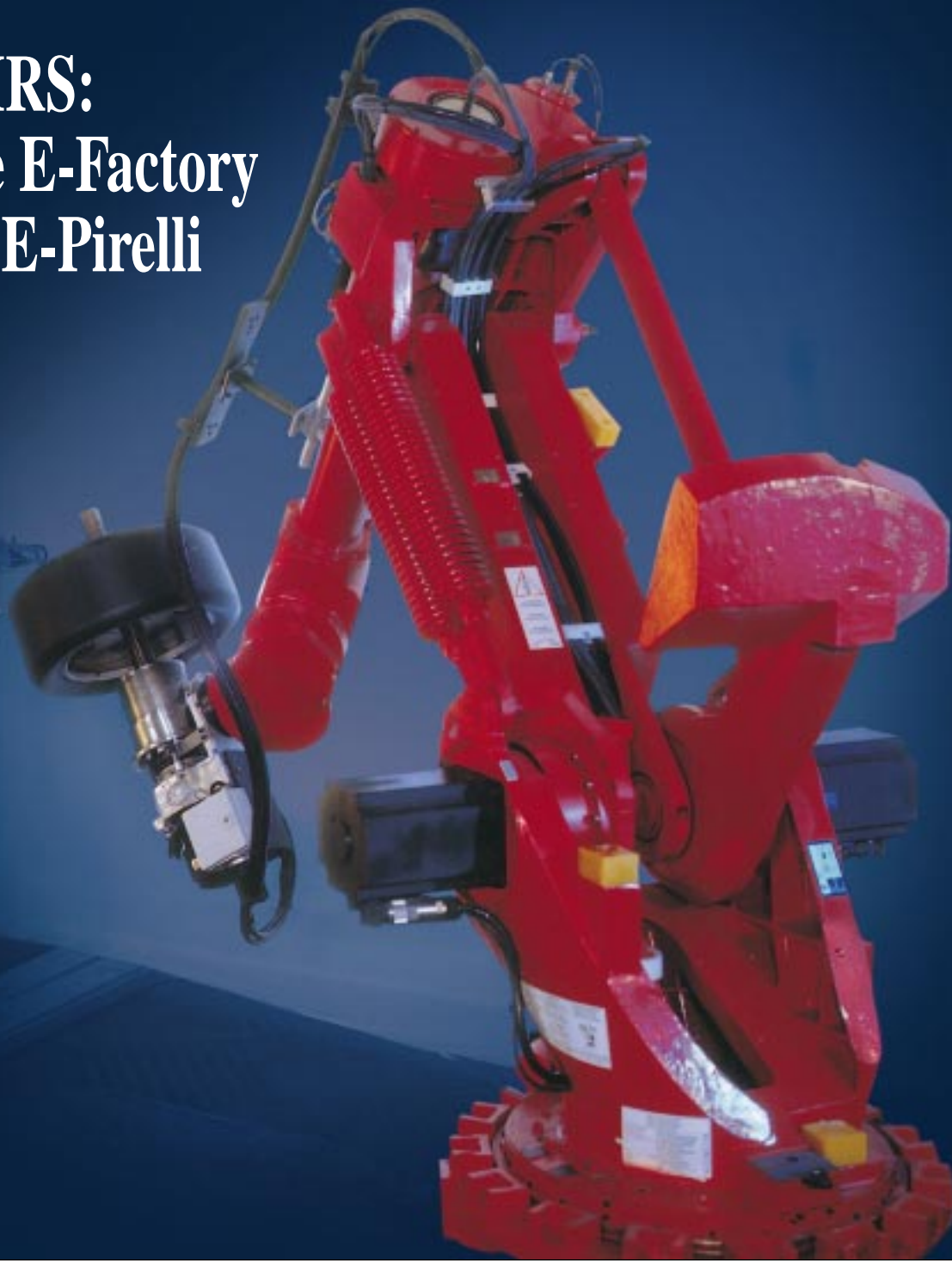


# WORLD

The quarterly magazine for Pirelli's management throughout the world - January 2000 - No. 22

## MIRS: the E-Factory by E-Pirelli



**CONTENTS**

**E-Pirelli for the New Economy**

For *Pirelli World* it would be difficult to begin the year 2000 with more exciting news, in particular in the field of new technologies. The evolution of the Group towards the e-economy is a daily occurrence. While the technological alliance with the American Cisco opens up important new prospects for the Group and its optical technology, in particular on the US market, the most advanced in the world (page 9), our *www.pirelli.com* web site is changing: easier and faster navigation, more consumer-friendly approach, ever more in line with the needs of surfers the world over, ready for e-commerce (page 11).

Innovation really is spreading across the board: with MIRS, tyre production is being totally revolutionised (cover story), while the *Challenge* project permits the creation of value through manufacturing (page 22). For tyres, the concept of e-advertising has already begun: with our new international campaign being transmitted as a world exclusive on the Internet. An innovative initiative to take full advantage of the net's potential (page 12).

An obligatory conclusion for the energy cables where, in the face of an evolving market (page 15), Pirelli is strengthening its position as world leader with the BICC acquisition, being announced as we go to press.



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## Manufacturing revolution in the Tyre Sector

# The Pocket Factory

Giovanni Ferrario, General Manager of Pirelli's Tyre Sector, speaks of the new Modular Integrated Robotised System for tyre production

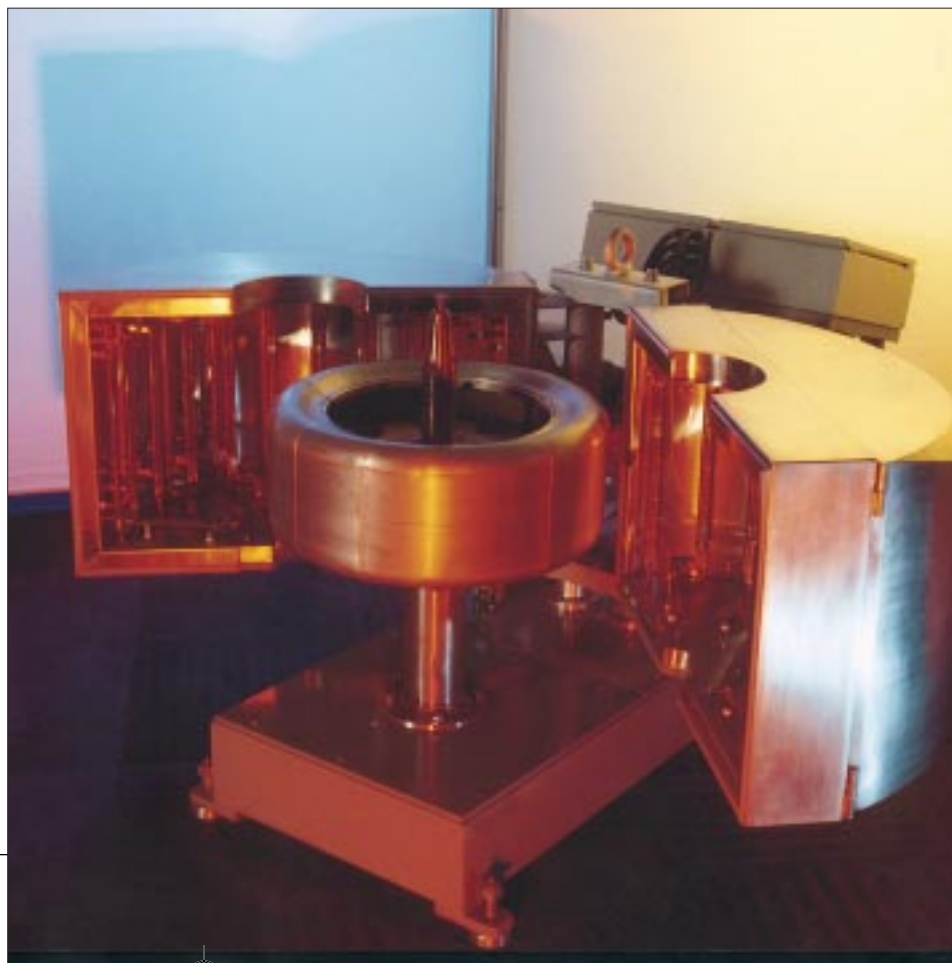
"In a multi-modular, robotised area of 350 m<sup>2</sup> easy to locate close to any customer, using a completely innovative process protected by broad patent coverage, Pirelli is totally revolutionising the traditional technologies and methodologies of high performance tyre manufacturing". These are the words with which Pirelli presented to the world on the 2 December the "pocket" tyre factory MIRS – Modular Integrated Robotised System. A unit occupying a few hundred square metres in which a series of machines can produce a tyre, from compounding to the finished product. A tyre every three minutes, without interruptions nor human intervention in the production cycle, with much more flexibility than in traditional processes.

A technology which will bring about major changes to all aspects of our industry. Giovanni Ferrario, General Manager of the Tyre Sector, explains.

*Mr. Ferrario, Pirelli has presented a prototype factory. When will the mini-plants become operational?*

The first industrial pilot plant using the MIRS process will come on stream in the second half of the

year 2000 at the Pirelli Bicocca plant in Milan. In the next months, a strategic rollout plan for the MIRS mini-factories will be decided upon; it will begin in Europe and the United States in 2001. The total planned investment is Euro 250 million over the next five years, concentrating on the high performance segment; MIRS is destined to increase our production capacity, not substitute existing facilities.





