

# ANNUAL REPORT 2018



## **ANNUAL REPORT 2018**



### **FOREWORD**



The year 2018 was one of great importance for our Consortium: not only did we achieve unquestionably positive operative results and met all our collection targets, but we also concluded the initial phase of a project that could radically change the approach to waste tyre recovery. Our "Rubber to Rubber" programme began about three years ago, when Ecotyre decided, in cooperation with some of our members and other national and international actors of the tyre recovery chain, to ignite a process aimed at something very simple yet revolutionary: using rubber granules derived from waste tyres to produce new tyres.

In the last few months we worked tirelessly in treatment facilities and labs to pursue this dream and, for the first time ever, we are succeeded in the challenge. In the course of 2018 we produced and tested the first green tyres containing about 20% of recycled and de-vulcanized rubber directly obtained by granulating the End-of-Life Tyres (ELTs) collected by Ecotyre. The tests have confirmed that no substantial difference exists, in terms of tyre performance, life span and wear, between traditional tyres and the ones we developed. The only real difference is that "Rubber to Rubber" tyres represent a real contribution to the circular economy philosophy and could open up an important market for waste tyres recovery.

This pushes us to be even more committed in our day-to-day efforts, which in the last twelve months gave us reason to be proud. We have once again met and exceed the legal collection threshold, our membership has increased to 744 members and, consequently, our registered pick up points have also increased and are now about 12,000. We have also activated a real proximity service by reserving more than 50% of our collecting missions to small and medium-sized tyre shops which, due to lack of storage space, need us to also pick up small loads for them.

In terms of voluntary activities, we carried out dozens of extraordinary interventions on abandoned waste tyre dumps. On our side, as has become tradition, were the volunteers of Legambiente and Marevivo, our long-time partners in the PFU Zero Project. Almost 300,000 kilos of ELTs were cleaned up from natural areas and sent off to adequate treatment and recovery, sending a clear message on the type of process our tyres should undergo when they end their life. At the institutional level we kept on advocating a demanding for transparency and rule of law to be upheld in our industry through the Cambio Pulito platform, which we promote in alliance with other sectorial consortiums and organisations.

In brief, it was an intense, inspiring year, full of satisfaction for the results achieved, confirming us as one of the realities that put the circular economy into daily and real practice. Please allow me to thank our staff, members and suppliers for their hard work, hoping that with their help we will achieve even more in the future.

Enrico Ambrogio
Presidente EcoTyre





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## THE ECOTYRE CONSORTIUM

#### **OUR ROLE**

In **eight years** of business, EcoTyre has consolidated its leading role within the circular economy and remains Italy's largest Consortium by membership in the Endof-Life Tyres (ELTs) sector.

EcoTyre's operations rest on three key pillars:

- operational quality and extensiveness of collection;
- attention to our members' needs, as EcoTyre represents their interests visà-vis the institutions, notably the Ministry of the Environment. We initiated a constructive dialogue with the Ministry so as to encourage the improvement of the existing sector-specific legislation and ensure a lawful industry based on the principle of fair competition amongst all those operating along the chain;
- efficiency, as Ecotyre made significant investments in innovative, cutting-edge software solutions and operations management systems. This allows us to keep our operational costs under constant control and achieve an important objective: keeping the environmental fee we ask for down to one of the most competitive costs in Italy, particularly when compared to the quality of service offered and the extensiveness of our collection.

Starting from its specific aim, that of collecting ELTs and delivering them for recovery so as to avoid their uncontrolled or illegal disposal, the Consortium has thus supported the overall promotion of an healthier economy and a better environment for our country by making available a thorough logistical know-how, carrying out awareness-raising activities and researching innovative solutions for the re-use of materials derived from recycling.

Our efforts at R&D level resulted in the "Rubber to Rubber" project, launched by EcoTyre in cooperation with a number of our members and other national and international partners. For the first time ever, the project succeeded in using rubber granules derived from waste tyres in a binder through which new tyres are produced. The tests on these green tyres have confirmed that the latter are comparable to traditional tyres in terms of both performance and life span.

#### **HOW IT WORKS**

The ELTs recovery and recycling process involves five actors:

- **CONSUMERS,** who pay the environmental fee upon purchase of a new tyre, thereby covering the costs incurred for the collection of waste tyres;
- **OPERATORS** (e.g. tyre shops, car repair shops and other businesses in the sector) that take on ELTs;
- **ECOTYRE**, which makes hundreds of daily collections of ELTs from operators. Such a service is free of charge, as it is financed by the environmental fee paid by consumers;
- TREATMENT FACILITIES where waste tyres are transferred in order to be weighed, stored and sorted by category. After that, the actual recovery process begins, with the rubber being separated from other iron and textile components and shredded into a variety of formats suitable for materials or energy production;
- COMPANIES SPECIALIZED IN RECYCLING OPERATIONS receiving processed materials, in particular "rubber granules", which are then used to manufacture recycled rubber products such as safety tiles, sound-absorbing panels or urban and sports furniture (for example athletics tracks). Thanks to the "Rubber to Rubber" project, rubber granules can now be de-vulcanized and used to produce new tyres. Another part of the rubber is instead brought to waste-to-energy plants such as incinerators or cement factories for the purposes of energy recovery. Our goal is to increasingly reduce the share of rubber meant for this type of recovery and promote the recycling of materials instead.

#### **OUR WASTE TYRES COLLECTION SYSTEM**

The waste tyre management flowchart



#### **OUR MEMBERSHIP**

Once again in 2018, EcoTyre grew in membership, rising from 686 active members at the end of 2017 to 744 in December 2018. A significant 8,4% net growth, proving EcoTyre's capacity to attract Italian and foreign businesses and retain its customers thanks to:

- the operational efficiency and the extensiveness of our pick-up operations;
- punctual paperwork compliance;
- cost competitiveness.

## Increase in membership 2011-2018



Please find below the list of members of EcoTyre, the Consortium with the strongest membership base in the sector of ELTs management.

The list of members is updated in real time and is available at www.ecotyre.it

2 Zeta Oil	2G Gomme	3000 Gomme	4 Ruote
4 Tek	A.g.o.a.r.	A.r. Pneumatici	Abrami Giancarlo
Adriagomme	Agrotyre Pneumatici	Aj Pneus	Al Box
Albiangomme	Alfa Gomme Car	Al-Fra V.i.	Alleruzzo Gomme
Allini	Alpi Gomma	Alpigomme	Alp-Pneus
Alto Vergante Pneumatici	Altoè Enrico E C.	Altoli Roberto E C.	Ambrogio Trasporti
Andrea Minto	Angela Gomme	Angeli Gomme	Antonelli Emanuele
Antonelli Samuele	Ar Gomme	Aran Gomme	Arbus Gomme
Area Corse Event	Area Gomme	Asso Service	Astigiana Gomme
Auto Art	Auto Genetti Julia & Lukas	Auto Officina Morganti Giovanni	Auto Service
Auto Ulten Gmbh	Autoaccessorio Polesano	Autoberlin S.	Autocarrozzeria Barison Nico
Autocenter Sudtirol	Autofficina Anisetti	Autofficina Bernardini D. & C.	Autofficina Bertas
Autofficina Bs	Autofficina Cacciamani	Autofficina Carraro Luigi	Autofficina Cragnolin
Autofficina Duemme	Autofficina F.lli Bavato	Autofficina F.lli Corilli	Autofficina F.lli Frison
Autofficina Festari	Autofficina Gandini Maurizio	Autofficina Grassi Adolfo	Autofficina Madaschi Giuseppe

