



L'Economia Circolare dei PFU



REPORT 2019





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REPORT 2019

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FOREWORD

Year 2019 was important and full of challenges for our Consortium. As the main objective we had set ourselves the goal of making a concrete contribution to the growing need of small tyre dealers to obtain ELT collection services even for small quantities, in peripheral or disadvantaged areas, where the collection chain was often inefficient. During the year, thanks to the precious collaboration of our operating network, made up of 130 EcoTyre Partners, we managed to give a significant response, guaranteeing around 13,000 pick-ups at small tyre shops (equal to about 67% of the total).



ENRICO AMBROGIO
ECOTYRE PRESIDENT

The investment to obtain this level of service has been substantial since peripheral and small-scale interventions inevitably have a higher cost; however, thanks to the daily commitment and professionalism guaranteed by our 109 EcoTyre Logistics Partners and 21 Recycling Partners, we managed to achieve and slightly exceed all our annual objectives of the PRN (Piano Raccolta Nazionale - National Collection Plan), not only managing to maintain a level of punctuality of service higher than 80%, but also reducing the green fee to a level among the lowest within national systems comparable to ours. We are particularly satisfied and proud of these results; a warm thanks to all our Partners for the collaboration and for the work done.

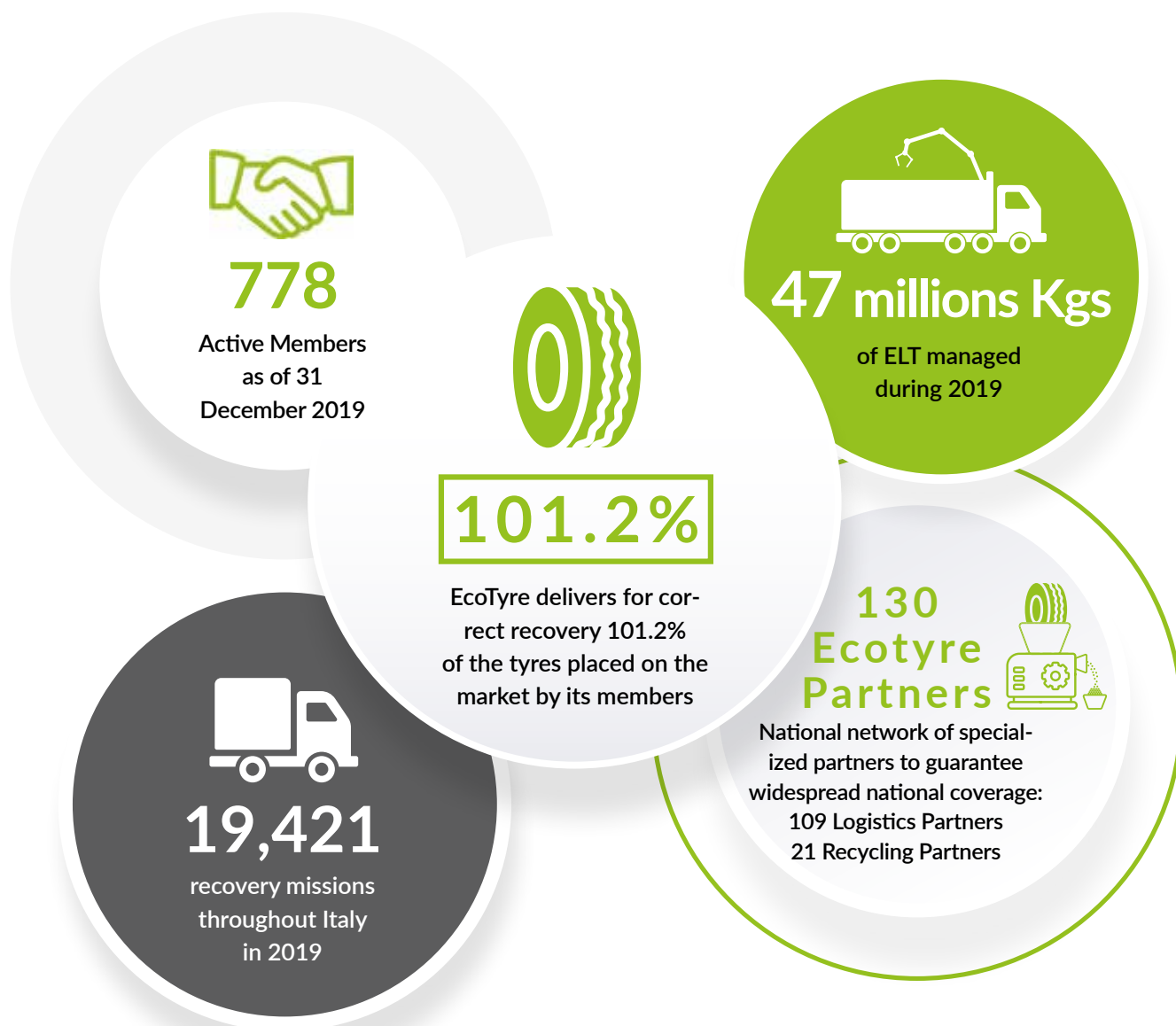
Another objective was to make the activity carried out even more visible and transparent if possible. That is why at the beginning of 2019 we have activated Ecotyre Live, a section of our website dedicated to communicating our work, which is continuously updated, easy to consult and read, and which illustrates the main operating data and the level of achievement of the collection target. EcoTyre Live is also featured in this Report via QR Codes linking to updated data in real time.

As regards the last objective, which is probably the most ambitious and innovative, the "from Rubber to Rubber" project saw great advancement, thanks to our research project in the Circular Economy, which made possible the use of rubber derived from ELT in new tyres. In the coming months, "from Rubber to Rubber" will continue, on the one hand, expanding the use to other types of green tyres, on the other, completing collaboration agreements with important companies in the sector.

We will continue, also in 2020, our path based on quality of services and innovation in the Circular Economy, continuing to do so, even in these moments full of unexpected events, with commitment and enthusiasm.

Our activities are illustrated and summarized in our now traditional Annual Report, which aims to communicate results, data and projects managed by EcoTyre.

Happy reading.



EXTENSIVENESS

EcoTyre serves tyre dealers throughout Italy, even in the smallest or hardest to reach cities.

TRANSPARENCY

The collection data, updated in real time, are available on the Consortium website.

AFFORDABILITY

Optimizing logistics costs keeps the environmental fee competitive.

RELIABILITY

Members can count on an efficient service and a solid reporting system.

FROM 2011 AT THE SERVICE OF TYRE MANUFACTURERS AND IMPORTERS

50 MILLION PIECES SENT TO RECOVERY IN 9 YEARS

ADVANCED RESEARCH AND DEVELOPMENT IN THE CIRCULAR ECONOMY

WHO WE ARE

ONE OF THE MAIN CONSORTIA ACTIVE IN ITALY IN ELT MANAGEMENT AND A PROTAGONIST OF THE NATIONAL CIRCULAR ECONOMY.

