



Overview on the Coatema product portfolio for deep tech technologies

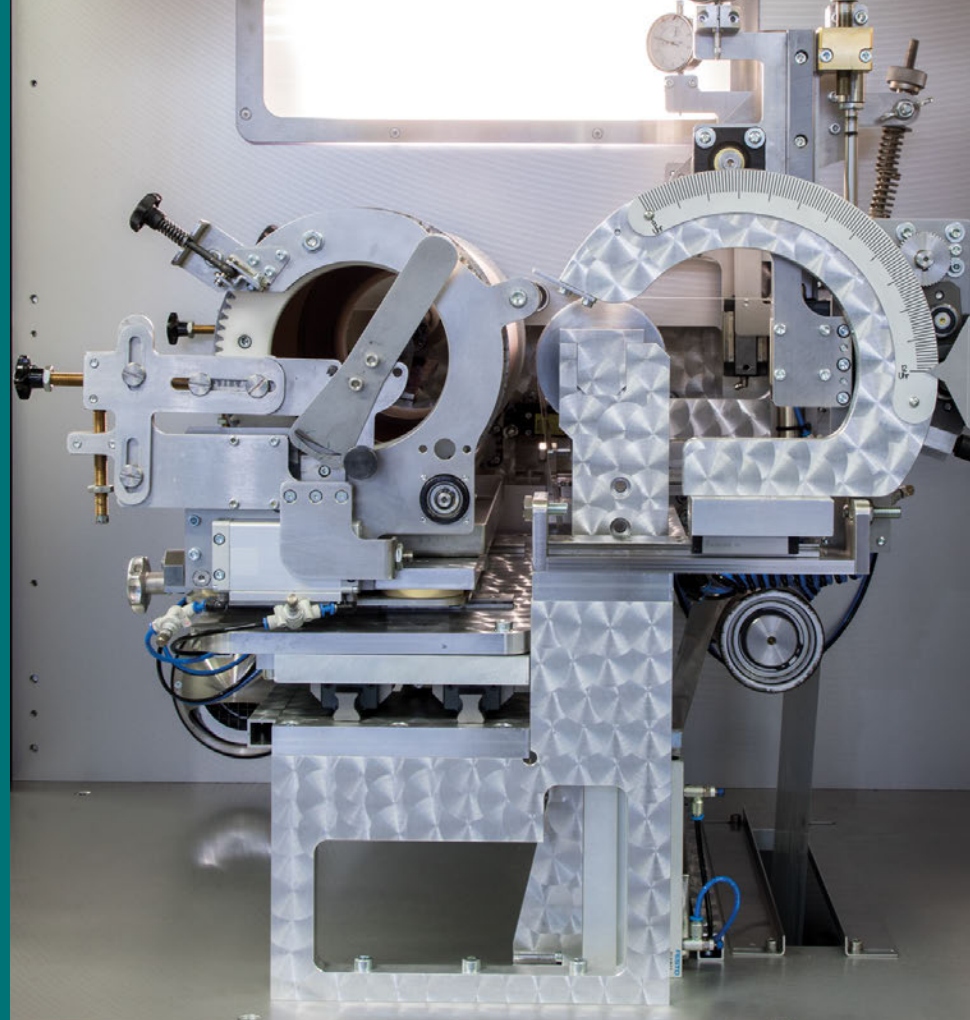
