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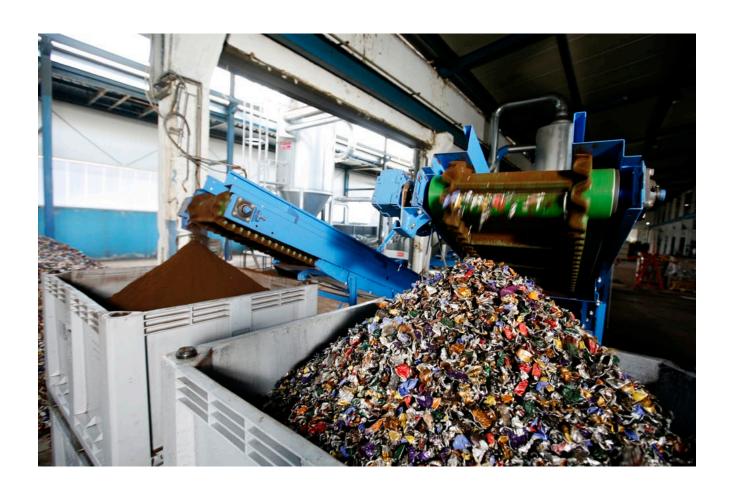


INTRODUCTION >

This new report commissioned by **Nespresso** examines attitudes to recycling around the world. The report has been commissioned to raise awareness globally about the opportunity to recycle more, identify potential barriers, and help to address consumer knowledge gaps.

It has been compiled using existing data sources (including European Commission and DEFRA data, as well as information from environmental organisations such as WRAP), and new research commissioned by **Nespresso** through GWI¹ - the world's largest digital consumer study - in Australia, Austria, Canada, France, Germany, Netherlands, Norway, Russia, Spain, Sweden, Switzerland and the UK.

In addition, the report features independent commentary from leading experts in the field of recycling including Rick Hindley, Executive Director Alupro, and Dr Fiona Solomon, CEO Aluminium Stewardship Initiative.





EXECUTIVE SUMMARY >



EXECUTIVE SUMMARY >

Nespresso commissioned this report to better understand attitudes and behaviour towards recycling, in order to improve consumer participation in recycling, and to identify future opportunities to improve general recycling of light aluminium items including its capsules.

Countries around the world are looking at how to move from a traditional linear economy of make, use, dispose, towards a more circular economy model. This means that governments, regional and local authorities are looking for ways to encourage consumers and businesses to adopt the practices that would encourage greater reuse, recovery and recycling of materials. Such measures range from increasing recycling targets, penalising landfill, and innovating to maximise the revalorisation of waste materials, for example through waste-to-energy schemes.

Recycling is high on the agenda of the circular economy. This report will help policy-makers to better understand the opportunities and limitations they face as they attempt to encourage greater consumer participation in recycling, and identify opportunities for effective public policy.

Nespresso's research corresponded with existing industry reports, which show a pronounced gap between householders' perceptions of their recycling behaviour, and the actual trends and volumes demonstrated by recycling figures. This report has identified three opportunities for improving recycling rates:

- Better information to address consumer confusion
- More motivation to encourage consumer participation
- Improvements in infrastructure to enable better collection and sorting of materials.

Globally, over a quarter of consumers are not confident about recycling, and those in urban areas specifically do not find the process user friendly. If collection and sorting infrastructure was improved, recycling rates would likely see a parallel boost. The research also identified that people sometimes feel that their individual efforts are insignificant and will be insufficient in the context of the mass change needed. It is therefore essential to convince consumers that individual actions do matter, and that their peers are also good recyclers.

Although an overwhelming majority of people claim to recycle proficiently, evidence shows that only 12% recycle correctly, with the remaining 88% showing room for improvement.

Whilst gender plays no part in overall recycling rates, there are differences between men and women when it comes to personal perceptions on recycling. The report finds that men consider recycling an easier process than women and that men are also more likely to believe they are good at recycling than women.

Older people tend to believe they are good at recycling, while looking down on those they feel are less accomplished.

Clear and comprehensive information is essential to encourage people to participate. With recycling infrastructure varying across counties, regions and even within municipalities, there is a great deal of confusion about how to recycle.



> EXECUTIVE SUMMARY

About Nespresso

Nespresso has committed to ensuring sustainability throughout its operations, seeking to create shared value and positive impact for farmers, consumers and society at large, while caring for the environment. This ambition includes the responsible management of the end-of-life of its products, most notably by improving the recycling of its iconic aluminium capsules.

