

# RecyClass



## RECYCLASS ANNUAL REPORT 2021



# RecyClass

Plastic Future is Circular

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## WELCOME

Chairman of RecyClass,  
Paolo Glerean



**Design for Circularity** has reinforced its importance as the main route to achieve a truly sustainable use of plastics materials. We see more and more efforts from the industry to understand the principles of circularity and their efforts to apply them to their specific products.

Despite a challenging situation brought on by the pandemic, all the plastic value chain increased resources and investments in this direction.

The growing figures reported in this paper are a testament that RecyClass is becoming a clear reference to support this path.

On top of designing new Protocols, updating and developing new **Design for Recycling Guidelines** as well as attracting new members and supporters, RecyClass consolidated in 2021 the **traceability scheme for the use of plastics recyclates** which provides the industry with a robust verification and certification of claims on recycled content.

Additionally, external reviews by academics and national authorities have been performed this year to further strengthen recognition and robustness of the RecyClass procedures and testing protocols.

Taking into consideration the achievement of the past year, I would like to take the opportunity to thank the RecyClass Members, Supporters, Testing Facilities, Certification Bodies and Certified Companies, as well as the RecyClass Team – together we have shown that plastic future is circular and that we can make it happen.

I have the confidence that we will continue our work with your drive and passion further supporting the plastic value chain on its way towards a genuine circular economy transition.

Advisory Board Co-chairs,  
Severine Mongauze – Gian De Belder – Brian Lodge

Driving **Plastic Packaging Circularity** is key if we want to eliminate plastic waste and want to ensure that these valuable materials are kept in the economy.

Membership of RecyClass – our cross-value chain initiative on plastic circularity – kept on growing in the 2<sup>nd</sup> year, now reaching more than 60 members.

As we all know **collaboration** across the value chain is KEY, next to a **science-based approach** to address the challenges in front of us. These are the basic pillars of RecyClass, where definitions, methodology, design guidelines, self-assessment tool, certifications schemes, environmental guidelines on claims (recyclability and recycled content) and other important topics are being discussed and voluntarily (through a cross value chain approach) aligned.

**Progress in 2021:** this year, 29 technology and product approvals were reviewed by the Technical Committees (TCs) and approved by the Board. Based on these lab findings and the internal work conducted in the TCs, the guidelines were updated accordingly. These guidelines will contribute to the knowledge of the plastic industry and drive toward establishing fixed Design for Recycling guidelines, which will be subject to annual reviews.

It is through this science-based work that the RecyClass guidelines are becoming more robust. The European sorting protocol was developed in collaboration with both NTCP and Suez. Circpack, and got published, next to the final publication of guidance on environmental claims both on recyclability and recycled content. Moreover, the Online Tool got totally revamped, with great user-friendly menus and visual outputs including local collection practices as well as sorting and recycling capabilities.

More organizations became accredited certification bodies, and more labs got accredited to run the testing protocols. We now have five active Technical Committees and four Task Forces with the newly established decoration task forces working on different polymers and packaging types.

In 2021, also the recyclability test protocols were peer-reviewed and updated, next to publication of Washing Quick Test Procedures.

Given this massive growth and many requests for tests, we have seen the need to increase the team drastically, and we look forward to welcoming more RecyClass employees in 2022!



