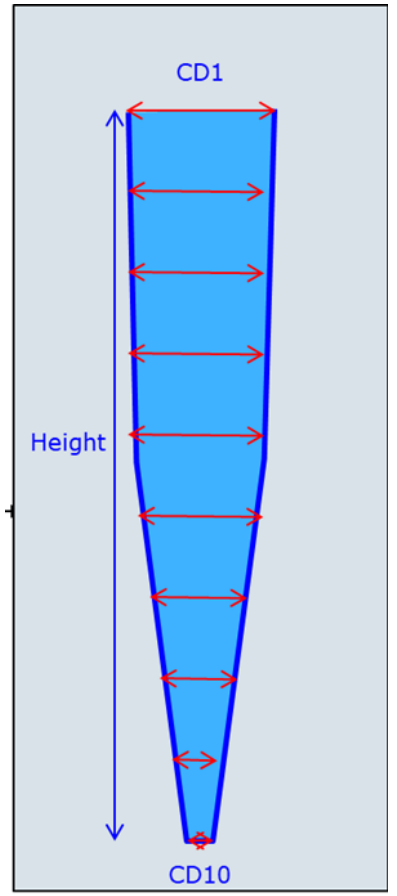


3D vertical NAND memory design

Need to Characterize High Aspect Ratio Dimensions Using X-Ray

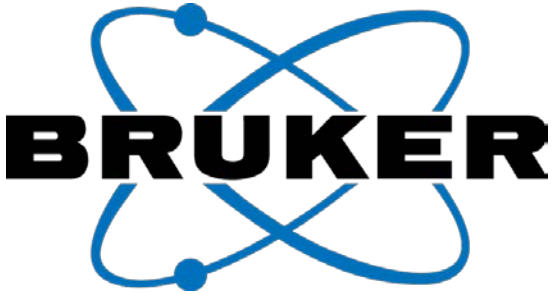


Determines profiles



What Differentiates Bruker

Extend technology lead and brand in Semi adaptation of X-Ray and AFM	Market leader in Automated AFM Technology leader in Semi X-Ray
Leverage innovations from our strong X-Ray and AFM research segments	Market leader in scientific AFM Highest number of X-Ray modalities
Close customer relationships	Direct Sales relationship at every Tier 1
Best-cost supply chain	Unique proprietary, best-cost supply



Innovation with Integrity

4) Pharma & Biopharma Initiative
5) After-Market & Scientific Software Initiative

Dr. Falko Busse
President, Bruker BioSpin Group

Innovation with Integrity

EXECUTIVE BIO

Dr. Falko Busse

President, Bruker BioSpin Group

- 20 years of experience in management of significant growth opportunities in Philips healthcare business
- Strong record in building new businesses & creating new markets with novel market insights and technology innovation
- Deep expertise in strategy, product development, marketing excellence, and market & business development

Prior to Bruker

- CTO of the Philips global MRI business
- VP/GM of two Philips growth businesses: image-guided therapy, and data-driven radiology solutions

Education

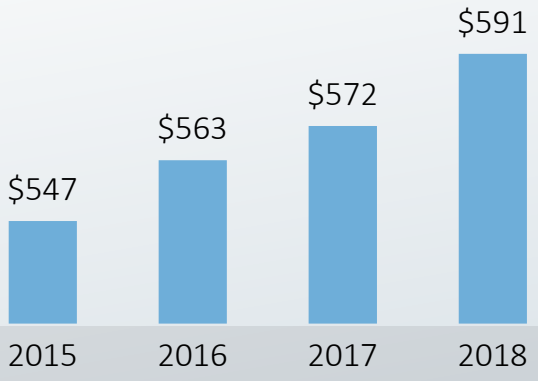
- Ph.D. in physics from the University of Bonn
- Executive training at MIT's Sloan School of Management

Bruker BioSpin Group Overview

Technology Areas for Bruker BioSpin Group

- Nuclear Magnetic Resonance (NMR) Spectroscopy
- Electron Spin Resonance (EPR)
- Preclinical Magnetic Resonance Imaging (MRI)
- Preclinical PET & micro-CT
- NMR FoodScreener and NMR Phenomics

BioSpin Revenue in $M



BioSpin Non-GAAP Operating Margin

Strong BioSpin margin expansion

2015-2018

Market leader in:


NMR


Preclinical MRI and micro-CT


Electron Spin Resonance


High- Field Magnet Technology


MR Food Analysis, NMR Phenomics


Dynamics & Function in Structural Biology

Bruker BioSpin Group Overview

Commercial, operations and product development excellence driven by *Bruker Management Process*

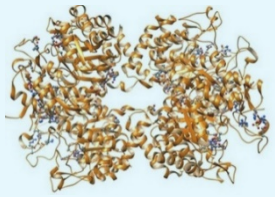
Strong in Aca/Gov Life-Science research core markets

Product Leadership

Strategic Software M&A

Arxspan

Mestrelab Research



Aftermarket Growth

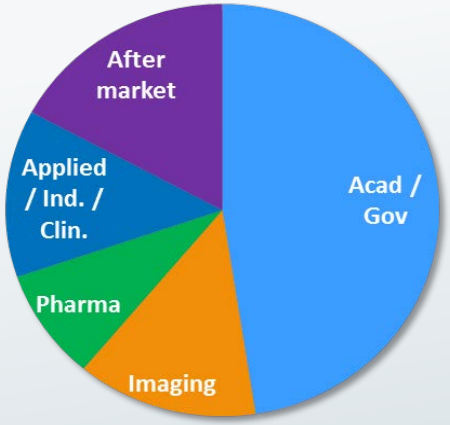
LabScape

we've got you covered

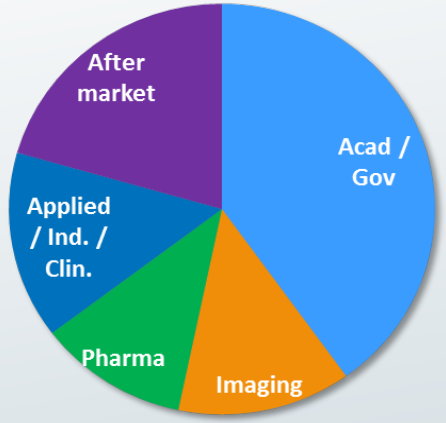
Higher margins and cash generation

- **BioSpin portfolio reoriented towards higher growth & higher margin opportunities**
- **Goal is sustainable MSD* BioSpin revenue CAGR**
  - Pharma & Biopharma NMR solutions
  - Applied, Industrial and Phenomics solutions
  - GHz-class NMR for structural biology
  - PET/MR and ultra-high field MRI
  - After-Market Services
  - Scientific Software & Lab Informatics

*MSD = mid-single digits



2016



2022E

Bruker BioSpin Group Overview

Breaking news: First 1.2 GHz magnet has reached field in our Swiss factory

When	Order Backlog	Expected Delivery	Manufacturing Capacity	Stabilization Time
May 2019	9 systems	Q1 2020	3 / year	6 months

4) Pharmaceuticals & Biopharma Initiative

Pharma/Biopharma market dynamics

Attractive opportunities for Bruker's unique, high-value NMR, MS and FT-IR/NIR solutions

LST TAM in Pharma $16B

CAGR 6.5% * (TAM = Total Addressable Market)

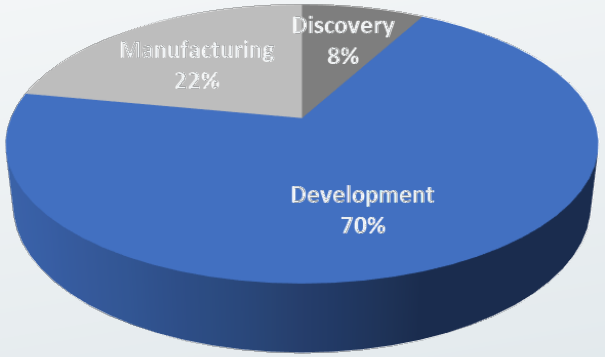
Bruker Est. SAM in Pharma ~$3B

Estimated CAGR > 12% (SAM = Served Addressable Market)

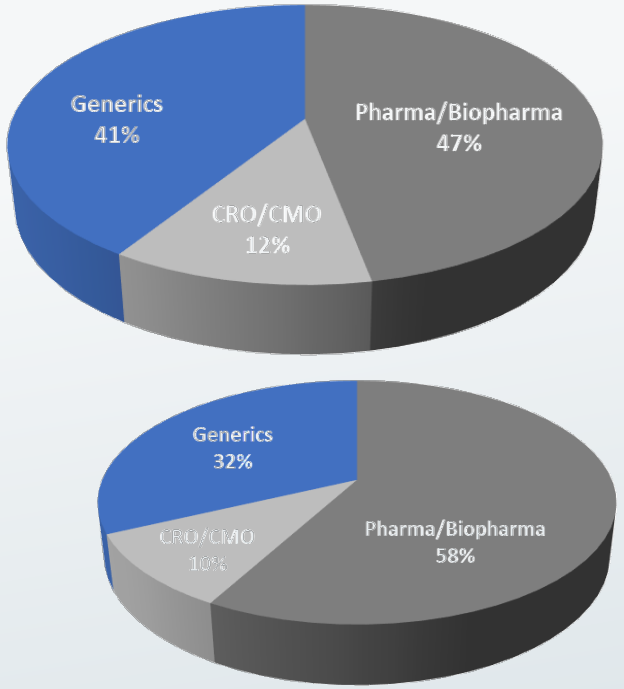
Fundamental trends in Pharma/Biopharma markets:

Addressable value chain:

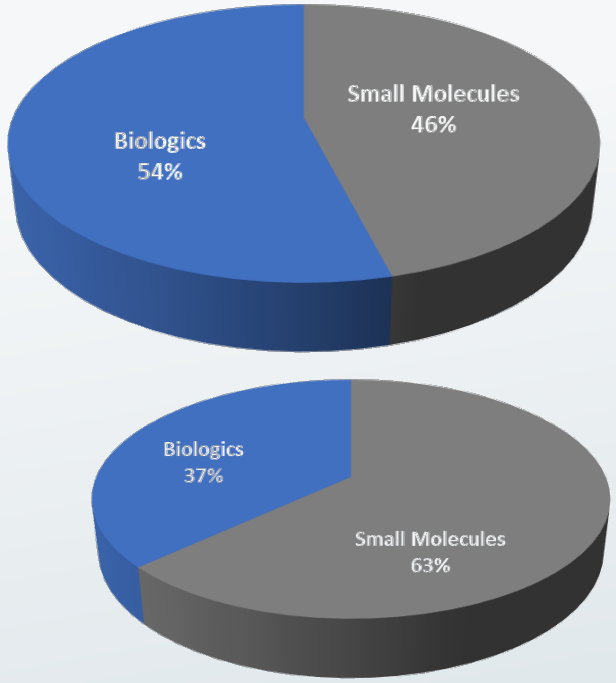
- **Drug Discovery is key market for Bruker NMR and mass spec**
- **High spend also in Development and Manufacturing**



Above avg CAGR in CRO/CMO and Generics



Biologics revenue outpacing small molecules



* CAGR 2017 – 2022, Sources: Credit Suisse, Capstone Headwaters, Argus Research, IMS-IQVIA, UBS, Frost & Sullivan, pharma companies annual reports

Key BioPharma Growth Initiatives

Leverage unique Bruker Pharma/Biopharma solutions, as well as Bruker macro-molecule core competencies in NMR and MS

1 Serve broader value chain

High-end NMR and MS for Discovery, e.g. proteomics, structural biology, uHTS (label-free), fragment-based screening

High-specificity NMR & MS solutions for Development, e.g. drug/metabolite MSI

Enable pharmaco-proteomics: *timsTOF Pro*

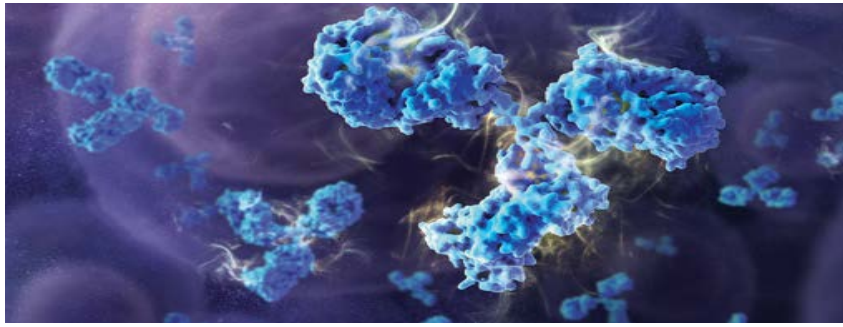
PAT and QA/QC for Manufacturing, also for biologics scale-up in bioprocessing

2 Expand to specialty CROs and clinical trials

Development and PAT for specialty CRO/CMOs

Support pharma clinical trials with high-throughput, quantitative proteomics

Tailor solutions and business models



3 Grow with Biologics

From small molecule to unique MS and NMR solutions for biologics

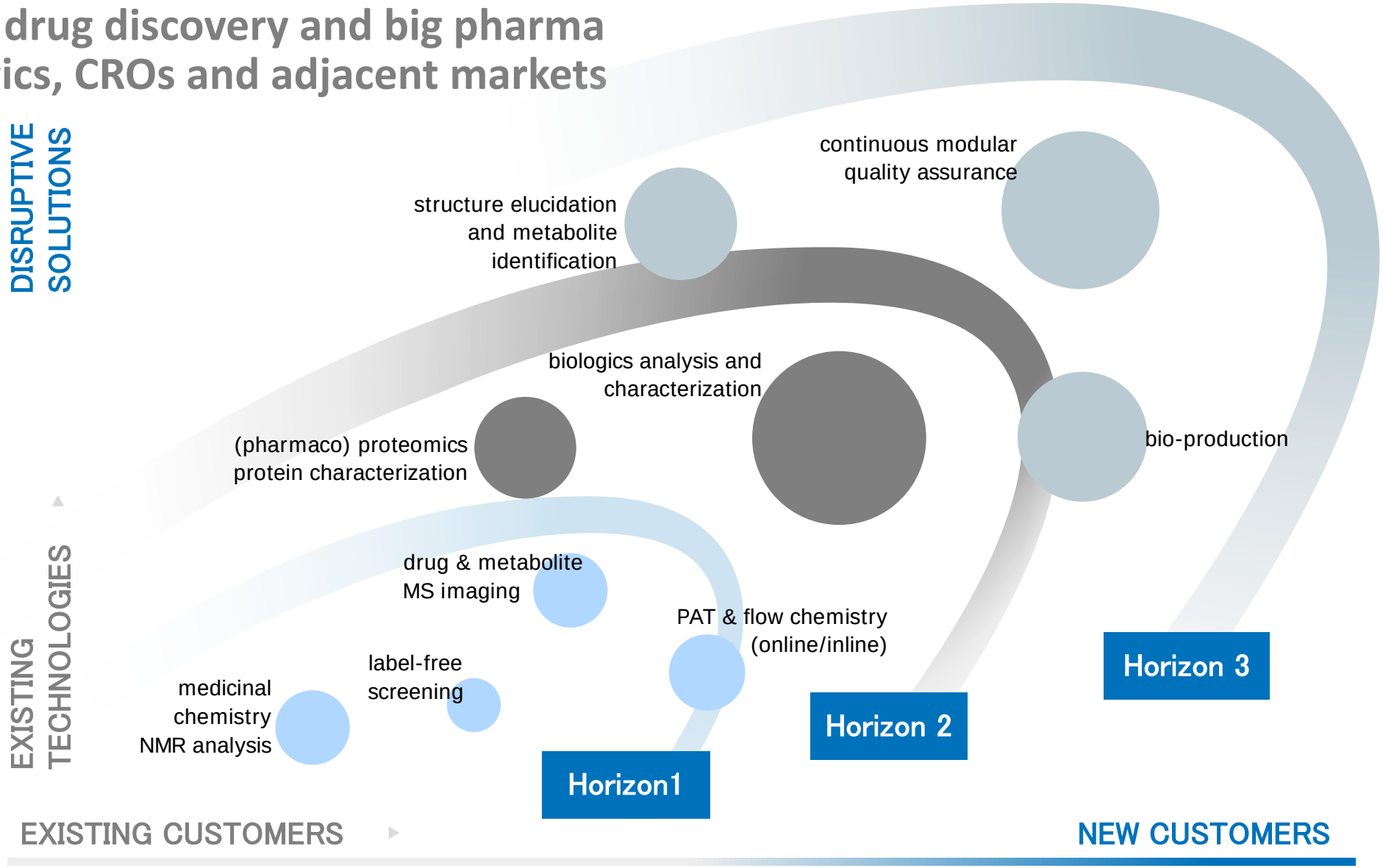
Leverage high performance systems

Software solutions to accelerate technology adoption

BioPharma Horizon Strategy

Leverage footprint in drug discovery and big pharma to expand into biologics, CROs and adjacent markets

- Implemented 3-horizon innovation model for faster growth
- Accelerating product & solution innovations
- Establishing eco-systems to enable comprehensive solutions



1 Serve Broader Value Chain

Leverage existing Bruker customer partnerships to grow into drug development, pharmaco-proteomics, and manufacturing

High performance **Discovery**	High performance **Development**	Integrated solutions for **pharma PAT** and **QC**
• Label-free uHT MS screening • Automated NMR structures • Fragment-based NMR & MS lead optimization • Intact Abs, Ab-drug conjugates • Fast, sensitive proteomics	• Superior biosimilars assessment • Spatial drug and metabolite distribution by MS imaging • Higher-order structure fingerprinting by 2D NMR • Support clinical trials by emerging pharmacoproteomics	• Process analytical technologies (PAT), e.g. near-infrared and Raman • Miniaturization for continuous PAT • Future bio-PAT solution will need to include also high-performance MS and NMR



1 Serve Broader Value Chain

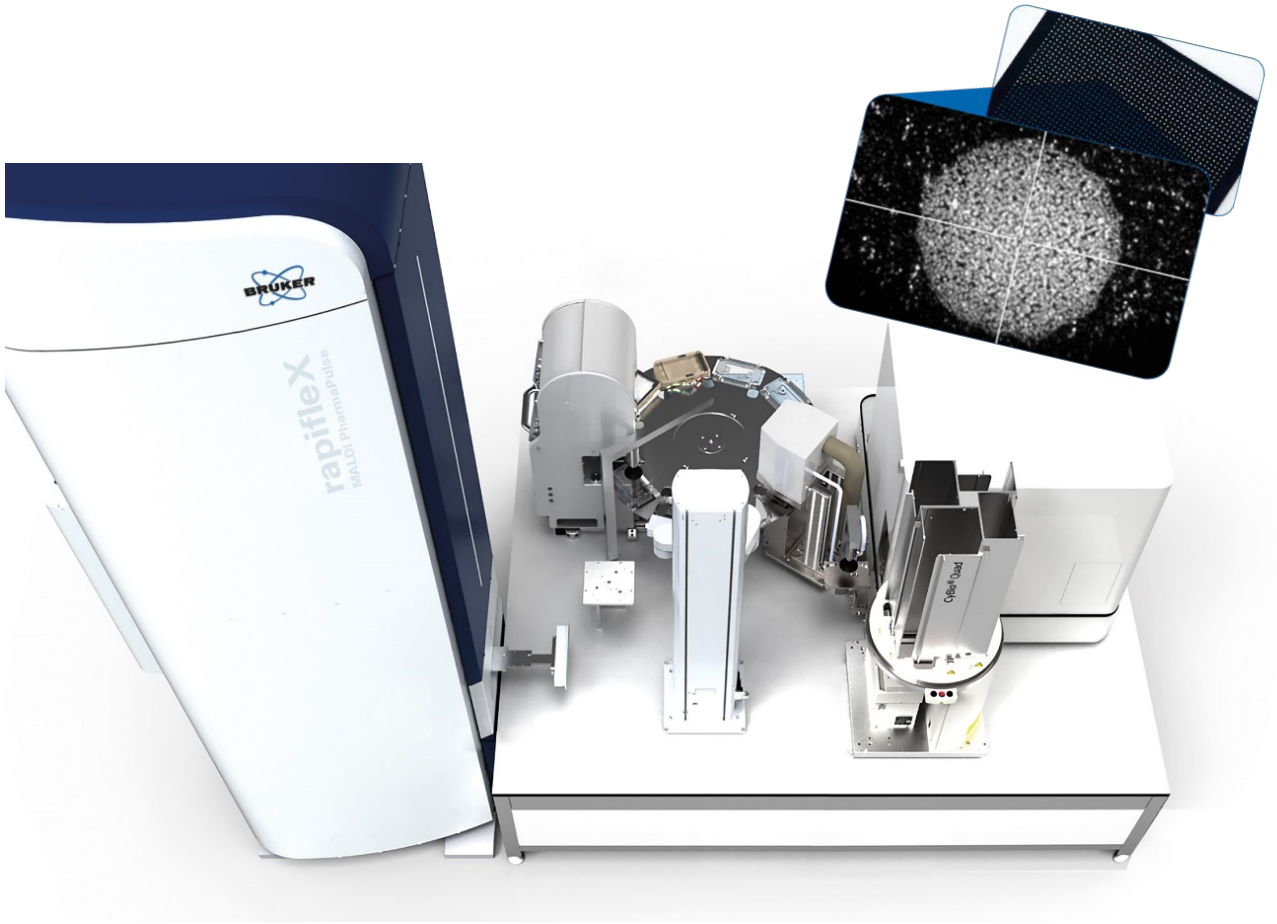
Label-Free Ultra-High Throughput Screening by MALDI PharmaPulse™

