



Sustainability in Practice.  
Since 45 years.

The cph **REGAIN** Project consists of three steps:

Circular Economy

Produce, use and dispose? Dispose?  
Isn't it just a better word for throwing away?

In our globalised economy, many companies work with this value creation logic. They process raw materials into products, which consumers buy and throw away after use. Meanwhile, this trend has been outdated. Everyone is making great effort to "dispose" of things in a meaningful way, namely, to get the things recycled. But worldwide the amount of waste is increasing, and the use of recycled material is still relatively limited (raw materials are also becoming increasingly scarce). This form of economy is coming up more and more to its limit... not only as a result of environmental protection.

**Circular Value Chain:**  
Used raw materials are  
collected, prepared, and  
integrated into new  
production processes.

## The cph Way since 1983

cph Deutschland Chemie GmbH started very early to develop biodegradable labelling adhesives (since 1983) and has always followed the path of bringing the "most environmentally friendly products" to the market. cph was the first company to offer labelling adhesives free of phenolic compounds, heavy metals, and formaldehyde, and introduced labelling adhesives free of borax and zinc.

In the field of hotmelt adhesives (HOTMELTS), cph proved its pioneering position already 8 years ago by developing the first hotmelts "COMMITMELT-series" based on biodegradable raw materials and free of mineral oil components.

**Borax-free**

**Zinc-free**

**MOSH-free**

**MOA-free**

cph Deutschland Chemie GmbH is rewarded for its efforts with numerous **awards**, including recently

- \* **TOP-Innovator 2018 (Group of the 100 most innovative companies in Germany) and the**
- \* **Excellence Award 2020, which recognises our consistent efforts on environmental management**

## Perspective

We never stop our efforts to live up to our name as a pioneer in environmentally friendly adhesives! We started to think IN CIRCULATION, to move from linear (which is based on biodegradable and/or environmentally friendly products) value creation to circular value creation. Unfortunately, we have not yet reached the point where we can basically manage to preserve used materials by reusing them in the system.

However, it is worth finding sources of raw materials along the value chain, collecting them, treating them, and integrating them into new production processes.

Around 58 million tonnes/a of waste come from industry and commerce (Source: Status Report of the Environmental Service Sector, 2018).

## 1) Side stream starch

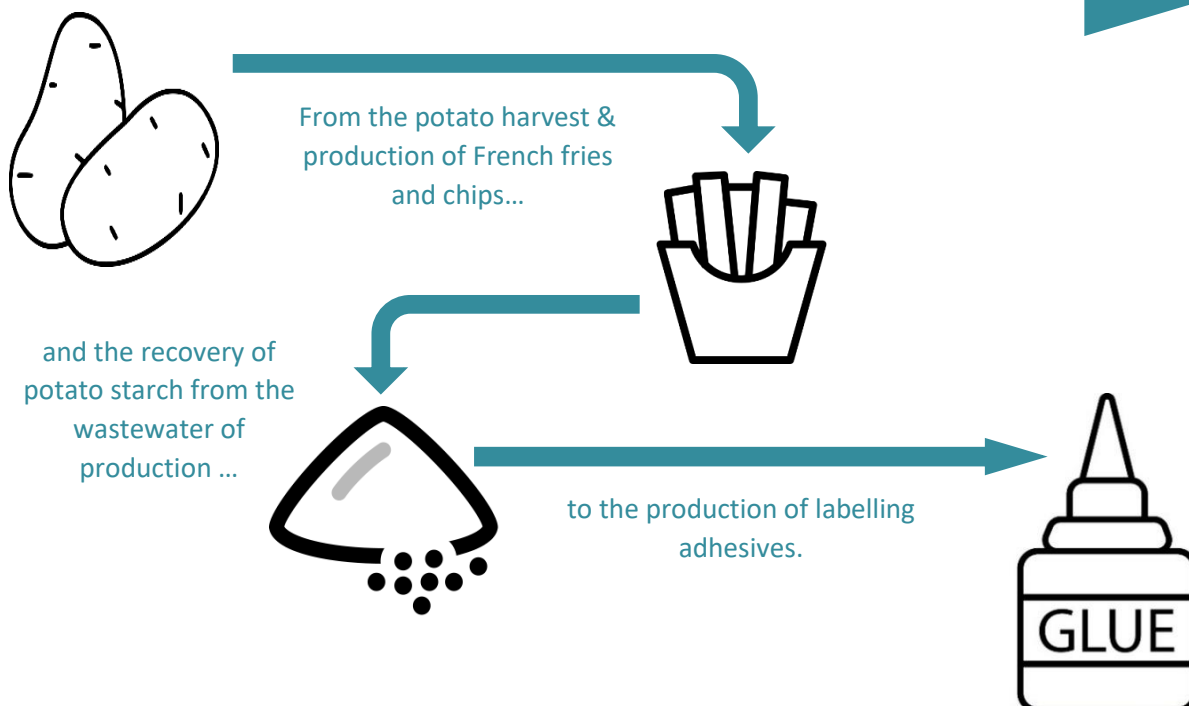
Is this something for us? Yes... Cooperation with Novidon

The production of French fries, potato chips and other potato products generates huge amounts of starch-containing wastewater. Novidon succeeds in recovering and treating the potato starch contained in the wastewater. cph Deutschland Chemie GmbH is Novidon's exclusive partner to develop label adhesives for the food industry (mainly the beverage industry) from this "waste starch from wastewater" (Side Stream Starch)

**See attachment from Novidon:**

Please click [here!](#)

## 2) CO2 Reduction through Production on cph Site



The above-mentioned first steps not only reduce waste (in the form of polluted wastewater during potato processing) but also saves huge wastewater costs (industrial wastewater treatment is charged based on polluting load). Even more interesting is the CO2 Footprint. The LCA shows the enormous reduction of the carbon footprint compared to the use of starch directly extracted from the potato. In addition, there is an increasingly critical view of the fact that it makes more sense to use the potato as a foodstuff than to process them industrially to produce starch.

This impressive CO2 reduction can be achieved mainly because of the material itself, but also because of the proximity of raw material procurement. The processing of the Side Stream Starch into a finished labelling adhesive is carried out at the cph production facility in Essen, Germany, under particularly favourable carbon footprint conditions:

- cph uses 100% green energy
- cph heats up all cooking and polymerisation processes without oil
- cph uses in production traditionally rainwater, which is collected on the roof surfaces of our site in Essen, Germany

Below you will find a trial calculation of CO2 for delivery to the African continent. Compared to the values shown, our efforts to minimise the CO2 emission in our production in Essen are so small.

Germany (not only for cph) is indeed: we also ship thousands of tons by trucks or even more polluting by plane

But this is not a reason that we should stop optimising our production further.

### 3) CO2 Reduction through Production on customer Site

No. We are going a significant step forward and are shifting production to countries where we deliver large tonnages in a special way. It has to be taken into consideration that labelling adhesives consist of about 60% water. If we manage to produce adhesives directly on site of the major customers, we will transport thousands of tons less water around the globe, not to mention the huge amount of (disposable) transport packaging.

We are working on the development of local production units that are able to produce high quality, environmentally friendly adhesives (e.g. adhesives from waste starch) on site, using the raw materials we supply.

The savings effect of the CO2 Footprint is therefore well over 60%, only in terms of transport and packaging.

**REGAIN: the new, true way of sustainable labelling Adhesive**



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