



September 7, 2017

✓ **BSE Limited**

Department of Corporate Services,
P. J. Towers,
Dalal Street,
MUMBAI - 400 001.

National Stock Exchange of India Limited

Exchange Plaza,
Bandra Kurla Complex,
Bandra (East),
Mumbai - 400 051.

Dear Sirs,

Sub: Motilal Oswal 2017 Conference.

Pursuant to Regulation 30(2) read with Schedule III Part A (15) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, enclosed is a copy of the investor presentation during Motilal Oswal Conference.

Kindly confirm receipt.

Thanking you,

Yours faithfully,
For LUPIN LIMITED

APGadre

For **R. V. SATAM**
COMPANY SECRETARY

Encl.: a/a

LUPIN LIMITED

Registered Office: 3rd Floor, Kalpataru Inspire, Off W. E. Highway, Santacruz (East), Mumbai - 400 055 India. Tel : (91-22) 6640 2323.

Corporate Identity Number: L24100MH1983PLC029442

www.lupin.com

WHERE IS INDIAN PHARMA HEADED?

Motilal Oswal 2017 Conference

Nilesh Gupta

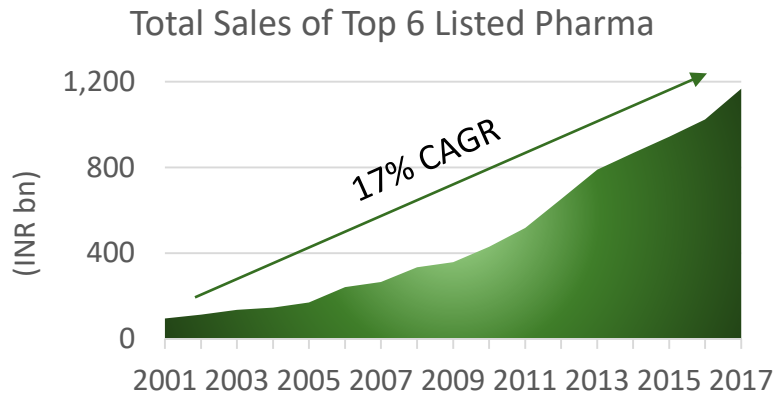
Managing Director
Lupin Ltd.

September 2017

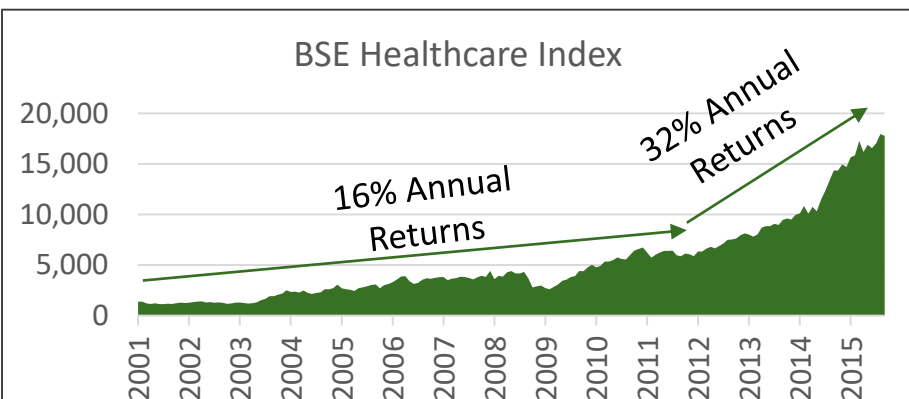
IS THE INDIAN PHARMA DREAM RUN OVER?

Pharma Company Growth and Returns

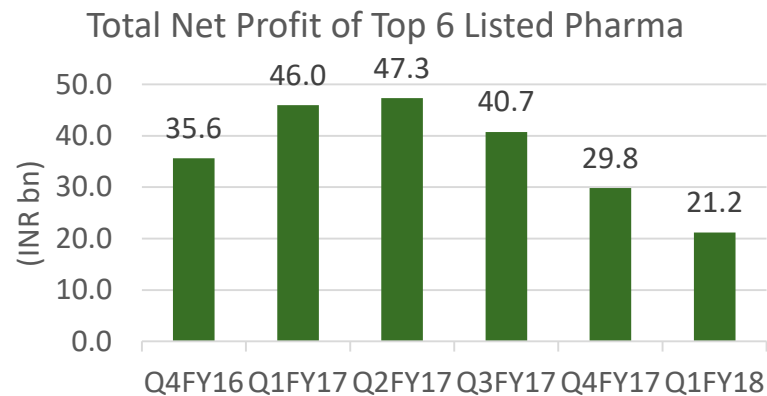
Indian Pharma Company Growth



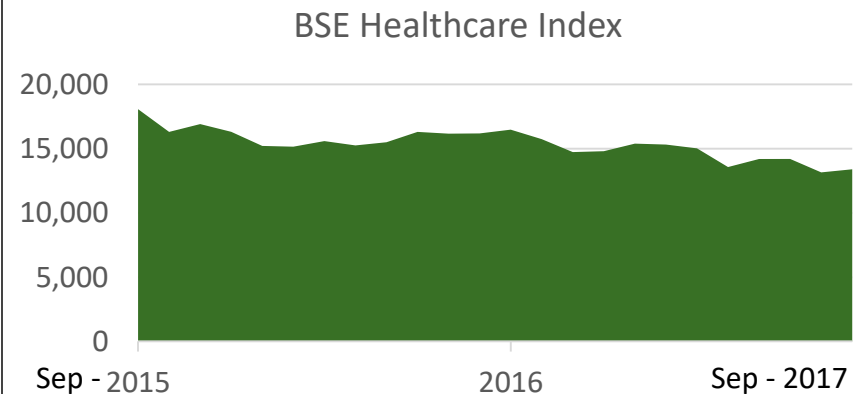
Indian Pharma Company Returns



The 2017 Story



The 2017 Story



Is the Indian Pharma Market Model done?

Current Model Showing Signs of Ageing

US

- Customer Consolidation leading to more bargaining powers
- Pricing Pressure
- Hyper-competitive

India

- Too many disruptions
- Facing regulatory uncertainties in terms of new proposed policy
- Generic-generic drugs

Other Markets

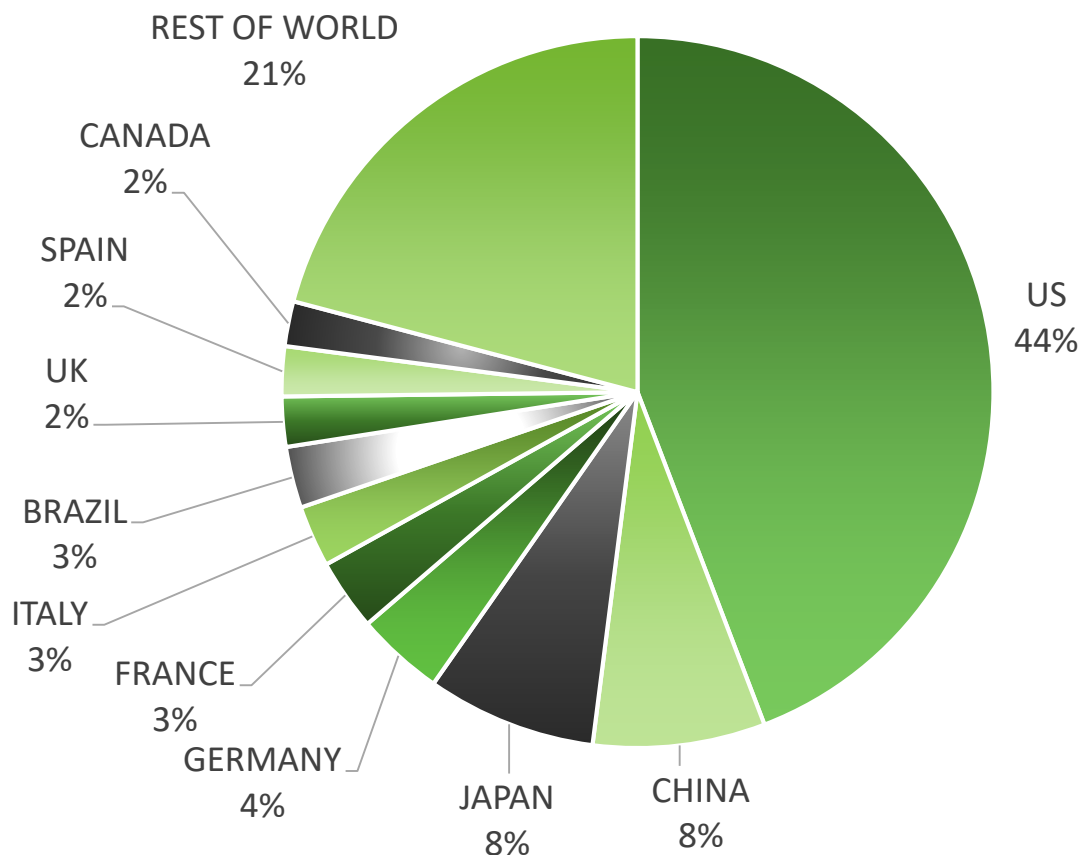
- Pricing Pressure is constant across ALL markets
- Other markets don't move the needle

So What's Next?

