sanofi aventis
Because health matters

Vaccines
IR Seminar

December 17th, 2009

Forward Looking Statements

This presentation contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts. These statements include financial and product development projections and estimates and their underlying assumptions, statements regarding plans, objectives, intentions and expectations with respect to future events, operations, products and services, and statements regarding future performance. Forward-looking statements are generally identified by the words “expects,” “anticipates,” “believes,” “intends,” “estimates,” “plans” and similar expressions. Although sanofi-aventis’ management believes that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of sanofi-aventis, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include among other things, the uncertainties inherent in research and development, future clinical data and analysis, including post marketing, decisions by regulatory authorities, such as the FDA or the EMEA, regarding whether and when to approve any drug, device or biological application that may be filed for any such product candidates as well as their decisions regarding labeling and other matters that could affect the availability or commercial potential of such products candidates, the absence of guarantee that the products candidates if approved will be commercially successful, the future approval and commercial success of therapeutic alternatives, the Group’s ability to benefit from external growth opportunities as well as those discussed or identified in the public filings with the SEC and the AMF made by sanofi-aventis, including those listed under “Risk Factors” and “Cautionary Statement Regarding Forward-Looking Statements” in sanofi-aventis’ annual report on Form 20-F for the year ended December 31, 2008.

Other than as required by applicable law, sanofi-aventis does not undertake any obligation to update or revise any forward-looking information or statements.

Agenda (1/2)

- **Introduction**
  - ***Christopher A. Viehbacher***
    Chief Executive Officer, Sanofi-aventis
- **Positioned for Sustainable Growth**
  - ***Wayne Pisano***
    President and Chief Executive Officer, Sanofi Pasteur
- **Driving Growth through Innovation**
  - ***Michel DeWilde***
    Senior Vice President, Research & Development

Agenda (2/2)

- **Strengthening our Leadership in the "North"**
  - **U.S.:** ***Damian Braga***
    President U.S., Vice President, Americas
  - **Europe:** ***Didier Hoch***
    President, Sanofi Pasteur MSD
- **Pursuing Significant Growth Opportunities in the "South"**
  - **Latin America:** ***Damian Braga***
    President U.S., Vice President, Americas
  - **Asia-Pacific, Africa, Middle-East, Eastern Europe:**
    Jacques Cholat
    Vice President, Commercial Operations, International
- **Conclusion**
  - ***Wayne Pisano***
    President and Chief Executive Officer, Sanofi Pasteur
- **Q&A Session**

sanofi aventis
Because health matters

Introduction

Christopher A. Viehbacher

Chief Executive Officer

Five Key Growth Platforms to Deliver Sustainable Growth Beyond 2013

Emerging markets

Diabetes

Vaccines

A key growth pillar

OTC/OTx

New launches

Vaccines – A Key Asset for a Global Healthcare Leader

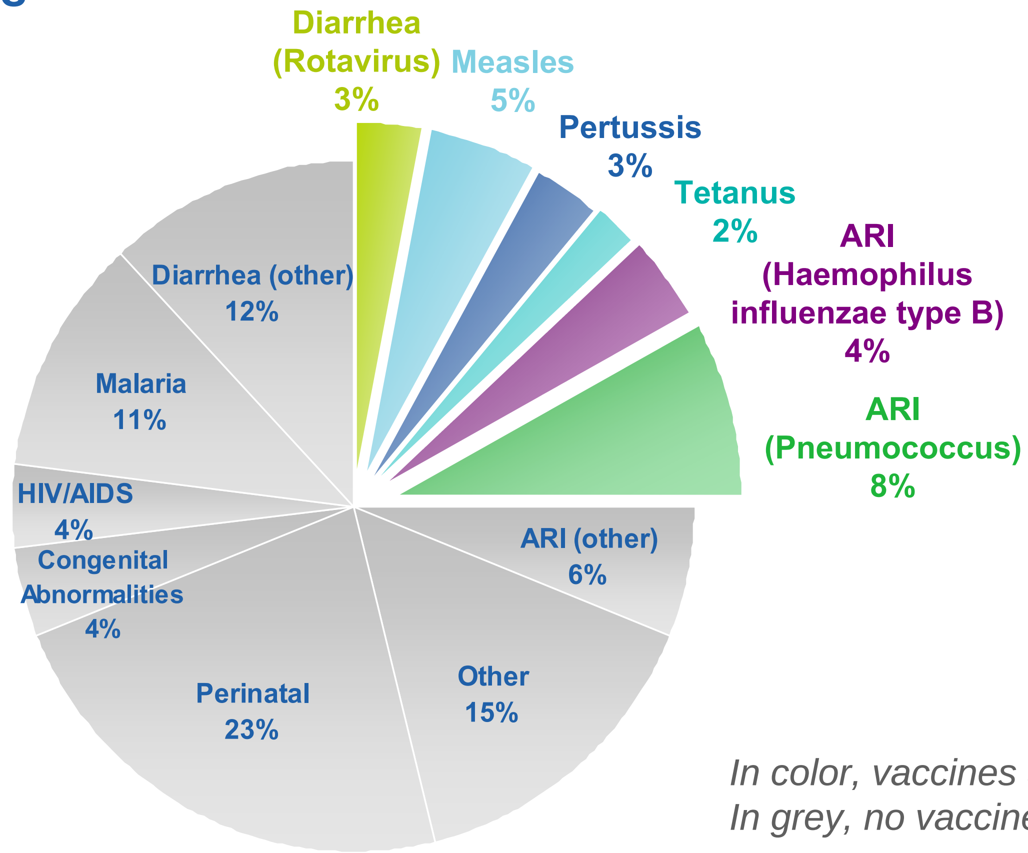
- One of the fastest growing markets in Health Care
  - A €15bn market in 2008 projected to reach €23bn by 2013[1]
- Clear synergies with Pharmaceuticals
  - Focus on preventative care – Complementary to therapeutics
  - Biopharmaceutical R&D and production
  - Commercial operations – e.g. Asia-Pacific
  - Public Affairs – Interactions with governments and NGOs
- A priority for Health Care systems
  - One of the most successful and cost-effective interventions
  - Still unmet medical needs in both developed and emerging markets
  - New sources of funding for low-income countries

(1) Based on Sanofi Pasteur internal estimates

Pediatrics are the Foundation of the Vaccine Industry

- **25% of annual mortality in children <5 related to diseases preventable with current vaccines[1]**

Opportunity for expansion of use of existing vaccines and for new disease targets



In color, vaccines available
In grey, no vaccine available

ARI: Acute Respiratory Infections
(1) GIVS 2006-2015, Unicef.org

Emerging Markets Represent a Public Health Challenge

Large birth cohorts in emerging markets[1]

Significant unmet demand in emerging markets

(1) Estimated birth cohorts in millions, Census Bureau, updated November 26, 2009

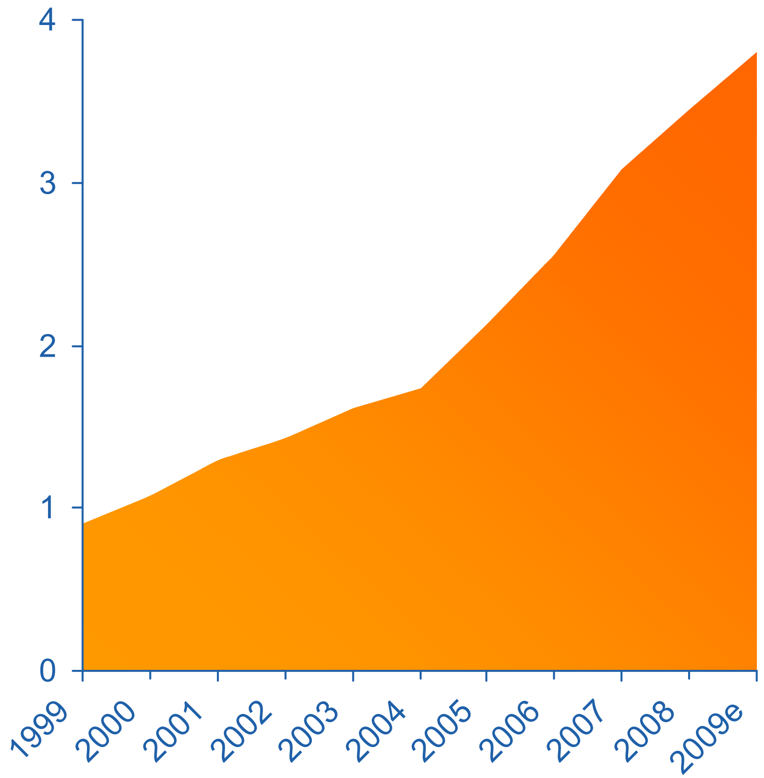
Vaccines Have an Attractive and Unique Business Model

- High degree of innovation
- High upfront capital investments
- Complex manufacturing know-how
- Biological competencies
- Much longer product lifespan than pharmaceuticals
- Specific business model
- Long-standing relationships with governments and healthcare authorities

Sanofi-aventis – A Unique Position in Vaccines

- A strong heritage
- The largest product offering in the industry
- A success story based on leadership and innovation
  - Leadership in Influenza, Meningitis and Pediatric vaccines
  - New wave of innovation in preparation with vaccines against Dengue and Clostridium Difficile

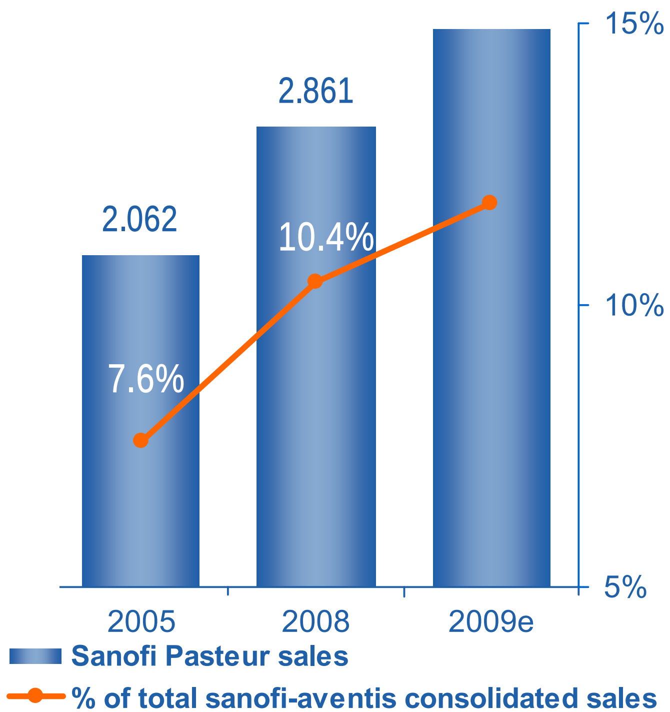
Vaccines Sales(1) Increased 4-Fold Between 1999 and 2009 (€bn)



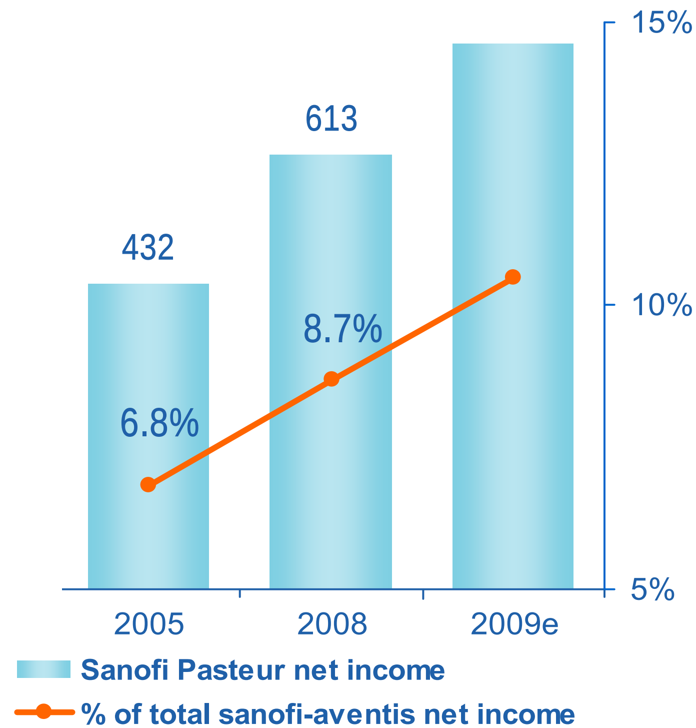
(1) Includes 50% of Sanofi Pasteur MSD JV sales (minus supply sales from Sanofi Pasteur to JV)

Sanofi Pasteur, an Increasing Contribution to the Group's Performance

Consolidated Vaccine Sales (€bn)



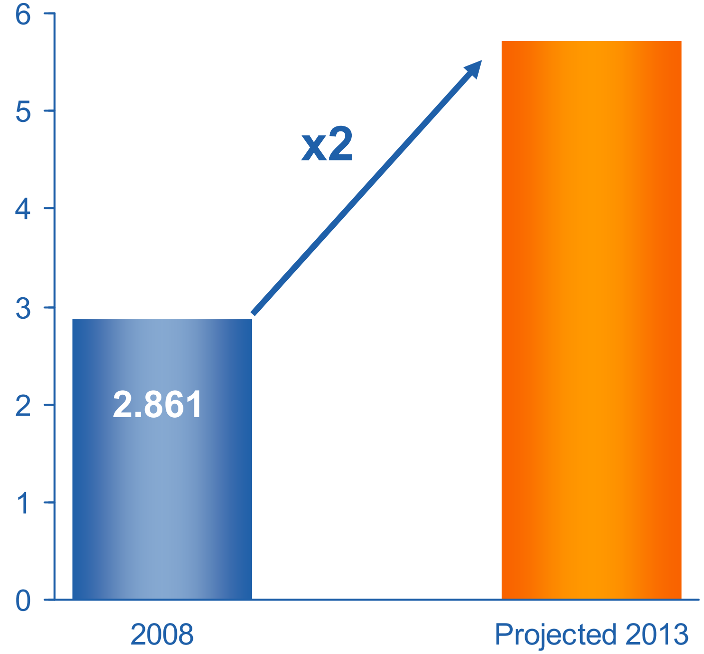
Adjusted Consolidated Net Income (€m)



Vaccines, a Strategic Priority for 2013 and Beyond

- Ideally positioned to capture growth opportunities
- 2010 objective of €4bn of net sales[1], including H1N1 sales

2013 Net Sales Ambition (€bn)



(1) At a USD/Euro exchange rate of 1.40

A Strong and Experienced Management Team Presenting Today

sanofi aventis
Because health matters

Wayne Pisano

President, Chief Executive Officer, Sanofi Pasteur

- SVP Global Commercial Operations & Corporate Strategy
- Executive VP, North America
- VP US Marketing
- Background: Biology, Marketing & Sales

Michel DeWilde

Senior Vice President, Research & Development

- SVP R&D
- VP R&D, SmithKline Beecham Biologicals (now GSK Biologicals), Belgium
- Background: Scientist, Biology

Didier Hoch

President, Sanofi Pasteur MSD

- VP Middle-East/Africa (Aventis Pharma)
- Deputy GM (RPR France)
- GM (Specia / RPR France)
- Background: Medical Doctor

sanofi pasteur MSD

sanofi pasteur

Jacques Cholat

Vice President, Commercial Operations, International

- VP Global Commercial Operations
- VP Commercial Operations in Asia Pacific, Aventis Pharma
- GM Portugal RPR
- Background: Medical Doctor

Damian Braga

President, U.S. Vice President, Americas

- Head of the Americas Business Unit, Vaccines
- VP, US
- CFO, US
- Background: Finance

sanofi pasteur

The vaccines division of sanofi-aventis Group

Positioned for Sustainable Growth

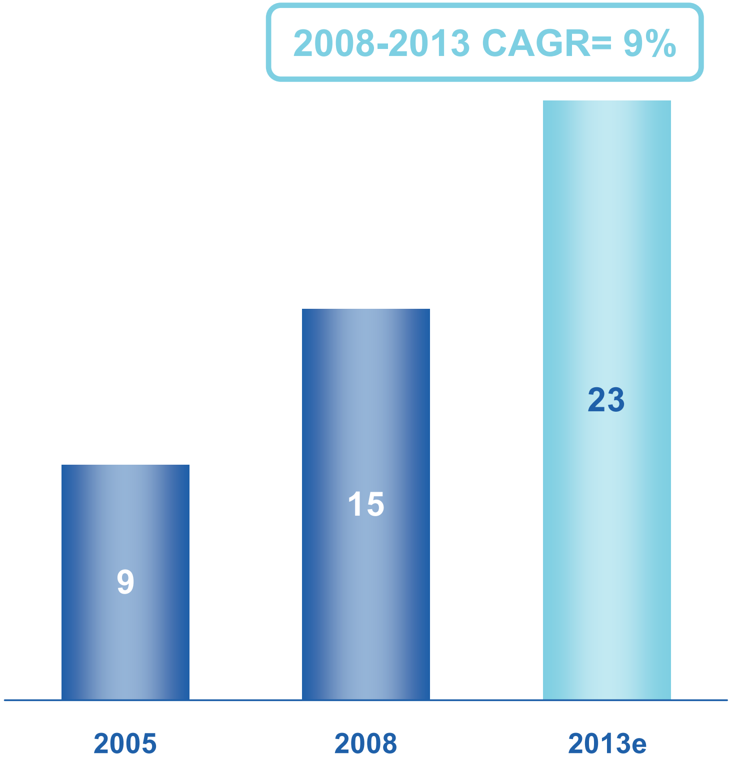
Wayne Pisano

President and Chief Executive Officer, Sanofi Pasteur

One of the Fastest Growing Markets

- Most cost effective health care intervention available
- High degree of innovation and limited exposure to generics
- Improved pricing due to significant health benefits and innovation
- Unmet demand
- Vaccines market projected to reach €23bn[(1)] by 2013

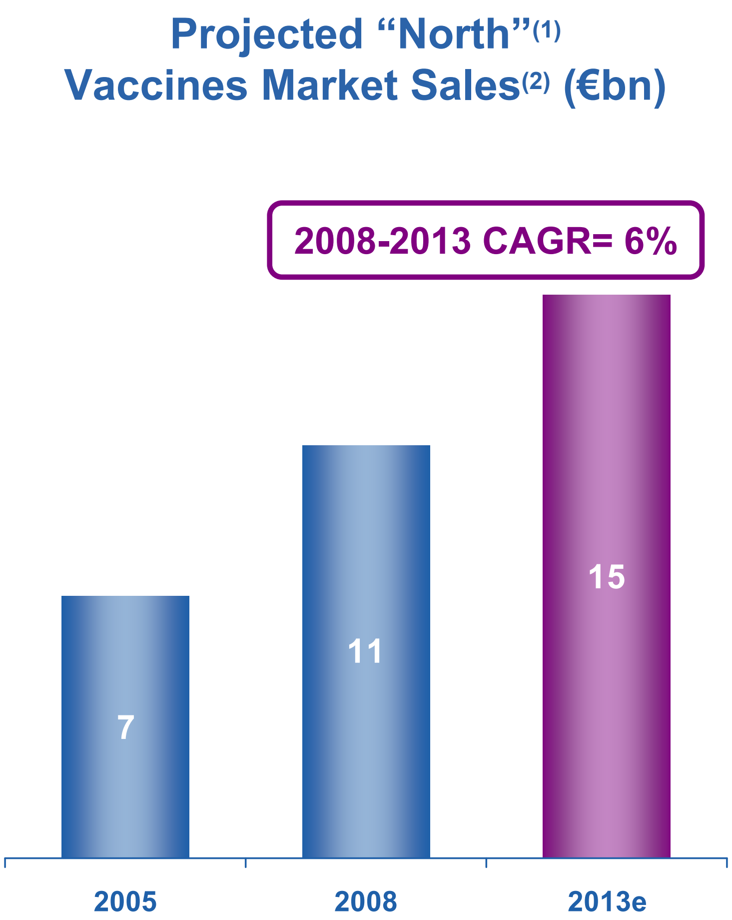
Projected Worldwide Vaccines Market Sales (€bn)



(1) Based on Sanofi Pasteur internal estimates

Historical Performance Driven by the "North"(1) Still Room to Grow

- Highly concentrated market
  - 4 large international players
- High immunization rates
  - Opportunities remain in all age segments
- Differentiation as competitive advantage
- Further growth to come from life cycle management and innovative vaccines

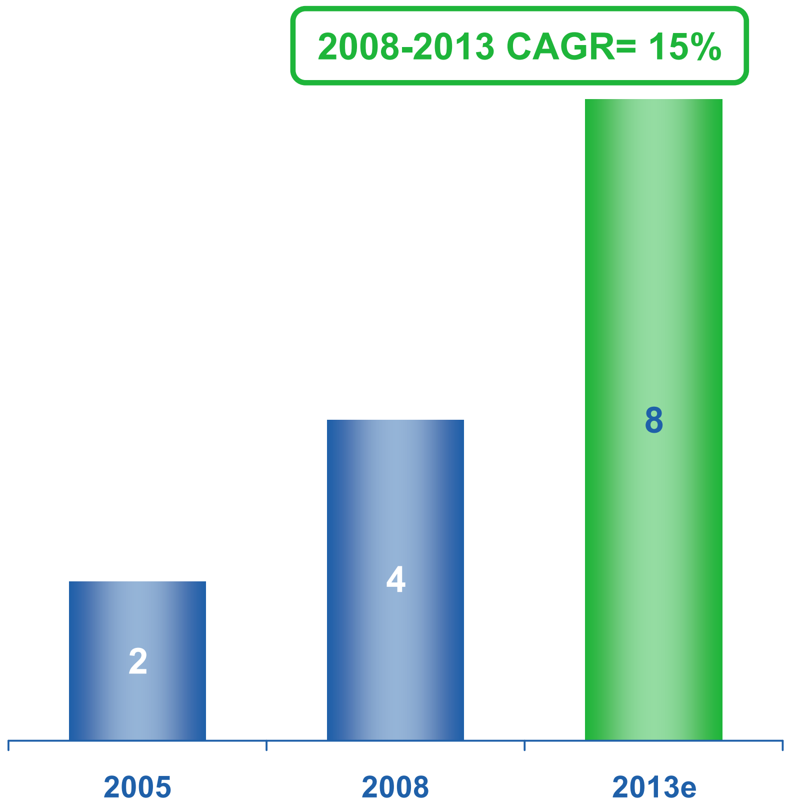


(1) "North" includes North America, Western Europe, Japan, Australia, New Zealand
(2) Based on Sanofi Pasteur internal estimates