Coatema

19/12/2022

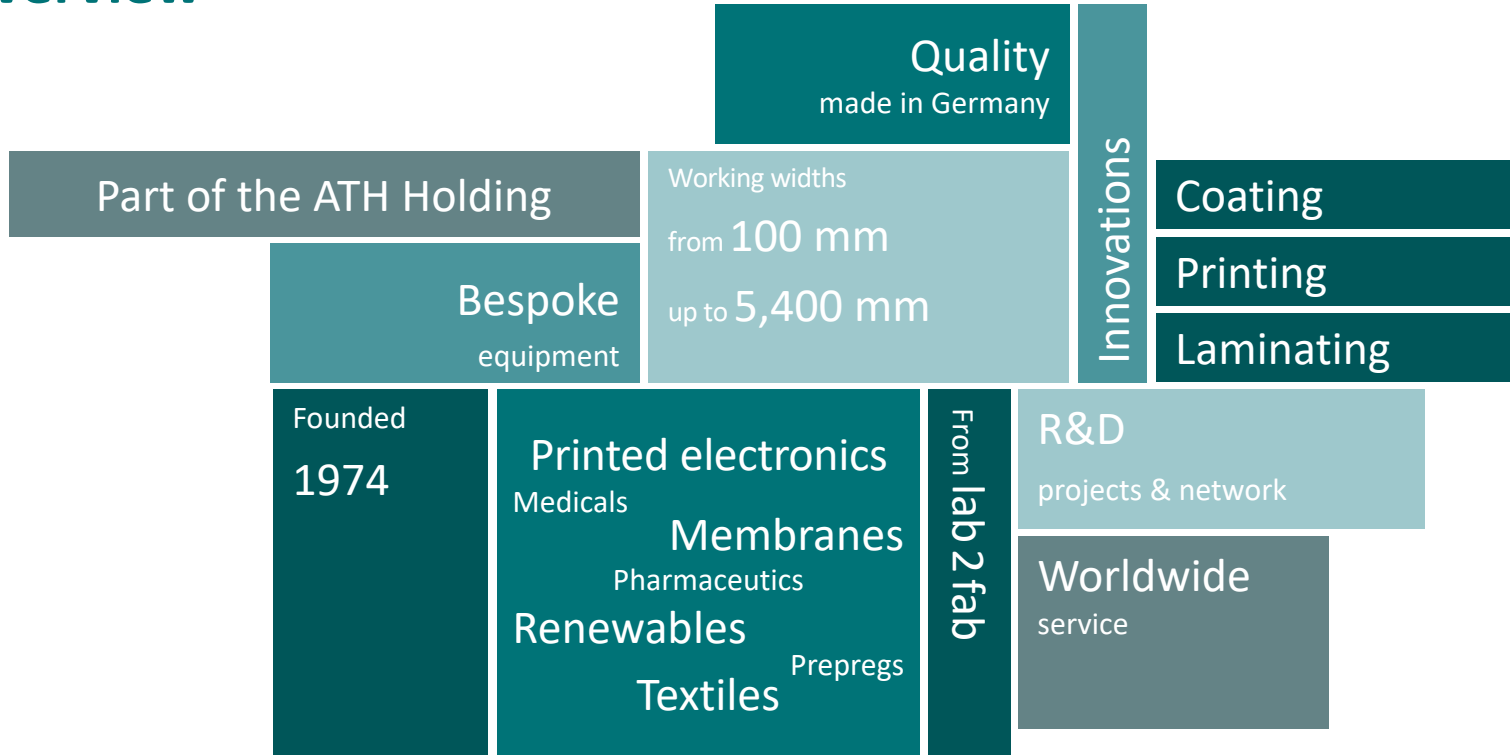
MEMBER OF ATH

1.

