TRAVELLING AROUND ISRAEL ON ITALY'S "PENDOLINO"

Israeli State Railways has chosen Fiat Ferroviaria as "preferred bidder" for the supply of new trains to Israel. Daily traffic jams on Israeli roads have prompted the Israeli Government to upgrade and develop the country's railway system. Israel Railways is about to buy a new set of trains. Fiat Ferroviaria has been selected to sell a fleet of diesel "Pendolino" trains. Israelis will soon discover the pleasure, familiar to many Europeans, of leaving their cars at home and riding these modern tilting trains named after a "small pendulum".

After a detailed study of offers from companies from different countries, such as Germany and Spain, Israeli State Railways has decided upon the Italian Company "Fiat Ferroviaria" as "preferred bidder" for the supply of trains for the Tel Aviv-Be'er Sheva line and, in the near future, the line between Tel Aviv and Jerusalem. The order may range from 4 to 24 trains. The Pendolino to be produced for Israel will have 4 carriages, will run at a speed of between 160 km/h and 250 km/h and will have a capacity of about 300 passengers. This group of trains is the result of research and experimentation that can hardly be matched. Its active tilting system automatically leans each wagon separately as the train curves. The train can therefore maintain a speed, which is 35 to 45 per cent faster than that of conventional trains. All this is obtained without detracting from the quality of the ride.

Pendolino is the most widely-used tilting train in Europe. Both the diesel and the electric model of Pendolino is currently operating in Italy, Germany, Great Britain, Finland, Spain, Portugal, Slovenia and the Czech Republic - with about 250 trains. From the very north of Europe to the very south, Pendolino can tackle any kind of terrain and climatic condition. Recently, more than 50 Pendolino have been supplied to the British West Coast main line - London-Glasgow - with a US$ 1.7 million contract. Other countries, such as Malaysia, South Africa, Turkey and China, have expressed interest in this train. While travelling swiftly over hills and valleys, Israeli passengers will be able to enjoy a stylish and mechanically reliable Italian product, designed by Giorgetto Giugaro. And the stress of driving will be forgotten.

Milva made an extraordinary Israeli debut on 18 - 19 May at the Tel Aviv Museum, as part of the second Felicita Blumenthal Music Festival, devoted this year to romantic music in its diversity. The concert was a great success. Israelis filled the hall to enjoy listening to this well-known Italian singer performing her repertoire of Berthold Brecht's songs. A repertoire that she has interpreted for over 25 years. Milva began her singing career at an early age. "I sang everything. I was born in a little village near Ferrara, between the Adriatic Sea and the Po River. And I never stopped singing". She started performing at the "Piccolo Teatro" of Milan in 1965, with Arnoldo Foà. There she met Giorgio Strehler. Under his guidance, she first sang Brecht's songs and then she began to compose. Milva usually sings Brecht in Italian. "This is my language and this is how I can express his poetry in the best possible way", she said, "his poetry has no language barriers". Today Milva is a highly sort-after international star. In Germany she is considered to be one of the best interpreters of the Brecht-Wei! repertoire. She is one of the few singers of Brecht who are allowed to perform in opera houses.
It is well known that microelectronics is a leading sector in the Israeli economy. Not many know that this sector plays an important role in the Italian economy too.

"WHO IS WHO" IN ITALIAN MICROELECTRONICS

Italian production is particularly important in the components sector, in discrete and integrated Power Devices, for which Italy is the world's biggest producer, and also in High Purity Silicon Wafers, where it holds second place. In the systems sector, Italian production is also relevant in optical and spatial telecommunications and in the automotive sector.

In Italy semiconductor components are manufactured on a large scale in the workshops of ST MICROELECTRONICS (Agrate and Catania), MICRON (Avezzano), MEMC (Novara). Systems are produced by MAGNETI MARELLI (Pavia) for the automotive sector, by SORIN (Saluggia) for and ESAOTE (Genoa and Florence) for the biomedical industry, by ELECTRONICA (Rome) for Defence, by ALENIA SPAZIO (Rome) and TELESPAZIO (Rome) for Space, by ALENIA (Rome) ERICSSON (Rome) ITALTEL (Milan), PIRELLI (Milan) for Telecommunications. A large number of small and medium firms work in these sectors, either independently or as subcontractors of the big industries and also cover other sectors as Domotics, Instrumentation and Optoelectronics.

