



Diagnostics: Growth through innovation and Personalised Healthcare

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**The future of medicine
is personalised**

Roche Investor Day 2012



Roche Diagnostics portfolio overview

Industry leading businesses covering the entire IVD spectrum



IVD market

Our business model and strategy

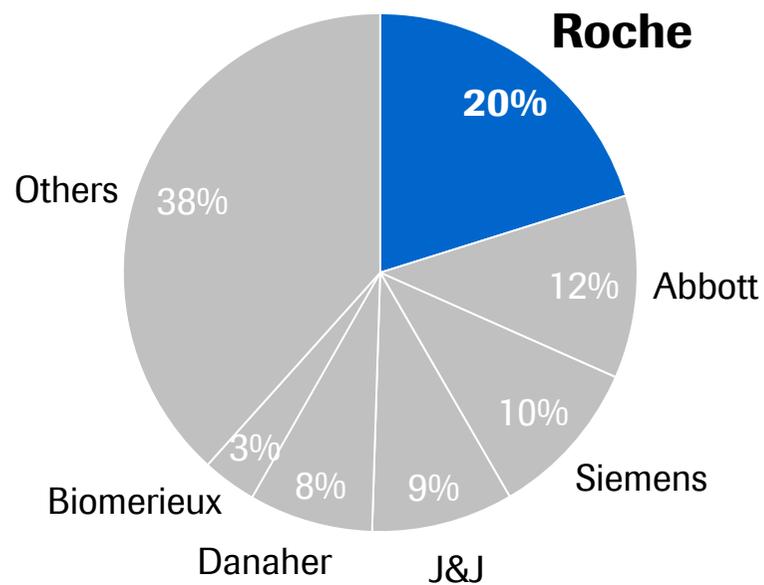
Personalised Healthcare



IVD market overview

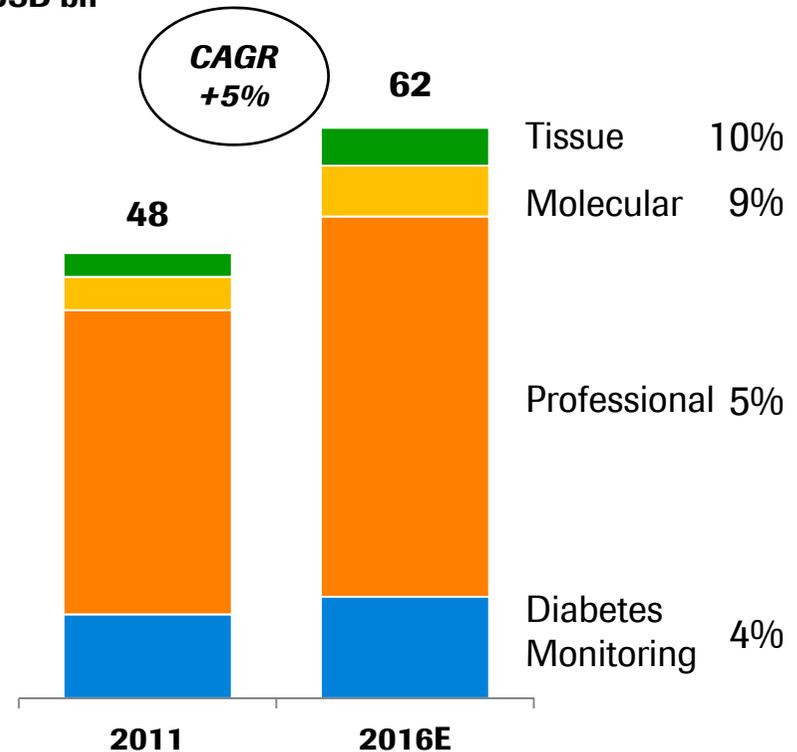
Large and growing market; Roche is market leader

