



BAVARIAN NORDIC

Capital Markets Day

Copenhagen

26 February 2024



Forward-looking statements

This presentation includes forward-looking statements that involve risks, uncertainties and other factors, many of which are outside of our control that could cause actual results to differ materially from the results discussed in the forward-looking statements. Forward-looking statements include statements regarding our short-term objectives and opportunities, financial expectations for the full year and financial preparedness as of year-end, as well as statements concerning our plans, objectives, goals, future events, performance and/or other information that is not historical information. All such forward-looking statements are expressly qualified by these cautionary statements and any other cautionary statements which may accompany the forward-looking statements. We undertake no obligation to publicly update or revise forward-looking statements to reflect subsequent events or circumstances after the date made, except as required by law.



Chairman introduction: Vaccines market and trends

Luc Debruyne, Chairman

The value of vaccination

Make a difference

Vaccines play a pivotal role in improving health



... save millions of lives every year
by preventing infectious diseases



... protect whole communities
not only individuals against dangerous diseases



... are one of the biggest healthcare revolutions ever
has led to eradication of life-threatening diseases



... have a crucial role in achieving 14 of the 17 SDGs
supporting UN's goals to transform the world

Vaccines prevent
>25
dangerous infectious diseases

Immunisation can prevent
>50m
deaths from 2021-2030

Approximately
5.3bn
vaccine doses supplied in 2021 excl. COVID-19¹

Megatrends



Climate change

worsens the spread of the majority of infectious disease (e.g. mosquito migration)



Technological innovation

of products and platforms improves vaccines, making vaccines increasingly relevant



Broad vaccine awareness

has increased significantly following the COVID-19 pandemic and the mpox outbreak



Disease outbreaks

has increased the focus on vaccine preparedness (e.g. mpox outbreak 2022-23)



Geopolitics

bioterror threats, conflicts and uneven access make vaccines become part of critical infrastructure

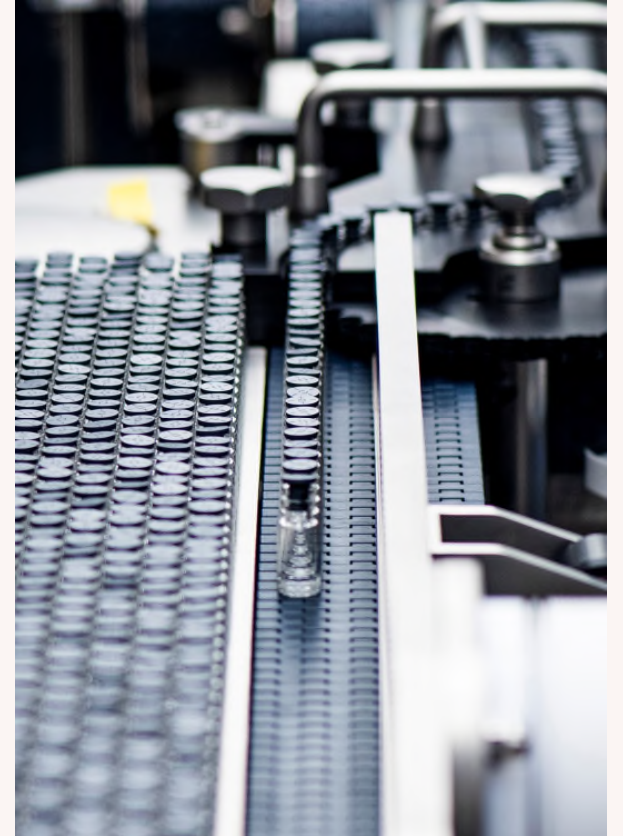
¹Including COVID-19 vaccines, approx. 16bn doses were supplied in 2021

Data sources: CDC, WHO, GAVI

Attractive business with barriers to entry

- Growing market
- Pharma-like operating margins
- Long product life cycles , no patent cliffs
- Few global players
- Large capital investment
- Complex manufacturing and quality controls
- Depth of expertise across value chain needed

Attractive business
with barriers to entry



Business characteristics: Value and volume-based business model

- Public and private market
- Quarterly volatility as the norm:
 - Tenders: wins - timings - funding - pricing
 - Government stockpiles: replenishments - withdrawals
 - Seasonality - outbreaks
- Supply

Value and volume-based business model



Vaccines product life cycle

- Discovery
- Pre-licensure R&D
- Post-licensure R&D: Life cycle management
 - New indications
 - Combinations
 - Co-administration
 - Age extensions
 - Different dosing schedules
 - Effectiveness/impact
 - Technical improvements

Vaccines product life cycle:

1. No patent cliff
2. No generics
3. Unique vaccines



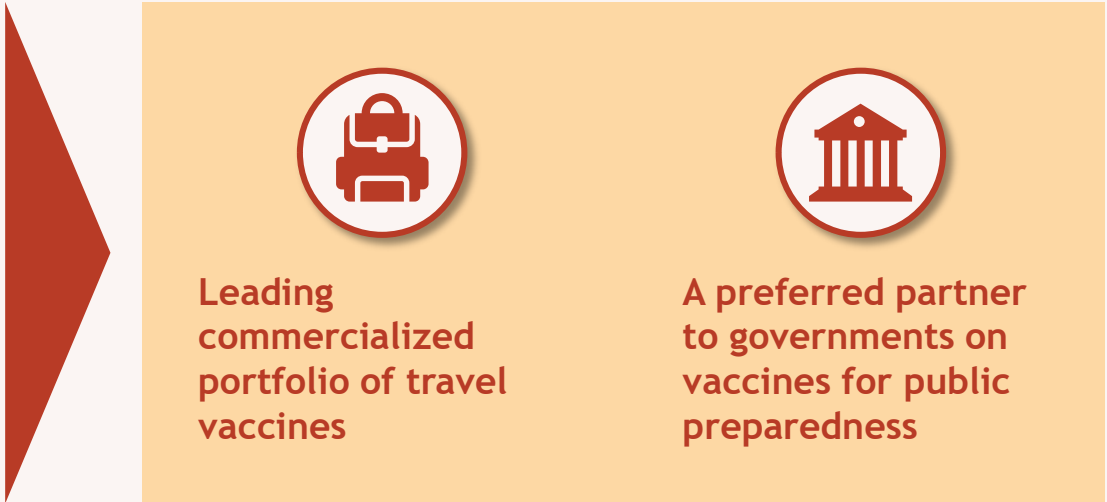
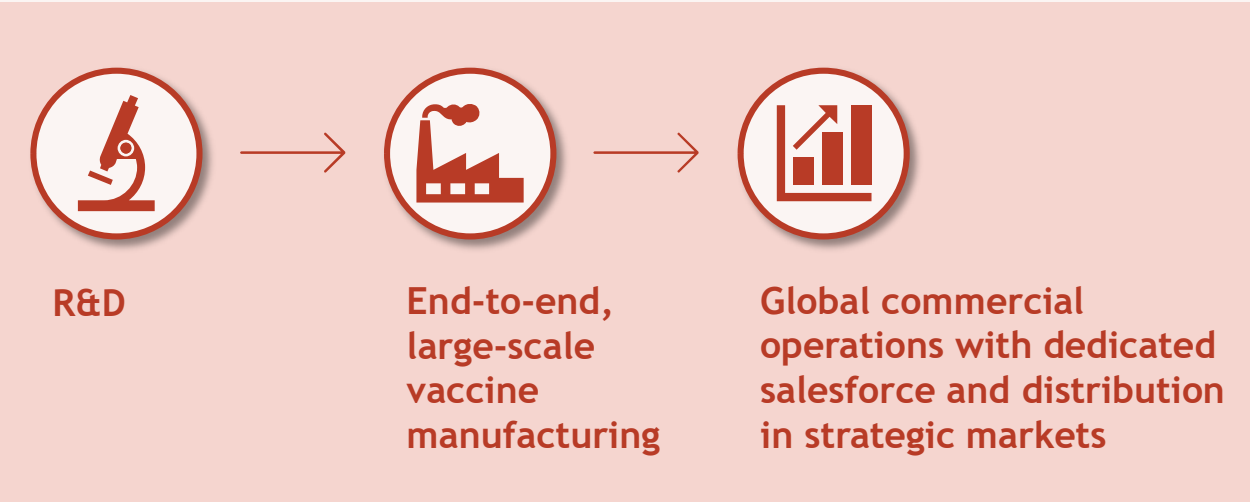
Our transformation journey and strategic outlook

