

Presentation of Q3 2023 Results

# Innovative vaccines for a healthier world

16 November 2023

**EXPRES<sup>2</sup>ION**

BIOTECHNOLOGIES

Expres<sup>2</sup>ion Biotech Holding AB  
Org. Nr. 559033-3729

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# Management Discussion and Analysis



# ABNCoV2 COVID-19 Booster Vaccine

A unique vaccine based on ExpreS2™-made antigen and AdaptVac's VLP technology

- Phase I, started 2020, completed 2021, conducted under PREVENT-nCoV consortia (biotech and academia partners)
- Phase II, started 2021, completed 2022, sponsored by Bavarian Nordic
  - June 2023: 12 months' durability data
  - **Clinical proof of concept – THE ONLY NON-ADJUVANTED VLP WITH LONG-TERM PROTECTION**
- Phase III, started 2022, data in 2023, sponsored by Bavarian Nordic
  - June 2023: Meeting primary end-point
  - **DEMONSTRATING NON-INFERIORITY AGAINST A COMMERCIAL mRNA COVID-19 VACCINE (COMIRNATY®)**
- Same clinically Phase III-validated technology platforms applied in our therapeutic breast cancer vaccine ES2B-CO01





# Q3 update on ABNCoV2 Phase III

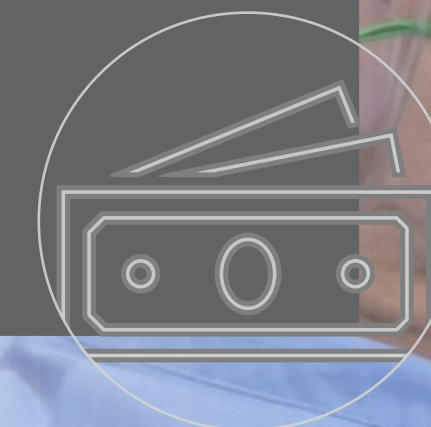
- Bavarian Nordic (BN) reported the secondary endpoint results for their Phase III clinical trial
- Did not successfully meet secondary endpoint: to demonstrate protection against the XBB.1.5 variant
- BN concludes, “No commercial opportunity for the vaccine”

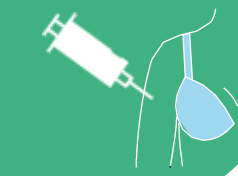
**Update on  
COVID-19 booster  
vaccine program**



- Reduced options for raising capital
- Assumptions for T08 warrant subscription proceeds changed:
  - SEK 54.5M prospects at April 2023 rights issue, became SEK 3.4M raised
- Proceeds planned for the development of ES2B-C001/breast cancer vaccine
- Consequently, ExpreS<sup>2</sup>ion initiated a strategic review

**Impact on  
ExpreS<sup>2</sup>ion**





# Promising preclinical data package

- We have developed ES2B-C001, a HER2 VLP vaccine candidate to be tested in HER2+ breast cancer patients
- ES2B-C001 completely prevents tumor development after only 2 vaccinations in mice
- The vaccine induces strong and persistent antibody responses as well as T cell responses in mice
- E2B-C001 inhibits the onset, growth, and metastatic spread of HER2+ mammary carcinomas in mice
- The generated antibodies inhibit human HER2+ breast cancer and gastric cancer cells in vitro
- Tox studies completed in rats, and GLP tox studies are in progress in NHP, to be completed by end of 2023
- Regulatory interactions conducted to ensure alignment across CMC, nonclinical and clinical Phase I study
- Clinical CRO selected and qualified
- Fully outsourced setup “ready-to-go” to prepare and execute first-in human (FIH) study
- **CTA package and launch study could proceed in 2024 pending securing funds and/or partnership**
- Huge potential for HER2-low breast cancer, gastric cancer and other HER2 expressing cancers

# Strategic review

Announced in August 2023

- Strategic evaluation of ES2B-C001
  - Certain activities to advance towards CTA readiness to continue, including the ongoing GLP preclinical safety toxicology study
  - Investigating strategic options
- Initiating a cost reduction program
  - Near-term cash position enables us to maintain the current activity level into 2024
  - Aim to materially extend the runway beyond that in a tight funding market
- Identify how to best create value with our unique technology platform, expertise and exploratory pipeline projects
  - Develop innovative vaccines with a faster and less costly path to value creation



# Leadership

Greater than 200 years deep professional experience to support a pipeline-driven business

## Management Team



**Bent U. Frandsen, CEO**

- MSc in Finance/Strategic Management, Copenhagen Business School, Denmark
- >25 years industry finance, business dev. and management experience



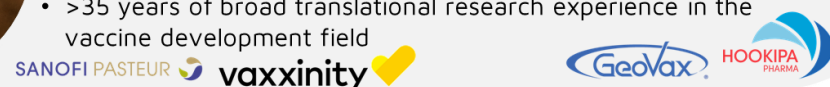
**Keith Alexander, CFO**

- MBA, The Wharton School and the University of Pennsylvania, USA
- >20 years of equity research, corporate strategy, asset management and consulting experience



**Dr. Farshad Guirakhoo, CSO**

- PhD in Virology from the Medical University of Vienna, Austria, and an MSc in Genetics from the International Institute for Biophysics and Biochemistry at the University of Tehran
- >35 years of broad translational research experience in the vaccine development field



**Dr. Max Soegaard, SVP of R&D and Technology**

- PhD in Biochem., UCL, UK, and MSc in Molecular Biology; AU, Denmark
- >20 years academic and industrial research experience



## Board of Directors



**Dr. Martin Roland Jensen, Chairman**

- PhD. in Molecular and Cell Biology, Univ. of Copenhagen, Denmark
- >35 years biotech industry management and co-founder experience, incl. scientific work in immunology and cancer vaccine development



**Jakob Knudsen, Board Member**

- Law Degree from Univ. of Copenhagen, and MBA, Imperial College, UK
- >25 years commercial experience from international biotech industry



**Dr. Karin Garre, Board Member**

- MD, from University of Copenhagen, Denmark
- >30 years bio-industry management and drug development experience from early to late-stage phases and registration