Market share



Market size

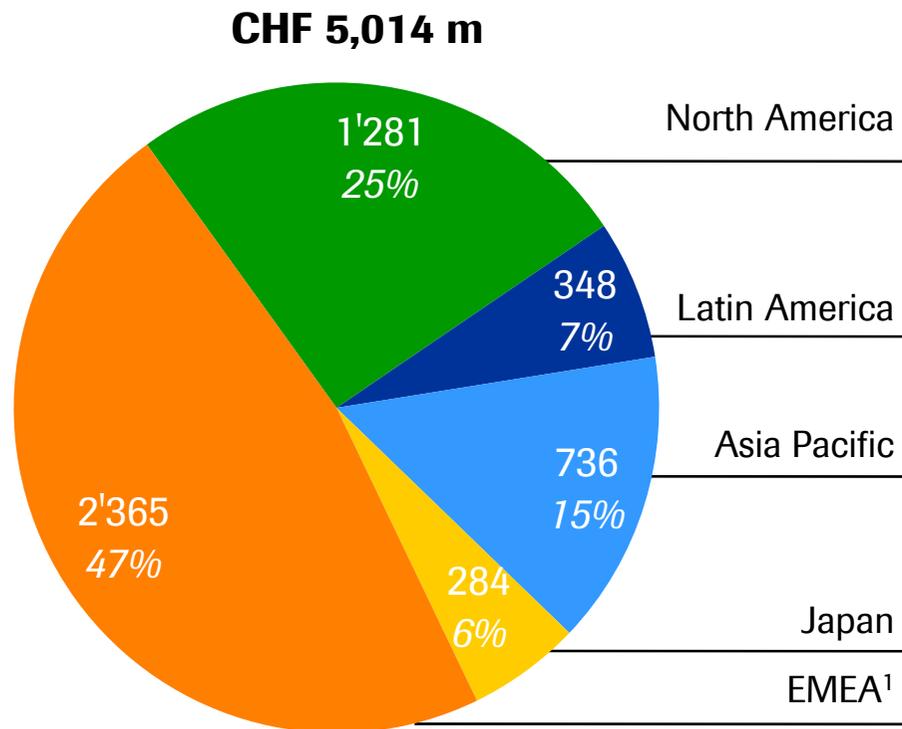
USD bn



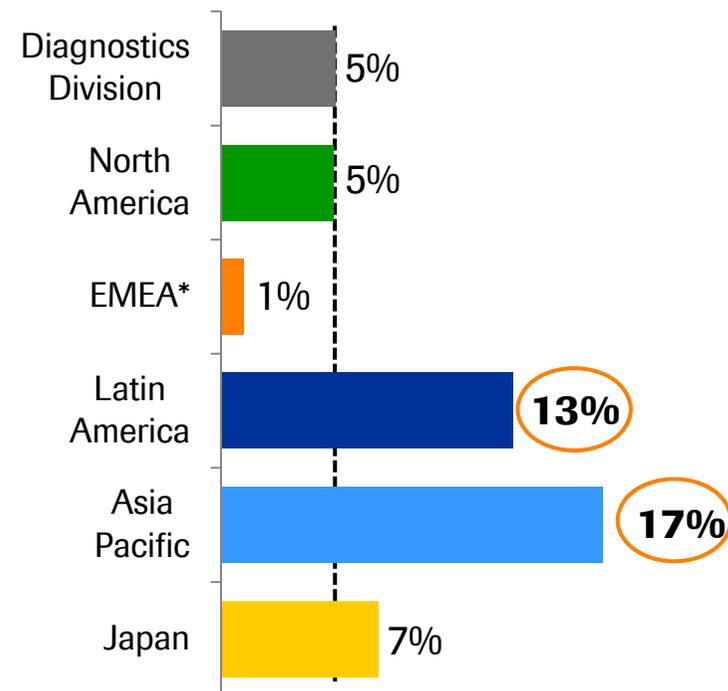
Growth in all regions

Strong double digit growth in emerging markets

Roche Diagnostics HY 2012 sales



CER sales growth



¹ Europe, Middle East and Africa

CER=Constant Exchange Rates

IVD market

Our business model and strategy

Personalised Healthcare

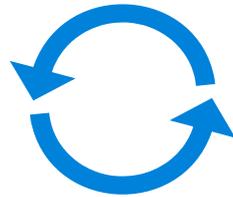


Our business model

Growing via differentiated business model and strong global presence

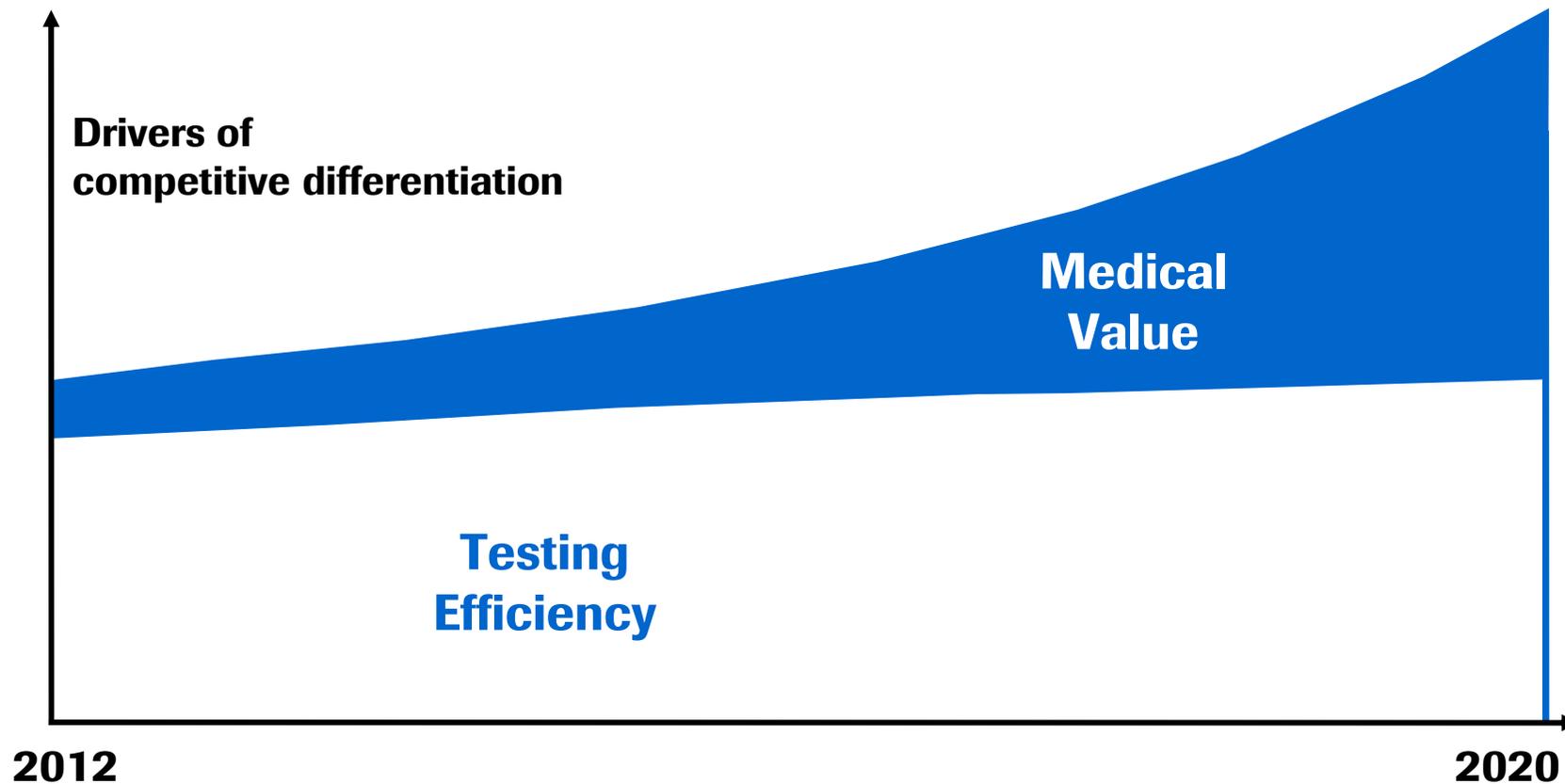
Reagent
pull-through model

Large worldwide
installed base



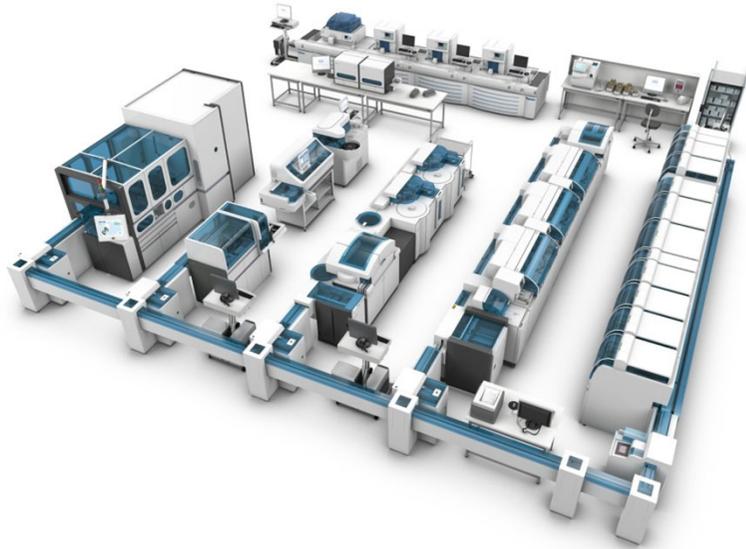
Our strategy

Differentiation through innovation in testing efficiency and medical value



Testing efficiency

Increasing productivity in labs



Testing efficiency value for customers

- Saving costs via automation
- Fast turnaround times due to high throughput
- Efficient workflow from sample preparation to test results
- Modular and scalable solutions with flexibility for growth

Testing efficiency

Examples of recent and upcoming innovations

Recent launches

Ventana iScan HT



- Fully digitise pathology workflow
- High throughput and superior reliability
- Improve lab efficiency and productivity

In development

cobas® 6800/8800



- The "One" molecular platform
- Broad test menu; random access capability
- Modular design to address laboratory throughput needs
- Designed to integrate pre & post analytics