Paul Chaplin, President & Chief Executive Officer

Since 2020, we have successfully transformed Bavarian Nordic into one of the largest pure-play vaccine companies

Three decades of excellence in R&D and vaccine manufacturing culminating in a successful transformation over the last five years...

...creating a focused and profitable vaccine specialty company with a strong platform for further growth



Global and diverse organization with 1,400+ employees, skilled in life-sciences

Saving and improving lives by unlocking the power of the immune system

From a strong heritage to an impactful future

Growing the commercial portfolio

Public preparedness

Developed and commercialized our proprietary MVA platform:

Smallpox

Mpox

Travel Health

Created a leading travel health business via acquisitions and in-licensing:

Rabies

Rabipur®
RabAvert®

Tick-borne encephalitis (TBE)

Encepur®

Cholera

Vaxchora®
 (Cholera Vaccine, Live, Oral)
 100 mL Oral Suspension

Typhoid

Vivotif®
 (Typhoid Vaccine Live Oral Ty21a)
 Capsules

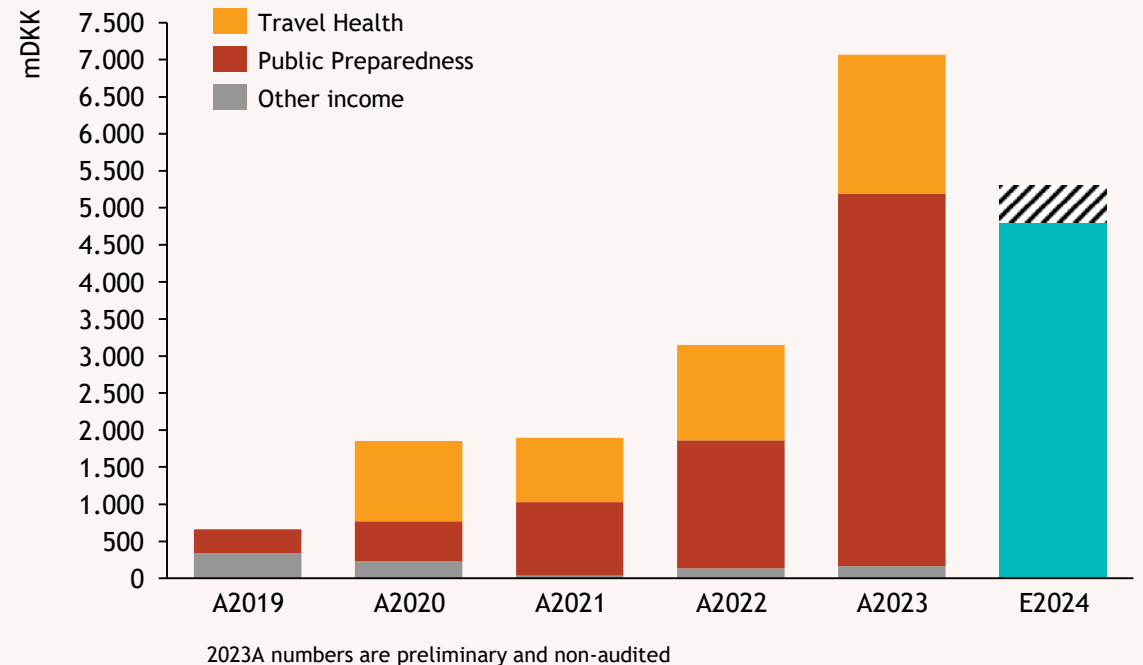
Japanese encephalitis

Cholera

Hepatitis B

Establishing Travel Health and Public Preparedness as two successful franchises

- Hypothesis on scalable platform confirmed and first signs of synergies from selling Vaxchora and Vivotif with only limited increase in commercial organization
- Very strong commercial performance in competitive markets such as the US



Our way forward

A pioneering force in vaccines -
expanding our reach and impact through life-changing solutions

Deliver continued growth



Drive growth in Travel Health



Expand base business within Public Preparedness



Strong focus on organic growth supported by selective and synergistic M&A

Bring innovative solutions



Improve competitiveness of existing product portfolio through life-cycle management



Secure reliable supply



Develop new pipeline programs and platforms

Committed to provide sustainable impact on society, patients and employees

Our commitment to developing a sustainable business is integral to lasting success in global markets.

Through collaboration with local partners and institutions, we aim to expand our commercial footprint while improving access to vaccines.

We focus our efforts on where we can make the greatest impact, mitigate risks, and seize business opportunities

Addressing the
impact of
climate change
on people's health

Expanding
access to
vaccines

**Committed
to improving
and saving
lives**

Fostering trust
among
stakeholders



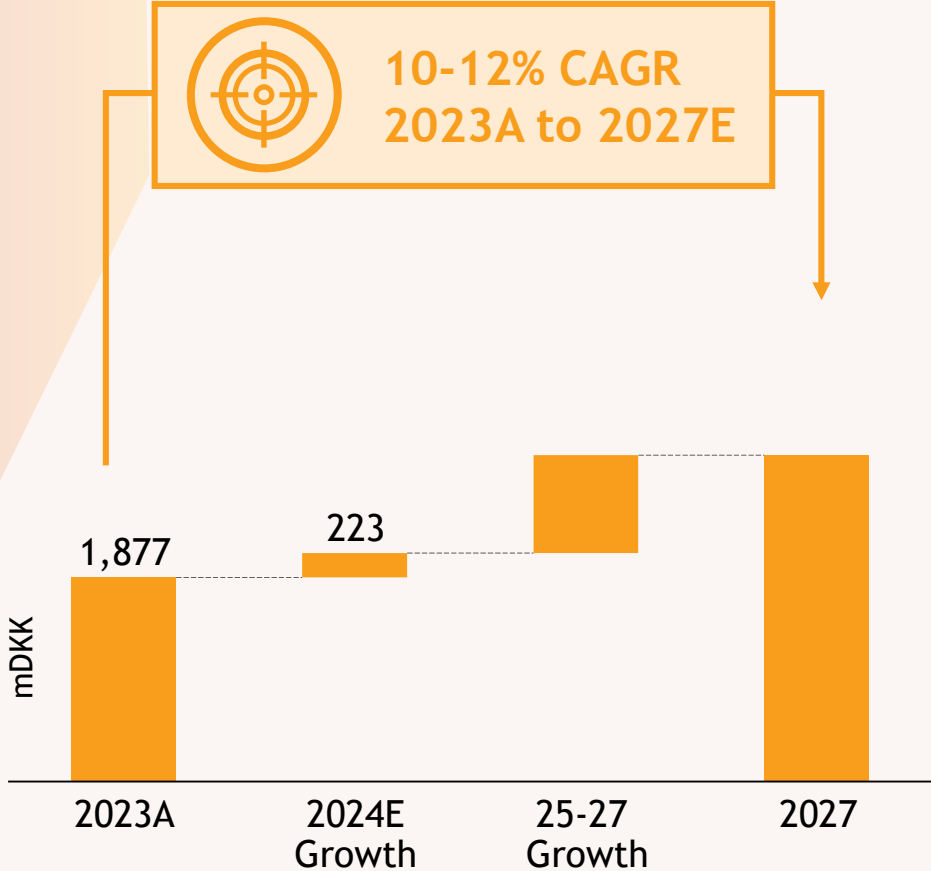
Deliver continued growth

Drive growth in our leading position within Travel Health

Key growth drivers:

- 1 TBE & Rabies**
 - Cont'd market growth driven by increased travel
 - Cont'd strong brand performance through dedication and focus
 - Geographical expansion of own distribution
- 2 Cholera & Typhoid**
 - Relaunch cholera and typhoid vaccines via our existing commercial platform - sales potential of USD ~100m
- 3 CHIKV**
 - Expected launch of CHIKV vaccine candidate in H1 2025
 - Differentiated product with strong clinical data entering market estimated at USD ~500m

Travel Health Revenue



2023A numbers are preliminary and non-audited



Deliver continued growth

Expanding the Public Preparedness business

Historical development in Public Preparedness

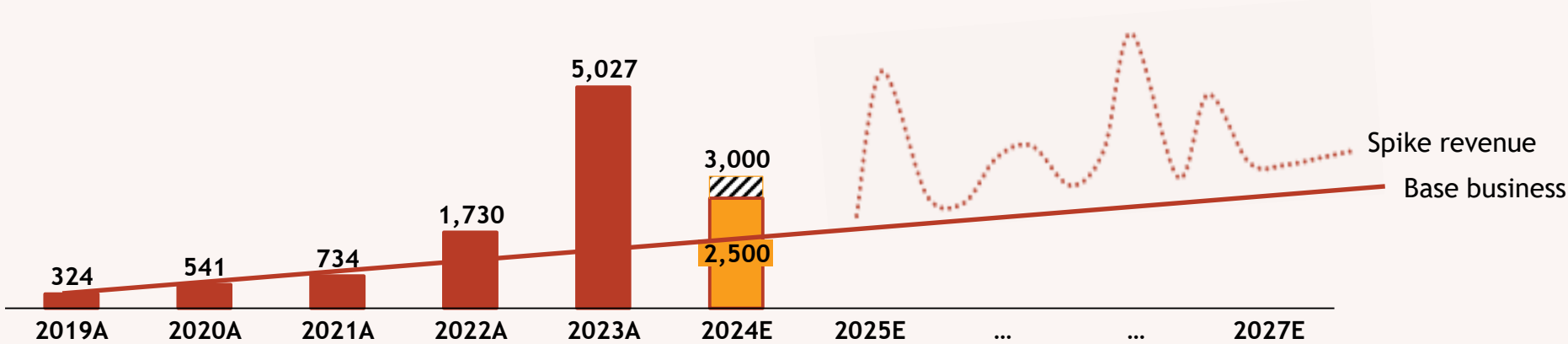
- ✓ Sales in 2022 and 2023 impacted by mpox outbreak and created many new governmental customers. Orders from the US and Canada were also impacted by the outbreak.
- ✓ Successful manufacturing of and delivery on sudden spike orders from the mpox outbreak 2022-2023.

Public Preparedness business going forward

Base business from existing partners

DKK 1.5-2.0bn annual sales expected from the US, Canada and repeat business from smaller countries plus broadening of base through ongoing dialogues with new countries.

- **Launch private market JYNNEOS**
Launch in H1-2024 with a total gross value of approximately DKK 1,725m to be captured over the next 4 years
- **Future sudden demand spikes expected**
Spikes beyond base business driven by new mpox outbreaks and irregular government stockpiling purchases



2023A numbers are preliminary and non-audited

M&A and business development as a source of growth

Building on a strong and inspiring track-record

Transformation has created a stronger Bavarian Nordic through M&A and business development in just five years



Successful integration and commercialization of vaccines from GSK proven by record sale of rabies and TBE vaccines



Proving ambitious strategy by acquiring and integrating Emergent BioSolutions' travel vaccine franchise



Leveraging commercial platform through distribution agreements



Increased cash-flow generation and financial flexibility will

- *enable future selective and synergistic infectious disease acquisitions*
- allow excess capital returned to shareholders

Key objectives and outlook

Short-term

Executing on integration and strengthening of previous transactions

Medium-term:

Ramp-up exploration of M&A and business development while remaining disciplined and diligent



Drive continued revenue growth to improve scale by acquiring...



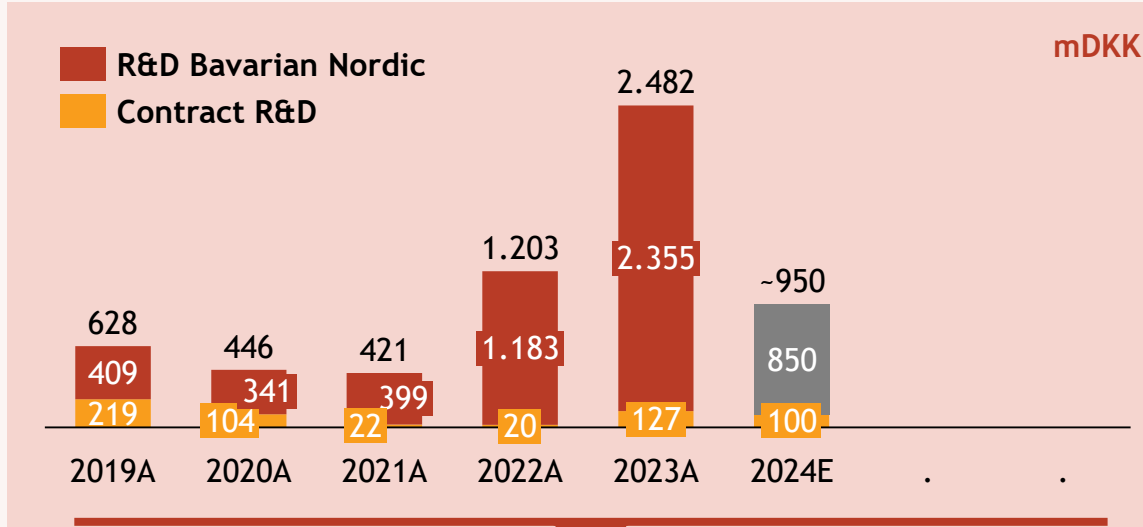
... assets which are de-risked by being commercialized or in late-stage development



... assets which are synergistic to existing product portfolio and commercial setup