Nespresso is currently investing 18 million Swiss Francs a year to support capsule recycling. It began to build its own dedicated recycling scheme more than 25 years ago, which aims to inform consumers and give them a range of simple and convenient options for recycling their capsules. There are now more than 100,000 Nespresso recycling collection points worldwide, and in 18 countries Nespresso offers a doorstep collection of used capsules. Today, Nespresso has the capacity to collect and recycle 86% of its capsules, with the ambition to reach a target of 100% capacity by 2020.

However, more needs to be done to make recycling easier and more convenient for consumers. To address this, **Nespresso** is working with governments and local authorities around the world to have aluminium capsules included in collective recycling schemes, so that customers can conveniently dispose of their **Nespresso** capsules with their general household recycling.

"Alupro has been delighted to work with **Nespresso**, and we have absolutely seen their commitment to taking it to the next stage. They are constantly challenging themselves as to how they can improve the collection system, and how they can improve collection rates."

Rick Hindley, Executive Director Alupro



CHAPTER 1 > CONSUMER ATTITUDES TO RECYCLING

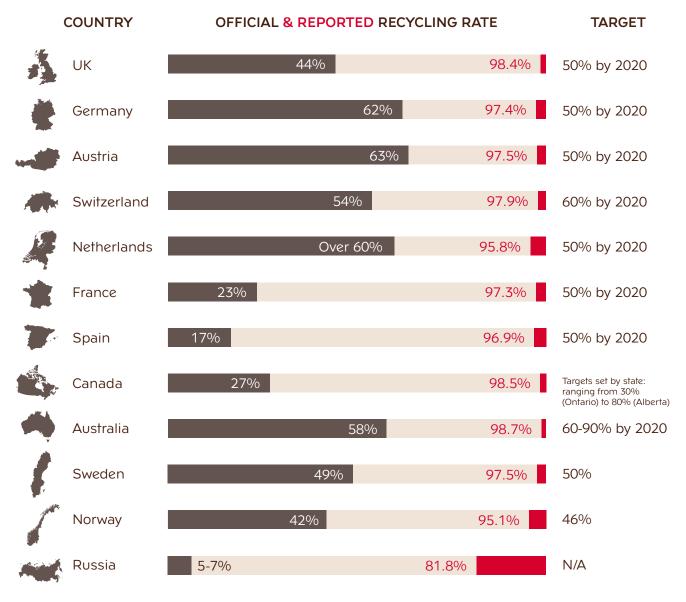


CHAPTER 1 > CONSUMER ATTITUDES TO RECYCLING

1.1 RECYCLING BEHAVIOURS

Independent market research commissioned by **Nespresso**¹ on recycling perceptions and behaviours found that in every country, participants self-report extremely high recycling rates, with a global average of 94% of people stating that they recycle, and 67% stating that they always recycle.

However in reality, recycling rates vary hugely across the globe according to published data, showing a gap between consumer perception and reality. This report has identified a lack of confidence in people's recycling abilities, which could explain the gap between aspirations and behaviour.



Data sources

 $European\ Commission\ /\ www.statista.com\ /\ www.quechoisir.org\ /\ www.eea.europa.eu\ /\ www.letsdoitworld.org\ /\ MRA\ Consulting\ Group\ Group\$



1.1 RECYCLING BEHAVIOURS

The nation with the highest self-reported recycling rate is Australia (98.7%), while consumers in the UK report that they the most likely to recycle every day (70%). The nation with the lowest self-identified recycling rate is Norway (95%); Norwegian respondents also emerged as the least likely to believe that recycling was an easy process in their country. According to official data however, Austria currently has the highest recycling rate; whilst countries such as Spain, France and Canada are significantly lower.

The reason for the success in recycling in countries such as Germany, Austria and the Netherlands is due to the highly sophisticated recycling infrastructure in the countries, making recycling a clear and easy process for consumers.



1.2 UNDERSTANDING THE GAP BETWEEN PERCEPTION AND REALITY

In order for countries to meet their targets for recycling, influencing consumer behaviour to recycle products at the end of their use is critical, and becomes a combined responsibility for the public sector and the private sector. This report has identified a clear gap between consumers' attitudes to recycling, and the reality, with two of the main drivers being confusion and a lack of confidence.

