



ANNUAL REPORT 2018

Acknowledgements:

Thank you everybody, even those who would like to remain anonymous.

Disclaimer:

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Corrections:

We love feedback, corrections, opinions, musings, especially where it enhances everyone's general knowledge, wisdom, and understanding. If you feel like the 10th woman or man, we welcome that too. So please send any feedback to info@elves.ie.

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Acronyms and abbreviations:

We have listed these at the end of the document.



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1. Adding **MO MEN TUM**

Welcome to ELVES' Annual Report reflecting our activities and achievements in 2018. This was the second year of approval from the Minister for Communications, Climate Action and Environment. We had an interesting year, but what made it special for us was the positive relations and interactions we had with two very mature business communities, each of which carry out two distinct and vital business activities.



Firstly, there are the ATFs, or scrapyards. These undertakings are the first point of reception of a vehicle when it is going to the big car park in the sky. This is not said lightly, as they are the professionals who deal with the public, in many cases the last owner of the car, but often a person doing it on behalf of a loved one. So, while this may just be seen as a transaction, the handing over of a scrap car, the exchange of paperwork, it is much more than that: it is the provision of a service.

Our Network of ATFs then prepare the vehicle for onward recycling through a depollution process, which is the management of environmentally hazardous or toxic materials, such as fuel, oils and batteries. But something else occurs. A second life is found for parts and components, hence the reuse of mirrors, doors, or headlights. This is not materials recycling. This is a commodity business where the sum of the components for reuse is always worth more than the whole.

When depollution and dismantling have been completed, recycling begins as our second essential business activity. Metal reprocessors are the recyclers and their business involves the

separation of the myriad of materials in a vehicle, thereby adding value to each material the more homogeneous it becomes, e.g. iron, copper, polypropylene, to name a few. And as one particular artist has demonstrated, somewhat unintendedly, one way to add value to something is to shred it.

Into this mix towards the end of the year, there was the spark of a new business activity. This was the refurbishment and repurposing of a particular component and putting it back into the economy, not just in a chance of a second life, but as a second function, hence our 'Electric ELVES' programme and its role in the management of batteries from hybrid and electric vehicles.

In last year's Annual Report, our first, we were mostly taking a 'Rear View' of events and how we achieved what we did. We are still on this journey and have many more projects to develop. We now consider that our role has added value to the sector and gained enough momentum to pop it into 2nd gear. As ELVES has met the Network targets, we will go further and endeavour to assist Ireland to meet its national targets.

[Team at ELVES](#)

2. ELVES



It is often asked what we do. The answer starts off simply in three main areas and then gets more detailed as we split those areas up.

