

# Nanoform Management Presentation

Q3 2023 Interim Report

November 22th, 2023



# Disclaimer

## Forward-Looking Statements

This presentation contains forward-looking statements, including, without limitation, statements regarding Nanoform's strategy, business plans and focus. The words may, "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," believe, "estimate," "predict," "project," "potential," "continue," "target" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Any forward-looking statements in this presentation are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this presentation, including, without limitation, any related to Nanoform's business, operations, clinical trials, supply chain, strategy, goals and anticipated timelines, competition from other companies, and other risks described in the Report of the Board of Directors and Financial Statements for the year ended December 31, 2022 as well as our other past disclosures. Nanoform cautions you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made. Nanoform disclaims any obligation to publicly update or revise any such statements to reflect any change in expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements. Any forward-looking statements contained in this presentation represent Nanoform's views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date.





# SHORT INTRODUCTION TO NANOFORM



# Nanoform in a snapshot

## TECHNOLOGY

**Global experts in nanotechnology and drug particle engineering**

## PEOPLE

**165 employees, 35 nationalities, 39 PhD's in US, UK, and Europe**

## MEDICINES

**Staff with combined experience of launching 100+ medicines**

## FINANCE

**Strong balance sheet and institutional ownership**

## PATIENTS

**Improving lives of patients through game-changing technologies and novel formulations**

# Proprietary platform technology

## ***Small molecules***

Nanoform CESS®\* technology enables new medicines through **improved bioavailability** of the API\*

## ***Large molecules***

Our unique biologic nanoparticles enable improved administration routes, by **higher drug load** and extended long-acting delivery

## ***Formulation***

Full therapeutic potential is unlocked with nano-formulated API's, by highly differentiated novel formulations

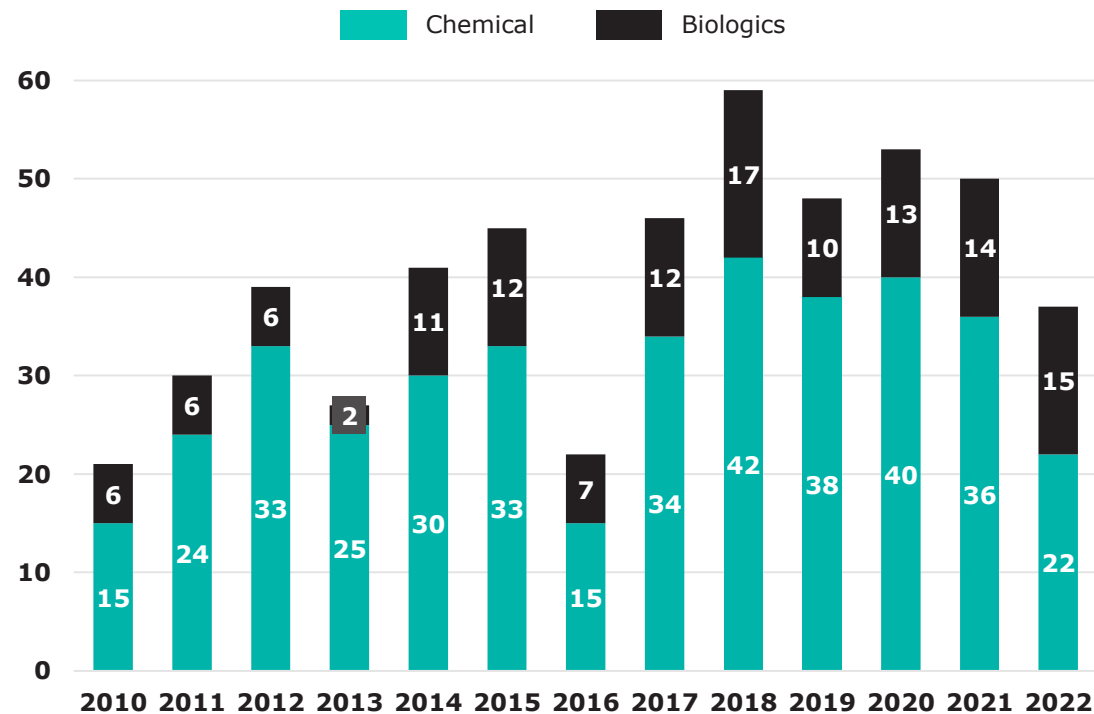
## ***AI***

STARMAP® online is the digital twin of our CESS® process. It picks winners by detailed expert knowledge and sparse data AI

# The structural pharma R&D problem

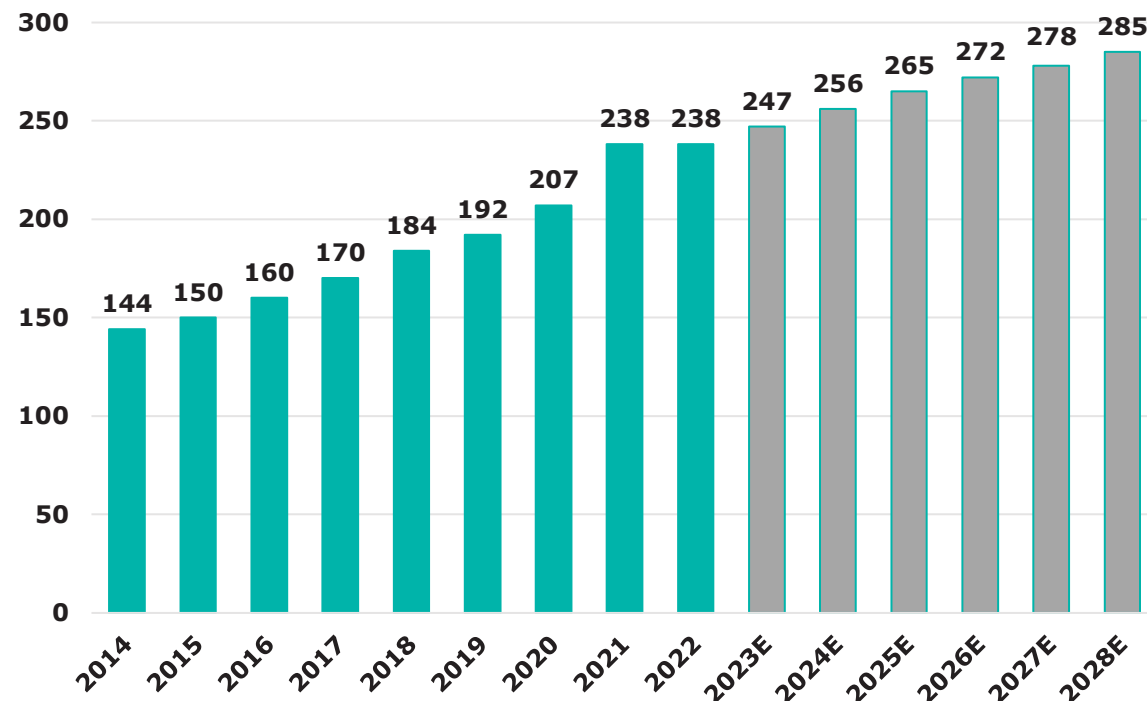
Fever than 50 drugs approved in the US annually on average...

Annual number of novel drug approvals by FDA 2010-2022



...while the global pharma industry R&D expenditure exceeds \$200B

Global pharmaceutical R&D spending 2014-2028E (USDbn)

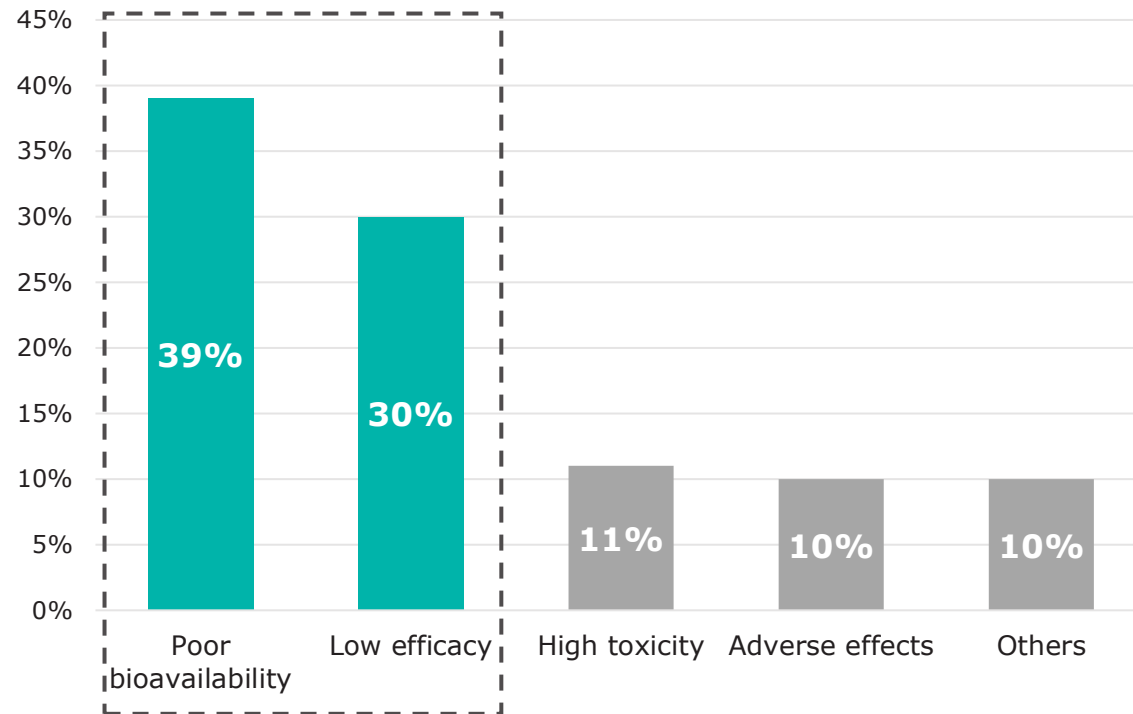


➤ A game changer is needed to improve R&D yield

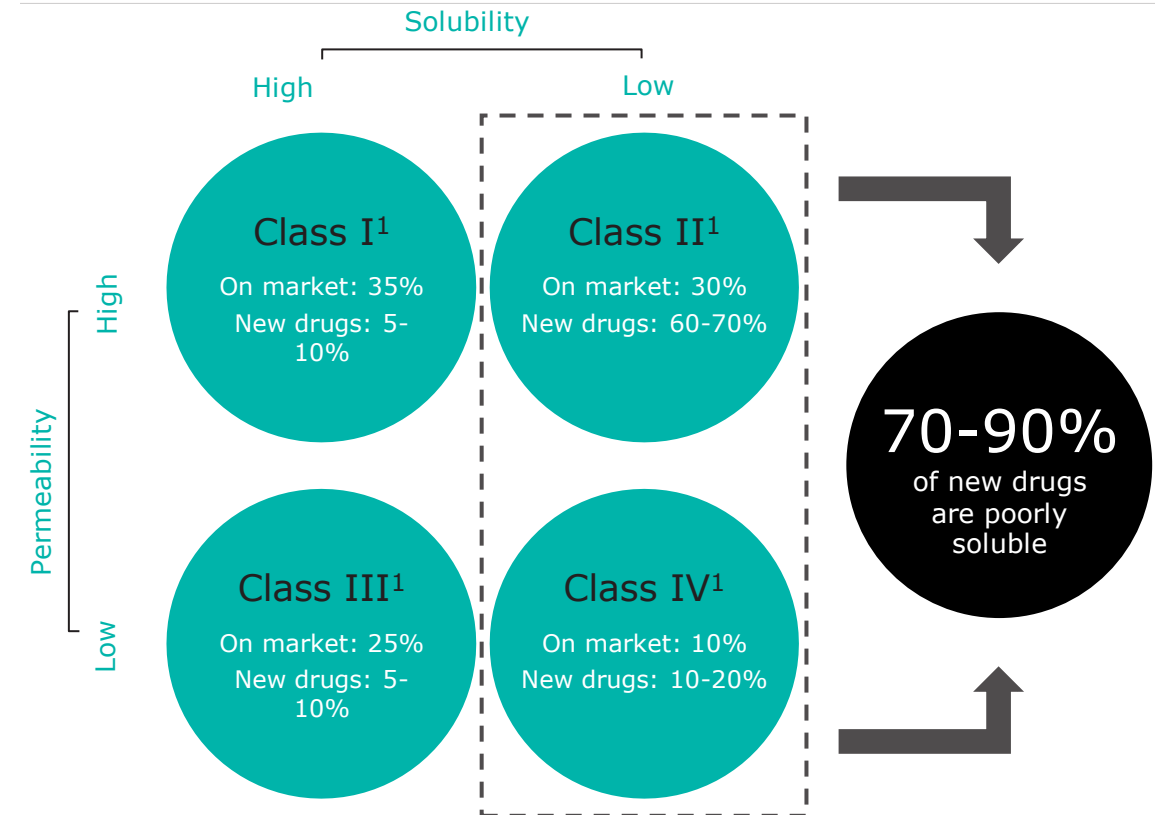
# Low bioavailability is the key issue

## Poor bioavailability and low efficacy most common reasons for drug failure

### Reasons for drug failure in pre-clinical trials (share of molecules)



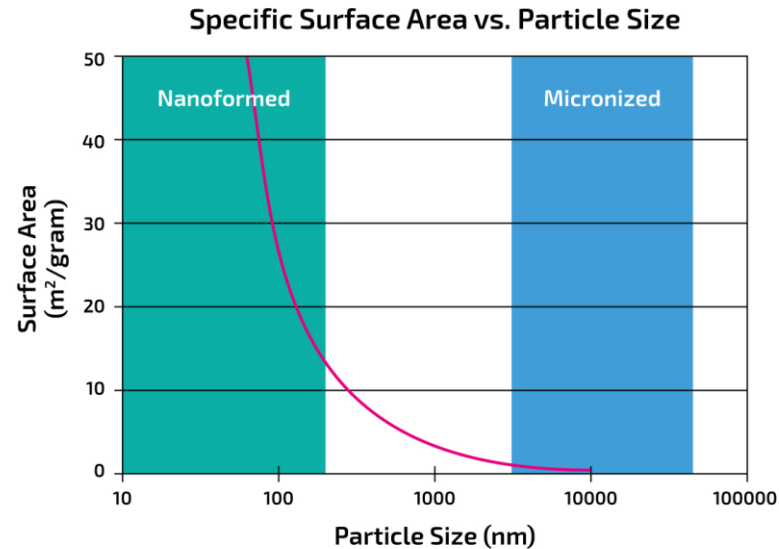
## Majority of new drugs suffer from poor solubility



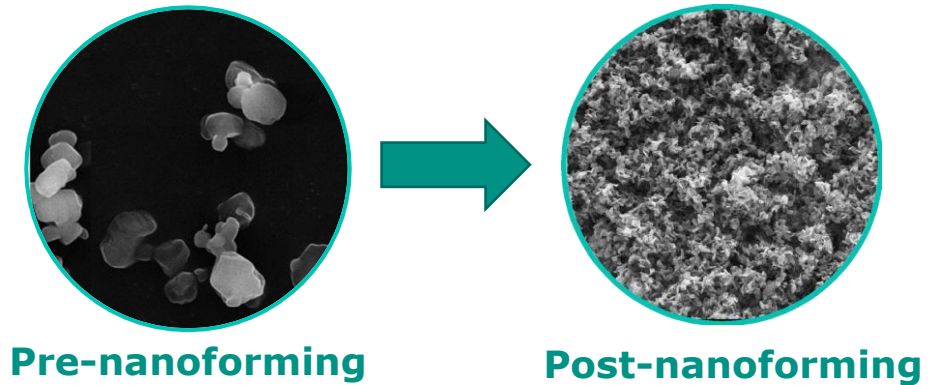
➤ Nanoform can enhance the pharma industry output by targeting poorly soluble drugs

# Particle size is key

## Smaller particle size can improve a drug's bioavailability



- The surface area increases 30 fold from a 10 micron<sup>1</sup> sized particle once the particle size is reduced to 100nm
- Reduction of particle size down to 50nm increases the surface area by 1,000 fold



- Smaller particles have a larger surface area
- Larger surface area of particles enables better bioavailability of a drug
- Improved bioavailability implies better absorption of a drug by the body's circular system
- CESS<sup>®</sup> can produce API with large surface areas which can significantly improve the bioavailability of drugs

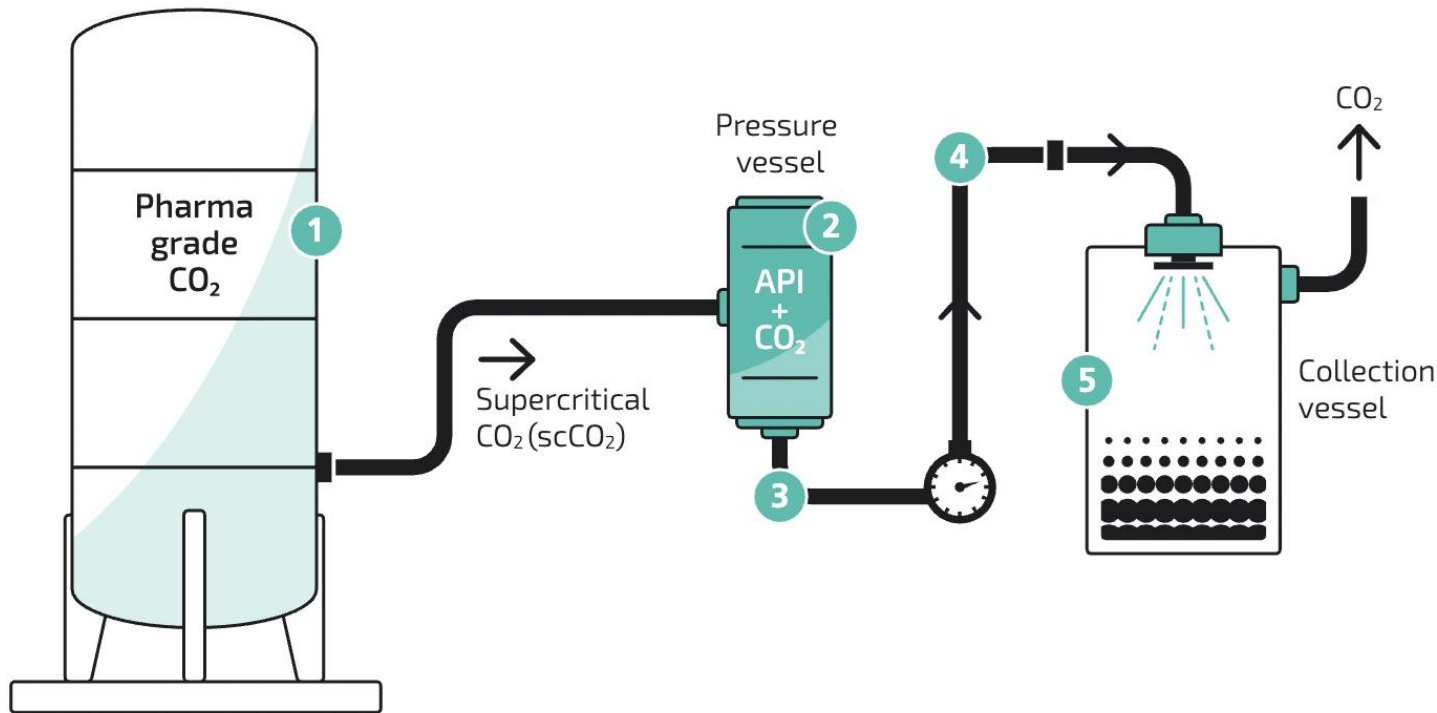
➤ CESS<sup>®</sup> produced nanoparticles have a larger surface area and as such improved bioavailability.



