

concentrate on high speed integrated circuits, integrated opto-electronics wideband switching (synchronic/asynchronic). RACE has currently 88 projects underway.

Development of Telematic Systems in Areas of General Interest

This new activity is of prenominative research character. A limited number of experimental development activities concerning the validation of common functional specifications will ensure interoperability of systems, peripherals and telematic networks at trans-European level.

Industrial and Materials Technologies

The E.C. has currently one program of 500 million ECUS (1989-1992) called BRITE-EURAM which regroups two programs as both had the same objective: to contribute to the rejuvenation of the European manufacturing industry by strengthening its scientific base. This program is a combination of BRITE (New Technologies for Manufacturing Industries) which was adopted in 1985 and carried 224 projects, and EURAM (European Research in Advanced Materials) adopted in 1986 and financed 84 projects.

The JRC will contribute to this work, especially on the prenominative aspects on advanced materials, the preparation of nuclear and non-nuclear reference materials.

SECOND THEME: MANAGEMENT OF NATURAL RESOURCES

Environment and Marine Sciences and Technologies

The E.C. has set up two research programs: STEP (Sciences and Technology for Environmental Protection) with a current budget of 75 million ECUS for the 1989-1992 period and; EPOCH (Climatology and Natural Hazards) with a budget of 40 million ECUS for the same period. The new Framework Program has more than doubled the cur-

rent budget for environmental research. The 1990-1994 period budget is 514 million ECUS.

The Environment Institute of the JRC will also contribute to research in the environmental sector. A close co-operation exists between the JRC and the European Space Agency on the application of remote sensing to these environmental problems, as well as with EUREKA in the frame of the EUROTRAC project.

Life Sciences and Technologies

The E.C. has a long-term strategic objective which is to develop European potential for understanding and using the properties and structures of living matter. The programs are as follows:

- *Biotechnology*
The BAP program (Biotechnology Action Program) came to a close in 1989. The BRIDGE program, with a budget of 100 million ECUS for the 1989-1995 period is its successor with very similar objectives. However, it is expected that both budget and goals of the BRIDGE program will be expended in light of the new Framework Program with a special concern attached to ethical implications and their relevance to industry.
- *Agricultural and Agro-Industrial Research*
Based on biotechnology research, the E.C. has two other programs: ECLAIR which will apply biotechnology research to the agro-industrial sector (80 million ECUS for 1988-1993), and FLAIR, 25 million ECUS for the same period, which deals with applications in food stuffs sector and includes research on hygiene, safety and health, nutrition and toxicology.
- *Biomedical and Health Research*
This is one of the rare concerted action programs: the E.C. pays only for the cost of the coordination of the excellent medical research done in members states.