Introduction



Overview



Group of companies

ATH ALTONAER
TECHNOLOGIE
HOLDING



- ✓ Founded 1903
- ✓ Approx. 200 employees
- ✓ Located in Hamburg

DRYTEC

- ✓ Founded 1995
- ✓ Approx. 50 employees
- ✓ Located in Norderstedt

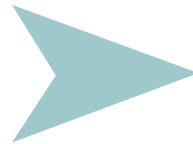


- ✓ Founded 1974
- ✓ Approx. 50 employees
- ✓ Located in Dormagen

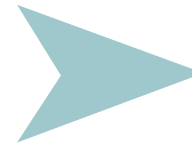
Vision – from lab 2 fab



Lab



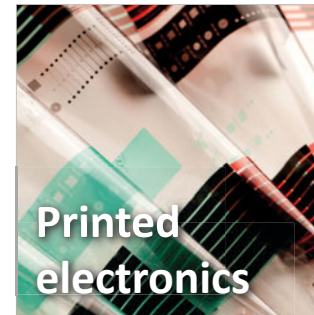
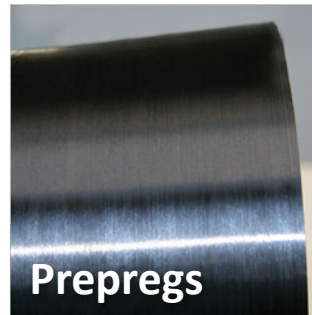
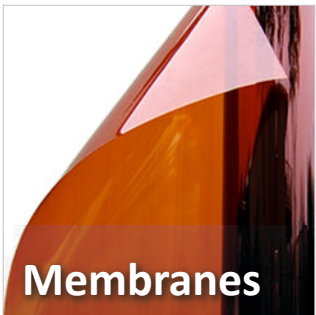
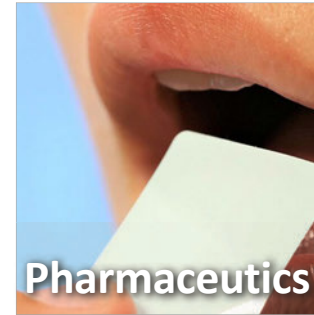
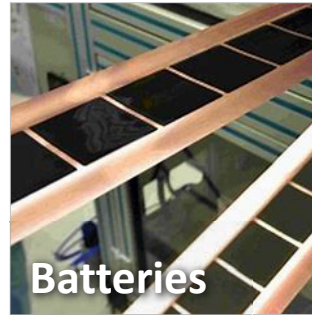
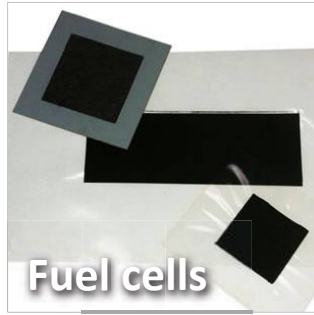
Pilot



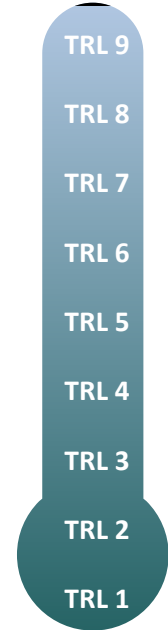
Production

Coatema equipment platform strategy for lab 2 fab

Our markets



Actual system proven in operational environment



Basic principles observed

Our markets – Coatema focus areas

Green Hydrogen

Fuel Cells

Batteries

Solar



Sustainability

Digital fabrication

Printed
electronics

The next thing

2.

R&D centre



Introduction – R&D centre



Product portfolio

Process development

- ✓ Feasibility study
- ✓ Ink – process study
- ✓ Process analysis
- ✓ Proof of concept
- ✓ Small scale prototype

Test production

- ✓ Prototyping
- ✓ Near to market testing
- ✓ TRL evaluation
- ✓ Training of staff

Education

- ✓ Coatema conference
- ✓ Training of customers
- ✓ Education of students

After sales service and ramp up of processes

- ✓ of Coatema units

Development of custom made design for equipment

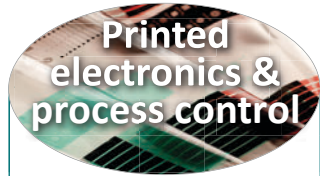
- ✓ Prototyping
- ✓ Proof of concept

Funded research projects

- ✓ German funded
- ✓ Horizon 2020
- ✓ Global 2+2 projects
- ✓ B2B projects

R&D customers

R&D projects overview 2022

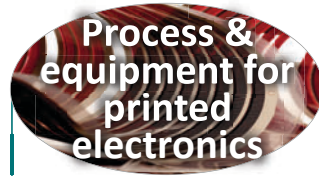


In-line and real-time digital nano-characterization for flexible organic electronics



Oled Solar

Advanced production for opto electronics towards industry 4.0

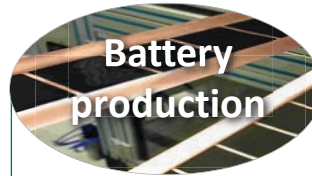


EffiLayers

R2R process optimization of organic photovoltaic cells



Development of near-field electro hydrodynamic nanowire printing



Implementation of laser drying processes for lithium-ion battery production



R2R process optimization for solid state batteries



Plasmonically enhanced photocatalysis for wastewater treatment

RetroWin

R2R Process and machinery development for retrofit window films for lower production costs



Sustainable paper-based printed electronics and biosensing platform



Creating an open-innovation testbed for sustainable packaging

3.

