

Thermo Fisher S C I E N T I F I C

Serving Science in Europe, Middle East and Africa

Presenter Name

Overview

How Thermo Fisher Scientific is Translating Innovation into Results

- Introduction: Thermo Fisher Scientific Overview
- 2 Chromatography & Mass Spectrometry Product Lines
- 3 Questions

A Mission We are Proud of



We enable our customers to make the world healthier, cleaner and safer.

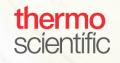
The World Leader in Serving Science

It's more than a vision

- \$18 billion in revenues
- \$750 million spent on R&D

- >55,000 employees
- 50 countries
- 5 premier brands





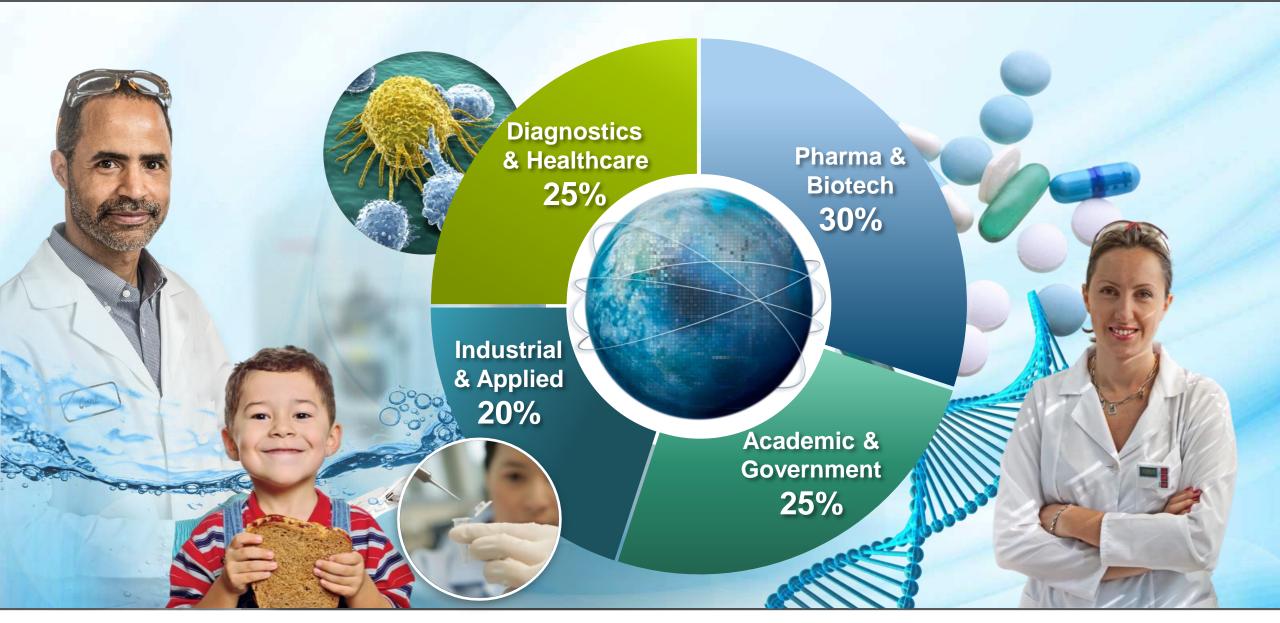
applied biosystems

invitrogen

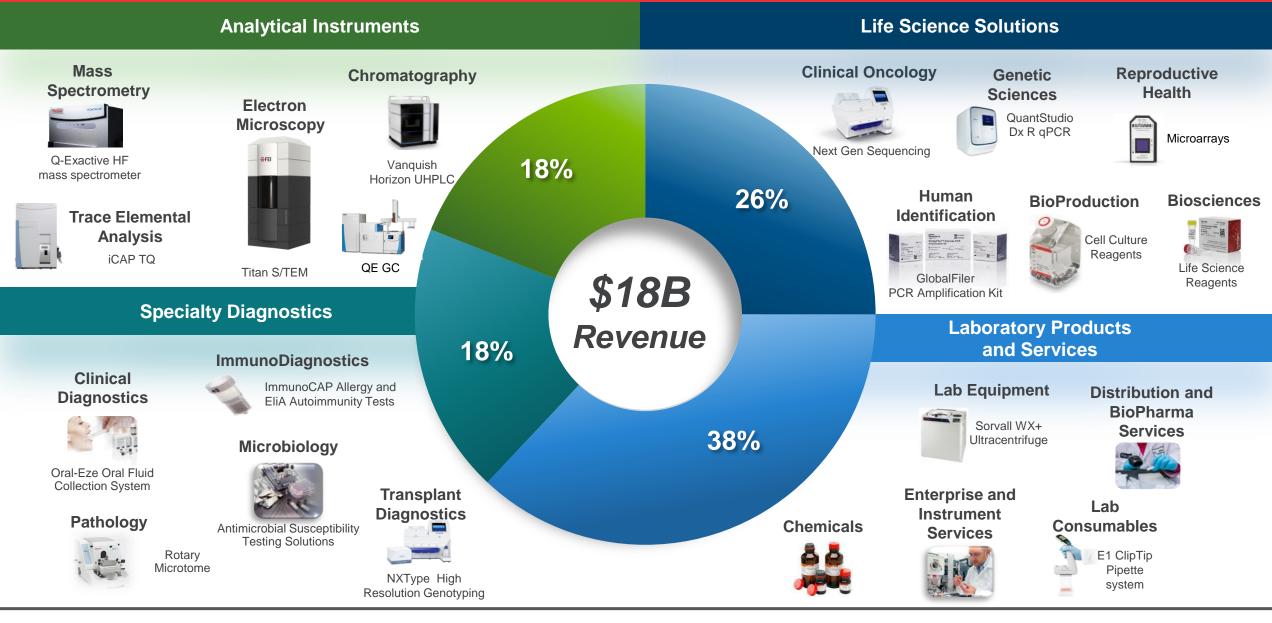


unity lab services

Serving Customers in Large and Growing Markets



Our Business Segments





Excellent Coverage in Europe, Middle East & Africa

- Chromatography and Mass
 Spectrometry in EMEA
 - 219 Direct sales personnel
 - 149 Service and support personnel
 - Direct sales offices
 - Austria, Benelux, Czech Rep., Denmark, France, Germany, Italy, Spain, Sweden, Switzerland, UK/Ireland
 - Demo labs
 - France, Germany, Netherlands, Switzerland, UK, Dubai UAE
 - Manufacturing plants
 - Germany, Italy, UK
 - Extensive distributor network



Agenda

How Thermo Fisher Scientific is Translating Innovation into Results

Introduction: Thermo Fisher Scientific Overview

2 Chromatography & Mass Spectrometry Product Lines

3 Questions

Columns and Consumables

SAMPLE HANDLING



- SureStop
- National
- Chromacol
- Virtuoso

Pharmaceutical/Biopharma Government and Academia Environmental/Food Safety Clinical & Toxicology

SAMPLE PREP



- SOLA
- HyperSep Retain
- QuEChERS
- eVol
- Titan3 and Target 2
- WebSeal

GC COLUMNS



- TraceGOLD GC Columns
- TRACE GC Columns
- TracePLOT GC Columns
- SWAP-IT GC/MS Interface