In Italian legislation, ELTs are defined as: *“tyres, removed from their use at any point in their life, which the holder disposes of, has decided to or is obliged to discard, and which are not subject to reconstruction or subsequent reuse”*. The main objective of the Decree is to improve end-of-life management of tyres to prevent the formation of new waste and protect the environment. EcoTyre is committed to achieving this goal and in 9 years of activity it has established itself as the first Italian Consortium by number of Members, active in all ELT-management activities, including communication and reporting obligations (as established by law) and thus becoming a real protagonist in the Circular Economy sector in relation to the recovery of end-of-life tyres.

The operational objectives of EcoTyre are:

- **quality in collection services: extensiveness and punctuality** in taking charge of the collection order and carrying it out;
- **priority to Circular Economy:** maximum commitment and focus on the search for new outlets and applications for the reuse of material deriving from the treatment of the collected ELT;
- **efficiency:** effort to combine the best collection service with the best possible environmental recovery solution.

This is done while carrying out representation activities at the Ministry of the Environment in order to give visibility to the requests of our Members. Therefore it is a Consortium that, starting from the specific objective to collect ELT and deliver them for recovery avoiding uncontrolled dispersion or illicit disposal, has contributed to an overall improvement of the entire Italian economic and environmental panorama by making available an accurate logistical *know-how* and carrying out awareness-raising activities and research of innovative solutions for the reuse of recycled materials.

THE ELT COLLECTION SYSTEM



12,858 TYRE SHOPS REGISTERED FOR FREE COLLECTION

109 LOGISTICS PARTNERS ENGAGED IN COLLECTION AND TRANSPORT

21 RECYCLING PARTNERS

HOW IT WORKS

THE ELT CHAIN INVOLVES MANY ACTORS WHO COLLABORATE TO ENSURE THE CORRECT DELIVERY TO RECOVERY WITH THE LEAST ENVIRONMENTAL IMPACT.

The path of tyres towards recovery involves various actors:

- **Manufacturers and Importers** who organize the management of the collection and treatment of tyres placed on the national market, relying on EcoTyre;
- **Operators** (e.g. tyre repairs, mechanical workshops and other professionals in the sector), who keep the ELT when changing tyres, and then request free collection;
- **EcoTyre** which organizes and manages the national collection network on a daily basis and selects the network of recycling plants;
- **Logistics Partners** who collect and manage the transport and logistics of ELT throughout the country;
- **Recycling Partners** who carry out the actual recovery process which consists of separating the rubber from the ferrous and textile parts and shredding in different formats suitable for the recovery of matter or energy. These plants produce rubber granulate which is used for the realization of recycled rubber objects, such as anti-trauma tiles, sound-absorbing panels, urban and sports furnishings (such as athletics tracks) or for the production of new tyres thanks to the project "**From Rubber to Rubber**" described at page 28.

THE ENVIRONMENTAL FEE FOR THE PURCHASE OF TYRES

- The amount of the fee is established by the Consortium on the basis of the overall costs incurred to guarantee the management of ELTs in full compliance with environmental and health regulations.
- As required by DM 182/19, EcoTyre applies a differentiated fee based on the type and weight of the ELT to be treated. The fees are reviewed annually and sent to the Ministry of the Environment.
- The environmental fee must also be paid by all subjects operating from abroad who, through web channels, import tyres on the Italian market.
- The environmental fee must be used for collection on the whole national territory, not for profit.

WHAT WE DO

WE GUARANTEE, ON ACCOUNT OF OUR MEMBERS, THE COLLECTION, TREATMENT AND REPORTING OF ELTS IN FULL COMPLIANCE WITH REGULATIONS AND IN CONSTANT DIALOGUE WITH INSTITUTIONS.

Following the European principle of "Extended Producer Responsibility", the responsibilities for the management of end-of-life tyres are attributed to both manufacturers and importers of new tyres. On this basis, EcoTyre was born as a Consortium that **efficiently deals with the collection, transport, treatment** and recovery of ELT on behalf of its Members, precisely producers and importers.

Within EcoTyre, every year a **specialized group of people**, technologies and means ensures that for each new tyre placed on the market by its members in the previous calendar year, an equivalent one is collected with a recovery rate equal to or greater than 100%. The collection of ELT takes place at the tyre shops independently and at the vehicle dismantlers on behalf of the ELT Committee set up at the Automobile Club of Italy (ACI).

EcoTyre also carries out all the administrative and bureaucratic practices regarding the monthly declarations of placing on the market and the annual reporting of the collection, relieving the Members from any responsibility regarding waste management. To do this, EcoTyre has developed and made available to the consortium members, an efficient **online management system** able to reduce time and costs for data entry and transmission and to keep all invoices relating to the environmental fee paid and the transaction history, without any use of paper documentation. A certificate of correct ELT management is then issued at the end of each operating year by EcoTyre to all Members who have regularly fulfilled their monthly reporting and payment obligations.

EcoTyre, over the years, has become an increasingly authoritative interlocutor for the **Ministry of the Environment** and for the other institutional subjects that develop legislation on waste management. Several times, the institutional relations of the Consortium have allowed to highlight any critical issues within the regulatory system and, where possible, to correct them in order to encourage correct competition between all the players active on the market.

In addition to ordinary activities, EcoTyre allocates many resources to **the PFU Zero project** created to eliminate abandoned tyre deposits. The objective of the project, described in detail in the sheet on page 24, is to identify, through reports from local authorities, associations and citizens, areas where ELTs are abandoned which are then cleared, thus contributing to environmental protection.

Great attention and resources are dedicated to Research in the Circular Economy: The project **From Rubber to Rubber** was born from the research activity developed by EcoTyre in collaboration with stakeholders and national and international partners. The innovative project, described in detail in the sheet on page 28, was able for the first time to use rubber granulate from ELTs inside a compound intended for the production of new tyres.

INITIATIVES AND EVENTS

ECOMONDO

The EcoTyre stand at Ecomondo 2019, was the meeting and comparison point with partners, operators of the sector and institutional stakeholders with whom we confronted technical and operational issues related to the management of ELTs and, to whom we illustrated all the innovations in which the Consortium has become a protagonist.



AUTOPROMOTEC

The presence at Autopromotec 2019, the most important Automotive Aftermarket fair of Italy, allowed EcoTyre to meet the operators of the sector and discuss the needs in terms of management and recycling of ELTs.



ITALIA DEL RICICLO

The collection data provided by EcoTyre have contributed to outlining the picture on the state of the art of ELT management in Italy, illustrated by the report "L'Italia del Riciclo" by FISE-UNIRE and the Foundation for Sustainable Development.



SGGE

EcoTyre is part of the National Green Economy Council, promoted by the Foundation for Sustainable Development. The Board is made up of 65 organizations and has become the main Italian think tank on environmental issues.



112 RESOURCES OCCUPIED INCLUDING DIRECT AND INDIRECT EMPLOYEES

€ 13 MILLION OF VALUE GENERATED BY THE CONSORTIUM

5 COLLABORATORS FOR RESEARCH & DEVELOPMENT ACTIVITIES

SOCIO-ECONOMIC IMPACT

A TEAM WORKING COORDINATELY AND EFFICIENTLY
TO OFFER TIMELY SERVICES THROUGHOUT THE NATIONAL
TERRITORY.