Today`s equipment for deep tech applications



Today`s equipment

Sheet-to-sheet (S2S)



Test Solution

Ink testing



Easycoater

First sample product

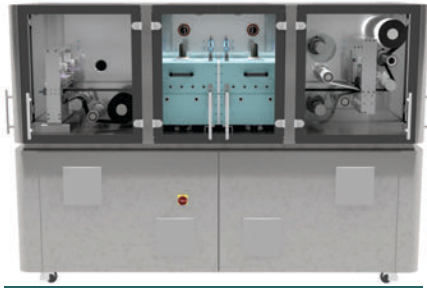


Easycoater Evolution

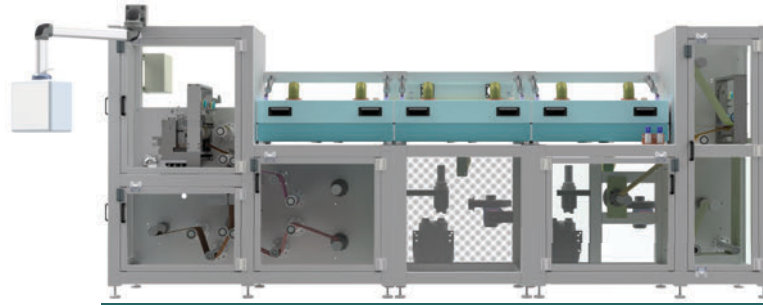
First pilot as S2S

Today`s equipment

Roll-to-Roll (R2R) lab systems