Future R&D at Bavarian Nordic

Investments in R&D significantly lowered

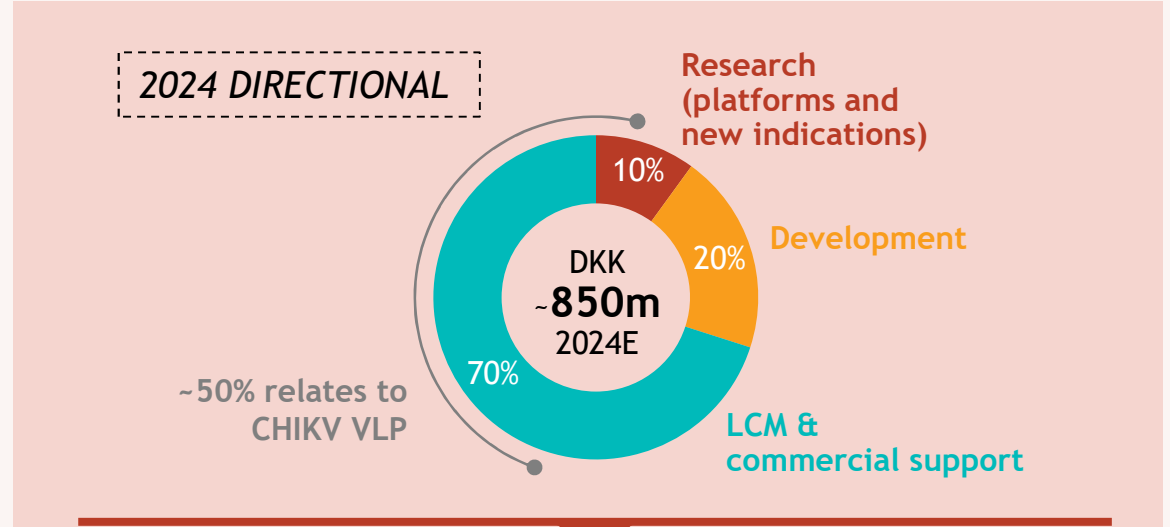


- Fewer and less expensive clinical programs in the near horizon
- CHIKV development explains nearly half of 2024 budget
- CHIKV development commitments goes beyond licensure
- Contract R&D has been a significant component of important projects in the past and is expected to continue

2023A numbers are preliminary and non-audited



LCM and commercial support



- R&D goes beyond platforms and vaccines
- Commercial products demand ongoing R&D support and Life Cycle Management investments to maintain and improve market positions

R&D priorities - focus on infectious disease vaccines

Selected projects are receiving government funding



Preclinical

Explore new disease areas

Explore new platforms

Investigating new manufacturing process



Clinical

MVA-BN WEV

TAEK-VAC → *Discontinued*



Life-cycle management

Shelf-life extension

- Smallpox/mpox
- Typhoid

In Vivo to In Vitro potency

- Rabies
- TBE

Booster projects

- Chikungunya
- TBE

Geographical expansion

- Smallpox/mpox
- Chikungunya
- TBE
- Cholera

Label expansion

- Chikungunya
- Cholera

Outlook and financial ambitions

Outlook 2024

mDKK	2024
Revenue	5,000 - 5,300
EBITDA	1,100 - 1,350

- Travel Health: Approximately 2,100 mDKK
- Public Preparedness: 2,700 - 3,000 mDKK
- Other Revenue: Approximately 200 mDKK

Financial ambitions and capital allocation



Mid-term financial ambition





Capital allocation

Financial ambitions to 2027 - current business (mDKK)

Revenue:	
Travel Health, CAGR (23-27)	10-12%
Public Preparedness base business (excl spikes)	1.5 - 2.0 BN
EBITDA margin	25% - 30%

- Short term commitments to pay back significant milestones from acquisitions
- Invest to grow the current business and pipeline
- Increasing cash flow generation leading to expanded financial flexibility
- Mid- to long-term excess cash prioritized for synergistic M&A and return to shareholders

Continued growth supported by multiple drivers

Successful transformation into a leading pure play vaccine company



Attractive underlying market growth



Focused on organic growth strategy



Focused R&D strategy



Opportunity to solidify profitability



Solid financial position and stronger cash flow generation going forward

Continued Growth

JC May, EVP & Chief Commercial Officer

Driving growth with strategic initiatives for Travel Health and Public Preparedness

Sustain Growth in Travel Health

Expand base business within Public Preparedness



Leverage market growth in the travel market

The travel market is expected to surpass its 2019 level by mid-2024 (as measured by flight km demand)



Focus on key markets and global expansion

Focus on US and Germany and next layer of key travel vaccine markets (UK, Canada, France, Austria, and Benelux)



Relaunch / launch Vivotif and Vaxchora

Relaunch in key market (US) and launch in new markets (France, Canada, etc.)



CHIKV VLP global launch in est. \$500M market

Prepare for successful 2025 launch in sizeable Chikungunya vaccine market



Support key stakeholders and explore new opportunities

Smallpox/mpox represent a significant public health threat and MVA-BN is key in the preparedness/prevention solutions



Launch of JYNNEOS in the US managed care market

Expand our presence in the US while providing access to the population at risk of Mpox



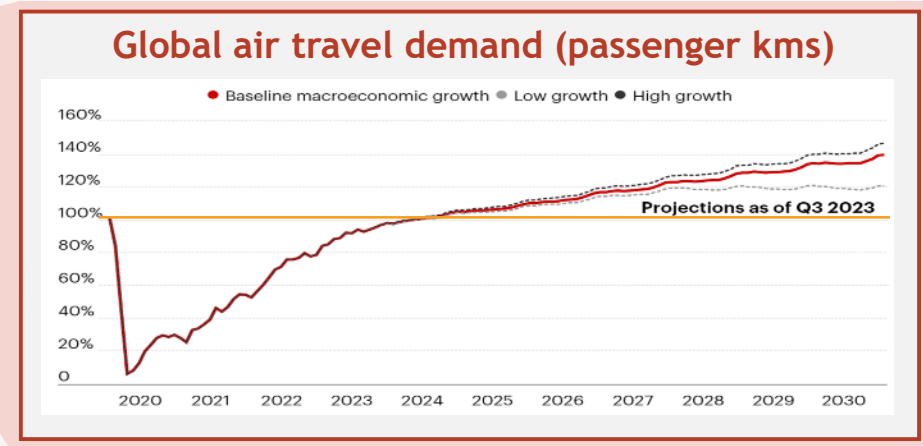
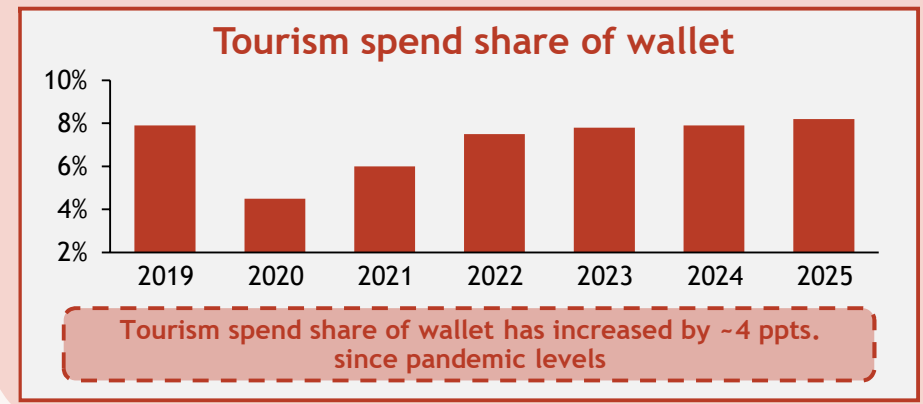
Record Travel Health sales despite pandemic with further growth runway

