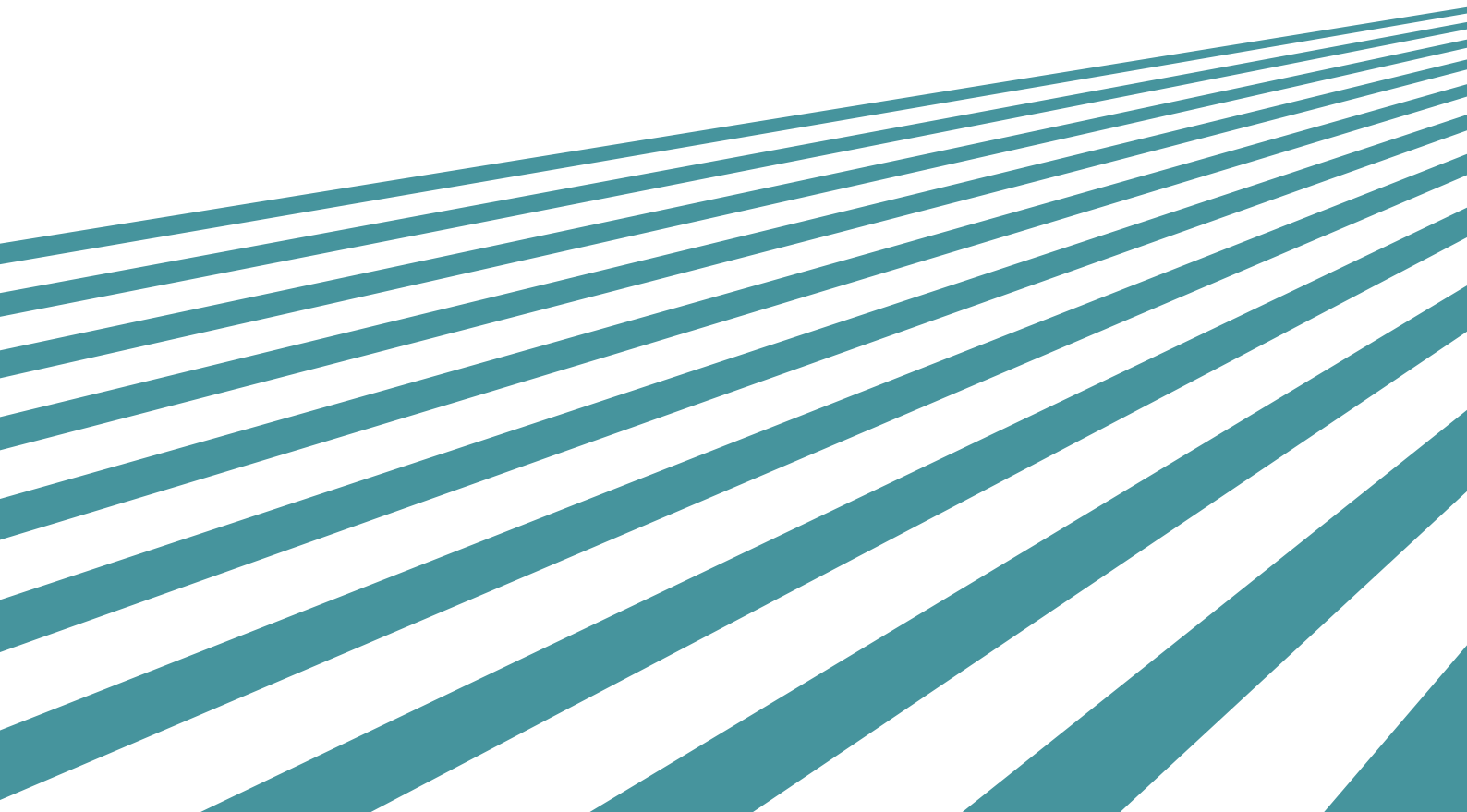
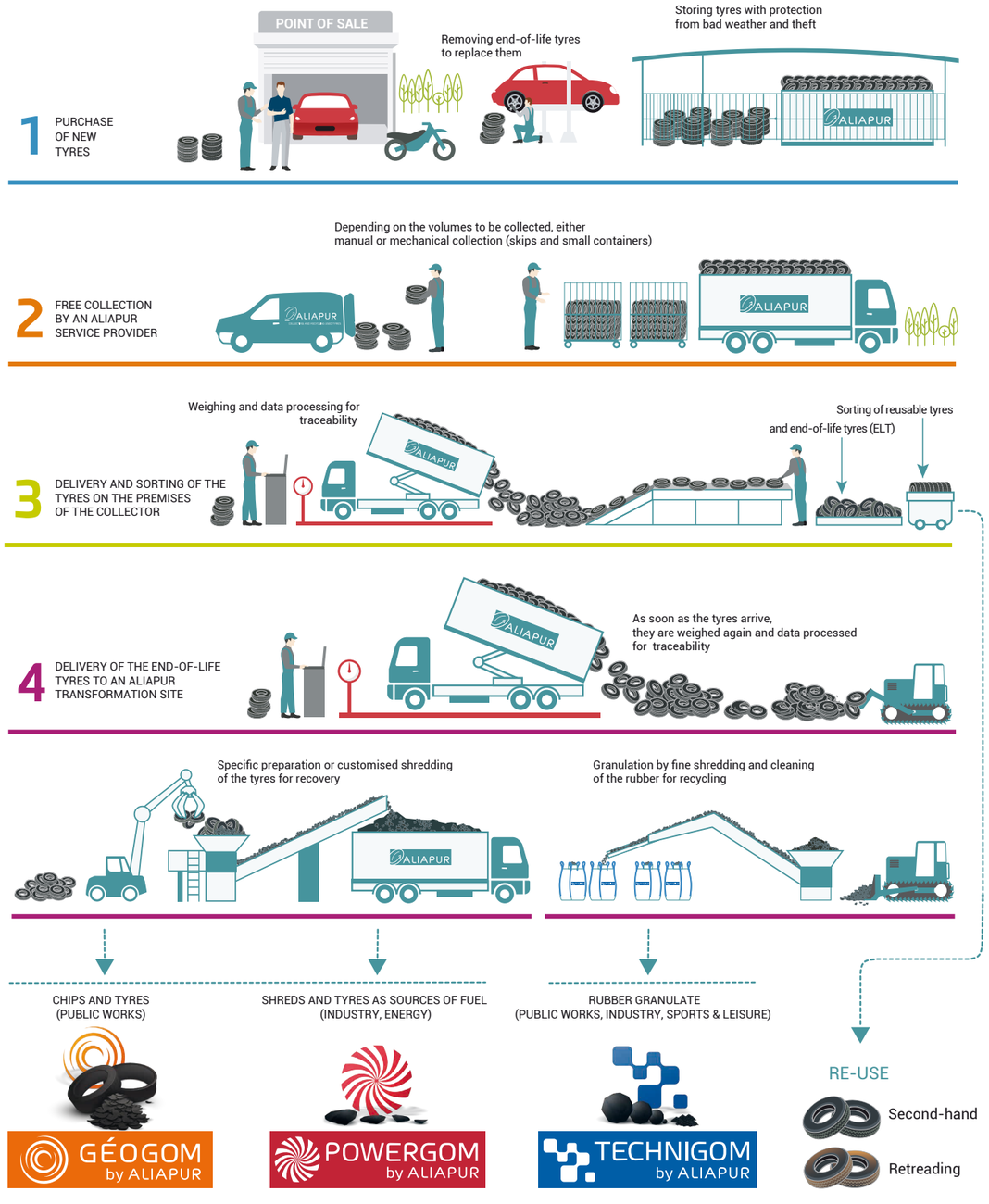
ALIAPUR

