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Note on guidelines and tools for the evaluation of national drug policy

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EMCDDA Scientific Committee

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1. Introduction

This note was prepared by the Scientific Committee of the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) as input to action 47 of the EU Action Plan on Drugs 2013-2016. Action 47 calls upon the European Commission, EU Member States and the EMCDDA to promote scientific evaluations of policies and interventions at national, EU and international level and lists the EMCDDA Scientific Committee as a contributor to this end.

This note addresses the EU Member States, the Council of the European Union (through its Horizontal Working Group on Drugs), the European Commission and the EMCDDA, as well as the scientific community and funding agencies for research and evaluation in Europe. It stresses the need for intensifying the evaluation of drug policies on national and EU level. Such evaluation activities are highly needed in order to understand the impact of current policies on different targets, such as individual and public health and public security, as well as the differences among drug policies between Member States. These findings can be utilised for ongoing adaptations and improvements regarding drug policy and drug-related initiatives.

Evaluation of drug policies implies many professional and political challenges. Evaluation concepts and methodologies are available but need further development. There is a lack of practical experience and the interpretation and application of findings is often controversially discussed.

This note introduces concepts and aims of drug policy evaluation in Chapter 2, it provides state-of-the-art information on key evaluation outcome indicators as well as on evaluation methods in Chapters 3, 4 and 5. Altogether this note serves as a background document for supporting activities and quality improvements in the area of drug policy evaluation.

2. Evolving towards scientific evaluations of policies: a meeting of minds

2.1 Scientific evaluation within the EU policy on drugs

The EU drug strategy and its related action plans are the cornerstone of the European drug policy. The EU Drug Strategy 2013-2020 is structured around drug demand reduction and drug supply reduction. These pillars are complemented with three cross-cutting themes: international cooperation; coordination; and information, evaluation and research.

This note on the role of the EMCDDA in the promotion of scientific evaluations of drug policies builds on the theme of 'information, evaluation and research', which aims to contribute to a better understanding of all aspects of the drug phenomenon and of the impact of interventions in order to provide a sound and comprehensive evidence-base for policies and actions.

The EU Action Plan on Drugs 2013-2016 sets out the actions that will be implemented to achieve the objectives of the strategy. Action 47 of the EU Action Plan on Drugs (2013-2016) is linked with the objective 'Ensure adequate investment in research, data collection, monitoring, evaluation and information exchange on all aspects of the drug phenomenon'. This action calls upon the European Commission, EU Member States and the EMCDDA to promote scientific evaluations of policies and interventions at national, EU and international level. Action 47 is related to the overarching indicator 'Developments in national drug strategies, evaluations, legislation, coordination mechanisms and public expenditure estimates in EU Member States' (Council of the European Union, 2013).

2.2 The EMCDDA mandate to promote scientific evaluations of drug policies

The 2009-2012 EU Action Plan on Drugs called upon the EMCDDA, the European Commission and Member States to develop analytical instruments to better assess the effectiveness and impact of drug policies. The EU Action Plan on Drugs (2013-2016) goes further and requires the publication of European guidelines for the evaluation of national drug strategies and action plans.

This requirement should be read together with the enlarged mandate of the EMCDDA (European Parliament and Council of the European Union, 2006). This legal instrument adds two additional priorities: 1) the development of tools and instruments to help Member States monitor and evaluate their national policy and 2) the need to provide information on best practices in the Member States and facilitate information exchange.

This note includes the existing knowledge produced by the EMCDDA on the matter. In 2004, the EMCDDA published a Selected Issue on the evaluation of 'national drug strategies' in Europe, which clarified the concepts and methods of drug policy evaluation (EMCDDA, 2004). In 2009, the EMCDDA undertook a comprehensive internal review, describing, categorizing and discussing the current and recent evaluation approaches and methods used for the purpose of drafting national drug strategies and action plans in Europe. In this document, covering the initiatives taken in 28 EU Member States, Turkey and Norway, the need for additional coordination, guidelines and best practice exchange in

this field of action was highlighted (Zobel, 2009) and it has provided a platform for ongoing work in this area (see, for example, http://www.emcdda.europa.eu/publications/topic-overviews/policy-evaluation_en).

The EMCDDA is not mandated to impose or oblige Member States to take specific actions. The EMCDDA can only promote, support and, in certain ways, facilitate (e.g. by providing methodological expertise) the monitoring and evaluation of national drug policy in Member States.

It is, however, clear that the EMCDDA should promote the collection of good quality data in the Member States which allow them to monitor their national drug policy systematically. Whether this monitoring leads, in a further step, to the scientific evaluation of their drug policies, depends on the interest of Member States and several factors like technical resources and the methodological know-how (see Chapter 3).

2.3 Developing an evaluation culture

Drug policy evaluation is a key element in policy making, assessing whether the objectives and priorities of the national drug policy are met. Evaluation of drug policies provides transparency, accountability and is able to create standards by which comparisons can be made between Member States.

The willingness to initiate a process of scientific drug policy evaluation seems to be enjoying a broader support in the last years, at both European and national level. A RAND assessment report indicated a clear improvement in the area of implementing the necessary measures, collected within the theme of 'information, research and evaluation' (Culley et al., 2012). Several Member States have started to add an evaluation component to their national drug strategies and action plans, for example, the evaluation of individual activities (such as treatment methods) or the creation of specific evaluation tools. However, Member States and the Commission need further support in this area. Notwithstanding the progress that has been made in terms of willingness to scientifically evaluate national drug policies, adequate methodologies and a comprehensive set of evaluation tools, able to draw scientifically correct conclusions on the impact of national and EU policies, are still limited.

3. What scientific evaluation of drug policies is about

3.1 What should be the focus of an evaluation?

The scope of drug policy evaluation is twofold. First, consideration should be given to the strategic and conceptual positioning of the national drug policy within the European framework. The European drug policy is set out in the EU Drugs Strategy 2013-20, which provides a strategic framework and priorities for action in the field of drug policies for a period of eight years. The strategy is implemented through two consecutive 4-year EU action plans on drugs. For many years, the defining approaches within European drug policy are the key concepts of both an integral and an integrated drug policy as core components in the EU strategic documents; the balanced approach fully taking into account the reduction of drug demand and drug supply; and the international dimension referring to the legal framework of the UN Conventions (De Ruyver et al., 2012) as well as to the international dimension of the drug phenomenon, including the global nature of the supply alongside the growing international dimension of the demand side (Fijnaut and De Ruyver, 2015).