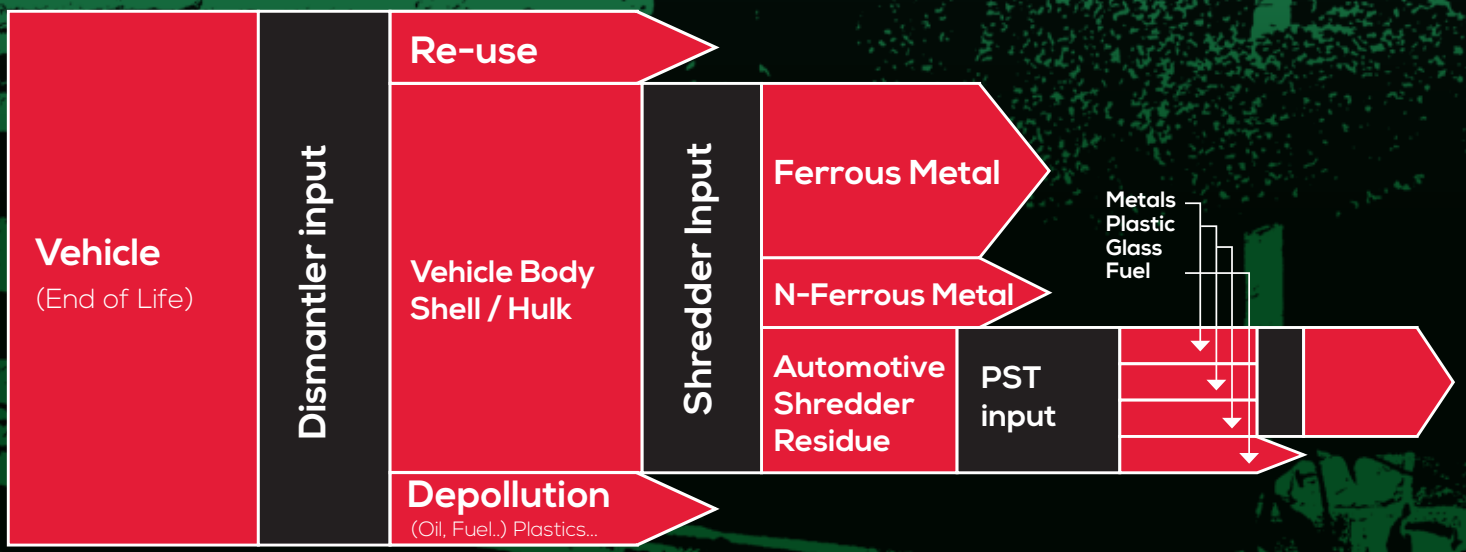
We are funded by companies that import new and used cars and vans into Ireland. Some are the original manufacturers, some are franchised (licensed) distributors, and some are dealerships importing used vehicles. At the very core of what we do, these monies are used to fund the attainment of reuse, recycling, and recovery targets. This is done when these vehicles become waste in the following three ways:

1. We inform the public about why, how, and where to scrap a car. This is important and involves a lot of advertising and public relations.
2. We fund a Network of scrapyards to depollute scrap cars and tell us what else they do, e.g. information on dismantling and quantity of component parts for reuse.
3. We fund the further recycling and recovery of metal and plastics through reprocessors, and also collect data on how they did it, e.g. metal shredding companies and Post Shredder Technology (PST) reprocessing..

95% Minimum Reuse, Recycling, and Recovery overall ->



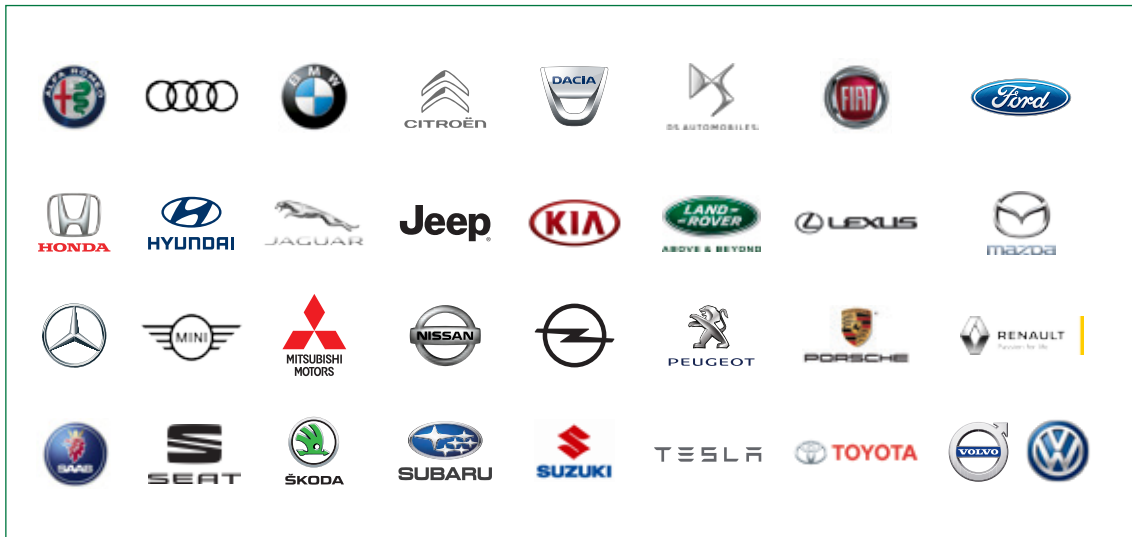
85% Minimum Reuse and Recycling ->



3. Our MEMBERS & FUNDING



Our members are those professional importers of vehicles that have obligations under the ELV Regulations. Their obligations relate to the achievement of the 85% and 95% targets for certain vehicle types:



**Domestic or passenger cars
(no more than 9 seats) – M1.**

They have a choice concerning their method of compliance by either registering with the 31 local authorities and nominating 47 individual ATFs as their collection network or joining ELVES. ELVES already has the Network of ATFs and is just one registration per annum.