Autofficina Milano	Autofficina Paccagnella Romeo	Autofficina Quadrifoglio	Autofficina Stop And Go
Autofficina Trento Severino	Autofriuli Casa Del Radiatore	Autogomma Florio	Autoklaus
Autonord	Autopartstrading S.	Autoricambiodiretto. it S.	Autoriparazioni Alberto
Autoriparazioni	Autoriparazioni Saldi Mattia	Autoservice	Autoservice S.
Autoservizi Dalla Pola	Autosport Rugin	Autospyder	Autotelser
Auto-Tir	Autotrasporti Cortina	Avi Luca & C.	Azzurra Gomme
B.s. Pneumatici	Baldini Enzo & Giuseppe	Baraldi Gomme	Barani Rino & C.
Baratti Angelo	Barbieri Danilo & C.	Barlera Gomme	Battistetti Nicola & C.
Bavaria	Bbm	Bcs	Be.ca. Gomme
Berg	Bernard Claudio Motors	Bf Gomme	Bieffe S.
Bmw Italia	Bonetto	Borgo Gomme	Borrauto
Borrello Giovanni Gommista	Bortignon & Basso	Botol Car Service	Bottari
Bozzato Turibio	Вра	Bregolato Gomme	Brentagomme
Bricherasio Gomme	British Motors Service	Bruno Gomme	Brusamarello Gomme Schio
Brusamarello Gomme Thiene	C.m.c.	C.r.a.	C.r.a.
C.s. Group	Caiola Gomme	Caiola Sergio	Calì Pneumatici
Caller	Campo Gomme	Candela Gomme	Car Gomme
Carbike Gomme	Cargom & Service	Carmix	Carnia Pneus
Carpino Gomme	Carrozzeria 2000	Carrozzeria 3Zeta	Carrozzeria Conci
Carrozzeria	Carrozzeria	Casa Del	Casa Del
Quadrifoglio	Trieste Con	Pneumatico	Pneumatico
Catalano Nunzio & C.	Cataldo Gomme	Cavagion Roberto	Cdp Group
Cecchetti Alessandro	Cecchinato Pneumatici	Cecconi	Center Lamezia Gomme
Cento Gomme	Centra	Central Car	Centralgomma
Centrauto A	Centro Della Gomma	Centro Gomme Antonio	Centro Gomme Di Cambielli Francesco
Centro Gomme Di Cavicchioli Paolo & C.	Centro Gomme Di Franchetto G.attilio	Centro Gomme Di Orazio Liveri	Centro Gomme Di Sinigaglia Antonio & C.
Centro Gomme F.lli Ricci	Centro Gomme S. Martino	Centro Gomme Valdobbiadene	Centro Pneumatici Ladispoli
Centro Pneumatici Sberna	Centro Revisioni Forevol	Centrogomme	Centropneus
Cerberus S.	Cerchi Per Auto	Cherasco Pneumatici	Ciaramitaro Gomme

Cielle	Codega Pneumatici	Colletti & Serio	Comiotto Silvano & C.
Commerciale Mattarollo	Compagnone Gomme	Comparin Gomme	Consorzio Autoriparatori Cle-Ma Car
Consorzio Gommisti Sicilia	Cooper Tire And Rubber Company Italia	Corat	Corsalini Gomme
Cova Gomme	Crea Antonio	Cremascoli Gomme	Crimar W.s.
Cristofoli Gomme	Cumiana Gomme Group	Cvm	D3 Autoriparazioni
Dalla Verde Silvano	Damastini	Danieli Gomme	D'azzeo Pneumatici
Dbg Pneumatici	De Biasi Giuseppe	De Gregorio Guido	De Luca Gomme
De Marco Giovanni	De Ruggini	Deflorian Marino	Delta Distribuzione
Delta Gomme	Delticom Ag	Dgt	Di Cosmo Gomme
Di Gennaro Pneumatici	Dikabo Italia	D'incà	Dml Auto Service
Dmo	Do.car	Donati Gomme	Douglas Wheel
Dp Automobile Car Service S.	D.p.m.	Duca Gomme	Duchetti Carmela
E.g.o.l. Group	E.p.t.o. Electronics	E.tansini Gomme A	Eccher Christian
Effegomme	Egacom S.	Egimotors	Elite Auto
Elleci Pneumatici	Emak	Emmea	Erinnio Michele
Ermes Gomme	Esquilino Gomme	Eurogomme	Eurogomme
Eurotire	F.lli Bagnoli	F.lli Bassani	F.lli Capaldi
Elli Chiarulli	F.lli Cocchi Gomme	F.lli Zomer	F.s.i. Fleet Supplies International
F1 Car	F1 Cerchi E Pneumatici	Fabbrizzi	Falcopneus
Fasano A. & R. Gomme	Fcs Torino	Feltrina Gomme	Feroci
Ferro Ampelio & C.	Fi.ff	Fiaba	Fincar
Fiorello Ricambi	Flavio Gomme	Florian German	Fontana Pneumatici
Fr Wheels S.	Frana Gomme	Franco Gomme	Franzosi Pneumatici
Fratelli Martiri	Fratelli Meloni	Frisiko Pneus	G. & B
G.d. Gomme	G.v. Gomme	Gambetti Tito & C.	Garage Centrale
Garage Europa Holzer	Garage International	Garage Lomellina	Garage Staggl
Garage Touring	Garda Gomme	Gasperini Gomme	Gb Car
Ge.co Racing	Gfi	Gfz	Ghibaudo Aldo
Giacobazzi Gomme	Giacobazzi Gomme	Giacomelli Paolo	Giaro Pneumatici
Gino Solimene Export Import Pneumatici	Giordangomme	Giordani	Giordano Gomme
Giudici Gomme	Giuliani Gomme	Global Parts Diffusioncar	Gobbo Service

