Farmasidagene 2009

Kontrollen av Lakemedel inom EU-EES omradet Idag och I Framtiden

Thomas Lönngren

6 November 2009

CONTENT

- The EU regulatory system
- The role of EMEA
- The challenges for regulators and the industry
- How EMEA are meeting the challenges
  - The EMEA roadmap 2010
- EU commission initiatives

The EU regulatory system – Why?

- Single EU market for pharmaceuticals
- Protect and promote public and animal health
- Facilitate access for patients to new & better medicines
- Coordination of safety of medicines (pharmacovigilance)
- Same product information for professionals and for patients
- Benefit European pharmaceutical industry
- Platform for public health issues at European level

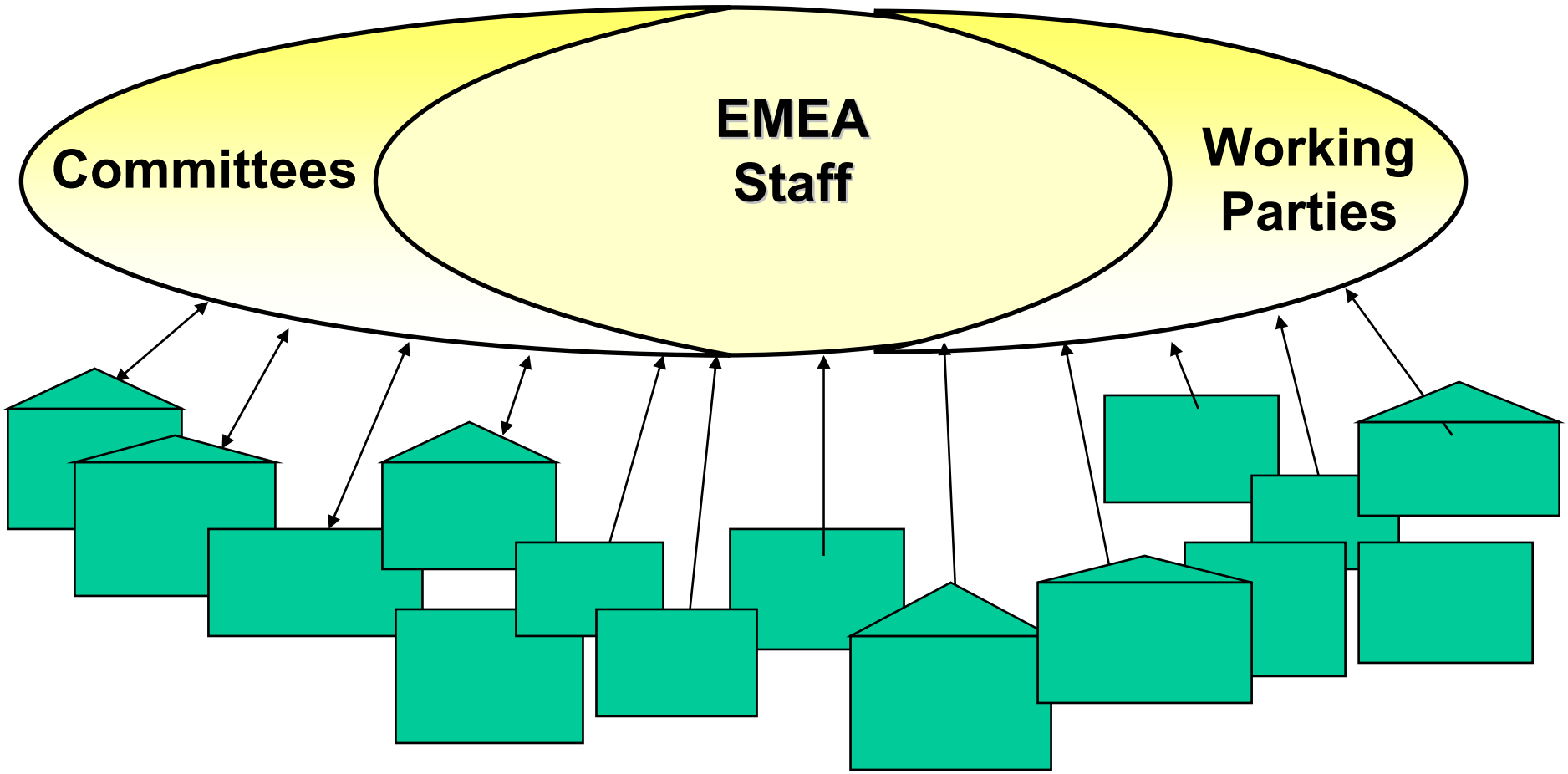
The regulatory system

- "One European system: two procedures"
  - Centralised (biotech and innovative medicines)
  - Mutual and decentralised procedure (conventional medicines)
- National authorisations centrally referred on grounds on safety and harmonisation
- 500 million users of medicinal product
- 30 EU and EEA-EFTA countries
- More than 40 national competent authorities
- EMEA and the European Commission
- 4,500 European experts