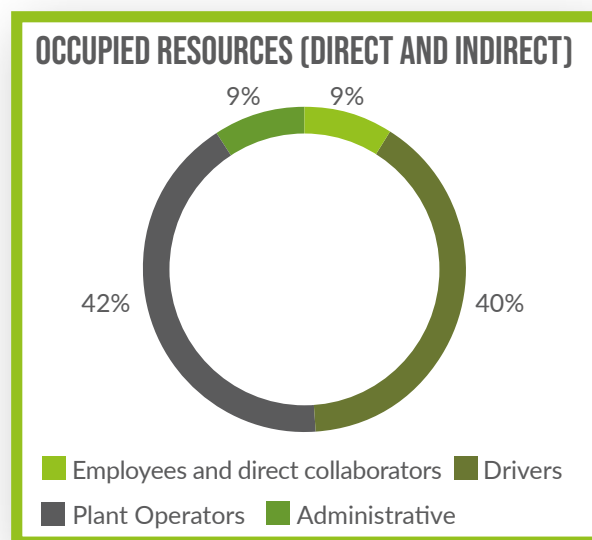
EcoTyre fully represents a model of Circular Economy as it operates in order to recover a resource that would otherwise represent waste to be disposed of: end-of-life tyres. To do this EcoTyre has equipped itself with a streamlined production organization with very important socio-economic implications which integrates management methods aimed at reducing waste and the efficiency of production processes.

This mechanism generates an economic value that can be estimated at around **€ 13 million**, the equivalent of a medium-large, completely green industry. To achieve these results EcoTyre has a staff of **10 people** including permanent staff and full-time collaborators who coordinate the activities of dozens of companies and people throughout Italy who deal with the **removal, transport, treatment** and **delivery to recovery** of ELTs, managing in parallel all the envisaged administrative procedures.

Considering the man-days necessary to smoothly run the entire chain managed by EcoTyre besides the 10 direct employees and permanent full-time collaborators, the following are added per day:

- 45 drivers and transporters;
- 47 operators employed in the treatment sector;
- 10 administrative and accounting contractors.

A total of **112 people** dedicated to ELT recovery.



ISO 9001:2015 AND 14001:2015 CERTIFY QUALITY AND SUSTAINABILITY

110 QUESTIONNAIRES ADMINISTERED TO ASSESS OUR SERVICES

4.35/5 THE AVERAGE SATISFACTION DEGREE OF OUR MEMBERS

ACCOUNTABILITY

POLICIES OF CERTIFIED QUALITY AND SUSTAINABILITY
AND COMMITMENT TO THE CONTINUOUS IMPROVEMENT
OF OUR ACTIONS.

There are two main aspects that characterize the activity of a company operating in a sector such as waste: to accurately fulfill the legal requirements but also to guarantee high quality standards, environmental protection and protection of workers' health and surrounding communities. For this reason EcoTyre has developed a path of reporting of its quality management and environmental management system obtaining in 2018 and annually renewing the ISO 9001:2015 and ISO 14001:2015 certifications. These procedures, one of the distinctive features of EcoTyre, have contributed to creating a strong loyalty towards the Consortium by the Members and partners who positively judge the services provided by EcoTyre in terms of **professionalism; response times; quality of the equipment** used and **communication methods** to Members and to the outside.

The results obtained through the questionnaires submitted to the Members are important to demonstrate the efficiency of the Consortium. In 2019, in order to make an evaluation as objective and as complete as possible, we tried to involve the largest number of interviewees, postponing the survey in the period following the Autopromotec sector fair.

In June 2019, 110 questionnaires were completed, 34% more than in 2017 and the average overall satisfaction score was 4.35 out of 5:

- the highest score was found on **the Help Desk service** (4.56)
- questions were also added on the news proposed by the Consortium regarding the **publication of operational data in real time** (4.41 average rating score) and **research activities** (4.35 average rating score).

Also interesting is the "suggestions" field used for the first time and containing, in addition to appreciation for the professionalism of EcoTyre staff, also some proposals, evaluated and implemented where possible.

These results demonstrate a high level of *governance* of the Consortium, which is always attentive to the requests and needs raised by its stakeholders. This is a way to provide them with increasingly optimized services and consequently improve the perception that the Members have of the Consortium.

778 MEMBERS REGISTERED TO THE CONSORTIUM IN DECEMBER 2019

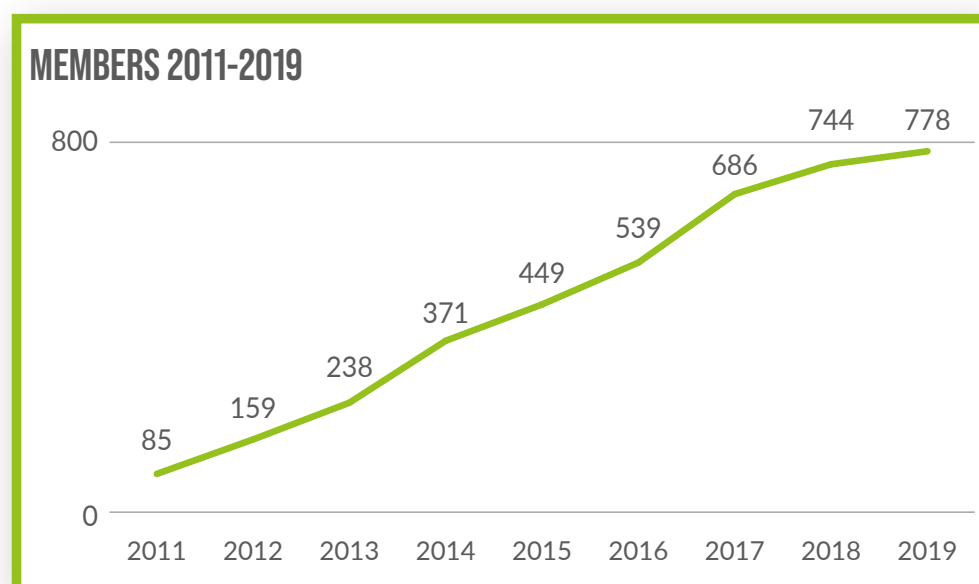
+5% OF PARTICIPATION COMPARED TO 2018

LOYALTY AND CONTINUOUS DIALOGUE WITH ALL THE CONSORTIUM MEMBERS

THE MEMBERS

YEAR AFTER YEAR, ITALIAN, EUROPEAN AND INTERNATIONAL COMPANIES TRUST ECOTYRE WITH ELT MANAGEMENT AND ALL REPORTING REQUIREMENTS.

Year 2019 again saw an increase in the number of members, equal to 5%. At the end of the year, 778 companies were registered, confirming EcoTyre as the most participated consortium in Italy. A loyalty due mainly to the ability of EcoTyre to guarantee quality services to all types of members, from international producers to small businesses.