Those who import and supply Special Purpose Vehicles (e.g. street sweeper, hearse, ambulance, forklift, airport support vehicle, called M1S and N1S), and some three-wheeled vehicles have obligations to register, but do not have to meet the 85% and 95% targets.



**Vans and light goods vehicles
(under 3,500kg in weight) – N1.**

There is a full list of members on our website. They range from small single site dealerships, motor groups, franchised distributors, to vehicle manufacturers. Currently, these vehicle importers fund the operation of ELVES by paying a total of €1.8M in membership fees. We have a small team of four people, so our administrative costs are kept to a minimum. This means that the majority of the members' fees fund the three core activities highlighted earlier: Education and awareness, the ATF Network, and the reprocessing of ELVs.

4. EDUCATION & AWARENESS



Our education and awareness activities built on the work done since our public launch in May 2017.

For our public advertising, we learned from our past successes and expanded our use of media that we knew was working well. We increased the volume and reach of our radio advertising across a wide range of stations. Our radio ads were supported by constant on-line advertising via visual ads on relevant websites, search term advertising, and Facebook advertising.

We also utilised more print advertising in 2018, featuring across many regional newspapers, in the Irish Sun, Irish Daily Mirror, and the Irish Independent and included a range of targeted magazines.

The Summer of 2018 saw ELVES out and about at events around the country. The biggest by far was the National Ploughing Championships in Tullamore, the largest event in Ireland. The four-day event (if you count the storm cancelled day in the middle!) enabled ELVES to reach a large and varied audience with its message about how to recycle a car correctly. The event was a great way to raise ELVES' profile and have important conversations with people about car recycling. Our attendance at the event was further promoted via our Facebook page where we ran very popular daily competitions.

The Ploughing was not the only event we attended in 2018, we also had stands at Terenure Car Show and Vantastival.



In addition to our public advertising on car recycling, an important aspect of our awareness activities is in ensuring used car importers are aware of their obligations under the ELV Regulations and the compliance service ELVES provides.

Reaching this audience required a more targeted approach and our advertising activities reflected this. Specific on-line advertising for importers featured across car focused websites as well as in on-line marketplaces for cars. In 2018, we launched an importer radio ad, talking directly to car importers. The ad was featured across a range of stations including Newstalk and regional stations. This was supported by direct delivery of information packs to car dealers and print advertising in tailored magazines, as well as the Irish Daily Mirror and the Irish Sun.

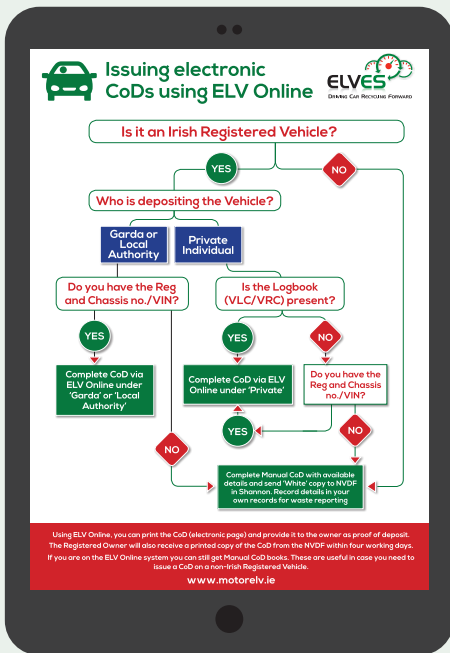
5. ATFs AND THE ELVES NETWORK



An ATF is a permitted facility or scrapyard that takes receipt of a vehicle that is required to be scrapped by the last owner or holder. The last owner may be the person who wants to or is required to dispose of the vehicle. The holder may be a local authority in possession of an abandoned vehicle or even the Gardaí for seized ones. If the ATF has a collection permit, then it can offer the additional service of collecting the vehicle.