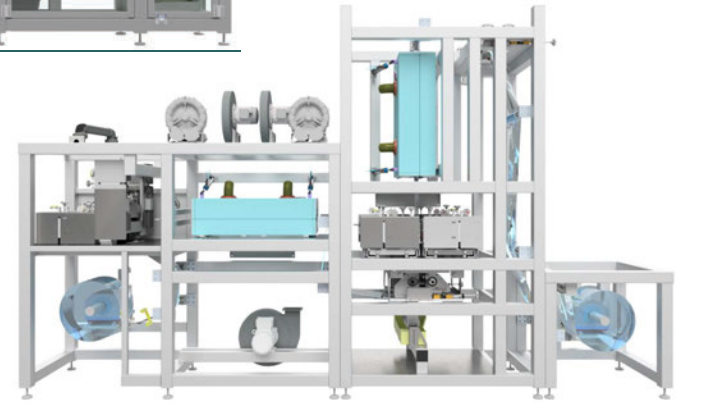
Test Solution R2R



Basecoater R2R



Smartcoater R2R



Verticoater R2R

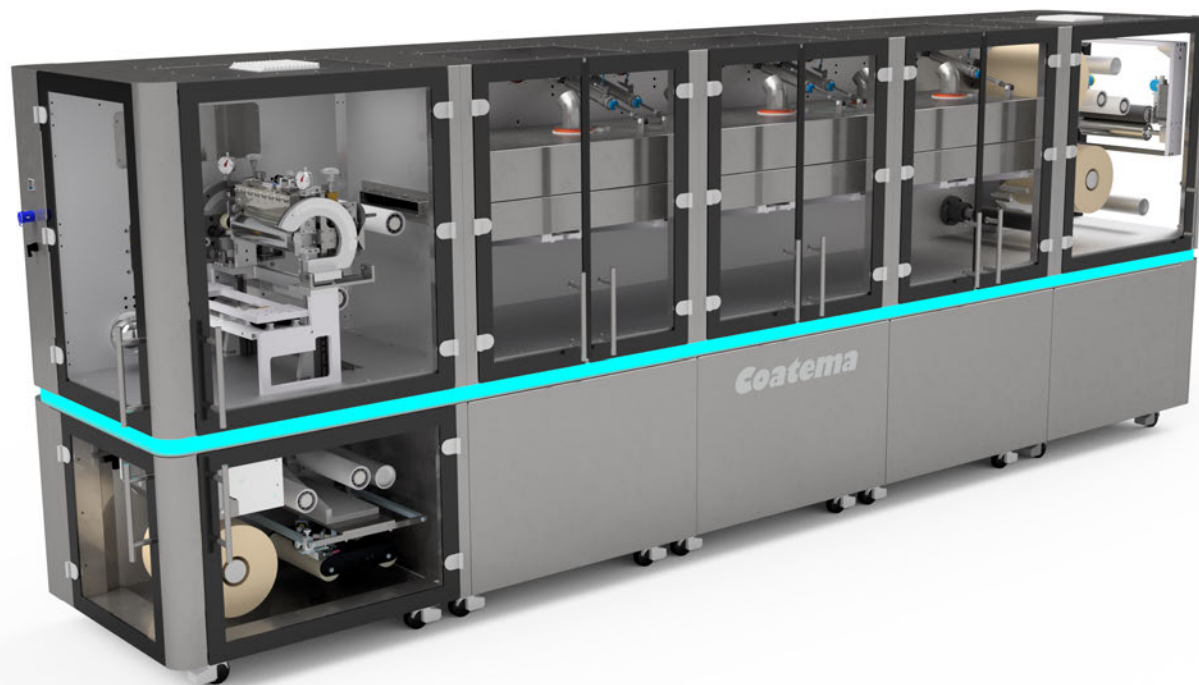
Today`s equipment for batteries

The Smartcoater



Today`s equipment for batteries

The Smartcoater



Today`s equipment

Roll-to-Roll (R2R) pilot



Basecoater Pilot R2R

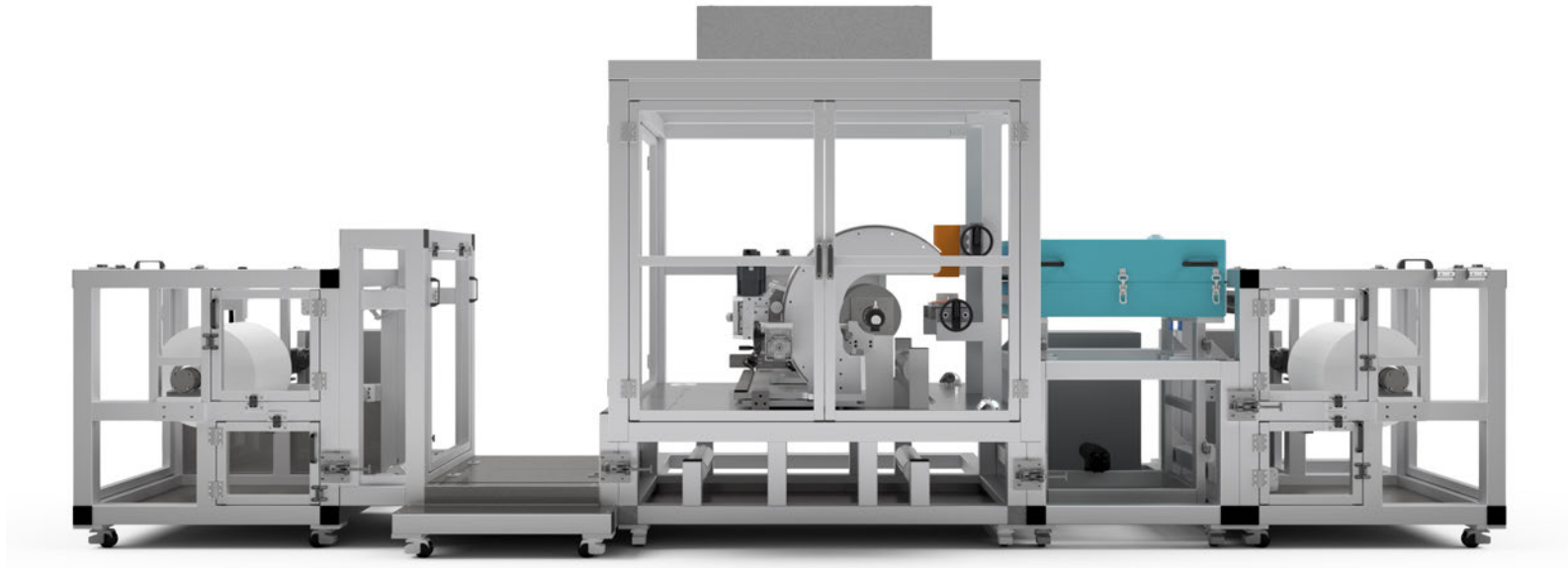