Significant Future Growth to Be Fueled by the “South”(1)

- Large population, birth cohorts
- Low immunization rates
- Growing middle class
- Many unmet medical needs
- Supply driven markets
- Local presence or partnerships needed

Projected Emerging Market(1) Vaccines Sales(2) (€bn)



(1) “Emerging markets” or “South” includes Asia-Pacific (excluding Japan, Australia and New Zealand), Africa, Middle-East, Eastern Europe (AMEE) and Latin America
(2) Sanofi Pasteur internal estimates

Sanofi Pasteur Has Great Fundamentals to Capture Future Growth

sanofi aventis
Because health matters

- **Promising R&D pipeline**
  - 18 projects in development
  - Pipeline additions, Acambis and Shantha acquisitions
- **Leading commercial presence**
  - Present in 150 countries
  - ~2,000 employees in sales force
- **JV with Merck & Co in Europe** sanofi pasteur MSD
- **World class industrial operations**

Significant Industrial Capacity Investments to Answer Worldwide Demand

- **World-class industrial operations**
  - 12 industrial sites
  - ~7,000 employees
  - ~1.6bn doses produced each year
  - Around €1.7bn capacity investment since 2005
- **On-going capacity investments**
  - Menactra® (20md)
  - Flu Mexico and China (25md each)
  - Combo antigens[1] (300md IPV, 200md Hib, 200md Dip, etc.)
  - Filling & formulation
  - Dengue (100md)

sanofi pasteur

The vaccines division of sanofi-aventis Group

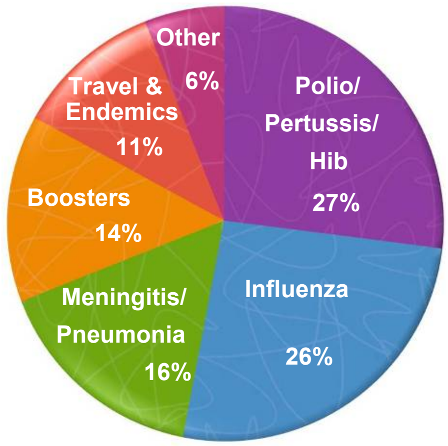
Industrial Sites

(1) IPV (Inactivated Polio Vaccine), Hib (Haemophilus Influenzae Type b), Dip (Diphtheria)

Our Unsurpassed Capacity Serves our Broad Portfolio

- Broadest product offering worldwide
  - Vaccines against 20 diseases
- World leader with €2,861m consolidated sales in 2008, +9.6%(1)
- 21.8% market share in 2008(2)
- ~14,000 employees
- Global leadership in 4 franchises
  - Pediatrics
  - Influenza
  - Meningitis
  - Travel and Endemic

Diversified and Balanced Portfolio



2008 Net Sales % by Franchise

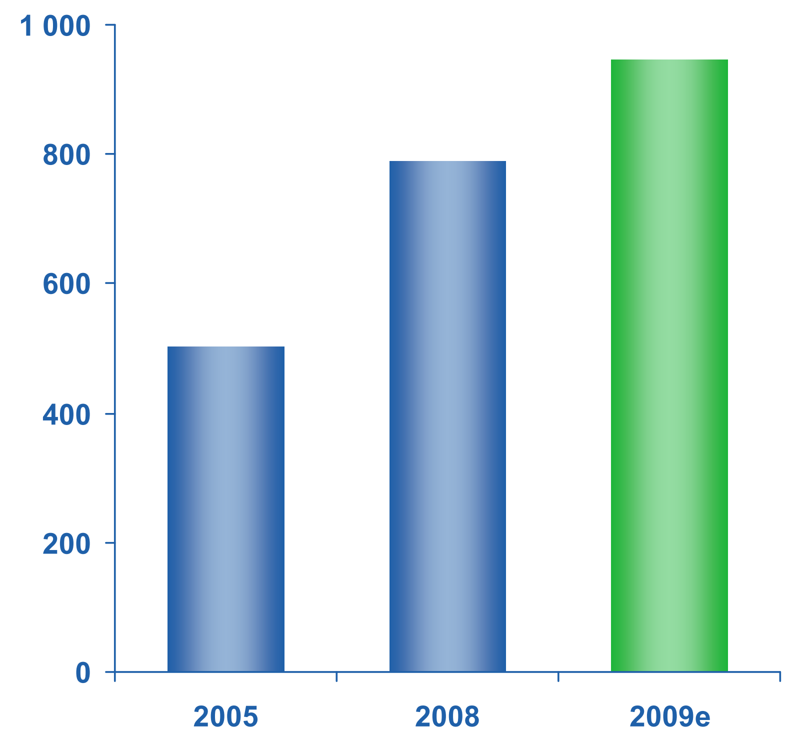
(1) On a comparable basis
(2) Sanofi Pasteur internal estimates

Well Established Leadership in Pediatrics

- **Leading manufacturer of tailored multivalent combinations**
  - Launched Pentacel® in the U.S., first 5-in-1 pediatric combination
  - Launched PENTAXIM™ in key international public markets
- **Launched ActHib® in Japan**

  - First international vaccine company to enter Japan
- **Future growth to be driven by**
  - Continuous uptake of pediatric combos
  - Future launch of hexavalent combos
  - Shantha's currently marketed and in development pediatric combos

Sanofi Pasteur Pediatric Vaccines Net Sales[1] (€m)



(1) At 2009 exchange rate

The Broadest Influenza Offering in the Industry

sanofi aventis
Because health matters

Current Influenza Portfolio

- **Seasonal**
  Northern & Southern Hemisphere
  Fluzone® INFLUENZA VIRUS VACCINE VAXIGRIP®
- **Pandemic**
  U.S. H5N1 & H1N1 antigens
  E.U. H1N1 Panenza™ (non-adjuvanted)
- **New differentiated offering**
  E.U. intradermal vaccine
  intanza® Influenza vaccine (split virion, inactivated)
- **2008 net sales of €736m**

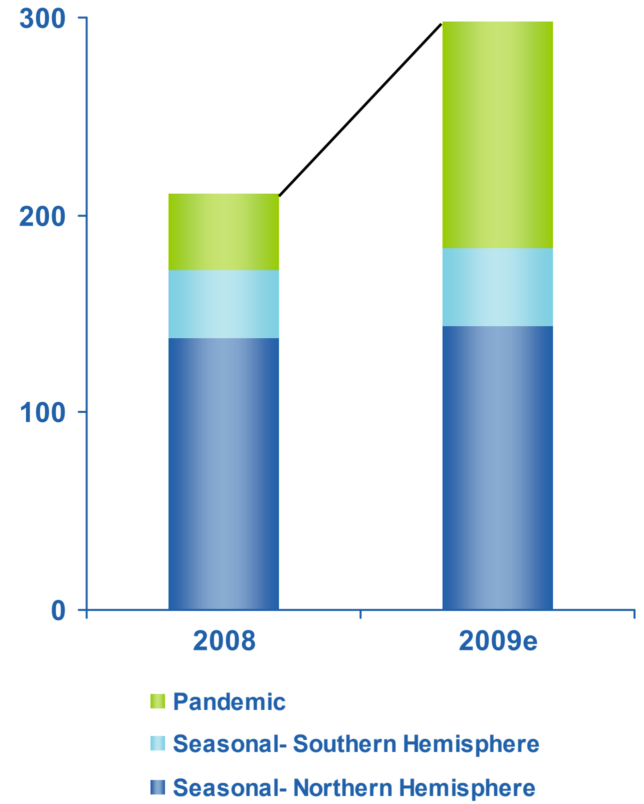
Late-stage Development

- **Intradermal**
  Fluzone® ID
- **Elderly**
  Fluzone® High Dose IM

The Most Reliable Supply of Influenza Vaccines

- **Over 180m doses of trivalent seasonal influenza for 2009**
  - **~40% of Northern Hemisphere market**
  - **~75% of Southern Hemisphere market**
- **Over 250m doses of A/H1N1 vaccine commitments for 2009-2010**
  - **US (87md), Brazil (41md), France (28md), Mexico (18md) and numerous other countries**
- **Egg-based technology remains the most reliable technology**
- **Potential breakthrough with new universal flu vaccine (ACAM-Flu-A)**

Projected Sanofi Pasteur Influenza Global Supply (in million doses)

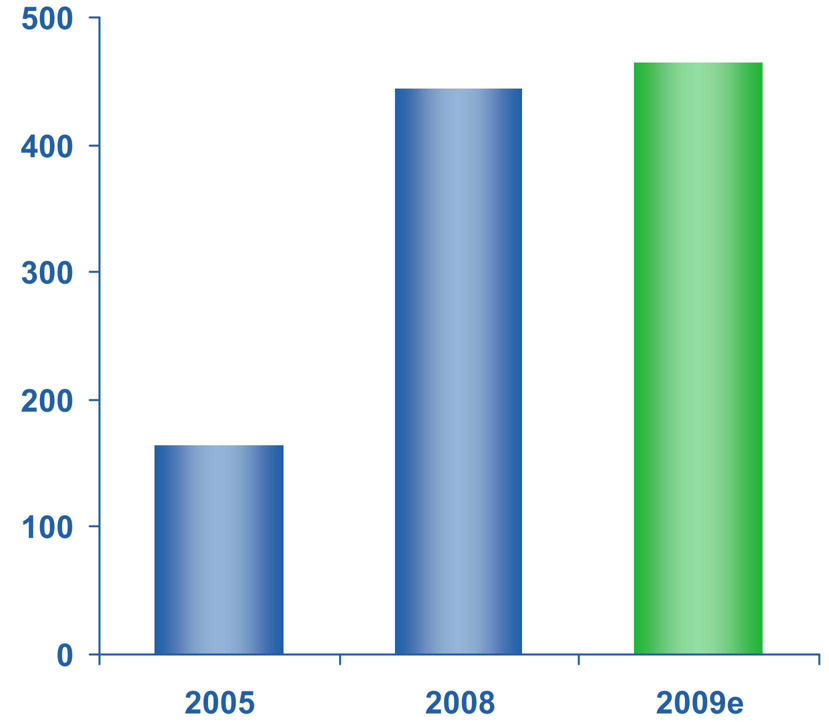


A Leadership Position in Meningitis

- **Well-established #1 position with Menactra®**
  - Protects against the 4 most common serotypes (A, C, Y, and W-135) in the U.S.
- **Additional capacity expected to come on line by end of 2010 (20md)**
- **Next wave of growth projected to come from untapped opportunities**
  - Menactra® launches outside North America starting in 2010 with Latin America & Middle East, and in 2011-14 in all other regions
  - Menactra® Infant/Toddler 9-12 months in the U.S.

Menactra®

Net Sales since Launch (€m)[1]



(1) At 2009 exchange rate

A Strong Travel, Endemic and Emerging Vaccines Portfolio

sanofi aventis
Because health matters

- **World's leading supplier of Rabies vaccines (€97m sales in 2008)[(1)]**
  - **20m people in 100 countries treated over the past 20 years**
  - **Strong position in Asia and Africa with** VERORAB™ The Rabies Vaccine You Can Trust
  - **Continuously improving our biological products with state of the art technologies**
    - 2nd generation vero rabies vaccine in development (VRVg)
    - Partnership with Crucell on rabies monoclonals

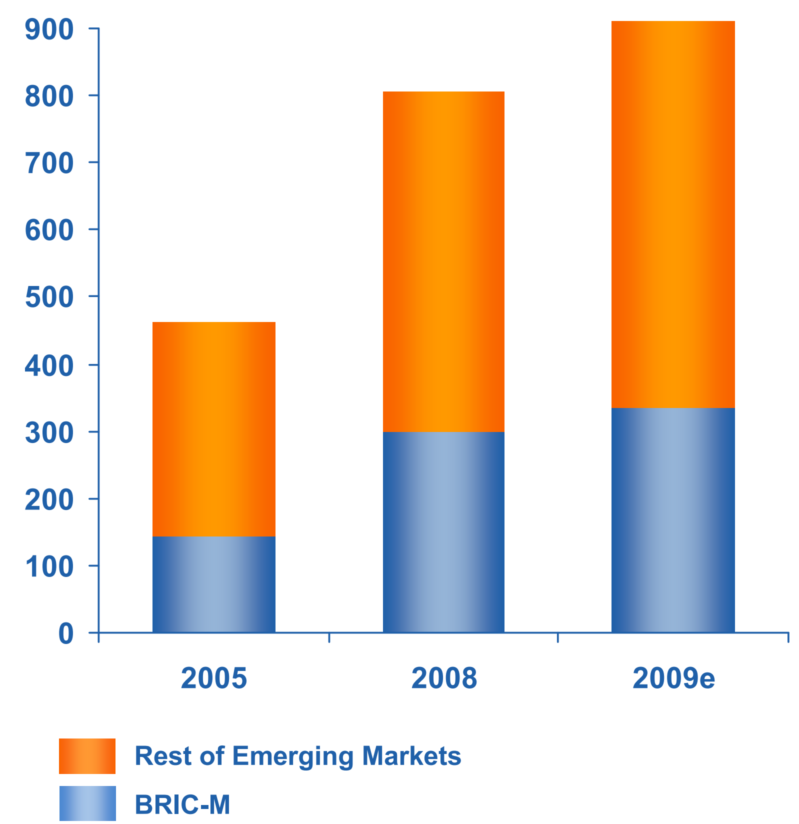
- **Developing novel vaccines adapted to local needs**
  - IMOJEV™ Japanese encephalitis vaccine (live, attenuated) **Japanese Encephalitis (registration)**
  - **Dengue (Phase IIb)**
  - **Rotavirus (Shantha / about to enter Phase I)**

(1) Rabies and Immunoglobulin sales for 2008

A Leading Position in the "South"

- #1 in Brazil, India, Mexico, Turkey and South Africa; #1 multinational company in Russia and China
- Sales growing double-digit
- Broad portfolio adapted to growing need
- New pipeline projects
- Local partnerships
- Shantha to drive future growth

Sanofi Pasteur
Emerging Markets Net Sales(1) (€m)



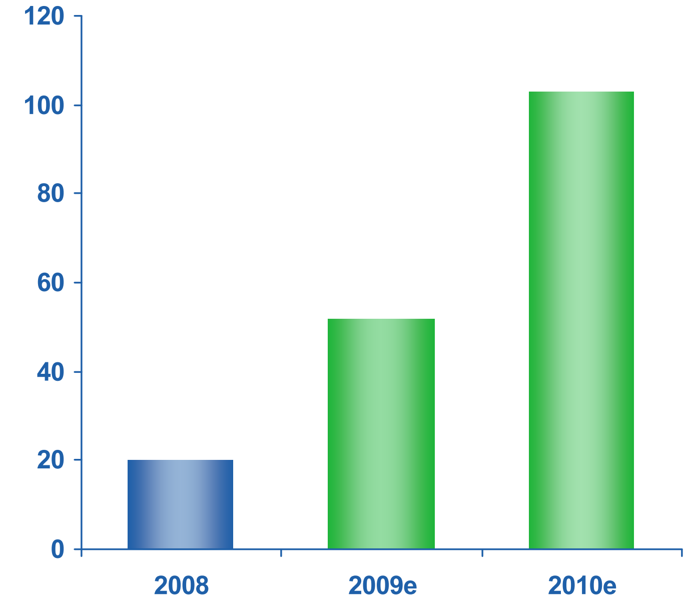
(1) At 2009 exchange rate

Shantha to Further Fuel our Growth

- Portfolio of affordable vaccines
  - Indian public market
  - Other emerging markets
  - International Funded Public Markets (UNICEF, GAVI, etc.)
- 4 WHO pre-qualified vaccines(2)
  - Shan5®, Shantetra®, ShanTT® and Shanvac-B®
  - Shanchol™, 1st oral cholera vaccine introduced in India, seeking WHO pre-qualification
- Proven track record in UNICEF/PAHO/NGOs supply
  - $340 million/ 3-year Shan5® contract awarded

SHANTHA

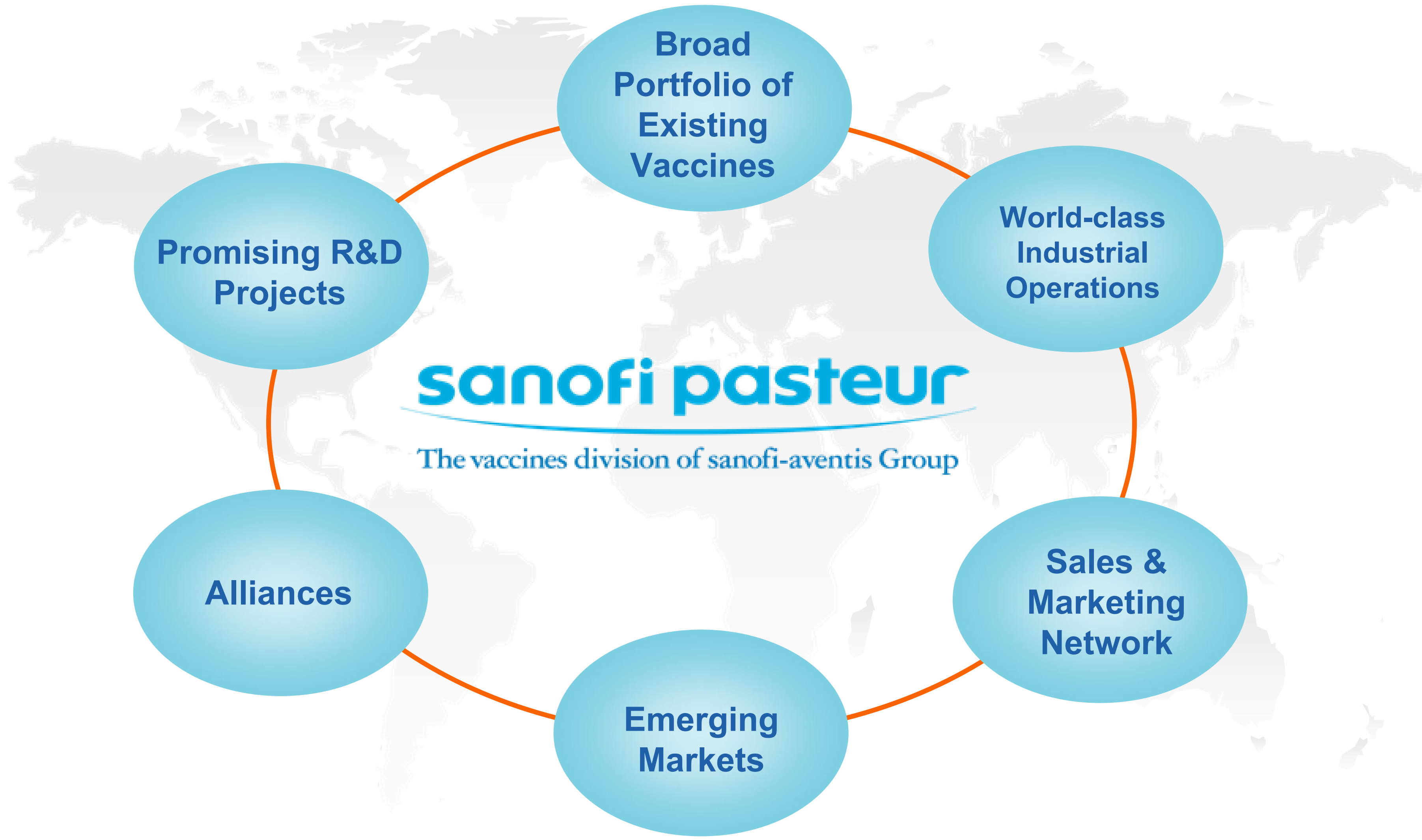
Projected Sales Growth(2) (€m)



(1) Shan5® (Diphtheria, Tetanus, wholecell Pertussis, Hib, Hep. B), Shantetra® (D, T, wcP, Hep. B), ShanTT® (Tetanus) and Shanvac-B® (hep. B.)
(2) Proforma and at comparable perimeter

Sanofi Pasteur Enjoys Strong Fundamentals for Long-Term Sustainable Growth

sanofi aventis
Because health matters



sanofi pasteur
The vaccines division of sanofi-aventis Group

Driving Growth Through Innovation

Michel DeWilde

Senior Vice President, Research & Development

Driving Growth Through Innovation

- R&D Portfolio Update
- Transforming our R&D
- Late-stage Projects
  - Influenza
  - Menactra® Infant-Toddler
  - IMOJEV™
- Mid-stage Projects
  - Dengue
  - C. Difficile
- Early-stage Projects
  - Overview
  - Universal flu
- Exploratory Portfolio

Moving R&D Projects Forward in 2009

sanofi aventis
Because health matters

Main Achievements in R&D Pipeline in 2009

New Regulatory Approvals	Intanza™ intradermal influenza vaccine approved in EU Panenza™ non-adjuvanted pandemic H1N1 flu vaccine approved in France, Spain and Turkey A/H1N1 influenza vaccine approved in the U.S.
New Regulatory Submissions	Fluzone® High Dose IM submitted in the U.S. Humenza™ adjuvanted pandemic H1N1 flu vaccine submitted in EU IMOJEV™ Japanese Encephalitis submitted in Australia and Thailand Pediacel®(1) submitted in EU
Development Phase Progress	Dengue moved to Phase IIb ACAM-C.difficile moved to Phase IIb VRVg(2) moved to Phase II Men ACYW conjugate 2nd generation moved to Phase II