**Sara Sande, Board Member**

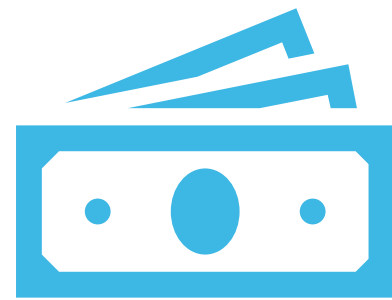
- MSc in Economics, from University of Copenhagen, Denmark
- >20 years leadership experience in high-tech B2B companies, incl. sales excellence, strategy and commercial development



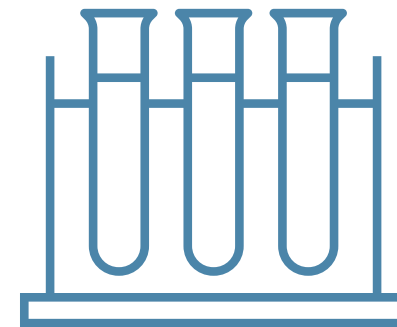


# Outcome of strategic review (I)

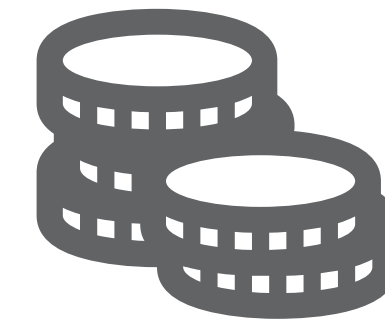
Cost reductions



Cut over SEK 50 million in costs



Reductions primarily in R&D, personnel and facilities



Cash runway into 2025

# Outcome of strategic review (II)

ES2B-C001 breast cancer vaccine candidate

Halted plan for CRO-driven Phase I clinical trial



Continuing preparations for advancing into clinical development

Preclinical safety studies

GMP manufacturing

Regulatory alignment



Evaluating other development options

Investigator-driven  
Phase I clinical trial

Asset sale

Partnership

Out-licensing



# Outcome of strategic review (III)

Other activities, including other pipeline assets and platform development



## Enhancing focus on certain exploratory pipeline projects

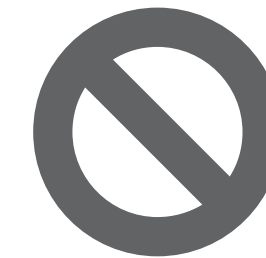


## Qualification of various factors driving prioritization

Timeline leading to value inflection points

Project funding status – non-dilutive (i.e. grant) funding a significant advantage

Cost/benefit analysis



## Saying “no” to lower priority activities

CRO projects must meet more stringent requirements

Exploratory activities must be grant funded or when resources permit



# Other Q3 updates

Updates to Malaria pipeline



- 1 Candidate in Phase II clinical trial
- 3 Candidates in Phase I clinical trials
- 3 New clinical trials expected to be initiated over the next year
- 2 Discontinuing updates on two programs



# Pipeline

## Updates to legacy programs





Disease	Project / Target	Discovery	Pre-clinical Pharmacology	cGMP / Tox	Phase 1	Phase 2	Phase 3	Market potential
<b>MALARIA</b> 								>1.8 billion EUR
Blood-Stage	RH5.1					IIb		
Blood-Stage	RH5.2-VLP				Ib			
Placenta-Borne	VAR2CSA				Ib			
Transmission	Pfs 48/45				Ia			
Blood-Stage	RH5.1 + R78C				Ia			
Blood-Stage	CyRPA complex							
<b>INFLUENZA</b> 	INDIGO							> 7 billion EUR

Note: Legacy programs were set up prior to the Company's transition into a pipeline-driven biotech company in 2020, and are driven primarily by academic consortia.

Malaria: Data bridge market research, Global Malaria Vaccines Market – Industry trends and Forecast to 2029, 2022 · Influenza: Fortune Business Insight, Influenza Vaccine market size 2022-2029, 2022

# Pipeline

## Legacy programs

Disease	Project / Target	Discovery	Pre-clinical Pharmacology	cGMP / Tox	Phase 1	Phase 2	Phase 3	Market potential
<b>MALARIA</b> 								<b>&gt;1.8 billion EUR</b>
<b>Blood-Stage</b>	RH5.1					IIb		
<b>Blood-Stage</b>	RH5.2-VLP				Ib			
<b>Placenta-Borne</b>	VAR2CSA <sup>1</sup>				Ib			
<b>Transmission</b>	Pfs 48/45				Ia			
<b>Blood-Stage</b>	RH5.1 + R78C				Ia			
<b>Blood-Stage</b>	CyRPA complex <sup>1</sup>							
<b>INFLUENZA</b> 	<b>INDIGO</b>							<b>&gt; 7 billion EUR</b>

Note: Legacy programs were set up prior to the Company's transition into a pipeline-driven biotech company in 2020 and are driven primarily by academic consortia.






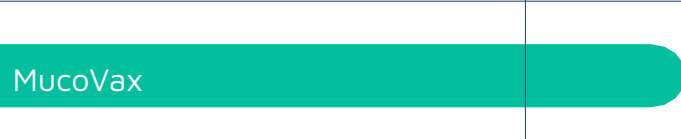



Malaria: Data bridge market research, Global Malaria Vaccines Market – Industry trends and Forecast to 2029, 2022 · Influenza: Fortune Business Insight, Influenza Vaccine market size 2022-2029, 2022

<sup>1</sup> No further update to be provided. See pipeline section for additional details.





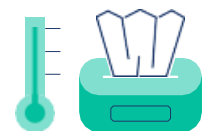


# Pipeline

## Focus programs

Disease	Project / Target	Discovery	Pre-clinical Pharmacology	cGMP / Tox	Phase 1	Phase 2	Phase 3	Market potential
COVID-19 <sup>1</sup>	 ABNCoV2/SARS-CoV-2 cVLP							> 10 billion EUR
BREAST CANCER	 ES2B-C001/Her2 cVLP							> 10 billion EUR
INFLUENZA <sup>2</sup>	 MucoVax							> 7 billion EUR
CMV <sup>3</sup>	 ES2B-I002							> 2 billion EUR
Exploratory	Undisclosed							