Gojames Gmbh	Goldoni	Gomma On Web	Gommamico
Gommaria Ruote	Gomma Service Adl	Gommaster	Gommauto Bazzoni
Gommauto	Gommauto	Gomme Auto	Gomme Industriali
Gomme Marostica	Gomme Top S.	Gommenonsolo	Gommissima
Gommista B&B	Gommista Marco Cellucci	Gp Gomme	Granit Parts & C.
Grassi Gomme	Grifo Gomme	Grifoni Gomme	Grip Gomme S.
Grisignano Gomme	Grosso Edmondo	Gruber	Gruppo Casal
Gruppo Minitop	Guardini Graziano	Guerini E Gallo	Guerra Elfisio & C.
Gufler Helmut	Guglielmi Sport Kit	Guidetti Luciano	Hankook Tire Italia
Hardgreen	Honda Motor Europe Ltd - Italia	Idea Gomme	Igas
Il Gommista Di Fiducia	Innocenti Pneumatici	Innovabox	Inter Cars Italia
Iorauto	Iorio Gomme	Ipergomme	Iperuranio Gomme
Irgom	Ital Logistic	Italdidra	Italgomme Pneumatici
Italgomme	Italytyre	Ivangomme	J.oberrauch Kg
King Regeneration	Klaus Pittschieler Karosserie U Mech. Werkstatte	Komland	Kramp
Ks Corporation	La Casa Delle Ruote	La Coperton	La Nuova Autoricambi Gregoriana
La Nuova Pneus	La Picena Pneumatici	La Ruota Pneumatici	Laezza Pneumatici
Lamezia Gomme	Lancia Gomme +A369	Laneve Pneumatici	Langa Pneus
Largherpneus	Larizza Antonio	Larsson Italia	L'arte Del Gommista
Laterza Gomme	Lavelli Gomme	Lazzarini Pneuservice	Le Ginestre
Leonardi Pneumatici	Lerma Gomme	Lg Pneus	Liebherr Emtec Italia
Lionetti Gomme	Lk-Komjanc Luigi	Lo Pneumatico	Loiudice Saverio Pneumatici
Lora	Lorenzetti C. & A.	Losavio Center	Lr Garage
Luretta Gomme	Lvdue	M.a.f.	Mai Italia
Max Solutions	M.c. Gomme	M.g.	M.g.m.
M.m.automobili Italia	Mab Pneumatici S.	Mac Auto Divisione Gomme	Maestrelli Gomme
Magaldi	Mahindra Europe	Majani Terzilio	Mak
Malaguti	Malatesta Sud	Malz	Mandelli
Mantoan Alberto	Marchesini Pneumatici	Marco E Guido Gomme	Marini

Mario Gomme	Mariolino Gomme	Marro Automobili	Marsiglia Piero Luciano
Martina Tyres	Martinello	Martucci Gomme	Mascitti Gomme
Masiero Gomme	Mastrogomma	Max Auto Reifencenter & Autoreparaturen Des Lechner	Max Tyre
Maxime	Maxxitire	Mazara Gomme	Md Distribuzioni
Media Scooter	Medici Gomme	Meroni Service Car	Mestrina Gomme
Mettifogo Service	Miale Francesco	Michele Chiarelli Pneumatici	Midrocar
Millegomme	Mirarchi Pneumatici	Mirko Garage S.	Mister Gomma
Mitel Construction	Mobis Parts Europe N.v. Italy	Mock	Modafferi Santino
Moderna Gomme	Modugno Pneumatici	Momo Gomme	Monaco Tyres
Montebello Gomme Unipersonale	Monterastelli Alfeo	Moretti Multipneus	Moretto Graziano
Morpheus Gomme	Moto	Motocross Marketing	Motorstor
Motorsystem	Mrv Pneumatici	Mss Distribution	Mucci
Mulinetti Gomme S.	Murgia Giovanni & C.	Musso Gomme	N.g.tyres Group
N.p. Tyre Unipersonale	Nasto Pneumatici	Nasto Pneumatici Mo.da.	Navì
Neri Gomme	Nero Gomme	New Bassani Auto	New Lido Gomme
New Mercury	New Pneus 2000	Ng Service	Nik
Nikogomme	Nino Stallone	Nissan Italia	No Poser
Noigomme	Noigomme2	Non Solo Gomme	Nori Racing
Nuova Evangelisti Gomme	Nuova Orrigoni Gomme	O.d.p.	O.m.c.r.
O.r.a. Service	Officina 3D Pneumatici S.	Officina Santuliana	Officina Scremin
Officina Tedeschi	Offroadmotors	Ok Gomme	Oliver Group
Oliver Store	Only Machine	Opel Italia	Origlia Pneumatici
Ottagono	Overgom	P.t. Gomme	Pagani Pneumatici
Palazzi Remo	Palpon Gomme	Panormus Pneumatici	Paoletti Racing
Parmeggiani	Pasini Gomme Di Pasini Alessandro	Pasini Gomme Di Pasini Paolo & C.	Patta Peppino
Pavone Giovanni	Pe.sa. Gomme	Pedrazzi Pneumatici	Pellizzari Rinaldo
Pendin Gomme	Perego Armando	Perrone Elio	Pfitscher Florian
Piave Gomme	Pichler Olaf Stephan	Piffer Garage	Pila Pneus
Pilotto Gomme	Pit Stop	Pit Stop	Pit Stop

Piva Gomme	Pneucar	Pneudirect	Pneuman Distribuzione Pneumatici
Pneumatici & Servizi Auto	Pneumatici +	Pneumatici Angrisani Pasquale	Pneumatici Centro Vasto
Pneumatici Dario Bagnoli	Pneumatici E Servizi	Pneumatici Mele	Pneumatici Moschetto
Pneumatici Valtellina	Pneurama	Pneus Acqui Commerce	Pneus Agri
Pneus Auto	Pneus Best S.	Pneus Box	Pneus Center Masserut
Pneus Center	Pneus Centro Italia	Pneus Cortina	Pneus Express
Pneus Group	Pneus Market	Pneus Mellaredo	Pneus Online Trading Cv
Pneus Palladio	Pneus Pio	Pneus Rimini	Pneus Rudy
Pneus Scognamiglio	Pneus Service Di Boano Dario	Pneus Service Gallo	Pneus Service Di Ceccato N. & C.
Pneus Service	Pneus Service	Pneus Service Venezia	Pneus24
Pneuscenter	Pneuservice 2000	Pneuservice Di D'urbano Chiara	Pneuservice Di Zambotti Demis
Pneuservice Di Casini Franco & Faccani Mauro	Pneuservice	Pneusmarche	Pneusmart
Pneustirolo	Pneustore	Pneusystem	Porsche Italia
Porto Pneus	Pr	Pr Sud	Prandini Pneumatici
Pratoverde	Professional Pneus	Proietti Gomme	Promauto
Punto Auto	Punto Gomme	Punto Gomme Valdisieve	Puntogomme Di Odorizzi Damiano
Puntogomme Di Salgaro Luca	Pusnar Gomme	Q8 Stefan Eisenstecken	Quinto Cabella
R. E C.	R.e.gi.	R.m.u.	Racing Gomme
Racing Pneumatici	Real Sud	Recar	Recchia Auto
Reda Gomme	Redmoto Srl	Reifen Hochrainer	Reifencom Gmbh
Reifendienst Klausen	Rekord Import Export	Ri.gom.ma	Ricambi Due
Ricchetti Ermanno & C.	Rifer Gomme	Rigeneral	Riparto
Riva Gomme	Riva Punto Gomme	Rivolta Automotive	Rms
Rohrer George Karl	Romagna Pneus	Rosina	Roso Gino
Rossato Gomme	Rossi Orles Ivan E C.	Rotagri	Rovalgom
Rs Tuning	S&S Cecina Pneumatici	S.a.g. Pneumatici	S.b. Car Service
S.d.r.	S.r.s. Gomme	Sabart	Sabre Italia