Second, policy evaluation aims to map the impact of a policy (strategies, priorities, interventions) on a certain phenomenon. Starting from the reality of the multidimensional drug phenomenon, this kind of impact evaluation is not easy to conduct because success factors, as well as bottlenecks, are difficult to identify and isolate.

Integral in this context means comprehensive. The drug phenomenon is multidimensional and, therefore, all its facets must be taken into account. Related to the multidimensionality of the drug phenomenon, a scientific evaluation of drug policies needs to address the several aspects of the drug phenomenon: the health aspect, complemented with the social aspect, the economic aspect, the international aspect and the security aspect. As part of this last aspect, security, one should also take into account the legal framework and the different forms of drug-related crime (Goldstein, 1985). Furthermore, scientific evaluation of drug policy should look at both the supply and demand side. It should be able to assess how policy measures affect both supply and demand and which strategies have an impact on reducing supply, demand or both.

An integrated approach acknowledges the need for involvement of all relevant actors and services across a range of different sectors. Cooperation and harmonisation between actors are therefore required (Heed, 2006). Both a horizontal harmonisation between sectors and a vertical harmonisation between all competences are required to address the drug phenomenon.

By focusing on a combination of both ‘an integral and integrated drug policy’ and ‘demand and supply’, it is possible to create a full set of instruments to adequately perform monitoring activities. Related to the multidimensionality of the drug phenomenon, a scientific evaluation should ideally strive to address all these dimensions. It is only when such monitoring activities are carried out, gathering a sufficient amount of data to constitute a scientific basis for actual evaluation, that the process of scientific evaluation can help to promote a better understanding of the impact of European and national drug policies.

When evaluating drug policies, one must, however, also take into account the complexity of this exercise. If no coordination of these interventions takes place, one cannot guarantee that those several aspects of the drug phenomenon — the health aspect, complemented with the social aspect, the economic aspect, the international aspect and the security aspect — are included. In Member States where a culture of developing monitoring systems is already present, there is a greater willingness to take established activities to the next level and develop fully-fledged evaluation processes. In Member States where a well-structured and comprehensive drug policy is developed, it should be easier to initiate the process of scientific evaluation. For instance, in Member States that have whole-heartedly chosen an integral and integrated drug policy, the prerequisites for a scientific evaluation process are already present.

Such policies, with for example a central coordination mechanism with a national coordinator as well as local steering groups or committees on drugs, supervised by a local drug coordinator, are the most appropriate configuration to guarantee that information stemming from all domains and actors is taken into account, thus enhancing the scientific relevance of evaluation.

An example of a good strategy for the coordination of drug policy intervention is establishing a drug action plan. It describes all the interventions which are being undertaken and makes these interventions transparent for all the stakeholders involved in the drug policy. Those action plans should clearly indicate the intended actions (and measurable outcomes) related to these aims.

Evaluation usually focuses on the analysis of intended consequences. However, one should not overlook any unintended consequences as they are also of significant importance in a field of drug control policy (Reuter, 2009). Such unintended consequences might include stigmatisation, social exclusion, negative effects of imprisonment, reduced educational and labour market options and disconnection from working life, and visa problems.

Reuter (2009) conducted a systematic analysis of the unintended consequences of drug policies and noticed that seven mechanisms can generate unintended consequences: behavioural responses of participants (users, dealers and producers); behavioural responses of non-participants; market forces; programme characteristics; programme management; the inevitable effects of intended consequences; and technological adaptation. Moreover he emphasised that in most, perhaps all, areas of public policy, interventions designed to achieve a certain goal will have effects on other goals as well, some desirable, others undesirable (Reuter, 2009).

Finally, one must also consider the philosophical underpinning of the drug policy in the different Member States, which could range from a philosophy promoting prohibition, an overall harm reduction approach, through to legalisation/regulation. The underlying philosophy has an impact on the chosen policy and therefore on the type of evaluation.

3.2 The drug policy cycle versus the evaluation cycle

Policy evaluation is an important part of the reflexive, cyclical process of the policy cycle. It is a learning process in order to constantly improve drug policy. Drug policy evaluation should relate to

the phase in the policy cycle in which it is being conducted. Starting from the positioning in the policy cycle (before or after implementation), evaluation needs can be determined.

A drug policy evaluation can be performed in every stage of the policy cycle from policy creation, to policy implementation and policy outcome. A distinction is commonly made between *ex ante*, *ex nunc* and *ex post* evaluations. An evaluation of the content and processes prior to the implementation of policy is known as an *ex ante* evaluation. An evaluation during the policy intervention is called an *ex nunc* evaluation. An *ex post* evaluation evaluates policy after is has been implemented. *Ex ante* evaluation focuses on policy content, whereas *ex post* evaluation focuses on policy impact. Ideally, evaluations should be conducted in all phases in the policy cycle. As a consequence, the phase in the policy cycle also influences the type of evaluation (see Step 3, page 9).

3.3 Describing the different phases in the evaluation process

The evaluation process consists of different phases. In the following paragraph we will highlight three broad steps 1) defining the scope of the evaluation 2) monitoring and deciding on the indicators 3) the actual evaluation. Between these broad steps, other steps exist such as the formation of a steering group, choosing an (internal or external) evaluation team and choosing the tools for data collection.

3.3.1 Step 1: Research question(s). Defining what we want to evaluate

The first step is aimed at defining what we want to evaluate in order to set the scope.

There are a number of existing evaluation methods able to perform such scientific policy evaluation (see Table 1). The goal of the evaluation and the research question will determine which evaluation method will be used. There is not just one correct evaluation method. The evaluator will have to clearly take into account the specific objectives of the particular drug policy in order to determine the correct evaluation method.

One could decide to evaluate a number of key interventions (actions) instead of a general evaluation of the national drug strategy. A general evaluation is the preferable option when the evaluation aims to improve the quality, the efficacy and the efficiency of the overall drug policy. A targeted evaluation should be carried out when a more in-depth assessment of one specific or a limited number of key interventions is needed. Narrowing the scope of the evaluation has the advantage that detailed explanations can be provided regarding the intervention. Also, the methodological challenges existing at a larger scale can more easily be overcome. Both types of evaluations are, however, not mutually exclusive.

3.3.2 Step 2: Monitoring. The essential precondition for scientific evaluation of drug policy

The second phase focuses on the act of monitoring. Monitoring can be considered as an essential precondition in order to be able to perform a scientific evaluation of a drug policy (UNEG,2012). Monitoring requires the identification of indicators, which make the research question measurable. So after defining the research question, the evaluator has to decide on these indicators.