MS offers direct, label-free readout for primary library screening and secondary validation assays

- Dose-response curves
- Drug profiling

Bruker's rapifleX *Maldi PharmaPulse system* benefits:

Speed: 1536 samples plates in 10 min	✓
Low cost: <10 cents per well	✓
Tailored software for drug discovery workflows	✓



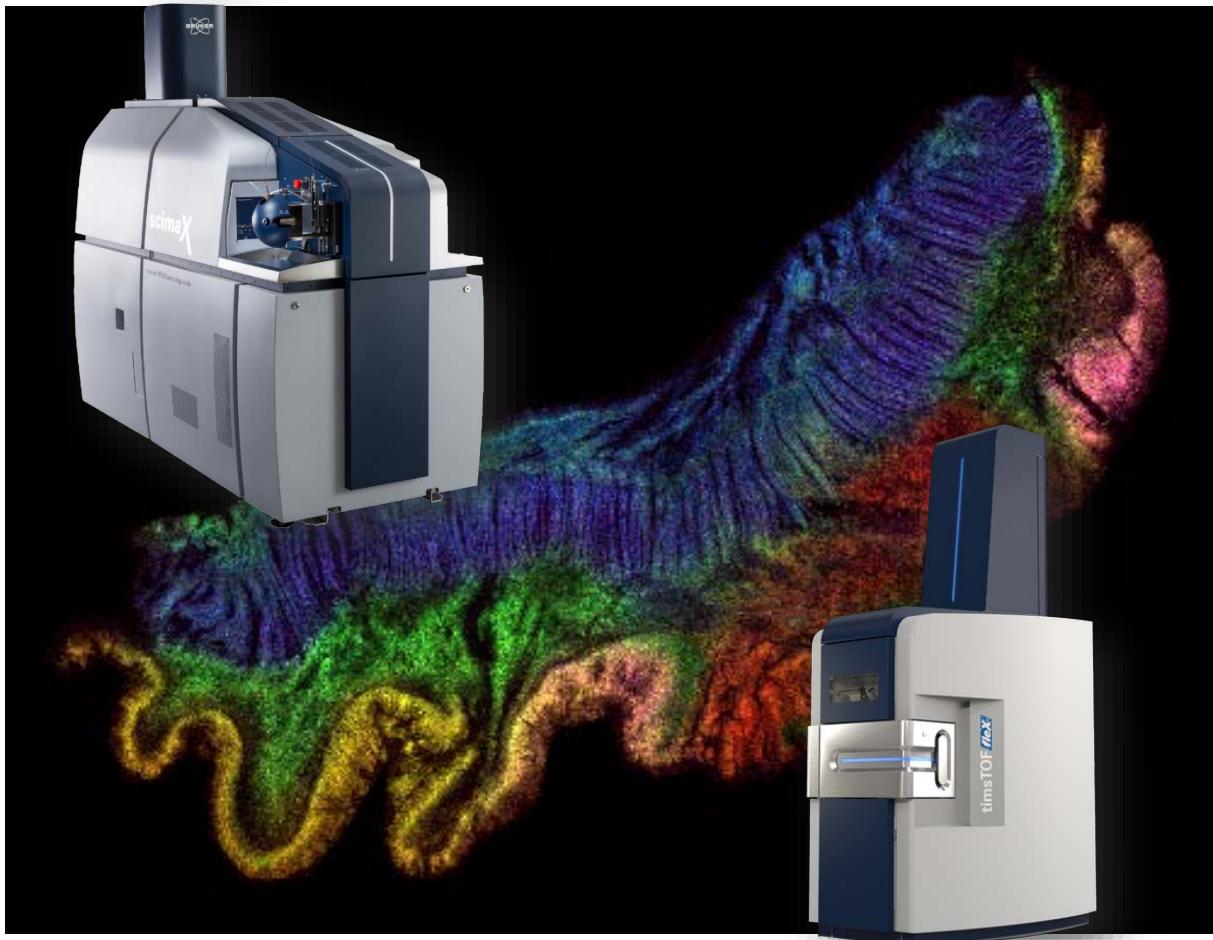
1 Serve Broader Value Chain

Label-Free Drug and Metabolite Distribution by MS Imaging

- Drug-to-target engagement
- Toxicology during drug development
- Drug efficacy for immuno-oncology

Bruker's MS Imaging systems provide:

SpatialOMx™ for inter- and intra-cellular networks	✓
lower cost and greater specificity	✓
platform for pharmacological tissue modelling	✓



SCiLS

1 Serve Broader Value Chain

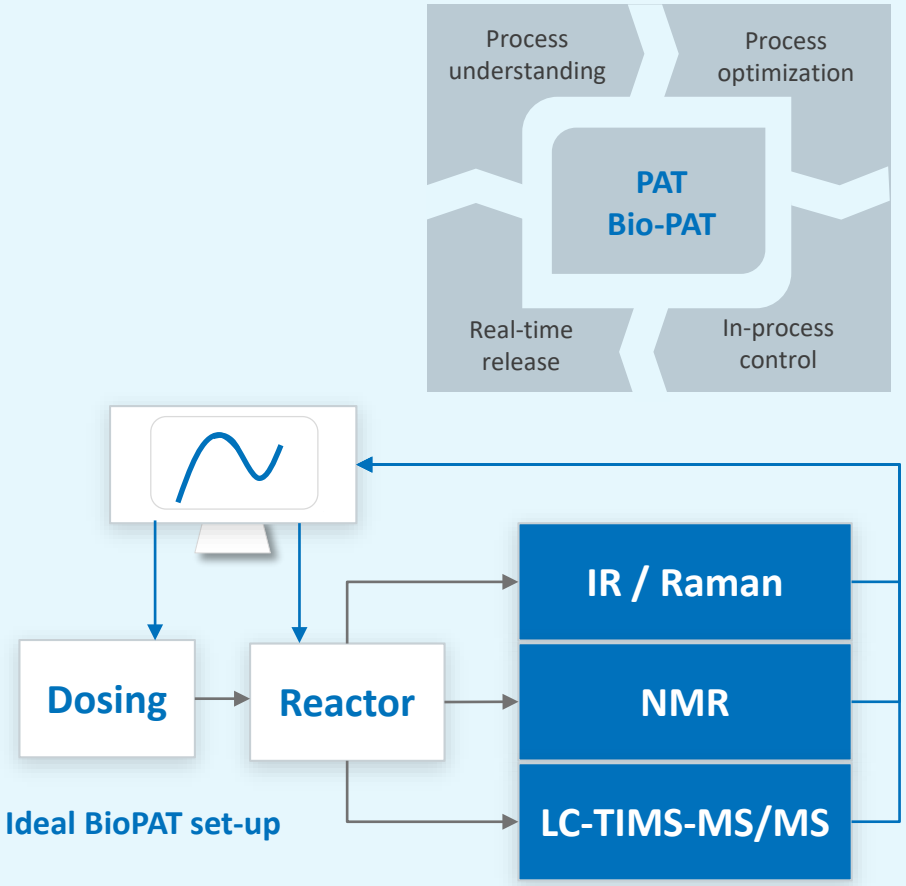
Process Analytical Technology (PAT) by NIR, NMR & MS

Bruker's instrumentation delivers multi-quality attributes for process optimization and control:

- Process understanding by NMR & MS to transfer processes from the lab to the plant with high levels of confidence
- IR and Raman instrumentation are key enablers of real-time in-situ analytics in manufacturing

Process understanding on-line NMR, MS	✓
Real-time in-situ analysis FTIR/NIR, Raman	✓

From testing quality to building quality into products and processes



2 Expand to Specialty CROs and Clinical Trials

Polymorphs by NMR & XRD

- a billion $ IP 'war'

Polymorph patents are a key strategy for both:

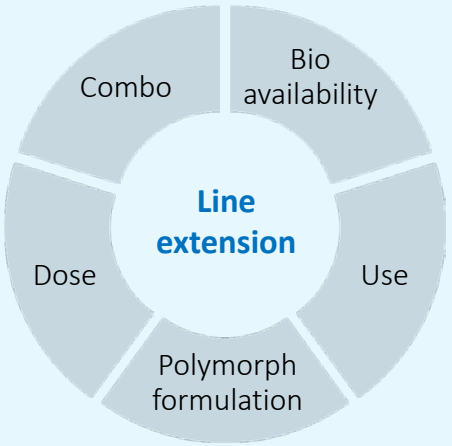
i. Innovators: to extend market exclusivity — Lipitor®

ii. Generics: to enter market earlier — Fosamax®

Bruker offers comprehensive portfolio ($100K – $2M) for polymorph characterization, critical to patent protection

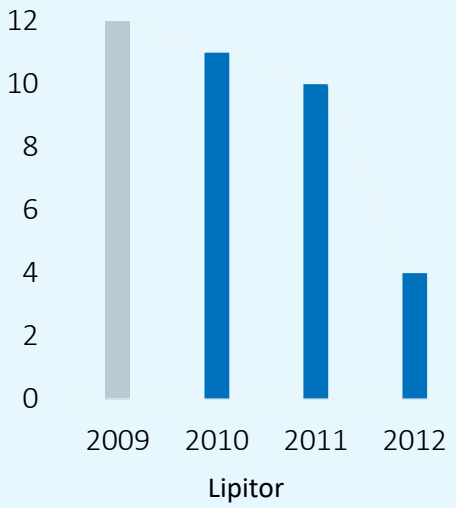
Solid state NMR	✓
Powder X-ray diffraction (XRD)	✓

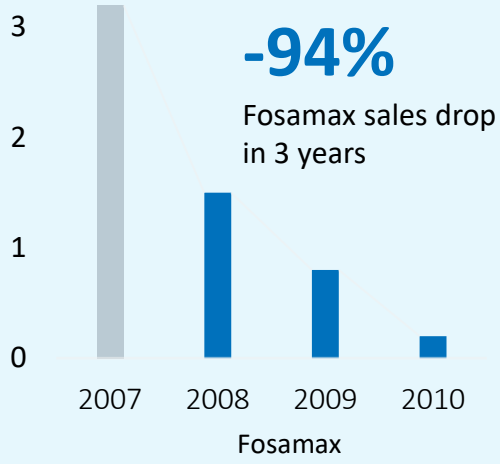
Typically 90% drop in drug sales 3 years after patent expires



-66%

Lipitor sales drop in 3 years





-94%

Fosamax sales drop in 3 years

3 Growth with Biologics

Unique NMR and MS Capabilities Accelerate Drug Releases

As a technology leader in NMR and MS, Bruker provides the superior data needed to accelerate discovery and development, reduce risks and time-to-market for biologics

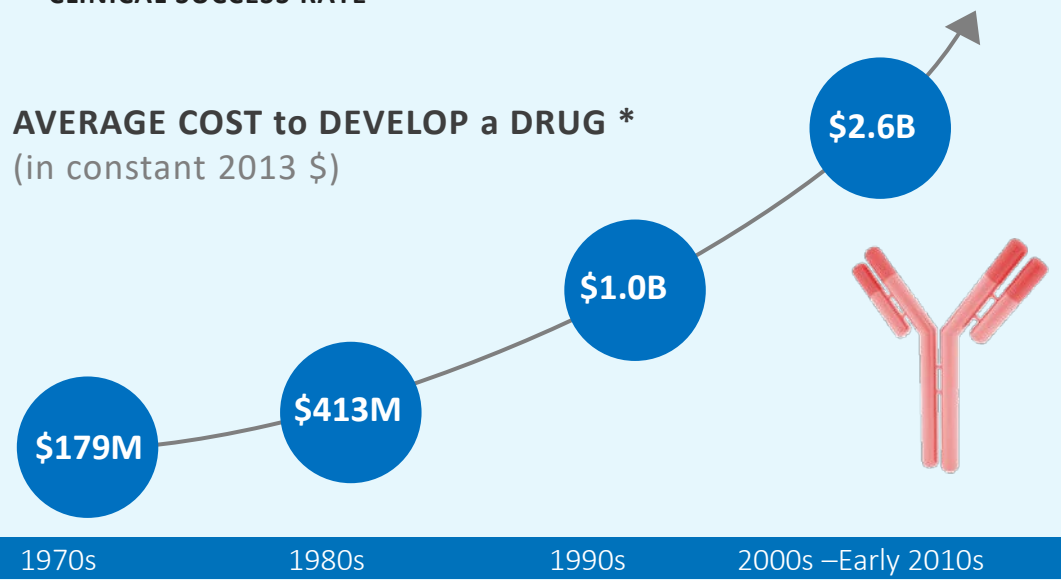
Higher order structure fingerprinting NMR	✓
Intact mass timsTOF Pro	✓
Glycosylation timsTOF Pro	✓
Disulfide bonds location Disulfide Detect	✓
Protein concentration & aggregation	✓

Cost of drug development has doubled over the past decade

12 YEARS
AVG TIME TO MARKET

8 YEARS
MARKET EXCLUSIVITY

<12%
CLINICAL SUCCESS RATE



* Sources: Tufts Center for the Study of Drug Development, Journal of Health Economics, Volume 47, 20-33 (2016)

Identify and Quantify Impurities in Bioproduction by TIMS/PASEF

- Host Cell Proteins (HCP) are low-level impurities, derived from the host organism during bioproduction
- HCP control is a regulatory requirement for drug safety

timsTOF Pro for fast and comprehensive HCP screening:

Unbiased, high confidence identification	✓
High sensitivity quantification (1 ppm)	✓
Robust routine high-throughput assessment	✓

5) Aftermarket and Software Initiative

Build an industry-leading aftermarket business

Long-term sustainable growth & margin engine

- Continuous growth of services & aftermarket share of BioSpin business, expanding to Bruker
- Highly skilled and motivated team of field service engineers and application experts is core asset
- Aftermarket portfolio transformation to offer solutions for full customer life-cycle journey
- Drive business/service model innovation under Bruker LabScape® brand

Bruker Aftermarket is sizeable
With SAM >$1.2B
CAGR 5-9%

Double digit growth examples:

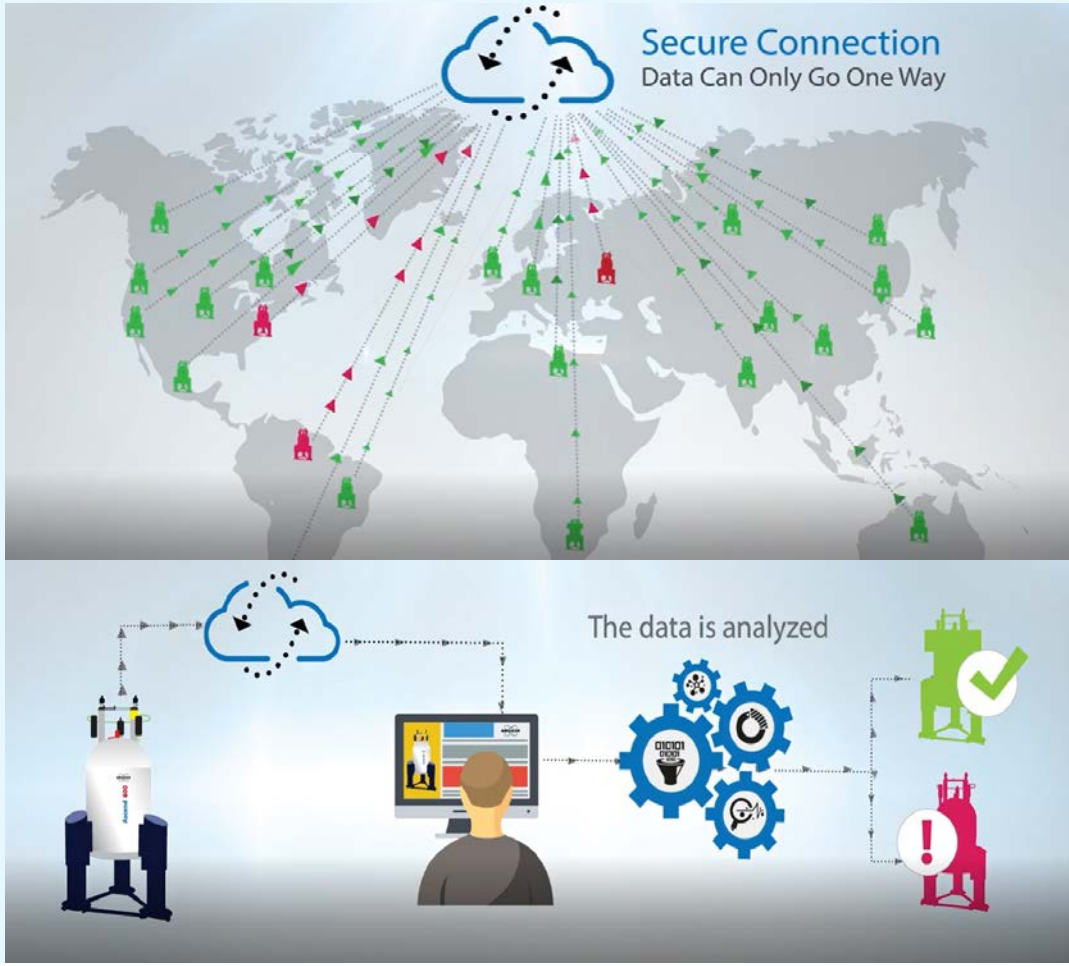
- **LabScape service contracts 2016 - 2019E**
- **Consumables & accessories 2016 - 2019E**

Proprietary remote service solution with IoT approach

Increase attach rate and enable new biz models

- Increasing portion of NMR installed base protected by remote magnet monitoring
- Design for data-driven services via intelligent devices
- High-value feedback into R&D and manufacturing
- Drive service innovation like business continuity (uptime), consultancy and utilization optimization

Predictive Service paradigm: Sell uptime!



Aftermarket Portfolio Transformation

From ‘repair/fix’ to trusted business partnering

Horizon 1
Increase Coverage

Horizon 2
Beyond Repair/Fix

Horizon 3
Beyond installed base

product maintenance

E-commerce & consumables

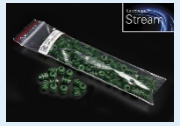
data driven services / augmented reality

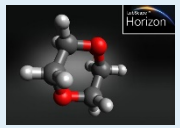
regulated markets

predictive maintenance

asset sharing & asset mgmt. 4.0

AI enabled business partner





LabScape
we've got you covered

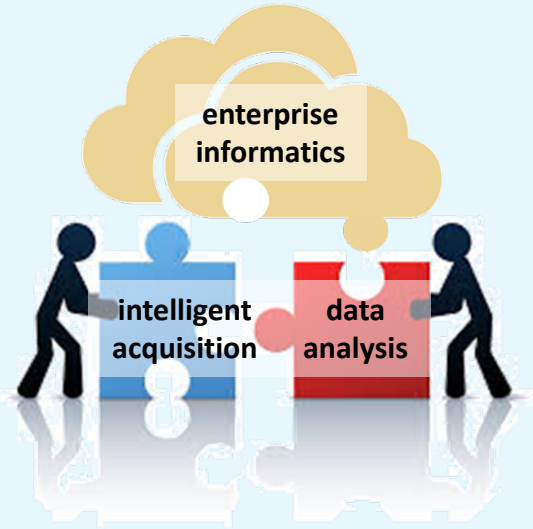
Building a Unique Scientific Software & Lab Informatics business

Create value from end-to-end data integration

- Attractive market fundamentals of lab informatics with TAM size of $1.2B and CAGR of 12% *
- Acquisitions of ***Mestrelab*** and ***Arxspan*** add capabilities in analytics and cloud based enterprise informatics
- Expected growth of 2x market with end-to-end solutions
- First integrated solutions launched:

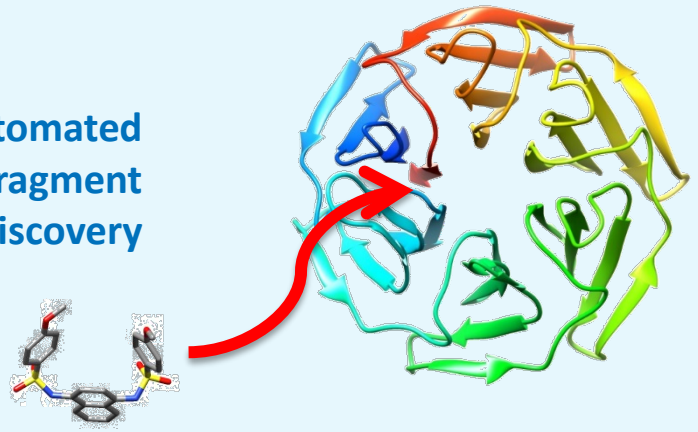
Higher order structure NMR fingerprinting ✓

Fragment-based lead optimization by NMR ✓



set of fully integrated software suites

fully automated solution for fragment based lead discovery



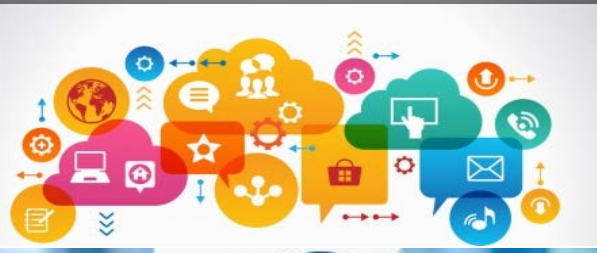
* GAGR 2019-2022, Sources; Bioinformatics (SDI reports), Frost & Sullivan

What Differentiates Bruker

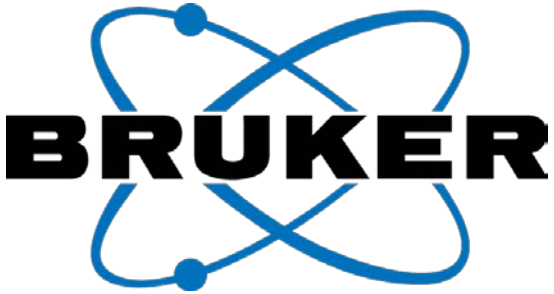
Aftermarket & software solutions for today's and tomorrow's customers

Track record of strongly growing BioSpin aftermarket business with growing portfolio of services and aftermarket products

Innovation pipeline of digital services, driven by disciplined entrepreneurship



Vision to build unique scientific software & lab informatics business centered around Bruker tools, with vision for additional data-driven revenue streams



Innovation with Integrity

6) Microbiology & Diagnostics Initiative

7) Applied Markets Initiative

Juergen Srega
President, Bruker CALID Group

Innovation
with Integrity

EXECUTIVE BIO

Juergen Srega

President, Bruker CALID Group

- Over 30 years of experience managing global businesses of multi-national corporations with strong leadership and broad technical and financial skills.
- Strong track record of building high-growth organizations that foster organizational, operational, and commercial excellence. Deep expertise in product development, operations, strategy, business development, mergers and acquisitions.

