



Investors' Day : 14 June 2021  
Wolfgang Grimm  
Head of Packaging

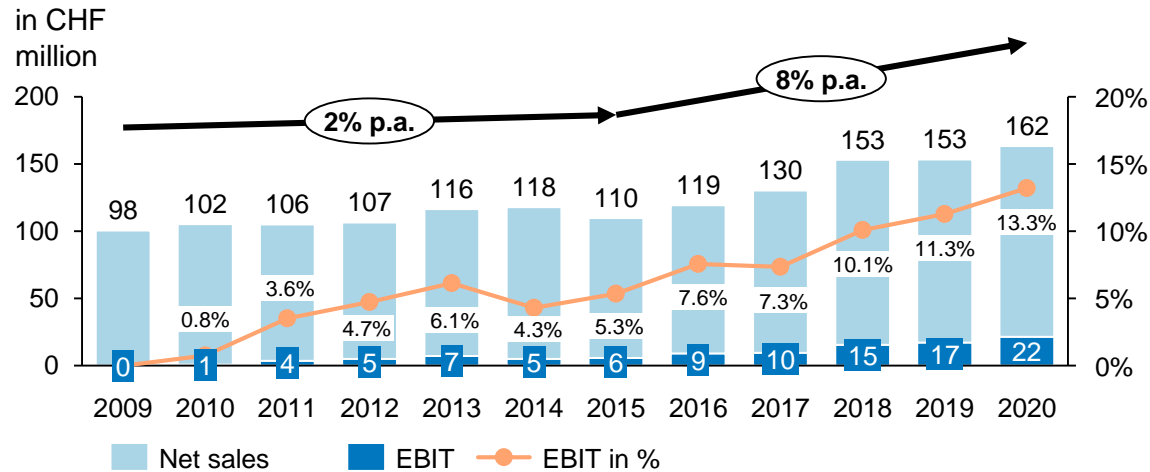


**perlen**  
**packaging**



## The Perlen Packaging business model

# Strategy successfully pursued: net sales and EBIT increased



- Net sales raised by 8% p.a. since 2015
- Substantial increases in EBIT and EBIT margin to currently 13.3% (2020)

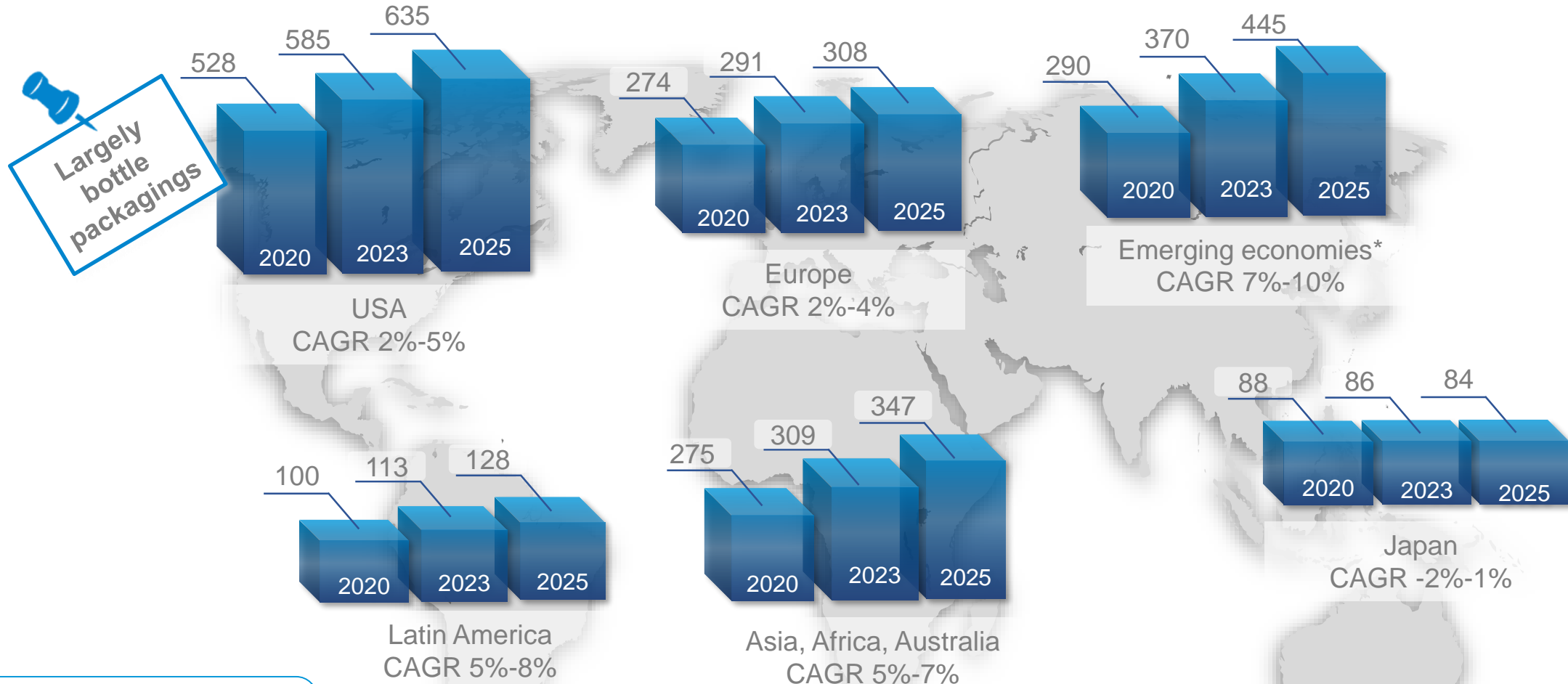
## Targeted implementation of business strategy over the past few years