Every type of evaluation asks for different kind of data, that is, information that could be obtained through monitoring. The first step of monitoring is therefore to choose the right key indicators (see also Chapter 4) able to be affected by the set of policy derived interventions that have to be evaluated. Such key indicators can be of a quantitative or qualitative nature. Furthermore, to be 'good' indicators, indicators should provide factual, objective, reliable and comparable information on the drug phenomenon (Brudon et al., 1999; EMCDDA, 2004).

Once the appropriate key indicators have been determined, the process of 'monitoring' the situation at hand is all about the routine collection of data regarding the indicators of the drug phenomenon as well as related responses and interventions (EMCDDA, 2004).

Monitoring is considered to be the first and crucial step of the evaluation process. It is, however, recommended that permanent monitoring of certain indicators occurs, regardless of any evaluation task. Only then can *ex ante* and *ex post* evaluation occur. Also, the value of ad hoc monitoring of specific interventions should be stressed. This relates to the monitoring of data related to a single, specific question and intervention.

Furthermore, a literature review could be conducted before the actual evaluation takes place. This assists in highlighting the available information about effective and less effective evaluation concepts. Member States could engage in an assessment of previous evaluations performed in other Member States and the best practices that they identified. That assessment could even encompass a synthesis of all currently available literature describing the broader international support for several of these identified best practices. This will enable governments to achieve the envisaged goal of creating a 'genuine and systematic evaluation'. The outcome of such an evaluation will then provide support to help Member States in the drafting of recommendations with a view to improving current policies where needed.

3.3.3 Step 3: From 'monitoring' to 'evaluation'. Taking the next step.

Most Member States get stuck in the phase of merely 'monitoring' the drug phenomenon. They succeed in 'tracking', 'performance managing', 'defining goals, objectives, aims targets and indicators of success' without genuinely and systematically evaluating (EMCDDA, 2004). Currently, only a small but increasing number of Member States take the next step of evaluating and assessing the impact of their drug policies.

Depending on the research question (step 1) and the available data (step 2) one has to choose a type and method of evaluation.

Table 1
Evaluation terms commonly used (evaluation methods for action of a structural nature)

Overall evaluation	Evaluation of an intervention in its totality
Coherence	The extent to which the intervention logic is non-contradictory/the intervention does not contradict other interventions with similar objectives
Relevance	The extent to which an intervention's objectives are pertinent to the needs, problems and issues to be addressed
Consistency	The extent to which positive/negative spillovers onto other economic, social or environmental policy areas are being maximised/minimised
Utility	The extent to which effects correspond with the needs, problems and issues to be addressed
Effectiveness	The extent to which objectives set are achieved
Efficiency	The extent to which the desired effects are achieved at a reasonable cost
Cost-effectiveness analysis	Evaluation tool for making a judgment in terms of efficiency
Cost–benefit analysis	Evaluation tool for judging the advantages of the intervention from the point of view of all the group concerned, and on the basis of a monetary value attributed to all consequences of the intervention
Output	That which is financed and accomplished (or concretised) with the money allocated to an intervention
Impact	A consequence affecting direct addressees following the end of their participation in an intervention, or after completion of a public facility, or else an indirect consequence affecting other addressees who may be winners or losers

Source: EMCDDA (2004, p. 76).

There are a number of types of evaluation able to perform such scientific policy evaluation (see Table 1). The goal of such evaluation and research question(s) shall determine which evaluation method will be used. Some Member States will be interested in the cost-benefit analysis of their drug policy, other Member States will study the coherence in drug policy.

As mentioned above, also the phase in the policy cycle influences the type of evaluation. *Ex ante* evaluation evaluates the relevance or coherency of a policy, while *ex nunc* and *ex post* evaluations focus on impact, outcome and effect evaluations.

There is not just one correct type of evaluation. The evaluator will have to clearly take into account the specific objectives of a certain drug policy in order to determine the correct evaluation method. Every Member State is able to perform evaluation studies. The main difference lies in the extent (and method) of such evaluations (e.g. implementation evaluations versus impact evaluations). Which type of evaluation is carried out is not solely dependent on methodological choices. Several quality conditions could facilitate and improve the drug policy evaluation. The data available, the time frame, the resources available, the philosophical underpinnings and the urgency of the matter are all preconditions which are of influence on the evaluation choices made.

3.4 Note on the evaluation of drug policies in terms of causality

Although some policy documents state the will to conduct an 'effect evaluation' on drug policy, a number of researchers are convinced that conducting 'effect evaluations' on drug policies present a number of difficulties. After all, an effect study implies causality. A causal relationship between two things or events exists if one occurs *because* of the other. It is, however, too complex to stipulate the causality between the implementation of a drug policy and changes in the drug phenomenon due to the existence of external behavioural and societal variables (EMCDDA, 2004).

The clearest overview of the ability of different evaluation designs for demonstrating causality is given by the Maryland Scientific Methods Scale (MSMS) (Farrington et al., 2002). The evaluation designs situated at level 3, 4 and 5 of the MSMS demonstrate causality (Table 2).

Table 2
Maryland Scientific Methods Scale (Farrington et al., 2002)

Level 1	Correlation between an intervention and a measurement at one point in time. (e.g. areas with substitution treatment have lower drug offences rates)
Level 2	Measurements before and after the intervention, with no comparable control conditions (e.g. drug use increased in areas where treatment centres were closed).
Level 3	Measurements before and after the intervention, in experimental and control conditions (e.g. drug use increased in areas where treatment centres were closed, but not in comparable areas where they continued their service).
Level 4	Measurements before and after the intervention in multiple experimental and control units, controlling for other variables (e.g. areas where harm reduction measures were launched have less prevalence of HIV and hepatitis C afterwards, controlling for other factors that influence these infectious diseases)
Level 5	Random assignment of comparable units to intervention and comparison conditions (e.g. victimization of drug-related crime decreased in areas randomly assigned to have CCTV, compared to victimization in control areas).

4. Defining the key indicators for scientific evaluation purposes

After setting the scope and defining the evaluation questions (Step 1, page 8), the evaluation questions are translated into indicators. These quantitative and/or qualitative indicators make the evaluation questions measurable.

