

The European Medicines Agency

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The European Medicines Agency Road Map to 2010: Preparing the Ground for the Future

Executive Summary

As part of its proactive approach to the continuing evolution of the pharmaceutical arena within the European Union (EU), the European Medicines Agency (EMEA) has developed a strategy that will contribute to better protection and promotion of public and animal health, improve the regulatory environment for medicinal products, and help to stimulate innovation, research and development in the EU.

Involving its partners and stakeholders in the consultation process on its strategy allowed the EMEA to achieve a broad consensus on the best way forward for the Agency in view of the significant changes to its operating environment.

The resulting Road Map is one that takes a realistic view of the challenges facing the Agency and the EU regulatory system as a whole, while offering viable proposals as to how those challenges can be met.

The ultimate objective of the Road Map exercise is to ensure that, building on the achievements of its first 10 years, the EMEA adequately prepares the ground for further success in the future.

A challenging regulatory environment

Recent political, institutional, legislative and scientific developments in the EU will have a significant impact on the regulatory environment over the coming years.

The enlargement of the EU on 1 May 2004 and the entry into force of new Community pharmaceutical legislation by November 2005 both present considerable challenges for the EMEA and its partners and stakeholders in the EU regulatory system.

The integration of 10 new Member States (MSs) and their National Competent Authorities (NCAs), and the likely accession of a further two states in 2007, increases the complexity of operating an efficient regulatory system, while new legislation extending the scope of the Agency's activities increases pressure on its resources and on its ability to meet the expectations of its stakeholders.

Political orientations such as the Lisbon strategy for economic, social and environmental renewal are important factors to increase the competitiveness of EU based pharmaceutical industry.

Meanwhile, the scientific environment is likely to change dramatically with the introduction of new technologies and emerging therapies, such as gene therapy, pharmacogenomics,

Public

proteomics and xenotransplants. These developments will need to be addressed in the context of continuing globalisation.

Faced with these challenges, the EMEA will have to demonstrate that the networking model on which it is based, involving institutional partners, 42 or more NCAs and over 3,500 scientific experts, is still able to deliver high quality in the areas it is responsible for.

Consequences for the EMEA

These developments are to be seen as opportunities as well as challenges. The EMEA will acquire new responsibilities with a greater focus on public and animal health; the scientific components of the Agency's activity will become more important; its visibility and influence in both the EU and the international regulatory environment will grow at a faster rate.

Ultimately, the consequence of the changing environment, and the Agency's strategy for adapting to it, will be that the EU regulatory system is in a more secure position to become one of the foremost in the world, with the greatest benefit for the citizens of Europe.

New action plan

The political, institutional, legislative and scientific developments within the EU prompted the EMEA to launch an exercise at the beginning of 2004 to determine a plan of action for the future. In April, the Agency produced a discussion paper, "The European Medicines Agency Road Map to 2010: Preparing the Ground for the Future", which was released for public consultation.

During the three-month consultation period, some 65 contributors — EU institutions, national health authorities, patient groups, professional healthcare organisations, pharmaceutical companies, trade associations, academics and other interested parties — submitted comments, which were taken into account.

The Road Map sets out a vision for the Agency, its objectives, and the specific actions it will implement to achieve those objectives.

Vision of the EMEA

The key aspects of the Agency's vision for the coming years are to allow rapid access to safe and effective medicines, provide for adequately informed patients and users of medicines, encourage and facilitate innovation and research in the EU, tackle emerging public health challenges, prepare for developments in the pharmaceutical field, and reinforce the partnership between the EMEA and the NCAs to establish a network of excellence at EU level.

The Agency will work to maintain and further strengthen its position as a regulatory authority that is public-health oriented, science-driven, transparent in the way it operates, and committed to applying good administrative practices.

Prerequisites for successful development

A further strengthening of the Agency's networking model, building on the firm partnership which already exists between the EU Regulatory Authorities, will lead to the establishment of a network of excellence at EU level, and will be vital to the future success of the EU Regulatory System.

NCAs will need to consider how they can best contribute to the overall regulatory system. Emphasis is placed on the need for them to continue and, where possible, augment their provision of high-quality scientific resources to the EMEA. The availability of highly specialised experts is of critical importance.

The Agency will have to put a robust quality assurance system in place to guarantee the overall quality and efficiency of its operations. This should result in a governance system at

EU level which assures quality and regulatory and scientific consistency of the evaluation processes.

Together with MSs, the EMEA will need to further develop and implement the EU-wide telematics strategy in order to provide a high-quality IT infrastructure across the EU that facilitates collaboration between the NCAs and the EMEA.

In view of its new and extended tasks, the EMEA Secretariat will need to review its processes and organisational structure in order to maximise efficiency. In particular, given the enhanced scientific role of the Secretariat, it will be critical to raise the scientific profile of its staff members and identify those areas where resources need to be strengthened.

Adequate workload and resource planning, including financial considerations, must be a priority if the EMEA is to focus on making safe and effective medicinal products available to patients and users of medicines in the shortest possible timeframe.

Objectives set out in the Road Map

The Road Map identifies the following as priority objectives that need to be achieved before the end of this decade.

Top-quality scientific assessment

The increasing complexity and cost of developing new active ingredients in today's globalised pharmaceutical industry demands a reinforced scientific advice process underpinned by a robust quality assurance system, including a strengthened peer review system that can improve the consistency of scientific assessments. In addition, there is a need for greater collaboration with – and for benchmarking against – non-EU regulatory authorities. Scarcity of scientific expertise in particular areas and overcapacity in others are issues that need to be addressed satisfactorily. Adequate measures need to be taken to ensure the highest level of expertise among the existing pool of experts. Elements of the new Community legislation will contribute to improving all these issues.

Timely access to safe and effective innovative medicines

The EMEA must strive for further gains in the operating efficiency of the centralised procedure, without compromising the quality of the assessment process that assures the safety of medicines reaching the market. Patients suffering from severe or life-threatening conditions in particular will benefit from timely access to innovative medicinal products. The Agency will continue to assist international efforts to develop a global standard for the assessment of such products. Revised Community legislation also provides for several new tools here.

Continuous monitoring of medicinal products

A proactive approach to pharmacovigilance and the introduction of risk management plans will enhance the continuous monitoring of products on the EU market. Further, closer collaboration with the MSs is of paramount importance here, and collaboration with non-EU Regulatory Authorities will be particularly important in the innovative field of new therapies. Regulators need to make sure the overall pharmacovigilance system is equipped to deal with safety concerns in an efficient and timely manner. New legislative tools will be made available to help.

Access to Information

The EMEA will follow up on initiatives agreed with the European Commission to improve access to information and enhance the Agency's profile in the outside world as an approachable, informative and transparent organisation. Systematic feedback will be obtained from health care professionals, patients, users of medicines, academia and learned societies in order to continuously improve the adequacy and targeting of information released by the EMEA for its stakeholders and the general public. EuroPharm and EudraVigilance will be key channels for providing high-quality information about medicinal products. Implementation of transparency policy measures and other transparency tools stemming

from the new legal provisions will result in the development of an EU Transparency and Communication strategy, to be undertaken in cooperation with NCAs.

Specific needs for veterinary medicines

A number of important veterinary issues demand specific attention, including the lack of availability of medicinal products for minor uses and minor species (MUMS), the potential development of antimicrobial resistance in man and animals, the environmental safety of some classes of medicinal products, and the effective application of good pharmacovigilance practice throughout the EU.

Specific actions

In order to meet the key objectives it has set itself, the EMEA has drafted an implementation plan that covers the following specific actions:

- Reinforce the partnership between all EU Regulatory Authorities in the different fields of medicines regulation, leading to the establishment of a network of excellence at EU level; renew efforts to acquire the best available personnel for the scientific activities of the Agency and the NCAs, taking pains to reinforce the network in areas where expertise is insufficient;
- Revise the current procedural framework to establish the best possible environment for the provision of scientific advice; increase the level of scientific support provided by the EMEA Secretariat to the Scientific Committees to improve the quality and regulatory and scientific consistency of their scientific assessment work;
- Implement procedures foreseen by the new legislation which allow for more rapid access to medicines without compromising the safety of patients; implement special measures for innovative medicines, technologies and therapies, veterinary medicines, generic/non-prescription medicines and herbal medicines;
- Explore options to enhance the continuous monitoring of medicinal products on the EU market, especially by applying a more proactive approach to pharmacovigilance;
- Stimulate research and innovation in the EU's pharmaceutical, biotechnology and healthcare industries, leading to the development of an adequate product development toolkit, able to address the bottlenecks during the development of innovative medicines;
- Provide incentives for Small and Medium-sized Enterprises;
- Strengthen the coordination of good manufacturing and clinical practices across the EU;
- Follow-up on initiatives to improve the Agency's transparency and communication, with special emphasis on the provision of useful, clear and comprehensive information to patients/users of medicines, and health care professionals;
- Engage more fully in dialogue with health organisations, academia, learned societies and other stakeholders;
- Continue the roll-out and development of EU-wide telematics systems;
- Strengthen the EMEA's international collaboration with non-EU Regulatory Authorities.

A considerable number of the actions set out in the Road Map implementation plan are already incorporated in the Agency's planning process for 2005. Fine-tuning those initiatives will continue throughout 2005, in close collaboration with the Agency's partners and stakeholders. The remaining actions are to be included in future work programmes, with the aim of full implementation by 2010.

Regular reviews will be done to investigate the need for additional initiatives to be undertaken. Feedback on progress made will be provided to the EMEA Management Board and the European Commission at regular intervals.

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The European Medicines Agency Road Map to 2010: Preparing the Ground for the Future

Part I

The European Medicines Agency Strategy

Chapter 1 Introduction

The key aspect of the European Medicines Agency (EMEA) vision for the coming years is to further strengthen the protection and promotion of public and animal health in the European Union (EU), whilst encouraging and facilitating innovation and research in an enlarged EU. In order to provide for an adequate implementation it will be paramount to further strengthen the current Agency networking model and to reinforce the firm partnership between all EU Regulatory Authorities, resulting in the establishment of a network of excellence at EU level.

Part I of the EMEA Road Map will address

- (1) the positioning of the EMEA over the coming years in a changing environment,
- (2) the consequent development of the EMEA in such an environment, including the objectives to be achieved, and
- (3) the prerequisites that need to be fulfilled in order to allow the Agency to successfully achieve the objectives.

Chapter 2 A Changing Environment

2.1 The Current Environment

The EMEA was established in 1995.

Its current Mission Statement is "to contribute to the protection and promotion of public and animal health by

- mobilising scientific resources from throughout the EU to provide high quality evaluation of medicinal products, to advise on research and development programmes and to provide useful and clear information to users and health care professionals,
- (2) developing efficient and transparent procedures to allow timely access by users to innovative medicines through a single European marketing authorisation, and
- (3) controlling the safety of medicines for humans and animals, in particular through a pharmacovigilance network and the establishment of safe limits for residues in food producing animals."

The EMEA works as a network, bringing together the scientific resources of the Member States (MSs) to ensure the highest level of evaluation and supervision of medicines in the EU. The Agency cooperates closely with international partners, reinforcing the EU contribution to global harmonisation.

The current EU Regulatory System is unique in the international regulatory environment in so far that Community legislation has provided for a network between all national regulatory bodies, coordinated by the EMEA.

The benefits of such networking model are numerous. It has allowed for the best scientific expertise available in the National Competent Authorities (NCAs) to be brought together at the level of the EMEA in order to assess innovative medicines using common standards and to subsequently provide for rapid access to such medicines for EU patients/users of medicines. It has also contributed to the harmonisation process between all MSs by further standardising the requirements for the evaluation and supervision of medicines irrespective of the licensing route and, as a result, has led to coordinated approaches in several fields.

However, it needs to be recognised that there exist areas where the overall successful networking model could still benefit from further strengthening, particularly in the light of the challenges the EU Regulatory System is facing in the coming years. Best use of the available limited resources, hence avoiding duplication of work, and increasing the efficiency of operation of the system is to be encouraged, together with the need for further coordination to ensure a harmonised approach in fields such as scientific advice, transparency, communication and monitoring of the impact of the regulatory action taken. All such initiatives should be undertaken in concert with the application of good regulatory practice. Furthermore, an adequate IT infrastructure at EU level, compatible with the national IT systems, is paramount to underpin the regulatory activities.

2.2 The New Environment

The EU Regulatory System is being confronted with significant changes of a legislative (impact of new Community legislation) and institutional (impact of the 2004 enlargement of the EU) nature.

In addition to these significant challenges having an immediate impact on the overall system, other developing factors which are nonetheless important will have to be taken

into account. Amongst them are political factors such as the continuation of the EU enlargement after 2004 with Bulgaria and Romania joining in 2007 and other countries such as Turkey also seeking membership.

In addition, one also needs to take into account important political orientations such as the Lisbon strategy for economic, social and environmental renewal set out in March 2000. Pharmaceuticals and healthcare biotechnology are leading pillars of the EU's knowledge economy. Pharmaceutical and healthcare industries remain cornerstones of the EU's industrial competitiveness. Therefore, they take a prominent place in the EU's pursuit of the goals set at the Lisbon European Council for the EU's economic competitiveness.

One of the key issues for Regulatory Authorities over the next years will be their ability to adequately monitor the medicinal products on the market, especially from a safety perspective. Recent worldwide withdrawals of high-profile medicines have indicated the need for a proactive approach to pharmacovigilance, to be translated in adequate systems, methodologies and processes, hence providing the best protection for public and animal health.

Another issue to be addressed by the international regulatory environment will be its ability to tackle the fall in innovative productivity, despite a sharp increase in global Research & Development (R&D) expenditure over the past years. Another factor to be considered is the international regulatory environment's ability to prepare adequately for the introduction of new technologies, from a scientific, legal and regulatory perspective. Appropriate measures will have to be taken in order to ensure that the pharmaceutical industry can take advantage of new pharmaceutical technologies in the manufacturing and analytical areas, and anticipate the implications of emerging therapies.

Other factors to be considered include the impact of an ageing population, increased demands for medicines in areas of unmet medical need, the possible unavailability of medicines both in the human and veterinary field, the ever increasing concerns about the development of antimicrobial resistance, the adequate management of bioterrorism and chemical terrorism agents and other major public health issues (such as an influenza pandemic, another SARS outbreak, etc.).

In the veterinary sector the safety of medicines in food producing animals will be underpinned by the Agency's continued role in the establishment of Maximum Residue Limits (MRLs) for substances used in food producing animal species for the purpose of setting adequate withdrawal periods and for the control of residues in foodstuffs of animal origin.

It should also be emphasised that all the above developments should be increasingly handled in a context of continuing globalisation.

These changes are not to be regarded as pure challenges, but rather as new opportunities, which, through adequate proactive initiatives should lead to an enhanced protection and promotion of public and animal health in an enlarged EU.

Chapter 3 The European Medicines Agency in the Changing Environment

3.1 Impact Analysis

The impact of the changing environment on the EMEA will be considerable. The Agency with its network of 42 NCAs in the European Economic Area (EEA), through which scientific resources are made available to the Agency, will become one of the world's foremost Regulatory Authorities for medicinal products. The EMEA will have to demonstrate that, after enlargement, the networking Agency model is still able to perform competently in the different fields of medicines regulation, with no negative consequences for the quality of the work which is undertaken, in close collaboration with 42 and possibly more NCAs. One of the major tasks of the Agency will continue to be the coordination of the scientific resources provided by the MSs and such task will be further extended, e.g. in the field of Good Manufacturing Practices (GMP), where inspections of the manufacturers of active ingredients will soon need to commence, and in pharmacovigilance.

Collaboration with Health Organisations will not remain limited to the Agency's interaction with NCAs. Cooperation with other EU Institutions in the field of public health needs to be established, such as the European Food Safety Authority (EFSA) and the European Centre for Disease Prevention and Control (ECDC).

The impact of the EMEA's scientific opinions will become increasingly important, both from a public/animal health perspective and an economic viewpoint. Moreover, the influence of the Agency in both the EU and the international regulatory environment will continue to increase due to a further strengthening of its role and responsibilities, hence leading to a higher visibility towards the outside world. In addition, its role and responsibilities will also change, and the scientific component of the EMEA's activities will become more important.

