



PLASTSHIP

Your plastic recycling network

Andreas Bastian, 27.11.2019

How can digital business models help to close the loop?

■ Agenda

1. Plastship short introduction
2. The challenge
3. Easing the procurement with recyclates
4. Improving recyclate quality
5. Closing the loop
6. Outlook

Why plastship?



PLASTSHIP

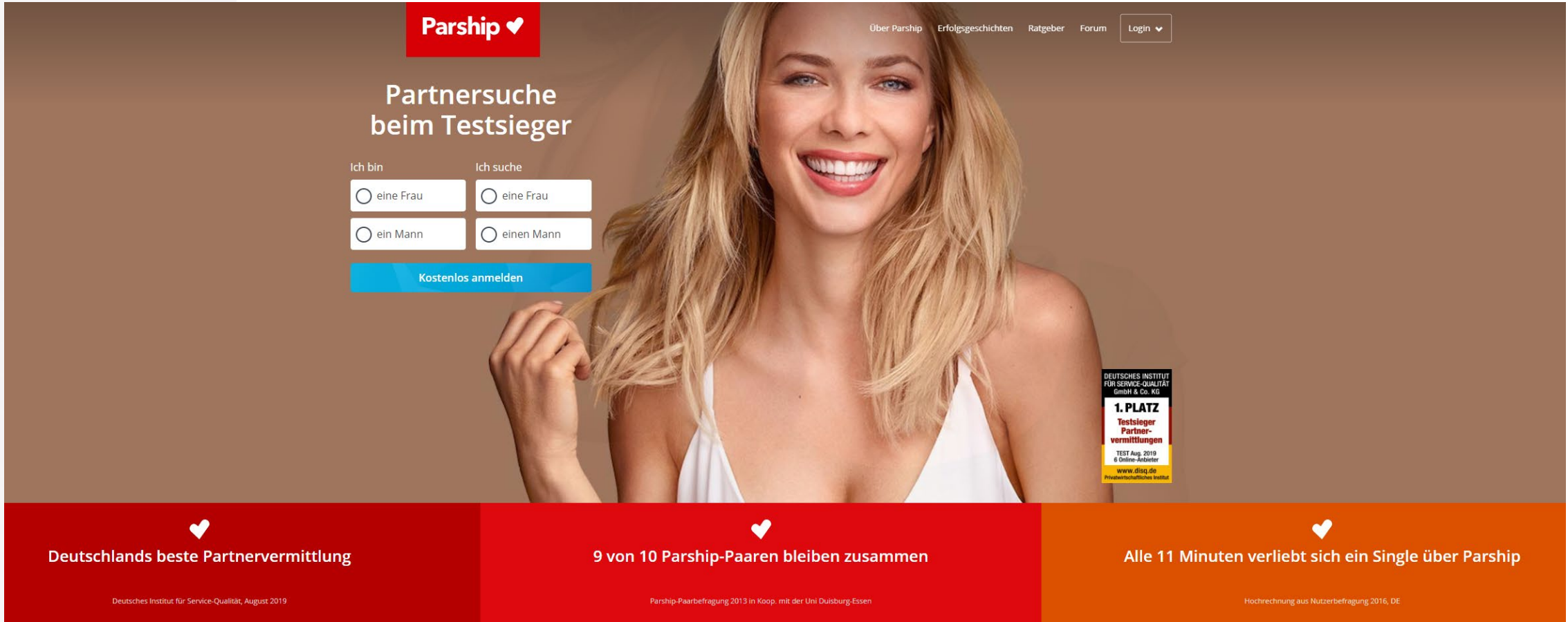
Plastics
+
Relationship
Partnership
Shipment

Your plastic recycling network

Plastic
=
Shapable
Ductile
Adaptable



Every relation is accidental...



The image shows the homepage of the Parship website. At the top, there is a navigation bar with links: "Über Parship", "Erfolgsgeschichten", "Ratgeber", "Forum", and a "Login" button with a dropdown arrow. The Parship logo, consisting of the word "Parship" and a heart icon, is in the top left. The main heading is "Partnersuche beim Testsieger". Below this, there are two columns of radio buttons for user selection. The first column, labeled "Ich bin", has options "eine Frau" and "ein Mann". The second column, labeled "Ich suche", has options "eine Frau" and "einen Mann". A blue button labeled "Kostenlos anmelden" is positioned below these options. A large, smiling woman with blonde hair is the central visual element. To her right, there is a badge from the "DEUTSCHES INSTITUT FÜR SERVICE-QUALITÄT GmbH & Co. KG" awarding "1. PLATZ" for "Testsieger Partnervermittlungen" for August 2019. The bottom of the page features three red/orange banners with heart icons and statistics: "Deutschlands beste Partnervermittlung" (with a source note), "9 von 10 Parship-Paaren bleiben zusammen" (with a source note), and "Alle 11 Minuten verliebt sich ein Single über Parship" (with a source note).

Parship ♥

Über Parship | Erfolgsgeschichten | Ratgeber | Forum | Login ▼

Partnersuche beim Testsieger

Ich bin

☐ eine Frau

☐ ein Mann

Ich suche

☐ eine Frau

☐ einen Mann

[Kostenlos anmelden](#)

DEUTSCHES INSTITUT FÜR SERVICE-QUALITÄT GmbH & Co. KG

1. PLATZ

Testsieger Partnervermittlungen

TEST Aug. 2019
6 Online-Anbieter

www.disq.de
Privatwirtschaftliches Institut

♥

Deutschlands beste Partnervermittlung

Deutsches Institut für Service-Qualität, August 2019

♥

9 von 10 Parship-Paaren bleiben zusammen

Parship-Paarbefragung 2013 in Koop. mit der Uni Duisburg-Essen

♥

Alle 11 Minuten verliebt sich ein Single über Parship

Hochrechnung aus Nutzerbefragung 2016, DE

OUR MISSION

...is to make the organization of your plastics recycling activities and the use of recycled plastics as easy as possible.