Despite very high recycling rates being reported by consumers when asked, one in five respondents globally (19%) admits to not being confident with their recycling. Furthermore:

37% believe that they are good at recycling

190/ believe they don't recycle as much as they should

31% wish they could recycle more

50% believe that others should be recycling more

These global trends are supported by research conducted by recycling industry leaders such as WRAP² and SUEZ³. WRAP's research found that **over half** (52%) of respondents identified with the statement

"I want to be a really good recycler and take the trouble to ensure I'm doing everything right"

Around one third (32%) identified with

"Recycling is a good thing but I don't spend too much time worrying about it"

and one in ten (10%) with

"Recycling is good in principle but for various reasons I don't really do it as much as I ought to"



1.2 UNDERSTANDING THE GAP BETWEEN PERCEPTION AND REALITY

Part of increasing consumers' confidence in their ability to recycle is educating them in how to recycle, in addition to making the process easier, especially for those in areas where recycling is not made as easy as it could be. Two in five of those that don't recycle, state that the reason for doing so is because they are unsure of how to do so (38%).

GLOBAL RECYCLING CONFUSION



Knowing what can and can't be recycled

390/



Whether materials need to be separated

33%



Understanding which plastics can be recycled

32%



Whether items are to be taken to recycling facilities

26%

Lack of recycling collections (38%) also top the list of barriers to recycling, showing that more can be done to increase these levels globally.

Recycling infrastructure and therefore collection systems are highly localised and vary between jurisdictions and operators, often within the same city or region. This disparity fuels confusion around which materials can be recycled. **Nespresso** research supports this, finding that globally, over a quarter (28%) of consumers are not confident with recycling and do not find it an easy process where they live (23%).

These findings are supported by WRAP² in research from the UK who say that confidence in understanding what local provision exists is key.

21%

say lack of knowledge on what can and can't be recycled by the local municipality is a barrier to recycling more. 22%



of people blame the limited range of recyclable materials collected at kerbside as a barrier to improvement.

Data Source: Survey conducted by YouGov on behalf of SUEZ

The driver of recycling confusion:

WRAP² research finds that two thirds (66%) of households are unsure about which materials they were able to recycle. For example, 24% of households dispose of aluminium foil in the waste bin when it can be recycled, and 9% of households put items in the recycling bin which cannot be recycled. There was also misplaced confidence – just over half of households (56%) were placing material in the recycling that could not be processed (e.g. batteries, plastic-coated paper cartons, plastic pots, tubs and trays). These households need more cues to encourage their behaviour in the right direction.



1.3 WHO'S RECYCLING?

Age matters

All around the world, age has an overall impact, as the likelihood of recycling increases with age:



88% of 16-24 year olds recycle



92% of 25-34 year olds recycle



940/0 of 45-54 year olds recycle

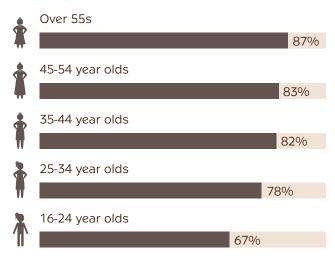


96% of 55-64 year olds recycle

There is a significant increase across age groups for those who recycle every day, with those over 55 (55%) being nearly twice more likely to recycle every day compared to those aged 16-24 (31%).

In addition, as age increases, so does the likelihood of believing you're good at recycling and thinking badly of those that don't recycle. This comes hand in hand with confidence in recycling due to the habitual nature of the activity, with results showing that recycling confidence also increases as you age:

Recycling confidence



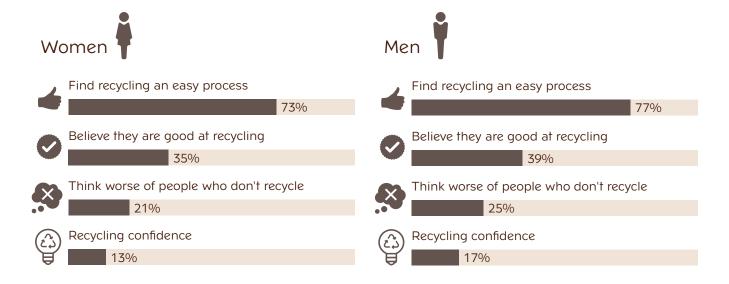
When seeking to understand the factors which affect different age groups, research by both WRAP 2 and SUEZ 3 found that the younger generation may have less interest, receive less information, and have less ability to improve, due to infrastructure limitations such as less comprehensive collections in apartment buildings.



