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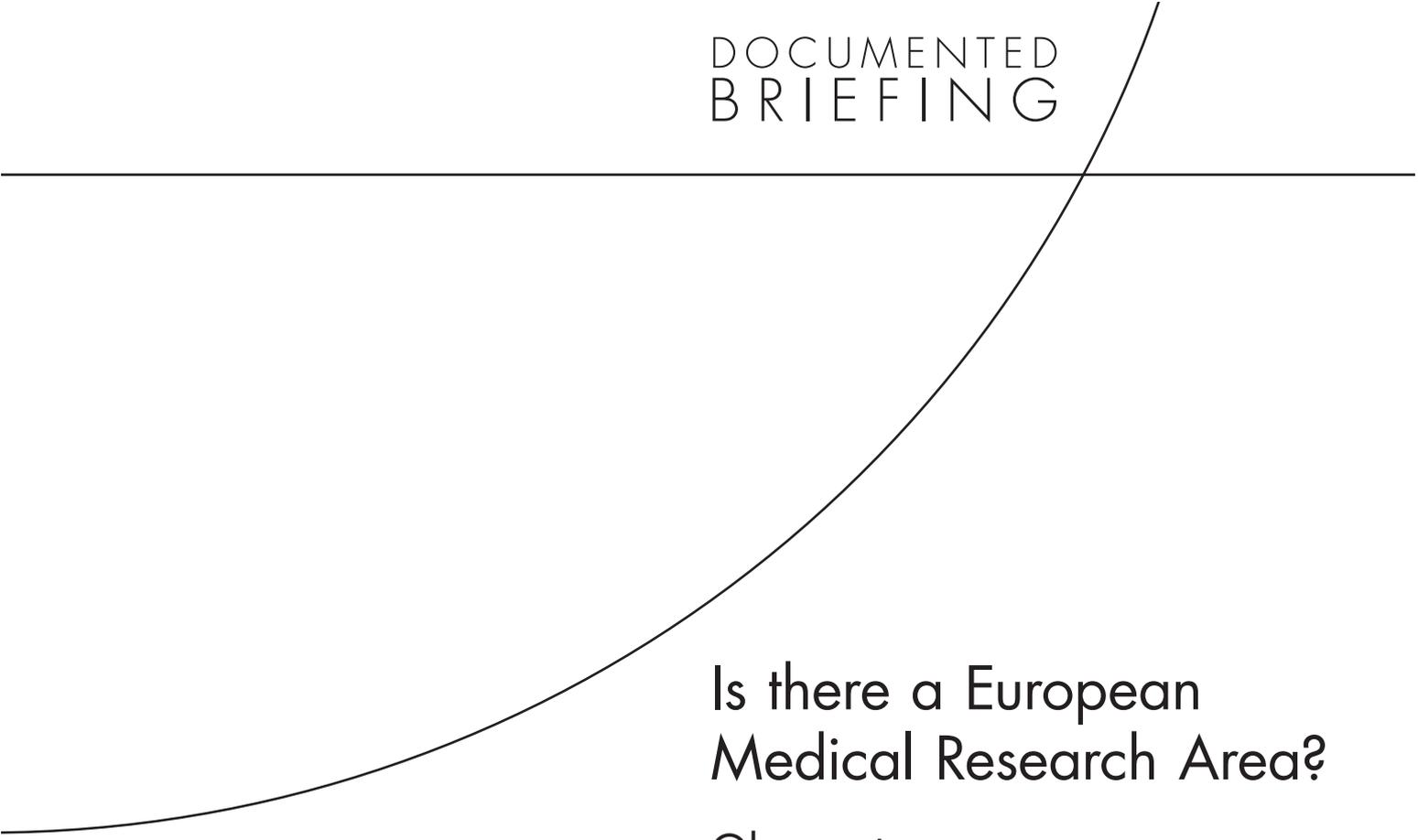
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BRIEFING



Is there a European Medical Research Area?