Severine Mongauze,  
Packaging Sustainability  
Manager, Unilever



Gian De Belder, Technical  
Director, Procter & Gamble



Brian Lodge, UK Design  
Director, Berry Global

# 2021 RECYCLASS HIGHLIGHTS

## Chapter 01



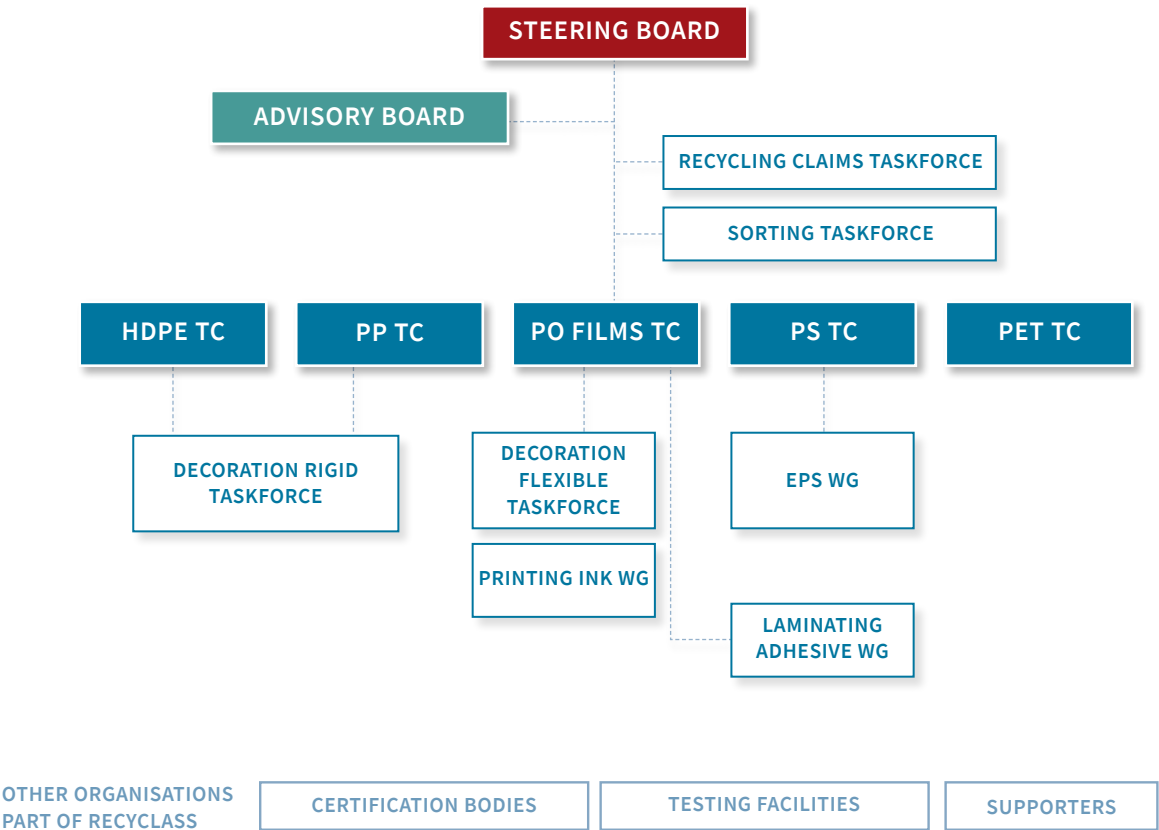
# STRATEGIC OBJECTIVES

## 1.1 STRUCTURE & GOVERNANCE

To answer the increasing demand for testing and participation of new stakeholders, the structure and governance of RecyClass was revised this year. This led to the enlargement of the Steering Board to eleven representatives, which is now composed of six recyclers and five representatives elected among the RecyClass Platinum Members. Additionally, chairmen were elected to lead the permanent Recycling Claims and Sorting Taskforces.

Two additional taskforces working under the umbrella of the Technical Committees were kicked-off to address the compatibility of decorative technologies applied on rigid and flexible packaging with recycling. Moreover, side-working groups were created to manage test campaigns on dedicated topics like laminating adhesive, printing inks, and EPS.

This year a new category of partners – Supporters – joined the RecyClass network to bring their expertise to the working groups and help the work of RecyClass.



## 1.2 WORKING GROUP MEETINGS

RecyClass organized more than fifty meetings this year. Technical Committees met to define test campaigns, assess innovative technologies for recyclability, update the Design for Recycling Guidelines, and develop and/or review Testing Protocols.

It is relevant to mention that the PET group was relaunched in July in order to support the work done in EPBP and will become fully operational by the end of January 2022. With the growing number of Members and Supporters, it has been possible to increase the number of activities carried out.

## 1.3 HARMONIZATION

Harmonization of the approach towards recyclability and recycled content in Europe and beyond is one of the major priority for RecyClass. In 2021, with the help of Members and Supporters, RecyClass collaborated with various organizations, such as Association of Plastic Recyclers, World Packaging Organisation, Fashion Pact and SPICE among others in order to achieve this objective.

RecyClass has also collaborated with EPR schemes, in particular with COTREP in France, Gront Punkt in Norway, KIDV in the Netherlands, Zentrale Stelle in Germany, to standardize methodologies, guidelines, protocols and more within Europe. Lastly, RecyClass has been active in technically supporting the Circular Plastic Alliance, which is working in particular to standardize the assessment of recyclability and the integration of recycled content. In Germany, RecyClass worked with Zentrale Stelle to align the recyclability audit system with the Minimum Standards.

New partnerships have been formed with certification bodies willing to work with RecyClass to assess the recyclability of plastic packaging and the recycled content integrated into plastic products. These new bodies are extending the presence of RecyClass auditors in additional European countries.