Another example of increased responsibilities for the Agency is the implementation of Community legislation on herbal medicines and the establishment of a new Scientific Committee, the Committee on Herbal Medicinal Products (HMPC).

The European paediatric initiative will also have important consequences for the EMEA. New Community legislation would aim to increase the development of medicines for children (both new and existing medicines) and improve the availability of information on the use of medicines in children. A new Scientific Committee, the Paediatric Board, will be established at the Agency and the EMEA will be requested to coordinate an European paediatric network for performing paediatric studies.

The EMEA's international role will also be further developed. Building on existing initiatives, such as interaction with non-EU Regulatory Authorities, the important contribution to the global harmonisation process of (V)-ICH and the collaboration with the World Health Organisation (WHO), the latter currently mainly in the field of pharmacovigilance, the Agency will provide increased support to non-EU countries, in close cooperation with WHO.

3.2 Challenges Ahead

The main challenge for the EMEA over the next few years will be its ability to meet the increasing expectations of its stakeholders. The Agency will particularly focus on the needs and expectations of patients and users of medicines. The EMEA will have to find the right balance in terms of expectations such as applying high scientific knowledge for the timely delivery of science based opinions, increased involvement in the protection and promotion of public and animal health, regulatory and scientific

consistency, predictability, greater transparency, better information and enhanced communication.

In addition, the EMEA will have to address issues stemming from the Lisbon strategy for economic, social and environmental renewal, since the Agency's role in enabling the pharmaceutical industry to achieve the objective of industrial competitiveness is crucial. The EMEA has an essential role in bringing safe and effective innovative medicines as quickly as possible to patients and users of medicines. Apart from economic competitiveness, the EMEA also contributes to the EU citizens' quality of life.

In responding to the above challenges the Agency will have to adequately address:

- (1) additional tasks allocated to the EMEA in accordance with new Community legislation,
- (2) new developments such as the perception of the safety of medicines and the environmental impact of the use of medicines,
- (3) the assessment of new types of products (such as gene therapy, pharmacogenomics, proteomics, xenotransplants), and
- (4) bi/multilateral scientific cooperations.

In addition, specific segments of the pharmaceutical market deserve special attention, such as Small and Medium-sized Enterprises (SMEs).

The EU Regulatory System concept requires the EMEA to find adequate answers to the above challenges in close cooperation with its Member State partners. Therefore, the continuation and adaptation of the Agency's networking model will also require that MSs are able to adequately respond to the changing environment, which will result from the political, institutional, legislative and scientific developments. In order for the EU Regulatory System to position itself successfully in the international environment as one of the world's foremost regulatory systems, NCAs should carefully examine how they can best contribute to the future system since this will be key for the overall success. It should be emphasised that the network between the EMEA and NCAs can only be optimised if there is a stronger cohesion between all parties concerned, looking at complementing the achievements already obtained by introducing further actions aiming at reinforcing the networking model. In order to achieve such aims a common understanding on the architecture of the future EU Regulatory System is paramount. Once such common understanding has been obtained, in a next step important issues such as roles and responsibilities (in different fields such as regulatory, scientific, organisational and technical) of all involved parties need to be addressed in order to reach complete transparency on the accountability for the different activities to be undertaken in the context of the EU Regulatory System.

Chapter 4 The Future Development of the European Medicines Agency

4.1 The European Medicines Agency Vision

The EMEA will strive to maintain and further develop its position as one of the leading regulatory authorities, which is science-driven, and transparent in the way it operates, whilst applying good administrative practices.

Its aim, within the context of a continuing globalisation, is to

- (1) allow rapid access to safe and effective human and veterinary medicines^{1, 2}, whilst providing for adequately informed patients and users of medicines,
- (2) encourage and facilitate innovation and research in an enlarged EU, and
- (3) adequately tackle emerging public health challenges and prepare for developments in the pharmaceutical field.

The Agency should be supported by high quality scientific resources made available by the NCAs and a high standard IT infrastructure which provides an adequate and secure network in order to meet such a target.

A further strengthening of the current networking model and a reinforcement of the firm partnership which has already been established between all EU Regulatory Authorities, hence leading to a network of excellence at EU level, will be vital in order to implement this vision.

In summary, the EMEA will strengthen its base over the next few years, by better integrating the 25 MSs within the networking model, by modernising its functioning and by reducing administrative impediments. This will be accompanied by reliable budgetary and activities planning. Maximising the overall quality and efficiency of operation will be a key objective for the Agency, since this will be a prerequisite for the establishment of a regulatory public body which provides for a modern, high standard civil service.

Consequently, taking into account the EMEA's extended scope of activities as per new Community legislation, the Agency's initial Mission Statement is revised as follows:

"The EMEA's Mission Statement is, in the context of a continuing globalisation, to protect and promote public and animal health by

- (1) developing efficient and transparent procedures to allow rapid access by users to safe and effective innovative medicines and to generic and non-prescription medicines through a single European marketing authorisation,
- (2) controlling the safety of medicines for humans and animals, in particular through a pharmacovigilance network and the establishment of safe limits for residues in food producing animals,
- (3) facilitating innovation and stimulating research, hence contributing to the competitiveness of EU based pharmaceutical industry, and
- (4) mobilising and coordinating scientific resources from throughout the EU to provide high quality evaluation of medicinal products, to advise on research and development programmes, to perform inspections for ensuring fundamental

¹ This applies to both innovative medicines and generic and non-prescription medicines.

² This also relates to the provision of scientific opinions on medicinal products for non-EU countries in the framework of the EMEA/WHO cooperation.

GXP³ provisions are consistently achieved, and to provide useful and clear information to users and health care professionals."

4.2 Objectives to be Achieved

In order to enable the EMEA, as a networking Agency model, to reach such aspirations before the end of the decade, a number of objectives should be achieved:

Top Quality Scientific Assessment

With more complex global development programmes and increasing R&D costs for a new active substance, predictability of outcome is becoming key in development programmes. New Community legislation, especially a reinforced scientific advice process as well as the introduction of Scientific Advisory Groups will contribute to the resolution of the pharmaceutical industry's concerns in this field, but should be complemented by other initiatives which do not warrant legislative changes, and underpinned by a robust Quality Assurance System, managed by the EMEA. A strengthening of the peer review system to which the Agency should actively contribute in terms of regulatory and scientific memory, hence reinforcing the consistency of the outcome of the scientific assessment, should be key in such a Quality Assurance System.

In addition, globalisation of development programmes will drive the need for an enhanced collaboration with other non-EU Regulatory Authorities, in particular the FDA/USDA, ideally leading to parallel reviews in the key areas of the scientific assessment process, resulting in global development programmes, especially for new important medicines and new technologies. As the impact of the EMEA review will become more influential due to the consequences of enlargement and legislative changes, the public scrutiny of the review process is expected to increase. Benchmarking with other non-EU Regulatory Authorities, whilst acknowledging the different regulatory environments such authorities are operating in, will become more critical as to differential outcomes, hence leading to the need for a robust EU assessment standard.

One of the strengths of the EU system is the ability to source expertise from whatever location in the EU. One needs, however, to emphasise that the system will be confronted with particular challenges, such as in the field of new therapies, due to the scarcity of experts in these areas and their possible involvement in the pharmaceutical industry. Transparent and robust conflict of interest mechanisms, to be operated in a smooth and practical way, will need to be available to reassure the public. Whereas in some fields one might face a scarcity of scientific expertise, in other areas one might be confronted with an overcapacity of such expertise, due to a shift in workload. The introduction of the new Regulatory Authorities as a result of the recent EU enlargement could have a further impact on this situation. In order not to endanger the quality of the EU system, adequate measures need to be taken to ensure that the existing pool of scientific experts is maintained at the highest level of expertise.

Timely Access to Safe and Effective Innovative Medicines

The current centralised procedure has shown to be very stable with respect to timing and has demonstrated to be capable of delivering fast reviews. New Community legislation will, despite the absence of a real rolling review concept, provide several new legislative tools, which will allow a more rapid access to safe and effective innovative medicines. In addition, the Agency, building on its culture of continuous improvement of its processes, will strive for a further gain in efficiency of the operation

³ GXP refers to Good Clinical Practices, Good Laboratory Practices and Good Manufacturing Practices.

of the centralised procedure without compromising the quality of the assessment process, hence complementing the legislative initiatives.

The need for rapid access for patients and users of medicines to innovative medicines also requires to explore which factors are responsible for the worldwide decrease in innovative productivity despite higher investments made. Particular attention will be put on identifying the bottlenecks in the drug development process and what remedial actions can be undertaken. Such a global problem will require a coordinated approach amongst all concerned parties.

Timely access to innovative medicines is also a key target for the provision of scientific opinions on medicinal products for non-EU countries in the context of the EMEA's collaboration with WHO, hence enabling the development of a rapid and global standard of assessment for these countries.

Continuous Monitoring of Medicinal Products

This is probably the most challenging area with the greatest potential of vulnerability for the Agency. A proactive approach to pharmacovigilance and the further development of risk management strategies will enhance the continuous monitoring of medicinal products on the EU market. In order to achieve this, a further reinforcement of the close collaboration with MSs is of paramount importance. These issues will be addressed in the context of the ongoing discussions on the European Risk Management Strategy (for human medicines) and the European Surveillance Strategy (for veterinary medicines). Such discussions will allow for interaction with Interested Parties.

Although new legislative tools will be made available in order to strengthen the conduct of pharmacovigilance, regulators will have to make sure that the overall system is equipped to deal in an efficient and timely way with crisis situations in terms of robust scientific assessment, sound regulatory action, adequate transparency, appropriate communication and monitoring of the impact of the regulatory action taken. In this respect, it needs to be recognised that the area of monitoring of the impact of regulatory action taken by Regulatory Authorities, especially the effects on public health, is currently a rather untouched field. Furthermore, links with other relevant institutions/organisations such as the ECDC will be established.

New therapies will constitute once again a particular challenge with respect to the adequacy of the legal tools, since their exposure within a population of ~ 456 million remains an unknown factor. A strengthening of the collaboration with other non-EU Regulatory Authorities will be particularly important in this innovative field.

Another important aspect of the monitoring of human and veterinary medicines relates to the activities undertaken by the national Official Medicines Control Laboratories (OMCLs). The continuous monitoring provided by the contribution of the OMCLs in post-authorisation testing should be strengthened through the reinforcement of the collaboration with the OMCL network under the aegis of the European Directorate for the Quality of Medicines (EDQM) / Council of Europe.

Access to Information

Several initiatives, either through legislative changes or as a follow-up to the G10 Recommendations⁴ and the Resolution of the Council of Health Ministers⁵ will be taken to improve access to information. The EMEA, within the framework of its mandate, will work closely together with the European Commission's responsible services and provide the necessary support to the European Commission to adequately follow-up on the agreed initiatives aiming at enhancing access to information.

⁴ G10 Recommendations of the High Level Group on Innovation and the Provision of Medicines.

The EMEA will take advantage of this situation by increasing its profile with the outside world as an "approachable" informative and transparent organisation, hence making the general public better aware of the Agency's added value towards public and animal health. Information needs to be presented in a more accessible way, i.e. disease category driven, in order to provide the public with comprehensive information on products available in a given area. Systematic feedback from health care professionals, patients and users of medicines, academia and learned societies will be obtained in order to continuously improve the information released by the EMEA and to provide adequate and targeted information to the Agency's stakeholders. This will include the concept of user testing in order to allow for information that is easy to read and be understood by patients and users of medicines. Adequate electronic systems will have to be available in order to allow the EMEA to build up a unique resource of data regarding pharmaceuticals. EuroPharm and EudraVigilance will be key channels in order to provide the general public with high-quality information on medicines.

These initiatives, alongside with the implementation of the new EMEA transparency policy measures⁶ and other transparency tools stemming from the new legal provisions, will result in the development of an EMEA Transparency and Communication Strategy. The EMEA Transparency and Communication Strategy will be a major component of an EU wide Transparency and Communication Strategy, to be developed in cooperation with the NCAs.

Such Transparency and Communication Strategy will clearly define the roles and responsibilities of all concerned parties, not only at the level of the Regulatory Authorities, but also at the level of the Agency's stakeholders.

There is also a need in this respect to address the role of the pharmaceutical industry in the provision of information. Consequently, Interested Parties will be consulted on the elaboration of both Transparency and Communication Strategies.

Specific Needs for Veterinary Medicines

The EMEA is jointly responsible for human and veterinary medicines, and many of the challenges facing the Agency in the EU Regulatory System in the next few years are common to both sectors and are, therefore, addressed in the body of this document. However, there are specific issues which relate to veterinary medicines and need adequate consideration. One needs to bear in mind that veterinary medicines are not only essential for protecting animal health and welfare, but where food derived from animals is an essential part of the human diet there may also be a significant impact on public health that needs to be considered, particularly through the establishment of MRLs.

There are then a number of important issues which will need specific consideration in the veterinary sector by the EMEA which include concerns about the lack of availability of veterinary medicines, especially for minor species and minor indications, unease in relation to the potential development of antimicrobial resistance in man and animals, the environmental safety of some classes of medicinal products and the effective application of Good Pharmacovigilance Practice throughout the EU.

4.3 Prerequisites to be Fulfilled

In order to allow the EMEA to successfully achieve the above objectives, the following prerequisites should be fulfilled:

⁶ New EMEA Transparency Policy Measures (EMEA/MB/52/03/Adopted) – 2 October 2003.

Provision of High-quality Scientific Resources by the National Competent Authorities

The continuation and even strengthening of the provision of high-quality scientific resources by NCAs to the EMEA activities is key for the success of the EU Regulatory System. The pitfalls in relation to this prerequisite, e.g. in terms of availability of a critical mass of highly specialised experts, have already been addressed above. Important choices will have to be made also at national level on how to best contribute to the overall regulatory system.

In order to develop a network of excellence at EU level, the EMEA, in close collaboration with NCAs, will initiate actions to reach such a target. Taking into account the architecture of the EU Regulatory System, consisting of an EU and a national component, any initiatives to be taken to reinforce the network will need to address both components. The ultimate objective should be to further strengthen the overall quality of the system and, therefore, initiatives should first target quality improvements. This will be of benefit to all EU Regulatory Authorities. Gradually, over the next years, the system could then further develop in a network of centres of assessment/specialised centres in order to better address all challenges the EU Regulatory System will have to face.

Availability of an Adequate Quality Assurance System

The overall quality and efficiency of operation will be key for the Agency to position itself successfully in the regulatory environment and to meet its stakeholders' expectations. This necessitates an even stronger Integrated Quality Management System at the EMEA (e.g. strengthening of the audit system, introduction of more sophisticated performance indicators, further implementation of the risk management concept) in order to achieve an adequate level of quality and scientific and regulatory consistency in the outcome of the scientific evaluation processes.

The requirements for good governance, good regulatory practices and integrated quality management will extend from the EMEA Secretariat towards its Scientific Committees, their Working Parties, and also to the NCAs who act in the network as scientific resource providers. The previous benchmarking with Accession Countries will be extended to all MSs, hence leading to the creation of an EU Benchmarking System. This EU Benchmarking System should lead to a regular cycle of benchmarking in order to achieve a strengthening of the Quality Assurance Systems in place at the level of all EU Regulatory Authorities, hence developing a coordinated approach to continuous quality improvement.

The final result should be a governance system at EU level that ensures that all aspects in relation to the scientific evaluation process (both from a procedure and contents perspective) are correctly applied.

Availability of an Adequate Product Development Toolkit

Independent research has revealed that one of the contributing factors to the fall in innovative productivity lies in bottlenecks during the development of innovative medicines. Therefore, initiatives should focus on addressing the encountered difficulties in the development stage by exploring innovative approaches in drug development. This should facilitate the process between basic research and the development of a commercial product. In identifying solutions to the critical questions raised, the best expertise available at EU level will be brought together to establish an adequate product development toolkit, especially in the field of emerging therapies, without compromising the safety and efficacy norms of medicinal products.

Availability of a High-quality IT Infrastructure

Taking into account the Agency's new role as the coordinator and hub in the harmonised collection, validation, evaluation and dissemination of authorative information on medicinal products, the EMEA will host, operate and support a family of European information systems to make regulatory procedures more efficient and more transparent. In order to achieve such objective the Agency should gradually replace the fragmented administrative and operational information systems by an integrated form of information repositories and electronic workflow tools. This should enable the introduction of near-real time electronic business reporting.