<sup>1</sup> Developed in collaboration with AdaptVac ApS and other partners and out-licensed to Bavarian Nordic. <sup>2</sup> A joint discovery with the University of Copenhagen. <sup>3</sup> A joint discovery project with Evaxion Biotech A/S  
 COVID-19: ExpreS<sup>2</sup>ion 2024 estimate based on 2023 market size and CAGR through 2028 from Statista, as of 31 July 2023 · Breast Cancer: Global Data, 2022, for HER2+ breast cancer  
 Influenza: Fortune Business Insight, Influenza Vaccine market size 2022-2029, 2022 · CMV: Market estimate from Moderna, 41st Annual J.P. Morgan Healthcare Conference (Presentation)

# Advancing focus pipeline towards key catalysts

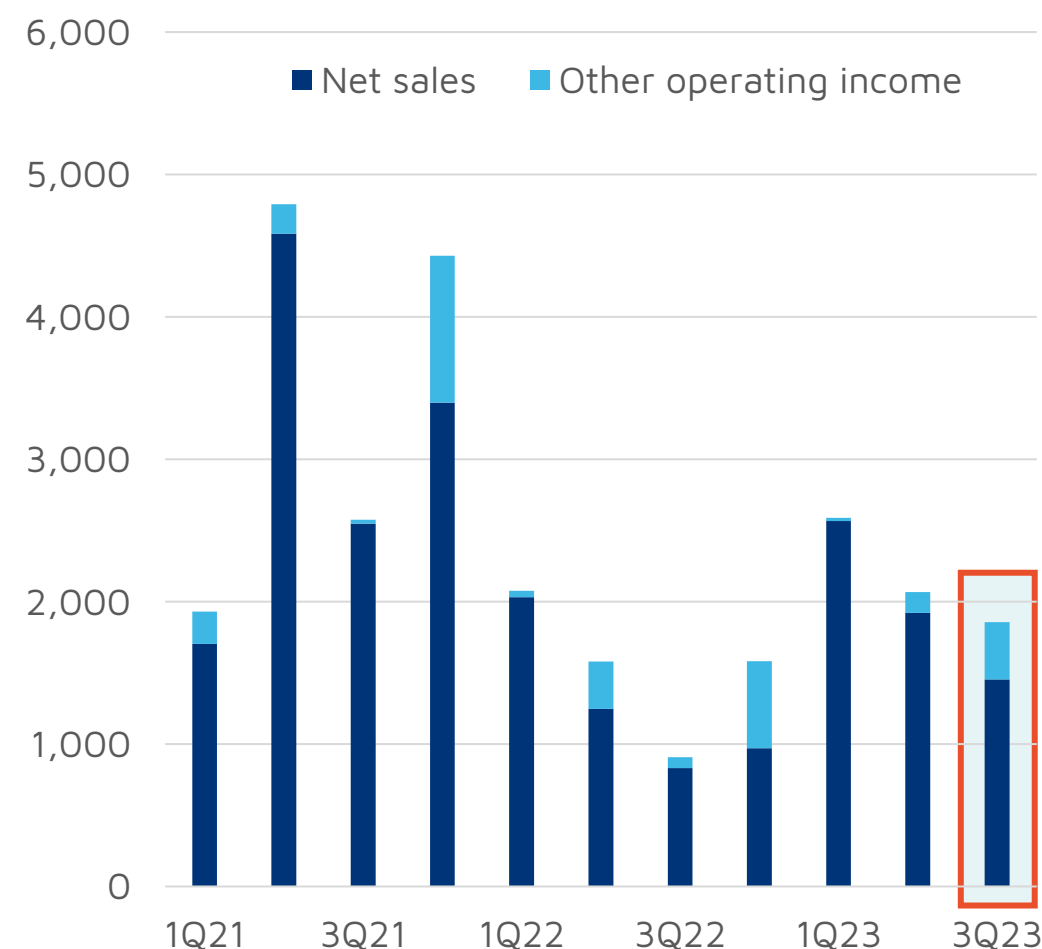
	2022		2023		2024	2025+
 <b>COVID-19</b> ABNCoV2	✓ BN Phase II trial readout H1	✓ BN Phase III trial initiation Q3	✓ BN Phase II 12-month durability data BN ✓ Phase III initial readout ✓ Phase III secondary readout X Bavarian Nordic: "sees no commercial opportunity"		Phase III milestone related income	
 <b>BREAST CANCER</b> ES2B-C001	✓ Preclinical animal proof-of-concept results H1	✓ Preclinical safety studies initiated	✓ GMP manufacturing processing ✓ Initial readout from preliminary nonclinical tox studies	GLP nonclinical tox study in NHP	Potential filing of clinical trial application  Potential initiation of first human clinical study	
 <b>INFLUENZA</b> MUCOVAX			✓ Grant award for the MUCOVAX project for intranasal vaccine	✓ Initiation of MUCOVAX project	Completion of design and production of mucosal delivery platform	Validation of influenza vaccine candidate  Optimization of vaccine to maximize efficacy in preventing severe disease and/or infection 
 <b>CYTOMEGALO-VIRUS</b> ES2B-I002		✓ Establish 50/50% partnership on cytomegalovirus vaccine with Evaxion		Early research on CMV vaccine target, applying AI	Preclinical testing of immunogenicity of CMV vaccine target	Selection of lead CMV vaccine candidate

Note: Timeline for ABNCoV2 is based on Bavarian Nordic's communicated timeline and is subject to potential revision.