(1) DTP-IPV-HiB vaccine (Diphtheria, Tetanus, Pertussis, Inactivated Polio, Haemophilus Influenzae Type b)
(2) Purified Vero Rabies Vaccine

A Solid R&D Pipeline to Fuel our Growth

sanofi aventis
Because health matters

Phase I

- **Tuberculosis** – Prevention of disease
- **Flu Pandemia** – Low dose
- **Pneumo** – Meningitis & pneumonia in infants (monovalent)

Phase II

- **Flu Cell Culture** – New production method
- **DTP-HepB-Polio-Hib**
- **Dengue** – Mild-to-severe dengue fever vaccine
- **Rabies** – mAb Post Exposure prophylaxis
- **ACAM-C.diff.** – Prevention of C. *difficile* associated diarrhea
- **Rabies VRVg** – Purified Vero Rabies Vaccine
- **Meninge ACYW conj.** – 2nd generation Meningitis in infants

Phase III

- **Fluzone® ID** – Seasonal influenza, U.S. Intradermal micro-injection
- **Hexaxim™** – DTP-HepB-Polio-Hib vaccine
- **Adacel®** – Diphtheria, tetanus and pertussis 4-6 years of age
- **Menactra®** – Meningococcal disease Infant / Toddler 9-12 months

Registration

- **IMOJEV™** – Japanese Encephalitis single-dose vaccine
- **Flu High Dose IM** – Seasonal influenza vaccine High-dose IM injection, U.S.
- **Pediacel® EU** – DTP-Polio-Hib vaccine
- **Humenza®** – Adjuvanted pandemic H1N1 EU

Primary Target Market

- North
- South
- North & South

Projects removed from portfolio

- West Nile: Phase II clinical trial completed; project put on hold ready to move forward if a shift in disease epidemiology is observed
- HIV: Phase III clinical trial in Thailand completed; follow-up studies in discussion with multiple partners

A Balanced R&D Portfolio

sanofi aventis
Because health matters

Phase I	Phase II	Phase III	Registration
Tuberculosis Prevention of disease	**Flu Cell Culture** New production method	**Fluzone® ID** Seasonal influenza, U.S. Intradermal micro-injection	**IMOJEV™** Japanese Encephalitis single-dose vaccine
Flu Pandemia Low Dose	**DTP-HepB-Polio-Hib**	**Hexaxim™** DTP-HepB-Polio-Hib vaccine	**Flu High Dose IM** Seasonal influenza vaccine High-dose IM injection, U.S.
Pneumo Meningitis & pneumonia in infants (monovalent)	**Dengue** Mild-to-severe dengue fever vaccine	**Adacel®** Diphtheria, tetanus and pertussis 4-6 years of age	**Pediacel® EU** DTP-Polio-Hib vaccine
	Rabies mAb Post Exposure prophylaxis	**Menactra®** Meningococcal disease Infant / Toddler 9-12 months	**Humenza®** Adjuvanted pandemic H1N1 EU
	ACAM-C.diff. Prevention of C. *difficile* associated diarrhea		
	Rabies VRVg Purified Vero Rabies Vaccine		
	Meninge ACYW conj. 2nd generation Meningitis in infants		

Novel Target: Tuberculosis, Flu Pandemia, Pneumo, Dengue, Rabies, ACAM-C.diff., IMOJEV™, Humenza®

Enhancement/ Extension: Flu Cell Culture, DTP-HepB-Polio-Hib, Rabies VRVg, Meninge ACYW conj., Fluzone® ID, Hexaxim™, Adacel®, Menactra®, Flu High Dose IM, Pediacel® EU

One Third of Clinical R&D Pipeline Coming from External Partnerships

sanofi aventis
Because health matters

Phase I	Phase II	Phase III	Registration
Tuberculosis **Statens Serum Institute**	**Flu Cell Culture** **Crucell**	**Fluzone® ID** **Becton Dickinson**	**IMOJEV™** Japanese Encephalitis single-dose vaccine
Flu Pandemia H5N1 & H1N1 adjuvanted US	**DTP-HepB-Polio-Hib** **Merck & Co.**	**Hexaxim™** DTP-HepB-Polio-Hib vaccine	**Flu High Dose IM** Seasonal influenza vaccine High-dose IM injection, U.S.
Pneumo **Multiple Academia**	**Dengue** Mild-to-severe dengue fever vaccine	**Adacel®** Diphtheria, tetanus and pertussis 4-6 years of age	**Pediacel® EU** DTP-Polio-Hib vaccine
	Rabies **Crucell**	**Menactra®** Meningococcal disease Infant / Toddler 9-12 months	**Humenza®** Adjuvanted pandemic H1N1 EU
	ACAM-C.diff. Prevention of C. *difficile* associated diarrhea		
	Rabies VRVg Purified Vero Rabies Vaccine		
	Meninge ACYW conj. 2nd generation Meningitis in infants		

Partnered Programs

Driving Growth Through Innovation

- R&D Portfolio Update
- **Transforming our R&D**
- Late-stage Projects
  - Influenza
  - Menactra Infant-Toddler
  - IMOJEV
- Mid-stage Projects
  - Dengue
  - C. Difficile
- Early-stage Projects
  - Overview
  - Universal flu
- Exploratory Portfolio

Acceleration of Product Delivery Through Transformation

- Geographical footprint changes to create larger resource pools
- Regional approach for project execution

North America | Europe | Asia-Pacific

Every day, the company invests more than €1m in R&D

~1,700 R&D workforce

Driving Growth Through Innovation

- R&D Portfolio Update
- Transforming our R&D
- Late-stage Projects
  - Influenza
  - Menactra Infant-Toddler
  - IMOJEV
- Mid-stage Projects
  - Dengue
  - C. Difficile
- Early-stage Projects
  - Overview
  - Universal flu
- Exploratory Portfolio

Pursuing Differentiating Influenza Approaches

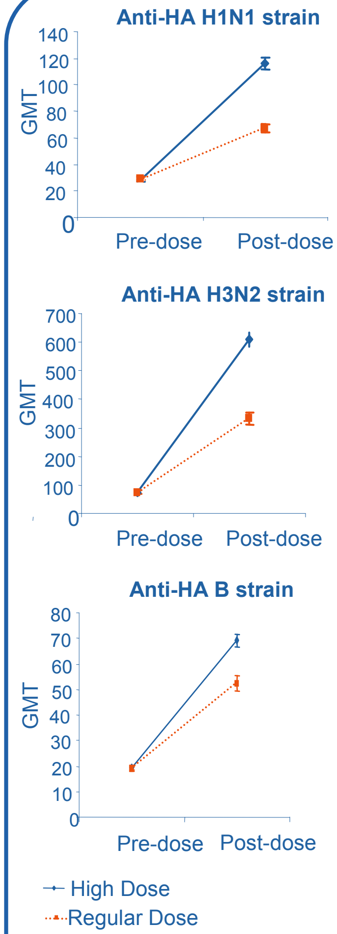
intanza Intra-dermal approach in adults

- First intradermal influenza vaccine
- Licensed in Europe
- U.S. project in Phase III
  - Submission in Q1 2010

Fluzone® High Dose IM(1) in elderly (US)

- Increased immune response among adults 65+
- Very stringent CBER criteria for superiority met
- CBER action date is January 2, 2010
- Large effectiveness study launched in Sept 2009 (9,000 patients recruited in 6 weeks)

GMT Ratio Comparison between Fluzone® and Fluzone® HD IM

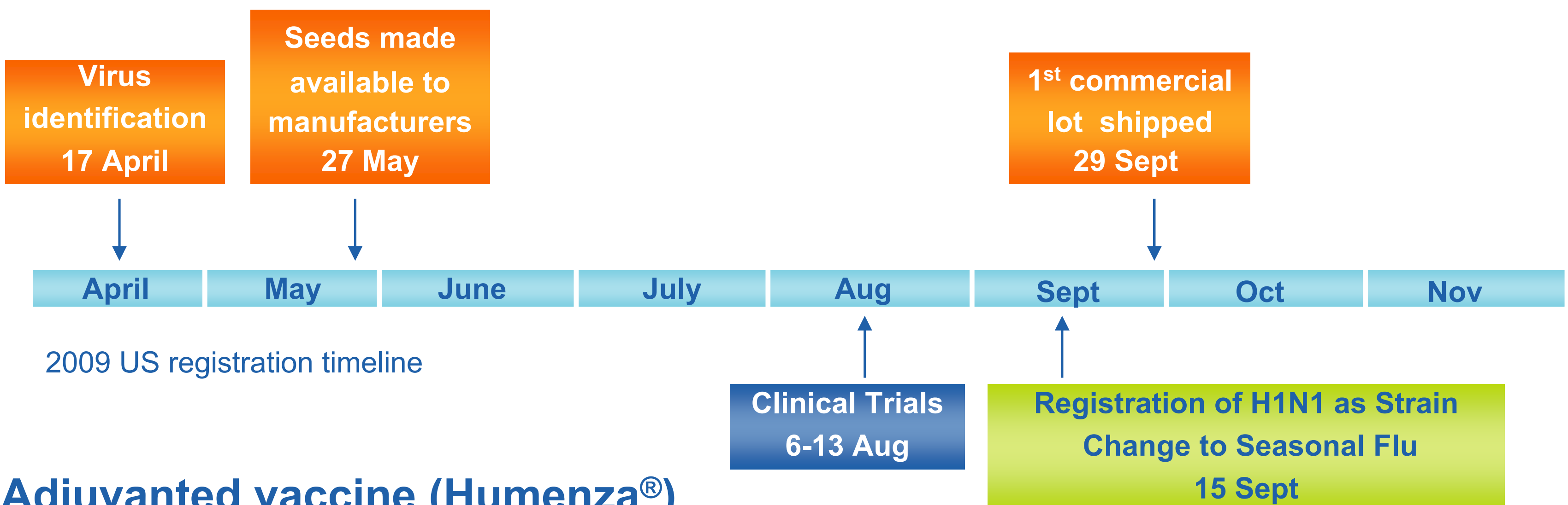


HA – Haemagglutinin
GMT – Geometric Mean Titer

(1) Intramuscular

Update on H1N1

- Unadjuvanted vaccine (Panenza® and US A/H1N1)
  - 3,478 adults and 2,474 children involved in clinical trials
  - Safety consistent with seasonal influenza vaccine
  - Protective antibody levels across all age groups
  - Expedited licensing process in U.S. and EU

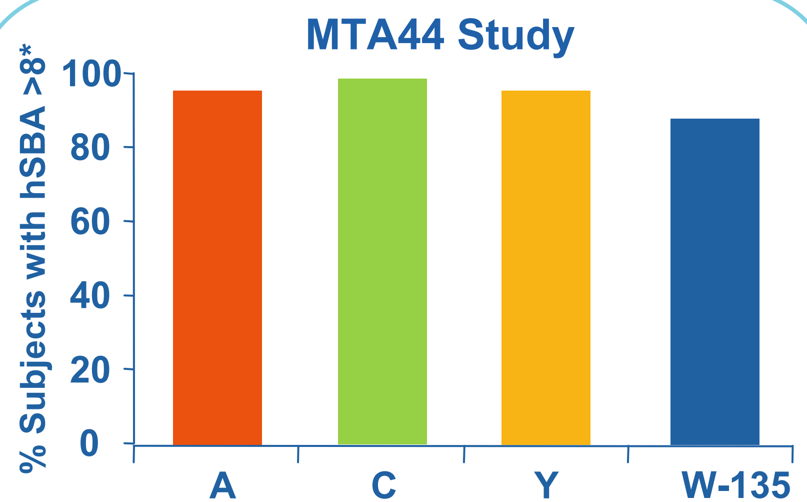


2009 US registration timeline

- Adjuvanted vaccine (Humenza®)
  - Under review by EMEA

Update on Menactra® Infant-Toddler U.S. Submission

- Three Pivotal Clinical Studies completed in support of the Menactra® 9-12 Infant-Toddler indication
- No safety concerns
- Immunogenic for all 4 serogroups by SBA-HC (>90% achieving a titer ≥8)
- Supplemental testing requested by the FDA
  - Testing ongoing
  - Submission planned for Q1 2010



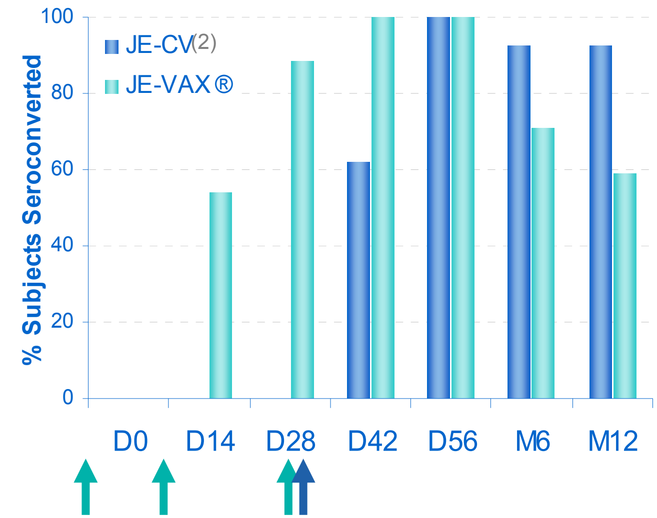
*CBER requirement
hSBA: Human Complement Mediated Bactericidal Antibodies

New and Only Single-dose Japanese Encephalitis Vaccine

- **Mosquito-borne flaviviral infection endemic in Asia**
  - **50,000 cases per year[1]**
  - **>10,000 deaths**
  - **Up to 50% of survivors with neurological sequel**

- **IMOJEV™ Japanese encephalitis vaccine (live, attenuated) is a live attenuated vaccine that confers high level protection in just one dose**
  - **Submitted in July 2009 in Thailand and Australia**
    - **Adult and children (>12 months) populations**
    - **Submission in India planned for 2012**
  - **First approval expected mid-2010**

Distribution of Japanese Encephalitis in Asia 1970-1998



(1) Sources: WHO and CDC
(2) JE-CV: Imojev™

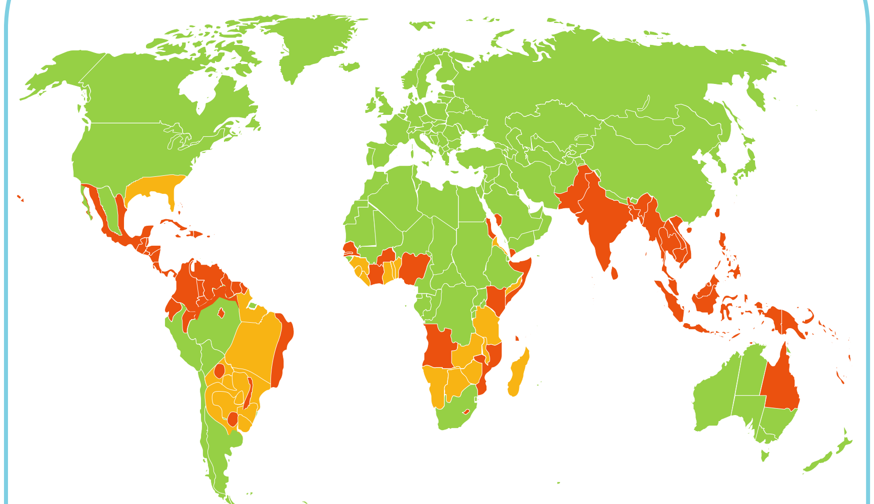
Driving Growth Through Innovation

- R&D Portfolio Update
- Transforming our R&D
- Late-stage Projects
  - Influenza
  - Menactra Infant-Toddler
  - IMOJEV
- **Mid-stage Projects**
  - **Dengue**
  - **C. Difficile**
- Early-stage Projects
  - Overview
  - Universal flu
- Exploratory Portfolio

Dengue: A Growing Health Concern

- Mosquito-borne disease; 2nd most widespread tropical disease after Malaria
- 2.5bn people in tropical and subtropical region; annual incidence of 50-100m cases
  - Increasing geographic spread and burden of disease
  - High economic burden in endemic countries
- No effective drug treatments
- No effective prevention

Global Prevalence of Dengue[1]



Areas infested with Aedes aegypti

Areas with Aedes aegypti and dengue epidemic activity

(1) Sources: WHO

Dengue: A Growing Health Concern

sanofi aventis
Because health matters

O GLOBO | PAÍS

DEU NA FOLHA DE S.PAULO

Casos de dengue batem recorde no país

Com 788 mil casos de dengue registrados de janeiro a novembro de 2008, bateu o recorde de notificações da doença no país. O máximo de casos ha[...] registrado em 2002, quando foram informadas 695 mil contaminações no [...] [...]r dengue hemorrágica também foi o maior da históri[...]

ScienceDaily
Your source for the latest research news

Dengue Fever Is A Potential Threat To US Public Health, Experts Say

ScienceDaily (Jan. 9, 2008) — A disease most Americans have never heard of could soon become more prevalent if dengue, a flu-like illness that can turn deadly, continues to expand into temperate climates and increase in severity, according to a new commentary by Anthony S. Fauci, M.D., director of the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health, and David M. Morens, M.D., Fauci's senior scientific advisor.

See Also:

Health & Medicine
- Viruses
- Diseases and Conditions
- Infectious Diseases
- Chronic Illness

Previously confined to tropical and subtropical climates, the mosquito-borne illness is becoming a much more serious problem along the U.S.-Mexico border and in the commonwealth of Puerto Rico. Dengue occurs sporadically and has had a relatively small impact on the United States thus far, so the

The New York Times

The War on Dengue

By THOMAS FULLER
Published: November 3, 2008

BANGKOK — There was little that doctors could do for a 3-year-old boy brought to Bangkok's main children's hospital two weeks ago with dengue fever. Like thousands before him, he had reached the most dangerous phase of the disease, dengue shock syndrome, and he died of internal bleeding and organ failure three days after being admitted.

The Economist

Dengue fever

A deadly scourge

Apr 19th 2007 | MEXICO CITY
From *The Economist* print edition

Millions at risk as a new outbreak of dengue fever sweeps Latin America

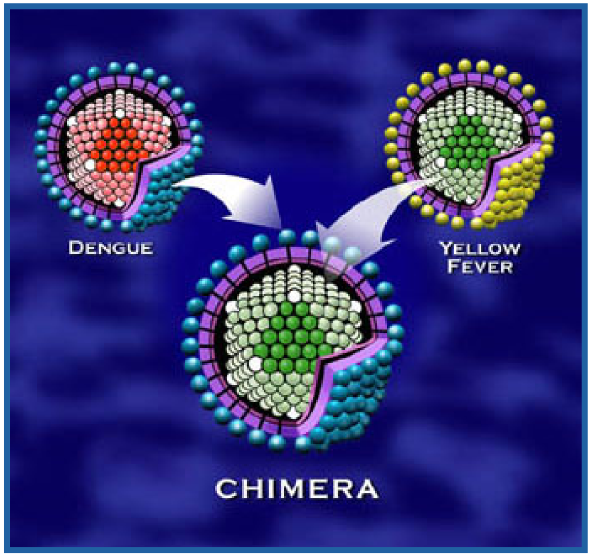
THERE is no vaccine. There is also no good way to treat it—just fluids and the hope that the fever will break. At first it seems like a case of severe flu, but then the fever rises, accompanied by headaches, excruciating joint pain, nausea and rashes. In its most serious form, known as dengue haemorrhagic fever (DHF), it involves internal and external bleeding and can result in death. Fuelled by climate change, dengue fever is on the rise again throughout the developing world, particularly in Latin America.

Mexico identified 27,000 cases of dengue fever last year, more than four times the number in 2001. In El Salvador, whose population is not much more than 6% of Mexico's, the number soared to 22,000 last year, a 20-fold increase on five years earlier. Uruguay recently reported its first case in 90 years. In Brazil, 135,000 cases were diagnosed in the first three months of this year, a rise of about a third over the same period last year. Paraguay, the country worst affected in relation to population size, has reported more than 25,000 cases so far this year, six times the total for the whole of last year—and even this is probably an underestimate.