Since the quality of the overall IT infrastructure, underpinning the EU Regulatory System, will be vital for the success of such system, there is a need in further developing the EU wide IT strategy, in close collaboration with the MSs. The initiatives undertaken in July 2003 by the European Commission, NCAs and the EMEA, leading to the creation of the document "Telematics in the Pharmaceutical Sector-Strategy Paper", consist of measures in order to arrive at a high-quality IT infrastructure at EU level. Such measures will include adequate descriptions of any new databases, appropriate involvement of all relevant stakeholders in the design of the system and inclusion of a benefit/cost evaluation for each design.

Taking into account the aspect of globalisation, there is also a need to align IT architectural and procedural concepts with those of other regions, where practical and possible, taking into account regional specificities.

Availability of a High-quality European Medicines Agency Professional Workforce

The changing role of the Agency necessitating an increased scientific input has already been addressed above. Such a changing role should be underpinned by a higher scientific profile of its Staff Members. It will be critical to identify the areas of scientific competence where the EMEA needs to strengthen its resources. Subsequently, a full training and competence development programme will be put together and implemented.

In view of its new and extended tasks, the organisational structure of the EMEA will also be looked at and changes introduced, where relevant. Taking into account the Agency's increasing competence which go far beyond its role in the primary evaluation, a reappraisal of the establishment plan is necessary in order to allow the EMEA to meet its stakeholders' expectations.

Finally, the Agency's changing role will also have important consequences in terms of logistical and administrative support. The EMEA will critically examine and, where appropriate, re-engineer existing business processes to maximise efficiency and suitability for the new environment.

Adequate Workload and Resource Planning

It needs to be emphasised that the Agency's increasing role in the regulation of human and veterinary medicines will necessitate adequate multi-annual project planning with careful workload, resource and financial consideration. This will require project prioritisation whereby the main focus will be the need for the EMEA to make safe and effective medicines available in the shortest possible timeframe to patients and users of medicines.

However, such adequate planning process should not be restricted to the EMEA. Taking into account the Agency's networking model, characterised by the NCAs acting as scientific resources providers, a coordinated planning of resources at EU level will be paramount. In relation to the financing of the Agency, particular emphasis will be put on the funding of collateral activities in the areas of orphan drugs (and similarly in the veterinary sector), consumer information, safety monitoring, etc.

Chapter 5 Conclusion

Part I, "The European Medicines Agency Strategy", elaborates on the EMEA's viewpoint on planning up to 2010. It also provides high-level information on how this should be achieved. Initiatives to be undertaken consist of the implementation of new legal provisions, to be complemented by other activities that do not require legislative amendments. A joint partnership with NCAs and an adequate interaction with all relevant Interested Parties is paramount to meet this challenge. It would seem appropriate for other parties to complement the EMEA's contribution to the future EU Regulatory System by elaborating on own initiatives that will be undertaken in order to reinforce the global networking model.

Part II, "The European Medicines Agency Road Map Implementation Plan", will provide information on how the Agency's vision will be implemented, including detailed actions and estimated timeframes for completion of these actions.

The European Medicines Agency Road Map to 2010: Preparing the Ground for the Future

Part II

The European Medicines Agency Road Map Implementation Plan

Chapter 1 Introduction

Reference is made to Part I, "The European Medicines Agency Strategy". In Part I the EMEA vision to 2010 is described, as well as the objectives to be achieved and the prerequisites to be fulfilled in order to allow the Agency to implement such vision.

The aim of Part II is to further elaborate on some key topics already mentioned in Part I and to specify the concrete actions the EMEA will undertake to reach its target. These actions will always strive, where relevant, for a further strengthening of the EU networking model. The Agency's actions will include

- (1) defining the conditions that need to be met with particular emphasis on the measures to be taken to allow the EU Regulatory System to acquire high-quality scientific resources, to permit the EMEA Secretariat to prepare itself for its extended role and responsibilities, and to agree the requirements from an IT perspective that need to be put in place,
- (2) establishing the changes to be introduced in the EMEA processes in order to allow rapid access to medicines, without compromising the safety of patients and users of medicines, and to stimulate research and innovation,
- (3) agreeing the additional measures to be taken for certain types of medicines, such as new technologies, veterinary medicines, generic and non-prescription medicines, and herbal medicines,
- (4) clarifying and putting in place the incentives to be provided for SMEs, strengthening the Agency's interaction with its stakeholders, and further developing the EMEA's international collaboration, and
- (5) applying the specific initiatives to be undertaken in the fields of scientific advice, scientific assessment, monitoring of medicinal products, transparency and communication, provision of information on human medicines to patients, and GXP (see Part II, Attachments 1-6).

Where relevant, an action plan is provided, consisting of an outline of the initiatives that will be undertaken to reach the objective(s), as well as estimated timeframes for finalisation of these activities.

Adequate follow-up will be provided through a yearly review of the agreed initiatives and, where appropriate, additional/amended actions will be introduced. In addition, before the end of 2006 detailed actions for the timeframe 2007-2010 will be proposed to the EMEA Management Board. Regular feedback on the status of the various initiatives will be provided to the EMEA Management Board and the European Commission.

Chapter 2 Implementation of the European Medicines Agency Vision in Terms of Organisation of the EU Regulatory System

2.1 The European Medicines Agency Networking Model

The Current Situation

The current EU Regulatory System for human and veterinary medicines is a unique concept. It provides for a network between all EU Regulatory Authorities, coordinated by the EMEA. One of the major inputs form the NCAs in this networking model is the provision of scientific resources at the level of the EMEA.

The EU Regulatory System covers 3 main activities in relation to medicines regulation, i.e. scientific assessment, monitoring of authorised medicines and harmonisation of the technical requirements for the evaluation and supervision of medicines. However, the system still allows for different licensing routes for human and veterinary medicines although optionality has further decreased due to the recently extended scope of the centralised procedure.

It should be emphasised that there are other fields of close cooperation between all EU Regulatory Authorities, such as in the field of IT because of the need to develop EU wide databases (e.g. EuroPharm, EudraVigilance, EudraCT).

The Establishment of a Network of Excellence

In order to implement the EMEA's vision a further strengthening of the partnership between all EU Regulatory Authorities is necessary, leading to the establishment of a network of excellence at EU level. The development of such network of excellence will provide the best guarantees for the EU Regulatory System to successfully cope with the political, institutional, legislative and scientific challenges such system will face in the next few years.

The architecture of the EU Regulatory System is characterised by 2 pillars:

- (1) A national component in terms of activities undertaken by NCAs in order to allow MSs to fulfil their national obligations (e.g. in the field of scientific assessment of national applications and the monitoring of all products on MSs' market, both in terms of pharmacovigilance activities and inspections).
- (2) An European component in terms of contributions made by NCAs through the provision of (scientific) expertise to pan-EU activities (e.g. the centralised licensing route and the decentralised procedure both for pre- and post-authorisation activities, arbitration and referral procedures, and harmonisation activities in terms of, for instance, guidance development).

It needs to be emphasised that the strength as well as the level of efficiency of the networking model will be determined by the weakest link. Efforts to reinforce the networking model at EU level will, therefore, concentrate on eliminating the weaknesses and reinforcing the strengths. In addition, such efforts will have to focus on both the national and the European pillars.

A further strengthening of the network will, however, require that a framework is developed which allows on one side MSs to have enough input to the EU Regulatory System to meet the public health accountability requirements for their citizens, and on the other hand the flexibility for MSs to participate on the different levels of such system according to their ambitions and/or possibilities. In any case, what is of utmost importance in further developing the network is to have available the right level of expertise and to use the scarce resources in the most effective way, hence avoiding unnecessary duplication of work.

In order to achieve a network of excellence at EU level a two-phase approach is envisaged. In a first phase the focus will be on a further strengthening of the overall quality of the system, hence benefiting all EU Regulatory Authorities, whereas the second phase will see the further evolution of the system into a gradual development of centres of assessment/specialised centres.

Phase 1: An enhancement of the overall quality of the EU Regulatory System

Any further development of the networking model should have as a major focus point a mutual increase of the quality of the regulatory activities throughout the EU. This will enable all EU Regulatory Authorities to maintain/further strengthen their system, both in terms of their national activities and their contribution to the European activities.

Prerequisites to be fulfilled are:

The availability at EU level of top quality scientific expertise.

As has already been stated in Part I, "The European Medicines Agency Strategy", one of the strengths of the EU Regulatory System, i.e. to source expertise from whatever location in the EU, could also turn into a weakness, e.g. in terms of a scarcity of experts in some fields such as new therapies, and overcapacity in other fields due to a shift in workload and the EU enlargement.

A strengthening of the scientific competences at EU level is vital for the application of one scientific standard for the different licensing routes and enables the EU Regulatory Authorities to keep abreast of the constant developing state of the art.

In order to allow for the necessary top quality scientific resources at EU level, the following is needed:

- The establishment of an EU-wide up-to-date inventory of the available scientific expertise both for human and veterinary activities, and covering all aspects of medicines regulation.

The establishment of such inventory will require the NCAs to carefully review their lists of nominated experts already made available to the EMEA, and currently included in the Agency's experts database. It is important for NCAs to widen their pool of expertise and to consider all expertise available at their national level, including experts coming from academia and learned societies.

This will require, where needed, better cooperation and collaboration between Regulatory Authorities and academia/learned societies.

The establishment of an EU-wide inventory will allow the EMEA experts database to contain up-to date information on the best scientific expertise available at EU level. Such inventory will not only be a reliable source of information to the EMEA, but to all EU Regulatory Authorities, hence benefiting the overall EU Regulatory System. In order to facilitate the identification of the most appropriate expertise for any activity, the EMEA will take the necessary measures to further refine the EMEA experts database.

Identification of missing/insufficient expertise at EU level.

Once such inventory has been established, an analysis will be undertaken of what fields lack adequate expertise and remedial actions will be taken.

This could include use of expertise coming from non-EU countries, e.g. the FDA/USDA (within the context of the Confidentiality Arrangements project) or from specific health organisations such as WHO.

Adequate workload and resources planning at EU level.

Effective planning of workload and adequate (re-) allocation of resources is paramount to already successfully address difficulties currently encountered in the system, e.g. in relation to the scientific review, in the context of referral procedures, of classes of products further to emerging safety concerns; as regards the operation of the national pharmacovigilance systems (as became apparent in the "Questionnaire Survey of Pharmacovigilance Recourses", a project initiated at Heads of Medicines Agencies level); in relation to the conduct of Good Clinical Practice (GCP) inspections in the framework of the centralised procedure (whereby a policy of routine inspections in the context of marketing authorisation applications can currently not be implemented). Facets to be considered in this respect relate to the fact that there will be areas that will be characterised by a scarcity of expertise and that a (re-) allocation of resources between the different activities (European versus national) should not lead to situations whereby some areas of medicines regulation would be deprived from necessary scientific resources.

Furthermore, although duplication of work and unnecessary use of resources should as much as possible be avoided, this needs to be balanced with an adequate use of resources in order to allow a further increase of the quality assurance in the field of medicines approval. Initiatives already undertaken at Heads of Medicines Agencies level to achieve this objective such as worksharing should, therefore, be further encouraged.

Therefore, in order to adequately tackle this complex situation, an EU-wide coordinated approach towards workload and resources planning is needed. This requires adequate follow-up at Heads of Medicines Agencies level through a yearly planning process of workload and resources once the EMEA's Management Board has agreed the Agency's draft Work Programme for the next year, in order to enable the EMEA to fulfil its tasks, supported by adequate resources provided by the NCAs.

- Strengthening of the competence development at EU level.

Of major importance for ensuring that the quality of expertise is maintained and further developed, is the provision of high quality training to the experts involved in the different aspects of human and veterinary medicines regulation.

Initiatives in this respect have already been undertaken at Heads of Medicines Agencies level. This resulted in the establishment in November 2001 of a project team whose mandate is to combine all available training programs for new and more experienced assessors on a cost effective basis in order to improve the harmonisation of the scientific assessment and to assist in an adequate knowledge acquisition. Building on this initiative there is a need to further integrate the training programmes of the EMEA and the NCAs and to strengthen the partnership amongst all EU Regulatory Authorities in the field of competence development. In this respect one needs to start discussions with academia and learned societies in order to allow such organisations to provide high-quality specialist training to Regulatory Authorities in the fields of drug discovery and development with particular emphasis on white spots such as emerging therapies, although also other areas such as pharmacovigilance and GCP could be targeted. The strengthening of the competence development at EU level requires the establishment of an EU Competence Development Strategy in order to optimise the EU training activities. Such EU Competence Development Strategy will need to be linked to two initiatives mentioned above, i.e. the establishment of an EU-wide inventory of available scientific expertise and the adequate workload and resources planning at EU level. Such strategy will also need to consider the introduction of new efficient, time- and cost-saving training methods, such as distant teaching methods (e-learning).

The availability at EU level of an adequate Quality Assurance System.

The need for a robust Quality Assurance System has already been advocated in Part I, "The European Medicines Agency Strategy". In Part I it is also emphasised that the requirements for good governance, good regulatory practices and integrated quality management will extend from the EMEA (i.e. the Secretariat, the Scientific Committees and their Working Parties) to the NCAs who provide scientific resources to the EMEA networking model.

In order to arrive at EU level at a coordinated approach to continuous quality improvement, the following is needed:

- The development of an EU Benchmarking System.

Initiatives have already started at Heads of Medicines Agencies level to establish such EU Benchmarking System. The proposals made at Heads of Medicines Agencies level foresee that the EU benchmarking system should consist of high-level indicators, supported by specific performance indicators to achieve the best practice standards. These proposals, which build on the methodology used for the Pan European Regulatory Forum (PERF) benchmarking exercise but incorporate refinements in the fields of greater consistency and clarity in decision making during the selfassessment and peer review stages of the exercise, will ultimately result in a regular cycle of benchmarking between all EU Regulatory Authorities. This will be complemented by the work of the Joint Audit Programme for GMP inspectorates (please also refer to Part II, Attachment 6).

- The strengthening of existing peer review systems.

As with all Quality Assurance systems it is important that a reinforcement of quality assurance in the field of medicines approval will add to the overall quality of the scientific assessment. Peer review systems are already in place at EU level for any scientific assessment carried out by a limited number of parties (e.g. Rapporteur/Co-Rapporteur for the centralised licensing process, Reference Member State (RMS) for the decentralised procedure, activities undertaken by the Supervisory MS in the context of inspections). However, the system could benefit from a further strengthening in this respect. As regards the centralised procedure this will be undertaken by revising the current peer review system. This should lead to a higher quality output and an increased scientific and regulatory consistency of the EMEA Scientific Committees' conclusions of the scientific review processes. For further details in relation to the scientific assessment undertaken at the level of the CHMP (Committee for Medicinal Products for Human Use) and the CVMP (Committee for Medicinal Products for Veterinary Use), please refer to Part II, Attachment 2. Similar approaches have to be implemented at the level of the HMPC.

- Continuing organisational improvements.

New Community legislation will provide for a series of changes in the field of medicines regulation with the particular aim of making effective and safe medicines faster available to patients and users of medicines. The EMEA's organisation as a network is also strengthened with a reinforced coordinating role for the Agency. There could, however, be a pitfall to such decentralised structure, mainly related to the complexity of the system. In order to avoid the establishment of an insufficient system, clear roles and responsibilities need to be defined for all aspects of medicines regulation related to the EU Regulatory System. A particular challenge in this respect will be a common approach at EU level towards transparency and communication (please also refer to Part II, Attachment 4). In addition, a culture of continual process improvement needs to develop, leading to efficient procedures and avoiding duplication, hence ensuring the best use of the available resources. Furthermore, particular attention should be paid to the technical improvement of the system (see Part II, Chapter 2.3 "The European Union IT Strategy", for further details).

Phase 2: The future organisation of the EU Regulatory System

Whilst the need to maintain and further improve the quality of the EU Regulatory System is acknowledged, one also needs to take into account the consequences stemming from the political, institutional, legislative and scientific developments as described in Part I "The European Medicines Agency Strategy". A shift in workload for the licensing of innovative human and veterinary medicines towards the EMEA, no expected important growth in the number of applications for such innovative medicines over the next few years, the introduction of new technologies, and a sharp increase in the field of potential resource providers due to the recent EU enlargement, are four major factors that need to be taken into account. This has to be matched with the stronger demand for top quality scientific resources, arriving at robust decision-making at EU level.