# MEMBERS & SUPPORTERS

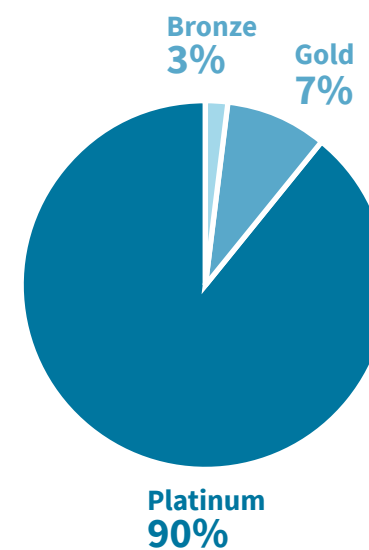
## Chapter 02

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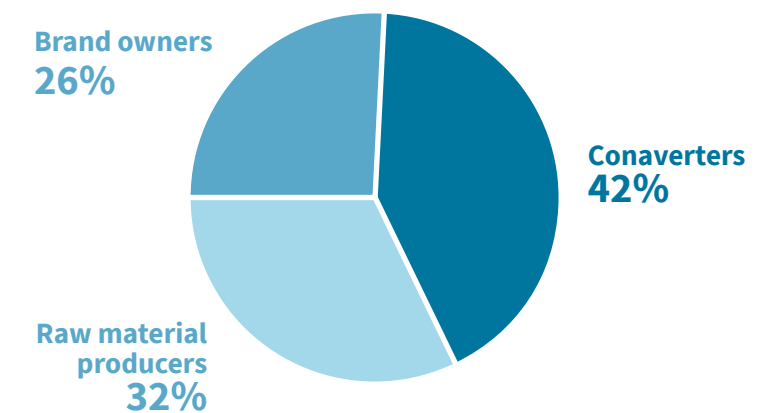
# MEMBERS & SUPPORTERS

Following the strong growth of RecyClass in the previous year, the priority in 2021 was to consolidate the network and launch new activities via the expertise and drive of these new members.

MEMBERSHIP LEVEL



MEMBERSHIP BUSINESS SECTOR



**14**  
NEW MEMBERS

**61** MEMBERS  
IN TOTAL

**+ 25%**  
GROWTH

**11** NEW  
SUPPORTERS



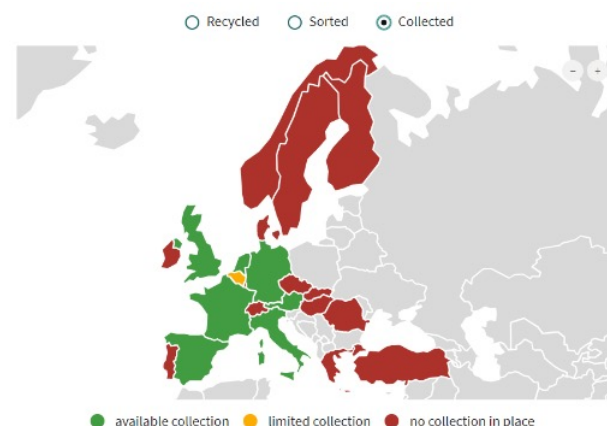
Chapter  
**03**

# RECYCLABILITY EVALUATION

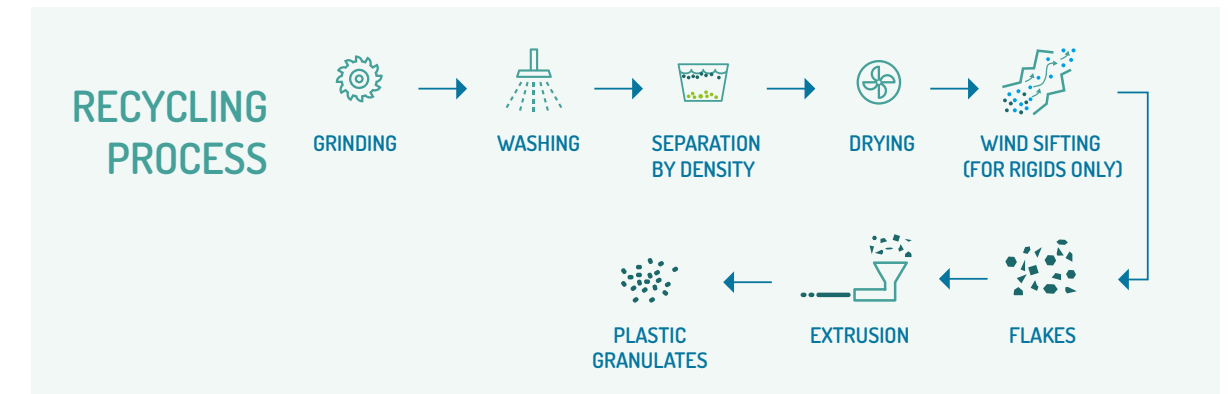
## 3.1.1 RECYCLABILITY METHODOLOGY & ONLINE TOOL

Following the publication in 2020, the RecyClass **Recyclability Methodology** was revised in December 2021 in order to integrate the developments in the On-line-Tool and the Certification Scheme. The updated interface of the Tool and the additional explanations corresponding to the methodology document were geared at increasing the comprehensiveness and therefore transparency for users.