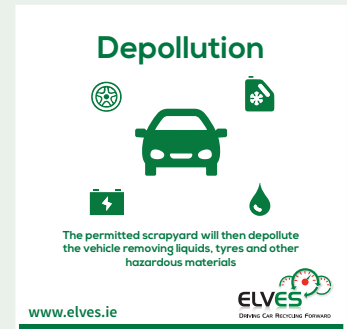
Upon receipt of the vehicle, a Certificate of Destruction (CoD) must be issued, either a paper-based one or using the on-line system. A project which contributed to the reporting process is the new and improved ELV on-line electronic CoD system ([www.](http://www.motorelv.ie)

[motorelv.ie](http://www.motorelv.ie)). Throughout the year, ELVES has worked closely with the Driver Services Division in the Department of Transport to identify improvements to the original system. Changes made just before Christmas ensures that an electronic CoD can be issued in every instance for an Irish registered vehicle. The changes make for a system that is quicker to use and more useful to the ATF, as the reporting function has been much improved. We are now encouraging all ATFs to sign up to use the system, as it does save them considerable time. Now a vehicle without a logbook can get a CoD. The CoD signifies that the last owner has relinquished responsibility for the vehicle from that point onwards.



Once in the possession of the ATF, the primary treatment is the depollution of the vehicle. This involves the draining of oils and fluids, the deployment of airbags, and the removal of catalysts and batteries.

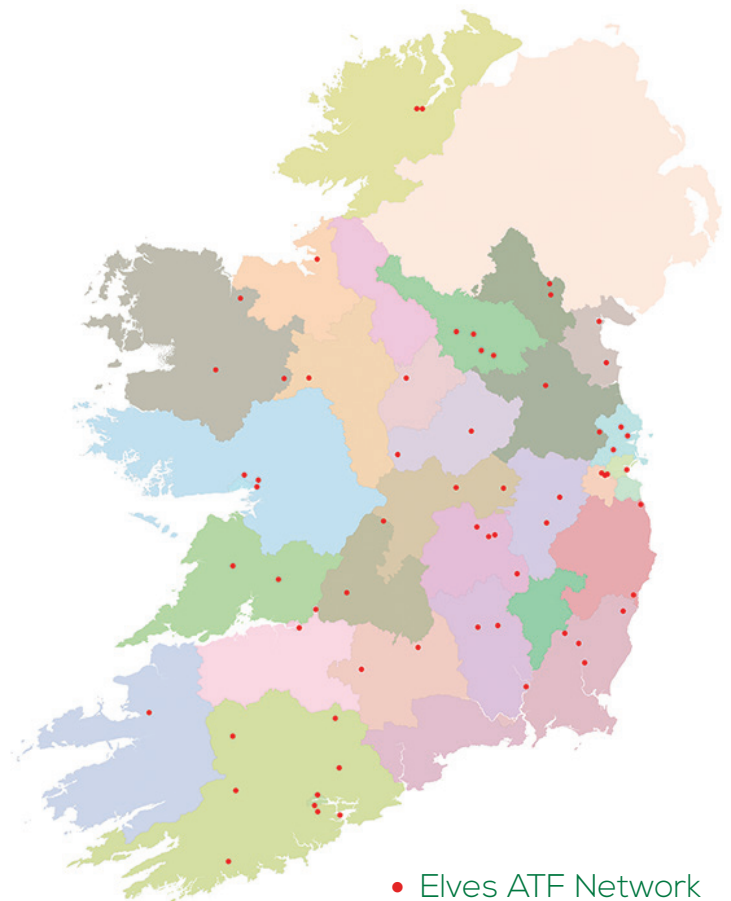
Many ATFs keep the ELV in stock and remove parts, such as mirrors, engines and headlights, for resale and reuse.



