Rabies causes an estimated 55,000 deaths worldwide in developing and in transition countries, a large proportion occurring in children. Successful rabies prevention and control requires the collective efforts of many people. Focus should be given to containment and the eventual eradication of rabies at the animal source of the disease, primarily dogs. OIE strategies emphasize addressing ‘One Health’ issues including rabies, building the capacities of veterinary services to support public and animal health, and working with a range of international and national organizations. Due recognition should be given to both immediate actions and approaches that support long term maintenance and improvements to rabies control strategies. Three examples of OIE initiatives are provided that support a sustainable approach. The PVS (Performance, Vision and Strategy) tool for the evaluation of veterinary services, PVS Gap Analysis, and PVS follow-up, aim to strengthen good governance including technical and management capacities and legislation to support continuous and ongoing improvements in these areas. Improving veterinary services including public and private components will facilitate the application of knowledge and skills to help control zoonosis such as rabies. Parenteral rabies vaccination of dogs has been the method of choice but there are limitations to this approach. Whereas oral vaccination is successfully used in certain wildlife species, it is considered worthwhile to promote research on suitable oral vaccines for dogs as well to complement parenteral vaccination and other management techniques. OIE plans to establish a Rabies Regional Vaccine Bank Pilot Program in Asia and collaborate with other partners involved in rabies control. ‘Twinning’ arrangements provide links between an OIE Collaborating Centre (the parent) and a National Centre (the candidate). These seek to improve expertise and diagnostic capacities. Current ‘twinning’ arrangements for rabies are established between the UK and China, South Africa and Nigeria, and Germany and Turkey. OIE approaches create opportunities to overcome a number of the key challenges of rabies control in a sustainable manner.