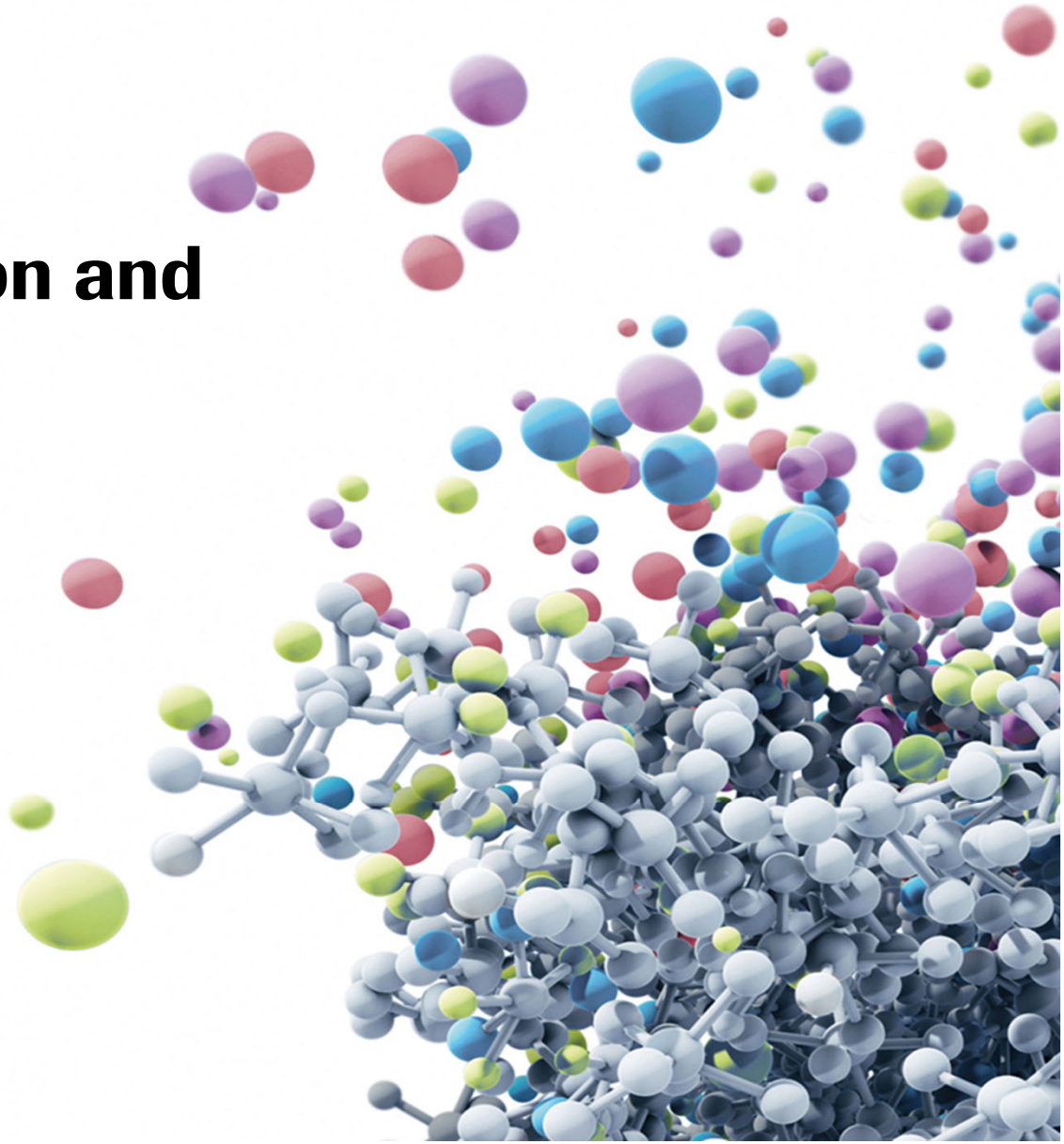
Committed to innovation and growth

Dr. Karl Mahler
Head of Investor Relations

5th Annual Biosimilars Conference
Sanford Bernstein
December, 2012



This presentation contains certain forward-looking statements. These forward-looking statements may be identified by words such as ‘believes’, ‘expects’, ‘anticipates’, ‘projects’, ‘intends’, ‘should’, ‘seeks’, ‘estimates’, ‘future’ or similar expressions or by discussion of, among other things, strategy, goals, plans or intentions. Various factors may cause actual results to differ materially in the future from those reflected in forward-looking statements contained in this presentation, among others:

1 pricing and product initiatives of competitors;
2 legislative and regulatory developments and economic conditions;
3 delay or inability in obtaining regulatory approvals or bringing products to market;
4 fluctuations in currency exchange rates and general financial market conditions;
5 uncertainties in the discovery, development or marketing of new products or new uses of existing products, including without limitation negative results of clinical trials or research projects, unexpected side-effects of pipeline or marketed products;
6 increased government pricing pressures;
7 interruptions in production;
8 loss of or inability to obtain adequate protection for intellectual property rights;
9 litigation;
10 loss of key executives or other employees; and
11 adverse publicity and news coverage.

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For marketed products discussed in this presentation, please see full prescribing information on our website – www.roche.com

Our strategy

R&D and market dynamics

Changing the standard of care

Expanding in Emerging markets

Summary

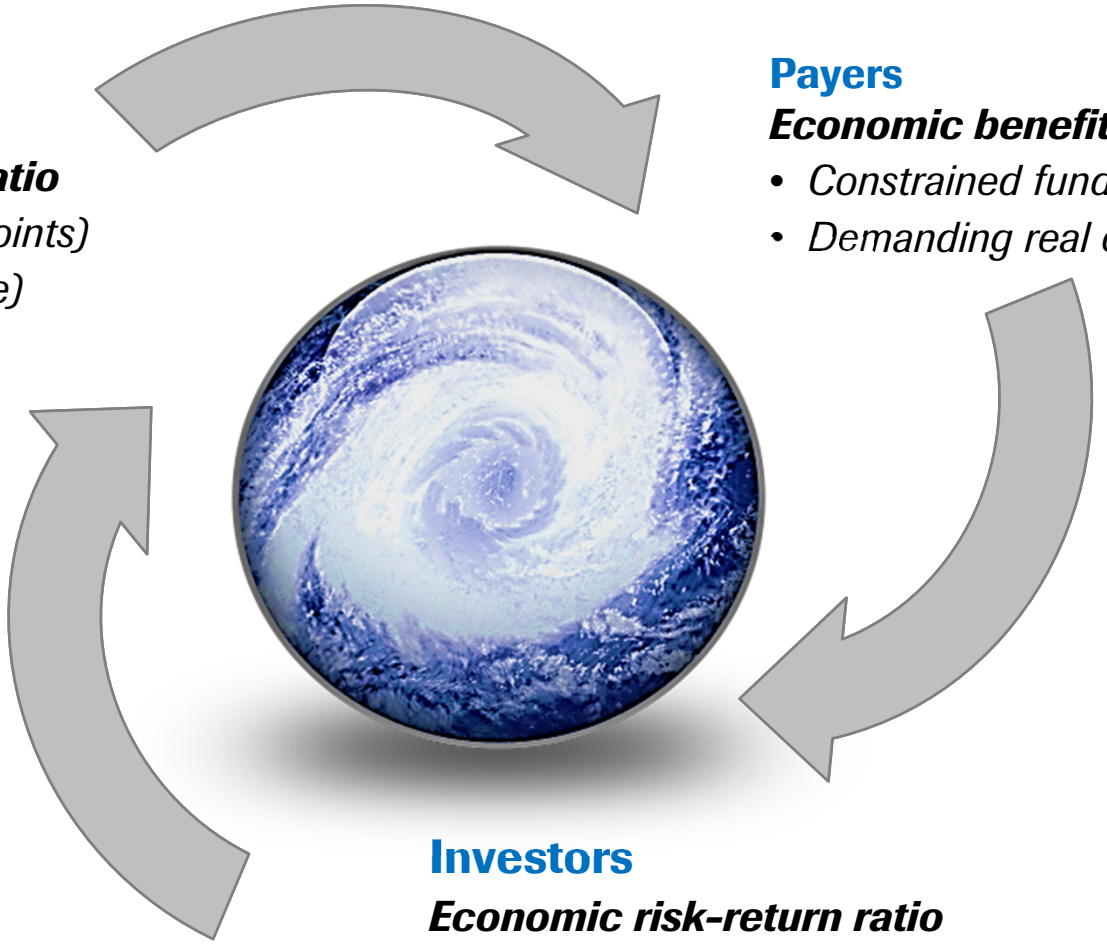
An increasingly challenging environment

Where do we go from here?

Regulators

Medical benefit-risk ratio

- *Efficacy (clinical endpoints)*
- *Safety ('zero' tolerance)*



Payers

Economic benefit-cost ratio

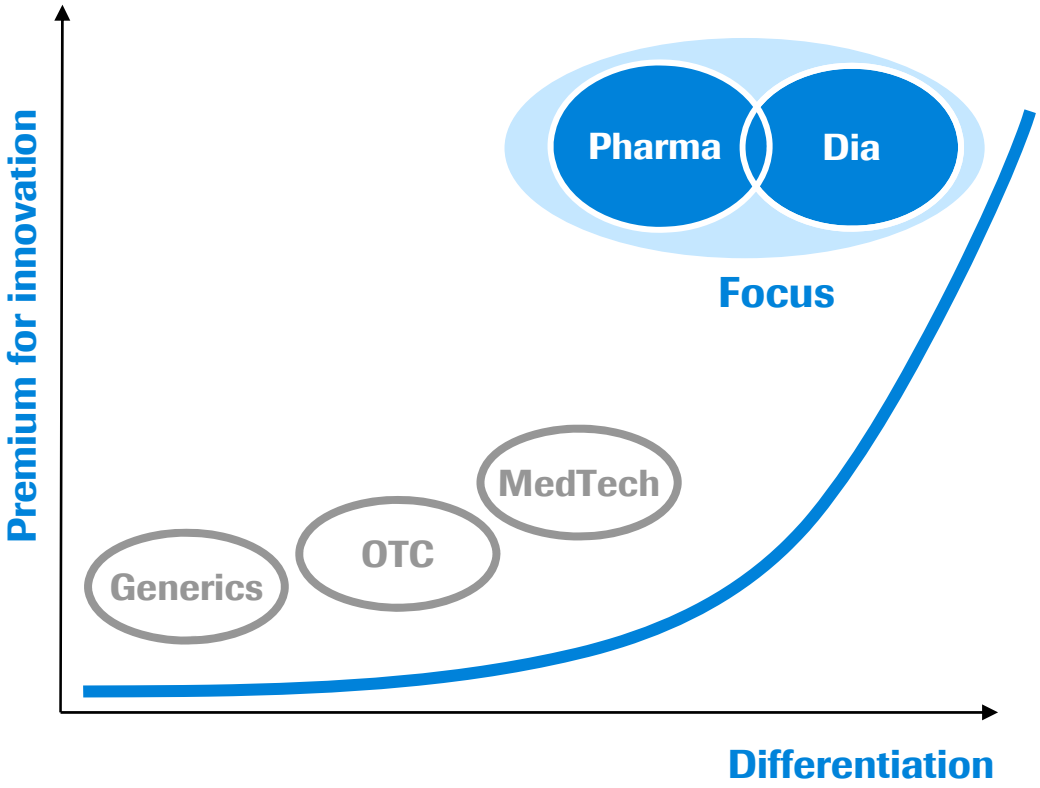
- *Constrained funding capacity*
- *Demanding real outcome evidence*

Investors

Economic risk-return ratio

- *Declining Returns*
- *Declining Growth*

Roche strategy: Focused on medically differentiated therapies



Regulators:
Optimised benefit / risk ratio

Payors:
Optimised benefit / cost ratio

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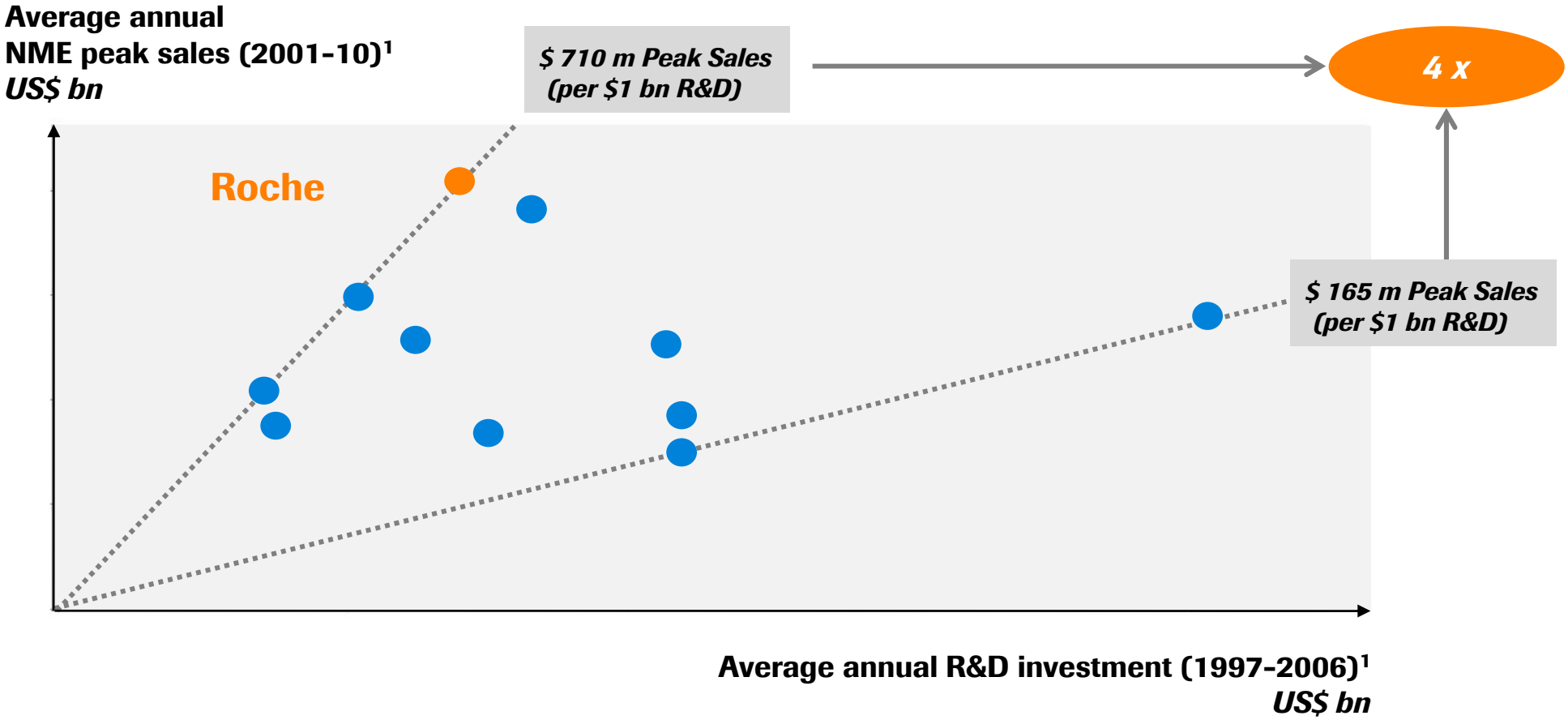
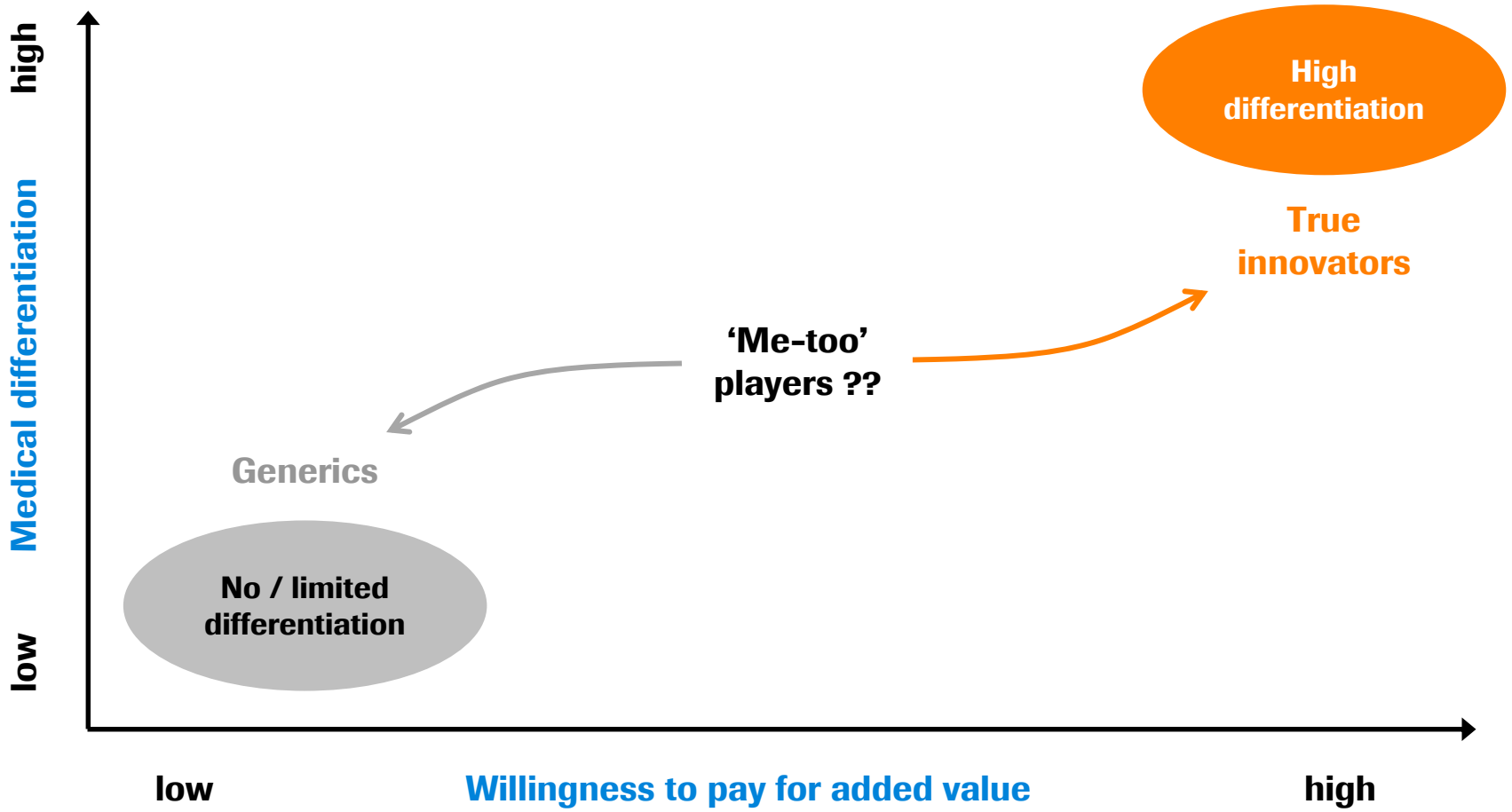
R&D productivity differs substantially among players