COLLECTING AND RECYCLING USED TYRES

THE ESSENTIALS | 2019



RECYCLING TYRES, HOW DOES IT WORK ?



71, cours Albert Thomas 69003 Lyon - FRANCE - Tél : +33 (0)4 37 91 43 20 - aliapur.fr

THE AGE **OF MATURITY**

Thierry Martin-Lassagne
President of the Board of Directors

Hervé Domas
Managing Director

All the important facts regarding Aliapur's activity in the past year will henceforth be issued in a more collected manner, highlighting what is essential in what we do.

If Aliapur collects, transforms and recycles more than 100% of its collection targets year after year, this is because the company is a well-oiled machine with efficient procedures and control of the inevitable setbacks.

What a pleasure it is again, this year, to see new recyclers insistently asking for deliveries of tonnages with the "Aliapur" stamp. What pride we take in the ever-growing list of countries showing interest in the Powergom made by our service providers, thanks to the excellent reputation of the quality of the products and the reliability of the deliveries.

The maturity thus found in the sector has allowed those who put tyres on the French market to collaborate with the public authorities and sign, on 15 July, a Voluntary Agreement with Ms Brune Poirson, a Secretary of State to the French Department of Ecological and Inclusive Transition.

Car makers, tyre importers, distributers and manufacturers, as well as their professional bodies, have committed themselves beyond their legal responsibilities and have in particular taken on board an ambitious programme for processing the silage tyres still used by actors in the agricultural world.

These trust-based relationships between key players from the private sector and the State prove that it is possible to bring about change in sectors with extended producer responsibility in a pragmatic manner, with no heavy administrative burden and by focusing 100% of the energy on operational projects that are for the good of the planet.

It is in this spirit that Aliapur intends to collaborate with all of its partners on a daily basis.

BRIDGESTONE Continental GOODYEAR MICHELIN PIRELLI

NO MORE STOCKS

Financial elements for Aliapur in 2019

- 2019 closed with total collections of 376,000, in contrast to the total orders of 370,000, or roughly 6,000 tonnes that were not financed. Existing stocks from years with low collections were entirely used up in 2019.
- Despite the impact of a significant increase in road diesel oil on collection costs (+500 K€), a 300 K€ investment in a baling press, associated with logistics optimisation, made it possible to keep the operating costs in check (the software Tetrys was used). The operating margin remains stable at almost 11%.
- Recycling of whole tyres has remained stable at around 80,000 tonnes, despite the disturbances encountered at the end of 2019 on the Indian market.
- Thanks to the diversification adopted in recent years, and sustained demand from the market, the average sale price for tyre shred has continued to increase, thus playing a positive role in Aliapur's accounts.

BALANCE SHEET 2019 (EN K€)

Real estate	549	Income collected in advance	411
Other debts	2 881	Debts	15,097
Accounts receivable	11, 391	Equity	8,502
Treasury	13,594	Provisions	1,823
ACTIVE	**28,414**	**PASSIVE**	**28,414**

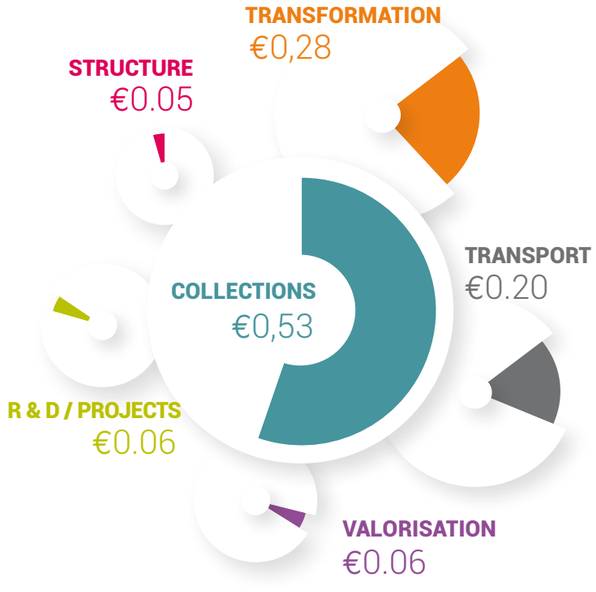
FINANCIAL RESULTS (IN K€)