The design of the future organisation of the EU Regulatory System, as a consequence of the most appropriate balance between the trends for the next years and the need for high-quality scientific expertise and output of the regulatory processes, requires a thorough reflection on the most efficient use of expertise available to the EU for the next decade. Two important questions need to be addressed in this respect:

- (1) How to best achieve the most efficient resource planning, after careful identification of the necessary resources?
- (2) How to best share the workload between the NCAs whilst avoiding unnecessary duplication of work, and what mechanisms should be put in place?

An initiative has already been undertaken by the EMEA through the "Questionnaire on fields of competences/interests at EU level", circulated at Heads of Medicines Agencies level. The aim of such questionnaire is to explore at the level of the NCAs their preparedness to be involved in EMEA activities (such activities being scientific advice/protocol assistance, Rapporteur/Co-Rapporteur involvement pre- and post-authorisation, involvement in Working Parties, post-authorisation surveillance, inspections and OMCL analytical capabilities). The outcome of the survey has provided a better picture of MSs' current approach to active contribution to all or certain angles of the EU Regulatory System and has shown a somewhat heterogeneous situation. Although in some areas an interest in active participation in EU activities has been expressed by NCAs (scientific advice/protocol assistance, referrals, inspections, OMCL capabilities), the workload that can be handled by these Regulatory Authorities differs significantly. Other areas (e.g. scientific evaluation work in the pre-authorisation phase) indicate a trend towards more specialisation.

It is expected that through a further strengthening of the quality of the EU Regulatory System, as described in Phase 1, which will benefit all EU Regulatory Authorities, one will see a natural evolution of the system and a gradual development over the next years in centres of assessment/specialised centres. The EMEA's role in the shaping of such novel concept will only be to support its development, not to develop such structure as such since each NCA will have to decide what is the most adequate structure/organisation at national level to face the future challenges. Further discussions between all EU Regulatory Authorities are needed as regards the optimal organisation of the future EU Regulatory System. The following considerations could be taken into account during these discussions:

- (1) There are different possibilities to implement the concept of centres of assessment. One possibility could be the establishment of 3 types of centres of assessment (full service providers, centres of assessment supporting a limited amount of European activities, hence acting as specialised centres, and NCAs only supporting national activities). A second possibility could be the establishment of centres of assessment, which would consist of at least 2 NCAs sharing a specialism. Such system would have as a benefit that it provides the possibility to continue the centralised review procedure in its current form. Another benefit would be that it empowers the network to operate by encouraging partnerships between EU Regulatory Authorities and make better use of the best scientific expertise available to such Authorities. A third possibility could be the so-called "Airbus-model" whereby NCAs specialise in parts of the scientific assessment.
- (2) Of particular importance will be how to select such centres of assessment. This warrants in-depth discussions involving all EU Regulatory Authorities in order to arrive at an agreement at EU level on the most appropriate selection process. To achieve the highest possible quality output should be the main driver for selection. The development of these centres can only succeed if the work is distributed according to expertise. Clear and transparent procedures need to be put in place for the provision of the best scientific expertise to the EMEA. Contractual arrangements should include adequate and sufficiently detailed indicators to measure the quality of the work undertaken by the selected providers of scientific expertise to the Agency.
- (3) The long-term consequences of partitioning the work through polarisation also have to be considered. The polarisation of excellence in assessment should not lead to differences in standards of assessment since this could lead to difficulties in recognition of the work performed by centres of assessment/specialised centres. Furthermore, it should not result in a monopolisation of scientific knowledge, as this could be a risk to the future EU Regulatory System, since the system would be deprived of challenge and competition. In addition, one needs to keep mechanisms for ensuring participation of NCAs at any moment in the system.
- (4) Another issue that needs to be considered relates to the question if it is possible for NCAs not to perform certain activities, not only from a purely legal perspective (i.e. compliance with legislation), but also from a scientific perspective (i.e. risk for NCAs to loose gradually the know-how in medicines).
- (5) The financing of the future system will be of utmost importance. Allocation of work should be independent of financial criteria and should continue to aim at ensuring a high level of scientific expertise. Furthermore, there should be fair compensation and the possibility to provide incentives to strengthen cooperation within the network should be investigated.
- (6) All aspects in relation to maintaining and further improving the quality of the system, as described under Phase 1, remain valid for the concept of centres of assessment/specialised centres. In addition, irrespective of the development of centres of assessment, there is also a need to explore how better to make use of all available expertise at EU level, since using scientific expertise across borders would create a more integrated network. This would provide smaller national Agencies with a better opportunity to contribute to the work to be performed at EU level.

Action Plan

In summary, in order to implement the EMEA's vision in terms of the establishment of a network of excellence at EU level, the following will be undertaken:

Action	Timeframe for Completion	
To enhance the overall quality of the EU Regulatory	System	
 To ensure the availability at EU level of top quality scientific expertise by: Establishing an EU-wide up-to-date inventory of the available scientific expertise for all aspects of human and veterinary medicines regulation. 	1 st Quarter 2006.	
 Identifying missing/insufficient expertise at EU level. 	2 nd Quarter 2006.	
 Complementing missing/insufficient expertise with expertise from non-EU countries or specific health organisations. 	4 th Quarter 2006.	
- Further refining the EMEA experts database.	3 rd Quarter 2005.	
 Adequate workload and resource planning at EU level through follow-up discussions at Heads of Medicines Agencies level. 	2 nd and 4 th Quarter of Each Calendar Year.	
 Strengthening the competence development at EU level by developing an EU Competence Development Strategy. 	2 nd Quarter 2006.	
 To ensure the availability at EU level of an adequate Quality Assurance System by: 		
- Introducing an EU Benchmarking System:		
i) Developing such system.	1 st Quarter 2005.	
ii) Implementing such system.	1 st Quarter 2005.	
iii) Performing the 1 st benchmarking cycle.	2 nd Quarter 2006.	
iv) Evaluating the 1 st benchmarking cycle.	2 nd Quarter 2006.	
 v) Subsequently performing regular cycles of benchmarking. 	Not Applicable.	
- Strengthening the existing peer review systems.	4 th Quarter 2005.	
 Introducing additional organisational improvements, including defining clear roles and responsibilities for all aspects of medicines regulation in the EU Regulatory System. 	1 st Quarter 2006.	
To address the future organisation of the EU Regulatory System		
 To initiate discussions amongst all EU Regulatory Authorities on the preferred evolution of the EU Regulatory System on the basis of the replies to "The Questionnaire in fields of competences/interests at EU level". 	1 st Quarter 2005.	

2.2 The European Medicines Agency Secretariat

Key Principles

One of the main responsibilities of the EMEA through its Scientific Committees is to deliver science driven and consistent regulatory opinions on any aspects related to human and veterinary medicinal products.

In order to achieve this the EMEA provides technical and administrative support to its Scientific Committees and coordinates within the EU Regulatory System networking model the European scientific resources made available by the NCAs to the Agency, as well as any additional expertise necessary for the fulfilment of its responsibilities.

Such role will be extended in accordance with the legal provisions of new Community legislation since the EMEA Secretariat "shall provide technical, scientific and administrative support for the Committees". It should be emphasised that the enhancement of the Agency's scientific role not only relates to its Staff Members, but also to its Committees, which are an integral part of the Agency and composed of scientific resources made available by the NCAs. A major challenge resulting from new Community legislation will be the coordination to be undertaken by the EMEA with respect to the EMEA's Scientific Committees and other EU Institutions.

To adequately complete its tasks the EMEA will, as required in the new legislation, expand the scientific role of the Secretariat. The EMEA Secretariat will have a complementary role to the role of the experts from the NCAs, hence avoiding any duplication of work and overlap between the activities performed by the Secretariat and the work undertaken by the Scientific Committees' members and experts. The EMEA Secretariat, in close collaboration with its Scientific Committees, will focus on safeguarding the scientific and regulatory quality and consistency of the opinions and recommendations of such Committees. Consequently, the EMEA will further develop as a centre of quality control. Well-defined roles and responsibilities will be established with full respect of the new legislative provisions. This will also include clear guidance to the pharmaceutical industry as regards the Secretariat/pharmaceutical companies and Scientific Committees members and experts/pharmaceutical companies interactions. It should be noted that this has also been an outcome of the audit of the former Committee for Proprietary Medicinal Products (CPMP), conducted in July 2003.

Such increased input from the Secretariat in the work undertaken by the EMEA Scientific Committees should lead to an overall improvement of the quality of the EU regulatory environment. This will allow adequate, high quality management of a more complex regulatory system in an enlarged EU. In the Units dealing with human medicines evaluation the current concept of Product Team Leaders throughout the lifecycle of medicinal products will be further strengthened to allow enhanced coordination during the assessment of such products. An analysis will be undertaken to determine what further organisational changes should be introduced at the level of the EMEA and, where relevant, a reorganisation will be implemented on the basis of the outcome of such analysis. The EMEA Scientific Administrator in charge of a particular medicinal product should be regarded as a facilitator for all parties involved in the regulatory process and should provide complementary input in the different steps of the procedure from scientific advice to marketing authorisation and post-authorisation, at the levels of the different Scientific Committees. In particular this will consist of the following non-exhaustive list of tasks to be undertaken within the new legislative framework, in addition to the current tasks performed by the EMEA Scientific Administrator:

(1) Contributing to the quality assurance of the scientific review processes and ensuring the regulatory and scientific consistency of the outcome of such processes across applications through the EMEA's scientific memory of the deliveries of the Scientific Committees. In particular the EMEA Scientific Administrator will facilitate the assessment performed by the Scientific Committees members and experts through the provision of the necessary data regarding scientific memory information on previous procedures, and regulatory advice or guidance given. Moreover, the EMEA Scientific Administrator, being responsible for the finalisation of the Scientific Committee assessment report, will ensure that all necessary justifications on the outcome of the scientific assessment is sufficiently substantiated in the final assessment report and accurately reflected in the product information. Consequently, the EMEA Secretariat will provide an important input to the peer review system, in terms of quality assurance and guardian of the regulatory and scientific consistency.

(2) Assisting the Scientific Committees by identifying the needs for additional expertise and making proposals for such expertise to the Scientific Committees in order for the Committees to decide upon.

This will be of particular importance in relation to the EMEA's secretarial role for the Scientific Advisory Groups and the management of the procedure for the handling of safety concerns for centrally processed applications.

(3) Assisting the Scientific Committees in decisions on the eligibility for accelerated review and conditional approval on the basis of criteria established by the Scientific Committees.

In particular, the EMEA Scientific Administrator will be responsible for making a reasoned recommendation to the Scientific Committee in order for the Committee to decide on the eligibility.

- (4) Further improving the information required for communication aspects to the EMEA's stakeholders as per the requirements of new Community legislation.
- (5) Investigating the impact of regulatory decisions and subsequently reporting the outcome of such monitoring to the Scientific Committees for adequate follow-up.
- (6) Increasing the support to the Scientific Committees in the development of guidance documents, whereby a similar level of support should be provided to the Scientific Committees and the Working Parties as during the assessment phase.

Particular attention will be paid to the fact that recommendations are scientifically substantiated and in compliance with legal requirements, that the feasibility aspect has been taken into account and that the consultation has been as wide as possible before new standards are set up.

As regards the EMEA Secretariat's extended tasks, reference is made to other activities to be undertaken as per new Community legislation. In accordance with such legislation the EMEA will play a particular role in ensuring early identification and resolution of potential sources of conflict between its scientific opinions and those of other bodies established under Community law, carrying out a similar task in relation to issues of common concern. Cooperation will also be extended to Environmental Protection Agencies (EPAs) in order to allow the EMEA to carry out its extended tasks in the field of evaluation of potential environmental risks for medicinal products containing or consisting of genetically modified organisms. The development of adequate guidance in the area of the risks to the environment will provide an important contribution to finding, understanding and eventually controlling possible environmental risks related to the use of human and veterinary medicines.

In addition, the following could be undertaken by the EMEA in order to strengthen the networking model:

- (1) The systematic organisation and coordination of training opportunities for NCAs' staff members (see Part II, Chapter 2.1 "The European Medicines Agency Networking Model").
- (2) The integration of knowledge of new technologies of drug development that may be pioneered within the academic and industrial sector into the EU Regulatory System in order to discuss the impact of new technologies (see Part II, Chapter 3.2 "Specific Needs for New Technologies").

The successful involvement of the EMEA in each of these domains is directly dependent on the availability of scientifically competent staff. The ability to easily identify and exploit scientific and regulatory experience is essential for the Agency's possibilities to successfully address the new responsibilities and the increased expectations. Hence the need for an adequate EMEA Recruitment and Competence Development Programme.

Action Plan

In summary, in order to implement the EMEA's vision in terms of the extended role of the EMEA Secretariat, the following will be undertaken:

Action	Timeframes for Completion
 To establish clear roles and responsibilities for the EMEA Secretariat and the Scientific Committees members and experts, including the interaction with the pharmaceutical industry, taking into account the new Community legislation and the outcome of audits of the Scientific Committees. 	4 th Quarter 2005.
 To analyse what further organisational changes should be introduced at the level of the EMEA in order to allow the Agency to successfully address the different challenges it will face. 	3 rd Quarter 2005.
 To implement, where relevant, a reorganisation of the EMEA, taking into account the outcome of such analysis. 	1 st Quarter 2007.
 To adapt the EMEA's recruitment and competence development programme to the new needs stemming from the implementation of new Community legislation and the EMEA Road Map project. 	3 rd Quarter 2005.

2.3 The European Union IT Strategy

Key Principles

Part I, "The European Medicines Agency Strategy", makes several references to the important role of modern IT systems as essential enabling tools to achieve some of the objectives described. The EU Regulatory System requires a particular family of information systems, the EU telematics systems. These are EU wide systems controlled jointly by the European Commission, the NCAs and the EMEA.

As set out in the document "Telematics in the Pharmaceutical Sector – Strategy Paper", these systems should

- (1) Facilitate the operation of the procedures as established in Community legislation. These procedures are mainly related to the authorisation and surveillance of medicinal products within the EU.
- (2) Make all NCAs work as part of a network, in order to achieve the objective of ensuring public and animal health.
- (3) Bring a real benefit for public and animal health.
- (4) Create and then enhance the transparency of the whole scheme and provide effective tools to disseminate information.
- (5) Create confidence and predictability for all parties and users involved.
- (6) Increase business efficiency.

Furthermore, one should concentrate on a few systems with a high European added value, with a clear legal basis and obligation at Community level.

The critical success factors are the early involvement of all stakeholders in the process of gathering and consolidating requirements and defining the system specifications, a partnership approach to the construction of the systems, awareness of the cost and resource implications for all parties involved, and careful consideration of interoperability issues between the EU telematics systems and systems operated at national level. It is also essential that the data exchange standards employed comply with those internationally agreed, e.g. by CEN, at ICH level and by WHO. Particular emphasis should be put to the identification of deficiencies and common difficulties and the subsequent adequate resolution of these issues.

The EU telematics systems correspond to the following key phases in the regulatory lifecycle of medicinal products:

- (1) EudraCT is a database containing information on all ongoing and completed clinical trials in the EU.
- (2) E-Submission is a system permitting the electronic submission, validation and evaluation of applications for marketing authorisation, eventually including full electronic workflow and tracking.
- (3) The communication and tracking system, CTS, is a system supporting the mutual recognition or decentralised procedure (it should be noted that the development of CTS is under the auspices of the Heads of Medicines Agencies).
- (4) EudraVigilance is a family of systems for electronic reporting, validation, processing and dissemination of information related to adverse drug reactions both during clinical trials and authorised use.
- (5) EuroPharm is a database containing authoritative information on all medicinal products authorised in the EU.
- (6) GMP database is a system for electronic reporting, storage and dissemination of information on the outcome of GMP inspections, authorised manufacturing sites and certificates of compliance with GMP.
- (7) EudraNet is a family of services to exchange and share information between the EU regulators securely, efficiently and reliably.