1.3 WHO'S RECYCLING?

The gender gap

Whilst gender plays no part in actual recycling behaviour, there are differences between men and women when it comes to personal perceptions on recycling.





1.3 WHO'S RECYCLING?

Urbanites vs Rural Dwellers

Research¹ finds that living in urban areas hinders your ability to recycle.

Those in rural households are more likely to recycle than any other household, and believe they are the best at recycling (45%), and think worse of those who do not recycle (30%).

Suburban and rural households also recycle more frequently, with three in five recycling every day, compared to only two in five of those in urban areas.

Furthermore, for those in towns and urban areas, recycling is an aspirational activity, with 35% likely to wish that they could recycle more, compared to 26% of those in rural areas.





This shows that whilst the intention to recycle is there, the process of actually doing so can make it hard to achieve. Proving this, the results also showed that two in five (43%) of those in urban areas state that they would be motivated to recycle more if the process was made more convenient, with more bins provided.



Rural Recycling frequency





Suburban Recycling frequency





Urban Recycling frequency





CHAPTER 2 > IMPROVING RECYCLING BEHAVIOURS



CHAPTER 2 > IMPROVING RECYCLING BEHAVIOURS

2.1 RECYCLING MOTIVATIONS

The research by **Nespresso** identified the top barriers and motivations to consumer recycling, and undertook an analysis of the reasons why consumers do, and do not recycle.



770/0
Helping the
environment topped the
reasons for recycling



38%
Not knowing how to recycle, and not having recycling collection, topped the reasons for not doing so



Inconvenience of recycling causes people to not recycle



15% / 5% Men are more likely than women to not recycle because they don't see the benefit

"To improve recycling rates, it's all about making it as convenient and easy as possible. **Nespresso** have tried to do that by providing an at home collection service. Could it be more easy?

"One further way to engage consumers is to explain the benefit in their recycling actions. They may think that their individual capsule doesn't make a difference. So it's all about communication – getting those messages across that absolutely every little action really does make a difference."

Rick Hindley, Executive Director Alupro



2.2 CLOSING THE GAP & IMPROVING RECYCLING BEHAVIOUR

The public is keen to be more engaged. According to WRAP, householders want to understand more about why they are recycling materials and what their behaviour contributes to.

of householders agree or strongly agree with

"it bothers me that households aren't told more about what materials and products our recycling gets used for/recycled back into"

Nespresso research¹ has also found that consumers require more information to motivate them to recycle more, with 23% requiring more information on what happens to recycled material, where and how to recycle, and 21% asking for more information on packaging.

WRAP identified two areas for improvement in recycling behaviour: to reduce the number of materials mistakenly put in the recycling bin which cannot be recycled by the operator in that particular locality (known as contamination), and to increase the number of materials mistakenly put in the waste bin that can actually be recycled (known as missed opportunities).

of householders were found to be recycling correctly

of householders still having room for improvement

This emphasises the stark perception gap between the 94% of consumers who state that they recycled according to **Nespresso** research.

Case Study: Driving recycling behaviors

The Metal Matters campaign has been run by a number of local authorities across the UK to drive kerbside recycling of metal and aluminium. Since 2012, more than 2.7 million households across 45 local authorities have been targeted, and all have seen an increase in the volume of metal packaging recycled via the household recycling system. The campaign is administered by Alupro (the UK Aluminium Packaging Recycling Organisation) and supported and funded by a range of organisations in the metal packaging sector including Unilever and Ardagh Group. It supports local authorities in educating householders on how they can recycle metal via their local authority systems.

Most common global source of information on recycling:



Local council (46%)



Internet (40%)



Packaging (37%)



Leaflets (28%)

Age has an impact on where and how householders source recycling information. The likelihood of using the internet decreases with age, which is cited – along with word of mouth by millennials as the most used information source². In addition, as age increases, so does the likelihood of seeking information from the municipality.

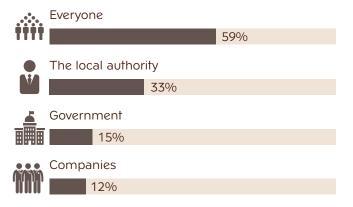
This evidence emphasises the need for businesses to work in partnership with local authorities to improve the information which consumers receive, and how they receive it.