The key is to use the efficiency and the structure of a platform model to provide added value by a strong customer orientation.



We are doing this by combining digital approaches with service orientation.

The challenge is to

INCREASE THE USAGE RATE OF RECYCLED PLASTICS

"We have used regranulates before 2014 but have had many bad experiences due to the fluctuating quality. Therefore, we currently use virgin material only."

VS.

"Until recently, the use of regranulates was "frowned upon" in many cases - they were not desired and regarded as a production of poor quality - the picture is currently changing significantly!"

What is needed from the regranulate customer to increase the usage rate of recyclates?

Identify applications

Identify fitting RG qualities

Ensuring processability

Ensuring continuous supply

Ensuring legal safety

Lower product requirements



From a customer's point of view, a very good regranulate quality (for e.g. FMCG) can be described as being...

Homogeneous

Bright

No smell

Good technical properties

Properties not fluctuating



How can fitting regranulate qualities be identified?

Different polymers & contaminations

Differing waste streams & fluctuation

Differing process capabilities

Different capacities

Different definitions

Little information & specification

No standardization



**post-industrial
from B2B**



**post-consumer
from B2B**



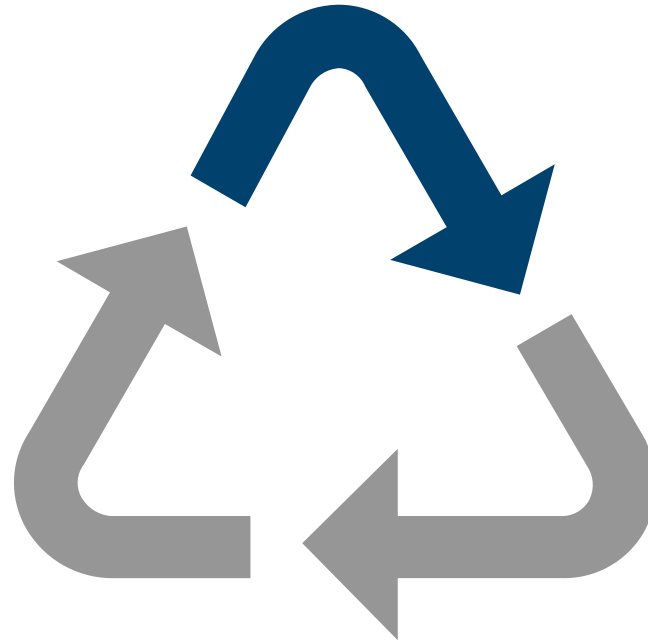
**post-consumer
from B2C**

There are three major points to address – with a close fit to structure the activity of plastship:



Let's start with simplifying the procurement with recycled plastics.

Ease procurement with recycled plastics

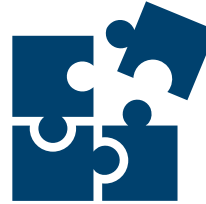




■ Platforms as business models are based on six characteristic features.



Customer focus



Adaptability:
Realize innovations on the platform



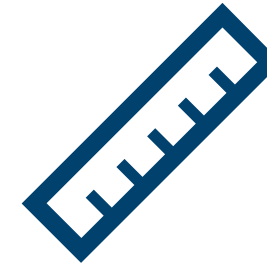
Forecast:
Use of knowledge



Aggregation



Exponentiality:
Networking effects



Scalability:
Marginal costs are nearly zero

The characteristics of the „old“ platform models

Function like newspaper insertions

Are not supervised

Data quality is unspecific

Do not include transaction possibilities or automation

Are unstructured in terms of customer segmentation

Data is not used to improve the model

What hasn't been tried before is to build a structured system with...



