Comparative Analysis of Research into Illicit Drugs in the European Union

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This study was commissioned by the Directorate-General for Justice, Freedom and Security of the European Commission.
With up to two million problem drug-users in the EU, it’s high time to raise awareness of vulnerable groups, especially youth, on the risks of drug taking.

(EU Vice-President Jacques Barrot)

Information, research and evaluation are key elements of EU drug policy.

(EU Drug Strategy, 2005-2012)
Executive summary

1. INTRODUCTION: SCOPE AND BACKGROUND OF THE STUDY

1.1 Scope and objectives

The study was commissioned by the European Commission’s Directorate-General for Justice, Freedom and Security (DG JLS), and had the following six objectives:

(1) To chart the key research areas, research disciplines and recent research trends, covering both drug demand and drug supply reduction, and taking account of any significant interrelations with thematic areas (i.e. mental health and addiction, licit substance abuse, etc.).

(2) To map and analyse the capacity, infrastructure and model of coordination of drug-related research in the Member States (EU). An analysis of the participation of national research communities in EU programmes was also conducted.

(3) To map and analyse the capacity, infrastructure and coordination of illicit drug-related research at European and international level, including drug-related research activities by the Pompidou Group of the Council of Europe, the World Health Organisation and eminent private or semi-private research bodies.

(4) To give a brief description – for comparative purposes – of the drug-related research trends, capacity, infrastructure and model of coordination in the US, Canada and Australia and of major research ventures in this field with EU partners.

(5) To identify the strengths and weaknesses of EU drug-related research together with gaps in the knowledge infrastructure in this field, bearing in mind that the focus of this study covers both the supply and the demand of illicit drugs.

(6) To assess options for improving – where necessary – the drug-related research infrastructure in the EU.

1.2 Background

There is a strong consensus within the Commission and the Member States concerning the need for concerted action to tackle illicit psychotropic drug problems in Europe, as set out in the EU Drugs Strategy 2005-2012 and the EU Drugs Action Plan 2009-2012. The most recent estimates suggest that there are approximately two million problem drug users in the EU at present, with around 7 500 fatal drug overdoses per year. Research is seen as an essential component of the broader drug-related knowledge infrastructure. It is recognised that a healthy research and academic infrastructure is key to ensuring that drug-related policies and programmes are fully knowledge and evidence-based. Nevertheless, the research knowledge base on many topics and issues in this field is fragmented and patchy. This is why the promotion of drugs research and a strategic plan to step up research cooperation are among the priorities of the EU Action Plan on Drugs 2009-2012. This study was commissioned to help work towards these policy objectives by mapping European research activity in the field of illicit drugs and the support infrastructure across the 27 Member States, and by undertaking an analysis of opportunities for further research in Europe.

It is important to recognise that the focus, organisation and delivery of research is the responsibility of the Member States. The Commission only plays a supporting role. Consequently, the national focus of drug-related research has implications for the vision of a common European research strategy and evidence-based drug policy (Commission, 2007):

- There is considerable national variation between Member States in the size and type of illicit drug use and in the priorities and volume of research undertaken.

- Research into illicit drugs is embedded in different national research concepts and historic developments. It is either structured, funded and carried out as a separate research topic, or it is part of a broader substance-related research programme (which includes legal psychotropic substances). In some
instances research is an even more general component of health, social or criminological/legal-scientific disciplines. Deeply embedded drug research in some Member States within biology, chemistry, psychology, sociology, economics and criminology can complicate research cooperation between Member States, and hamper the development of a more integrated ‘substance research discipline’ in Europe.

• Much of the applied research activity in Europe (particularly treatment-related and criminological research) must be seen in its national cultural context. The different laws and languages make it a very challenging task to aggregate research and to assess its overall value and importance.

• Because of the national focus of drug research, there is limited cooperation between national drug research communities within Europe. And in contrast with other fields, there is currently no comprehensive European society for addiction research.