- Consistent focus on the pharmaceutical market and on packaging films with the highest barrier properties
- Product development with expansion of the product range to higher-value high-barrier films
- Processes enhanced, productivity increased and efficiencies improved at all sites and locations
- Internationalization: international distribution organization established and new coating plants built in Asia (China) and Latin America (Brazil)
- Strong innovative credentials: numerous awards for product innovations such as Perlazid (2009 IHZ Innovation Award) and BLISTair (2017 IHZ Innovation Award and further international distinctions in 2017 and 2018)



## The global pharmaceutical market and market trends

# The pharma markets in 2020-2025 in USD billion



Pharmaceutical market  
2020-2025  
CAGR 3%-6%

Source: IQVIA Pharma Prognosis Dec 2019

\*"Emerging economies" = \*(Brazil, Russia, India, China, Mexico, Turkey, South Korea) included in the other regions

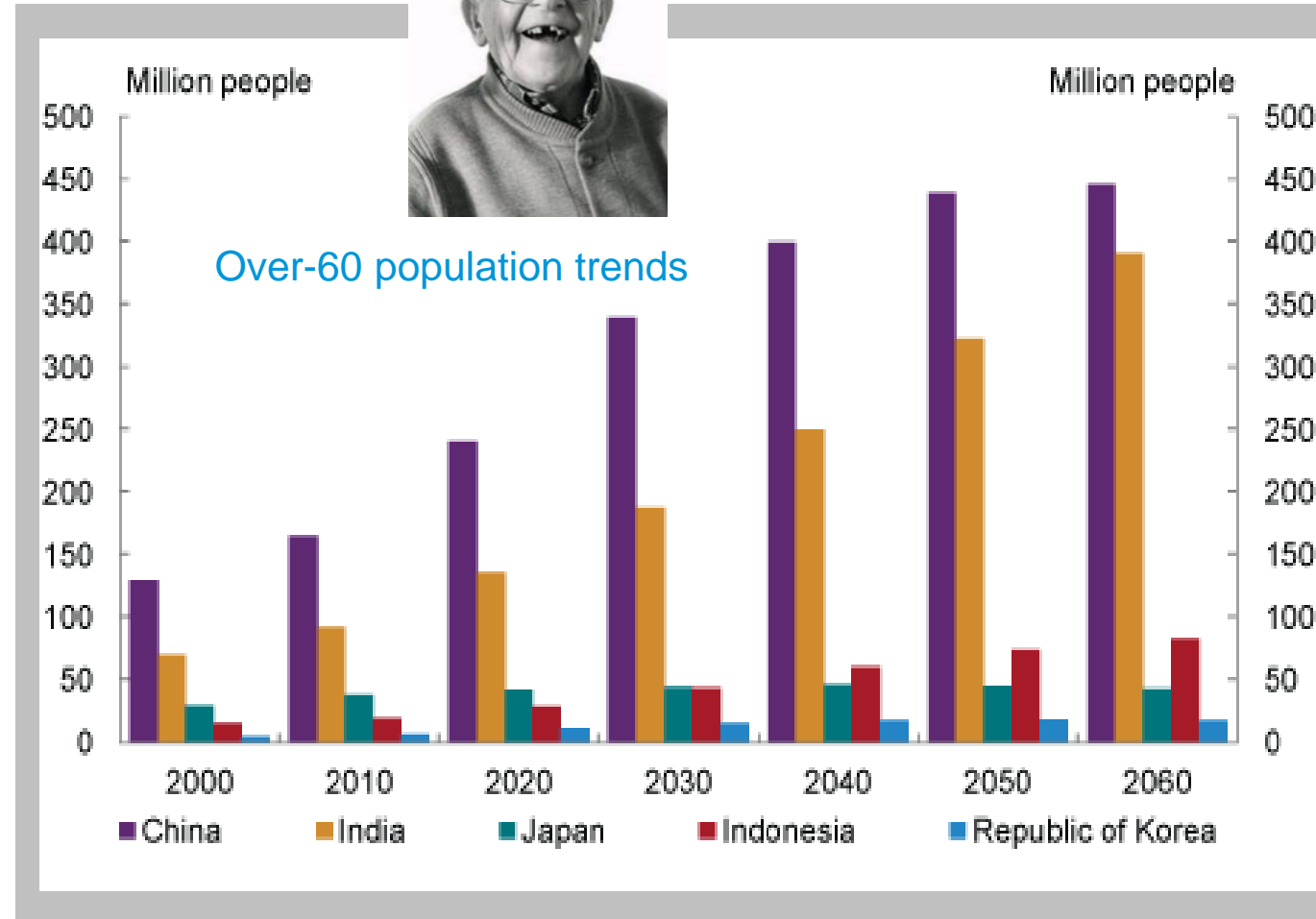
# Megatrends in pharma

- Global population ageing and growth
- Urbanization
- Autonomy and self-empowerment
- Civilization and lifestyle illnesses
- Improved medical and medicinal care



- Senior-friendly packagings
- Personalized and dosed packagings
- Steady trend towards simple oral self-medication with tablets and capsules