Sabry Pneus	Salvati Antonio	Same Deutz-Fahr Italia	Santacroce Pneumatici
Sanyang Italia	Sarda Pneumatici	Sardagomme	Savio Gomme
Scandellari	Scapini Gianluca	Schirò	Scuderia Italiana A
Senese Donato	Sergio Gomme	Serravalle Pneumatici	Service +
Servizi Gomme	Sestrigomma	Setti Pneumatici	Sg Gomme
Sica Pneumatici	Sicur Tyres Group	Sifam Italia	Simeone Pneumatici
Simply Pneus	Simvar	Sl - Autoservice	Società Generale Ricambi
Soligomme 2	Sonnengarage	Sparkling	Speedy Lavorazioni
Spelta Gomme	Spezia Gomme	Spinello Sandra	Sport Pneus
Sportgarage	Sportsystem	St Gomme	Star Tyre
Stazione Di Servizio	Stefar	Suardi Gomme	Sud Tyre
Supergom	Supergomma	Supergomme Di Ballerino V.	Supergomme Di Giansante Giancarmine
Superpneus	Suzuki Deutschland Gmbh	Suzuki Italia	Symi
Tagom Tires	Tamburelli Tiziano	Tauriello Gomme	Team Service
Tecnoauto	Tecnoblock	Tecnogomme Lancia	Tecnogomme
Tecnoruote	Tesio Gomme	Tirendo Holding Gmbh	Tires In Tuscany
Tiresmaster	Titan Italia	Tomarchio Angelino	Tomket
Tonin Gianfranco	Tony Pneus	Top Gom	Topgomma
Torreggiani	Tortorella	Tr Gomme	Tregigomme
Trio	Truck Service Tires	Tudisco Gomme	Tuninetti Pneumatici
Turra Gomme	Tutto Gomme	Tyre Resort Wheels	Tyre Trading
Tyrex	Universalpneus	Valensisi Gomme	Valle Gomme
Valli Eden	Vegom Service	Veneta Gomme	Vergom
Verri Gomme	Vi.p. Pneumatici	Villanova Gomme	Villgomme
Vimauto	Vimercate Gomme	Vm Gomme & Service	Volvo Car Italia
Vs Gomme	Vulcangomma	Vulcanizzatore Nasca Giuseppe	Welna
West Wheels	Wheels International	World Of The Wheels	Zoeschg Norbert

#### **OUR MEMBERS-ONLY SERVICES**

EcoTyre does not only offer its members to have their waste tyres collected at tyre shops, but also complies with legal requirements on their behalf, notably as regards the obligations set forth by Ministerial Decree n. 82/2011 on the submission of data to the Ministry of the Environment on the activities carried out by the Consortium as a whole.

#### REPORTING ON MARKETED AND COLLECTED ELTS

Ministerial Decree n 82/2011 requires our members to report:

- on a monthly basis, the number of new tyres placed on the marked, broken down by type;
- on a yearly basis, the number of ELTs collected compared to the number of new tyres placed on the market.

EcoTyre ensures compliance with the first obligation through its IT system and takes duly care as a Consortium of annually reporting the overall number of ELTs collected.

#### MANAGEMENT PLATFORM

Compliance with legislative requirements is ensured by an highly efficient online management software made available to our members. The EcoTyre platform is:

- fast and cost-effective, as it reduces costs and time of data entry and transmission:
- **sustainable**, as it ensures invoicing of environmental fees paid out by consumers and record keeping with no need for paper documentation.

Our IT system consists of a control panel through which the consortium constantly monitors market placement flows and plans its collections, thereby streamlining reporting and ensuring compliance with collection obligations. Moreover, the system also produces a full account and report of all completed activities, which the consortium voluntary shares with competent authorities for transparency reasons.

#### **CERTIFICATION OF PROPER MANAGEMENT**

At the end of each accounting period, EcoTyre issues a certificate of proper management to all members who met their monthly reporting and payment obligations. The certificate confirms that EcoTyre has taken charge, on behalf of the member, of all ELTs-related collection, reporting and financing obligations.

#### **INSTITUTIONAL RELATIONS**

In the course of time, EcoTyre has become an increasingly authoritative interlocutor for the Ministry of the Environment and other public administration bodies legislating on waste management. EcoTyre's institutional relations have in multiple occasions made it possible to highlight the criticalities existing at the legislative level and, when and where possible, to correct such provisions in order to promote a fair competition between all market actors.

#### **EU AND NATIONAL LEGISLATION**

ELTs management in Italy is regulated by Ministerial Decree n. 82 of 11.04.2011, which defines End-of-Life Tyres as "Tyres that are withdrawn from use at any time of their life, that the owner disposes of, decides to dispose of or is obliged to dispose of and that are not subject to a reconstruction or later use obligation". The main goal of the Decree is to ensure that waste tyres are better dealt with when they end their life so as to prevent waste creation and protect the environment.

In line with the EU principle of "Extended Producer Responsibility", tyre manufactures and importers are made responsible for managing the system and required to:

- annually collect and manage a number of ELTs (of any brand) at least equivalent to the number of tyres placed on the national aftermarket in the previous calendar year;
- report to the relevant Authority by May 31st each year, both the number and types of tyres placed on the aftermarket in the previous calendar year and the number, types and the recovery of disposal goals for ELTs;
- submit a complete economic management report to the relevant Authority;
- comply with obligations, including through the establishment of dedicated facilities, such as the EcoTyre Consortium, tasked with all ELTs management activities, including reporting and accounting obligations.

In order to cover the costs of waste tyre treatment and recycling, Italian legislators have introduced an environmental fee. Such a fee is made visible to consumers on the invoices issued upon purchase of a new tyre.

The amount of the fee is fixed by the Consortium on the basis of the overall costs incurred to ensure that ELTs are dealt with in full compliance with the applicable legislation as well as environmental and health obligations. The law provides for EcoTyre to apply a differentiated fee depending on the type and weight of ELTs to be recycled. Such fees are then reviewed on an annual basis and forwarded to the Minister of the Environment.

The environmental fee is also paid out by operators established abroad and importing tyres on the Italian tyre market via online channels. The mandatory nature of a fee on tyres that are placed on the national aftermarket for the first time, irrespective of their use, was reiterated by the Minister in its answer to a parliamentary question by MP Ermete Realacci, Chairperson of the Committee on the Environment of the Chamber of Deputies, based on information provided by EcoTyre. The answer provided by the Ministry brings an end to a long-standing issue for our sector, i.e. the possibility for online tyre importers not to pay the environmental fees and the inescapable spill over effects on the environment, public revenues, free competition and management of the tyres' end-of-life phase. Failing such a fee, the latter would indeed have to borne by citizens themselves.

## SPECIAL PROJECTS

#### **RUBBER TO RUBBER**

With the aim of breathing new life into recycled rubber granules, in 2016 Ecotyre launched the "Rubber to Rubber" Project. Over the last three years, the initiative has involved a number of experts in the field and tapped into the Best Available Technologies (BAT), to come up with a very innovative process allowing to use rubber granules derived from waste tyres to produce new tyres.