These systems are either already in operation (EudraNet, EudraVigilance, EudraCT) or under construction. Responsibility for the management of the development and operation of most of these systems was conferred on the EMEA by the European Commission and the NCAs in 2001. The EMEA's responsibility for several of these systems is also defined in the pharmaceutical legislation. The EU telematics systems play a crucial role in attaining some of the EMEA's strategic goals between now and 2010. These are more efficient evaluation and authorisation procedures, early and reliable detection of significant safety signals, the role of the EMEA as an European hub in the collection and dissemination of information on medicinal products, transparency in procedures and outcomes, and the objective to provide patients with authoritative information on medicinal products in a language they can easily understand which would allow them to compare different products ("the informed patient").

The increasing use of electronic patient records, electronic prescription systems and the introduction of smart cards for patients will require the EU telematics systems to interact through defined interfaces with other systems in e-health.

The design, construction and implementation of the EU telematics systems is an ambitious task. It can only succeed if all stakeholders agree common goals and work closely together to achieve them.

Action Plan

In summary, in order to implement the EMEA's vision in relation to the EU IT Strategy, the following will be undertaken:

Action	Timeframe for Completion
 To finalise the implementation of all currently identified EU telematics systems in close collaboration with the Agency's partners and stakeholders (in accordance with the EU Telematics Implementation Plan). 	4 th Quarter 2008.

2.4 The Funding of the European Medicines Agency Networking Model

Key Principles

Of major importance for a successful operation of the EMEA networking model will be an adequate funding of such model.

This should not necessarily translate in a continuing increase of the costs of the networking model. Through an improved efficiency of the EU Regulatory System it should be possible to arrive at substantial savings.

The current funding of the EMEA networking model foresees in a Community subsidy and fees paid by the pharmaceutical industry for services provided. This funding model will continue in the future, but it needs to be emphasised that new Community legislation has made an explicit reference to adequate public funding in the fields of activities relating to pharmacovigilance, to the operation of communication networks and to market surveillance.

Any discussion with the EU Institutions on the future funding of the Agency will have to take into account this legal provision on collateral funding. In the meantime, discussions with MSs on the EMEA networking model are continuing and focus on:

(1) Determining the actual cost of evaluation.

This work, which is undertaken at the level of the costing group constituted by the Agency's Management Board, will further progress over the next months.

(2) Reflecting on the long-term financing of the system.

This work is undertaken by a reflection group also constituted by the Management Board. Its scope is to look, within the context of MSs' contribution to EMEA activities, at issues related to compensation with emphasis on which activities carried out by MSs should be compensated and which not, in the light of new Community legislation.

Once the discussions in both fora are finalised it will ultimately allow to address the question if a different compensation for NCAs should be foreseen.

Action Plan

In summary, in order to implement the EMEA's vision in terms of the funding of the EMEA networking model, the following will be undertaken:

Action	Timeframe for Completion
 To finalise the discussions at the level of the costing group and the reflection group on the long- term financing. 	3 rd Quarter 2005.
 When considered appropriate, to establish a revised compensation scheme for NCAs for discussion at the level of the EMEA Management Board. 	1 st Quarter 2006.
 To subsequently implement a revised compensation scheme for NCAs. 	1 st Quarter 2007.

Chapter 3 Implementation of the European Medicines Agency Vision in Terms of the EMEA Processes

3.1 Innovative Medicines

Key Principles

In order to make much-needed safe and effective innovative medicines quicker available to patients and users of medicines, the EMEA will use a two-pillar approach. A first pillar addresses improvements to the current regulatory licensing framework. In this respect the Agency will implement new tools provided by revised Community legislation. This mainly relates to a revised scientific advice procedure, the possibility for accelerated evaluation and the granting of conditional approvals. These concepts resulting in a more rapid access to innovative medicines will be complemented by the Agency with a continuous search for additional process improvements, contributing to an increased efficiency of the operation of the centralised licensing process.

The second pillar relates to research and innovation. The EMEA aims, as stated in its vision (please refer to Part I, "The European Medicines Agency Vision"), within the context of a continuing globalisation, to encourage and facilitate innovation and research in an enlarged EU. Such vision is in line with the G10 Recommendations of the High Level Group on Innovation and the Provision of Medicines, and takes into account both the Competitiveness Council Conclusions of 22 September 2003 and the Health Council Resolution of 1 and 2 December 2003. Furthermore, any initiatives taken should also take due account of the Lisbon strategy for economic, social and environmental renewal and the European Commission's vision on life sciences and biotechnology resulting from the 23 and 24 March 2000 Lisbon European Council Conclusions. The Lisbon strategy is of relevance for the EMEA taking into account its interaction with the pharmaceutical industry and the Agency's important role in enabling the pharmaceutical industry to achieve the objective of industrial competitiveness.

There are several G10 Recommendations for which the active involvement of the Agency will be required. This mainly refers to the implementation of new Community legislation in the field of access to innovative medicines (e.g. the accelerated evaluation procedure, the extended scope of the mandatory centralised procedure, the new data exclusivity scheme) and in the field of incentives for research (e.g. the setting-up of the EudraCT database). There are, however, other G10 Recommendations where the EMEA can provide a valuable input and can assist the European Commission in addressing such recommendations.

First pillar: Introduction of improvements to the current regulatory licensing process

New legislative tools aiming for an expedited approval of innovative medicines mainly refer to:

• A further improvement of the scientific advice procedure.

New Community legislation requests the EMEA Executive Director, in close consultation with the EMEA Scientific Committees, to set-up the necessary administrative structures and procedures allowing the development of advice for the pharmaceutical industry, especially as regards the development of new therapies.

A revision of the scientific advice procedure will be undertaken and additional features will be included to allow for a strengthening of the provision of scientific advice (please refer to Part II, Attachment 1).

To overcome delays in the clinical development of medicinal products for which orphan drug designation has already taken place, particular emphasis will be put on a further improvement of the protocol assistance process.

 The introduction of an accelerated assessment procedure, hence shortening the scientific review to 150 days.

Building on the experience obtained with the current informal accelerated review process, the EMEA will define clear eligibility criteria for an accelerated assessment. Subsequently, as per the reinforced scientific role of the EMEA Secretariat (please refer to Part II, Chapter 2.2 "The European Medicines Agency Secretariat"), the EMEA Scientific Administrator will assess the eligibility for accelerated review for a particular marketing authorisation application and provide a reasoned recommendation to the EMEA Scientific Committee for decision-making.

• The introduction of the conditional approval concept.

Further to the introduction of a new marketing authorisation concept and the availability of implementing legislation drafted by the European Commission, the EMEA will develop guidelines on the procedural steps necessary to implement Community legislation.

The Agency will pay particular attention to the availability of adequate postauthorisation systems for the collection of real-life data on the benefits and risks associated with the use of the medicinal product. The EMEA will also carefully consider the involvement of patients associations in the recommendations for granting or renewing conditional approvals, as well as converting conditional approvals into "normal" approvals or taking any negative action on such conditional approvals. Finally, the Agency will take the necessary measures in order to provide adequate information to the general public on any action taken in relation to conditional approvals.

The involvement of specialised expertise.

New Community legislation provides for the establishment of Scientific Advisory Groups which will be involved in the scientific evaluation process. The EMEA will create Scientific Advisory Groups for each of the therapeutic domains for which the centralised licensing route will become mandatory. In addition, the Agency will investigate, taking into account the experience gathered with the establishment of the Therapeutic Advisory Groups under the previous legislative framework, what process improvements compared to the previous situation should be introduced. The EMEA will also review the involvement of other specialised expertise in the scientific evaluation process, e.g. in the context of the handling of safety concerns for centrally processed applications, to introduce further process improvements.

The management of the compassionate use procedure.

New Community legislation provides the opportunity for the EMEA to be involved in the compassionate use concept further to the notification by a MS in situations whereby a medicinal product, eligible for evaluation under the centralised procedure and fulfilling certain criteria, is made available by a MS for compassionate use.

The Agency will establish a procedure for the adoption of opinions by its Scientific Committee, the CHMP, on the conditions for use and distribution and the patients targeted. Furthermore, the necessary measures will be taken as regards the pharmacovigilance aspects and the public availability on the EMEA website of an up-to-date list of all opinions adopted. Particular attention will also be paid, through the provision of adequate information to patients and health care professionals, to those medicinal products in the compassionate use scheme for which a negative opinion on a marketing authorisation application has been given or for which the application has been withdrawn by the pharmaceutical company concerned.

The introduction of the new legislative provisions, as outlined above, will be complemented with a process of continuous improvement of the centralised procedure, hence resulting in an increasingly efficient licensing route. In order to achieve this objective the EMEA will undertake the following actions:

- The EMEA will launch, as a pilot process, a rolling review concept for certain applications, which will consist of the submission by the pharmaceutical industry of well defined packages of responses (e.g. quality package, pre-clinical package, clinical package) as a reply to the list of questions adopted by the Scientific Committee. Although it is acknowledged that the overall time reducing effect will be rather minimal, this concept could increase the quality of the information submitted. Furthermore, if the experience obtained during the pilot project is positive, it could be extended to all applications for marketing authorisation processed centrally and it could also be an incentive for any future legislative proposals to introduce a real rolling review concept in the centralised procedure.
- The EMEA will look into other process improvements, of a scientific/regulatory nature such as the handling of invented names of human medicines, up to the provision of adequate product information (e.g. the handling of translations).
- The Agency will also investigate if specific measures need to be envisaged for certain classes of products such as vaccines (by striving to find a better balance between national and EU desiderata, building on the achievements obtained at the level of the Vaccine Experts Group), and orphan drugs (through continuous and sustained efforts in terms of increased transparency, better information to patients, etc.).

Second pillar: Stimulation of research and innovation

Several initiatives in order to stimulate research and innovation have already been taken by the European Commission's responsible services, further to the G10 Recommendations, and both the Competitiveness Council Conclusions and the Health Council Resolution, hence facilitating the availability of medicines to treat incurable diseases or diseases that can not be treated effectively.

Of particular importance in this respect is the promotion of the scientific and technological research on medicines for such diseases by developing adequate policies to facilitate the co-operation of public and private organisations with academia and other research institutions and to better bridge basic and applied research. Actions are being undertaken in the context of the 6th Framework Programme. This also relates to the establishment of European Virtual Institutes of Health in the context of the 7th Framework Programme in order to coordinate research and to provide for a greater coherence between public health needs and research activities.

The EMEA is committed to provide adequate support to the European Commission with respect to the actions to be undertaken in the context of the above initiatives. The Agency can take the following actions to provide adequate information to the European Commission in its execution of initiatives to further encourage and facilitate innovation and research:

• The identification of areas where further research is needed.

The EMEA can operate as a platform, bringing all stakeholders together, including academia and patients organisations, initiating discussions on what areas require further applied research.

 The initiation of joint discussions between the EMEA Scientific Committees, academia and pharmaceutical industry, on innovative approaches for the development of medicinal products.

The EMEA, acting as a platform for all stakeholders, can provide reinforced support to the pharmaceutical industry as regards the requirements to be met for drug development. This will be of particular importance in relation to the experimental work to be undertaken in the field of new therapies. These discussions could also explore if the regulatory requirements could be adapted without compromising the safety of patients. As a consequence an ongoing dialogue on the development of new medicines would be started, resulting in a closer relationship between the academic research and the drug development by the pharmaceutical industry.

All the above initiatives to be undertaken by the EMEA, which mainly concentrate on an acceleration of the drug clinical development and the regulatory approval time, without compromising the safety of patients, will be incorporated in a formal package of measures. This will constitute the EMEA Strategy on Fast Track with the ultimate aim to allow for expedited approval of safe and effective breakthrough therapies for unmet medical needs, hence speeding-up the availability of such innovative medicines.

In the veterinary sector the situation will be monitored during the following years with a view of phasing in certain initiatives, as outlined above, as the need arises.

Action Plan

In summary, in order to implement the EMEA's vision in relation to innovative medicines, the following will be undertaken:

Action	Timeframe for Completion
To develop an EMEA Strategy on Fast Track	
 To introduce improvements to the current regulatory licensing process by: Implementing the new legislative tools provided by revised Community legislation in relation to the introduction of an accelerated assessment procedure, the introduction of the conditional approval concept, the involvement of specialised expertise, and the management of 	4 th Quarter 2005.
 the compassionate use procedure. Complementing such legislative provisions with additional process improvements, e.g. the introduction of a rolling review concept for the submission of well defined packages of pharmaceutical companies' responses to the lists of questions. 	1 st Quarter 2007.
 Exploring other process improvements related to the centralised procedure, e.g. in the fields of the evaluation of invented names of human medicines, the handling of translations of product information, etc. 	4 th Quarter 2005.
 Investigating if specific measures need to be undertaken for certain classes of products (vaccines, orphan drugs). 	2 nd Quarter 2007.

Action	Timeframe for Completion
 To stimulate research and innovation by: 	
 Assisting the European Commission's responsible services in the follow-up to the G10 Recommendations, both the Competitiveness Council Conclusions and the Health Council Resolution and the 7th Framework Programme by providing adequate information to the European Commission through the: 	
 i) Initiation of discussions on what areas require further applied research. 	2 nd Quarter 2005.
 ii) Initiation of joint discussions between all stakeholders on innovative approaches for the development of medicinal products. 	4 th Quarter 2005.

3.2 Specific Needs For New Technologies

Key Principles

New technologies or therapies include cell and gene therapy, xenotransplantation, nanotechnologies, anti-sense molecules, tissue engineering, pharmacogenomics, etc. New approaches to manufacturing and control methods also need to be addressed. The particular challenges which relate to the introduction on the market of these new technologies have already been highlighted in Part I, "The European Medicines Agency Strategy". These challenges are of a legal, regulatory and scientific nature.

Initiatives have already been undertaken by the EMEA, resulting in the establishment of several CHMP Ad hoc groups, such as the EMEA/CHMP Ad hoc Gene Therapy Expert Group, the CHMP Ad hoc Expert Group on Pharmacogenetics and the EMEA Process Analytical Technology (PAT) team. The establishment of other groups (e.g. a CHMP Cell Therapy Working Party) is currently under discussion. In addition, other activities have started such as a discussion on preclinical and clinical issues in relation to the comparability of biotechnology products.

The EMEA has also prepared itself internally to face the challenges surrounding new technologies, and has created an EMEA Innovation Task Force. Such Task Force is focussing on those innovative medicinal products for which there is not an established EMEA experience as regards technical requirements and assessment, and for which technical and legal aspects need to be clarified. A classification procedure, involving the CHMP for those innovative products with borderline features has been established in order to assess their status and the applicability of pharmaceutical Community legislation. Furthermore, a forum for early dialogue through briefing sessions will be provided to sponsors, including SMEs. Dedicated and up-to-date information on EMEA activities in relation to emerging therapies and technologies will be made available on the EMEA website to provide easy access to published EMEA documents on advanced medicinal products and to provide interested parties links to EMEA procedures relevant to this field.

Building on these achievements, the EMEA will further strengthen its network with academia and learned societies. In order to be able to successfully address all challenges stemming from these new technologies, the Agency will further expand its scientific capabilities for keeping up-to-date with new technologies by developing, in close cooperation with its Scientific Committees, a "Strategic Plan for New Technologies". In order to establish such a plan the EMEA will facilitate the exchange

of scientific expertise between the Agency and academia / learned societies and will bring together the best expertise available at EU level (coming from NCAs, academia, learned societies and the pharmaceutical industry) to discuss the challenges related to new technologies. This should ultimately result in the development of new/amended guidance documents and facilitate the development of such new therapies. Furthermore, as already indicated in Part II, Chapter 2.1 "The European Medicines Agency Networking Model", particular attention should be paid to adequate competence development in this field and the Agency will look for active contributions from academia and learned societies in the provision of training to staff from EU Regulatory Authorities.

As regards the situation in the veterinary sector the situation will be monitored over the next years. This could lead to phasing in some initiatives, as described above, as the need arises.

Action Plan

In summary, in order to implement the EMEA's vision in relation to the specific needs for new therapies, the following will be undertaken:

Action	Timeframe for Completion
 To provide dedicated information on emerging therapies and technologies on the EMEA website. 	3 rd Quarter 2005.
 To implement the classification procedure for borderline products. 	1 st Quarter 2005.
 In close cooperation with the EMEA Scientific Committees, to initiate discussions with top quality expertise coming from NCAs, academia, learned societies and pharmaceutical industry, on all challenges related to new technologies. 	1 st Quarter 2006.
 To subsequently establish a "Strategic Plan for New Technologies". 	2 nd Quarter 2007.
 To further organise adequate competence development in the field of new technologies for staff from EU Regulatory Authorities through involvement of academia and learned societies. 	4 th Quarter 2006.