1 Leisure travel spend has regained its position as a significant consumer spending category since the pandemic (2020)

2 Encouraging near-term outlook for travel as consumers are increasingly prioritising leisure travel

3 Travel demand expected to surpass pre-pandemic levels by mid-2024 - estimated annual growth rate of +6% going forward

4 Higher demand for travel vaccines expected due to greater diversity in travel destinations - travel destinations post pandemic travel restrictions were characterised by “safe locations”



- Notes: Air travel demand based on revenue passenger kilometres (RPK), which is calculated by multiplying the number of paying passengers by the total distance travelled
- Sources: IATA; International Monetary Fund; IHS Markit; Johns Hopkins University; UNWTO; Numbeo; Bain CO2 emissions planning model; Bain analysis: <https://www.bain.com/insights/air-travel-forecast-interactive/>; WTM Global Travel Report by Oxford Economics, <https://my.oxfordeconomics.com/reportaction/3030abDAef3e47b58a5424/Toc>



Continue focus on key markets while expanding global footprint

North America



44% of total sales contributed by North America in 2023 (43% of TH sales)

KAM-based model driven by contracts and pricing


Existing market



Expansion focus ('24-25)





DACH




16% of total sales contributed by DACH in 2023 (43% of TH sales)

Representative- / KAM-based model driven by HCPs / travel clinics / tenders


Existing markets

Expansion focus ('25-26)




RoW



40% of total sales contributed by RoW in 2023 (16% of TH sales)


Representative- / KAM- and partner-based model driven by HCPs / travel clinics / tenders

Existing markets



+ 8 partner countries

Expansion focus ('24-26)



Large growth potential in US for Travel Health

Strength of portfolio

RabAvert®
Rabies Vaccine

Market leader with 71%MS

- Less than 0.5% of travellers to endemic countries receive pre-exposure prophylaxis
- Opportunity to expand the market through disease awareness campaign

Vivotif®
(Typhoid Vaccine Live Oral Ty21a)
Capsules

Challenger with 20%MS

- Establish Vivotif as the optimal choice for individuals who prefer an oral medication

Vaxchora®
(Cholera Vaccine, Live, Oral)
100 mL Oral Suspension

Only cholera vaccine approved in the US

- Increase HCP and traveler awareness of cholera to boost vaccination rates

CHIKV VLP

Potentially second entrant with a well differentiated profile

- Convenience, fast protection and safety



US Travel Health: Strong foundation has been laid for further growth

Early wins on journey towards Leadership in Travel Health

Sales and marketing initiatives

- Aligned Vivotif and Vaxchora to our strategic account selling model focused on key segments (travel clinics, retail, GPOs/IHNs, and DoD/govt.)
- Expanded Vet Tech Educational programs to include Veterinarians
- Non personal promotion capabilities added to activate both prescribers and travellers

Customers and reach

- Tripled Vivotif and Vaxchora reach by adding to existing contracts
- Continued partnership with the largest network of travel clinics in the US
- Contracts in place with the two largest US retail chains (CVS, Walgreens) and with major group purchasing organizations (GPOs), i.e., Vizient
- Vivotif and Vaxchora added to Federal Supply Schedule

Vivotif market share



Initiatives to deliver further growth



Omnichannel sales & marketing

Marketing-driven Non-personal Promotion; NAMs/KAMS & tele sales; Wholesaler/Distributor Supplier Marketing Programs



Tailored contracting with customers

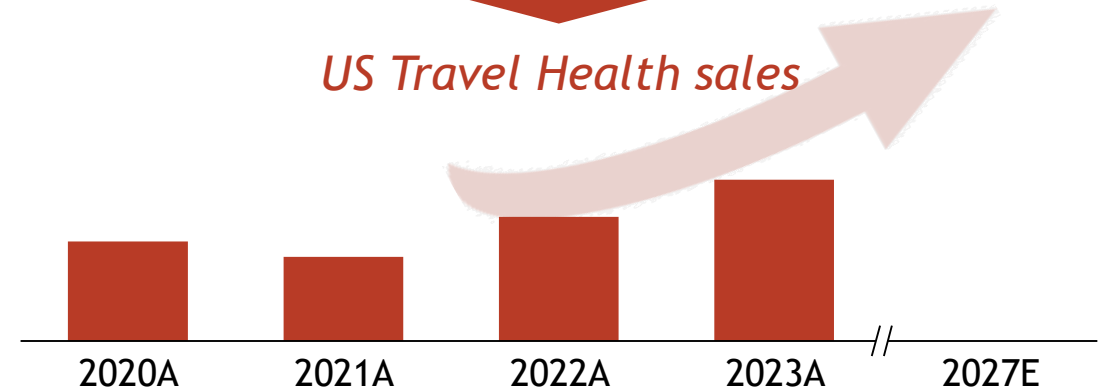
Wholesalers, Distributors, IDN's, GPO's, Retailers, Travel Segment



Operational excellence

Supply reliability, Customer service...

US Travel Health sales





CHIKV VLP : An ambition to launch a leading global brand in 2025



Significant opportunity with estimated global travel market size of \$500M

- Right behind the first entrance to the market with large medical need and sizeable opportunity with c. 166m travels p.a. to endemic countries, but limited awareness of vaccine benefit and needs



Launch team with hands-on experience and strong track record

- Launch of tracking tool at global and regional level to monitor progress
- Continuous development of launch capabilities in key markets



On a mission to develop deep customer insights for launch

- Extensive market research program ongoing across key markets



Building confidence with regulators and recommending bodies

- Engaging with key stakeholders and leveraging strong clinical profile with a well differentiated vaccine offering, unique combination of convenience, fast protection, and safety







Committed to establishing CHIKV VLP as a preferred brand

- Aligned branding confirmed by FDA and EMA
- Developing a unique and distinctive positioning followed by impactful disease awareness and promotional campaigns



A trusted Public Preparedness partner supporting key stakeholders

	Smallpox			Mpox	
A significant public health threat	<ul style="list-style-type: none">Smallpox is considered a top threat to biological defensePopulation immunity is waningPotential threat of other re-emerging orthopox virusesGeopolitical tensions, biotech advancements, and AI potentially increase the threatEstimated 600-700 MD of 1st/2nd generation smallpox vaccines in stockpile			<ul style="list-style-type: none">Endemic in West and Central African countriesThe global virus spread has not stoppedHigh uncertainty around future outbreaksClimate change and increased travel brings previously unseen diseases to developed countriesEstimation of 6-8 million individuals at risk in developed countries	
Preparedness and preparation are key in safeguarding public health					
Post-pandemic developments	Evolving local & global recommendations	Stockpile funding approved or in review	Stockpiling discussions initiated	Evolving local recommendations	Advice and recommendations issued on preventative vaccinations
Bavarian Nordic - a trusted partner	 Highly competitive products	 Responsive manufacturing capacity	 Evolving product lifecycle and regulatory expansion	 Close collaboration with key partners (governments, supranational org. etc.)	