The project consisted of 9 phases coupling innovation with quality and control. Such phases are:

- 1. ELTs collection
- 2. Qualitative sorting of incoming materials
- 3. ELTs granulation
- 4. Preparation of semi-finished materials for pre-devulcanization
- 5. Innovative de-vulcanization of rubber granules
- 6. Preparation for pre-revulcanization
- 7. Preparation of the new binder
- 8. Production of the new tyre
- 9. Assembling and comparative road testing



#### **THE TEST**

As far as the last phase is concerned, "green tyres" containing recycled and de-vulcanized rubber are **compared to traditional tyres by means of a test aimed at assessing the differences between the two types of tyres**. For one year, 20 trucks of 5 different models drove for over 1,5 million Km of Italian roads using both standard binder and recycled binder derived from ELTs in conditions of high stress and full load up to 44 tons.

The **results obtained** and presented for the first time ever during the 2019 Autopromotec were **extremely positive and encouraging**. When compared to traditional tyres, new tyres showed an almost identical degree of wear despite the tens of thousands Km they were used on. Performance and road holding too proved to be comparable to traditional tyres. Therefore, tests confirmed that it is indeed possible to use ELTs for the production of new "green" tyres for normal road uses.

#### **FUTURE PROJECTS**

In view of the successful rollout of the "Rubber to Rubber" Project, EcoTyre has decided to launch "Rubber to Rubber 2.0" to extend the initiative to other types of tyres and supply at least 1,000 vehicles over the next 36 months.

"Rubber to Rubber" translates the notion of circular economy into real practice, as rubber derived from waste tyres is turned into a genuinely new resource to be used for the production of new tyres.



## INITIATIVES AND EVENTS



#### **ECOMONDO**

Once again in 2018 EcoTyre was among the protagonists of the "Ecomondo Fair" in Rimini, participating in the event for the sixth year in a row. Our exhibit stand served as a meeting point for our members, business operators and public administration representatives, offering the opportunity to discuss both technical and operational matters related to waste tyre management, and to showcase the main novelties of our Consortium, such as the "Rubber to Rubber" project premièred at Ecomondo. The Fair also represents an important occasion to raise awareness among the general public and the schoolchildren attending Ecomondo to get informed and updated on the complex yet topical world of waste management.

#### THE NATIONAL COUNCIL FOR THE GREEN ECONOMY

EcoTyre is a member of the National Council for the Green Economy. Promoted by the Foundation for Sustainable Development, the Council brings together 66 organisations and has become Italy's major think tank on environmental issues. EcoTyre follows closely the Council's debate and proposals on all issues related to waste management, recycling and the circular economy. Every year, the National Convention of the Green Economy ("Stati Generali della Green Economy") - in its seventh edition in 2018 - offers the opportunity to publicly present innovative proposals for our industry and discuss them with the Italian government, the Ministry for the Environment and the Ministry for Economic Development in particular. The focus of this year's proposal package was green jobs to boost youth employment in Italy.



#### "L'ITALIA DEL RICICLO" REPORT

EcoTyre contributed to the 2018 edition of the Report entitled "L'Italia del riciclo" ["The Italy of Recycling"], participating in particular in the drafting of the report's section on ELTs management and recovery in Italy and Europe. The research, published by FISE UNI-RE and the Foundation for Sustainable Development, is the only report on waste recycling in our country and is used as a reference for the European Commission to take stock of developments in the field of environmental sustainability policies in Italy.





In 2017, EcoTyre co-founded "Cambio Pulito" ["Clean Change"], Italy's first whist-leblowing platform for the confidential and anonymous reporting of irregular and illegal situations in the sector – from black market sales to the evasion of the environmental fee for waste tyres recovery. In 2018, the Platform gathered almost 200 alerts from all Italian Regions.

## **ACCOUNTABILITY**

#### **OUR SOCIAL AND ECONOMIC IMPACT**

116 human resources employed 13 million euros of value generated EcoTyre rightfully represents an example of circular economy, as it collects ELTs and thereby recovers a resource that would otherwise be disposed of: End-of-Life Tyres. In order to do so, it relies on a **highly effective production and management organization** with a social and economic impact on the whole country.

Its total staff of 10 people, employees and permanent collaborators included, coordinates dozens of companies and people working all over Italy who - in parallel with administrative activities - are tasked with:

- ELTs collection;
- ELTs transportation;
- ELTs treatment;
- ELTs delivery for recovery.

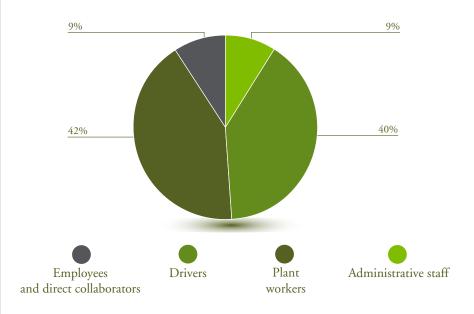
This generates an economic value of about 13 million EUR per year, one comparable to that of medium-to-big size industries and completely green.

With a view to ensuring a smooth operation of the whole chain managed by Ecotyre, its 10 employees working full time are supported on a daily basis by:

- 45 drivers and transporters;
- 47 treatment plant operators;
- 10 administrative and accounting employees.

All in all, 112 people - mostly operating in Italy - are therefore dedicated to ELTs recovery, and Ecotyre R&D activities carried out within the framework of "Rubber to Rubber" have significant spill over effects on the relevant sector.

(Directly and indirectly) employed resources



#### **OUR QUALITY POLICY**

One of the main goals of any business operating in the waste treatment sector is to ensure high quality standards, the protection of the environment and the defence of workers' and surrounding communities' health.

This is why EcoTyre has developed a reporting methodology for its own quality management and environmental management systems, which in 2017 were certified as being compliant with ISO 9001:2015 and ISO 14001:2015.

EcoTyre's main focus is on extensiveness and effectiveness of collection, especially in terms of actual and comprehensive traceability; Indeed, it documents and tracks all of its collections and flows to be received by either transit or final treatment plants.

This modus operandi is one of the distinctive features of EcoTyre, and has contributed to a high customers retention among members and logistics partners who are highly satisfied with the services that we provide in terms of:

- Professional competence;
- Promptness of response;
- Quality of equipment;
- Communication with our members and the public.











# STATEMENT OF ACTIVITIES

#### THE PFU ZERO PROJECT

PFU Zero is the first national project mapping abandoned waste tyre dumps. The project aims to locate abandoned ELTs dumps through reports filed by local bodies, organisations and the general public. Dumps can be reported and added to our database through the dedicated website www.pfuzero.EcoTyre.it. This helps attaining three goals:

- Extending the database and making the information available to the public;
- Protecting the environment;
- Raising awareness among citizens on the correct disposal of ELTs.