**THE GLOBAL PHARMA MARKET IS
STILL HUGE**

Global Pharma Market is \$1.1 tn

2016 Pharma Market Split by Geography



Almost half of Global Pharma market is US followed by China and Japan

Markets Geographic Ranking over time

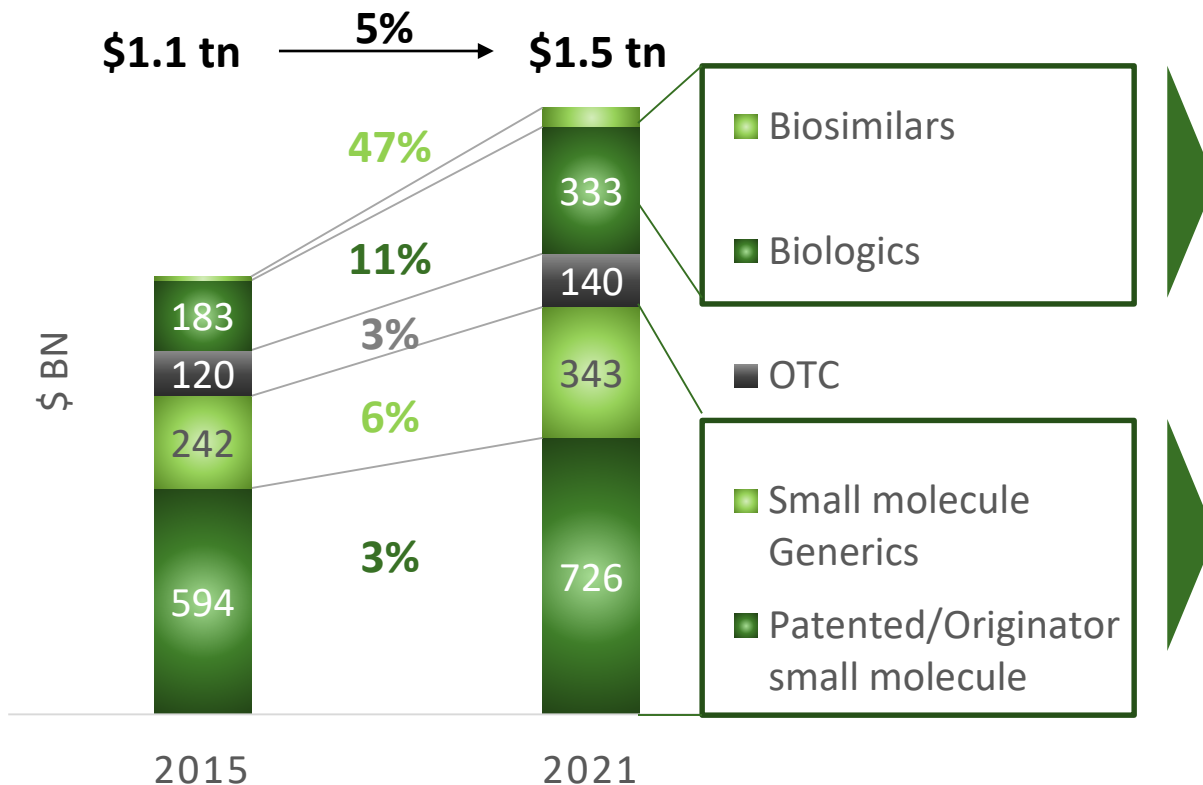
BRIC moving up the rankings with China already moved up to #2 and India entering Top 10 in 2021

	2011	2016	2021
1	US	US	US
2	JAPAN	CHINA	CHINA
3	CHINA	JAPAN	JAPAN
4	GERMANY	GERMANY	GERMANY
5	FRANCE	FRANCE	BRAZIL
6	ITALY	ITALY	UK
7	UK	UK	ITALY
8	SPAIN	BRAZIL	FRANCE
9	CANADA	SPAIN	INDIA
10	BRAZIL	CANADA	SPAIN
11	SOUTH KOREA	INDIA	CANADA
12	AUSTRALIA	AUSTRALIA	SOUTH KOREA
13	INDIA	SOUTH KOREA	RUSSIA
14	MEXICO	RUSSIA	TURKEY

Market to grow to \$1.5 tn by 2021

Global Pharma market is expected to reach \$1.5 tn in 2021, driven by biologics

2015-21 MARKET SIZE EVOLUTION



Growth Drivers

Driven by increased innovation in this areas and acceptance of Biosimilars

Growth Rate Declining

Genericization reaching saturation (>65% of global volume)

Some innovation still happening in small molecules

Demographic Drivers support the Growth

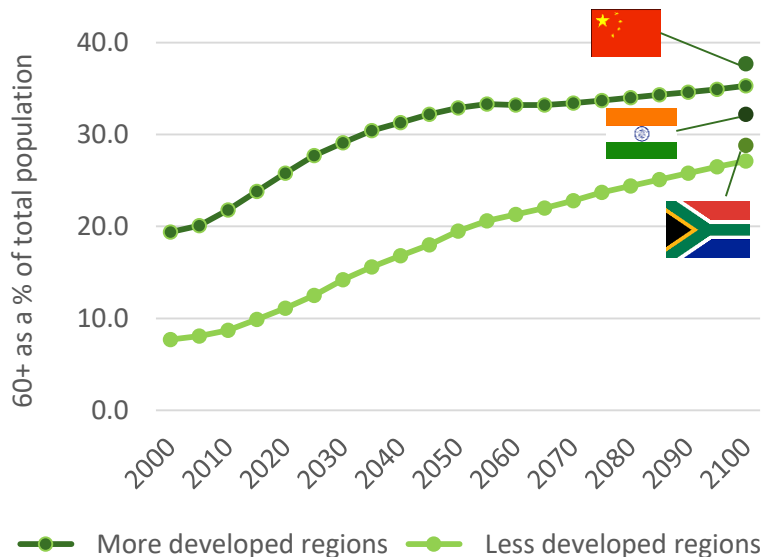
Ageing Population

Ageing population convergence between developed and developing nations
China is expected to have higher proportion of 60+ than developed nations by year 2100

Global Chronic diseases prevalence

Increasing prevalence of chronic diseases
Disease incidence increases with age

Global Population Ageing 2000-2100



Cardiovascular disease: #1 cause of death (30% of all global deaths)

Cancer: #2 cause of death (13% of all global deaths)

347 million people worldwide have diabetes

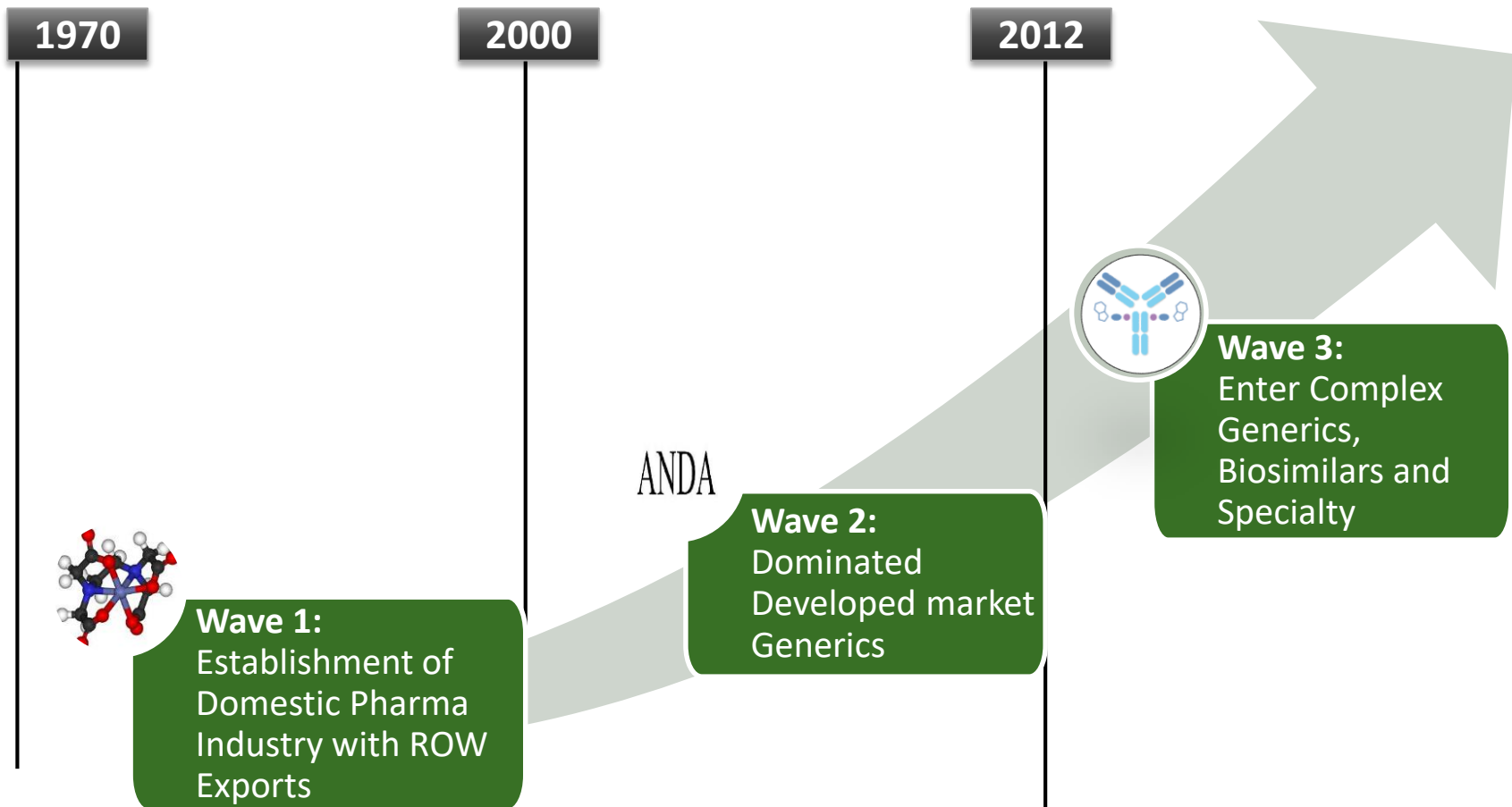
Worldwide obesity has nearly doubled since 1980