4.1 General requirements for key indicators

As mentioned earlier, ideally we start from an integral and integrated drug policy and focus on two pillars: demand and supply reduction. The indispensable link between these pillars has an important impact on the development of indicators. Where drug policy (strategies and action plans) is integral and integrated this has the following implications for indicators:

- Integral implies that indicators relating to health, as well as relating to law enforcement, economic and social aspects and international aspects need to be included.
- Integrated has a direct relationship with integral and means the involvement of all relevant actors and services. We should look at indicators relating to both administrative and criminal law regulations at the different policy levels (national/federal, regional and local) in a certain Member State.

The impact of a drug policy can be measured by assessing whether the objectives of the two pillars are met. This requires the monitoring of:

- Demand related indicators: for example prevalence survey data on consumption behaviour, treatment demand, wastewater analysis in order to monitor real-time population-level trends in illicit drug use.
- Supply related indicators: for example number of seizures, number of arrests, number of drug-related organised crime cases.
- Response related indicators: national strategies, the legal framework, drug policy coordination mechanisms.

Central in the development of indicators is the question of validity (Church and Rogers, 2006). To verify the value of indicators, one can conduct the quality test outlined in Table 3.

Table 3
Quality test for indicators

Identify the information source
About which aspect does the indicator give information?
Reliability
Strengths of the indicator?
Weaknesses of the indicator?
Feasibility

Every type of evaluation asks for different kinds of data and as a consequence, different types of indicators:

- Epidemiological indicators (e.g. prevalence of substance use, amount of drug users entering treatment services, number of seizures, number of arrests, wastewater analysis in order to monitor real-time population-level trends in illicit drug use etc.)
- Structural indicators (e.g. terms of legal framework implementing the policy, degree of emphasis in the national strategy document)
- Process indicators (e.g. time between adoption of a proposal and implementation)
- Outcome indicators (e.g. hospitalisation rates related to drug overdoses)

4.2 Selecting state-of-the-art *demand, supply and response* key indicators

Although the demand and the supply side of the drug market are often treated as separate fields in both policy documents and scientific literature, they are in fact closely and inseparably tied together. A simple rule applies: what is consumed, has once been provided (Smet et al., 2013).

Key indicators for monitoring the demand side are likewise relevant for the monitoring of the supply chain (Trautmann et al., 2013; Smet et al., 2013). Certain features of the demand side tell us something about the supply side (Van Laar et al., 2013; Frijns and Van Laar, 2013; Trautmann and McSweeney, 2013; Kilmer et al., 2013; Caulkins and Kilmer, 2013). As a consequence of the relationship between both sets of key indicators, it would be not appropriate to develop a single method for evaluating the demand side as well as developing another method for the supply side.

4.2.1 State-of-the-art demand indicators

At the European level five key epidemiological indicators for monitoring the demand side have been implemented by the EMCDDA (2012). These indicators have been developed, in close collaboration with the Reitox network, experts across Europe and other international organisations competent in the field of drugs and drug addiction.
These five key indicators are:

- General population surveys
- High-risk drug use
- Treatment demand indicator
- Drug-related deaths and mortality
- Drug-related infectious diseases

Member States should ensure the availability of data on all the five key indicators in a comparable format. They should coordinate the data collection both at national and at regional level.

4.2.2. State-of-the-art supply indicators

Contrary to the demand related indicators, indicators for the monitoring of the supply side have been studied a lot less (Kilmer and Hoorens, 2010). The amount of scientific literature that offers a complete and reliable look at the supply chain is limited (e.g. Fijnaut and De Ruyver, 2008).

Several initiatives have been undertaken in order to fill the evidence gap on supply indicators.
In October 2010, the first European conference on drug supply indicators, organised by the European Commission and the EMCDDA (and with the active involvement of Europol) initiated work on the conceptualisation of sound and sustainable indicators in this area. In November 2012, the EMCDDA and the European Commission hosted a second European conference on drug supply indicators. As a result of this conference, the EMCDDA decided to extend their current arsenal of supply indicators: seizures, price, quality and purity-adjusted price (EMCDDA, 2012).

Furthermore, several studies have been identifying (basic conditions of) reliable indicators for the drug supply side (for example, Caulkins and Kilmer, 2013; Werb et al., 2013; Smet et al., 2012; Kilmer and Hoorens, 2010). Some of these studies identified certain prerequisites to be considered when developing supply indicators.

- Developed indicators have to be feasible for law enforcement communities since the implementation of indicators will — mainly — have to be carried out by them. For good quality data completion, law enforcement must be convinced that the indicators are useful to them.
- Develop both general indicators, as well as echelon specific indicators. In addition to the development of general key indicators, it is necessary to verify which aspects of the supply chain the identified indicators cover. The supply chain can be divided into multiple parts: drug production (cultivation, manufacturing), wholesale (import/export), middle market level and retail level (Dorn et al., 1992). When merely focusing on indicators which are generally applicable to the entire chain, significant information could be lost.
- Indicators have to be both quantitative and qualitative providing information on actors, modus operandi and locations. This could consist of, for example, both figures and soft information (information reports, telephone taps, etc.).
- Successful investigation activities tend to have perverted side effects as they often result in changes of modus operandi, i.e. increased attention to masking illegal activities or displacement. Therefore, indicators have to be flexible to enable a rapid adaptation to changes in the drug market.
- As mentioned earlier, the indicators for the measurement of the demand side could be important to monitor the supply side. It goes without saying that a large part of this information is related to the retail echelon, although certain data also provide insight into the middle trade and even into the production echelon. They tell us more about the types of drugs that are consumed, the market supply (which drugs, prices, availability) and user patterns (poly-drug use). Furthermore, on the basis of these data, certain aspects of the drug production can become visible, such as the presence in the market of new or contaminated substances.