Quality standards and specific information on recyclates



Defined processes, modular build



Service orientation, long-term contracts



Digital transactions and automation



Data-driven opportunity creation and innovation

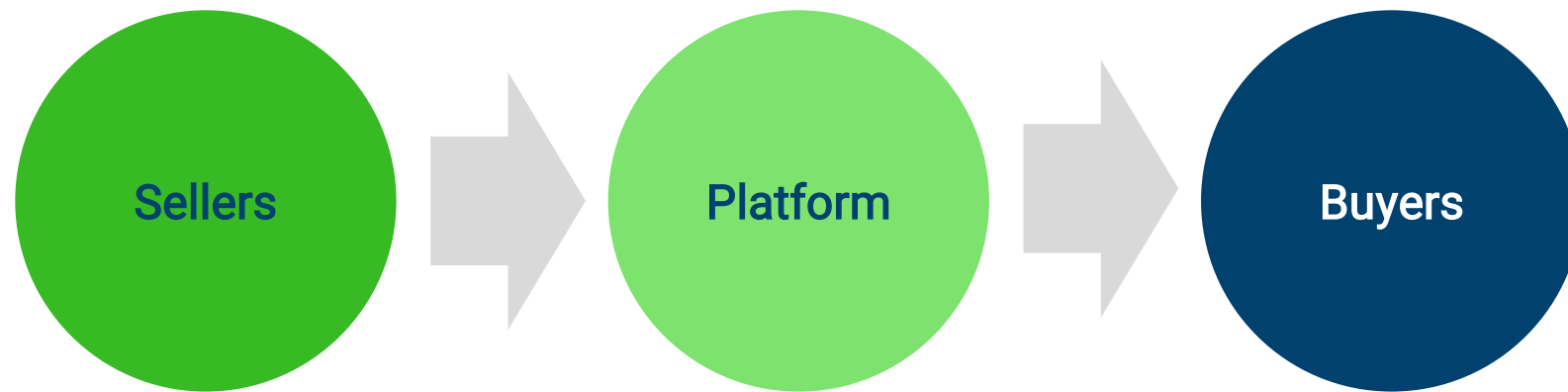


Multiple stakeholders included into the value proposition



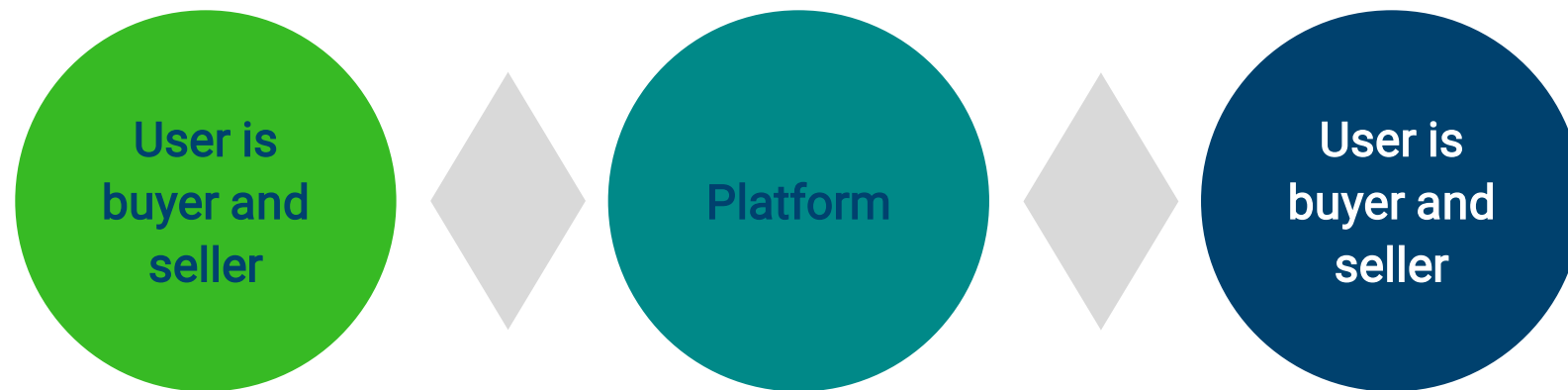
What makes a platform model in the B2B sector in the context of plastics recycling a good idea?

The „linear“ platform model:





What makes a platform model in the B2B sector in the context of plastics recycling a good idea?
The „buyer = seller“ platform model



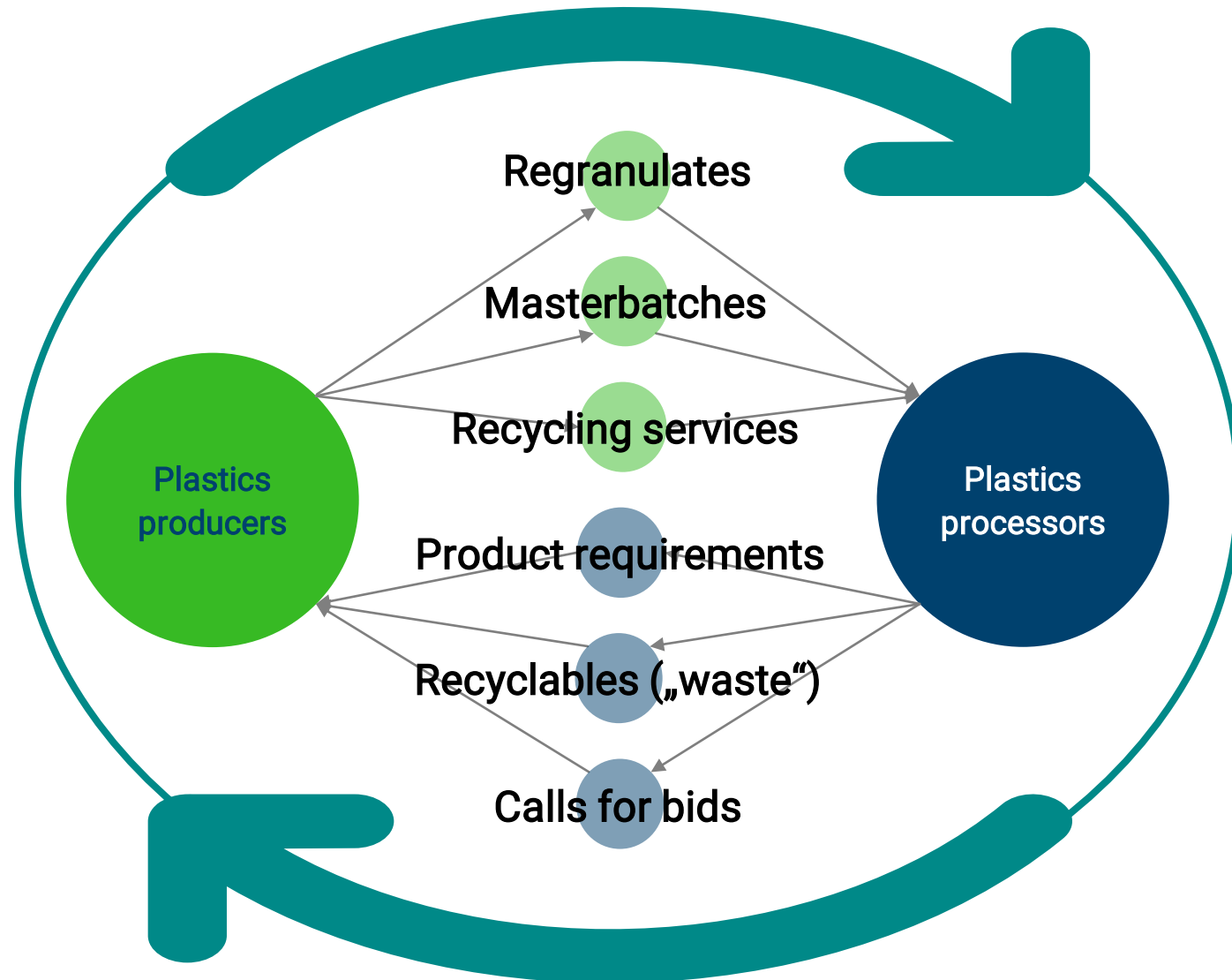
Since sellers are buyers and vice versa, there are multiple possibilities to create value and interaction.