	2019	2018
Turnover	**60,413**	60,590
Subcontracting	**56,027**	56 378
Gross operating surplus	**4,104**	3,920
Net income	**282**	292

Non-operational expenses

- Structural expenses totalled 5.9 M€ in 2019, or a slight drop in relation to 2018 where expenses were 6 M€. Personnel expenses represented 5.9% of the eco-contributions.
- This drop was nevertheless not detrimental to our R&D given that the efforts made on Géogom resulted in an increase in the overall R&D budget, from 614 K€ to 691 K€, or an increase of almost 13%. These efforts were obviously necessary for the development of new solutions.
- The biggest drop was for the "Communications" item, dropping from 438 K€ in 2018 to 293 K€. This decrease can be explained quite simply by the fact that certain costs from 2018 were not repeated in 2019 (such as the JEC trade fair and the new web site).
- Finally, the Information Systems budget remained stable at 800 K€, while continuing the development of digitalisation (dynamic mapping and dematerialisation of collection rounds documents).

DISTRIBUTION OF COSTS IN 2019 FOR €1.18*



* €1.18: eco-tax for a passenger car tyre in 2019

THE SHAREHOLDERS AND THEIR REPRESENTATIVES ON THE BOARD OF DIRECTORS

Shareholders	Permanents representatives on the board of Directors
Bridgestone France	Mr Benoît RAULIN Mrs Brigitte GBAGBA
Continental Holding France	Mrs Pascale WOITTEQUAND Mr Raf CLAES
Goodyear France	Mr Paul Henri LEPRETRE Mr Jean Denis PERCHE
Manufacture Française des Pneumatiques Michelin	Mr Pierre-Yves COMBY Mr Thierry MARTIN-LASSAGNE Président du Conseil d'Administration
PNEUS PIRELLI	Mr Matthieu BRINON
PIRELLI TYRE SPA	Mr Grégory BARSI

444 CLIENTS

14 MANUFACTURERS

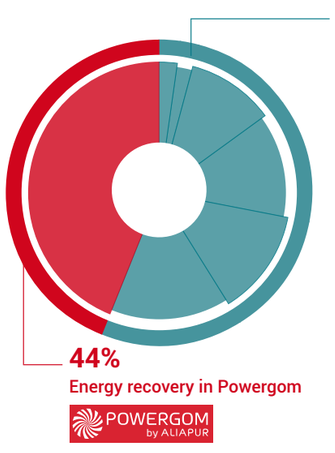
19 WEB SITES

47 CONSTRUCTORS

364 OTHER CAR INDUSTRY PROFESSIONALS

RECOVERY DISTRIBUTION IN 2019

Recovery by type



56%
Material recycling
including:

15%
re-use (second-hand and retreading)

13%
non-organic material recycling in cement works

13%
recycling of granulate and powder excluding Technigom

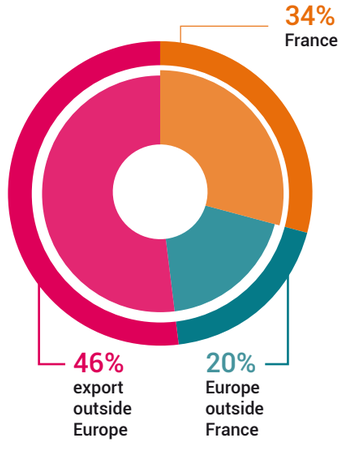
11% in TECHNIGOM by ALIAPUR

2% in GÉOGOM by ALIAPUR

2%
in recycled carbon and iron

44%
Energy recovery in Powergom
POWERGOM by ALIAPUR

Recovery by destination

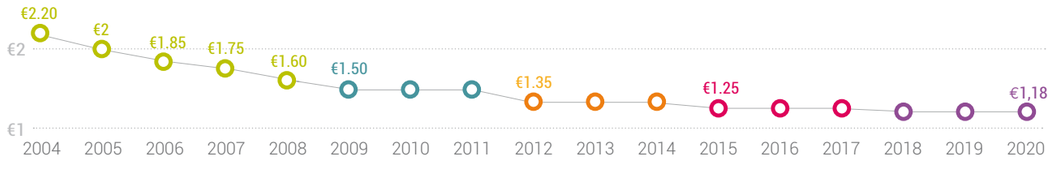


34% France

46% export outside Europe

20% Europe outside France

ECO-TAX EXC. VAT FOR CATEGORY A TYRES (PASSENGER VEHICLE TYRES)



375, 076
TONNES OF TYRES
were collected by the Aliapur sector in 2019, or the equivalent of

47.4
MILLION PASSENGER VEHICLE TYRES

1.5
1 COLLECTIONS PER MINUTE
That is what the **158, 572 collection operations** of the year represent.