Expand presence in US: Launch of JYNNEOS in managed market

Sizeable market potential

~2 million
population at risk (MSM) of which c. 25% are already vaccinated

>85%
of individuals at risk of HIV interested in vaccination

+53%
of cisgender men who reported sex with another man in the past year reported concern about getting mpox

95%
of the US vaccines market is represented by the managed market

Regulatory tailwinds opening access to US managed market

✓ **CDC's ACIP unanimous positive vote**

CDC advisers vote to recommend routine use of the mpox vaccine to protect people at high risk of infection

By Utenia Goodman, CNN
2 minute read · Updated 4:10 PM EDT, Thu October 26, 2023



✓ **CPT Code established and Pricing Compendia notifications completed**

✓ **CDC solicitation for VFC published**

Go-to-market for **JYNNEOS™**

Market characteristics

Patient flow:

Majority of patients will likely vaccinate in retail settings while a small portion will go to physician offices

Funding:

JYNNEOS will be funded through private insurance and various government programs

Customer targeting and traction

Customer targeting:

Retail, Integrated Delivery Networks, Group Purchasing Organizations, Health Departments, Federally Qualified Health Clinics, and infectious disease clinics

Momentum with Pharmacy Benefit Managers: Optum has agreed to add JYNNEOS schedules



Innovative Solutions

Russell Thirsk, EVP & Chief Operating Officer

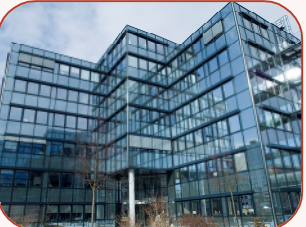
Production sites and strategic partnerships

Broad expertise, reliable supply, global quality and compliance standards

 Bavarian Nordic sites



Kvistgaard, Denmark



Munich, Germany



Bern, Switzerland



 CMOs



Our manufacturing sites

Extensive vaccine manufacturing capabilities and platforms



State of the art manufacturing facilities



Strong quality and compliance standards



Globally licensed



Expansion capacity



Key technologies to produce a variety of vaccines

1

Mammalian cell culture capabilities up to 2000 L

2

CEF cell culture with BSL 3 containment

3

Liquid and lyophilized sterile product filling

4

Capsule & sachet filling (oral products)

Proven supply capability - meeting demand during mPox outbreak

Public preparedness

Ready to deliver our proprietary MVA platform:



- Capacity increased 4x since 2022
- Flexibility to respond to evolving needs
- End to end in house production supplemented by 3rd party surge capacity

Jynneos Lifecycle Focus areas

1. Shelf life
2. Stock piling and private market presentations
3. Continuous cost improvement



Expanding our capabilities

Supply capabilities

1

TBE &
Rabies

- Tech transfer will conclude in 2024 on plan
- Capacity ramp underway to supply growth ambition
- Opportunity for further internalization

2

Cholera &
Typhoid

- End to end manufacturing in house with capacity to support significant growth

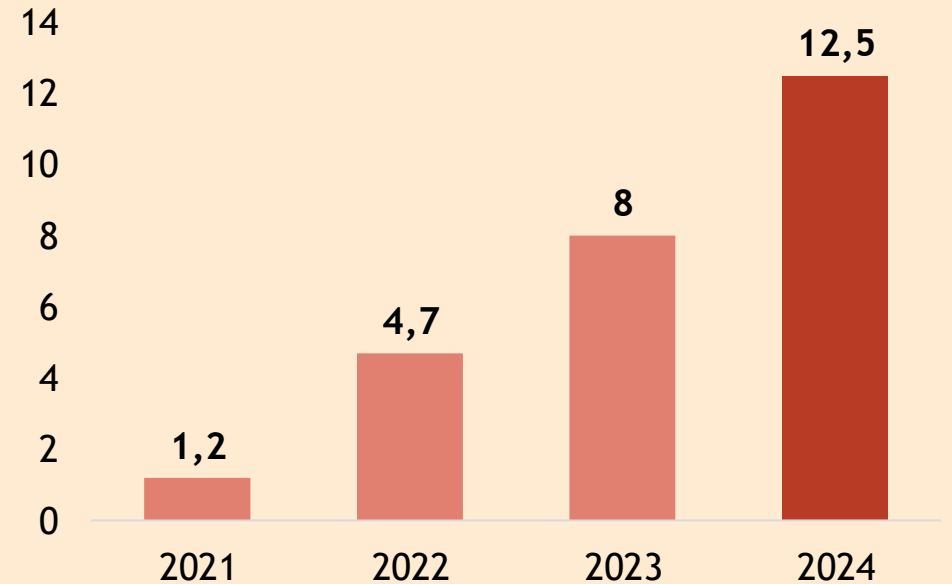
3

CHIKV

- Manufacturing set up complete, post launch scale up planned
- Inventory build for launch underway

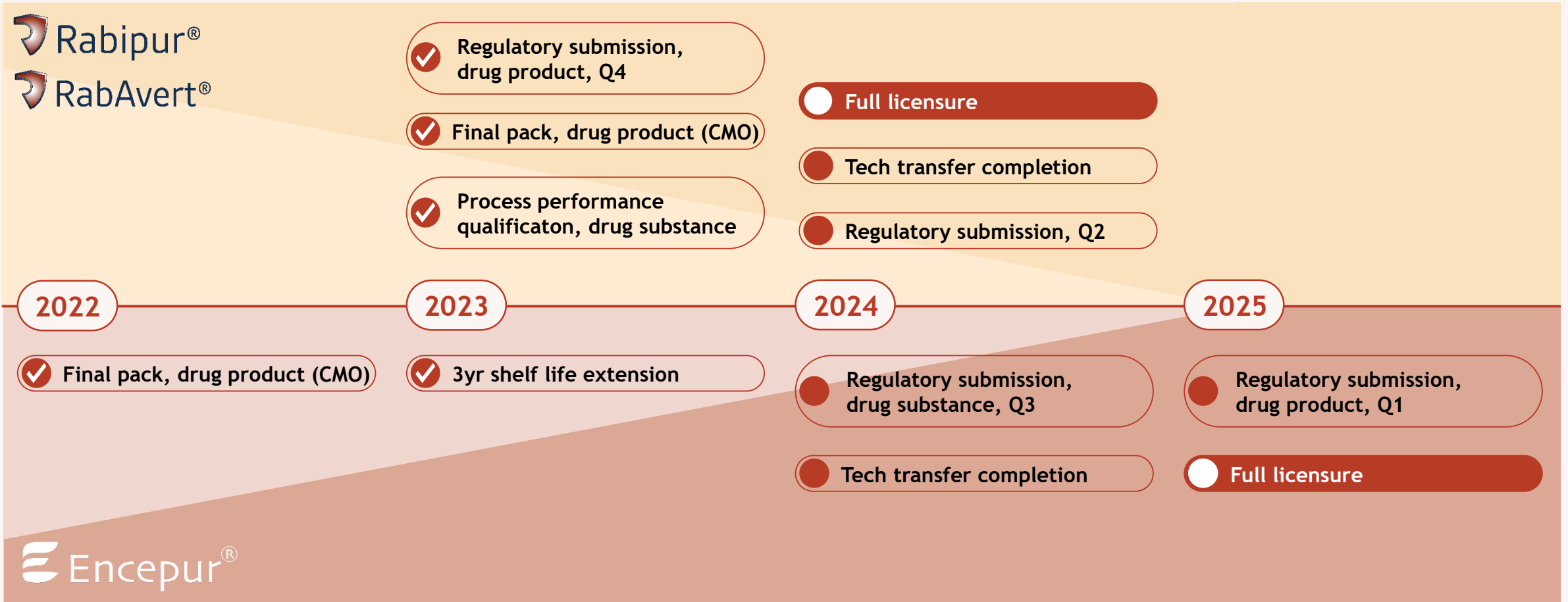
Vaccine doses produced

Million



Total BN and manufacturing network.