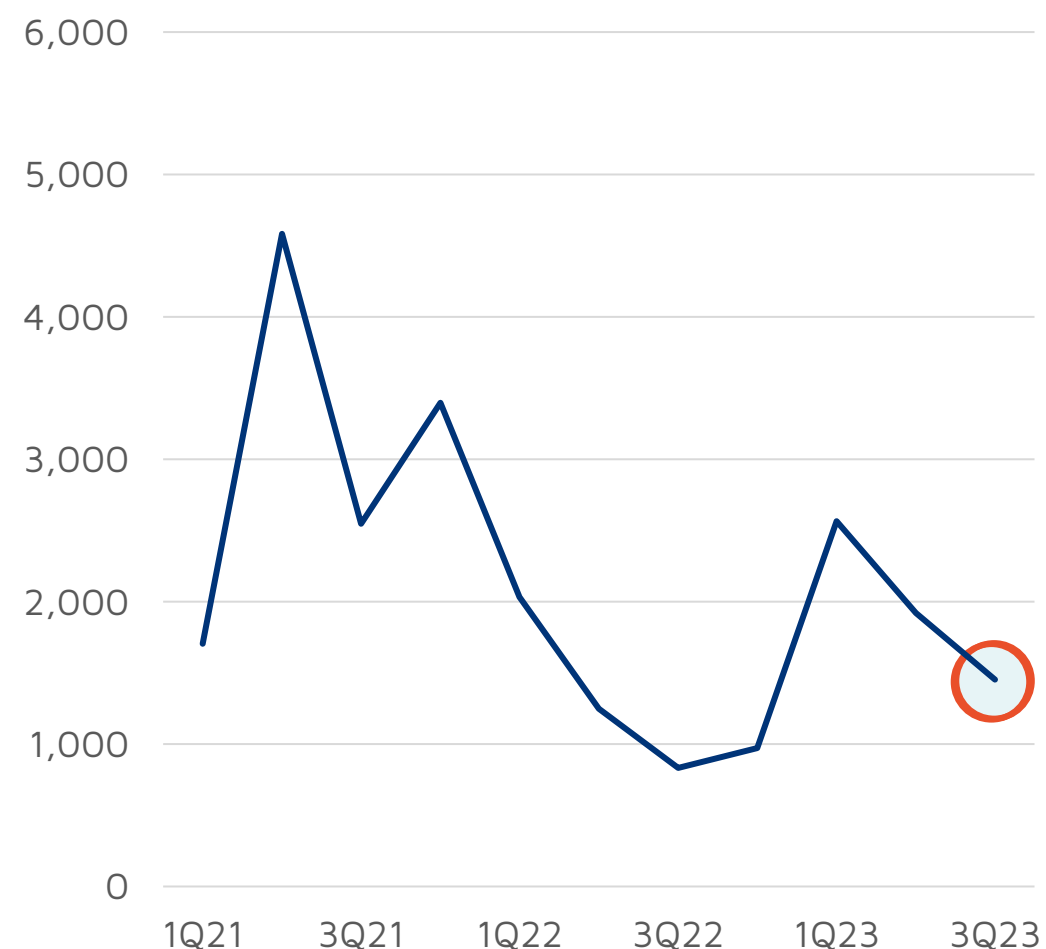
# Financial Results

# Operating income

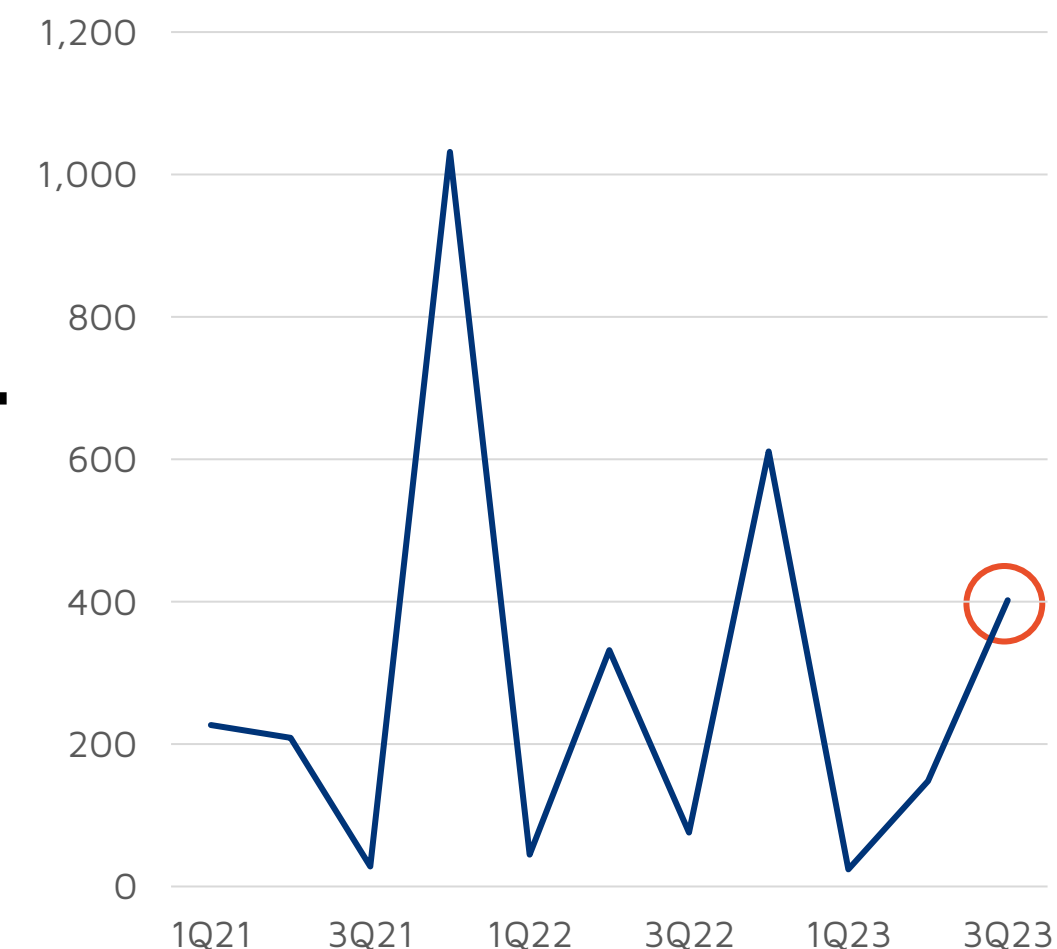
**Operating income, SEK `000s**



**Net sales, SEK `000s**



**Other operating income, SEK `000s**