• The national focus of most professional drug researchers may also account for the limited utilisation of EU funding opportunities. For example, just 18 projects were funded under DG RTD’s 5th and 6th Framework Programmes between 2000 and 2006 (Commission 2007, p.2).

1.3 An organisation model of illicit drug problems, related public initiatives and the respective fields of research

This study uses a conceptual framework (heuristic model) to structure and categorise research work in Europe. The core feature of the vulnerability-risk model is to describe the natural history of illicit drug use, which progresses (in most, but not all cases) from experimental to regular, to hazardous, to harmful and to dependent use. It covers a broad range of early (innate or acquired) vulnerability factors plus more acute, proximal risk factors that occur shortly before and during the critical age range for the development of a specific substance use disorder. The core processes underlying (mediating) vulnerability and risk factors are not well understood. Many questions remain unanswered concerning the ways in which biological and early environmental factors (family), general social factors (availability, social support, marginalisation and other possible stressors), cultural factors (transmission of consumption patterns, symbolic meaning of drug use) and economic factors influence and shape the development of substance use disorders. There is also limited information about the factors that lead to improvement, recovery, or relapse, and whether such changes occur naturally or are due to either cultural factors, social pressure, social support, semi-professional (e.g. self-help groups) or professional intervention.

To establish the knowledge base needed to select and shape effective action, we identified four specific research areas and fields spanning the two major intervention strategies: demand and supply reduction; and research into drug policy and the basic knowledge needed to understand drug use behaviour. This structure was used as a basis for the search to identify drug-related research projects and publications in Europe (Table 1).
### Table 1: Areas and specific fields for the coding of research activities (from section 3.1.2, Table 3.3)

<table>
<thead>
<tr>
<th>Projects</th>
<th>Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Understanding drug-use behaviour</strong>¹</td>
<td></td>
</tr>
<tr>
<td><strong>Basic research</strong></td>
<td></td>
</tr>
<tr>
<td>Drug mechanisms, effects and methods of detection</td>
<td>Basic science 1: Animals</td>
</tr>
<tr>
<td>Basic research on mechanisms and effects related to pharmacology, toxicology and clinical psychology</td>
<td></td>
</tr>
<tr>
<td><strong>Aetiology and course</strong></td>
<td>Basic science 2: Humans</td>
</tr>
<tr>
<td>Analysis of factors and processes involved in the onset and progression of drug use (disorders) plus research into the interaction of early vulnerability factors and later risk factors</td>
<td></td>
</tr>
<tr>
<td><strong>Epidemiology</strong></td>
<td>Epidemiology</td>
</tr>
<tr>
<td>Research on prevalence and incidence, use patterns, risk groups and health and social consequences in the general and sub-populations</td>
<td></td>
</tr>
<tr>
<td><strong>Demand reduction</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Intervention (prevention and treatment)</strong></td>
<td>Prevention</td>
</tr>
<tr>
<td>Research on prevention activities (universal and selective prevention activities targeting drug use-related behaviour of individuals and groups) and treatment activities: all studies on formal and informal psychosocial, psychological, and pharmacological treatment measures and self-help groups, and also includes harm reduction</td>
<td>Treatment incl. harm reduction</td>
</tr>
<tr>
<td><strong>Supply reduction</strong>²</td>
<td></td>
</tr>
<tr>
<td><strong>Drug supply</strong></td>
<td>Drug supply and criminology</td>
</tr>
<tr>
<td>Studies on different stages of illicit drug supply, including cultivation and production, trafficking and diversion/leakage plus drug markets and distribution</td>
<td></td>
</tr>
<tr>
<td>Banning</td>
<td>Research on drug-related crime and law enforcement (organised crime, money laundering, security issues)</td>
</tr>
<tr>
<td><strong>Policy analysis</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Policy</strong></td>
<td>Policy and legal frameworks</td>
</tr>
<tr>
<td>Research on domestic and supra-national drug policy relating to both demand and supply reduction</td>
<td></td>
</tr>
<tr>
<td>Legal frameworks</td>
<td>Analysis of type and impact of drug-related law and regulatory practices (drug classification and control)</td>
</tr>
<tr>
<td><strong>Others</strong>³</td>
<td></td>
</tr>
<tr>
<td><strong>E.g., meta areas</strong></td>
<td>Reviews</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ The first two topics on the left and right-hand side cover the same field of basic research, but are structured differently.
² We selected this concept as it is the commonly used technical term, but on the understanding in this document that it covers research relating both to supply and to supply reduction.
³ Not covered in further analyses.
2. METHODOLOGY