Observatory on
Health Research Systems

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Summary

Summary: Key Points

- A European Research Area is a unified area which allows increased collaboration across countries and better use of resources
- The concept was developed by the European Commission, but most progress towards its realisation has been made since the programme was relaunched in 2007
- Public funding for medical research is lower in Europe than in the USA
- The scientific impact of European medical research is low
- A number of barriers to the progress of medical research in Europe have been identified:
 - research infrastructure;
 - unattractive working conditions;
 - inflexible and fragmented funding provision;
 - complex and varied regulatory environment.
- Programmes such as Joint technology initiatives and Joint Programming have been introduced and these schemes have begun to tackle some of these issues
- However, more work needs to be done to establish a European Research Area in biomedicine, focusing on the barriers identified

This documented briefing outlines the principle of a European Research Area (ERA) and analyses the medical research field in Europe to see if this has been established. It explores the main challenges to forming such a unified research area in Europe, and outlines the measures that have been taken to address these issues.

An ERA is a unified research area across the European Union (EU) that enables:

- mobility of and collaboration between researchers;
- knowledge-sharing; and
- optimal use of available resources through effective use of infrastructure and coordinated national and regional research programmes.

In addition, an ERA acts as a major player on the world stage, interacting with other research centres and influencing the international agenda.

The idea was introduced originally by the European Commission (EC) in 2000, but was relaunched in 2007 due to changes in the broader international context and in order to boost progress towards its aims. Since this time, a number of initiatives have been developed to move towards these goals, particularly in terms of developing financial and research collaboration across Member States and between the public and private sectors.

In comparison to research undertaken internationally, and particularly in the USA,¹ European research receives significantly lower levels of funding, investing only 1.8 percent of gross domestic product (GDP) in research compared to 2.7 percent in the USA in 2007. This R&D funding gap between the USA and the EU did not decrease since 2000.

This R&D funding gap between the USA and the EU is also apparent in biomedical research. Moreover, the scientific impact of the EU in biomedical research is low at the world level. Finally, there are also signs of a growing innovation gap between the USA and the EU.

A number of key barriers to strengthening biomedical research in Europe have been identified:

- **research infrastructure** – the current system does not facilitate collaboration and multidisciplinary work or translation of research from bench to bedside;
- **working conditions** – conditions are not as attractive as conditions in the USA, largely due to significantly lower levels of pay, but also due to more limited opportunities for young researchers to progress and lower levels of mobility both within the EU and between the public and private sectors;
- **funding** – funding tends to be dispersed and uncoordinated in the EU. Centralised funding from the EU is not significant, with most Member States preferring to distribute funding on the national level to meet their own research priorities. In addition, levels of funding are lower than that of competitors such as the USA;
- **regulation** – regulation of clinical trials in the EU is complex and differs between Member States. A more unified, streamlined approach would facilitate research progress.

A number of measures have been introduced to target these issues and overcome barriers to research, which include the following.

- **Seventh Framework Programme** – the EC's current funding programme for research. Health research forms a significant portion of this, under the 'cooperation' element of the programme.
- **Joint Technology Initiatives (JTIs)** – these provide a new mechanism for public-private partnerships in areas of strategic importance. One initial example is the Innovative Medicines Initiative to facilitate cooperation between industry and academia on work related to biopharmaceuticals.
- **Joint Programming** – this facilitates multinational collaboration in areas where this approach could provide significant additional benefit. One such example which has been initiated is neurodegenerative diseases.

¹ Throughout the document, we compare the EU to the USA not only because they have comparable size in terms of inhabitants but also because the USA is recognised often as the world-leading nation in medical research and drug development.

Despite this progress, much still needs to be done in order to build an ERA in the biomedical sciences. A recent White Paper published by the European Science Foundation (2007), reflecting the view of European medical research councils, outlines some measures which could be taken to achieve this, focusing on measures to leverage assets in four key areas:

1. **people** – recommendations reflect the need to attract the best researchers to European institutions and provide strong career opportunities for them within Europe. Appropriate career progression and training, together with the highest standards for the way in which research is conducted, are suggested to help to achieve this;
2. **research infrastructure** – the need to avoid duplication is considered to be critical, as well as standardisation in order to facilitate collaboration and avoid bureaucratic and procedural issues which could slow the progress of scientific discovery;
3. **research funding** – the key suggestion is to make sure that sufficient funding is distributed to the right people, and to ensure that researchers are operating on a level playing field by establishing standards for what constitutes good-quality research;
4. **society** – engaging society as a whole in medical research and being aware of the wider context in which research is conducted is considered to be essential for the progression of medical research in the EU.