The Role of EMEA

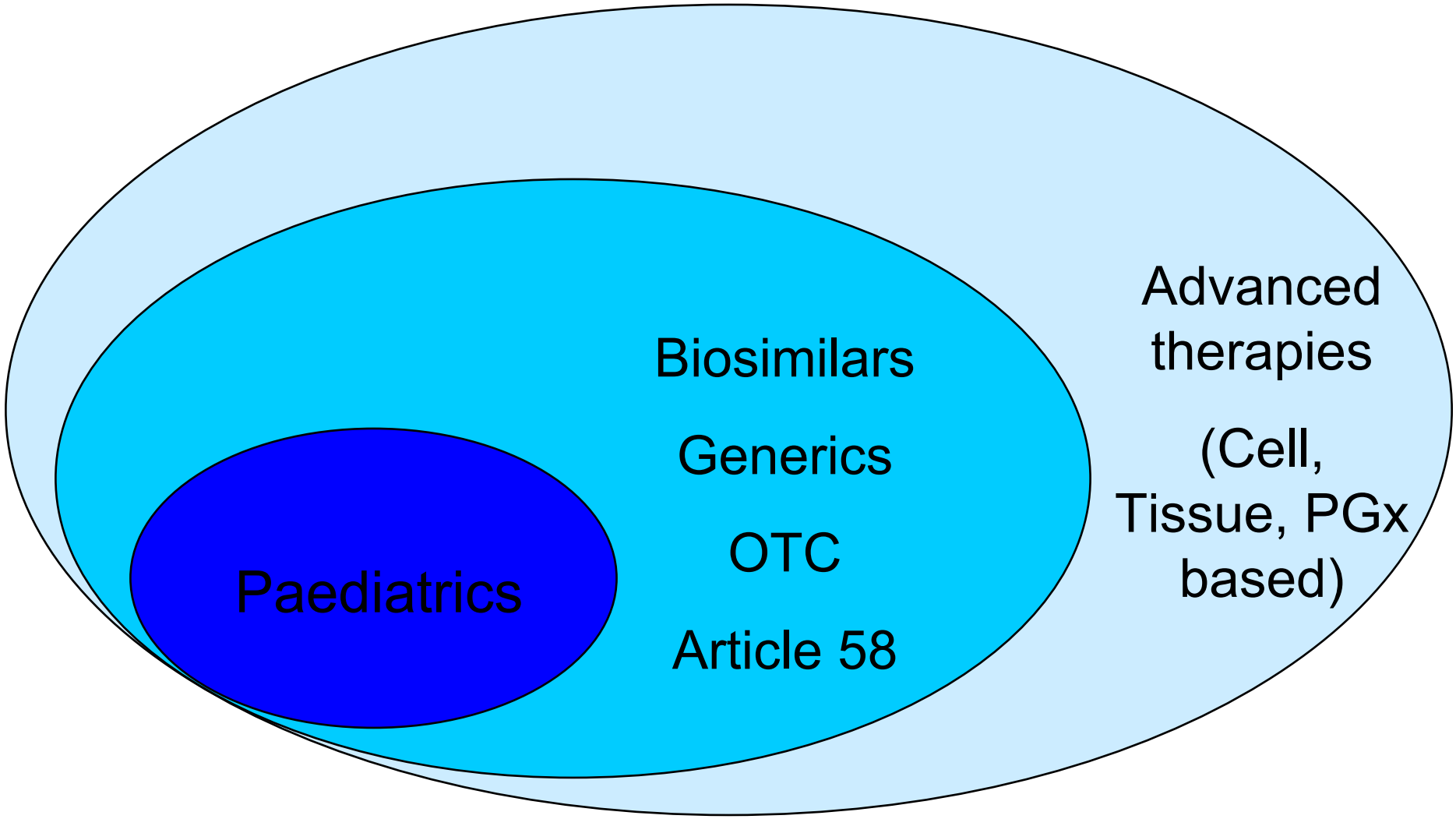
- Human and veterinarian medicines
- Orphan medicines designation
- Paediatric investigation plans
- Scientific advice
- Initial application (NCE, Generics, Biosimilars)
- Post authorisation
- Referrals from national authorisation system
- Inspection (Coordination and guidelines)
- Information
- Parallel import and certificate
- Guidelines
- Advice
- Support to commission EU parliament and MS

The Role of EMEA



The Role of EMEA

Wider Scope of Centralised Procedure



EMEA Structure: Increasing Complexity

1995

- CPMP
- CVMP

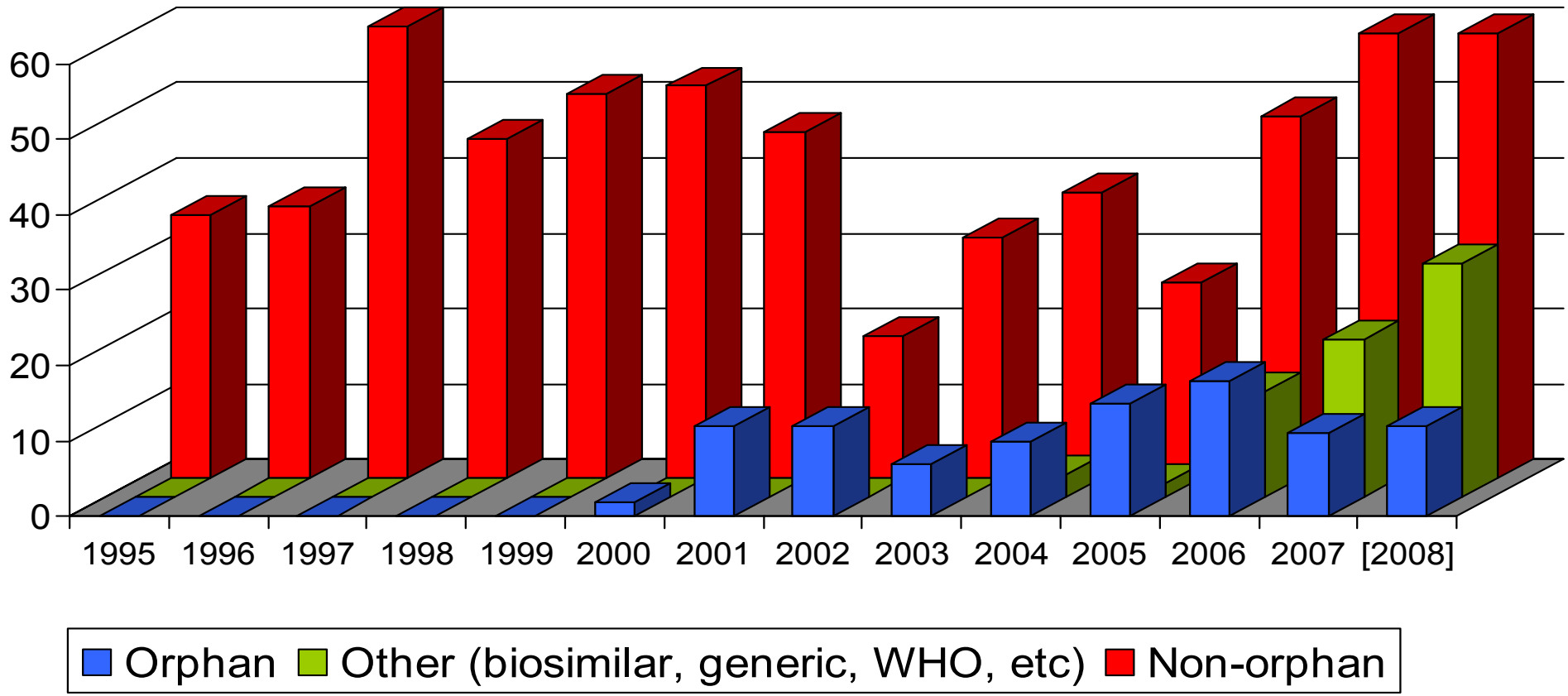
2008

- CHMP
- CVMP
- COMP
- HMPC
- PDCO
- CAT


1.6.1 Referral under Art. 7(5): Atorvastin
1.6.2 Referral under Art. 29: Fluconazol Tiefenbacher Capsules, Isotretinoin
1.6.3 Referral under Art. 30 Atorvastin, Calcitugg and associated tradenames Chewable tablets / Calcichew-D3 mite and associated tradenames Chewable tablet / Calcichew-D3 and associated tradenames Chewable tablets, Coversyl, Pravachol, Lopid
1.6.4 Referral under Art. 31: Sibutramine, Nimesulide, Gatifloxacin
1.6.7 Appeal procedure under Art. 9: Servastin