70% - 80% of all deaths from chronic diseases occur in low- and middle-income countries

SO WHAT IS TROUBLING INDIAN PHARMA?

India Pharma Industry: Evolution

Indian Pharma Industry has evolved from almost being non-existent to one of the world's leading suppliers of generic drugs



INDIA PHARMA INDUSTRY EVOLUTION

WAVE 1

Wave 1: Establishment of Indian Pharma

It all started with 1972 Patent Act when “product patents” were disregarded

Domestic formulations

- 1970 – MNCs dominated the market (68%)
- 1972 Patent Act allowed “reverse engineering”
- Indian companies took share and made drugs much cheaper
- Formulation sales in India rose from INR 150 cr in 1965 to INR 7,935 cr. in 1995

API / Bulk Drugs Exports

- US API exports was more lucrative and time to market was low
- US API exports started in 1970s but really stepped up pace after 1996
- Bulk drugs production increased from INR 18 cr in 1966 to INR 1,518 cr in 1995

Formulation Exports to Developing markets

- Share of exports in total production increased from 3% in 1980-81 to 24% in 1994-95
- 90% of exports to developing markets
- Catered to traditional export markets of Russia, Asia, Middle East and Africa

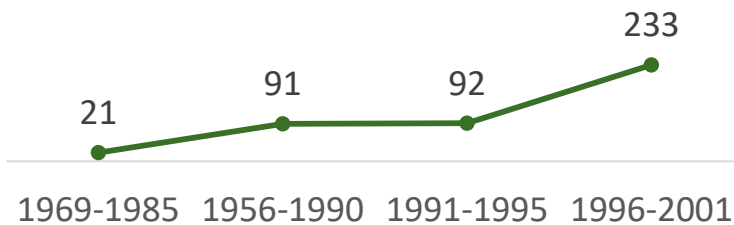
Country's manufacturing facilities increased from 2,000 in 1970 to 24,000 in 1995

Wave 1: DMF Filings peaked in 1996-2001

Indian DMFS share increased to 6.2% in 2001 from 1.8% in 1996...

... Led to ~60% API volume being exported in 2002

of DMFs filed by Indian companies between 1969-2001

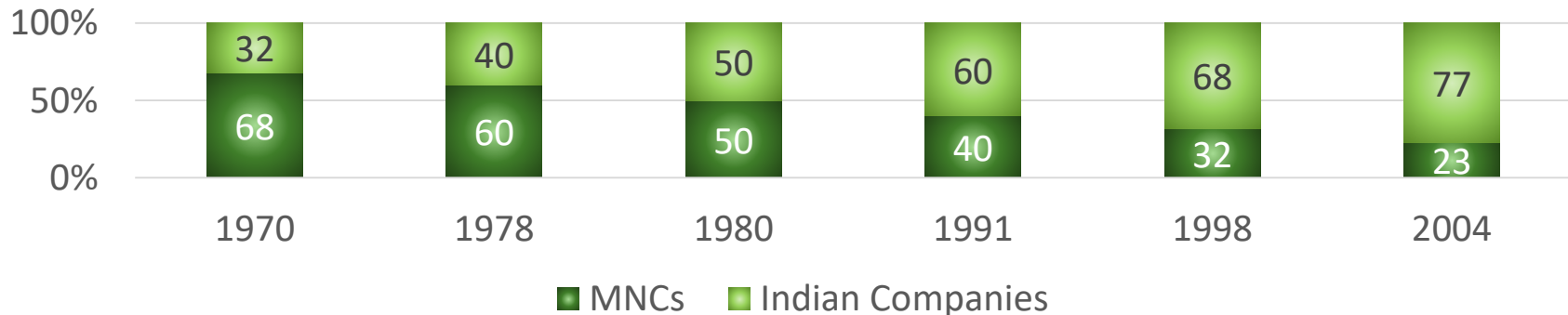


Exports / Domestic Volume share in 2002



Took Share away from MNCs in India

Domestic Market Composition (%)



INDIA PHARMA INDUSTRY EVOLUTION

WAVE 2

Wave 2: Dominate Generics

Patents (Amendments) Act 2005 re-instituted “product” patents
... India started to aggressively look for other opportunities with the expertise built

Dominate US Generics

- 35 years of protection enabled Indian companies to perfect scientific and manufacturing capabilities
- Moved up the value chain to develop formulations for the US market
- Also capitalized on P4 and blockbuster opportunities
- Consolidated API position

Lions Share of the Domestic market

- By 2005, Indian companies held ~70% share in domestic market
- Indian companies grew the market exponentially by increasing penetration
- MNCs came back after 2005 and some have re-established strongly

Meaningful position in other markets

- Indian companies entered markets like Japan
- In 2005-06, 18 companies spent ~\$1.6 bn to acquire in Europe, North America and Mexico
- Ranbaxy and DRL made several acquisitions in EU
- Companies built presence in markets like Brazil

Wave 2: Key Drivers for Value Creation

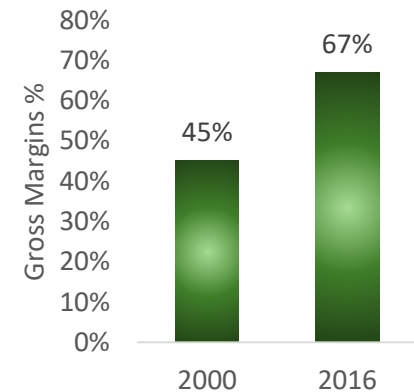
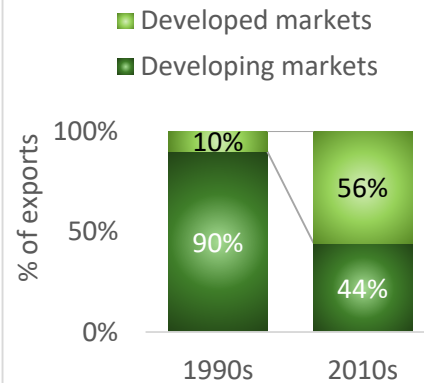
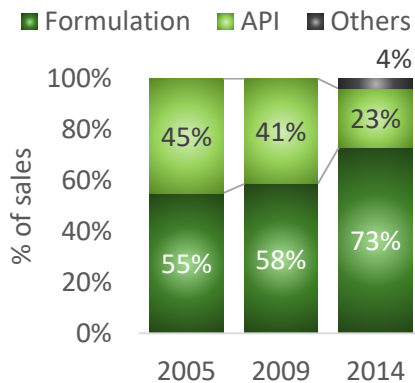
Forward Integration and Developed Market Expansion led to value creation

Forward Integration

Indian pharma companies actively transformed from API manufacturers to finished dosage suppliers

Developed Market Expansion

With manufacturing capability and experience in adopting the regulations of developed markets, Indian pharma significantly expanded their footprint in regulated markets