Every year, EcoTyre uses part of its budget surplus to clean up some of the dumps reported on PFU Zero. In 2018, over 40 extraordinary waste collection interventions were carried out. These waste collection activities are conducted free-of-charge for the local administration and made it possible, in this year alone, to send to the most appropriate recovery facility almost 300,000 kilos of waste tyres. All actions carried out within the framework of the PFU Zero Project - which is also officially supported by the Ministry of the Environment - are classified as "extra-ordinary" and are in addition to the ordinary and daily interventions ensured by our Consortium.

Over 1.5 million waste tyres in 5 years

Over 1.5 million ELTs were collected in almost six years of operations, for a total of above 150 extraordinary waste collection interventions carried out throughout Italy. EcoTyre uses these opportunities to raise awareness and educate the public on this environmental problem, with the aim of promoting a culture of adequate tyres recovery among citizens and businesses and minimising the risk of waste tyres being indiscriminately dumped into the environment.

In the areas visited by EcoTyre, children, local residents and tourists were encouraged to participate in the activities. The youngest ones had a chance to play and at the same time become familiar with the importance of a correct management of ELTs to protect the environment and in particular marine ecosystems. Many awareness raising activities were carried out also in collaboration with an exceptional environmental teacher: Gummy, our project's mascot.



# I EGAMPIENTE





#### **OUR PARTNERSHIPS**

The main goal of the PFU Zero Project is to raise awareness among as many people as possible on the correct disposal of ELTs. This is why EcoTyre has identified a number of strategic partners to help us ensuring continuity and visibility to our extraordinary waste collection interventions, also through their technical and logistical support during actual operations.

In light of the project's topics, the first organisation we started cooperating with was **Legambiente**, notably through their long-established initiative "Puliamo il Mondo" ["Let's clean up the world"] which for twenty years now sees thousands of volunteers working throughout Italy in a series of extraordinary cleaning interventions. EcoTyre offers its support by collecting waste tyres for free during these actions. Throughout the years, entire abandoned tyre dumps were identified and reclaimed back into woodland, green fields, riverbeds and other sites of community interest, also at the urban level.

Our cooperation with **Marevivo Association** resulted in the PFU Zero on Italian Coasts - a project focused on coasts and the seabed. The goal is to collect ELTs dumped on beaches and in ports of small sea villages in Italy where using second-hand tyres as boat fenders is common practice. These target-based waste collection actions are carried out by Marevivo's divers. Once the tyres are brought back to surface, EcoTyre's operative network takes them in charge and makes sure they are taken to appropriate recovery facilities.

Our PFU Zero actions in the Minor Islands also led to the possibility of setting up three more structured interventions: the agreements signed with the Municipalities of Ustica, Pantelleria and Lampedusa have established for a permanent disposal channel to be put in place for waste tyres, with EcoTyre's logistics network regularly collecting them.

The scope of the PFU Zero Project goes beyond our national borders through our participation in the **Let's Clean Up Europe** campaign. In May every year the campaign holds its European Clean Up Day, the most important European event on the collection of waste dumped into the environment. Within the framework of an initiative which marks now its sixth year, EcoTyre organises target-based collection actions in cooperation with the local actors who reported the dumps locations on **www.pfuzero.EcoTyre.it**.





Anzio (RM)



Campoli Appennino (FR)



Gallipoli (LE)



Milazzo (ME)



Piea (AT)

## INTERVENTIONS THROUGHOUT ITALY



Latium









Calabria 13

Sicily 15



Fiorenzuola D'Arda (PC)



Ponza (LT)



Torano Castello (CS) - Before



Torano Castello (CS) - After



Isola d'Elba (LI)



WWW.PFUZERO.ECOTYRE.IT

## 2018 DATA

#### **COLLECTION IN ITALY**

The applicable legislation requires us to collect a number of ELTs equal to the number of new tyres placed on the market. Since tyres are subject to wear and tear, this means that collection in Kg must account for 90% in weight of new tyres. As demonstrated by the graph below, EcoTyre has always met and exceeded this target. In 2018, we collected a total of 44,249,414 Kg of ELTs, i.e. 2.49% more than our legal obligation.

# Target attainment levels 2011-2018 (kilos)



In 8 years of operations, our waste collection activities led to **320,520,948 Kg** of tyres being appropriately delivered for recovery.

## Cumulative collection 2011-2018

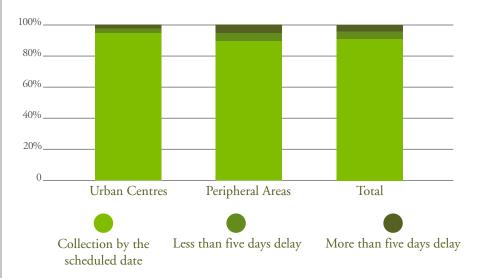


#### **OUR LOGISTICS NETWORK**

To make sure waste tyres would be punctually and efficiently collected and transported to treatment facilities, EcoTyre set up a logistics network counting more than 80 operators and 21 area coordinators who take care of 80 tyre collection operations on average per working day, for a total of almost 20,000 operations per year. Despite offering our collection service at any of our 12,000 pick-up points completely for free, we decided to set our own standards on the timeliness of collection so as to assess how much time it actually takes us to respond to a collection request and carry it out in practice.

As shown in the graph below, EcoTyre **met outstanding collection targets** in 2018 too: collection was successfully completed by the scheduled dates in 91% of cases, both in urban areas – the Italian provincial capitals – and peripheral ones (rural areas, mountain communities, etc.). The remaining 9% of collections happen within 5 days from the scheduled date.

Punctuality Rate (share of collections carried out as scheduled)



	Urban Centres	Peripheral Areas	Total
Collection by the scheduled date	94.6%	89.5%	91.0%
Less than five days delay	3.2%	5.2%	4.6%
More than five days delay	2.3%	5.4%	4.4%

# A widespread presence throughout the country

At the territorial level, Ecotyre ensures a widespread presence throughout the national territory, from the Alps to the minor islands, enabling us to ensure that any tyre shop signing-up to EcoTyre's network is covered by our service. **As of today**, **our network counts 12,095 pick-up points**, mainly consisting in tyre shops and other workshops offering tyre replacement services. Since 2011, our network has steadily grown bigger. In 2018 alone, we experienced an increase in covered pick-up points accounting for almost 10%.

Abruzzo	131
Basilicata	128
Calabria	196
Campania	486
Emilia-Romagna	638
Friuli-Venezia Giulia	424
Latium	1,148
Liguria	730
Lombardy	2,392
Marche	138
Molise	20
Piedmont	3,196
Apulia	341
Sardinia	133
Sicily	425
Tuscany	378
Trentino-Alto Adige	300
Umbria	125
Valle d'Aosta	104
Veneto	662

# Growth in pick-up points in 2011-2018



#### THE ENVIRONMENTAL FEE

EcoTyre's approach to the problem of how to manage and rationalise administrative and operational costs enabled the consortium to offer one the lowest environmental fees (i.e. the fee paid by consumers when purchasing a new tyre so as to cover the costs of waste tyre collection) on the market while guaranteeing a very high quality standard, thereby confirming our highly efficient organization.