# Small Molecules - Proprietary technology

Green  
technology

## Controlled Expansion of Supercritical Solutions - CESS®



- 1 Supercritical CO<sub>2</sub> is guided into a pressure vessel loaded with API
- 2 Increasing the pressure and temperature in the vessel dissolves the API in supercritical CO<sub>2</sub>
- 3 The CO<sub>2</sub> and the API are released from the pressure vessel and the flow, pressure and temperature profiles are accurately controlled
- 4 The pressure and temperature is controlled to achieve a stable nucleation phase and formation of nanoparticles
- 5 In a collection vessel the CO<sub>2</sub> is sublimated resulting in final nanoparticles ready for collection and formulation

➤ Relatively simple process developed through combining deep knowledge in physics, chemistry, and pharma

# Small molecules - Small is powerful®



# Large molecules – Small is powerful in biologics too

Our unique **biological nanoforming technology** can produce drug particles as small as 50 nm in diameter while retaining biological activity. It is a gentle bottom-up process, and its effectiveness has been demonstrated on peptides and proteins in the 1 kDa\* – 150 kDa range. We can engineer particle sizes to specific requirements. Our advanced technology can be applied across the biologics field to potentially:

Improve  
delivery routes

Improve  
uptake

Enhance  
drug loading  
capacity in  
formulations

Tailor  
release  
profiles

Enable  
new drug  
combinations

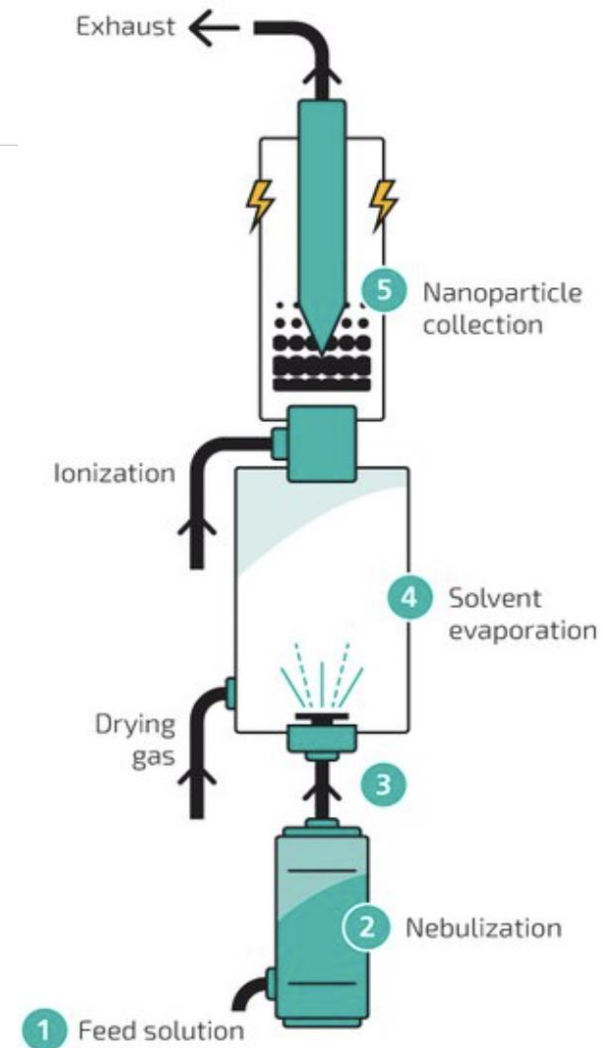
Lighter  
infrastructure  
for drug logistics

# Large molecules - Proprietary technology

Green  
technology

## Nanoforming process for biologics

- 1 API containing feed solution is pumped into the nebulizer
- 2 Feed solution is nebulized into a carrier gas
- 3 Mist is transported into the drying chamber via a connection pipe
- 4 Mist is dried using low-temperature drying gas
- 5 Dried particles are charged by the ionizer and collected using electrostatic precipitation





# Nanoform is here to fill the gap

The solution to low bioavailability is to decrease the particle size of the Active Pharmaceutical Ingredient (API)

Giving  
unsuccessful  
drug candidates a  
second chance

> **58,000** failed  
drugs in the last 40  
years\*

Improving  
existing  
drugs

> **5,800**  
existing drugs\*

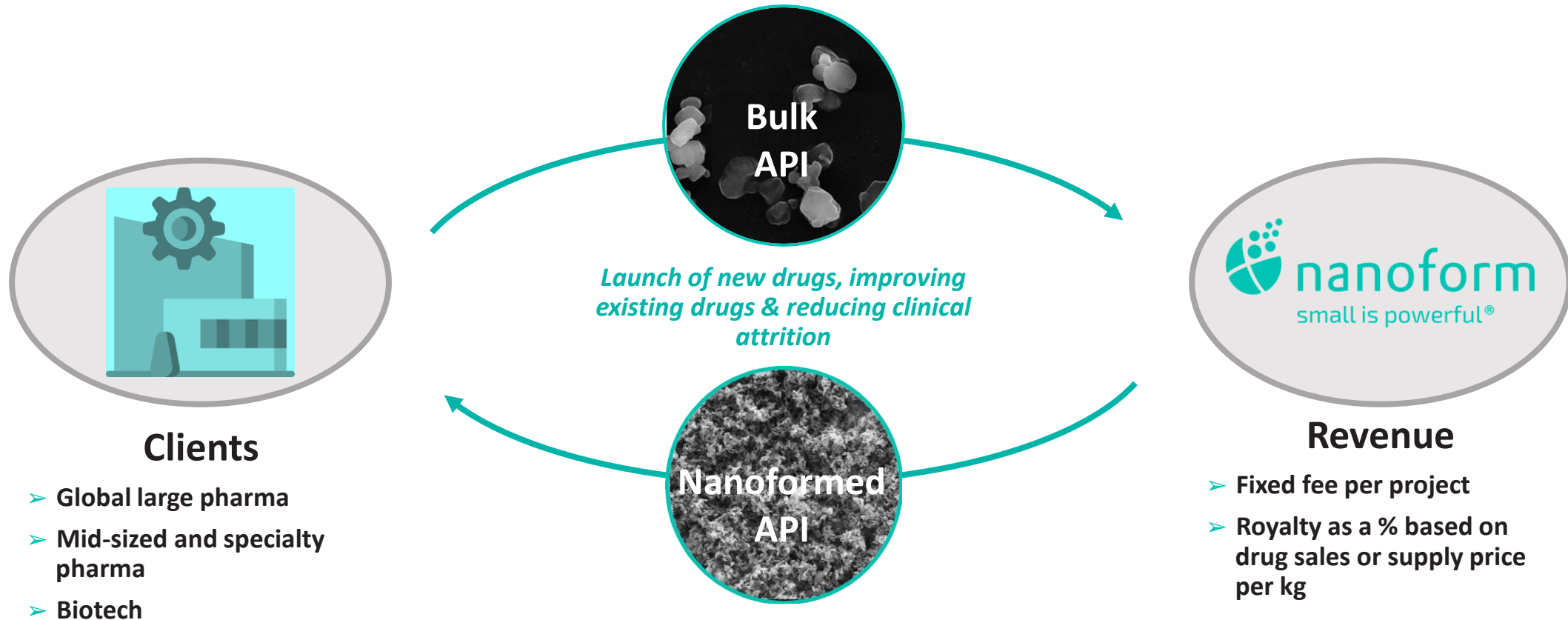
Enabling  
new drugs

> **20,000**  
drugs in  
development\*

Nanoform's CESS® is the only technology that can manufacture nanoparticles without solvents, excipients, and complex production processes

# Simplified value chain

## High level overview of Nanoform's value chain and business model



➤ Nanoform nanoforms APIs for the pharma and biotech industry using its patented CESS® technology



# CEO REVIEW

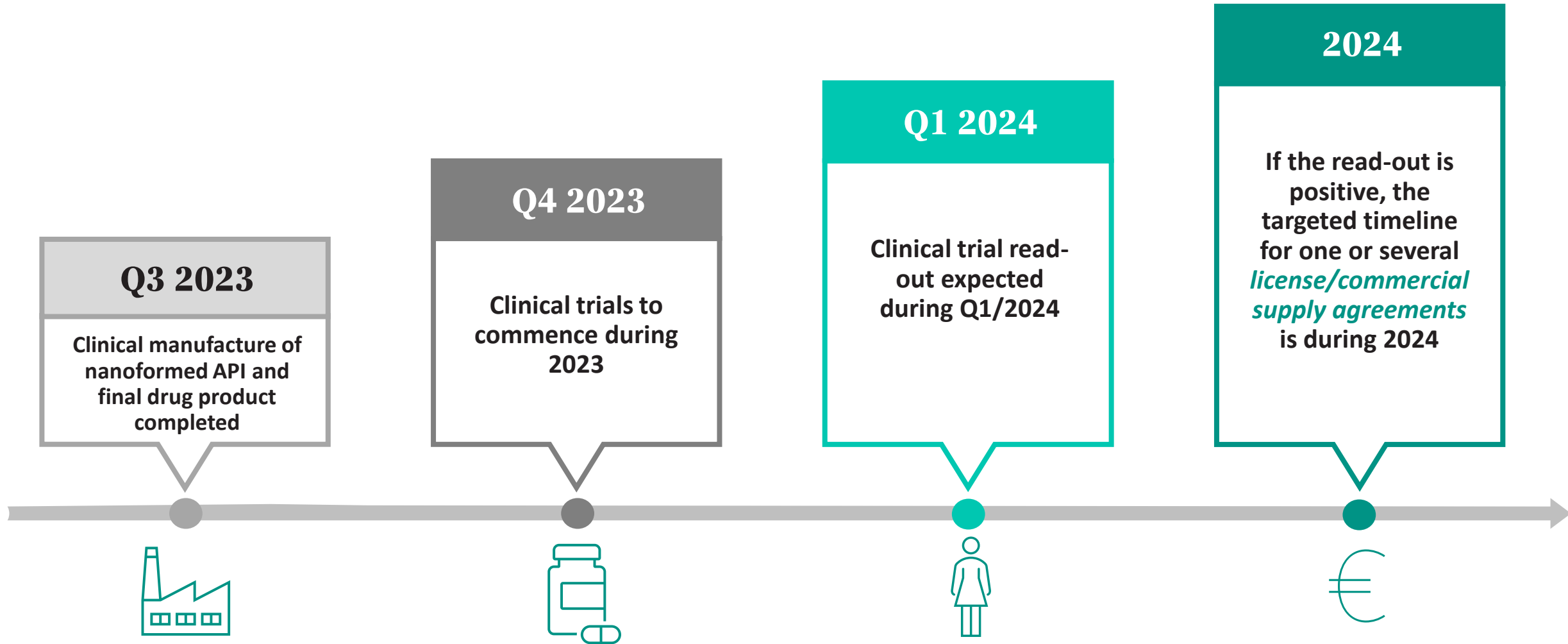


# 2023 highlights

- ✓ Project **Blockbuster** is progressing well
- ✓ Strong business opportunity identified within **Amorphous Solid Dispersions (ASDs)**
- ✓ STARMAP® licensed to AstraZeneca Plc
- ✓ Customer Targtex's nanoformed drug candidate receives **FDA orphan drug designation**
- ✓ Multi-API license received by FIMEA, additional notification submitted
- ✓ Promising initial in-vitro trials with two major pharma looking at **monoclonal antibodies**
- ✓ USPTO granted patent for biologics process
- ✓ Improved cash flow
- ✓ Balance sheet remains strong



# Project Blockbuster – a potential game changer for Nanoform



# Project Blockbuster and Amorphous Solid Dispersions (ASD's)

The formulation is an amorphous solid dispersion (ASD)

Our nanoformed & nanocrystalline formulation offers an attractive alternative with:

- ⇒ *substantially higher drug load in the final drug product*
- ⇒ *reduced pill burden for the patient*
- ⇒ *opportunity to extend IP protection for the reformulated and improved product*
- ⇒ *opportunity for earlier market entry*

Strong interest from originator & value-added medicine companies

ASDs remain a leading formulation strategy for poorly soluble APIs and there are ~50 marketed medicines that are ASDs

⇒ *Several opportunities for Nanoform to replicate early successes with Project Blockbuster*

# Nanoform GMP Manufacturer's Authorization

## GMP Manufacturer's Authorization April 2020, by FIMEA:

Human Investigational Medicinal products: GMP manufacturing/nanoforming API for clinical trial

## GMP Manufacturer's Authorization May 2023, by FIMEA:

Human Investigational Medicinal products: GMP manufacturing/nanoforming multi-API's for clinical trials

## Notification submitted to FIMEA in June 2023:

- New GMP manufacturing/nanoforming facilities and equipment (GMP2 & GMP3)
- New GMP QC laboratory
- Manufacturing/nanoforming APIs to be used in products with a Marketing Authorization
- FIMEA inspection expected during Q1 2024

# Nanoform near-term business targets 2023

Topic	Target	Status
Customer Projects	<i>“ Increased number of non-GMP and GMP projects signed in 2023 vs 2022 ” *</i>	<i>On track</i>
Operating Free Cashflow	<i>“ Improved operating free cashflow in 2023 vs 2022 ” **</i>	<i>On track</i>



# Nanoform mid-term business targets 2025

**>70**  
new APIs per  
year

**35** lines  
of which  
7-14 are  
GMP compliant

**200-250**  
employees

**>90%**  
gross margin

Cash flow  
positive



An aerial photograph of a river winding through a dense forest. The river is a vibrant blue, contrasting with the green and yellow foliage of the trees. A large, rounded teal rectangle is superimposed over the center of the image, containing the word 'COMMERCIAL' in white, bold, sans-serif capital letters.

COMMERCIAL



# Recent customer news – large pharma



- **Nanoform granted AstraZeneca Plc a global online STARMAP® license**
- **Nanoform has access to AstraZeneca Plc compound libraries and large data sets - screening and propose innovative product development concepts and strategies to AstraZeneca Plc**
- **STARMAP® supports Nanoform's green ambition by ensuring that Nanoform progresses the molecules with the greatest probability of success**
- **AstraZeneca to screen with STARMAP® its molecules from drug discovery through to lifecycle management**
- **AstraZeneca Plc granted Nanoform access to AstraZeneca's compound libraries and large data sets**
- **STARMAP® is well aligned with AstraZeneca's ambitious sustainability goals**

# Recent customer news - biotechs



- ✓ Nanoform customer TargTex S.A. was granted **Orphan Drug Designation** by FDA for its **nanoformed drug candidate** TTX101 to be used in patients with malignant gliomas
- ✓ The orphan drug designation follows the generation of a preclinical rodent data package in which a **survival advantage was shown for this nanoform-enabled medicine** candidate
- ✓ The hydrogel **nanoformulation developed by Nanoform enabled a 200-fold increase** in drug load compared to bulk and a 5-fold increase in drug load compared to nanomilling
- ✓ Hence Nanoform's proprietary technology and nanoformulation expertise will enable TargTex's drug candidate TTX101 to **move towards clinic**
- ✓ In November 2023, the **European Innovation Council and SMEs Executive Agency (EISMEA)** awarded **TargTex €14m in funding**
- ✓ TargTex is currently raising additional funds to take this innovative treatment to clinic and is planning a phase 1/2a clinical trial in **recurrent glioblastoma (GBM) patients across the US and EU**, in which nanoformed TTX101 is applied as adjunct to surgery after tumour excision