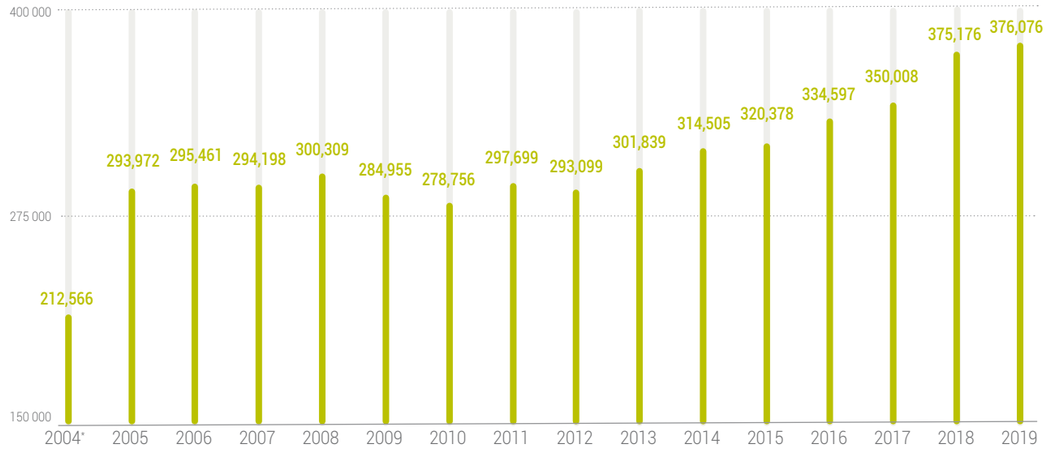
23 PER DAY
That is the number of **account opening requests** Aliapur received throughout the year from garages and car centres wanting to have their tyres collected.

35, 765 TONNES...
... the new monthly collection record. As in 2018, it was October that had the highest number of tyres collected. This tonnage represents **more than 4.5 million passenger vehicle tyres.**

58%
OF THE TYRES
are collected from **skips.**

3/4
OF THE VOLUMES
collected **are car tyres.**

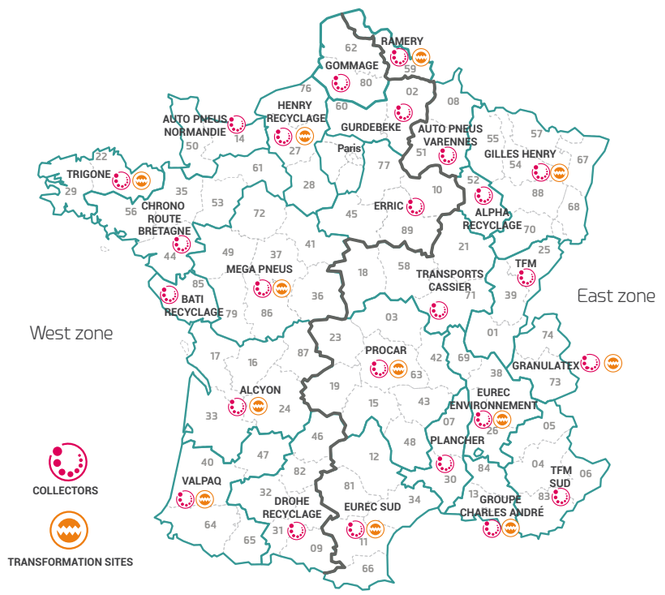
EVOLUTION IN COLLECTIONS (IN TONNES)

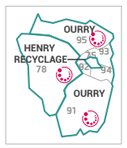


*The Aliapur sector's operational collection activities for end-of-life tyres started on 01 March 2004. Aliapur thus made collections over 10 months that year.