1 Define interaction points.

2 Provide structure to access the value.

3 Increase value by use of network effects.





The „two“ sides of our platform are not sellers and buyers but the modes of interaction.
Every platform user can...

Create raw material offers and get requests

Make visible



- Milled goods
- Regranulates
- Compounds
- Masterbatches
- Production surplus (virgin)
- Baled goods

Receive



Specific requests based on search criteria:

- Raw material information
- Information on input source and quality
- Process information
- Technical data
- Data on the preferred mode of transaction

Create calls for bids and get offers

Make visible



Calls for bids for:

- The provision of large recyclate amounts
- Individual raw material creation
- Services like milling, granulation, compounding
- Audits and certifications
- R&D, consulting and others

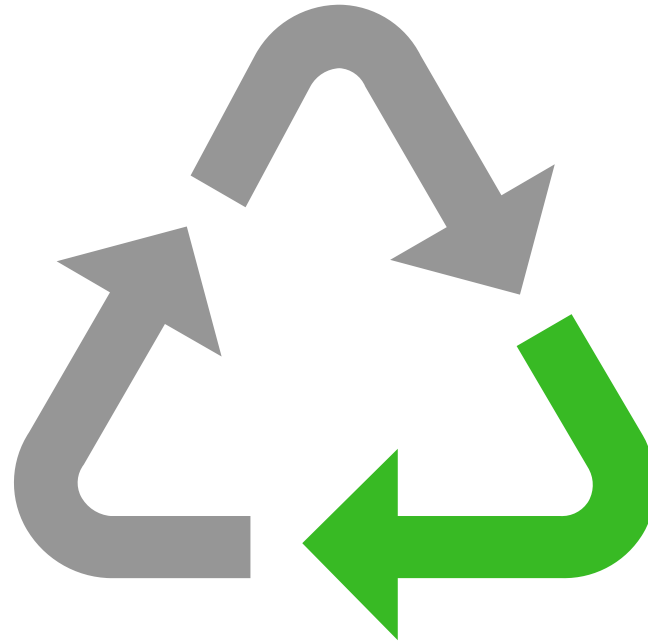
Receive



- Offers
- Comparisons and shortlistings
- Individual support within a project
- New partnerships



Our second major area aims to increase the quality of plastics recyclates and the communication of measures concerning recyclability to customers.



**Improve the recyclability of
packaging and products**



Waste is design
gone wrong.