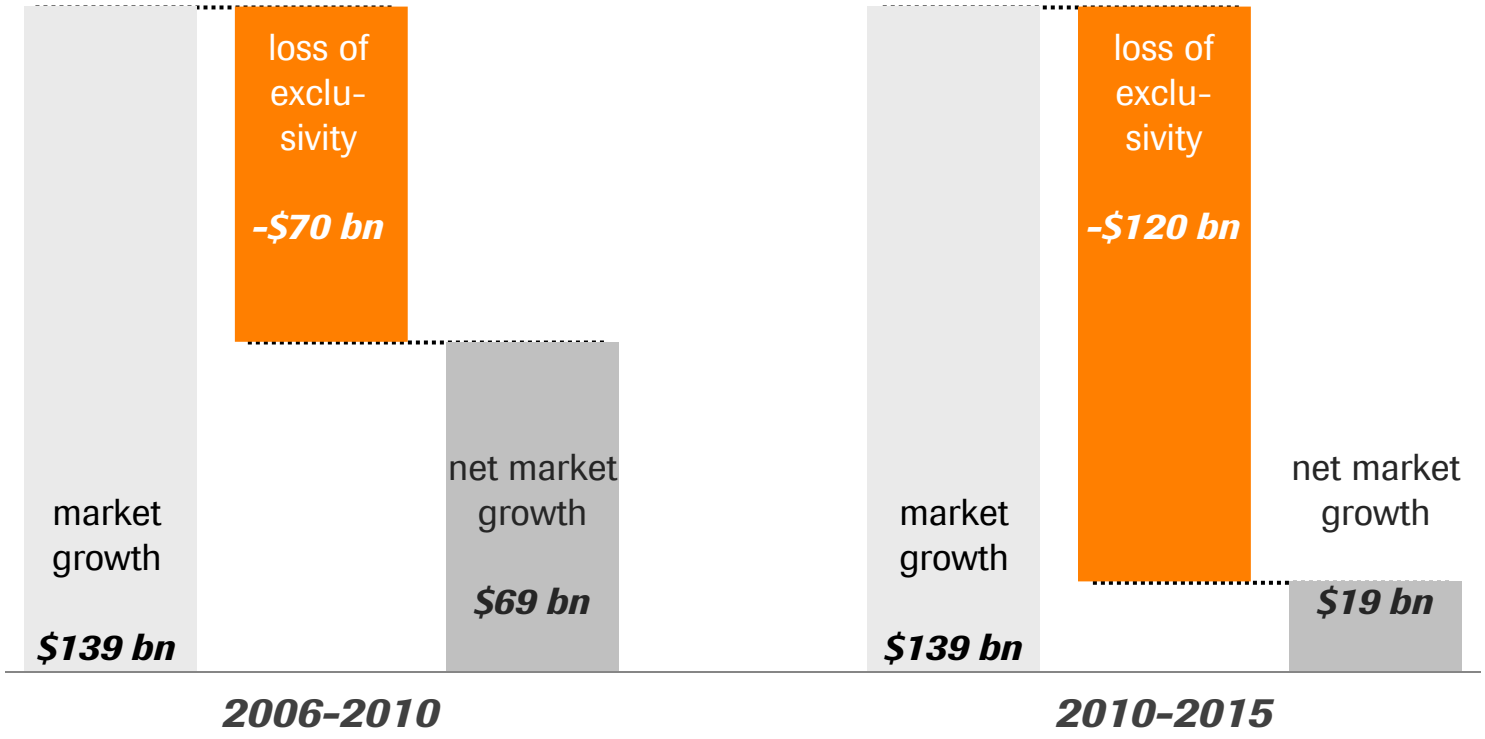
[1] Peak sales and R&D calculated pro forma to account for major M&A
Source: EvaluatePharma; BCG analysis; Roche analysis

Implications of R&D productivity challenge

Segregation will continue as only true innovation will be rewarded



Upcoming patent expiries in developed markets improve affordability of innovative drugs



Source: IMS Institute for Healthcare Informatics, Apr 2011.
Established market countries are US, Japan, Germany, France, Italy, Spain, Canada, United Kingdom and South Korea

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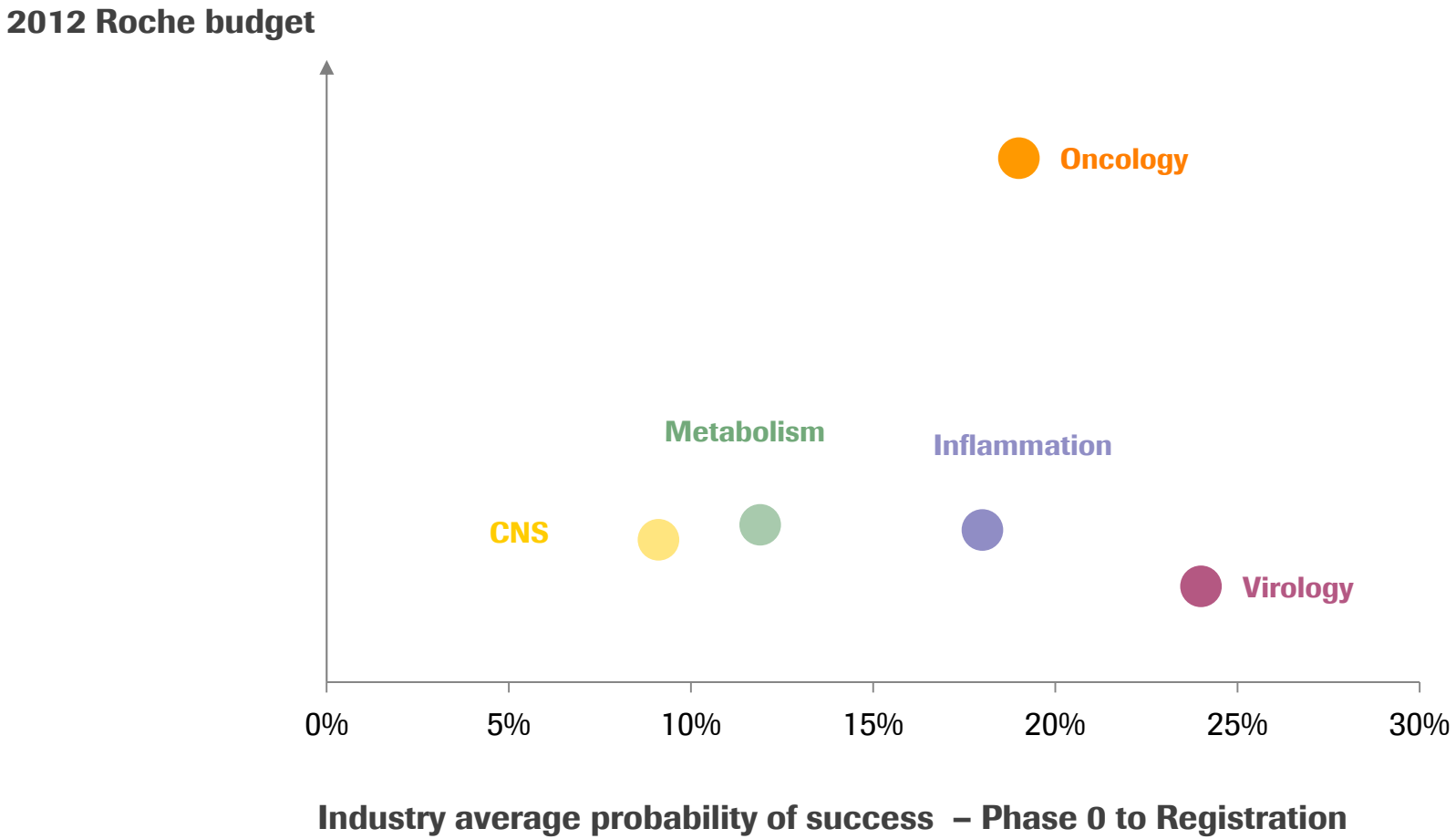
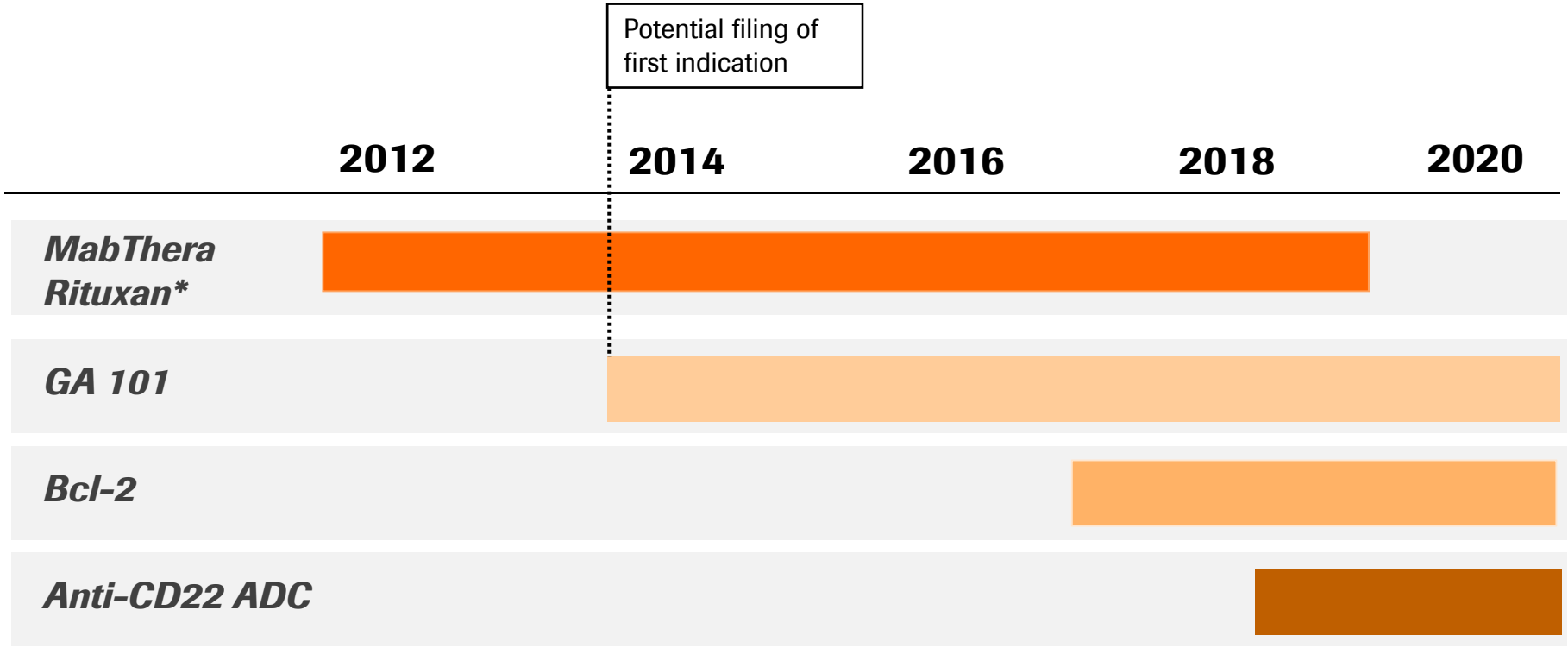
Roche: R&D well balanced from a risk & disease point of view



Source: Bernstein Equity Research, Tufts University and Roche analysis

Hematological cancers

Different mechanisms of action



* Patent expiry in the US: 2018

Roche

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Summary

Roche growth in E7 countries is largely exceeding the market

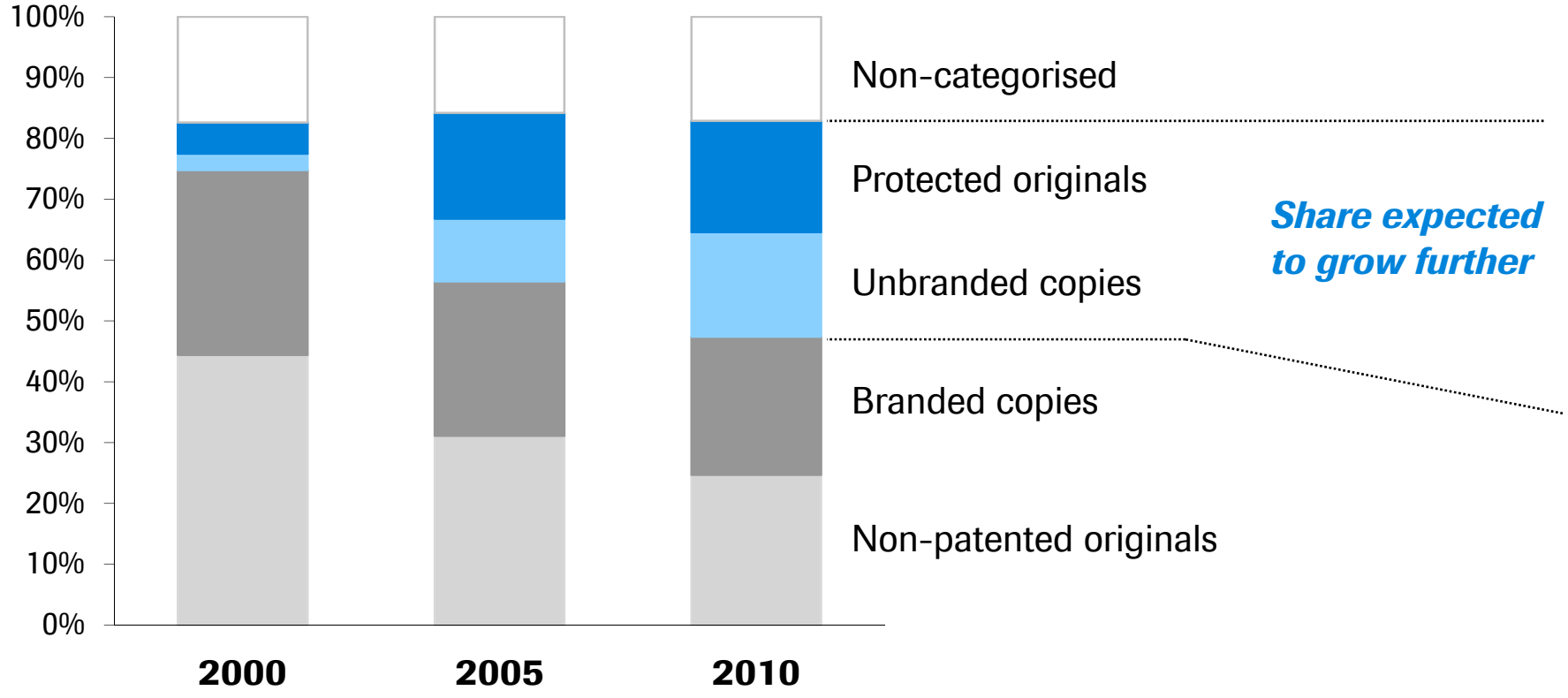
	Current market rank	2011 growth	
		Roche	Market
Brazil 	2	***10%***	*5%*
China 	3	***34%***	*16%*
Russia 	3	***11%***	*3%*
Mexico 	5	***3%***	*5 %*
Turkey 	11	***-1%***	*3%*
S. Korea 	16	***17%***	*6%*
India 	28	***17%***	*12%*

Source: Roche growth reflects in-market sales; Russia by Pharmexpert; India Roche in-market sales from internal data; All others IMS. Roche sales exclude Tamiflu & effect of divestments in Mexico & Turkey.Turkey 1Q 2012 in-market growth: Roche 15%, market -8%.