Prior to Bruker

- VP and GM Thermo BRAHMS
- VP and GM Thermo Scientific Instruments
- VP and GM Thermo Advanced Mass Spectrometry (Bremen - Finnigan MAT)
- Managing Director, Kreutler GmbH (telecom)

Education

- BS in Engineering, FH Karlsruhe
- BS in Finance & Administration
- Global Executive Leadership Program, Babson College

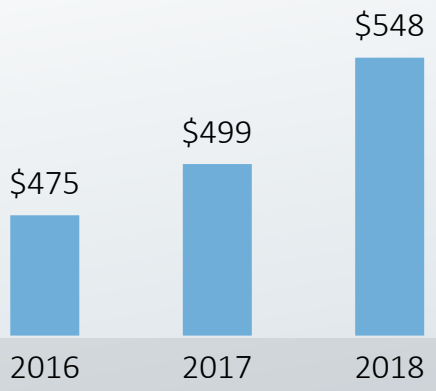
CALID Group is Accelerating Revenue Growth and Expanding OPM

Building market-leading positions in attractive segments

Technology Areas for Bruker CALID Group

- Life Science Mass Spectrometry
- Microbiology & Diagnostics
- Vibrational Spectroscopy – FTIR/NIR/Raman
- Selected CBRNE Detection

CALID Group Revenue (in $M)



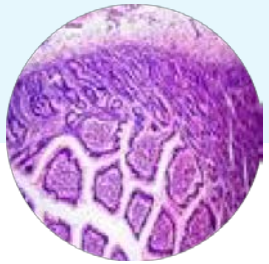
Revenue Growth YoY

9.8% 2017–18

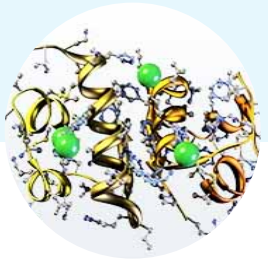
5.0% 2016–17

A technology or market leader in:

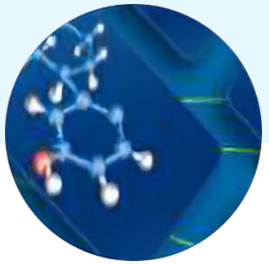
MALDI Biotyper for Microbiology



Mass Spec Imaging, MALDI-TOF and MRMS

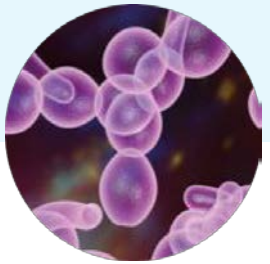


Proteomics by *timsTOF Pro*



FT-IR Spectroscopy and Microscopy

FT-NIR in Chemical and Applied Markets



Selected CBRNE Detection Areas

CBRNE – Chemical, Biological, Radioactive, Nuclear and Explosives

Driving ***Project Accelerate*** with Leading Product Innovation

Complemented by key strategic acquisitions

timsTOF Pro & fleX

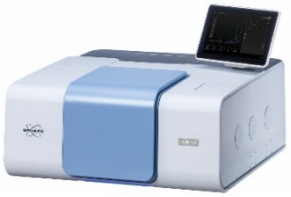
scimaX

rapifleX

MALDI BioTyper

ALPHA II FT-IR

INVENIO FT-IR



Building New Diagnostic Platforms

HAIN LIFESCIENCE

INVIVO

MERLIN A Bruker Company

Bruker Diagnostics Glasgow

Technology Acquisitions for Pharma & Applied Initiatives

SCiLS

IRM²

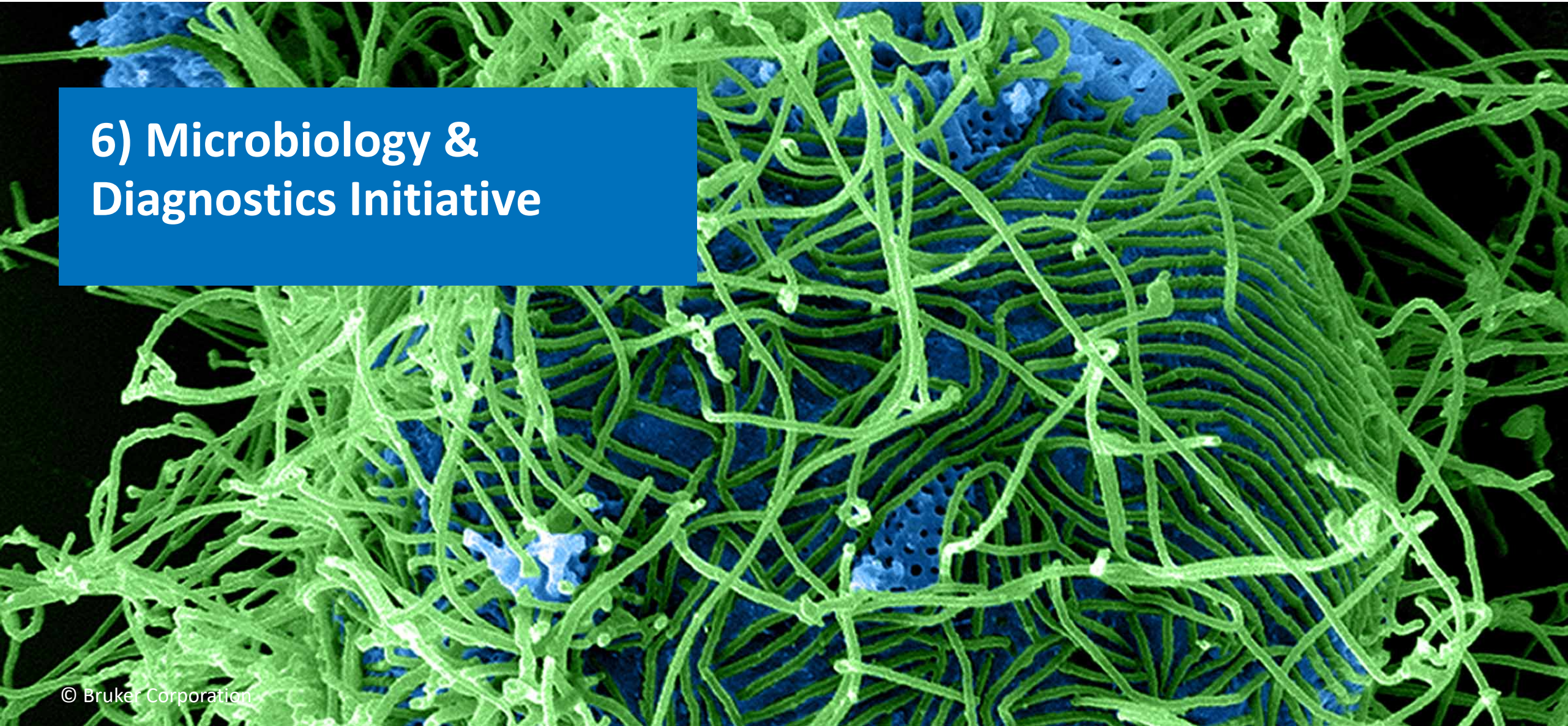
LACTOTRONIC

sierrasensors Your Real-Time Partner.

Major product innovations and strategic acquisitions drive above market growth:

- Continuous stream of differentiated new technologies and products
- Arguably *strongest innovation and new product cycle in life-science mass spec*
- Supplementary *accretive and strategic acquisitions*
- Strong expansion of *after-market* with focus on service and consumables

6) Microbiology & Diagnostics Initiative



Global market for microbiology and infectious disease

In 2018, TAM >$20B with 5-7% CAGR

INFECTIOUS DISEASES/ FOOD PRODUCTION

Growing Population

Constant increase of the number of samples to be tested for infectious diseases and for food contamination.

INFECTIOUS DISEASES

Aging Population

Higher incidence rate of infectious diseases and higher number of microbial tests.

ANTIBIOTIC STEWARDSHIP

Spreading of microbial antibiotic resistances

Globalization and international travels lead to rapid spreading of antibiotic resistances. There is a growing need for rapid testing, minimum inhibitory concentration (MIC) testing, and antibiotic stewardship

FOOD MICROBIOLOGY/HYGIENE

Management of Outbreak Scenarios

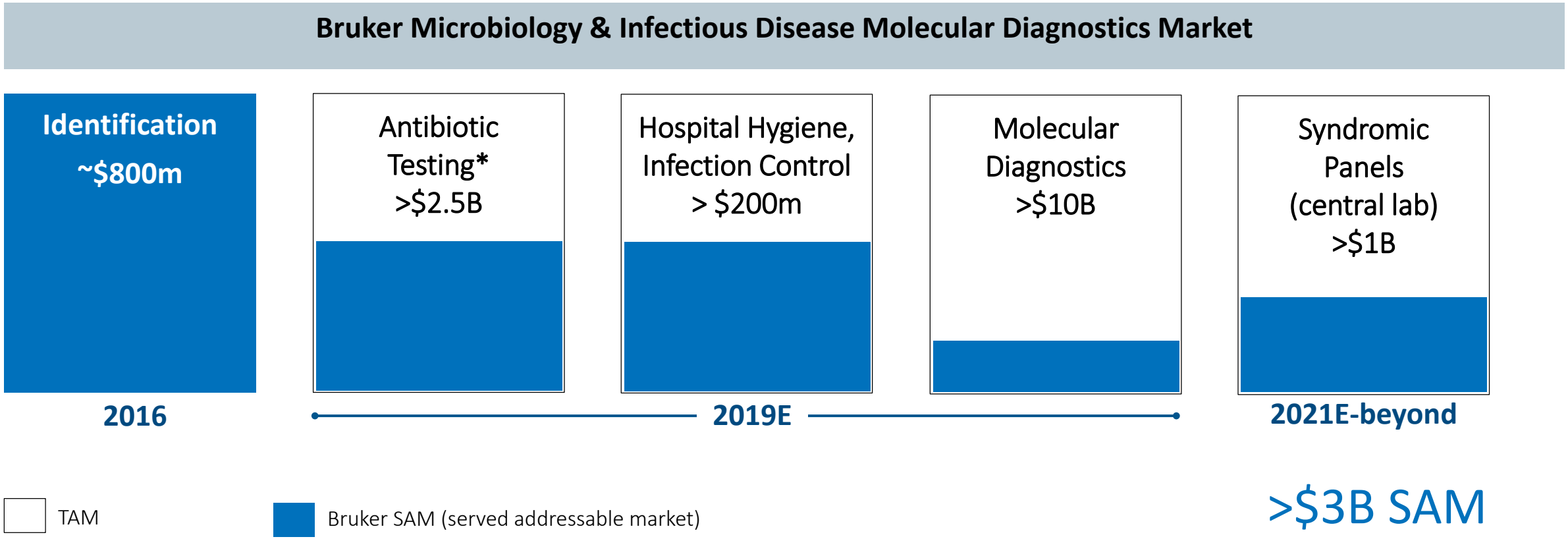
The spreading of hospital-acquired infections (HAI) leads to increased hospital hygiene investments.

Food supply chains need to be controlled. Sources of contamination need to be tracked.

Source:
Grand View Research
Clinical Microbiology Market Size, Share & Trends Analysis Report By Product, By Application), By Region, And Segment Forecasts, 2018 – 2025, Published date: June 2018

Bruker Microbiology & Molecular DX SAM Greatly Increased

by in-house developments and acquisitions



>$3B SAM by 2021

* ART & AST = Antibiotic Resistance Testing & Antimicrobial Susceptibility Testing

Source: Bruker internal analysis and market size assumption

Bruker Microbiology & molDX SAM Systematically Increased

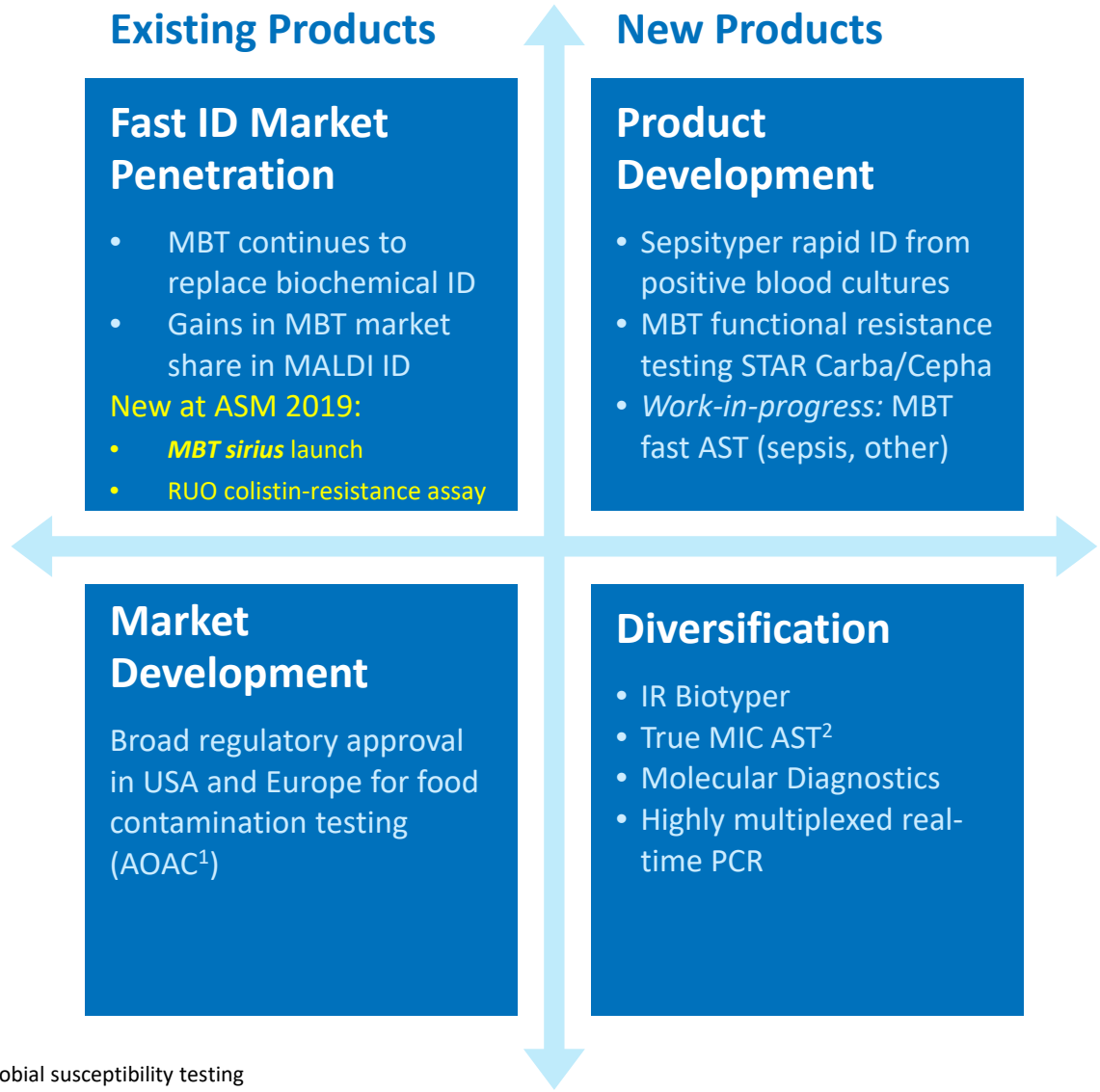
by in-house developments and acquisitions

Existing MALDI Biotyper (MBT) Markets

- Clinical microbiology

New MALDI Biotypers Markets

- Food microbiology
- Hygiene/Epidemiology
- Pharma microbiology



New Bruker Diagnostics - Glasgow

- Specialty real-time PCR assays for invasive fungal disease (IFD)

InVivo Biotech M&A

- Molecular biology consumables development and production
- Third-party CMO

Merlin Diagnostika M&A

- Antibiotics resistance expertise
- AST specialty products

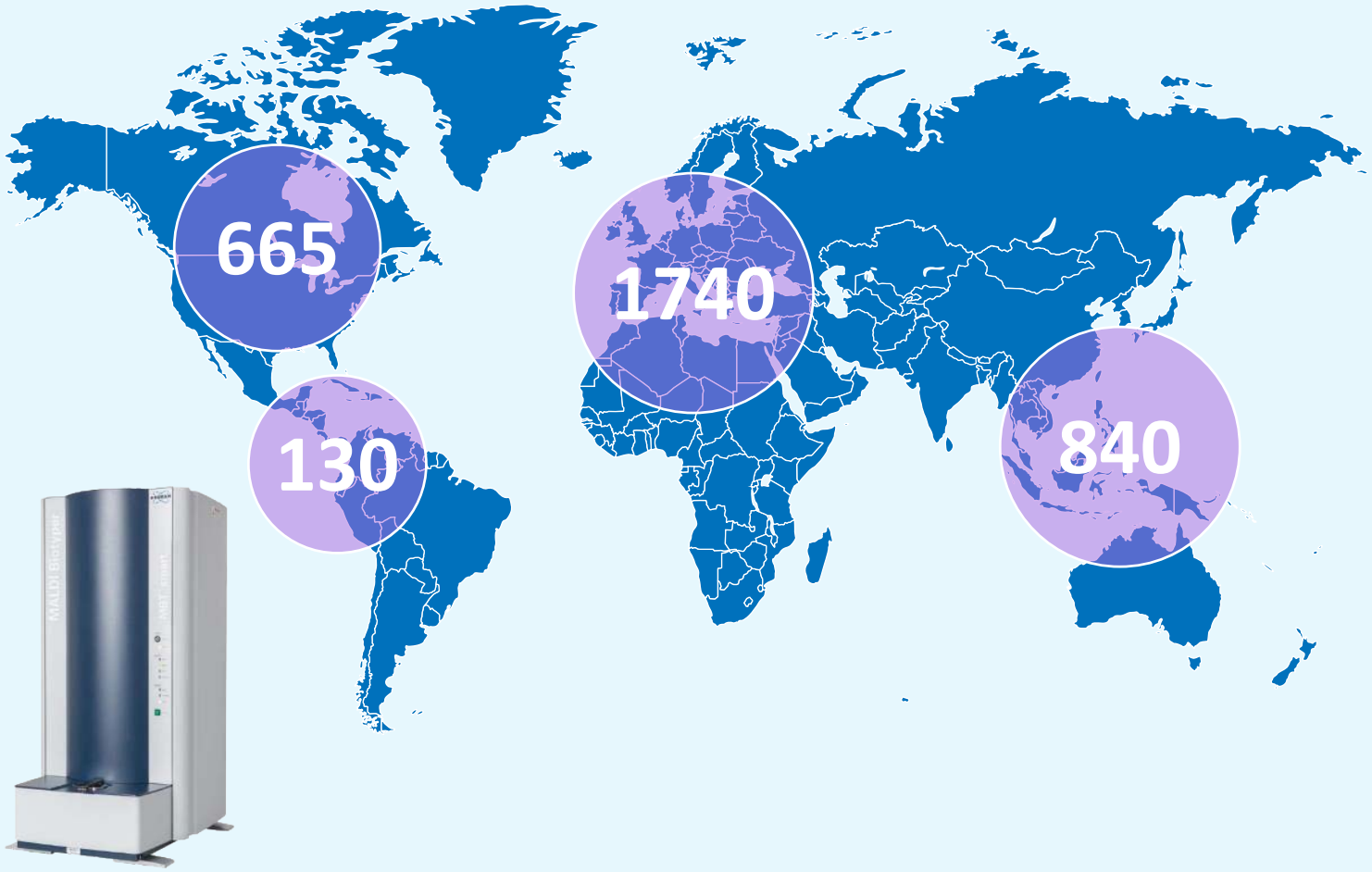
Bruker-Hain Diagnostics (80% M&A)

