Fiat, Fabbrica Italiana Automobili Torino, was founded in 1899 by a group of investors and entrepreneurs, including Giovanni Agnelli. Over the years, Fiat has become an international group that performs industrial and service activities in the automotive sector in more than 160 countries, employing about 170 thousand people.

Fiat Spa is quoted on the Milan Stock Exchange and its shares are traded in Frankfurt, Paris, London and New York.
Fiat Group corporate structure

**CARS**
- 100% - FIAT
- 100% - BANCIA
- 100% - FIAT
- 90% - PAGANI
- 90% - MAN
- 100% - MACERATEC
- 100% - PRADA
- 85% - FERRARI
- 85% - FERRARI
- 100% - IVECO

**AGRICULTURAL AND CONSTRUCTION MACHINERY**
- 100% - CNH

**COMPONENTS AND PRODUCTION SYSTEMS**
- 100% - MARELLI
- 100% - MAGNETI MARELLI
- 85% - COMAU

**PUBLISHING AND COMMUNICATION**
- 100% - ITEC
FPT unifies all the innovation capabilities and expertise in the design, development, production and sales of engines and transmissions.

POWERING THE FUTURE
FPT objectives

- Development of non-captive market
- Enhancement of technological excellence and systematic transfer of results to the product range
- Integration of engineering capabilities throughout all the product life-cycle
- Synergies in all the processes
- Focus on R&D investments for environmental friendly and alternative powertrain systems
FPT values

CUSTOMERS

PEOPLE

PASSION FOR INNOVATION

- Product innovation and continuous improvement for customers' satisfaction
- Highly motivated and trained people constantly working for the quality of all the processes
- A true passion for research on environmental friendly and alternative powertrain
FPT business

FPT can satisfy almost any powertrain request thanks to an extremely wide range of **PRODUCTS**:

- **engines** (with a power from 20 up to 1020 hp and displacements from 1,000 to 20,100 cc)
- **transmissions** (covering from 143 to 400 Nm)

and **APPLICATIONS**

- **automotive** (cars, commercial vehicles, trucks, buses, special vehicles)
- **industrial** (construction equipment, agricultural machinery and stationary applications)
- **marine** (pleasure and professional applications)
- **power generation** (generating sets)

The activities of research and advanced engineering ensure the technological excellence of the Company. All these activities are included in the **Powertrain Research & Technology** function.
### FPT 2008 main figures

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Sales (Mn€)</td>
<td>7,000</td>
</tr>
<tr>
<td>R&amp;D Expend (% on sales)</td>
<td>7,1%</td>
</tr>
<tr>
<td>Cap. Expend (% on sales)</td>
<td>11,3%</td>
</tr>
<tr>
<td>Employees</td>
<td>20,507</td>
</tr>
<tr>
<td>R&amp;D employees</td>
<td>2.511</td>
</tr>
<tr>
<td>Annual output of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.9 mn engines</td>
</tr>
<tr>
<td></td>
<td>2.4 mn gearboxes &amp; axels</td>
</tr>
</tbody>
</table>
Total Sales 2008: 7,000 mn €

External Sales
1,509 € mn
21.6%

Captive Sales
5,491 € mn
78.4%

Transmissions
1,361 € mn
19%

Engines
5,226 € mn
75%

R&D & Others
413 € mn
6%
FPT 2008 sales/applications

- **Automotive**: € mn 6,255, 89.4%
- **Industrial**: € mn 575, 8.2%
- **Marine**: € mn 20, 0.3%
- **Power Gen.**: € mn 112, 1.6%
- **Others**: € mn 38, 0.5%
<table>
<thead>
<tr>
<th>Company</th>
<th>Agreement Type</th>
<th>Engine Models/Technology</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tata</td>
<td>Joint Venture Agreement</td>
<td>Small diesel, gasoline engines</td>
<td>India (Ranjangaon)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and transmissions</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(SDE 1.3 l., Fire 1.2l., Fire 1.4l.)</td>
<td></td>
</tr>
<tr>
<td>Suzuki</td>
<td>License</td>
<td>1,3 l. SDE engines</td>
<td>China (Chongqing)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.0 l. JTD Multijet engines</td>
<td></td>
</tr>
<tr>
<td>PSA Peugeot Citroën</td>
<td>Joint Venture Agreement</td>
<td>Medium &amp; Heavy diesel engines</td>
<td>Argentina (Cordoba)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(FAM. N, FAM. C)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Production</td>
<td>Transmissions</td>
<td>Italy (Turin)</td>
</tr>
<tr>
<td>Perkins</td>
<td>License</td>
<td>Light diesel engines (FAM. F)</td>
<td>China (Changsha)</td>
</tr>
<tr>
<td></td>
<td>Framework Agreement</td>
<td>Transmissions (C510, C514)</td>
<td></td>
</tr>
<tr>
<td>Daimler</td>
<td>Strategic Cooperation Agreement</td>
<td>Gasoline engines (Fire 1.4l 120hp and 150hp T-Jet)</td>
<td>Italy (Foggia)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Light diesel engines (F1C)</td>
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</tr>
<tr>
<td></td>
<td>Technological transfer</td>
<td>Gasoline engines and transmissions (Multiair technology)</td>
<td></td>
</tr>
</tbody>
</table>
FPT plants and R&D in the world