2.1 Outline of the study concept

(1) To chart key research activities
This objective covers research activities in all Member States and includes a specific analysis of projects funded by Commission Directorates-General or other organisations in Europe. We developed a matrix as a means of summarising this research, using research projects and research publications as indicators of activity and output. Sources of information included publication databases, documents from the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), databases and websites from the Member States and from different parts of the European Commission (e.g. DG Research, DG Enterprise, DG Justice, Freedom and Security, DG Health and DG Transport and Energy), and interviews with key experts and national contact persons (chapter 3).

(2) To map and analyse research structures in the Member States and (3) to map and analyse research structures within the Commission and other organisations in Europe
Objectives (2) and (3) are similar to objective (1) but relate to the structure of research and research funding in the Member States and at European level. We developed an inventory to map key topics, including research capacity, infrastructure, models of coordination, budgets and prioritisation of research. Sources of information were national databases, websites, national policy papers and funding programmes, plus European funding programmes and interviews with key experts and national contact persons (chapter 4).

(3) To map and analyse research activities and structures in Australia, Canada and the USA
Expert reports were commissioned to provide information on research activities and research structures. We then developed an inventory to map key topics, including research capacity, infrastructure, models of coordination, budgets and prioritisation of research as a means of comparison with Europe (chapter 5).

(4) To identify the strengths and weaknesses of EU drug-related research
We linked the information on research activities and research structure to identify strengths and weaknesses in the existing European research base and support infrastructure (chapter 6).

(5) To assess options for improving – where necessary – drug-related research in the EU
Lastly, we assessed the current state of the art and developed possible options for improvements, basing this evaluation on outputs from objective (5) (chapter 6).

Search material
Altogether we searched for, compiled and analysed:
• Several thousand publications, about 3 000 in detail, which matched the inclusion criteria (for a complete list, see Appendix 5).
• Approximately 260 project descriptions.
• Internet search on approximately 320 websites on research activities and structures in the Member States, the Commission and other European organisations.
• Forty interviews with key representatives from 13 selected Member States, 3 Directorates-General of the European Commission and several other organisations in Europe (EMCDDA, Pompidou Group, UNODC and WHO Europe).

2.2 Study challenges
Although the six objectives in this study might appear straightforward to address, achieving them was a challenge. An immediate obstacle was the lack of a common definition for ‘research,’ an obvious practical problem when accessing material written in one of 23 languages in use across the EU. Further problems involved utilising databases, determining fiscal support for research, a lack of consensus about what constitutes research quality, and evaluating research deficits and needs.

2.3 The definition of research
There is no internationally accepted definition of research. We used a narrow scientific definition of research: ‘...performing a methodological study in order
to prove a hypothesis or answer a specific question (http://www.experiment-resources.com/definition-of-research.html). Here, research is characterised by the use of scientifically accepted methods and procedures. Although the methods differ widely between the natural and social disciplines, we can identify basic science research (advancement of knowledge in general) and applied research (providing new/better solutions for existing problems) as well as work which uses quantitative and qualitative methods. This narrow definition leads to the exclusion of projects and publications relating, for example, to conferences, guidelines or implementation and best practice studies without evaluation.