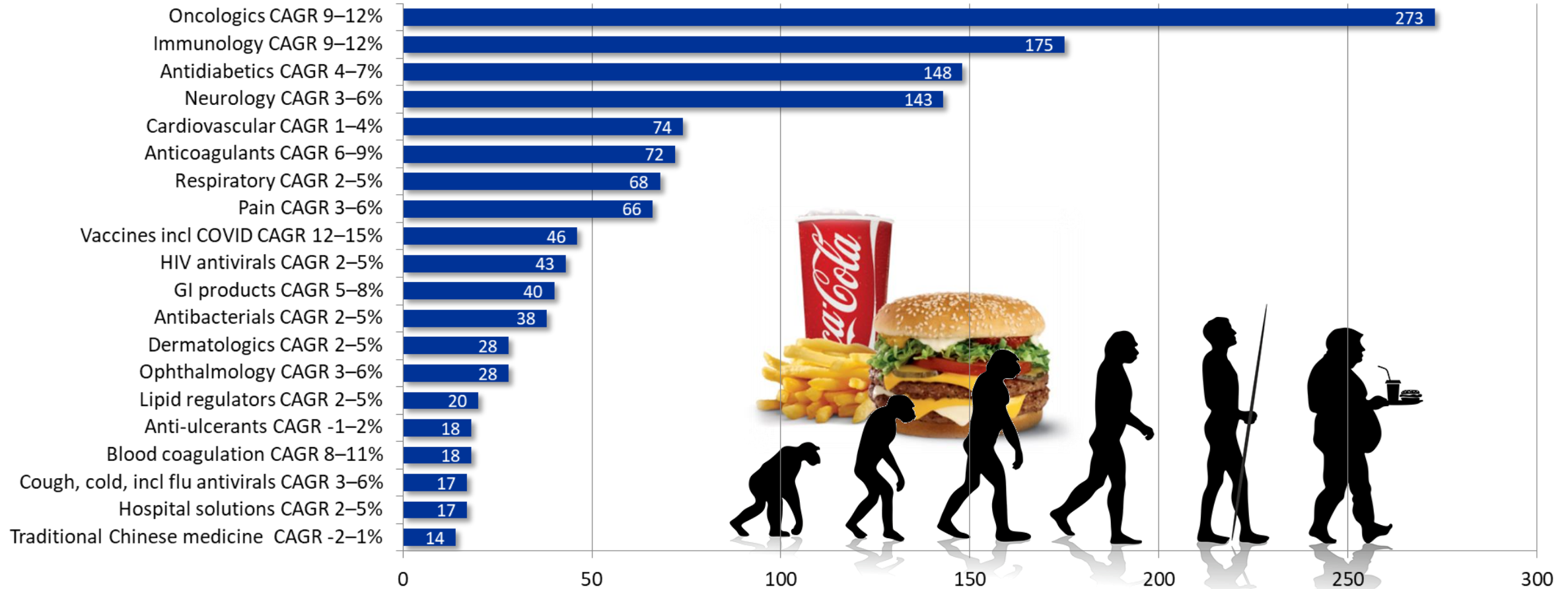
Source: UN Population Division



# The top 20 pharma therapy categories

Billion Dollar

## Top 20 Pharma Therapy Categories worldwide expected Growth until 2025 (Basis 2021)



Source: IQVIA Feb 2021

# Top 20 home pharma markets, 2015 to 2025 (projected)

2015	
Rank	Country
1	U.S.
2	China
3	Japan
4	Germany
5	France
6	Italy
7	U.K.
8	Spain
9	Canada
10	Brazil
11	India
12	South Korea
13	Russia
14	Australia
15	Saudi Arabia
16	Mexico
17	Poland
18	Switzerland
19	Belgium
20	Netherlands

2020	
Rank	Country
1	US
2	China
3	Japan
4	Germany
5	France
6	Italy
7	U.K.
8	Brazil
9	Spain
10	Canada
11	India
12	Russia
13	South Korea
14	Australia
15	Mexico
16	Saudi Arabia
17	Poland
18	Turkey
19	Belgium
20	Taiwan

2025	
Rank	Country
1	U.S.
2	China
3	Japan
4	Germany
5	Brazil
6	France
7	Italy
8	U.K.
9	India
10	Russia
11	Spain
12	Canada
13	South Korea
14	Turkey
15	Mexico
16	Australia
17	Saudi Arabia
18	Poland
19	Belgium
20	Egypt