Our Approach to Dengue Vaccine Development

sanofi aventis
Because health matters

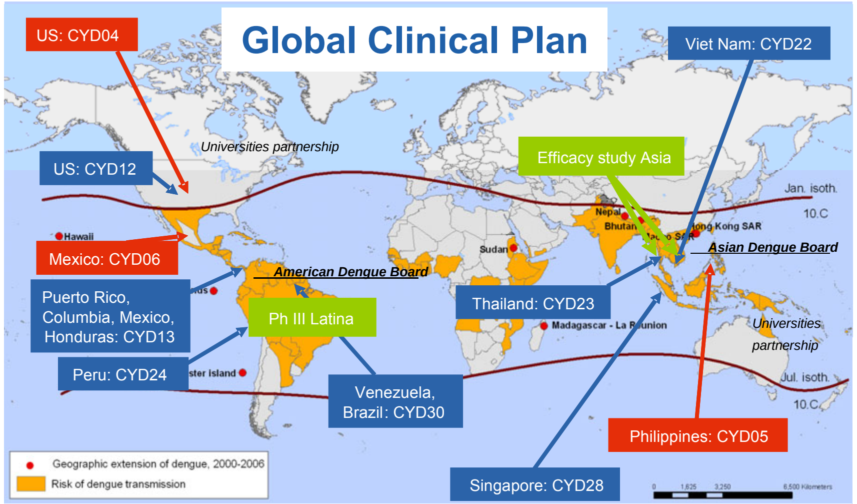
- Protection against each of the four serotypes necessary
- Multiple approaches tested by Sanofi Pasteur
- Selected ChimeriVax™ technology
- Achievements to date:
  - Genetic stability established
  - Good safety profile
  - High seroconversion rate against ALL FOUR serotypes
  - Production in proprietary Vero cell line in serum free conditions and high yields established



Developing a Safe and Effective Tetravalent Vaccine against Dengue

sanofi aventis
Because health matters

- **Expected to be first to market**
  - **Market estimated to be over €1 billion**
  - **Planned submission in 2013 (Thailand, Australia, Singapore and Malaysia)**
- **Clinical Development**
  - **Phase IIb study ongoing in Thailand**
  - **Other ongoing trials in endemic regions in all age groups**
  - **Phase III planned to start during 2nd half of 2010**
- **Groundbreaking of our largest ever investment**
  - **100m dose capacity**
  - **Bulk facility planned to be on line by end of 2013**



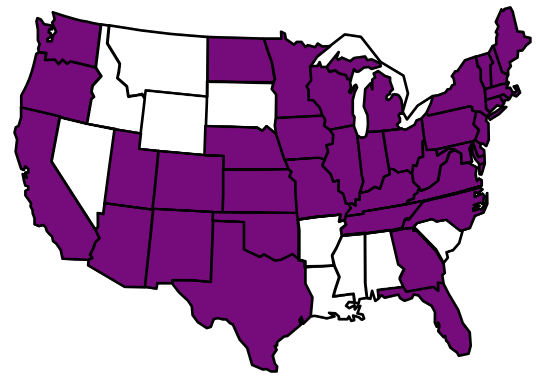
Dengue Facility Under Construction in Neuville, France

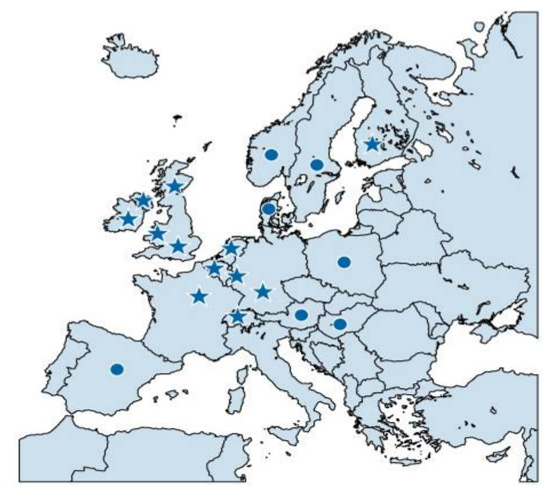
In the Global Clinical Plan, CYD is the study ID number

Medical Need for *C.difficile* Intervention Continues to Rise

- **Major health care problem**
  - **Increasing disease incidence and severity**
  - **20-65% recurrence rate; increase in antibiotic-resistant strains**
  - **Substantial financial burden: ~$7bn annually for U.S. and EU**
- **Despite hygiene and antibiotics, burden of *C. difficile* infection will continue to be a problem due to:**
  - **Persistent, continuous spread of hyper-virulent and antibiotic-resistant strains**
  - **Increase in number of community-acquired cases**
  - **Growing elderly population**
- **Vaccine's primary focus is the prevention of *C.difficile* associated diarrhea**

Distribution of CD027 Strain in the U.S. and EU, 2008[1]





Sporadic cases due to Type 027

Outbreaks due to Type 027

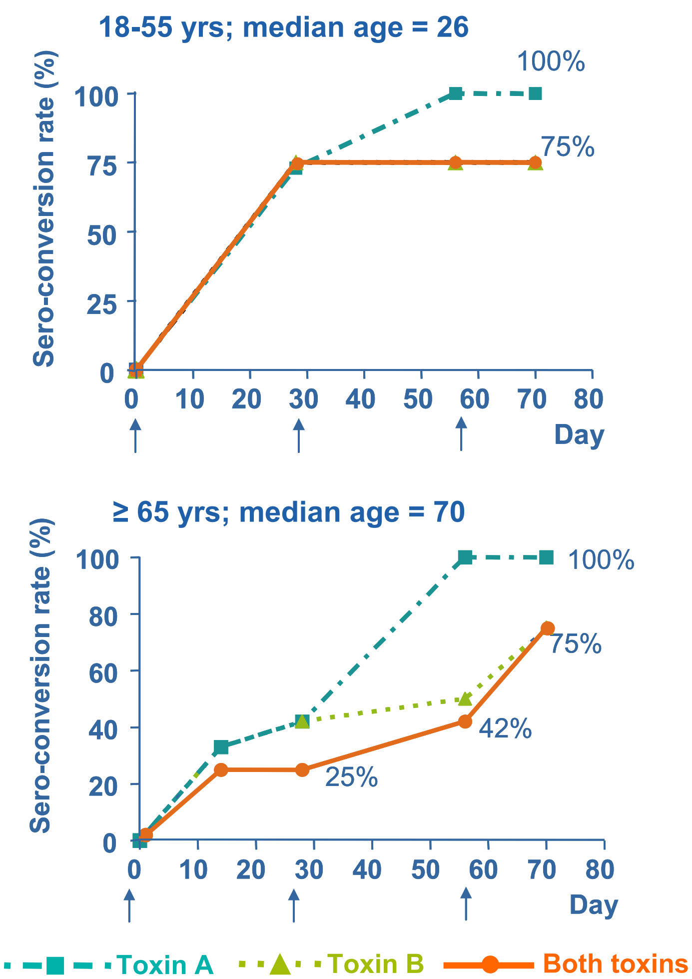
(1) Source: CDC, L. Clifford McDonald, MD, FACP, FSHEA Division of Healthcare Quality Promotion

ACAM-CDIFF™: Only *C. difficile* Vaccine in Clinical Development

sanofi aventis
Because health matters

- **Expected to be first to market**
  - Global market estimate to be over €650m
- **Toxoid vaccine**
  - Multiple protective epitopes across large toxins
  - Optimal cross-protection against pathogenic strains
- **Ongoing Prevention of Recurrence Phase II Trial**
  - UK Phase II trial initiated in February 2009
  - Additional trial started in the U.S. in December 2009
- **Phase II prophylaxis trial planned to start during the 2nd half of 2010**

Seroconversion in Young vs. Elderly, Healthy Subjects (50 µg)



Driving Growth Through Innovation

- R&D Portfolio Update
- Transforming our R&D
- Late-stage Projects
  - Influenza
  - Menactra Infant-Toddler
  - IMOJEV
- Mid-stage Projects
  - Dengue
  - C. Difficile
- **Early-stage Projects**
  - **Overview**
  - **Universal flu**
- Exploratory Portfolio

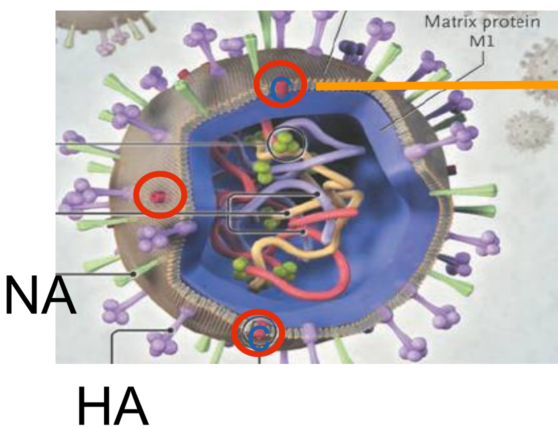
Early Development Pipeline Overview

- **7 projects in pre-clinical stage**
  - **5 novel targets**
  - **2 recent additions from Shantha**
  - **All partnered**

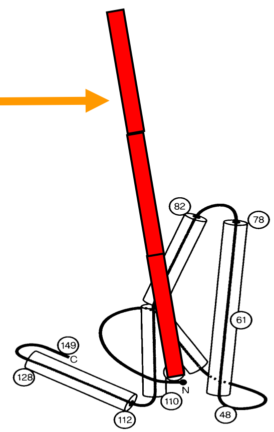
ACAM-FLU-A	HPV-L2 (Shantha)
Meninge B	Rotavirus (Shantha)
Chlamydia Trachomatis	
Cytomegalovirus	
Pneumo Protein	

ACAM-FLU-A: A Universal Influenza Vaccine Approach

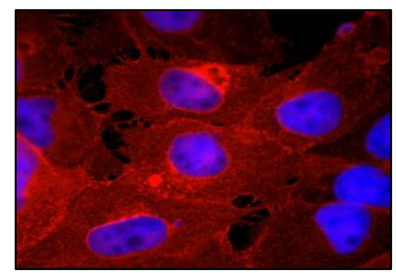
- Based on M2 antigen which is common to all influenza A viruses
  - Sequence is highly conserved across human, porcine, and avian viruses
  - Different mechanism of action than HA/NA vaccines
- Potential opportunities for M2 vaccine
  - Pre-pandemic vaccine
  - Adjunct to seasonal vaccine: could increase seasonal coverage in case of strain mismatch



Influenza Virus



Vaccine Candidate
(hepatitis B core antigen with 3 copies of M2e)



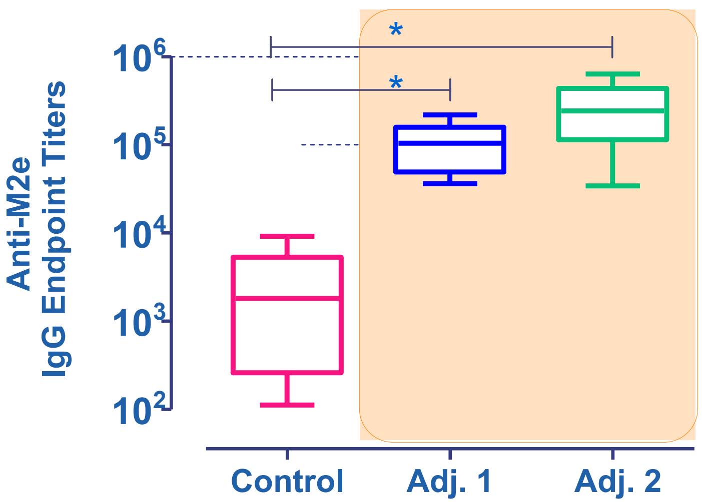
M2 is abundant in virus infected cells

Vaccine Candidate (ACAM-FLU-A) Pre-Clinical Data

sanofi aventis
Because health matters

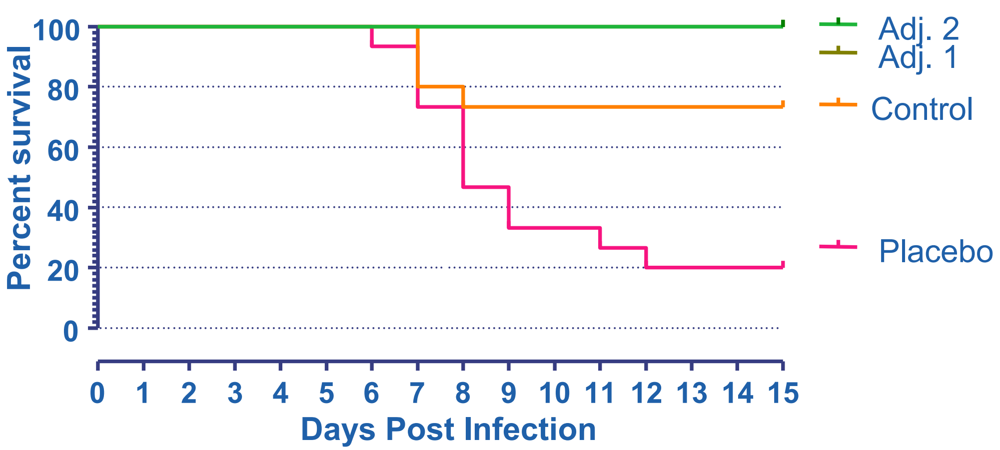
Cross reactivity with swine H1N1 M2e peptide

(d35, 2 doses x 0.5 µg ACAM-Flu-A)



* P <0.05% Kruskal-Wallis

Survival proportions after challenge with $4LD_{50}$ H1N1
(2 doses - 0.5 µg Acam-Flu-A)



Formulations with Sanofi Pasteur's proprietary adjuvants:

- **Generate stronger antibody titres against swine flu than other adjuvants evaluated to date**
- **More effective at protecting against lethal challenge than other adjuvants evaluated to date**

Driving Growth Through Innovation

- R&D Portfolio Update
- Transforming our R&D
- Late-stage Projects
  - Influenza
  - Menactra Infant-Toddler
  - IMOJEV
- Mid-stage Projects
  - Dengue
  - C. Difficile
- Early-stage Projects
  - Overview
  - Universal flu
- **Exploratory Portfolio**

Several Exciting Targets in the Exploratory Portfolio

- Exploratory portfolio of 14 projects
  - 8 viral
  - 6 bacterial
  - 11 novel targets
- 90% of projects involve a partnership with academia or a biotech
- Recent partnerships
  - CSL – periodontal disease
  - Syntiron – *staph. aureus* infections
- Objective to deliver 2 projects per year to the New Vaccines Portfolio

R&D Wrap-up

- A dynamic development pipeline
    - Expect 5 submissions and 2 registrations in 2010
- 7 projects in pre-clinical development
    - 5 novel targets
- An exciting exploratory portfolio
    - 11 novel targets
- Transforming initiative to accelerate time to market

sanofi pasteur
The vaccines division of sanofi-aventis Group

Strengthening Our Leadership in the North

sanofi pasteur
The vaccines division of sanofi-aventis Group

North America

Damian Braga

President, U.S.
Vice President, Americas

North America Remains #1 Vaccines Market in the World

- Population – 337 million[1]
- U.S. Vaccine segmentation
  - Birth cohort - 4.2m
  - Adolescents (10-19) - 42m
  - Young adults (20-49) - 127m
  - Adults (50-64) - 55m
  - Elderly (>65) - 39m
- Large number and rapid adoption of routinely recommended vaccines
- High uptake in targeted populations
- Highest influenza immunization rates in the world (>33%)
- Largely concentrated in 4 major players

(1) U.S. Census Bureau, World Bank
(2) Sanofi Pasteur internal estimate

A Significant Presence in North America

- **Swiftwater, Pennsylvania, U.S.**
  - 2008 Revenue - $2,491m
  - Market Share - 28%
  - Commercial Headcount ~ 970
  - Vaccine Sales Force ~ 700
  - Portfolio of 15 licensed vaccines

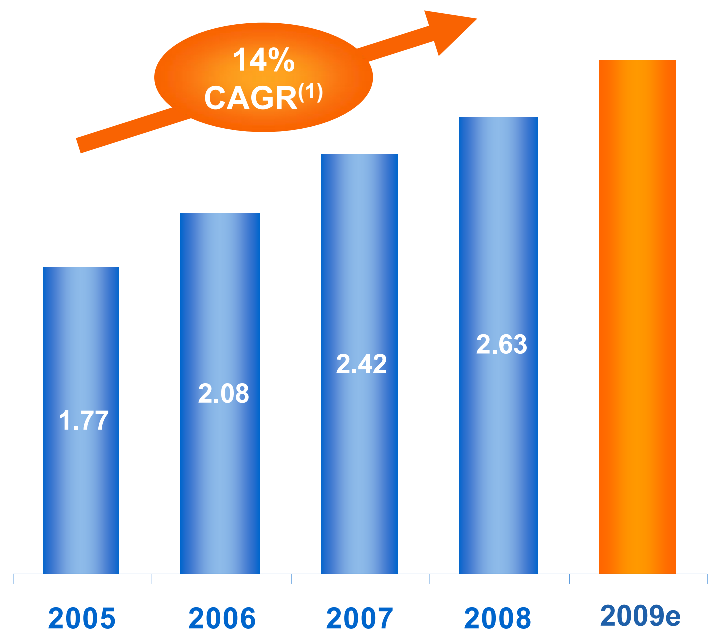
- **Toronto, Canada**
  - 2008 Revenue - CD$ 134m
  - Market Share - 27%
  - Commercial Headcount ~ 70
  - Vaccine Sales Force ~ 40
  - Portfolio of 22 licensed vaccines

A Track Record for Delivering Strong Revenue Growth

A History of First to Market

- First licensed acellular pertussis Vaccine
  Tripedia
- First routinely recommended Haemophilus Influenza Type B vaccine (Hib)
  ActHIB
- First licensed inactivated polio vaccine
  IPOL POLIOVIRUS VACCINE INACTIVATED
- First quadrivalent conjugate meningitis vaccine for adolescents
  Menactra®
- First licensed acellular pertussis vaccine for adolescents and adults
  Adacel
- First Hib containing pediatric combination vaccine for infants
  Pentacel®
- First influenza vaccine licensed for infants 6 months and above
  Fluzone® INFLUENZA VIRUS VACCINE

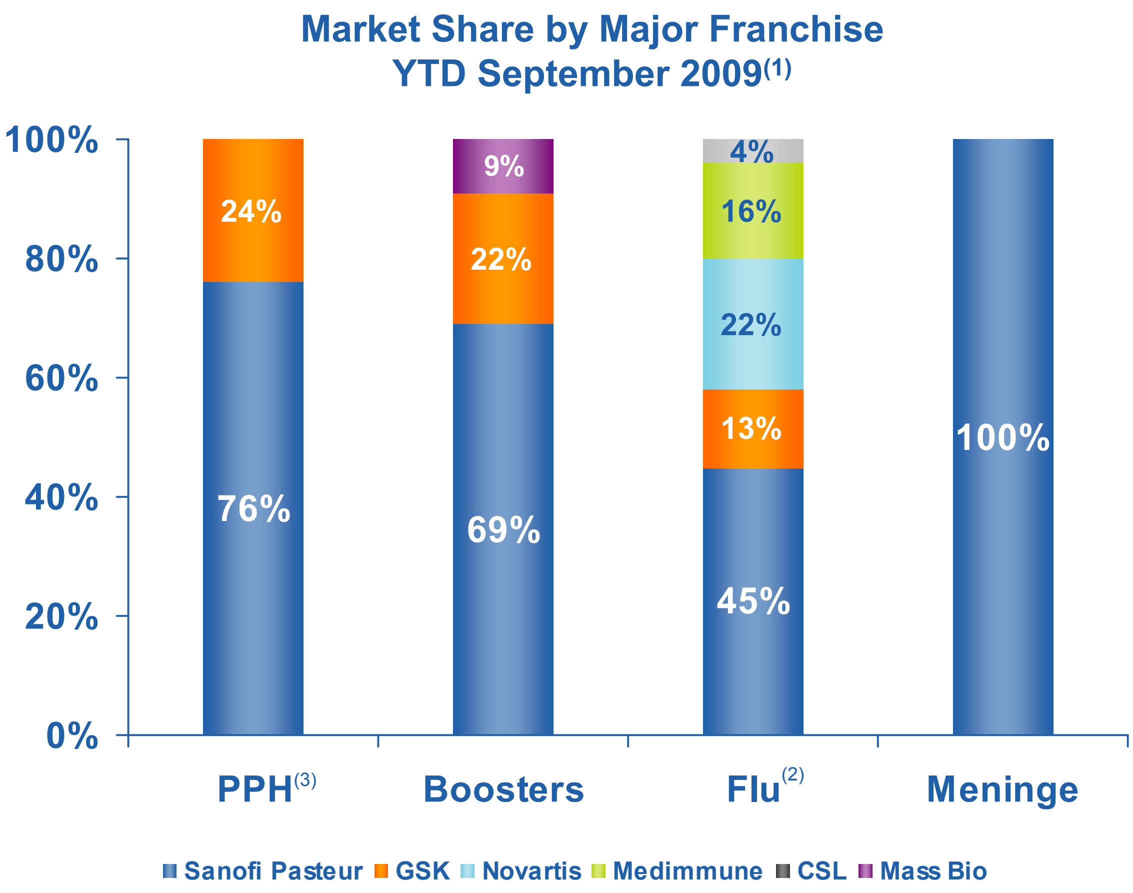
Sanofi Pasteur North America Net Sales ($bn)



(1) 2005-2008 CAGR

A Market Leader Everywhere We Compete

sanofi aventis
Because health matters



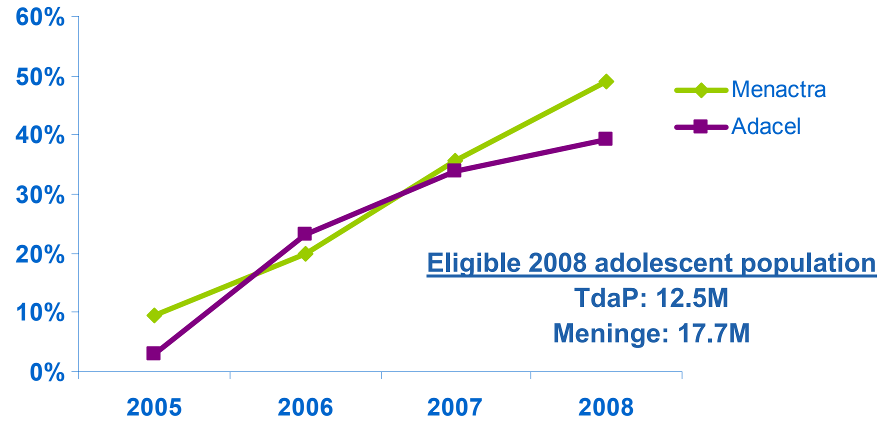
- Rapid uptake of Pentacel®, 1st Hib-containing pediatric combo
- Adacel® - market leader despite aggressive competition
- Fluzone® well entrenched leader in a crowded market
- Menactra® created the adolescent market, immunizing > 50% of all 11-18 year olds

(1) Third Quarter 2009 GSK Quarterly Earnings Statements and Sanofi Pasteur internal sales data
(2) Internal Forecasts based on published CDC and manufacturer statements
(3) PPH – polio, pertussis, hib