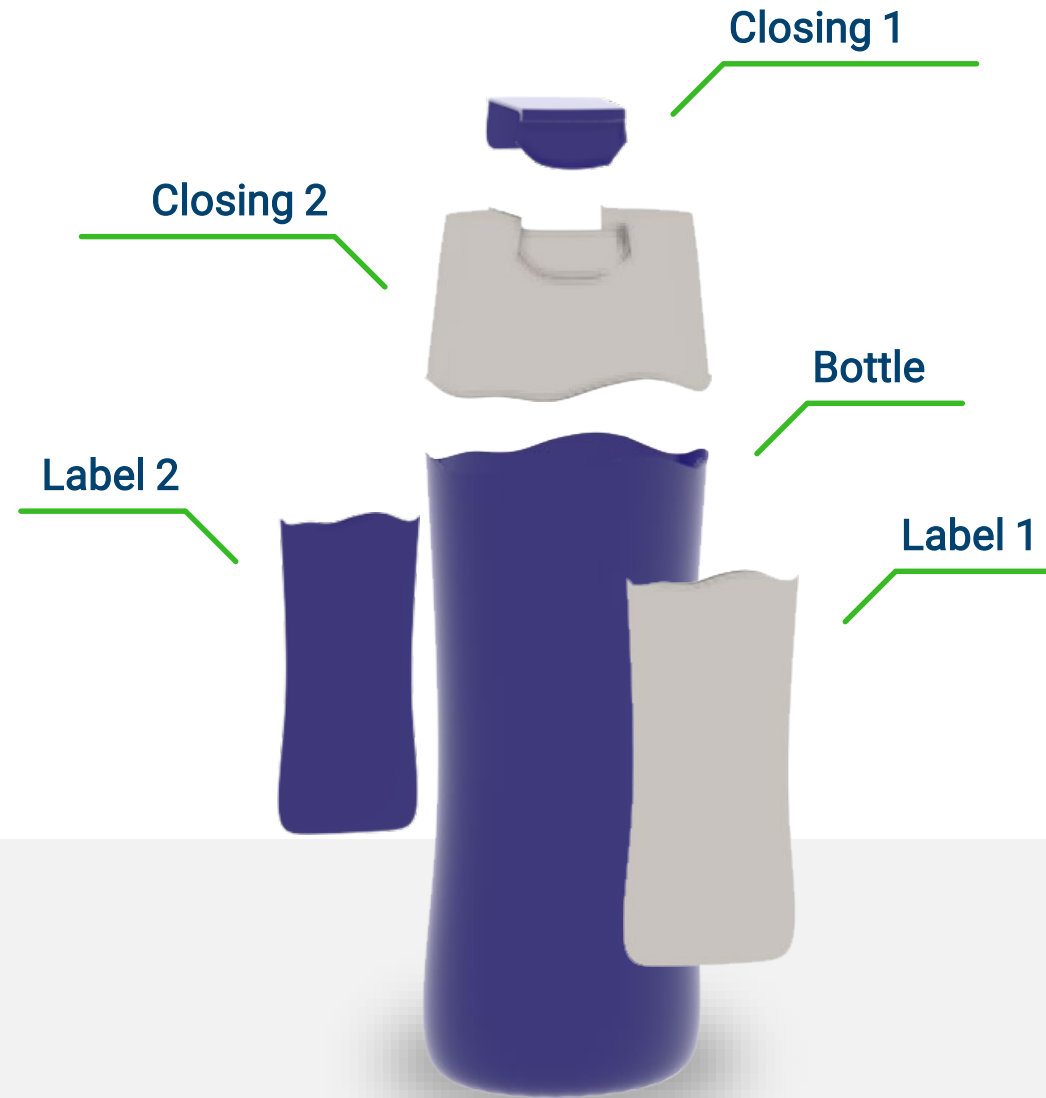
– John Whittall



With our plastship Recycling INDEX we are able to assess packaging, products, and components concerning recyclability



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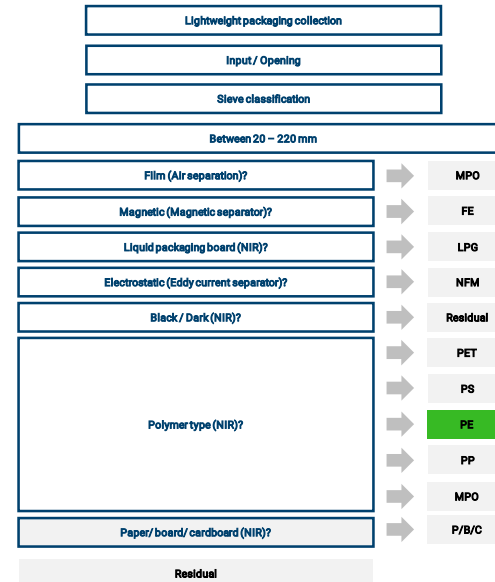
The assessment is based on a virtual recycling process and the sortability within a sorting plant, whereas the outcome is used to optimize recyclability.



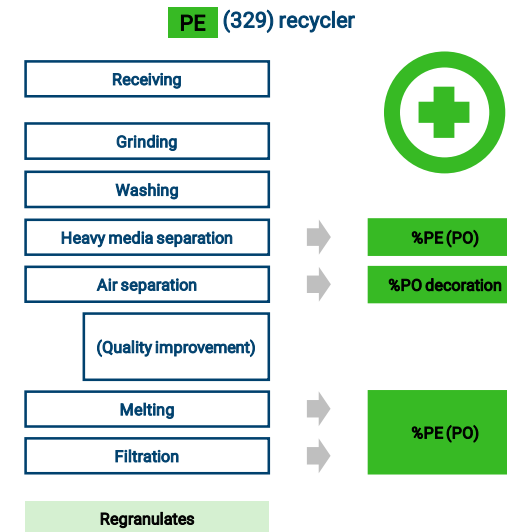
Collection

| |
|----------------------------------|
| Lightweight packaging collection |
| Household waste collection |
| Paper cardboard board collection |
| Industrial collection scheme |
| Individual solution |
| WEEE |
| ELV |

Sorting



Recycled weight



Optimization

| | |
|--|------------|
| excellent: | 95% - 100% |
| good: | 80% - 94% |
| satisfactory: | 65% - 79% |
| sufficient: | 50% - 64% |
| fail: | 0% - 49% |
| Change in construction / component choice? | |
| Change in raw material composition? | |
| Check against goal conflicts | |



The Recycling INDEX enables to simply assess and optimize products and packaging at a great scale concerning their recyclability.



Standardized
Objective
Valid
Reliable

Currently in review:



Scalable and cost-effective

of units to be assessed

< 10

10 - 19

20 - 49

50 - 99

100 - 250

As easy as it gets for the customer

1

Send product specification and pictures

2

Receive offer and first insights

3

Receive result, benchmark, optimization potential, certificate, and label

Various applications

Industrial packaging
Household packaging
Plastics products
Packaging components
Others

Communicate results to customers



ISO 14021-compliant

According to minimum standard of:



In collaboration with:



Dr. Dirk Textor

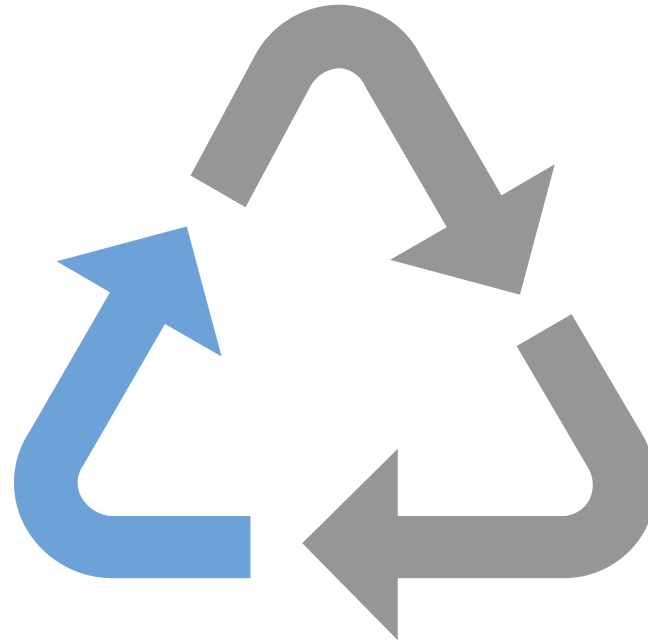
Dr. Textor Kunststoff GmbH
Dr. Textor Beratungsgesellschaft mbH

Based on a master thesis of:

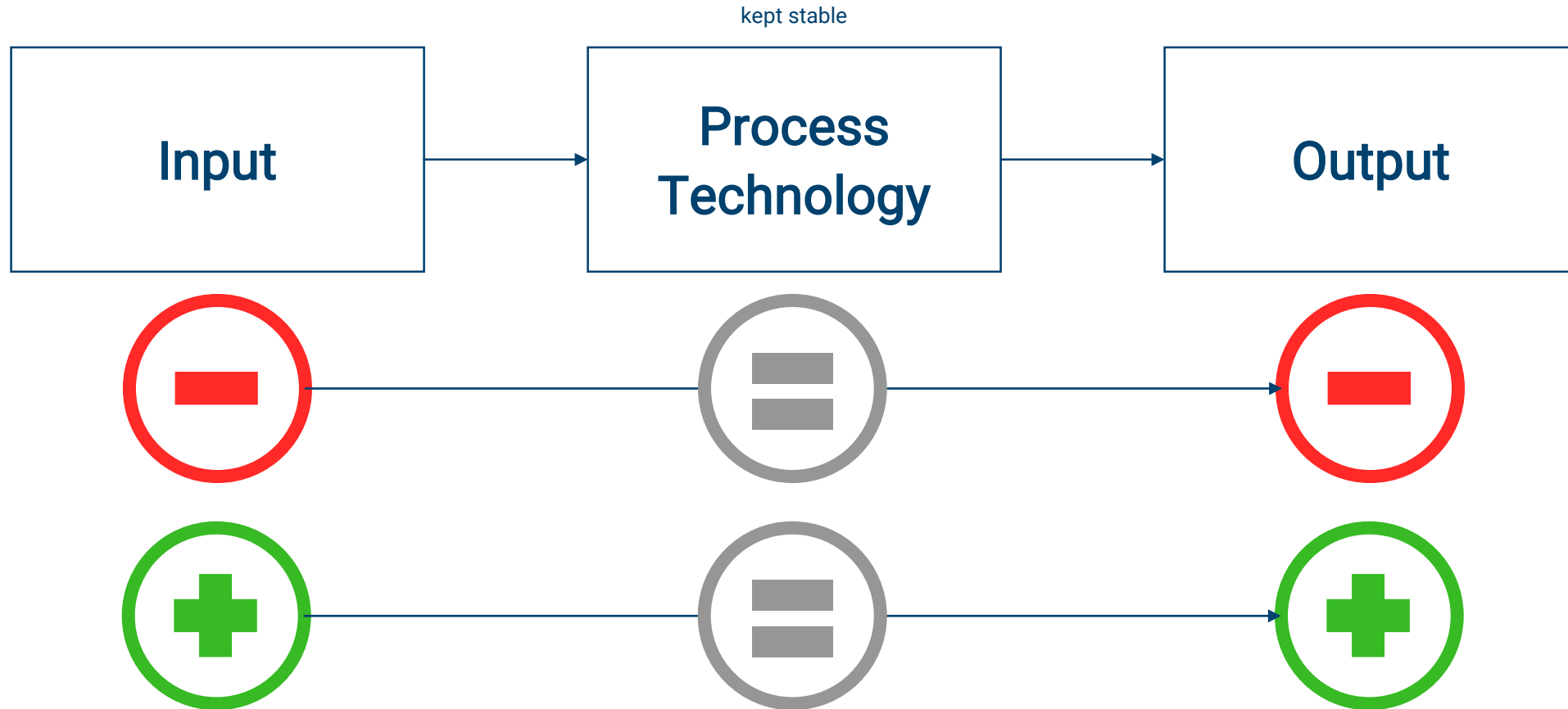


The third area of plastship is closing the loop by collaborating with partners along the value chain, and by using the network effectively.