Increasing polarisation in emerging markets

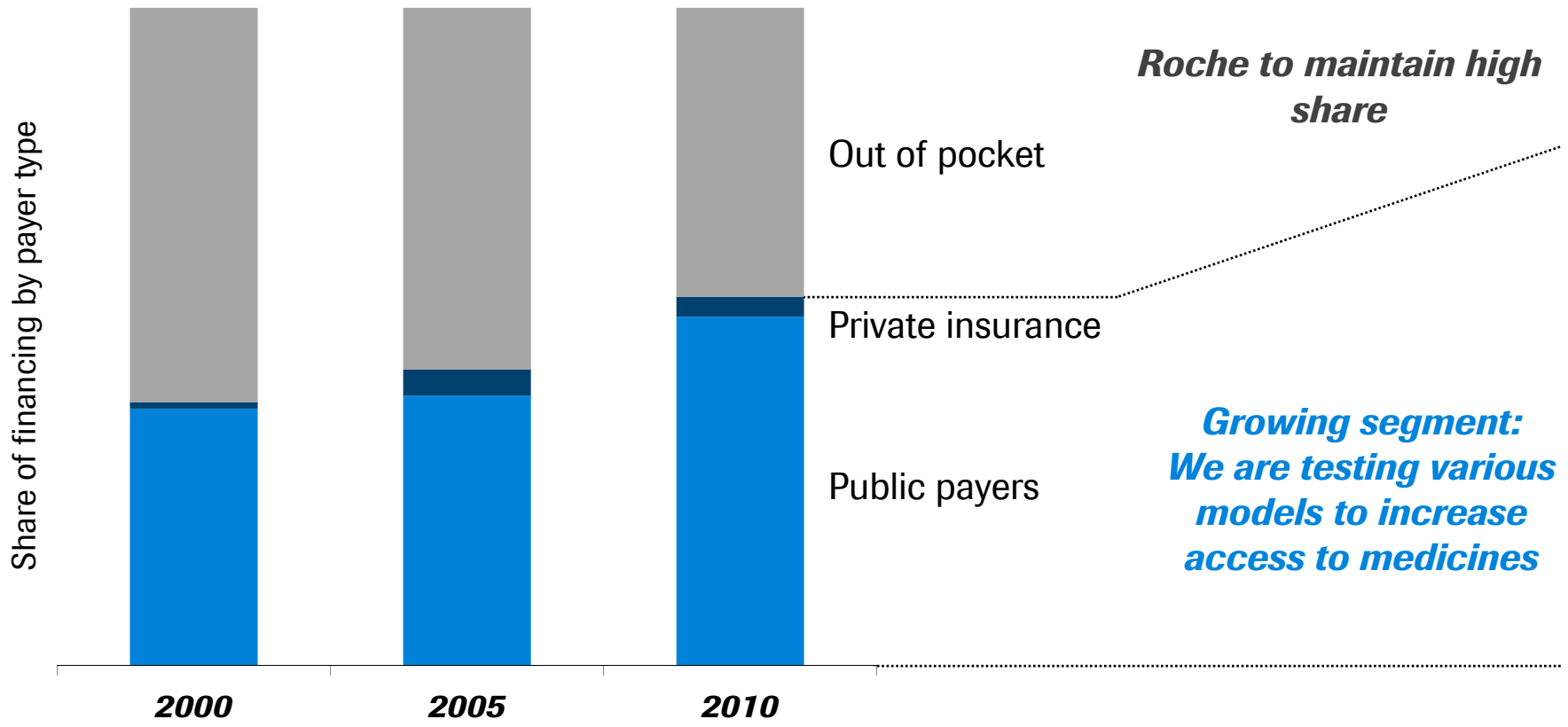
Growth in patented medicines and unbranded generics

Example: Brazil market showing evidence of polarisation



Source: IMS

Growing segments in Emerging markets



Objective:
Maintain high share in private segment – expand to public segment

Illustrative for emerging markets

Roche

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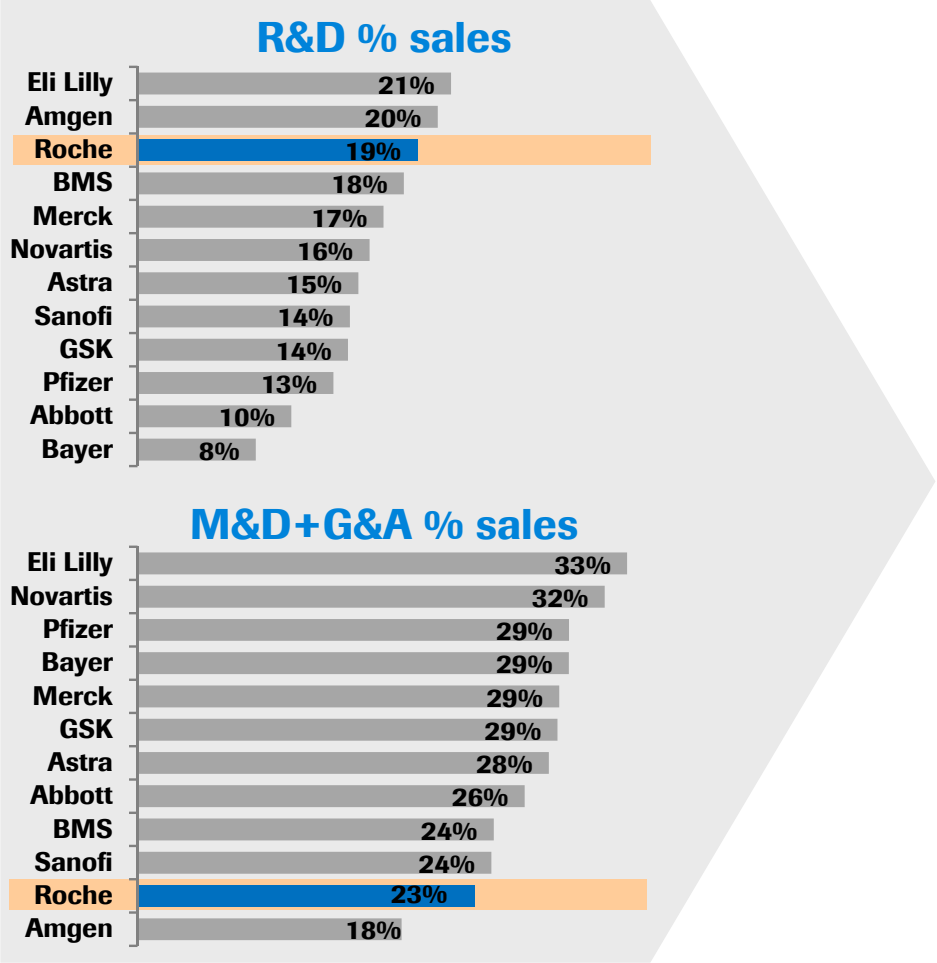
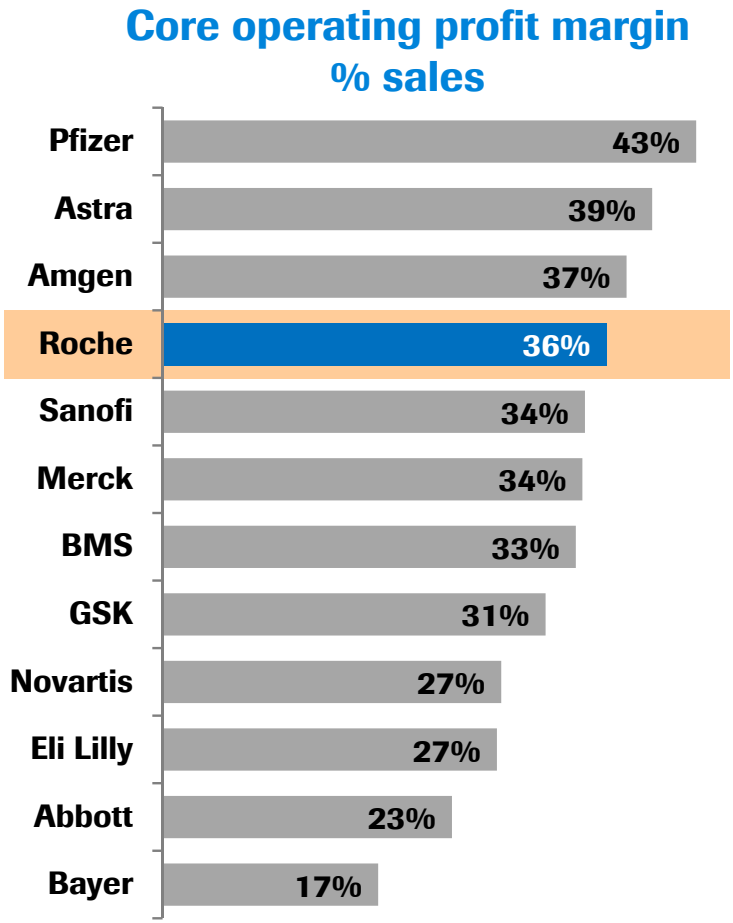
The P&L reflects Roche's innovation based strategy

Low on Marketing, General and Administration





Source: Company reports, Roche analysis; Figures based on fiscal year 2011 financials

Pipeline: 71 NMEs supporting long-term growth

Phase I (36 NMEs)

MDM2 ant	solid & hem tumors
HER3 MAb	solid tumors
CSF-1R MAb	solid tumors
CIF/MEK inh	solid tumors
Tweak MAb	oncology
Raf & MEK dual inh	solid tumors
CD44 MAb	solid tumors
MEK inh	solid tumors
MEK inh	solid tumors
MDM2 ant	solid & hem tumors
AKT inhibitor	solid tumors
PD-L1 MAb	solid tumors
Steap 1ADC	prostate ca.
ADC	ovarian ca.
ADC	heme tumors
ADC	multiple myeloma
ADC	oncology
Bcl-2 inh	CLL and NHL
ChK1 inh	solid tum & lymphoma
PI3K inh	solid tumors
ADC	metastatic melanoma
PI3k inh	glioblastoma 2L
ChK1 inh(2)	solid tumors
ALK inhibitor	NSCLC
PI3K inh	solid tumors
WT-1 peptide	cancer vaccine
IL-17 MAb	autoimmune diseases
IL-6 MAb	RA
CIM331RA	atopic dermatitis
TLR7 agonist	HBV
-	infectious diseases
GIP/GLP-1 dual ago	type 2 diabetes
GABRA5 NAM	cogn. disorders
V1 receptor antag	autism
BACE inh	Alzheimer's
ACE910	hemophilia A

Phase II (24 NMEs)

EGFR MAb	solid tumors
PI3K inh	solid tumors
PI3K/mTOR inh	solid & hem tumors
EGFL7 MAb	solid tumors
CD22 ADC	heme tumors
CD79b ADC	heme tumors
HER3/EGFR	m. epithelial tumors
glypican-3 MAb	liver cancer
etrolizumab	ulcerative colitis
rontalizumab	SLE
pateclizumab (LT alpha Mab)	RA
quilizumab (M1 prime Mab)	asthma
mericitabine	HCV
danoprevir	HCV
setrobuvir	HCV
inclaumab (P selectin Mab)	ACS/CVD
oxLDL MAb	sec prev CV events
PCSK9 MAb	metabolic diseases
gantenerumab	Alzheimer's
MAO-B inh	Alzheimer's
mGluR2 antag	depression
mGluR5 antag	TRD
crenezumab	Alzheimer's
anti-factor D Fab	geograph. atrophy

Phase III (8 NMEs)

onartuzumab (MetMAb)	solid tumors
obinutuzumab (GA101)	hem. tumors
lebrikizumab	severe asthma
aleglitazar	CV risk reduction in T2D
tofogliflozin (SGLT2)	type 2 diabetes
ocrelizumab	MS
bitopertin	schizophrenia
arbaclofen	fragile X syndrome (FXS)

Registration (3 NMEs)

Perjeta (pertuzumab)*	HER2+ mBC 1L
Erivedge*	advanced BCC
T-DM1	HER2+ mBC

Oncology
Immunology
Virology
CardioMetabolism
Neuroscience
Ophthalmology
Others

As of September 30 2012; * Approved in US, filed in EU

Focus on innovation and growth

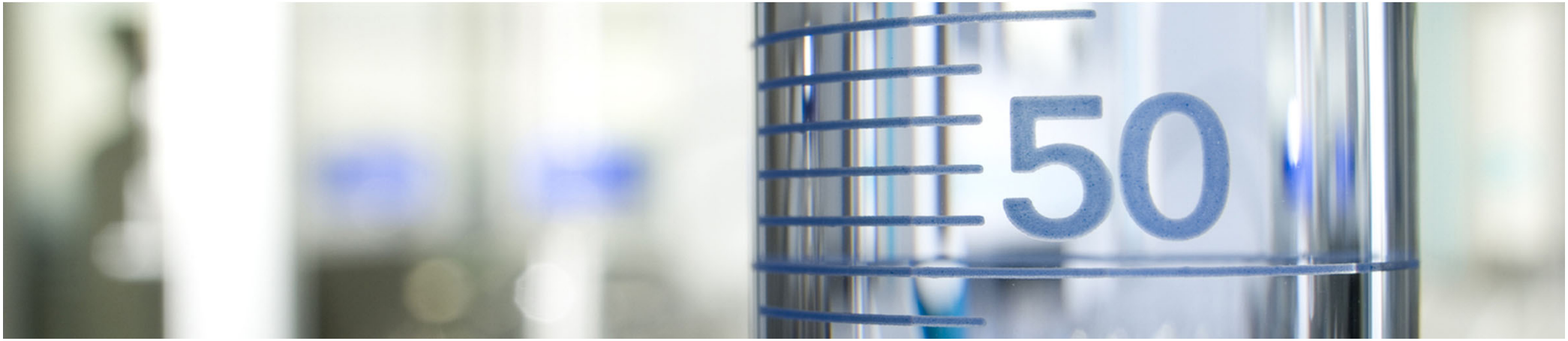
1	**Strategic focus on innovation and driving Personalised Healthcare**
2	**Strong growth in Emerging Markets facilitated by innovative access models**
3	**Leading product pipeline providing value for the future**

We Innovate Healthcare

Innovation in treatment of HER2-positive tumors

5th Annual Biosimilars Conference

Liz Homans, Global Head of HER2 franchise



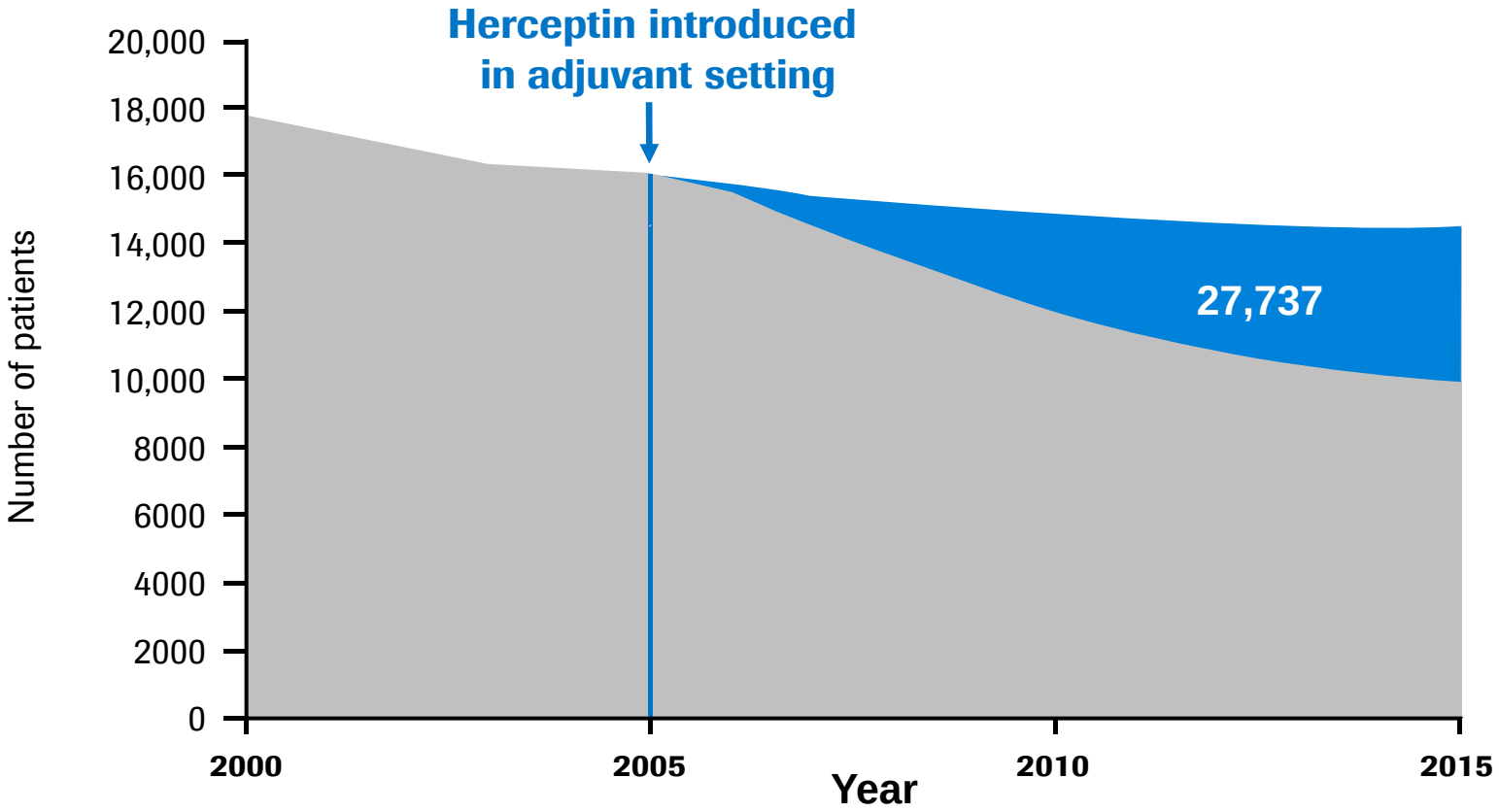
Roche strategy for post-patent biologics marketplace

Actively pursuing multiple strategies

Innovate	**Re-define the standard of care** Mode of administration, combination therapies and new drugs
Protect	**Protect high standards** Enforce efficacy and safety standards, defend intellectual property
Expand	**Act to expand patient access in emerging markets** Change from global pricing to tiered pricing, including 2nd brand