THE ALIAPUR **NETWORK**

COMPREHENSIVE COVERAGE OF MAINLAND FRANCE

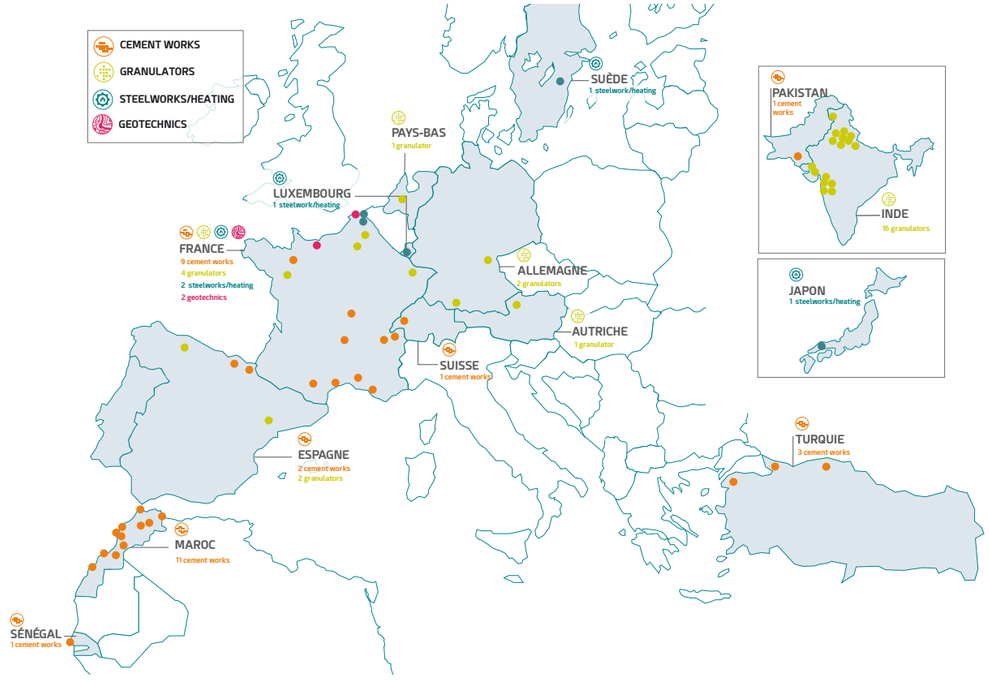




27
COLLECTION COMPANIES
&
12
PREPARATION AND SHREDDING PLATFORMS

+700
JOBS IN TOTAL

63 CONTRACTUAL RECYCLERS ALL AROUND THE WORLD



A **VOLUNTARY AGREEMENT** FOR THE SECTOR

For 14 years, the tyre sector's operations have been optimal, and excellent annual reports have been presented. It is the only Extended Producer Responsibility (EPR) sector to attain 100% of the objectives it is set: collections of 100% of the volumes of tyres put on the market, annual processing of almost 430,000 tonnes of tyres, 100% of the objectives attained in terms of collections, sorting and recycling.
It was in this context that in September 2018, the French State Department for Energy Transition and Solidarity *(Ministère de la transition énergétique et solidaire, MTES)* solicited the main actors putting tyres on the market (car manufacturers, distributors, importers and manufacturers), as well as their operators and professional organisations. The aim was to establish a "Voluntary agreement in the tyre sector for a circular economy and reduced environmental impacts". The agreement was signed in July 2019 and takes the form of a series of commitments that complete and even go beyond the initial aims of the sector, all whilst remaining adapted to its specificities.
In exchange, the public authorities will intensify operations to control those who put tyres on the market and will deal with the situation of sites set up abroad that sell tyres. This agreement will be valid until 2025 and can be renewed for time periods to be defined.

The 5 commitments in the agreement

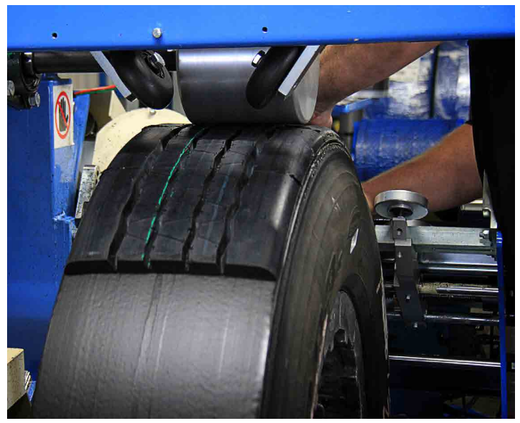
1. To collect and recycle 15,000 tonnes of silage tyres a year, or 2.3 million tyres (see right). To achieve this, a new association has been created: Ensivalor.
2. The three organisations, Aliapur, FRP and Mobivia, commit to doubling the budget made available for research into new recycling solutions.
3. To initiate the standardisation work that will ultimately make it possible to define a method for assessing the durability of new tyres, an element that would be shown on the labelling. This system would thus make it possible to modulate the eco-contribution in relation to the eco-design.
4. To extend collections to waste collection centres, by defining the modalities for processing tyres that are not part of the EPR sector today (for example, wheel-mounted tyres).
5. To reinforce the technical support and operational accompaniment for the tyre sector in overseas territories.

2 million tyres a year for Ensivalor

As part of the Voluntary agreement signed with the French State Department for Energy Transition, and in close collaboration with the key players in the agricultural sector (Chambers of Agriculture, FNSEA (farmers' union), Young Farmers, etc.), those responsible for putting tyres on the market have launched the Ensivalor operation and set up an association with the same name. This association will process silage tyres, that is, tyres that cattle farmers use as weights on the tarpaulins that protect their animal fodder.
The representatives of the farmers will identify the sites to be processed, but Ensivalor is reserved as a priority for farmers who commit to replacing these tyres with a fodder protection technique that has been validated by the Ademe. In this way, the association will process a volume of 15,000 tonnes every year, and this will result in tyre sellers making funds of up to 1.125 M€ available.

Heading towards an AFNOR classification for reusable tyres

Following on from reusable tyres no longer being classified as waste, a work group for "good tyre sorting practices" was set up in 2019 within the AFNOR's tyre commission. This group is composed of around twenty representatives of collection companies within the sector, all of whom are volunteers. Their mission is to define a qualitative classification of reusable tyres in relation to several safety criteria, starting with the integrity of the structure and the degree of wear on the rubber. Ultimately, it will be a question of having an official (and thus irrefutable) standard that makes it possible to sort, identify and classify reusable second-hand tyres.



Retreading: putting an end to preconceived ideas

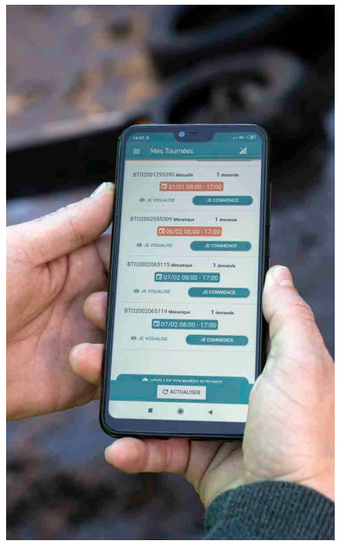
Given that retreading is a reliable, virtuous and economic alternative to buying new tyres, on 20 November the French national union for rubber and polymers (*Syndicat national du caoutchouc et des polymères*, SNCP) and the French union for tyre professionals (*Syndicat des professionnels du Pneu*, SPP) launched a site exclusively devoted to this method of renovating tyres. The site is aimed in particular at large tyre consumers, such as road hauliers and loaders. With 10% of Aliapur's collections of tyre casings from trucks capable of being reused or retreaded, Aliapur applauds this initiative, the aim of which is to promote a tyre renovation model that is economical, ecological and virtuous, and that makes it possible to prolong their life span in a perfectly safe manner.
www.rechapage.fr

Aliapur winner of the "L'industrie vue du ciel" photo competition

In November, Aliapur took part in a photo competition, "L'Industrie vue du ciel" (Industry seen from the sky) organised by the weekly magazine, L'Usine Nouvelle. Aliapur's photo was of the company Henry Recyclage (Seine-Maritime), which is both a collector and a transformation site for the sector. The photo was taken by Christophe Dubois using a drone, in parallel to the site's annual inventory. Distinguished by the jury for its "graphism and unique nature", our photo was officially declared the winner at the closing ceremony of the 16th Trophées des Ingénieurs du Futur (Engineers of the Future Awards): from March to July 2020, the photo will be part of an exhibition of 80 aerial photos displayed on the railings of the Luxemburg Gardens.

