

Nanoform Management Presentation

Q3 2024 Interim Report

November 18th, 2024



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, 2023 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.



Introduction & Key Business Highlights

CEO Edward Hæggström

Key strategy

**All
active pharmaceutical
ingredients (API's)
should be Starmapped**

**Nanoform work with
customers/partners to
enable both novel &
existing molecules to
become new and
improved medicines**

**In parallel, to show a
conservative industry
the power of
nanoforming, we create
up to a dozen
'product kernels'**

Proprietary technology platforms

Small molecules

Proven CESS®* nanotechnology enables new medicines through *improved bioavailability, higher drug load & novel formulations*

Large molecules

Unique BIO nanoparticles enable improved routes of administration with *high drug load and long-acting delivery*

Formulation

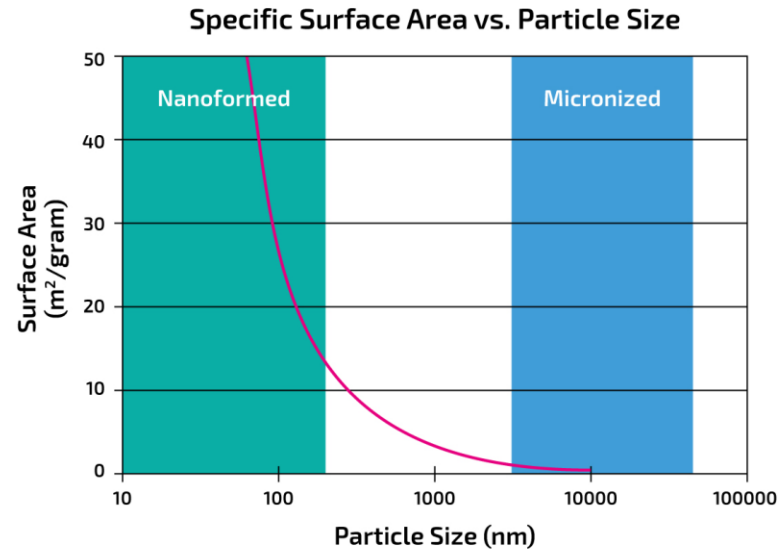
Highly differentiated *novel formulations* and *unique drug delivery opportunities* drive optimized therapeutic potential & patient convenience

AI

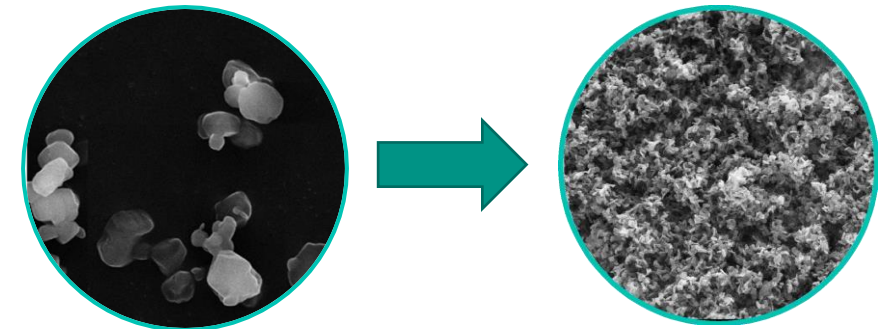
STARMAP® 2.0 online *picks best candidates* and *accelerates development* by integrating deep expertise with sparse data AI

Particle size is key

Smaller particle size can improve a drug's bioavailability



- The surface area increases 30-fold from a 10 micron¹ 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



Pre-nanoforming

Post-nanoforming

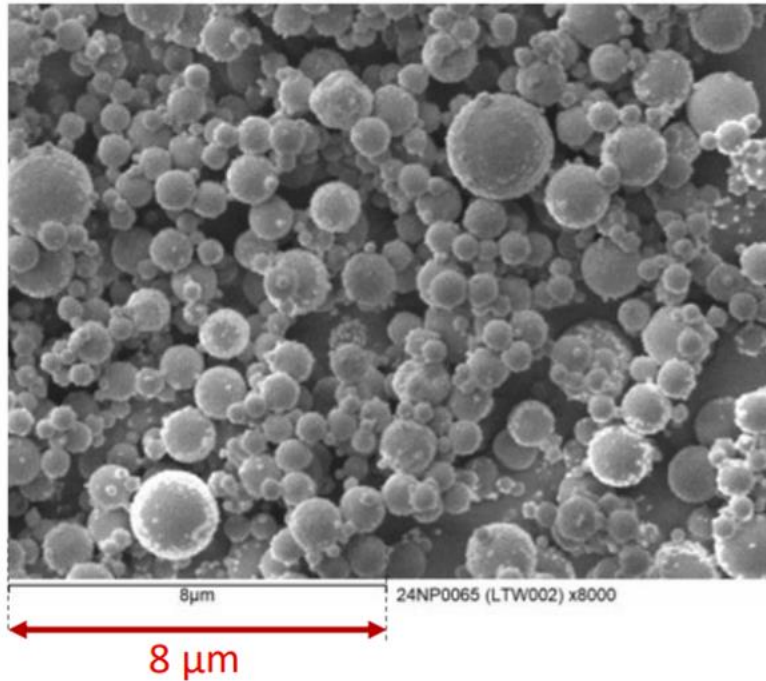
- Smaller particles have a larger surface area
- Larger surface area of particles enables improved bioavailability of a drug
- Improved bioavailability implies increased absorption of a drug by the body's circular system
- CESS[®] can produce API with large surface areas which can significantly improve the bioavailability of drugs