Tech transfer of Encepur & Rabipur/RabAvert nearing completion



Strengthening our portfolio with targeted investment in product life cycle management

Selected activities in 2024

 **JYNNEOS™**
(Smallpox and Monkeypox
Vaccine, Live, Non-replicating)

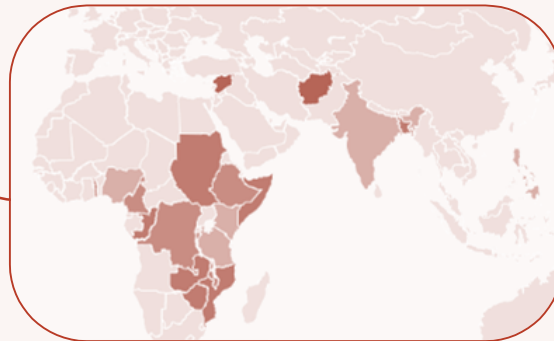


Freeze-dried
BLA submission

 **Vaxchora®**
(Cholera Vaccine, Live, Oral)
100 mL Oral Suspension



Endemic market
presentation



 **Vivotif®**
(Typhoid Vaccine Live Oral Ty21a)
Capsules

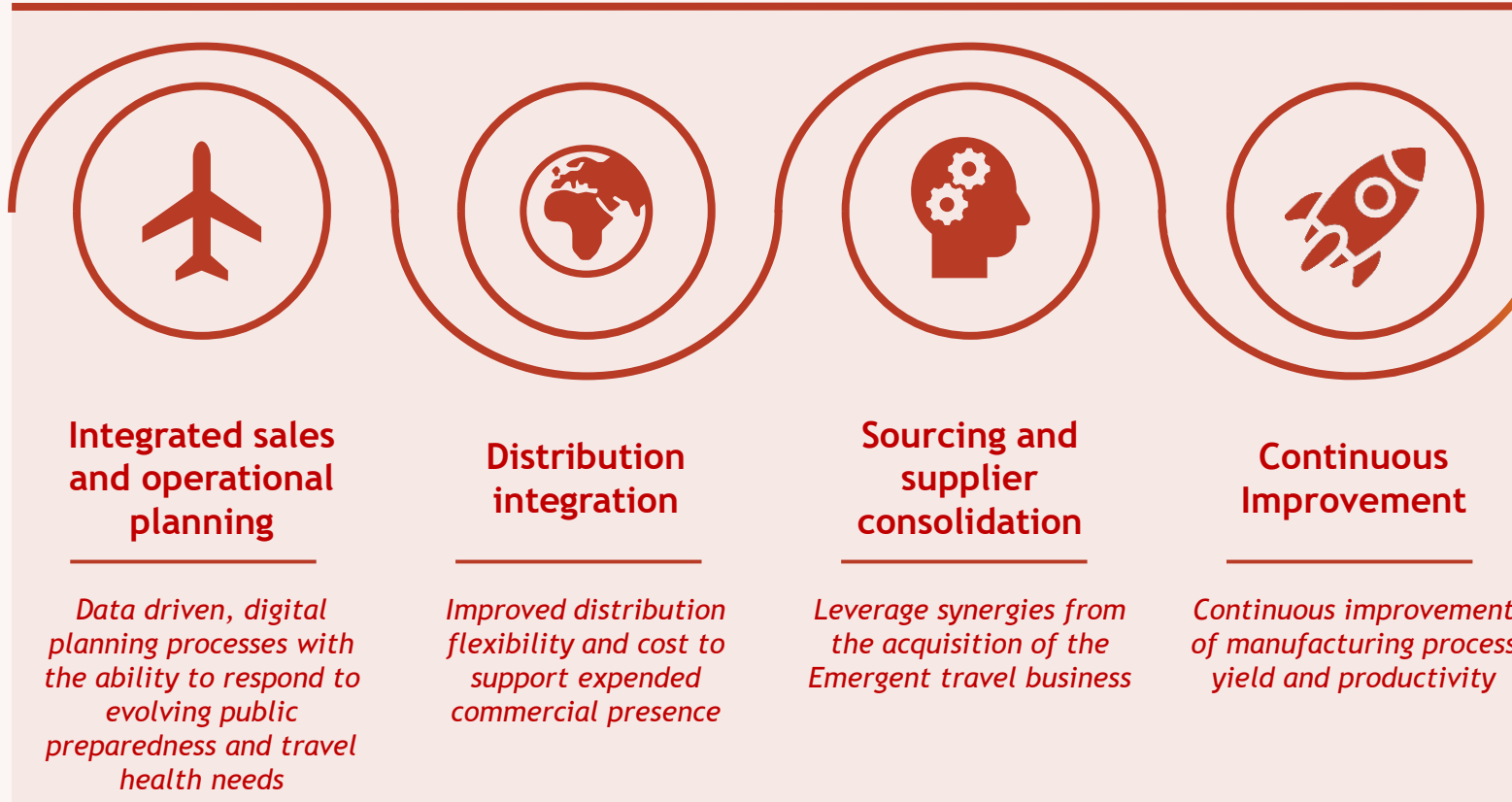


Shelf-life extension

 **Encepur®**

Building a reliable and sustainable supply chain

Improving our supply capabilities



In the right way





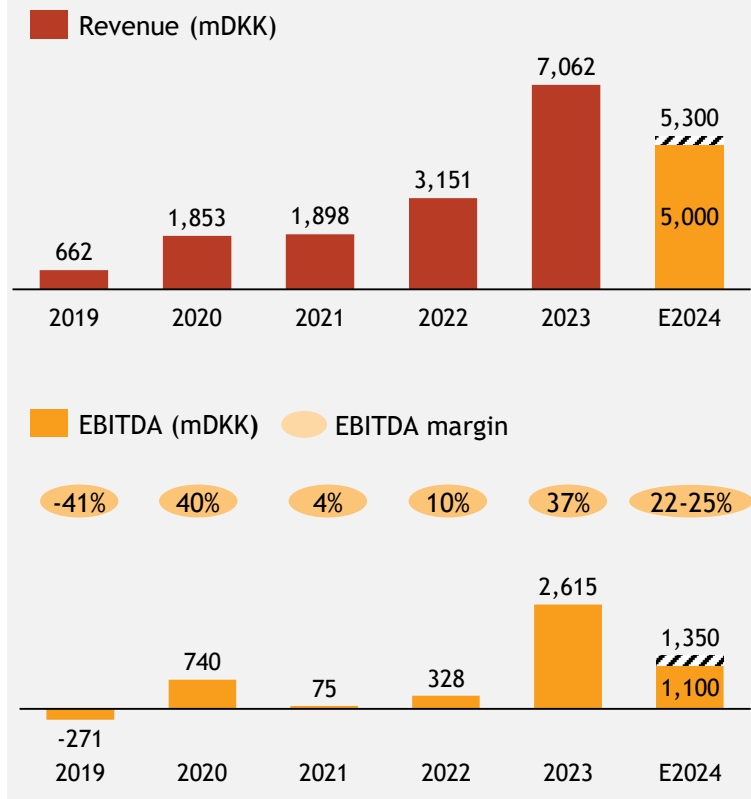
Financials

Henrik Juuel, EVP & Chief Financial Officer

Outlook and mid-term ambitions

A profitable business with further improvement opportunities

Delivery of profitable growth...



2023A numbers are preliminary and non-audited

...with strong near-term outlook...