*MIRS will radically change many aspects of Pirelli's tyre production. Which is the most important?*

The integration of the whole process. The program that governs MIRS is part of a software package that, upstream from the manufacturing phase, oversees the engineering process, back to the initial design phase. It is a single architecture that, starting with the definition of product specifications, automatically intervenes in mould design, the choice of materials, the design of the building drum. The same software defines the path driver for the MIRS robots and manages their work cycles.

*This allows a considerable reduction of space.*

Without a doubt. The entire MIRS

production process is concentrated into an extremely small area. No space is taken up by large quantities of materials waiting to enter the production cycle. In a traditional factory, only 12% of material is being processed at any given moment, so the remaining 88% is stored, awaiting its turn.

MIRS is not like that: raw materials are transformed into the finished product with no interruption and therefore with no need for interim warehousing. This enables Pirelli to slash the average time of material transit from the raw materials store to the finished product store from six days to 72 minutes.

*A concept which gives an idea of the substantial modifications of the factory in the years to come...*

**More productivity, less space**

...which will be a flexible "pocket" plant, able to be set up in any strategic area, both in terms of location and time: *where* it is needed, *when* it is needed. A tyre factory ready to meet instantly the needs of the nearby car manufacturer, which theoretically could lead to the elimination of any logistics issue. It would not be science fiction to predict the eventual establishment of tyre supply from one of our MIRS units directly into the vehicle maker's production line.

*With a level of flexibility previously unknown...*

Completely, given that MIRS enables us to modify the size of tyres in real time, in line with our customers' needs. It will be possible to produce even a very limited number of a certain particular tyre, without affecting cost effectiveness.

*Have you already presented the process to some car manufacturers?*

Yes, we began talks on MIRS with several vehicle makers when we decided to bring a number of the plants on-stream over the next five years.

*How can we quantify the difference in terms of cost to Pirelli between a traditional and a MIRS factory?*

Considering a mini factory which is able to produce a million tyres per year, the overall saving in product costs can be quantified at 25%, while workforce productivity increases by 80%.

*Are there other cost savings?*

In logistics, for example, the reduction could be remarkable. Today, a tyre is difficult and expensive to transport. The truck takes

away a large quantity of fresh air. Moreover, it makes an outward journey fully loaded and returns empty: the structures necessary for tyre transport do not accommodate other product types on the return journey.

*So pollution will be reduced?*

Naturally, yes: today tyre distri-

bution sets in motion thousands of trucks daily. Moreover, in the traditional process each interruption means an enormous specific consumption of energy for cooling and handling. The reduction in processing steps greatly reduces the energy requirements of production: ecologically, this means less pollution because of the reduction in transport flows.



### **A Tyre every 3 Minutes**

*In the first step of MIRS, the semi-finished content is produced by extruding the compound in the form of a continuous strip: under software management, each extruder or building machine specialized for each individual compound participates in the production of the strip, in the quantity and weight necessary for the various components. The second MIRS step is an integrated one: building and curing. Beginning with the strip of intermediates fed continuously to the system, a series of robots deposits the material on a single rigid drum. The last building robot physically "offers" the drum with the green tyre to the next machine that feeds the curing press. Following curing, the same robot returns the drum to the production cycle. If the type of tyre being manufactured changes, the machine itself procures a drum of the new required size. The cured tyre, meanwhile, has reached the final finishing section: one every three minutes, without being touched by human hands.*

*Moving on to products, what should the high performance tyre market expect in the immediate future?*

MIRS generates an ultra-low profile tyre of totally innovative characteristics in terms of performance, reliability and comfort. Starting from this year, with Original Equipment customers, it will represent a new point of reference in the High and Ultra-High Performance segments. Pirelli will also give an industrially advanced response to the requests of total mobility.

*Will those products also be a step forward in terms of quality and uniformity?*

That is a result we have been able to achieve due to the simplicity of the MIRS module, in which the 14 traditional phases of tyre construction are reduced to three: preparation of semi-finished components, building/curing, finishing. Which means the elimination of a great deal of the traditional process's discontinuity – interim warehousing, cooling of semi-finished components, transportation to the next production phase: with the thermal fluctuations they create, in theory all interruptions and re-starts can generate quality dissimilarities. With MIRS there is no "stop and go": tyre building is all a continuous flow procedure, from the extrusion of the tread compound to the finishing department. The quality of the product will be doubled: the percentage of waste will fall drastically.

*Any preview of the products?*

Last December, while presenting the new process, we revealed the first three "concepts" of tread pattern – *Rain, Dry and P Sette.r* – as well as a prototype Run-flat tyre with telemetric sensors to check inflation pressure. MIRS will later be gradually extended to all the other product segments.

## SPOTLIGHT

**Pirelli and Cisco sign a technological agreement for the future of communications**

# A High Speed Alliance

Together with Cisco, a worldwide leader in networking for the Internet, Pirelli strengthens its position in the US market

*Simone Piattelli Palmarini reports from Milan, Italy*

“The full importance of an epoch-making idea is often not perceived in the generation in which it is made”. When British economist Alfred Marshall was writing these words in his “Principles of Economics”, 110 years ago, computers were still in the “mechanical era” and were used for simple data processing, as in the case of the US Census Bureau, which made use of the first commercial “mechanical computer” to tabulate data for the 1890 census. Today, nobody would doubt that – maybe even more than the development of the computer itself - the Internet is the epoch-making idea, boosting day by day both the number of cybernauts and the whole Web-related technology, optics in the first place. As Marshall suggested, it may take a generation to fully evaluate the impact of the Internet on the global society and its behavior, but it’s already clear that, until today, no other technology has so deeply changed the world of

communications.

The success of Pirelli’s pioneering interest in this epoch-making idea and in the fast ramification of its optical backbone network recently led to a major, strategic alliance with the worldwide leader in networking for the Internet: Cisco Systems.

The terms and the future of this alliance were illustrated on December 20th by Marco Tronchetti Provera, Pirelli’s Chairman and CEO, in a press conference held in the Group’s headquarters in Milan. The agreement with Cisco includes a 10% equity investment of \$100 million by Cisco in Pirelli’s optical components division and submarine optical transmission systems division, and the sale of Pirelli’s terrestrial optical systems business to Cisco for an aggregate consideration of \$2.15 billion, of which about 20% of contingent on revenue targets and other performance milestones.

As underlined by Mr. Tronchetti Provera, this agreement will allow the strengthening of Pirelli’s strategic and competitive position - in particular in the U.S.A. key market, but also in the

growing European market - in the core business of optical fiber, optical cables, optical components and submarine optical systems, which are among the fastest growing segments of the optical industry. The synergies originating from this new partnership lead to the expectation of a solid improvement in Pirelli’s Internet-related optical technology and business. A unique opportunity to expand both Cisco and Pirelli’s global business perspectives by entering new dynamic markets and driving the Internet technology forward to maturity, with an unwavering commitment to the research and development of fiber optic technology.

In today’s global economy, partnerships are increasingly considered as a primary key to success, and Cisco Systems has developed a unique approach to the business of strategic alliances. As stated by John Chambers, Cisco’s President and CEO, in his message to the journalists attending Pirelli’s press conference, “in the Internet economy, only those companies that work together will accomplish their joint goals at an

Internet pace. If you look into the future, we face a very exciting time. The Internet will be the beginning of the second industrial revolution, and it will be led by companies that understand their strengths, and understand how to partner. No one or two companies can do it by themselves, but only by working together can the companies accomplish their joint goals". In addition to the reasons that drove John Chambers' company to join forces with Pirelli, his message has given us the opportunity to learn more about our counterpart.

Pirelli's new partner is based in San Jose, California, and represents one of America's greatest corporate success stories. Since shipping its first product in 1986, Cisco Systems has grown into a global market leader that holds n. 1 or n. 2 market share in virtually every market segment in which it participates. After becoming a public company in 1990, Cisco's annual revenues have vertically

increased: as measured by market capitalization, Cisco is among the largest in the world, with 18,700 employees and selling its products in approximately 115 countries through a direct sales force, distributors, value-added and system integrators. Cisco's networking solutions connect people, computing devices and computer networks,

allowing people to access or transfer information without regard to differences in time, place or type of computer system. Driven by the philosophy summarized in the motto "Empowering the Internet, Empowering Humanity",

Cisco provides end-to-end networking solutions that customers use to build a unified information infrastructure of their own, or to connect to someone else's network. An end-to-end networking solution is one that provides a common architecture that delivers consistent network services to all users. In contrast to many technology companies, Cisco does not take a rigid approach that favors one technology over the alternatives and imposes it on customers as the only answer. Cisco's philosophy is to listen to customer requests, monitor all technological alternatives, and provide customers with a range of options.