Ultimately, an ELV is composed of about 75% of mixed metals, all valuable to varying degrees. All ATFs depollute, but whether an ATF dismantles or not, they inevitably realise the commercial value of the remaining ELV hulk by selling it to a reprocessor or metal recycler.

In 2018, the ATFs were introduced to a modified system of Annual Environmental Returns through the NWCPO. It means that data concerning their reception, depollution, dismantling, and onward transfer of the ELV hulks to reprocessors can be captured in detail and on-line just the once for the entire year.

2018 saw the start of our ATF audit programme. A number of audits were conducted by staff at ELVES, covering the data provided in reporting and the process an ELV goes through at an ATF (against the requirements set out in the ELV Regulations).



• Elves ATF Network

6. REPROCESSING AND PST

Essentially there are two parts to the recycling and recovery of materials from an ELV hulk after the ATFs are finished with it.

Shredding and recycling of materials

The vehicle bodies are then sent to a shredder



The shredder will further process the car and separate it into the different material types for recycling and recovery

www.elves.ie



Along with other metals, it is firstly shredded into small fragments so that the materials can be more easily separated. This is an energy intensive process, so a shredding facility benefits from having a good mix of material and a suitable volume of throughput. As seen, this process can achieve a high degree of segregation, but not enough to meet the targets. For this we need a further second step called Post Shredder Technology (PST). This deals with what is left, the Auto Shredder Residue (ASR), as it will still contain valuable materials. The PST achieves two objectives for ELVES. It separates out further materials for recycling (small pieces of metal, glass, some plastics for remoulding) and it generates a quality feedstock for energy recovery. Both of these add to our 85% and 95% targets.

Again, PST benefits from volume or economies of scale. Therefore, most of the ASR generated in Ireland is exported to PST facilities abroad. ELVES fund this directly.





7. ACHIEVING TARGETS

As we can see, achieving targets depends on the activities of ATFs, metal reprocessors, and PST facilities. None of this is free or cheap. Neither is the extensive exercise which is the collection and analysis of data after the activities have occurred.

In order to ensure that the targets can be met, ELVES fund each activity and the data collection as it occurs throughout the year. Right now, ELVES has achieved the 85%/ 95% targets for each of its ATFs in the Network on behalf of its members. However, where the opportunity exists to influence any extra recycling and recovery activities, ELVES has pursued that also. All of these efforts contributed to the national targets, which the EPA will determine by mid-2020.

Validation is also an important step. ELVES is required to ensure each ELV is depolluted in its Network, delivered to a metal reprocessor, and the ASR further processed at a PST facility. We do this by first following the paperwork and then following the material on trucks and boats, quite literally. At the end of the year, we can prove where every tonne of ELV has come from (the original ATF that receives the vehicle), and where it has gone (metal reprocessors and PST facilities, wherever that may be in

Europe). We do this under the watchful eye of the DCCAIE and the EPA. These audit and validation procedures are a costly part of our activities, but we regard them as essential. If we cannot validate it, we do not count it.

Once validation has occurred, ELVES then takes stock and reviews if targets have been achieved. Where there is a shortfall, there exists the possibility of sourcing additional credit from Irish ELVs sent to reprocessors abroad.

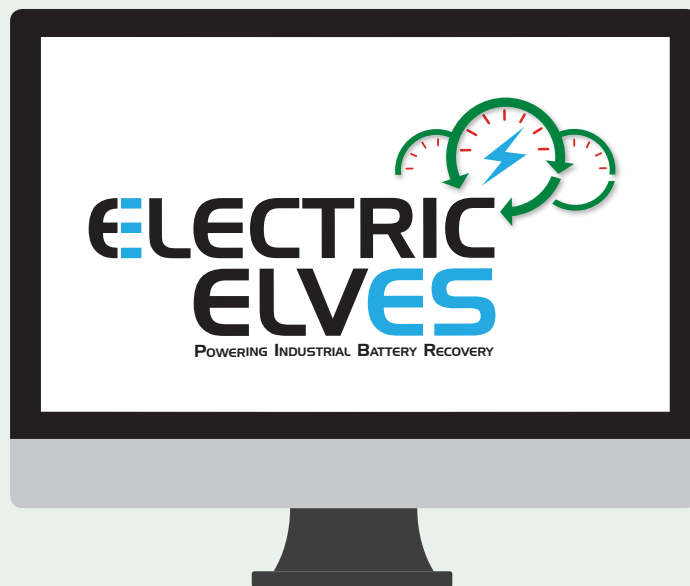
Furthermore, we have stress-tested this by anticipating a much greater number of ELVs flowing through our Network coupled with lower efficiencies or bad data reporting at some metal reprocessors and PST facilities.