Outlook 2024

mDKK	2024
Revenue:	5,000 - 5,300
EBITDA	1,100 - 1,350
EBITDA margin	22% - 25%

Key assumptions

- Travel Health: Approximately 2,100 mDKK
- Public Preparedness: 2,700 - 3,000 mDKK
- Other Revenue: Approximately 200 mDKK
- R&D: Approximately 850 mDKK, of which CHIKV represents nearly half
- CHIKV manufacturing costs of ~240mDKK with EBITDA margin impact of approx. 5 p.p.

...and prospects of profitable growth

Financial ambitions to 2027

mDKK	2025-2027
Revenue:	
Travel Health, CAGR (23-27)	10-12%
Public Preparedness base business (excl spikes)	1.5 - 2.0 BN
EBITDA margin	25% - 30%

Key assumptions:

- Current business only
- EBITDA margin very sensitive to revenue level
- Gross margin on rabies and TBE vaccines will improve by approx. 15-20 p.p. from 2026 and with full effect in 2027

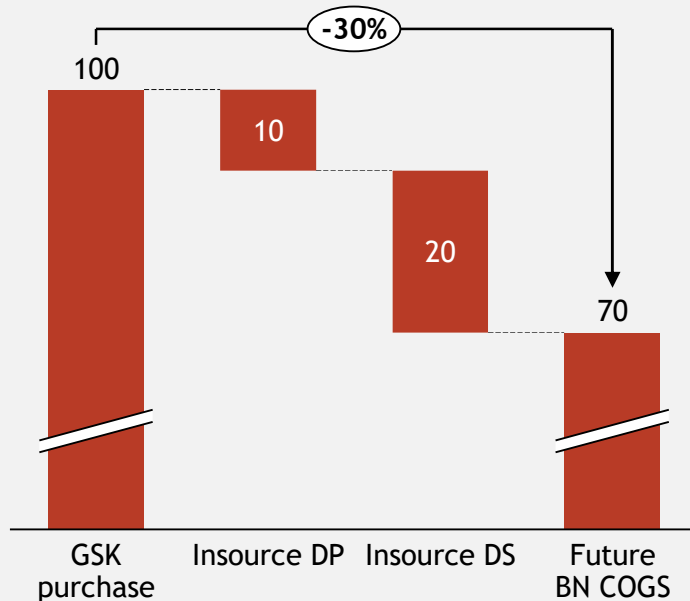
Margin improvements from tech-transfer of rabies and TBE vaccines

Approx. 30% COGS saving from TT

...driving margin improvements

...with some timelag post TT

ILLUSTRATIVE COGS SAVINGS



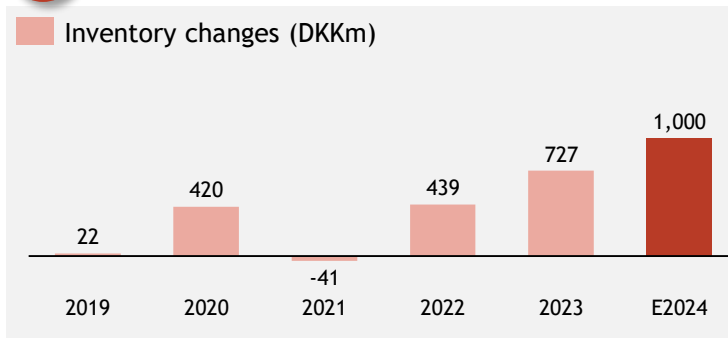
- TT complete in 2024 with licensure expected in 2024 for rabies and 2025 for TBE.
- Leading to a minimum 15-20 p.p. margin improvement depending on product.

- Effect visible from 2026 with full impact in 2027 after consumption of GSK based inventories.

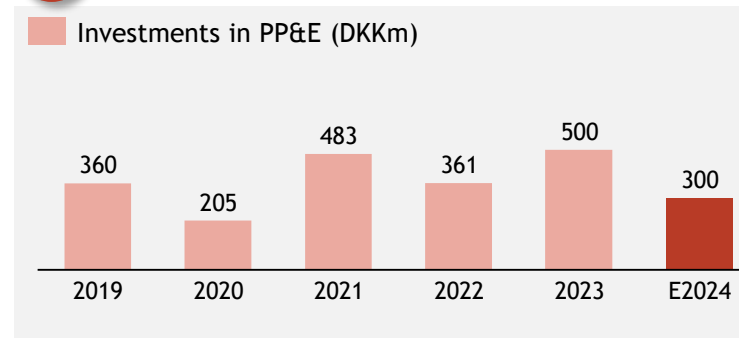
Cash conversion expected to increase from mid-2025 onwards

Significant investments in the last five years leading to...

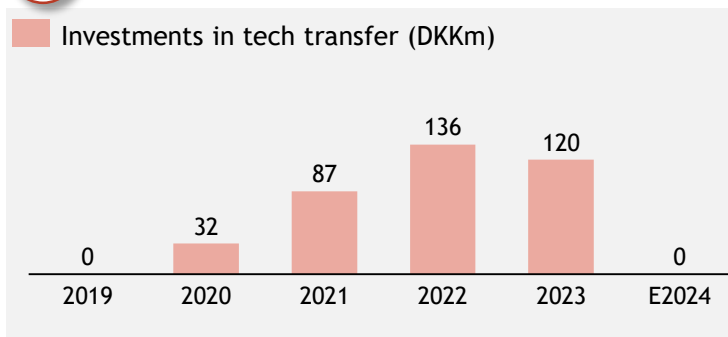
1 Investments in build-up of inventory



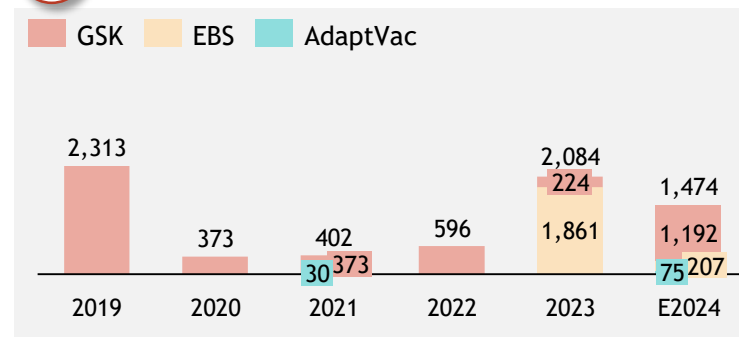
2 Fill and finish facility and new manufacturing building for Rabies / TBE completed



3 Tech-transfer investments related to rabies / TBE



4 >5bn paid in M&A considerations / milestones



2023A numbers are preliminary and non-audited

... significantly improved cash flow from mid-2025 onwards driven by...

- Inventory levels will stabilize post-2024 and then decrease due to lower COGS following expected further inventory build-up during 2024
- Decrease in annual capex expected vs. L5Y avg. (DKK 200-300m vs. DKK ~380m) excl. potential larger strategic investment
- No tech-transfer investments from 2024 onwards tech-transfer process will be completed in 2024. No more cost to be capitalized.
- All milestones will have been paid by mid-2025 DKK 2.6bn payments are outstanding to GSK, EBS and AdaptVac. DKK 1.5-1.8bn to be paid in 2024.



Summary and closing remarks

Paul Chaplin, President & Chief Executive Officer

Continued growth supported by multiple drivers

Successful transformation into a leading pure play vaccine company



Attractive underlying market growth



Focused on organic growth strategy



Focused R&D strategy



Opportunity to solidify profitability



Solid financial position and stronger cash flow generation going forward