But beyond the new, positive profit-focused opportunities originating from this alliance, Pirelli has a further reason of being proud to be bound to Cisco. As

of grant assistance to poor countries – Cisco is harnessing the tools of modern information technology and the power of the Internet to eradicate extreme poverty. In the same way that Internet has revolutionized the way we do business, the "NetAid" project launched by Cisco will use the power of the Internet for social change, by increasing awareness of extreme poverty and mobilizing

action to help over 1.3 billion people in the world's poorest countries. One of the world's most powerful Web sites, the NetAid site is intended to be a long-term resource for the

UNDP and is expected to generate over one billion hits and millions of actions to help end extreme poverty. Created as a means to generate awareness and drive traffic to the NetAid Web site, the NetAid initiative has included three



The home page of www.netaid.com.

a member of the global community, Chambers' company has created a unique strategic alliance for the sake of humankind: together with the United Nations Development Programme (UNDP) – the world's largest provider

overlapping NetAid concerts held on October 9 at the Palais des Nations in Geneva, Wembley Stadium in London and Giants Stadium in New Jersey featuring George Michael, Celine Dion and Bono, among others. The concerts were simultaneously broadcast via radio and television and Webcast via the Internet from the NetAid Web site

at www.netaid.org. A different and unexpected power of the Internet that, unlike Alfred Marshall's 1890 epoch-making idea, will not have to wait for the next generation to be entirely understood and appreciated.

Pirelli's PZero Rosso is the new top-of-the-range car tyre

# And Now there Are Three

With Scorpion Zero and PZero System, PZero Rosso takes its place as leader of the PZero range: an ultra-high performance collection with maximum choice and zero limits

*Daniele Pirola reports from Miami, Florida, USA*

Three Zeroes for a new Millennium. What better way to celebrate the year 2000 than with a third PZero, the fastest, quietest, most comfortable product in the history of Italian sports car tyres. That is exactly what the Pirelli Tyre Sector did when it launched its latest creation, the PZero Rosso, to the world's press in Miami, Florida, in February.

The new tyre takes its place as leader of the PZero clan: PZero Rosso, PZero System, Scorpion Zero. A family name which marks a fundamental turning point in Pirelli ultra-high performance car tyre technology. The new arrival is called Rosso, the Italian for red, because as with Ferrari, for instance, red has always symbolised a love of driving fast cars; that is what led to the birth 15 years ago of the first PZero, the founding father of the dynasty, which continues to give life to this new generation of ultra-low profile tyres.

With PZero Rosso, a complete new Pirelli ultra-high performance car tyre range has been created for drivers who want the maximum, not only on the road but off it, too. Not so long ago, words like "comfort" and "silence" were no part of a sporting super car's vocabulary. Performance and wet grip were enough: the love of driving meant the bump-thump which small road undulations transmitted to the cockpit fell on deaf

ears. Then, electronics arrived: electronic traction, suspension and stability control. Ever more sophisticated management systems to improve safety and driving comfort made their way aboard sports cars as well as most other modern motor vehicles. Laws were enacted governing acoustic pollution: thunderous engine and exhaust notes, aerodynamic noise, tyres squealing as they bit into the asphalt have all played their last symphony. As part of this evolution in the sports car segment, Pirelli has created the PZero Rosso: comfortable, quiet,





ultra-high performance, no trade-offs.

Naturally, PZero Rosso is the top performer of the breed. Sports handling made up of quick, sharp response, progressiveness, precision of trajectory, straight line speed, cornering power: the qualities on which Pirelli founded its lineage of low profile tyres more than 25 years ago with P7, created for the mythical Lancia Stratos. Behind all PZeroes are years of intensive study of profiles, tread compounds and patterns which guarantee the ultra-low profile will provide maximum safety in potential aquaplaning situations. To the point that Pirelli introduced the PZero System, two different tread patterns for a car's front and rear axles, which provide exceptional handling in the wet. To those elements of top performance, PZero Rosso today adds top comfort, because the makers and buyers of modern luxury supercars demand quiet running from

ved the maximum of their respective capabilities. Thousands of small coloured bricks in movement, shared with car designers so that Pirelli could know in advance the characteristics each primary component should embody so as to become part of a specific car under development. Simulation under load, steering, change of trajectory, on the steering pad, the impact of an obstruction: PZero Rosso underwent exhaustive video tests. Using finite elements to design the tyre is how Pirelli identified its primary objective: weight reduction. A lighter, more resistant structure was created so that PZero Rosso brakes better and accelerates more progressively, cutting down thermal strain under stress and maintaining the tyre's integrity, regulating its wear.

New materials, such as Aramid Pulp,

nylon and originally developed for space exploration. The development of the new PZero has also permitted important process innovations, including the use of the highly automated Flexi system during building, ensuring continuous control of the tension of the belt material on the carcass to provide maximum build uniformity. The result is a profile which produces an absolutely uniform footprint at high speed for outstanding

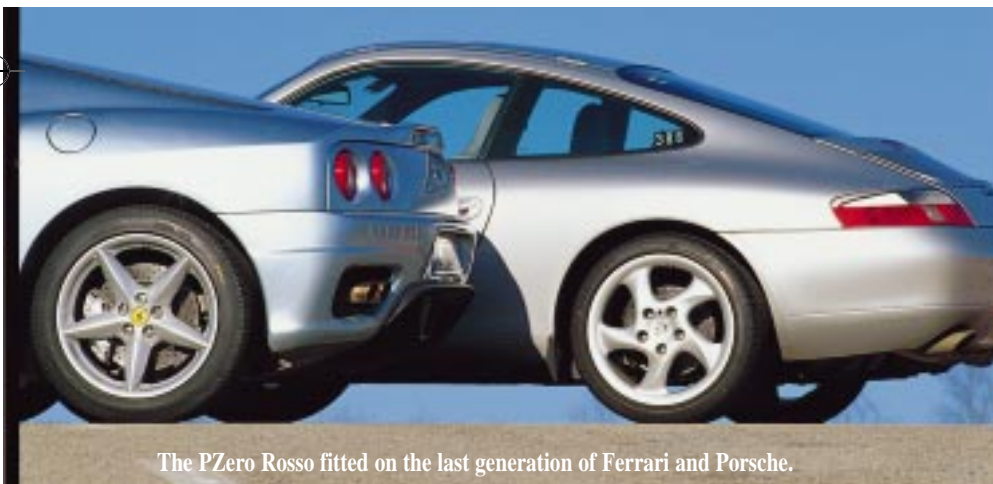
handling and road holding when cornering. PZero System, with

**A newborn  
in the P Zero  
family**

its wide commercial availability and being well known in the motor industry, continues to represent the "spirit" of the PZero concept. Since

1994, the small yellow PZero on its sidewall has distinguished it as an ultra-high performance tyre, which has become the point of reference for the sports car industry. During the PZero's long life – it was unveiled with the supercharged, turbo charged Lancia Delta S4 and, later, the Ferrari F40 – it has obtained 200 homologations; 2.5 million units have been sold and it is a range of almost 80 different sizes. It has become the most popular tyre with tuners and stylists for its ability to innovate. PZero has the largest range in the UHP segment and is testimony to its vital energy: a million units were sold in 1999 and a sale of two million is forecast for 2000.

And then there is Scorpion Zero, the extension of the "zero limits" concept to the new Sport Utility/Activity Vehicles segment, which is developing fast. These are vehicles fitted with off-road tyre sizes but which have sports performance: so the Scorpion Zero has a super-reinforced structure, an innovative double "Z" tread pattern and sizes of up to 21 and 22 inches in diameter, which meet all change-over needs. A tyre which, while being essentially for road use, returns excellent performance off-road, especially on sand. With PZero Rosso and PZero System, Scorpion Zero is the third "zero" of the Collection: an ultra-high performance celebration of the new millennium.



The PZero Rosso fitted on the last generation of Ferrari and Porsche.

their tyres, the ability to absorb road surface undulations, ensure handling uniformity, smoothness. To be top in performance and comfort is why PZero Rosso's has been conceived, developed, built and tested; and that has been done together with the top sports car manufacturers right from the tyre's first design stage and with the help of the most advanced methods of finite element analysis.

With PZero Rosso, virtual and integrated systems of tyre development achie-

have also contributed to this result. Aramid Pulp – fibres five times lighter than steel but of equal durability – used in the basic tread compound maintains thermal stability under prolonged stress with no decline in performance. And in the future, the PenTec, used in the zero degree bandage which lies on top of the steel belt, gives greater dimensional stability and resistance to fatigue at high speeds. Produced by AlliedSignal, this polyethylene fibre is a new generation polymer five times more resistant than

**P**irelli's real-estate unit **Milano Centrale** announced in October the launch of a take over bid for Unim, the company spun off last year by Rome-based insurance colossal INA. The bid has been carried out with two financial advisors: Mediobanca - the leading Italian merchant bank - and UniCredito Italiano. It has encountered a very successful response, with over 90% of Unim's shareholders accepting the offer. The operation is of primary importance: it has a value of about 2,000 million of Euro, out of which 1,750 not charged to the Group, following agreements reached with international partners.

The Group therefore faces extremely interesting prospects in the asset management market, a field in which Milano Centrale is specialised.

Pirelli's experience in the real estate sector began several years ago. Towards the end of the Eighties, advanced technology began to make large industrial sites redundant. One example was the Pirelli Bicocca area on the outskirts of Milan, an enormous 700,000 square metre complex which, in just a few years, had become too big for a world in which technological progress demanded fewer space.

Pirelli went right to the heart of the matter and, together with the

Successful tender offer by  
**Pirelli & C.'s Milano Centrale on Unim**

# Real Estate, Real Success

The Group is very active in Italy's asset management market with extremely interesting prospects



Unim's properties include this building in the centre of Rome.

local authorities, entirely re-designed the area, in line with the needs of modern times. Facilities for the production of material goods have been substituted with structures for the non-material production of ideas: universities, research centres, headquarters of major international groups like Siemens and - shortly - Deutsche Bank. All of these will be followed in the near future by structures for leisure and entertainment: an auditorium of over 2,000 seats where La Scala Opera House will transfer its productions for about two years during refurbishment work on its stage; and an 18

able to offer a complete range of services: asset management, for both commercial and residential areas, property management, agency work, project management and advice, town planning.