- Torino Plants (2)/R&D centers (3)
- Verrone Plant
- Pregnana Mil.se Plant/R&D center
- Orbassano FPT corporate advanced Research center
- Pratola Serra Plant
- Termoli Plant
- Foggia Plant
- Sete Lagoas Plant
- Campo Largo Plant
- Betim Plant/R&D center
- Ranjangaon Plant/R&D center
- Chongqing Plant
- Garchizy Plant
- Zavolzhie Plant
- Bourbon Lancy Plant
- Arbon R&D center
- Jiading R&D center

17 Plants
14 R&D centres
a network of dealers in over 100 countries

SOP to come
Dealers

165 main distributors and more than 1300 service points operate under the FPT trademark all over the world.

Afghanistan  |  Ghana  |  Republic of Korea  
Albania   |  Greece  |  Romania  
Algeria   |  Honduras  |  Russia  
Angola    |  India  |  Saudi Arabia  
Antigua & Barbuda |  Iran  |  Senegal  
Argentina |  Ireland  |  Singapore  
Australia |  Italy  |  Slovakia  
Austria  |  Jordan  |  South Africa  
Belarus  |  Kuwait  |  Spain  
Belgium  |  Latvia  |  Swaziland  
Botswana  |  Lebanon  |  Sweden  
Brazil  |  Malaysia  |  Switzerland  
Brunei Darussalam |  Malta  |  Syria  
Bulgaria |  Martinique  |  Taiwan  
Canada  |  Morocco  |  Tanzania  
Chile  |  Moldova  |  Thailand  
China  |  Myanmar  |  The Bahamas  
Colombia  |  Namibia  |  Trinidad & Tobago  
Congo (Dem Rep.)  |  Netherlands  |  Tunisia  
Cyprus  |  New Caledonia  |  Turkey  
Czech Republic  |  New Zealand  |  United Arab Emirates  
Denmark  |  Norway  |  United Kingdom  
Djibouti  |  Pakistan  |  USA  
Egypt  |  Philippines  |  Venezuela  
Ethiopia  |  Poland  |  Vietnam  
Finland  |  Polynesie Francaise  |  Yemen  
France  |  Portugal  |  
Germany  |  Puerto Rico  |  

Powertrain Research & Technology activities:

Clean and Efficient Powertrains:

Development and application of innovative technologies with the scope of reducing the engine emissions and improving the fuel consumption of the vehicle.

Technologies:

As far as conventional powertrains are concerned, most of the new technologies are based on the integration of electro-hydraulic actuation systems with advanced electronic control systems, aiming to manage the air and fuel systems, the combustion process, the exhaust gas after-treatment and the power transmission systems.

Regarding the new emerging powertrain technologies, the efforts are concentrated on the development of cost-effective hybrid propulsion systems, tailored for urban transportation.
Technological excellence: engines

**MULTIAIR**

The Multiair technology is an innovative system for intake valves electronic control which, by regulating the intake air at every combustion cycle, allows both a substantial consumption reduction and a remarkable improvement in the engine readiness and fun-to-drive.

**MULTIJET 2**

An innovative solenoid injector, with hydraulically balanced servovalve, that allows to eliminate the dweel time between consecutive injections up to the injection rate shaping management. Advantages are represented by a remarkable reduction of nox and soot emissions together with combustion noise improvement.
Technological excellence: transmissions

INTEGRATED POWERTRAIN CONTROL

Engine

Dual Dry Clutch Transmission

Transmission Actuator
In Fiat Powertrain Technologies, dynamism and technology are represented by **FPT RACING**, a team of about 45 engineers working on design, test, development and production of:

- Engines for racing cars
- Performance kits to upgrade gasoline and diesel powertrains
- Special engines for limited series
FPT will be exclusive supplier of engines (420 F3) for the Italian Formula 3 Championship in the 2008-2010 seasons.

Red FPT won the 2008 edition of the Torquay-Cowes-Torquay boat race with the N67 600 Evolution engine.

With the N60 480 engine, Blue FPT won the Round Britain Powerboat Race 2008: the longest off-shore race in the world!
FPT Product Range – Light Diesel engines

- **Displacement [litres]**
  - 2.3
    - L4 16V VGT: 170HP - 360Nm - Euro 5
  - 2.0
    - L4 16V TWO STAGE VGT: 190HP - 400Nm - Euro 5
  - 1.9
    - L4 16V VGT: 150HP - 320Nm - Euro 4
    - L4 8V VGT: 120HP - 280Nm - Euro 4
  - 1.6
    - L4 16V VGT: 120HP - 305Nm - Euro 5
    - L4 16V FGT: 105HP - 290Nm - Euro 5
  - 1.3
    - L4 16V VGT: 95HP - 230Nm - Euro 5
    - L4 16V FGT: 75HP - 190Nm - Euro 5