To answer the needs of the users and RecyClass Members alike, new features were implemented in the **Online-Tool**. To give an example, in line with the Certification Scheme, a mapping of the European countries was added to provide a clear information to the users regarding where their packaging can be collected, sorted, and recycled. Those maps help in understanding where the recyclability of packaging can be certified and an actual recyclability claim towards consumers granted.



## 3.1.2 TESTING PROTOCOLS & TEST CAMPAIGNS



### Recyclability Evaluation Protocols

In 2021 RecyClass revised all the *Recyclability Evaluation Protocols* through a peer review process. Protocols were analysed by academics like Prof. Ragaert<sup>1</sup> (University of Gent) and Prof. Gerke (University of Magdeburg) providing recommendations on possible improvements. This peer review process further increased the robustness and the reliability of the RecyClass Recyclability Evaluation Protocols. Experience gained by the TC with the numerous lab testing played a major role as well in further fine-tuning the Protocols. The revised set of Protocols was published in January 2022.

### Quick Test Procedures

In parallel, RecyClass developed *Quick Test Procedures* to evaluate key design features, such as the washability of labels and adhesives, the fiber loss of paper labels, or the bleeding behaviour of inks. Those procedures aim to be easy and inexpensive to manage. The plastic industry can refer to them to ensure that their packaging design complies with the RecyClass Design for Recycling Guidelines, while the Certification Bodies are using them during the recyclability audit.



### Sorting Evaluation Protocol

RecyClass also released its standardised *Sorting Evaluation Protocol* for all plastic packaging. Developed within the Sorting Taskforce, the Protocol aims to provide a harmonised methodology to assess the sorting behaviour of packaging across Europe. Two series of sorting trials were performed to validate the Protocol and its reproducibility in Suez.circpack and NTCP sorting lines. This Protocol serves as basis for the Recyclability Certification Scheme and for RecyClass sorting test campaigns.

1. Prof. Ragaert is now Full Professor - Chair of Circular Plastics at Maastricht University.

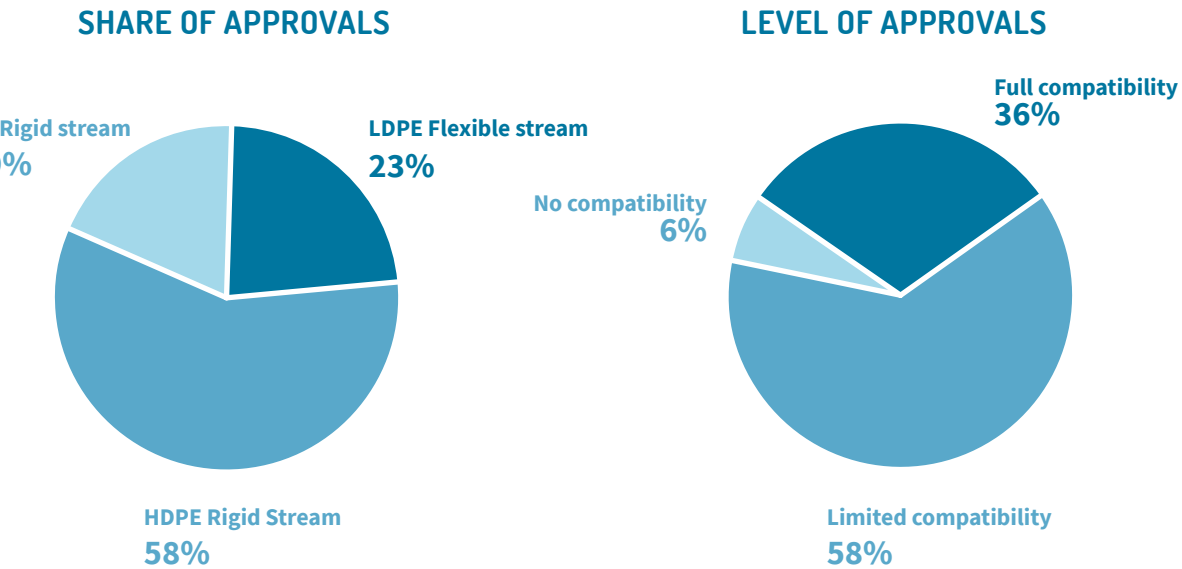
2021 test campaigns

In line with the development of the testing protocols, RecyClass conducted nine test campaigns in 2021. Among others, RecyClass investigated the compatibility of In-Mould-Labels and EVOH with the PP recycling stream, and the compatibility of polyamides, laminating adhesives, metallisation, and PP with the PE flexible stream. These campaigns aim to increase the know-how of the plastic industry and to improve the RecyClass Design for Recycling Guidelines. Other test campaigns are ongoing, such as printing inks for flexibles and non-removable adhesives for rigids.