3.3 Specific Needs for Veterinary Medicines

Key Principles

In addressing the specific needs of the veterinary sector over and above ensuring the authorisation of veterinary medicines to the highest standards of quality, safety and efficacy, attention must be focussed on the availability of medicines. This is recognised as a major issue in that there are significant therapeutic gaps in the supply of medicinal products for minor species and to a lesser extent for minor use in major species.

The EMEA will continue to advance the principles set out in the CVMP Paper on Availability of Medicines for Minor Uses and Minor Species to consider the practical implementation of the recommendations. These will include possibilities for adapting data requirements to facilitate authorisation, provisional authorisation and collaboration with MSs to ensure a harmonised approach to the authorisation of such medicines. In particular there will be continued cooperation with the MSs and other Interested Parties, as well as an ongoing dialogue with the European Commission to establish a priority list of essential products which can become the focus of future initiatives to facilitate greater availability.

Bioterrorism in the livestock animal sector is a real and present danger and has yet to be adequately addressed in the EU. In addition, the threat of newer epizootic diseases such as the Blue Tongue Fever and the West Nile Virus Fever, already prevalent in some MSs, will require urgent provisions for the control of such threats, in which the Agency will have a role to play in the authorisation of suitable vaccines in a timely and efficient manner.

Both in the veterinary and the human field, there are increasing concerns about issues such as the potential developments in antimicrobial resistance in man and animals, with speculation about the significance of the use of antimicrobials in companion animals. In order to address these concerns a CVMP Scientific Advisory Group on Antimicrobial Resistance has been established. This is entirely in line with the recommendations made by the European Parliament during the review of pharmaceutical legislation that the CVMP should provide scientific advice on the use of antibiotics in food producing animals in order to minimise the occurrence of bacterial resistance in the Community. In addition, the adequacy of systems in place to ensure the environmental safety of medicines will come under sharp focus, particularly in the case of veterinary medicines where a risk assessment for each authorised medicinal product is now required under the new Community legislation.

Provision of adequate information to both health care professionals, especially veterinarians, and users of medicines is of utmost importance. The establishment of the EuroPharm database which will also contain information on all veterinary medicines authorised in the EU will enable veterinarians to see what medicines are available in the EU for application of the cascade, which will also facilitate actions to address the problem of availability of veterinary medicines.

As regards the monitoring of veterinary medicines it needs to be recognised that the application of pharmacovigilance in the veterinary sector is somewhat heterogeneous throughout the EU. However, the EMEA will continue its commitment to optimise Good Pharmacovigilance Practice for veterinary medicines, building on the initiatives that are currently underway in partnership with the MSs. The further development of the veterinary pharmacovigilance system in the EU will require continuing discussions and cooperation with all stakeholders. Such close collaboration with the MSs should lead to the implementation of the European Surveillance Strategy, which is currently being developed at Heads of Agency level. There is a need to increase the awareness of the veterinarians to the importance of reporting adverse drug reactions and discussions will continue with the Veterinary Profession as to how to achieve this. However, one should bear in mind that veterinary adverse drug reaction reporting must remain proportionate to the risk. In addition, incentives for reporting should be given to health care professionals such as feedback on the information provided.

Recognition must be given to the importance of animal health and welfare and its direct impact on public health in the Community, and such considerations of consumer safety will prove an incentive at the policy and resource level to further progress the development of much-needed new veterinary medicines within the EU.

In summary, in order to implement the EMEA's vision in relation to the specific needs for veterinary medicines, the following will be undertaken:

Action	Timeframe for Completion
 To finalise discussions with all involved parties on the establishment of a priority list of agreed essential veterinary medicines for minor uses/minor species, and further initiatives on the availability issue. 	4 th Quarter 2005.
 To arrive at recommendations at the level of the CVMP Scientific Advisory Group on Antimicrobial Resistance, in such meeting the regulatory challenges ahead in the animal sector on the potential growth in antimicrobial resistance, and to provide further guidelines on testing. 	4 th Quarter 2005.
 To evolve the European Surveillance Strategy in close collaboration with NCAs by further identifying additional measures to maximise risk management for veterinary medicines. 	1 st Quarter 2006.

3.4 Generic and Non-Prescription Medicines

Key Principles

The EMEA's involvement in the field of generic and non-prescription medicines has until now been limited and restricted to the evaluation of medicines referred to the Scientific Committees in order to review emerging quality, safety, and/or efficacy concerns for authorised products or classes of products, or to harmonise the product information of such medicines.

The expiry of the 10 year protection period for centrally authorised products, the extended scope of the centralised procedure as a consequence of the implementation of new Community legislation, as well as the possibility of switching the legal status for certain centrally licensed products, marks the start of a new era for the Agency.

Discussions have already started with the pharmaceutical industry (in the field of both generic and non-prescription medicines) on the particular challenges the EMEA will face in this respect. The Agency will look to benefit from the experience obtained by the NCAs in these fields. In particular, the EMEA will have to prepare for issues in relation to bioequivalence for generic medicines containing chemical entities, specific issues surrounding biosimilar generics (e.g. comparability), tradename concerns, etc., resulting in possible legal challenges. Consequently, the EMEA will closely follow all legal aspects in relation to the submission of generics and will ensure that appropriate guidance from its Scientific Committees is available as to biosimilar medicinal products. As regards non-prescription medicines, the need to revise existing criteria with respect to the switching of the legal status for centrally authorised products needs to be investigated in close collaboration with the European Commission.

In summary, in order to implement the EMEA's vision in relation to generic and nonprescription medicines, the following will be undertaken:

Action	Timeframe for Completion
 To start to set-up the necessary framework for the handling of generic applications containing chemical entities. 	1 st Quarter 2005 (veterinary medicines). 4 th Quarter 2005 (human medicines).
 To implement process improvements for generic medicines where necessary. 	4 th Quarter 2006.
 To investigate in close collaboration with the European Commission the need to revise the existing criteria for switching the legal status for centrally authorised products. 	2 nd Quarter 2006.
 Where relevant, to subsequently implement such revised criteria. 	2 nd Quarter 2007.

3.5 Herbal Medicines

Key Principles

New Community legislation on herbal medicinal products has significantly increased the EMEA's role in this field. The most visible consequence has been the establishment of the new Scientific Committee, the HMPC. The Agency will provide adequate support to the HMPC to enable it to fully implement the new legal provisions and to support initiatives that contribute to the successful and optimal functioning of the Committee.

Important tasks are allocated to the HMPC; the implementation of the new legislation requires the establishment of Community standards for herbal medicines. The list of traditional herbal substances drafted by the HMPC and subsequently published by the European Commission will form the basis for national decisions on the registration of traditional herbal medicines. Community herbal monographs published by the EMEA may be the basis of national registrations or marketing authorisations for herbal medicines.

Another task for the HMPC will be the continuing development and revision of guidelines aiming to harmonise requirements related to the quality, safety and efficacy of herbal medicines. In addition, in relation to the development of guidance for herbal medicines, a strengthening of the interaction with the WHO traditional medicines programme needs to be undertaken.

The new Community herbal monographs as well as the list of traditional herbal substances will not only greatly facilitate decision-taking both at EU and national level. In addition, they provide a new area of shared responsibilities between the EMEA and NCAs that act as (Co)-Rapporteurs. Whereas such (Co)-Rapporteurships will request increased specific expertise in this area, it will also save scientific resources at EU level.

In summary, in order to implement the EMEA's vision in relation to herbal medicines, the following will be undertaken:

Action	Timeframe for Completion
 To set-up the framework for the operation of the HMPC to take account of the full implementation of new Community legislation. 	4 th Quarter 2005.
 To strengthen the interaction with the WHO traditional medicines programme. 	4 th Quarter 2006.

Chapter 4 Implementation of the European Medicines Agency Vision in Terms of the Provision of Incentives for Small and Medium-sized Enterprises

Key Principles

New Community legislation provides for incentives to be given to SMEs through the payment of reduced fees or deferred fees, and the receipt of administrative assistance. Implementing legislation drafted by the European Commission further specifies under what circumstances such companies may benefit from these incentives. Furthermore, the preamble to Regulation (EC) No 726/2004 of the European Parliament and of the Council states that provisions should be adopted to allow for taking over the responsibility for translations of product information. Incentives to be given to SMEs in the pharmaceutical sector will correspond to the general EU policy of supporting SMEs (please refer to Commission Recommendation 2003/361/EC of 6 May 2003).

As regards the support provided by the EMEA to SMEs, it should be emphasised that the Agency has already taken initiatives, mainly relating to the fields of orphan drugs and EudraVigilance (i.e. development of EVWEB, the user friendly electronic reporting tool for adverse drug reactions). The EMEA will complement such initiatives by an adequate implementation of new Community legislation on incentives for SMEs.

Therefore, the EMEA's initiatives will relate to

- (1) The payment of reduced or deferred fees by SMEs.
- (2) The provision of administrative assistance which shall concentrate on
 - The organisation by the EMEA of the translation of the product information, provided by the company in the English language, into all other EU languages.
 - The proactive provision by the EMEA of regulatory, legal and scientific advice on the preparation of the marketing authorisation application dossier.
 - The publication of practical guidance on the different issues of relevance to SMEs.
- (3) The establishment of a dedicated structure at the EMEA, to adequately manage all aspects in relation to SMEs.

In addition, the EMEA will explore, in accordance with Community legislation, which incentives can be provided to companies in the veterinary sector, in the case of veterinary medicines which have limited markets or which are intended for diseases with a regional distribution.

Action Plan

In summary, in order to implement the EMEA's vision in terms of provision of incentives for SMEs, the following will be undertaken:

Action	Timeframe for Completion
 To implement the new legislative provisions in relation to financial incentives for SMEs. 	4 th Quarter 2005.
 To start the establishment at EMEA level of a dedicated structure to adequately manage all aspects in relation to SMEs. 	4 th Quarter 2005.
To initiate the publication of practical guidance for SMEs.	1 st Quarter 2006.

Action	Timeframe for Completion
 To explore which incentives can be given to certain enterprises in the veterinary sector in order to provide assistance to these companies requesting authorisation of products for limited markets or intended for diseases with a regional distribution. 	4 th Quarter 2005.

Chapter 5 Implementation of the European Medicines Agency Vision in Terms of Interaction with the Agency's Stakeholders

Key Principles

The interaction between the EMEA and its stakeholders relates to patients and users of medicines, health care professionals, academia, learned societies and the pharmaceutical industry. The interaction with the pharmaceutical industry has been well developed since the establishment of the EMEA in 1995, especially the interaction with the innovative medicines pharmaceutical industry. As regards the interaction with the other stakeholders, this has until now been somewhat heterogeneous, with well-developed interactions in the veterinary sector and the orphan drugs field. As regards the interaction with patients, an important achievement was made in 2003 further to the establishment of an EMEA/CHMP Working Group with Patients' Organisations.

Over the next years the EMEA will reinforce its interaction with all its stakeholders in order to meet, as much as possible, the stakeholders' expectations. Therefore, the following will be undertaken:

In relation to the interaction with the pharmaceutical industry

The Agency's interaction with the pharmaceutical industry has, since the establishment of the EMEA, been very well developed through regular workshops and infodays with the innovative pharmaceutical industry, covering all aspects of human and veterinary medicines legislation. This resulted in the establishment of a system of performance indicators whereby at a yearly interval the EMEA's performance, both in terms of the EMEA Secretariat and its Scientific Committees, was measured.

Following the extended scope of the centralised procedure, the EMEA will further progress its interaction in the field of human medicines with the innovative medicines pharmaceutical industry and build up a similar interaction with the generic and non-prescription medicines pharmaceutical industry.

As already highlighted in Part II, Chapter 2.2 "The European Medicines Agency Secretariat", there is a need to clearly describe the interaction between the EMEA Secretariat and the pharmaceutical industry and between the EMEA Scientific Committees members and experts and the pharmaceutical industry. In order to prevent any unacceptable pressure a Best Practice Guide will be developed.

In relation to the interaction with patients and users of medicines

The issue of how the EMEA should further progress its interaction with patients has been addressed at several fora, primarily at the level of the Committee on Orphan Medicinal Products (COMP) and the EMEA/CHMP Working Group with Patients' Organisations. The discussions at the level of the EMEA/CHMP Working Group resulted in a wide range of recommendations which have been subject to a consultation exercise with the Agency's partners and stakeholdes. The comments made during the consultation on the patients' recommendations are currently being discussed. In any case, it can be stated that the usefulness of patients' involvement has been demonstrated in the field of orphan drugs. Such involvement will be further developed, both in the context of the licensing of medicines and guidance development. As regards guidance development, patients associations will be included in the consultation exercise. In the field of licensing of medicines, patients associations will be invited to participate in the checking of the quality of product information in the context of the EMEA's expanded role as per new Community legislation. The issue of direct involvement in the scientific review process will be further discussed at the level of the Working Group, Such Working Group, who should become a permanent Working Party of the CHMP, will have to consider a number of complex issues, such as which patients associations should be involved at the level of the Working Party (the need for the establishment of a directory of patients groups has been identified), if and how patient representatives involved in EMEA activities can share confidential information with their associations, what kind of training should be provided to patient representatives, etc.

In relation to health care professionals

Efforts to increase the collaboration with human and veterinary health care professionals will further concentrate on the availability of up-to-date targeted information on medicines evaluated by the EMEA and how to best communicate such information. This will be reflected in the EMEA Transparency and Communication Strategy (please refer to Part II, Attachment 4). Provision of adequate information to health care professionals will require close collaboration with Health Care Professionals Associations and NCAs. Furthermore, in view of the establishment of the EuroPharm database and its importance as an information provider to health care professionals, appropriate consultation with health care professionals on the design of EuroPharm will be initiated. Another important area of interaction with health care professionals in the monitoring of medicinal products, hence stimulating the reporting of adverse drug reactions. This will require active involvement of health care professionals in the further development of the EudraVigilance project in terms of electronic reporting tools for health care professionals and access to the database.

In relation to academia and learned societies

There is a significant potential for all EU Regulatory Authorities to strengthen their interaction with academia and learned societies, resulting in a stronger EU regulatory network, involving all top quality scientific expertise available at the level of the EU. The EMEA will focus on the following areas of collaboration:

- (1) Incorporation of expertise coming from academia and learned societies in the pool of expertise available at EU level (please refer to Part II, Chapter 2.1 "The European Medicines Agency Networking Model"). This will result in the establishment of an EUwide up-to-date inventory which can be used in the context of the scientific review processes (ranging from scientific advice to post-authorisation).
- (2) Strengthening the systematic involvement of academia and learned societies in the development of guidance documents. This requires the availability of adequate communication channels between the EMEA and the various academia and learned societies.
- (3) Provision by academia and learned societies of high-quality specialist training to the EMEA and the other EU Regulatory Authorities. This should include the different stages of drug development and should particularly concentrate on white spots such as emerging therapies. Please also refer to Part II, Chapter 2.1 "The European Medicines Agency Networking Model".
- (4) Initiation of discussions with academia/learned societies on the areas which require further research. This will enable the identification of areas where further applied research is needed. Please also refer to Part II, Chapter 3.1. "Innovative Medicines".
- (5) Participation in joint discussions between the EMEA Scientific Committees and the pharmaceutical industry on innovative approaches in order to provide reinforced support to the pharmaceutical industry as regards drug development (see also Part II, Chapter 3.1. "Innovative Medicines").
- (6) Broadening the concept of experts on secondment by strengthening the secondment from experts coming from academia and learned societies to the EMEA and introducing secondment from EMEA Scientific Administrators to such organisations.