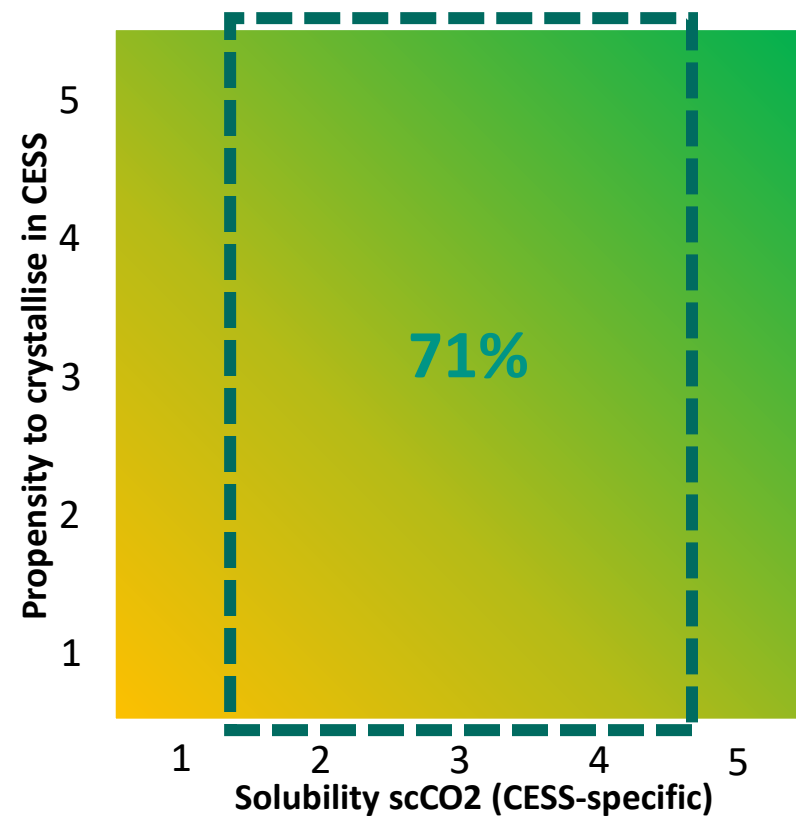


# Nanoform customer projects – therapy area overview\*

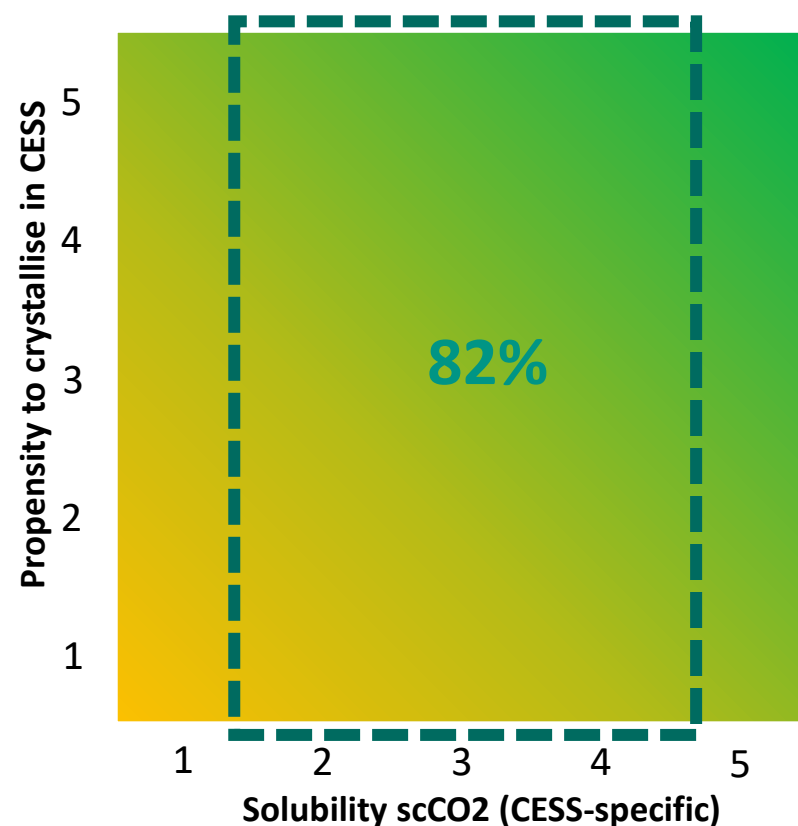
Pre-Clinical	Phase I	Phase II & III	Marketed/505b2
<p><b>Cardiology</b> (e.g. Anemia)</p> <p><b>Gastroenterology</b> (e.g. Microbiome)</p> <p><b>Immunology/Inflammation</b> (e.g. Psoriasis)</p> <p><b>Infectious Disease</b> (e.g. HIV)</p> <p><b>Metabolism and Endocrinology</b> (e.g. Diabetes)</p> <p><b>Neurology</b> (e.g. Parkinsons)</p> <p><b>Oncology</b> (e.g. Multiple Myeloma)</p> <p><b>Ophthalmology</b> (e.g. Glaucoma)</p> <p><b>Respiratory</b> (e.g. COPD)</p>	<p><b>Immunology/Inflammation</b> (e.g. Cystic Fibrosis)</p> <p><b>Dermatology/Oncology</b> (e.g. Basal Cell Carcinoma)</p> <p><b>Neurology</b> (e.g. Parkinsons)</p> <p><b>Oncology</b> (e.g. Solid Tumors)</p> <p><b>Ophthalmology</b> (e.g. Cataract)</p> <p><b>Pain</b> (e.g. Post Operative Pain)</p>	<p><b>Metabolism and Endocrinology</b> (e.g. Adrenal Hyperplasia)</p> <p><b>Neurology</b> (e.g. Schizophrenia)</p>	<p><b>Infectious Disease</b> (e.g. HIV)</p> <p><b>Immunology/Inflammation</b> (e.g. HEP B)</p> <p><b>Immunology/Inflammation )</b> (e.g. Cystic Fibrosis)</p> <p><b>Oncology</b> (e.g. Prostate Cancer)</p> <p><b>Ophthalmology</b> (e.g. Glaucoma)</p>

# Examples of areas in which STARMAP® sees strong potential for nanoforming

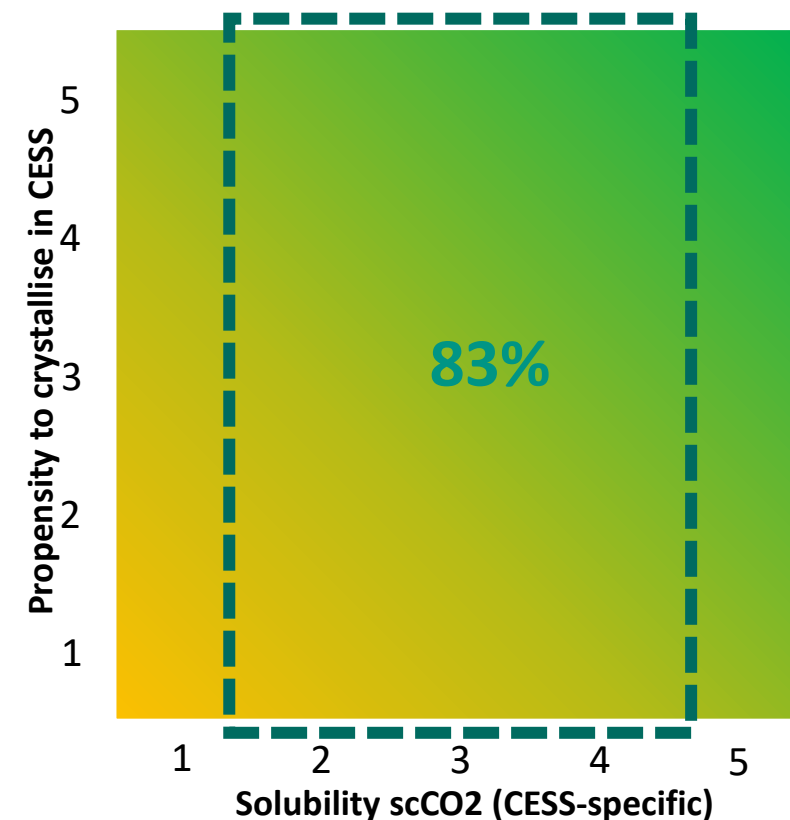
Neurodegenerative disorders (n=38 APIs)<sup>1</sup>



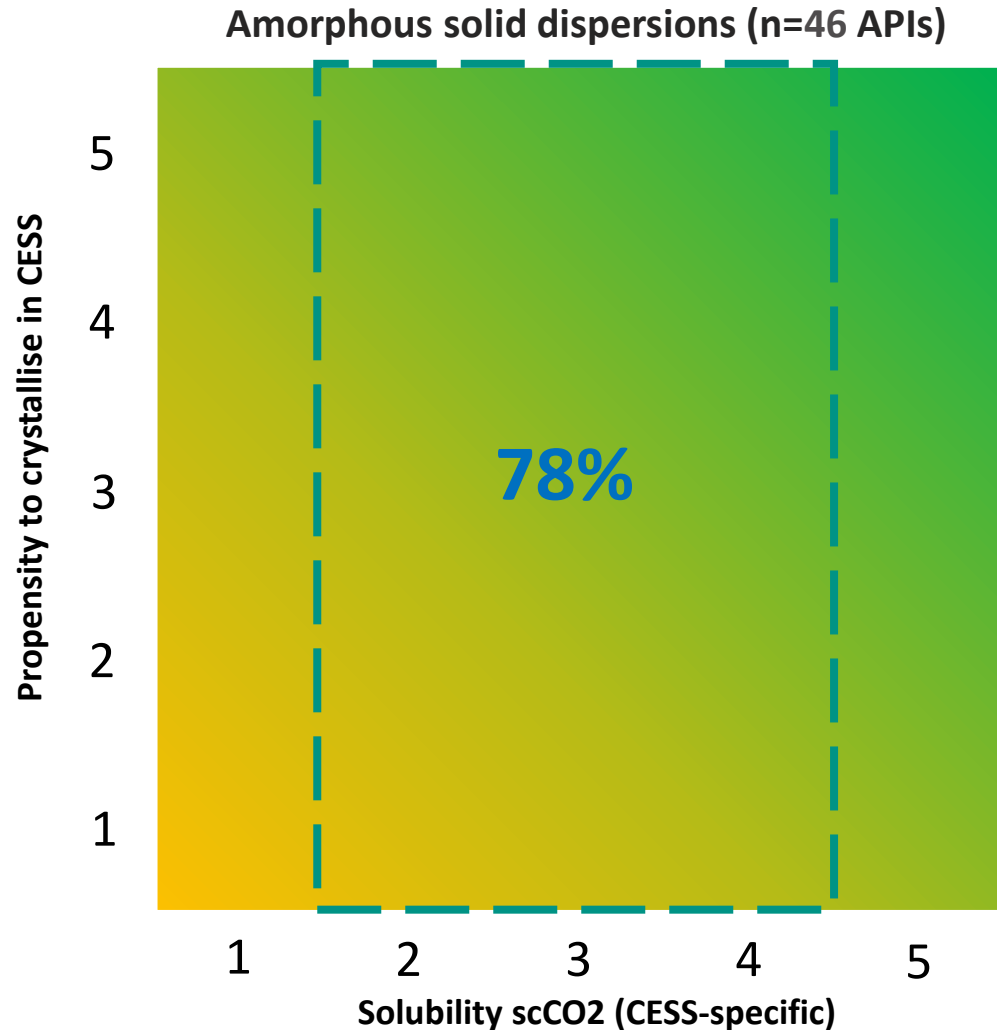
Prostate Cancer (n=11)<sup>3</sup>



HIV (n=24)<sup>2</sup>



# STARMAP® predicts that nanoforming is an attractive alternative to ASDs



- ✓ STARMAP predicts that 78% of marketed ASD APIs fall within our processing “sweet spot”
- ✓ 46 ASDs have been Starmapped
- ✓ There are ~50 ASDs on the market selling annually for USD 15+ bn in the US alone, while there are 30+ candidates disclosed in the clinical pipe-line and most likely hundreds in the preclinical state.
- ✓ The Blockbuster project is our first example of what nanoforming potentially can do to/for ASDs

*Nanoform uses its expertise at the interface of nanoparticles and polymer science to rationally design an alternative approach to ASDs*



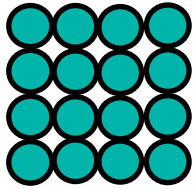


# Nanocrystallization of amorphous nanoparticles

# Amorphous vs. Crystalline

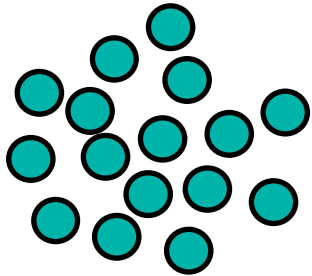
## ➤ Crystalline Drug:

- Low solubility
- Stable



## ➤ Amorphous Drug:

- High solubility
- Unstable



## Amorphous dispersions:

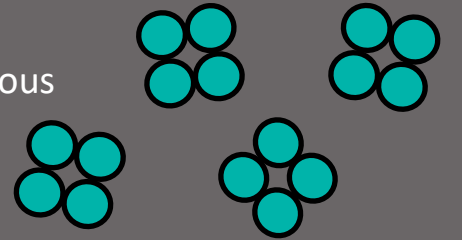
- Increased dissolution rate
- Typically, >50% polymer with significant volumes of organic solvents (spray drying).
- Low levels of crystallinity can reduce the degree of supersaturation: loss of solubility advantage.

## Nanoparticle opportunities with CESS®:

- Generate nanocrystalline material offering dissolution advantages without polymer.
- Encapsulation of amorphous to stabilize with low polymer loading.

## Nano crystallization of amorphous nanoparticles:

- Potential to generate smaller nanoparticles through generation of amorphous
- Secondary crystallization to control PSD, polymorphic form
- Lower polymer loading, increased stability due to nanocrystalline material

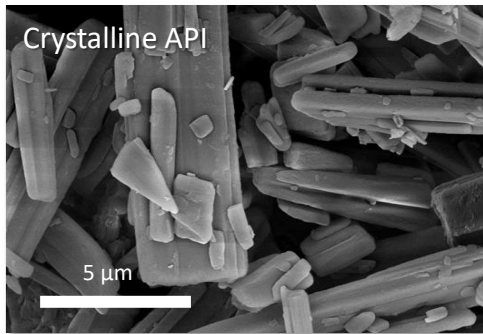


- CESS offers the opportunity to generate crystalline nanoparticles through differing methods to impact patient lives.

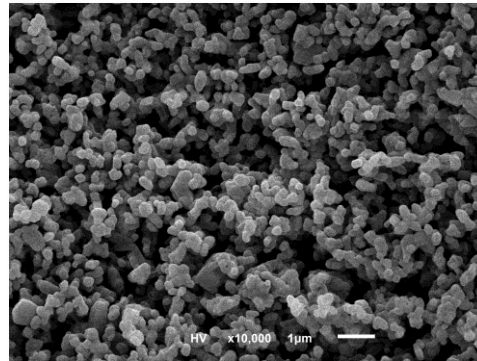


# A new way to produce stable nanocrystals

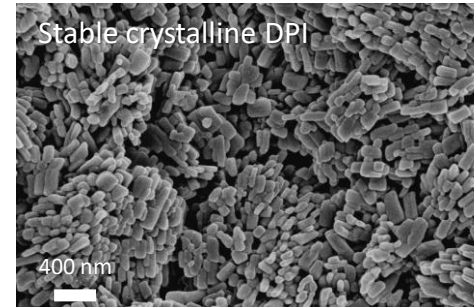
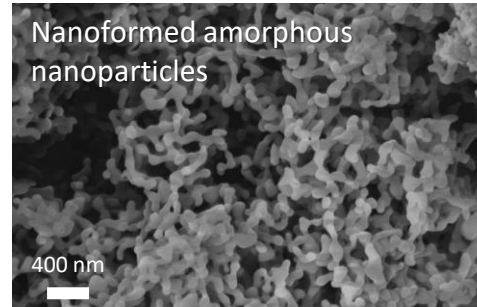
## Direct Crystallization via CESS® Process



## CESS® Amorphous Nanoparticle Generation



- ✓ No polymers / excipients.
- ✓ Stable to changes in particle properties.
- ✓ No organic solvent waste.
- ✓ Tight particle size control.



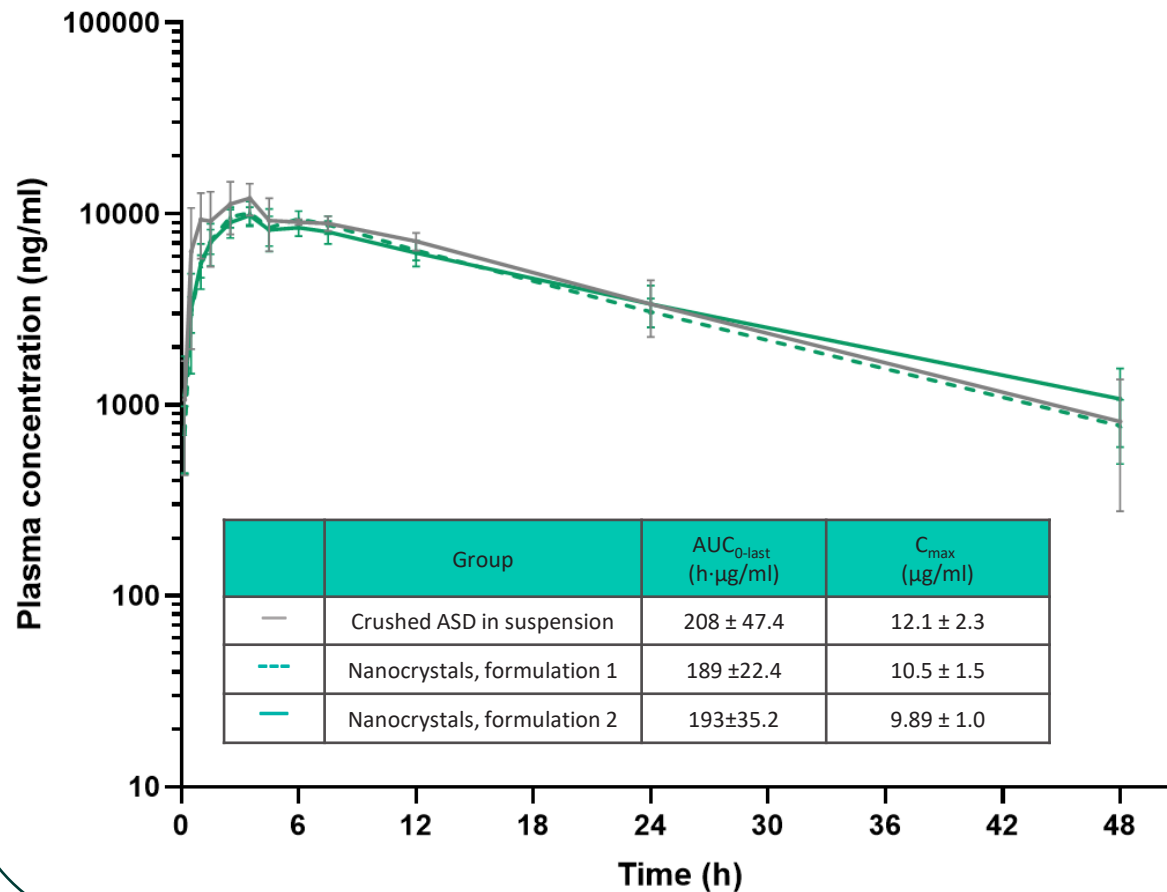
## Nanocrystallization of amorphous nanoparticles

- ✓ High API loading.
- ✓ No organic solvent waste.
- ✓ Tight particle size control.
- ✓ Increased stability.



# Project blockbuster: Nanoform's intermediate product matches ASD exposure *in-vivo* and is stable

## Equivalent exposure after oral administration



## Performance and stability

- **Equivalent exposure** compared to ASD product, after oral suspension administration **in rodents**
- Polymorph and particle size are **stable**

## Patient adherence and convenience

- Nanoform have taken a **multi tablet ASD product**, reduced it to a **single tablet, the same size as one of the original tablets, for the same combined dose** with a nanocrystalline formulation
- Nanoform's approach improved the loading degree thus **reducing pill burden and could enable fixed dose combination** possibilities



An aerial photograph of a scenic landscape featuring a calm lake reflecting the sky, a winding asphalt road, and a dense forest with trees in various shades of green and yellow, suggesting an autumn setting. A teal-colored rounded rectangle is centered over the image, containing the word "FINANCIALS" in white, bold, sans-serif capital letters.