Normally, after publication of this report more data becomes available to both us and the EPA from activities carried out in 2018, which in turn alters recycling and recovering achievement.

8. ELVES PROJECTS

Electric ELVES

2018 saw the start of a significant future thinking programme, Electric ELVES. As Ireland's car parc electrifies, this, in time, will also mean changes to the ELVs at ATFs. As the compliance scheme for the sector, we are the responsible scheme in supporting ATFs as this occurs.



In May 2018 we rolled out the Electric ELVES programme to support ATFs in their handling of electric, hybrid, plug in hybrid and mild hybrid vehicles. The programme provides support to all ATFs in the country, not just those in the ELVES Network.

Electric ELVES provides ATFs with information on the safe dismantling of these vehicles and the removal of their industrial batteries. If required, where there is a risk the battery is damaged, ELVES will provide additional manufacturer support to the ATF.

In addition to the one-to-one support as ELVs arise, the Electric ELVES programme also provided free on-line training to all ATFs on hybrid and electric vehicle technology, a starting point for a wider training programme planned for 2019.

Last but certainly not least, Electric ELVES provides free collection and recycling

of the batteries from ATFs. This is an important service for ATFs, given the costs involved with recycling Li-ion batteries.

For ELVES, the Electric ELVES programme that was rolled out in 2018 is very much the start. The volume of these vehicles arising at ATFs is still very low, but it is important that expandable systems are in place to ensure their safe handling and that reuse, recycling and recovery is maximised. As the batteries get larger and the volume of vehicles increases, they will play an increasingly significant role in the achievement of the 85 and 95% reuse, recycling and recovery rates for ELVs.

The Electric ELVES programme is designed to provide support to ATFs in the here and now, but always with an eye to the future as this new technology plays a bigger role in end-of-life vehicle management.

9. OUTLOOK

Within the EU, ELVES is considered to be an Extended Producer Responsibility (EPR) scheme, where the producer/ manufacturer/ importer takes financial and organisational responsibility for collection and treatment of vehicles they originally placed on the roads in Ireland. Three waste stream-specific directives (end-of-life vehicles, batteries and accumulators, waste electrical and electronic goods) introduce EPR as a policy approach. While this approach is considered successful at promoting recycling and recovery, it may not be the best driver to encourage eco-design and the circular economy. Additionally, the responsibilities as producers can be legally interpreted as being split between those who manufacture vehicles (new ones) and those who source second-hand imports, while the legislation has split the waste streams across the EPR schemes, i.e. batteries in electric vehicles also feature in the battery directive. Reviews of the approach in this sector are ongoing both within the EU and globally.

Currently, the EU is spearheading its Circular Economy Package. In short, a circular economy aims to prevent and minimise waste by making the most out of recycled and recovered resources. In a circular economy, the use of raw materials and fresh resources are replaced by the very same material that are already in use

in that particular system. If we think of a vehicle, this starts with design for longevity, maintenance, repair, and reuse, followed by refurbishment and remanufacturing. That is a lot of ground covered there, so the example of an engine might be easier to picture – a well designed long-lasting item that can be repaired or reused in a second vehicle. After that, the recyclability of the material back into a new engine is also part of the circular economy. This circular approach of ‘make, use, and remake’ is in contrast to the traditional linear economy, which has a ‘take, make, dispose’ model of production.

While the Circular Economy Package is addressing certain other waste streams at this time, the motor industry has already embraced it through various refurbishment and recycling programmes across Europe.