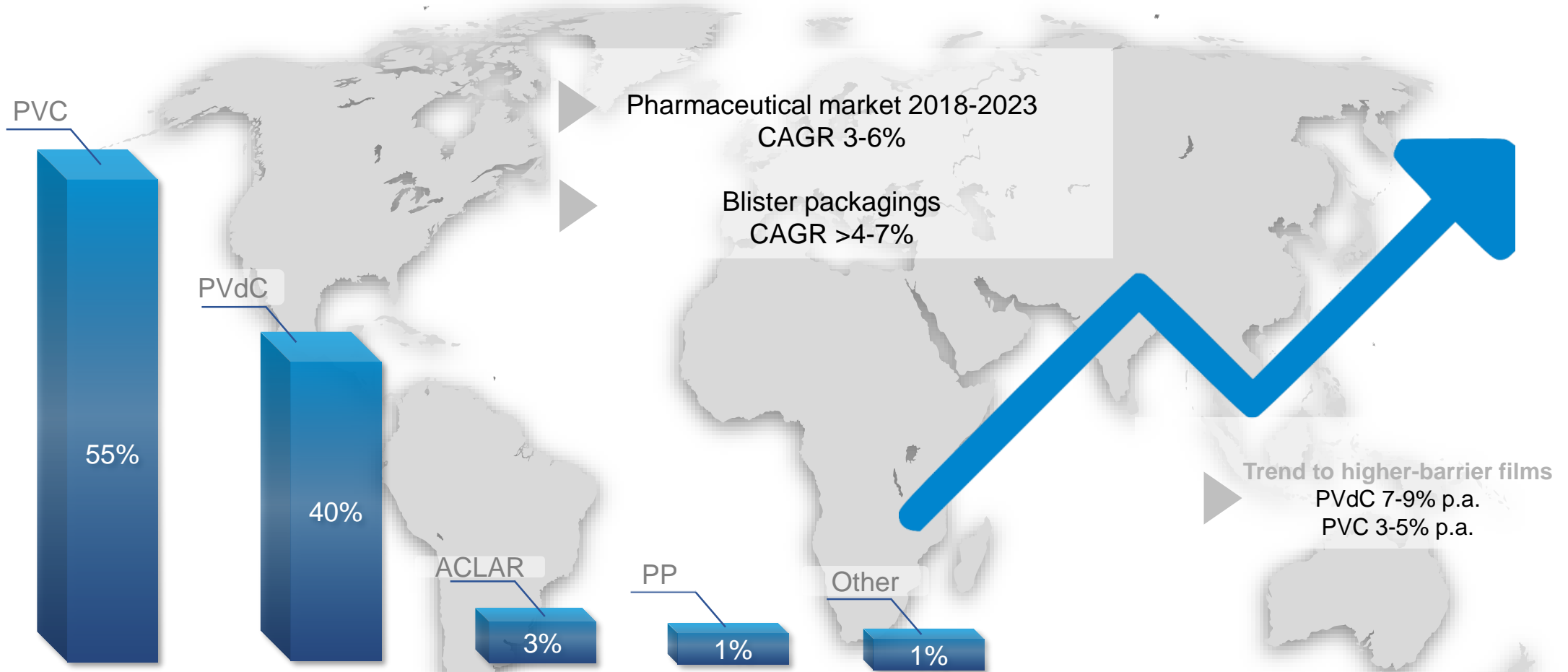


Source: IQVIA Market Prognosis Sept 2020

# Perlen Packaging: globally interlinked



# Demand for blister pack films for pharmaceutical markets worldwide

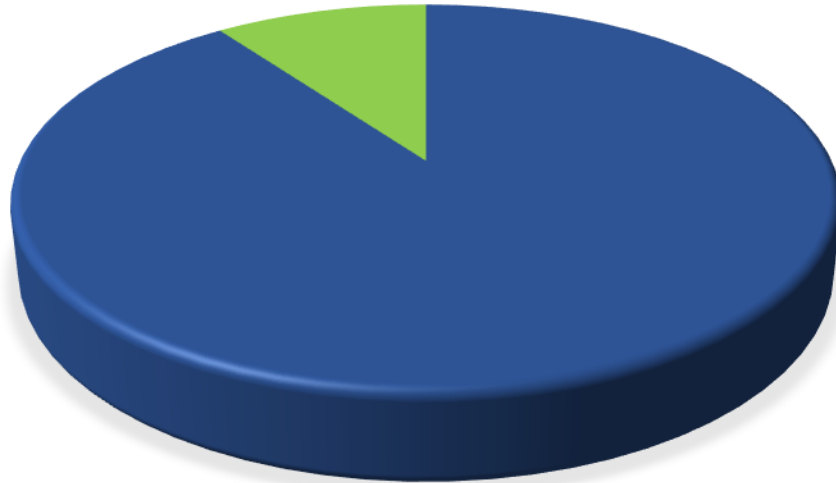




2018 blister packagings in tonnes, source: MR 1, Perlen Packaging 2018



## Our competences

# A total focus on the pharmaceutical sector



-  90% primary pharma packagings (solid dosage forms, blister packs)
-  10% special applications (ampoule packagings, syringe packagings, medical devices)



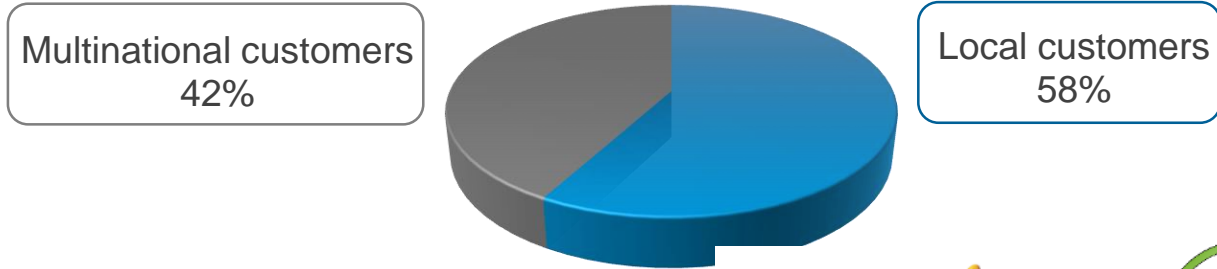
# Highest standards maintained



- ISO 15378 GMP (Switzerland, Germany, China)
- ISO 9001
- US FDA DMF No. 010686, 009072, 030501
- China: Center for Drug Evaluation (CDE)
- ISO 50001 energy management system (Germany)