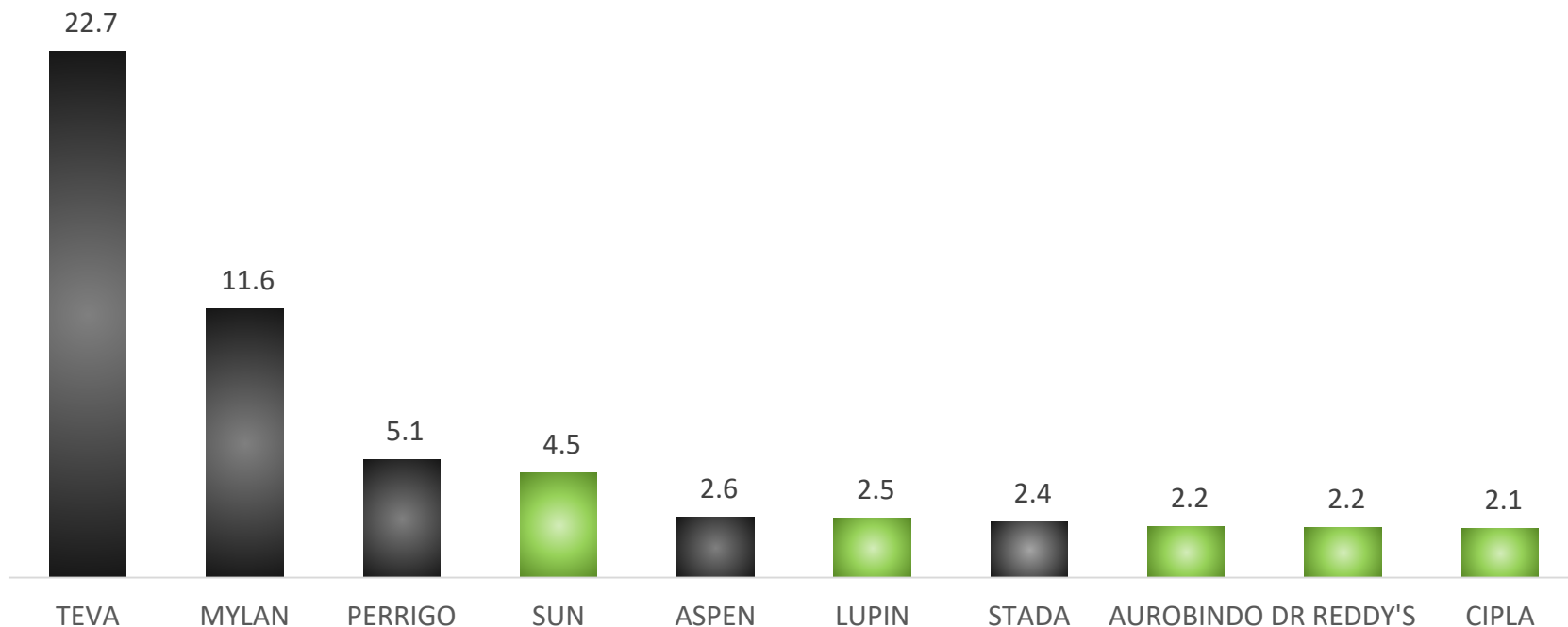
The Industry was able to move up the value chain with exponential increase in sales and profitability

Wave 2: Dominance in Global Generics

In a short span of time, Indian companies are fast emerging as leaders in the Global generics industry

Five of the Top 10 Global Generic Companies are Indian

Top 10 Global generic companies by sales (\$bn)



Wave 2: India in the United States Today

~40% of
annual ANDA
approvals are from
India

40% of US
generics volume
supplied by India

>600 sites
in India are USFDA
approved
(highest outside US)

33% of
Indian companies
sales come from the
US

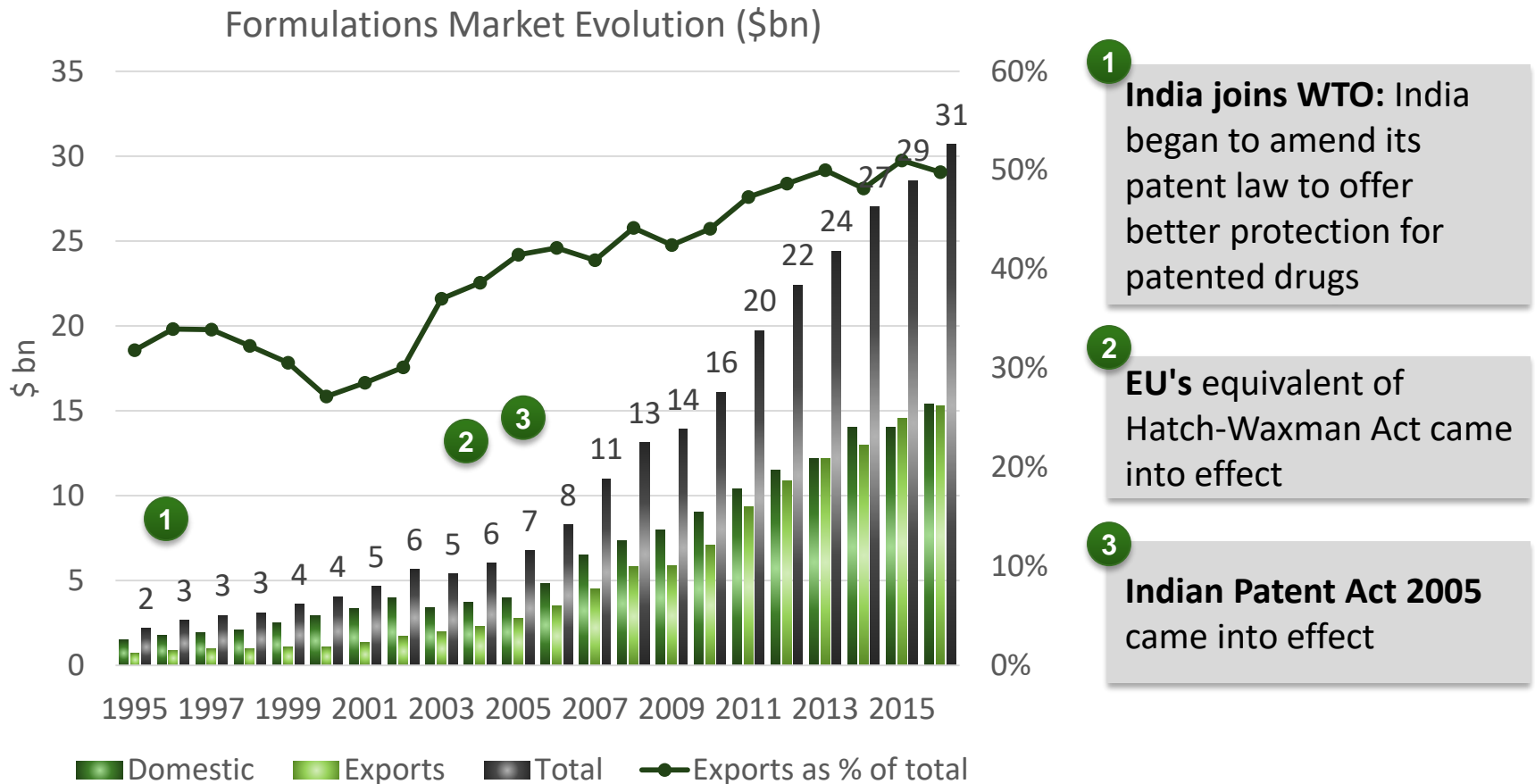
31 acquisitions
for US generics
business by Indian
companies

~50% of
DMFs filed each year
are from India

Wave 2: India is a Global Generics Powerhouse

India is the most efficient export-oriented pharma industry in the world

Total Formulation Sales is currently \$31bn equally split between domestic market and exports



So Where is Indian Pharma Today?

India Pharma today is nearing the end of Wave 2

Existing model is facing challenges and doesn't give the kind of growth we have seen in the past

US

- Channel consolidation increased bargaining power of customers
- GDUFA providing faster approvals increasing competition
- Above factors along with the political backdrop on pricing causing pricing deflation

India

- Expected to grow at 12% CAGR
- But facing regulatory uncertainties in terms of new proposed policy
- Generic-generic drugs
- Jan Aushadi

Other Markets

- Japan may move to annual pricing revisions from current biennial
- Pricing pressure is a constant across markets
- Other developing markets growing but don't really move the needle

Compliance – India under Scrutiny

In the facility

- In 2015-16, Indian facilities were issued 20 warning letters of total 52 ex-US ones
- Data integrity was the biggest cause of warning letters in the last 2 years
- But, other compliance issues have also been seen in recent 483s and Warning Letters
 - Procedures not being followed
 - Scientifically sound laboratory controls
 - Investigations of discrepancies, failures