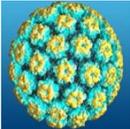
Medical value strategy

Prioritise areas with unmet needs & growth potential

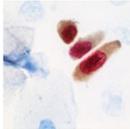
Selected Examples



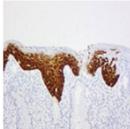
Cervical cancer



HPV



p16 /
Ki67



p16

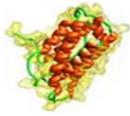
Infectious diseases



MRSA



HIV/HCV
load



HBsAg

Cardiovascular



cTnT-hs¹



NT-
proBNP



PTF²

¹ High Sensitivity Troponin T; ² Platelet Function Testing

Medical value: Expanding intended uses of NT-proBNP for biomarker guided therapy

Heart Failure (HF)



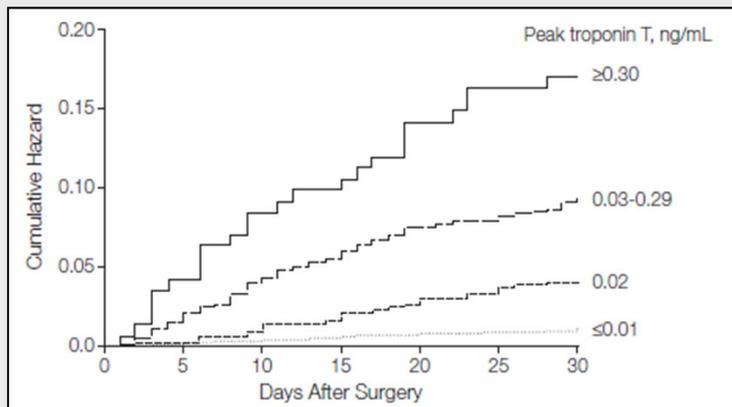
- Over 5% of US healthcare spending¹
- Limited tools for treatment decision
- Unmet need for a biomarker to guide therapy titration

NT-proBNP

- **Intended uses of NT-proBNP supported by clinical data**
 - Rule in/out and early detection of HF; Risk stratification of ACS²; Therapy monitoring³
- **GUIDE-IT: NT-proBNP target to guide medical therapy in HF**
 - 1100 patient study in collaboration with Duke University and NIH
 - To repeat key results from PROTECT⁴
 - Targeting new intended use in the US in a large and growing market

Medical value: Proving value for high sensitive troponin T in non-cardiac surgery patients

VISION study publication in JAMA¹



- Results from the first 15,133 non-cardiac surgery patients
- Peak post-operative troponin levels significantly associated with 30-day mortality
- Results will aid physicians assess individual patient risk and tailor therapy



Roche Elecsys[®] Troponin T hs Assay

- Latest generation high sensitive troponin T test is a new tool to diagnose AMI² earlier
- Roche is the global troponin market leader with 30% share³

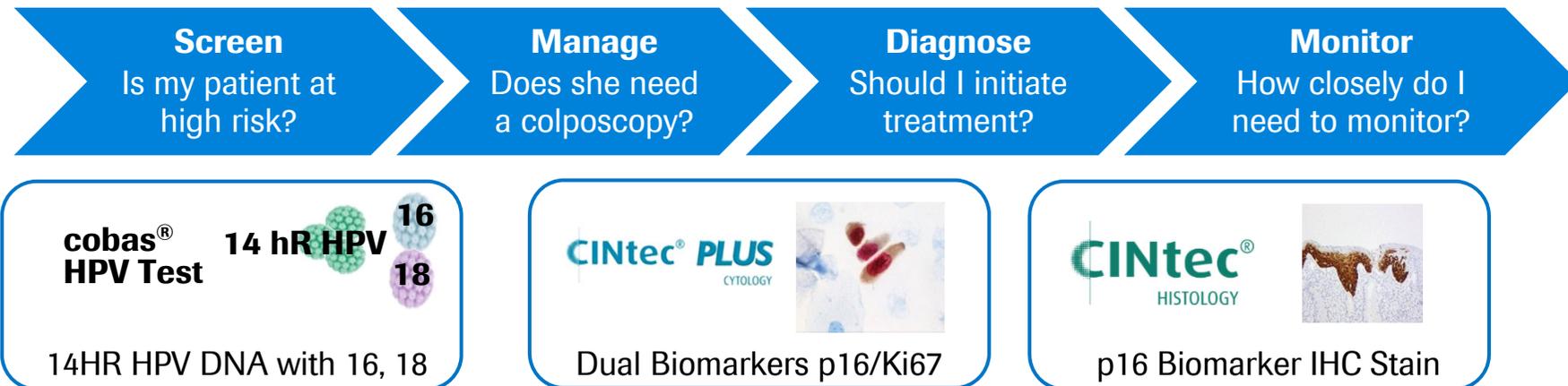
Medical value: Improving the standard of care for women