2.2 CLOSING THE GAP & IMPROVING RECYCLING BEHAVIOUR

The research by **Nespresso** demonstrates that most people around the world accept responsibility for managing their waste sustainably, and highlights the need for clear information and regular, comprehensive collections.

People believe recycling is the responsibility of:



"Perhaps it's time to engage the public in more active ways, so that they become more individually invested in recycling performance rather than simply being told to recycle by industry and policy makers because it's the right thing to do. The findings of our research also show we all have more to do to engage the younger members of society and help them to become better and more enthusiastic recyclers, whilst also making existing collection schemes as easy to follow as possible"

"As an industry, working in partnership with manufacturers, retailers and local authorities, it is clear that we can all do more to inform the public about the materials in the products and packaging they consumer, how they can be recycled and, importantly, what happens to them after they are put in the bin"

David Palmer-Jones CEO of SUEZ

In addition to consumers requiring more information and knowledge on how to recycle, research found that to increase recycling rates, the most effective motivator would be to improve collection and sorting infrastructure.

Effective motivators to increase recycling:



Clearly, there is a need for local authorities to make investment in infrastructure to encourage better consumer participation.

The greater the local authority provision for collective recycling (i.e. the larger the range of materials accepted for recycling into a mixed household recycling bin), the more residents take full advantage of the service, leading to greater numbers of households correctly recycling. The less provision for collective recycling, the more contamination tends to take place. This shows that households would be willing to recycle a wider range of materials if they were accepted into the collective scheme and if the infrastructure was available to sort them. WRAP's survey² supports this view, showing that as collective scheme provision has increased, so too have the recycling rates for many materials (glass, plastic bags, batteries, drinks cartons, for example). The most significant increase has come from the recycling of aerosols, with rates rising from 59% in 2013 to 72% in 2016. The Metal Matters Campaign (see section 2.2) has been a significant driver of this uplift.



2.2 CLOSING THE GAP & IMPROVING RECYCLING BEHAVIOUR

A closer look: Aluminium packaging

Aluminium in packaging is best known for containing carbonated drinks. Collection and recycling rates vary from country to country, from between 30% and close to 100%⁴, with the global average around 70%.

Particular success stories include Switzerland, which collects 90% of their aluminium beverage cans, driven by highly-motivated consumers who effectively sort recycling at home. In Japan, a collection rate of 93% for used beverage cans is achieved with a voluntary system, with recycling boxes at supermarkets and major shopping centres, volunteer groups and municipality offices. These examples illustrate that there are many ways to encourage consumers to recycle particular materials more.

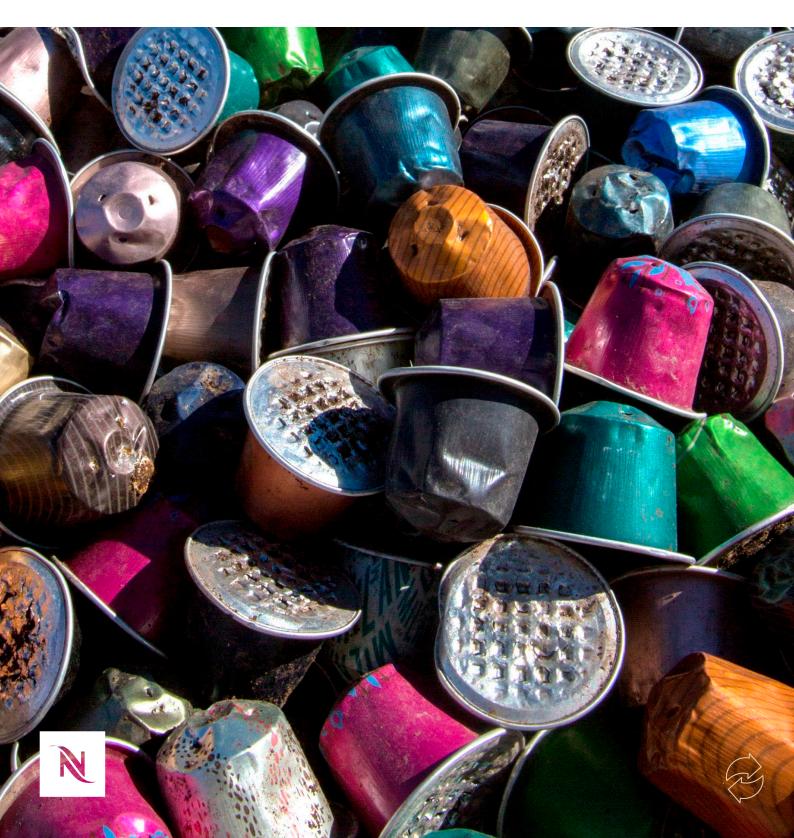
"Aluminium is a highly recyclable and recycled metal, but there is always room for improvement. For consumer goods such as packaging, a lot rests on the maturity of municipal infrastructure.