Table 1 and Table 2 show figures of the principal products of the electronic sector, relating to the market and to the balance of Payments for 1996-1997-1998, provided by National Federation of Electrotechnical and Electronic Companies (ANIE).
**RESEARCH ACTIVITY**

One essential characteristic of microelectronics is an extremely rapid use of results from basic research in industry, as well as its relationship to a wide variety of different fields. Engineering, physics, computer science, material science, chemistry, mathematics and, by now, biology all provide the indispensable elements for its development.

State support for research and technology transfer in microelectronics is especially necessary in Italy, where SME’s supply around 70% of industrial production, of which microelectronics represents a fundamental element of innovation. As a member of the European Union, Italy participates in the Union’s R&D programmes, and is among the countries promoting the EUREKA Programme, which devotes particular attention to electronics. Initiatives are also taken at national level to keep up with the standards required for beneficial collaboration at the international level and, in some cases, to maintain levels of excellence, in special niches. At present, national initiatives are planned with the aim of supporting basic and applied research in areas of special interest to Italian industry, and to the creation of demonstrators or prototypes.

They will be carried out by task forces composed of researchers and technicians, both from Academia and from industry. In Italy microelectronics research is performed in 50 University Departments, 25 Industrial Laboratories, 20 State Research Institutes, largely in the National Research Council CNR (see Notizie Italiane, February 2000).

### INITIATIVES IN APPLIED RESEARCH

At present various types of initiative are being promoted in Italy to support research aimed at productive activities: Focused Projects, National Programmes and Industrial Research Projects (table 3).

1. **Focused projects**
2. **National Programmes**
3. **Industrial Research Projects**

<table>
<thead>
<tr>
<th>Programme</th>
<th>Name</th>
<th>Duration</th>
<th>Results Utilization</th>
<th>Contractors</th>
<th>Managing Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Focused projects</td>
<td>5 years</td>
<td>5-10 years</td>
<td>Universities, research institutions industrial laboratories</td>
<td>National research council C.N.R.</td>
</tr>
<tr>
<td>2</td>
<td>National programmes</td>
<td>3 years</td>
<td>3-5 years</td>
<td>Industries (Research institutions and universities act as subcontractors)</td>
<td>Ministry of scientific and technology development</td>
</tr>
<tr>
<td>3</td>
<td>Industrial and research projects</td>
<td>12-24 months</td>
<td>Immediate</td>
<td>Enterprises (Research institutions and universities act as subcontractors)</td>
<td>Imi (Investment bank)</td>
</tr>
</tbody>
</table>

At the present several R&D Industrial Projects are in progress, while the most relevant Applied Research Projects is MADESS, i.e. the focused Project of CNR on Materials and Devices for Solid State Electronics. The next number of “Notizie Italiane” will illustrate it.

**FIRST BIG BANG PICTURE BY ITALIAN-AMERICAN TELESCOPE**

A “ball of fire”, composed of incandescent gas and slightly less hot than the sun. It is the first image of the primordial Universe, at the moment of its formation, a little after the Big Bang. An Italian-American telescope, hanging from an aerostatic balloon, captured the picture.

The exceptional success was obtained by the BOOMERANG experiment (Balloon Observation Of Millimetric Extragalactic Radiation and Geophysics), the result of 8 years of international collaboration, under the direction of Prof. Paolo de Bernardis, University of Rome "La Sapienza", and Prof. Andrew Lange, California Institute of Technology. The light travelled in space for over ten billion years and, because of the expansion of the Universe, was transformed into microwave-radiation, before being gathered by BOOMERANG.

**ITALIAN "COLUMBUS" READY FOR SPACE STATION**

Italy has completed the construction of the "Columbus" module, which will be the European laboratory anchored to the International Space Station. "Columbus" was officially delivered by the Italian Space Agency to the European Space Agency in Turin, at the headquarters of "Alenia Aerospazio".

The launch of "Columbus" is scheduled for the year 2004. It will be the laboratory in which medical, biological and technological experiments will be carried out.

**ITALIAN SCIENTIFIC JOURNALISTS VISIT ISRAEL**

A delegation of sixteen Italian scientific journalists visited Israel in the first half of last April. The visit was organized by the Italian Scientific Journalists’ Association (UGIS) as an annual working trip for its members, in cooperation with Israeli academic institutions and the Italian Embassy in Tel Aviv.

The delegation, led by Dr. Paola De Paoli, President of UGIS, visited The Weizman Institute of Science in Rehovot; Tel Aviv University; The Hebrew University of Jerusalem; Haifa University; Ben Gurion University of the Negev in Beesheva; The Technion in Haifa; Kayar Weizman Science Park in Rehovot; Tefen Industrial Park and Omer Industrial Park. The Italian journalists also had meetings with Israeli scientists and representatives of the Ministries, which coordinate Israel’s science and technology policy.
Italy’s Finmeccanica has agreed to form a military and civil aircraft joint venture with the Franco-German-Spanish aerospace company “EADS”, European Aeronautic Defence and Space Co.