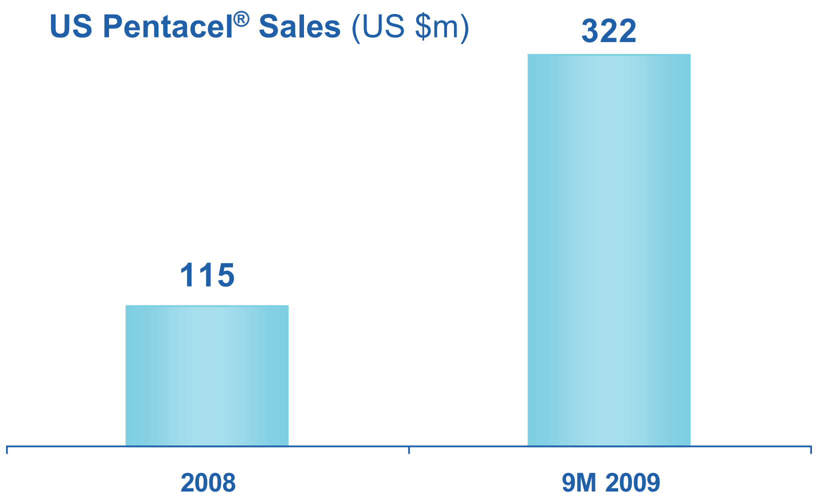
Rapid Uptake Achieved for Newly Launched Vaccines

- Lead the establishment of the adolescent market with licenses of Menactra® and Adacel®
- Established Pentacel® as the leading pediatric combination vaccine within 6 months of launch

Cumulative Penetration Rates of Eligible Adolescents[1]



US Pentacel® Sales (US $m)

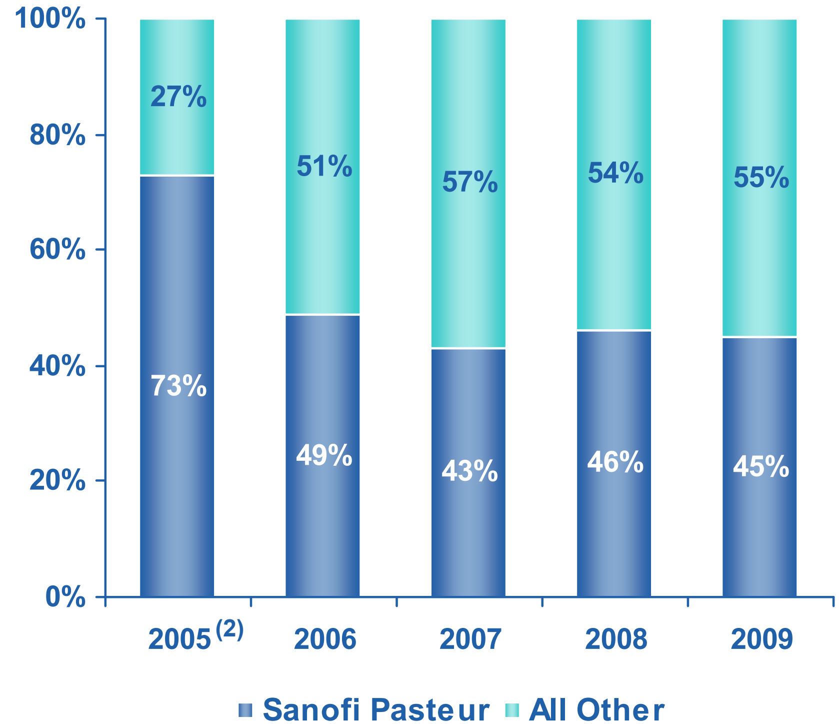


(1) Sanofi Pasteur internal estimates based on SDI Private Claims data and US Census data

Well Established Reputation as the Most Reliable Supplier of Influenza Vaccine

- **Largest U.S. based capacity (150m trivalent doses) with 2 licensed manufacturing facilities**
- **Broad indication from 6 months and above** *Fluzone®* INFLUENZA VIRUS VACCINE
- **80% of all orders shipped direct to health care providers**
- **For 2009, met all seasonal influenza commitments, while supplying 75+ million doses of H1N1 to U.S. government**

Estimated Seasonal Influenza Market Shares(1)



(1) Volume-based market share estimates based on Sanofi Pasteur internal forecasts, CDC published data and published statements by manufacturers
(2) Competitors had manufacturing problems in 2005

Four Strategies to Drive Future Growth

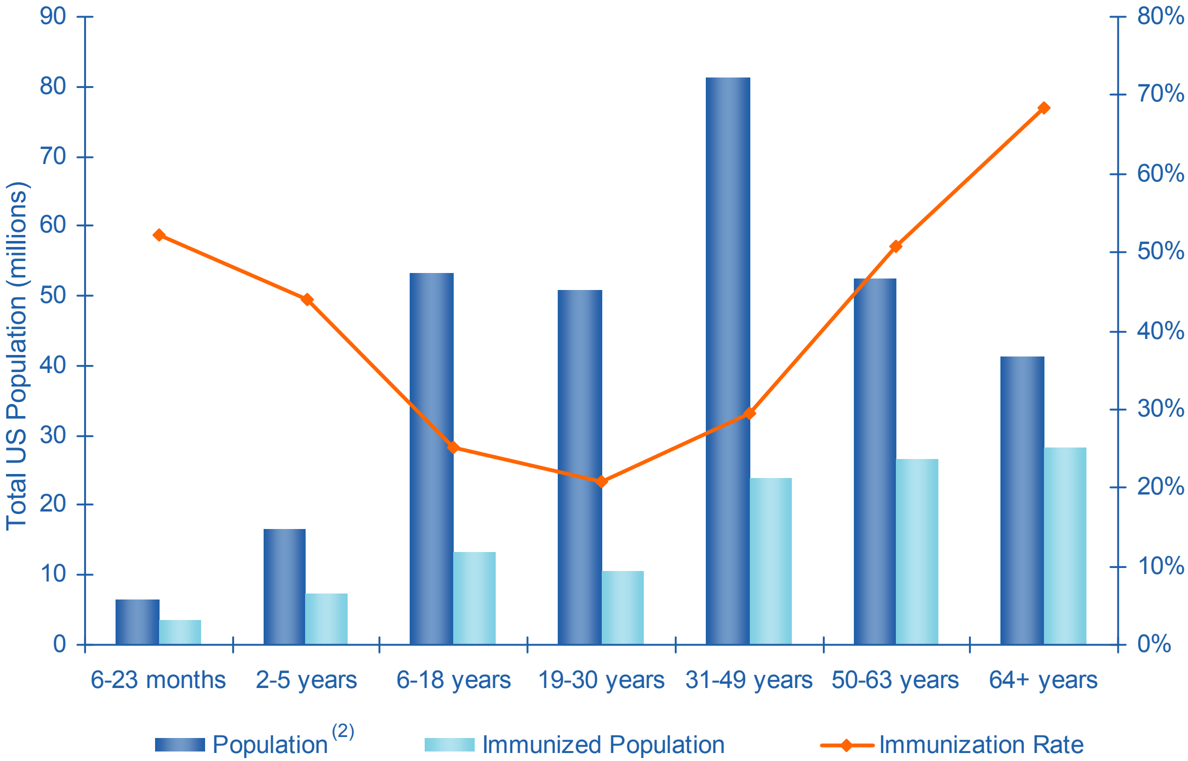
sanofi aventis
Because health matters

Strengthen Leadership Position	Expand Uptake in Healthy Adults	Address Unmet Medical Needs	Differentiate through Segmentation
■ Solidify high market shares through broad portfolio offering ■ Optimize Marketing and Sales resources focusing on highest value customers	■ Drive Adacel "key contact" strategy (50m adults eligible each year) ■ Increase awareness of influenza recommendations through Public Relations and Direct to Consumer outreach	■ Extend Menactra® to cover infants and toddlers & introduce college entrance booster ■ Prepare the market for *C. difficile* and Dengue vaccines	■ Launch Fluzone® High Dose IM for elderly ■ Launch Intradermal (ID) influenza for healthy adults

Influenza Market Growth Through Increased Immunization Rates in Targeted Populations

- **Only 115m people immunized for flu today**
- **Current recommendations cover ~ 250m people, but < 40% immunized in '08-'09[3]**
- **New product introductions will drive differentiation in targeted groups**
  - **High-dose IM: 65+**
  - **Fluzone® ID: Increase acceptance in hard to reach healthy adults**

Influenza Immunization Rates by Age Cohort, 2008[1]

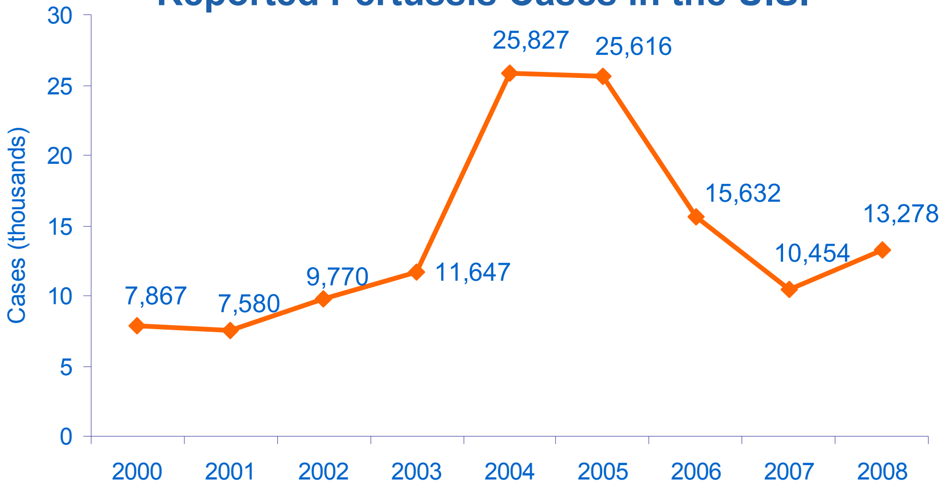


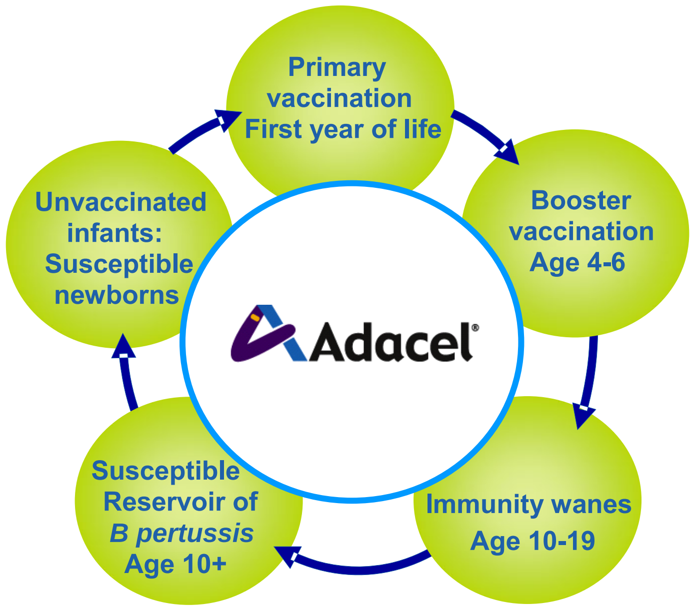
(1) Sanofi Pasteur Market research: 2008 National Consumer Influenza Immunization Study Findings
(2) U.S. Census Bureau, 2008 estimates
(3) CDC MMWR, July 2009

Future Growth in Boosters Coming from Adult Population

- Pertussis disease remains a significant public health threat
- Pediatric and adolescent immunization rates are high, yet disease still circulates
- Majority of disease reservoir exists in adults
- Eligible adult population of about 50m each year
- Current adult immunization rate remains low
- Adult market growth expected to offset declining Adolescent opportunity

Reported Pertussis Cases in the U.S.[1]





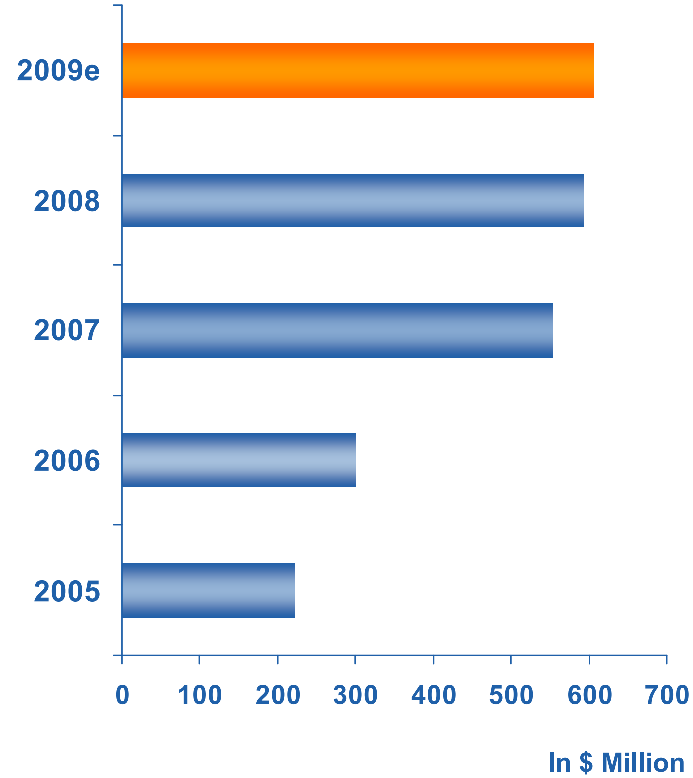
(1) Internal estimate using U.S. 2008 Census Data, SDI Claims data, historical sales

Expanding the Meningitis Market

- Menactra® launched in 2005; achieved significant growth
  - 11 year-old immunization rate growing at 8% vs. prior year
  - Nearly 60% of all 11-18 year olds immunized by year end 2009
- Burden of disease remains highest in children under 2 years
- Next wave of growth projected to come from the 9-12 month indication
  - 2-dose series provides improved health economic benefit vs. 4-dose
  - Ideal fit with Pentacel® in a crowded immunization schedule

Menactra®

U.S. Net Sales since Launch



North America Wrap-up

- North America will remain the largest vaccine market into the foreseeable future
- Sanofi Pasteur, a well established industry and market leader
- Future growth based on solidifying high market shares, expanding indications and uptake within current portfolio, and launching new products

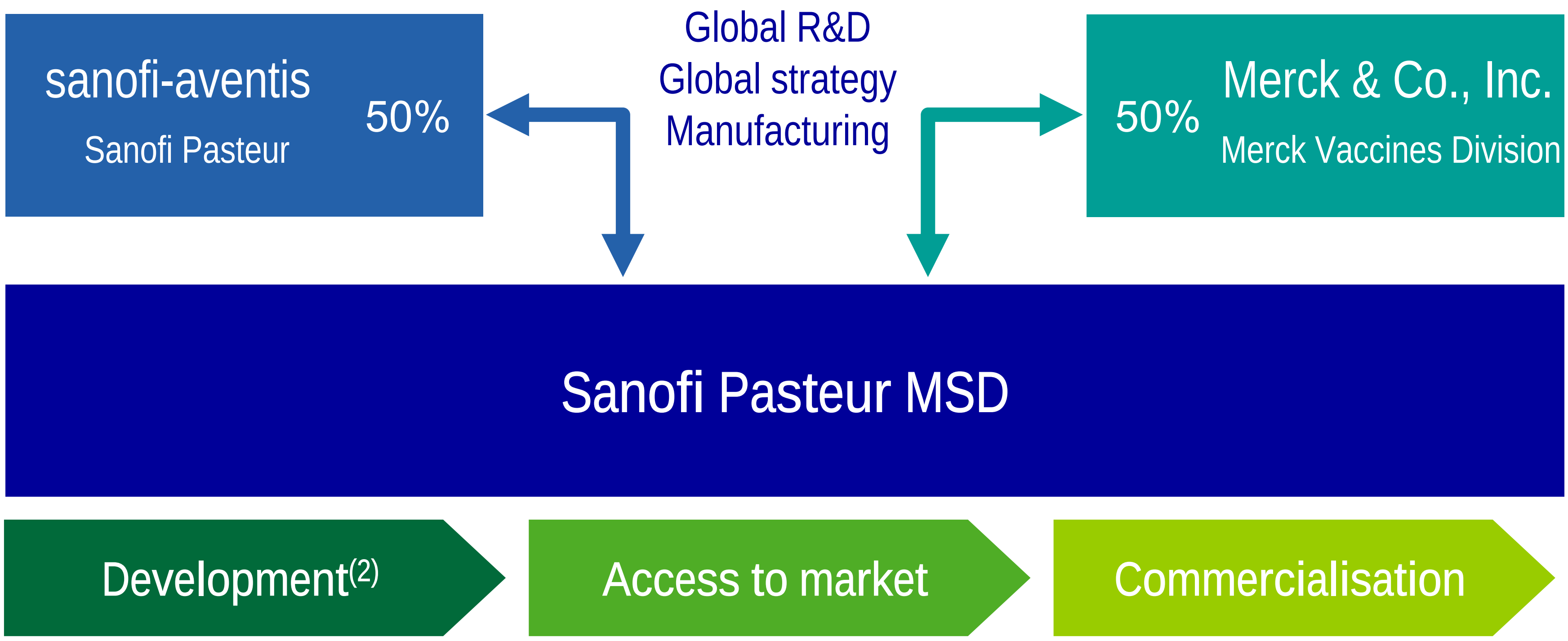
A European Snapshot

Sanofi Pasteur MSD

Didier Hoch, MD, President Sanofi Pasteur MSD

sanofi pasteur MSD
vaccines for life

Sanofi Pasteur MSD is a European[1] Joint Venture Exclusively Dedicated to Vaccines



(1) Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Liechtenstein, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom
(2) Projects are proposed to SPMSD by Sanofi Pasteur and Merck & Co. Inc., as of Phase II

sanofi pasteur MSD
vaccines for life

Vaccines from Sanofi Pasteur MSD Provide Protection for all Ages and Represent Future Growth Opportunities

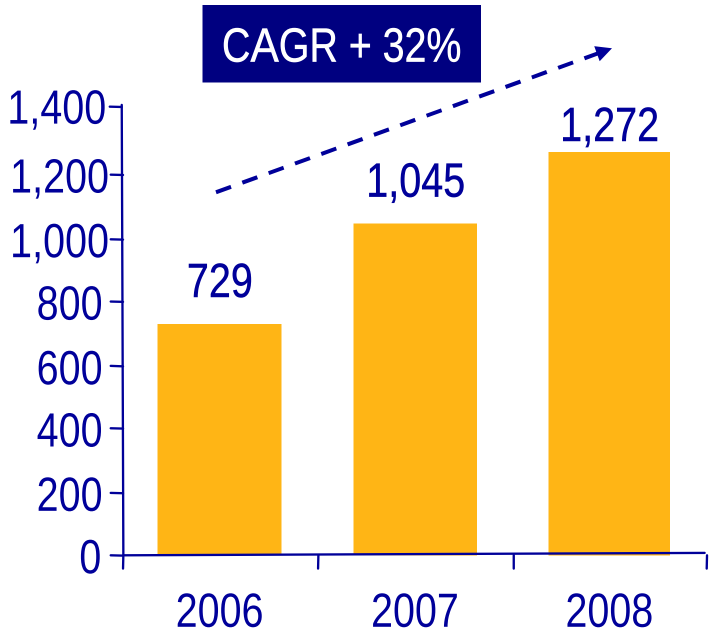
Paediatric vaccines	Booster vaccines	HPV* vaccine	Travel vaccines	Flu and other adult & senior vaccines
Rotavirus gastroenteritis Measles Mumps Rubella Varicella Diphtheria Tetanus Pertussis Poliomyelitis Haemophilus influenza b Hepatitis B	Diphtheria Tetanus Pertussis Poliomyelitis	Cervical Cancer and Pre-cancer Vulvar & Vaginal Pre-Cancer Genital Warts	Typhoid Hepatitis A Yellow Fever Rabies	Seasonal Influenza Invasive Pneumococcal Infections Shingles and Post-herpetic Neuralgia
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------
RotaTeq® MMR-VaxPro® Varivax® Pentavac® Pediacel® Tetravac® HB-VaxPro®	Repevax® Revaxis® Covaxis®	Gardasil®	Viatim® Typhim Vi® Vaqta® Avaxim® Stamaril®	Vaxigrip® / Mutagrip® Pneumo23® Pneumovax® Zostavax®