- Existing molecular DX
- TB diagnostics
- Innovation pipeline of highly multiplexed LiquidArray™ syndromic panels

(1) AOAC = official method of analysis / ISO
(2) MIC AST = minimum inhibitory concentration antimicrobial susceptibility testing

MALDI Biotyper Installed Base Growing Globally

MALDI ID is new ‘gold-standard’ for fast ID from cultures



Installed MALDI Biotyper base

- >3,500 MBT units end of Q2-19
- Estimated >150 million IDs per year on MBTs
- Growing by >400 units annually
    - Great collaborations with major DX partners
- New *MBT sirius* also drives replacement business
- Consumables and service growth in DD

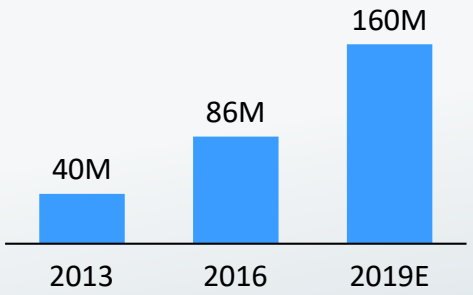
Technology leadership

- Clear MALDI-TOF technology leadership
- Better, faster and more cost-effective microbial ID than conventional biochemical testing
- Nearly universal microbial ID from cultures, most comprehensive species coverage in reference db
- Development of CE-IVD Sepsityper and *wip* fast AST from PBC (sepsis) on MBT platform

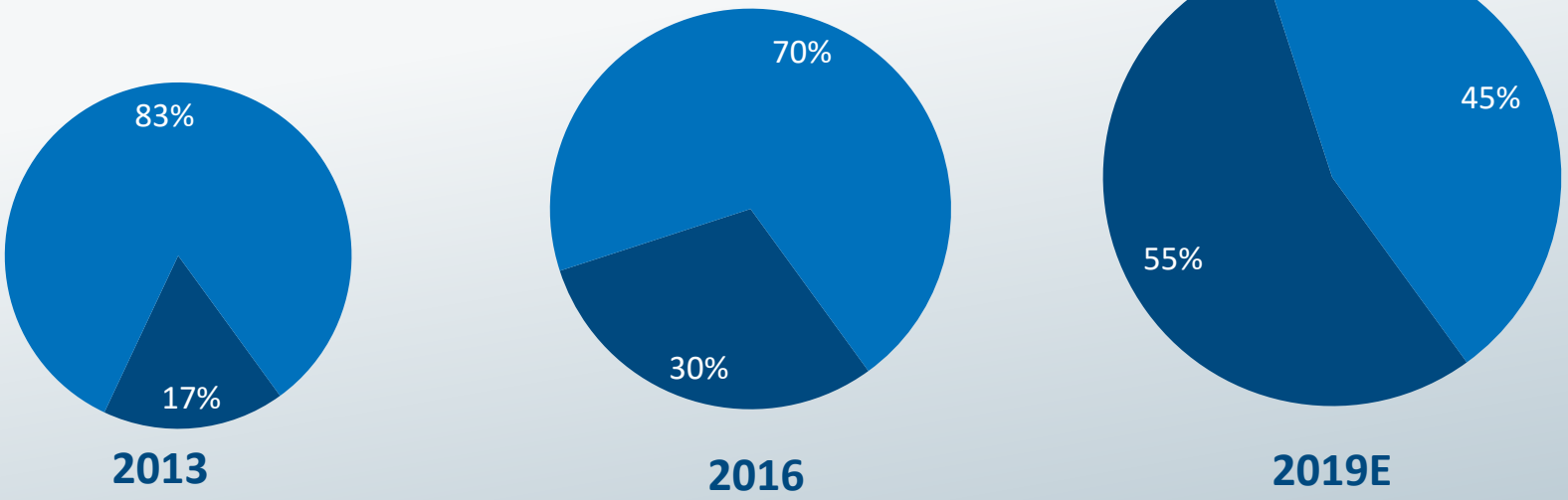
Growing MALDI Biotyper Base Accelerating Recurring Revenue

Growth with new kits, consumables and services

Estimated IDs on installed global MALDI Biotyper base:



Microbiology Aftermarket revenue mix:

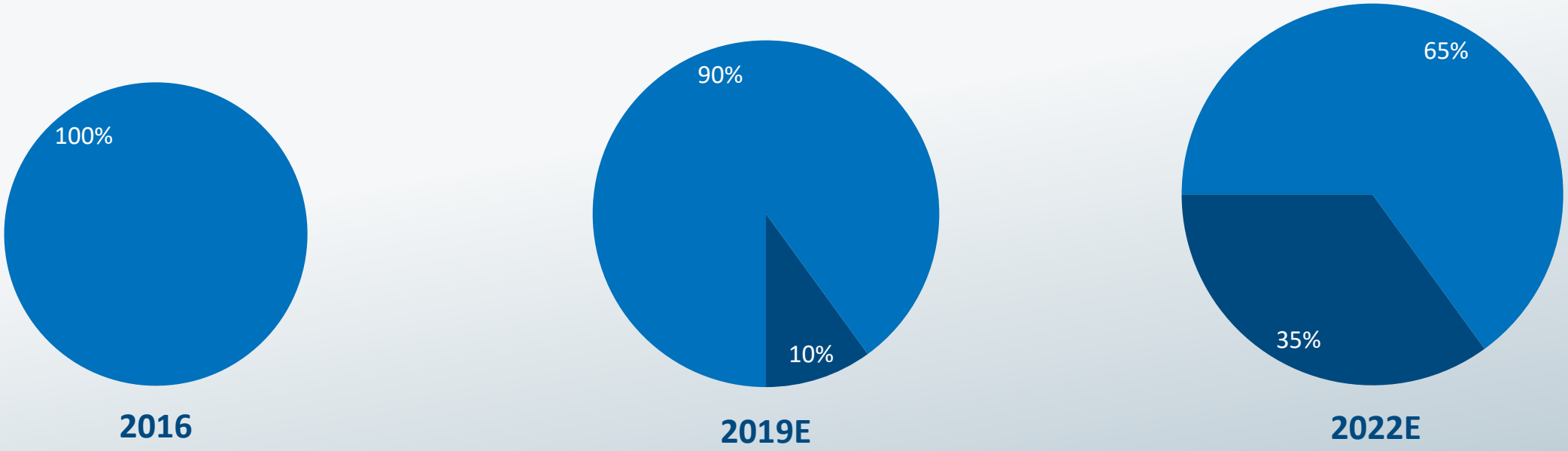


Increasing Diversification from Microbial Identification

Growth in antibiotic resistance testing, hygiene and molecular diagnostics

Roadmap: *MBT fast* AST on Maldi Biotyper, *LiquidArray™* Syndromic Panels on Fluorocycler XT platform

Microbiology & Diagnostics revenue mix:



Microbial identification

New capabilities: ART/AST, hygiene and molecular diagnostics (MBT fast AST, LiquidArray Syndromic Panels expected to launch in 2021)

What Differentiates Bruker

Bruker changing microbiology by highly differentiated, disruptive innovations

MALDI Biotyper

Microbial Identification

Bruker has brought MALDI ID into routine **clinical** microbiology, **food** and **pharma** microbiology

Sepsityper for fast ID from positive blood cultures launched in Europe, in clinical trials for FDA clearance in US

IR Biotyper

Hospital Hygiene/ Epidemiology

IR Biotyper is **fastest typing system** on hospital hygiene market

Potential outbreaks can be ruled out directly in hospital laboratory

Micronaut AST

Antibiotic Resistance/ Susceptibility Testing

Bruker has introduced fast, functional MALDI Biotyper-based methods

Bruker supports true **minimum inhibitory concentration testing** with Micronaut specialty AST to control further spreading of resistances

Bruker-Hain Diagnostics

Molecular Diagnostics/ Multiplexed LA Panels

Bruker-Hain products fight TB by **differentiated analysis** of therapy-relevant resistance mutations

Novel Fluorocycler XT platform for *LiquidArray* Syndromic Panels launched in Europe for MTBDR so far

7) Applied Markets Initiative

Bruker Focused on Attractive and Differentiated Applied segments[1]

Large $2.5B market for LST in food & environmental analysis

Quality Assurance/ Quality and Freshness Control

- Oxidation
- Corking

Food Authenticity

- Origin and variety
- Aging
- Labeling claims
- Brand protection

Food Safety

- Pesticides
- Mycotoxins

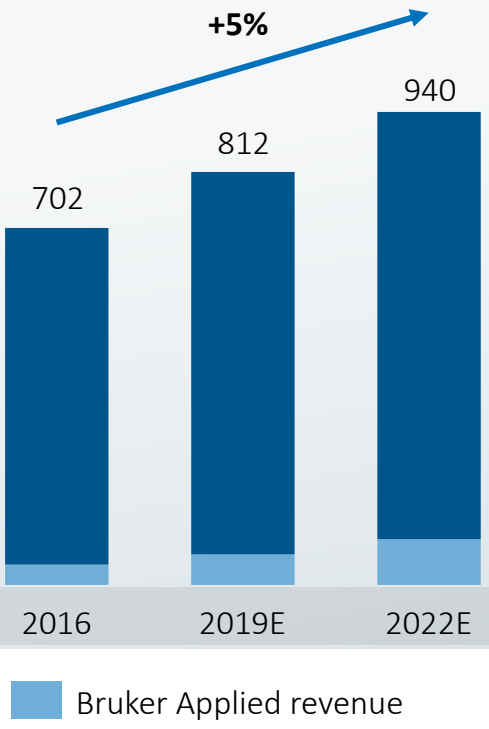
Environmental

- AgroChem
- Pharmaceuticals

(1) Food Microbiology part of Microbiology & Diagnostic initiative

Bruker Plans Double Digit Growth in Applied Market Revenue

Bruker Applied SAM[1] (in $M)



Major market drivers

- Globalization of food market and food supply chain
  - Food fraud costs are multi-billion per year
  - Brand protection
- Stronger regulations and controls
- Consumer and public awareness
- Increasing demand for functional and premium food

Driver of revenue expansion

- Set new standards: displace current technologies with novel analytical solutions
- Offer differentiated portfolio for end-to end value chain and establish strategic supplier partnerships with leading food companies
- Innovate business model ‘beyond system’: recurrent revenue stream with consumables, remote analyses and software stacking and IT solutions (SaaS)

(1) Source: SDI reports

Broad Bruker Instruments and Applied Applications Portfolio

Serve broader value chain for selected, high-value Applied solutions

Bruker instruments & applied solutions






BASIC RESEARCH → PRODUCT INNOVATION / PRODUCT DEVELOPMENT → PILOT MFG → SOURCING → VOLUME MFG; In/At-line Process Control → FINISHED GOODS

- Dairy Products
- Oils & Fats
- Meat Products
- Confectionary
- Condiments
- Beverages
- Wine
- Flour & Milling
- Feed & Pet Food
- Feed & Ingredients
- Crop Science (Breeding)
- Sugar & Biofuels

Applications for high-end products

What Differentiates Bruker

Bruker offers unique solutions in Applied markets by setting new standards in information content, automation and cost/sample

Quality Assurance/ Quality and Freshness Control

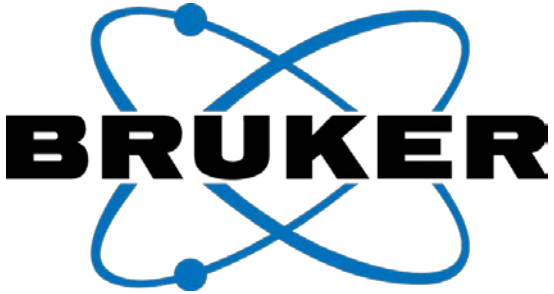
- A leading supplier of FT-NIR and TD-NMR
- Bruker QC methods as official AOAC standard
- A market leader with core products TANGO, MPA and MATRIX, MiniSpec
- Dedicated solutions on GC-QqQ, e.g. CorkScreener

Food Authenticity

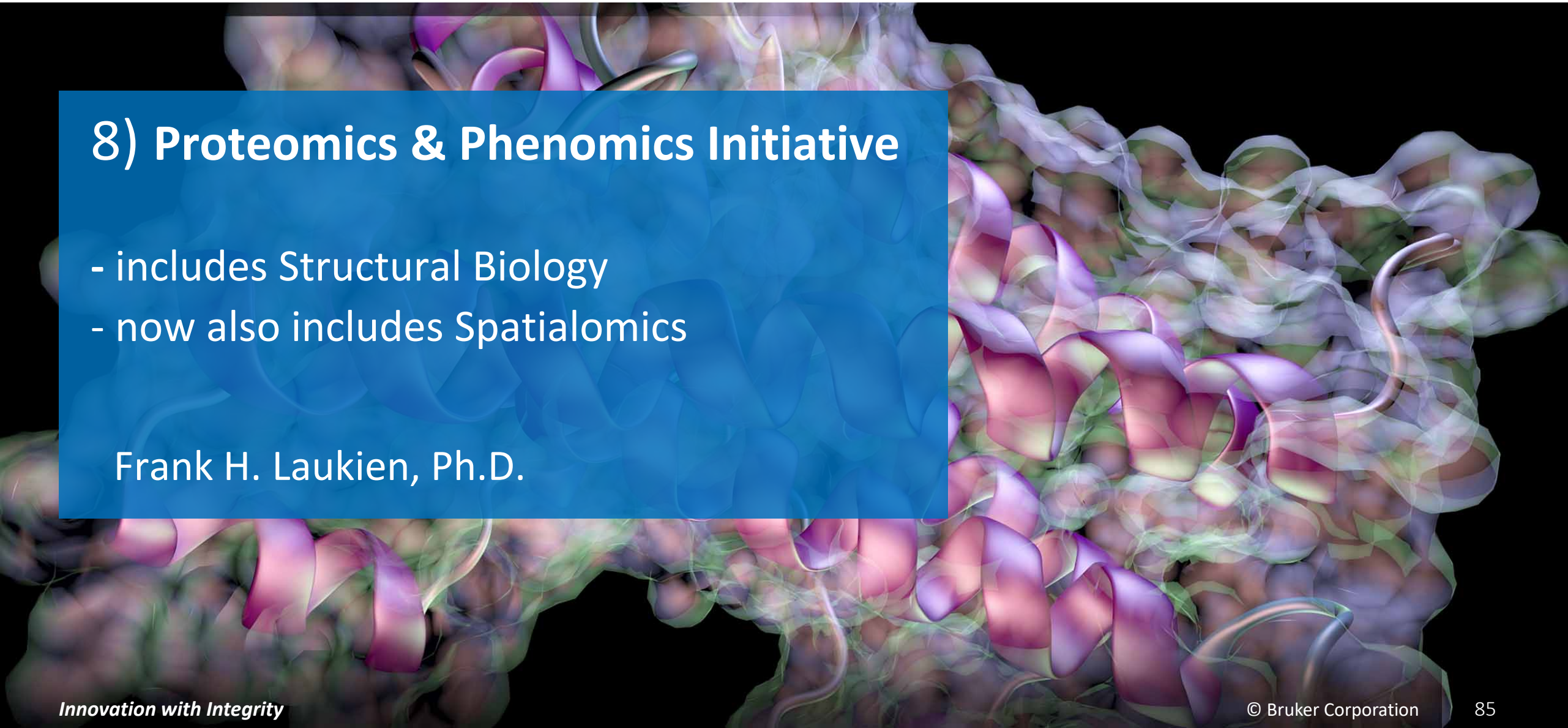
- Leader in food screening by NMR with fully automated, easy to use, ISO 17025
- Non-targeted screening by NMR uniquely addresses growing “dynamic” fraud
  - Regulatory bodies assessing non-targeted screening as future standard
- ***NMR FoodScreener*** for Wine, Honey, Fruit Juices, and wip spices, flavors, whiskey/bourbon, other…

Food Safety

- Strong in QTOF screening (disruptive technology)
  - Minimizes false positives and negatives
  - More compounds screened per analysis and allows retrospective analysis
- MALDI – analysis of packaging (polymer and plastics), rapid analysis of ‘reprocessed’ edible oils re-entering food chain



Innovation with Integrity



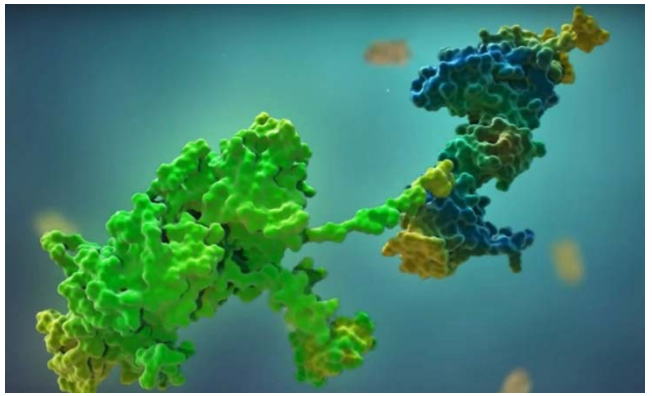
8) **Proteomics & Phenomics Initiative**

- includes Structural Biology
- now also includes Spatialomics

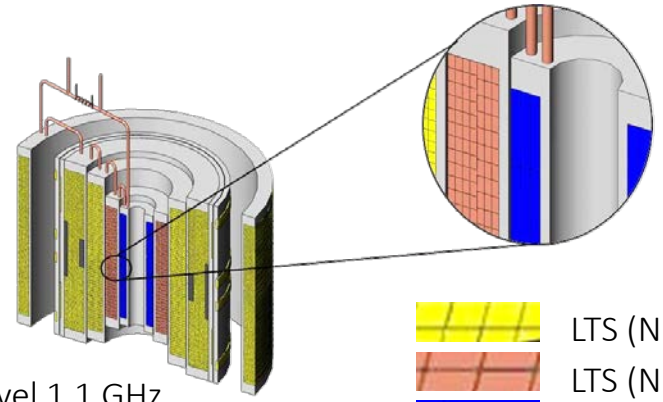
Frank H. Laukien, Ph.D.