The agreement is a natural step in the long-standing cooperation between Finmeccanica, DASA and CASA in combat aircraft (Tornado, Eurofighter) and between Finmeccanica and Aerospatiale Matra in regional planes (ATR).

After having been submitted to the Board of Directors of Finmeccanica, the agreement was signed last April in Rome, at a ceremony attended by Alberto Lina (Finmeccanica), Manfred Bischoff (Daimler-Chrysler), Jean-Luc Lagardere (Groupe LAGARDERE), Pedro Ferreras (SEPI) and Philippe Pontet (SOGEPA).

The joint venture company will have 17,000 employees and revenues of over 2.5 billion Euro. It will be an equal partnership on a 50:50 basis by Finmeccanica and EADS, with a corporate governance based on equal rights between the partners. It will encompass all the military and civil activities of DASA’s military aircraft division. Relevant industrial and technological improvements are expected in the industrial activities of all the companies concerned.

The new company will take the lead in the field of military aircraft in Europe. It will hold the majority share in the Eurofighter programme, the largest European military aircraft procurement in history. The company will also have a leading position in various aeronautical programmes in the future.

EADS intends to further link Finmeccanica with the Airbus system. Finmeccanica has been asked to join the Airbus Integrated Company as a shareholder, with an option for a five percent stake, and will have a share of up to ten percent in the future A3SS programme.

The creation of this joint venture is a major step on the way towards consolidation of the European aerospace and defence industry, a process which is open to other European partners.

Based on existing links between the joint venture partners and the US industry, the new company will strengthen cooperation with major US aerospace companies, thus playing a strong role in future transatlantic partnerships.

Finnmeccanica and the partners of the EADS Group - France’s Aerospatiale Matra, Daimler-Chrysler Aerospace DASA and Spain’s CASA - signed an agreement for the creation of a joint venture company in the field of military and civil aircraft, which will be implemented by the end of this year.

The agreement is a natural step in the long-standing cooperation between Finmeccanica, DASA and CASA in combat aircraft (Tornado, Eurofighter) and between Finmeccanica and Aerospatiale Matra in regional planes (ATR).

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A group of 35 officers from the Italian "Joint Services Staff College" visited Israel from 8 to 15 of April 2000. This Institution (ISSMI), established in 1994 in Rome, is open to Italian officers from the three Services (Army, Navy and Air Force) ranked from captain to lieutenant colonel, or equivalent, with 10-12 years' service seniority. Some foreign officers are also admitted. A total of about 180 officers attend the course every year. The aim of the College is to broaden and improve the professional training and education of officers and to prepare them for important positions within their service and within joint and multinational staffs. The Institute’s annual course is aimed at abolishing the "cultural barriers" between the services and at teaching how to work in three-service groups by providing updated education in an international interdisciplinary perspective and by teaching joint and international doctrines.

Three projects are now being implemented: the Euro-tds.com and by teaching joint and international doctrines.

1. an Internet-based network linking the organisations participating in Euro-Med TDS; this network is currently under construction. Information can be obtained at the "Euro Info Centre" in Rome (tel. +39-06-5866346, fax 5814984).<>

2. better coordination between the national payment systems through the Euro-Med Region. Euro-Med TDS, which was founded in 1998 with the support of "Confcommercio", the Italian Confederation for Trade (http://www.confcommercio.it) has three objectives:
   1. an Internet-based network linking the organisations participating in Euro-Med TDS;
   2. better coordination between the national payment systems through the creation of a Euro-Med Card, so as to facilitate intra-regional trade;

Euro-Med TDS, is governed by a steering committee and administered by a secretariat located in Rome (tel. +39-06-5866261, fax 5866217, e-mail: euromedds@emmed-tds.com)

It edits a monthly bulletin, "Euro-Med News", which publishes useful data from the business associations and the Chambers of Commerce, as well as economic and general information on the Countries of the area (basic data, risk factor, political situation and economic structure). The publication contains information on import licensing and data, taxes on imports, business events and useful tips for visitors. The web site http://www.emmed-tds.com is currently under construction. Information can be obtained at the "Euro Info Centre" in Rome (tel. +39-06-5866346, fax 5814984).<>