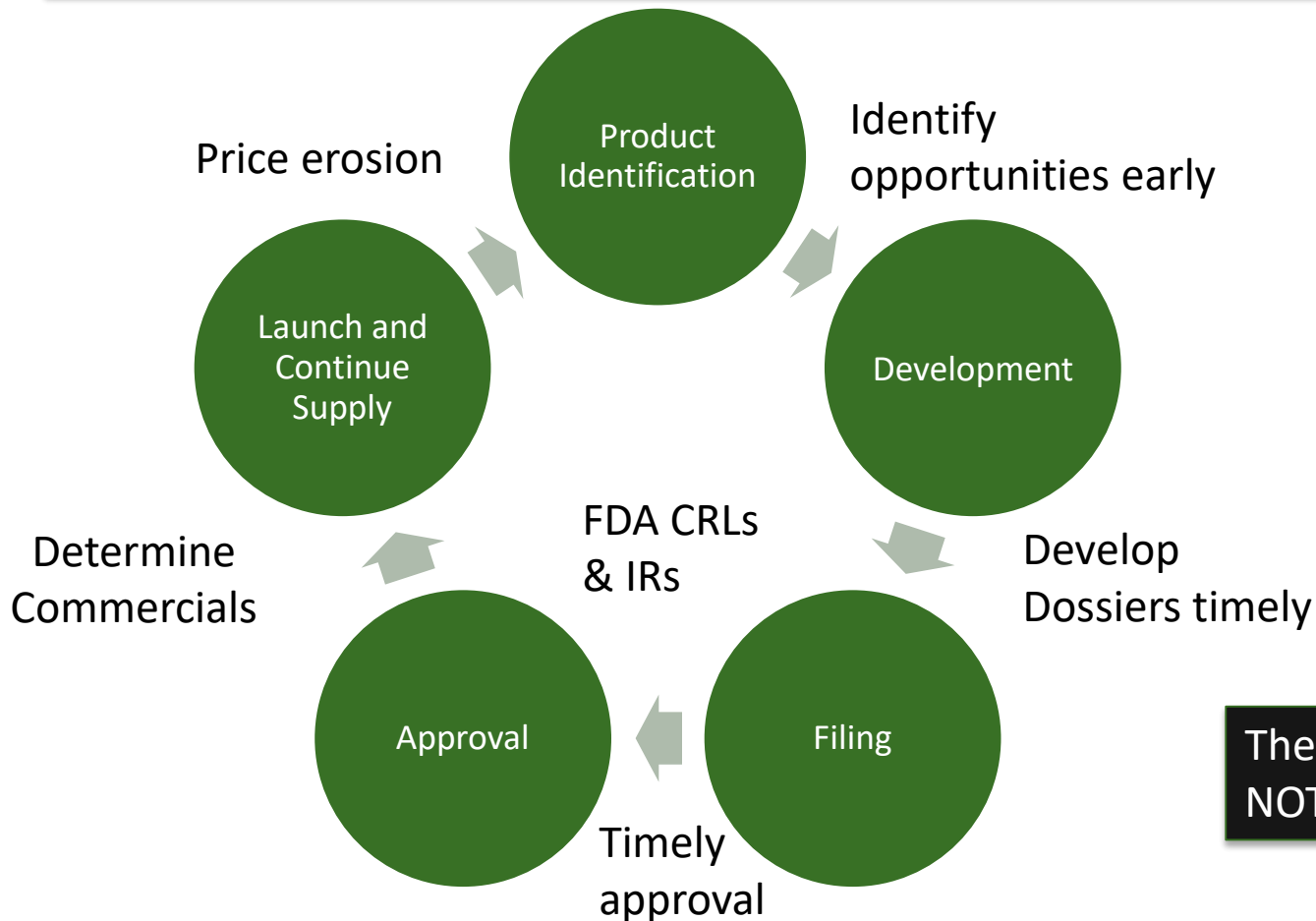
Outside the facility

- Procurement: Multiple Issues with the quality of raw materials from India (and from China)
- R&D: Lack of quality control in R&D may lead to delays in development and approvals
- Post marketing: Issues such as complaints, rejects, and product failures are having a direct impact on reputation

Constantly evolving and a Holistic Regulatory Compliance effort is a must today
Good Regulatory Compliance costs money and doesn't necessarily get you a premium

Execution – Running on a Treadmill

Execution has become very challenging today as high # of uncertainties at each stage
With significant base, Indian companies now need significant new product launches each year just to maintain their position



The Old Model just does NOT work anymore

INDIA PHARMA INDUSTRY EVOLUTION

WAVE 3: NEXT WAVE OF GROWTH

Wave 3: Three Key Drivers of Growth

Complex Generics

- Indian companies have only 19% penetration in complex generics compared to 34% penetration in simple generics
- Big classes of Complex products are not genericized or are still semi-exclusive
- Exclusive and Para 4 opportunities will remain lucrative

Biosimilars

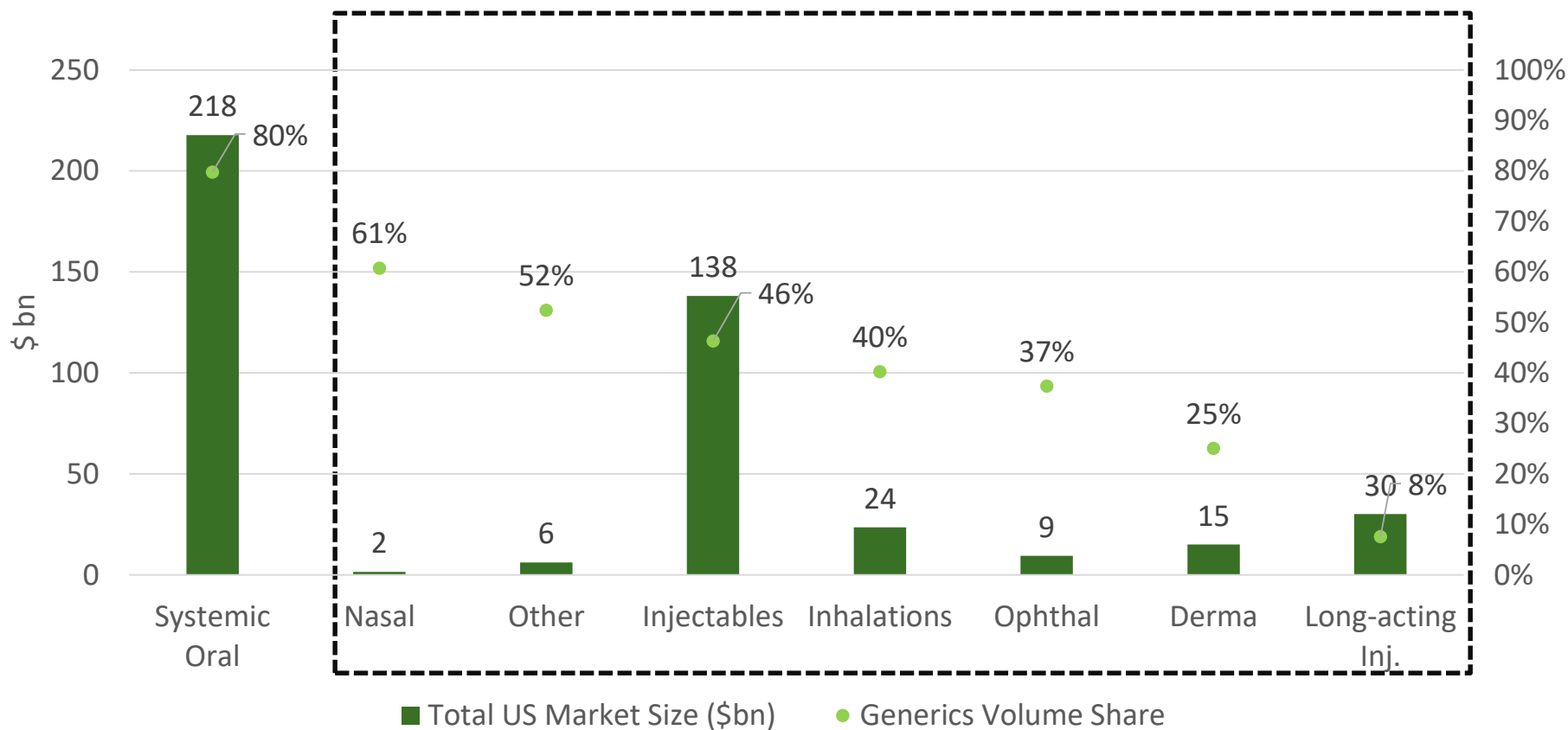
- Current biologics market worldwide is estimated to be ~ \$240 bn
- Of this, biosimilars contribute only ~ \$4-6bn
- US and EU are opening up differently due to patent expiries
- Still considerable marketing / regulatory challenges in EU and US

Specialty / Branded

- Target areas which have unmet needs and provide clinical advantage
- Acquire opportunities which are in late stage of development
- Supplement with internal pipeline
- Focus would be primarily US but also developed markets like Europe and Japan

Wave 3: Complex Generics Opportunity

US: Product categories difficult to develop are underpenetrated compared to orals and offer large opportunities



Wave 3: Complex Generics Opportunity

Next few years launch calendars will be dominated by complex generics

Product	IMS MAT Mar 17 (\$mn)
Axiron	244
Byetta	270
Welchol POS	595
Welchol tabs	93
Copaxone 40 mg	2,200
Neupro	134
BuTrans	287
Estrace	420