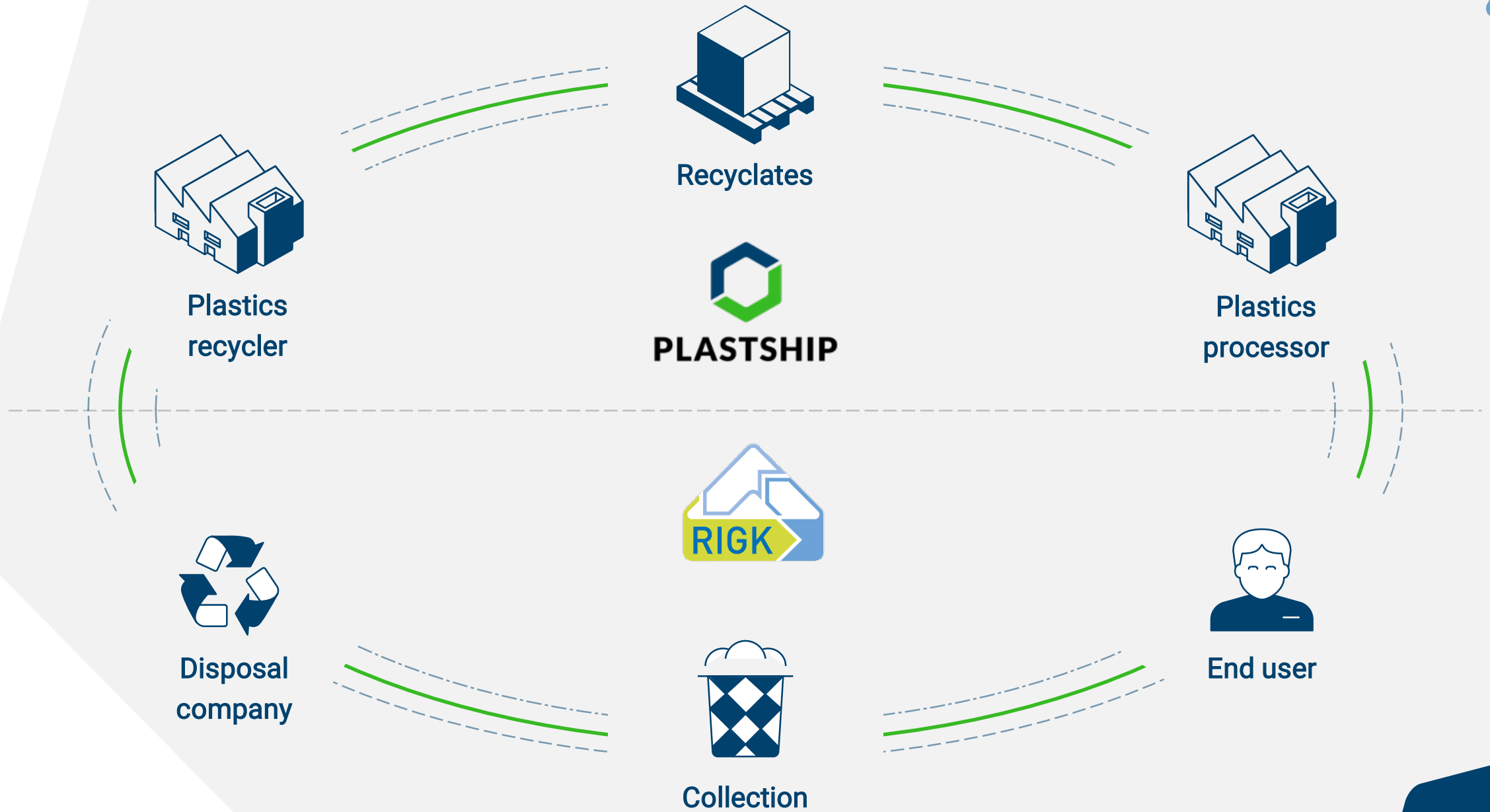
**Access and manage
material streams**



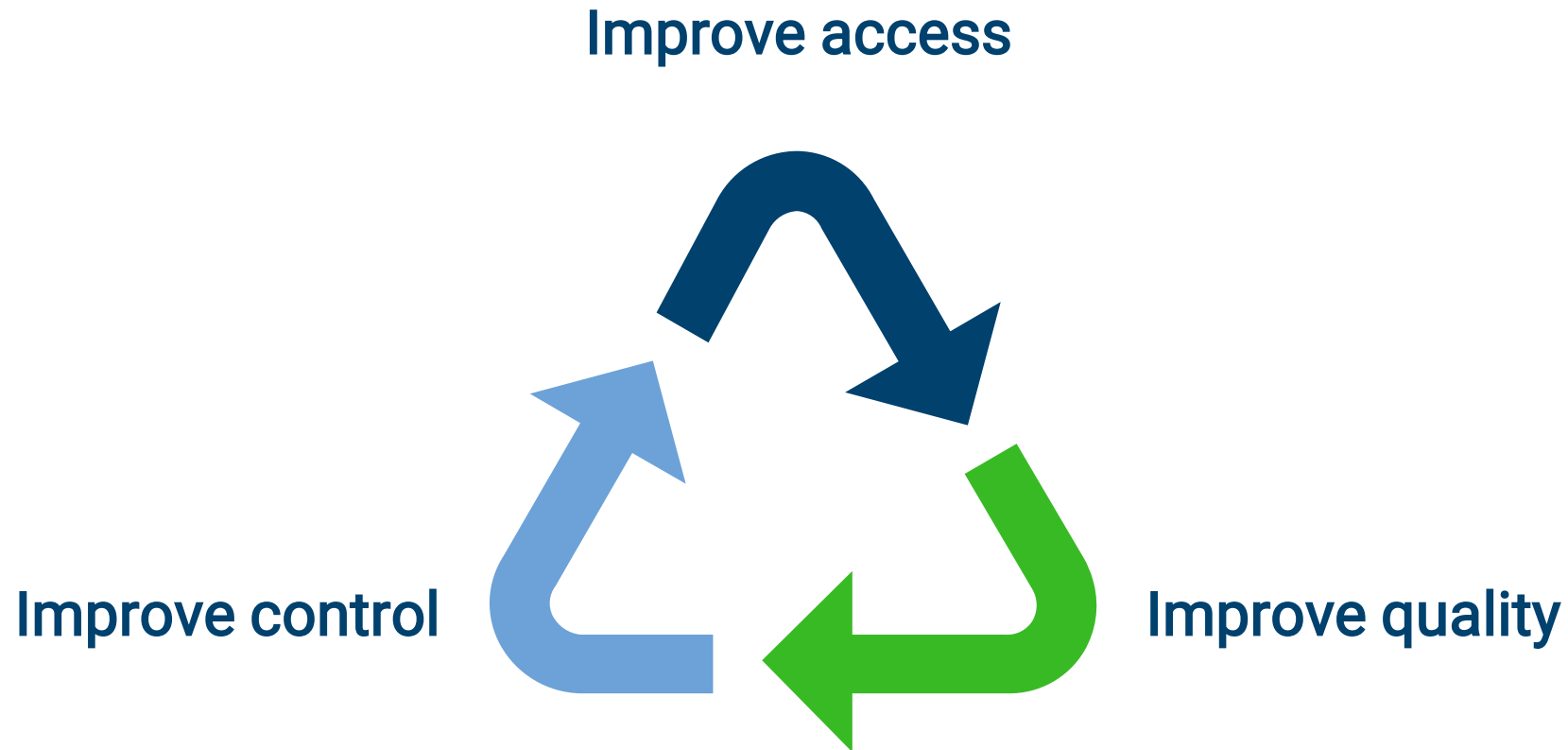
Controlling the recycler's input quality is the most successful determinant of a good output quality.