ECOTYRE LIVE
Scan the QR code
to check the members
list updated in real time



16 DIFFERENT CATEGORIES OF ENVIRONMENTAL FEE

-28% REDUCTION IN THE FEE FOR CAR TYRES OVER 9 YEARS

EFFICIENCY AIMED AT REDUCING LOGISTICS COSTS

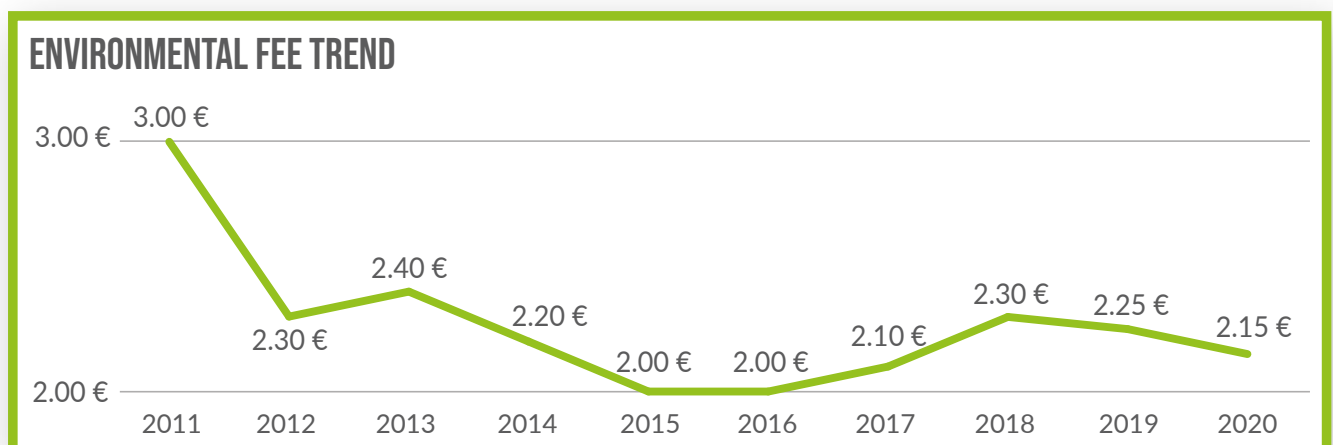
ENVIRONMENTAL FEE

THE CONTINUOUS IMPROVEMENT POLICY OF ECOTYRE HAS ALLOWED TO REDUCE THE AMOUNT OF THE FEE OVER THE YEARS, WHICH REMAINS AMONG THE MOST COMPETITIVE FOR SERVICE/PRICE RATIO.

The fee is used to cover the collection, treatment and recovery costs of that tyre when it reaches the end of its life, therefore it is fixed by consortia such as EcoTyre based on the amount of these costs. **The Policy of efficiency adopted over the years by EcoTyre has made it possible to significantly reduce operating and logistics costs** and this saving has directly reflected on the amount of the fee and therefore on the pockets of consumers, despite the higher costs incurred to increase the extensiveness and the service provided to small tyre shops.

In 2019 the fee for a car tyre was € 2.25 but, thanks to the work done during that year, the amount decreased further reaching € 2.15.

One of the most effective strategic choices in terms of savings was the adoption of a computerized logistics portal through which tyre dealers can submit collection requests online and EcoTyre is able to manage and optimize missions by significantly reducing the cost per trip.



101.2% COLLECTION IN 2019 COMPARED TO THE REGULATORY OBJECTIVE

+6% COMPARED TO THE AMOUNT COLLECTED IN 2018

367,483,201 KG OF PFU COLLECTED OVER 9 YEARS

THE COLLECTION IN ITALY

A NATIONAL COLLECTION PLAN THAT FOR YEARS HAS ALLOWED THE RECOVERY OF MORE ELTS THAN THE AMOUNT REQUIRED BY ABIDING REGULATIONS.

Every year EcoTyre develops a **National Collection Plan** that allows it to manage a quantity of tyres equal to those placed on the market by its Members (100% if one calculates the number of pieces, 95% of the weight because you consider the tread wear). However, the collection results are always higher than this objective. To ensure good national service and operational continuity towards small tyre specialists who need it, EcoTyre prefers to maintain a slightly higher level of collection than required by law, favoring extensiveness and quality. In 2019 EcoTyre in fact managed 101.2% of the tyres envisaged by the legal target. Total collection amounted to 46,962,253 kg, of which 43,557,375 kg attributable to the National Collection Plan, with an increase of approximately 6% compared to the previous year. In cumulative terms, from 2011 to today it has managed 367,483,201 kg of tyres equal to approximately 50 million pieces.



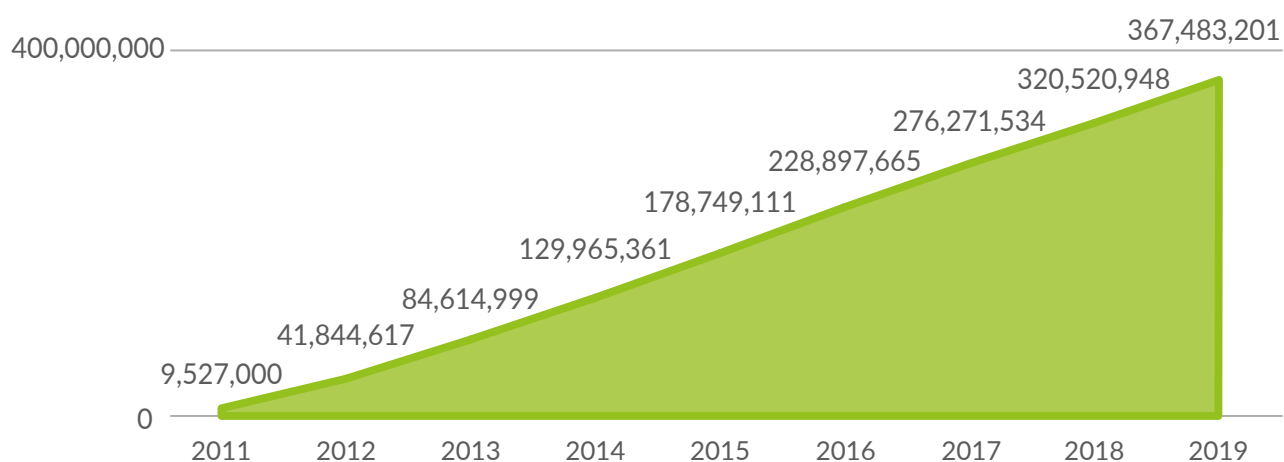
50 MILLION TYRES DELIVERED FOR CORRECT RECOVERY OVER 9 YEARS. IF SET IN A ROW, THEY WOULD TRACE THE ENTIRE CIRCUMFERENCE OF THE EARTH AT THE EQUATOR

100%



ECOTYRE
COLLECTS MORE
ELTs (**101.2%**) THAN
THE TYRES PLACED
ON THE MARKET BY
ITS OWN MEMBERS

CUMULATIVE COLLECTION 2011-2019 (kg)