Vision: Roche to lead the cervical cancer screening market by cost effectively **improving the standard of care**

Extensive Clinical Data: ATHENA (cobas HPV test), PALMS (CINtec PLUS Cytology), Bergeron et al.* (CINtec p16 Histology)

Endorsement of the Roche Solution: New guidelines (ASC, ASCCP, ASCCP-LAST) recommend use of HPV 16/18 genotyping and p16 in screening and diagnosis

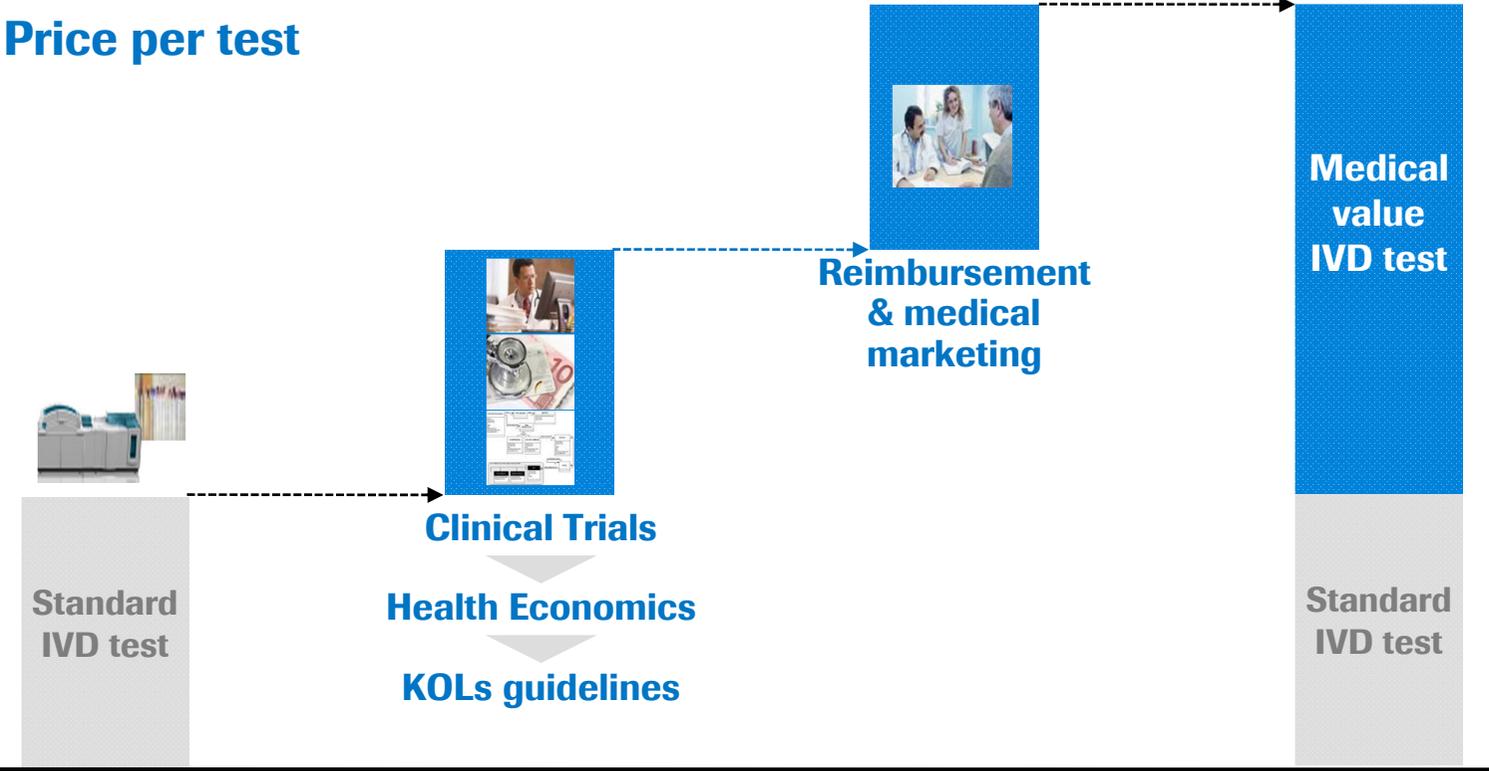


¹ Bergeron, et al. Am J Clin Pathol 2010; 133:395-406

² CAP/ASCCP Lower Anogenital Squamous Terminology for HPV-Associated Lesions: Summary of Consensus Recommendations June 28, 2012