The Wolf Prize for the Arts for the Year 2000 was awarded to the Italian conductor Riccardo Muti and French composer and conductor Pierre Boulez. Both acclaimed artists received a $100,000 award from President Ezer Weizman on Sunday, 21 May at the Knesset. The Wolf Foundation was established by the late German-born philanthropist Dr. Riccardo Wolf in 1978. Five annual Wolf prizes are awarded to outstanding artists and scientists. Last summer Muti paid a short visit to Jerusalem, where he conducted the Orchestra and Chorus of La Scala, Milan in Verdi’s Requiem, at the Sultan’s Pool. It was the second time that Muti had performed in Israel. He was here several years ago to direct the Philadelphia Orchestra in his farewell tour as its music director. Muti was born in Naples on 28 July 1941. He studied philosophy at the Naples University and piano at the Conservatory of Naples, where his talent for conducting was discovered almost by chance. Since then he has become one of the most important symphonic and operatic conductors in the world. He first came to the attention of international music lovers as principal conductor of the New Philharmonic Orchestra in London. After that, he was music director in Philadelphia from 1980-1992 and, since 1987, he has worked regularly with the Vienna and Berlin Philharmonic Orchestras and has made opera his major focus. He still appears regularly at both the Vienna and Salzburg Festivals, although he mainly conducts the Orchestra of La Scala, Milan. His recent recording of Puccini’s “Manon Lescaut” is a vivid example of why he is considered to be one of the leading conductors of this era. His numerous orchestral and operatic recordings bear witness to the passionate Italian school of conducting which comes from the heart, while at the same time being very much influenced by the mind. Watching Muti conduct is a great musical and dramatic experience.<>
ITALIAN NOBEL PRIZE WINNER LEVI-MONTALCINI HONORED BY THE HEBREW UNIVERSITY

An Honorary Doctor’s Degree was conferred on the Italian Nobel Prize-winner Professor Rita Levi-Montalcini by The Hebrew University, in a ceremony held on 28 May in the Rothberg Amphitheatre (Mount Scopus Campus) in Jerusalem.

Rita Levi-Montalcini was born on 22 April 1909 in Turin, Italy. She studied medicine at the University of Turin and did research there on the effects of peripheral tissues on nerve cell growth. Forced into hiding in Florence because of her Jewish ancestry, she was able to resume her research at Turin after the war.

In 1947 she accepted a post at Washington University, St. Louis, Missouri, with the zoologist Viktor Hamburger, who was studying the growth of nerve tissue in chick embryos. Levi-Montalcini held dual citizenship in Italy and the United States. She and Hamburger discovered that a variety of mouse tumour spurred nerve growth when implanted into chick embryos.

Levi-Montalcini and Hamburger traced the effect to a substance in the tumour that they named nerve-growth factor (NGF). Levi-Montalcini further showed that the tumour caused similar cell growth in a nerve-tissue culture kept alive in the laboratory and Stanley Cohen, who by then had joined her at Washington University, was able to isolate the nerve-growth factor from the tumour. NGF was one of the firsts of many cell-growth factors to be discovered. It plays an important role in the growth of nerve cells and fibres in the peripheral nervous system and is currently being investigated for its effects on the endocrine and immune system. Levi-Montalcini remains active in the field, working at Washington University until 1961 and afterward at the Institute of Cell Biology in Rome. In 1986 she shared the Nobel Prize for Physiology or Medicine with Cohen, for her work on nerve-growth factor. An autobiographical work, “In Praise of Imperfection”, was published in 1988.

MUSEUMS IN ITALY

The Pinacoteca Capitolina, Rome: restored, reorganised, reopened

The Pinacoteca Capitolina, housed in the sixteenth century Palazzo dei Conservatori, has reopened in record time. It has taken little more than eight months to restore and reorganise the exhibition rooms and to rehang a number of paintings in its collection, including Guercino’s celebrated “The Burial of St. Petronilla”. The modernization of the gallery (1 billion Italian Lire, US$520,000) was financed by Pirelli. The director of the Pinacoteca, Maria Elisa Tittoni, explains that the aim was to increase the space available for the works of art, without altering the overall architectural characteristics of the building. The collections are shown to better advantage and the rooms are equipped with state-of-the-art technology.