“ALIAPUR ROUNDS”: THE APP THAT DEMATERIALISES COLLECTIONS

The dematerialisation of collection rounds has been deployed among Aliapur's service providers since autumn 2019 after six months of development and three months of testing with three collectors. This dematerialisation corresponds to a dual objective: making removal of end-of-life tyres from car professionals easier and smoother, while eliminating the need to print out the paperwork. To achieve this, a specific application was developed, and it is unique in terms of both how it works and what its purpose is.
In practical terms, this application is linked to the Aliabase extranet, a tool for piloting and managing all interactions between collection companies, the businesses who ask for collections, and Aliapur.
With the very earnest name of “Aliapur Rounds”, and linked to a geolocalisation tool, this application can be used on any type of smartphone or Android tablet.
Once the collection round has been created on Aliabase and synchronised with the application, all the driver has to do is identify himself to be able to display on screen a full road map: the entire round and each garage requiring collections, details of each collection request with the types and quantities of tyre to be collected, geolocalised visualisation of the round and optimised directions. Once on site, the driver can adjust the quantity of tyres actually collected and, if necessary, add comments. All that is left then is to get the business manager to sign directly on the smartphone. This in turn triggers the sending of an e-mail that confirms that the collection has taken place.
It should be noted that, for each round, all the information is stored directly in the smartphone. This makes it possible to use the application at all times, even when there is no network connection. It would be hard to imagine something more practical!
Also, by the end of December 2019, 91% of collection rounds – by all collectors – had already been dematerialised.



VISIOPUR : THE NEW GENERATION

Visiopur is a photographic lightbox linked to analysis software. It makes it possible to control the production quality of tyre shred, particularly focusing on clean cuts, respecting formats and the absence of any protruding wire. Since 2007, all transformation sites that are under contract with Aliapur are equipped with it. While the software has been the subject of several successive upgrades, it is now struggling to cope with the increase in the volumes collected every year and still requires the intervention of an operator.
In 2019, Aliapur thus launched a feasibility study for the design of a new generation of Visiopur. Automated, it will have to improve the precision of the measurements, as well as make them easier and smoother to perform. For example, this new system could be installed at the exit point of the shredders to analyse the shred continuously and in real time. Watch this space!

SMALL CONTAINERS: THE MISSING LINK

Almost 160,000 collection operations were needed in 2019 to remove the 47 million tyres from car professionals. As soon as the volume to be processed reaches 500 passenger vehicle tyres per month, collections must obligatorily be mechanical, with the use of a dedicated skip. This year, more than 27 million tyres were collected mechanically. But that also means that the remaining 20 million were collected manually.
Given the increase in the volumes to be processed and the care that needs to be taken regarding the gestures and posture of the collection operators, Aliapur has launched a small container project reserved for passenger vehicle tyres. There are two aims to this project: to reach a new milestone in terms of optimising collection rounds, but also to significantly decrease manual collections and their difficulty, as the tyres are, at best, loaded two-by-two into the collector's vehicle. A small container would thus be the missing link in Aliapur's collection network.

Integrated into futur contracts

Logically, there would be one type of small container recommended for the entire sector, with a capacity of 100 passenger vehicle tyres. The strong yet light prototype produced by AZ-Métal has been retained: it is made in France and is compact enough to not take up too much space in garages with small working areas. It is waterproof, weather-resistant and lockable. The opening in the structure has been designed to make it easy to deposit tyres, and there is a means of visually verifying how full the container is. The only variation concerns the fixation system on the top as collectors' vehicles do not all necessarily have the same grapples.
The brand name for this small container has not yet been decided, but the eAZyBox will be officially integrated into the call for tender launched by Aliapur for renewal of the 2021-2024 four-year contracts for collection companies. In the meantime, in the second half of 2020, it will be offered to all car industry professionals.

RIVER TRANSPORT: MORE THAN 150,000 KM OF ROAD TRANSPORT AVOIDED IN 2019

170 TONNES

This is the savings made in the CO_2 generated by the 625 trucks that were not used by Aliapur in 2019, replaced by river transport.

In early July, Aliapur sent off a ship loaded with 5,300 tonnes of Powergom shred (made from 670,000 truck tyres) from Dunkirk to Dakar to be used as an alternative fuel source in the Sococim cement works in Rufisque. This was not only cooperation with a new factory in the French cement maker Vicat's network, but also a new transport link, as until then Aliapur had neither operated out of Dunkirk nor delivered to Senegal.
Above all, it was a first for the transport method used, in perfect harmony with the sector's strategy of limiting the need for road transport as much as possible.
The Powergom shred was produced on two transformation sites: Gilles Henry, situated in close proximity to the river transport platform in Toul (near Nancy, on the river Moselle), and Ramery, which backs on to the river transport platform in Harnes (near Lens, on the Deûle canal).
The cargo was loaded in bulk on to several barges at both these platforms, and the shred travelled just one kilometre by road to the port of Dunkirk, which can also be accessed by canal. At a rate of 26 tonnes per truck, the CO2 emissions of more than 200 trucks were thus avoided thanks to this one cargo.
As this first operation was a success, Aliapur sent a second cargo using the same canals in November. Thus, in 2019, bulk transport by river made it possible to send almost 12,000 tonnes of Powergom shred (made from 1.5 million passenger vehicle tyres) to Dunkirk, avoiding using almost 450 trucks, and making a saving of 106,000 km of road transport.