19,421 REMOVALS MADE THROUGHOUT ITALY IN 2019

46,962,253 KG OF ELTS COLLECTED

48 PFU ZERO INTERVENTIONS

COLLECTION ON THE TERRITORY

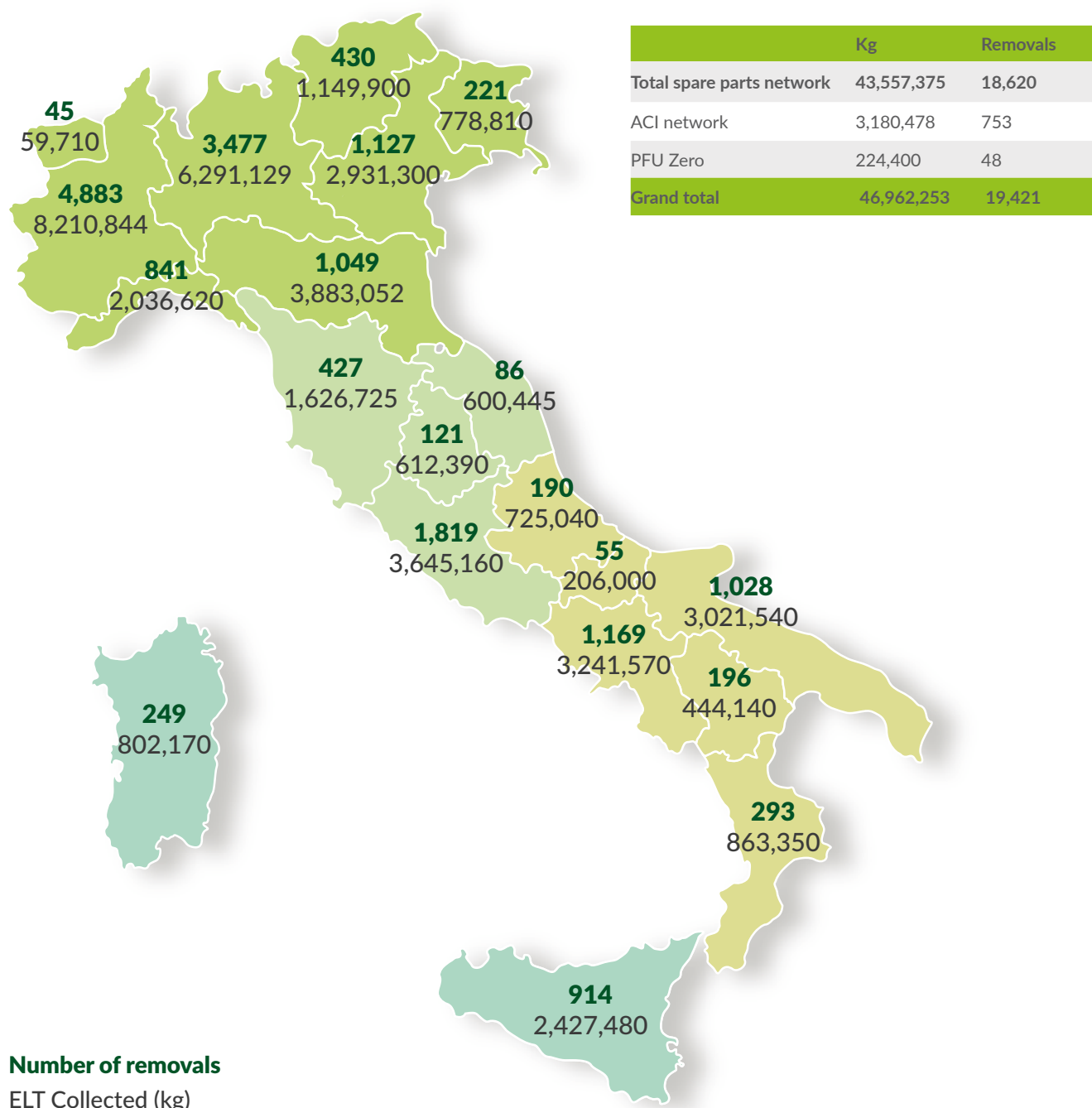
BESIDES ORDINARY COLLECTIONS IT OFFERS REMOVALS AT ACI AFFILIATED VEHICLE DISMANTLERS AND EXTRAORDINARY INTERVENTIONS WITHIN THE PFU ZERO PROJECT.

Of the 19,421 removals made by EcoTyre missions over the course of 2019, 18,620 were ordinary collections from tyre shops and workshops, 753 from ACI wreckers and 48 extraordinary collections within the PFU Zero project. This allowed us to collect a total of 46,962,253 kg of tyres that reached the end of their life.

If we analyze the territorial detail - with the division envisaged by the new PFU 2020 law to which EcoTyre is already prepared - all macro areas have seen an increase in services by the Consortium. Removals increased on average by 6.7%, distributed as follows: Center +454 collections, North +307, Islands +216 and South +176.



THE COLLECTION ACTIVITIES BY ECOTYRE ARE PUNCTUAL AND EXTENSIVE AND HAVE GROWN THROUGHOUT ITALY. THE INCREASE IN SERVICES FOR SMALL TYRE SHOPS WAS FOCUSED IN THE CENTER, IN THE SOUTH AND IN THE ISLANDS.



ECOTYRE LIVE

TRANSPARENCY IS ONE OF THE FOUNDING VALUES OF ECOTYRE, WHICH HAS THE DUTY TO REPORT ITS ACTIVITIES TO THE MINISTRY AND TO ITS MEMBERS.

During 2019 EcoTyre implemented on its website EcoTyre Live, a portal of transparency in which it **reports, in real time, the trends of collection** and the management of tyres.

An **interactive map** displays the pick-up missions that have been requested and performed during the last operational week focusing on the different areas of the country and the regions and municipalities involved.

In parallel, a **digital dashboard** offers access to real-time reports. The first graph shows, month by month, the level of achievement of the legal target. A second graph allows users to know the percentage and the number of completed removals based on the type of request: small ones up to 300 ELT, medium (between 300 and 600) and large ones, over 600 kg. A map of Italy then represents the level of achievement of the objective by region. Finally, the last set of graphs indicates the degree of collection with respect to the target for the different types of tyres.



The transparency portal on the homepage of the website

ECOTYRE LIVE
Scan the QR code
for collection data
updated in real time



Month	Percentage
January	100%
February	101%
March	102%
April	101%
May	100%
June	100%
July	99%
August	98%
September	101%
October	102%
November	101%
December	100%

Map of Italy showing the percentage of the population aged 65 and over by region. The percentages are: Valle d'Aosta 101.1%, Piemonte 101.1%, Liguria 101.2%, Lombardia 100.9%, Trentino-Alto Adige 100.2%, Veneto 101.1%, Friuli-Venezia Giulia 101.1%, Emilia-Romagna 101.5%, Tuscany 101.1%, Umbria 101.1%, Marche 101.2%, Lazio 101.1%, Abruzzo 101.7%, Molise 101.1%, Basilicata 101.1%, Campania 101.4%, Puglia 101.2%, Basilicata 101.3%, Calabria 101.1%, Sicily 101.1%, and Sardinia 101.1%.

12,858 TYRE AND MOTOR WORKSHOPS ENROLLED THROUGHOUT ITALY

73% OF VEHICLES OF THE EURO 5 AND EURO 6 FLEET

67% OF REMOVALS DEDICATED TO SMALL TYRE SHOPS

THE ECOTYRE PARTNERS

130 OPERATORS WORK ALONG ECOTYRE TO GUARANTEE DAILY REMOVAL, TRANSPORT, TREATMENT AND RECOVERY OF ELTS.

EcoTyre relies on 130 EcoTyre Partners, divided into 109 Logistics Partners and 21 Recycling Partners. The result is that in 2019 almost 20,000 removals were made at the 12,858 collection points consisting of tyre shops and workshops scattered throughout the national territory. **The collection is carried out in an extensive way**, from the smaller islands to the mountain municipalities with a logic of proximity, to ensure that the ELTs removed reach the nearest treatment plant, thus reducing the number of km traveled, costs and polluting emissions.