Product	IMS MAT Mar 17 (\$mn)
Renvela Tabs	1,830
Renagel	194
NuvaRing	758
Tamiflu OS	371
Remodulin	602
Suboxone	1,556
Canasa	240
Advair Diskus	4,443

Challenges

Longer development timelines
Longer FDA review cycle (but changing)
Expensive biostudies or clinical studies
High costs of failure

Guidances are evolving often citing additional requirements

Wave 3: Enter Biosimilars

Biosimilars market to reach \$25-\$35 billion by 2020

Opportunities

Currently over 50 distinct biosimilars are under development

Brand	US Market Size (\$ bn)	Originator	Active developments
Humira	11.7	Abbvie	19
Enbrel	7.1	Amgen	18
Remicade	5.2	JNJ	10
Neupogen	0.8	Amgen	4
Neulasta	3.9	Amgen	7
Rituxan	3.7	Roche	24
Lucentis	1.5	Roche	3

Challenges

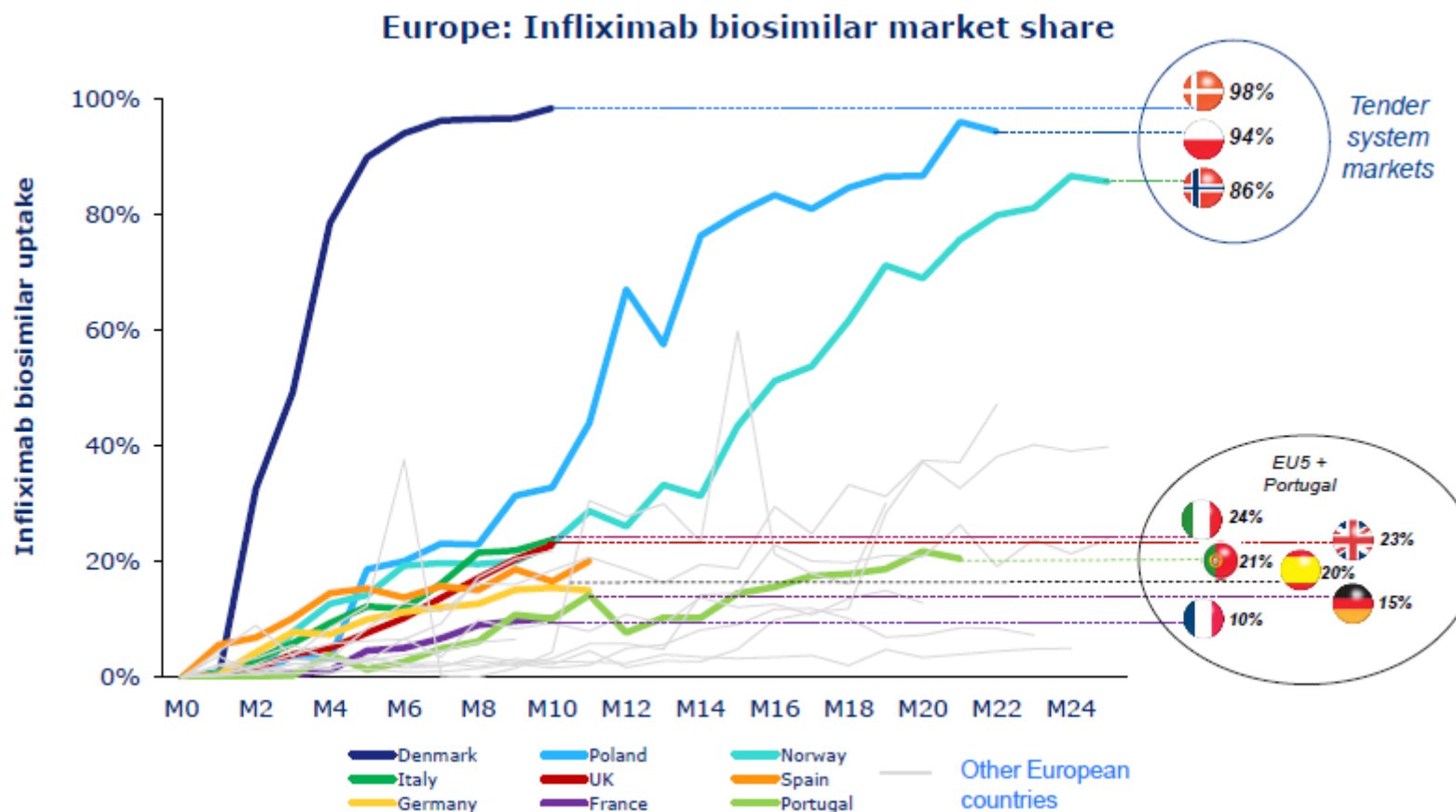
Capabilities required are different and current launches are mostly by large pharma and big biotech names

	Big biotech / Large Pharma	Pure-play Biosimilars only	Generic companies
Companies	Amgen Abbvie Pfizer Sandoz BI	Celltrion Samsung Coherus Epirus Pfenex	Teva Biocon Dr Reddy Intas Lupin
Capabilities			
Development	Green	Green	Partial
Regulatory / Legal	Green	Partial	Partial
Manufacturing	Green	Partial	Red
Commercial	Green	Red	Red

Wave 3: Enter Biosimilars

The Biosimilars market is still evolving. Uptake has been mixed across products and markets.

Infliximab is a classic example



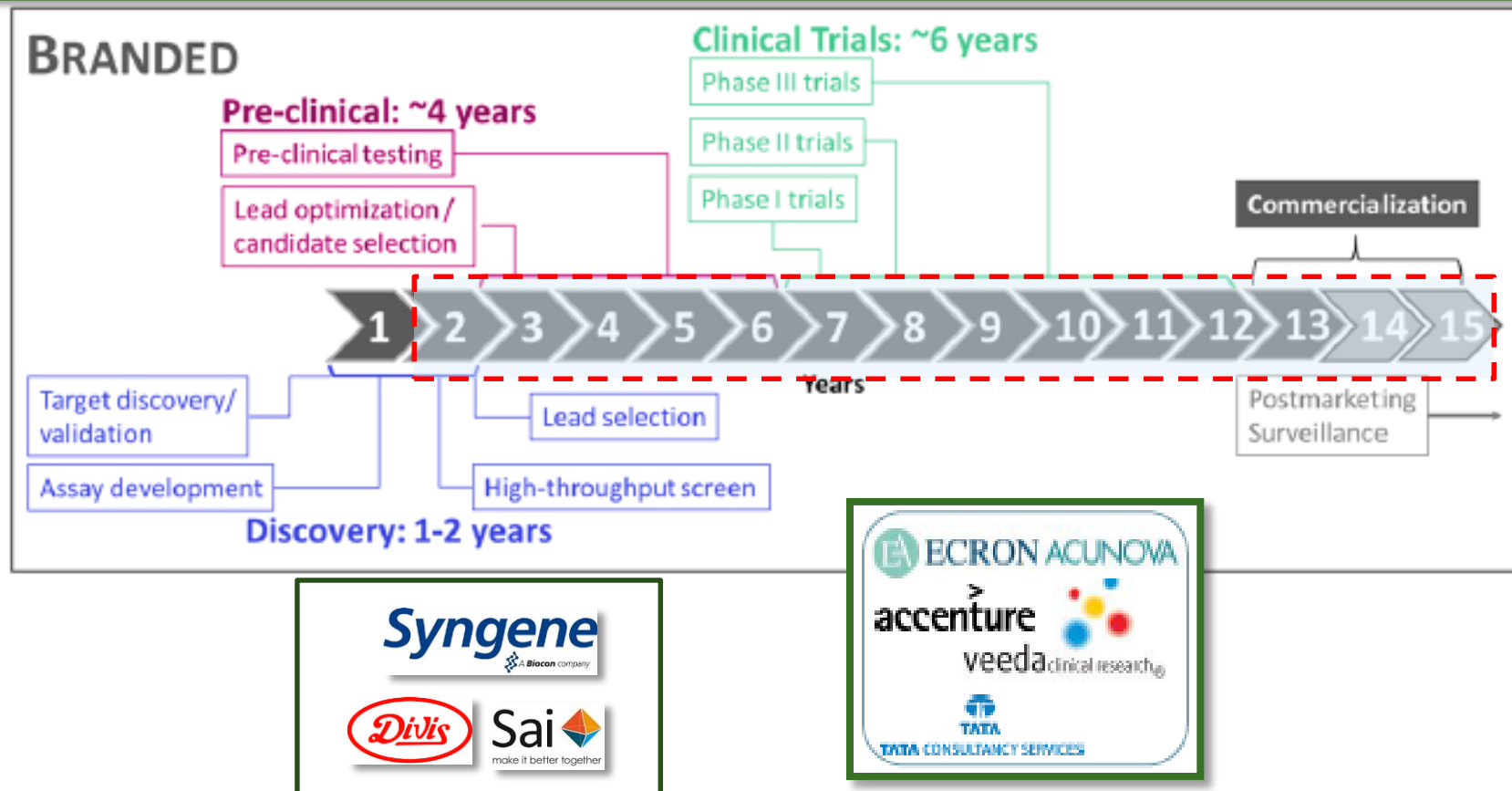
Wave 3: Build Specialty

Specialty requires a different set of capabilities but gives much more sustainability in growth

	Big Pharma Approach	Specialty Approach
Model	BIG Infrastructure BIG Customer Base BIG Cost	Small Infrastructure Small Customer Base Smaller Costs
Business Development	"What is available?"	"What is required to "Own a Therapy Area"?"
Prescriber Base	Primarily "Primary Care" ~ 50 – 100K	"- ologist" Driven < 5,000 Physicians

Wave 3: India's involvement in Specialty space

India has typically played a role as service provider to the development process of branded products



Pipeline plays have started and will hit market in next two years

SO WHERE IS INDIA PHARMA HEADED TODAY?