A) Functional Structural Biology

- **Avance NEO** and proprietary **CryoProbes** on **GHz-class NMR systems** can provide *dynamics and function* of proteins and macromolecular complexes
- Unlike crystallography and cryoEM, most NMR data is *acquired at physiological conditions* (pH, temperature) in acqueous solution ➔ functional information
- NMR uniquely suited for *Intrinsically Disordered Proteins (IDPs)* (www.youtube.com/watch?v=X_pEXRUOrIs)
- NMR is ideal for *binding studies, fragment-based screening* and *structure-activity relationships* (SAR)
- NMR elucidates basic molecular, cell biology and pathobiology processes, including fundamental role of *flexibility* and *disorder* in biology
- UHF NMR delivers key discoveries for cancer biology and neurodegenerative diseases



April 2019: Bruker Announces World's First Supercon 1.1 Gigahertz Magnet for High-Resolution NMR



Novel 1.1 GHz
LTS/HTS hybrid magnet

A) Functional Structural Biology

Key Opinion Leaders demonstrate Scientific Benefits of GHz-class NMR

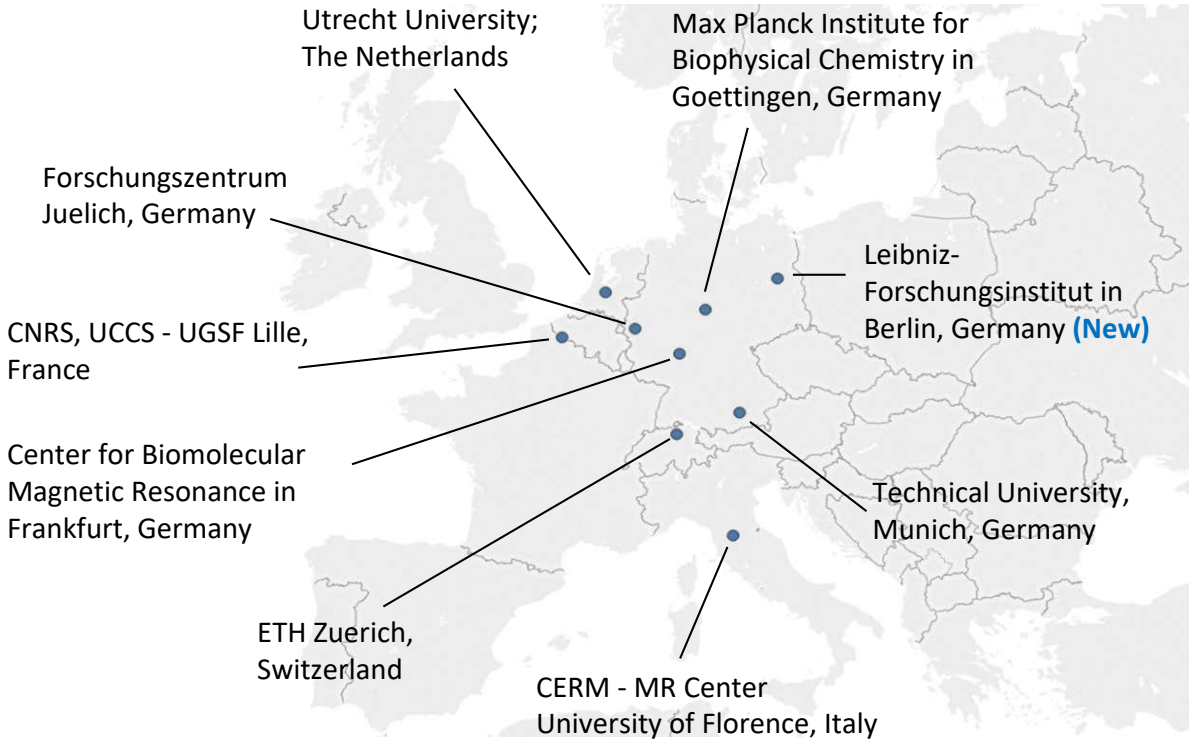
"We appreciate this important milestone in UHF NMR. The 1.1 GHz results we achieved at this new field strength are a spectacular step forward, as they enable us to study intrinsically disordered proteins in more detail at atomic resolution levels."
Prof. Luchinat, CERM, Florence, IT

"We are truly impressed with Bruker's UHF magnet technology which we were able to test in conjunction with a 111 kHz solid state NMR probe. The clearly improved sensitivity will be a key feature for biological and biomedical research, e.g. for protein complexes and Alzheimer-beta fibrils."
Prof. Beat Meier, ETH Zurich, CH

"We are looking forward to receiving our 1.2 GHz, which we will use for our current projects on characterizing droplets and oligomers of intrinsically disordered proteins that are the key players in many diseases, such as neurodegeneration and cancer. These important disordered systems currently cannot be studied at Angstrom resolution with other methods in structural biology, such as X-ray crystallography or cryo-EM."
Prof. Christian Griesinger, Max Planck Institute Goettingen, DE

Background on IDPs-by-NMR:
www.youtube.com/watch?v=ICz49GY24mI&spfreload=5

1.2 GHz Customers in Europe



- **Backlog of >$40M for five 1.0-1.1 GHz NMRs**
- **Backlog of >$125M for nine 1.2 GHz NMRs in Europe**
- **Additional GHz-class systems in sales pipeline in Europe**
- **GHz-class funding drive has begun in earnest in the US**
- **We expect APAC to follow soon**

B) Precision Medicine & Phenomics

Disease prevention, diagnosis & therapy monitoring supported by phenomics

- Analyze dynamic interactions between genes, diets, environments and lifestyles
- Longitudinal epidemiology studies for improved health
- Phenomic analysis of metabolites require NMR and MS
- Bruker offers *unique, automated NMR platform and SOPs for phenomics research*, robust and large-cohort validation, and the future of translational phenomics
- Bruker has *assumed MS technology leadership in metabolomics*:
  - Higher sensitivity, more robust *impact II* LC-QTOF
  - 4D lipidomics and 4D metabolomics with large-scale CCS integration and AI/ML prediction on timsTOF Pro
  - High-throughput FIA-MRMS for >200 samples/day
  - MS metabolite imaging with *scimaX* or *timsTOF fleX*

Aging population demographics

Increasing health care costs

Impact from diet, environment & lifestyle

Need for personalized medicine due to high failure rate of large scale drugs

Disease prevention instead of detection and grading

B) Precision Medicine & Phenomics:

Key Technologies: **Fusion of NMR & MS Information and Insights**

Avance IVDr NMR

- Robust targeted and untargeted quantification of top 100+ metabolites
- *Standard 600 MHz IVDr NMR* for large cohort studies, global compatibility and easy translation to LDTs and CE-IVD
- Automated, high-throughput analysis of body fluids: urine, plasma/serum, CSF
- Extensive NMR databases offered by Bruker
- Key IVD-by-NMR partners *numares* and *Nightingale*
- *New: Large-scale biobank monitoring* by NMR

IVDr by Bruker

UPLC-QTOF MS/MS

- Deep UPLC-QTOF detection of 10,000+ annotations (85%+ dark metabolome)
- Analysis time/sample: ~30-60 min
- Impact II *'Phenomics Workhorse'* with 10x greater sensitivity, robustness for cohorts of ~1,500 samples
- *MetaboScape* software solution

FIA-MRMS

- High sample throughput: ~5 min cycle time/sample, >200 samples/day
- FIA-MRMS molecular formulae for >1,000 annotations/sample
- Flow injection analysis (FIA) reveals compounds not seen in UPLC-MS
- No chromatography due to extreme mass resolution of *scimaX MRMS*

B) Precision Medicine & Phenomics

International Phenome Center Network (IPCN) &

IVDr by Bruker

- Global IPCN network of phenome centers, all standardized on *Avance IVDr 600 MHz* platform
- Large-scale human metabolomics for biomarker discovery and validation
- Coordinated research on local and ww cohorts
- Clinical phenome centers at hospitals aim for better diagnoses, treatment and monitoring based on individual metabolome
- Bruker is NMR and increasingly preferred MS partner in growing IPCN

Establishing *Avance IVDr* NMR as standard in

International Phenome Centre Network

Singapore Phenome Centre
(Lee Kong Chian School of Medicine)

Australian Nat'l Phenome Center
(7 hospitals biobanks)

MRC-NIHR Nat'l Phenome Center (UK)

St.Mary's Hospital, London
(Clinical Phenome Center)

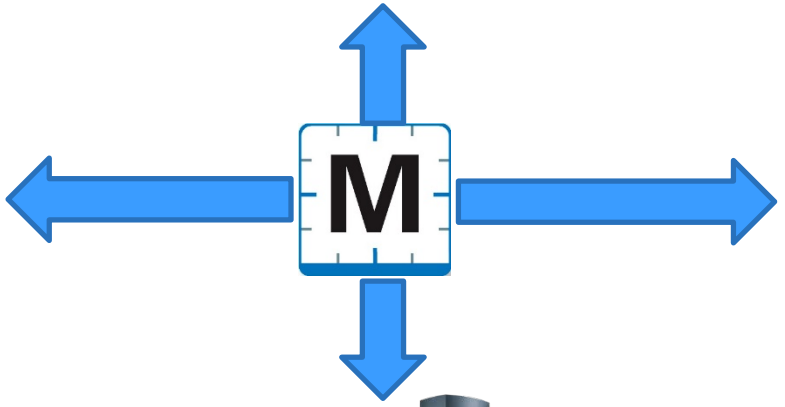
B) Precision Medicine & Phenomics

Four Major Mass Spec Metabolomics Initiatives at ASMS 2019 and Metabolomics 2019:

SpatialOMx

timsTOF flex

FIA –MRMS for high-throughput Phenomics



4D Metabolomics with focus on 4D Lipidomics

timsTOF Pro

Phenomics 'Workhorse'

QTOF *impact II*

B) Precision Medicine & Phenomics

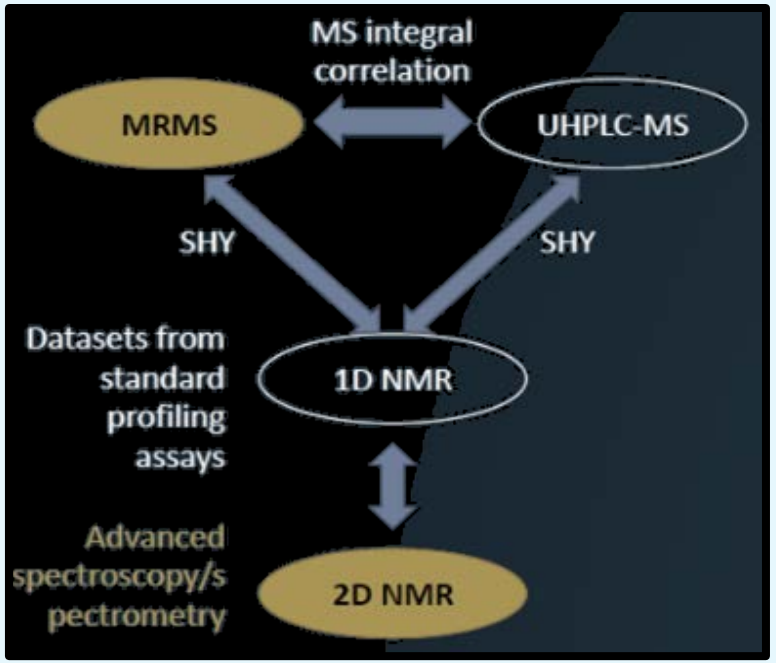
Next-Gen Phenomics by Integrated NMR and MS Insights

Phenomics at Australian National Phenome Center and Murdoch University, Perth, WA:

- Bruker and Murdoch to create new disease prevention and treatment strategies through integrative studies of humans in their total environment
- Enable better understanding of gene-environment interactions that determine health status of individuals and populations
- Leverage key technology advantages offered by Bruker platforms and address new challenges that link precision nutrition, lifestyle and health

"Such precise data will allow clinicians to better predict health problems and intervene earlier, saving time, money and lives. The potential of this research to provide truly personalized care is remarkable."

Prof. Jeremy Nicholson, Pro-Vice Chancellor Health Sciences at Murdoch University and Executive Director of Australian National Phenome Center



B) Precision Medicine & Phenomics

Next-Generation Biobank Monitoring by NMR

IVDr by Bruker

Medical research more effective with reliable biomaterials and harmonization of data

- Quality management of biomaterials — identifies contaminations, robust quantitation, no suppression
- Delivers pre-characterisation of biomaterials
- Provides exchangeability of spectral data among biobanks standardized on Avance IVDr NMR
- German Biobank Node members decided for IVDr
  - Goal is biobanking standardization in Europe
  - delivers biomaterials for Centers for Health Research (cancer, cardiovascular, diabetes, neurodegenerative diseases, inborn errors of metabolism, …)

BRUKER

Establishing *Avance IVDr* NMR as *de facto* standard in biobanks

German Biobank Node
bbmri.de

B) Precision Medicine & Phenomics

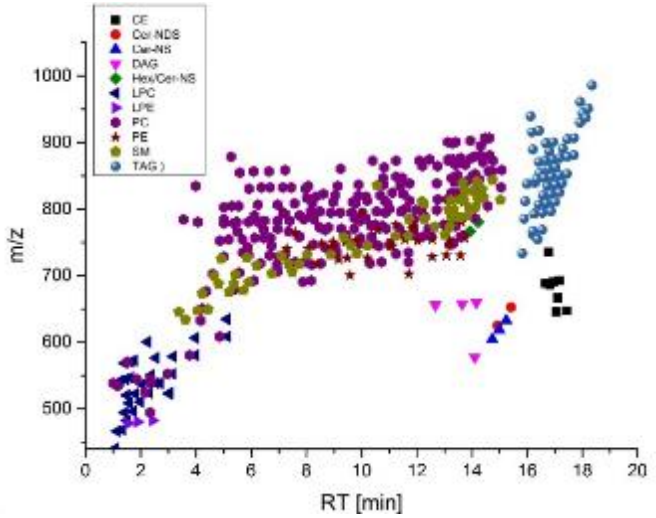
ASMS 2019 Innovations in Phenomics on ***timsTOF Pro***:

4D Lipidomics and Ultra-high Sensitivity Lipidomics

Dr. Florian Meier et al., Max-Planck Institute of Biochemistry, Martinsried, Germany

Routine workflows

1µl



416 lipids identified (SRM 1950)
Single injection in + mode

Trapped ion mobility spectrometry (TIMS) and parallel accumulation - serial fragmentation (PASEF) enable in-depth lipidomics from minimal sample amounts

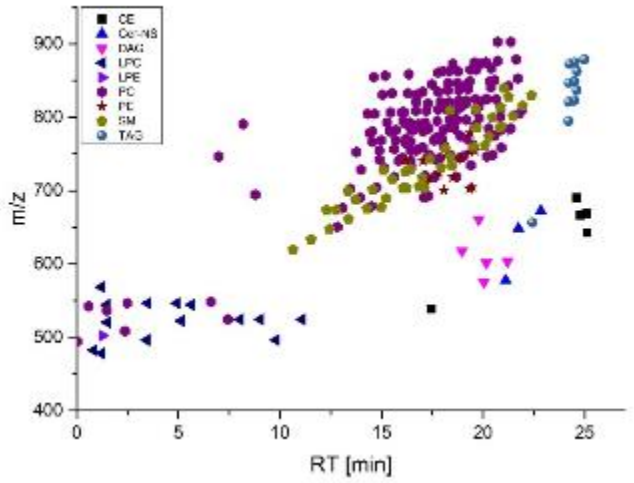
Catherine G. Vasilopoulou[1], Karolina Sulek[2], Andreas-David Brunner[1], Ningombam Sanjib Meitei[3], Ulrike Schweiger-Hufnagel[4], Sven Meyer[4], Aiko Barsch[4], Matthias Mann[1,2*], Florian Meier[1*]

ABSTRACT

Lipids form a highly diverse group of biomolecules fulfilling central biological functions, ranging from structural components to intercellular signaling. Yet, a comprehensive characterization of the lipidome from limited starting material, for example in tissue biopsies, remains very challenging. Here, we develop a high-sensitivity lipidomics workflow based on nanoflow liquid chromatography and trapped ion mobility spectrometry. Taking advantage of the PASEF principle (Meier *et al.*, PMID: 26538118), we fragmented on average nine precursors in each 100 ms TIMS scans, while maintaining the full mobility resolution of co-eluting isomers. The very high acquisition speed of about 100 Hz allowed us to obtain MS/MS spectra of the vast majority of detected isotope patterns for automated lipid identification. Analyzing 1 uL of human plasma, PASEF almost doubled the number of identified lipids over standard TIMS-MS/MS and allowed

Low sample amounts

0.01µl

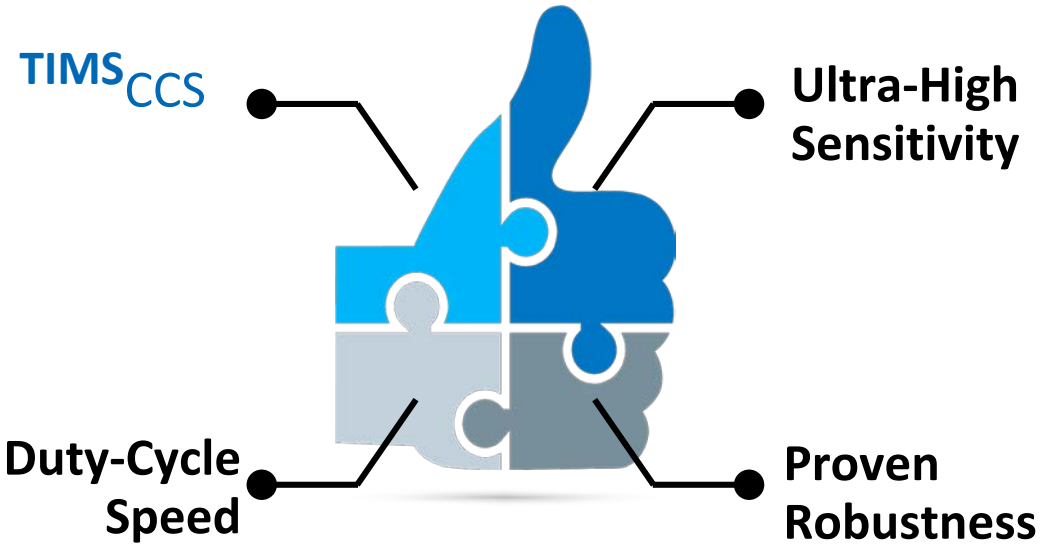


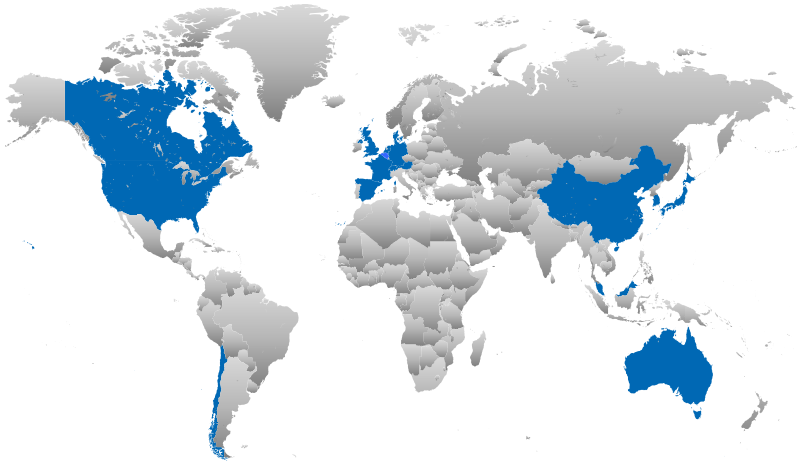
277 lipids identified (SRM 1950)
Single injection in + mode

C) Next-gen 4D Proteomics

Ushering in the Era of *4D Proteomics* for translational research

timsTOF Pro





Innovation	Machine Learning Supported Discovery	Lasting Impact

C) Next-gen 4D Proteomics

The Walter and Eliza Hall Institute & timsTOF Pro

The Royal Melbourne Hospital

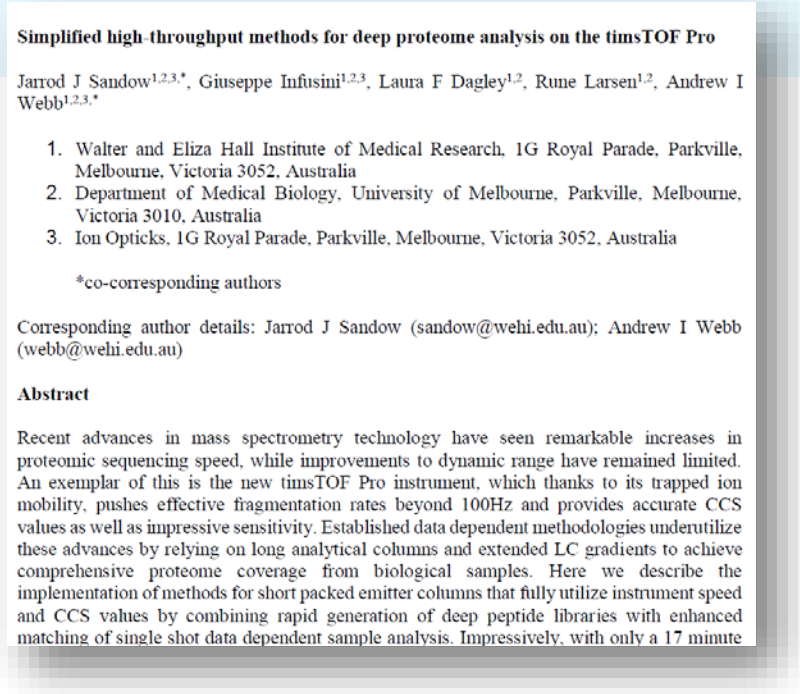
"We have been completely blown away with how it can generate such ***deep analysis in such a short period of time.*** This, in combination ***with the robustness***, is a true game changer for us, and it will fundamentally change the type of experiments we contemplate and it opens up the opportunity for ***very large clinical discovery studies***, which to date have been near impossible to acquire on existing technologies."