4.2.3. State-of-the-art response indicators

At European level, the EMCDDA is also regularly collecting comparable data on aspects of response indicators, which may be used as structural, process or outcome indicators according to the type and period of evaluation. Relevant to most drug policy evaluations, the EMCDDA regularly monitors:

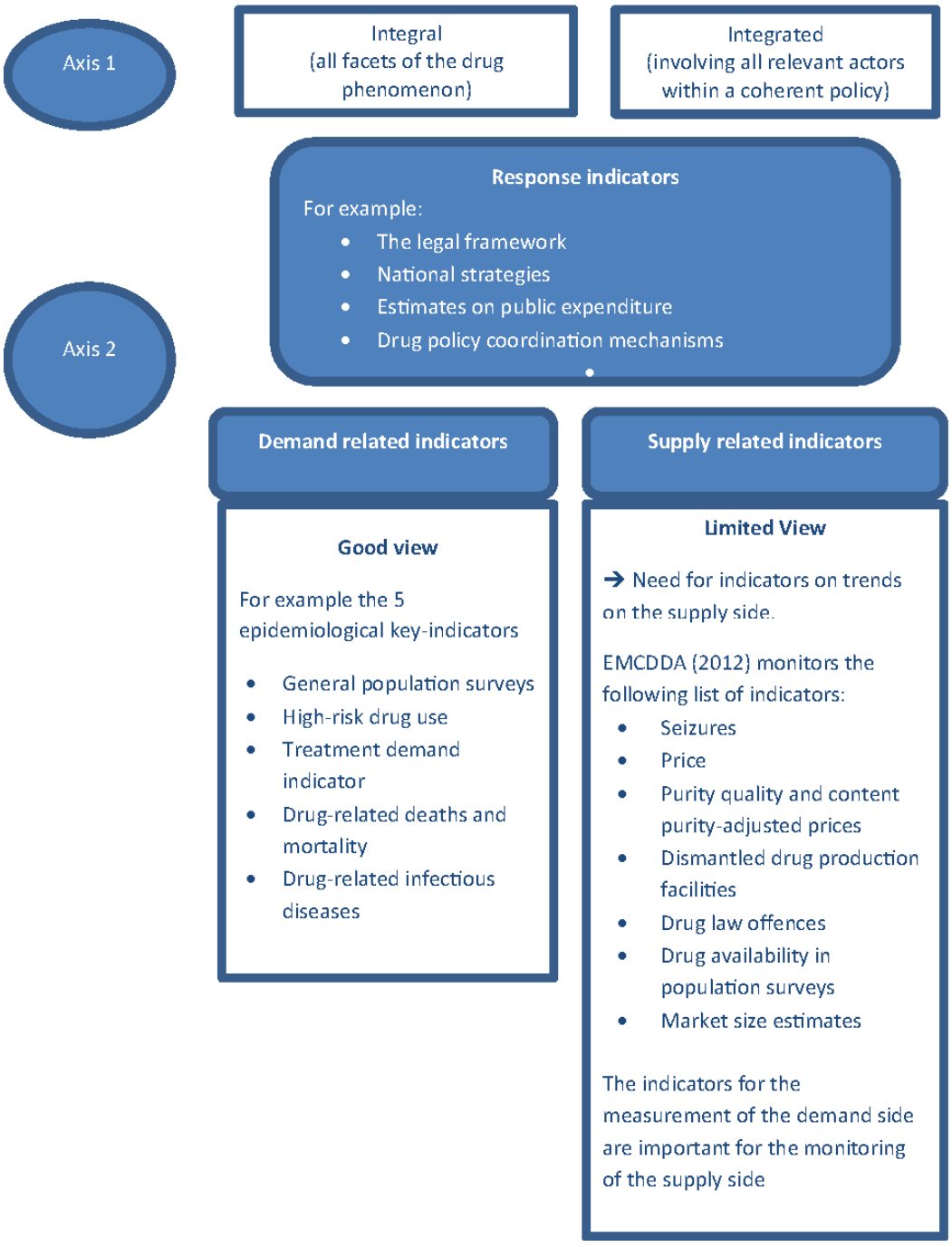
- The legal framework, including established penalties, or rehabilitative alternatives, for drug law offences
- National strategies
- Estimates on public expenditure
- Drug policy coordination mechanisms

For distinct policy sub-areas, the EMCDDA monitors quantitative data on provision of opioid substitution treatment and needle and syringe programmes, and qualitative data on the implementation of different types of prevention programmes in the different countries. It is also possible to interpret most of the supply sub-indicators, above, as response indicators, as they are measurements of law enforcement achievements.

4.3.4 Visualisation of findings

The abovementioned ‘state of the art’ is visualised in Figure 1.

Figure 1
Visualisation of findings



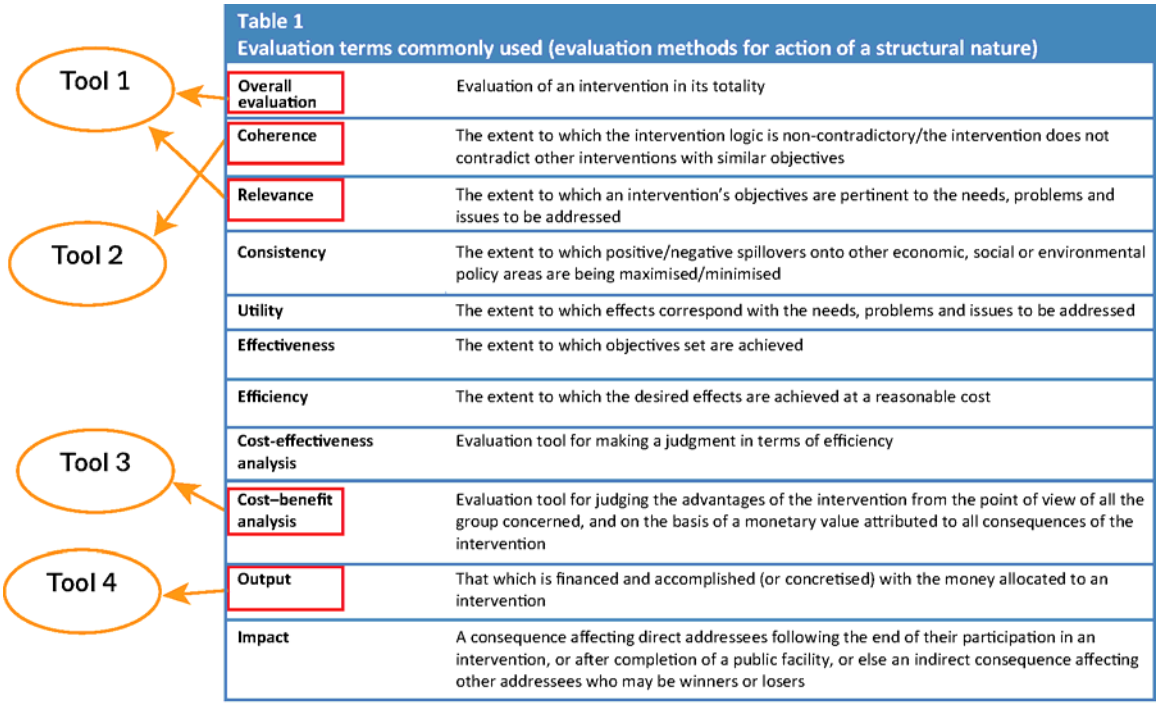
5. Overview of existing evaluation methods

This chapter focuses on the implementation of evaluation methods and presents an overview of existing methods of scientific policy evaluation.