# FINANCIALS



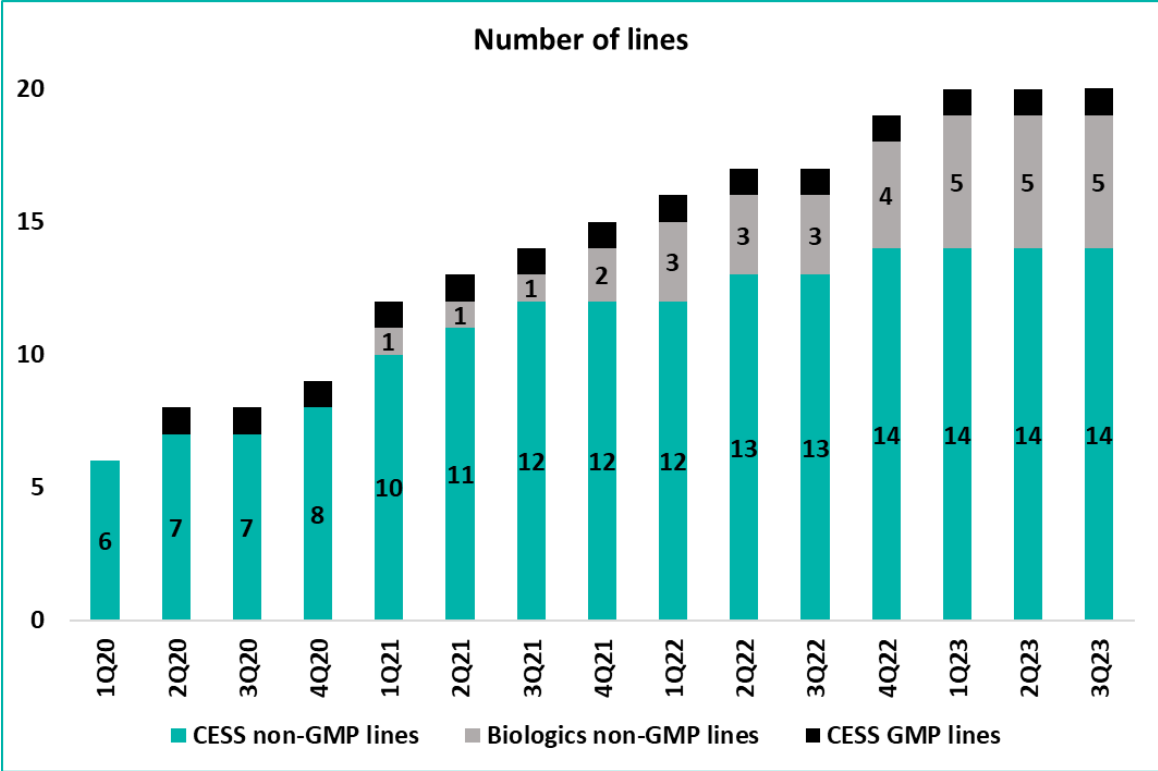
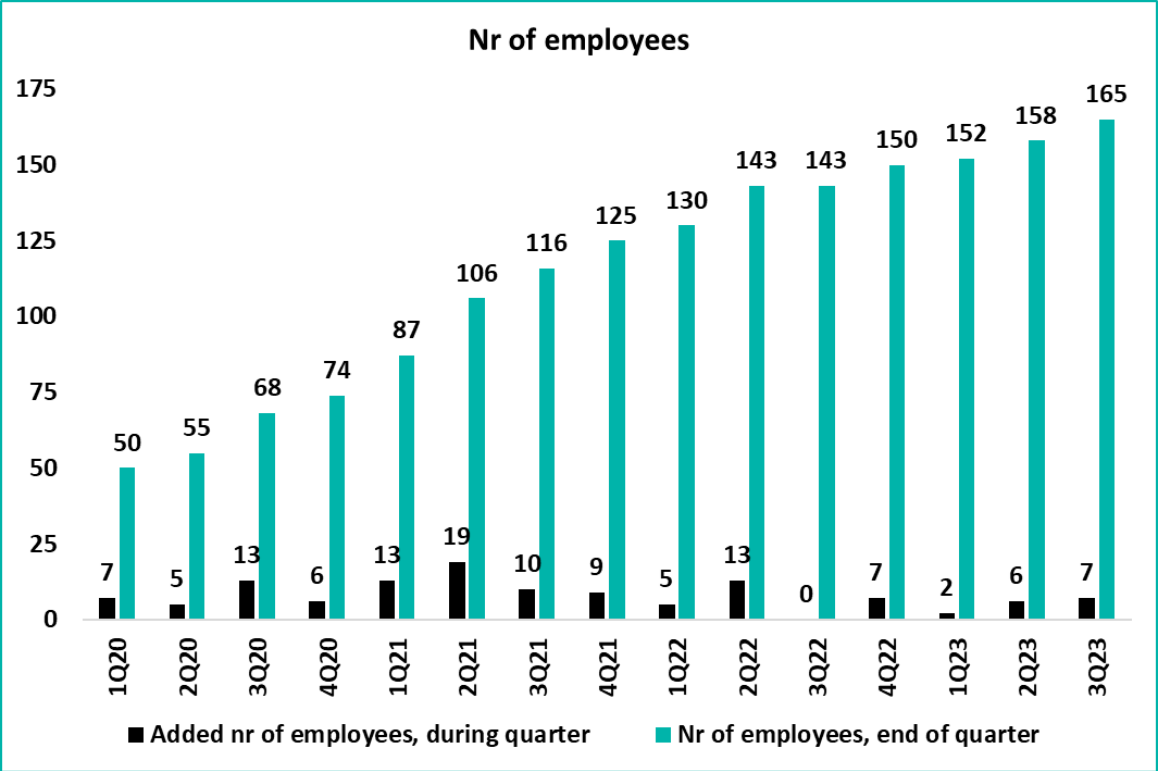
# Nanoform – Attractive revenue model, stands the test of time

Predictable revenue streams through capitalizing the entire pharmaceuticals value chain

Phase	Proof of Concept / Proof of Process	Phase I – III trials	Drugs on the market
Certification	Non-GMP	GMP	GMP
Description	<ul style="list-style-type: none"> <li>➤ <i>Proof of concept study</i> - assessment of the possibility to nanoform a specific API</li> <li>➤ <i>Proof of process study</i> - definition of parameters to establish the optimal process and controls for a specific API</li> </ul>	<ul style="list-style-type: none"> <li>➤ API for clinical trials are manufactured in Nanoforms GMP facility</li> <li>➤ Supply of material for customers' Phase I, II and III trials</li> <li>➤ Nanoform gets paid regardless of the outcome of the trials</li> </ul>	<ul style="list-style-type: none"> <li>➤ Drugs that have passed the trials and reached commercialization</li> <li>➤ In practice, if a company has taken its drug through Phase II trials, it is difficult to switch manufacturer</li> <li>➤ Significant potential from patent extension (505b2 projects) of drugs already on the market</li> </ul>
Revenue model	<u>Fixed fee per project</u> Estimated project fee of EUR 50-500k per API per project	<u>Fixed fee per project</u> Estimated project fee of EUR 0.5-10m per API per phase	<u>Royalty as a % on drug sales or supply price per kg</u> Estimated royalty fee of 1-20%

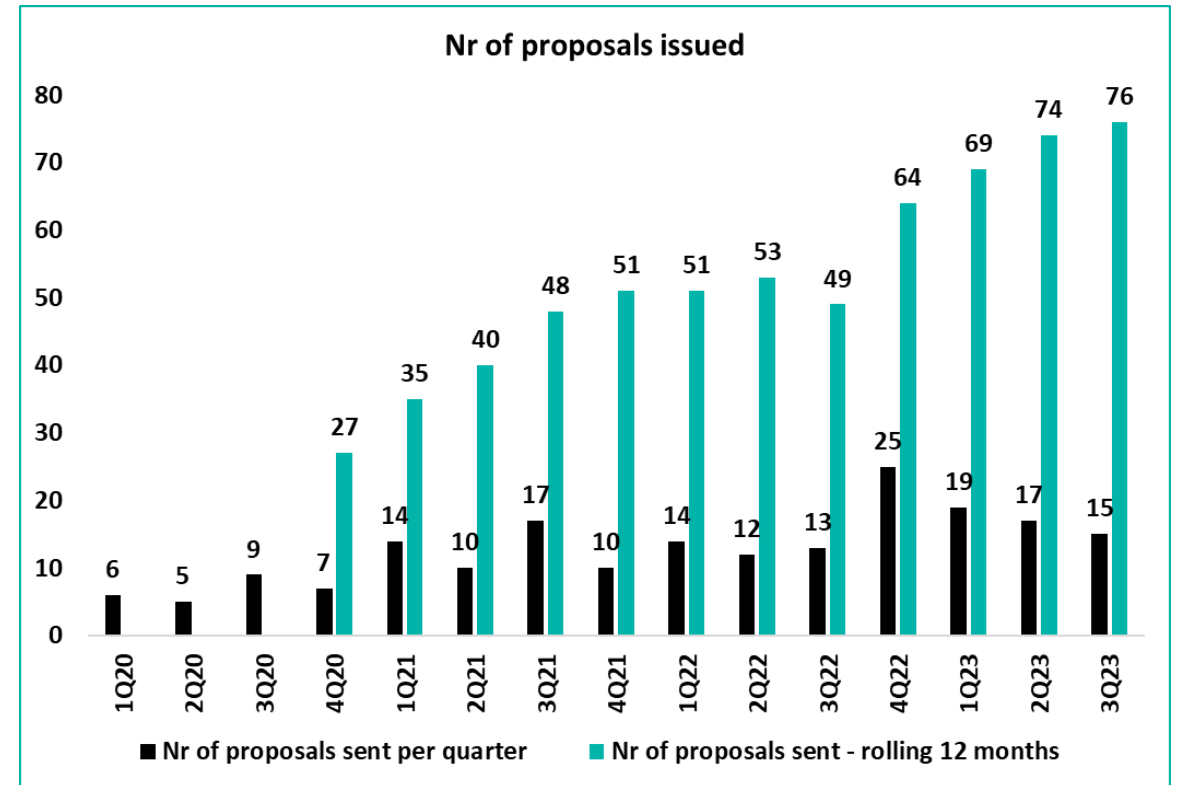
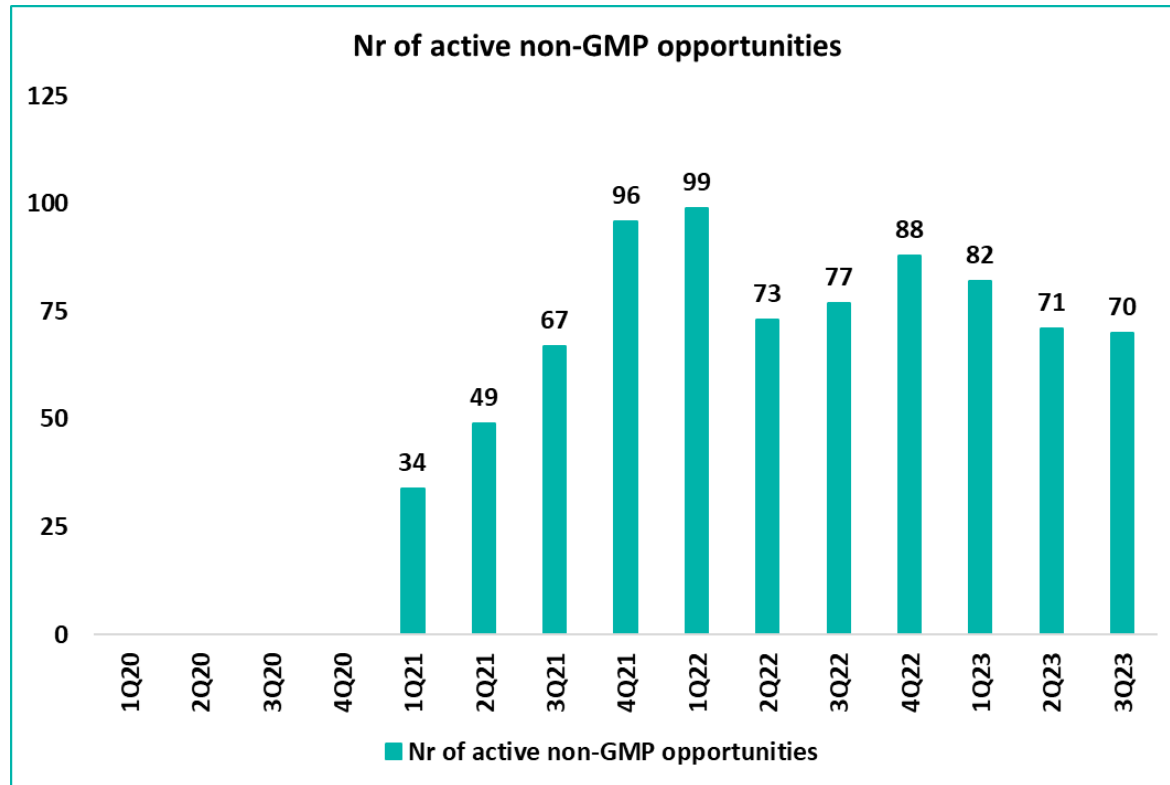
➤ Attractive business model with diversified risk profile due to not having to carry the cost & risk of drug development or being dependent on a single drug

# Nr of employees & nr of lines



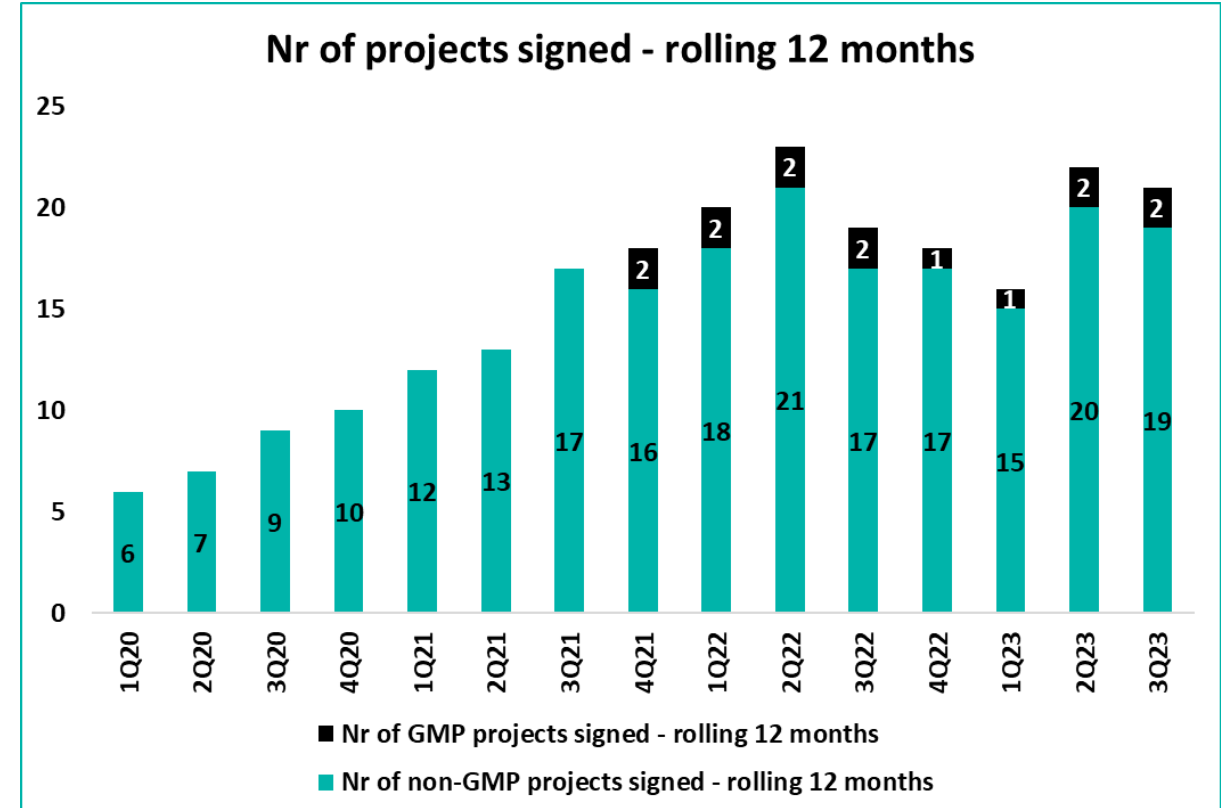
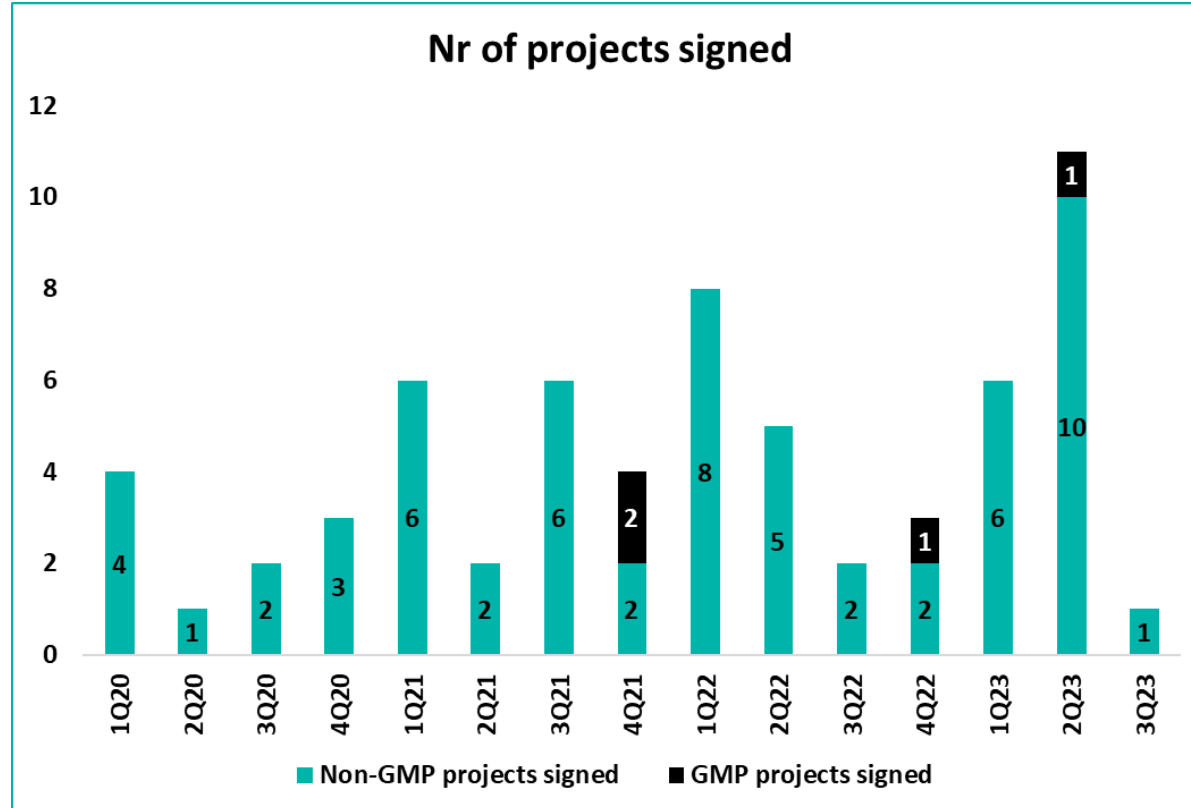
GMP2&3 will be commissioned after inspection by Fimea, expected during 1Q 2024