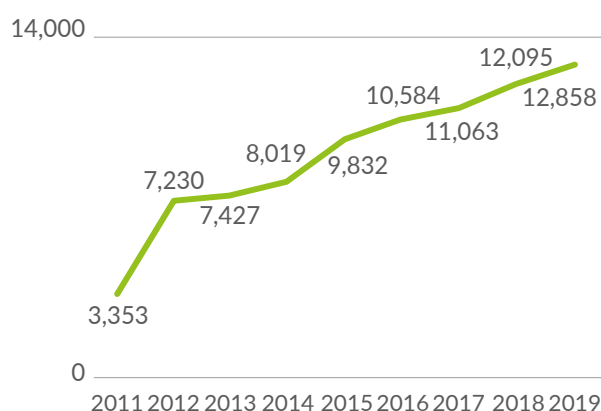
The pick-up service is performed daily by over 1,000 vehicles, 73% of which comply with the Euro 5 or Euro 6 Polluting Emissions Directive. The Logistics Partners fleet is subject to continuous modernization and Euro 6 vehicles have increased by 33% in 2019.

The Punctuality index average, i.e. the number of free removals made by the agreed date reaches almost **83%** for removals within urban centers. An additional 11% of removals are made within 5 days of the agreed day.

EcoTyre serves all types of workshops, from small tyre dealers to large companies, although the cost of the service is different because a small workshop with little space frequently requires small removals while large ones can store large quantities of ELT before requesting collection. Thanks to the continuous optimization and efficiency of the operating network, EcoTyre still manages to carry out the majority of the missions removal (67%) to meet requests where the tyres are less than 300. 23% are instead medium-sized removals (between 300 and 600 pieces) and only 10% relates to large removals exceeding 600 pieces. This choice stems from the precise **desire to operate with a spirit of service and mutuality towards the entire tyre supply chain**.

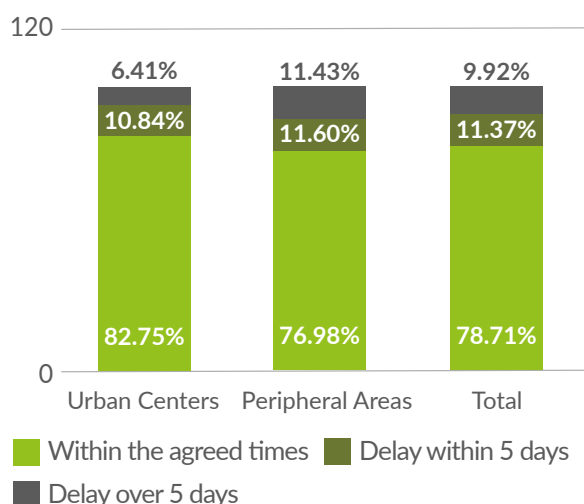
THE NETWORK OF COLLECTION POINTS WAS EXPANDED BY ALMOST 1,000 UNITS IN 2019. HAVING ACHIEVED AN 83% INDEX OF PUNCTUALITY, ECOTYRE CONTINUES TO ENSURE REMOVALS AT SMALL TYRE SHOPS

GROWTH OF AFFILIATED REMOVALS SPOTS 2011-2019

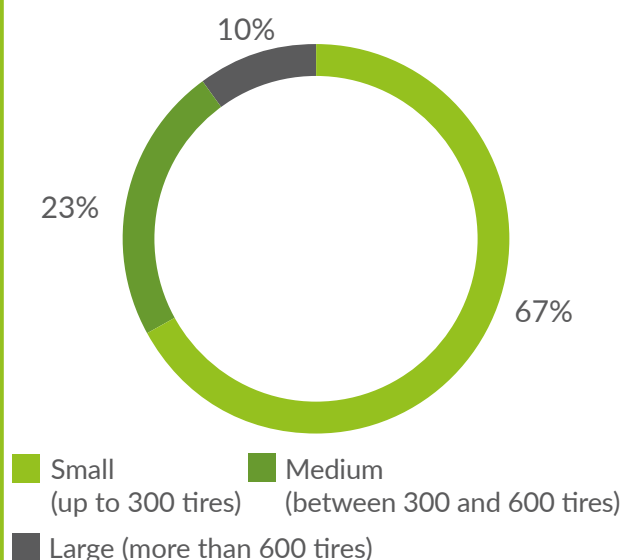


Euro 5 and Euro 6 vehicles increased by **33%** in 2019

PUNCTUALITY INDEX (SHARE OF COLLECTIONS CARRIED OUT AS SCHEDULED)



REMOVALS BY TYRE SHOP SIZE



753 REMOVALS CARRIED OUT IN CAR DISMANTLERS

3,180,478 KG OF ELT COLLECTED ON BEHALF OF THE ELT COMMITTEE

20 REGIONS SERVED

REMOVAL AT ACI DISMANTLERS

ECOTYRE COLLABORATES WITH THE ELT COMMITTEE FOR THE REMOVAL OF ELTS AT VEHICLE DISMANTLERS ENROLLED IN THE PUBLIC AUTOMOTIVE REGISTER.

As required by Ministerial Decree 82/2011, the ELTs coming from the demolition of vehicles are managed through a different chain from the one dedicated to spare tyres. The law entrusted the ELT Committee, set up at the ACI, with the task of arranging for the collection at the vehicle dismantlers, transportation and final recovery. To this end, it relies on third parties, including EcoTyre.

In 2019 EcoTyre, on behalf of the ELT Committee, carried out 753 removals, guaranteeing the delivery to recovery of 3,180,478 kg or 3.5% more than what was managed in 2018. The collection activity was particularly intense in Emilia-Romagna, which alone represents more than a third of the total (1,184,550 kg). Followed by Apulia (480,240) and Sardinia (343,740 kg).

Region	ELT COLLECTED (KG)	NR REMOVALS
ABRUZZO	0	0
BASILICATA	4,380	1
CALABRIA	103,960	25
CAMPANIA	26,120	9
EMILIA-ROMAGNA	1,184,550	258
FRIULI-VENEZIA GIULIA	45,020	11
LATIUM	135,120	35
LIGURIA	183,210	46
LOMBARDY	39,678	11
MARCHE	78,660	15
MOLISE	8,220	3
PIEDMONT	153,330	34
APULIA	480,240	145
SARDINIA	343,740	69
SICILY	92,920	6
TUSCANY	13,380	3
TRENTINO-ALTO ADIGE	50,530	12
UMBRIA	21,790	5
VALLE D'AOSTA	0	0
VENETO	215,630	65
GRAND TOTAL	3,180,478	753



THE PFU ZERO PROJECT

VOLUNTARY AND EXTRAORDINARY REMOVALS, MADE
IN COLLABORATION WITH ENVIRONMENTAL ASSOCIATIONS AND LOCAL
AUTHORITIES THROUGHOUT ITALY.