PO Films TC		PP TC	HDPE TC	Decoration TF rigid
Polyamide and compatibilizers	Laminating adhesives	In-Mould-Labels		
			PP content threshold	Non-removable adhesives
Metallisation	PP within PE recycling stream	EVOH content threshold	Decoration TF flexibles	
			Printing inks	

3.1.3 TECHNOLOGY & PRODUCT APPROVALS

RecyClass Technical Committees delivered 29 Recyclability Approvals in 2021.



3.1.4 DESIGN FOR RECYCLING GUIDELINES

Based on the test campaigns performed and approvals delivered, the RecyClass Design for Recycling Guidelines were revised by the respective Technical Committees. A new set of guidelines was released in February, and in June the guidelines for PE films and PP containers were adjusted to include new laboratory findings.

The first Design for Recycling Guidelines for PS coloured containers was published in April following the creation of a new Technical Committee dedicated to polystyrene packaging. This publication opened the possibility to certify the recyclability of PS containers according to the RecyClass Methodology. In September the PS TC decided to kick-off a sub-working group with the support of EUMEPS to define the state of play for EPS and draft guidelines for fish boxes and white goods, which were then released in December.

3.1.5 RECYCLABILITY CERTIFICATION SCHEME

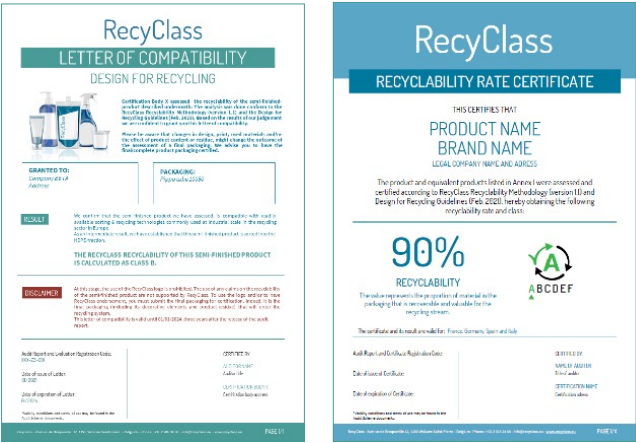
Following the release of the Recyclability Certification Scheme, in one year more than 250 certificates have been issued. This represents 90 different companies, mainly brand owners and converters.

Since January 2021, semi-finished packaging can also be evaluated with the RecyClass Recyclability Certification Scheme. This important tool enables converters to demonstrate to their costumers the compatibility of their technologies with recycling and to build trust along the value chain. The recyclability assessment is delivered via a Letter of Compatibility which certifies to which extent the semi-finished packaging is compatible with recycling. By adding this possibility to the portfolio of recyclability certifications, RecyClass now meets the different needs of the plastics industry which was proved by an increase in the number of certification requests over the past year.

In order to meet this growing demand for RecyClass certificates, a first training course was organized in July for potential auditors. Four Certification Bodies were recognized during the summer to assess the recyclability of plastic packaging. IPC, DQS, Norner and Logoplaste also offer the possibility of certifying packaging for new European countries. An additional training has been organised in December 2021 in order to increase the capacity of auditors across Europe to thirty and thus prepare for next year's demand.

Lastly, an additional update in December allowed to improve the decorative section of the Guidelines for all rigid packaging. New decorative technologies are now reported in line with the work done by the Decoration Taskforce, especially following the development of the Terminology document which defines all types of decorations applied on packaging.

Finally, RecyClass with all its Members developed this year a Design Book to explain the rationale behind the Design for Recycling Guidelines and how to read them. This book is foreseen to be published in February, along with the aforementioned Terminology document.



Finally, to increase the robustness of the scheme, all audit documents were revised in October. This revision aimed mainly at ensuring compliance with the EN 17 065 – Conformity assessment — Requirements for bodies certifying products, processes and services standard, which further strengthened the audit procedures .

In December, RecyClass applied for the BELAC accreditation in order to become an officially recognized recyclability audit scheme at the European level.



# RECYCLED PLASTICS EVALUATION

Increasing demand in the use of recycled plastics and upcoming legislation have prompted the interest in reliable claims of recycled content in plastic products and hence in the RecyClass Recycled Plastics Traceability Certification Scheme. Taking into consideration the industry needs, RecyClass started the procedure to assess the Certification with the European Accreditation (EA) via the Belgian Accreditation Body (BELAC) according to ISO 17065 standard.