# References





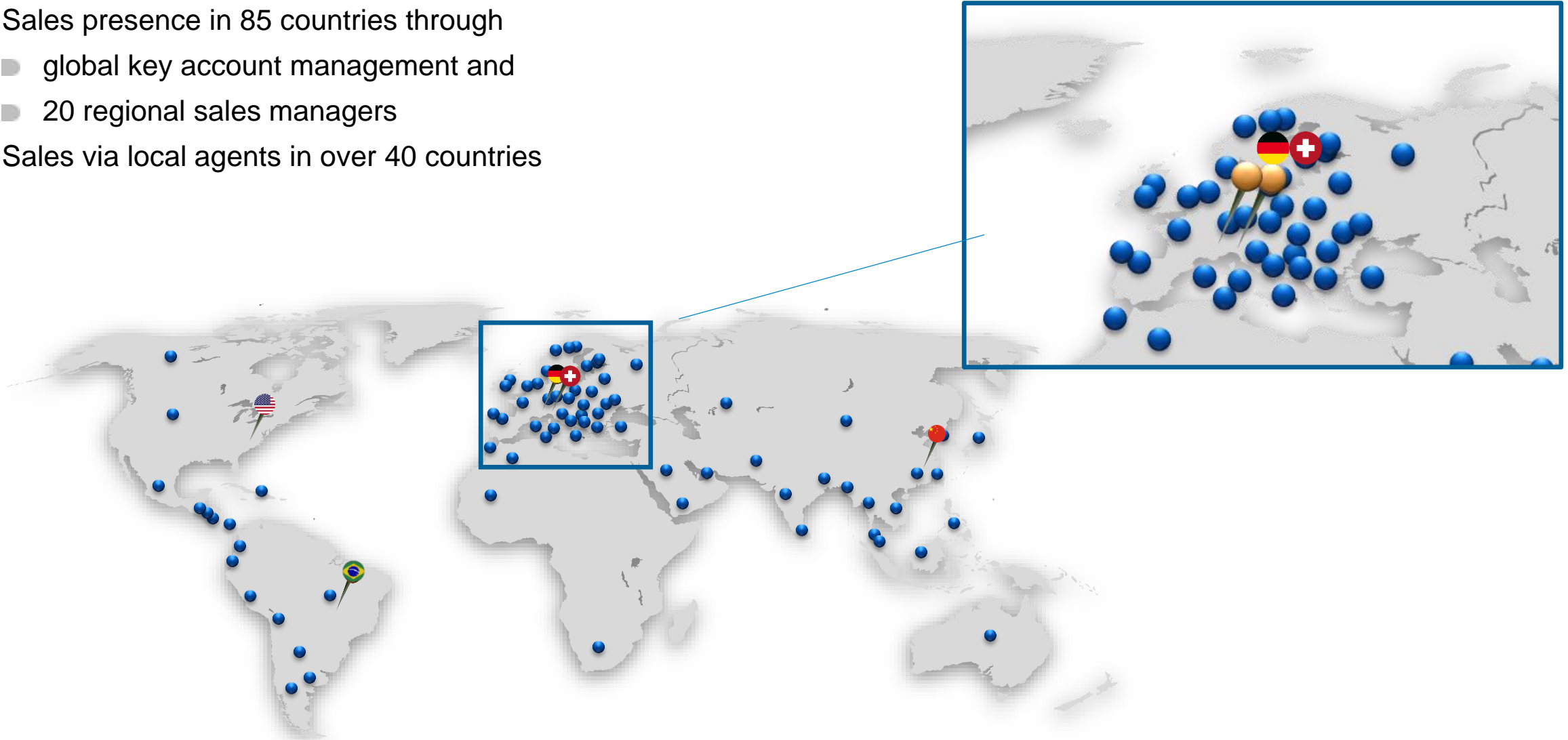
A global presence

# Packaging: internationalization (sales/representatives 2020)

Sales presence in 85 countries through

- global key account management and
- 20 regional sales managers

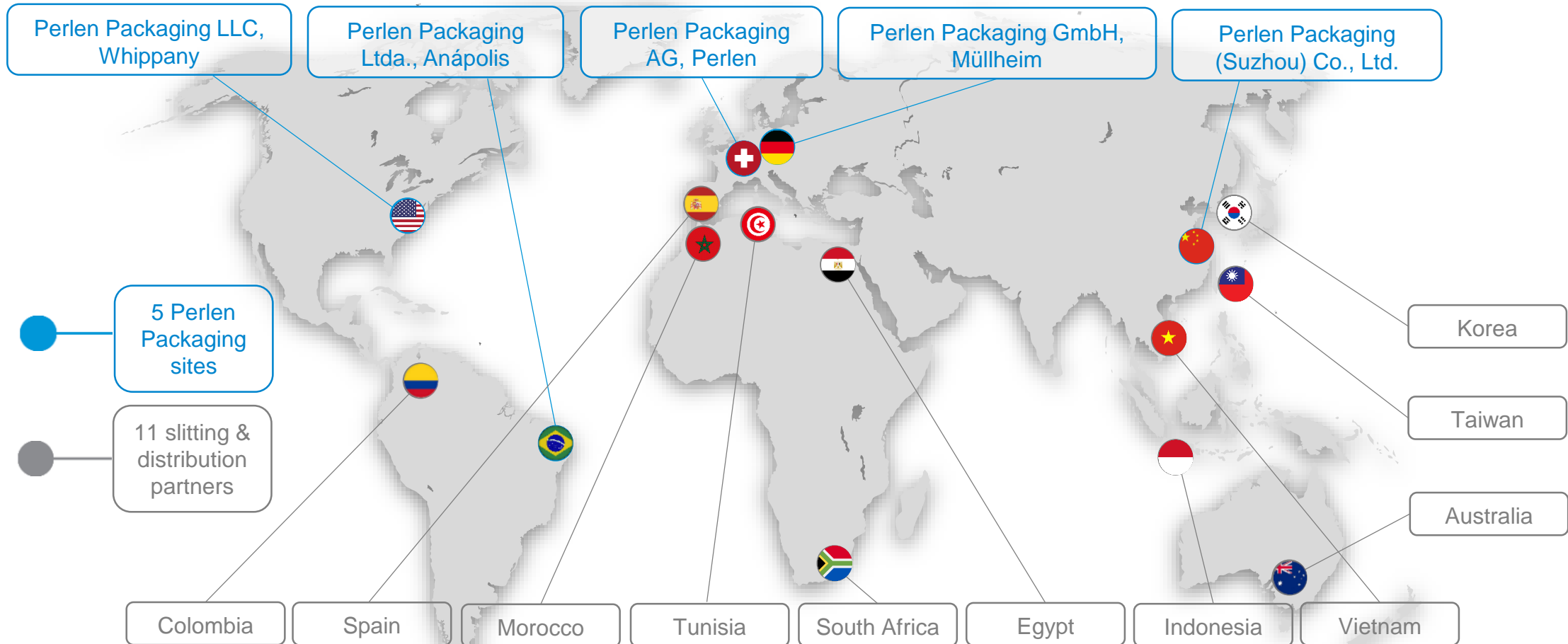
Sales via local agents in over 40 countries