By making use of the existing evaluation methods, we want to initiate a more simple and efficient process of monitoring and evaluation. The methods we present in this chapter fit in the framework, as described. They incorporate the two axes of an integral and integrated policy and cover both demand and supply side.

We opt for a pragmatic approach to maximise the willingness of EU Member States to evaluate systemically their drug policy. Some examples of tools corresponding to several evaluation types listed in Figure 2 are described in the sections below.

Figure 2
Overview of evaluation methods with links to implementation tools



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5.1 Tool 1: WHO manual: scenario with model list of four types of indicators

This manual was developed to monitor progress in the implementation of national drug policies and to facilitate the systematic monitoring of national drug policy implementation. The manual describes step-by-step the necessity of using the manual, who should use it and how to apply indicators (Brudon et al., 1999).

The manual is based on four categories of indicators:

- Background indicators: provide data on demographic, economic, health and pharmaceutical context in which the drug policy is being implemented in a given Member State.
- Structural indicators: qualitative information to assess the capacity to achieve its policy objectives (drug allocation in the health budget, updates of the legislation and regulation).
- Process indicators: quantitative information on the processes by which a national drug policy is implemented.
- Outcome indicators: measuring the result achieved and the changes that can be attributed to the implementation of the national drug policy (availability of drugs, quality of drugs).

The manual is especially developed for health policymakers but can be used as basis for overall drug policy evaluation. The manual was tested in 12 countries and revised based on those experiences.

➔ These four types of indicators are similar to those presented earlier in this document in section 4.1. After all, every type of evaluation asks for different kinds of data and as a consequence, different types of indicators.

5.2 Tool 2. Pompidou Group's coherency indicators: the extent to which drug policies are non-contradictory

At the European level, one can notice that the policies on legal and illegal drug use are evolving towards one another. This evolution is the result of the logic inherent in using a concept that focuses on an integral and integrated policy, tackling both the demand and supply side of the drug problem

From a public health perspective, the Pompidou group defines *integrated* policy as a policy on *all* psychoactive substances (alcohol, illicit drugs and tobacco) rather than a single policy for each substance (Muscat, 2008; Muscat et al., 2010). In recent years, the Pompidou Group of the Council of Europe has been developing a monitoring and evaluation system that allow to measure and assess the coherence between the different strategies on legal and illegal drugs:

> 'Policy coherence refers to the extent to which different public policies complement or support each other. At best, policy coherence creates synergies between different public policies, it leverages capacity to realise a common policy goal. At a minimum, it ensures that different policies do not undermine one another or cancel each other out' (Muscat and Pike, 2012, p. 13).

In 2012, the Pompidou Group of the Council of Europe developed six markers for coherence between policies (Muscat and Pike, 2012). These markers of coherence act as indicators to verify the degree of coherence between different policies in order to eliminate the possibility of competition between the different policies. These markers underwent preliminary testing. Several Member States used the markers to evaluate their drug policy in terms of coherence. In this way it was a first test of whether the markers are a valid tool to evaluate the coherence of a policy for alcohol, illicit drugs and tobacco (Muscat and Pike, 2012). In 2013-2014, these six markers were refined and tested in several countries, namely Croatia, the Czech Republic, Hungary, Ireland, Israel, Italy and Portugal. Researchers verified whether the markers are a valid tool to measure the coherence of the policy on

psychoactive substances. The results indicated that the six markers of coherence could be used to improve implementation of coherent policies on psychoactive substances or policies that address other forms of addictive behaviour (Muscat and Pike, 2014).

- Conceptualisation of the problem: *how are problems associated with different psychoactive substances (illicit drugs, alcohol and tobacco) described, and how do research evidence, media coverage, cultural mores or social, economic and political considerations shape the nature of the 'problem'? To what extent do these elements converge?*
- Policy context: *where are psychoactive substance policies located within the overall policy environment, e.g. in criminal justice, in the medical context or within the context of a value set such as social inclusion, human rights or equality? To what extent is there a consistent approach across different psychoactive substances?*
- Legislative/regulatory framework: *how are various psychoactive substances controlled and regulated? To what extent are the controls and regulations complementary and supportive of the desired outcomes?*
- Strategic framework: *what are the goals and aspirations, the objectives, of drug, alcohol and tobacco policies? How far do they overlap with one another?*
- Responses/interventions: *are interventions logically consistent and mutually supportive, in line with overarching policy goals and aspirations?*
- Structures and resources: *to what extent does the organisation of structures and resourcing support the coordination and/or integration of drug, alcohol and tobacco policies?*

➔ Member States could assess their national drug policy using these six indicators and could identify options for strengthening the impact of their drug policies. The markers of the Pompidou Group focus on policy. The EMCDDA could assess which elements of these markers can be used.

5.3 Tool 3: The UK government cost-benefit analysis framework (Drug Strategy Research Group, 2013) and the harm assessment framework (Greenfield and Paoli)

The 2010 drugs strategy of the United Kingdom 'Reducing demand, restricting supply, building recovery: supporting people to live a drug-free life' (Home Office, 2010) is structured around three themes — demand reduction, supply reduction and building recovery in communities — and has two overarching aims — to reduce illicit and other harmful drug use and increase the numbers recovering from their dependence.

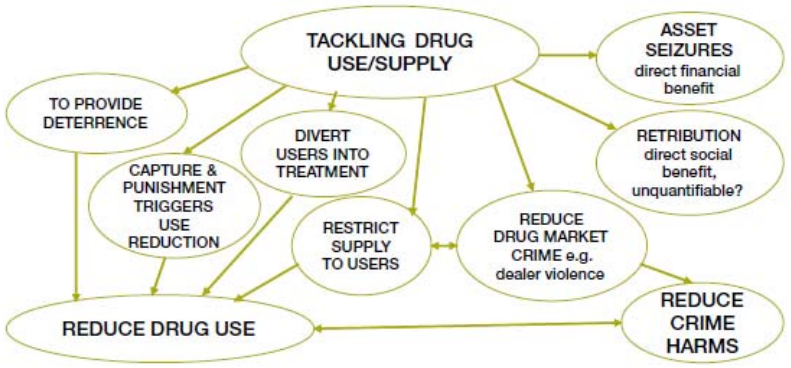
In 2013, the Drug Strategy Research Group developed an evaluation framework in order to evaluate the effectiveness and value for money. The evaluation framework has been developed to assess whether changes in trends on drug use could be attributed to the effects of the strategy, without making assumptions of causality. In other words, they wanted to robustly assess the effectiveness of the strategy in meeting its aims by evaluating the impact of interventions within the drug policy (DSRG, 2013).