Following that, RecyClass published the Recycled Plastics Audit Scheme, Auditors Guidance & Checklist, Quality Management & Procedures and Auditors Requirements documents in July 2021. The final review of the documents took place in November 2021 (version 2.1) following the feedback from BELAC. The positive evaluation Certification by the EA was granted in January 2022.

The Recycled Plastics Traceability Certification was consolidated in the course of 2021, with 21 certificates being released to various value chain actors including converters, brand owners and compounders. The certified products include: films, sheets, trays, containers, preforms, bottles, bags and tubes. Certifications were released across Europe, including Germany, Spain, Italy, UK, Greece, Turkey, Portugal, Belgium, France and Sweden.

Additionally, two training courses for auditors took place in 2021 with a total of 17 new auditors participating. Following the courses, 9 new Certification Bodies were recognised to issue RecyClass Recycled Plastics

Certificates, including AJIU and KPMG in Spain, DQS in Serbia and Greece, ecocycle GmbH, HTP GbmH & Co. KG, ZN ZertifizierungsNetzwerk GmbH, QHSE cert GbmH and Widmayer in Germany, lms consulting in Austria, and SGS in Hungary.

These newly recognised Certification Bodies join AIM-PLAS in Spain, Almaland in Poland, B-Pack BVBA in Belgium, Cirrus Consulting in the UK, Cyclos and Mechthild Ahaus in Germany, EcoGrant MB in Lithuania, Eco-sustentavel in Portugal, Terra in France and Kiwa in the Netherlands.



# RECYCLING CLAIMS & LOGOS

The Recyclability & Recycled Plastics Use of Claims Guidance was published in June 2021. The document was developed by the RecyClass Recycling Claims Taskforce which counts with more than 50 stakeholders representing the plastics value chain. Month long public consultation was part of the development process, to guarantee the robustness of the Guidance.

The document elaborates on how to communicate transparently on the results of the RecyClass Recyclability and Recycled Plastics Assessments.

In parallel to the publication of the Guidance, RecyClass launched new logos for the Recyclability Certifications, as well as for the Recycled Plastics Traceability Certification. Certified companies receive these logos upon the release of the final certificate.

With the upcoming EU legislative changes that set mandatory recycled content targets in plastic beverage bottles and require packaging to be recyclable, the industry must have tools which enable reliable verification and provide clear guidance on how to communicate comprehensively.



# COMMUNICATION HIGHLIGHTS

## Chapter 04

# COMMUNICATION HIGHLIGHTS

## 4.1 EXTERNAL COMMUNICATION

### PRESS RELEASES

RecyClass published 25 press releases announcing approvals, lab findings, cooperations, certification schemes updates, publication of new Protocols, Design for Recycling Guidelines, and more.

### NEWS

SEE ALL NEWS

16.11.2021



#### Polyfoil® MMB Polypropylene Barrier Tube by Neopac approved by RecyClass

RecyClass tested and granted approval for the product developed by Neopac 'Polyfoil® MMB Tube PF528' a metallised PP-barrier tube for food, cosmetic, dental and pharmaceutical...

[MORE INFO >](#)

09.11.2021

#### Samson HDPE tube technology with Colgate Total artwork approved by RecyClass

[MORE INFO >](#)

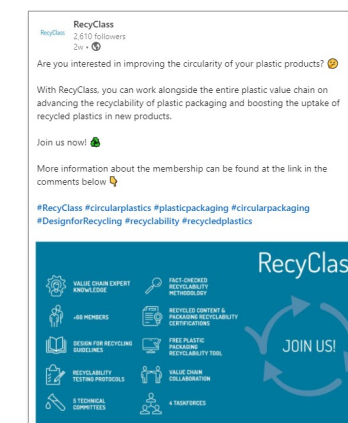
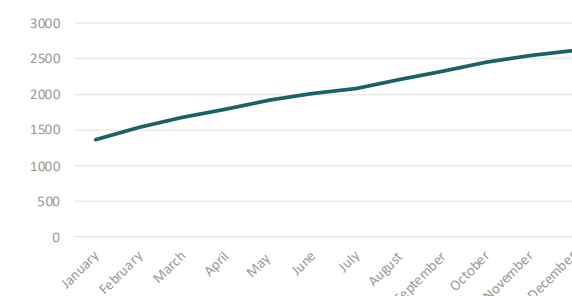
05.10.2021

#### First products granted RecyClass Recycled Plastics Certification

[MORE INFO >](#)

### SOCIAL MEDIA

RecyClass LinkedIn page grew and reached more than 2600 followers. An average of 10 posts have been published per month, with more than 140,000 impressions for the whole year.



