142. The information developed under these operations, combined with annual reporting, also feeds into the process of scheduling and rescheduling substances under international control. In response to emerging trends in illicit trafficking and manufacture, the Board has previously proposed to the Commission on Narcotic Drugs that it schedule or reschedule several chemicals. Norephedrine, which had emerged for use in the illicit manufacture of amphetamine-type stimulants, was added to Table I in 2000. Since that time, several other chemicals have been rescheduled from Table II to Table I, including acetic anhydride (2001), potassium permanganate (2001) and phenylacetic acid and its salts (2011).

143. Increasingly, over the last several years, chemical trafficking organizations have begun obtaining alternative chemicals, including made-to-order chemicals, directly from industry. In response, Governments are increasingly adopting the concept of industry as a critical partner in preventing diversion. The Board's Guidelines for a Voluntary Code of Practice for the Chemical Industry and the limited international special surveillance list of nonscheduled substances are free tools that can assist in that regard. The surveillance list, established in 1998 in response to increasing concern about the use of substitute chemicals, aids Governments in flexibly targeting nonscheduled substances most likely to be diverted from legitimate trade, while balancing the requirements of legitimate industry. The list has grown to now include 52 substances and is distributed to regulatory authorities for use in partnership with industry.

B. Challenges and the way forward

144. Twenty years of international precursor control have demonstrated that the international system of controls provides for a number of necessary tools. Experience has shown, however, that the tools have not had universal implementation and that there remains a need to implement them more comprehensively within countries and at the global level. Specific examples of these tools are listed in chapter V below.

145. Twenty years of international precursor control have also demonstrated the ability of chemical trafficking organizations to rapidly adapt to pressures from regulatory and law enforcement agencies. Specifically, their ability to obtain intermediates, pre-precursors and made-to-order chemicals has increased, as has the size and sophistication of manufacture, as evidenced by their ability to use other starting materials and methods which were previously considered too complex and costly to employ in illicit settings. This is compounded by the continued increase in the type and amount of synthetic, non-plant-based drugs and the unprecedented speed with which shifts now occur. The inherent flexibility in the sourcing of precursors and in illicit manufacture means that mechanisms to counter these developments must also be flexible.

146. The concept of scheduling individual substances is a reactive measure that cannot keep pace with the rapid emergence of new precursor substances used in the illicit manufacture of drugs. Instead, a more flexible approach is needed, with a shorter response time to identify suspicious orders and prevent diversion of new chemicals, which can only be achieved in partnership with industry.

147. At the same time, legislation must be more flexible to allow for the investigation and prosecution of incidents which involve new chemicals when there is suspicion that such chemicals are intended for use in the illicit manufacture of substances. Similar to seizures of chemicals currently under control, incidents utilizing new unscheduled chemicals should be considered the beginning of an investigation rather than its end.

148. Governments must also consider the degree to which the criminal act of trafficking in chemicals corresponds to the punishment. Penal, civil and administrative sanctions involving new chemicals must be proportional to the type and amount of illicit substance for which manufacture was intended. Thus, cases involving precursors intended for use in illicit drug manufacture should result in sanctions consistent with the amount of drugs that were to have been manufactured.

149. Finally, in order for the international community to benefit from the knowledge of new developments and prevent future diversions, it is paramount to improve the dissemination of information and strategic intelligence on suspicious orders, stopped shipments and seized precursors in real time. Regulatory and law enforcement agencies and relevant industry, both nationally and internationally, all play an equally important role in understanding the dynamics and complexities of modern-day diversion and trafficking, identifying weaknesses and devising adequate solutions.

V. Recommendations

150. The present report has examined actions taken by Governments and the Board, the latest information related to the diversion and attempted diversion of precursors, legislative and other control measures and the achievements under Project Prism and Project Cohesion over the past year. In addition, much of the information and analysis has assessed the achievements and challenges during the first 20 years of precursor control. The present chapter outlines broad recommendations to bring the policies of Governments into alignment and fill existing gaps in the control system identified in the present report and in previous reports.

151. The diversion of some chemicals, such as acetic anhydride, from domestic distribution channels — rather than through international trade — with subsequent crossborder smuggling, has become the most common method of obtaining precursor chemicals for use in illicit manufacture. It is vital to strengthen domestic controls over the movement of chemicals by implementing a system of licensing; developing a keen understanding of domestic manufacture of, trade in and need for controlled substances; and verifying legitimate end-use. The Board urges Governments to focus domestic control efforts on the beginning of the chemical supply chain, starting with the verification of the bona fides of all new companies entering business.