In summary, in order to implement the EMEA's vision in terms of interaction with its stakeholders, the following will be undertaken:

Action	Timeframe for Completion
 To strengthen the interaction with the pharmaceutical industry in the field of human medicines by: Further progressing the interaction with the innovative medicines pharmaceutical industry by discussing the implementation of new Community legislation and the continuing improvements to all EMEA processes. 	3 rd Quarter 2005.
 Initiating/strengthening discussions with non- prescription and generic medicines pharmaceutical industry. 	2 nd Quarter 2005.
 To complete the reinforcement of interaction with pharmaceutical industry (and other stakeholders) in the field of veterinary medicines. 	3 rd Quarter 2005.
 To clearly describe the interaction between the EMEA Secretariat and the pharmaceutical industry and between the EMEA Scientific Committees and the pharmaceutical industry by developing a Best Practice Guide. 	2 nd Quarter 2006.
 To strengthen the interaction with patients by: Finalising the recommendations made by the EMEA/CHMP Working Group with Patients' Organisations. 	1 st Quarter 2005.
 Implementing the recommendations impacting on the EMEA (including those recommendations which will be addressed as part of the implementation of new Community legislation). 	2 nd Quarter 2006.
 Initiating discussions with the European Commission (DG Entr and DG Sanco) and Heads of Medicines Agencies on the other recommendations which require an EU-wide approach, at the level of the public-private partnership project under the auspices of the European Commission. 	To Be Determined.
 To strengthen the interaction with health care professionals by: 	
 Organising a dedicated workshop in the field of human medicines in order to discuss the provision of adequate information to health care professionals (as part of the consequences of new Community legislation) and to strengthen health care professionals' participation in the pharmacovigilance network (particularly in the context of the EudraVigilance project). 	
 Implementing new Community legislation in relation to the provision of information taking into account the outcome of the workshop. 	2 nd Quarter 2006.

Action	Timeframe for Completion
 To strengthen the interaction with academia and learned societies by: 	
 Establishing an EU-wide up-to-date inventory of top quality scientific expertise, including expertise coming from academia and learned societies. 	1 st Quarter 2006.
 Strengthening the systematic involvement of academia and learned societies in guidance development, once adequate communication channels have been set up. 	3 rd Quarter 2006.
 Involving academia and learned societies in the provision of high-quality specialist training to the EMEA and the other EU Regulatory Authorities. 	4 th Quarter 2006.
 Involving academia and learned societies in discussions on innovative approaches in order to facilitate drug development. 	4 th Quarter 2005.
 Facilitating the exchange of Staff between the EMEA and academia/learned societies. 	1 st Quarter 2006.

Chapter 6

Implementation of the European Medicines Agency Vision in Terms of International Collaboration

Key Principles

In December 2003 the EMEA's Management Board endorsed a strategy for the Agency's international activities, resulting in:

- (1) The continuation of the EMEA's contribution to the (V-) ICH initiatives.
- (2) The further progressing of the collaboration with WHO and the World Organisation for Animal Health.
- (3) A strengthening of the interaction with the FDA and the USDA following the signature of the Confidentiality Arrangements in September 2003.
- (4) A continuation of the EMEA's interaction with other non-EU countries through the EMEA Visiting Experts programme.
- (5) The continuation of the Agency's participation in activities of the Codex Alimentarius, the Food and Agriculture Organisation and the Office International des Epizooties.

As a result of the changing environment the demands towards the EMEA for international cooperation will steadily increase. The Agency has already been approached by non-EU countries who have shown interest in the networking model and want to know more about the benefits and disadvantages of such concept. Because of the demand for increased international cooperation, which has to be matched with the ever growing workload and the available resources, the EMEA will be obliged to introduce a further prioritisation in its international cooperation. Priority will be given to

- (1) Preparing for the accession of Bulgaria and Romania in 2007 and for any other countries for which the EU will decide on future membership.
- (2) Refocusing the contribution to the (V-) ICH project, with priority for implementation and maintenance of existing ICH guidelines.
- (3) Strengthening the interaction with WHO in accordance with the new legal provisions (i.e. the scientific evaluation of medicinal products for human use intended exclusively for markets outside the EU).
- (4) Building on cooperation with operational Mutual Recognition Agreement partners with respect to GMP inspections in the context of an enlarged EU.
- (5) Reviewing the interaction with the FDA/USDA and exploring what further cooperation could be achieved in the framework of the Confidentiality Arrangements, including interaction with the US Department of Agriculture, responsible for the licensing of veterinary biological medicinal products.
- (6) Exploring what further progress can be made in the EMEA's interaction with other non-EU Regulatory Authorities, such as the Canadian and Japanese Health Authorities.

In summary, in order to implement the EMEA's vision in terms of international collaboration, the following will be undertaken:

Action	Timeframe for Completion
 To set-up the necessary arrangements for facilitating the accession of Bulgaria and Romania. 	3 rd Quarter 2005.
 To prepare for the accession of any other countries. 	To Be Determined.
 To implement new Community legislation in relation to the scientific evaluation of human medicines for non-EU countries. 	4 th Quarter 2005.
 To explore the establishment of Confidentiality Arrangements with the US Department of Agriculture. 	1 st Quarter 2005.
 To review the current interaction between the EMEA and the FDA/USDA in the context of the Confidentiality Arrangements. 	3 rd Quarter 2005.
 To implement any changes to such Confidentiality Arrangements. 	1 st Quarter 2006.
 To explore an extension of the international cooperation (beyond the Visiting Experts programme and MRA collaboration) with other non-EU countries. 	2 nd Quarter 2007.

Attachments The European Medicines Agency Road Map to 2010: Preparing the Ground for the Future

Part II

The European Medicines Agency Road Map Implementation Plan

Area of Scientific Advice

Key Principles

Scientific advice to be provided by the Scientific Committees of the Agency facilitates access of medicinal products to patients and users of medicines in optimising R&D, reducing uncertainties in regulatory outcomes and accelerating time for approval.

The EMEA will establish the best possible environment for the provision of scientific advice on human and veterinary medicinal products by its Scientific Committees, in particular for new therapies. In order to achieve this objective, the EMEA will revise the current procedural framework to strengthen the provision of scientific advice.

The revised procedure should allow for open discussions and proactive identification of difficulties, hence facilitating the availability of proposals to sponsors.

All future users of the centralised procedure will be encouraged to engage, as early as possible, in an ongoing dialogue with the Agency on the development of their product. This will include regulatory advice allowing the EMEA to develop a secure landing zone for all sponsors.

In addition, specific efforts will be made to support SMEs and to develop protocol assistance for orphan medicinal products. Further developments of similar initiatives in the veterinary sector will be pursued, dependent in part on the outcome of the pilot project allowing free advise for medicines intended for minor uses/minor species.

Scientific advice procedures will include possibilities for face-to-face meetings between sponsors and regulators at the different stages of the development of medicinal products, as well as the involvement of specific and complementary expertise on an individual basis, through panels of experts or involvement of other fora (e.g. the Vaccine Experts Working Parrty in order to address specific issues related to vaccines). In addition, consultation of patients representatives will be developed particularly for rare diseases. Opportunities for parallel advice with the FDA will be proposed for breakthrough medicines on a voluntary basis, in particular for "global" development programmes. Guidance to sponsors on how to apply for such parallel scientific advice has been made available jointly by the EMEA and the FDA. The level of involvement of sponsors in the EMEA-FDA discussions has been addressed in such guidance.

The processes for scientific advice will develop towards differential procedures depending on the scope of the requests, the type of products and their stage of development. Early interactions with sponsors and pre-filing advice should complete the possibilities offered to sponsors for advice during development and should provide a necessary continuity from the R&D phase to the licensing phase. The scope of the scientific advice procedure will also be reinforced to better address post-authorisation, pharmacovigilance and risk management/risk minimisation aspects. Involvement of specific pharmacovigilance expertise to adequately handle such requests for scientific advice will be foreseen. These initiatives will be phased in as necessary on the veterinary side.

It should be noted that the provision of scientific advice is not limited to innovative medicines but is also available to address specific issues related to generic medicines and OTC medicines.

Furthermore, the publication of advice provided will be reconsidered. In reviewing the current procedure the Agency will need to find the most adequate point in time for the public release of advice in order not to freeze or hinder the development of medicines.

Although the possibility for the pharmaceutical industry to obtain scientific advice at national level is recognised, there is a need for enhanced transparency as regards the provision of scientific advice at EU and national level. This will be facilitated by appropriate communication between the Agency and NCAs on the scientific advice given and the development of a Best Practice Guide for the pharmaceutical industry on how to obtain scientific advice. Furthermore, in order to ensure that consistency on the scientific advice provided by regulators on various medicines is obtained, the internal database, currently containing previous EMEA advice given, will be extended to incorporate previous national advice given.

Action Plan

In summary, in order to implement the EMEA's vision in the area of scientific advice, the following will be undertaken:

Action	Timeframe for Completion
• To implement new Community legislation in relation to the further improvement of the scientific advice procedure.	4 th Quarter 2005.
 To review experience gained with the parallel scientific advice procedure established at EMEA and FDA level for human and veterinary medicines. 	3 rd Quarter 2005.
• To implement any changes to the parallel scientific advice procedure for human and veterinary medicines.	1 st Quarter 2006.
 To extend the existing internal database on previous EMEA advice given in order to include previous national advice given. 	3 rd Quarter 2006.

Area of Scientific Assessment

Key Principles

The European Medicines Agency has, in accordance with Community legislation, to provide science-based opinions. Scientific opinions have to be based on sound and robust scientific assessment. This should ensure that the Public and Animal Health objectives of the scientific assessment performed by the Scientific Committees are met, in particular in case of centrally processed applications and referral /arbitration procedures, or other scientific aspects for which the Committees have responsibilities.

The assessment process for human and veterinary medicines is characterised by three pillars: a scientific, a regulatory and a procedural pillar. The EMEA Secretariat will, in accordance with new Community legislation, develop a complementary function by providing scientific support to the Scientific Committees, while having full direct responsibilities for the two other pillars. Such scientific support, as already described in detail in Part II, Chapter 2.2 "The European Medicines Agency Secretariat", will mainly relate to ensuring the regulatory and scientific quality and consistency, hence contributing to an increased quality output of the EMEA Scientific Committees. Process developments will ensure that the assessment is thorough, consistent, operated in the framework of an Integrated Quality Management System, performed by required competences and expertise, whilst compliance with Good Practices (e.g. GMP, GLP⁷, GCP) is ensured.

The EU system should be based on a high quality initial assessment supported by an adequate system of peer review, and in all situations high-level expertise should be involved. Members of the EMEA Scientific Committees should be encouraged to participate as much as possible in such peer review process in the different stages of the scientific review procedure. In addition, the principle of lifecycle management of medicines should be supported. For the initial assessment, sufficient time to perform the tasks adequately is necessary in order to provide the Scientific Committees with Assessment Reports of the highest quality, prepared in compliance with established guidance. The largest possible use of additional expertise should be provided all along the process. The Scientific Committees will explore if the scientific evaluation process should include, where appropriate, a more systematic scientific contribution, complementary to the Scientific Advisory Groups, from its other Working Parties. Building on the experience already obtained (e.g. the Biotechnology Working Party and the Vaccine Experts Working Party) the Committees will take as much as possible advantage of the best expertise available at EU level. Where necessary, additional specific expertise should be provided at the level of the Committees and the Scientific Advisory Groups (e.g. in the field of pharmacovigilance and risk management/risk minimisation) in charge of human medicines.

The peer review concept should ensure a quality control on the initial assessment, without duplication of the assessment already conducted. It should both relate to the content and the format, and should provide additional and complementary critical expertise to the initial assessment.

The peer review process should be carried out in a completely transparent manner. This could be best ensured by a systematic and sufficient involvement of a peer review team from the Committees, and the additional assurance that all Committee Members have expressed their views in a timely manner. Furthermore, all aspects concerning scientific consistency and compliance with guidance and regulatory aspects should be checked by the Secretariat of the Agency. This framework will offer optimisation of timelines and opportunities for scientific discussions between the assessors and the Secretariat, and will lead to a cost

⁷ GLP: Good Laboratory Practices.

efficient system. The involvement of the pharmaceutical industry in such quality assurance/peer review activities will be limited to the provision of feedback in case existing rules and/or guidance has not been adhered to, hence endangering the scientific and regulatory consistency of the outcome at the level of the EMEA Scientific committees.

Finally, as has already been indicated before, a culture of continual process improvement should be developed. The Agency will contribute to this objective by continuously monitoring the scientific evaluation process and looking at further efficiency of operation.

Action Plan

In summary, in order to implement the EMEA's vision in the area of scientific assessment, the following will be undertaken:

Action	Timeframe for Completion
 To initiate a revision of the scientific assessment procedure, with particular emphasis on the initial assessment and the peer review system, alongside the implementation of new Community legislation (such revision should take due account of the follow-up to the audits of the EMEA Scientific Committees). 	3 rd Quarter 2006.
• To review the revised scientific assessment procedure and to introduce further improvements, where relevant.	1 st Quarter 2008.

Area of Monitoring of Medicinal Products

Key Principles

Post-authorisation activities cover a wide range of areas, aiming at ensuring a continuous monitoring of the human and veterinary medicinal products available on the market. Such activities include variations to marketing authorisations and pharmacovigilance related activities (please also refer to Part II, Attachment 6 for further post-authorisation activities). The area of pharmacovigilance, which is a very important aspect of post-authorisation activities, is one of the cornerstones of the EU networking model. New Community legislation will further reinforce the EMEA coordinating role in this networking model. In order to create a network of excellence at EU level, the Agency, in close collaboration with NCAs, will therefore explore how to further strengthen such concept of partnership. In addition, building on the initiatives already taken at EU Heads of Medicines Agencies level, efforts need to continue to further increase the quality of the output of the Regulatory System in the field of pharmacovigilance by further improving the national pharmacovigilance systems (this could include a review of the current adverse drug reaction reporting practices at national level). Clear roles and responsibilities for all parties involved in the EU pharmacovigilance network will be further defined. Such definition of roles and responsibilities needs to take into account recent developments, i.e. the electronic reporting of adverse drug reactions through the EudraVigilance system.

The EMEA vision on post-authorisation activities will be driven by a proactive conduct of pharmacovigilance, throughout the lifecycle of a medicinal product in order to further strengthen public and animal health protection in an enlarged EU. It should lead to the best knowledge of the safety profile of a medicinal product at the moment of the granting of the marketing authorisation, with the scientifically most robust programme of post-authorisation studies to be performed, where appropriate, and a continuous and adequate monitoring of the safety of medicinal products, once put on the EU market.

In order to reach such an objective, the Agency will use the new legal tools provided by Community legislation, such as

- (1) the introduction of risk management/risk minimisation plans, whereby the main challenge for centrally processed medicines will be the implementation of such plans in all MSs, and
- (2) the monitoring by the Agency of the implementation by Marketing Authorisation Holders of their pharmacovigilance obligations and the subsequent action in case of non-compliance.

In addition to the area of pharmacovigilance, the EMEA will carefully review, in close cooperation with its partners and stakeholders, whether other process improvements, complementary to the legislative changes, can be introduced, for instance in the field of variations to marketing authorisations. It has to be recognised that the post-authorisation phase is a very work intensive and resource-demanding period in the lifecycle of a medicinal product. Hence the continuous need for efficiency of operation, avoidance of unnecessary duplication of work and best use of limited resources (both at the level of Regulatory Authorities and the pharmaceutical industry), without compromising the safety of patients and users of medicines.

The EMEA Risk Management Strategy, which underpins the Agency's proactive conduct of pharmacovigilance on the human side, will be further developed. A variety of activities will be undertaken, ranging from an extension of the scope of the scientific advice procedure to include post-authorisation, pharmacovigilance and risk management/risk minimisation aspects, to more adequate post-authorisation safety studies. Furthermore, particular

emphasis will be put on ensuring that the EudraVigilance system, which is one of the key pillars of such Risk Management Strategy, is fully operational with appropriate methodologies for the effective early detection of safety signals in order to allow successful contribution to the best evidence approach.

In relation to the most adequate conduct of post-authorisation safety studies, the possibility of performing independent studies should be facilitated in the EU. Of particular importance in this respect is the funding of such studies which is increasingly becoming an issue and consequently requires careful consideration. Although the most ideal situation would be the establishment of a network of academic centres of excellence capable of conducting independent studies targeted on safety, one needs to consider the financial limitations of putting in place such a system. In order to achieve the objective of avoiding direct links between a pharmaceutical company and the study to be performed, other ways of funding of post-authorisation safety studies, simulating a general funding, should be considered. A debate with all concerned stakeholders needs to be started in order to discuss this funding problem, as well as other issues such as when to perform independent studies, what should be the involvement of the pharmaceutical industry, etc.