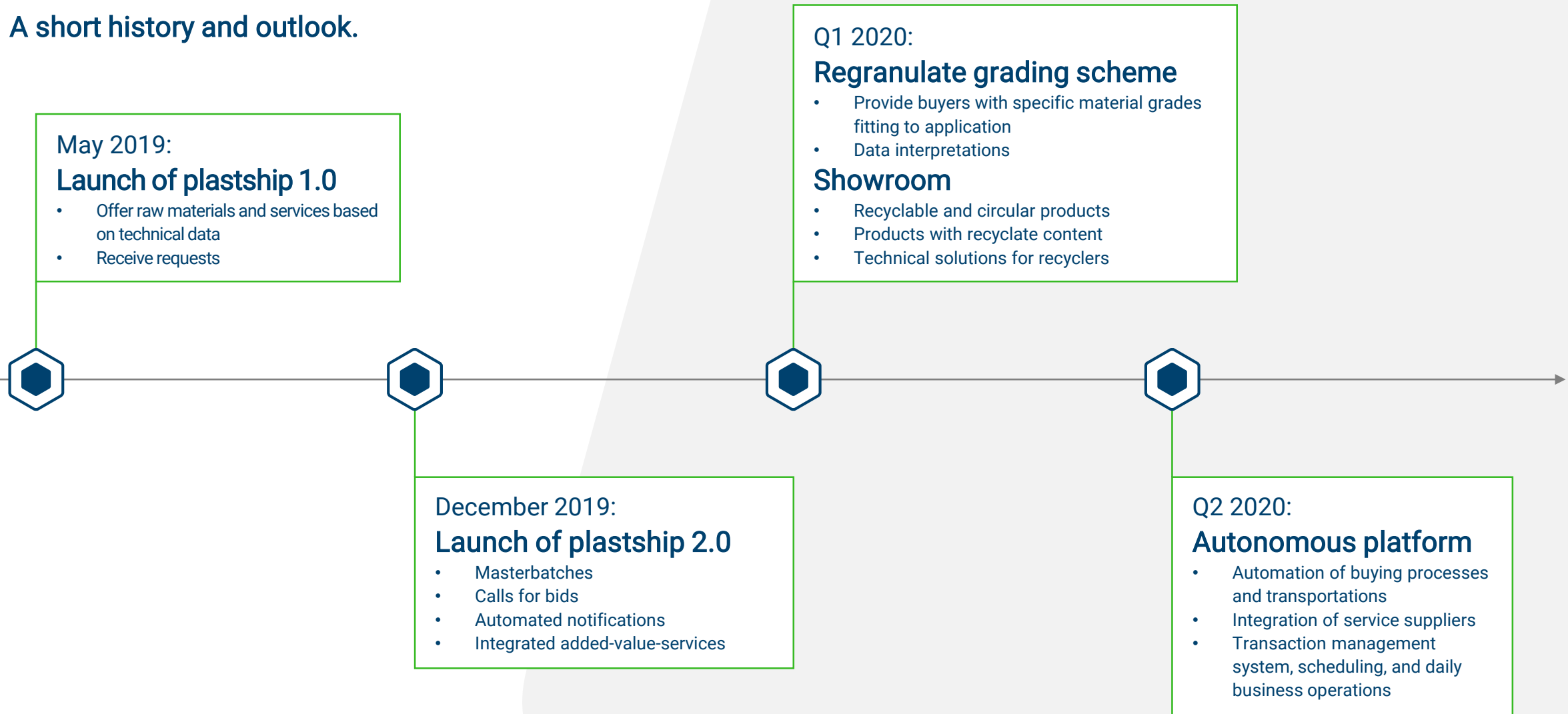
Closing the loop together by building individual collection schemes to manage recycling input.




Using more plastics recyclates means to address the issue from various perspectives as a wholesome approach with multiple stakeholders of the value chain – the approach just needs structure and efficient use of a network.



A short history and outlook.



Thank you!



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We are always looking for cooperation. Don't hesitate to contact us.



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