The amount of the fee is in fact established on the basis of the logistics costs of our collection and delivery operations on the one hand and the administrative costs of running our consortium on the other.

Our know-how in reverse logistics and our lean and versatile internal structure allow us to control costs at best and keep our environmental fee down with minor - almost stable - variation over the past 8 years.

In what follows, we recap the evolution of the fee in the case of motorcars tyres (Category B1) over the past eight years. As the graph suggests, efficiency at the logistics and administrative level enabled us to lower the fee by about 30% over the years. Such a value became stable between 2016 and 2017 and slightly increased (7%) in the past year. In 2018 we further enhanced the extensiveness of our pick-ups to meet the needs of all tyre shops, including smaller ones.

Such a choice, as opposed to ensuring fewer collections from bigger tyre shops, came with a cost. However, we managed to **keep our environmental fee competitive** and even to reduce it in 2019 thanks to the efficiency of our different operational and recycling phases.

Environmental fee variations 2011-2018 (€)



#### **OUR WEBSITE AND OUR LOGISTICS PORTAL**

EcoTyre strongly believes in the role of IT tools to ensure our operations are managed and planned in an efficient and cost-saving way. We always keep our IT systems updated, and upgrade them to keep up with technological developments.

The logistics portal for pick-up points can be accessed via the website. On the portal tyre shops can submit, in an easy and time-saving way, their ELTs collection requests and access the most relevant information, namely:

- A copy of the form
- Annual reports
- Statistics
- Checks on the number of collections.

Members can enter a members-only area where they can comply online, with our support, with all relevant paperwork and submit the data required by the Ministry of the Environment on the number of new tyres placed on the market and of ELTs collected every month. In the course of the year, over 8,500 of such online declarations were submitted through the system.

Social media platform (Facebook, LinkedIn) are another key communication channel and a useful tool to share initiatives and reach out to our members.

#### Our website's homepage

















#### **OUR OPERATIONS ON THE GROUND**

In 2018, EcoTyre handled 18,318 collection operations throughout the various Italian regions. 805 of these operations consisted of the collection of a total of 3,134,070 kilos of ELTs at ACI's vehicle dismantlers (see next page), while another 46 were extraordinary operations to collect waste tyres that had been dumped into environment, for a total of 298,720 kilos of such ELTs.

At the territorial level, efforts made by EcoTyre proved to be consistent, with a significant presence from the North to the South of Italy. This is particularly true in the Lombardy Region, where collection increased by 20%, and in Apulia, where collection more than doubled from 1,020,090 Kg in 2017 to over 2,503,780 kg in 2018. Significant increases were also recorded in Sardinia and Basilicata, with a very good performance in Tuscany and Friuli-Venezia Giulia as well.

115 141 312 1,204 1,026 221 1,558 952 2,932 68 51 5,137
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756
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989
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805
46

35 52,984 2,932 5,137 5,176,83 9,265,113 952 3, 2,353,580	2,030,182 1,026 2271,801 267 68 239,241 598,190 106
	1,558 388,300
	3,147,430 168,800 932 2,503,780
191	1,204 2,505,780 3,383,580 141
594,250	339,640
33 1,230	312
	1,139,230

**756** 1,980,980

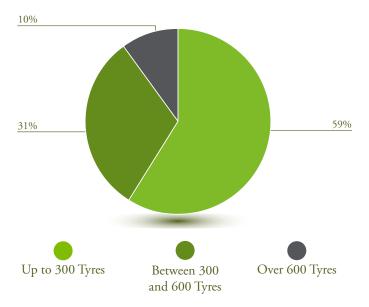
#### CLASSIFICATION OF COLLECTIONS BASED ON ELT NUMBER

Pick-up points covered by EcoTyre vary widely in terms of size and type. For example, one can find small-sized tyre shops in small cities along with big service centres in easily accessible areas. Such heterogeneity is reflected in pick-up options too: a small tyre shop typically has little space to stock ELTs removed from vehicles, and would therefore need more and smaller pick-ups. Conversely, a big tyre shop established in an industrial area will have more space and will therefore be able to stock more ELTs before asking for the latter to be picked up.

**Despite ELT pick-up costs are much higher** for small-scale collections (a truck will still have to travel, even if not at full load) and cheaper for more substantial collections (with a single journey for a bigger truck), EcoTyre chose to **cover all pick-up points** irrespective of their features and facilitate small tyre shops, by focusing on efficiency and extensiveness of logistics so as to keep the environmental fee at a competitive price.

Data below show that almost **60% of collections made by EcoTyre took place as micro-collections** (between 0 and 300 tyres collected, i.e. up to almost 2,000 Kg per batch) that can be realized by small trucks too. Big-size pick-ups (i.e. over 600 items) are most cost-effective but only account for 10% of the operations of our logistical network.

### Breakdown of pick-ups by number of items





### **ACI COLLECTION NETWORK AT VEHICLE DISMANTLERS**

Ministerial Decree n. 82/2011 set forth a dedicated recovery chain to be created for waste tyres resulting out of vehicle dismantlement. The chain is run by the ELTs Committee created for the purpose by Automobile Club d'Italia (ACI), which chose EcoTyre as its logistics partner in collection operations. The consortium carries out daily collections for all car dismantlers registered on the Motor-vehicles Public Register who request the service on ACI's online system. In this case too, an environmental fee paid to ACI by consumers when purchasing a new car offers financial coverage for the recovery of the waste tyres.

In 2018, EcoTyre carried out a total of 805 collections on behalf of ACI in all Italian regions, ensuring the delivery for recovery of 3,134,070 kilos of ELTs. Operations were particularly intense in the Emilia Romagna region, where a third of the total was collected (1,080,720 Kg), followed by Apulia (694,930 Kg) and Sardinia (231,460 Kg).

Region	Nr. of Collection	Total collected (kg)	
Abruzzo	6,800.00		
Basilicata	4,400.00	2	
Calabria	108,140.00	22	
Campania	33,600.00	11	
Emilia-Romagna	1,080,720.00	243	
Friuli-Venezia Giulia	33,590.00	8	
Latium	211,790.00	53	
Liguria	181,230.00	52	
Lombardy	18,050.00	5	
Marche	78,640.00	17	
Molise	8,400.00	2	
Piedmont	182,790.00	49	
Apulia	694,930.00	223	
Sardinia	231,460.00	39	
Sicily	68,590.00	18	
Tuscany	17,700.00	4	
Trentino-Alto Adige	40,740.00	11	
Umbria	13,960.00	3	
Veneto	118,540.00	118,540.00 41	
Grand Total	3,134,070.00	805	

### THE RECOVERY FACILITIES

Our efforts to optimise our chain pushed us to review the treatment and recovery plants network we deliver our ELTs to, bringing it down from 23 in 2017 to a total of 18 in 2018. We decided to rely on a smaller number of partners guaranteeing full compliance with our high quality and management standards, so as to maximise our transparency and efficiency. This is also due to our quality and environmental certifications, which required an overhaul of our agreements with suppliers.