Today`s equipment

The Basecoater



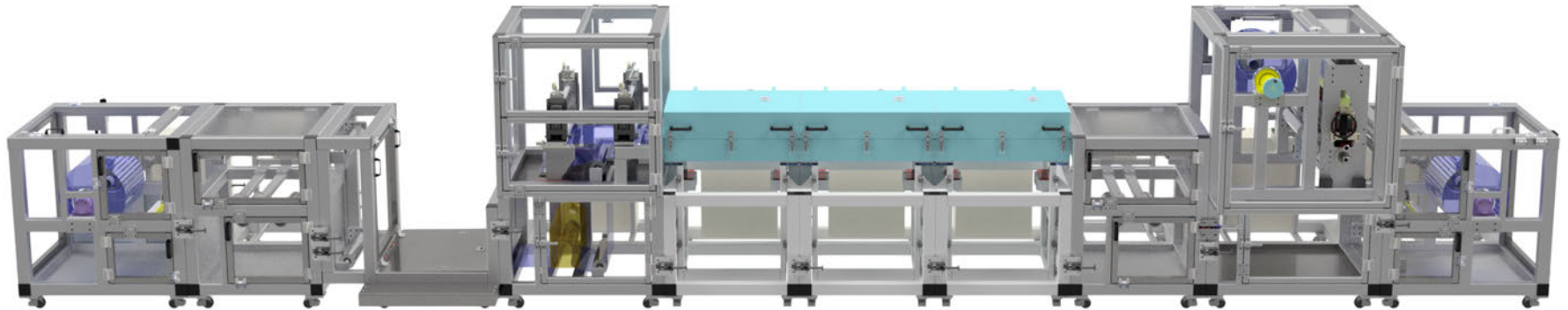
Today`s equipment

The Click&Coat™



Today`s equipment

The Click&Coat™



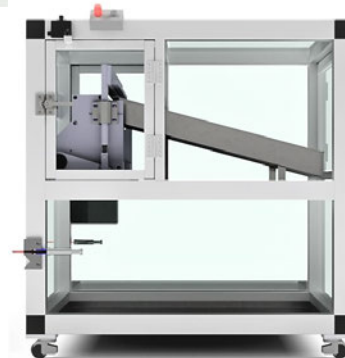
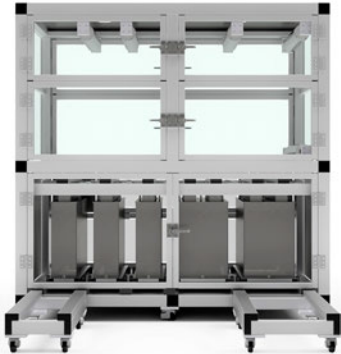
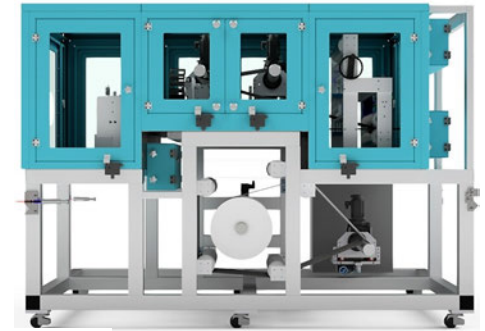
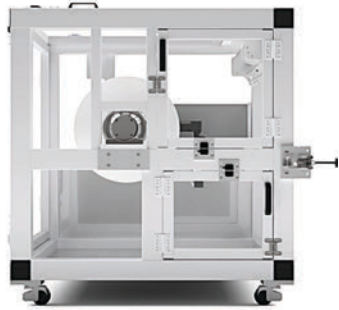
Today`s equipment