Containers too

In addition to the bulk cargo in barges, but still using the river network, Aliapur also sent its Powergom by container, making door-to-door transport possible and avoiding breaking of bulk.

This solution has been in place since 2017.
Once again, 2019 was a successful year, as 185 containers were loaded on to river barges: 135 in Lyon en route for Fos-sur-Mer via the Rhone, and 50 from Gennevilliers en route for Le Havre via the Seine. The total volume transported was just shy of 6,000 tonnes (750,000 passenger vehicle tyres), representing savings of 185 trucks or 48,000 km by road.
In total, the river network made it possible in just one year to replace trips by 625 trucks, and to reduce the number of kilometres travelled on the national road network by more than 150,000. To date, this is a record for the sector.

Transport call for tender 2019-2020

At Aliapur, transport is the subject of 2-year contracts (instead of the 4-year ones for tyre collection and transformation) because this field may be impacted by unexpected economic variations. With a total of 350 regular lines, covering management of total flow of 430,000 tonnes per year, the stakes were high for the Transport 2019-2020 call for tender. Thirty transporters have been retained, including 6 who are also collectors in the sector. With the support of the Jaggear BravoSolutions consultancy, and in accordance with its call for tender policy, Aliapur selected the most cost-effective (and not necessarily the lowest bidders). The loads covered are 277,000 tonnes of tyre shred, 144,000 tonnes of bulk whole tyres and 13,000 bales of whole tyres..

30,000 tonnes for Aliastocks

The company Aliastocks, which is a subsidiary of Aliapur, processes the tyres which cannot, according to regulations, be processed by Aliapur. In 2019, Aliastocks processed 30,000 tonnes of tyres, or the equivalent of 3.8 million passenger vehicle tyres: 10,000 tonnes (1.3 million passenger vehicle tyres) as part of the contract signed with several car manufacturers for end-of-life vehicles, and 20,000 tonnes (2.5 million tyres), mainly from silage.

Earthship: the concept is gaining ground

An "earthship" is a habitation that is made directly by its future inhabitants with full respect for the environment and at the lowest cost possible, focusing on using recovered and recycled materials. The houses are bioclimatic, and autonomous in terms of water and non-fossil fuel energy. The outside walls are made of tyres filled with rammed earth, here used for their mechanical qualities of resistance and resilience. The only imperative is that the tyres used must all be of the same size.
The concept was developed in New Mexico around thirty years ago and has gradually gained popularity in France. In 2019, Aliapur was contacted to deliver two earthship projects: 530 tyres in Saint-Haon (Haute-Loire département) in May, then 1,200 tyres in Grandfresnoy (Oise département) in September. Other projects will follow in 2020.

Rimless tyres in rubbish dumps thanks to the solidarity economy

The association Les Valoristes Bourgignons, located in Crissey (Saône et Loire département), employs excluded members of society to collect, sort and recycle waste. This allows this population to be reintroduced into the economy for a second chance. There are 6 operational sectors: polystyrene, flexible plastic, glassine (silicone paper), building waste, strapping ties and... wheels from light vehicles.
2019 was the start of a new partnership between the association and the Aliapur network. By definition, wheels are equipped with their rims: when they are deposited at the rubbish dump, they thus cannot be dealt with by Aliapur, which only processes tyres. Five rubbish dumps chose to turn to the Valoristes Bourgignons, asking them to remove the rims. The rims are sold by weight of the metal by the association, while the tyres are returned to the dump to be collected by Aliapur. More than 4,500 wheels were dealt with over the course of the year.

TECHNIGOM: AUTHORISATION CERTIFICATE AND CONTINUOUS CONTROLSA

Just three industrialists are authorised to produce tyre granulate under the brand name Technigom: Delta Gom, HET and GMN. Since 2019, Aliapur has issued these recyclers with an "Authorisation certificate for the production of Technigom". The certificate is valid for one year and can be renewed. It shows that the granulators under contract have production lines and processes that guarantee the traceability of the materials that enter and the quality of the end product.
Thanks to these authorisations, Aliapur hopes to differentiate Technigom from other granulates, particularly when it comes to filler for synthetic sports surfaces.
They also involve random and regular controls of the quality of Technigom and its conformity with health and environmental standards. The three granulators that produce Technigom have thus been subjected to several unscheduled controls during the year – at least one per site, per quarter – by independent, well-respected laboratories whose expertise is undisputed.
For each site and each control, several samples of Technigom granulate are taken directly from the production line. They are analysed in relation to 67 parameters, divided into the 3 main categories of indicators.

The first category of indicator, VOCs (volatile organic compounds), is voluntarily studied in confined spaces – which is clearly not the case for synthetic sports surfaces. When submitted to the French, Belgian and German regulations, the samples from the three industrialists obtained the A+ label, confirming that the product tested is in conformity with European standards.
The second series of tests focused on PAHs (polycyclic aromatic hydrocarbons). For each sample of Technigom, the maximal PAH levels recorded were still two times lower than the strictest thresholds defined by the European Union's chemistry committee. Finally, the third category of indicators is measurement of heavy metals: here, the analyses limits set are the standards for heavy metals contained in toys.
It was shown that each sample analysed remained significantly below the authorised "toy" threshold.
In conclusion, the Technigom granulate used in synthetic sports surfaces, a product made under the highest supervision by authorised industrialists, does not present any danger for the environment, nor any risk to health for those handling it (installers) or using it (players).