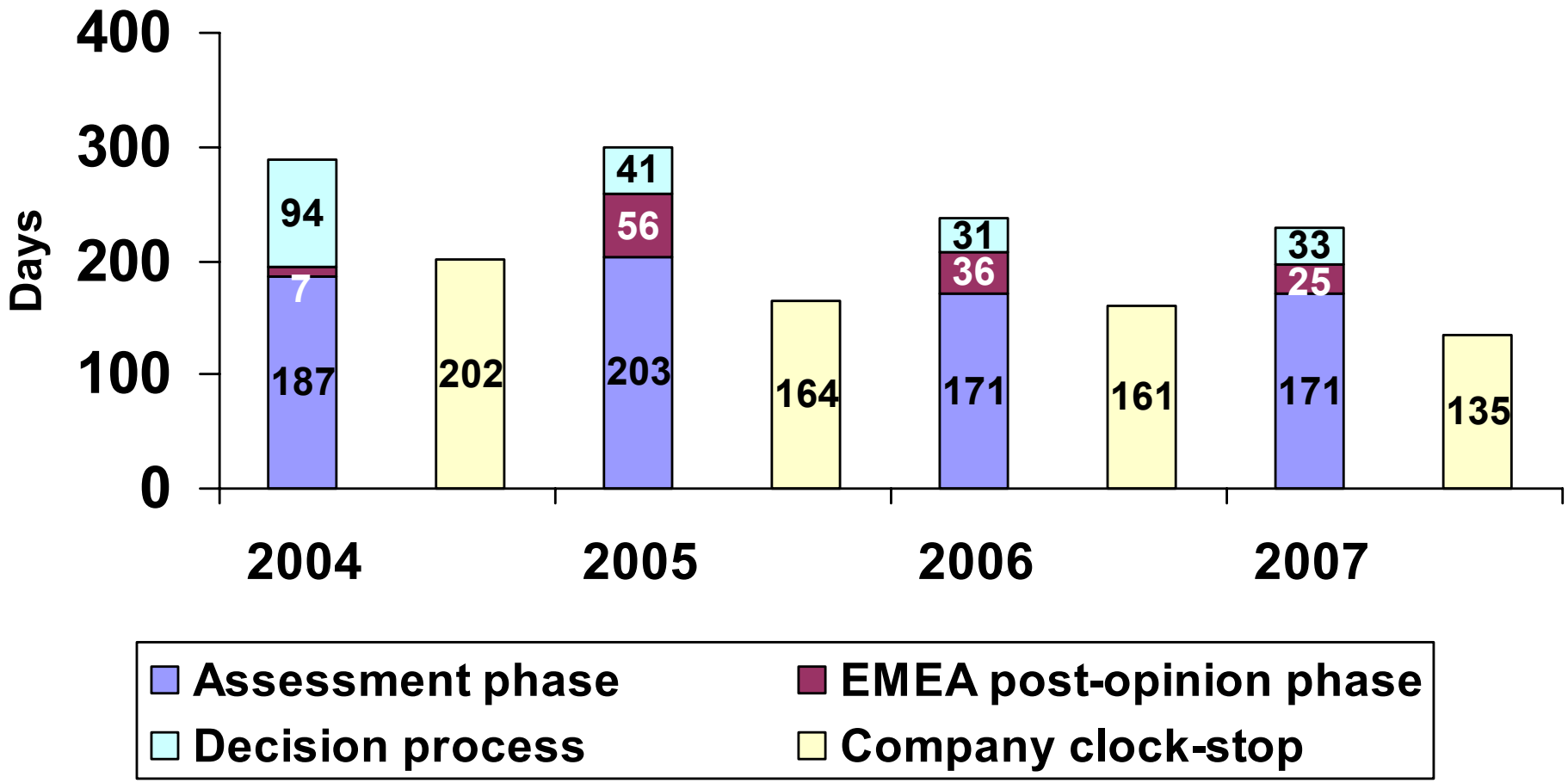
The Role of EMEA

Initial applications to EMEA
1995-2008



The Role of EMEA

Average review times for positive opinions 2004 - 2007



The challenges for regulators and the industry

- Globalisation
- Drug development
- Scientific progress
- Health technology assessment
- The public health agenda

Globalisation

- Manufacturing
- API
- Clinical trials
- Counterfeit

Content

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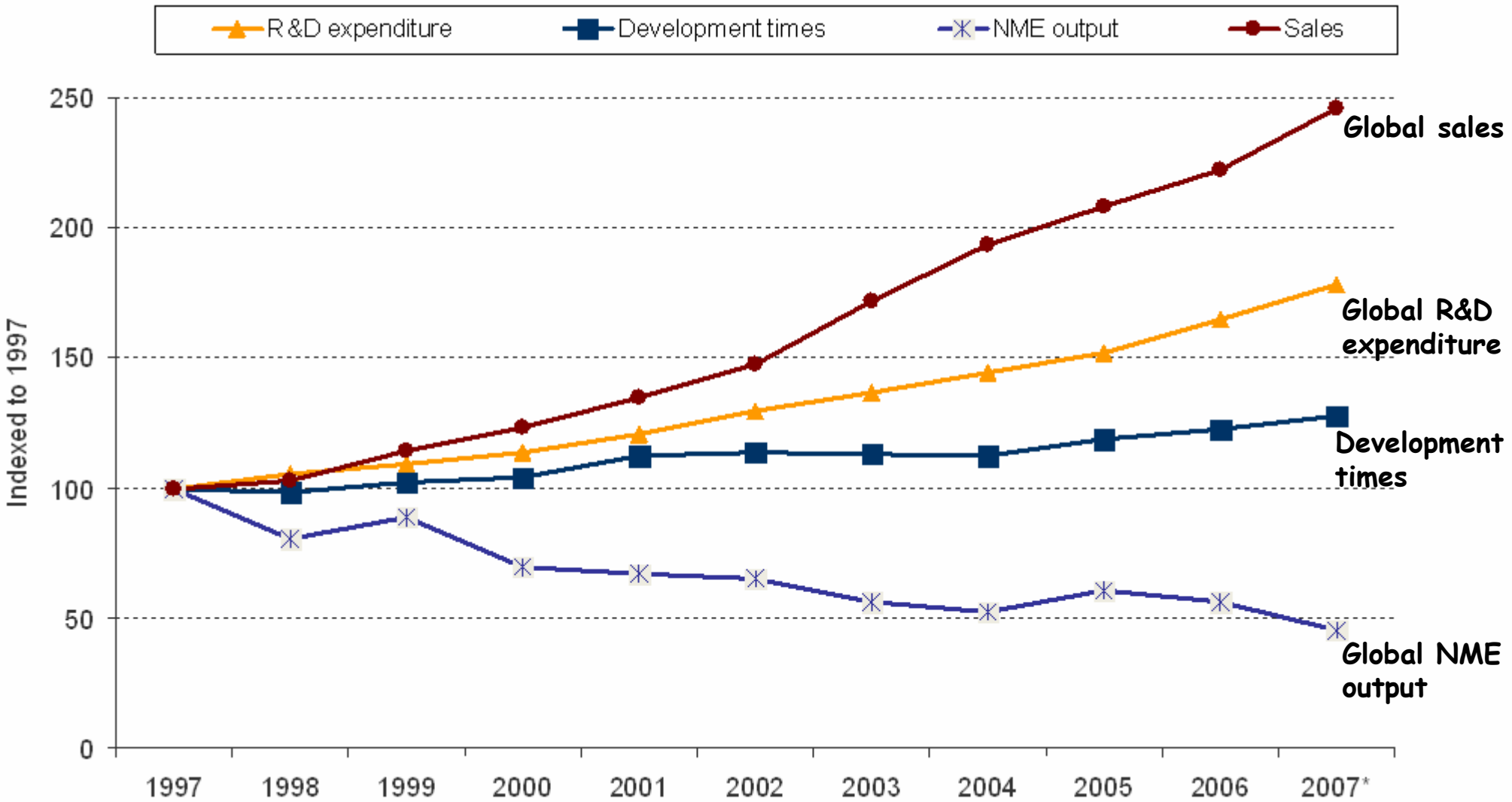
The drug development productivity deficit