In Italy there are a number of companies able to offer one or more of those services, but only Milano Centrale can offer them all. On the basis of this unique quality, the company has grown at a rate of 15-20% a year over the last decade: a doubly important record, considering that Italy has recently become the most attractive country in the world in terms of property

screen-cinema, one of the biggest in the world.

Naturally, a project of this kind, which means re-designing a whole area of the city in the name of a much more sustainable development, has helped Milano Centrale to mature a clear competence in all the related areas of operation. In particular, the Bicocca Project has provided the company with ample skills in real estate services management. Such experiences were treasured over the years, and today Milano Centrale is the only Italian company

**Leader  
of the Italian  
market**

market prospects.

This relatively new phenomenon has been caused by two main reasons. The first is given by the evaluation of long term trends in the world real estate scenario: in the early Nineties a major worldwide crisis hit the international property market; later on, the recovery started first in the USA and expanded to Europe: in both cases, Italy was the last to suffer and to recover.

The second reason is that, in recent years, the Italian real estate has changed, getting closer to the Anglo-Saxon model in terms of property evaluation, now linked to the value it generates from locations. In the first half of 1999, Italian residential real estate prices rose by 3.7%, while commercial rents still lag the rest of Europe.

A macro-economic factor of primary importance should also be added: the greater reliability of Italy on the international market. A factor which favoured the arrival on the Italian market of some of the world's key players, determined to invest in the country: names like Morgan Stanley, J.P. Morgan and Soros.

From its position as leader of the asset management market, Milano Centrale had already tied close relations with many of these investors: worth mentioning is an impor-



Some of Unim's properties, in Trieste (above) and Rome (below).



tant agreement with Morgan Stanley, which has already resulted in contracts worth approximately 500 million Euro.

Within this framework, the successful conclusion of the Unim operation means to Milano Centrale the achievement of an important objective. Unim was, in fact, attractive for two main reasons. One was its rich property portfolio which can clearly be separated into residential and commercial. Seventy-five percent of the latter has gone to Morgan Stanley Real Estate, Milano Centrale retaining 25%.

Negotiations concerning the residential sector are currently taking place. With a matured management ability in the field, the Pirelli subsidiary has now the necessary skills to fully exploit the recently acquired patrimony.

The second reason was Unim's interesting asset management structure: Milano Centrale now aims at integrating it into its own, reinforcing and enlarging its management capability.

With the recent addition of Unim, today Milano Centrale manages property for third parties for a total value worth over 5 billion Euro, making it by far the leading Italian asset management company – and one ready to become involved in new interesting operations.

by **Andrea Kerbaker, Milan**

The refreshed Pirelli web site epitomises the new e-commerce era

# siterevisited@pirelli.com

The Group is ready to board the Internet with the re-launch of its web site, increasingly innovative and technologically upgraded

The year 2000 dawns on a new Pirelli web site. A technologically advanced and user friendly site has come out on the 31 of January.

Since the day it was born, the Internet has always puzzled everyone. At the very beginning people did not know what it was nor what it was used for, and consequently behaved towards it with a mixture of curiosity and wariness.

One thing was for sure: it was cost efficient. The general feeling was that it was like a brand new train still travelling slowly but accelerating more and more each second: everyone had to have a place on it, even if nobody knew exactly what was the final destination. Pirelli chose a modern and innovative approach towards this new phenomenon, and became one of the first Italian multinationals to surf on the net, launching its corporate web site in 1995, focusing on its activities.

In the following years, Pirelli aimed at developing, integrating, and expanding all commercial operations based on new technologies in the web. The main novelty was the creation of the "local sites",

which focused on product promotion and were a solution to both language problems and product differentiation. The roles of the corporate and the local sites were clearly defined, the latter becoming an increasingly more important instrument for the different markets as a means of promotion.

The increase in number of topics offered on the net has led to a steep rise in terms of visitors: in the last few months the site has grown from one million to two million contacts, with the Calendar and the Tyres sections leading the statistics as the most accessed.

In January 2000, Pirelli looks at the third millennium with new eyes: "wized" by 5 years of experience, the web site has com-

pletely new graphics, is more user friendly, and takes advantage of all the latest technologies.

Two are the key points. Firstly, a newly devised smaller screen inside the computer screen will give the visitor the impression of watching television - a relaxing and friendly sensation - and will also reduce the amount of mouse-

clicking steps through the simplified choices available. Secondly, a modernised and refreshed home page complete with *search menu* and *newsroom* will help visitors find what they need with more immediacy.

**A consumer friendly site**

The new millennium inaugurates a new commercial era. Today the Internet sums up all existing technologies. Its potential is enormous, and according to all economic and financial indicators, it is the path to follow. The future is e-commerce, and this is the direction that the Group has decided to take: the train travels faster and faster, but Pirelli is now fully equipped and ready to keep up with the speed.

by *Livia Armellini, Milan*



## ADVERTISING

The scenery is a harsh and wild landscape, a setting that recalls the old westerns, which we all remember from our childhood.

Total silence, as if nature is waiting for some strange event. Suddenly, with deafening thunder and swathed in a swirling cloud of dust, a herd of tyres pours down the sloping side of a mountain. It rumbles on remorselessly, with the power of a horde of buffalo, fast as a drove of wild horses. It splatters down through the river, kicking up columns of water.

The stampede continues, the horde drawing ever closer to the edge of a deep canyon. End of the race. Silence. All over? Not quite. The dust settles. One survivor appears. In an almost Melvillian end, like Ishmael who outlived the band of Pequod, it has stopped right on the edge of the precipice and now towers over it, unscathed. Naturally it's a Pirelli tyre. Power is nothing without control.

The new Pirelli commercial, which will be transmitted this year on television across the world, has just one great protagonist. The tyre. A mini-film which, in 30 seconds, is able to aggrandise it, while at the same time making it a metaphor. Certainly, the viewer sees tyres, many tyres, but the treatment is such, the idealisation so stimulating, the cinematographic metaphor so evident that, in the end, the message conveyed is the glorification of the brand. Just one distinguishing factor which singles out the individual from the herd. The herd is, by definition, mass confusion.

4 Oscar winners in the team of Pirelli's advertising campaign for the year

# Run, Tyre, Run

Launched on the Internet, the new Pirelli ad is a 30 seconds commercial in which our tyre comes out as the protagonist

sion, brutish. The one who emerges in the lead is the most gifted. Therefore, brand differentiation and superior performance are strongly underlined without the triteness of actually saying so.

An innovative campaign, yet at the same time in the mould of our previous commercials. Innovative because in the film the protagonist is not an athlete, a famous testimonial, but the product itself sublimated to a symbol, an icon. On the other hand, the theme of running the great race, of the challenge, is a constant element in our recent communications strategy: from the impossible race of Carl Lewis to the epic, daring escapes of Marie Jo Percec from the monsters of nature (of our conscience?) to the performance of a football virtuoso like Ronaldo.

A challenging campaign, created with exceptional equipment and an outstanding team. In fact, an extraor-

dinary team.

Under the co-ordination of Armando Testa, since June 1999 the Group's new agency, worked a distinguished nucleus of talent, which included even a double Oscar winner. He is the man responsible



n for the year 2000

n



for the special effects: Alle Hall, who won the awards for *Forrest Gump*, already a cult film, starring Tom Hanks. Alle was the inventor of the machines which made the commercial possible. But special effects do not dominate as much as one would expect: the advertisement's scenes were filmed live using 2000 real tyres as "bit part players" and a P6000 as the "leading actor". That choice imposed on the production team the creation of machines built specifically for the Pirelli ad, starting with simple cages necessary to protect the crew and filming equipment from the racing tyres. It was also necessary to fit the vehicles (truck, camera car, vans) with independent arms and special suspension so that they could tow the tyres at different levels of height/width. A truck was modified and fitted with a large pivoting 12 x 8 metres platform for the descent of the tyres, with the possibility of adding stilts/ramps to correct the inclination of the stampede.

The list of these laboriously built machines continues with the construction of a frame with arms of different sizes, able to move independently and fitted to the chassis of an off-road vehicle: this was to give movement to the tyres on the flat and provide the oppor-

tunity of shooting forwards, backwards and to the sides. Explosive charges of varying magnitude were placed at different levels in crescendo over the terrain to give warning of the tyre herd's arrival, creating clouds of billowing dust and sand. And to conclude, special catapult platforms were built to create the effect of tyres flying through the air.

Another major contributor behind the scenes was Dane A. Davis (*The Matrix*, *The Abyss*, *Boxing Helena*) for sound design. He, too, worked in a highly specialised way: all the noise that is heard comes from the real cacophony generated by tyres, but treated in such a way as to give the impression of listening to a kind of musical soundtrack. The lighting director was Harris Savides who, among other things, directed photography for the film *Standing Room Only* with John Travolta, which has yet to reach the cinemas, *The Yards* with Faye Dunaway, *The Game* with Michael Douglas. Savides was also responsible for the lighting of videos for pop stars such as Madonna, the Rolling Stones and David Bowie, and was in charge of photography for the Nike, Levi's and Volvo commercials. The mini-film's director was Thed Lenssen, a famous fashion photographer of some years back and now the creator of key commercials for companies like

One single protagonist: the Pirelli tyre

Heineken, Philips, Volkswagen and many others.