Medical value benefits

Higher value through clinical utility and health economics



IVD market

Our business model and strategy

Personalised Healthcare



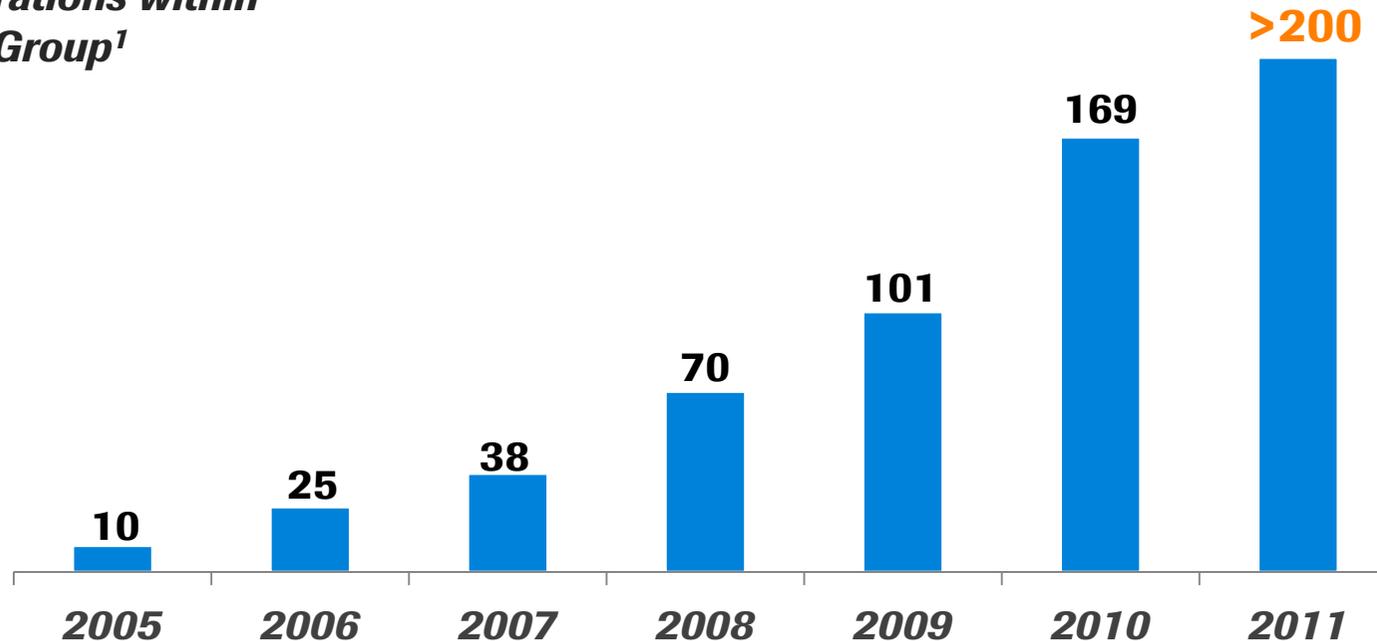


Roche Diagnostics enables PHC

Accelerating Companion Diagnostics (CDx) projects

Collaborations within Roche Group¹

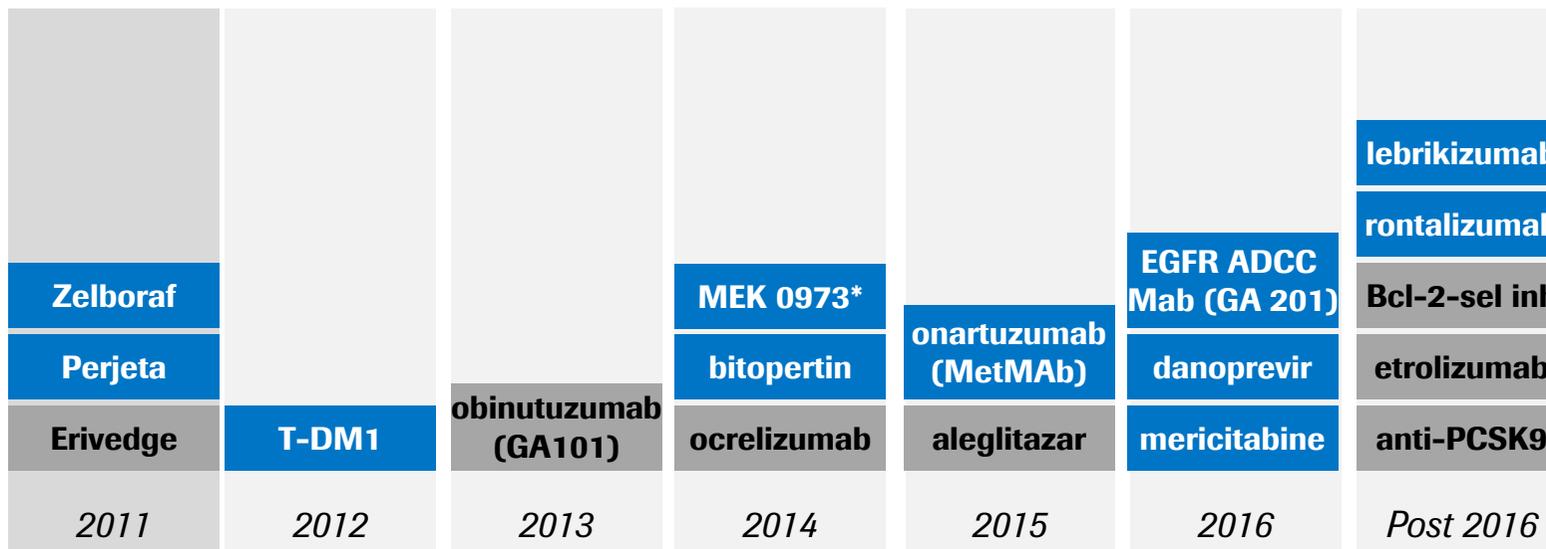
15 compounds with CDx in Ph 2 & 3



¹ Including R&D collaborations and CDx projects

Importance of Personalised Healthcare

Majority of our pipeline with Companion Diagnostics



Late Stage Pipeline:
11 out of 18 compounds are targeted therapies for selected patients

*MEK considered as PHC in combination with Zelboraf for metastatic melanoma

Breast & gastric cancer

Herceptin, Perjeta & T-DM1

Ventana HER2 IHC & DISH

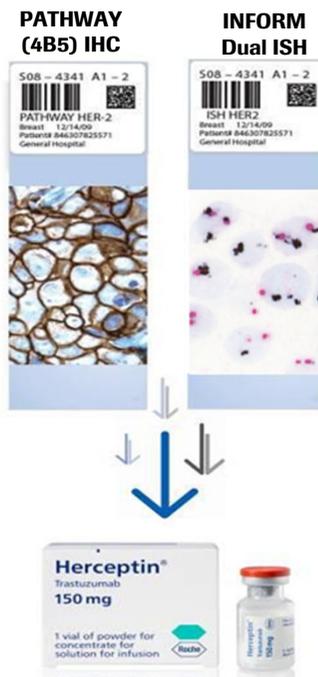
Key goal for Personalised Healthcare: Patients are accurately and quickly stratified



BenchMark automated slide staining platform



iScan Coreo



Roche Solution:

Integrated solution ensures:

- Clinical superiority ^{1,2}
- Analytical superiority
- Testing efficiency

The only fully automated, FDA approved HER2 diagnostics workflow

