

HORIZON
2020

Green revolution in Bookbinding for Print on Demand

Berichterstattung

Projektinformationen

Ribler Technology

ID Finanzhilfvereinbarung: 868108

[Projektwebsite](#)

DOI

[10.3030/868108](#)

Projekt abgeschlossen

EK-Unterschriftsdatum

9 Juni 2019

Startdatum

1 Juli 2019

Enddatum

31 Dezember 2019

Finanziert unter

INDUSTRIAL LEADERSHIP - Innovation In SMEs

Gesamtkosten

€ 71 429,00

EU-Beitrag

€ 50 000,00

Koordiniert durch

RIBLER GMBH



Germany

Periodic Reporting for period 1 - Ribler Technology (Green revolution in Bookbinding for Print on Demand)

Berichtszeitraum: 2019-07-01 bis 2019-12-31

Zusammenfassung vom Kontext und den Gesamtzielen des Projekts

"The state-of-the-art bookbinding is mainly performed with hotmelt and PUR polyurethane. The core problem of hotmelt bindings is that the whole process chain has to be heated up to 130-200 °C. The hotmelt process has high energy and CO2 consumes, the toxic and partly carcinogenic

fumes of the hotmelt process damage the employees' health. Hotmelt is more expensive in terms of energy, labour, cleaning costs and additional equipment, too. Finally, hotmelt therefore harms the environment.

Ribler from Stuttgart as first mover has developed cold glues and further five components of a patented binding technology for books and paper blocks. With ""Ribler Technology"" on the other hand, the products are bonded at room temperatures almost without energy. Energy and CO2 consumption are reduced by 80%, glue consumption is reduced by 80% and paper consumption by 5%. Thus, the hotmelt production costs exceed our cold glue process costs by up to 30%. Ribler Technology is fully environmental friendly. And Ribler bound books do not have a clinging effect when opened, but remain perfectly lay flat and open.

The Ribler binding machines will contribute to environmental relieves, improve working conditions for the employees and will help bookbinding companies gain more profitability and stability. This potential is relevant for an estimated number of 1,500 perfect binders, workers and companies in Germany and a number of 7,350 in (Western) Europe and 24,500 worldwide."

Arbeit, die ab Beginn des Projekts bis zum Ende des durch den Bericht erfassten Berichtszeitraums geleistet wurde, und die wichtigsten bis dahin erzielten Ergebnisse

The Ribler bookbinding technology is well detailed in most technical issues, still missing some parts for a full marketable system. The SME Instrument Phase 1 should deliver final feasibility steps to successfully enter the market.

By this process, we gathered deeper market insight leading to more detailed customer, product and machine requirements. We have worked on the marketing and sales material and techniques and have developed new services on the value chain. Ribler's business concept being based strongly on our intellectual property, we have deepened our IP strategy.

By the Phase 1 support, Ribler has redesigned all binding machine parts with great enhancement. Our business concept has become more mature, deeper and more profitable. Now, we will focus on the new prototype production and its market entry.

Fortschritte, die über den aktuellen Stand der Technik hinausgehen und voraussichtliche potenzielle Auswirkungen (einschließlich der bis dato erzielten sozioökonomischen Auswirkungen und weiter gefassten gesellschaftlichen Auswirkungen des Projekts)

The greatest effect concerns environmental improvements through savings of a) material, waste, waste air and b) energy and CO2. This means that society will suffer less damage to the living conditions of our and future generations.

The working conditions on our machine will require less manual labour, less load transport, less technical know-how and experience by the machine operator. The work will also be suitable for unskilled and handicapped workers. The work will be less monitored by quality control and

increasingly decentralized, the importance of training and finding skilled workers will decrease. For bookbinding companies, our technology means significant improvements in efficiency and profits, thus providing more stability and potential for new investments.

Innovation:
The innovation content lies in the combination of the 6 production processes and materials that are new in book production, which lead to completely new products and processes, see the following diagram.

Awards and grants
For those achievements Ribler received 9 awards and grants in the categories of innovation and environment since 2004:

Auszeichnungen & Förderungen

- Druck & Medien Award 2019:
- EU Horizon 2020 in 12.2018:
- Umwelttechnologieförderung 2009 – 2023 – 2023:
- Innovationsdurch Forschung: 2014 – 2018 – 2018:
- Deutsche Bundesstiftung Umwelt:

Ribler innovation and awards

Possible Effects per country per annum (e.g. in Germany):

	Quantities	Equivalents
Energy reduction (-78%)	- 15 GWh	3,150 cars
CO ₂ reduction (-78%)	- 8,200 to	2,200 family houses
Glue material (-80%)	- 1,000 to	14,000 barrels raw oil
Paper consumption (-5.3%)	- 420,000 to	920,000 sheets 1

Possible effects per country p.a.

Effects of one perfect binder per annum:

	Quantities	Equivalents
Energy reduction (-78%)	- 10 MWh	2.1 cars
CO ₂ reduction (-78%)	- 5.5 to	1.5 family houses
Glue material (-80%)	- 660 kg	9.3 barrels raw oil
Paper consumption (-5.3%)	- 148 to	600 people

Attached please find the corresponding chart (in German):

Effects of one perfect binder per annum

Possible effects worldwide per annum:

	Quantities	Equivalents
Energy reduction (-78%)	- 250 GWh	52,000 cars
CO ₂ reduction (-78%)	- 130,000 to	36,000 family houses
Glue material (-80%)	- 16,000 to	230,000 barrels raw oil
Paper consumption (-5.3%)	- 3.9 Mto	68 M people

Possible effects worldwide p.a.

The company Ribler GmbH

The Ribler Technology Seal and the Ribler Environmental Seal:

The Ribler "Print & Media Award 2019":

Ribler Notepadder, seals, D&M award

ATTACHMENTS TO THE REPORTING
Horizon 2020 Phase I

3. Product benefits

- Real Layflat, especially with landscape printing:

a) Progress beyond the state of the art
The Ribler binding machines will further relieve the environment and improve working conditions for the employees substantially.
The Ribler perfect binder Model 100, 11.19:

Ribler product benefits, Ribler Model 100

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Permalink: <https://cordis.europa.eu/project/id/868108/reporting/de>

European Union, 2025