After six weeks of preparation, the Pirelli ad was shot entirely in the United States in five days last December at two locations oozing with atmosphere. The central part of the film is set in Twin Mountain-Red Cinder Volcano, California, while the final scene with the canyon was shot in the Moab Valley, Utah. Editing by Hank Corwin (*The Horse Whisperer*) was carried out at the USA Studios in Los Angeles.

Certainly, viewers who see the new 30 second Pirelli advertisement will not think for a minute that all those devices and all that talent were used to produce the mini-film, but they will have the impression of being in a rather familiar situation: the western, with a charge of buffaloes, John Wayne (P6000) coming out of it all without a scratch.

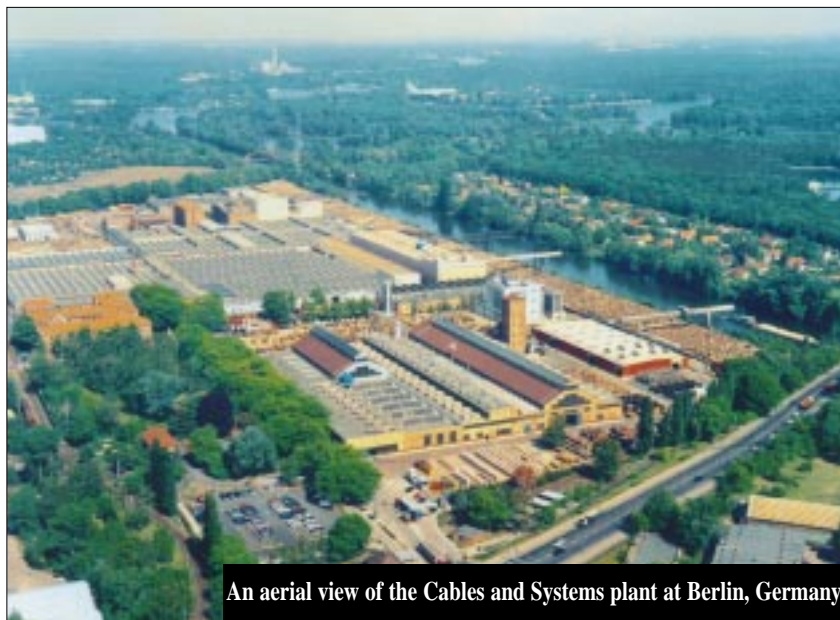
The commercial will be transmitted for the first time in early February on Italy's top TV channels and subsequently in countries of most interest to the Group in Europe, North and South America, Japan and other strategic markets. The television commercial will be supported by a press campaign following the TV ad's theme and set in a western, big country environment. Over a backdrop of a Far West American valley towers an imposing pinnacle of rock: high up on the top stands our tyre, symbol of those who save themselves from the herd. It will appear in motoring magazines.

by *Enrico Gandolfi, Milan*

## Pirelli Kabel und Systeme: one year of integration

# A Year Later

Re-organised and more cost effective, our German Cables and Systems subsidiary is now ready to reach a level of profitability in line with Group expectations



An aerial view of the Cables and Systems plant at Berlin, Germany.

In October 1998, Pirelli acquires the power cable business of Siemens Kabelwerke. The Berlin, Neustadt and Schwerin factories in Germany become part of our Group, a business with an annual turnover of almost 500 million of Euro, which makes Germany the fourth largest cables and systems market by production after Italy, France and the USA.

The challenge is: "to be able to retain the positiveness of the past while absorbing the élan of a new managerial culture", as Italo Mazza, head of the new German operation, said in a *Pirelli World* article at the time.

The starting point was sound: the Berlin factory alone is one of the biggest of its kind in Europe and close to celebrating its 90th anniversary. Over the years, the recognition it has received both in the German and international markets has been significant, including its recent work in superconductivity. Siemens Kabelwerke carried a technological dowry of high quality, sustained by a leading-edge R&D activity. Characteristics similar to those of the world it recently joined.

The last year has been an important period for both Germany and the rest of Europe for the evolution of the energy market: here, too, we have seen a reduc-

tion of municipalities and an internationalisation of utilities, while the general market's interlocutors followed a similar process of globalisation and concentration.

The primary objectives of Pirelli Kabel und Systeme's new management were to improve attention paid to costs and integrate the existing structure with that of the Group, partly re-designing the organisation. Results show a perceptible improvement in PBIT and in net profit (excluding the cost of restructuring), and a reduction in net working capital.

Cost cutting achieved in 1999 was possible due to the accomplishment of numerous synergies. Pirelli took new business channels to Germany, closed peripheral warehouses and substituted commercial branches through the home office, optimising the geography of logistics and stock management. In purchasing, the combined task force easily identified areas of improvement and supply contracts were re-negotiated at Group level. In manufacturing and maintenance, the adoption of Pirelli best practice brought about cost reduction at various levels.

Other synergies were achieved in sales, where change of ownership resolved the channel conflict problems with Siemens competitors and opened doors

to new customers like Adtranz, GEC Alstom and ABB. At the same time, the Group acquired new markets, among them Poland, Norway, Sweden and Saudi Arabia.

The integration of the Siemens structure into that of Pirelli took place in line with the restructuring plan, announced in January, 1999: an objective accomplished with the active collaboration of the union which, had shown its belief in the purpose of the acquisition. In Information Technology, the transition to the SAP system is in its final stages; the company is now looking at the implementation of a modern call centre and an e-commerce interface.

So, a year of integration successfully concluded, Pirelli Kabel und Systeme is now facing new goals in line with the Group's position as world leader. The first is to take the leadership in changing the German market – in price, new products, services. New results should also come from a reduction in costs due to the reallocation of MV and compounding production activities. The overall objective is to reach a level of profitability in line with Group expectations, by stabilising PKS at a high level of operational excellence in all company functions, both newly created and renewed.

by *Riccarda Zezza, Milan*

The power cables market goes global

# Solution for a R-evolution

A new scenario in the energy cables market brings new customer needs, new technologies, new business opportunities: Pirelli responds with customer care, product innovation and new marketing tools



The installation of Pirelli's Afumex power cables in the church of S. Francesco in Assisi.

by *Eugenio Razelli, Director, Energy Business, Pirelli Cables and Systems*

It has been called a “r-evolution”: an evolution which looks like a revolution in the power cables market, born and nurtured without the radical technological changes so typical of its neighbouring telecommunications market. Talking about a “revolution” is a sign that many things have changed and are changing, imposing on the endemic evolution of this market an accelerated, sudden and new trend. New customer needs, new technologies and products, new business opportunities. The former, the most evident and immediate, are the result of a radical change which has taken place in recent years. It concerns both the utilities and the general market: two segments representing 80% of the power cables business.

The protagonists of the general market are the trade distributors, who sell to installers, contractors, manufacturing companies, and to the building industry: a market worth 4,800 million Euro. Until recently the traditional structure of this sales channel was made of an extremely high number of small retailers heavily rooted in their territories. Now it is undergoing an intense process of globalisation: large distributors are expanding aggressively in world markets, setting in motion completely new marketing policies, to the point of transferring the entire sales process on-line. With this objective, the trade is moving towards the creation of its own brands, with branded catalogues and products - connotations and characteristics which refer to a point of sale and no longer to the cable manufacturer. Faced with such strong competition forces, the answer of a producer who does not want to lose his brand awareness in the marketplace must be immediate and challenging. Competition is the name of the game.

Competition is also the name of the game when talking about the utilities market. It is a very actual subject: in recent years, the power supply infra-



structure has been liberalised and privatised almost everywhere in the world. The consequences have been immense. The energy business has quickly moved from mainly normative to straight market regulations: new technologies have further opened the marketplace, lowering entry costs; the number of players has multiplied, and those already existing have tried using diversification strategies; finally, the process of globalisation has resulted in growing investments in non domestic markets. The final result has been an exponential increase in competition in a market which accounts for 25% of the world power cables business, worth 2,200 million of Euro.

For both markets interested by this revolution, Pirelli is already reacting: being the world's number one in power cables production with a total share of

20%, Pirelli can and must act as a leader, bringing forward tangible solutions to focus on customer care, product innovation and new marketing tools.

In terms of utilities, customer focus means anticipating the client's needs, with an offer of innovative services: tailor made logistics and engineering support services; proactive system design, installation and maintenance; a product, integrated by stock management, technical support, continuous research for new solutions as well as internet tools. On the other hand, in the general market, the main target is the final customer. New initiatives further enrich the already innovative end-end user marketing: products bearing our unmistakable brand name, and therefore guaranteeing quality and reliability, are launched on the market giving birth to a series of highly

interactive feedback services (back office, call center, internet).

In terms of product innovation, Pirelli profits from the competitiveness of the market, transforming it into an opportunity to satisfy the evolving needs of the customer. Our renowned capability of launching new products, together with their reliability is a powerful instrument of differentiation.