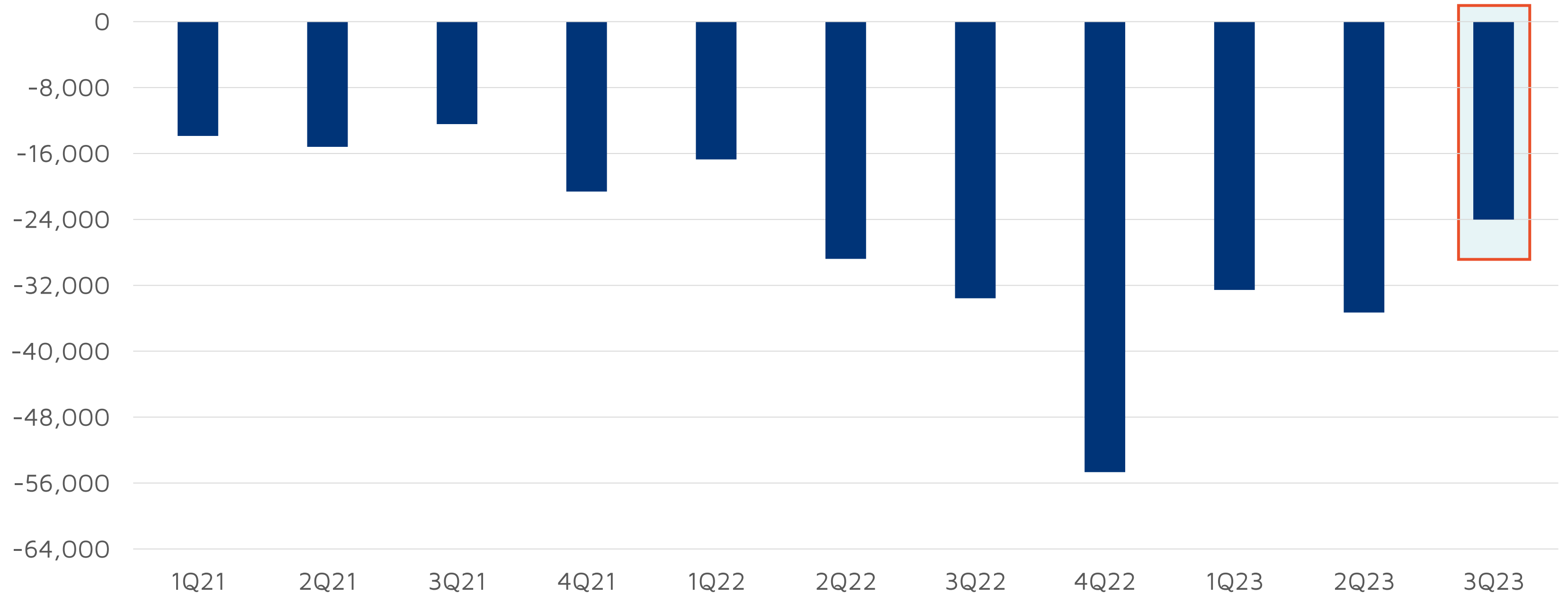
**Operating Income, SEK `000s**

	<b>2023</b>	<b>2022</b>	<b>Growth</b>
3Q	1,856	909	+104%
YTD	6,515	4,567	+43%



# Operating costs

Operating costs, SEK '000s



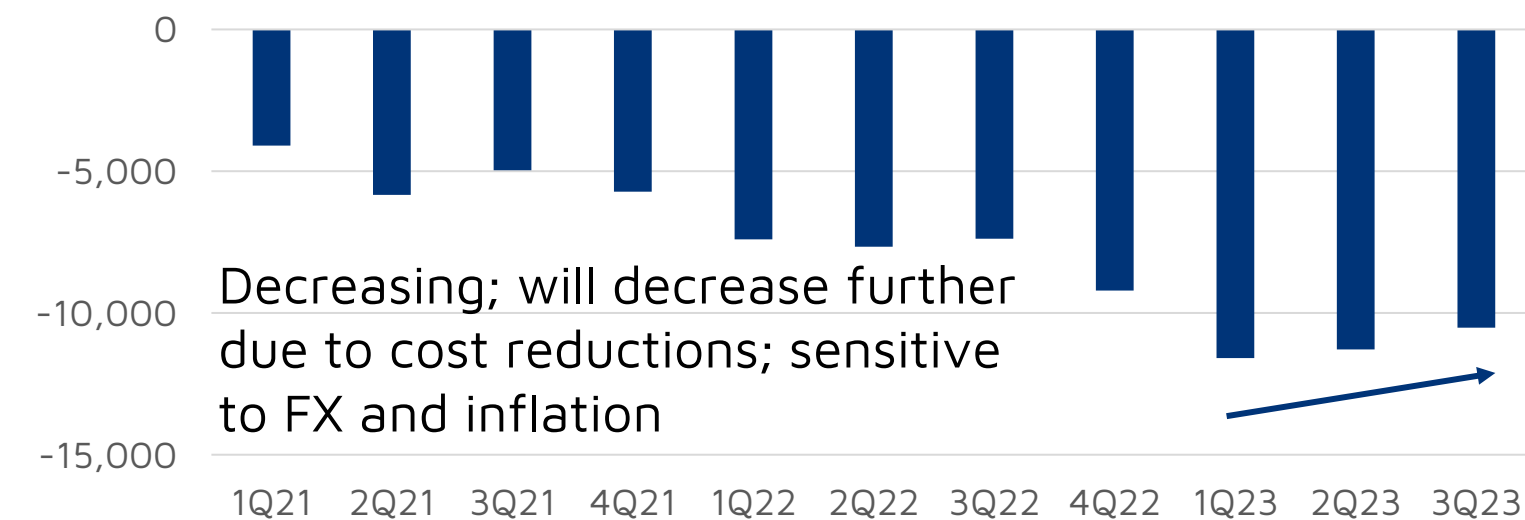