Pins with flags: production sites

# Packaging: production sites and distribution partners in 2020

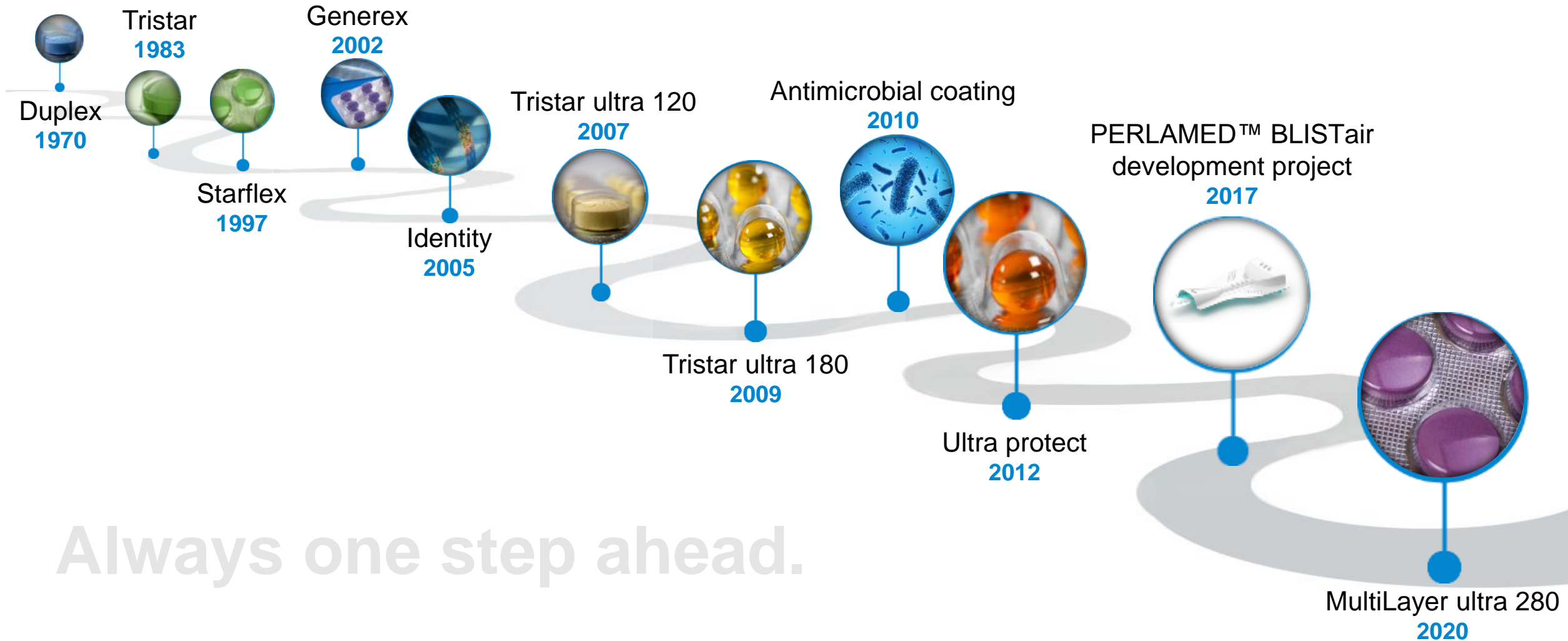
- Worldwide
- 5 production sites (blue, top)
  - 11 slitting and distribution partners (grey, bottom/right)





Leadership in innovation

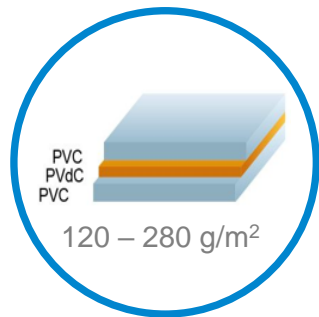
# Innovations since 1970



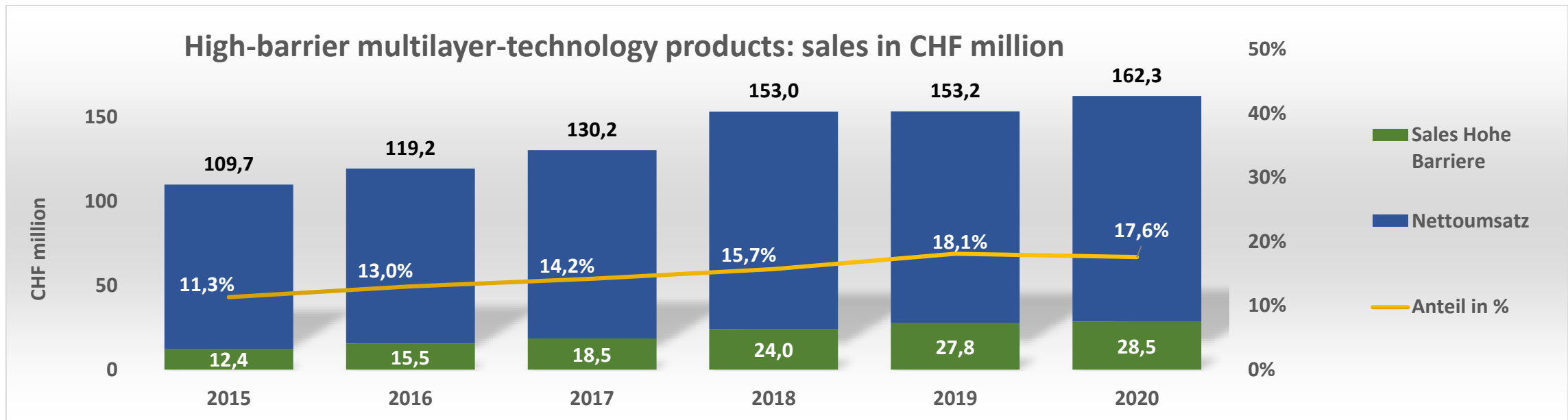
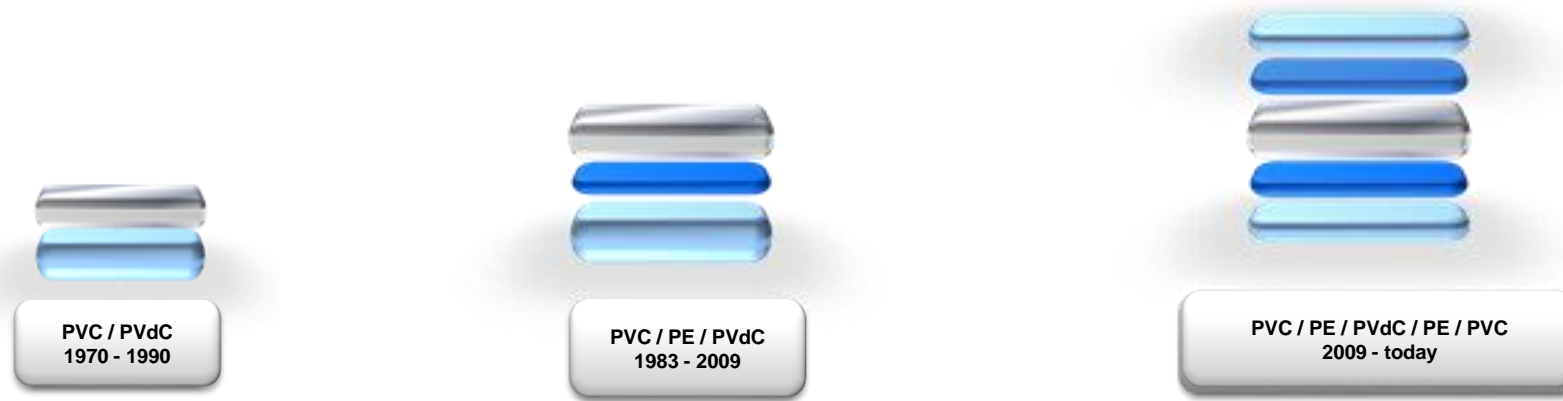
Always one step ahead.