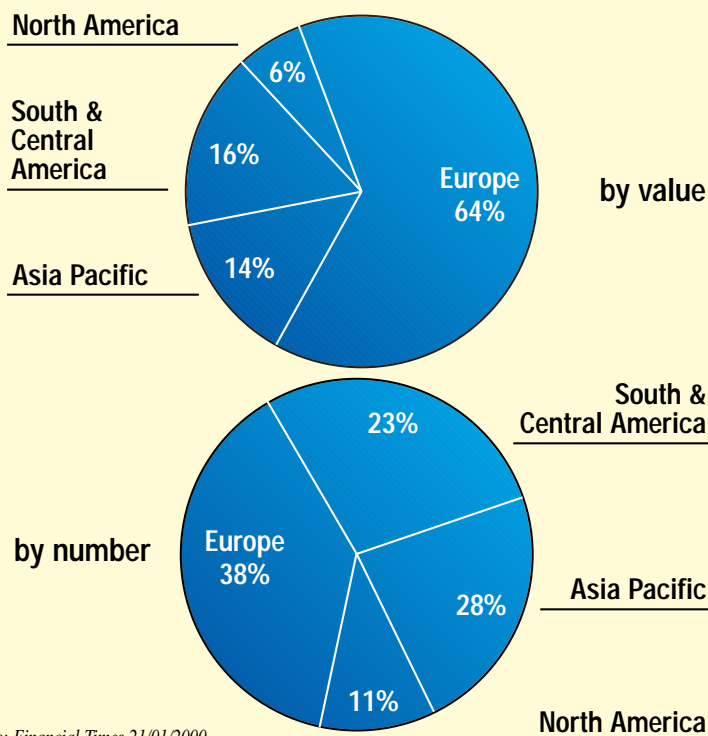
As for marketing tools, the Internet is leading the transformation of wholesale energy sales not only in North America, but also in the rest of the world. Companies that distribute electricity and gas are using the web to provide open access to the market: it has become a source for the exchange of data between operators, large distribution companies and electrical centres. Some of these companies already offer online services for the commercialisation of energy, such as personalised information and search engines: for instance in Europe, Enron recently launched EnergyDesk.com to distribute its energy commercialisation software to the market; in Canada, Ontario Hydro uses the Internet for the transmission of electronic commerce with larger commercial and industrial clients.

The energy industry is therefore experiencing a strong growth in terms of e-business, especially in the Business to Business sector, an area in which Pirelli is strengthening all its main sales channels (distributors of electric material, energy utilities, contractors and big installers, OEMs, etc.). The main instrument to achieve this goal consists of a series of e-services to guarantee the reduction of the total cost for the consumer. At the same time, Internet may be used as a new and extremely powerful tool for opening a one-to-one dialogue with the consumer, both through Pirelli's corporate and the local sites.

New services, improved products, focus on reliability and brand awareness, the Internet: all signs of the revolution which has overcome the energy industry and which finds Pirelli ready and waiting.

### 1999 Cross-Border Electricity Transactions (by target continent)

*Liberalisation of global power markets continues to spur cross-border acquisitions and stake-building by electricity companies, which last year launched a record number of international deals.*



Source: Financial Times 21/01/2000

PRODUCT

Encouraging debut for a new Pirelli tyre

# The Winter Takes It All

The German motoring press gives Pirelli's new Winter Snowsport rave reviews

**T**he new Pirelli Snowsport winter tyre is enjoying a great success in Germany, one of the most dynamic markets in Europe, where winter tyres account for a good 30-50% of all tyres sold.

Germany's motoring press, known as one of the toughest in Europe for its unvarnished reviews of new products, tested the new Pirelli product against its market rivals. The results were very positive.

"Top level performance on snow. The new Snowsport celebrates a very convincing debut", comments the authoritative Auto Motor und Sport, while Auto Bild affirms: "Merits the name Snowsport. This top performance merits the test victory". ADAC Motorwelt describes it as: "A well-balanced tyre, very good on snow", while Auto Zeitung talks about: "Italian art", and Rally and Racing comments: "A winning performance on snow and on dry roads for the Italian tyre".

The independent assessments of the qualities of the Winter Snowsport by the toughest testers in Europe have also predicted that the new high performance winter Pirelli would achieve considerable success in the marketplace. In fact, the run-away success of Snowsport in Germany, Austria and Switzerland has prompted Pirelli to introduce the new tyre into other markets like Italy and Japan this winter, a full 12 months earlier

than planned.

Snowsport was created by Pirelli to offer maximum sports performance, even in the most difficult winter conditions; an all-rounder delivering excellent adhesion on all slippery, cold and wet surfaces. In fact, the name Snowsport clearly expresses the philosophy on which Pirelli has based its new breed of winter tyres: and that is to enable high performance cars to continue to express their sporting temperament, even when the roads are not in optimum condition.

Below 7°C tyres begin to lose their grip, even on dry asphalt. When the temperature drops to -20°C and road conditions are worsened by ice and snow, the increased rigidity of the tread compound and the lack of a specialised tread pattern reduce even further the performance of the tyre. The answer is a winter version, with its tread mix and design specially developed to ensure it stays fully operational in slippery conditions.

The new high performance Snowsport is the PZero of Pirelli winter tyres, an exalted position achieved thanks to its asymmetric tread pattern, derived from the Group's world championship-winning motor sport experience. Such asymmetrical arrangement of the new tyre's tread grooves, blocks and sipes contributes greatly to the achievement of an all-round balance of high-level performan-

ce, whether it be on snow, aquaplaning conditions or in dry handling.

The tyre's innovative tread compound comes from the "Silica 2" generation, formulated to maximise dry grip while keeping intact the tyre's adhesion capacity on cold and wet surfaces. A "conductive strip" which runs longitudinally through the centre of the tread – a Pirelli patent – ensures that any electro-static shocks the silica may provoke are harmlessly discharged. Rated V for speeds of up to 240 km/h, the Pirelli Winter Snowsport is made in a range of sizes for rims from 15 to 18 inches in diameter to equip most top cars.

The new tyre was designed by a team of international specialists at Pirelli's development centre in Breuberg, Germany and underwent extensive testing in the highly diverse winter conditions of Scandinavia, the Alps, New Zealand and Japan. As well as ensuring great versatility, the new tyre's integrated development project has enabled Pirelli to offer the Winter

Snowsport as original equipment because of its ability to meet the various needs of the world's car manufacturers. An offer which has already been well received in Germany, where the Pirelli Winter Snowsport has been approved by Audi, BMW, Mercedes and Porsche.

by **Robert Newman, Milan**

Approved  
by top  
car makers

Pirelli contributes to a substantial face-lift of the Capitolina Gallery in Rome

# A Commitment to Art

The restoration of Rome's major museum is the latest step among Pirelli's cultural activities

In November 1999 restoration work at the Capitolina Gallery in Rome, organised by Pirelli, was completed: the collection has now re-opened to the public.

It is another gold coin to add to the collection of the Group, which has always been involved with cultural activities in various parts of the world, coherent with its belief that it is impossible to sustain a balanced growth of our society without culture. Promoting cultural growth, as far as the Company's limits allow, has therefore become one of Pirelli's missions. The restoration of the Gallery offered an ideal opportunity for a number of reasons. First of all, Rome is hosting the Jubilee: a timing opportunity to link this restoration with the numerous celebrations happening in the capital; the right place at the right time. Secondly, the Capitolina Gallery is the first museum in Rome for number of visitors - more than 400,000 a year plus the additional public attracted by the Jubilee. Last but not least, Pirelli has often been associated with some of the world's top cultural entities: the Victoria & Albert in London where it sponsored the recreation of the Italian Gardens; the Louvre in Paris which has been able, with the Group's help, to build three rooms to contain the museum's Etruscan remains; and the La Scala Theatre in Milan which will be hosted by Pirelli in a

new building at Bicocca during refurbishment work. Rome was missing from the list, and it therefore represented the most natural evolution of this process.

From the beginning, Pirelli has been the one and only sponsor of the Capitolina Gallery, assuming responsibility, among other things, for organising the private viewing and the gala evening for the inauguration. Significant restoration work has been carried on the painting by Guercino "The Burial of Santa Petronilla", which now has regained the tonality of its original colours. Major work

has also been done on the lighting and electrical systems, not to mention the re-opening of the skylights, which have finally improved the exploitation of natural light. Great care has also been paid to the amplification of the spaces available and to the improvement of comfort and services for visitors.

The project will guarantee a steady and prestigious return in the long term: first of all a long lasting restoration of this kind will bear the name of its sponsor for many years to come. Secondly, it will allow Pirelli to establish a partnership with the various cultural bodies. The aim is to create an active collaboration without keeping such entities from maintaining their independence: a basis on which to accumulate fertile ground for future co-operations. For example Pirelli now liaises with the V & A in London and the Louvre in Paris, as a result of their earlier joint projects. On the other hand, the collaboration with the Municipality of Rome for the Capitolina Gallery has proved a solid ground for a good relationship in the future.

The sponsorship of an undertaking such as the restoration of the Capitolina Gallery will also allow the Group to increase and develop its social role, establishing contact with the general public, essential in today's business world, and therefore with the opinion-makers.

by *Livia Armellini, Milan*



Domenichino, portrait of the "Cuman Sibyl", 1622.

NKF

A report from Pirelli's new power cables activities in the Netherlands



# The Acquisition of NKF Is Completed

The Delft company is a well-oiled machine, ready to enter the Pirelli world to bring a dowry of skills, making synergies with the Group

*Riccarda Zezza reports from Delft, the Netherlands*

**T**he Netherlands, January 2000. Heading to the headquarters of the NKF, the power cables company recently acquired by our Group. The road from the airport to Delft is not long, nothing seems to be very far away in Holland: out of the morning mist looms a traditional Dutch welcome - a windmill stands in elegant greeting, a delightful testimonial to the technology of an age long gone.