Dr. Andrew Webb, Associate. Professor, Advanced Technology & Biology, WEHI, Melbourne, Australia

Total WEHI Lab Sample Capacity

Five existing mass specs ~4000 proteins	**50**
*Three timsTOF Pro's (**50 sample/day method** - Aurora 15cm, 17min run)* >6600 proteins	**150**

Samples per day



Simplified high-throughput methods for deep proteome analysis on the timsTOF Pro

Jarrod J Sandow[1,2,3,*], Giuseppe Infusini[1,2,3], Laura F Dagley[1,2], Rune Larsen[1,2], Andrew I Webb[1,2,3,*]

1. Walter and Eliza Hall Institute of Medical Research, 1G Royal Parade, Parkville, Melbourne, Victoria 3052, Australia
2. Department of Medical Biology, University of Melbourne, Parkville, Melbourne, Victoria 3010, Australia
3. Ion Opticks, 1G Royal Parade, Parkville, Melbourne, Victoria 3052, Australia

*co-corresponding authors

Corresponding author details: Jarrod J Sandow (sandow@wehi.edu.au); Andrew I Webb (webb@wehi.edu.au)

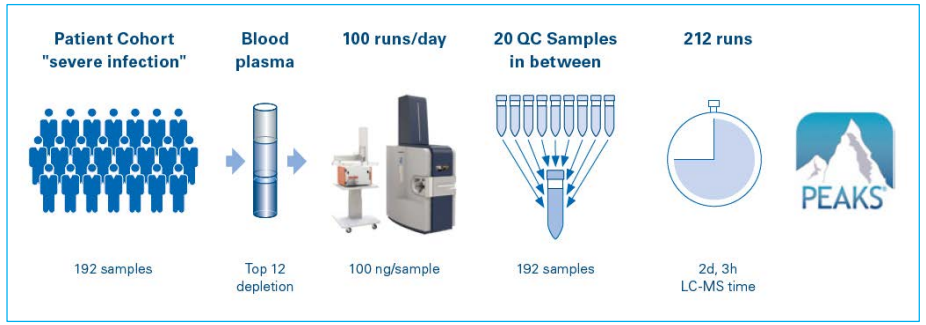
Abstract

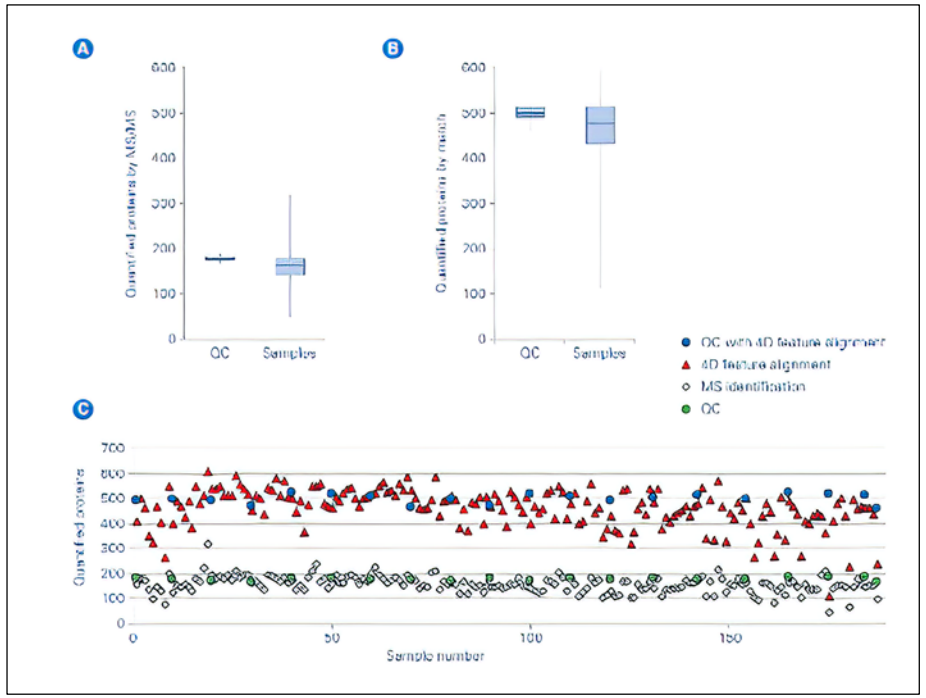
Recent advances in mass spectrometry technology have seen remarkable increases in proteomic sequencing speed, while improvements to dynamic range have remained limited. An exemplar of this is the new timsTOF Pro instrument, which thanks to its trapped ion mobility, pushes effective fragmentation rates beyond 100Hz and provides accurate CCS values as well as impressive sensitivity. Established data dependent methodologies underutilize these advances by relying on long analytical columns and extended LC gradients to achieve comprehensive proteome coverage from biological samples. Here we describe the implementation of methods for short packed emitter columns that fully utilize instrument speed and CCS values by combining rapid generation of deep peptide libraries with enhanced matching of single shot data dependent sample analysis. Impressively, with only a 17 minute

C) Next-gen 4D Proteomics

University of Oxford & timsTOF Pro

Nuffield Department of Medicine, Medical Sciences Division





'At 11.5 min run time and ***CCS-aware*** 'match between runs' software, the timsTOF Pro with Evosep is amazing for ***high throughput clinical samples*** with ***deeper proteomic depth!***'

Dr. Roman Fischer, PI, Nuffield Dept. of Medicine, Target Discovery Institute, Uni. Oxford

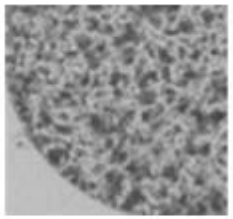
C) Next-gen 4D Proteomics

Kyoto University & timsTOF Pro

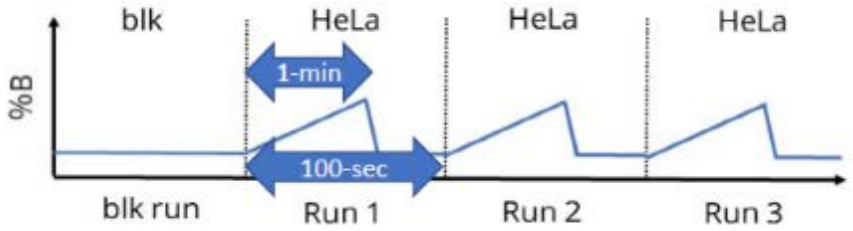
Our primary target is to do kinase activity assay with multiple drugs or different doses. Our fast-LC strategy could be the solution for this. ***High-throughput*** and targeted LCMS proteomics analysis will open the new applications, I believe.

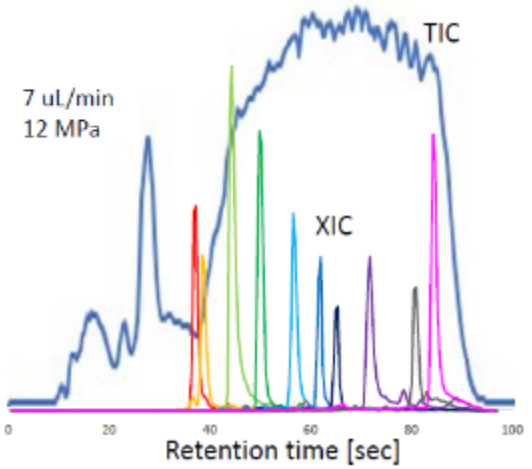
Dr. Yasushi Ishihama, Professor, Dept. of Molecular and Cellular BioAnalysis, Kyoto University, Kyoto, Japan and Adjunct Professor, Dept. of Biosciences, Keio University, Japan.

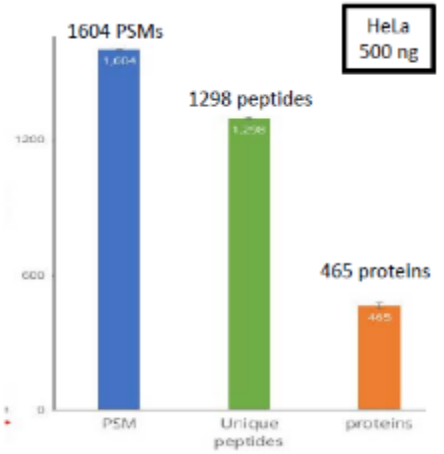
1-min gradient, 100 sec/run, 864 runs/day



Silica monolith
(100 um, 150 mm)



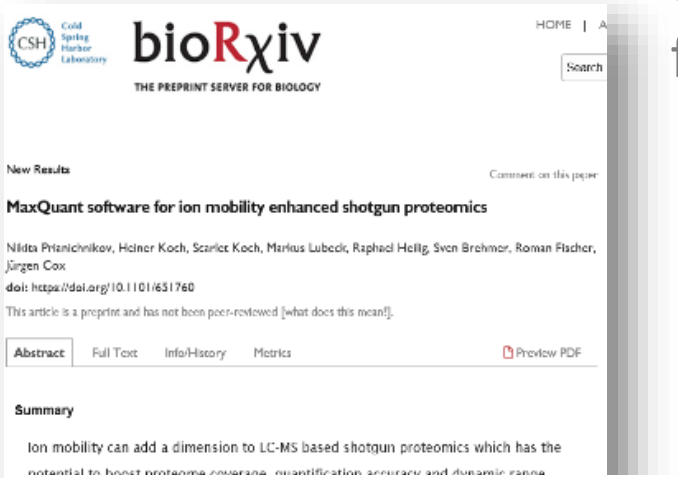


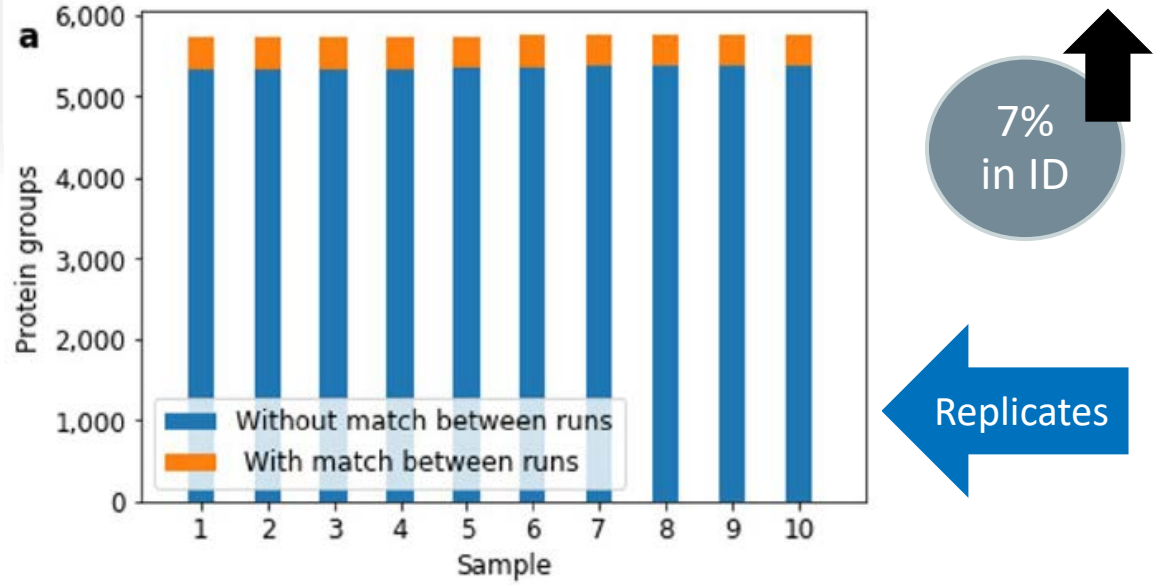


Courtesy Prof. Ishihama; unpublished data shared for this ppt.

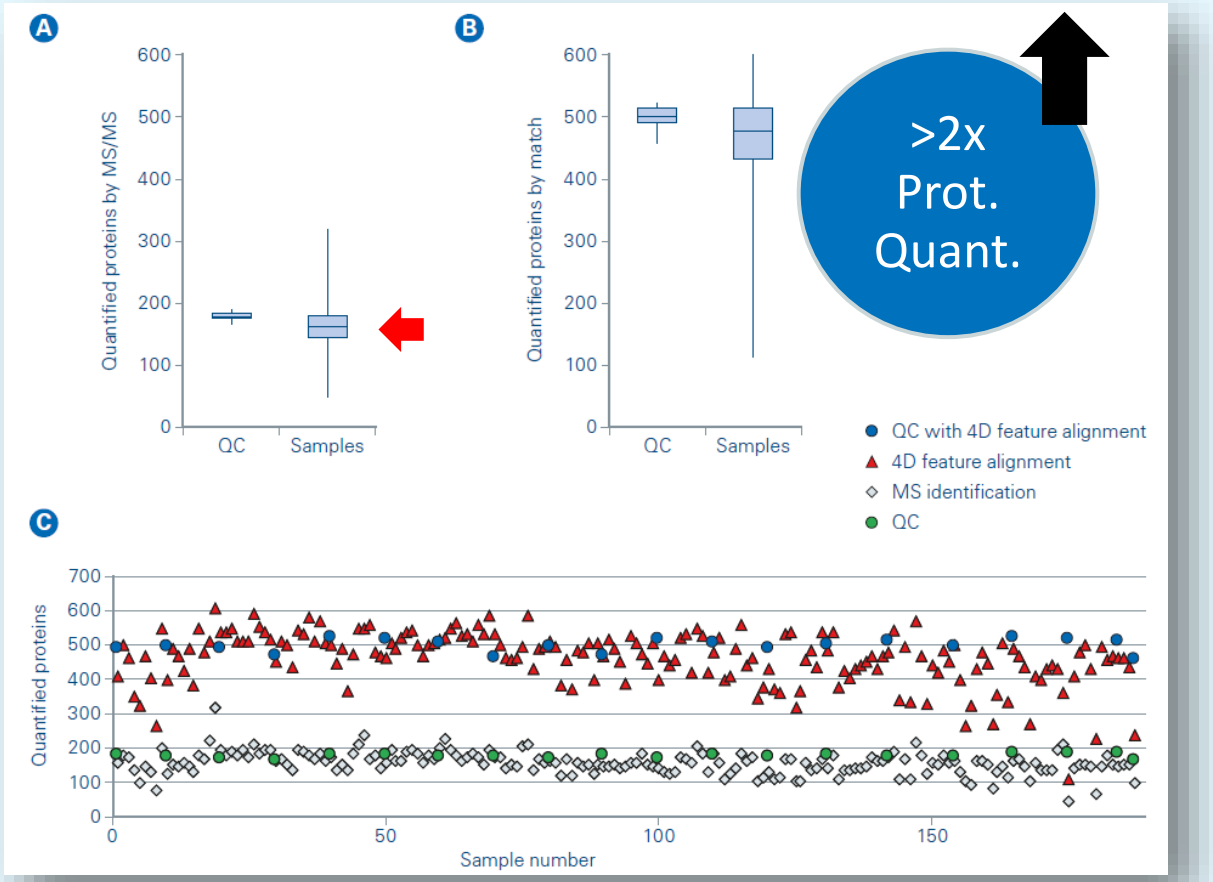
C) Next-gen 4D Proteomics

NEW: *'CCS Aware'* Match Between Runs
for DDA ***4D Proteomics*** in Translational Proteomics





Courtesy Prof. J. Cox and Dr. Roman Fischer



208 plasma samples (11.5min runtime) timsTOF Pro

C) Next-gen 4D Proteomics

New: Introducing diaPASEF for 4D Proteomics

Parallel accumulation – serial fragmentation combined with data-independent acquisition (diaPASEF): Bottom-up proteomics with near optimal ion usage

Florian Meier[1], Andreas-David Brunner[1], Max Frank[2], Annie Ha[2], Eugenia Voytik[1], Stephanie Kaspar-Schoenefeld[3], Markus Lubeck[3], Oliver Raether[3], Ruedi Aebersold[4,5], Ben C. Collins[4*], Hannes L. Röst[2*] and Matthias Mann[1,6*]

[1] *Proteomics and Signal Transduction, Max Planck Institute of Biochemistry, Martinsried, Germany*
[2] *Donnelly Centre for Cellular and Biomolecular Research, University of Toronto, Toronto, Canada*
[3] *Bruker Daltonik GmbH, Bremen, Germany*
[4] *Department of Biology, Institute of Molecular Systems Biology, ETH Zurich, Zurich, Switzerland*
[5] *Faculty of Science, Universit*
[6] *NNF Center for Protein R*

*To whom correspondenc
mmann@biochem.mpg.d

ABSTRACT

Bottom-up proteomics p
the precursor or fragme
fragment particular pre

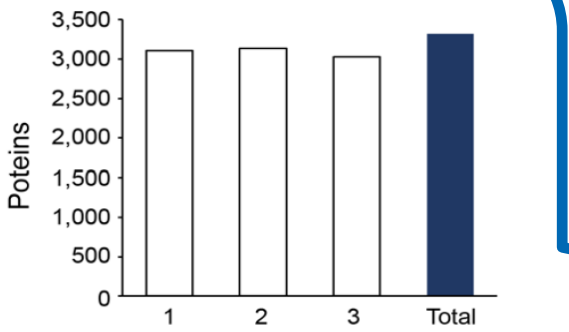


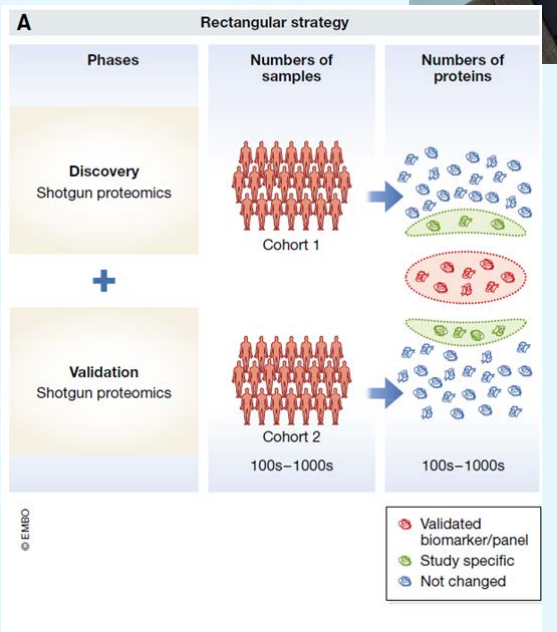
Figure 5 | diaPASEF analysis of 10 ng HeLa digest.
Number of proteins identified in triplicate injections.

timsTOF Pro

Courtesy Prof. M. Mann & Dr. Florian Meier

Enabling Matthias Mann's *'rectangular strategy'* Vision for translational proteomics with diaPASEF:

Even in this first implementation, we achieved deep proteome coverage of more than 7,000 proteins in single, 2 h LC runs from a total of ca. 200 ng peptide sample on column with high degree of reproducibility. Even more remarkably, we identified over 3,000 proteins from only 10 ng of total peptide mass on column in single runs. This latter result points to a perhaps unexpected advantage of diaPASEF, namely the fact that the extremely high ion sampling also fully translates to higher sensitivity. Likewise, the very fast cycle time of our new scan mode should be very advantageous for short gradients, an increasingly important attribute as large scale biological and clinical studies require very large throughput. For the future, we imagine that both hardware and software can still be greatly optimized to further increase the amount and quality of the



doi: https://doi.org/10.1101/656207

C) Next-gen 4D Proteomics: Market Expectations

Proteomics held back for last decade compared to NGS and RNA-Seq, due to slow, irreproducible tools and methods that have lacked robustness & sensitivity

Research proteomics mass spectrometry market today ~$500M p.a.

- Dominated by single vendor with estimated ~90% market share
- Primarily uses established, 20-year old Orbitrap technology
    - Innovation S-curve flattening due to inherent speed, capacity and dynamic range limitations, lack of CCS

Four trends expected to expand proteomics market - enabled by robust, fast and sensitive 4D Proteomics

1) Large *cohort (n > 1,000) proteomics for clinical validation*, LDTs, eventually CE-IVD/FDA-cleared assays
2) Robust, *high-throughput biopharma and CRO proteomics* adoption
3) Beyond NGS: need for functional *pharmaco-proteomics* information in clinical trials
4) Human Cell Atlas / Spatialomics: Single-cell biology needs *quantitative single-cell proteomics*
   – from n =1 to n = 100–1,000 per tissue/animal model or patient
   – Human Cell Atlas ss-RNA-seq ‘barcoding’ useful, but insufficient for functional studies
   – RNA-seq and proteomics often not correlated, quantitative biology requires both
   – Cancers inherently heterogeneous: progress in cancer requires studies of cell subpopulations

➔ We expect the proteomics mass spectrometry market to more than double in next 5-7 years

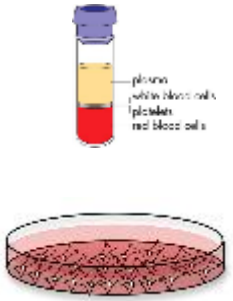
Expect >2x growth in next 5–7 years

D) Label-free Spatialomics

ASMS 2019:

Introducing ***timsTOF fleX***

Body fluids &
Cell culture



Uncompromised
4D Omics Performance
In LC-TIMS-MS/MS

timsTOF
fleX

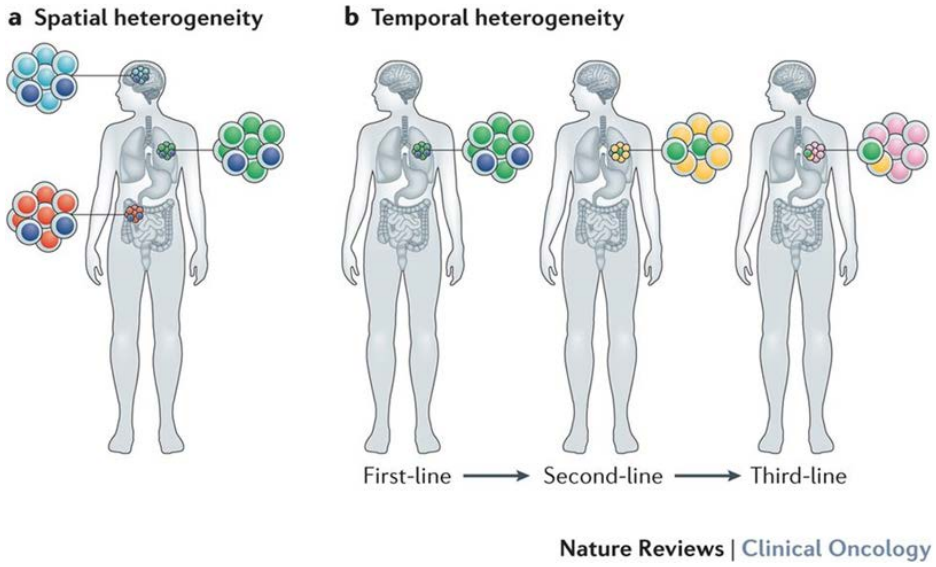
High Speed
High Spatial Resolution
MALDI Imaging

Tissue &
Tumor Molecular
Expression

D) Label-free Spatialomics

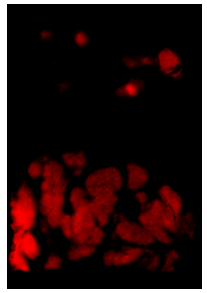
timsTOF fleX enabling **MALDI-Guided SpatialOMx™:**

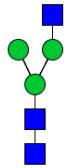
SpatialOMx is like a GPS to locate specific cellular sub-populations based on molecular expression of endogenous molecules such as glycans or lipids, …..and then use specific cells for deeper cross-omics analyses…



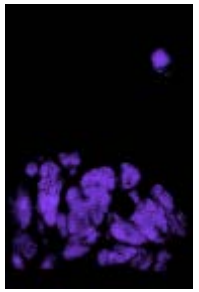
D) Label-free Spatialomics

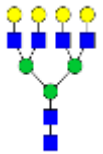
timsTOF fleX enabling
MALDI-Guided SpatialOMx™:





Glycans based mol. Exp.