The interior of the building has been repainted with lime wash, mainly in green, apart from the St. Petronilla and Pietro de Cortona rooms, which are the “colour of air”. The Slavonian parquet floor has been repaired and restored to its original colour and polish. The skylights have been replaced and, although natural light is used predominantly, it is supplemented by a photosensitive lighting system for darker days. The art gallery now has an information desk and new public services. Inside, the number of objects has increased, with many items taken out of store. Much has been reassessed in the light of modern scholarship. Ms. Tittoni emphasises that the new display aims to be “more natural and much clearer: artists, schools and their development are more consistently laid out”. The layout is chronological, beginning with the fourteenth century and climaxing with the extraordinary range of seventeenth-century paintings from Italy and abroad. Some of the rooms are organised around a theme, as was the case before the restoration. The Guido Reni Gallery, reopened after fifteen years, contains all the paintings belonging to the Emilian School. The Pietro da Cortona Gallery, mentioned above, replaces the Hercules Gallery after 250 years. The change of name follows a decision to relocate the Roman statue of Hercules to a site under the glass dome in the Roman garden (designed by Carlo Ay Monino), where the original of the celebrated equestrian statue of Marcus Aurelius is also on display. The plinth in the square outside now bears a replica. The core of the seventeenth century will now be the Santa Petronilla Gallery, where Guercino’s enormous painting (7.2 x 4.3m) is already hanging on the wall, having been restored to its full clarity. One unusual aspect is the portrait room, with oil paintings by, most notably, Velazquez and Van Dyck. Finally, in the Galleria Cini, the porcelain has been displayed in new rosewood and steel display cabinets. The windows are screened with PVC, which filters out the ultra-violet rays to preserve the seventeenth-century Flemish tapestries on the wall.
FOOTBALL:

ITALIAN LEAGUE TITLES: JUVENTUS AHEAD

<table>
<thead>
<tr>
<th>Rank</th>
<th>Team</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Juventus</td>
<td>25</td>
</tr>
<tr>
<td>2.</td>
<td>Milan</td>
<td>16</td>
</tr>
<tr>
<td>3.</td>
<td>Inter</td>
<td>13</td>
</tr>
<tr>
<td>4.</td>
<td>Genoa</td>
<td>9</td>
</tr>
<tr>
<td>5.</td>
<td>Bologna, Torino and Provercelli</td>
<td>7</td>
</tr>
<tr>
<td>6.</td>
<td>Roma, Fiorentina, Napoli and Lazio</td>
<td>2</td>
</tr>
</tbody>
</table>

Series A started in 1929-30. From 1898 to 1929 there were only regional competitions. No title was awarded in 1927 when Turin was stripped by the Italian Federation. Turin was declared Champion in 1948-49, when most of the team died in a plane crash near Superga, Piedmont.

"EURO 2000", the European Soccer Championship has started in Belgium and Holland. Italian hopes are placed on the Italian team coached by a legendary Italian goalkeeper, Dino Zoff

On 2 July 2000, in Rotterdam, at the end of three weeks of action, only one captain will hold the European Championship trophy aloft. The competition has come a long way since it first began, forty years ago in France. This year Euro 2000 is the first European Championship to be hosted by two countries and the mood of the tournament could be deeply affected by the success or failure of the hosts, Belgium and Holland. No country seems to undergo media scrutiny as extensively as Italy, whose League (Serie A) continues to be considered the most exciting in Europe, despite setbacks in games. Dino Zoff has an endless array of star-studded riches at his disposal but seems unable to decide on his best strategy for Euro 2000, having used 12 midfield players in three previous matches. But Alex Del Piero, the world's most known player, badly needs to find his form to fire Italy out of its present malaise, if the Italians want to have any chance of winning a Cup 18 years after Zoff himself took the World Cup in Spain.

Euro 2000 - Group B
Sunday 11 June, 2000
Italy - Turkey 2-1

Wednesday 14 June, 2000
Italy - Belgium 21:45 local time

Monday 19 June, 2000
Italy - Sweden 21:45 local time

Israel-Palestinian soccer team defeats the 'Nazionale Italiana Cantanti' (6-5)

Last May a combined Israeli-Palestinian soccer team played a friendly match against the national team of Italian singers at Rome's Olympic Stadium. Current and former Israeli and Palestinian soccer players together with other sports figures fielded their first joint soccer team on 25 May in an all-star charity soccer match aimed at raising money for school internet and sports facilities to boost the Middle East peace dialogue. The match was attended by Shimon Peres, Palestinian President Yasser Arafat and Italian President Carlo Azeglio Ciampi. There were almost 60,000 spectators. International celebrities and soccer stars including Pele, Sean Connery, Michel Platini, Michael Schumacher and the leading name in world soccer, Mr. Blatter, were present.

Football for Peace

Israel-Palestinian soccer team defeats the 'Nazionale Italiana Cantanti' (6-5)