2.4 Study inclusion criteria for EU research activities

We assessed two indicators of research activities: research projects and scientific publications. Our definition of research resulted in formal quality and relevance criteria, either derived for projects from our research definition (suitable research methodology) or for publications from internationally valid criteria (accepted and cited at least once in a peer-review scientific journal with English title and abstract). Furthermore – because of the European focus of the study and the EU requirement of international competitiveness – we considered worldwide visibility and accessibility as relevant inclusion criteria.

3. EVALUATION OF DRUG-RELATED RESEARCH IN EUROPE: STRENGTHS, WEAKNESSES, GAPS AND POSSIBLE OPTIONS FOR IMPROVEMENT

3.1 Research activities

3.1.1 Evaluation of drug-related research in Europe

The distribution of research activities in Europe varies considerably across the four main research areas, with a clear focus on activities in the fields of understanding drug use and demand reduction (Table 2). There is a marked discrepancy between research needs formulated by Member States and derived from our conceptual model, and the relatively low amount of research in the field of supply reduction and policy analysis. Our study revealed that some research activities, especially in those two areas, might not be visible at European and international levels.

<p>| Table 2: Distribution of projects, publications and Member States research priorities within research areas (from section 6.2, Table 6.1) |</p>
<table>
<thead>
<tr>
<th>Research Areas</th>
<th>Research projects (^4)</th>
<th>Publications (^4)</th>
<th>Member States research priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding drug use (^6)</td>
<td>Total N=253 EC-funded (^5) (N=34)</td>
<td>Total (N=2,427)</td>
<td>(N=57)</td>
</tr>
<tr>
<td>Basic research</td>
<td>13%</td>
<td>27%</td>
<td>53%</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>50%</td>
<td>3%</td>
<td>31%</td>
</tr>
<tr>
<td>Demand reduction</td>
<td>30%</td>
<td>44%</td>
<td>13%</td>
</tr>
<tr>
<td>Supply reduction</td>
<td>6%</td>
<td>27%</td>
<td>2%</td>
</tr>
<tr>
<td>Policy</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

4. Without ‘others’ (projects: n=6; publications: n=601 (reviews))
5. Subgroups of all projects
6. Separated because of broad categories
level, for various reasons (e.g. lack of accessibility to project descriptions and publications, lack of interest in scientific publishing). This situation highlights a potential waste of resources as the research outcome does not necessarily contribute to scientific knowledge in Europe or to the knowledge base for effective drug policy measures.

The results of our analyses of research activities have all been systematically compiled (in tabular fashion) according to the four major research areas, summarising strengths, weaknesses, conclusions and the respective options drawn from these conclusions.

**Understanding drug use behaviour**

This research area covers basic research (drug mechanisms and aetiology of drug use) and epidemiology. Basic research, especially in the field of aetiology, has gained increasing scientific relevance in recent years, and is one of the obvious strengths of European research. However, one of the substantial weaknesses in aetiological research is that there has been little study of the relative contribution of biological and psychological factors (genetic, physiological and psychological/mental risk factors), or of cultural, economic, legal and social factors.

Epidemiology is a solid research field with well established population prevalence studies in all Member States and it is also considered to be a topic of high political priority in the vast majority of Member States. In general, there is much research in this field and the outcome is accessible in all Member States. The study identifies the need for new epidemiological research on specific risk groups and – with European added value – longitudinal studies charting the influence of social, cultural and economic factors on the natural lifetime course of drug use (section 6.2.1; Table 6.2).

**Demand Reduction**

The areas of prevention and treatment (including harm reduction) are seen as high priority topics in several national drug policy documents, and are also reflected in several objectives of the 2005-2008 EU Drugs Action Plan. Studies in this area account for almost a third of drug-related research activities in the Member States and rank first among drug-related research projects funded by the different Directorates-General of the Commission. Deficits cover highly specific research topics, including multisite European treatment studies on course, outcome, relapse and social support. Studies on the costs and effects of treatment service systems in the various Member States are seen as providing considerable added value for Europe.