# Nr of opportunities and proposals issued

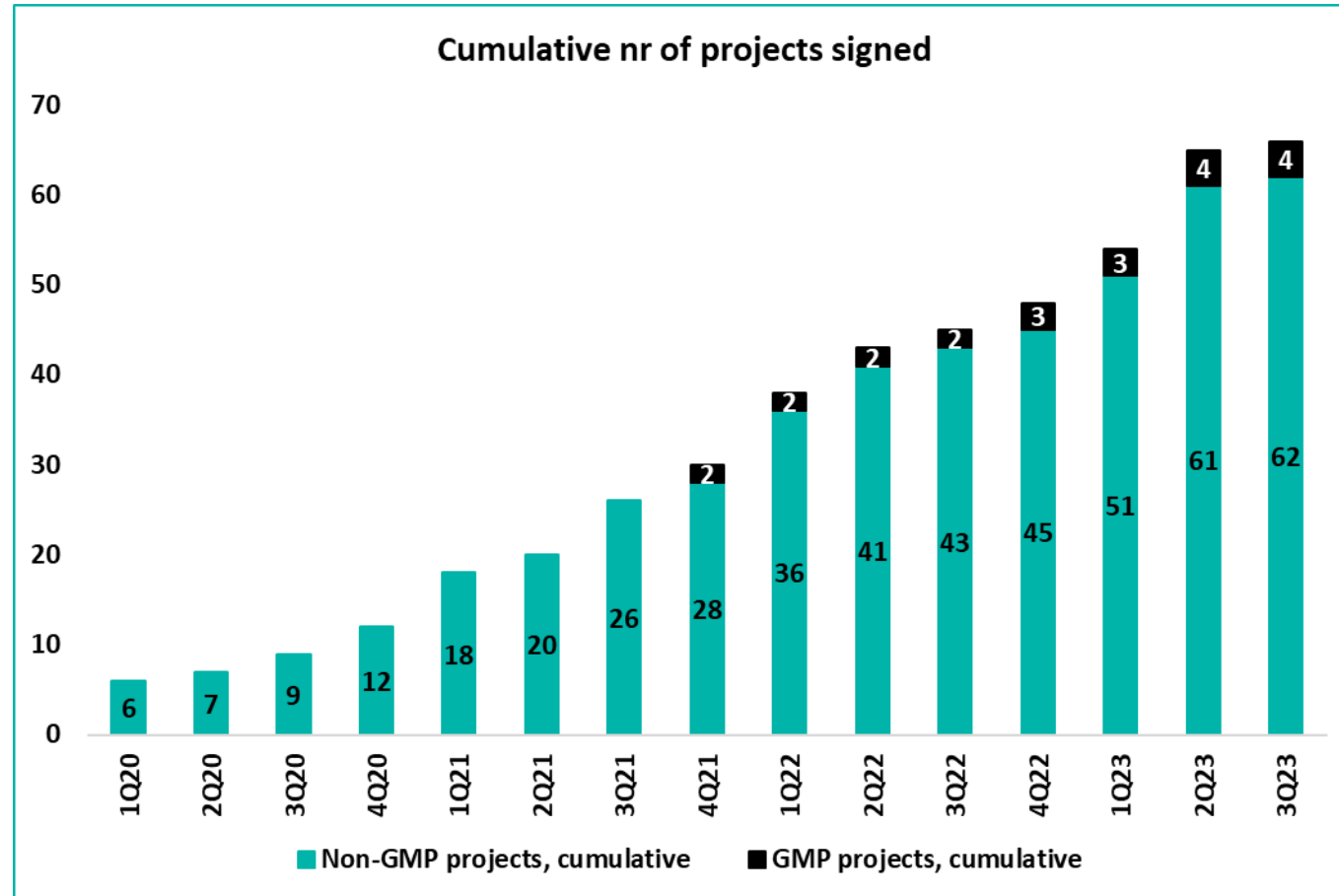




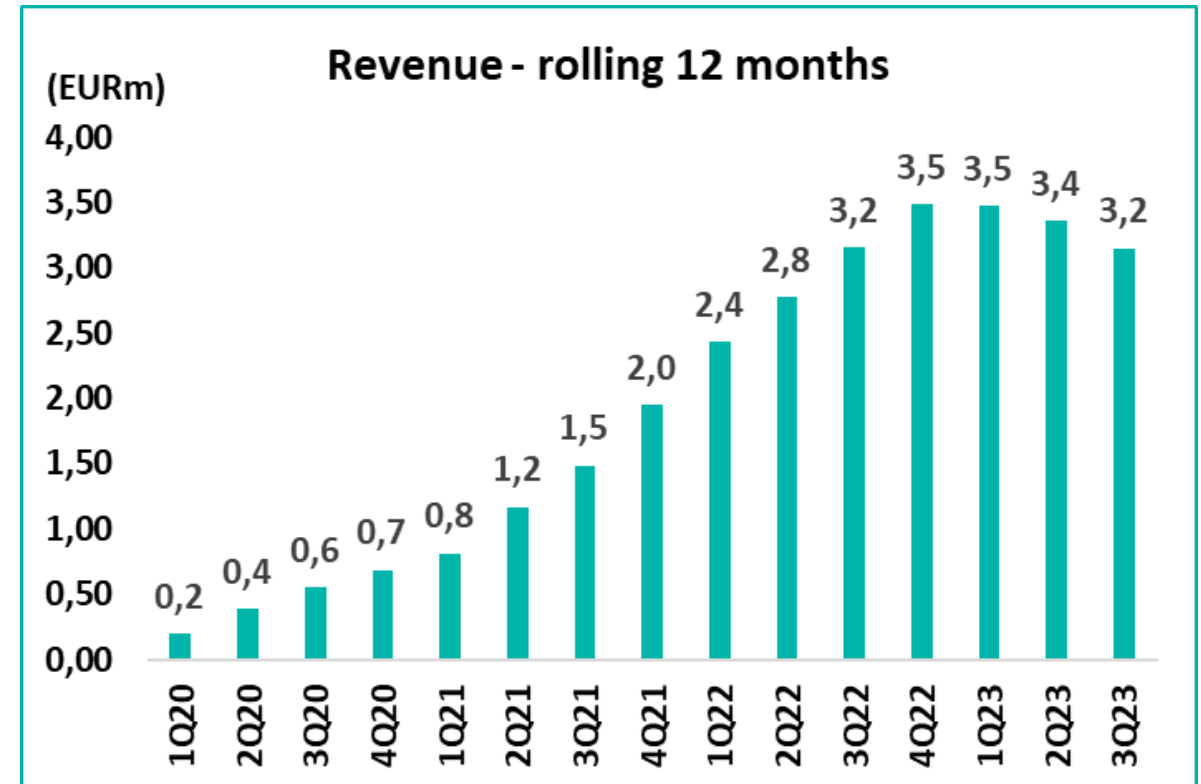
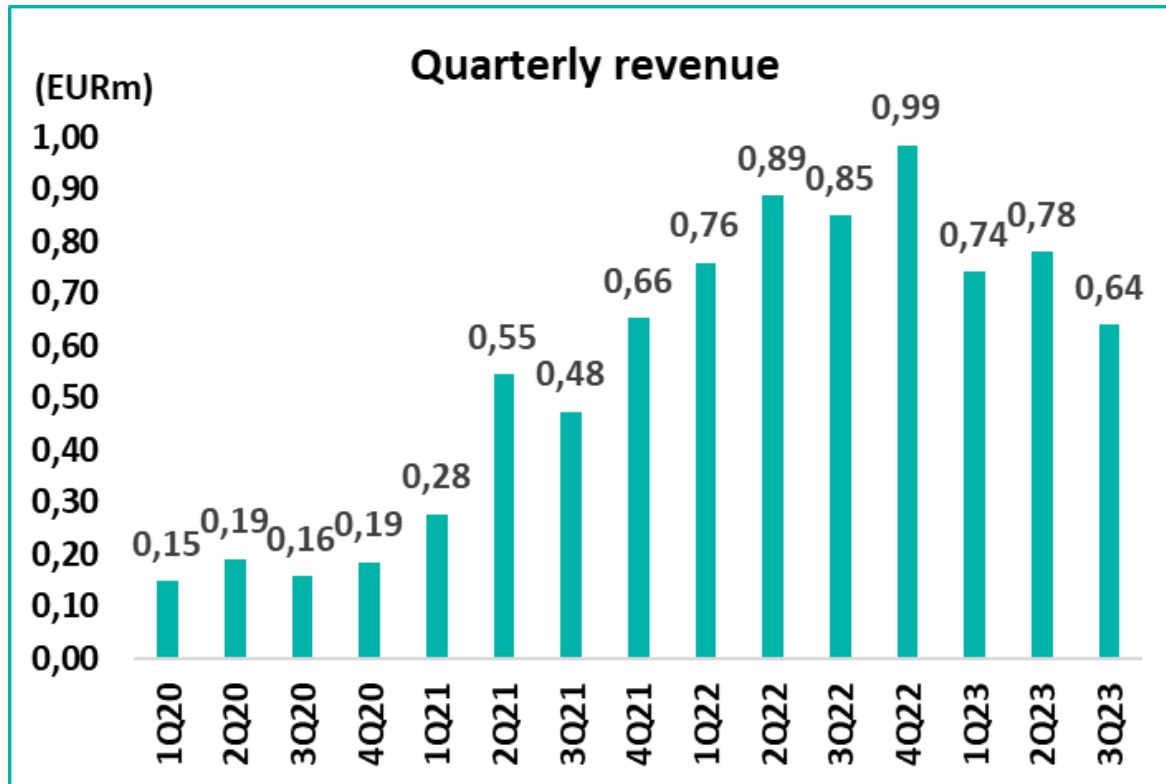
# Nr of projects signed



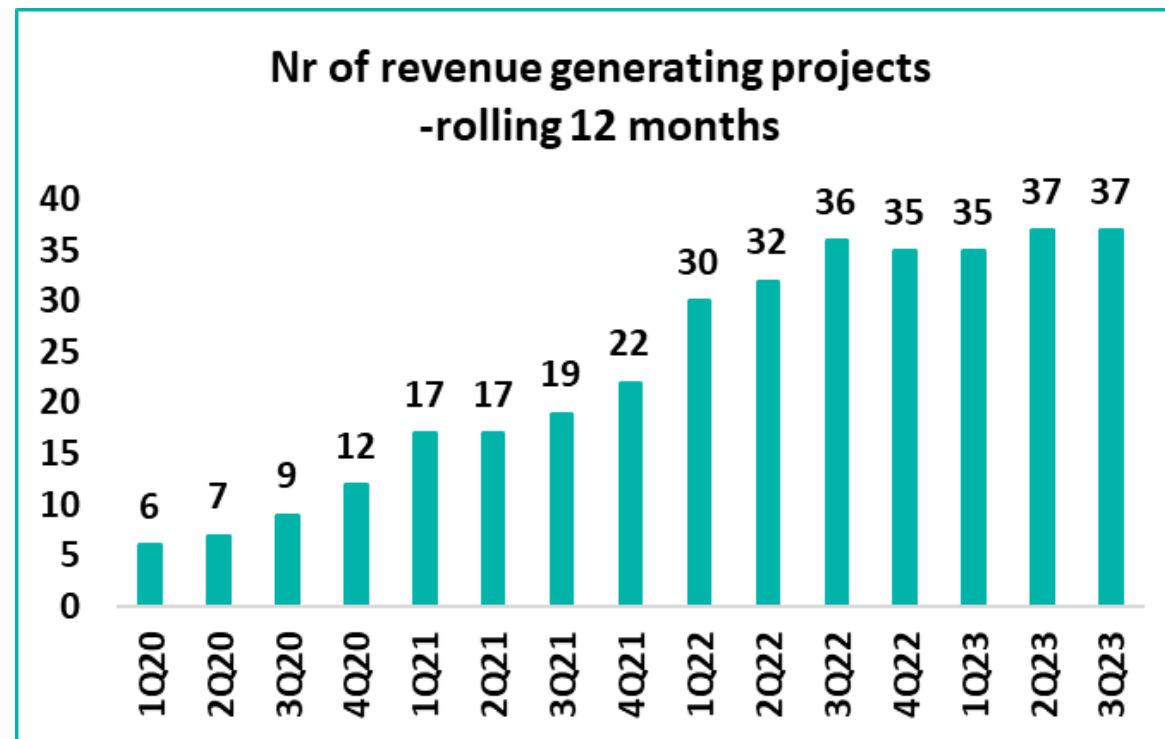
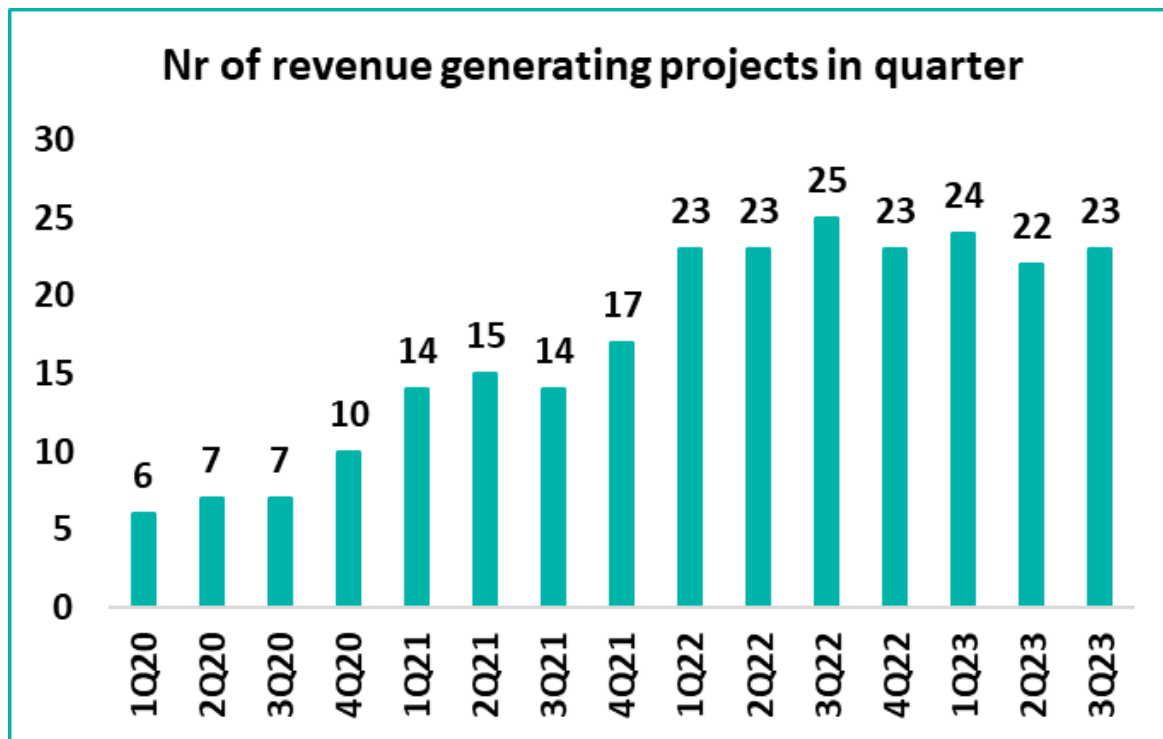
# Cumulative nr of projects signed