The analysis of this strategy is twofold. First, the evaluation assesses whether the strategy has met its two overarching aims (to reduce illicit and other harmful drug use and increase the number of

persons in recovery). It then determines, whether the government has achieved value for money in doing so (DSRG, 2013). In other words, whether the money spent on tackling drug use is less than the monetised benefits resulting from the drug strategy (Pike, 2014); if so, then the value for money will have been achieved.

Since it is not possible to conduct a single evaluation covering the entire strategy, they develop five activity groups based on the three pillars of the strategy (demand reduction, supply reduction and building recovery in communities) (DSRG, 2013). For each of the five activity groups, process models or logic models are developed. These models describe how a particular (policy) intervention area should operate to achieve its aims and identify which programmes contribute to this (DSRG, 2013). The logic models identify the activities that receive government funding contributing the aims of the strategy and how these activities aim to achieve their objectives. See as an example the logic model of the activity group 'Enforcement' in Figure 3 (DSRG, 2013, p. 17).

Figure 3
Logic model of enforcement



- Enforcement has the most complicated logic model. It aims to cut drug use via four different channels: i) as a general deterrent by enforcing the illegality of drug use; ii) as a specific deterrent, by punishing individuals caught possessing drugs, those individuals, in turn, may reduce use; iii) by diversion into treatment (e.g. the Drug Interventions Programme, DIP) and; iv) by restricting supply (thereby reducing availability and/or use, by raising purity-adjusted price or preventing new drugs entering the market).
- Enforcement also has possible direct benefits: i) through incapacitation and other methods drug market crime (e.g. dealer violence) may be reduced directly; ii) the assets of drug dealers may be recovered by enforcement agencies; and iii) society as a whole may benefit from a sense of 'retribution'.
- UK-funded enforcement activity that impacts on source countries with the aim of restricting supply within the UK will be included in the evaluation. Any benefits occurring outside the UK (e.g. reduced instability) will not be included.

Source: DSRG, 2013, p. 17.

For each of the five activity groups (and logic models), the direct return on investment could be assessed via collecting data on direct spending, that is, expenditures for actions expressly and directly aimed at implementing the drug policy. A meta-evaluation approach (a synthesis of the results from individual evaluations within the same activity group) will be used to combine the

results from different evaluations within each activity group in order to provide a global estimate. In order to measure the value for money and fill in the logic models, good quality data (evaluation evidence) is necessary (DSRG, 2013).

The evidence base for the four logic models relating to the demand side is quite strong, there is, however, little evaluation evidence available for the fifth logic model (enforcement) relating to the supply side. When it is impossible to obtain direct information, alternative methods will be used for estimating the costs, like modelling approaches and qualitative interviews. Afterwards, the costs and benefits could be evaluated and the return on investment could be measured.

An evaluation of the UK drug strategy based on the above evaluation strategy has recently been published (HM Government, 2017). However, it was found that, due to a lack of data, the conclusions that could be drawn were very limited, highlighting the importance of ongoing data collection and monitoring activities.

➔ It does not seem feasible for most Member States to perform, at this stage, a full cost-benefit analysis. Learning from such attempts in different Member States, we see that most Member States do not possess reliable and complete data to conduct such a full-fledged cost-benefit analysis, especially for the supply side. More fundamentally, it is also questionable whether all benefits could and should be monetised. Therefore, some authors suggest to conduct a 'notional' (a not necessarily quantitative) cost-benefit analysis using the assessment of the harms of drug use or a drug supply activity — including their severity, incidence, and causality — as baseline 'estimates' (Greenfield and Paoli, 2012).

For the assessment of such harms, Greenfield and Paoli (2013) have developed an alternative methodology: the 'harm assessment framework'. This weaves together a set of descriptive and analytic tools in a multistep process of application, evaluation, and prioritization. It allows users to:

1. Characterize the modus operandi of the activity in a 'business model'.
2. Identify the possible harms associated with the activity, using a taxonomy that distinguishes among different types of harm and bearers, including individuals, government and private-sector entities and the environment.
3. Evaluate the severity and incidence of actual harms, using quantitative and qualitative evidence from official records, interviews, press reports, and other sources, on the basis of two ordinal scales.
4. Prioritize harms, by using a relational matrix to combine the scales.
5. Establish the causes of the harms, first, by distinguishing the harms directly resulting from a criminal activity from those that are 'remote' and, second, by examining the extent to which the harms associated with a criminal activity arise from the policy environment and related practices.

In cooperation with other scholars, Paoli and Greenfield have tested the framework on drug production, drug trafficking (and human trafficking) in Belgium and the Netherlands (Vander Beken, Paoli et al., 2012; Paoli et al., 2013; Paoli et al., 2015). The results demonstrated that it could produce reliable, multi-faceted, and policy-relevant harm 'estimates'.

Against these estimates, the drug-policy community — and other affected policy communities — can then assess the effects of policy changes — large or small, rapid or slow, forced or voluntary — and compare these effects to the policy implementation costs.

To conduct a comprehensive, albeit largely qualitative, cost-benefit analysis of the current EU or national drug policy, one might compare the baseline estimates of all harms under current policy to a no-policy scenario and then compare the notional 'difference' to the implementation cost. This notional cost-benefit analysis can also be helpful to (notionally) assess *ex ante* policy changes, including the introduction of specific interventions (Greenfield and Paoli, 2012).

5.4 Tool 4. The study of public expenditure and the study of social cost: are the resources allocated to the proposed aim?

To enable an integral and integrated approach of the drug phenomenon, it is indispensable to map and monitor the public expenditures allocated to the different policy domains and policy levels.

An essential step in the evaluation of drug policy is the estimation of public expenditure, since it facilitates evaluation of the commitments of governments in the drug policy field (Vander Laenen and De Ruyver, 2009; EMCDDA, 2008). Public expenditures can help us to ascertain the extent to which the desired effects are achieved at a reasonable cost. Public expenditure is in this sense an important indicator of the governmental efforts in tackling the drug problem (Ramstedt, 2002; Origer, 2002; Rigter, 2003; Kopp and Fenoglio, 2006). A public expenditure study is comparatively easy to conduct and can be used even when the conditions for evaluation are rather limited (for example, a modest quality of available data).