End of Wave 2; Wave 3 is still to kick in

We are at the end of Wave 2 and Wave 3 is still to kick in
The Next Two years are going to be challenging
We are investing for Wave 3 now but Returns will start only in next two years

Factors	Simple generics	Complex generics	Biosimilars & Specialty
Development costs	Low	High	Very High
Scientific Expertise	Leverage the same expertise	Build separate expertise	CROs involved
Manufacturing Setup	Same	Separate (Make vs buy)	Not Relevant
Front end	Same	Same	Build separate

Not so much about giving up the Old but embracing the New

The next two years are critical
What should you watch out for to assess that companies are making a successful transition to Wave 3

Complex Generics

Continued filing on
P4 and semi-
exclusive generic
products

Delivery on R&D
development
milestones for
Complex Generic
products

Biosimilars

Key filing and
approval milestones
for Biosimilars

Commercialization
capability build or
Partner

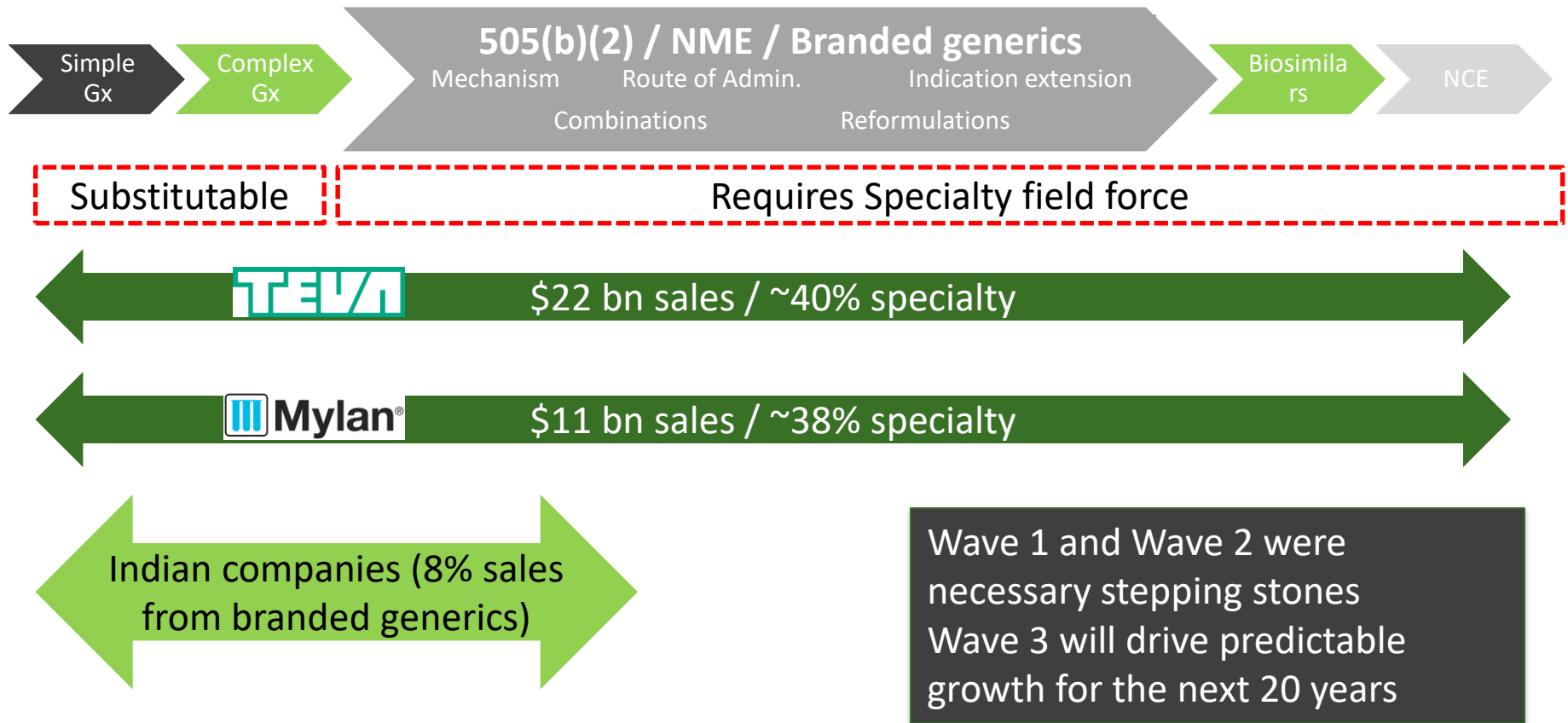
Specialty / Branded

Pipeline build
through acquisitions
and internal
development

Companies must
OWN their
Therapeutic Area

Other International successful transitions

Teva and Mylan started this process in early 2000s and have successfully scaled up their branded generics and specialty businesses
Indian peers only started in 2011-12, after first establishing the US generics business

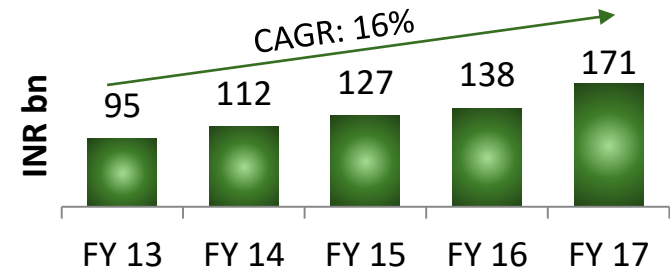


LUPIN TODAY

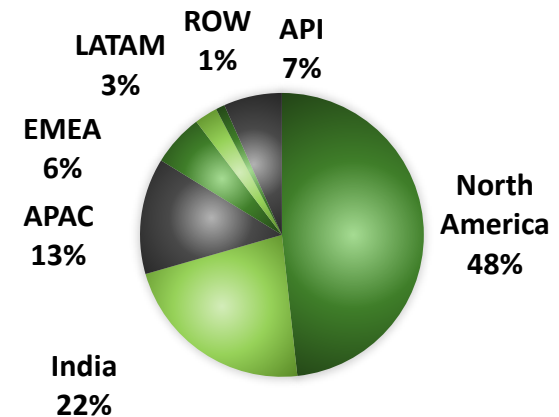
A leader in Generics with a diversified Geographical Footprint and strong Growth Profile

- Lupin's sales of INR 172 bn **spread** across regulated and emerging markets
- Have grown at CAGR of 16% in the last 5 years;
- **FY'17 US sales** at Record \$1.2bn and 38% growth
 - 94% coming from generics and 6% from brands
 - Ranked #4 by total Rx volume amongst US generics
- **India** business generated INR 38 bn revenues in FY17 growing consistently at 15%
 - Ranked #5
 - Top 5 therapies contribute 70% of sales
- Rest 30% sales contributed by direct presence in Japan, South Africa, Brazil, Mexico, Philippines, Australia and API business
- Invested INR 23 bn or 13.5% of sales on **R&D** in FY18 at 9 R&D sites globally
- 18 manufacturing sites globally with 8 USFDA approved sites

Sales Evolution



FY17 Sales Breakdown



Lupin is a Dominant Force in Global Generics



Globally

7th

largest generic
globally
(by market cap¹)

6th

largest generic
company
(by sales²)

2nd

largest Indian
Pharma Co
(by global sales²)

#1

in Anti-TB
(globally)

US\$2.55bn

Global Revenues

Advanced Markets

4th

largest US
(by prescriptions³)

6th

Largest Japanese
Gx⁴

Emerging Markets

6th

India Pharma
Market Rank⁵

4th

largest South
Africa generics⁶

Sources:

1. Bloomberg EQS, 30 Jun 2017

2. LTM sales available as of 31 Mar 2017

3. QuintilesIMS MAT Mar 17

4. QuintilesIMS Data Japan (As of Jun 2017) at NHI price basis

5. QuintilesIMS MAT Jun 17

6. QuintilesIMS MAT Jun 17

Our Strategic Direction

2016

- Primarily a Generic / Branded Generic Business
- 3 strong geographies (US/India/Japan)

