## Oil pipelines

Monitoring the performance of European cross-country oil pipelines

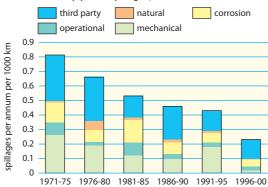
**C**ONCAWE first became involved with oil pipeline Safety issues in the mid 1960s when it started collecting information and statistics on incidents and spills related to European cross-country oil pipelines. The first report was published in 1969 and an update report has been issued yearly since 1972. A 30-year overview was also produced in 2002. During more than 30 years the fraction of the total pipeline network covered by the CONCAWE survey has increased, in particular through the incorporation of the NATO lines in 1988 and of the East German network in 1991. The statistics now cover virtually all crosscountry oil pipelines in the EU and are being gradually extended to include the former Eastern block countries.

This series of reports has become a unique and trusted source of information throughout the industry and for other parties such as the EU institutions and Member States. Beyond the pure statistics, the large volume of data collected allows many additional conclusions to be drawn and analyses to be made on what are the most important factors affecting the safety and integrity of cross-country oil pipelines. A further report published in 1998 describes the appropriate methods and procedures for the prevention and detection of spills, and for dealing with their consequences.

## Figure 1

Most pipeline spillage incidents are the result of third-party actions, either unintended, malicious or criminal.

Causes of cold pipeline spillages, 1971-2000



Through this work CONCAWE has demonstrated that pipelines are a reliable and safe means of transporting oil products. Over the years, both the number of incidents and the volume of oil spilled have consistently decreased. This has been achieved in spite of the increasing age of the pipeline system. Indeed the data clearly demonstrate that there is no link between pipeline age and failure rate, which can be attributed to continually improving maintenance and inspection techniques. Most pipeline spillage incidents are the result of third-party actions, either unintended, malicious or criminal (see Figure 1). On this basis CONCAWE, along with the representatives of pipeline operators for the on- and off-shore transport of chemicals, natural gas and industrial gases, has consistently argued that a 'Seveso' type Directive specifically geared to pipelines is unnecessary. Such a Directive would inevitably impose heavy costs and administrative burdens on the industry for very little (if any) return.

CONCAWE's pipeline activities are carried out through an Oil Pipeline Management Group, membership of which is open not only to CONCAWE Member Companies but also to all companies operating oil pipelines in Europe. Beyond the compilation of the statistics the group serves as a forum for exchanging information on a number of topics, such as: causes of incidents and lessons learned; developments in safety management; and pipeline condition monitoring, especially the use of intelligence pigs.

The 'CONCAWE Oil Pipeline Operators Experience Exchange' (COPEX) seminar takes place every four years and is open to all pipeline operators in Europe (the next one is planned for 2006). These seminars provide a unique opportunity for a broader and very practical exchange of knowledge, experience and best practices in this field. They have enjoyed continued popularity, which bears witness to their relevance.

Proceedings of the 2002 seminar are available on the CONCAWE website.