RecyClass campaigns on LinkedIn focused around raising awareness on the initiative itself, as well as its different components. Promotion of RecyClass Members, Supporters, Certification Bodies and Recognised Testing Facilities are ongoing campaigns, aiming to promote our network and bring increased visibility to all our partners.

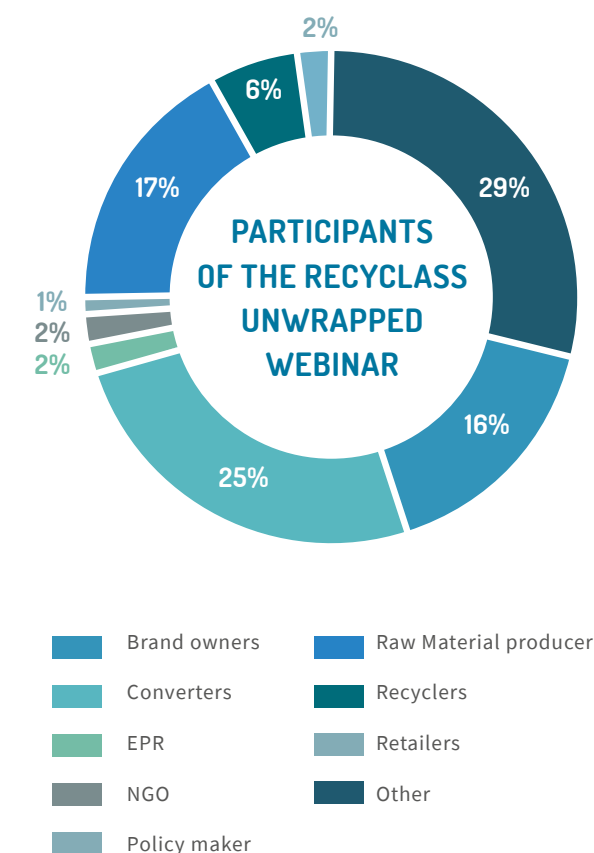
### RECYCLASS UNWRAPPED WEBINAR SERIES

Throughout 2021, 10 RecyClass Unwrapped webinars were organised, covering the following topics:

- Recycled Plastics Traceability Certification
- Recyclability self-assessment & certifications
- Recyclability & recycled content claims
- Scientific testing with RecyClass-Protocols explained
- Plastic packaging decorations
- Recyclability of personal care packaging
- Towards the circularity of flexible packaging
- Role of EPRs for plastic circularity
- Communicating about circular plastic products
- Towards the EU recycling targets with RecyClass

Each of the webinar attracted up to 350 participants, while speakers included various Members, Certification Bodies, as well as European Commission and Ellen MacArthur Foundation representatives.

More than 40% of participants were brand owners and converters.





4.2. CONFERENCES AND WEBINAR PRESENTATIONS

**JANUARY 15<sup>TH</sup>** - Netværk for cirkulært plastemballage by The Danish Plastic Federation – Webinar: *Design for Recycling with RecyClass*

**MARCH 16<sup>TH</sup>** - Impact of inks on plastic container recycling by FINAT Tech – Webinar: *HDPE and PET recycling*

**MARCH 25<sup>TH</sup>** - Cosmetica Italia, the Italian association of cosmetic producers – Webinar: *RecyClass, a tool to assess recyclability of plastic packaging in Europe*

**MARCH 26<sup>TH</sup>** - Delara Burkhardt and the German Environment Agency - Webinar: *How to make packaging more recyclable*

**APRIL 20<sup>TH</sup>** - Network Forum by AINIA – Webinar: *RecyClass: Making Plastics Circular*

**APRIL 28<sup>TH</sup> & 29<sup>TH</sup>** - Cleaning Products Europe – Conference: *Design for Recycling - Cleaning Plastic Products*

**JUNE 1<sup>ST</sup>** - Plastic Pouches Virtual Summit by AMI – Conference: *Designing Plastics for Recyclability*

**JUNE 3<sup>RD</sup>** - Petcore Networking Days – Conference: *Update on RecyClass*

**JUNE 10<sup>TH</sup>** - Greiner Innovation Days – Conference: Recyclability with RecyClass – *Introduction to RecyClass and its methodology*

**SEPTEMBER 30<sup>TH</sup>** - Packaging and Recycling by Plast – Conference: *Recyclability and Recycled Content: European Certification with RecyClass*

**OCTOBER 6<sup>TH</sup>** - Afeka Institute Of Circular Engineering And Economy – An online seminar on European plastic recycling innovations: *The European value chain methodology for certification of recyclability of plastic packaging*