* HPV: Human Papillomavirus

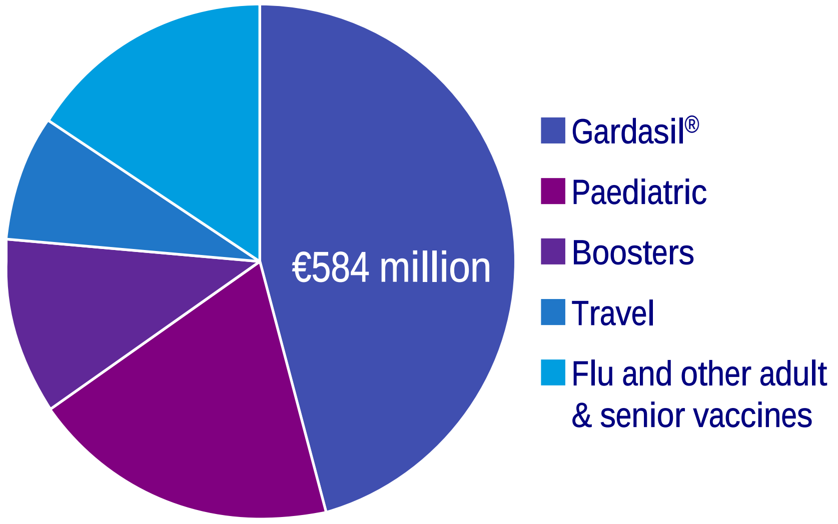
sanofi pasteur MSD
vaccines for life

Sanofi Pasteur MSD Sales Have Been Boosted by Gardasil®

Total sales in €m



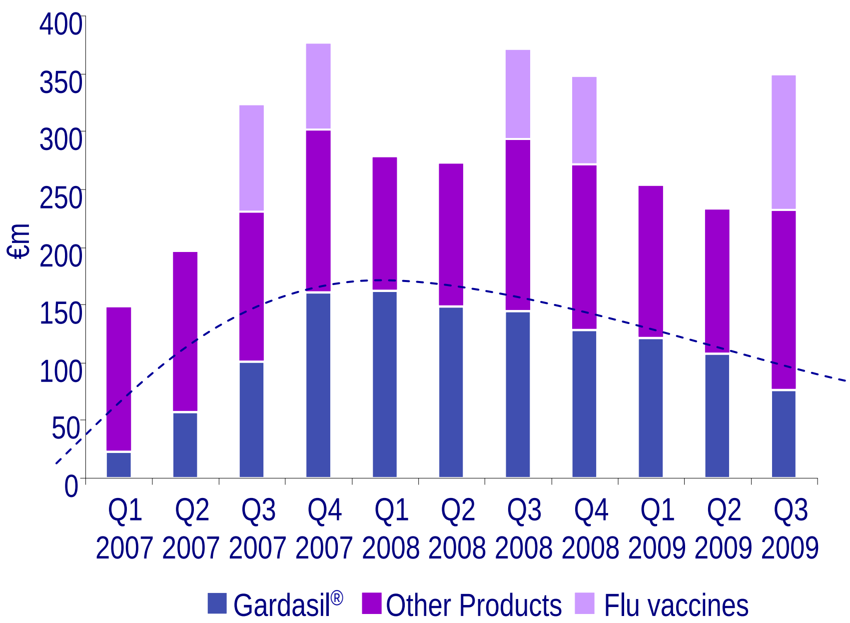
2008 sales split per product in value



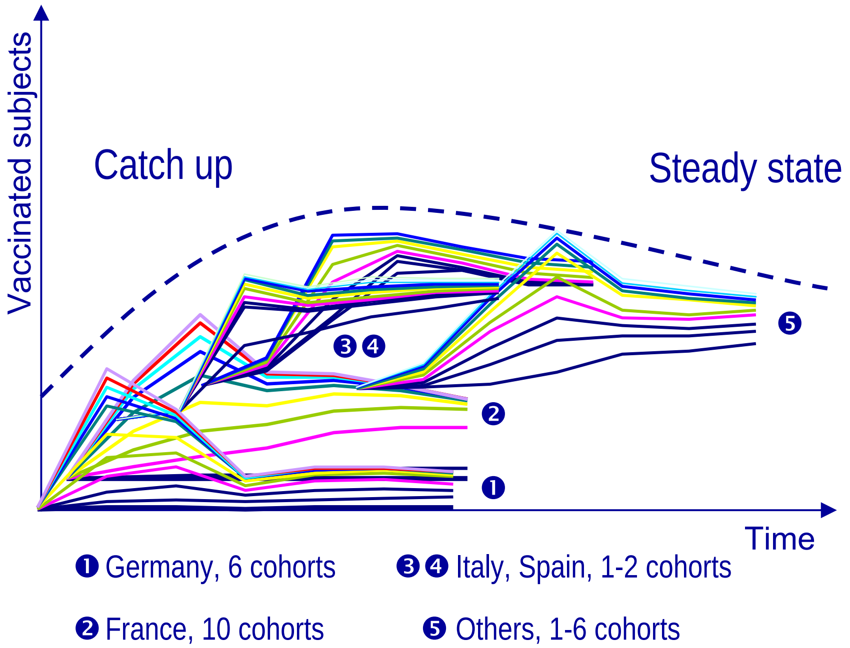
sanofi pasteur MSD
vaccines for life

The Sales Trend Reflects the Catch up Effect for Gardasil® and the Seasonality of Flu Vaccination

Quarterly sales of Sanofi Pasteur MSD



Catch up effect for Gardasil® (modelling)



sanofi pasteur MSD
vaccines for life

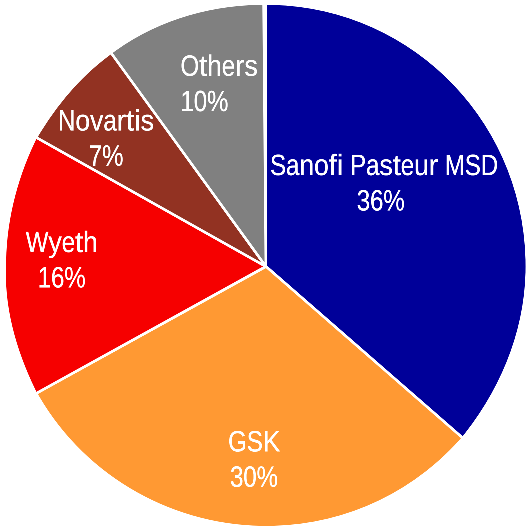
Sanofi Pasteur MSD's Value to its Joint Venture Partners Goes Beyond the Contribution to Equity Income

MERCK		sanofi pasteur MSD		sanofi pasteur The vaccines division of sanofi-aventis Group
In « Net sales »	←	Supply sales and mark ups	→	In « Net sales »
Merck R&D budget	←	Share in development expenses of JV partners	→	Sanofi Pasteur R&D budget
In « Other revenues »	←	Royalties for certain products to JV partners	→	In « Other revenues »
In « Share of profits »	50% ←	After tax net income	50% →	In « Share of profits »

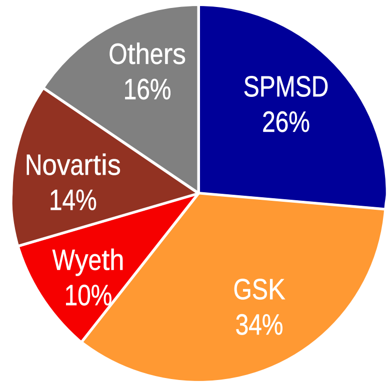
Sanofi Pasteur MSD is the Leader in Western Europe in 2008

(Total Market Size)

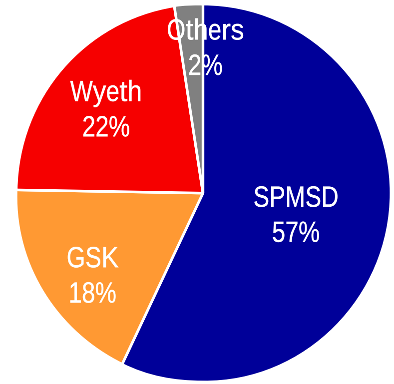
No. 1 in Western Europe (€3.7bn)



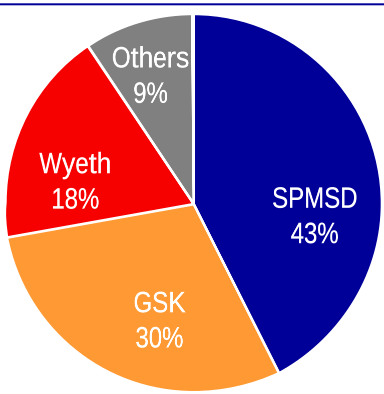
No. 2 in Germany (€1,253m)



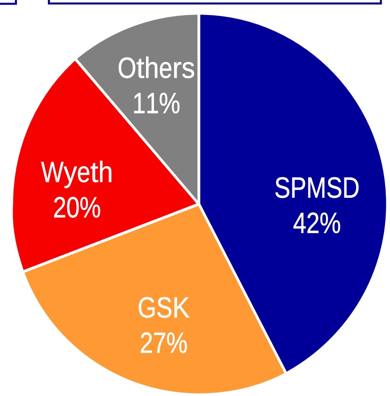
No. 1 in France (€624m)



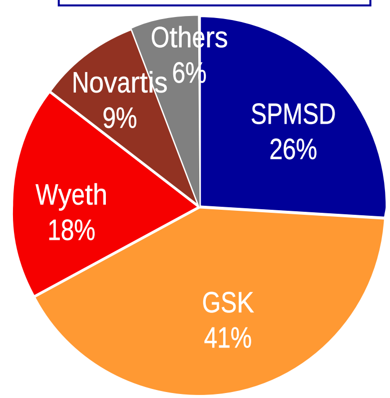
No. 1 in the United Kingdom (€416m)



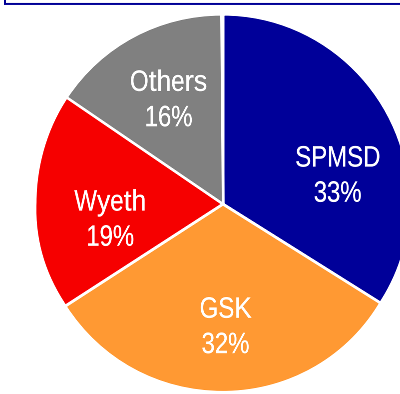
No. 1 in Spain (€354m)



No. 2 in Italy (€302m)



No. 1 in other countries* (€740m)



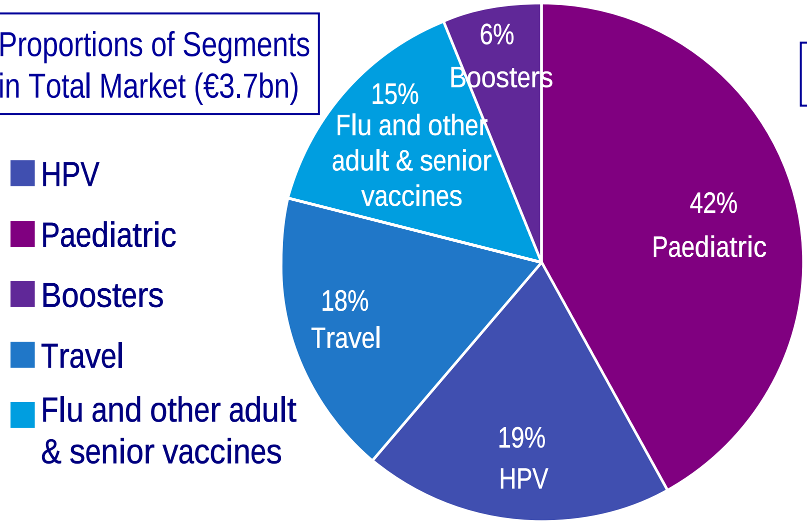
* Austria, Belgium, Denmark, Finland, Greece, Iceland, Ireland, Liechtenstein, Luxemburg, Netherlands, Norway, Portugal, Sweden, Switzerland

IMS and Sanofi Pasteur MSD internal data

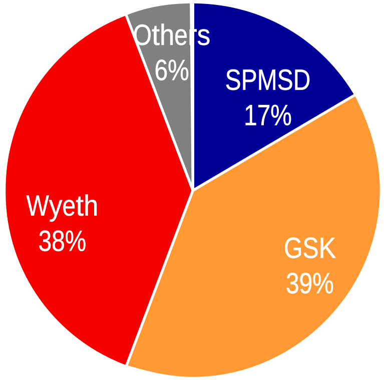
sanofi pasteur MSD
vaccines for life

Sanofi Pasteur MSD's Market Share per Segment in 2008 (Segment Size)

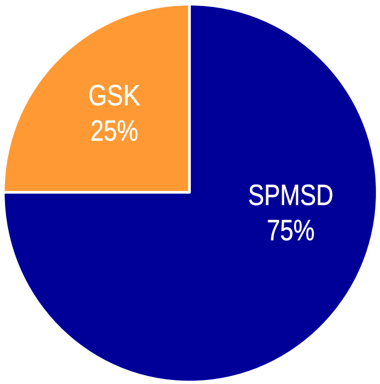
Proportions of Segments in Total Market (€3.7bn)



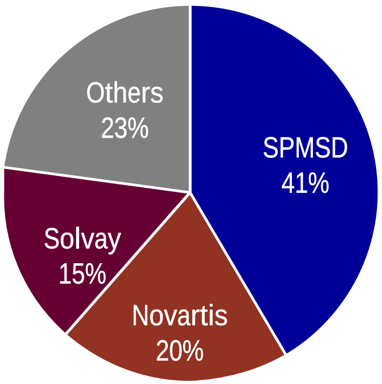
No. 3 in paediatric vaccines (€1,548m)



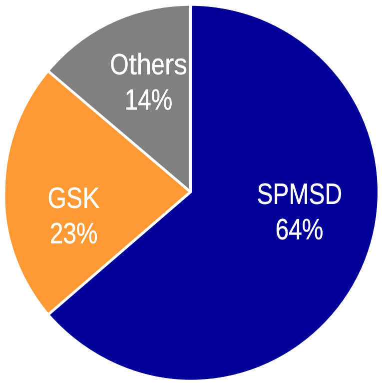
No. 1 in HPV** vaccines (€727m)



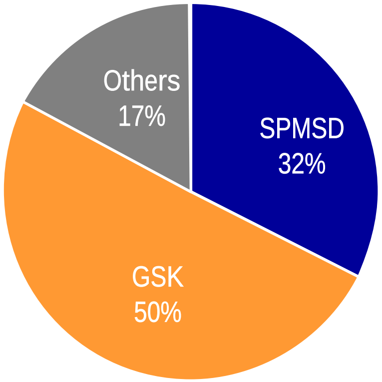
No. 1 in flu and other adult & senior vaccines (€547m)



No. 1 in booster vaccines (€232m)



No. 2 in travel vaccines (€226m)

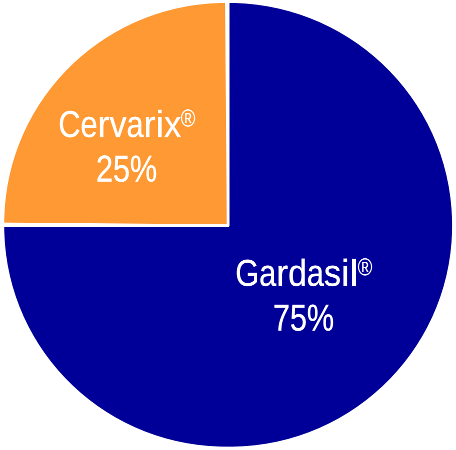


* France, Germany, Italy, Spain, United Kingdom
** HPV: Human Papillomavirus
IMS and Sanofi Pasteur MSD internal data

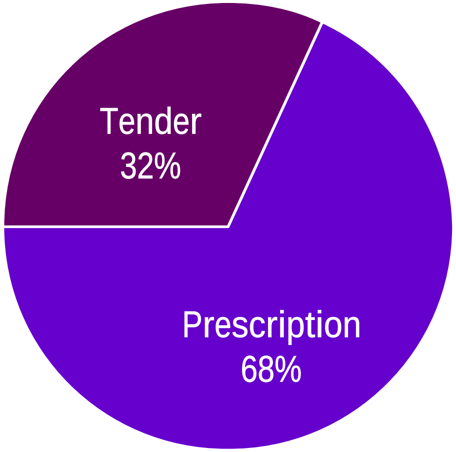
sanofi pasteur MSD
vaccines for life

The 4-Type HPV* Vaccine Gardasil® Maintains High Market Share Two Years After the Arrival of the Competitor's 2-Type Vaccine

Total market share in value (prescription markets[(1)] and tender markets[(2)])



Split of Gardasil® sales across market segments[(1,2)]



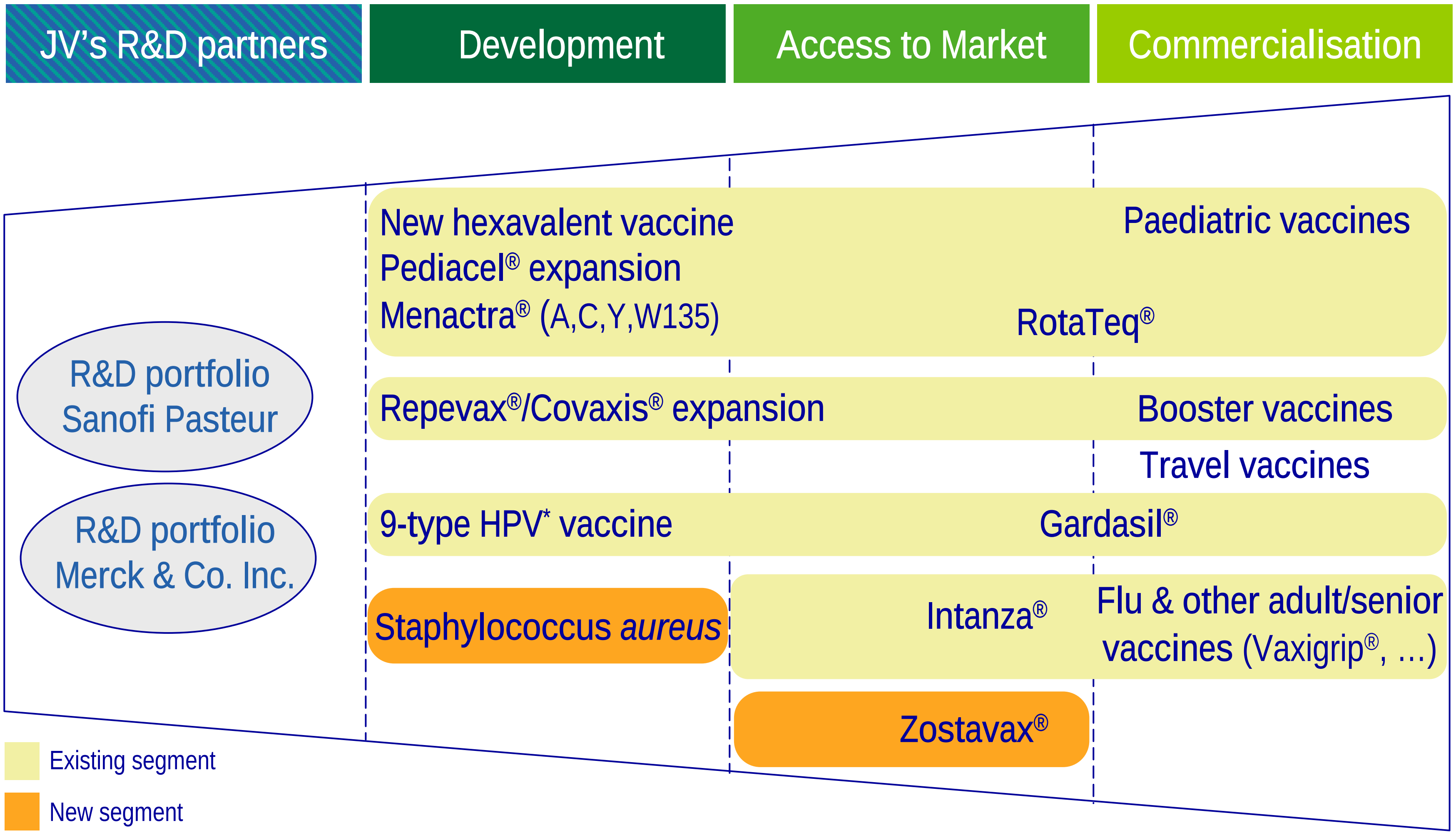
Prescription markets[(1)] (YTD Sept 2009)	Market share [%]
SPMSD territory**	91.8
Key markets	
Germany	89.0
France	97.0
Belgium	70.8
Sweden	98.4
Spain	86.9

Tender markets (Sept 2009)	Market share [%]
Denmark	100
Norway	100
Portugal	100
Sweden	100
Switzerland	100
Spain	60
Italy	59
Netherlands	0
UK	0

* HPV: Human Papillomavirus
** SPMSD territory except Iceland, Liechtenstein and Luxemburg
(1) Market share in value, MIDAS-IMS Health, Sept 2009
(2) Sanofi Pasteur MSD, internal data

sanofi pasteur MSD
vaccines for life

Future Growth Will Be Driven by the Life Cycle Management of Existing Segments and by the Creation of New Segments



* HPV: Human Papillomavirus

Realise the Access to Market

RotaTeq®

The only five-type (G1-4, P[1]) rotavirus vaccine for direct protection of infants and children from rotavirus gastroenteritis

Development	Access to market	Commercialisation

Development

Complete U.S. real life benefit data with EU data

Further strengthen profile

- Real life benefit data
- Extended flexibility

Access to market

Reinforce vaccine value

- Better cost-effectiveness due to herd protection

Obtain recommendation & funding in major countries

- France
- UK
- Germany

Commercialisation

Further strengthen differentiation

- Real life data for individual and collective benefit
- Extensive safety record

Maximise Market Development for Boosters Vaccines

REPEVAX® | COVAXIS® | REVAXIS®

Development	Access to market	Commercialisation
Enlarge country portfolio ▪ Expand approval of Covaxis® (Td5acP*) and Repevax® (Td5acPIPV*) **Further strengthen the profile of Repevax®** ▪ Co-admin. with Vaxigrip® ▪ Use in naïve-like subjects ▪ Tetanus prone injury	**Obtain recommendation in new countries** ▪ Repevax® for adults **Obtain funding in new countries** ▪ Repevax® ▪ Covaxis®	**Launch Covaxis® in more countries** ▪ Belgium, Italy, Spain, Scandinavia **Increase adult coverage with Repevax®**

* T = Tetanus, d = Diphtheria, acP = acellular Pertussis (5 = 5 components), IPV = injectable polio vaccine

sanofi pasteur MSD
vaccines for life

Maximise the Existing Market and Create New Opportunities

GARDASIL®

The only four-type (6,11,16,18) HPV* to help prevent cervical cancer as well as cervical, vulval and vaginal pre-cancer, and genital warts

Development	Access to market	Commercialisation
Further strengthen labelling ▪ Adult women ▪ Males ▪ Reactivation/infection data Complete real life benefit data (EU data) Complete development of nine-type vaccine	Complete recommendation & funding for adolescent girls Develop and support rationale for gender neutral vaccination Sustain medico-economic rationale for funded vaccination of young women	Prescription markets ▪ Maintain leadership: unique profile, real life benefit data ▪ Increase coverage and compliance in funded cohorts ▪ Expand to young women Tender markets ▪ Strengthen unique profile with real life benefit data ▪ Help increase coverage and compliance