* The development time data point for 2007 includes data from 2006 and 2007 only

Source: CMR International & IMS Health

Drug development

- Why do we have a productivity decline?
- Are the requirements to high ?
- Is the model for drug development wrong ?
- Is mother nature difficult ?
- If this productivity decline will continue what will be the consequences
  - New medicines will have very high cost
  - Lack of medicines for treatment and prevention

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Scientific progress

- The mapping of the human genome
- Personal medicine (Biomarkers)
- Regenerative medicine
- Preventive medicine
- Nanotechnology and delivery systems
- Integration of different science and sectors of healthcare industry

Challenge: Managing expectations

1994

2005

2001

Source:
The Daily Telegraph,
September 2, 2008

Gene that makes divorce more likely

By Roger Highfield
Science Editor

A "DIVORCE GENE" linked to an increased risk of relationship breakdown has been discovered by scientists.

Researchers say it plays a crucial role in determining how the brain responds to vasopressin, a chemical that is central to the bonding process between a man and a woman.

The discovery raises the possibility that scientists could develop drugs to target the gene in an attempt to prevent marriages from falling apart.

Hasse Walum and colleagues at the Karolinska Institute, Stockholm, looked at a protein in the body which one version of the gene had low scores and were less likely to be married.

The wives of those who were married were also less satisfied with their marriage than women whose husbands did not have that genetic variant.

Those with two copies of it were twice as likely to report having had a marital crisis in the past year, the team reported in the *Proceedings of the National Academy of Sciences*.

"There are, of course, many reasons why a person might have relationship problems but this is the first time that a specific gene variant has been associated with how men bond to their partners," said

Stratified medicine: Herceptin®

Ind: ..patients with HER2 positive … breast cancer

	With HER2 neu	Without
Response rate	50%	10%
# of patients in trials	470	2200
Years of follow-up	1.6	10

- Savings in clinical trial costs ~ $35 million
- Income from 8 year acceleration of product ~ $2.5 billion
- Access to drug from acceleration ~ 120,000 patients

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Interaction between regulators and HTA bodies?

Differences:

- Endpoints
- Efficacy vs Effectiveness
- Relative Efficacy vs Placebo controlled studies

Areas of interaction:

- Drafting of Clinical Guidelines
- Scientific Advice
- Benefit risk evaluation
- Post authorisation studies

Goal:

- Integrated drug development satisfying the requirements of both regulators and payers

Content

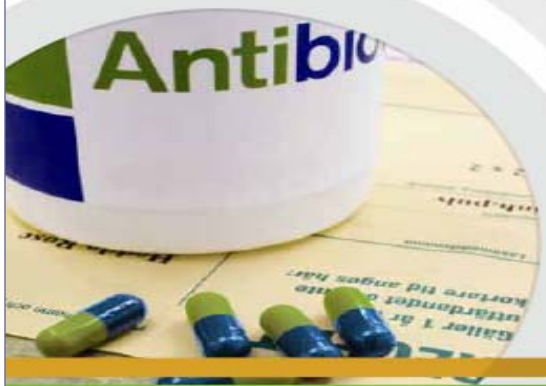
- Globalisation
- Drug development
- Scientific progress
- The regulatory model
- The public health agenda

The public health agenda

- Demographics and disease patterns
- Gaps in pipeline
- The need for developing countries
- Geriatrics
- Rational use of medicines
- Upcoming emerging situations
  - Pandemic

Findings on the pharmaceutical gaps

1. Infections due to antibacterial resistance
2. Pandemic influenza
3. Cardiovascular disease (secondary prevention)
4. Diabetes (Type 1 and Type 2)
5. Cancer
6. Acute stroke
7. HIV/AIDS
8. Tuberculosis
9. Neglected diseases
10. Malaria
11. Alzheimer disease
12. Osteoarthritis
13. Chronic obstructive pulmonary disease
14. Alcohol use disorders: alcoholic liver diseases and alcohol dependency
15. Depression in the elderly and adolescents
16. Postpartum haemorrhage



TECHNICAL REPORT

The bacterial challenge: time to react

A call to narrow the gap between multidrug-resistant bacteria in the EU and the development of new antibacterial agents

www.ecdc.europa.eu
www.emea.europa.eu

How EMEA is meeting the challenges: EMEA Road Map to 2010

- Core activities to the highest standard
- Safety of medicinal products
- Access for new medicinal products and support to innovation
- Transparency/communication and provision of information
- Strengthening the EU regulatory network
- Global cooperation