Herceptin

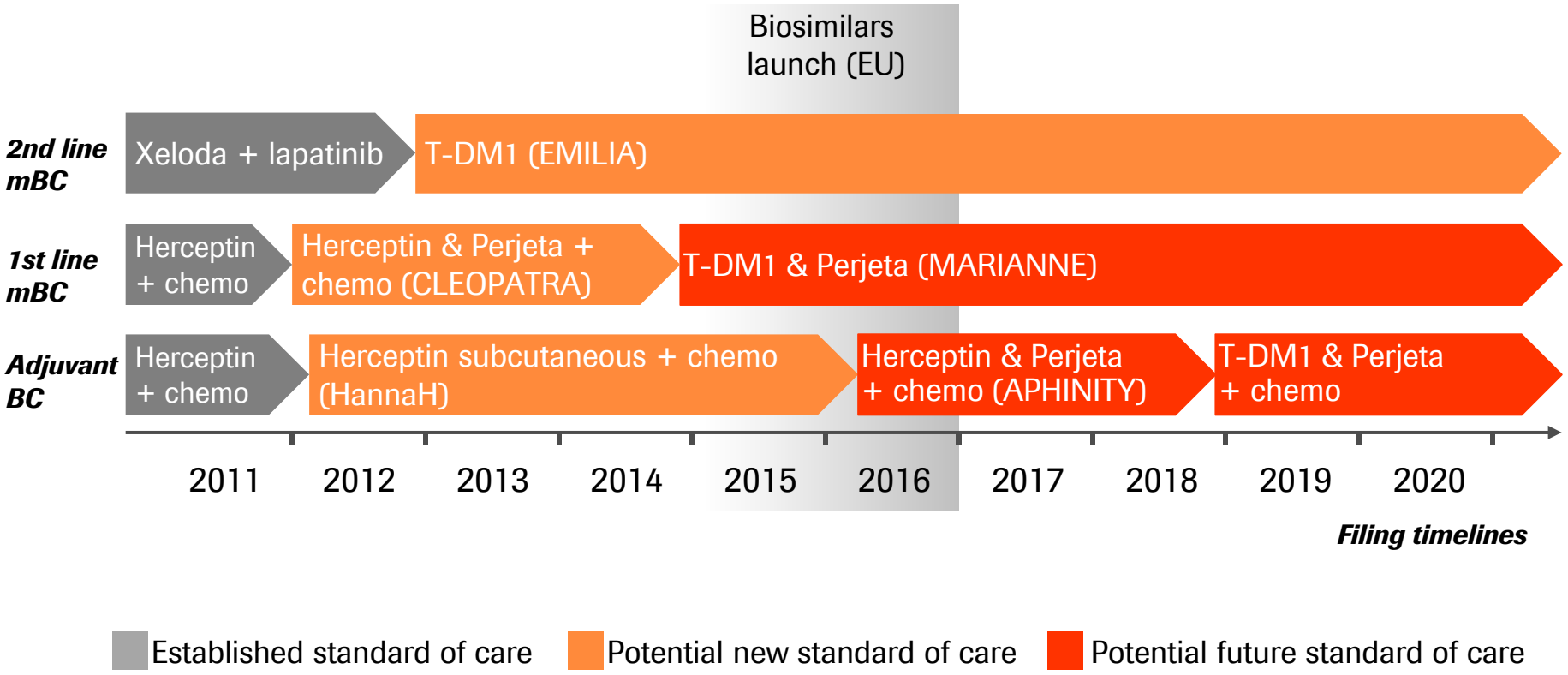
More than 27,000 women in WE did not develop metastatic disease



Weisgerber-Kriegl, U. et al. Estimation of the epidemiological effect of trastuzumab over 10 years in 5 European Countries. *J. Clin. Onco.,* 2008. ASCO Annual Meeting Proceedings: 26:15S

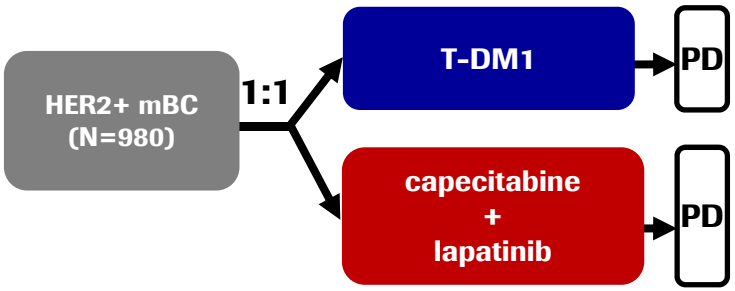
HER2 Franchise

Securing future growth by improving the standard of care

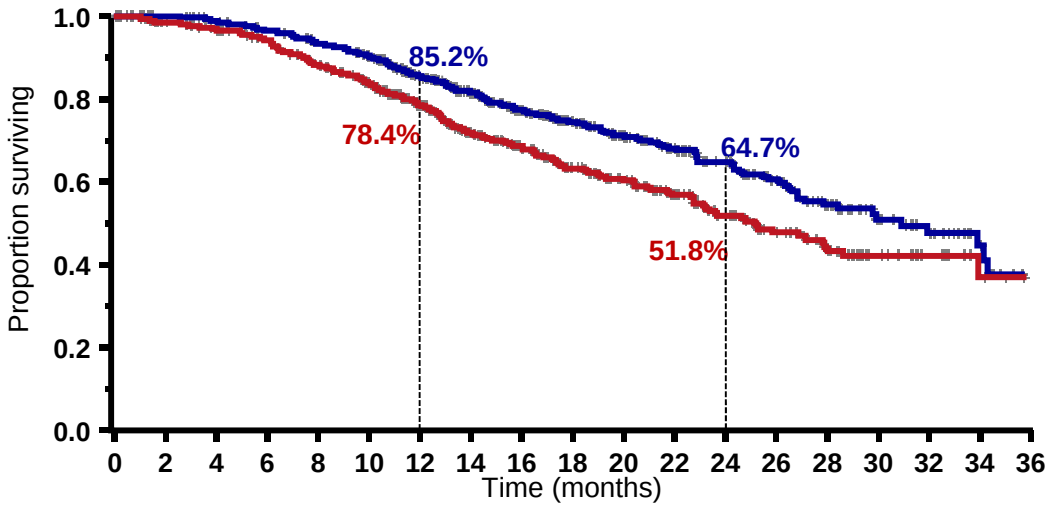


2nd line mBC: EMILIA study

T-DM1 in metastatic breast cancer



Overall survival: confirmatory analysis



Quality of life: Patient reported outcomes
Time to symptom progression

	Median (mos)	N
Cap + Lap	4.6	445
T-DM1	7.1	450
HR=0.80 (95% CI, 0.67, 0.95)		
P=0.0121		

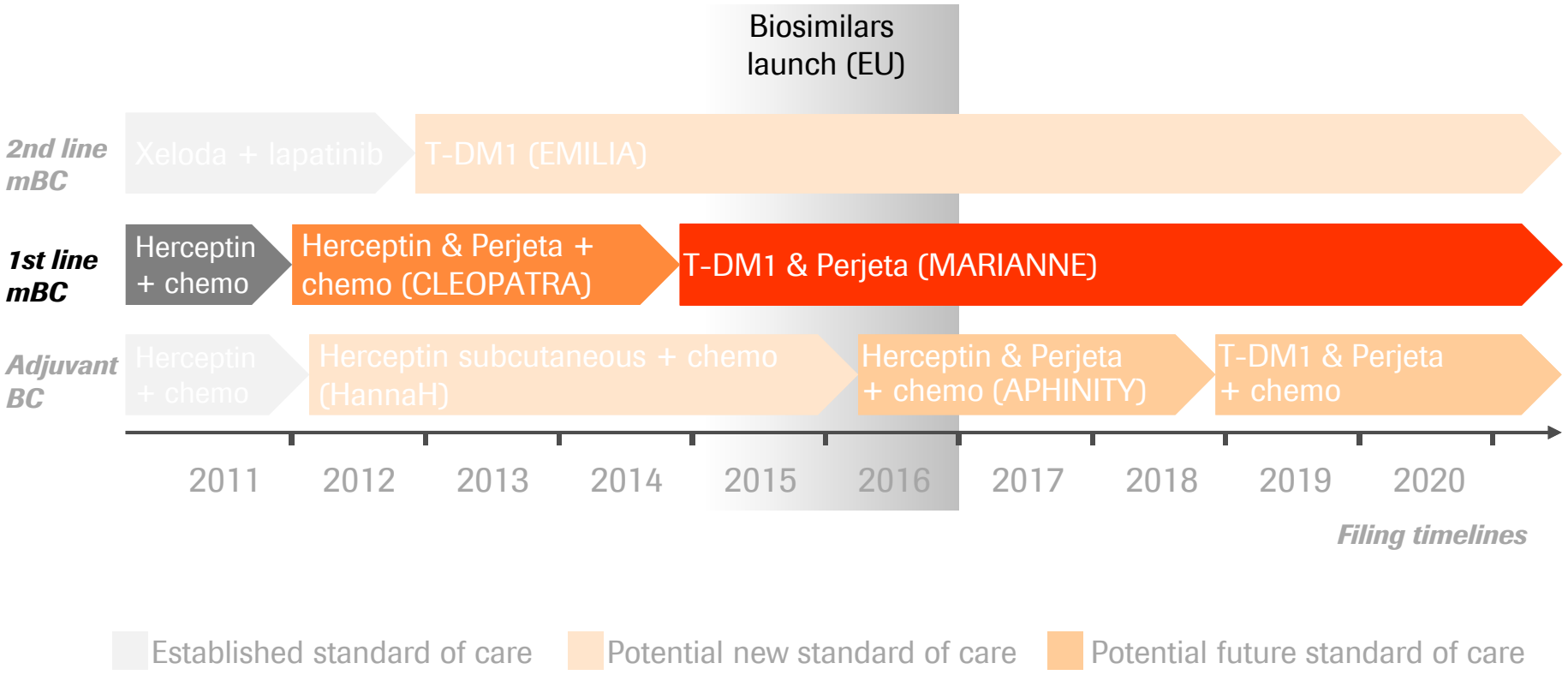
	Median (mos)	No. events
Cap + Lap	25.1	182
T-DM1	30.9	149
Stratified HR=0.682 (95% CI, 0.55, 0.85)		
P=0.0006		

Filed in US and EU, priority review granted by FDA

In collaboration with Immunogen

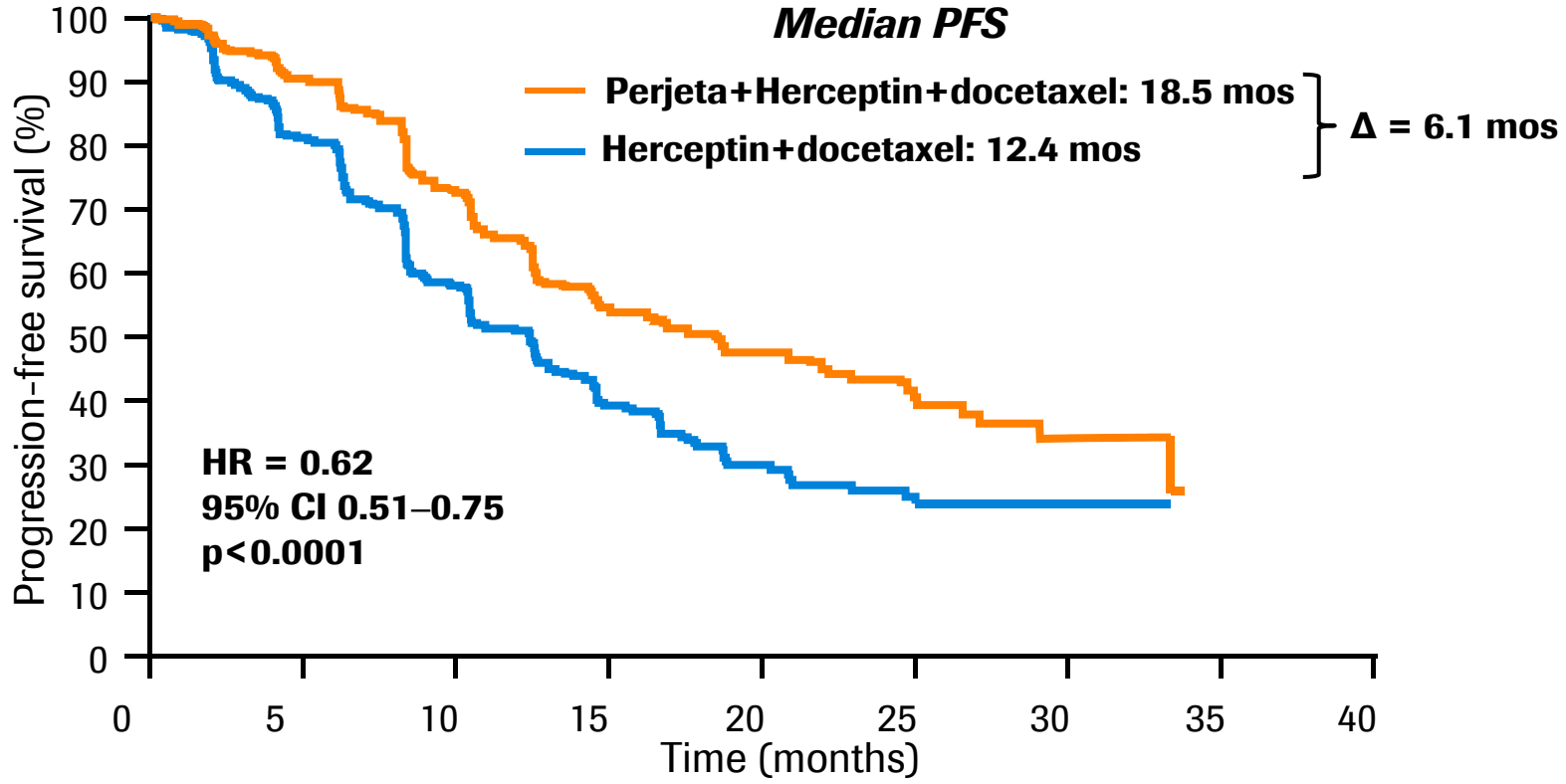
HER2 Franchise

Securing future growth by improving the standard of care



1st line mBC: Herceptin & Perjeta

CLEOPATRA study



Launched in US, filed in EU; OS to be presented at SABCS

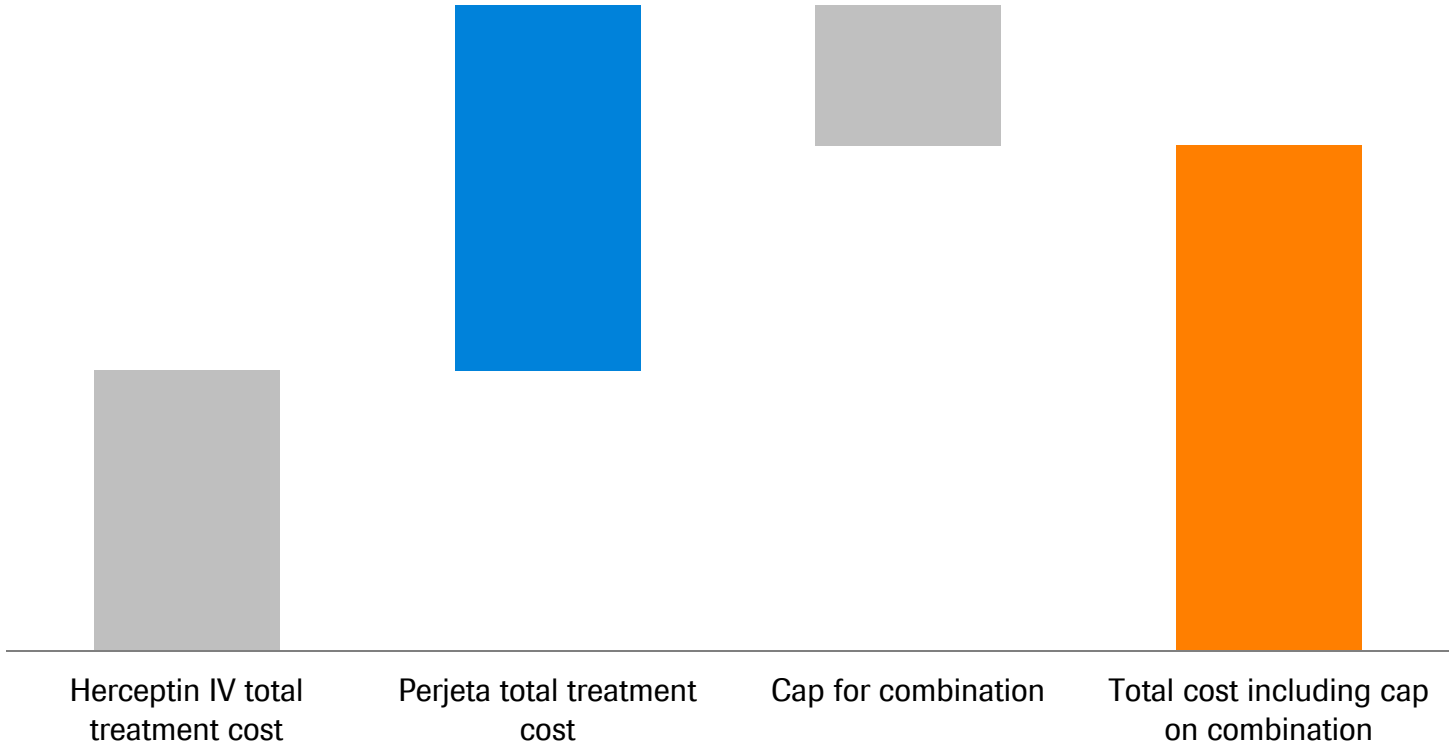
Perjeta initial US market feedback

Market update

- US price reflects **high medical benefit** and is well received
- NCCN guidelines endorsed Perjeta :
  - as the **preferred first-line treatment** in mBC in combination with Herceptin
  - also for those patients who have **already received Herceptin** in metastatic setting
- Reimbursement facilitated by granting of the **C code in October** (hospitals use a C code to bill Medicare); Perjeta also has a miscellaneous J code
- 67% of oncologists have already used Perjeta