PFU Zero is the first national mapping project for abandoned ELT deposits. The goal is to identify, through reports from local authorities, associations and citizens, on the dedicated website <http://www.pfuzero.ecotyre.it>, areas where ELTs are abandoned.

In about 7 years of activity, over 2.3 million tyres have been collected with about 160 extraordinary interventions throughout Italy, during which EcoTyre has promoted environmental awareness and education activities with the aim of spreading the culture of the correct recovery of ELTs for citizens and operators, reducing the risk of indiscriminate abandonment of tyres in the environment.

In 2019 there were 48 extraordinary collection missions, free for local administrations, and involved municipalities in almost all Italian regions. The last intervention was carried out, in January 2020, in Alvito in Lazio, in the province of Frosinone, where over 2,000 ELTs were recovered inside the Fossa Maiura, a natural karst sinkhole over 100 meters deep.

This is precisely the intent of EcoTyre PFU Zero: to make a concrete contribution to administrations in difficulty and environmental associations in the management of ELTs that remove from otherwise forgotten places, we think precisely of a karst sinkhole or some seabed. "PFU Zero on the Italian coasts" is part of the larger PFU Zero project, in collaboration with Marevivo. In the 6 stages carried out in 2019, thanks to the collaboration of citizens and local administrations, 9,850 kg of end-of-life tyres were collected.

EcoTyre renewed its partnership with Legambiente also for 2019 and participated in Puliamo il Mondo, the Italian edition of Clean up the World, the largest environmental volunteering event in the world. The participation of the Calabria Region was great with 20 Municipalities that have collected almost 30 thousand kg of tyres that have reached the end of their life in the various established points for which EcoTyre has dealt with the correct management.

Also for 2019 EcoTyre was at the forefront during the Let's Clean Up Europe campaign, the largest European campaign against littering and waste disposal which aims to raise awareness among citizens on the correct management of materials that have reached the end of their life.

The PFU Zero Project is sponsored by



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

ECOTYRE LIVE

Scan the QR code and discover
all the PFU Zero Interventions

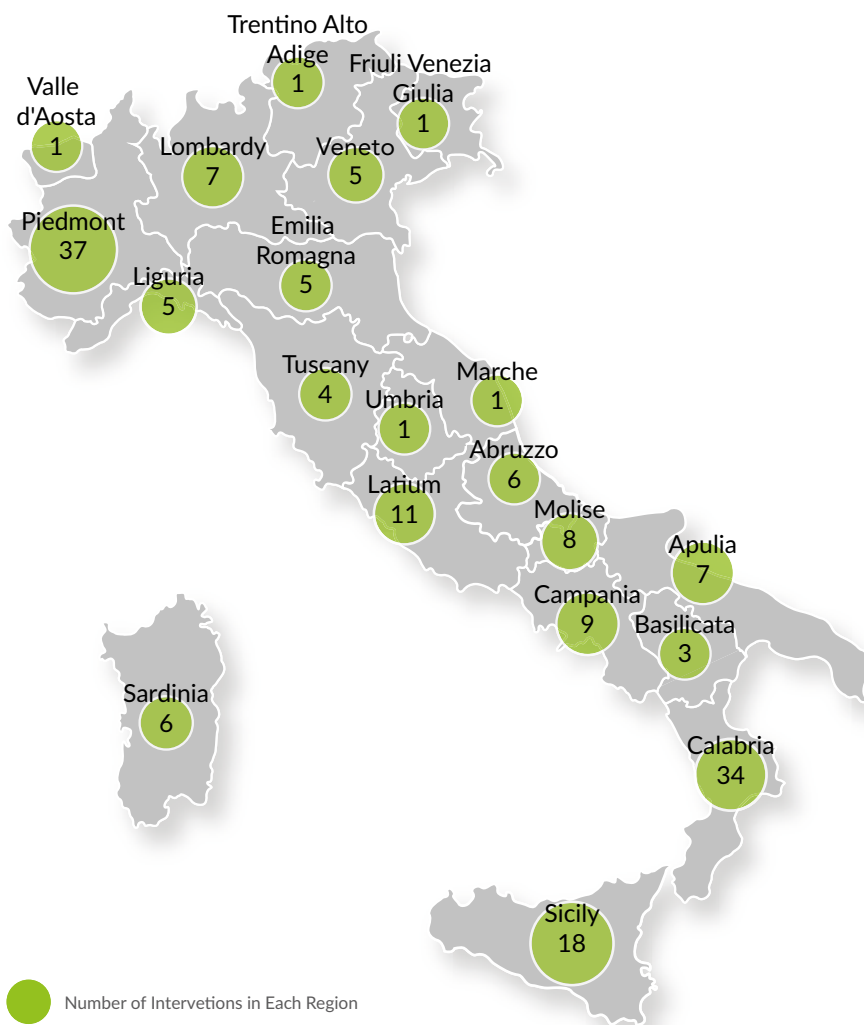




Anzio (RM)



Sorrento (NA)



Gallipoli (LE)



Piea (AT)



Milazzo (ME)

70% OF THE RUBBER OF AN ELT CAN BE RECYCLED

55% OF ELTS MANAGED BY ECOTYRE ARE SENT TO MATERIAL RECOVERY

2 KG CO₂ SAVED BY RECYCLING A DISCARDED ELT

ADVANTAGES OF RECYCLING

ECOTYRE PRIVILEGES THE RECOVERY OF MATTER OVER ENERGY BECAUSE IT ALLOWS TO RECOVER RAW MATERIALS OUT OF ELTS.

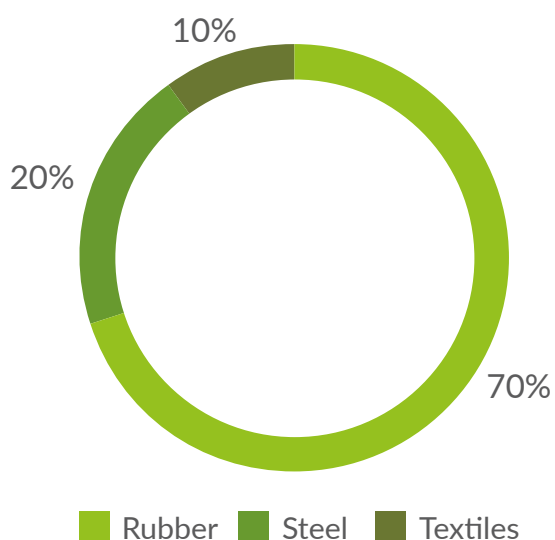
Tyres contain resources that can be obtained through recycling. First of all, rubber which amounts to about 70% of the weight of an ELT and which EcoTyre has managed to re-use for the production of new tyres through the "From rubber to rubber" project (see sheet on page 28). Even steel (20% of an ELT) and textile fibers (10%) are completely recyclable.

The recycling process takes place by shredding the tyres into smaller and smaller pieces and separating the rubber from the other materials. ELT granulate and powder are thus produced, materials that can be reused in numerous products. By means of selection and de-vulcanization processes they can be added to virgin rubber for the production of new tyres. Other uses are modified asphalt, sports and shockproof surfaces, sound-absorbing panels, etc.