¹ Mayr et al. Chromogenic in situ hybridization for HER-2/neu oncogene in breast cancer. *Histopathology*. 2009 Dec; 55(6):716-23.

² Loftin IR, et al. Poster presented at ASCO Breast Cancer Symposium, September 2011

Non small cell lung cancer (NSCLC)

MetMab & Tarceva

Ventana cMET and cobas EGFR

Providing the complete system for patient identification

- Detection of two key biomarkers in NSCLC
- High accuracy, broad mutation coverage
- Standardized workflow with fast and consistent results
- Worldwide distribution

VENTANA cMET assay¹ cobas EGFR Mutation Test²



Phase 3 key inclusion criteria:

- MET positive status as determined by VENTANA cMET
- Stratification by EGFR status confirmed by cobas EGFR Mutation Test

¹ In development; ² Not available in the US

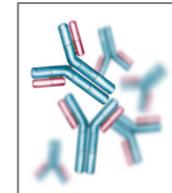
Asthma

Lebrikizumab

- Early collaboration and securing IP: UCSF-Genentech-RPD
- High quality and reliable in house IVD immunoassay based on ECL technology
- Delivered assay to meet tight Ph 2 & 3 timelines in consultation with FDA

*Periostin*¹

cobas e 601 module



Periostin assay

Industry leading global reach

Access to patients all over the world

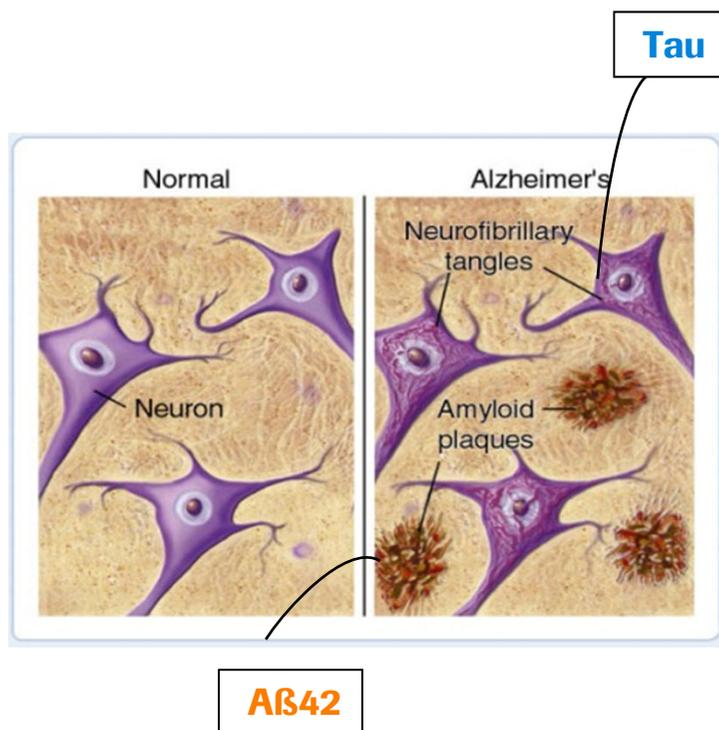
- Over 40'000 SWA² instruments installed across 130 countries