# Operating costs composition

SEK '000s

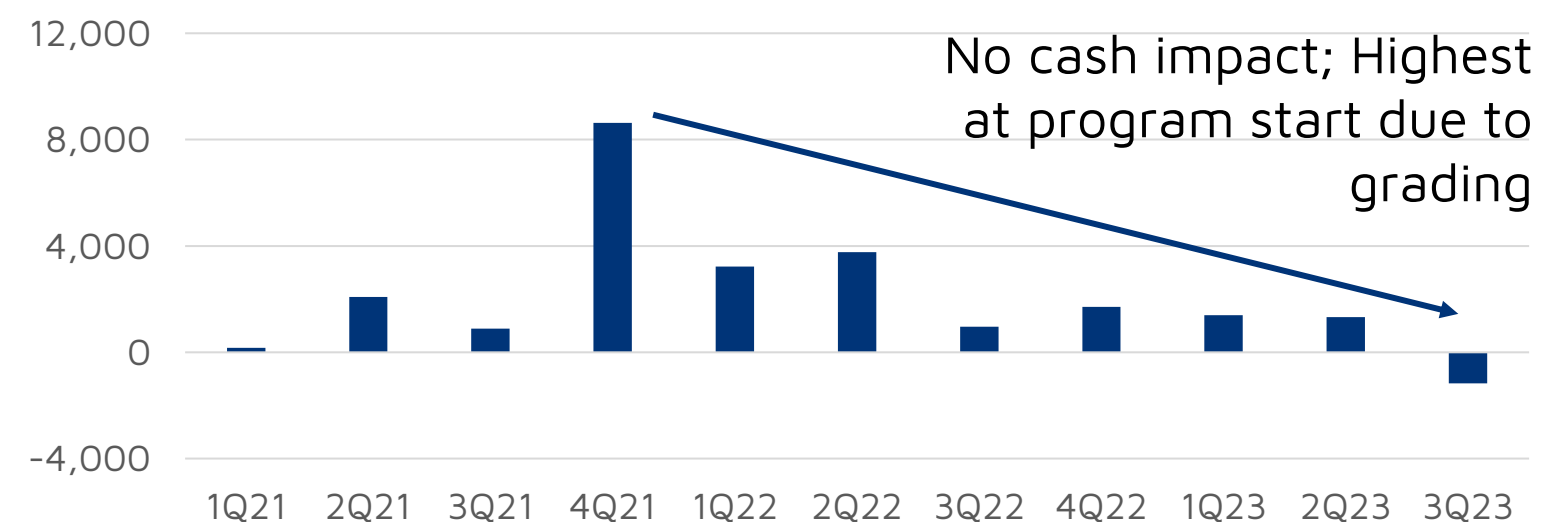
## R&D costs (external)



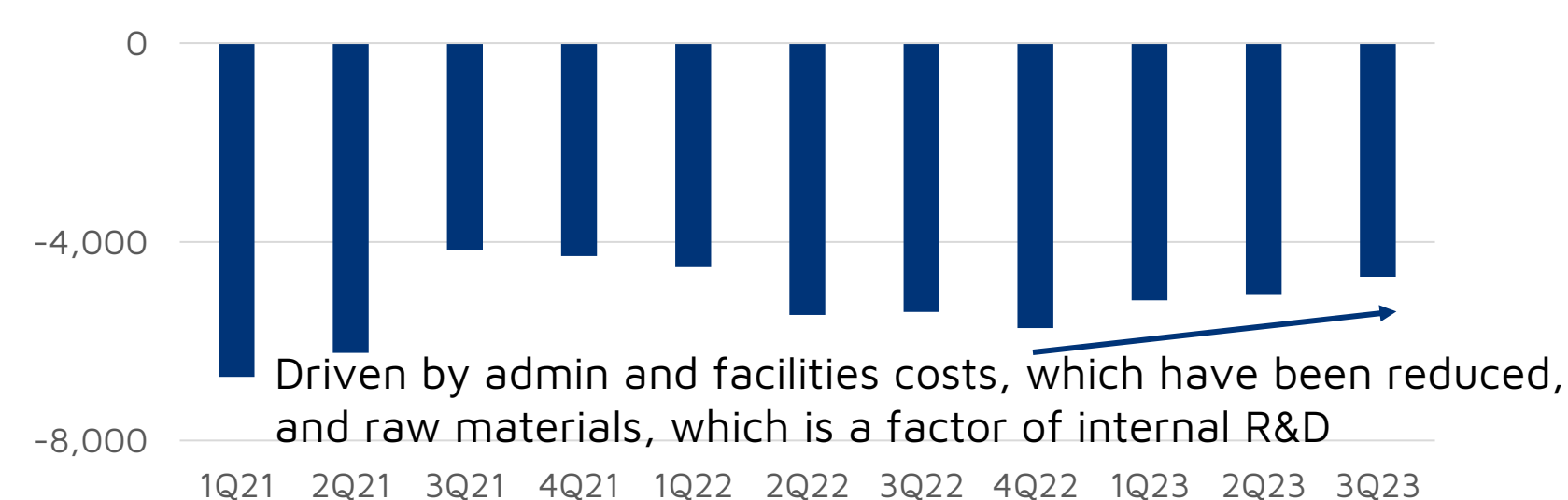
## Personnel costs excl. vesting of share-based compensation