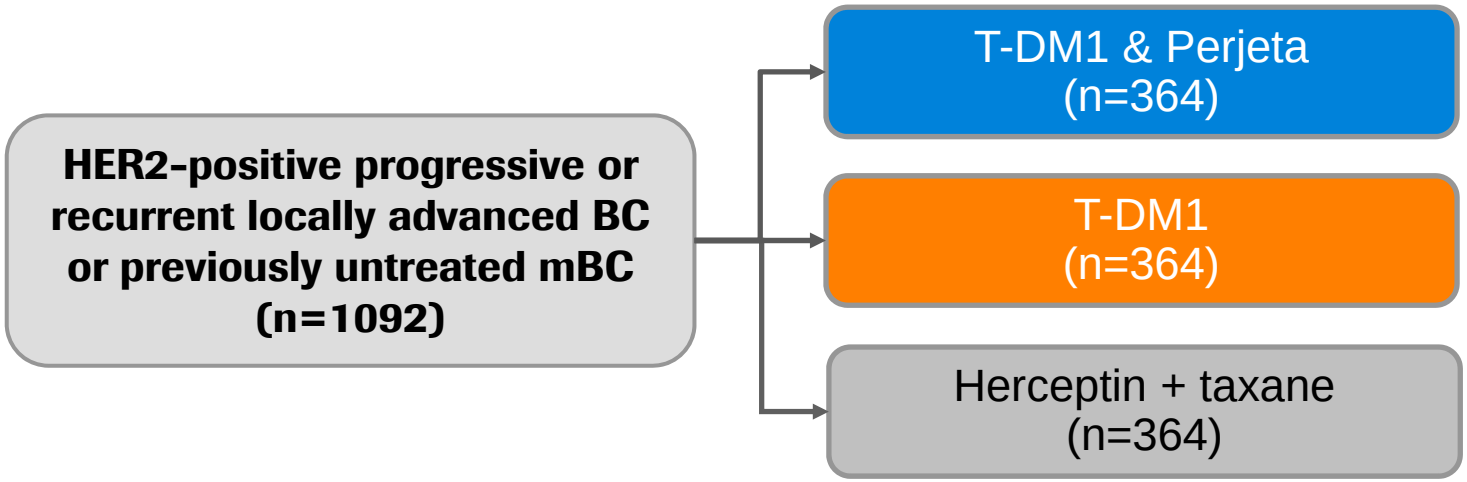
Innovation remains rewarded: Example of Perjeta

Illustrative pricing for metastatic breast cancer, ex-US



1st line HER2-positive mBC: MARIANNE trial

T-DM1 and Perjeta vs. standard of care



Primary end-point

- Progression-free survival

- Recruitment completed Q2 2012
- Expect filing 2014

Plan to file T-DM1 and T-DM1+Perjeta in 1L HER2+ MBC with PFS superiority over Herceptin + taxane

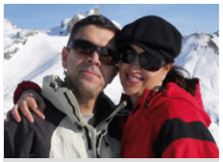
1st line HER2-positive metastatic breast cancer

Giving patients time and quality of life

year 1

docetaxel
6.1 months PFS


January


February


March


April


May


June

Herceptin + docetaxel
12.4 months PFS


July


August


September


October


November


December

year 2

Herceptin & Perjeta + docetaxel
18.5 months PFS


January


February


March


April


May


June

T-DM1 & Perjeta
22 months PFS*


July


August


September


October

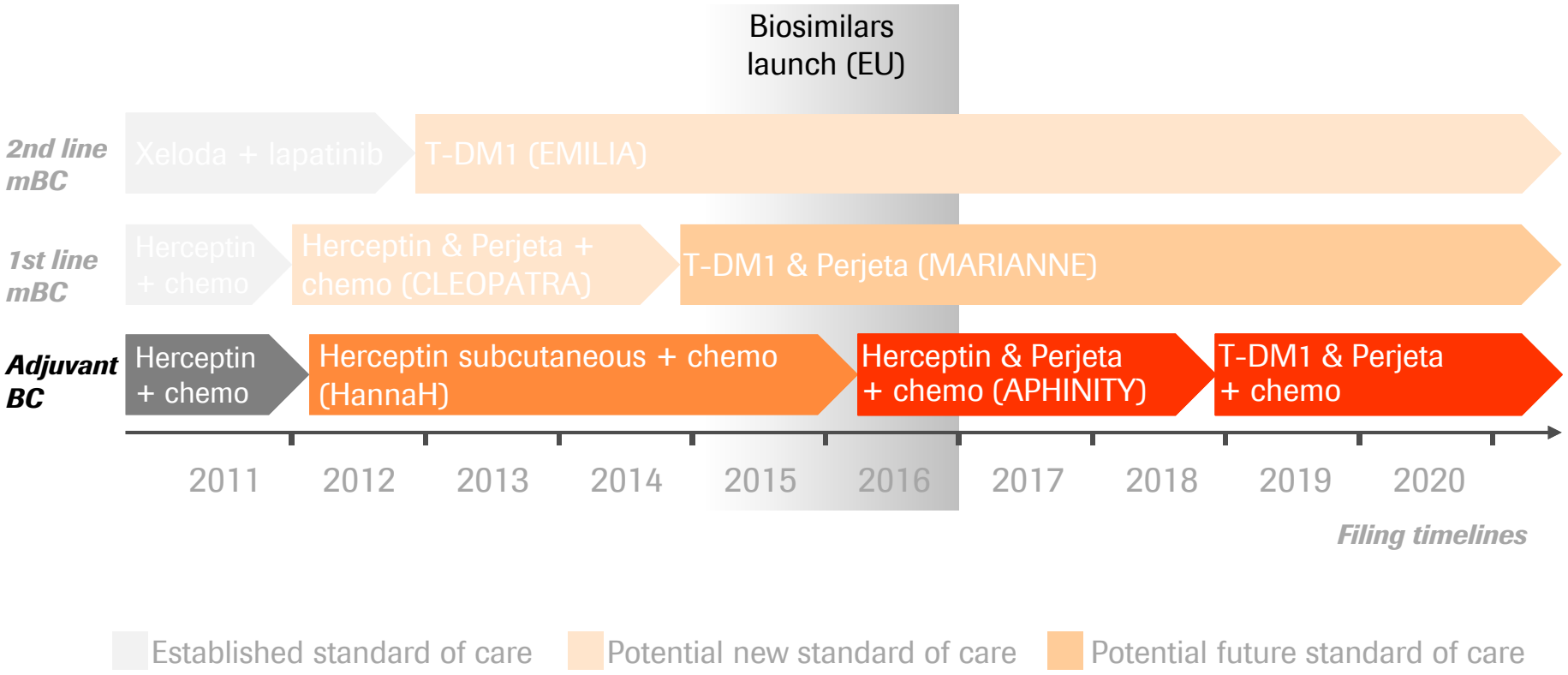
November

December

* target profile

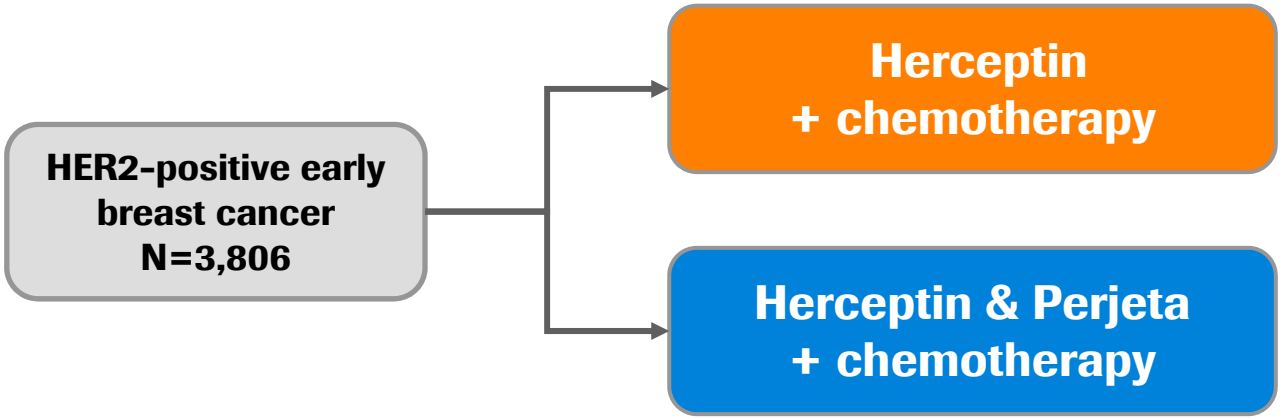
HER2 Franchise

Securing future growth by improving the standard of care



Herceptin & Perjeta in the adjuvant setting

APHINITY trial



Primary end-point

- 3 year Disease Free Survival

- FPI: Q4 2011
- Follow-up: 3 years (median)
- Expect filing 2016

T-DM1 in early breast cancer strategy

A three-pronged approach

Targeting indication with high unmet medical need

Non-pCR adjuvant study

- T-DM1 single agent in patients with residual disease

Setting high bar for clinically meaningful benefit

Adjuvant study

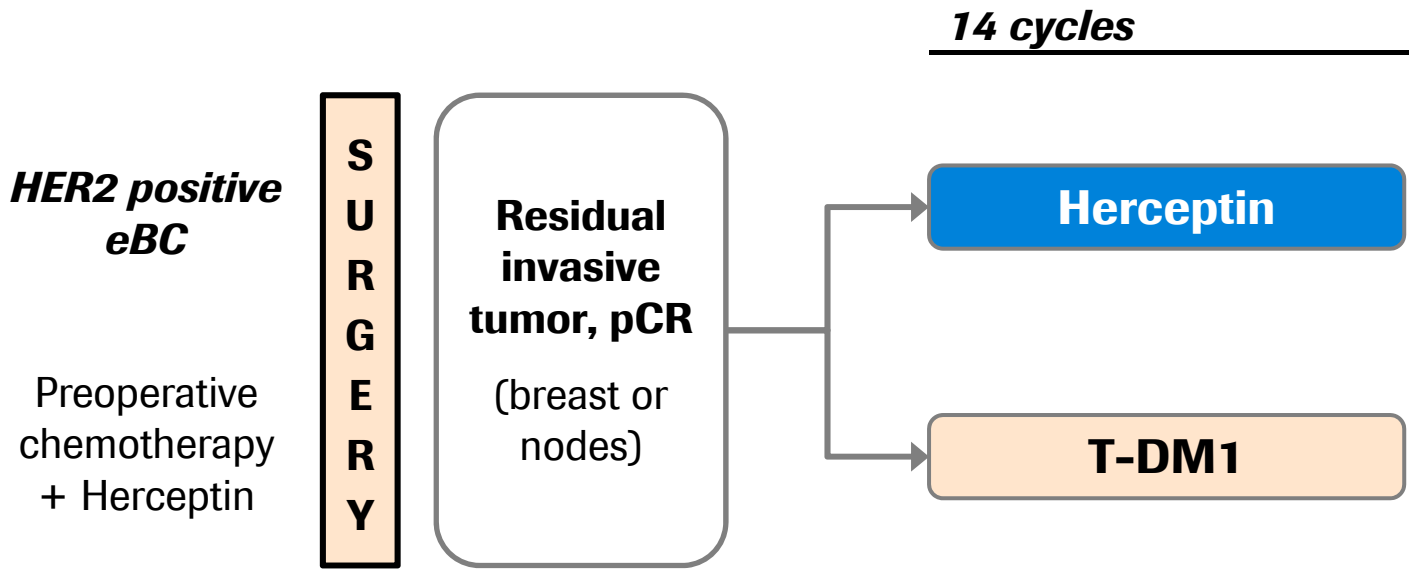
- T-DM1 & Perjeta vs. Herceptin & Perjeta in adjuvant setting

Utilizing pCR as surrogate end-point

Neoadjuvant study

- T-DM1-based chemotherapy in neoadjuvant setting

Adjuvant treatment in patients with residual invasive tumor (non-pCR responders)



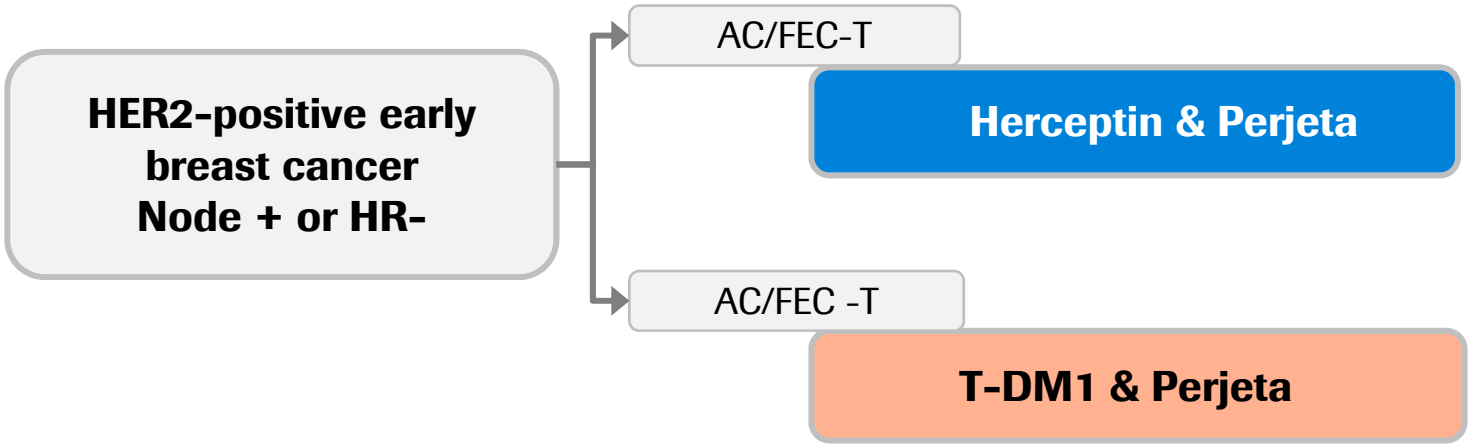
Primary Endpoint

- 3 year Disease Free Survival (DFS)

- FPI expected Q1 2013
- Expect data: 2018

T-DM1 & Perjeta in adjuvant setting

High bar for clinically meaningful benefit



Primary Endpoint

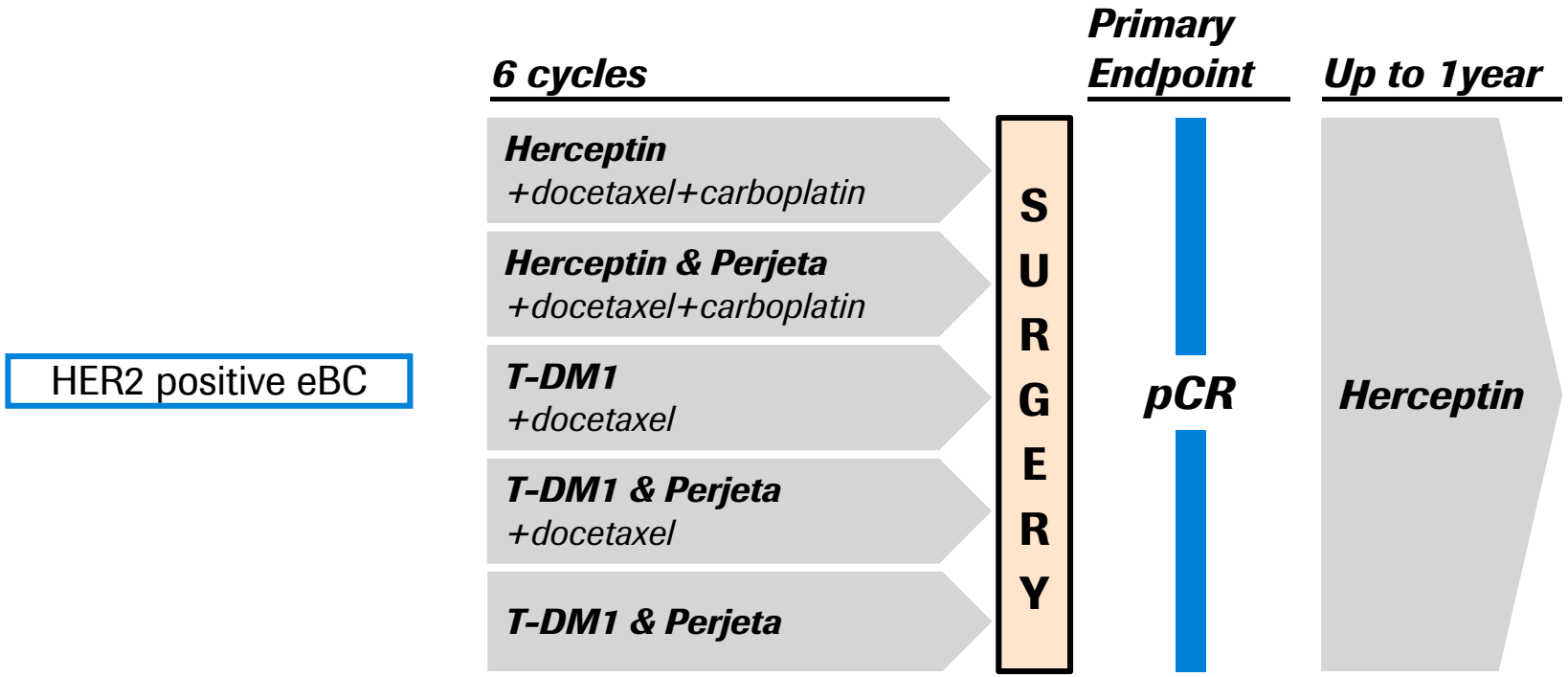
- Disease Free Survival (DFS)

- FPI expected 2013
- Expect data: 2018

AC=doxorubicin/cyclophosphamide; FEC=5FU/epirubicin/cyclophosphamide; T=docetaxelQ3W or paclitaxelQW

T-DM1 neo-adjuvant study

Pathological Complete Response (pCR) as surrogate end-point



Primary endpoint

- Pathological complete response, pCR (ypT0N0)