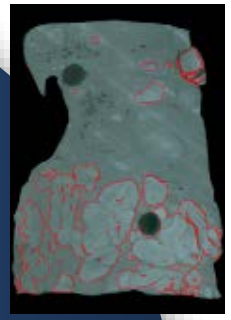


Questions from Histopath

Uncompromised
4D Omics Performance
In LC-TIMS-MS/MS

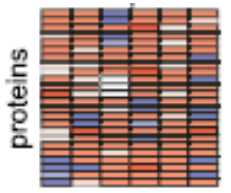
timsTOF
fleX

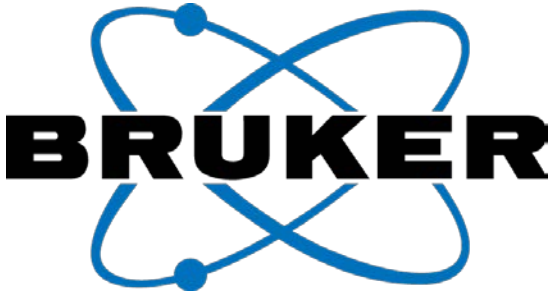
High Speed
High Spatial Resolution
MALDI Imaging



MALDI Guided
Laser Micro-
Dissection

LCM Sections





Innovation with Integrity

9) Bruker Corporation Medium-Term Financial Outlook

Gerald Herman
Chief Financial Officer

Full Year 2019 Guidance

Unchanged from May 2, 2019

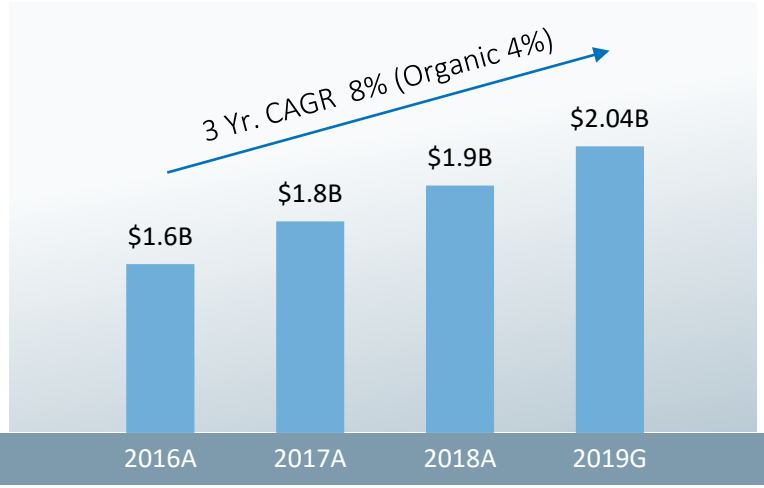
	2019 Guidance	YOY Change
Revenue	$2.03B – $2.05B	7% – 8%
Organic Revenue Growth	4.5% – 5.5%	
Non-GAAP Operating Margin	17.7% – 18.0%	90 bps – 120 bps
Non-GAAP EPS	$1.57 – $1.61	12% – 15%

*2019 Guidance provided in Q1 2019 Earnings Presentation on May 2, 2019
A reconciliation of Organic revenue, non-GAAP OPM and non-GAAP EPS to the most directly comparable GAAP measures is available at the end of this presentation

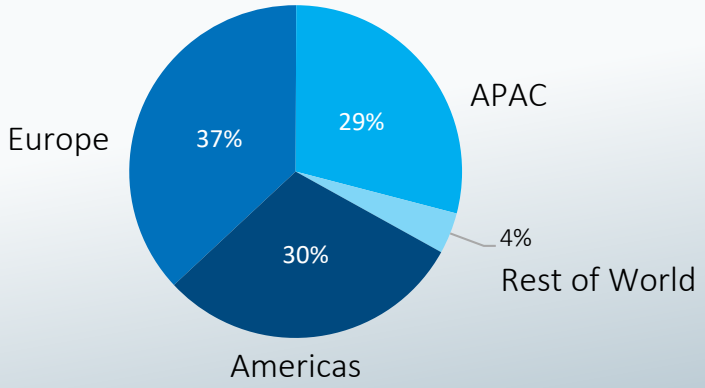
Historical Growth

Solid Revenue Growth Driven Organically and by Acquisitions

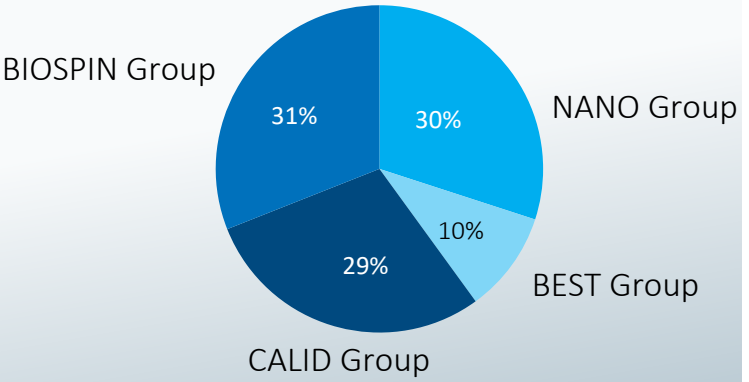
Revenue Growth



By Geography



By Business Group



Drivers

Markets

- Microbiology & Diagnostics
- Biopharma & Applied/Food
- Industrial recovery
- After-market services and consumables
- Secular growth trends

Products

- MALDI BioTyper & Aftermarket
- NMR FoodScreener & NMR Phenomics
- Mass Spectrometry refresh – Rapiflex, scimaX and timsTOF
- Vibrational Spectroscopy refresh – FTIR/NIR
- XRD, XRF, microCT, microXRF

Acquisitions

ANASYS INSTRUMENTS The nanoscale spectroscopy company

JPK Instruments

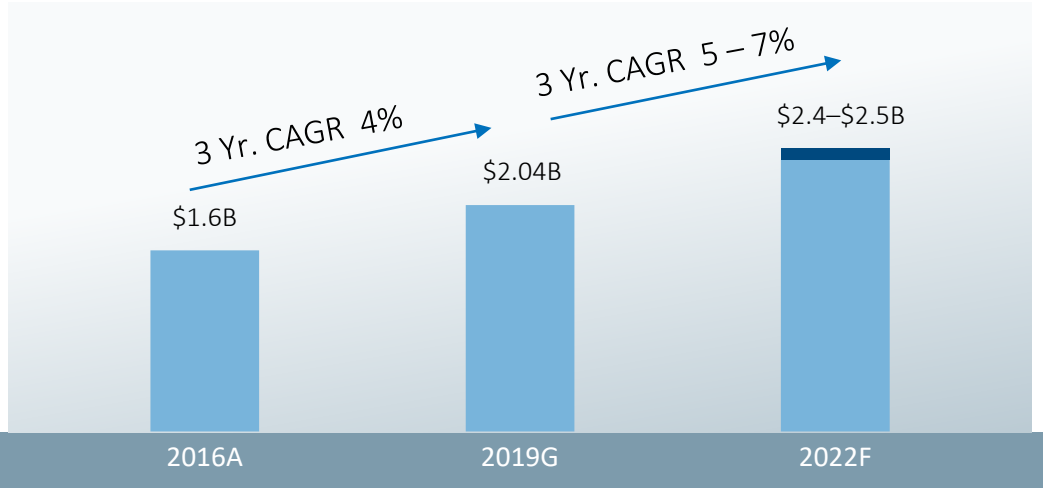
HYSITRON

2019G: Mid-point of revenue guidance provided on May 2, 2019
Geography and Business Group percentages of FY 2018 revenue.
A reconciliation of Organic revenue growth to the most directly comparable GAAP measures is available at the end of this presentation

Medium-Term Growth Outlook

Greater than Market Growth Driven by Project Accelerate and Strong Product Cycles

Organic Revenue Growth



Growth Assumptions:

- LST & DX Market Growth of 3 - 5%
- Incremental M&A Not Included

Drivers

Project Accelerate

- Microbiology & Diagnostics
- Proteomics & Phenomics
- Biopharma & Applied
- Neuroscience & Cell Microscopy
- Next-gen Semi & Nano
- Aftermarket

Key Product Cycles 2019-2022

- timsTOF Pro & Flex
- UHF GHz-class NMR
- MALDI BioTyper, SepsiTyper, Molecular DX
- Super-res, light-sheet & multiphoton+ FM
- Next-gen semicon XCD, AAFM tools
- NMR and MS phenomics & biopharma solutions
- FT-NIR and NMR food analysis solutions

Portfolio Additions

alicona

HAIN LIFESCIENCE

Mestrelab Research chemistry software solutions

RAVE

2019G: Mid-point of guidance provided on May 2, 2019
2022F: Forecast finance model based on 2019 mid-point guidance
A reconciliation of Organic revenue growth to the most directly comparable GAAP measures is available at the end of this presentation

Project Accelerate Medium-Term Outlook

Expanding Organic Revenue Growth Across the Initiatives

Project Accelerate Initiative	Est. Growth Rate
After Market & Scientific Software	HSD
Next-gen Nanotech & Semi Tools	HSD-DD
Neuroscience & Cell Microscopy	HSD-DD
Microbiology & Diagnostics	DD
Biopharma & Applied	HSD-DD
Proteomics & Phenomics	DD

Key Product Accelerate Products 2019-2022

- timsTOF Pro & Flex
- GHz-class NMR
- MALDI BioTyper, SepsiTyper, Molecular DX
- Super-res, light-sheet & multiphoton+ FM
- Next-gen semicon XCD, AAFM tools
- Unique NMR and MS phenomics & biopharma solutions
- FT-NIR and NMR food analysis solutions

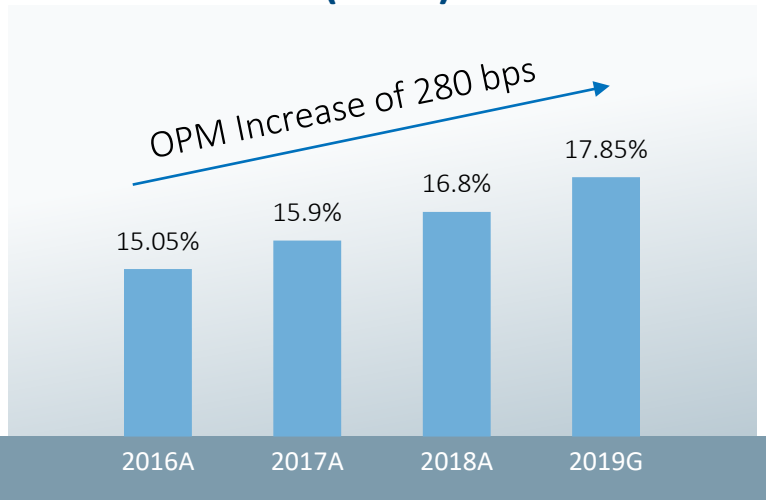
Other non-Accelerate revenue growth LSD to MSD

LSD= Low Single Digits, MSD = Mid-single Digits, HSD = High-Single Digits, DD = Double Digits,

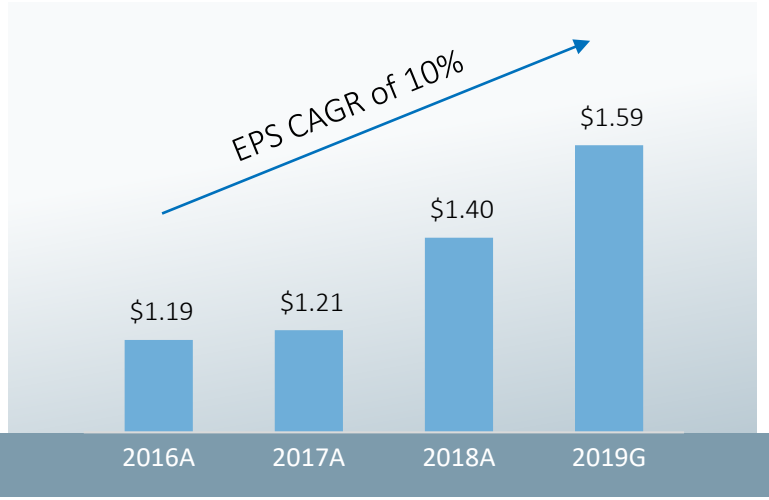
Historical Profitability

Operating Margin Expansion and EPS Growth Led by Mix and Operational Excellence

Non-GAAP Operating Profit Margin (OPM)



Non-GAAP EPS



Drivers

Volume and Product Mix

- MALDI Biotyper (MBT)
- FTIR/NIR/Raman
- XRD/SCD/uXRF/uCT
- NMR recovery
- Aftermarket

Operational Excellence

- New *Bruker Management Process*
- Outsourcing, best-cost product development
- Commercial excellence, including CRM expansion
- Highly disciplined operating expense management
- Targeted pricing opportunities

Operational Scalability & Portfolio

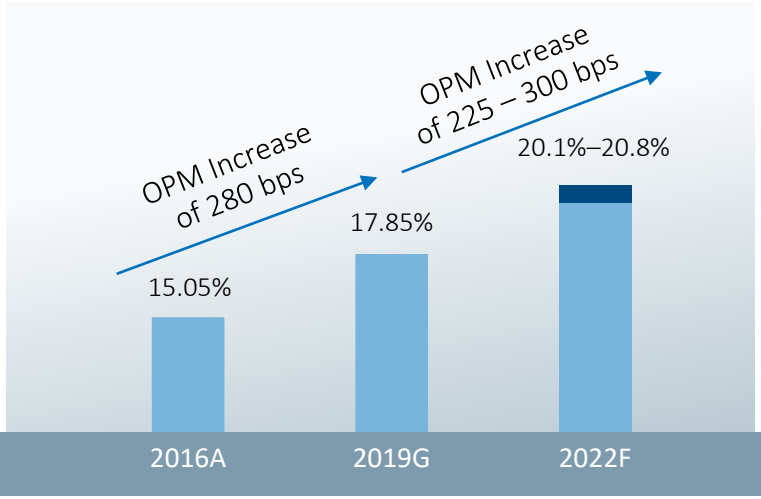
- Selected portfolio pruning, strategic portfolio reorientation towards attractive secular trends
- Exited small plants and streamlined production
- Established shared service centers

2019G: Mid-point of guidance provided on May 2, 2019
EPS – Earnings per share
A reconciliation of non-GAAP OPM and non-GAAP EPS to the most directly comparable GAAP measures is available at the end of this presentation

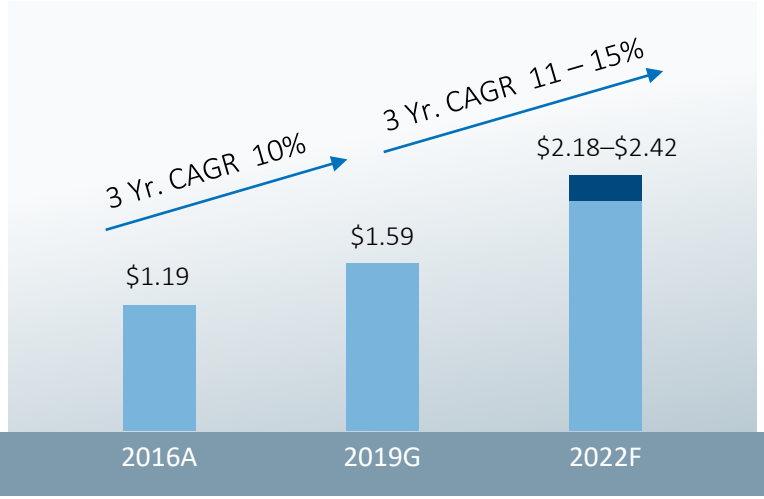
Medium-Term Profitability Outlook

Continuing Operating Margin Expansion at 75-100 bps annually, on average

Non-GAAP OPM Outlook



Non-GAAP EPS Outlook



Assumptions:

- LST & DX Market Growth of 3 - 5%
- Incremental M&A not Included

Drivers

New Product Cycles / Mix

- Proteomics, Phenomics and Spatialomics solutions
- Continued strength in Microbiology & Diagnostics
- Delivery of market leading GHz-class NMR
- Unique high-value solutions in pharma and applied
- Higher after-market and consumables mix

Operational Excellence

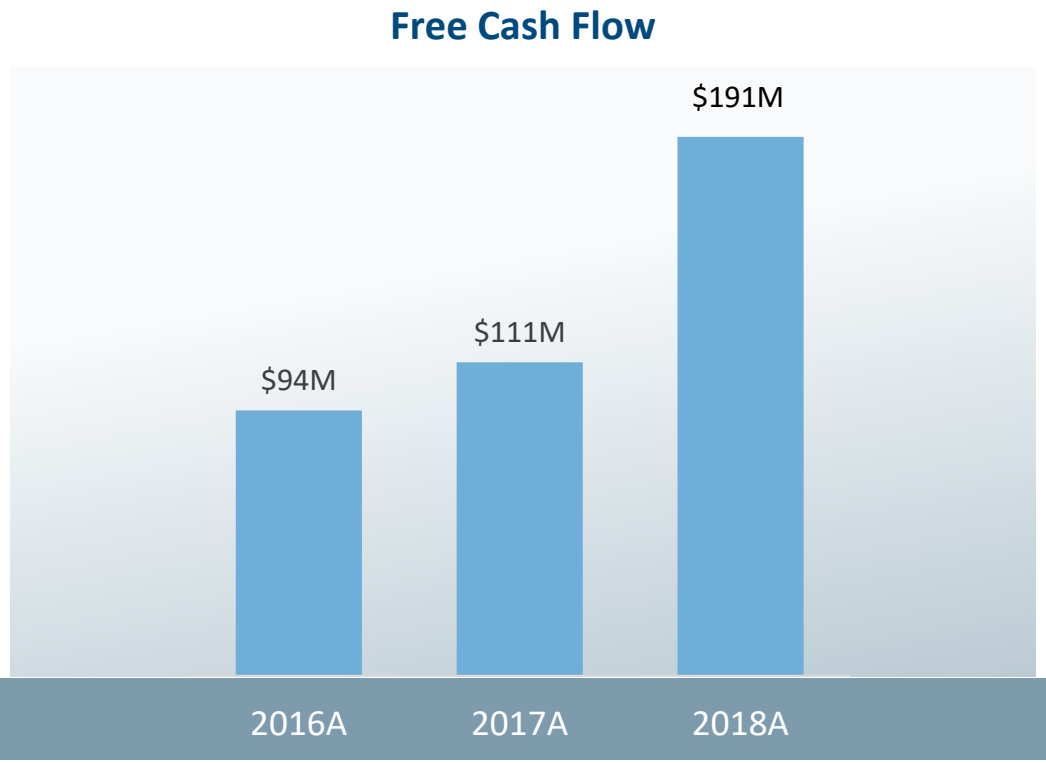
- *Bruker Management Process*
- Product Development excellence
- Commercial excellence, CRM
- Manufacturing in low-cost locations (Penang)
- Incremental footprint optimization
- Continued lean plant initiatives