# Revenue recognized impacted by slow signings in 2H22, marginal impact on rolling 12m

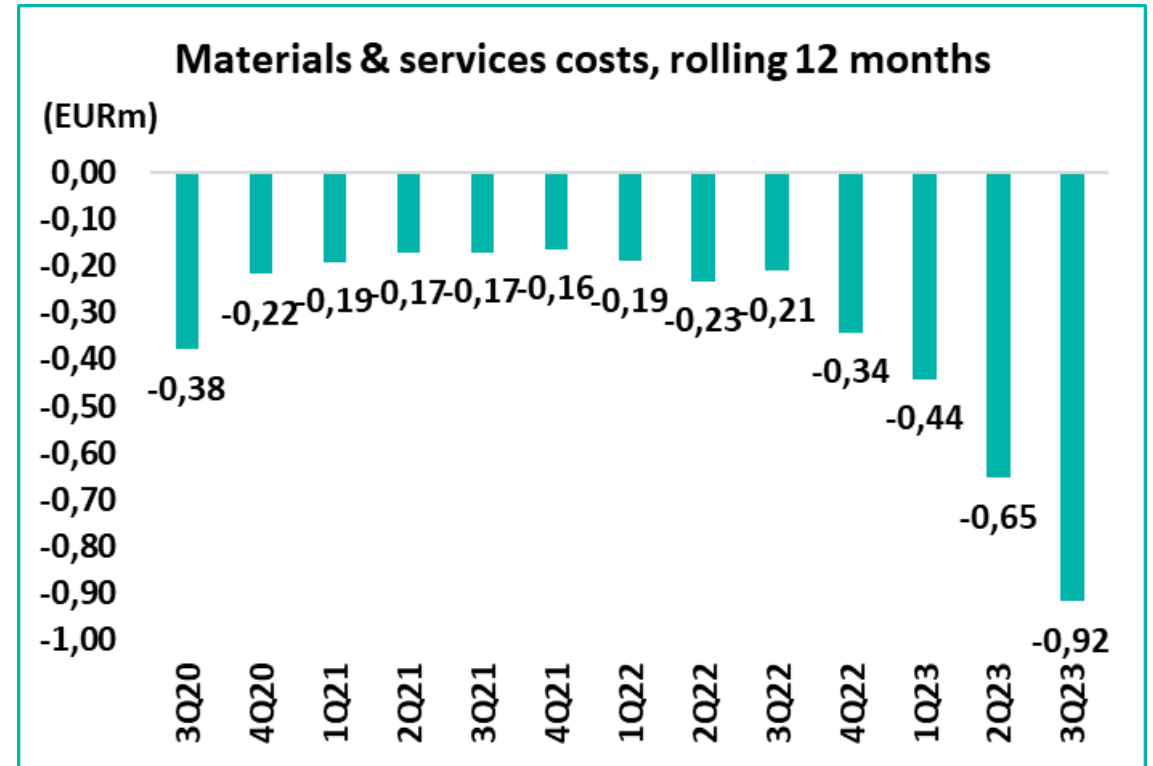
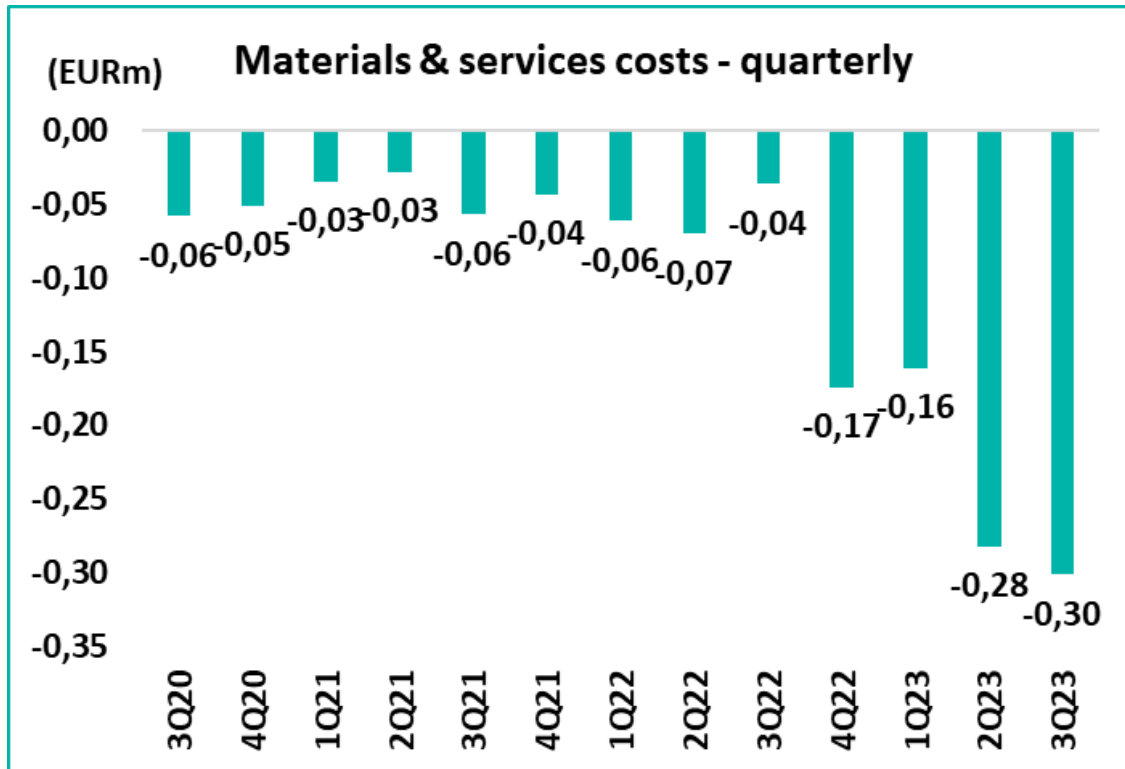


# Nr of projects generating revenue\*



\*Impact on revenue can in a quarter for some of the projects be negative if budgeted costs increase significantly (often related to hours worked).

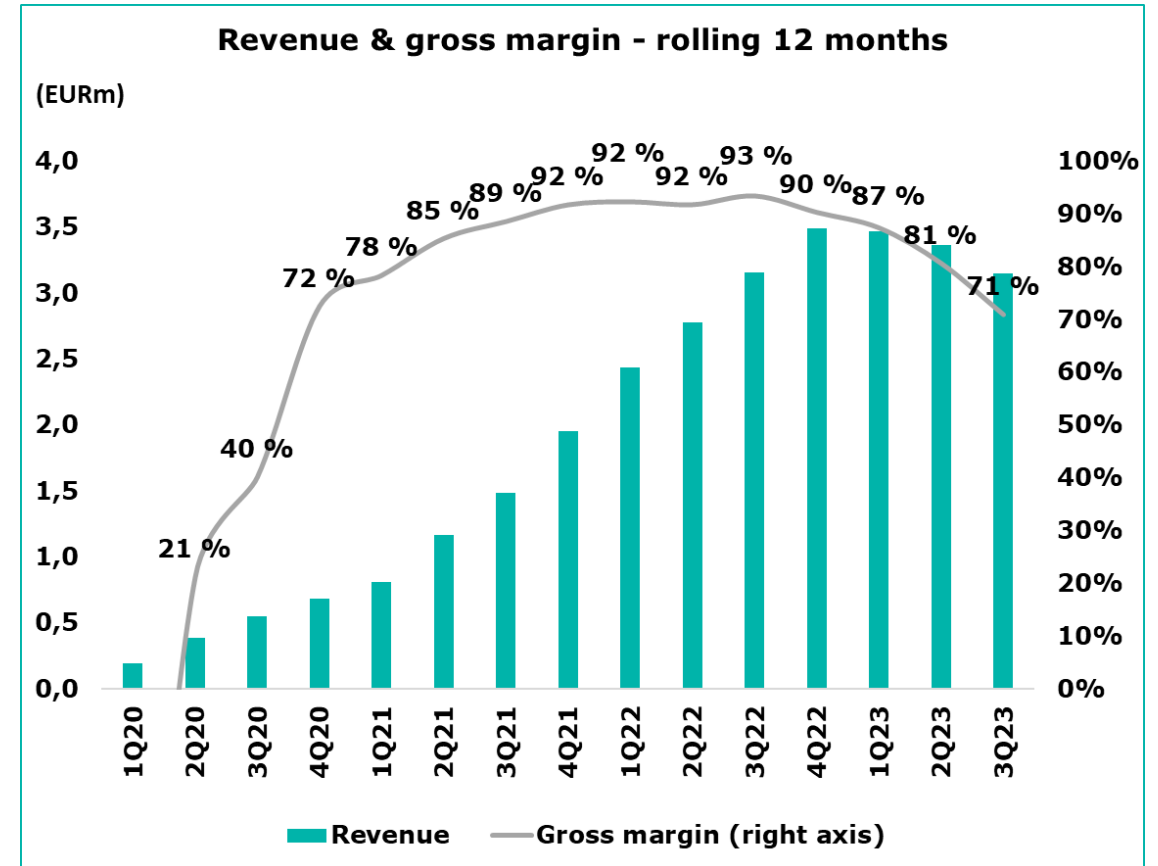
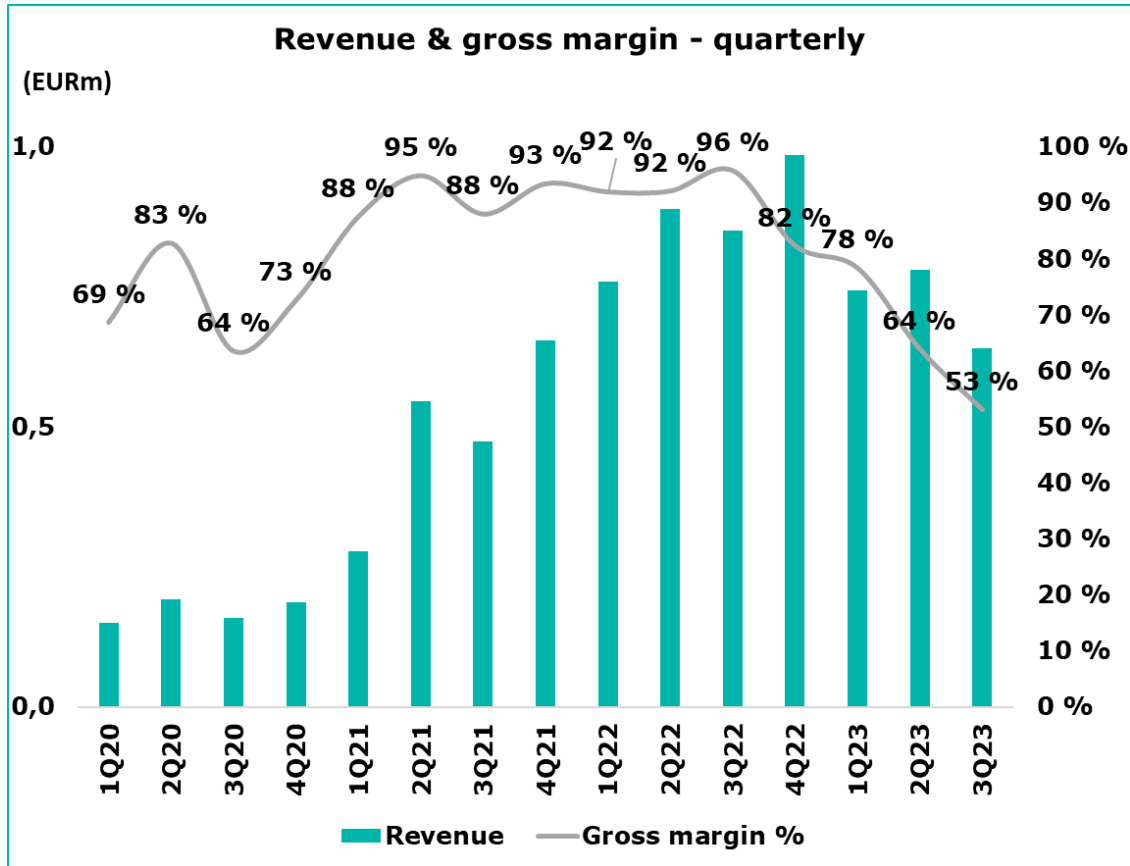
# Project Blockbuster has led to increased external GMP QC cost, (will be mitigated once GMP-QC gets FIMEA approval)



Excluding the cost of external GMP QC services, related to the Blockbuster project, our underlying materials & services costs have remained between low. In June, Nanoform submitted a notification to the Finnish Medicines Agency (Fimea) to update our Manufacturer's Authorization (MIA). The notification included our new Quality Control laboratory (GMP QC) and an inspection is expected to take place in 1Q24. This will help our gross margin return to the 90+ levels we target.

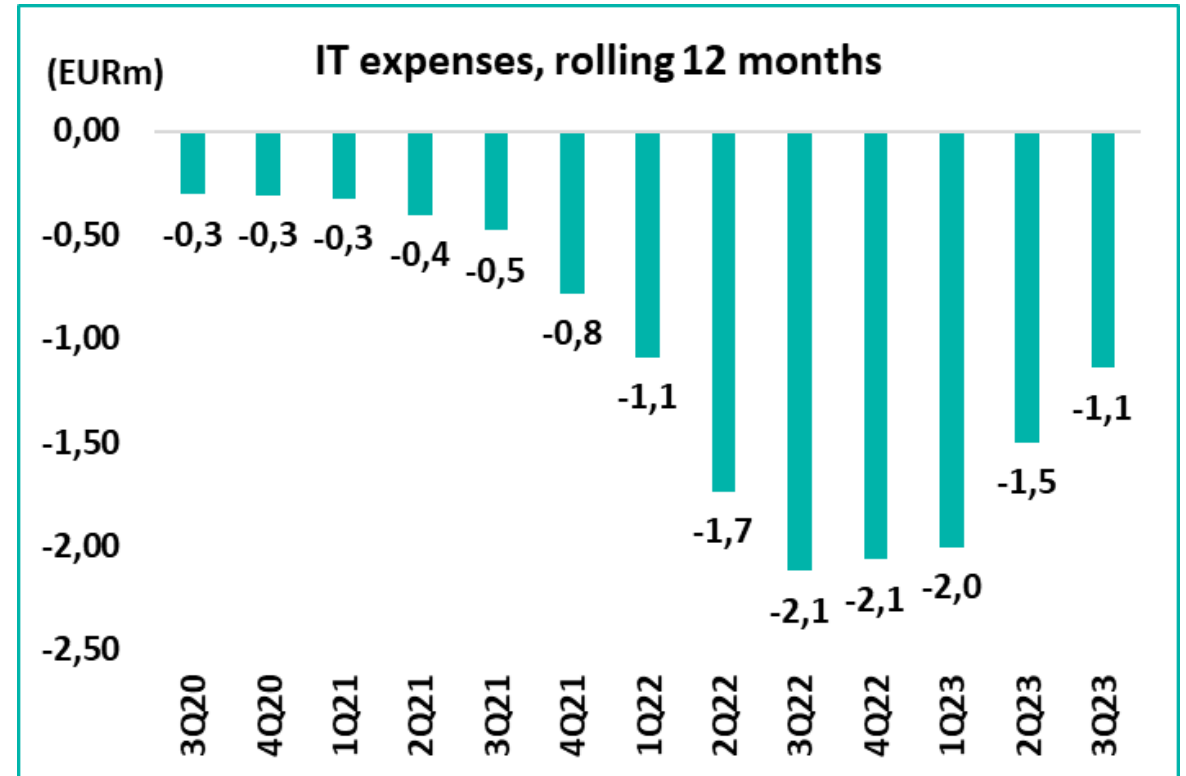
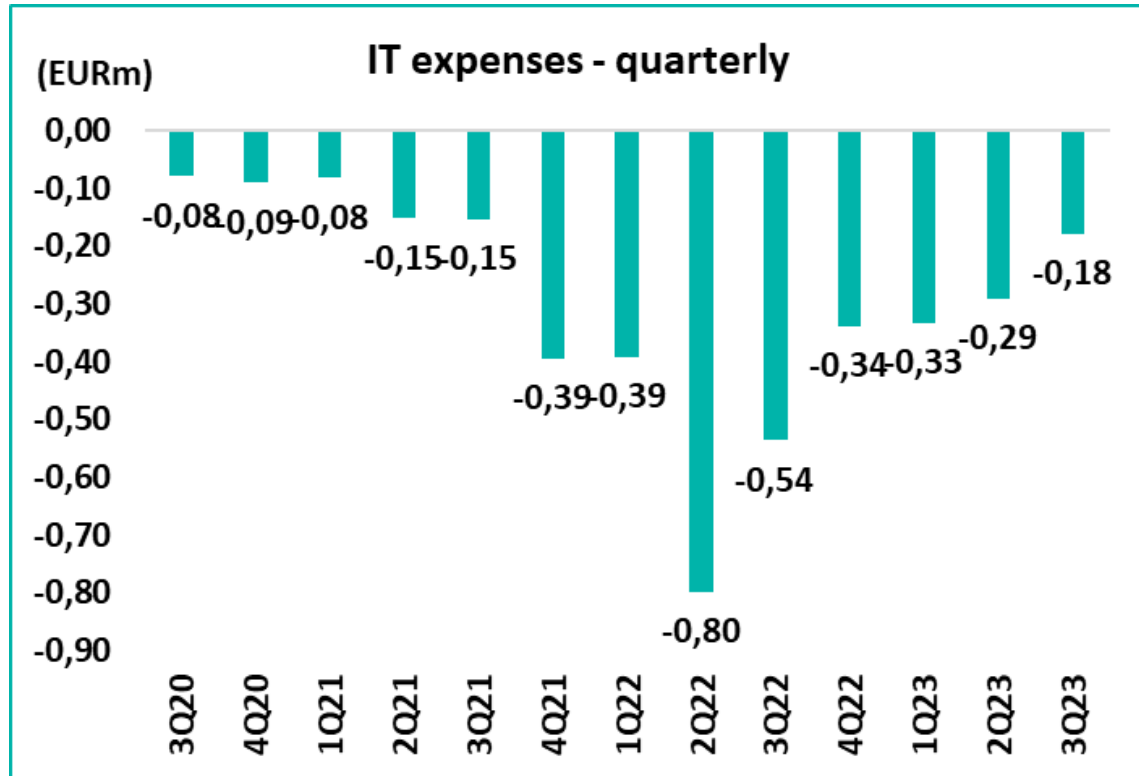


...which had an effect on the gross margin. Excluding the Blockbuster project, gm was > 90%