SPA granted by FDA

- FPI expected Q1 2013
- Expect pCR data: 2015

pCR as a surrogate endpoint in neoadjuvant breast cancer

FDA commissioned meta-analysis to be presented at SABCS Dec 5, 2012

- *"Meta-analysis Results from the Collaborative Trials in Neoadjuvant Breast Cancer"*
- To confirm relevant population for correlation between pCR and DFS/OS, definition of pCR , etc

Final FDA pCR guideline expected mid-2013

PERJETA™

- Neosphere and Tryphena studies to be discussed with FDA early 2013

T-DM1 trastuzumab emtansine

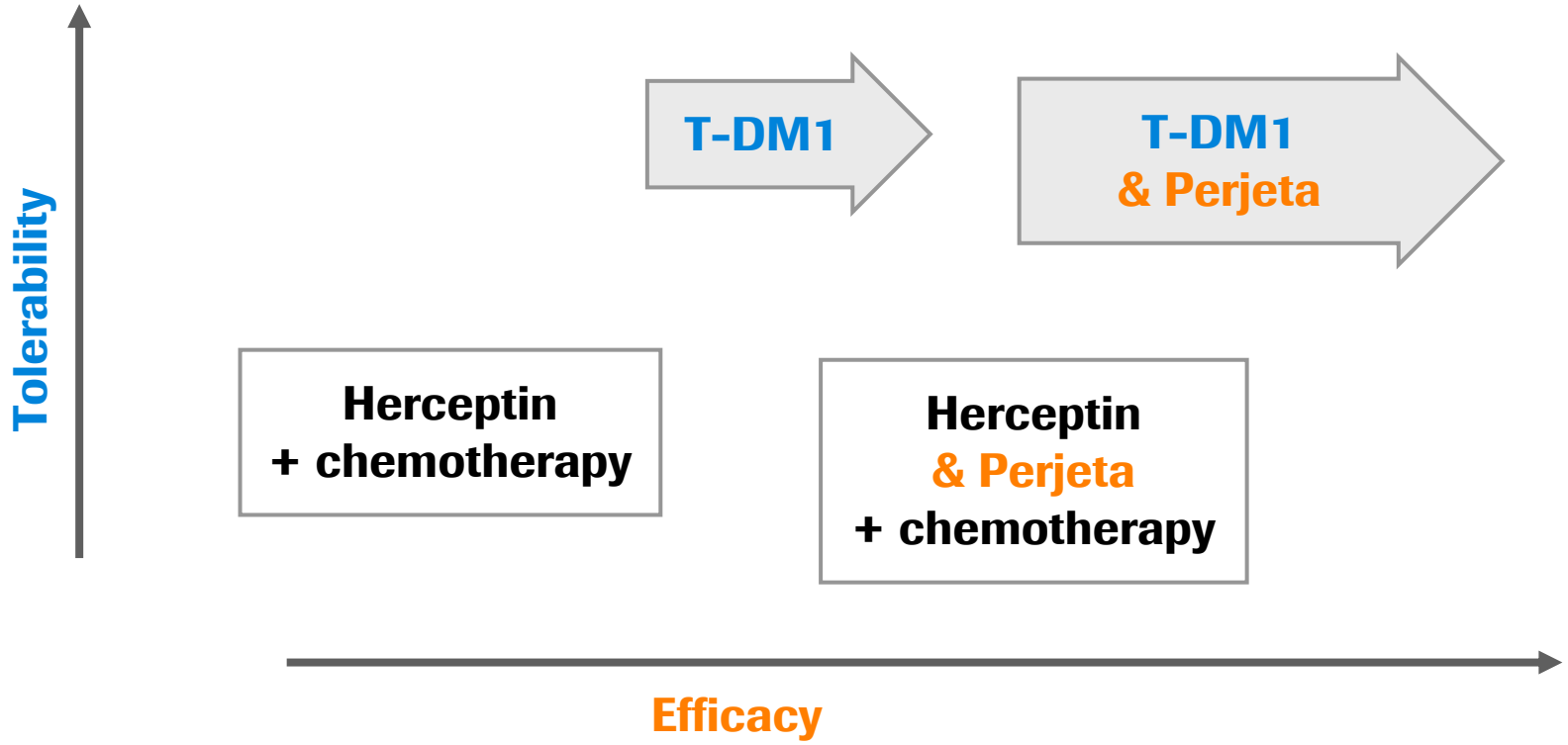
- EBC programme to be discussed with FDA early 2013
- CHMP Scientific Advice to be initiated shortly

Herceptin® trastuzumab Precision • Power • Promise

- NOAH study approved in EU (Neoadjuvant/adjuvant indication)
- HannaH SC application on-going (pCR co-primary endpoint)

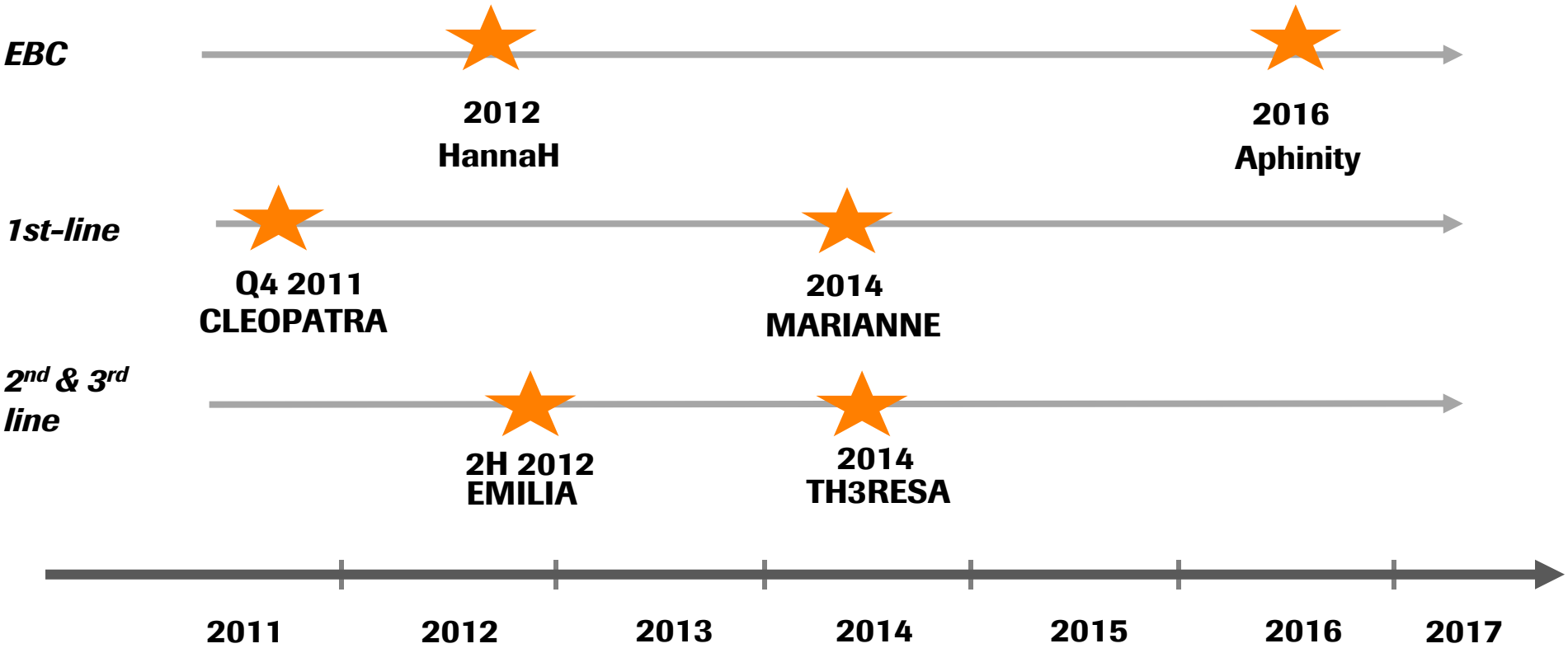
Redefining HER2 blockade

Increasing the efficacy and tolerability



Our near term focus: Making history in Pharma

3 EU launches within a year



We Innovate Healthcare

Biosimilar Challenges
5th Annual Biosimilars Conference

Fermin Ruiz de Erenchun M.D., Ph.D.

Market Overview

EMA biosimilars guideline

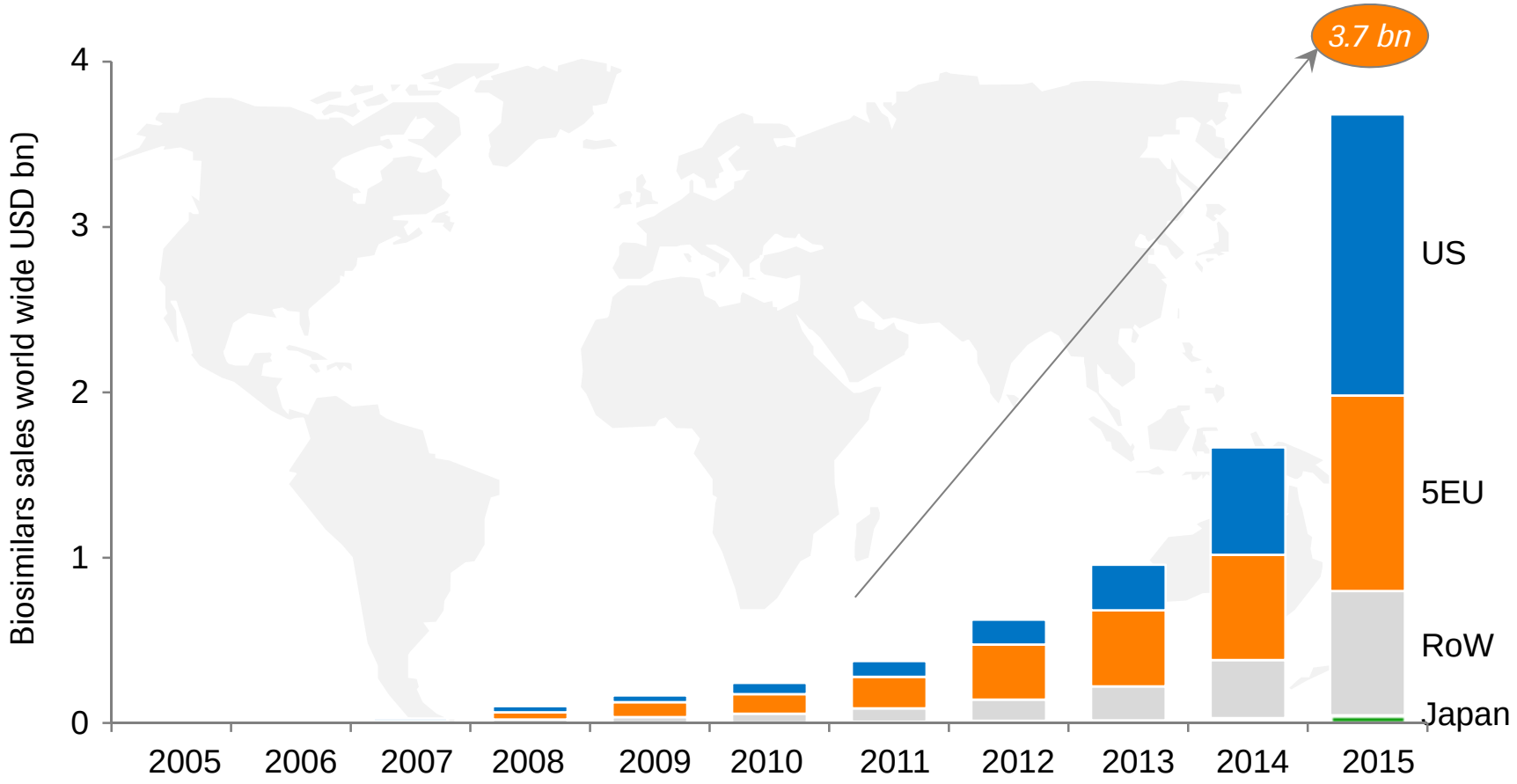
Our Strategy

Innovate

Protect

Expand

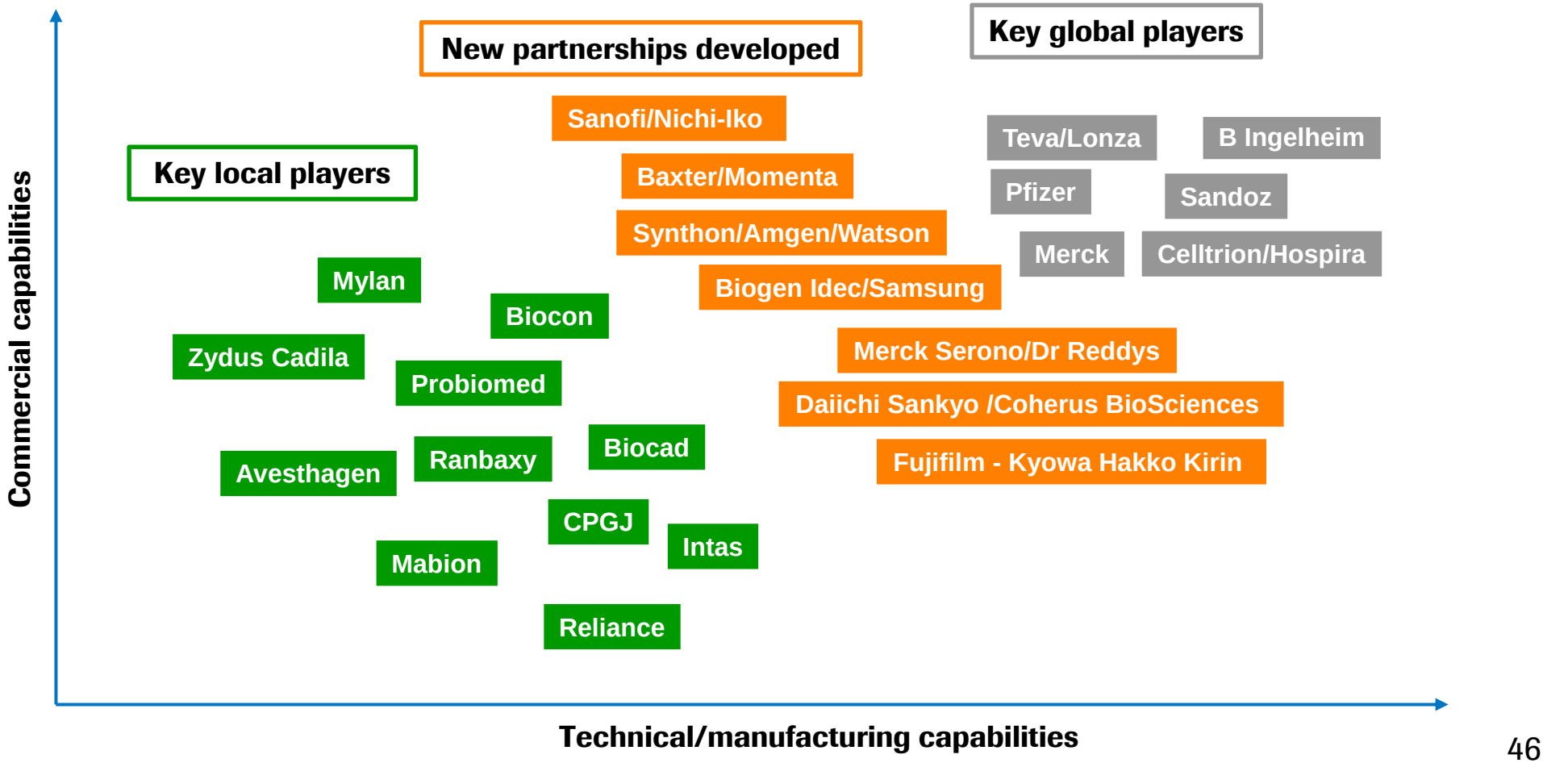
Biosimilars were expected to be a large market by 2015



Source: Datamonitor

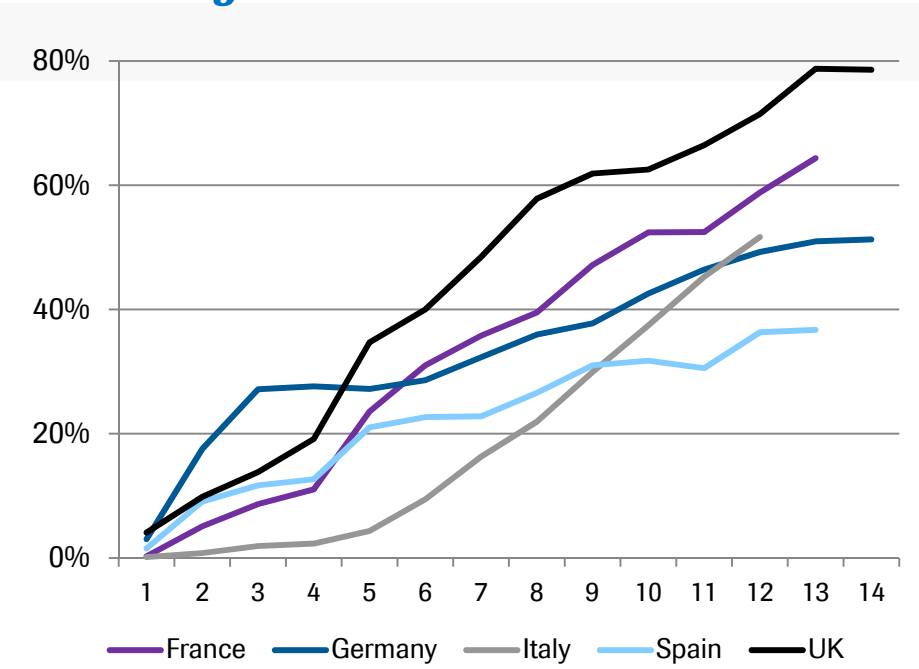
Wide and diverse range of biosimilar competitors