Product design should take into account the future recyclability of products, and the available infrastructure for recycling, working collaboratively to improve this where appropriate. Consumers also have a responsibility to manage waste responsibility, within the options available to them, and can also advocate within their local governments for better facilities. Collective efforts will be most effective in the long term."

Dr Fiona Soloman, CEO, ASI



CHAPTER 3 > THE NEW FRONTIER OF RECYCLING



CHAPTER 3 > THE NEW FRONTIER OF RECYCLING

3.1 THE 'NEW FRONTIER' OF RECYCLING: CIRCULARITY

Dealing with waste has traditionally been led by the waste hierarchy: Reduce, Reuse, Recycle – encouraging consumers to consider more sustainable consumption habits before the final phase of recycling material at the end of its useful life. While this system still exists, thinking in this area has developed into support for the circular economy.

The circular economy encourages resources to be kept in use for as long as possible, by extracting the maximum value from them whilst in use, then recovering and regenerating products and materials at the end of each 'service' life. Not only does the circular approach encourage recycling (as in the previous 'linear model'), but it also offers a broader, more holistic approach which actively promotes the use of recycled materials in the design and manufacturing phases of products, as well as designing specifically for reuse and recycling, eliminating toxic chemical use, and encouraging use of renewable energy. A great example of this, is the collection and recycling of Nespresso capsules, using the aluminium to create new Nespresso capsules.

"For businesses to be sustainable, it's vital for future leaders to understand and engage with sustainability issues. This is critical to ensure that sustainable thinking becomes the norm in the way businesses, not just our own, think and perform. Sustainable learning should be at the core of executive education"

Nespresso CEO Jean-Marc Duvoisin



3.2 ALUMINIUM - AN ICON FOR SUSTAINABLE CONSUMPTION

Aluminium is infinitely recyclable – according to the European Aluminium Association, it is estimated that 75% of all aluminium ever produced is still in use today, and recycling aluminium saves 95% of the energy needed to produce the same amount from raw materials.

Aluminium, a naturally-occurring metal, is robust yet lightweight. It is the perfect material for preserving food. **Nespresso** chose aluminium because it is the best material to protect the freshness and quality of their coffee. As well as being the ideal choice for food packaging, aluminium has the potential to be an icon for the sustainable materials of tomorrow.

The efficiencies to be found in recycling aluminium, along with the fact that it does not degrade in quality during the recycling process, makes aluminium a commodity that perfectly fits circular economy thinking. As a commodity, aluminium has a strong market price, making recycling aluminium a positive economic and environmental process.

In order to create a closed loop system, materials must, obviously, be reclaimed from their 'use phase' when a product has reached its end-of-life and is ready to be recycled. This relies on systems and infrastructure to reclaim and process materials, as well as customer behavior to return it into the recycling system. Markets vary in the sophistication of reclaim systems, some are government or local authority-run, and others operate as private systems.



CONCLUSIONS >



CONCLUSIONS >

This new report commissioned by **Nespresso** examines attitudes to recycling around the world. The report aims to raise awareness globally about the opportunity to recycle more aluminium, identify potential barriers, and help to address consumer knowledge gaps.

As populations continue to grow and consumption of goods increases, we all need to take collective responsibility for a sustainable future for the world.

Given the huge gap between consumer perceptions of how much they recycle and the figures reported by the waste industry, more needs to be done to understand the drivers of this gap. It could be that consumers feel guilty to admit that they do not recycle enough, or that they need help to do more.

This report not only emphasises the need for greater education of consumers on how they can 'do their bit' and increase their confidence in how and what they can recycle, but it also underpins the need to convince consumers that their efforts can – and do – make a difference. After all, aluminium is one of the most valuable materials available for recycling; genuine markets exist for the end product, and the carbon savings alone make recycling a viable economic proposition within the circular economy.