¹ In development; ² Serum Work Area (clinical chemistry and immunoassay testing on a single platform)

Alzheimer's Disease (AD)

Gantenerumab



Elecsys Aβ42¹ and Tau¹

- No current approved AD therapies with identified CDx biomarkers
- CSF² biomarker immunoassays to identify early (prodromal) AD eligible for Gantenerumab treatment
- Joint CDx development

Worldwide launch planned as fully automated IVD tests

¹ In development; ²Cerebrospinal fluid



Roche Diagnostics enables PHC

Preferred Partner for companion diagnostics (CDx)

Why partner with Roche

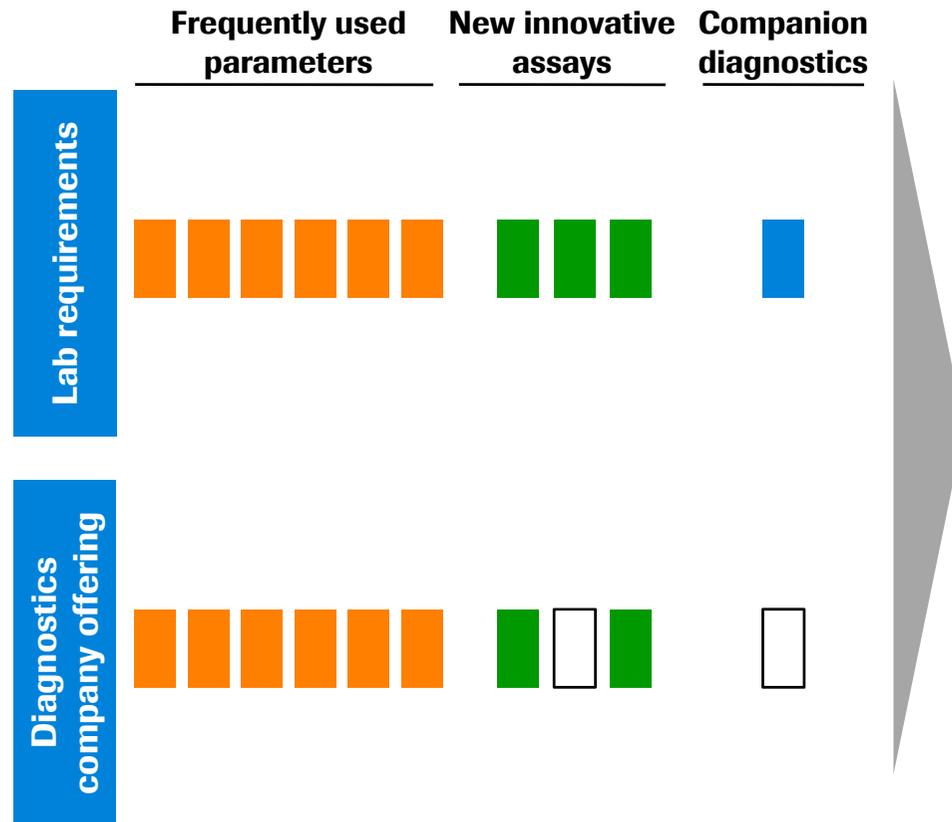
-  Proven partnership track record
-  Regulatory Expertise with CDx
-  Tools and Technologies
-  Largest Instrument Installed Base
-  World Class R&D

Selected Partners



Roche Diagnostics' commitment to PHC

Value of CDx strategy to Roche Diagnostics



If the menu meets customer assay needs, customer uses fewer instruments in their lab:

- ⇒ Lower costs and complexity for customers
- ⇒ More revenue for Dx company

Roche
“One-stop Shop”
Most relevant & complete offering

Summary

Roche Diagnostics well positioned to continue to outgrow the market

1

Strengthen market leadership in growing IVD market

Leveraging global installed base and delivering new key products

2

Provide testing efficiency and demonstrate medical value

Complete menu offering, high value assays, and building evidence

3

Roche Diagnostics enabling Personalised Healthcare

Large companion diagnostics pipeline driving value for the Group