# **European Ministers Approve** Eureka High-Technology Projects

London-Ministers from 18 European nations have approved the following projects for inclusion in the Eureka European high-technology development program (Awast July 7, p. 27).

Projects will be paid for largely by contributions from industries in the participating countries, although most of the participating governments will fund a share of the costs.

### **Wideband Telecommunications** System

Development of a wideband interconnection module to form the basis of a future ISDN capability. Five years; \$153.6 million; France, Italy, Britain.

#### Eurocim

Flexible automated factory for electronic cards, including preparation of circuits and quality control aspects. Five years; \$28.8 milion; France, Italy, Spain.

#### ES2

Automatic design and production of custom chips using direct print on silicon processes. Three years; \$90 million; Belgium, France, the Netherlands, Sweden, Switzerland and Britain, with interest from Ireland, Finland, Norway and Turkey.

#### Apex

Advanced project for European information exchange, applicable to aerospace industry. Five years; \$28.8 million; France, Germany, Italy and Britain. Interest expressed by Belgium and the Netherlands.

#### **Gallium Arsenide**

Development of design and manufacturing processes for gallium arsenide monolithic integrated circuits. Three years; \$57.6 million; France and Britain, with interest by Greece.

#### Use of Ceramics in **Gas Turbines**

Establishment of performance gains to be expected from introduction of ceramics into gas turbines of power up to 10 megawatts. Five years; \$15.3 million; France, Italy and Sweden, with interest from Ireland, Norway, Spain and Turkey.

#### **Detection and Destruction** of Chemicals by Laser Beam

Use of high-powered lasers for the detection and destruction of impurities in finished and waste products. Five years; \$8.6 million; Belgium, France and the Netherlands, with interest from Germany, Italy and Switzerland.

#### **Electron Beam Welding**

Design and development for industrial use of a cost effective method of welding steel of up to 100 mm. thick at atmospheric pressure. Four years; \$2.3 million; Spain, Sweden and Britain

#### **Designs and**

#### **Technologies for High-Power** Semiconductor Devices

Development of new techniques, new design components and environmentally acceptable uses of energy in order to achieve further advances in high-power semiconductor technology. Two years; \$4.8 million; Sweden and Switzerland.

### **Advanced Mobile Robots**

Development of fast-moving, thirdgeneration robots for public safety applications such as national disasters and antiterrorism. Definition phase: six years; \$96 million; Belgium, Denmark and Switzerland.

## **Light Materials** for Transport Systems

Development of technology for welding aluminum alloys by electron and laser beams and development of multilaver composite materials. Four years; \$14.4 million; France and Germany, with interest from Spain.

### Eureka Advanced Software Technology

Development of software factories incorporating software engineering. Six years; \$135.3 million; Denmark, Finland, France, Italy and Britain, with interest from Switzerland.

#### **Computerized Engineering**

Development of a computerized engineering system. Three years; \$16.3 million; Spain and Switzerland.

## Diane

Automatic integrated system for neutronography. Nondestructive use of neutron beam in the quality control of large, complicated components manufactured from new material. Four years; \$14.4 million: France, Spain and Germany, with interest from the Netherlands.

Each listing gives the name of the project, a brief description, the period for which funding is expected to be provided, total funding anticipated for the project and the countries that have indicated they will participate.

Countries that have indicated they are interested in the project bat will not immediately participate also are listed.

Paradi

Automatic production management system using artificial intelligence developments. Six years; \$57.6 million; Belgium, France, the Netherlands and Switzerland, with interest from Germany and Italy.

#### Cerise

European center for image synthesis to improve and market computer imaging technology. Five years; \$8.16 million; France and Luxembourg, with

**High Performance** Signal Processing for Laboratory Environments

Development of high performance analog-to-digital convertors for nuclear electronics applications and signal correlators compatible with standard and latest generation microcomputers. Two years; \$380,000; Portugal and Britain.

#### Carmat 2000

Car structures using new materials. Four years; \$57.6 million; France, Germany, the Netherlands and Britain, with interest from Italy and Spain.

#### Mentor

Expert system for dealing with major plant failures and security control. Four years; \$28.8 million; France and Norway, with interest from Germany and Italy.

#### Galeno 2000

Development of automatic noninvasive medical diagnostic equipment based on new sensors and artificial intelligence. Three years; \$57.6 million; Denmark and Spain, with interest from France, the Netherlands and Switzerland.

#### **Vehicle Noise Identification**

Development of a new methodology to allow more accurate and automated identification of noise sources in transportation vehicles. Four years; \$1.53 million; Belgium and Germany, with interest from Sweden and Britain.

# **GTO Thyristors**

Development of complete set of gate turn-off thyristors for application to railway traction systems. Two years; \$19.2 million; France and Britain, with interest from Austria and Italy.

#### **Chrome Tanning Salt Substitutes**

Development of techniques to treat leather, replacing chrome by aluminum. Three years; \$2.4 million; Austria. Greece and Spain, with interest from Sweden and Britain.

### **Development of New Materials for Car Engines**

Development of ceramic and new me tallic components for car engines. Fire years: \$14.4 million: France and Italy. with interest from Denmark.

### Pan (N5)

Manufacture of pilot equipment to produce and prove the feasibility of manufacturing flow-line style, highpressure subsea pipes. Two years (first state); \$1.92 million; Norway and Britain, with interest from Spain.

# Modular Image Processor

Production of modules and two prototypes of an integrated modular processor. Four years; \$6.72 million France and Sweden.

#### **Bobins Supra Conductor**

Study of properties that are essential for the development of technology produce high-power magnets. Three years; \$7.68 million; Austria and Switzerland, with interest from the Netherlands.

#### Desire

Development of all-dry, single-lay photolithography technology for sub micron devices. Three years: \$3.8 million; Belgium and Britain, with in terest from Ireland.

#### **Gas Proportional** Scintillation Counter

Development, production and marketing of gas proportional scintili tion counters. Four years: \$3.8 million; Portugal and Britain.

interest from Belgium.