Core activities to the highest standard

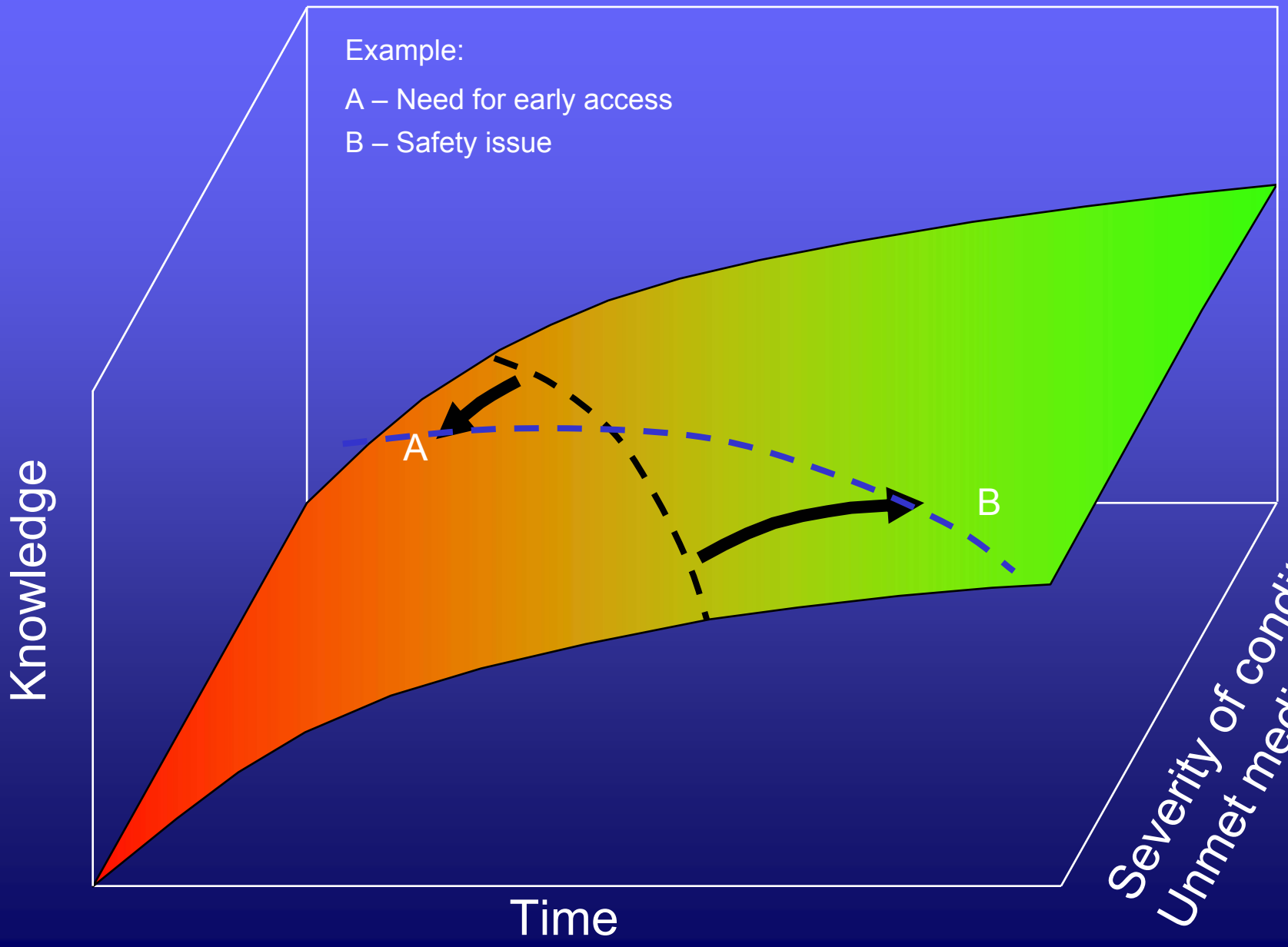
- Integrated quality management system
- Organisational and procedures improvement
- Competence development
- Life cycle concept
- Consistence and predictability
- Consolidation of benefit-risk evaluation
- Ensuring the best expertise for assessment

Safety of medicines

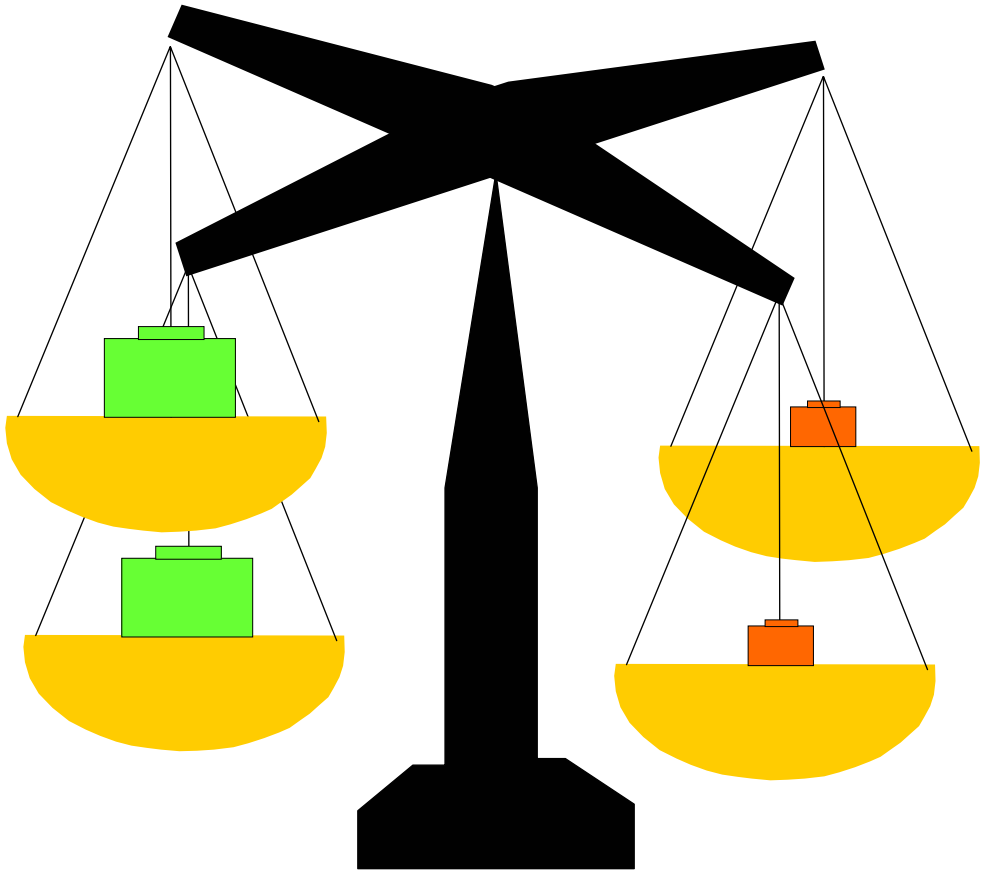
- New legislation
  - Risk management plans
  - Studies in targeted population
  - Permanent follow-up benefit/risk balance

- Actions
  - EU risk management strategy
  - EudraVigilance
  - ENCePP *(EU Network of Centres for Pharmacoepidemiology and Pharmacovigilance)*