- GLD Pro Leak Detector
- GFM Pro Flowmeter

LC COLUMNS



- Accucore
- Hypersil GOLD
- Syncronis
- Acclaim
- Hypercarb
- GlycanPac
- PepMap
- EASY-Spray
- MAbPac
- DNAPac
- Viper Fittings

Gas Chromatography Systems

CHROMELEON 7.2



Trace 1310 GC

- Compact
- Fast GC oven
- I-modules for fast change of applications and easy maintenance
- Touchscreen



ISQ LT™ Series Single Quadrupole GC-MS

- Auto SIM
- No vent source exchange
- Heated prefilter
- EI, CI
- Probe

TSQ™ 8000 Evo Triple Quadrupole GC-MS/MS

- Auto SRM
- No vent source exchange
- Heated prefilter
- EI.CI

TraceFinderTM

- Probe
- Fast collision cell



Q Exactive™ GC Orbitrap™ GC-MS/MS

- No vent source & column exchange
- Heated prefilter
- El.Cl & Probe
- High resolution
- Accurate mass
- QQQ sensitivity in FullScan

From Routine to Research

HPLC Portfolio Overview

HPLC

Routine Analysis

Low-Flow

Flexibility, More Performance and Method Development

UHPLC

Research & HT

Vanquish Horizon

EASY-nLC/RSLCnano

- •UHPLC systems for Nano/Cap/Micro range
- •20 nL/min 50 µL/min up to 800 bar with **RSLCnano**
- •20 2000 nL/min up to 1200 bar with Easy-nLC
- Proflow Technology

RSLC/BioRS

- Advanced workflows with **Dual systems**
- •1000 bar up to 5 mL/min
- Binary and Quaternary **UHPLC** systems

Quaternary System

- Quaternary solvent blending
- •Pressures up to 1000 bar
- •Flow rates of up to 8 mL/min
- Two thermostatting modes
- Biocompatible





Binary System

Vanquish Flex

- ·Binary high pressure solvent mixing
- Pressures up to 1000bar
- Flow rates of up to 8 mL/min
- Two thermostatting modes
- Biocompatible



- ·Binary pump high pressure solvent mixing
- Highest pressure capability up to 1500 bar
- Flow rates up to 5 ml/min
- Industry-leading precision and accuracy
- Two thermostatting modes
- Unmatched detection sensitivity and linearity
- Biocompatible