Although the majority of Member States regard prevention activities as a national priority, there is limited investment in research in this area. There is little empirical support for routinely delivered prevention programmes in Europe. Accordingly, research is needed to underpin existing and novel preventative measures with the focus on selective and indicated prevention programmes. At European level, multisite studies to analyse possible national differences in the outcome of prevention programmes and intervening factors (moderators) could significantly add to the knowledge base on interventions (section 6.2.1; Table 6.3).

**Supply reduction**

Supply reduction, which spans research on drug supply and prohibition efforts, is one of the two focal dimensions of the EU Drug Strategy (2005-2012). The EU Drugs Action Plan 2005-2008 seeks to understand the factors relating to the supply of drugs in Europe and to put in place effective supply reduction strategies. Against this background, the distribution of research activities appears to be remarkably imbalanced as there was little evidence of relevant research activities in this field. There is an almost complete lack of research on drug supply and on the evidence base for supply reduction measures. Nor did the study identify any research into drug detection and surveillance technologies. There is therefore a clear need to increase research funding for supply and supply reduction projects at Member States and Commission level. Comparative studies between Member States would clearly provide added value at EU level and could analyse supply channels and supply procedures as well as the effectiveness and efficacy of different supply reduction measures. European conferences with researchers and Member States policy-makers would help to define the status quo of research in this area more clearly and to identify future research needs (section 6.2.1; Table 6.4).

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7. Related detailed analyses and Tables with specific strengths, weaknesses, conclusions and options can be found in chapter 6.
Policy Analysis

This research area covers policy research and research on legal frameworks. Contrary to the interests of Member States in this area of research, almost no research on the impact and outcome of drug policy was found in Europe; nor could any of the drug-related research projects funded by the Commission be categorised in this area of research. The discrepancy between formulated research needs and the research reality is even larger than in the field of supply reduction. Our conclusions on research needs and related options are the same as for research needs in supply reduction. European comparative studies between Member States to analyse the different drug policies would give added value to Member States’ national studies (section 6.2.1; Table 6.5).

General Remarks

Here, two topics were addressed which are relevant to all research activities in Europe: the participation of Member States in EU drug-related research and the situation of drug-related research in Australia, Canada and the USA. The study identified obvious unbalanced participation of Member States in EU drug-related research. There was acute under-representation in this area among the new Member States. Additional support is needed to improve their participation in European research projects and in the European scientific community. Good experiences in epidemiological networks are an example to be transferred to other research areas. Furthermore, technical support and training of young researchers is needed in the area of addiction (section 6.2.1; Table 6.6). The under utilisation of Commission funding instruments for drug-related research is discussed in the section on ‘research funding’ (see below).

The study further revealed that the overall pattern of drug-related research in Australia, Canada and the USA, as compared with Europe, is similar, with deficits in basic research, prevention, supply reduction and policy analysis and strengths in epidemiology and treatment. The main exceptions are high research activities in basic research in the USA and in policy research in Canada and Australia. Examples of official (Member State-supported) cooperation between these countries and national research groups in Europe are rare. Cross-cultural research to help understand the impact of different national drug policies and legal concepts, and different concepts of prevention, treatment and service systems, is rare, but it is highly relevant and therefore an option with added value for research funding from the European Commission (section 6.2.1; Table 6.6).

3.1.2 Access to information on research activities in Europe

The study confirmed that the total volume of drug-related research in the Member States and at EU level is only partially accessible to researchers, administrators and policy-makers. This is especially the case outside a specific research community or outside any of the 23 official European languages. Problems are caused by language difficulties and by access barriers to the search for projects and publications.

Language barriers

Visibility of and accessibility to research activities and outputs are required to improve the European knowledge base on illicit drug use and launch effective action. This is needed to avoid duplication of effort and to allocate scarce research resources more efficiently. Pilot analyses on the coverage of projects and publications indicated that a significant proportion of projects and publications could not be traced because they did not include (at least) their title and an abstract in English. A possible way of improving the situation would be to provide English language core information for all research activities (section 6.2.2; Table 6.7).