The Click&Coat™



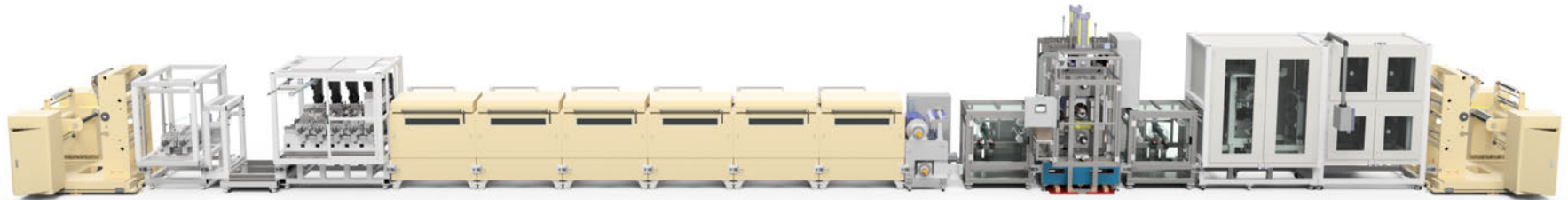
Today`s equipment

The Click&Coat™ single modules



Today`s equipment

The Click&Coat™ in production scale in the R&D centre



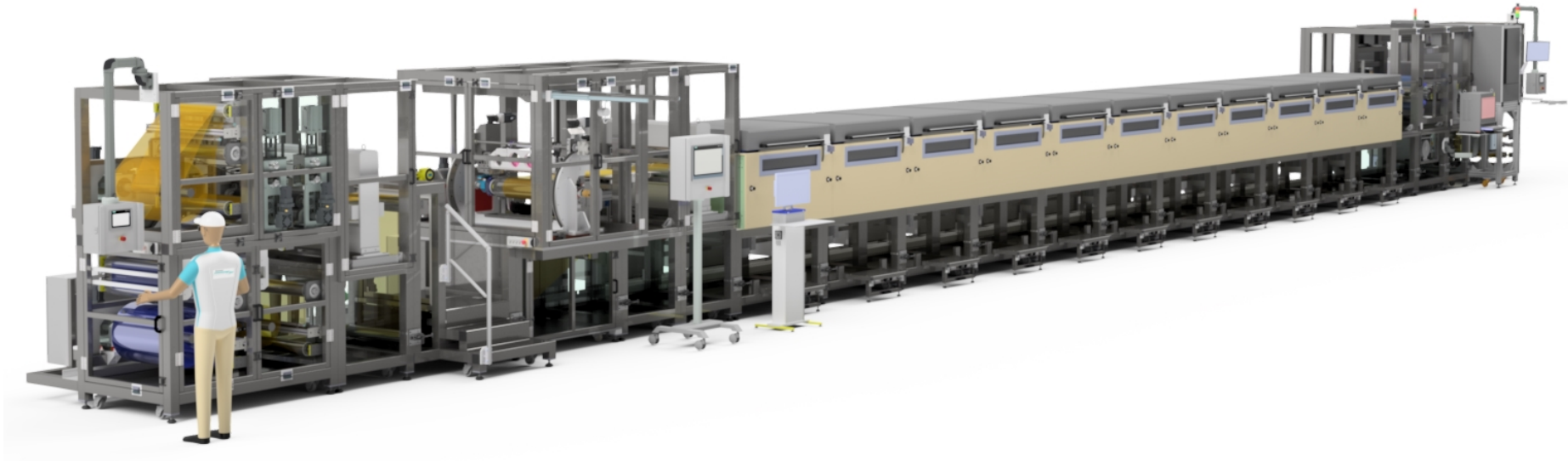
Today`s equipment

The Click&Coat™ in production scale



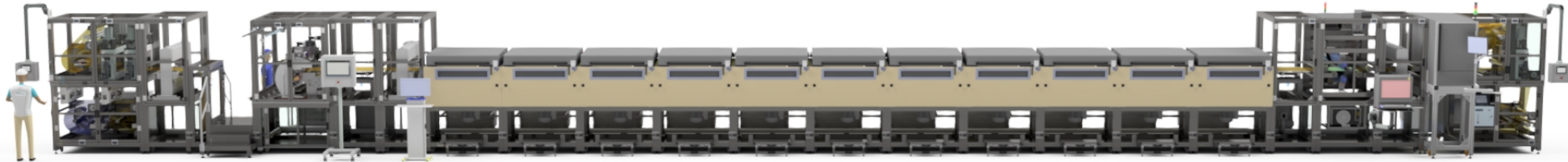
Today`s equipment

The Click&Coat™ in production scale



Today`s equipment

The Click&Coat™ in production scale



Do not hesitate to contact us!



Anything missing?

Let us know and we will make it happen!

Our R&D centre is worldwide the most versatile centre for coating, printing and laminating.

Sales department:
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Thomas Kolbusch

COATEMA Coating
Machinery GmbH



Coatema



Thank you

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