The level of data at the time of approval



Knowledge changing over time

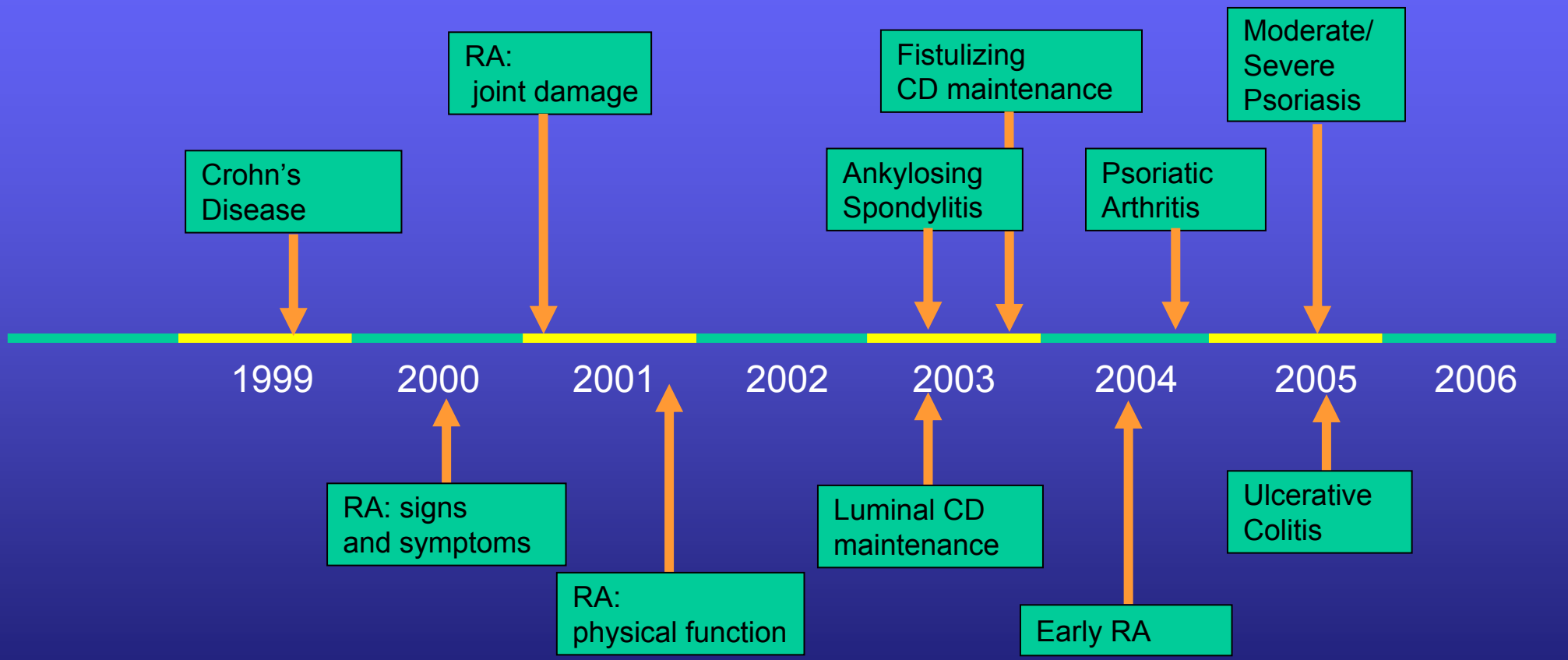


Benefits

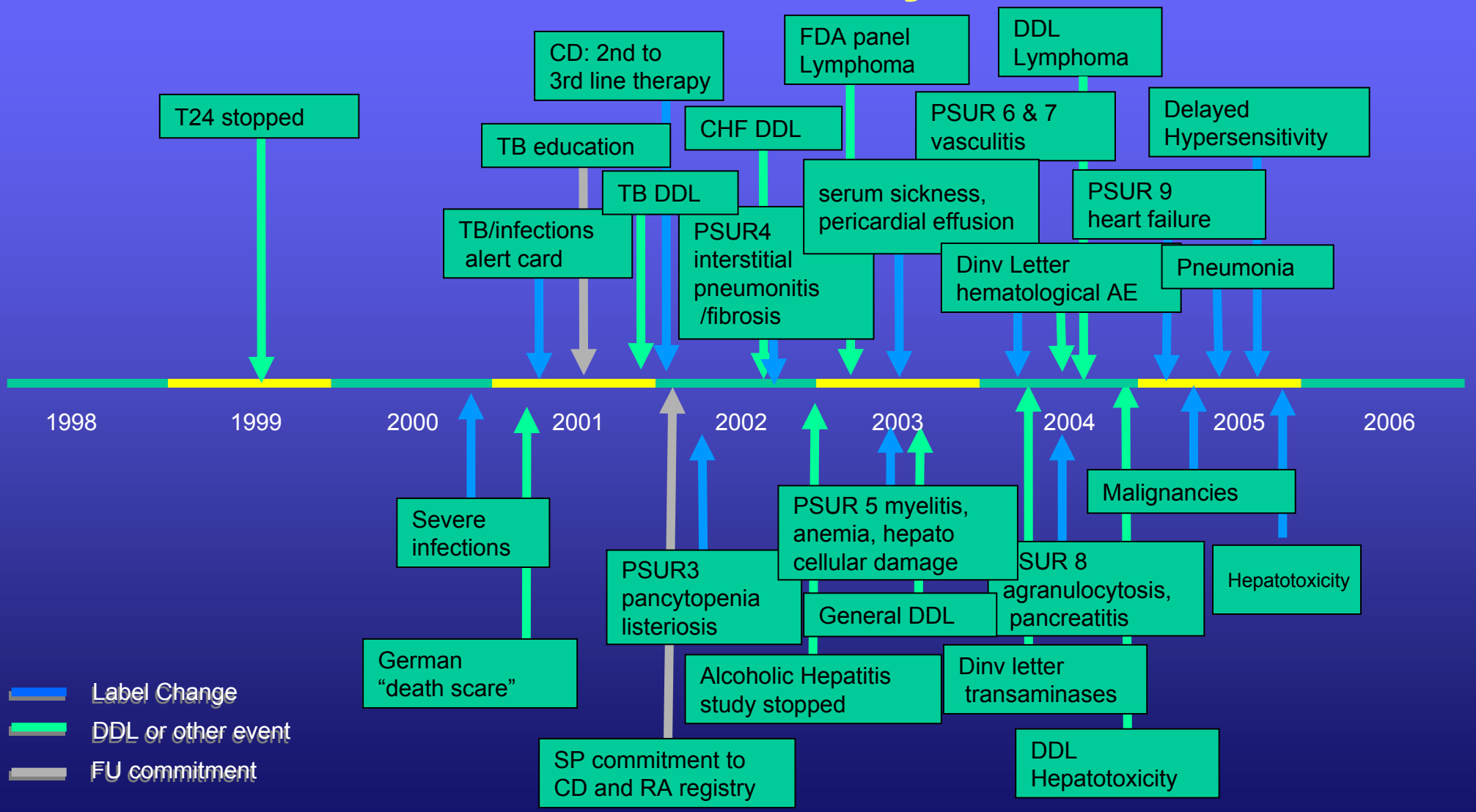
Risks

- Need for monitoring
- Careful evaluation of signals
- Not to be too risk averse
- To find the right balance