We selected treatment plants based on the criterion of geographical proximity, in order to reduce Km travelled by trucks and the related costs and polluting emissions. At the same time, by working with different types of plants we secure our operational continuity and ensure the treatment of specific types of ELTs such as oversize tyres.

In the table below, the 18 treatment plants cooperating with the consortium for the treatment of waste tyres are listed.

# Treatment facilities used by Ecotyre

Name of treatment Plant	Location	
Agotech	Sarno	
Baucina Recycling Tyres Srl	Baucina	
Bonus Obchodni Agentura Spol Sro	Borovany	
Corgom S.r.l.	Corato	
Cumiana Gomme Group S.r.l.	Settimo Torinese	
Ecoservice Srl	Sant'Antonio di Gallura	
Estato Gmbh	Weiden/Opf.	
Gatim Srl	Lamezia Terme	
Genan GmbH	Kammlach	
Irigom S.r.l.	Massafra	
Maestrale Industrie Terni S.r.l.	Terni	
Marche Recycling Srl	Montone	
Microgomma Energia S.r.l.	Abbadia Di Montepulciano	
REP S.R.L.	Bagnolo Mella	
Smacom S.r.l.	Santa Ninfa	
Ternienergia S.p.A.	Narni	
Turin Carta Srl	S.Maurizio Canavese	
Tyrewolf	Pfullendorf	

# Treatment facilities used in 2011-2018



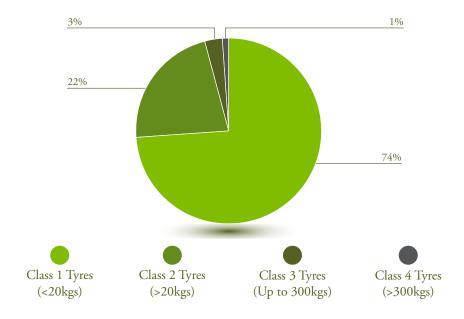
### **COLLECTION BY CLASS AT CAR SHOPS**

EcoTyre collects all types of tyre existing on the market, from very small wheelbarrows and carts tyres to very big tyres removed from bulldozers and excavators. The applicable legislation provides for tyres to be broken down in 4 classes:

- Class 1 for car and motorbike tyres weighing less than 20 kilos;
- Class 2 for tyres weighing over 20 kilos, e.g. truck tyres;
- Class 3 for tyres weighing up to 300 kilos;
- Class 4 for tyres over 300 kilos.

Class 1 remains the biggest one in size, including all the most common types of tyre. Nevertheless, EcoTyre remains strongly committed to the collection of oversize tyres, collecting even more of those than what the law would require. For example, in 2018 we scored 101,8% with respect to our Class 1 target and 109% for the other classes.

End-of-life tyres by type

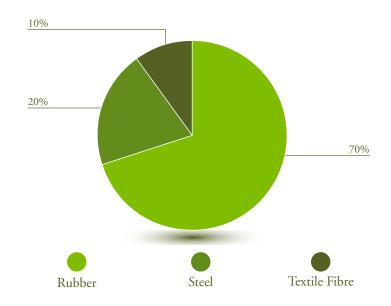


#### THE BENEFITS OF RECOVERY

Italy is a case of excellence at the European level in the area of waste tyres recovery, with a very high share of materials being recovered for this type of waste. Recycling indeed represents a better solution than energy recovery both from the environmental perspective and in terms of the optimisation of resources. A study conducted by the Foundation for Sustainable Development estimated that, for every ELT entering the materials recovery process, about 2 kilos of carbon dioxide are saved as opposed to the energy recovery option.

Almost all material that tyres are made of can be recovered, with minimum residual waste produced. In particular, as shown in the chart below, the main component is rubber, covering for about 70% of the overall material, while the remaining 30% consists of steel filaments reinforcing the tyre structure (20%) and textile fibres (10%).

# What tyres are made of



The recovery process begins with the tyres being shredded, with the steel parts being extracted out and the rubber turned into what is commonly referred to as rubber chips. The latter then go through further shredding stages so as to reduce them into increasingly smaller granules usable for a variety of products, until getting the so-called rubber crumb, an extremely versatile material.

Currently, the most interesting avenue for ELT recycling concerns the roadmap set forth by the "Rubber to Rubber" project, which allowed to directly reuse rubber granules in the production of new tyres for the first time ever. Such application represents a concrete solution that is fully in line with the principles underpinning the circular economy. For other possible uses of rubber granules, please see below.

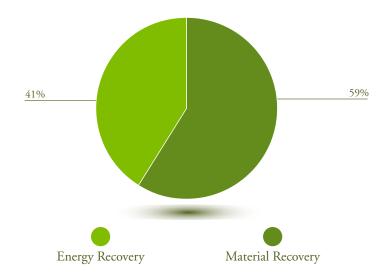
Applications of recycled materials derived from ELTs

Sports floors	Pavements and products
Urban (street) furniture	Insulation materials
Mulching material	Civil engineering works
Electric arc steel-making	Re-used in mixes

### **ECOTYRE'S RESULTS**

On top of recovery of materials, ELTs can also be used for energy production. In this case, tyre treatment does not go beyond the first phase. Tyres undergo a rough shredding to generate the so-called rubber chips. The latter, in turn, have a high heating value and can be used directly by waste-to-energy plants to produce electricity.

## Type of recovery



EcoTyre sends a staggering 60% of tyres to materials recovery, thereby contributing to this virtuous circle, all the more so in light of both national and EU relevant average. Such a share is certainly due to increase thanks to the new recycling opportunities brought about by the "Rubber to Rubber" Project.

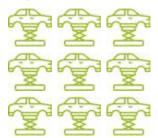


102.5% Collection rate compared to the target set forth by legislation

744 **Members** 

12,095

Registered pick-up points



44,249,414 kg



18,318

Collections







10,220

Collections at small tyre shops all over Italy



46 Extraordinary collecting interventions



60%



Rate



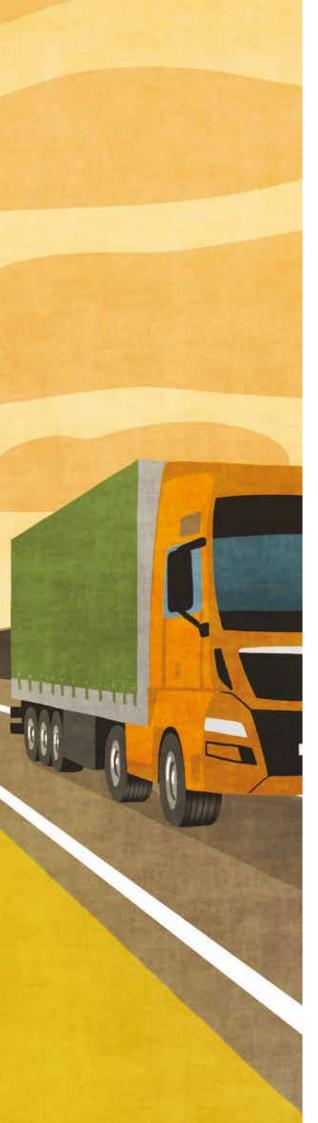












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