Commercial opportunities for generics, CMOs & originators



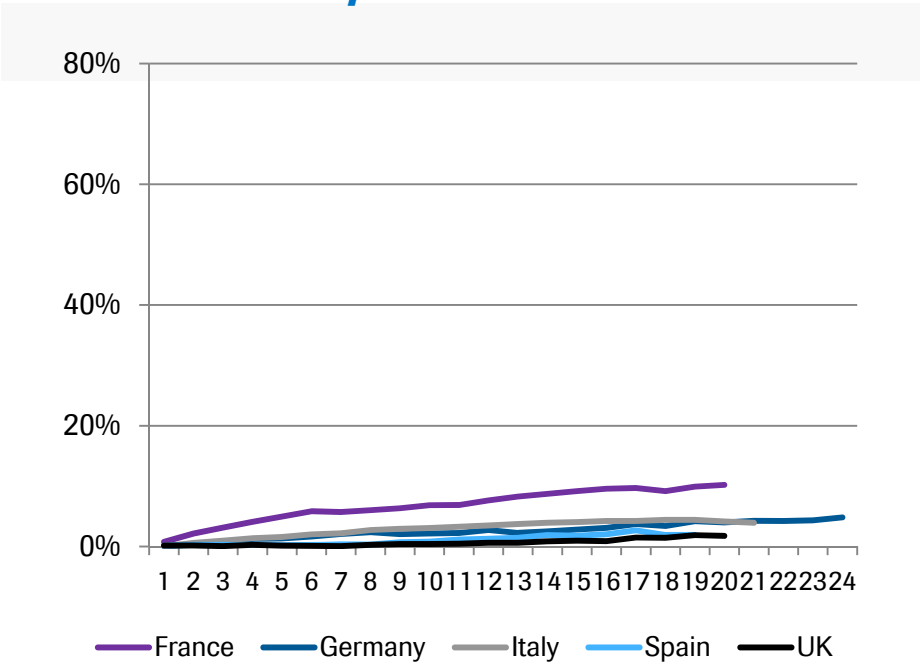
Biosimilars uptake varies across countries and therapy areas

Filgrastim volume market share



- Market driven by payers
- Price-driven competition
- Efficacy visible immediately

Somatropin volume market share



- Complex market landscape
- Market driven by price **and** patient offering
- Efficacy visible only long term

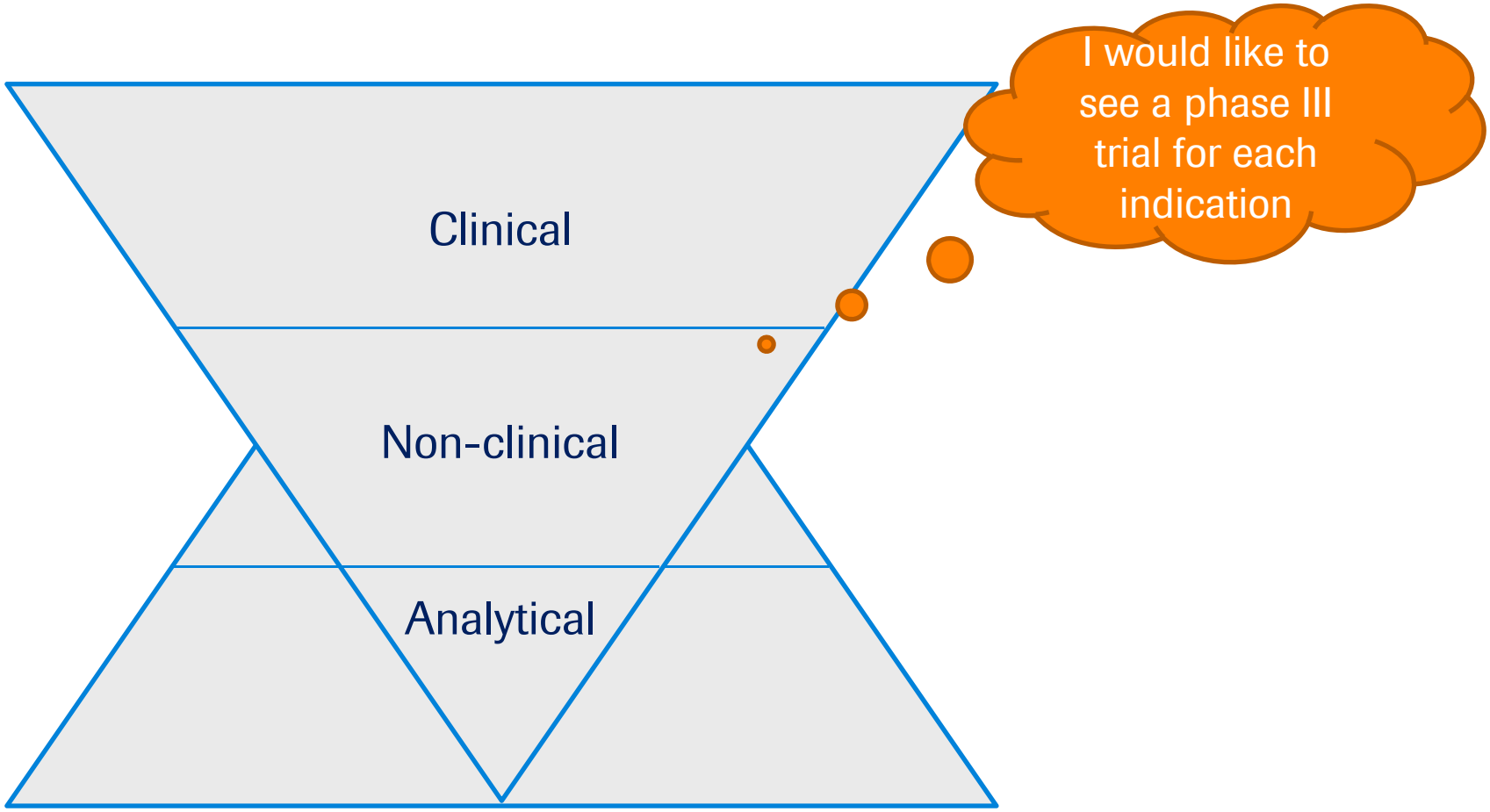
Source: IMS Biosimilar Dashboard Q1 2012

Requirements and study designs are different for the biosimilar vs. innovator

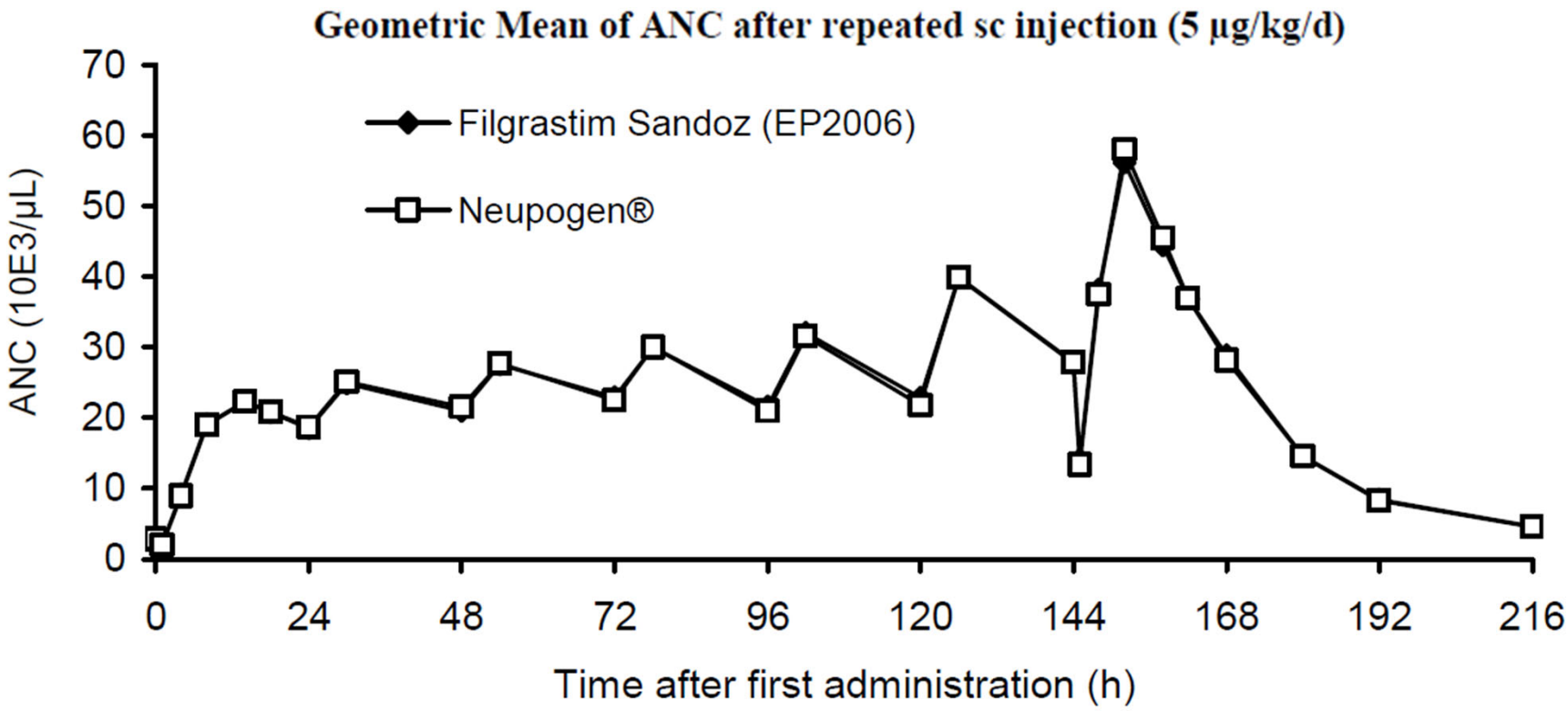
Aspects of development	Biosimilar	Innovator
Patient population	Sensitive and homogeneous (patients are *models*)	Any
Clinical design	Comparative versus innovator, normally equivalence	Superiority vs standard of care (SoC*)
Study endpoints	Sensitive Clinically validated PD markers	Clinical outcomes data or accepted/established surrogates (e.g. OS and PFS)
Safety	Similar safety profile to innovator; no new findings	Acceptable benefit/risk profile versus SoC*
Immunogenicity	Similar immunogenicity profile to innovator	Acceptable risk/benefit profile versus SoC*
Extrapolation	Possible if justified	Not allowed

* In some cases SoC may not exist

How should residual extrapolation risk be managed?



Phase III clinical trials will be required for biosimilar antibodies



PD markers only suitable for some products

Source; CHMP Assessment report for Zarzio, page 20; EMA/CHMP/651339/2008

What is the right patient population to establish clinical similarity to Herceptin®?

Topic	Metastatic population	Neoadjuvant/Adjuvant population
PK	✘ Affected by patients status & tumour burden	✓ Homogeneous population can be selected
PD	✘ Clinically validated PD marker not available	
Clinical efficacy/safety	✘ • Difficult to select homogeneous group. • Need to control and stratify for multiple factors (e.g. prior use of chemotherapy, performance status…). • Population with heterogeneous characteristics affecting final clinical outcome.	✓ Populations less likely to be confounded by baseline characteristics and external factors
Immunogenicity	✘ Immune system affected by performance status and concomitant chemotherapies received	✓ Immune system impaired during chemotherapy cycles, but likely to recover to *normal* status thereafter

Extrapolation and automatic substitution will be key drivers for the uptake

Extrapolation in oncology will be challenging

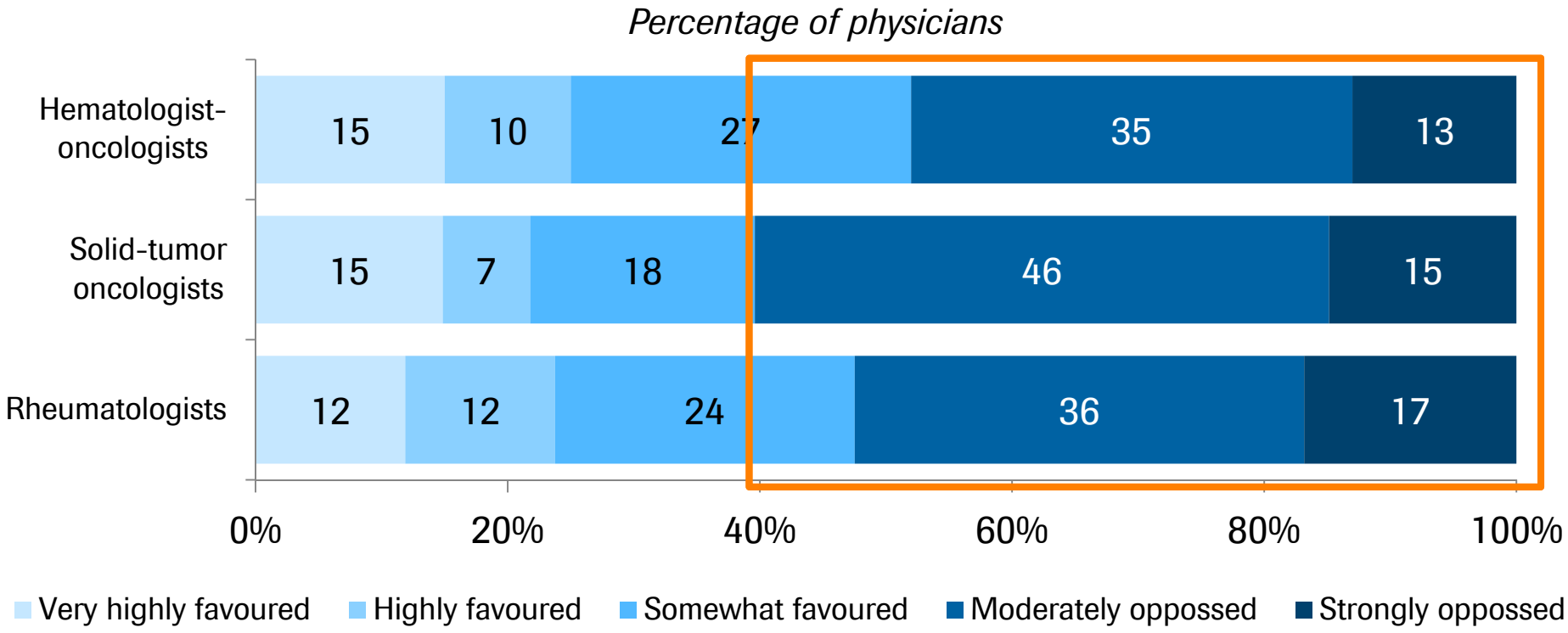
- Contribution of **multiple Modes-of-Actions** vary from indication to indication
- **Validated PD markers of efficacy** for mAbs in oncology currently do not exist
- **Sensitive populations** to establish similar efficacy, safety and immunogenicity **might be different**

Automatic substitution not standard practice in the EU

- **In the EU** determined at country level
- Landscape unlikely to change:
  - New EU pharmacovigillance law addresses **traceability** of biologics
  - Draft EMA quality guideline acknowledge future **product drifts between originator and biosimilar**

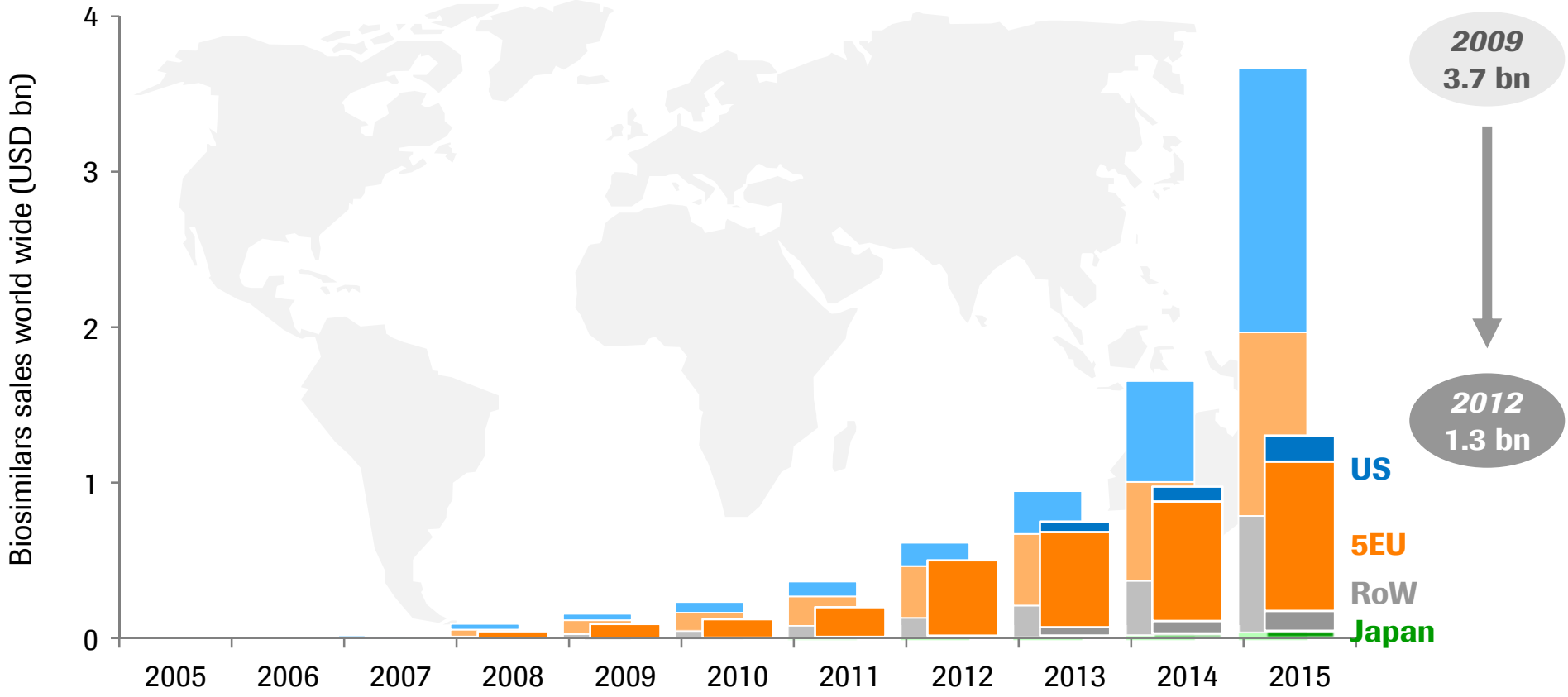
Physicians are wary of indication extrapolation

Biosimilar needs only to show similarity in a Phase III study for one indication, and it will be granted approval for other indications for which the branded product is used?