152. Despite improvements, many Governments have yet to provide estimates of their annual requirements for the import of certain precursors of amphetamine-type stimulants. Additionally, many of these estimates are outdated and not reflective of changing market conditions. This is of particular concern with respect to substances that have little legitimate use. To ensure that the estimates remain useful for the identification of suspicious transactions involving those particular precursors, the Board reminds Governments to provide timely and accurate estimates in accordance with Commission on Narcotic Drugs resolution 49/3.

153. The Board notes with concern that communication with a number of Governments remains problematic. In some cases, contact information for competent national authorities designated under the 1988 Convention have never been provided to the Board, enquiries about potentially suspicious transactions go unanswered and the rate of participation and information exchange of Governments in Project Prism or Project Cohesion is low. The Board reminds Governments of their shared responsibility to quickly communicate information related to the diversion and attempted diversion of precursors so as to facilitate international efforts to counter trafficking in precursors.

154. Owing to limited capacity, the Governments of some countries in low-income regions have not implemented many of the tools designed to prevent diversion of chemicals. The Board urges all Governments and relevant international organizations to provide assistance for training and capacity-building for competent authorities of low-income countries to enable them to monitor and communicate the legitimacy of relevant transactions and to prevent diversions.

155. To accurately assess the global situation with respect to diversion and attempted diversion of precursors and to identify and respond to weaknesses in the control system, Governments must submit timely, accurate and comprehensive information on form D. The ongoing problem of underreporting cannot be explained solely by the limited capacity of Governments, since numerous Governments of middle- and high-income countries also fall short of their reporting responsibilities. Additionally, the provision of information would be more valuable for the analyses if details of the relevant circumstances, such as modi operandi and methods used for diversion and the illicit manufacture, were included in the reports. The Board urges Governments to improve reporting on form D in accordance with article 12 of the 1988 Convention and to furnish the Board with on-time, comprehensive information on the results of investigations concerning seizures or stopped shipments.

156. There has been a significant increase in international trade notifications through the PEN Online system, which continues to be a key tool in global efforts to prevent the diversion of precursors from international trade. Although registered users of the system continue to increase, geographical gaps in coverage remain and not every transaction is entered into the system. For example, data available to the Board also show that significant amounts of substances are intended for re-export but that not all subsequent transactions appear to be traceable through the PEN Online system. The Board requests all Governments that have not yet done so to register for the PEN Online system. Governments are reminded to actively and systematically use the PEN Online system for all transactions, as both exporters and importers, including for the timely provision of feedback to exporting countries and the communication of objections or non-objections with respect to individual transactions.

157. The available tools and instruments, such as the PEN Online system, and the requirement that countries be notified of impending shipments of precursors (article 12, paragraph 10 (a), of the 1988 Convention) have not been implemented by all countries. This is particularly true of low-income countries, where limited investment and slow implementation continue to hamper progress. Nevertheless, the PEN Online system is capable of sending pre-export notifications to all countries, including those not yet registered, via the integrated fax and e-mail options. Therefore, the Board urges all exporting countries to use the PEN Online system regardless of whether the Government of the importing country is registered to use the system or has invoked articles requiring pre-export notification.

158. Chemical trafficking organizations have become increasingly resourceful, organized and adaptable in order to circumvent the growing number of control measures that have been introduced. Multilateral international cooperation is an essential component in identifying and responding to new methods of diversion and preventing future diversion. The Board urges the Governments concerned to actively participate in and contribute to relevant multilateral anti-trafficking operations and activities under Project Prism and Project Cohesion.

159. As bulk ephedrine and pseudoephedrine have become more costly to source, illicit manufacturing techniques have been adapted to use pharmaceutical preparations containing these precursors. The Board calls upon all Governments to enact effective measures to control ephedrine and pseudoephedrine in the form of pharmaceutical preparations in accordance with Commission on Narcotic Drugs resolution 54/8.

160. Derivatives and other forms of substances beyond the scope of existing international drug control measures, such as phenylacetic acid esters, are now being increasingly

utilized in the illicit manufacture of drugs. The Board encourages all Governments to partner with relevant industry to closely monitor or control derivatives of controlled substances that readily allow for conversion into the controlled substance in the same way as the controlled substances themselves.

161. Many Governments are exercising export controls above and beyond the minimum outlined under the 1988 Convention and subsequent resolutions of the Commission on Narcotic Drugs. For example, some countries are refusing to release shipments to new unknown companies until the importing Government approves the shipment. Other countries have legislation to ensure that their exports of controlled chemicals do not violate the applicable laws and regulations of the importing country. The Board recommends that all Governments ensure that their exports of controlled chemicals do not violate the applicable laws and regulations of the importing country. Furthermore, the Board encourages exporting countries to release shipments only upon receiving official confirmation from the competent authority of the importing country in cases where there are grounds for suspicion.