It is not difficult to find NKF: here, everyone knows the location of the cable factory, a true part of the city's history. The headquarters, a brick building which seems more like a house than a head office, look out over a canal crowded with small wooden boats: no doubt this is Holland.

The history of the Netherlands has some elements in common with that of NKF, now approaching its 90th birthday. A small country, Holland has always considered its dimensions both as an asset and a liability, and on this basis has been one of the founders of the EU. NKF, in turn, has always worked as a small company. Today, it is obvious that it is not possible to survive in a market populated by giants where conditions to compete are becoming increasingly tougher: but it is clear that the company has a great deal to give and to get from its marriage with Pirelli.

This is what comes across from the director Ron Koelewijn's sketch of the company: as he runs through the history of NKF, founded in 1913, we catch a glimpse of a solid company which has survived its past unscathed, and is now different, revived, proud

of its history. Pirelli acquired the production of high, medium and low tension power cables in Delft. A reality which means around 400 people employed and an annual turnover of around 85 million of Euro.

Today, the identity of the Delft company is quite clear. It produces a complete range of power cables, cable systems and accessories, covering the 1 to 400 kV spectrum. It leads the Dutch market with a 60% share, rising to 90% in HV cables. In the battle with the Titans of the power cable market, the company has been able to adroitly manoeuvre itself due to a concentrated integration of its products and services. In fact, services have become a veritable NKF speciality. Segmentation of the market and intense specialisation in specific areas seemed to be the safest way of offering a competitive pro-

duct. "We want to concentrate on certain segments in which we can be more efficient", explains Koelewijn. And it is precisely from the segmentation of the market that a completely new need has emerged, one which no other Dutch cable producer had previously identified: maintenance of existing networks. In other words the demand for "pure" services.

In response to this need, NKF has created a "services" unit within its structure, offering services such as maintenance, testing, diagnostics, emergency fault repairs, and rehabilitation to the general market and to utilities, which have more numerous and more frequent needs to conserve existing structures. In just two years, the services "product" has become 10% of NKF's activity and is still growing.

Clearly, these services are primarily provided by human resources explains Bert Willems, manager of Services: on one side employees who have gained their experience

working on the numerous turn key contracts completed over the years, on the other people especially trained for this project.

A task force which, when needed, can become a specialised assistance unit in the supply of turn key con-

tracts, but which operates mainly as a mobile maintenance and control team, moving from one location to another with high technology caravans, equipped for diagnostic and testing operations.

Skill continues to be one of the principal elements of NKF's strategy.



An internal view of the Delft plant and, below, one of the mobile units for the supply of services.

An objective pursued with continuous in-house training programmes, also in co-operation with the Delft Technical University – study and research projects on diagnostic methods – and with the integration of knowledge through partnerships and alliances

with major customers and other suppliers of network components.

There is an example of an NKF product born out of the ability to envisage the integration of different technologies: called Click-fit®, it is a special joint for HV cables which, eases joining cable by using external rubber

extrusion technology. Click-fit® is an accessory produced exclusively by the Dutch company, and it has now been on the market for five years.

The NKF director's narrative is coming to an end and a question comes spontaneously to mind: "small" but proud of their strong points, what are the expectations of NKF's employees on becoming Pirelli people? "Apart from the fairly obvious matter of the greater strength of a bigger Group, Pirelli seems to offer NKF the kind of certainty it has sought for many years. The certainty, that is, of taking our patrimony of knowledge and ability, of which we are proud, into a safe

harbour".

You can access the factory directly from the offices. The size of the production area is impressive and, as we begin our tour, we are struck by the sound of music. In each department, workers can choose the kind of music

they wish to hear, 24 hours a day.

Jacques Born, Head of Production, tells us, "In 1999, we started to improve people involvement here with a new system of operator training and the organisation of their process responsibility. Groups of operators have contributed to re-engineering working procedures and process improvements. In one case, this has led to the adoption of their own improvement plan which has yielded a reduction in HV extrusion line downtime and start-up, with notable cost savings".

Due to the characteristics of its market, NKF has always needed to be a flexible structure, able to focus every year on the product requested by the customer. Insulation lines are the only ones to work dedicated, while machines for laying up, stranding and armouring are the same for both types of product.

The need for flexibility has meant operators had to be capable of operating all machines in order to change roles in line with the demand of the moment. There is considerable personal responsibility at all levels, including quality control.

To make that possible, NKF has introduced the transparency and standardisation of data – accessible by

anyone and transferable from one process to another – as well as the use of a highly formalised and detailed weekly plan, which is evaluated at the end of each week. Moreover, production is divided into four areas, each run as a single process by the same manager. NKF has established that

ning greater product and process reliability and the results have been encouraging. Environment and safety procedures have been upgraded, too: after ISO 9001 in 1988, we obtained ISO 14001 in 1996. The certification of safety procedures will follow later this year".



An image of the Click-fit joint in the Dutch factory.

such an organisation makes it easier to identify weak points and obtain good quality.

"Make it right the first time is our motto", explains Born. "A large proportion of organisational changes in recent years has been aimed at obtai-

In 1999, investment was concentrated principally on an expansion of capacity sufficient to produce bigger, longer cables. For example project "Delta" - HV cables weighing 62 tons and measuring 2,200 metres per drum - is now in progress. "This and more can now be handled by routine production machinery", Born says. "Equipment has been updated and coherent technical management has also led to a better understanding of technology, including data management and process control".

So a well-oiled machine, ready to enter the Pirelli world and bring with it a dowry of skills and improve on its own weaknesses. "Together with mother Pirelli", Born con-

cludes, "we hope to improve our saturation level as well as benefit from Pirelli's buying power, commercial and technical synergies". At NKF there is a wide-spread positive feeling towards the acquisition. A feeling which is certainly reciprocated.

**FACTORIES**

by **Guglielmo Fiocchi**, *Industrial Director, Pirelli Tyre Sector*

**O**n the way to the pocket factory, the mini-marvel of the future which will make it possible to order a few tyres changing sizes in real time, there is a present time: technologies and human resources must respond to increasingly complex, changeable and pressing needs.

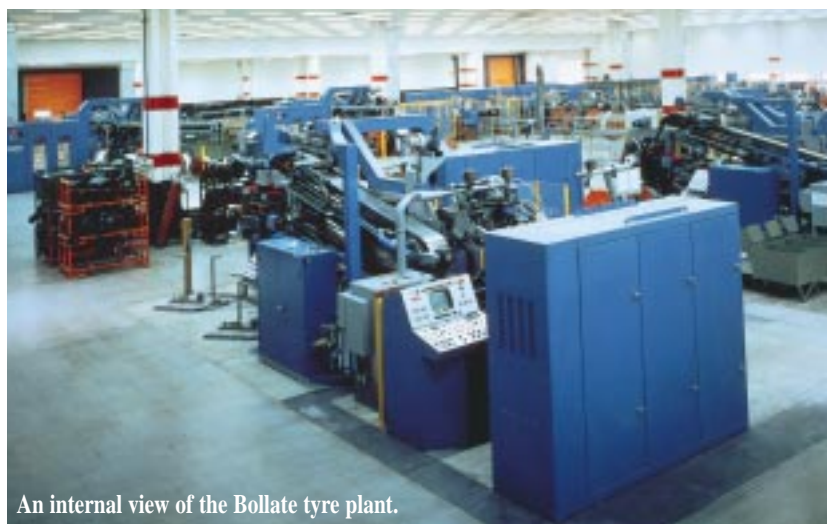
The final years of the second millennium in Europe were not only boom years for the Internet and the vertiginous development of communications, but also for the fall of commercial barriers, the introduction of the Euro as the Continent's currency, and a change in the way of thinking and competing.

It is not allowed to stay behind when instruments like the Internet have slashed distance and waiting time: people are getting used to order everything with a click; five minutes are already too long to wait, a day an eternity. Industrial structures efficiently built on a foundation of centuries of history, tied to very different timings and needs of production, logistics and technology, must invent, develop and plan realistic means of satisfying the new reality and new geography of world markets.

**The Tyre Sector creates value through manufacturing**

# Taking up the Challenge

Promptly responding to the new competitive environment, Pirelli tyre production has diluted its own geographical confines, reduced its time constraints and standardised its methods and languages



An internal view of the Bollate tyre plant.

On the basis of such premises, the manufacturing industry is changing. Pirelli, whose roots are deeply entwined in history, was one of the first to take up the challenge of the future.

The present, therefore, finds the Group prepared. Even in a business like tyres, in which some space-time constrictions are so inherent in the very essence of the product that it seems they cannot be reduced.

In the face of the challenge/opportunity offered by the new competitive environment and while waiting for the full-speed start-up of the new MIRS mini-factory, tyre production

Not just practical solutions and cost reduction, but an entire thought structure superimposed on the factory's traditional way of thinking.

The Best of Best, or the method of identifying and extending the most effective practices, was the natural continuation. As these types of communication channels came to life not only inside single factories but also between plants, the need grew for the standardisation of instruments and languages.

The introduction of the lean organisation was the first step towards a different means of regarding human resources and their employment in

has diluted its own geographical confines and reduced its time constraints. A complex process, based on simple modifications, which presents us with a very different scenario from the one of two years ago. A process which is also based on past experience, treasured as an important instrument of change.