Non-Operational

- Effective non-GAAP tax rates: 200 bps reduction by 2022
- Share count reduction driven by share repurchases
- Optimization of debt structure

2019G: Mid-point of guidance provided on May 2, 2019
2022F: Forecast finance model based on 2019 mid-point guidance
A reconciliation of non-GAAP OPM and non-GAAP EPS to the most directly comparable GAAP measures is available at the end of this presentation

Free Cash Flow Improvement



Summary

- Recent improvements in Free Cash Flow generation
- Continued focus on reducing working capital from 2019 to 2022
- Capital expenditures expected around 3% of revenue for period 2020 to 2022

A reconciliation non-GAAP Free Cash Flow to the most directly comparable GAAP measures is available at the end of this presentation

Capital Deployment Strategy

Leading ROIC Performance 2016 – 2018: >20%

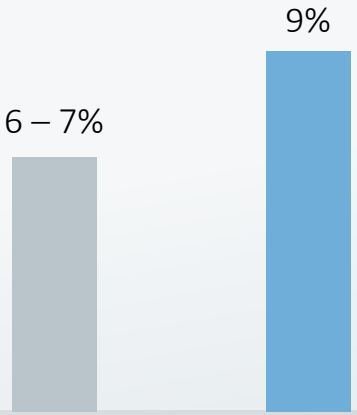
Invest in Growing the Business	**Maintain** Financial Flexibility	**Return** Capital to Shareholders
• R&D investments • Market Development • CapEx investments • Strategically focused M&A	• Strong, flexible balance sheet • Conservative debt levels	• Annual dividend of $0.16 per share • Periodic share repurchases

Return on Invested Capital (ROIC) is a non-GAAP measure. A reconciliation of this measure to the most directly comparable GAAP measure is at the end of this presentation

R&D Investment

Focus on profitable organic growth driven by above-peer R&D Investment

R&D Investment – to be maintained: 2016 – 2018 Average Percent of Revenue



Accelerating Revenue Growth through Product Innovation


MALDI Biotyper


timsTOF

GHz-class NMR

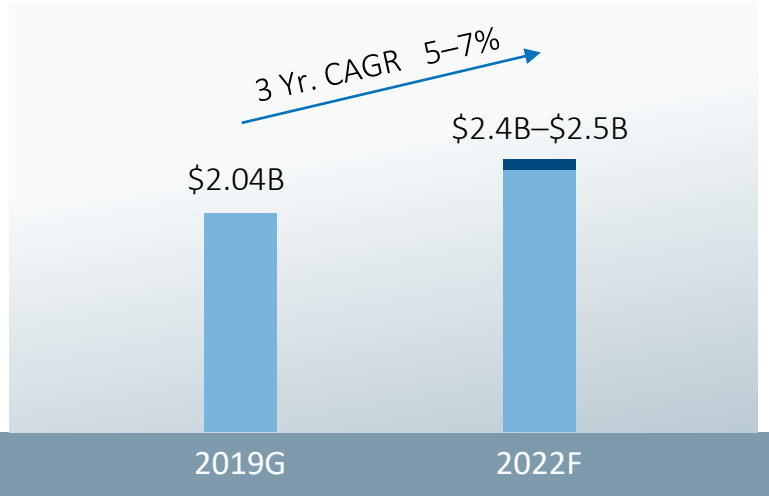

Lattice light-sheet FM

(1)Peers average includes: Thermo Fisher Scientific, Mettler-Toledo, Waters, Danaher, Perkin Elmer & Agilent. The reported average of peers over the period is 5.8%, after adjusting for comparable businesses within the peer group, average R&D spend as a % of revenue is 6 – 7%.

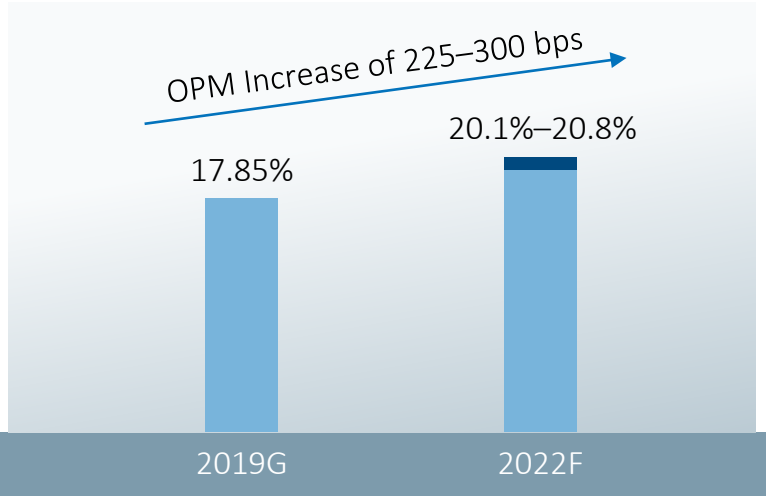
Medium-Term Outlook Summary

Driving Shareholder Value

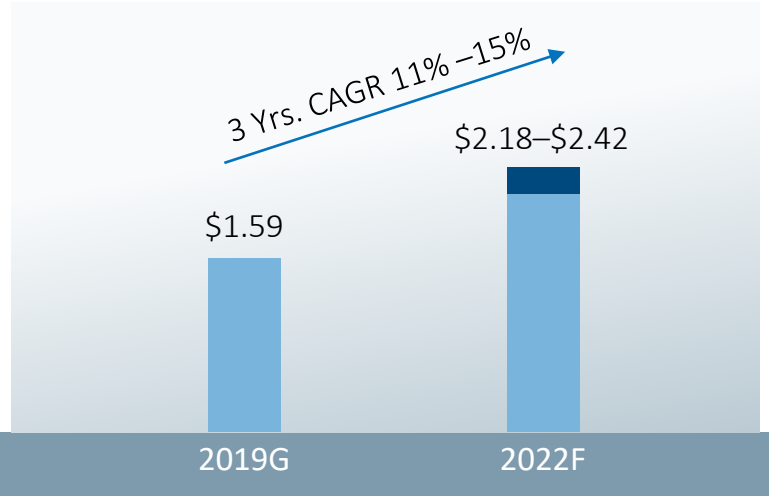
5-7% Organic Revenue CAGR



75-100 bps Non-GAAP OPM Expansion Annually



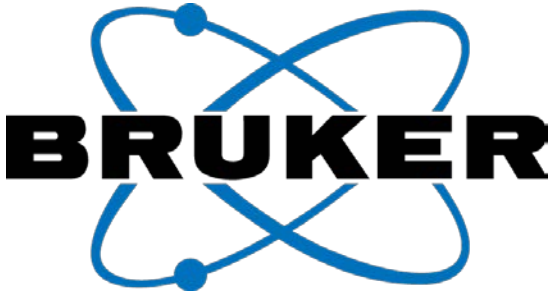
11-15% Non-GAAP EPS CAGR



Bruker Financial Outlook*

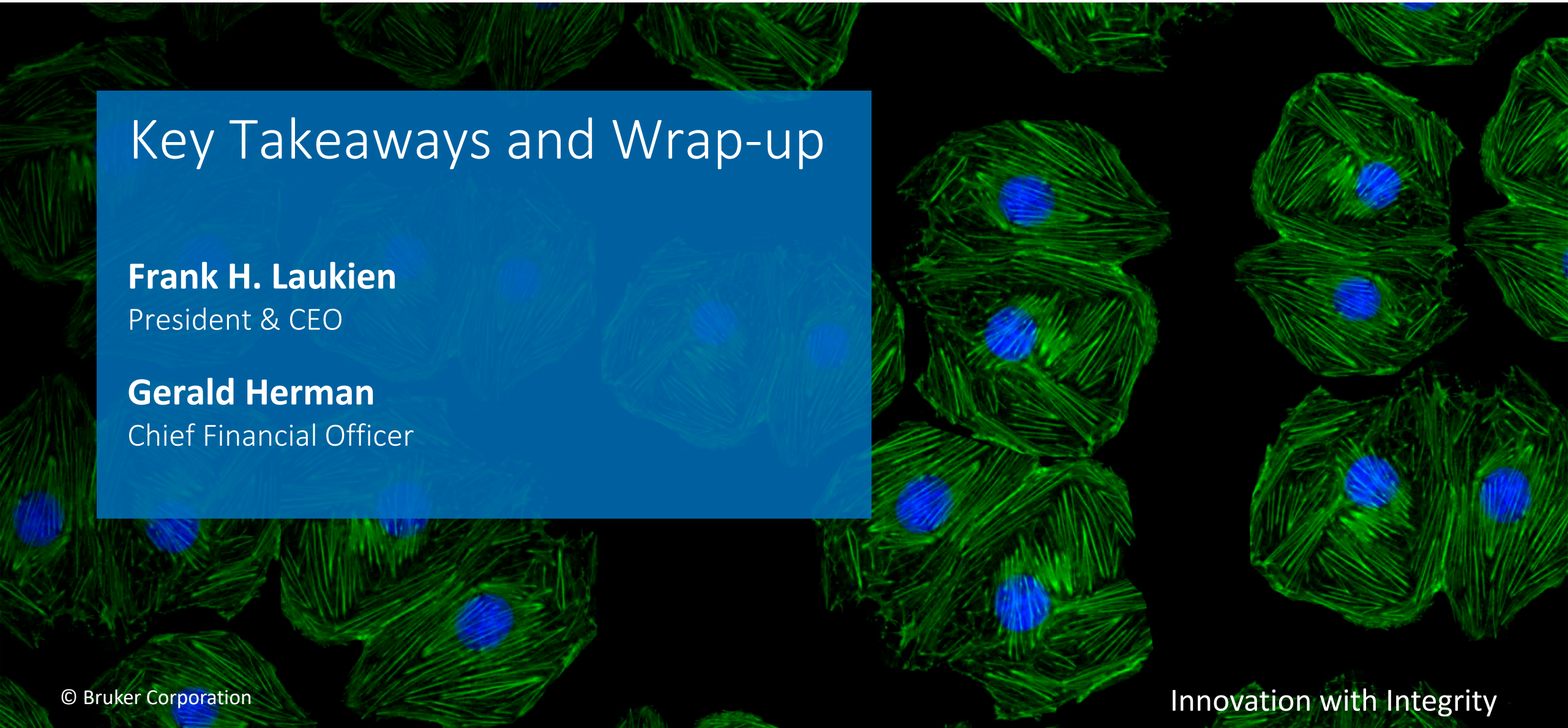
- Higher than market organic revenue growth: 5 – 7%
- Continuing non-GAAP operating margin expansion: 75 – 100 bps annually, on average
- Double-digit non-GAAP EPS growth: 11 – 15%

2019G: Mid-point of guidance provided on May 2, 2019
2022F: Forecast finance model based on 2019 mid-point guidance
* Key assumptions highlighted in the appendix
A reconciliation of Organic revenue, non-GAAP OPM and non-GAAP EPS to the most directly comparable GAAP measures is available at the end of this presentation



Innovation with Integrity

Key Takeaways and Wrap-up

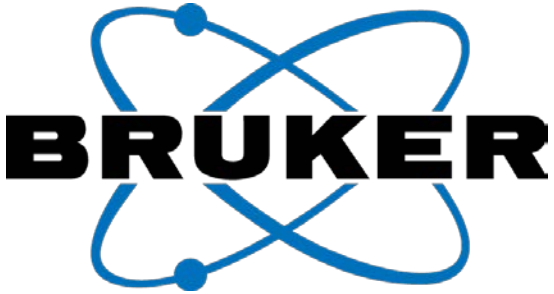


Frank H. Laukien
President & CEO

Gerald Herman
Chief Financial Officer

Questions and Answers

Bruker Senior
Management Team



Innovation with Integrity

Appendix

Financial Medium-Term Outlook Model – Key Assumptions

Assumptions:	
R&D Investment as a % of Revenue	9% per year
Non-GAAP Effective Tax Rate	Decreases from ~25% in 2019 guidance to ~23% by 2022
Interest / Other Expense	Grows to 1.4% of revenue or 20 bps from 2019 to 2022
M&A	Incremental M&A not included
Dividend Cost	$25M per year
Share Buyback	$300M from mid-2019 to mid-2021
Key Market Growth	LST & DX Market Growth of 3 - 5%

Non-GAAP Financial Reconciliation of Forward-Looking Statements

With respect to the Company's guidance for 2019 and outlook for 2020 through 2022 non-GAAP organic revenue growth, non-GAAP operating margin, non-GAAP EPS and non-GAAP tax rate, and ROIC we are not providing the most directly comparable GAAP financial measures or corresponding reconciliations to such GAAP financial measures on a forward-looking basis, because we are unable to predict with reasonable certainty certain items that may affect such measures calculated and presented in accordance with GAAP without unreasonable effort. Our expected non-GAAP operating margin, tax rate and EPS ranges exclude primarily the future impact of restructuring actions, unusual gains and losses, acquisition-related expenses and purchase accounting fair value adjustments. These reconciling items are uncertain, depend on various factors outside our management's control and could significantly impact, either individually or in the aggregate, our future period operating margins, EPS and tax rate calculated and presented in accordance with GAAP.

Bruker Corporation

Reconciliation of GAAP to NON-GAAP Financial Measures (unaudited)

(in millions, except per share amounts)	Twelve Months Ended December 31, 2016 [1]	2017 [1]	2018
Reconciliation of Non-GAAP Operating Income, Non-GAAP Profit Before Tax, Non-GAAP Net Income, and Non-GAAP			
GAAP Operating Income	$ 181.8	$ 219.5	$ 262.4
Non-GAAP Adjustments:			
Restructuring Costs	20.8	16.2	9.4
Acquisition-Related Costs	11.1	10.2	7.3
Purchased Intangible Amortization	21.7	29.6	28.9
Other Costs	7.1	5.4	9.9
Total Non-GAAP Adjustments:	$ 60.7	$ 61.4	$ 55.5
Non-GAAP Operating Income	$ 242.5	$ 280.9	$ 317.9
Non-GAAP Operating Margin	*15.0%*	*15.9%*	*16.8%*
Non-GAAP Interest & Other Expense, net	(13.4)	(22.3)	(17.7)
Non-GAAP Profit Before Tax	229.1	258.6	300.2
Non-GAAP Income Tax Provision	(35.9)	(64.7)	(78.5)
Non-GAAP Tax Rate	*15.7%*	*25.0%*	*26.1%*
Minority Interest	(0.9)	(1.7)	(1.3)
Non-GAAP Net Income Attributable to Bruker	192.3	192.2	220.4
Weighted Average Shares Outstanding (Diluted)	162.2	159.1	157.2
Non-GAAP Earnings Per Share	$ 1.19	$ 1.21	$ 1.40

[1]The Company adopted Accounting Standards Update (ASU) 2017-07 as of January 1, 2018 under the retrospective approach. Accordingly, the 2016 and 2017 income statement accounts have been restated to reflect ASU 2017-07.

Bruker Corporation

Reconciliation of GAAP to NON-GAAP Financial Measures (unaudited)

(in millions, except per share amounts)	Twelve Months Ended December 31, 2016 [1]	2017 [1]	2018
Reconciliation of GAAP and Non-GAAP Gross Profit			
GAAP Gross Profit	$ 745.3	$ 816.0	$ 900.0
Non-GAAP Adjustments:			
Restructuring Costs	11.0	5.6	2.6
Acquisition-Related Costs	2.1	5.7	3.9
Purchased Intangible Amortization	18.7	24.0	21.6
Other Costs	0.1	0.8	0.6
Total Non-GAAP Adjustments:	31.9	36.1	28.7
Non-GAAP Gross Profit	$ 777.2	$ 852.1	$ 928.7
Non-GAAP Gross Margin	*48.2%*	*48.3%*	*49.0%*
Reconciliation of GAAP and Non-GAAP Tax Rate			
GAAP Tax Rate	13.0%	59.4%	26.0%
Non-GAAP Adjustments:			
Tax Impact of Non-GAAP Adjustments	-1.0%	-0.1%	-0.6%
Tax Authority Settlements	0.1%	0.0%	0.0%
Valuation Allowance Release	3.7%	0.0%	0.0%
U.S. Tax Reform- Toll Charge	0.0%	-27.8%	-2.7%
U.S. Tax Reform- Tax Rate Change	0.0%	-0.6%	0.1%
U.S. Tax Reform- Change in APB 23	0.0%	-6.5%	3.5%
Other Discrete Items	-0.1%	0.6%	-0.2%
Total Non-GAAP Adjustments:	2.7%	-34.4%	0.1%
Non-GAAP Tax Rate	15.7%	25.0%	26.1%

[1]The Company adopted Accounting Standards Update (ASU) 2017-07 as of January 1, 2018 under the retrospective approach. Accordingly, the 2016 and 2017 income statement accounts have been restated to reflect ASU 2017-07.

Bruker Corporation

Reconciliation of GAAP to NON-GAAP Financial Measures (unaudited)

(in millions, except per share amounts)	Twelve Months Ended December 31,		
	2016 [1]	2017 [1]	2018
Reconciliation of GAAP and Non-GAAP Earnings Per Share (Diluted)			
GAAP Earnings Per Share (Diluted)	$ 0.95	$ 0.49	$ 1.14
Non-GAAP Adjustments:			
Restructuring Costs	0.13	0.10	0.06
Acquisition-Related Costs	0.07	0.06	0.05
Purchased Intangible Amortization	0.14	0.19	0.18
Other Costs	0.04	0.04	0.06
Bargain Purchase Gain	(0.06)	-	-
Pension Settlement Charge	-	-	-
Income Tax Rate Differential	(0.08)	0.33	(0.09)
Total Non-GAAP Adjustments:	0.24	0.72	0.26
Non-GAAP Earnings Per Share (Diluted)	$ 1.19	$ 1.21	$ 1.40
Reconciliation of GAAP and Non-GAAP Interest & Other Income (Expense), net			
GAAP Interest & Other Income (Expense), net	$ (4.2)	$ (21.7)	$ (17.7)
Non-GAAP Adjustments:			
Bargain Purchase Gain	(9.2)	(0.6)	-
Pension Settlement Charge	-	-	-
Sale of Product Line	-	-	-
Non-GAAP Interest & Other Income (Expense), net	$ (13.4)	$ (22.3)	$ (17.7)

[1]The Company adopted Accounting Standards Update (ASU) 2017-07 as of January 1, 2018 under the retrospective approach. Accordingly, the 2016 and 2017 income statement accounts have been restated to reflect ASU 2017-07.

Bruker Corporation

Reconciliation of GAAP to NON-GAAP Financial Measures (unaudited)

(in millions, except per share amounts)	Twelve Months Ended December 31, 2016 [1]	2017 [1]	2018
Reconciliation of GAAP Operating Cash Flow and Non-GAAP Free Cash Flow			
GAAP Operating Cash Flow	$ 130.8	$ 154.4	$ 239.7
Non-GAAP Adjustments:			
Purchases of property, plant and equipment	(37.1)	(43.7)	(49.2)
Non-GAAP Free Cash Flow	$ 93.7	$ 110.7	$ 190.5
Reconciliation of Non-GAAP Return on Invested Capital (ROIC)			
Non-GAAP Operating Income (from above)	$ 242.5	$ 280.9	$ 317.9
Less: Non-GAAP Income Tax Provision (from above)	(35.9)	(64.7)	(78.5)
Non-GAAP Operating Income after Tax	$ 206.6	$ 216.2	$ 239.4
Average Total Invested Capital:			
Average Long-Term Debt	$ 328.8	$ 403.6	$ 369.1
Average Current portion of Long-Term Debt	10.4	10.1	9.3
Average Total Shareholders' Equity	713.0	713.3	830.6
Less: Average Cash and Cash Equivalents	(304.8)	(333.7)	(323.7)
Average Total Invested Capital	$ 747.4	$ 793.3	$ 885.3
Return on Invested Capital (ROIC)	**27.6%**	**27.3%**	**27.0%**

[1]The Company adopted Accounting Standards Update (ASU) 2017-07 as of January 1, 2018 under the retrospective approach. Accordingly, the 2016 and 2017 income statement accounts have been restated to reflect ASU 2017-07.

Bruker Corporation

Reconciliation of GAAP to NON-GAAP Financial Measures (unaudited)

(in millions, except per share amounts)	Twelve Months Ended December 31,		
	2016 [1]	2017 [1]	2018
Reconciliation of Impact of Adoption of ASU 2017-07 [2]			
Cost of revenues	(2.8)	(3.0)	(2.1)
Selling, general and administrative	(0.7)	(0.7)	(1.1)
Research and development	(1.1)	(1.1)	(0.7)
Interest and other income (expense), net	4.6	4.8	3.9
Net Impact to Net Income and Earnings per Share:	-	-	-

[1] The Company adopted Accounting Standards Update (ASU) 2017-07 as of January 1, 2018 under the retrospective approach. Accordingly, the 2016 and 2017 income statement accounts have been restated to reflect ASU 2017-07.

[2] The restatement for ASU 2017-07 below reflects the impact to the Non-GAAP financial statements. The GAAP financial statements for the twelve months ended December 31, 2015 also reflected a reclassification of $10.2 million related to pension settlements charges.