In addition, one needs to consider the particularities of certain classes of medicines, such as vaccines (e.g. because of the need for large studies to evaluate the safety and efficacy of vaccines; the existence of different surveillance systems, policies and recommendations for vaccines at national level). This will require close collaboration between the EMEA and the ECDC to develop methods and processes appropriate for the conduct of high-quality post-authorisation studies.

The further development of the EMEA Risk Management Strategy will be an important contribution to the ongoing elaboration of the EU Risk Management Strategy, being undertaken at the level of the EU Heads of Medicines Agencies with responsibility for human medicines. Such EU Risk Management Strategy should preferably tackle additional issues such as the development of a common language of risk and the harmonisation of risk assessment methodologies. Taking into account the consequences of both the EMEA and the EU Risk Management Strategies on the pharmaceutical sector, appropriate consultation with all stakeholders of the EU Regulatory System will be indispensable.

Chapter 3.3, "Specific Needs for Veterinary Medicines" of Part II, already highlighted the need for further discussions on a more adequate organisation of the EU veterinary pharmacovigilance system. These discussions will be undertaken, particularly with the Heads of Medicines Agencies with responsibility for veterinary medicines, in the context of the European Surveillance Strategy and will focus on Good Pharmacovigilance Practice for veterinary medicines.

Finally, the EMEA Secretariat will further develop (please also refer to Part II, Chapter 2.2 "The European Medicines Agency Secretariat") in order to complement its regulatory and procedural competences by scientific competences, mainly through the development of a pharmacovigilance function, in order to provide adequate support to the Rapporteurs, the EMEA Scientific Committees and the high-level specialised expertise providing the necessary assistance. Such increased competences of the EMEA Secretariat will be developed in an enhanced Integrated Quality Management System in order to achieve, through the support provided by the Secretariat, an adequate level of quality and scientific and regulatory consistency in the outcome of the scientific evaluation processes.

In summary, in order to implement the EMEA's vision in the area of monitoring of medicinal products, the following will be undertaken:

Action	Timeframe for Completion
 To implement the new legislative tools in the post- authorisation phase (such as the introduction of risk management/risk minimisation plans) provided by revised Community legislation. 	4 th Quarter 2005.
 To review, in close collaboration with the Agency's partners and stakeholders, whether complementary process improvements can be introduced in areas such as variations to marketing authorisations. 	4 th Quarter 2006.
 To further develop the EMEA Risk Management Strategy in the field of human medicines by taking a number of initiatives, such as⁸: Introducing additional functionalities in the EudraVigilance database in order to allow for effective early detection of safety signals. 	4 th Quarter 2005.
 Strengthening active surveillance methods to improve pharmacovigilance data collection through i) an identification of academic centres to be 	3 rd Quarter 2005.
involved in intensive monitoring of targeted medicines.ii) the development of a network of such academic	
centres in order to allow subsequent practical implementation.	3 rd Quarter 2006.
- Reinforcing the scientific advice procedure to better address post-authorisation aspects.	3 rd Quarter 2005.
- Exploring with all concerned stakeholders the most adequate conduct of post-authorisation safety studies.	2 nd Quarter 2006.
- Initiating discussions with the ECDC on the development of methods and processes appropriate for the conduct of high-quality post-authorisation studies for vaccines.	1 st Quarter 2006.
 To identify additional issues to be addressed in the context of the EU Risk Management Strategy for human medicines (e.g. a reinforcement of the involvement of regional centres). 	2 nd Quarter 2005.
 To ensure timely implementation of initiatives agreed by the CVMP to reinforce optimal adverse event reporting for centrally authorised products and for nationally authorised products throughout the EU in collaboration with NCAs and in accordance with the European Surveillance Strategy. 	3 rd Quarter 2005.

⁸ A detailed action plan on the various initiatives to be undertaken in the context of the EMEA Risk Management Strategy will be published during the 2nd Quarter 2005.

Area of Transparency and Communication

Key Principles

The EMEA began in 1995 with a small number of legal obligations to publish information about its activities, in particular the publication of European Public Assessment Reports (EPARs). This initiative was significant in the context of the otherwise largely secretive pharmaceutical industry, particularly in Europe.

Since 1995 the Agency has continuously reviewed its Transparency Policy, leading to an increased openness, whilst having to respect some legal restraints. This resulted in the most recent measures, adopted by the EMEA's Management Board in October 2003.

The outcome of the EU Review 2001 of pharmaceutical legislation provides for even more transparency and, in addition, strengthens the Agency's role in the provision of information.

The new legal obligations should also be seen in the context of the new rules introduced in October 2003 on access to documents held by the EMEA and the implementing rules which came in force in April 2004.

All this will have at least two long-term policy consequences. Firstly, the Agency's scope and margin for self-determined manoeuvre may now be more limited. Secondly, the Agency's obligations are enforceable by citizens/companies and decisions not to release information can be more easily challenged, not just as bad administrative practice in complaints to the Ombudsman, but now also before the Courts.

In order to address the above challenges, the EMEA will actively but carefully embrace its new communication mandate, to take due account of the resource consequences stemming from such proactive approach, not just in the visible areas of communication (press office, website, etc) but also in the preparation of documents intended for distribution to the public.

This will result in a gradual and stepwise increase in the Agency's level of transparency, which will in a first phase primarily focus on an improved transparency in the field of nonproduct related issues, with particular emphasis on the availability of agendas and meeting summaries and the organisation of regular infodays with Interested Parties. Any such infodays will in addition be broadcasted on the Internet in order to allow for the widest possible audience. Increased transparency on non-product related issues will also mean more involvement of Interested Parties on discussions of general interest, such as endpoints in clinical trials, through the organisation of specific workshops.

In a second phase the Agency will explore how to complement, in addition to the new legal provisions, the release of information on product related issues, such as details on ongoing applications for marketing authorisation or changes to marketing authorisations. When searching for the most adequate balance between the increasing demands of patients/users of medicines and health care professionals on earlier information on possible treatments and the need to respect commercial confidentiality of proprietary information, the Agency will take due account of the approaches taken in other regions. This is of particular importance in order not to disadvantage neither the general public nor the pharmaceutical industry. All key principles and resulting initiatives will be brought together in an EMEA Transparency and Communication Strategy which will be further discussed with the Agency's partners and stakeholders before finalisation. Particular attention will be given to the development of effective communication tools for patients and health care professionals, especially in relation to new Community legislation concepts such as conditional approvals, and in case of important quality/safety/efficacy concerns affecting a medicine which require urgent dissemination. The Agency will also further widen its circle of communication partners by systematically providing relevant information to academia and learned societies.

Since it will be crucial for the whole EU Regulatory System to have a similar approach towards transparency and communication, discussions will be initiated at EU level with all Regulatory Authorities. This should result in the development of an EU Transparency and Communication Strategy. The availability of such EU wide strategy will be of particular importance in the field of communication on post-authorisation safety data which warrants a common approach at the level of all EU Regulatory Authorities.

Action Plan

In summary, in order to implement the EMEA's vision in the area of transparency and communication, the following will be undertaken:

Ac	ction	Timeframe for Completion
	To implement all EMEA Transparency Policy Measures adopted by the EMEA Management Board in October 2003.	4 th Quarter 2005.
	 To improve the EMEA transparency in the field of non-product related issues by: At Management Board level, publishing agendas and minutes of Board meetings and making available relevant supporting documentation. 	1 st Quarter 2006.
	 At the level of the Scientific Committees, organising regular infodays with Interested Parties, broadcasting such infodays on the Internet and following-up on the infodays by publishing meeting summaries.⁹ 	3 rd Quarter 2006.
	 At the level of the Scientific Committees, publishing meeting summaries on non-product related issues. 	1 st Quarter 2007.
	- At the level of the Scientific Committees' Working Parties, organising open workshops (with involvement of academia and learned societies, as well as representatives from the pharmaceutical industry) to discuss general scientific issues (such as endpoints in clinical trials).	1 st Quarter 2006.
	 At the level of the Scientific Committees' Working Parties, publishing meeting summaries on non- product related issues. 	3 rd Quarter 2007.
	To improve the EMEA transparency in the field of product related issues by: - Exploring, through a debate with the Agency's partners and stakeholders, the most adequate	3 rd Quarter 2005.
	balance between the increasing demands of patient/users of medicines and health care professionals on earlier information and the need to respect commercial confidentiality of proprietary information (taking due account of the situation in other regions).	

⁹ It should be noted that at the level of the CVMP and the COMP such infodays are already being organised.

Action	Timeframe for Completion
 Providing recommendations to the EMEA Management Board on how to complement, in addition to the new legal provisions, the release of information on product related issues. 	3 rd Quarter 2006.
 To initiate discussions with the EMEA's partners and stakeholders on the issues of transparency, communication and provision of information in order to arrive at a common approach at EU level. 	4 th Quarter 2005.
 To subsequently develop an EU Transparency and Communication Strategy. 	3 rd Quarter 2006.

Area of Provision of Information on Human Medicines to Patients

Key Principles

It needs to be emphasised that patients' approach towards the provision of information has changed significantly over the past years. The patient, having been a passive recipient of healthcare and advice, has turned into a more empowered and proactive consumer of health care. Patients are now actively looking for information on diseases and medicines since they want to be more involved in their own health care decisions. Providers of information should take due account of this trend.

An important challenge will be to provide adequate (targeted to patients), correct (preferably validated), properly balanced (benefits vis-à-vis the risks associated with the use of a medicine), timely and easily accessible information on medicines to patients. The EMEA vision on the provision of such information should be driven by taking the appropriate measures, resulting in more adequate and accessible information to patients, in order to promote a better use of medicines. This will require a more appropriate involvement of patients and/or patients groups in the regulatory framework of medicines licensing to optimise the way information is given to patients. In addition, a close interaction with MSs in order to arrive at a common approach at EU level is paramount. However, optimisation and further strengthening of the current networking model will be necessary, especially as regards the development of an EU Transparency and Communication Strategy, as outlined in Attachment 4.

In order to reach the above objective, the Agency will launch several initiatives in order to address

- (1) the outcome of the EU Review 2001 of pharmaceutical legislation,
- (2) the G10 Recommendations stemming from the High Level Group on Innovation and the Provision of Medicines, and
- (3) the Resolution of the Council of Health Ministers of 1 and 2 December 2003.

The Agency has already started to prepare for the implementation of these initiatives. It has created an EMEA/CHMP Working Group with Patients Organisations. Such Working Group has extensively debated further improvements to be achieved in the areas of transparency, dissemination of information, product information and pharmacovigilance, in order to

- (1) provide information adapted to patients' needs,
- (2) develop appropriate communication tools, and
- (3) increase the awareness of the public in relation to the use of medicines.

Such debate resulted in the development of specific recommendations, which have been subject to a consultation exercise with the Agency's partners and stakeholders.

The recommendations from the Working Group will be the first element of the Agency's reply to the G10 Recommendations and the Resolution of the Council of Health Ministers, and will be an important contribution to the initiatives undertaken by the European Commission on enhanced information, especially since several of these recommendations require a harmonised approach at EU level.

In addition, the EMEA will support other elements of the European Commission's action plan on enhanced information, in particular the establishment of a public-private partnership in order to address the quality of existing information to patients and the accessibility of high quality information through the Internet.

In summary, in order to implement the EMEA's vision in the area of provision of information on human medicines to patients, the following will be undertaken:

Action	Timeframe for Completion
 To finalise the recommendations stemming from the EMEA/CHMP Working Group with Patients Organisations. 	1 st Quarter 2005.
 To implement the recommendations only affecting the EMEA, including the new legal provisions originating from revised Community legislation. 	2 nd Quarter 2006.
 To initiate discussions with the European Commission and NCAs on the other recommendations requiring an EU-wide approach, in order to provide the necessary support to the public-private partnership project under the auspices of the European Commission. 	To Be Determined.

Area of GXP

Key Principles

An adequate quality system for ensuring fundamental GXP provisions are consistently achieved is a cornerstone of any robust regulatory system. In the current changing environment which combines enlargement of the EU, the implementation of the EU Directive on clinical trials, the introduction of new technologies and new approaches to the use of technology in the manufacturing and control areas, the EU Regulatory System faces particular challenges in the years ahead.

An efficient operation of the EMEA networking model within the context of an adequate Quality Assurance System will be required in order to successfully tackle these challenges. In particular, an effective coordination by the EMEA of GXP inspections performed by the NCAs is of utmost importance, especially as regards inspections carried-out in non-EU countries. Coordination should cover inspections in the framework of centralised licensed medicines with a strong link to decentralised licensed medicines in order to avoid duplication of work. This role of the EMEA can only be effective when resources for inspections at the level of the MSs are sufficiently available. A strong scientific input into coordination will improve quality, as well as efficiency and effectiveness from inspections, specifically by improving cooperation between scientific assessors and inspectors. This will be further supported through training activities, e.g. professional seminars.

The Agency will also be proactive in ensuring that industry can take advantage of new pharmaceutical technologies and approaches in the manufacturing and analytical areas, as well as anticipating the implications of emerging therapies, such as gene and cell therapy. Part of this work will build on existing activities organised by the EMEA to facilitate knowledge and understanding between assessors and GXP inspectors, with a view towards avoiding duplication of effort and promoting a synergistic approach that makes the best use of both Community and international resources.

On the GMP side the work of the Joint Audit Programme for EU GMP inspectorates assures an appropriate Quality Assurance System. This should be supported by appropriate training. It will ensure that excellence can be guaranteed across an enlarged EU. Furthermore, the new roles and responsibilities for the Agency in the GMP coordination of finished products, active substances and certain excipients will have a significant impact on the overall transparency of the EU as regards manufacturing information. The introduction of an EU wide database on manufacturing authorisations, inspection information and GMP certificates creates an opportunity to provide better information to regulators, while promoting the best use of Community resources and avoiding duplication. Any new GMP requirements for excipients will be carefully considered with all stakeholders.

Coordination of efforts and resources will be the cornerstone of an optimally functioning EU system for supervision of manufacturers. This is of particular importance in the case of the Plasma Master File (PMF) and Vaccine Antigen Master File (VAMF) certification schemes. The EMEA will further support the above initiatives through contributions to international discussions on risk management from a quality perspective and through its cooperation with WHO in relation to regulatory information provided to non-EU countries.

The entry into force of the EU Directive on clinical trials at the same time as the enlargement created both challenges and opportunities. The Agency will help to meet the challenge of implementation through the work of the GCP inspection services group on the harmonisation of practices, procedures, development of common approaches and joint training initiatives. The Agency's support to the clinical trial related databases will contribute to increased communication and availability of information for regulators and appropriate access to information for patients, e.g. in the field of adverse event reporting in the context of clinical trials. As in the GMP and quality assessment area, efforts to create better understanding

between clinical assessors and GCP inspectors will promote synergies and robustness in the assessment and monitoring areas. Furthermore, special attention will be paid to the inspection of clinical trials in new fields and to bioavailability studies, in particular the Clinical Research Organisations which conduct Phase I studies.

In the post-authorisation area, enhancing the supervision of the quality and safety of medicinal products on the EU market will be achieved by strengthening the monitoring of product quality and safety through post-authorisation testing performed by OMCLs under the aegis of the EDQM, monitoring of product defects and pharmacovigilance inspections.

In relation to the important issue of counterfeits, the contribution of OMCLs in identifying counterfeits should be developed.

Action Plan

In summary, in order to implement the EMEA's vision in the area of GXP, the following will be undertaken:

Action	Timeframe for Completion
 To implement new Community legislation, e.g. in the GMP coordination of finished products, active substances and certain excipients. 	4 th Quarter 2005.
 To establish an EU wide database on manufacturing authorisations, inspection information and GMP certificates by developing a first production version. 	4 th Quarter 2006.
 To facilitate the implementation of clinical trials legislation by providing support to NCAs, e.g. in the fields of harmonisation of procedures and practices, and competence development. 	4 th Quarter 2007.
• To strengthen the coordination of inspections in the context of the PMF and VAMF certification schemes.	4 th Quarter 2006.
To optimise the European Joint Audit Programme.	1 st Quarter 2006.
 To facilitate the introduction of new manufacturing and control approaches through the EMEA PAT team and cooperation at ICH level. 	4 th Quarter 2007.