* HPV: Human Papillomavirus

sanofi pasteur MSD
vaccines for life

Manage H1N1, Prepare for Upcoming Season and Launch

VAXIGRIP®

intanza®

The first intra-dermal seasonal flu vaccine
for better protection of the elderly

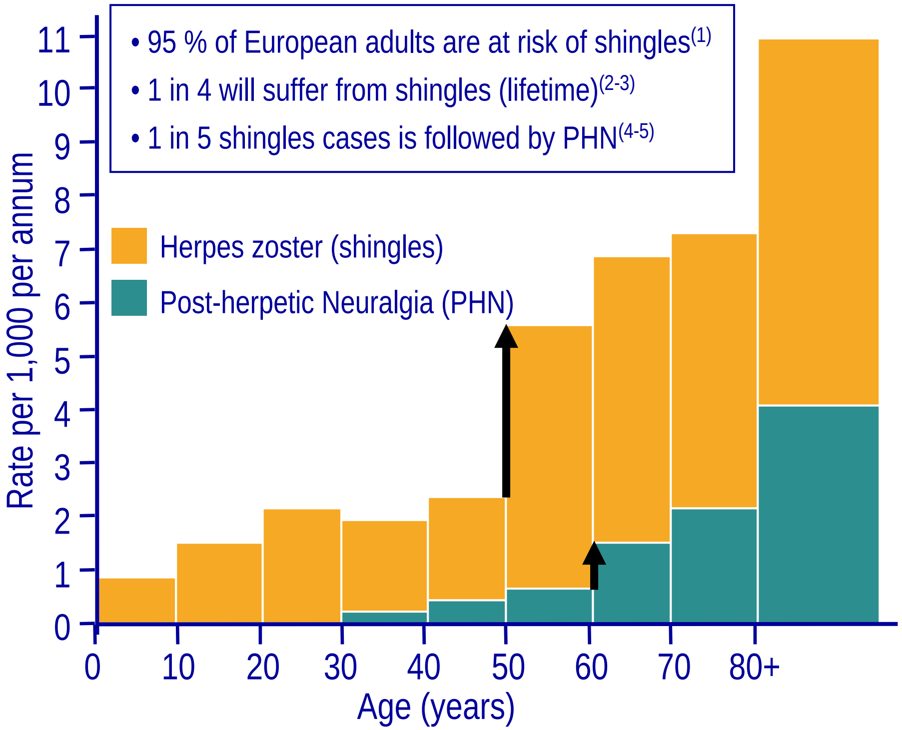
Development	Access to market	Commercialisation
Further strengthen Intanza® profile ▪ Comparative data vs. adjuvanted flu vaccine ▪ Injection site study	Expand recommendation to <65 years of age Support funding of Intanza® ▪ Provide core HTA* dossier ▪ Prepare country specific approaches	Succeed pre-orders/sales for full range Launch Intanza® ▪ Gain prescribers and prescriptions

- Manage H1N1 pandemic and post-pandemic phase
- Prepare the 2010/11 epidemic campaign with H1N1 becoming part of the seasonal vaccine

HTA: Health Technology Assessment

The First Vaccine to Prevent Shingles & Related Long-lasting Pain (Post-Herpetic Neuralgia)

ZOSTAVAX®



Disease endpoint	Efficacy
Herpes Zoster (Shingles)	51% (44. 58)[6]
Post-herpetic Neuralgia	67% (48.79)[6]
Herpes Zoster with severe & long-lasting pain	73% (46.87)[7]

Efficacy of Zostavax® in large clinical studies (>38,000 subjects, >60 years, 1 dose)

(1) Araujo LQ et al. Herpes 2007
(2) Bowsher D. Eur J Pain 1999
(3) Miller E et al. Rev Med Microbiol 1993
(4) Scott FR et al. Med Virol 2003
(5) Meister W et al. Infection 1998
(6) Oxman MN et al. N Engl J Med 2005
(7) Zostavax®, Summary or Product Characteristics

sanofi pasteur MSD
vaccines for life

Launch in 2010

ZOSTAVAX®

Development	Access to market	Commercialisation
Optimise product profile and secure optimal implementation and use ▪ Obtain approval of manufacturing upgrades ▪ Generate more epid. data ▪ Further improved profile - *with corticoid treatment* - *in HIV patients* - *long-term efficacy and safety follow-up*	**Expand basis for recommendation & funding** ▪ Prepare evidence data (disease burden, efficacy, cost-effectiveness) ▪ Anticipate drivers (feasibility, acceptability, budget) ▪ Prepare country specific approaches	**Anticipate customer needs and timelines** ▪ Drivers and barriers ▪ Establish positioning and key messages ▪ Ensure disease awareness ▪ Establish partnerships with healthcare professional and patient associations

sanofi pasteur MSD
vaccines for life

Future Growth for Sanofi Pasteur MSD in Europe

Maximize existing segments

- Gardasil®
  - Expand recommendation & funding
  - Create new opportunities
  - Develop nine-type vaccine
- Paediatric vaccines
  - Reco & funding for RotaTeq® in key countries
  - Expand Pediacel® to more countries
  - Develop new hexavalent vaccine & Menactra®
- Booster vaccines
  - Maximize market development
- Flu vaccines
  - Manage H1N1 impact
  - Prepare 2010/2011 season
  - Leverage sales by launching Intanza® in 2010

Create new segments

- Zostavax®
  - Prepare recommendation & funding
  - Launch from end 2010
- Staphylococcus aureus vaccine
  - Ongoing development

sanofi pasteur

The vaccines division of sanofi-aventis Group

Pursuing Growth Opportunities in the South

sanofi pasteur

The vaccines division of sanofi-aventis Group

Latin America

Damian Braga

President, U.S.
Vice President, Americas

Large Market Opportunity in the Latin American Region

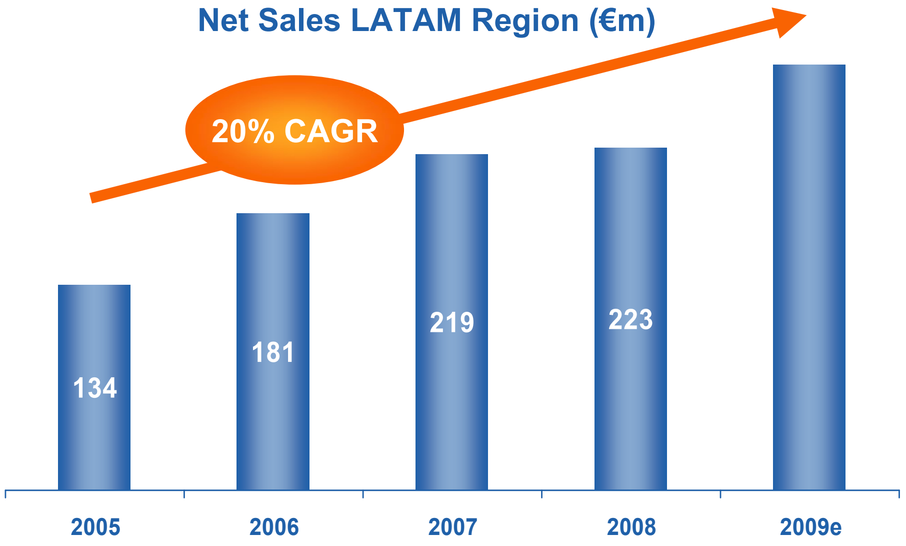
- Population: 560m
- Birth cohort: 10m
- 2008 market size[1]: Over €750m
- Public market accounts for > 70%
- Governments increasingly more attracted to innovative products
- Small but rapidly growing private sector
- Market CAGR of 19%[1]

(1) Sanofi Pasteur internal estimate; 2004-2009 CAGR

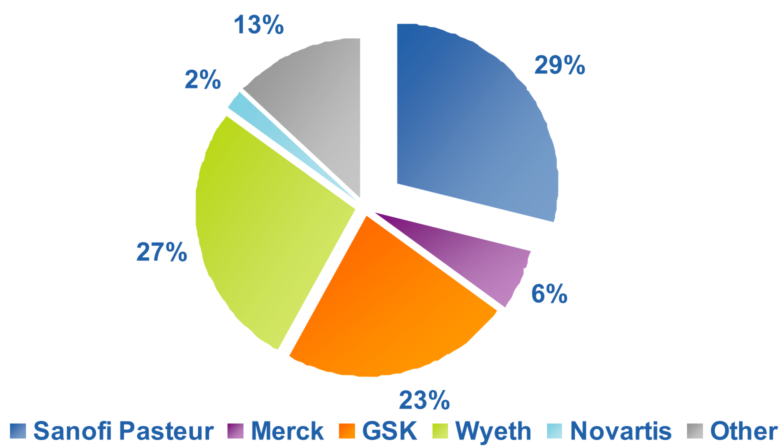
Strong Performance in the Region

- Rapid growth of influenza market throughout Latin America
- Introduction of PENTAXIM™ in Mexico
- Adult Pneumo-23® catch up programs
- Launch of Adacel® in Argentina, Costa Rica and Panama
- Implementation of Hep A programs in Argentina & other smaller countries(1)

Net Sales LATAM Region (€m)



Market Shares(2) LATAM Region

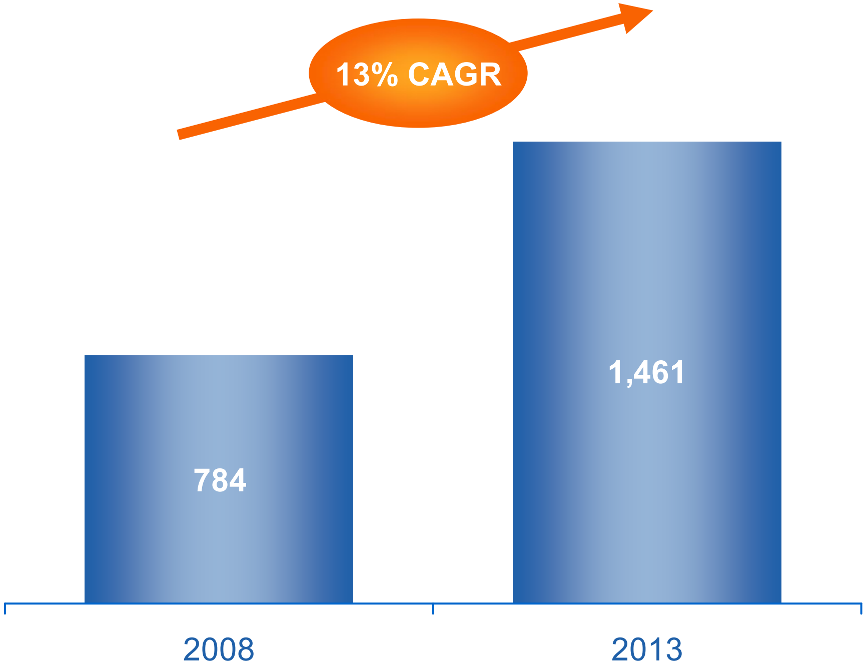


(1) Ecuador, Peru, Guatemala, Venezuela, Paraguay, Uruguay, Panama and other
(2) Market shares based on Sanofi Pasteur internal estimates, 40% market share where we compete

Latin American Market Will Continue to Grow at Double Digit Rates

- Higher penetration and expanded indications for existing vaccines
- Introduction of IPV and acP in new countries
- Introduction of new vaccines in public market
- Growth of private sector for “Non-Covered” vaccines

Total LATAM Market (€m)(1)

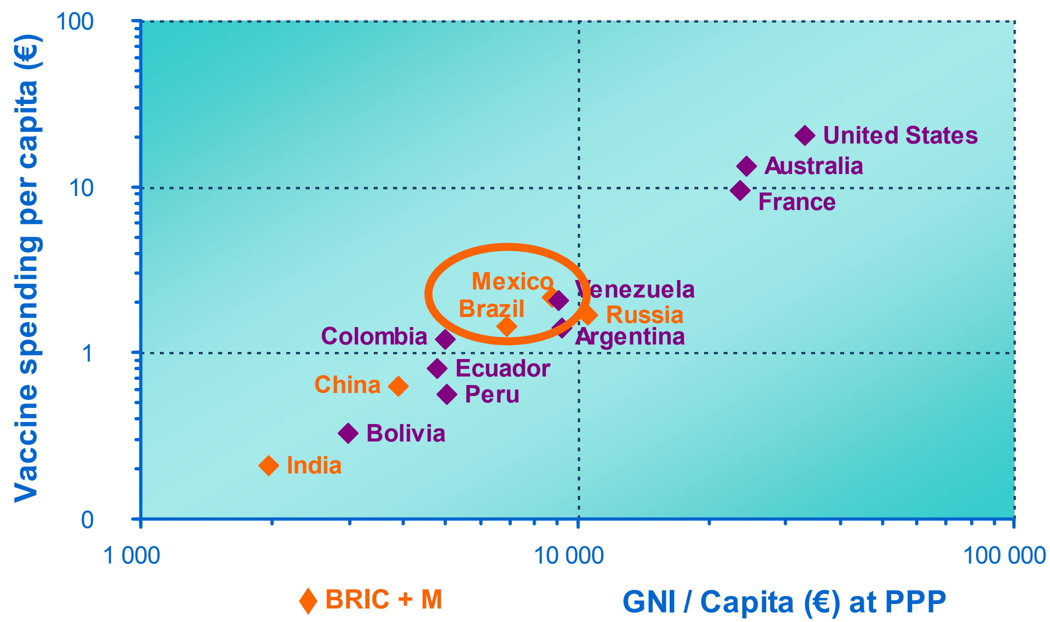


(1) Sanofi Pasteur internal estimate; 2004-2009 CAGR

Highly Concentrated Opportunities in Mexico and Brazil

- 54% of total LatAm population
- 5.9m combined birth cohort
- High vaccine spending and GNI per capita
- Total value of Mexico and Brazil vaccine markets > €500m or ~50% of entire region

Vaccine Spending and GNI per Capita(1)

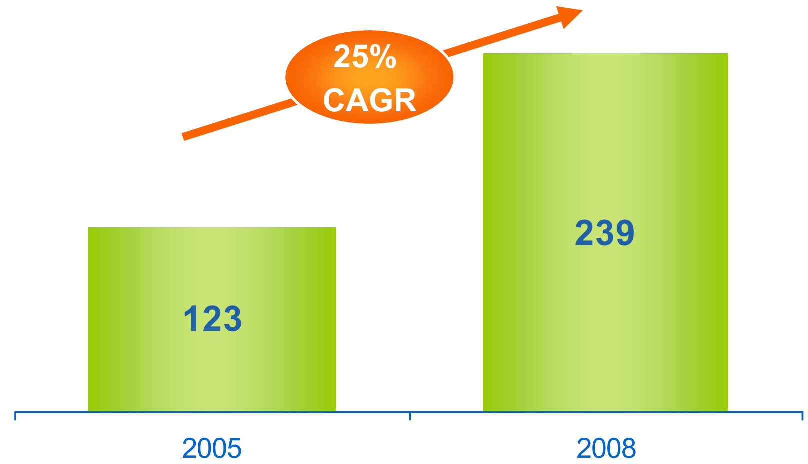


(1) World bank (Log scale)
GNI, PPP - Gross National Income and Purchasing Power Parity

Sanofi Pasteur Growth in Mexico Has Outpaced the Market

- Highly concentrated market (4 products make up 75%)
- Influenced by U.S. vaccine policy
- Growth driven by introduction of new vaccines in the public market
- Mostly tender market – pressure on price, low visibility
- Small private market (60k cohort) limited to pediatrician channel

Estimated Market Size (€m)(1)



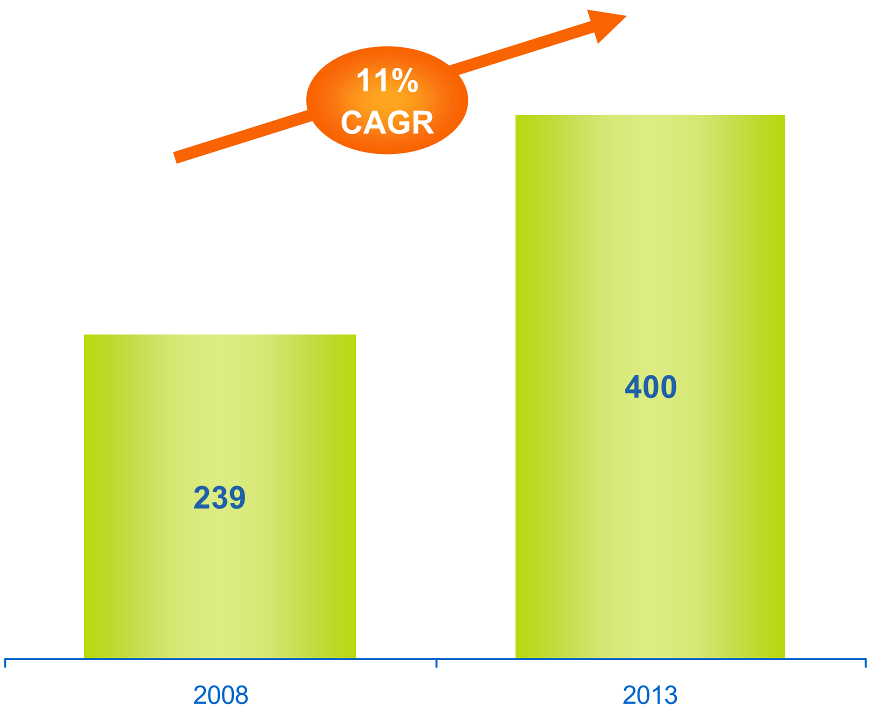
Sanofi Pasteur Net Sales

(1) Sanofi Pasteur internal estimates

Mexico Expected to Be a Strong Contributor to Growth

- Market expected to grow at double digit rates
- Maintain leadership position in influenza
  - Partnership with local government-owned entity Birmex
  - Construction of Ocoyoacac plant to secure influenza sales (25m doses)
- Defend Pentaxim® share and accelerate hexavalent combo
- Introduce Adacel® in public and private markets (2010)
- Launch of Menactra® (2011)
- Continue market preparations for Dengue

Projected Market Size (€m)[1]

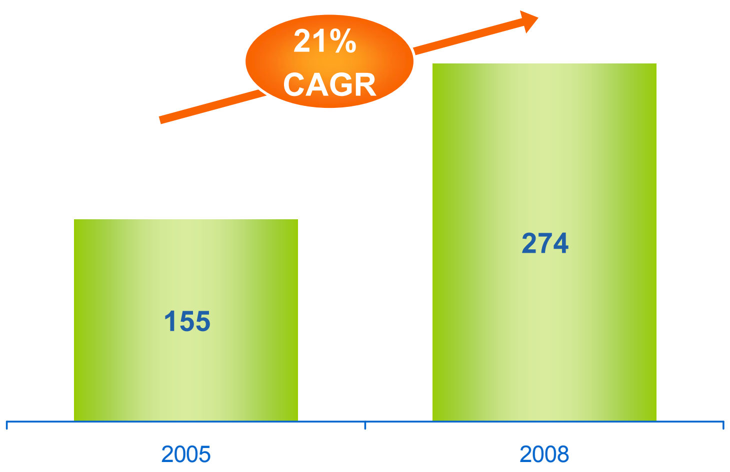


(1) Sanofi Pasteur internal estimates

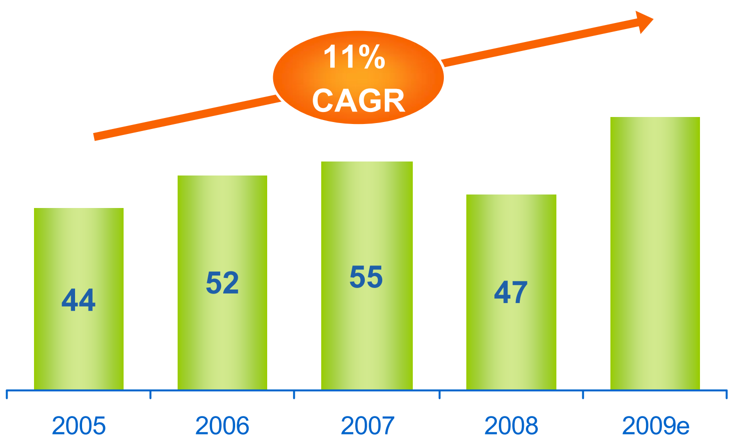
Growth in Brazil Driven by Ambitious Public Health Agenda

- Public market introductions dependent on:
  - Political willingness to enhance vaccination program
  - Health economic evidence
  - Local partnership with state owned companies
- Largest private market in the region for non-covered vaccines
- Overall market growth driven by:
  - Meningitis C, Rotavirus, HPV, pneumo conjugate, IPV
  - Expanded influenza recommendations
- Unpredictability of local producers may positively or negatively impact our business

Estimated Market Size (€m)(1)



Sanofi Pasteur Net Sales

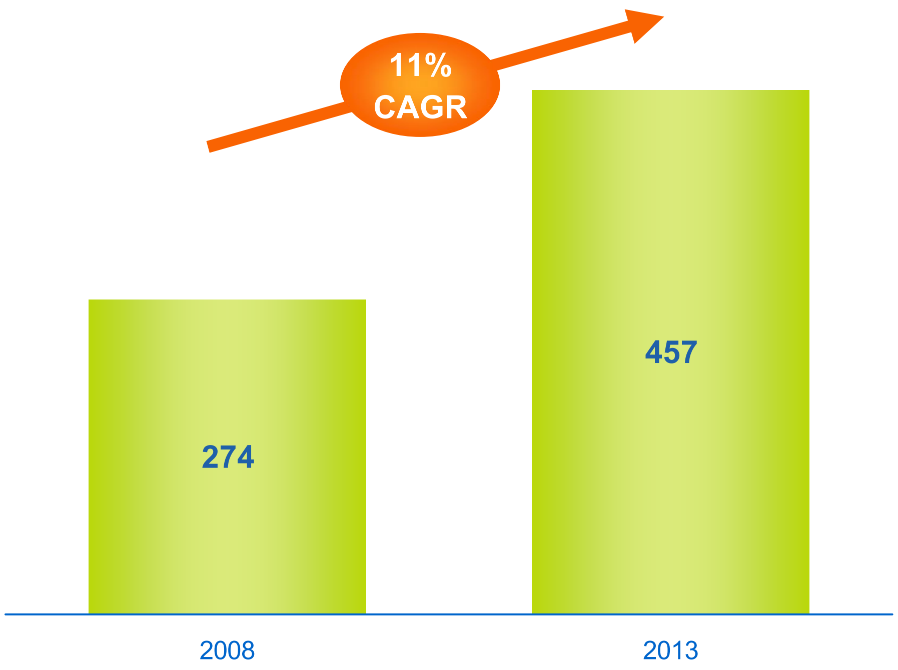


(1) Sanofi Pasteur internal estimates

Brazil Will Continue to Grow at Double-Digit Rates

- Establish local partnerships to introduce meninge and IPV
- Expand flu vaccine recommendations
- Expand private sector channels
  - Growth of corporate segment
  - Enhanced physician-based and MCO vaccination capabilities
- Continuing preparations for Dengue vaccine