However, consumers are just one part of the larger puzzle. **Nespresso** is strongly committed to being a leading figure in helping more products be recycled at the end of their life, by ensuring that the capacity for recycling is available. However the report also highlights that local authorities are the most critical stakeholders in encouraging consumers to recycle more frequently and to a higher standard.

Rick Hindley, Executive Director Alupro says,

"Ultimately, industry partners – producers, local authorities, waste management firms – can do their bit, but to succeed, consumers need to actually take part and put their waste into the collection systems."

This report indicates that clear and comprehensive information is essential to encourage more consumers to recycle more often and more effectively. It also shows that households would be willing to recycle a wider range of materials if they were accepted into collective schemes and if the infrastructure was available to sort them. This therefore suggests that if collection and sorting infrastructure was increased, recycling rates would see a parallel boost.

Working together, producers, consumers, local authorities and the wider waste management industry can support each others' efforts to create a truly circular system.

⁴Global Aluminium Recycling: A Cornerstone of Sustainable Development, report by The Global Aluminium Recycling Committee



¹Recycling research conducted by GWI on behalf of **Nespresso** with a sample of 10,200 adults, March 2017

²WRAP Recycling Tracking Survey, Spring 2016

³ Survey conducted by YouGov on behalf of SUEZ

APPENDIX >



APPENDIX >

NESPRESSO'S RESPONSIBLE APPROACH TO ALUMINIUM

Nespresso started its aluminium capsule recycling program over 25 years ago, with a dedicated recycling initiative in Switzerland in 1991. Since then, **Nespresso** has been developing tailored recycling programs in each of the countries where it operates.

In Germany, Sweden and Finland, capsules can be recycled through the national packaging recycling schemes. However, in other countries, the sorting infrastructure required to separate aluminium from other packaging does not always exist. In these markets, and others around the world, **Nespresso** has developed programmes to support capsule recycling.

There are now more than 100,000 **Nespresso** recycling collection points worldwide.

Nespresso has developed a range of collection systems across 39 countries in other markets, taking into account their specific market needs. These include:

- Collection points in Nespresso boutiques
- Collection points within the community and at municipal waste centers
- Doorstep collections with courier companies
- Collection points at retail partners' stores

Nespresso is currently investing 18 million Swiss Francs a year to make recycling of its capsules as simple and convenient as possible for its customers.

There are now more than 100,000 **Nespresso** collection points worldwide. In 18 countries, **Nespresso** has set up doorstep collection services, where used capsules are collected for recycling when a new order is delivered. In 20 countries, the **Nespresso** website and the app for iPhone, iPad and Android help Club Members find the closest collection point to take their used capsules for recycling.

"Aluminium is energy intensive to produce, but the trick is to make sure that it comes back for recycling. **Nespresso** is providing the opportunity to do that, so it's now up to their customers to use the recycling system."

Rick Hindley, Executive Director Alupro





> APPENDIX

NESPRESSO CONSUMER ENGAGEMENT PROGRAMMES

Nespresso has used its consumer base and research methods to develop a clear picture of consumer behaviour in order to communicate effectively with its customers. It plans to pilot a number of schemes in 2017 to help encourage consumers to recycle more of their used aluminium coffee capsules.

The program aims to change behaviour and increase recycling. **Nespresso** is taking a leading role in product responsibility, investing heavily in increasing its capacity for recycling coffee capsules to 100% of capsules sold. It is also putting schemes in place to make recycling as easy as possible for its consumers.

Nespresso aims to increase its recycling capacity to 100% by 2020.

At the same time, **Nespresso** has committed significant resources to build capacity to recycle aluminium capsules. It aims to reach 100% capacity by 2020, and at the end of 2016 had already reached 86%.

Nespresso 'Second Life' Campaign

To celebrate 25 years of the **Nespresso** Recycling programme in Switzerland, **Nespresso** partnered with Victorinox to create a limited edition Swiss Army Knife made from recycled **Nespresso** capsules. Consumers were given the opportunity to buy this iconic product at a discounted price with a purchase of **Nespresso** capsules. The partnership and supporting campaign resulted in an uplift in consumer perception that **Nespresso** capsules were easy to recycle and recycling rates increased by 8%.