Up to 1000 bar

Basic Automated

Highly economic &

•620 bar UHPLC compatible

reliable

620 bar

Standard

Highest flexibility with

Dual solutions

•620 bar UHPLC

compatible

800-1200 bar

2016

1500 bar



Informatics to Simplify Your Laboratory Operations

CDS



Streamline Chromatography Workflows

Connects to 450 instrument modules from 17 vendors

Simplifies data processing to get it right the first time

Simplifies method execution through eWorkflows™

Procedural ELN/LES



Simplify Process Execution

Drives users through a stepwise process

No customizations needed to deploy methods & SOPs

Connects to the general LIMS capabilities to provide an integration solution

LIMS



Complete Laboratory Management

Sample, test & result management

Management of lab personnel & resources

Process optimization & standardization

SDMS



Visualize without Original Application

Laboratory data archival, retrieval and preservation

Support for >180 instrument data formats

Vendor independent XML for long term storage

Get a complete picture of your laboratory, from the original raw data to final results.



Inorganic Mass Spectrometry

GAS ISOTOPE RATIOS



Delta Ray IRIS



EA/GC/LC peripherals with Delta V IRMS

ELEMENT Series

HR-ICP-MS



253 Plus 10kV IRMS

TRITON PLUS TIMS



253 Ultra HR-IRMS

NEPTUNE PLUS

MC-ICP-MS

Geosciences

- Geology
- Paleoclimatology

Food & Beverage

Food Integrity

Forensics

Origin & Authenticity

Geosciences

Geology

Industry

Nuclear

Geosciences

- Paleoclimatology
- Geochronology

- Paleoclimatology
- Geochronology

Semicon

- Geology

ORGANIC ELEMENTAL ANALYSIS

HIGH MASS ELEMENTS & ISOTOPES



FlashSmart Elemental Analyzer

Food & Beverage

Argus Noble Gas MS

Industry

Quality

Fuel &Lubricants

MAGNETIC SECTOR GC-HRMS

Helix MC Plus and SFT Noble Gas MS



DFS Magnetic Sector GC-HRMS

Environmental

- Dioxins
- Persistent Organic Pollutants (POPs)

Food & Beverage

Food Safety

From Isotope Ratio to Knowledge



NOBLE GAS MS

Ion Chromatography



Dionex Aquion

2mm/4mm IC Carbonate eluents Electrolytic Suppression



Dionex Integrion

2mm/4mm HPIC
Flexible detectors CD/ECD
RFIC or Manual Eluents
Tablet control,
VIPER fittings
System monitoring



RFIC

HPIC

Dionex ICS-4000

Capillary HPIC RFIC up to 200mM Detector options CD/ECD Reduced eluent/waste



Dionex ICS-5000+

Capillary/2mm/4mm HPIC RFIC and Gradient Pump Flexible & Modular Detection Options 2DIC/post column reagents



Mass Spectrometry Serving Science

- Metabolomics
- Proteomics
- Bioanalysis
- Lipidomics

Exactive™ Series MS



Non-targeted Analysis



Tribrid™ Series MS



- Biomarker Discovery
- Proteomics
- Metabolism
- Metabolomics
- Lipidomics

Quantitative

Applied Markets

Transform
Your Science

Research Markets

Qualitative

_...

- Food Safety
- Environmental
- Clinical Research/ Forensic Toxicology





MS, MSⁿ

Targeted Analysis

Ion Trap MS



- PTM Analysis
- Lipidomics
- Proteomics

Trace Elemental Analysis Family of Instruments



iCE™ 3500 Series furnace AA









Single quad ICP-MS





ICP-OES

ICP-MS

Unmatched Customer Partner

We enable our customers to make the world healthier, cleaner and safer

Technology innovation leadership

Unique customer value proposition

Unparalleled global reach

Thermo Fisher S C I E N T I F I C



Europe, Middle East & Africa (EMEA)

- EMEA
 - Around 188 countries
 - 2.2 billion people
 - 2000 languages
 - 13 time zones

- Thermo Fisher Scientific in EMEA
 - 20,000 employees
 - Active in 39 countries
 - Approx \$500Million

- Chromatography & Mass Spectrometry in EMEA
 - 219 Direct sales personnel
 - 149 Service and support personnel
 - Direct sales offices
 - Austria, Benelux, Czech Rep., Denmark, France, Germany, Italy,
 Spain, Sweden, Switzerland, UK
 - Demo labs
 - France, Germany, Netherlands, Switzerland, UK, Dubai UAE
 - Manufacturing plants
 - Germany, Italy, UK, USA, Singapore, China
 - Extensive distributor network
 - >60 Value Added Distributors



History of our cooperation in Bulgaria

Organizing local events – our October Thermo seminars with 17 years history







History of our cooperation in Bulgaria









Our collaboration - Our success:

- Sold more than 250 instruments including some high end instrumentation
- Successful participation in many local and international tenders

History of our cooperation in Bulgaria

Longstanding and Successful Cooperation