EcoTyre favors the recovery of material to which 55% of the managed tyres are destined, while the remaining 45% is sent for energy recovery. The first solution is certainly more advantageous from an environmental point of view because it is calculated that for each recycled tyre, about 2 kg of CO₂ are saved compared to the waste-to-energy solution, as well as a reduction in the consumption of raw materials.

ELTs CAN BE COMPLETELY RECYCLED AND, THANKS TO THE "FROM RUBBER TO RUBBER" PROJECT, USED TO PRODUCE COMPOUNDS FOR NEW TYRES

COMPOSITION OF A TYRE

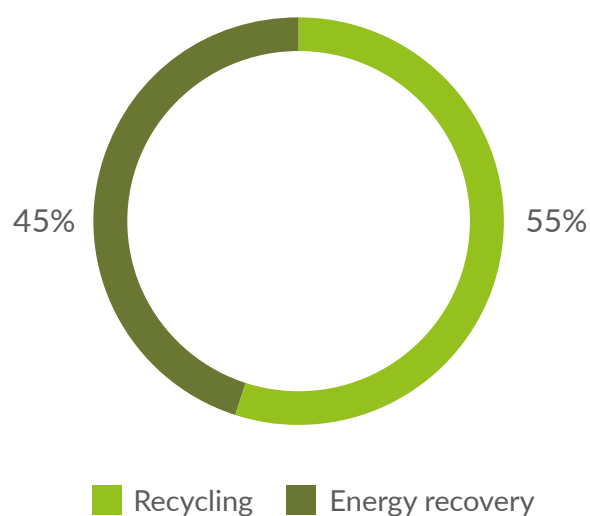


ELTs are **100%** recyclable

55%

ELTs sent to recovery of material

TYPE OF RECOVERY



FROM RUBBER TO RUBBER

THE FUTURE OF RUBBER IS NOW A REALITY, THANKS TO THE INNOVATIVE PROJECT BY ECOTYRE OF RECYCLING ELTS INTO NEW TYRES.

"From Rubber to Rubber" is the innovative project, developed by EcoTyre and started three years ago with the involvement of important technical partners, which allows the use of shredded rubber deriving directly from the tyres that have reached the end of their life, to obtain a **green compound** used for the production of other tyres.

Never before has it been possible to achieve such a **concrete and tangible result**. The success was determined by an optimization of the process phases, summarized as follows:

- qualitative selection of the recovered ELTs that must have specific characteristics (type of polymer, level of consumption, etc.);
- specific granulation process according to pre-established protocols;
- inlet and outlet quality checks of the characteristics of the granule (density, particle size, polymer base);
- preparatory intermediate treatment of the granule;
- devulcanization: a process to make the end-of-life rubber usable again for use in the normal production cycle;
- study and development of an innovative compound capable of optimizing the characteristics of the new tyre.

An operational road test was conducted to verify the quality of the tyres produced with the green compound. The tyres were mounted on trucks in the fleet and circulated under normal load conditions to measure pressure, tread wear, general condition of the tyre, in a comparative way compared to traditional tyres.

The test results (initially made with a percentage of recycled rubber equal to 5%, then increased up to 20%) were surprising: after covering over 1,500,000 kilometers, from April 2018 to April 2019 in normal conditions of use and circulation on the road, the test tyres mounted on 20 trucks showed characteristics of durability and resistance similar, and in some cases better, to the conventional ones. The trucks mounted traditional tyres on one side of the drive axle and tyres containing recycled rubber on the other. The tyres were tested, therefore, for the same load, asphalt and km traveled and, above all, carrying out transport at the maximum payload, therefore in conditions of great stress.

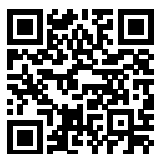
In light of this success EcoTyre and its partners have decided to extend the test to at least 100 vehicles in the PFU collection fleet with "green tyres" and to launch the "From Rubber to Rubber 2.0" project which includes:

- a further percentage increase in the rubber recycled inside the compound - potentially by 35%;
- extending the project to other types of tyres;
- the equipment of at least 1,000 vehicles within the next 36 months.

20% of recycled rubber is found in the green compound

1.5 million km of road traveled during tests

ECOTYRE LIVE
Scan the QR code for the latest news on the From Rubber to Rubber project



Target 2020-2022
1,000 vehicles with green tyres

CAMBIO PULITO

ECOTYRE IS A PROUD MEMBER OF THE PLATFORM TO
COUNTER ILLEGAL TRAFFICKING OF DISCARDED TYRES.

EcoTyre adheres to Cambio Pulito - Clean Change (www.cambiopulito.it), the first whistleblowing platform in Italy for the confidential and anonymous reporting of situations of irregularity and illegality, from the illegal sale to the evasion of the environmental fee for the recycling of discarded tyres along an entire supply chain, including over 50,000 companies throughout the national territory.

The platform, managed by Legambiente, is accessed by companies that perform services on behalf of consortia such as EcoTyre, Airp and Federpneus Partners and parts market operators belonging to Confartigianato and CNA. Through access passwords dedicated to the different categories, each operator has the possibility to anonymously and securely report irregularities and illegalities which he has witnessed. Legambiente filters the reports, classifies them and assesses their reliability, with the possibility of requesting further information and clarifications and possibly arriving at the reporting to the police in cases of particular evidence and seriousness.

In January 2020 all the data, obtained thanks to the Cambio Pulito platform, were collected within the Report "Illegal flows of tyres and ELT in Italy", presented with the Minister of the Environment, Sergio Costa. A work of over two and a half years that has allowed us to define a clear picture of the critical areas of a system, that of the collection and recovery of ELTs which represents a case of excellence for Italy and which every year ensures the recovery of over 380,000 tons of ELT.

It is estimated, in fact, between 30 and 40 thousand tons of tyres that are illegally placed on the national market every year, to which a failure to pay the environmental fee for their collection and recycling for around 12 million euros is linked, evasion of the VAT estimated at around 80 million euros and an exposure to the risk of abandonment of ELTs in the environment deriving from illegal activities.

From June 2017 to December 2019, 361 reports of offenses were recorded, which concerned 301 companies. The reports were, almost entirely, precise and detailed, accompanied by documentation supporting, so much so that they materialized in 8 exhibits forwarded to the police:

- to the Carabinieri for the protection of the environment, with the reporting of 136 companies (126 Italian and 10 foreigners), with 35% of the operators subsequently subjected to controls who have been subject to sanctions;
- to the Market and Competition Authority, with the reporting of 14 websites (5 Italian, 9 foreign);
- to the Air and Naval Operations Department of the Guardia di Finanza of Naples, with the reporting of 24 cases in Campania alone.

All the complaints focused on alleged illegal online marketing (often with foreign countries, towards which the action of contrast and repression still appears complex and often carried by "blunt weapons") and illicit disposal, on the failure to pay VAT and the environmental fee, on abusive practices and unfair competition. The part of the supply chain that manages ELTs instead sees the illegality of substantiating themselves in: ELT market passed off as used tyres, ELT thefts for illegal recycling, ELT scam systems scam. With regard to geographical distribution, the regions most affected by the reports are Campania (77), Lombardy (51), Apulia (25), Abruzzo (22), Emilia Romagna (21), Sicily (18), Calabria (17), Liguria (15) and Latium (14).



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L'Economia Circolare dei PFU

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