Evolution of Remicade (EU): Efficacy



Evolution of Remicade (EU): Safety



Access to new medicinal products

- Conditional marketing authorisation
- Accelerated evaluation
- Compassionate use
- Faster opinion and decision-making
- Orphan drugs
- Paediatrics
- Article 58 in collaboration with WHO
- Example pandemic vaccines

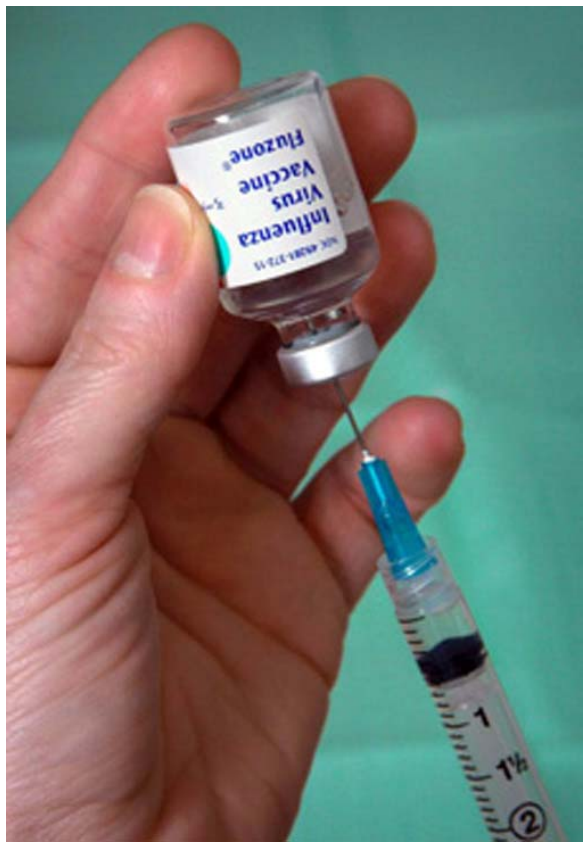
EMEA strategy with Mock-Up Pandemic Vaccines?

- Mock-up vaccine is a vaccine containing viral antigen(s) to which humans are immunologically naïve, e.g. H9N2 / H5N1.

- Scientific data with a mock-up vaccine are relevant for the pandemic vaccine:
  - Manufacturing and quality data
  - Clinical experience in naïve population
  - Evaluation of novel concepts prior to a pandemic e.g. use of adjuvants with the objective of increasing available doses, establishment of dosing schedule

Pandemic Vaccines

- 3 vaccines for H1N1 pandemic influenza have received an EC Decision:
  - Focetria (Novartis) on 29-10-09
  - Pandemrix (GSK Biologicals) on 29-10-09
  - Celvapan (Baxter) on 06-10-09
- EMEA has worked closely with companies and other stakeholders (e.g. DG Sanco, DG Enterprise, WHO, etc…) to achieve the expedited and in-depth assessment of the vaccines
- EMEA has put in place post-marketing commitments to monitor the use of the vaccines
- EMEA has ensured full transparency of the regulatory review process and outcomes to facilitate Member States' decision making.



Support for innovation and R&D

- Procedure for scientific advice and protocol assistance
- New procedure advice and validation of biomarkers
- Small and medium size enterprises support
- Incentives in legislation (data protection)
- EMEA support to Innovative Medicine Initiative

Support to innovation and R&D

- EMEA task force for new technologies
  - EMEA entry point for novel technologies
  - EMEA website for new technologies
  - Specialised CHMP working parties

European Commission initiatives in public private partnership with the EU pharmaceutical industry

- The Innovative Medicine Initiative (IMI)
  - Part of the 7th research framework program
  - Promote development innovative therapies
  - Partners: EU Commission, academia, patients associations, EU industry (including SMEs), regulatory authorities
  - Objectives: to make development process cheaper, faster, predictable)