Decision Ressource Biosimilar Advisory Service: Physician Perception Study in Oncology October 2011 (EU)
Survey Question: Which of the following best describes your opinion of "indication extrapolation," i.e., a biosimilar needs only to show similarity in a Phase III study for one indication, and it will be granted approval for other indications for which the branded product is used?

Market uptake barriers are likely to limit biosimilars sales potential



Source: Data Monitor for 2009 estimate

Developing a biosimilar globally today seems to be a challenge: the rituximab example

Company	Initiation of clinical trials	Current status	EMA requirements	US FDA requirements	Recent amendments/ future steps
Teva	Q1/2 2010	Suspended	√	X	Redesigning clinical trial/s
Sandoz	Q1 2011	Ongoing	√	?	No changes in the current clinical trial strategy
Samsung	Q1 2012	Suspended	√	X	Redesigning clinical trial/s
Merck	Q1/2 2012	Ongoing	√	√	Recently added US-sourced comparator arm
Pfizer	Q1/2 2012	Ongoing	√	√	No changes in the current clinical trial strategy
Celltrion	Q3 2012	Ongoing	√	X	No changes in the current clinical trial strategy
Boehringer Ingelheim	Q4 2012	Ongoing	√	√	No changes in the current clinical trial strategy

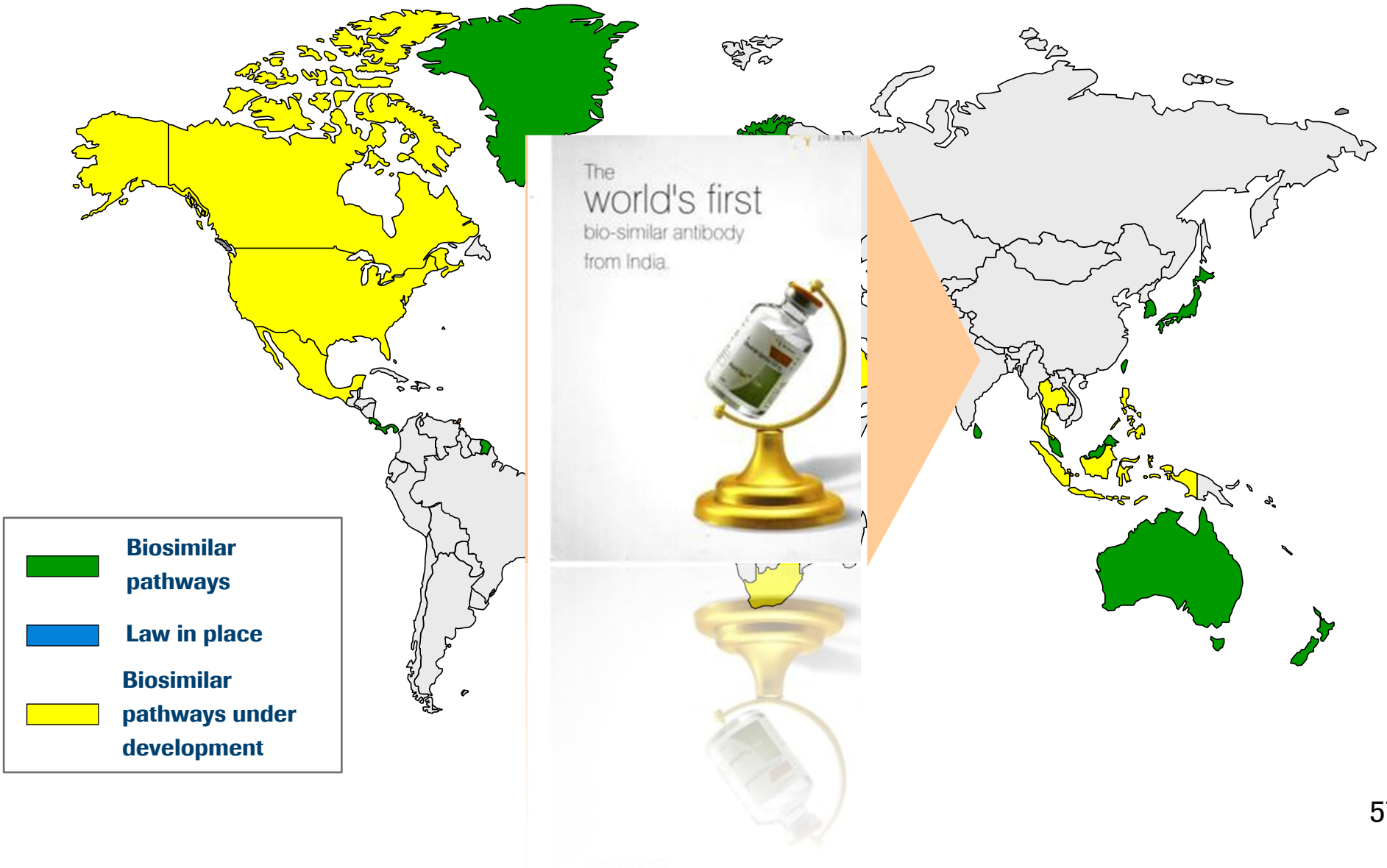
Market Overview

EMA biosimilars guideline

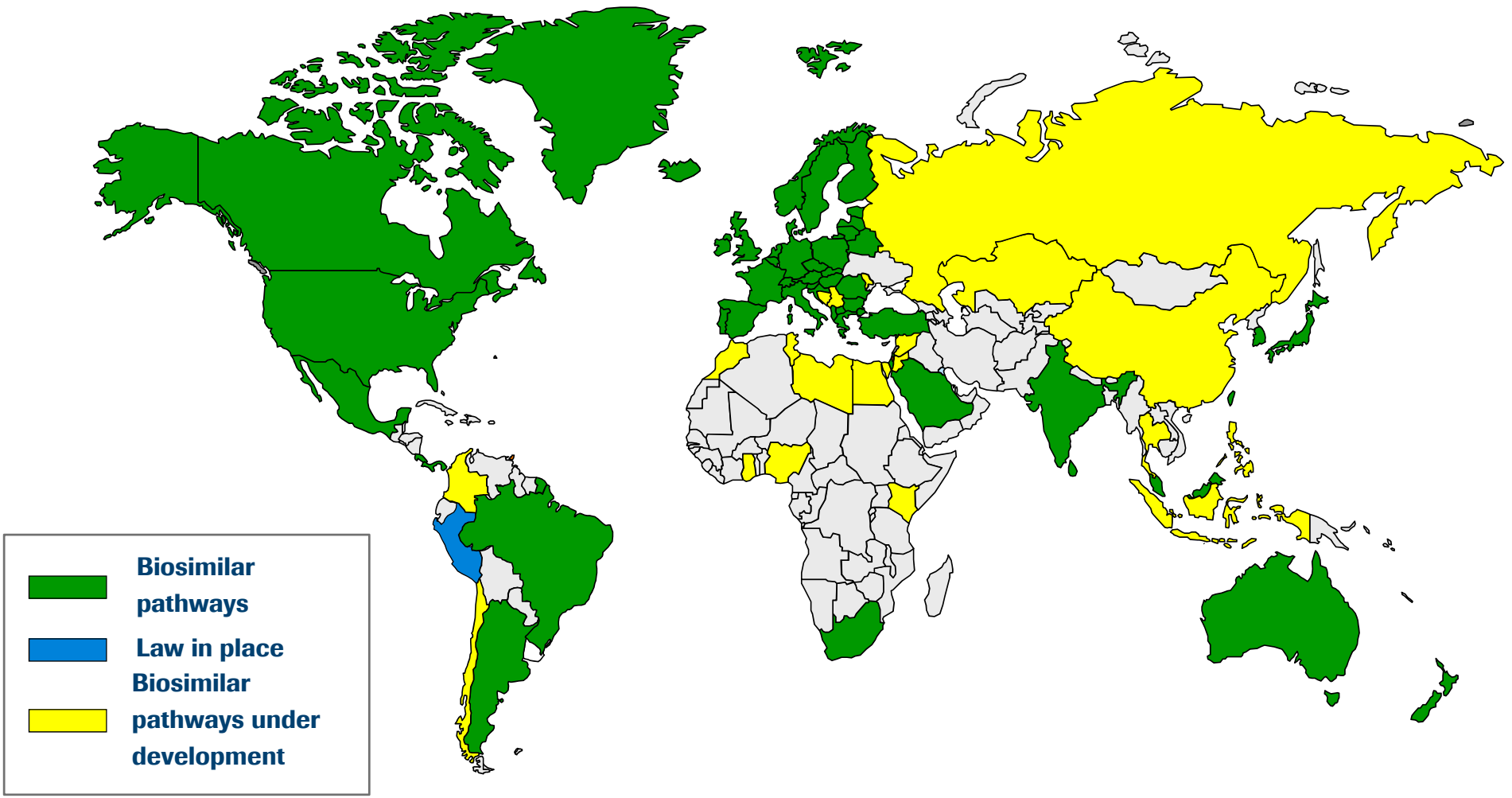
Our Strategy

- Innovate
- **Protect**
- Expand

How advanced were biosimilar regulatory pathways before 2010?

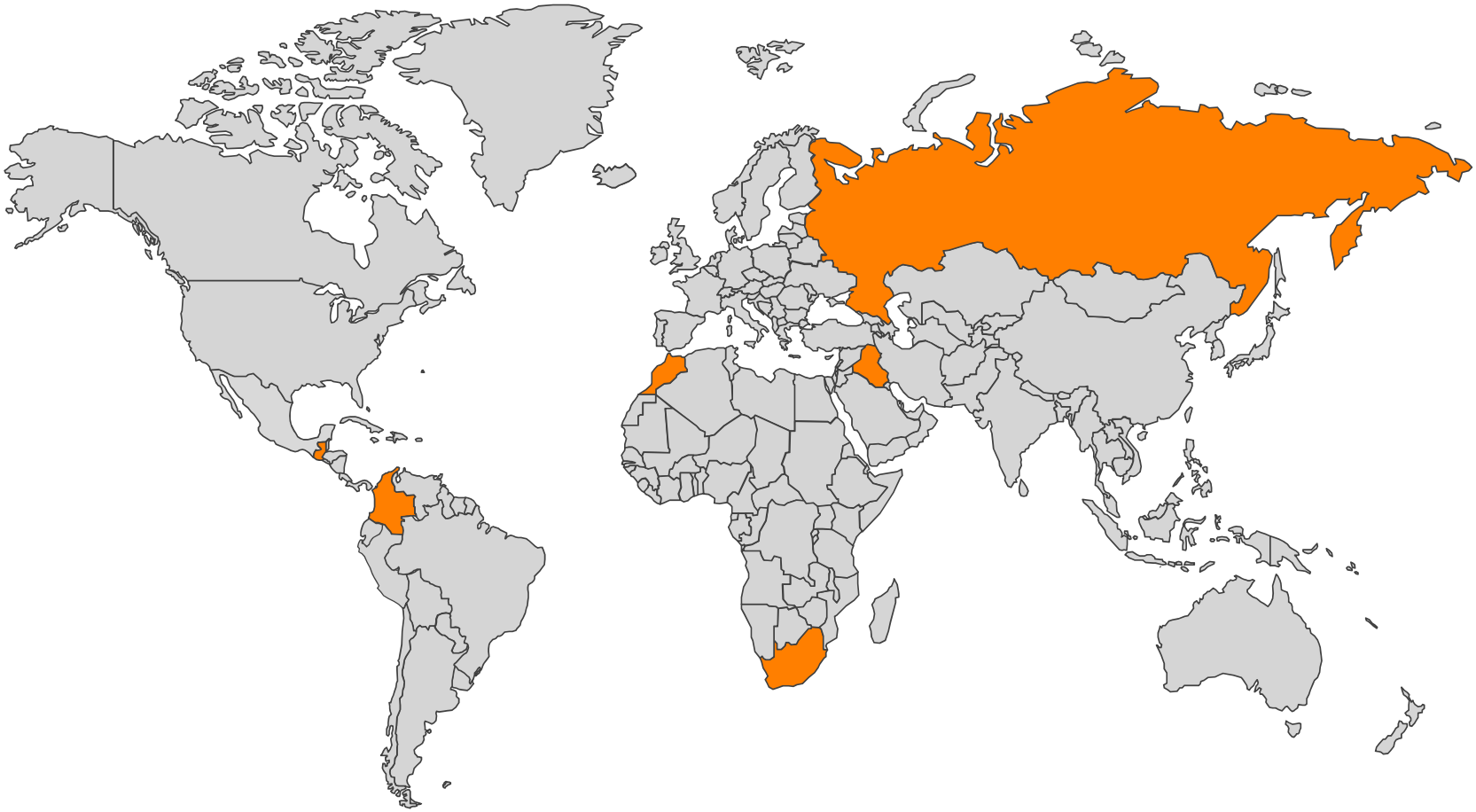


…and where are we today?



Roche supports biosimilar regulatory pathways

"Reditux" example



Columbia, Guatemala, Iraq, Panama, Morocco, Russia and S. Africa

Reditux registration rejected or delayed, additional data on clinical trial results requested

Market Overview

EMA biosimilars guideline

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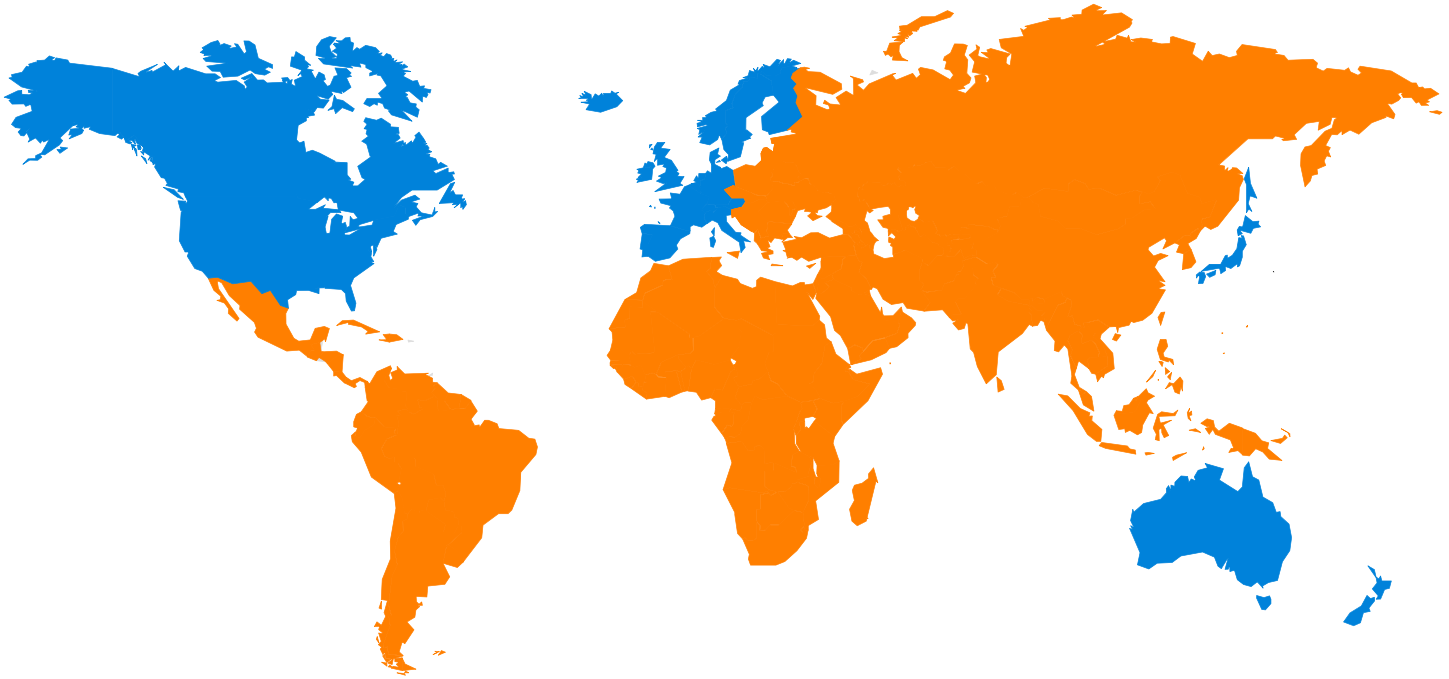
Innovative approaches to improve market access



Established markets

Environment increasingly complex
Payers more active/influential

Emerging markets

Build-up of healthcare systems,
but applying stricter cost regulations already

Conclusions: Biosimilar challenges

Global biosimilar uptake will be limited in the short and mid term

- Is the competitive landscape resulting from the M&A activity sustainable in the long term?

National regulatory authorities are setting a high bar

- Development programs suggest not fully aligned position across agencies
- In emerging markets, the *old* generic model is not applicable for biosimilars

Extrapolation of indications in oncology will be challenging

Roche strategy is coherent with our core business model

1. ***Innovate*** - Redefine the standard of care
2. ***Protect*** – Ensure high standards for patients
3. ***Expand*** – Improve patient access

We Innovate Healthcare