Kopp and Palle (1998), Kopp and Fenoglio (2006) and Origer (2002) refer to expenditure emanating from the public authorities and used for the different policy sectors in drug policy (law enforcement, treatment, prevention). Kopp and Fenoglio (2003) and De Ruyver et al. (2004; 2007) stress the importance of taking into account the different levels of competence (national/federal, regional, local) when estimating public expenditure, as in every Member State the division of competences in the field of drug issues differs and is spread over different domains epidemiology, prevention, treatment, law enforcement and others (Vander Laenen, 2009). The public expenditures should be framed within the socio-economic context of a Member State since changes in the economic situation might affect the health care and drug (treatment) policy expenditures. For example, an EMCDDA study (2014a) on the effects of the 2008 economic recession showed the impact of austerity on public expenditures regarding drug policy, and even on the mix of public and private health financing.

The social cost includes the total of expenditure (public, private and external expenditures) allocated to tackle the drug problem and the wider costs associated with drug-related harms, such as loss of amenity in areas with open drug scenes and family breakdown. The concept of social cost refers to the overall costs borne by society due to the existence of the drug phenomenon. Social cost includes costs caused by the demand side as well as the supply side regardless of the source from which the cost stems (private and public) (Kopp and Fenoglio, 2000; Vander Laenen and De Ruyver, 2009). By

analysing the social cost, especially the reduction of this cost, a statement can be made on the impact of drug policy.

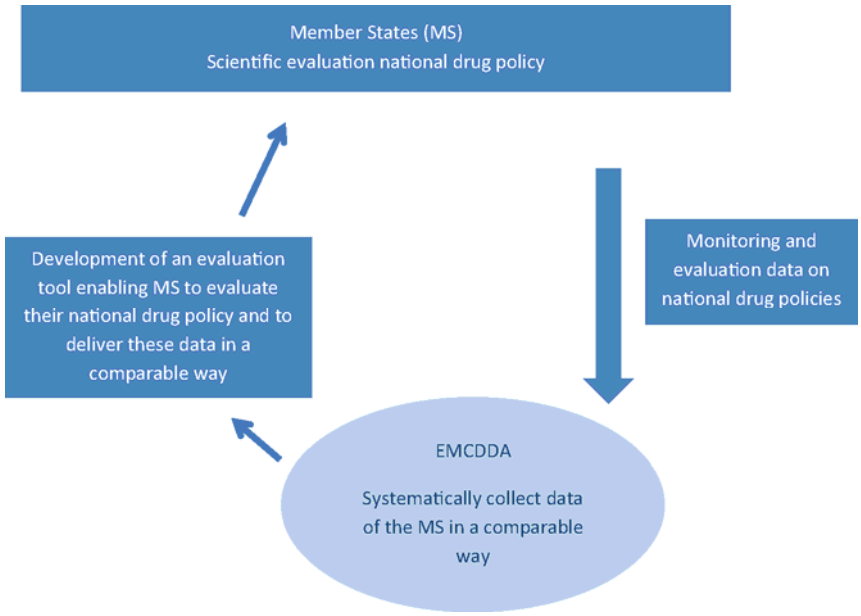
Recent examples of public expenditure or social cost studies from several Member States have been published: these include Croatia (Alibegović and Slijepčević, 2015); Ireland (Barry et al., 2010); France (Kopp, 2015); Portugal (Gonçalves et al., 2015); Austria (Kreutzer, 2013); Latvia (Vanags and Zasova, 2010); Belgium (Lievens et al., 2016; Lievens and Vander Laenen, 2016); the Czech Republic (Zábranský et al., 2011).

➔ Public expenditure studies and social cost studies are policy evaluation tools and relate to output evaluation as they analyse whether the allocated resources match the policy objectives. Research into public expenditure and social cost is necessary to meet the prerequisites of an evidence-based policy and can be considered as the first step to cost-effectiveness research (Vander Laenen and De Ruyver, 2009). A previous attempt to calculate the total European cost of illicit drug treatment services (EMCDDA, 2011) suffered from limited data. Work has continued in this area and most recently the EMCDDA published a wide-ranging methodological report on methods for estimating drug treatment expenditure (EMCDDA, 2017). Creating a foundation for cross-national comparisons has been a multi-decade endeavour undertaken by many researchers, notably those at the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA, 2008).

6. Implications for the tasks of the EMCDDA

The 28 EU Member States, Norway and Turkey provide the EMCDDA with evaluation data concerning their national drug policies. In this way, the EMCDDA could develop a (step-by-step) system to systematically process these data (see Figure 4).

Figure 4
Visualisation of tasks of the EMCDDA



Therefore some essential steps need to be considered:

- Clear and common definitions are indispensable. There is a need for coherence in the conceptualisation to compare results of the scientific policy evaluations between Member States. At European level, there is especially a need to provide clear definitions on the different methods of evaluation. A glossary of terms and concepts would be helpful.

- In order to compare evaluation data from of the various Member States, all Member States need to monitor and evaluate following the same evaluation design. The research question determines the type and method of evaluation. This method needs to be pragmatic and feasible for all Member States.

  Minimal key indicators to monitor and evaluations to perform:
  Looking at the different key indicators and evaluation methods, as described in this note, we suggest that:
  - Each Member State should systematically conduct a public expenditure study. In 2013, a literature survey on the methods used to estimate public expenditure on illicit drug treatment in Europe and beyond was set up (Lievens and Vander Laenen,

2013). In 2017, the EMCDDA published a description of the different methods effectively used to estimate public expenditure in drug treatment across different parts of the world (EMCDDA,2017). These studies acknowledged the variety of methodologies and data sources (from the Member State level and origin) making it very difficult to conduct a cross-country comparison. The development of a uniform methodology to measure European drug expenditures is essential and will depend on the availability of European databases.

➔ At European level, the EMCDDA could promote the study of public expenditure, contribute to the development of guidelines, disseminate good practices and provide training in order to support drug policy evaluation. Ultimately, international guidelines should be developed in order to present a general framework for the public expenditure studies.

➔ At the level of the Member States, there is a need for sufficient resources and know-how.

- Each Member State could develop process models (logic models) as described in tool 3. The goals of the national drug policy should be translated into logic models, describing the particular interventions to be implemented in order to achieve its policy aims. Member States should relate the (interventions within the) logic models to key indicators in order to allow adequate monitoring. Afterwards, these models could be used as a basis for evaluation.

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