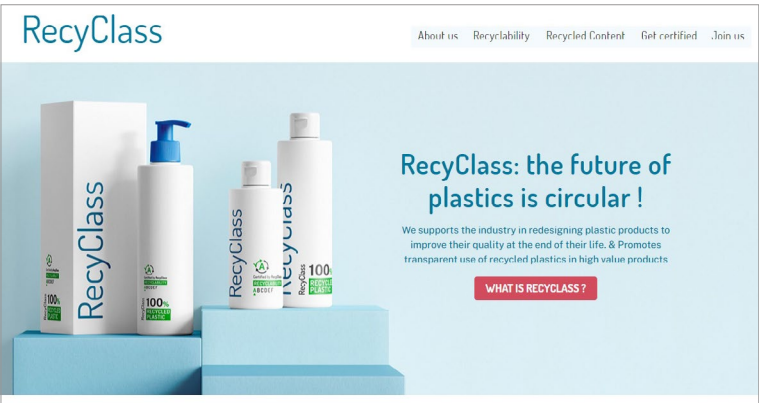
**NOVEMBER 5<sup>TH</sup>** - Plastics Recycling Show Europe – Conference: *Recyclability and recycled content: how to make it happen?*

**NOVEMBER 5<sup>TH</sup>** - Plastics Recycling Show Europe – Conference: *Design for recycling HDPE bottle with RecyClass*

**NOVEMBER 17<sup>TH</sup>** – European Business Summit – Conference: *Advancing circularity of flexible packaging: what’s at stake and how do we get there?*

**DECEMBER 3<sup>RD</sup>** – Bio-based HomeCare Products Forum by Inventu – Webinar: *Circularity of plastic packaging in the homecare sector*

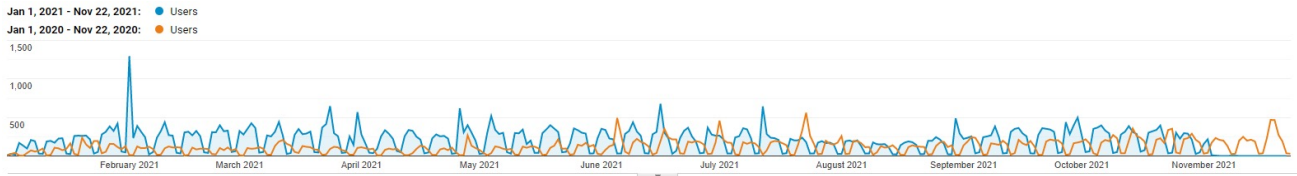
4.3. WEBSITE



RecyClass website was completely revamped in November in line with the new branding and look & feel. The new website highlights two main pillars to advance and transition towards plastic circularity which are recyclability and recycled content - the core activities behind the RecyClass. A dedicated space is also granted to the Certification Schemes, detailing how to get certified and how to use recycling claims and logos in transparent and reliable communications.

Throughout 2021, the number of visitors on the RecyClass website increased by more than 67%, compared to the previous period, with 98% of those being new users. The number of total sessions and the number of sessions per visitor have also increased, by 72% and 2.9% respectively.

These figures are a testament to the growing interest in RecyClass and the services it offers.



4.4 ONLINE-TOOL

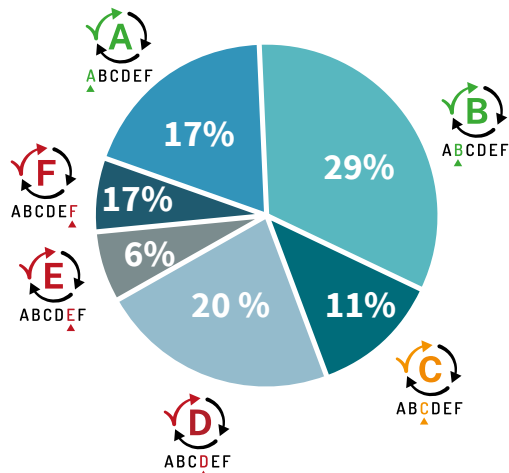


A significant growth of the tool was observed in 2021 which can be explained by the development of the Recyclability Certification Scheme and the several updates that were done in the course of the year.

The number of connections to the Online Tool is mainly influenced by the successive updates performed during the year, as observed in March and in September. On average, without considering the summer break, there were over 700 sessions per month.

More than half of the analyses performed via the RecyClass Online Tool achieved a positive recycling evaluation. Moreover, the class repartition of the Online-Tool is similar to the audit results obtained with the Certification Scheme.

DISTRIBUTION OF THE RECYCLABILITY RESULTS OBTAINED





THANK YOU FOR  
YOUR SUPPORT

# LOOKING FORWARD TO WORKING WITH ALL OF YOU IN 2022!

## MEMBERS



## SUPPORTERS



RecyClass

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