Projected Market Size (€m)(1)



(1) Sanofi Pasteur internal estimates

Latin America Wrap-up

sanofi aventis
Because health matters

- Major opportunity for growth over the next 5 years
- Well positioned due to industrial assets and strong public health relationships
- Market growth driven by
  - Solidifying existing business
  - Partnerships with local producers to gain public market access
  - New product introductions and new indications
- Continue market preparation for Dengue

Asia-Pacific & Africa, Middle-East, Eastern-Europe (AMEE)

Jacques Cholat

Vice President, Commercial Operations, International

Significant Opportunities for Sustainable Growth

sanofi aventis
Because health matters

Africa, Middle East & Eastern Europe

- Population: 1.7bn
- Birth cohort: 46.5m
- Market €1.7bn(1)
  - ≃74% Public
- Leader with 24% market share

- ▲ Subsidiaries
- ■ Vaccine divisions of sanofi-aventis
- ♦ Commercial partners

Asia-Pacific(2)

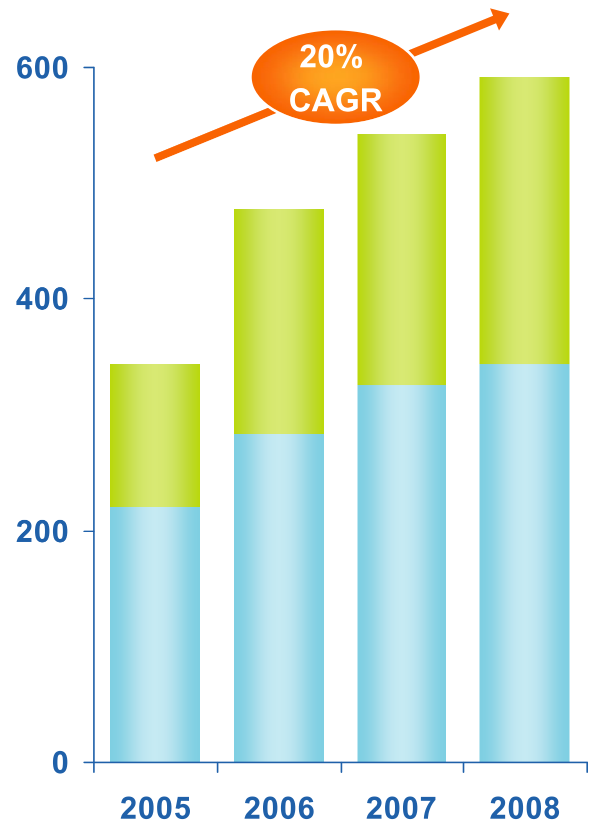
- Population: 3.7bn
- Birth cohort: 67.7m
- Market €1.5bn(1)
  - ≃ 55% private
- Strong emerging local competition
- Leading multinational company with 16% market share

(1) 2008 Sanofi Pasteur Internal Estimates
(2) Excluding Japan, Australia and New Zealand

A Track Record in Delivering Continued Strong Revenue Growth

- Strong consistent growth over the past years
- A diversified portfolio driven by pediatrics vaccines(1)
  - Pediatric vaccines: 55% of sales
  - Flu: 20%
  - Endemic(3): 25%
- Established presence
  - 37 affiliates
  - 1,200 employees
- Strong relationship with local health authorities and supranational organizations

Asia-Pacific & AMEE
Net Sales Evolution (€m)(2)

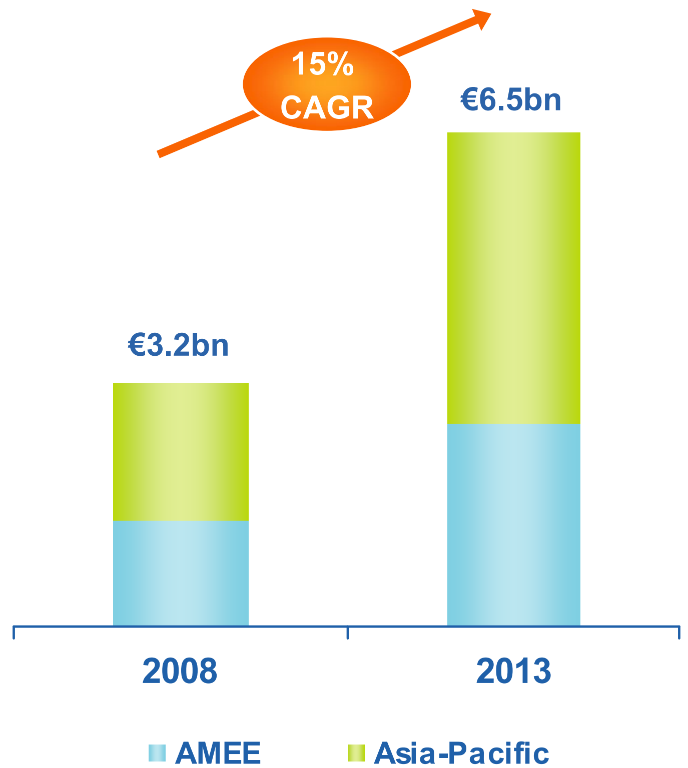


(1) Based on 2008 actual sales
(2) At comparable basis
(3) Such as varicella, yellow fever, Japanese Encephalitis, etc.

Sustained Growth Opportunities to Be Driven by Fast Growing Economies

- The world strongest growing region
- China and India major growth contributors in Asia-Pacific
  - High teen rates expected in both countries
- Multiple unmet vaccination needs
- Sustained growth in different market segments
  - Private: Growing disposable income and emergence of middle class
  - Public: Increasing funding
  - Supranational markets: GAVI, UNICEF expanding vaccination programs

A Fast Growing Vaccine Market (€m)[1]

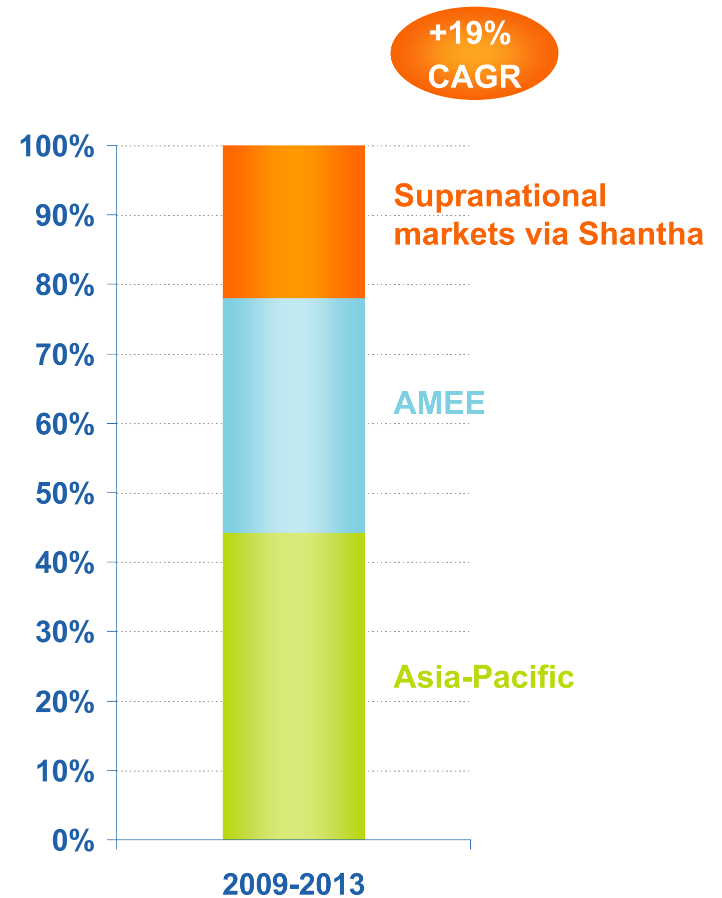


(1) Sanofi Pasteur internal estimates

Sanofi Pasteur is Ideally Positioned to Take Advantage of the Momentum

- Strong local presence in all major international fast growing markets
- #1 of all companies in India, Turkey and South Africa; #1 multinational company in Russia and China
- Broadest range of marketed vaccines
- Shantha allows to capture additional growth opportunities
  - Strengthened position in Indian market
  - A platform for emerging markets
  - Supranational markets
- Established local production and distribution partnerships
  - India, Russia, South Africa, Thailand, Algeria, Turkey, etc.

Sanofi Pasteur Growth Contributors 2009-2013(1)



(1) Based on Internal analysis and forecasted consolidated internal sales

A Strategy to Maximize Growth Across all Market Segments

sanofi aventis
Because health matters

Private markets

Leverage pharma footprint

- Significant sales force investment
- Sales forces doubled in 2009 in India ≃ 340 reps and China ≃ 400 reps
- Leverage pharma structure and sales force for VAXIGRIP®

National public markets

Local partnerships

- Fill and pack partnerships with local manufacturers:

  Panacea (India), Chumakov (Russia), Biovac (RSA), GPO (Thailand), Institut Pasteur (Algeria), Mefar (Turkey), etc.
- Increased market access

Supranational public markets

Adapted portfolio

- Sanofi Pasteur[(1)]:
  OPV
  MENINGO A+C
  STAMARIL™
  Dengue
- Shantha:
  Shan5®
  ShanvacB®
  Shanchol™
  Rotavirus and HPV in R&D portfolio

OPV: Oral Polio Vaccine; Stamaril®: Yellow fever vaccine

A Broad and Diversified Vaccine Portfolio

sanofi aventis
Because health matters

Polio/ Pertussis /Hib Meninge

- Pursue IPV[1] conversion with Imovax Polio and PENTAXIM
- Maximize Booster growth ADACEL
- Launch Menactra on international markets
- Leverage full pediatric ranges from Sanofi Pasteur and Shantha

Travel and Endemic

- Broadest range for vector and food borne diseases
- Leadership in rabies and yellow fever with VERORAB and STAMARIL
- Bring innovation to market: Launch Imojev™, Dengue, Cholera, HPV and Rotavirus

Influenza

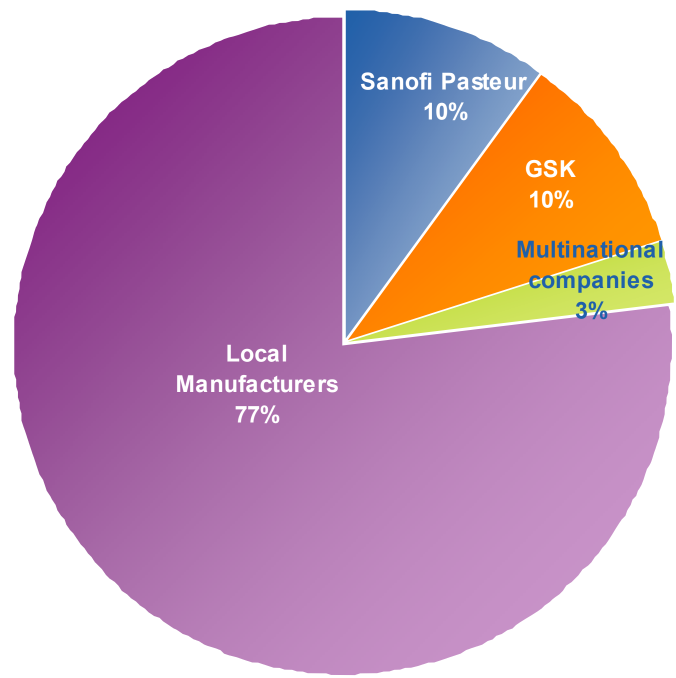
- Drive VAXIGRIP expansion with Northern and Southern hemisphere formulation
- Leverage flu differentiation with intanza
- Response to pandemic threat

IPV: Inactivated Polio Vaccine

Sanofi Pasteur is Building a Leading Position in Highly Coveted Chinese Market

- **Strong 2008 performance: €77m**
  - 27% of vaccine sales in Asia Pacific
  - High teen growth rate in 2009(1)
  - Strong double digit growth anticipated for 2010 driven by Vaxigrip® and Imovax Polio®
- **Leadership position in flu**
  - 23% market share(2)
  - Local production platform under construction
- **Leading multinational company with Hib pediatric vaccine**
  - 28% market share(2)

2008 Vaccines Market Share (%)(2)

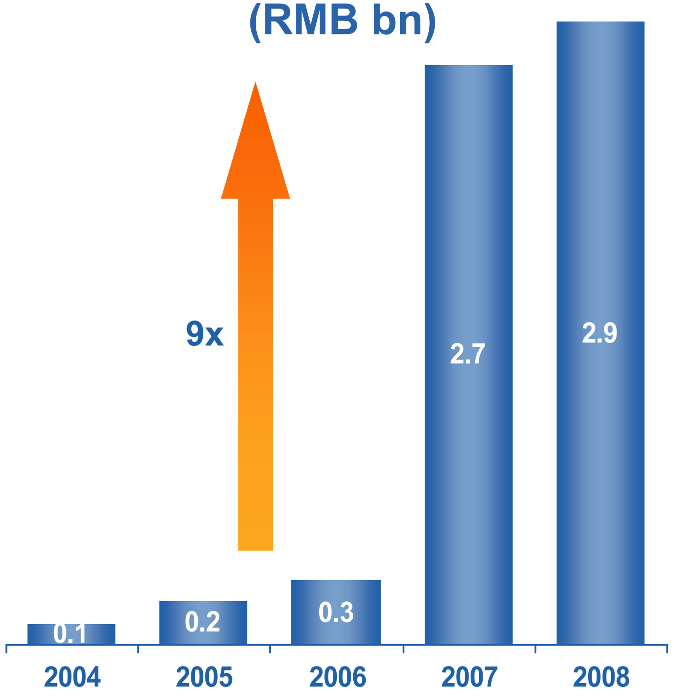


(1) At comparable basis
(2) Sanofi Pasteur internal estimates

Chinese Market is Expected to Become the 2nd Largest Market in the World by 2020

- **Favorable context**
  - Booming middle class
  - Urbanisation
  - Government focus on prevention
- **Private market expansion**
  - Increase in wealth
  - Strong focus on childhood healthcare (due to 1-child policy)
- **Public market is expanding rapidly**
  - Public health system development providing growth opportunities
  - NIP covering 15 diseases starting in 2008 (up from 7)
  - Cities and Provinces upgrading vaccination policies and calendars
- **China vaccine market[(2)]: US$1bn (1/3 public, 2/3 private)**

Central Government Funding for National Immunization Program[(1)] (RMB bn)



CAGR 2008-2013[(2)]:

Market: +19%

Sanofi Pasteur: +26%

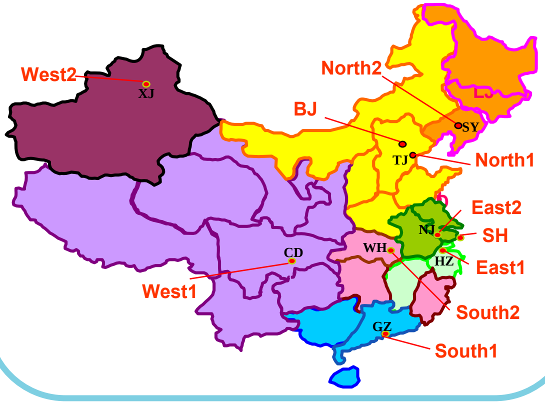
(1) China National CDC; literature search
(2) Sanofi Pasteur internal estimates

Remaining the Leader and Fastest Growing Vaccine Company in China

- Bring innovation in the pediatric segment
  - Launch IPV and acP pediatric combos
    - Imovax Polio® (2009), Pentaxim® (2011), Actacel®(1) (2013)
- Leverage comprehensive vaccine portfolio sales to serve private and public sectors
- Pursue local industrial investment to support growth
  - World-class manufacturing base in Shenzhen
  - Production of seasonal & pandemic influenza (25md by 2012)
- Expand leadership
  - Leverage market access through additional sales force
  - Extend market reach
  - Seize external growth opportunities and/or partnerships

Shenzhen Manufacturing Site (under construction)

10 Regions with Regional HQ Offices

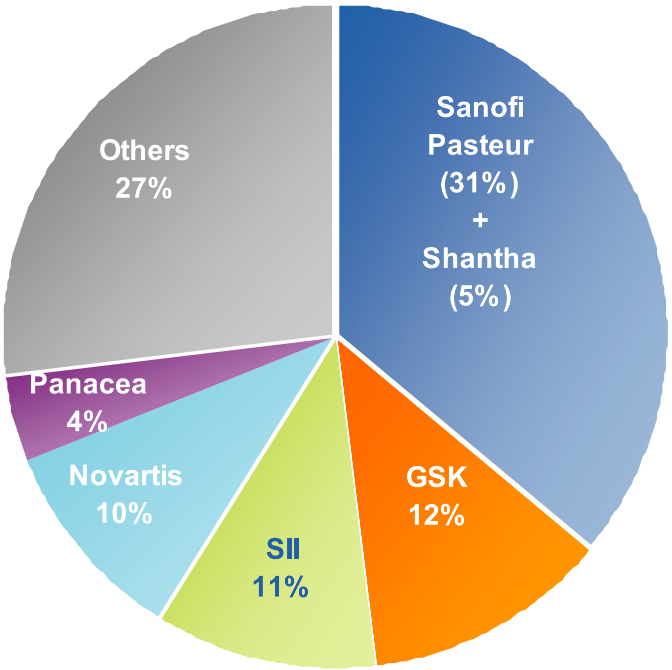


(1) DTaP / Hib vaccine

Sanofi Pasteur # 1 in India

- Ongoing market expansion
  - Booming middle class
  - Ongoing polio eradication efforts
  - Development of adult and influenza vaccine market
- A portfolio adapted to the current market
  - 36% market share in 2008[1]
  - Monovalent OPV supply through partnership with Panacea
  - Strong presence in pediatric vaccines with PENTAXIM™
- Shantha acquisition provides
  - Expanded vaccine offering in private markets
  - Expanded presence in public market

2008 Vaccines Market Share (%)[1]

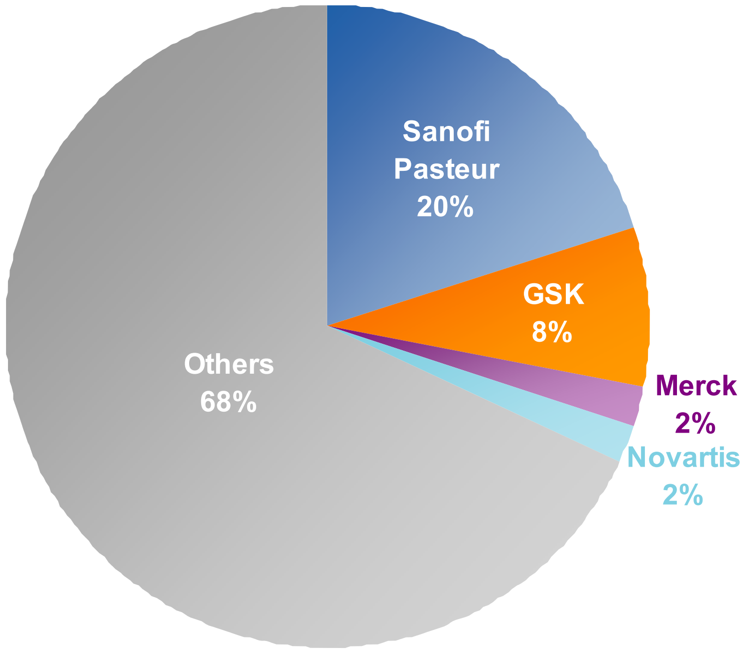


(1) Sanofi Pasteur internal estimates

Growing Vaccines Presence in Russia

- **Robust 2008 performance**
  - Sales of €30m, +*93%*[1]
  - 20% market share[2]
- **Leadership position in IPV**
  - Partnership with the Chumakov Institute for Russia National "Project Health"
  - 4.7m doses sold in 2008
- **Opportunities for expansion**
  - Russian Federal Market
  - CIS countries[3]
  - Introduction of PENTAXIM™

2008 Vaccines Market Shares[2]



(1) Growth is on a comparable basis
(2) Sanofi Pasteur internal estimate
(3) Commonwealth of Independent States

Conclusion

- Attractive region for growth, large birth cohorts, unmet vaccination needs
- Strong and localized capabilities to address both private, public and supranational markets
- Adapted and broad vaccine offering, recently expanded with Shantha's acquisition
- Potential additional acquisition and partnerships

The vaccines division of sanofi-aventis Group

Conclusion

Wayne Pisano

President and Chief Executive Officer, Sanofi Pasteur

Double Sales by 2013 and Deliver Sustainable Growth Beyond

sanofi aventis
Because health matters

Pursue Strong Growth Opportunities in the South

Maximize Shantha's growth; establish our R&D and Industrial platform for the South

Drive acP-IPV based combo sales

Continue to ramp up production capacity

Develop and Launch new vaccines

Grow the influenza market

Expand Menactra® sales

Leverage broad portfolio

Strengthen Leadership in the North

Grow adult, adolescent and infant markets

Launch US Menactra® infant-toddler

Launch differentiated influenza vaccines

Drive pediatric and booster sales

sanofi pasteur
The vaccines division of sanofi-aventis Group

Q&A Session