SUMMARY OF ANALYTICAL FINDINGS

Italian public and private organizations invested a total of $13.3 billion in research and development (R&D) in 1998. A sluggish economy and government budget balancing have had a significant impact on the size of the Italian R&D effort this decade, though spending has begun rising again. Overall, Italy has one of the lowest R&D investment rates of all industrial countries, and this concerns the government. In 1998, Italy spent 1.19% of its gross domestic product (GDP) on R&D. Corporations fund the majority of research in Italy.

The Italian government realizes that the low level of investment in R&D is a growing problem for Italy's international competitiveness. In fact the five-year budget plan beginning in 2000 highlights R&D as one of the top government priorities. The government has already begun increasing funding for R&D while at the same time trying to keep its budget balanced according to strict European Union standards for the new European currency, the Euro. (Italy was at great risk of failing to meet Euro-qualifying criteria and has made major cuts throughout its budget as a result). The government has also responded to these concerns by reorganizing the research and educational infrastructure to make it more effective and focused. Reforms include financial incentives for good performance, more streamlined organizations, and an effort to develop national R&D priorities for spending limited resources wisely.

Italian energy policy continues to focus on deregulation and environmental protection. EU directives on competition in the electricity and gas markets have forced Italy to de-regulate its internal energy markets. At the same time, budgetary pressure prompted Italy to privatize its main energy assets: ENEL (the national electricity company) and ENI (the national oil and gas company). Since the late 1980s, Italy has had a moratorium on generating nuclear power, making it the first country in the world to shut down all its operating nuclear power plants. In the ensuing decade, environmentalists and others have used new laws fostering competition in the energy sector as mechanisms to encourage green power and clean energy sources.

Energy R&D accounts for only 3% of public R&D spending, and just over 4% of total R&D spending (public and private). Public energy R&D investment has dropped significantly since the late 1980s, primarily because of major funding cuts for fission and fusion. Nuclear fission and fusion still accounted for 49% of public energy R&D spending in 1996, followed by energy efficiency (23%) and renewable energy (10%). Most R&D relating to fossil energy and energy efficiency is paid for by the private sector. The government sees little reason to promote the use of fossil fuels through R&D when at the same time it is trying to discourage their use because of environmental and energy security concerns; fossil accounts for less than 3% of public energy R&D. However, fossil research appears to be the single largest area for total energy R&D research in Italy, primarily because of private-sector investments.[1] Italy's two largest energy companies, ENEL and ENI, are both major R&D investors.

[1] Italian statistical data indicate that fossil fuels are the largest area of corporate energy research, though these data may undercount energy efficiency.