- **F1A**
  - AUTOMOTIVE
  - INDUSTRIAL

- **JTD**
  - AUTOMOTIVE

- **SDE**
  - AUTOMOTIVE

- **All Euro 4/5 engines also available with DPF option**
- **All Diesel engines are B7 compliant**
FPT Product Range – Light Diesel engines

**F1C**
- AUTOMOTIVE
- INDUSTRIAL
- MARINE

**8140**
- AUTOMOTIVE

**JTD**
- AUTOMOTIVE

---

**Displacement [litres]**

- **3.0**
  - L4 16V
    - 145→175HP - 350→400 Nm - Euro4

- **2.8**
  - L4 8V
    - 90→146HP - 209→320 Nm - Euro3

- **2.4**
  - L5 20V VGT
    - 210HP - 410Nm - Euro 4
  - L5 20V VGT
    - 200HP - 410Nm - Euro 4
  - L5 20V VGT
    - 185HP - 400Nm - Euro 4

---

All Euro 4/5 engines also available with DPF option

All Diesel engines are B7 compliant

Power and torque range for F1C family do not refer to Marine applications
FPT Product Range – Medium&Heavy Diesel engines

Power and torque range for F5C, NEF and CURSOR families does not refer to Marine and Power Generation applications

All Diesel engines are B7 compliant
All Gasoline engines are E10 compliant
NEW FPT Products– Gasoline engines

**Displacement [litres]**

- **1.6**
  - L4 16V 115HP - 152Nm – Tier 2
  - L4 16V TURBO MAIR 165/170 HP - 250Nm - Euro 5
  - L4 16V TURBO MAIR 135HP - 230Nm - Euro 5
  - L4 16V MAIR 105HP - 130Nm - Euro 5

- **0.9**
  - L2 8V TURBO CNG MAIR 80HP - 110Nm - Euro 5
  - L2 8V TURBO MAIR 85HP - 155Nm - Euro 5
  - L2 8V MAIR 65HP - 90Nm - Euro 5

All Gasoline engines are E10 compliant
<table>
<thead>
<tr>
<th>FPT Product Range – Racing engines</th>
</tr>
</thead>
<tbody>
<tr>
<td>420F3 (1993 c.c.) engine on Formula 3</td>
</tr>
<tr>
<td>147 CUP (1969 c.c) engine on Alfa Romeo 147 CUP</td>
</tr>
<tr>
<td>1604 – T (1597 c.c.) engine on Fiat Palio S1600</td>
</tr>
</tbody>
</table>
FPT Product Range – Transmissions

Max. input torque [Nm]

- **C546**: MAN/MTA 6 speed - 400 Nm
- **C545**: MAN 6 speed - 380 Nm
- **C635**: MAN/DDCT 6 speed - 350 Nm (NEW)
- **C530**: MAN/AWD 5-6 speed - 305 Nm
- **C510**: MAN/MTA 5 speed - 206 Nm
- **C514**: MAN/MTA/AWD 5-6 speed - 147 Nm
- **C513**: MAN 5 speed - 143 Nm

- Longitudinal
- Transversal
<table>
<thead>
<tr>
<th>ENGINE FAMILIES</th>
<th>APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Light Diesel:</strong> SDE, JTD</td>
<td>Cars and LCV (Fiat, Alfa Romeo, Lancia, Opel, Suzuki, Saab, Tata)</td>
</tr>
<tr>
<td><strong>Light Diesel:</strong> F1A, F1C, 8140</td>
<td>LCV and SUV (Iveco, Fiat, PSA, Mitsubishi Fuso, Santana)</td>
</tr>
<tr>
<td><strong>Medium &amp; Heavy Diesel:</strong> NEF, CURSOR</td>
<td>Trucks and Buses (Iveco, Tata-Daewoo, Irisbus Iveco, Sor, BPTC – Beijing Public Transportation Corporation)</td>
</tr>
<tr>
<td><strong>Gasoline:</strong> T-JET, FIRE, NEW ARGENTINA, DI-TURBO</td>
<td>Cars (Fiat, Alfa Romeo, Lancia, Tata)</td>
</tr>
<tr>
<td>Flex, Tetrafuel, CNG: FIRE, NEW ARGENTINA, F1C, NEF, CURSOR</td>
<td>Cars and LCV (Fiat, Iveco), Trucks (Iveco) and Buses (BPTC)</td>
</tr>
<tr>
<td>ENGINE FAMILIES</td>
<td>APPLICATION</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>MEDIUM&amp;HEAVY DIESEL</td>
<td></td>
</tr>
<tr>
<td>F1A, F1C, F5C, NEF, CURSOR, VECTOR</td>
<td>Mobile and Stationery industrial, Material Handling</td>
</tr>
<tr>
<td>F5C, NEF, CURSOR</td>
<td>Agricultural</td>
</tr>
<tr>
<td>F1C, NEF, CURSOR, VECTOR</td>
<td>Construction Equipment</td>
</tr>
<tr>
<td>F5C, NEF, CURSOR, VECTOR</td>
<td>Marine</td>
</tr>
<tr>
<td>VECTORS</td>
<td>Railway</td>
</tr>
</tbody>
</table>
FPT Contacts

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