IMI initiatives

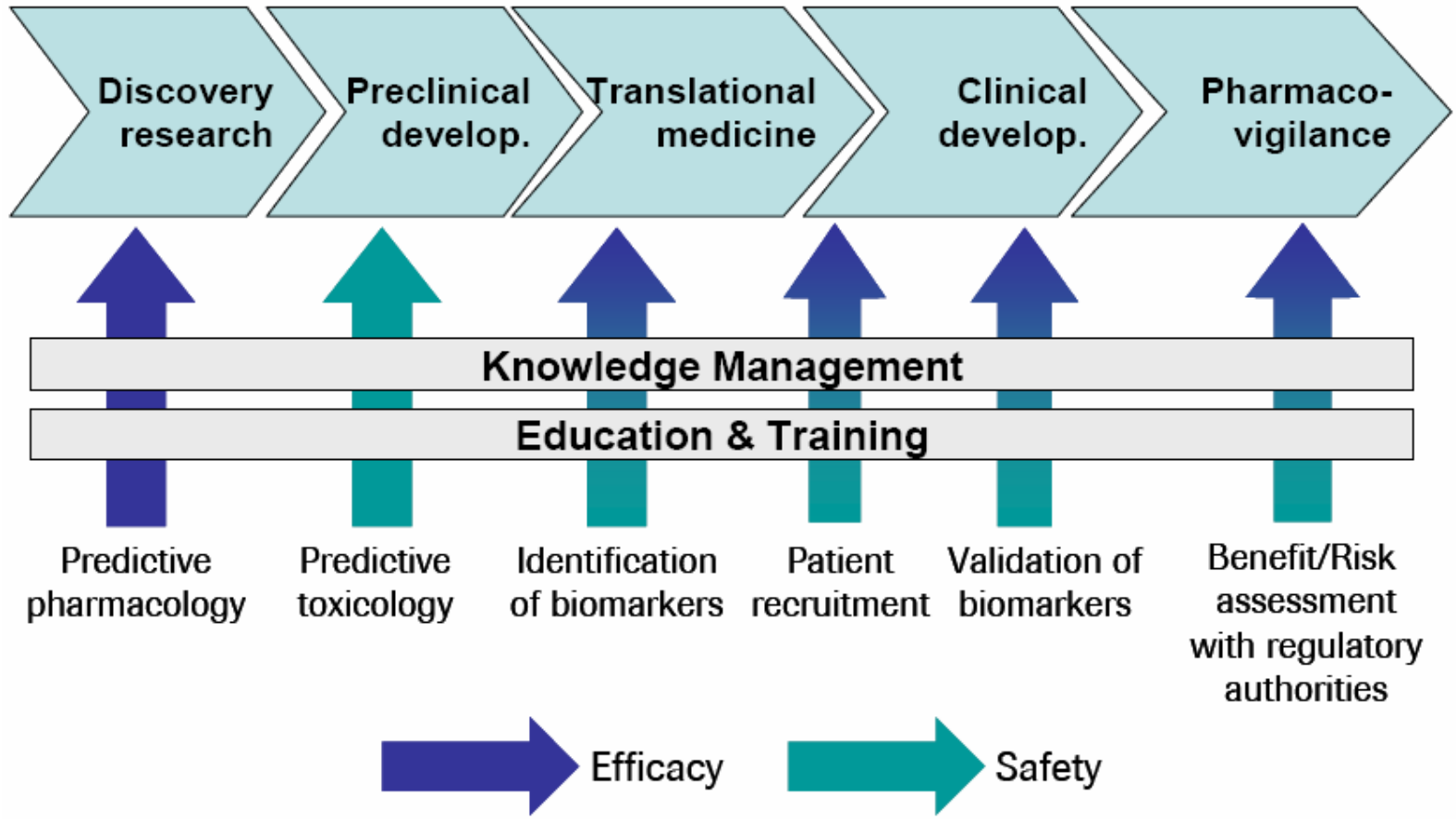


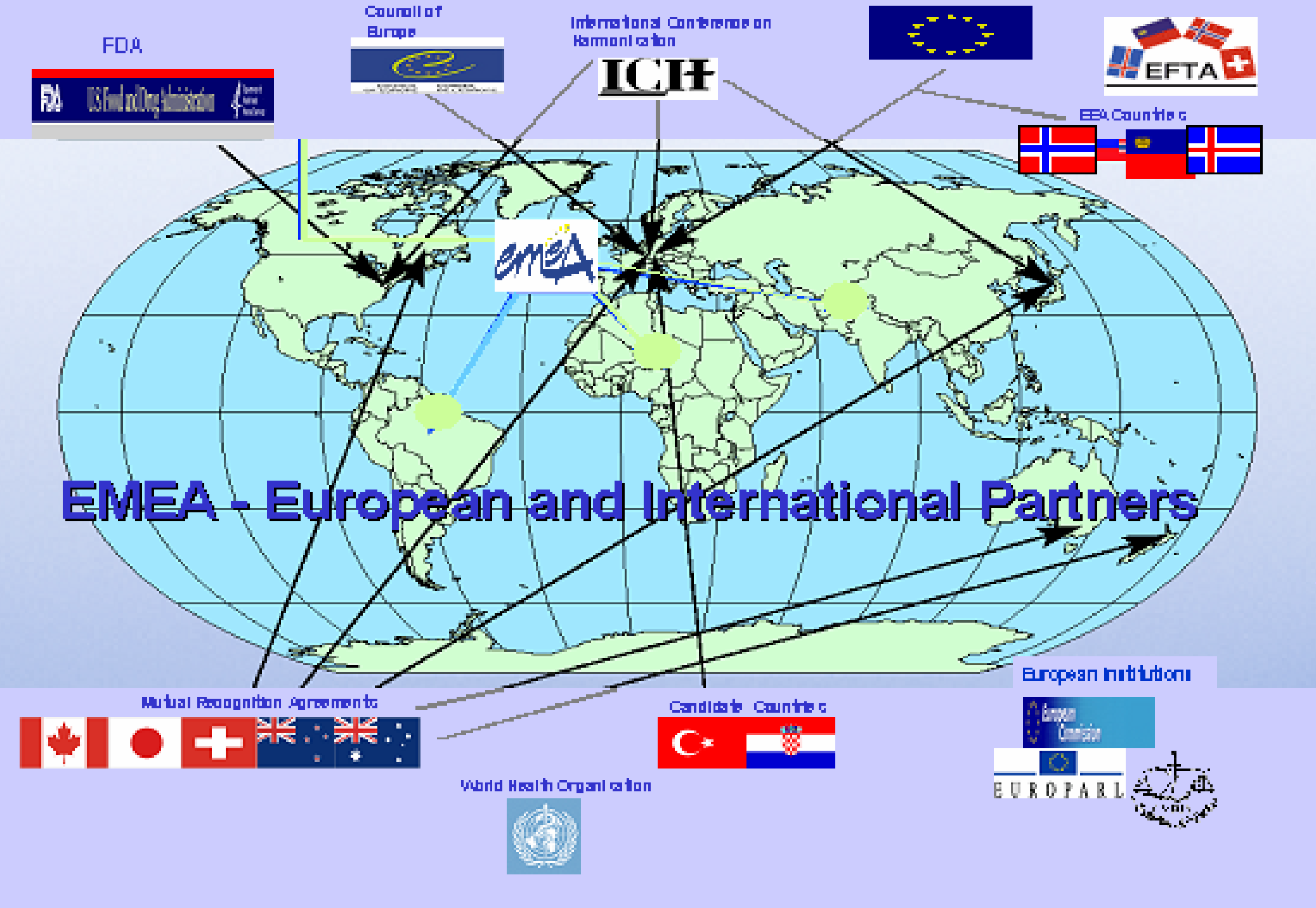
Figure 2 : Key Bottlenecks in the Pharmaceutical R&D Process

Transparency, communication and provision of information

- Implement initiatives to further increase transparency on the Agency's work (medicinal products and non-medicinal products related)
- Review the EMEA communication tools, including the Agency's website
- Reinforce interaction with patients and healthcare professionals, taking due account of the "satisfaction" surveys

Management of EU Network

- EMEA + national agencies
- EMEA management and coordination of EU resources
- Expertise from the Member States
- Quality assurance system and benchmarking
- Common approaches (transparency, EU risk management strategy, Training, EU telematic strategy)
- Financing the network


FDA
Council of Europe
International Conference on Harmonisation
ICH
EFTA
EEA Countries
EMEA - European and International Partners
Mutual Recognition Agreements
Candidate Countries
European Institutions
EUROPARL
World Health Organisation

International cooperation

- EU enlargement
- International conference on harmonisation (ICH)
  - Global cooperation group
- FDA-EU (Commission/EMEA) confidentiality arrangements
- Japan-EU (Commission/EMEA) confidentiality arrangements
- Canada-EU (Commission/EMEA) confidentiality arrangements
- Special relation with Switzerland
- MRAs Canada, Switzerland, Japan and Australia
- Other global contacts; many frequent contacts world wide. China,India, Australia and many more and also regional initiatives
- More confidential arrangements to come

European Commission initiatives

- Pharmaceutical Forum
  - Patient information
  - Therapeutic added value
  - Pricing
- Proposal on information
- Revision of the variation legislation
- Revision of pharmacovigilance
- Proposal on counterfeit

European Commission initiatives

- Administrative simplification US-EU
- Reflection on the clinical trials directive
- Communication on the future of the single market of pharmaceuticals
- 7th EU research framework program 2007-2010
  - Medicines research
  - Technology platform (IMI)

Conclusions

- The role of EMEA – ***increasing responsibility with a constant flow of new reforms***
- The challenges for regulators and the industry – ***Getting new valuable medicines to the patients in a more transparent way***
- How EMEA is meeting the challenges – ***The EMEA road map***
- Global cooperation ***– EMEA will expand its international engagement***


Thank you for your attention