



In last year's report we projected that 1991 would be a "year undoubtedly filled with extraordinary events. That turned out to be a pretty safe bet. Some of the phenomena the world experienced in 1991, particularly the collapse of the Soviet-dominated system of centrally planned economies, will continue to 'try our National spirit and our commitments to future generations' for some time to come, making each new year unique and informed policymaking more important than ever.

OTA has long studied many of the technical issues that influenced the demise of the Soviet Union. For example, in 1981, we projected that the impending fall-off in Soviet gas and oil production (dominated by poor use of technology) would result in a slackened economic grip on Eastern Europe and decreased access to hard currency. Several OTA studies have illuminated the extraordinary impacts of computer and telecommunications technologies on production and service economies and have revealed the fact that these tools were readily adopted in market economies while they languished in centrally planned economies. Individuals who played crucial roles in the revolutions in Russia and Eastern Europe surely sensed that the globally integrating market was racing out of sight of the centrally planned economies and knew that radical change was imperative. Although the growing importance of information technologies contributed to the revolution, those same technologies also placed a subtle but effective control on its course by assuring universal access to events as they transpired.

Here at home, telecommunications provided constant contact with the rapid deployment, swift movements, in-process innovative problem-solving, and technologically advanced weapons wielded by well-trained coalition forces in Kuwait and Iraq. The world's voracious appetite for oil lay at the heart of this conflict and lies at the heart of many of the environmental problems that threaten the community of Nations. Energy and environment issues continue to occupy a fourth of OTA'S analysis effort.

The stubborn and persistent deficits in international payments, led by oil and auto imports, and federal entitlement programs that inexorably race beyond receipts contribute toward a double-dip recession. The Nation is questioning the priority of big technology projects—from the faulty billion dollar Hubble Telescope and



Galileo space probe to the anachronistic Strategic Defense Initiative strategy to protect the continental U.S. And our revered halls of science are showing disturbing signs of stress. The country seems to yearn for a change for the better and remains an innovative, responsive, and capable society. How can OTA contribute to meeting the challenges before us?

First, the Nation needs to become more acutely aware of the facts and they need to be ordered and integrated. An old Chinese proverb states: ‘ ‘If we don’t change direction, we’re very likely to end up where we’re headed, ’’ That early equivalent of Isaac Newton’s first law of motion is as true today as it was 3000 years ago. OTA not only describes where we are and where we are headed, but also how our trajectory can be modified if the country so chooses. In 1991, for example, OTA crafted a variety of energy and environmental strategies, including alternative long-range goals for levels of imports, reductions in greenhouse gases and cost-effective efficiency opportunities, stressing the vastly different endpoints likely to result from options ranging from maintaining the status quo all the way to decisions to make significant shifts in the economy. We pointed out the unhappy but true dimensions of our loss of industrial manufacturing competitiveness, its impact on U.S. standards of living, and the tough and long-term but necessary steps to turn things around. We described the serious health deficits of our children in a landmark review of adolescent health, and examined the crumbling health delivery system to rural America in our study of rural health care. We defined the sobering situation of the Nations defense nuclear and chemical waste mess and offered ways for more effective management and clean-up. We examined both the disadvantages and opportunities of rural areas to utilize telecommunications to improve public services as well as to improve their economic futures. We tackled the manifold issues surrounding point-of-sale record checks of firearms purchasers and helped clarify constraints and options, which resulted in successful legislation. And we outlined the principal conflicts facing the U.S. basic research system.

Second, we need to help leaders who can help define who we are, as a people and Nation, and who can articulate plans of action that are fair and achievable. In carrying out studies for committees of Congress, OTA draws on a wide variety of



perspectives from outside government and delivers its studies to the public as well as the congressional requesters. Hopefully, this provision of carefully drawn information enables leaders to articulate well-conceived choices and goals, and helps citizens to have better access to the power that knowledge gives, so that a stronger democratic society can prevail.

Mindful of our role in the policy process, OTA carefully leaves decisionmaking to elected officials. OTA neither advocates particular decisions nor takes political sides. The agency's job is to help focus, elevate, and illuminate debates about socio-technical issues. In a world increasingly dominated by technology, in a society increasingly influenced by science, people need trustworthy access to the specialized knowledge of science and technology.

As we look forward to 1992, OTA already has a full plate of analyses underway. These include studies of defensive medicine and health insurance, nuclear disarmament, counter-terrorism, defense conversion in our economy, renewable energy, defense waste cleanup, options to adapt to an unknown and future climate, computer soft ware and intellectual property, prevention and treatment of osteoporosis, evaluation of the Oregon Medicaid proposal, agricultural alternatives to coca production, technology to improve literacy and learning by adults, and many more issues confronting Congress and the American people. With the continued assistance of hundreds of experts and stakeholders throughout the private and public sectors, both in the U.S. and from other countries, OTA will illuminate the facts, winnow the uncertainties, and weigh various potential impacts. With that task complete, we will faithfully synthesize, translate, and deliver the results for the Congress and the public to use as they see fit. The existence of knowledge—the fruit of research—is necessary but not sufficient. OTA'S job is to make knowledge truly accessible and therefore useful as we struggle as a Nation to govern ourselves wisely in a world full of both peril and opportunity.

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