Three world-renowned laboratories

At Aliapur's request, the Technigom analyses were conducted by three independent laboratories, all world leaders in their respective fields and with expertise that is recognised by both the industrialists themselves and the public authorities.
Labosport (France): leader in the field of technical consultancy for sports surfaces and equipment, this laboratory certifies that installations are in conformity with the national and international standards of sports federations.
Eurofins (analyses carried out in Denmark): leader in the field of product testing, this laboratory has a network of sites to accompany industrialists in their environmental analyses.
SGS (Switerland): leader in the field of inspection, control, verification, analysis and certification.

Technigom for roads: progress in the research

Of all the existing recycling solutions, incorporating Technigom, a rubber granulate made from end-of-life tyres, into road surfacing materials, particularly coated materials, is a method that is worthy of being further developed. Since September 2018, Aliapur and the Ademe have been co-financing a doctoral thesis on this subject at the Ecole nationale des Travaux Publics de l'Etat (French National School for State Public Works (ENTPE), Vaulx-en-Velin) with industrial support from Eiffage for in situ testing.
The idea of adding tyre rubber to road surfaces may not be new, but the biomechanical behaviour of this type of bitumen over time is still poorly-understood. This work will notably determine its resistance to seasonal variations and impacts, its resilience, how well the binding agent holds, the limits of its deformability and its efficacy in decreasing noise and vibration pollution.
Ultimately, the aim is to develop a realistic formula that will allow the road industry to have new, truly high-performance coated materials at their disposition. The thesis is due to be completed at the end of 2020.

We were there!

Like every year, Aliapur's Research & Development department attended or participated in several international events.
5-6 February: "Territoires, captez l'énergie des déchets" (Regions: making use of the energy from waste), a technical day organised by the Ademe in Strasburg to take an alternative look at energy recycling from waste, and the advantages of doing so.
12 -13 March: in Milan, CEN/TC 366 inter-sector work group meeting for European standards on the materials obtained from end-of-life tyres. This work group will meet again in 2019, on 24 September in Paris.
29 March: "Solutions alternatives des lestages pour terrain synthétique" (Alternative ballasting solutions for synthetic turf), a conference organised in Lyon by the Auvergne-Rhone Alps football league.
3-4 April: meeting between the Spanish, French, Italian and Portuguese sectors in Seville to share information on their progress in R&D and in the development of new recycling methods for tyres.
10 April: the ETRMA (European Tyre & Rubber Manufacturers' Association) organised a forum on end-of-life tyres in Brussels.
14-15 May: in Denmark, visit of the headquarters of the company Eldan, a leader in the manufacture of shred and granulation production lines, notably for tyres.
24 September: intervention on the eco-design and recycling of multimaterials at the "Multimatériaux et procédés" (Multimaterials and processes) Technology Forum organised in Clermont-Ferrand.
28 November: presentation of Aliapur at the "Energies pour l'industrie" (Energy for industry) day organised by Auvergne Rhône-Alpes Entreprises in Grenoble.

A Powergom infographic

Following on from the campaigns of 2017 and 2018, in 2019 Aliapur chose to promote its Powergom shred as an alternative fuel source in the international cement industry press using an infographic: all you need to know about the quality and performances of the product is clearly presented, along with the key figures.

Public works: Géogom *in situ*

Several work sites have made it possible to assess to what extent Géogom chips can satisfy the requirements of public works in 2019.
In February, in Chambéry, light backfill was placed at the foot of a retaining wall next to a housing project under construction and a railway line, in order to avoid excessive constraint on the wall. The decision to use Géogom chips came from how easy they are to install, their low density and their particularly competitive price. The chips were thus deposited loose inside a geotextile sock and then covered with topsoil.
In November, in Megève, the construction of two chalets at the side of a rock wall required filling the space between the rock and the walls of the homes. Here, the Géogom was chosen in its gravel form, which is heavier and takes longer to install. It was chosen for its drainage qualities and because there is no need to compact it.
In December, in Alby-sur-Chéran (Haute-Savoie), work on the 400 m-long motorway viaduct in Le Chéran (A41) imposed the use of a profiling embankment made from Géogom chips. Given the very particular position of this embankment, under the construction and on the side of a mountain, it was installed manually.

TECHNIGOM
by ALIAPUR

Terrains de sport synthétiques

VOUS AVEZ BIEN FAIT D'EXIGER TECHNIGOM

pour le remplissage de vos terrains outdoor

Choisir Technigom pour le remplissage d'un terrain de sport synthétique, c'est l'assurance de disposer d'un granulat de pneus :

- haut de gamme, pur et calibré
- économique, écologique, certifié 100% origine France
- dont la traçabilité est garantie
- fabriqué sur-mesure par des industriels habilités
- contrôlé par des laboratoires indépendants

Technigom répond aux exigences de l'Agence française de sécurité sanitaire et environnementale (ANSES)*

Technigom satisfait aux règlements imposés par la nouvelle législation de l'Agence européenne des produits chimiques (ECHA)**.

**Note scientifique de l'ANSES du 29 août 2018 sur les éventuels risques liés à l'emploi de matériaux issus de la valorisation des pneumatiques usagés dans les terrains de sport synthétiques et usages similaires.*

***Information du comité scientifique de l'ECHA du 18 septembre 2019, soutenant la proposition de limitation de 8 hydrocarbures aromatiques polycycliques (HAP) dans les granulats utilisés en gazon synthétique et terrains de jeux.*

Le granulat
TECHNIGOM
est le seul qui garantit le respect de la future norme européenne

ALIAPUR
COLLECTE ET RECYCLAGE DE VOS PNEUS

71, Cours Albert Thomas 69003 LYON
www.aliapur.fr - technigom@aliapur.fr

Edited by Communication Aliapur - Design/production crayonbleu 04 72 61 09 99 - Photos : Christophe Dubois, Michel Dieuzy, banques d'images