# PERLALUX® - MultiLayer ultra

- Barrier protected against mechanical damage
- Symmetrical layers
  - no curling
  - no “inside/outside” errors
- Standardized blister pack machine parameters for optimized processing
- More m<sup>2</sup> per kilo



# The development of barrier packagings





## Operational leadership

# The Müllheim (Germany) global monofilm competence centre

## **3 state-of-the-art PVC calenders compliant with the latest GMP guidelines**

- 35 000 tonnes capacity
- From homopolymer films to high copolymer films

## **Error identification system**

- Visual surface monitoring
- Maximum safety and security

## **Automated packaging plant**

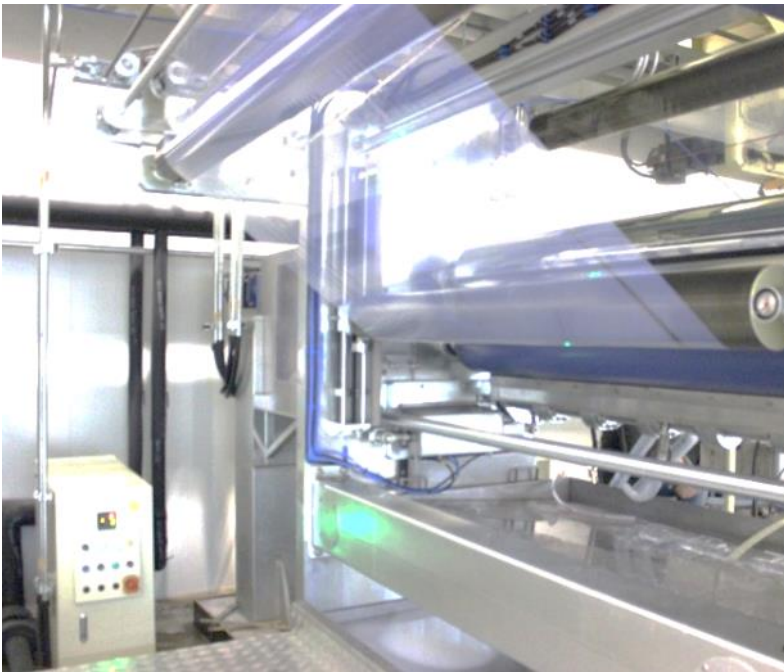
- Efficient automated processes

## **Driverless vehicles**

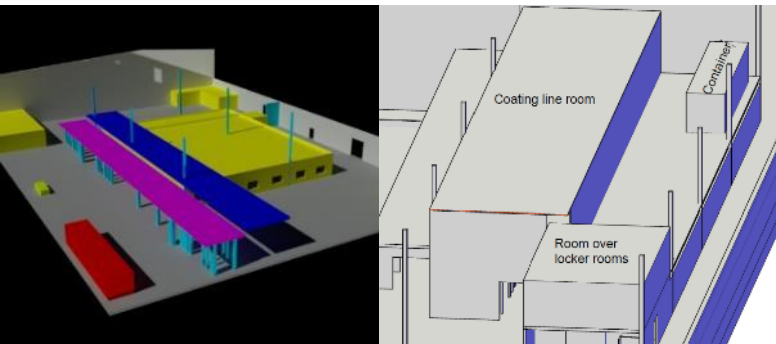
- Process-guided steering eliminates risk of human error and enhances safety

## **GMP**

- Particle-controlled environment meeting ISO 14644 Class 8 cleanroom standards



# Third barrier film centre of excellence currently under construction



## **Perlen Packaging AG global competence centre, Perlen, Switzerland**

- World's biggest coating plant for thermoformable blister pack materials
- R&D centre for multilayer and ultra-high-barrier structures

## **Perlen Packaging (Suzhou) Co., Ltd. Asian competence centre, Suzhou, China**

- Longest coating plant specializing in medium-barrier products
- Most advanced plant in Asia

## **Perlen Packaging Ltda. South American competence centre, Anápolis, Brazil**

- South America's newest plant with the highest manufacturing standards
- Production due to begin in the second quarter of 2022

# Same technologies and standards worldwide



## State-of-the-art coating and laminating facilities

- Consistent manufacturing processes and quality standards worldwide
- Specialized technologies to meet pharmaceutical packaging requirements