Access to research publications

A specific problem for European journal publications is the bias of coverage rates between European and US-based addiction journals in major international database systems, even for non-English language journals with English translations of titles and abstracts. There is a need to improve the coverage of European non-English language scientific journals, in order to facilitate access to research information (section 6.2.2; Table 6.7)

Access to research projects

Many descriptions of research projects appear not to exist or cannot be easily traced because they are not stored in common databases. The creation of a common European database for drug-related research
projects with brief obligatory entries of all funded research projects (with search features) would improve access for both researchers and administrators (section 6.2.2; Table 6.7).

3.2 Research structures

3.2.1 Research structures and capacity

The study found clear evidence that researchers across the EU are productive and that quality work is undertaken and published. However, there was little evidence that this activity was well coordinated or part of a coherent national drug research strategy at Member State level, with one or two exceptions. For things to improve at transnational level there is a need for better coordination of national drug research.

At EU level, there is a solid research strategy in the form of the successive Research and Technological Development Framework Programmes, but there is limited leverage for a specific drugs research strategy within this programme, which is driven by an investigator application process. The possibility of developing networks within focused national drug programmes (such as ERA-NET or ERA-NET plus) in the field of illicit drugs would make for greater interaction between national drug research programmes and EU-wide drug research strategies. Other research networking instruments, such as the COST programme and the European Science Foundation, could be further explored. In addition, training schemes that seek to develop junior researchers and enhance the leadership skills of more senior researchers are an important part of building up overall EU research capacity. The Commission’s Marie Curie Fellowships are one of the options for giving support to such training (section 6.3.1; Table 6.8) but further national and European training schemes for young researchers and PhD/MD students in the area of addiction are also needed. We noted that Australia, the US, Canada and a number of Member States have invested in the skills and capacities of drugs researchers and have achieved a rapid increase in the quality and quantity of national drugs research output. There are comparable opportunities for a similar results-based investment programme at European level.

3.2.2 Research funding, budgets and programmes

We found there to be general underutilisation of Commission funding instruments due to different reasons cited by our interviewees. A lack of knowledge and experience and a lack of specific drug-related funding opportunities were among the most commonly cited barriers. However, there are resources potentially available for a whole range of drug research topics if the research is collaborative and coordinated across a number of countries. Commission support to develop and utilise a range of networks would accelerate this process. Specific calls for drug or addiction-related topics across a range of scientific disciplines would help. This process should be monitored over the next five years, with the desired outcome of a substantial increase in the number of projects supported (section 6.3.3; Table 6.9).

3.2.3 Research Cooperation

Transnational research requires a substantial amount of cooperation and support for researchers. Overall within the EU there is a tradition of developing communication and joint projects on drugs. There are good informal links across a range of disciplines and there is a culture of multidisciplinary work both at Member State and at EU level. This kind of informal cooperation can be harnessed to help develop cross-border projects. A conference bringing researchers, policy-makers, research managers and research commissioners together to develop a way forward for international cooperation would be of considerable value (section 6.3.4; Table 6.10).

4. SUMMARY OF OPTIONS FOR STEPPING UP DRUG-RELATED RESEARCH IN THE EUROPEAN UNION

4.1 Is there a need to step up drug-related research?

Member States differ widely in the prevalence and size of drug use and related problems, and also in their views on and priorities for policy action to tackle drug-related problems. They also differ in research-related indicators such as infrastructure, priorities, funding programmes, procedures and budgets, and involvement in Commission-funded research programmes. Compared to Member States' research needs in policy documents, the study identified a number of deficit areas.