A review of the Directive 2000/53/EC on ELVs is due by 2020. Amongst other matters, attention will be paid to the circular economy, targets, electric vehicles, missing vehicles (not recorded as an ELV or as an export outside the EU), and the shipment of waste vehicles. Consideration may also be given to strengthening the mandate of an ELV EPR.

Please check back on our website and Facebook from time to time to see where we are and what we are doing. Until then, happy scrapping!

10. Governance & Financials

Governance: ELV Environmental Services CLG (a Company Limited by Guarantee) is a non-for-profit company limited by guarantee. ELVES is responsible for the achievement of the statutory reuse, recycling, and recovery targets, deposited at ATFs and downstream reprocessing facilities, both in Ireland and abroad, which comprise all of ELVES' national collection system.

ELVES is led and controlled by a Board of executive and non-executive directors, consisting of representatives from the vehicle manufacturing / importing sector and independents, who collectively ensure delivery of the objectives, set strategic direction, and uphold best corporate governance. In 2018, the Board comprises Alan Nolan (2), Anja Köckritz (3), Brian Cooke (3), Ciaran Kinahan (3), Clodagh Walsh (2), Colin Griffin (3), Fiacra Quinn (3), Frank Glynn (3), Irene Collins (3), Karen Mahon (3), Noel Hughes (3), Paul Murray (3), and Stephen McDonnell (3). Of the three Board meetings that were held, their attendances are shown in parentheses.

The Board is open, responsive and accountable to its users, beneficiaries, members and others with an interest in its work. There are internal committees on nomination, remuneration, and auditing, not only to safeguard ELVES' activities and reputation, but also to recognise achievements. The company secretary is Maples Secretaries Ltd, the auditors are

Clinton Higgins Ltd, and the solicitors are LK Shields Solicitors.

Committees: Our Nomination Committee appoints or remove Directors of the Board of Directors, the Chief Executive Officer and Corporate Auditors and report to the Board of Directors on recommendations regarding appointment criteria. The members are Ciaran Kinahan (Chair), Noel Hughes, and Brian Cooke. Our Remuneration Committee evaluate the performance of the executives and report to the Board of Directors on recommendations relating to the remuneration framework. They determine the remuneration of employees, Chair and/ or Chief Executive of ELVES. The members are Paul Murray (Chair), Anja Köckritz, and Alan Nolan.

Our Audit Committee reviews the internal financial controls and risk management systems, and objectively assess the company's financial reporting system. They also monitor the integrity of the financial statements of the company and assess the audit activities of the auditor. They may advise the Board on its supervision of the company's financial position and the preparation of the financial statements and the budget and ensure open communication between the audit committee, the management, and the auditor. The members are Brian Cooke (Chair), Stephen McDonnell, and Frank Glynn.

Financials, 2018:

Income	€ 1,609,698
Expenditure	€ 1,606,697
Direct Reuse, Recycling, & Recovery Costs	€ 971,129
Advertising, Marketing, & PR	€ 280,353
Compliance Management	€ 55,883
Administration & Overheads	€ 299,332
Surplus	€ 3,001
Contingency Fund	€ 1,700,000

Included in the above are Directors' remunerations of €136,535.

11. ACRONYMS

AER	Facility's waste report (Annual Environmental Return)
ASR	Auto Shredder Residue, the stuff & fluff that is left after metal shredding
ATF	Scrapyard (Authorised Treatment Facility)
CLG	New version of Ltd. (Company Limited by Guarantee)
CoD	Vehicle's death cert (Certificate of Destruction)
eCoD	the electronic/ on-line CoD
DCCAE	Department of Communications, Climate Action and Environment) (Dept of Environment)
DTTas	Department of Transport, Tourism and Sport (Dept of Transport)
ELV	Scrap car (End-of-Life Vehicle)
ELVES	The ELV scheme (ELV Environmental Services CLG)
EPA	The Environmental Protection Agency
EPR	Extended Producer Responsibility
NVDF	Vehicle registration office, Shannon (National Vehicle and Driver File)
NWCPO	National Waste Collection Permit Office
PST	Post Shredder Technology, a process needed to sort the ASR
WtE	An incinerator that recovers energy (Waste-to-Energy)



DRIVING CAR RECYCLING FORWARD

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