## Vesting of share-based compensation (non-cash)



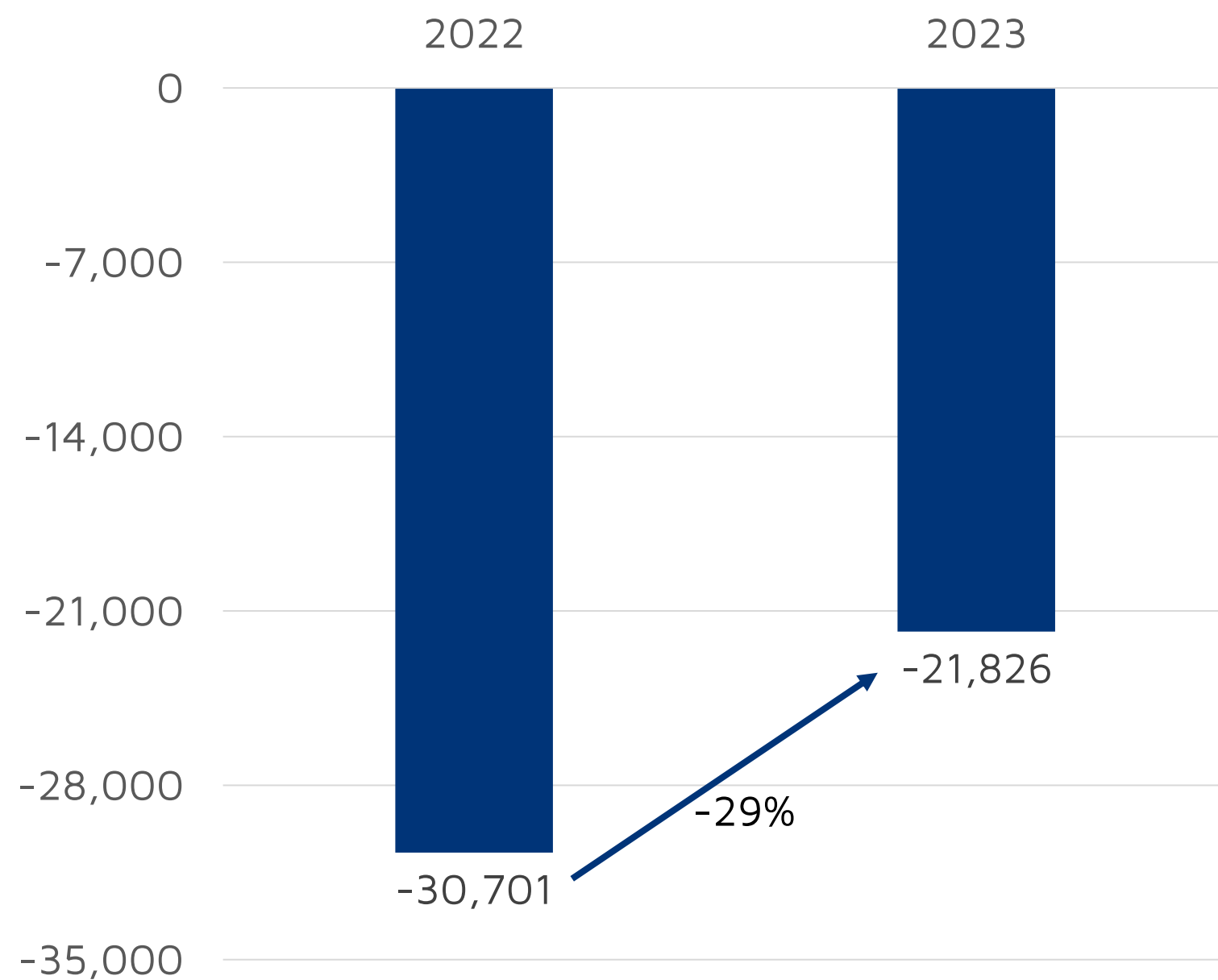
## Other (adjusted)<sup>1</sup>



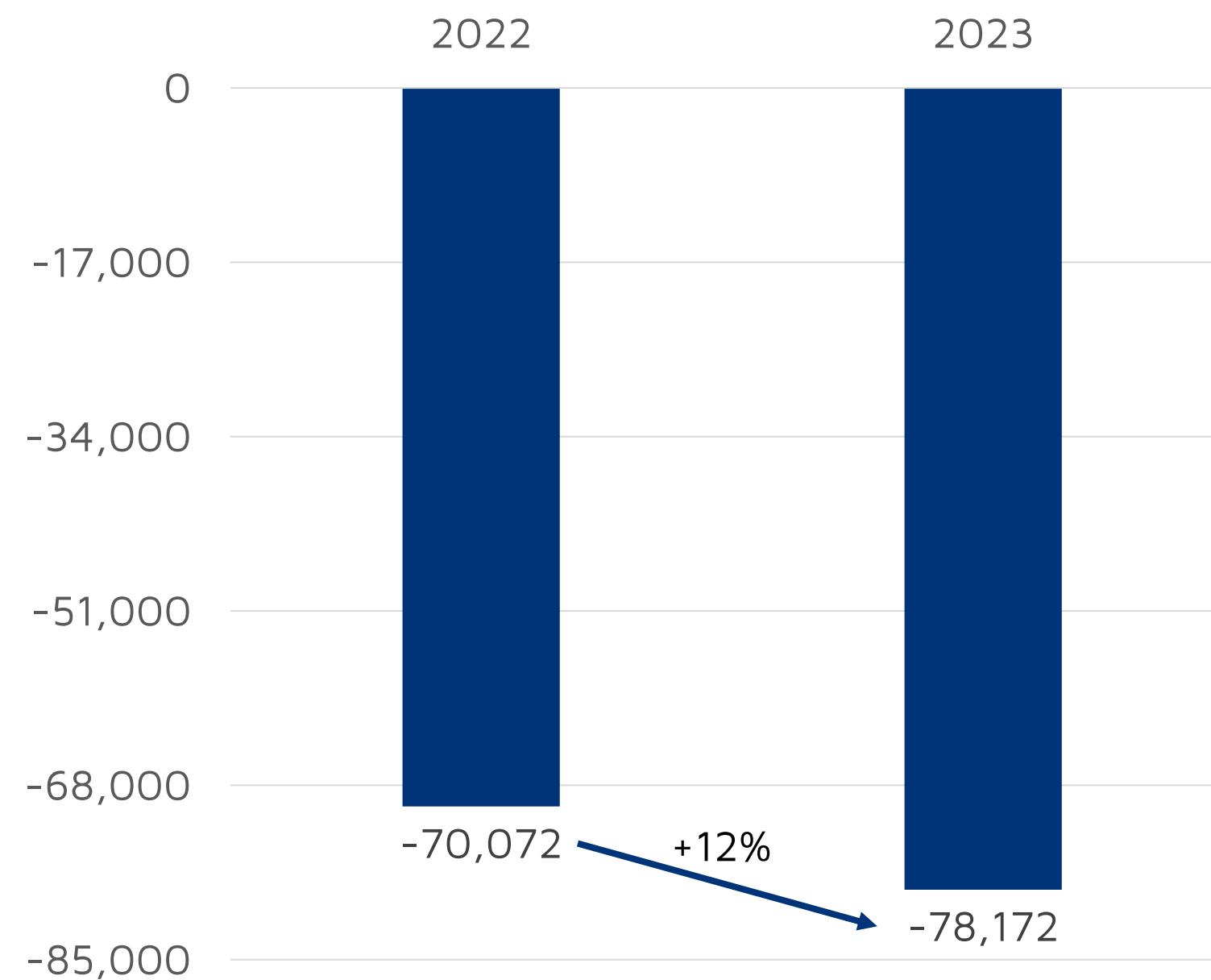
<sup>1</sup> Other includes raw materials & consumables, other external costs and depreciation of tangible & intangible assets. Q4 2020 is adjusted for external costs related to manufacturing of the COVID-19 vaccine, which temporarily increased other costs by SEK 7.1 million.