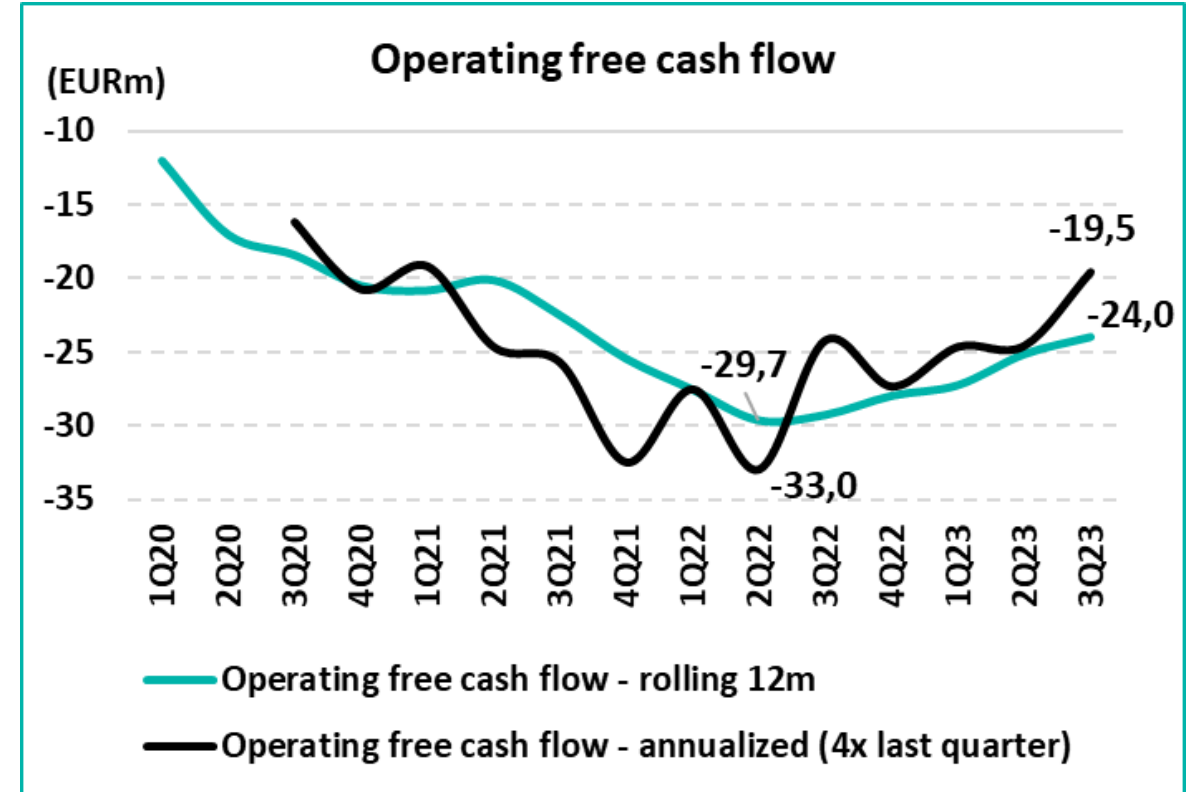
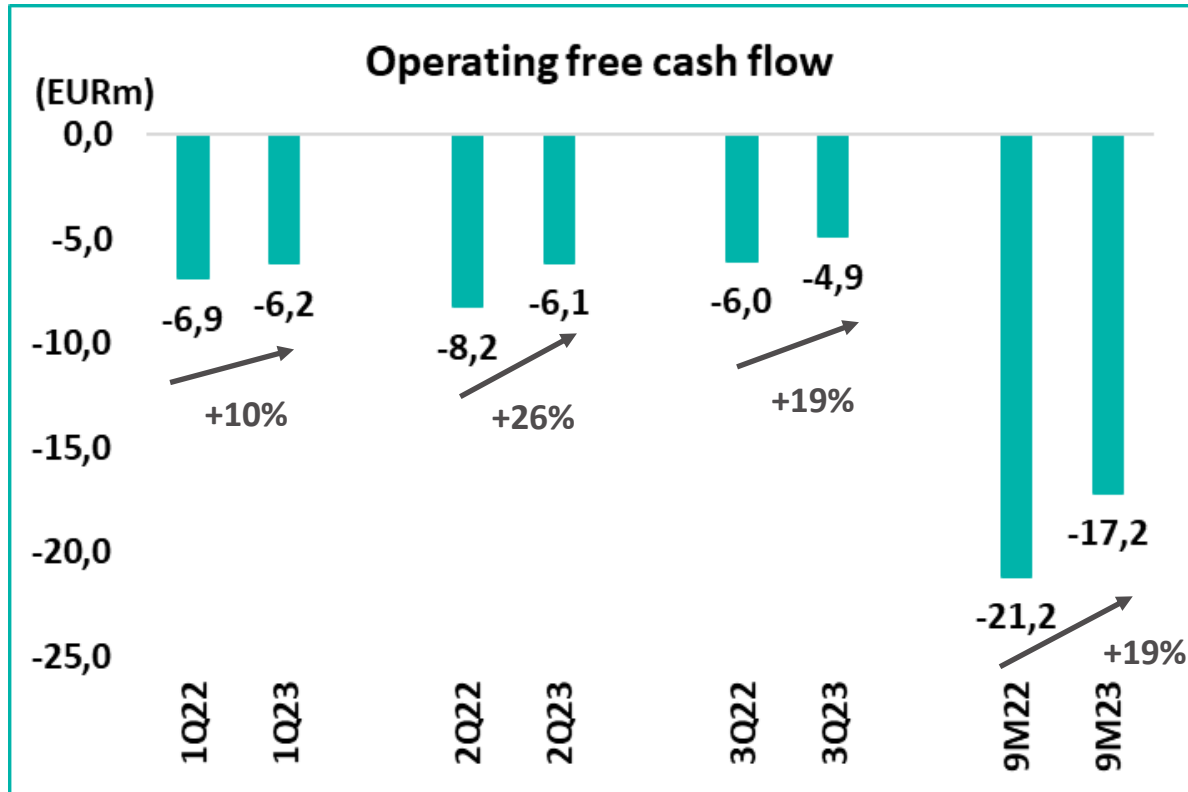


Excluding the cost of external GMP QC services, related to the Blockbuster project, our underlying in 9M23 gross margin was >90%. In June, Nanoform submitted a notification to the Finnish Medicines Agency (Fimea) to update our Manufacturer's Authorization (MIA). The notification included our new Quality Control laboratory (GMP QC) and an inspection is expected to take place in 1Q24. This will help our gross margin return to the 90+ levels we target.

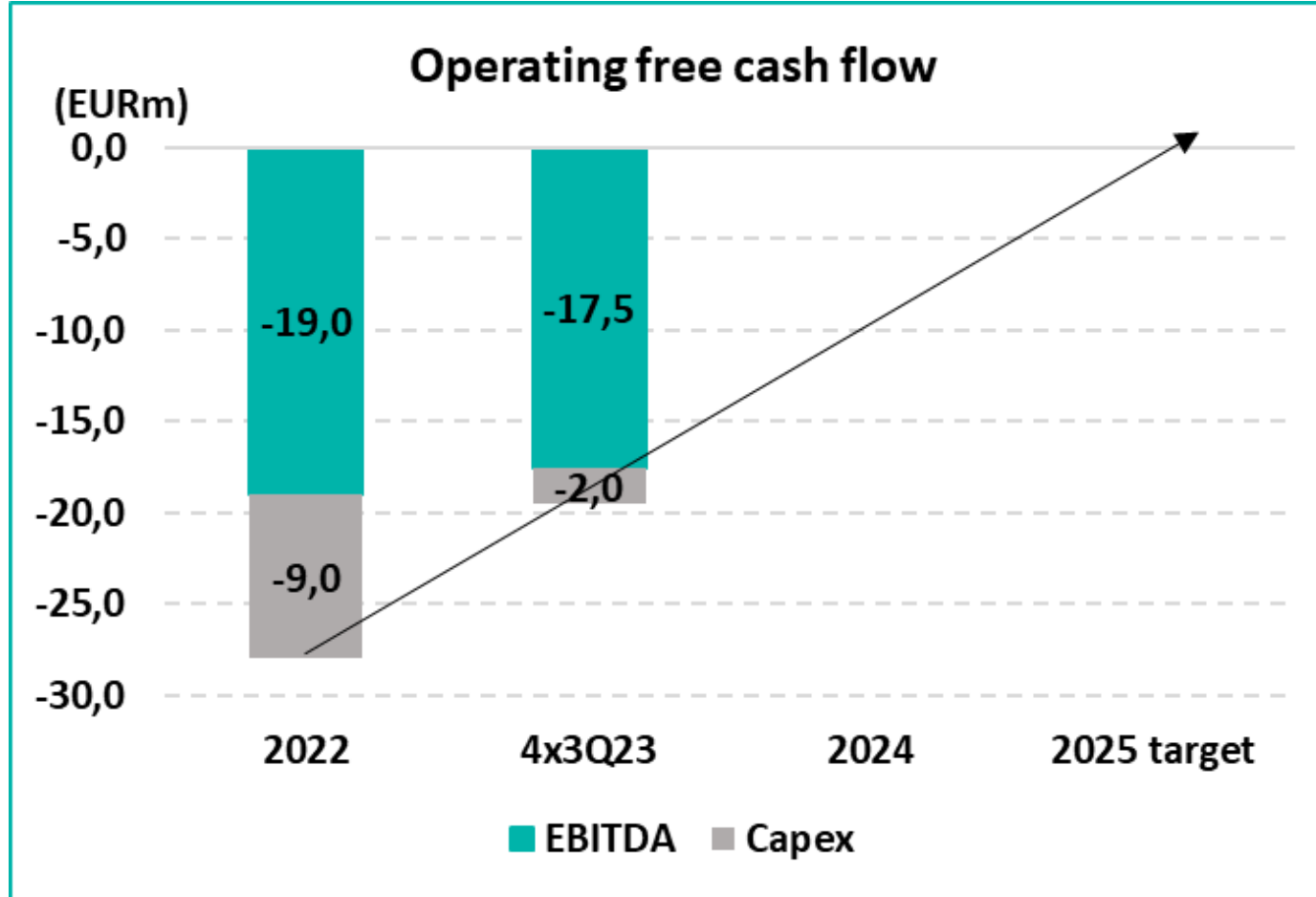
# IT expenses reduced after successful SAP implementation



# Improvement in operating free cash flow continued in 3Q



# Operating free cash flow trend towards 2025 target on track





# KPI's

## Financial KPI's

EUR thousand	7-9/2023	7-9/2022	1-9/2023	1-9/2022	1-12/2022	1-12/2021	1-12/2020
Revenue	641	851	2,166	2,501	3,487	1,955	687
Revenue growth %	-25%	79%	-13%	92%	78%	185%	n.m.
Gross profit	340	816	1,422	2,334	3,147	1,792	497
Gross margin	53%	96%	66%	93%	90%	92%	72%
EBITDA	-4,380	-4,186	-14,245	-14,243	-19,027	-17,745	-18,196
Operating loss	-5,102	-4,796	-16,354	-15,979	-21,409	-19,705	-19,423
Loss for the period	-4,122	-5,155	-15,417	-16,506	-22,075	-19,690	-19,441
Basic EPS (EUR)	-0.05	-0.07	-0.20	-0.22	-0.29	-0.29	-0.35
Net debt	-45,486	-69,220	-45,486	-69,220	-61,807	-68,070	-54,156
Net debt excluding lease liabilities	-51,818	-76,329	-51,818	-76,329	-68,740	-75,733	-59,977
Investments in property, plant, and equipment	-503	-1,857	-2,931	-6,920	-8,965	-7,737	-2,336
Operative free cash flow	-4,883	-6,044	-17,176	-21,164	-27,992	-25,482	-20,532
Cash and cash equivalents excluding short-term government bonds (end of period)	18,432	76,329	18,432	76,329	68,740	75,733	61,025
Cash and cash equivalents including short-term government bonds (end of period)	51,818	76,329	51,818	76,329	68,740	75,733	61,025

## Operational KPI's

	7-9/2023	7-9/2022	1-9/2023	1-9/2022	1-12/2022	1-12/2021	1-12/2020
Number of new customer projects signed during the period							
Non-GMP	1	2	17	15	17	16	10
GMP			1		1	2	
<b>Total number of new customer projects</b>	<b>1</b>	<b>2</b>	<b>18</b>	<b>15</b>	<b>18</b>	<b>18</b>	<b>10</b>
Number of lines (end of the period)							
Non-GMP	19	16	19	16	18	14	8
GMP	1	1	1	1	1	1	1
<b>Total number of lines (end of period)</b>	<b>20</b>	<b>17</b>	<b>20</b>	<b>17</b>	<b>19</b>	<b>15</b>	<b>9</b>
Personnel at the end of reporting period	165	143	165	143	150	125	74

# Income statement

## Condensed financial information January–September 2023

### Consolidated statement of comprehensive income

EUR thousand	Note	7-9/2023	7-9/2022	1-9/2023	1-9/2022	1-12/2022
Revenue	4	641	851	2,166	2,501	3,487
Other operating income						
Materials and services		-301	-36	-744	-167	-340
Employee benefits	7	-3,434	-3,029	-10,723	-10,665	-14,010
Depreciation, amortization, and impairment losses	6	-722	-610	-2,109	-1,736	-2,382
Other operating expenses	5	-1,287	-1,973	-4,944	-5,912	-8,164
<b>Total expenses</b>		<b>-5,744</b>	<b>-5,647</b>	<b>-18,519</b>	<b>-18,481</b>	<b>-24,896</b>
<b>Operating loss</b>		<b>-5,102</b>	<b>-4,796</b>	<b>-16,354</b>	<b>-15,979</b>	<b>-21,409</b>
Finance income		1,388	106	4,518	601	957
Finance expenses		-401	-461	-3,567	-1,108	-1,604
<b>Total finance income and expenses</b>		<b>986</b>	<b>-355</b>	<b>952</b>	<b>-507</b>	<b>-647</b>
<b>Loss before tax</b>		<b>-4,116</b>	<b>-5,151</b>	<b>-15,402</b>	<b>-16,486</b>	<b>-22,056</b>
Income tax		-6	-4	-15	-20	-19
<b>Loss for the period</b>		<b>-4,122</b>	<b>-5,155</b>	<b>-15,417</b>	<b>-16,506</b>	<b>-22,075</b>

### 1-9/2023 comments

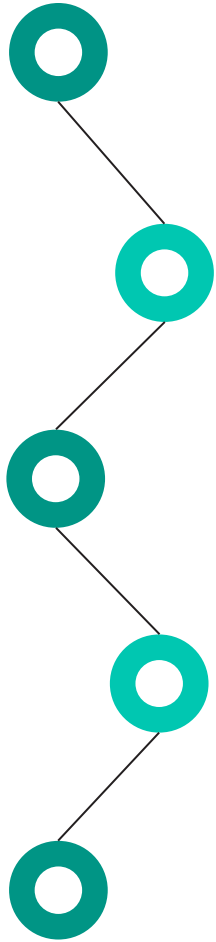
- Revenue came in at EUR 2.2 million, stemming from 32 different customer projects (EUR 2.5m, 33 projects in 1-9/2022).
- The gross profit decreased to EUR 1.4 million, with a gross margin of 66% (EUR 2.3 million, 93%) due to GMP QC costs related to the Blockbuster project. Excluding these, the gm was above 90%. Revenues are recognized over the lifetime of the projects, based on expenses (mostly hours worked) booked for the projects.
- The operating free cash flow continued to improve and was less than EUR 20m annualized in 3Q, helped by lower investments in property, plant and equipment. Operating costs, excluding depreciation, fell compared with last year.
- Cash position (incl. T-bills) was EUR 51.8 million (EUR 76.3m) at the end of 3Q23, down EUR 5.0m during the last quarter (EUR 56.8m at the end of 2Q23).

### 5. Other operating expenses

The decrease in other operating expenses stems mainly from the decrease in IT expenses (SAP S4/ HANA was implemented in early January 2023).

EUR thousand	7-9/2023	7-9/2022	1-9/2023	1-9/2022	1-12/2022
Premises expenses	53	38	176	101	159
IT expenses	178	536	803	1,725	2,064
Marketing and communication expenses	158	206	423	548	825
Consultant and professional fees	301	288	958	927	1,355
Travel expenses	63	83	276	250	353
Voluntary personnel related expenses	113	167	466	580	781
R&D expenses - external	204	251	748	616	1,008
Other expenses	217	405	1,093	1,164	1,620
<b>Total</b>	<b>1,287</b>	<b>1,973</b>	<b>4,944</b>	<b>5,912</b>	<b>8,164</b>

# Upcoming investor events and presentations



Nov 22, 2023	Q2 2023 interim report
Nov 22, 2023	Financial Hearings webcast presentation at 15.00 EEST: <a href="https://ir.financialhearings.com/nanoform-q3-report-2023">https://ir.financialhearings.com/nanoform-q3-report-2023</a>
Nov 23, 2023	Presentation and 1-1's at SEB Healthcare Seminar, Stockholm (in person)
Nov 29, 2023	Presentation and 1-1's at Carnegie Healthcare Seminar, Helsinki (in person)
Dec 14, 2023	Presentation and 1-1's at DNB Nordic Healthcare Seminar, Oslo (in person)
Jan 9, 2024	Presentation and 1-1's at SEB Nordic Seminar, Copenhagen (in person)



An aerial photograph showing a winding road through a dense green forest, with a body of water visible on the left and right sides. The road has a yellow center line and a white edge line. A small car is visible on the road. The forest is composed of many tall, thin trees with green foliage. The water is a deep blue color.

# Q & A

[www.nanoform.com](http://www.nanoform.com)

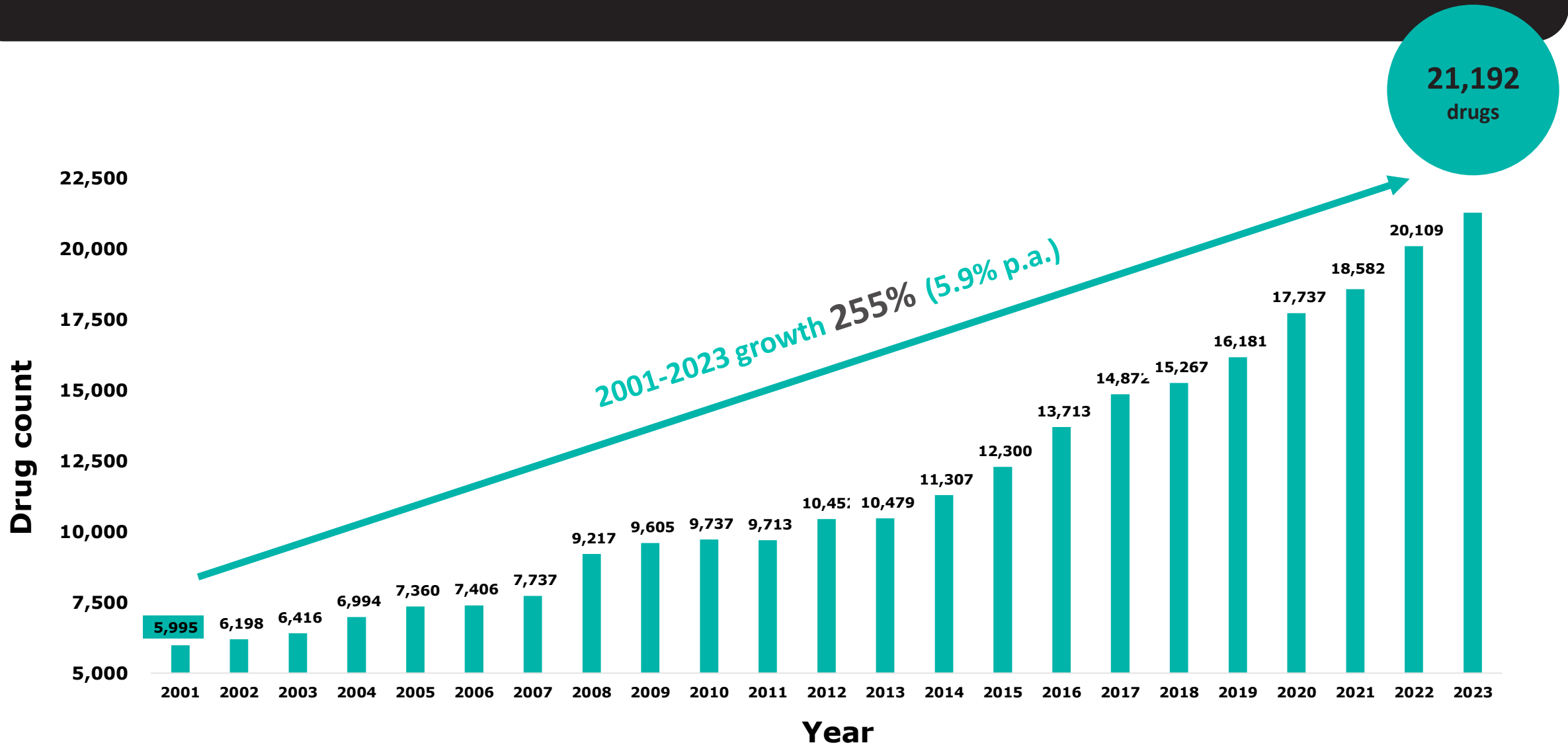
*San Diego - New York - Lisbon - Oxford – London - Cambridge - Bordeaux - Stockholm - Helsinki*