2017-2020

- Leading generics player with a larger complex generics mix
- Building Specialty business
- Stronger geographic spread

2020+

- Leading generics player with a significant complex generics mix
- Material Specialty business
- Leading Global player

Inhalation

- First MDI Product filed and PAI done
- 2 DPI developments on track in late stage
- 5 other programs in early stage
- Targeting total US market size of \$19bn

Biosimilars

- Etanercept development on track with filing this FY in Japan and Europe
- Developing Pipeline of select few products
- Actively partnering for first few products
- Targeting total US market size of \$19bn

Complex Injectables

- Acquisition of Nanomi for developing depot injections
- State-of-the-art facility ready by end-2017
- First filing in 2019

Specialty Areas of Focus for Lupin



Lupin has chosen niche areas out of larger therapy areas

Neurology (\$50bn+)

Pediatric Specialty

Women's Health (\$8.5bn)

Neuro-immunology (\$20bn)

Infectious diseases + Vaccines

Core areas (OC) and Infertility (\$5bn)

Alzh (\$2bn) + Phsysc. Dis. (\$10bn) + ADHD (\$7bn) and Epilepsy (\$12bn)

Hormone therapies(\$2.2bn)

Movement disorders – Adult and Pediatric (\$2bn+ by 2020)

Neuro-muscular disorders

Orphan / Rare diseases

Niche and small indications (\$1.3bn)

Manufacturing & R&D – Diverse Global Network



18

Manufacturing Sites

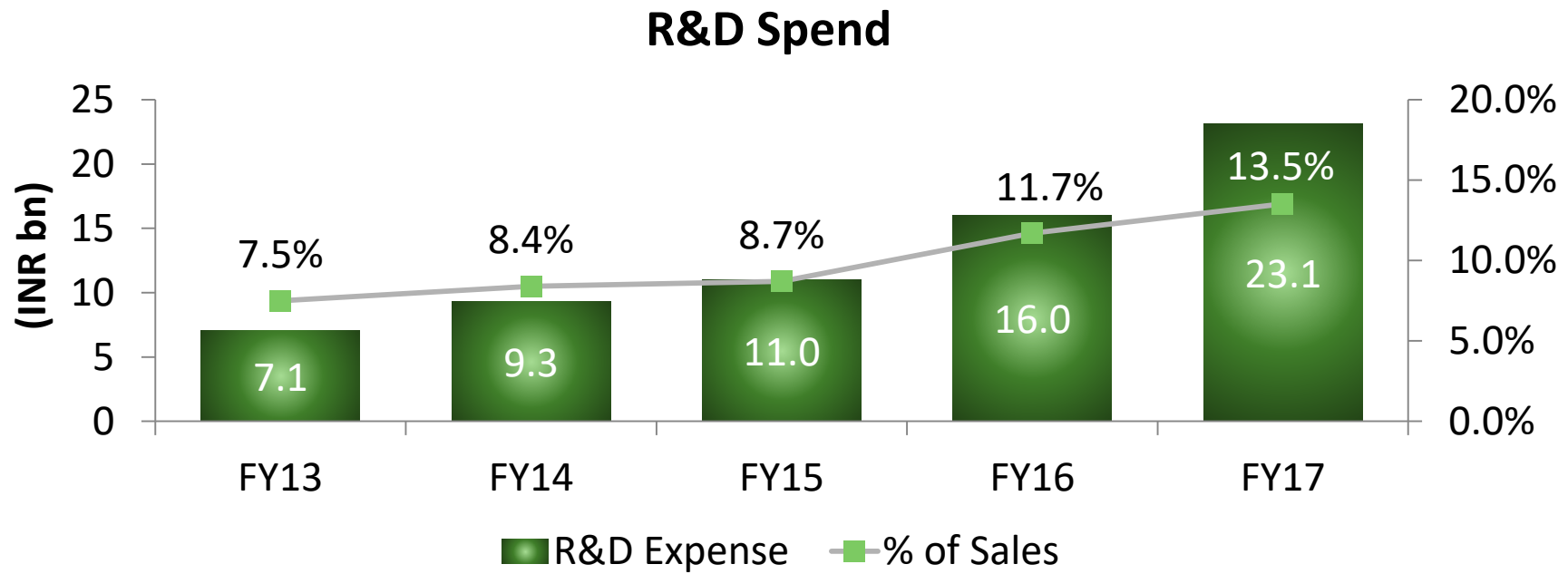
- 8 USFDA approved sites
- Various audits conducted by other authorities without critical observations

9

R&D Sites

- 368 US ANDA filings
- 45 US First to Files
- 2,837 patents filed globally
- 1,700+ scientists at Global locations

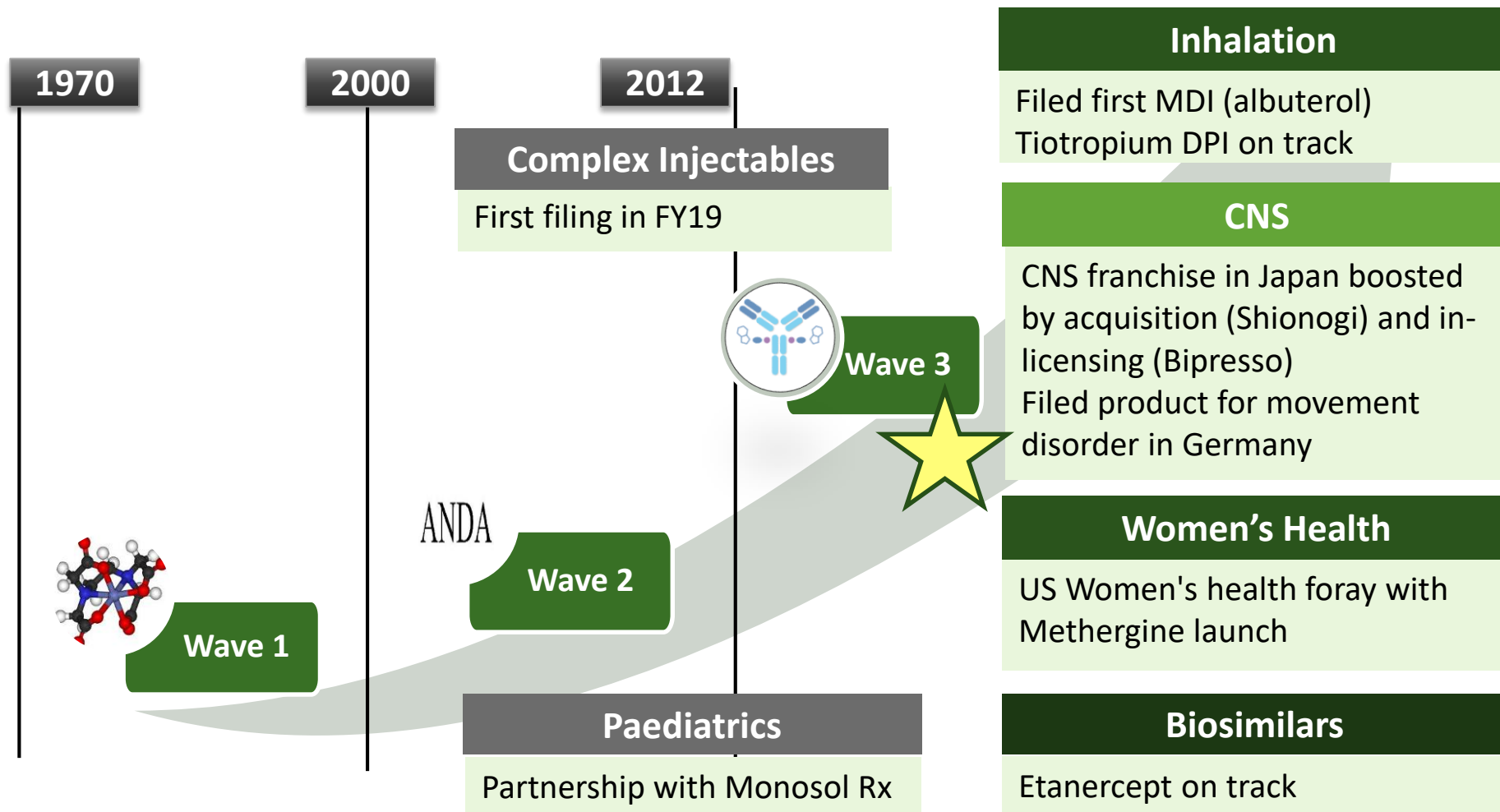
Our Investments for the Future



- 151 ANDA pending filings
- 45 First-to-Files (FTF) filings including 23 exclusive FTF opportunities
- Enhanced investment on inhalation, biosimilars and injectables
- Partnering selectively to defray enhanced spend on high-risk/high-reward products
- Spend on Specialty R&D to increase in next two years

So where is Lupin Today?

We are at the beginning of Wave 3 – full transition by FY'20



Thank you