# Profit / loss for the period

**3Q profit / loss, SEK '000s**

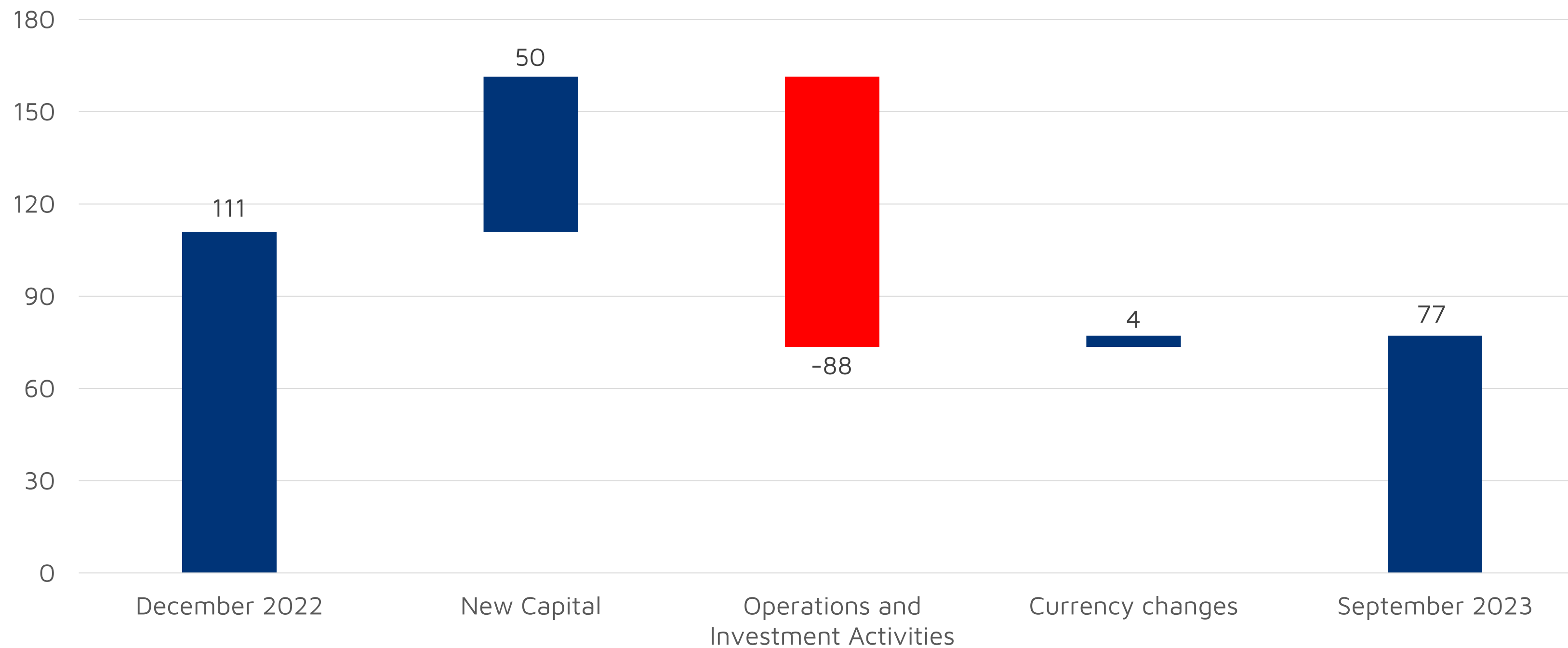


**YTD profit / loss, SEK '000s**



# Cash development year-to-date

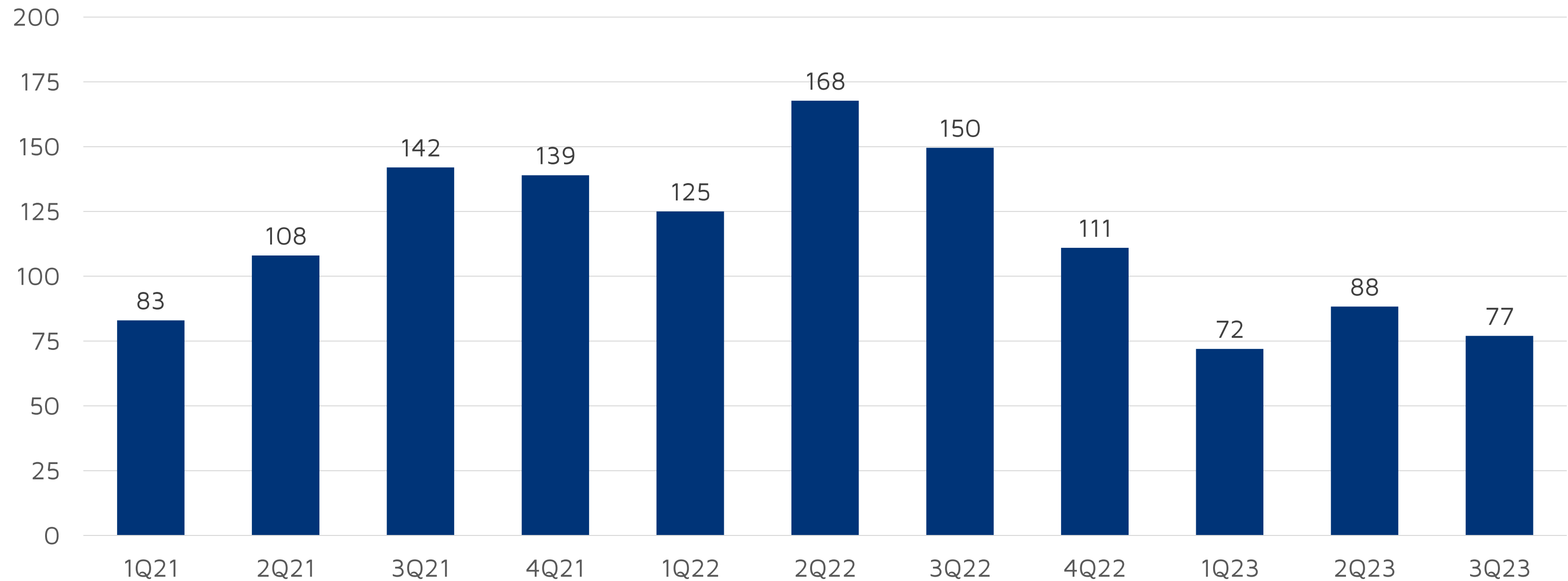
SEK millions





# Cash balance, 1Q21 – 3Q23 quarterly

**SEK millions**



# Thank you

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