At European level there is a limited amount of Commission funding available for drug-related research under different programmes, but the opportunities are...
underutilised: the number of funded projects in recent years has been surprisingly small. Lack of knowledge and experience as well as complicated application procedures were mentioned in the interviews as key problem areas. Moreover, FP7 has no specific illicit drugs research topics, with the exception of the FP7 Security Programme. A comparison of research needs in Commission drug-related policy documents with the present situation showed up several areas with knowledge deficits.

Given the current state of drug-related research in the Member States and at EU level, and the research needs defined in drug policy documents and derived from our conceptual model, the need to step up research activities and build up structures is evident. Mindful of the range of diversity in the Member States, the study yielded the following options to improve drug-related research as a basis for a better knowledge base in Europe.

Options at MS level

1. To expand research activities in the following fields:
   - Basic research: to gain a better understanding of the onset, course and cessation of drug use and relapse, including individual risk differences and the relevance of both internal (e.g. genetic factors and psychological mechanisms) and external factors (e.g. availability, legal systems, cultural, economic and social aspects).
   - Epidemiology: studies on specific risk groups, on the early stages of drug use and longitudinal studies.
   - Selective and targeted prevention and specific aspects of treatment research (mechanisms of change).
   - Much more involvement in research into drug supply, supply reduction and policy analyses: especially on the impact of legal regulations and social influence factors.

2. To improve cross-national visibility of and accessibility to research activities in the Member States by providing core information in English and by internet storage of Member States’ research activities.

3. To develop long-term national research funding programmes and priorities based on Member States’ drugs strategies and regular updating of such programmes and priorities in line with research outcomes and changing drug trends.

4. To increase research capacity in the Member States and to train and develop the skills of young researchers.

5. To help researchers make better use of European research funding opportunities, such as DG RTD’s funding programmes.

Options at Commission level

6. To provide funding for the following research areas and topics, with added value for the European knowledge base (i.e. through the participation of several Member States):
   - Basic research: longitudinal studies to understand the impact of individual, cultural, economic, legal and social factors on the onset, course and cessation of drug use.
   - Epidemiology: (longitudinal) studies and studies for specific high-risk groups, such as children of drug users, drug users in their early stages, in prison and polydrug users.
   - Demand reduction: multi-site treatment studies to understand the impact of social factors and treatment service systems on treatment costs and outcome; selective and indicated prevention studies to develop early risk identification patterns and to understand the impact of different social and legal conditions on outcomes.
   - Supply reduction: comparative studies to analyse supply channels and distribution patterns in the general population and in risk groups as well as the effectiveness and efficacy of different Member States’ supply reduction measures and policies.
   - Policy analysis: comparative studies to understand differences in European drug policies and the impact on the pattern and size of national drug problems.

7. To support the visibility and accessibility of European drug-related research activities, through better coverage of European publications in international publication databases and support for a European research project database.

8. To provide research training opportunities for young researchers and researchers with resource deficits, and to support and enhance project applications for Commission funding programmes.
4.2 Is there a need for greater European cooperation on drug-related research?

The question cannot be answered by a simple yes or no, and conclusions depend on strategic targets for research funding in the EU. If the study results and the proposed options serve as an information basis for predominantly independent measures in the Member States and at Commission level, greater research coordination is dispensable. But further strategic targets might be emphasised in the light of the Lisbon Strategy to help make Europe the top research region and to make systematic use of research outcomes for "... well designed social and environmental policies ..." (European Parliament, 2005). This kind of scenario does require additional mechanisms to structure and monitor coordinated research programmes between Member States and the Commission:

(9) To get the Member States, the Commission and the scientific community to commit to a comprehensive and strategic drug-related research initiative in Europe, prioritising research topics and coordinating research funding programmes both at Commission and Member State level and within the Member States themselves, where drug policy priorities are often not integrated or addressed by research policy priorities.

(10) To provide a coordinating structure to bring together drug policy-makers and research programme funders to identify synergies between national research programmes and areas for joint cooperation, and to provide regular monitoring of research needs, research activities and research outcome analyses in Europe.