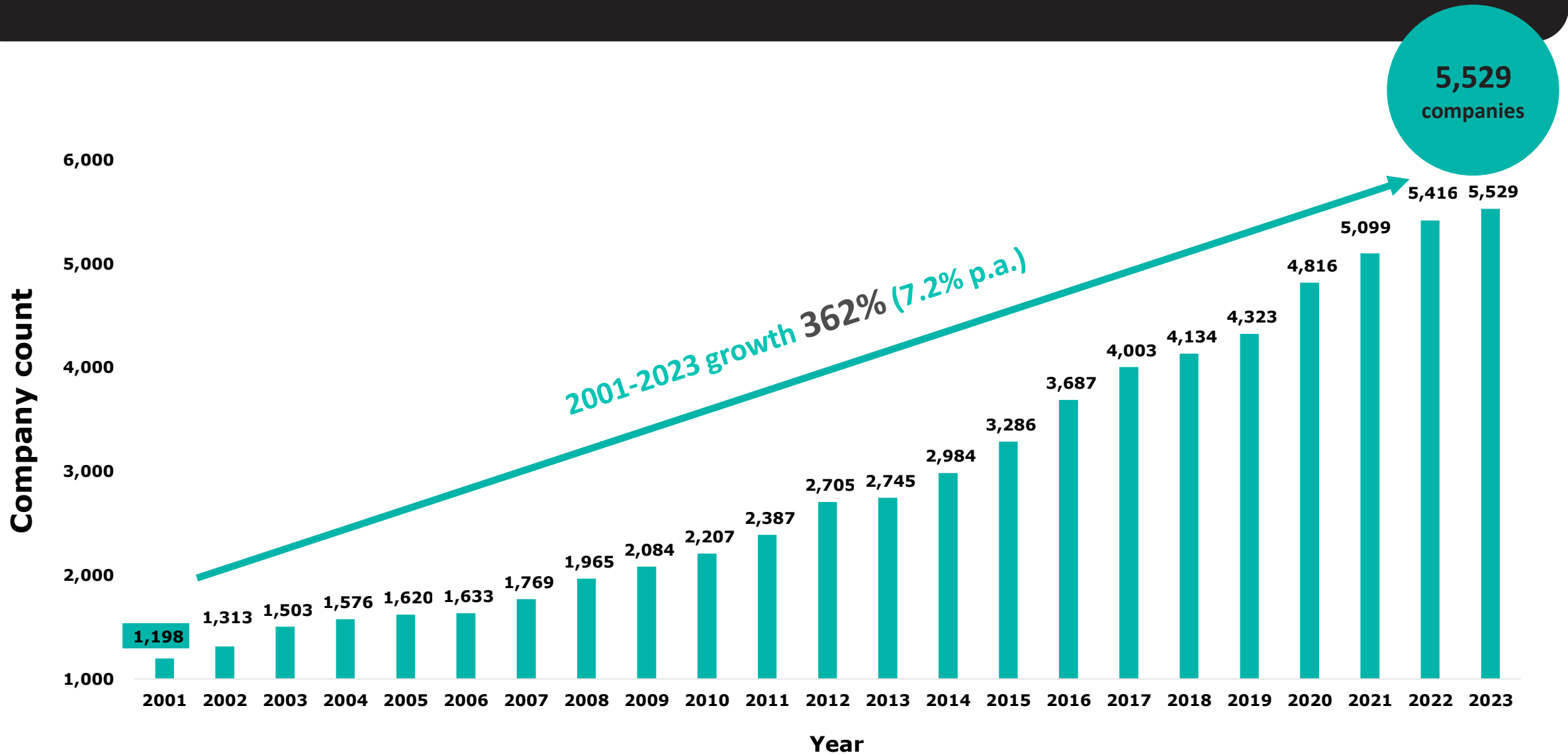


# APPENDIX

# Global drug R&D pipeline size and growth



# Global number of companies with active pipelines





# Revenue drivers & industry attrition rates

## Nanoform pre-clinical and clinical revenue drivers

### Non-GMP

#### Proof of Concept (PoC)

- # of active customers
- # of APIs per customer
- Price per PoC per API

#### Proof of Process (PoP)

- Attrition between PoC and PoP
- Price per PoP per API
- Time lag between PoC and PoP

### GMP

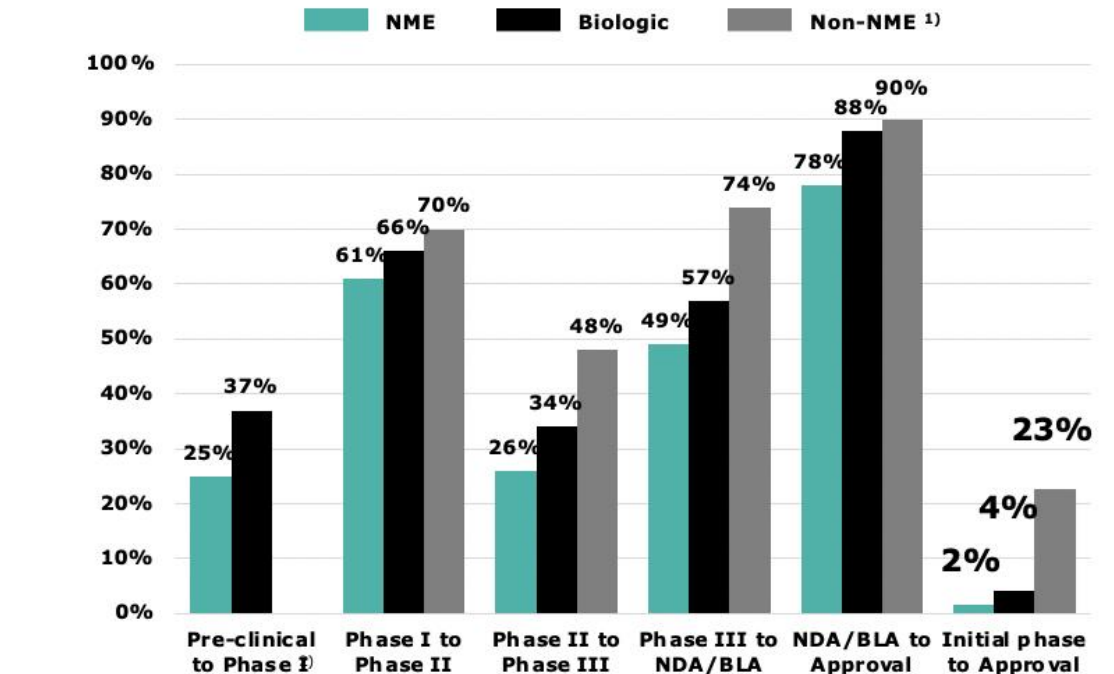
#### Phase I, II & III and/or 505(b)(2)

- Attrition between previous and current phase
- Price per phase per API
- Time lag between previous and current phase
- # of customers with 505(b)(2) strategy
- Proportion of new drug candidates and 505(b)(2) APIs

#### Drugs on the market

- # of drugs on the market using CESS®
- License fee & royalty level per drug
- Net revenues per drug
- Time lag Phase II and market (505b2)
- Time lag Phase III and market
- Speed of uptake on market

## Global Pharmaceutical industry's pre-clinical and clinical success rates



Timeline (years)	Pre-clinical	Phase I	Phase II	Phase III	Approval	Total
New drugs	~1-4	~2	~2	~3-4	~1	~9-13
Existing drugs	-	Clinical development for 505(b)(2) ~2-5			~1	~3-6



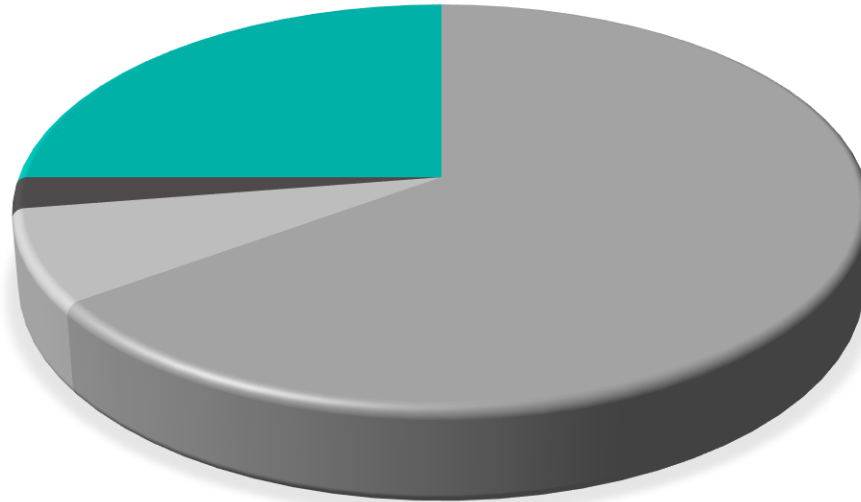
# Commercial Relationships 2019 to 3Q 2023

**10 major pharma**  
(50% of top-20)

26 mid-sized,  
specialty pharma &  
biotech companies

**1** co-development

**3** collaborations



# *A Selection of Nanoform Pharmaceutical Partnerships*

*10 of the top 20 Major Pharma and many Biotechs including*



# Nanoform from June 2020 IPO to September 2023

	<i>IPO June 2020</i>	<i>Sept 2023</i>	<i>Growth</i>
Employees	50	~160	~3x
Manufacturing lines	5	~20	~4x
Customers enrolled	5	~40	~8x
Customer projects started	5	~60	~12x

# CESS® Superior to Existing Technologies

	Controlled Expansion of Supercritical Solutions (CESS®)	Solid dispersion (e.g. spray drying)	Jet milling	Nanomilling
Description	Extracts API from supercritical CO <sub>2</sub> by applying controlled reduction in pressure	API is dispersed into a solid material, which dissolves when exposed to an aqueous media	Application of energy to physically break down API particles to finer ones	API particle size is reduced in a liquid vehicle via grinding
Particle size	Down to 10nm	300nm-25µm	800nm-10µm	>150nm
Particle formation	Controlled crystalline or amorphous and stable	Amorphous (unstable without excipients)	Unstable (crystalline and amorphous structures)	Unstable (crystalline and amorphous – needs excipient to stabilise)
Ease of formulation	✓	✗	✗	✗
Reproducibility	✓	✓	✗	✗
Free from excipients and solvents	✓	✗	✓	✗
Yield	High	Low	High	Low
Investment	Low	High	Low	Low



# Nanoform educational material

## VIDEOS

**PODD 2022 Video** – “How drug delivery is enabling a clinical trial for Glioblastoma” – TargTex CEO João Seixas and Nanoform CCO Christian Jones present promising data enabled by a nanoformed drug product for the treatment of glioblastoma multiforme (GBM): <https://player.vimeo.com/video/791949368>

**American Association of Pharmaceutical Scientists (AAPS) webinar** – We hosted a webinar “Tailored API Nanoparticles: How Powerful Can Small Be?” in partnership with the American Association of Pharmaceutical Scientists (AAPS): <https://player.vimeo.com/video/684197206?h=6dac8c956d>

**Nanoform’s Collaboration with TargTex Video** – TargTex CEO João Seixas discusses the value Nanoform’s CESS® technology delivered for TargTex’s novel drug candidate targeting glioblastoma: <https://nanoform.com/en/nanoforms-collaboration-with-targtex-2/>

**ADHD Awareness Month** – How can STARMAP® Online guide the way? – In recognition of ADHD Awareness Month, we discuss the value our nanoparticle technology can bring to novel medicines for ADHD: <https://player.vimeo.com/video/768531631>

**BOS 2023 Video** – Nanoforming – the Patient- and Planet-Centric Approach From Increasing Bioavailability to Enabling Sustained Drug Delivery – Nanoform CCO Christian Jones delves into the benefits that can be unlocked for both patients and the planet through the Nanoform toolbox, supported by data from relevant case studies: <https://nanoform.com/en/nanoforming-the-patient-and-planet-centric-approach-from-increasing-bioavailability-to-enabling-sustained-drug-delivery/>

**Drug Hunter Webinar** – Not Your Grandparents’ Drugs: How Approved Drugs Have Evolved Since the 70’s – Nanoform & Drug Hunter explore how the lipophilicity (LogP) of drugs has changed over time: <https://nanoform.com/en/not-your-grandparents-drugs-how-approved-drugs-have-evolved-since-the-70s/>

## ARTICLES & OTHER MATERIALS

**Streamlining Drug Development with AI** – Nanoform delved into this topic in CHEManager. Discover the company’s insights here, including how Nanoform’s pioneering AI-based STARMAP® platform can help: <https://www.chemanager-online.com/en/news/nanoparticle-engineering>

**Small is Powerful: A Globally Unique Capability for Nanoforming HPAPIs** – Nanoform discusses high-potency API handling capabilities with DCAT Value Chain Insights: <https://www.dcatvci.org/sponsored/small-is-powerful-a-globally-unique-capability-for-nanoforming-hpapis/>

**Celanese Case Study** – Nanoform and Celanese use drug nanoparticles to modify the release kinetics of ethylene vinyl acetate long-acting implants: <https://nanoform.com/en/nanoform-and-celanese-use-drug-nanoparticles-to-modify-the-release-kinetics-of-ethylene-vinyl-acetate-long-acting-implants/>

**Nanoform White Paper** – “Strategies for patient-centric differentiation through the USFDA 505(b)(2) pathway” – With faster routes to approval, the volume of 505(b)(2) applications now exceeds that of 505(b)(1). Discover the reasons for this in our white paper: <https://nanoform.com/en/wp-content/uploads/sites/2/2022/05/whitepaper-march-2022.pdf>

**PION Partnership** – Characterization of the Flux Performance of Nanoformed and Untreated Crystalline Piroxicam Solid Suspensions, and the Relative Contributions of the Particle Drifting Effect to In Vitro Flux – Nanoform and PION performed MicroFLUX analysis on nanoformed piroxicam to investigate nanoparticle flux performance compared to crystalline solid suspensions: <https://nanoform.com/en/wp-content/uploads/sites/2/2023/07/Nanoform-Poster-91-x-91-cm-V7.pdf>

**Nanoform Sustainability Ebook** – Discover how we are driving sustainability across the pharmaceutical industry in our ebook: <https://nanoform.com/en/sustainability-ebook/>

**Nanoform Brochure to the Pharma Industry** – <https://nanoform.com/en/brochure/>

# Selection of Nanoform Institutional Shareholders



# Management team: Multi-disciplinary with international merits



**CEO & Co-founder; Ph.D. (Applied physics), MBA**

**Edward Hæggström**

- Professor at the University of Helsinki, Head of Electronics Research Lab. within the Dept. of Physics
- Previously visiting professor at Harvard Medical School, visiting scholar at Stanford University and project leader at CERN
- Has led large number of scientific projects
- *Current ownership: 5,409,405 shares*



**CCO; M.Sc. (Chemistry)**

**Christian Jones**

- Previously Commercial Director and member of the Senior Leadership Team for the Global Health Sector at Johnson Matthey
- Senior roles at Dr. Reddy's Global Custom Pharma Solutions and Prosonix
- **Key area of responsibility:** Commercial strategy and business development
- *Current ownership: 300,000 options*



**General Counsel; LL.M**

**Peter Hänninen**

- Previously Attorney, Borenus Attorneys
- Successful track-record of advising technology companies from founding to exit in key transactions and collaborations
- **Key area of Responsibility:** Legal, Compliance, IPR, HR, IT
- *Current ownership: 103,125 shares and 380,000 options*



**Chief Quality Officer, M.Sc. (Pharmacology)**

**Johanna Kause**

- Previously Head of Quality, Regulatory and Safety for Finland and the Baltics at Takeda Pharmaceuticals
- 25 years of experience in Quality Management in the Pharma sector
- **Key area of responsibility:** Quality Management, GMP, GDP
- *Current ownership: 50,000 options*



**CFO and member of the Board; B.Sc. (Economics)**

**Albert Hæggström**

- 20 years of finance and investing experience
- Prior roles include positions at Alfred Berg, BNP Paribas, Nordea and SEB
- *Current ownership: 704,516 shares and 450,000 options*



**Head of Manufacturing; Ph.D. (Chemistry)**

**David Rowe**

- Previously Particle Size Reduction Lead for GlaxoSmithKline
- Chaired the PSR Centre of Excellence
- **Key area of responsibility:** Technical leadership within new chemical entities and commercial assets
- *Current ownership: 340,000 options*



**Chief of Business Operations (Chemistry and Quality)**

**Antonio da Silva**

- Degree in Chemistry from Lisbon University and Master degree in Quality from the University Aberta of Lisbon
- Extensive background in the CDMO and particle engineering space (19 years at Hovione)
- **Key area of responsibility:** Pharmaceutical product launches
- *Current ownership: 24,500 shares and 136,000 options*



# Board of directors: Top executives from leading industry positions



## Miguel Calado

### Chairman of the Board

- Previously CFO at international particle engineering CDMO company Hovione Group
- Other previous roles include CFO at PepsiCo International and President International Operations at Dean Foods
- Experienced Board member in both the EU and the US
- *Current ownership: 46,895 shares and 380,000 options*
- **Key experience:**



## Albert Hæggström

### CFO and Board Member

- 20 years of finance and investing experience
- Prior roles include senior positions at Alfred Berg, BNP Paribas, Nordea and SEB
- *Current ownership: 704,516 shares and 450,000 options*
- **Key experience:**



## Mads Laustsen

### Board Member

- Over 30 years of experience in pharmaceutical development and manufacturing
- Co-Founder and former CEO of international biologics CDMO company CMC Biologics and former CEO of Bactolife A/S
- Extensive experience in process development and patenting
- Senior positions within several Danish biotech companies
- *Current ownership: 16,577 shares and 300,000 options*
- **Key experience:**



## Jeanne Thoma

### Board Member

- 30+ years of experience in global pharmaceutical and life science leadership
- Prior roles include executive positions at BASF Inc, Lonza AG and SPI Pharmaceuticals
- *Current ownership: 16,577 shares and 38,630 options*
- **Key experience:**





## FURTHER ENQUIRIES

CFO Albert Hæggström, [albert.haeggstrom@nanoform.com](mailto:albert.haeggstrom@nanoform.com), +358 29 370 0150

DIR Henri von Haartman, [hvh@nanoform.com](mailto:hvh@nanoform.com), +46 76866 50 11