## Error identification systems

- Visual surface monitoring
- Maximum safety and security

## Automated packaging plant

- Highest hygiene standards
- Efficient automated processes

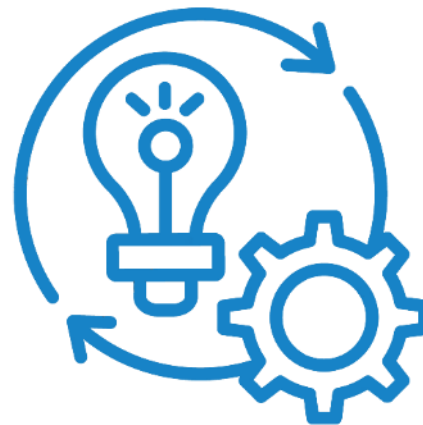
## GMP

- Compliant with latest GMP guidelines
- Cleanroom Class D

# Continuous Improvement Programme



- Employees' knowledge, skills and experience all tapped and fully utilized
- A key element in the corporate culture
- Adopted and cultivated throughout the CPH Group





## Sustainability and environmental care

# Recycling

What options are available for re-using consumer pharmaceutical waste?



## **Collect and recycle**

- Only possible with mono-material blister packs
- API contamination: consumer risk evaluation required
- Limited product portfolio

## **Incinerate with household waste**

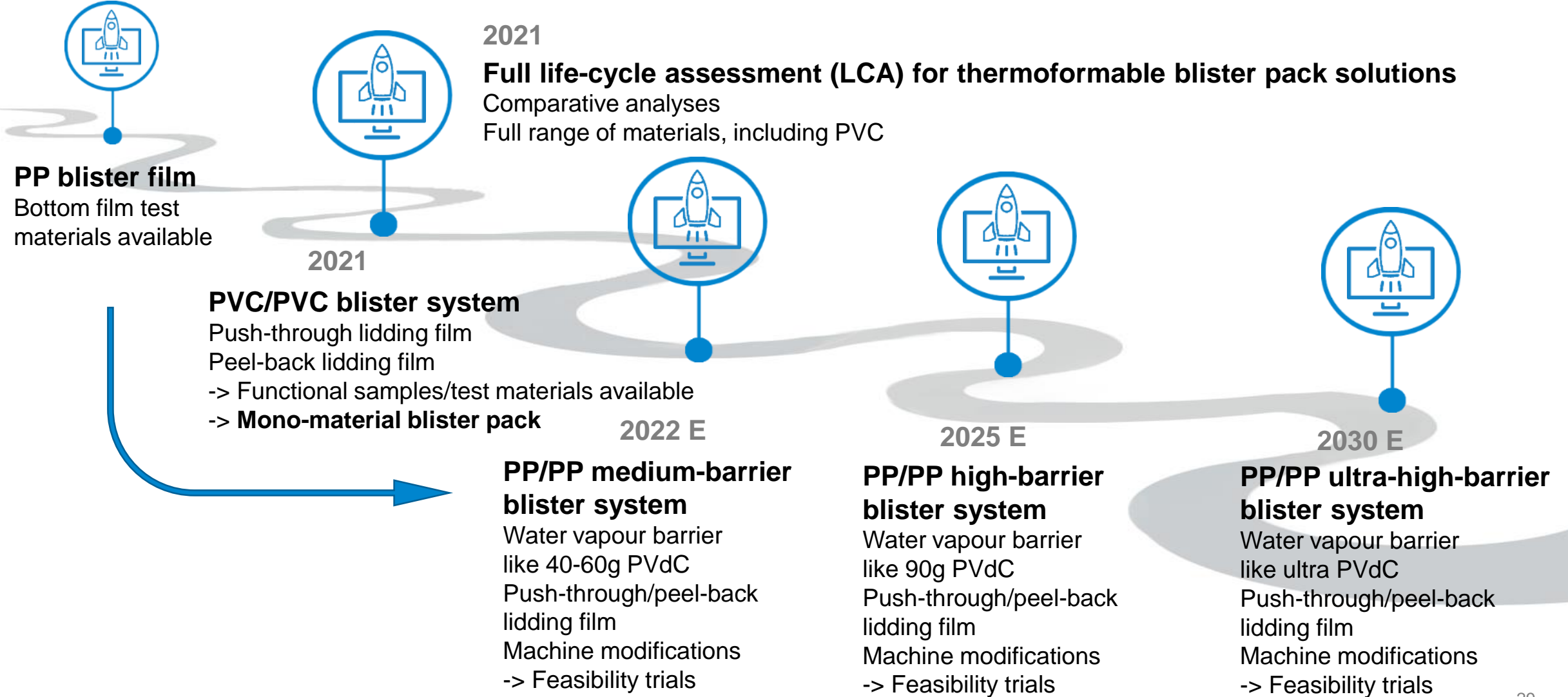
- Appropriate air filter technology required
- No risk of API contamination for water, ground or the consumer
- Energy recovery

## **Re-use PVC and PVdC products**

- Downcycling, e.g. for pipes, tubes and sleeves
- Chemical recycling

# The Perlen Packaging Project Roadmap

Mono-material blister systems meet the requirements of the circular economy



# Where to next?



## Continued profitable growth with a firm focus on the pharmaceutical sector

- Growth through further market penetration in existing business
- Market development in regional “white spots” including Africa, the Middle East, India and Australia
- Original strategy goals of 2012 achieved with development of the new Brazil operation

## Further business expansion thrusts being studied

- **Blister pack specialist** (independent of product/market):  
use of blister packs for new products/markets  
In addition to their barrier function, blister packs are primarily used to protect from contamination and/or for transport. Use in markets such as medicinal technology.
- **Packaging specialist** for primary pharmaceutical packagings (independent of dosage form)  
New primary packaging forms such as containers, bottles, ampoules, syringes etc. made of plastic or other materials such as glass, metal or paper for the pharmaceutical market



Thank you for your attention



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packaging**