In recent years, the ground has been prepared by TPM. TPM implied the acquisition of a means of continuous improvement, the application of solutions in a coherent and continuous way, the creation of innovative channels of communication.

**A unifying language**

the production process.

The lean organisation is a re-organisation of the production processes applied by Pirelli Tyres in recent years in South America and Europe: a simplified structure of three levels.

The responsibility and autonomy of internal decision making is increased at each level, counting on new resources: dedicated inter-functional teams built into the various phases of the production process. The concept of functional integration is born: think/work by process and no longer by function, while functions become a common font of resources and competence.

Today, value creation through manufacturing means for Pirelli the ability to respond optimally to a series of tasks, a question partly confronted last year and which will be fully developed in the year 2000.

The objective is pursued essentially through standardisation of methods and languages, which speeds-up the communication process between functions and factories and eases the sharing of knowledge and resources. The process began in the European car tyre factories, the first to participate in the change: no longer did autonomous developments take place in individual subsidiary companies, but a single integrated system was created, a kind of

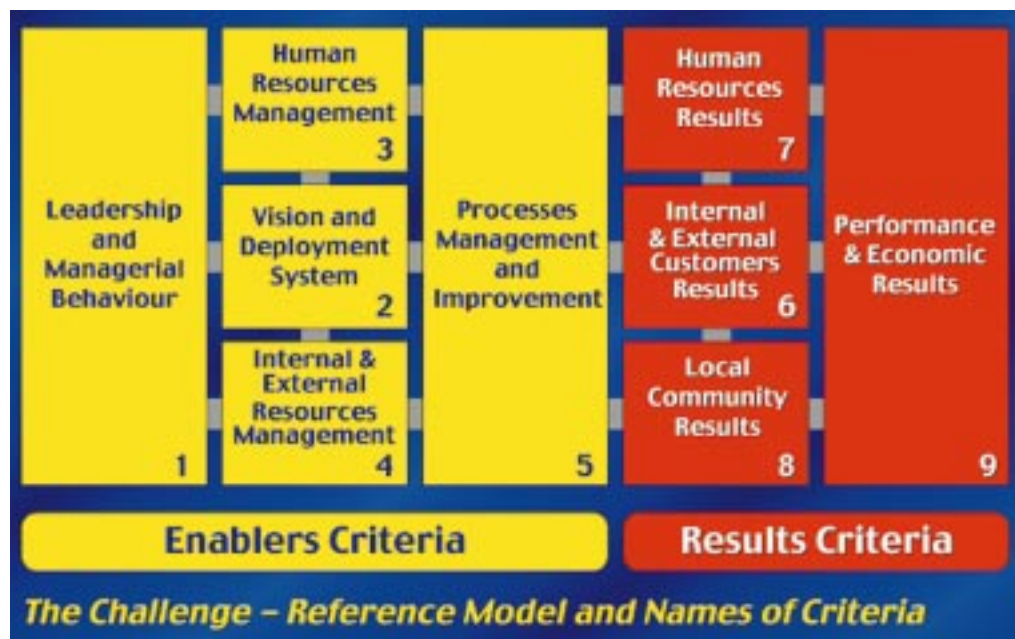
“European factory”. Joint management with R&D, quality, logistics, sourcing; creation of industrial teams using common methods of work, objectives and language; uniformity improvements; a sharing of the most effective solutions: these are some of the initiatives applied over the last year and destined to continue. The results are already showing, starting with a 47% increase in industrialisation or 10% better delivery in 1999 compared to 1998.

This different means of operating also implies, more than anything else, a change in mentality. For instance, it is not enough to look at the factory as a universe in its own

and lean organisation, is ready to accept the challenge.

Resources which, today, have an increasingly specialised personal know-how and can transfer it anywhere in the Pirelli world, thanks to the fact that factories speak the same language.

Now, we have the resources, the model/vision and the methods. To ensure the full involvement of the complex organization within this system, we are now testing in year 2000 in all the factories “The challenge”: an award scheme with the main objective of stimulating the achievement of company goals, ensuring coherence with Pirelli policies and procedures.



The challenge destined to become an award in future years, will involve all factory levels, stimulating self-assessment mechanisms, celebrating excellent performance, promoting a n d

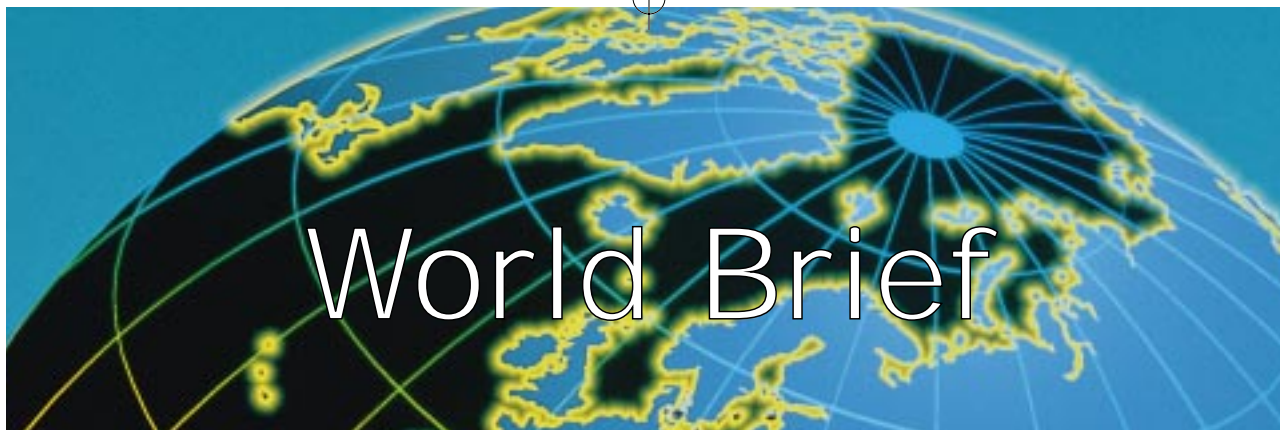
right, with its own obligations and objectives: it is necessary for the factory to be integrated into a much wider and complex entity, with more indicators, different priorities, performances measured more against external rather than internal coefficients (e.g. service to market, claims etc).

A more open mind, which needs prepared resources. A new generation of people, recently grown up in the factories to the rhythm of TPM

encouraging internal benchmarking. The evaluation criteria will not only be internal, as is the case with the TPM Award, but will also relate to external customers, the local community and economic results.

Having acquired the instruments, here is a kind of “mental map” to use them in the best possible way, to assess and achieve the continuous progress of the Pirelli’s industrial team.





# World Brief

## Giuseppe Morchio New President of International Cablemakers Federation

In November, the International Cablemakers Federation elected Giuseppe Morchio, General Manager of Pirelli's Cables and Systems Sector, as its new president. Founded in 1990, ICF is the worldwide association for manufacturers of power and telecom wires and cables. Giuseppe Morchio - pictured below executing the traditional Chinese eye-spotting ceremony -



who took over the Presidency with the full approval of the General Assembly, will serve for two years. In his opening speech, the president encouraged putting a new spirit in the business, making the cable industry more progressive and pro-active.

## A Record Contract for Pirelli Cables and Systems

At the end of December, Pirelli signed an agreement with the Norwegian company Viking Cable S.A. for the construction of the longest submarine HVDC cable in the world - 578 km. The cable will connect Norway and Germany running under the North Sea, at a maximum depth of 420 metres, shielded by a special double armour,

designed to resist to the mechanical stress caused by such depths. The connection will guarantee both countries great advantages in terms of balancing load peaks, reduction of leaks in the generation process and improved utilisation of power resources. Production will begin in the year 2001, due to the record-breaking extension of the cable.

## New Investments in Superconductivity

American Superconductor Corp. and Pirelli Cables and Systems announced a new agreement by which Pirelli will provide up to \$13.8 million in additional funding to ASC for the development of high temperature superconducting (HTS) wires for use in power cables. Pirelli is also developing advanced coaxial HTS cable systems in France, Germany and Italy. The Group is targeting the manufacture, installation and demonstration of several additional HTS power cables systems over the next few years, after which HTS cables are targeted to enter the commercial market.

## Pirelli at the Montecarlo Rally

Pirelli conquered the 3rd and 4th final positions thanks to Juha Kankkunen's Subaru Impreza and to Toni Gardemeister's SEAT Cordoba. Worth mentioning is the performance of Kankkunen on the "historic" and super-complex Stage of Sisteron, where the 4 times world champion scored victory also thanks to the soft "thermal" compound of the Pirelli PZero RS9. He was fastest both on the dry tarmac, which characterised most of the SS, and on the central icy kilometres at Col de Fontbelle. Pirelli-fitted were also the Mitsubishi's of Manfred Stohl,

Gianluigi Galli and Gustavo Trelles, 1st, 2nd and 3rd in Group N. The World Rally Championship now heads to Sweden (10-13 February).

## An Italo-Brazilian Gift

Pirelli has presented the Museum of Latin America with a 95 cm statue of Saint Francisco di Paola - sculpted in Madeira between 1760 and 1780 and attributed to Antonio Francisco Lisboa - which has been at Pirelli headquarters in Brazil for ten years. The President of Pirelli South America Giorgio della Seta presented the statue as a gift to express the Group's gratitude towards Brazil, where Pirelli has been operating since 1929. The ceremony was held at the Museum of Art of San Paulo (MASP) on the 29 November, in presence of the Minister for Culture Francisco Weffort.



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