➤ CESS[®] produced nanoparticles have a larger surface area and as such improved bioavailability.

Comparison of Nanoform's proprietary biologics technology vs existing technologies

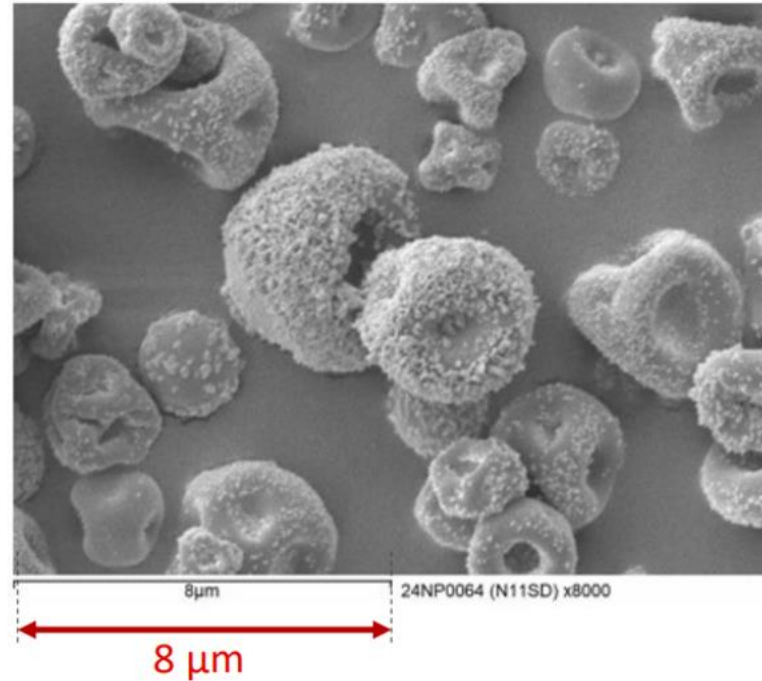
Nanoformed

Perfect spheres, highly flowable and aerodynamic, great packing and injection properties



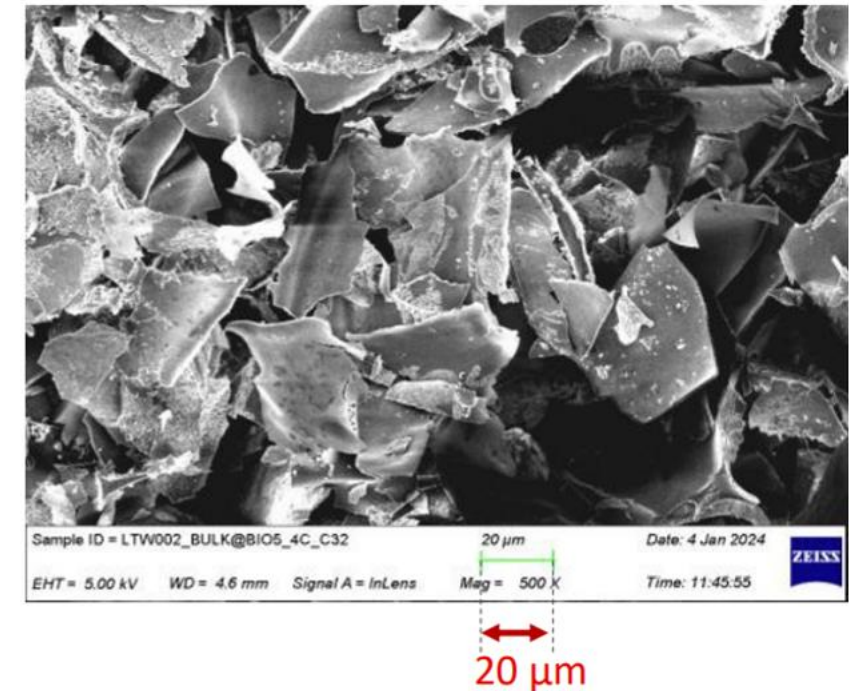
Spray dried

Sticky, poor flowability, raisin shaped



Lyophilized / freeze dried

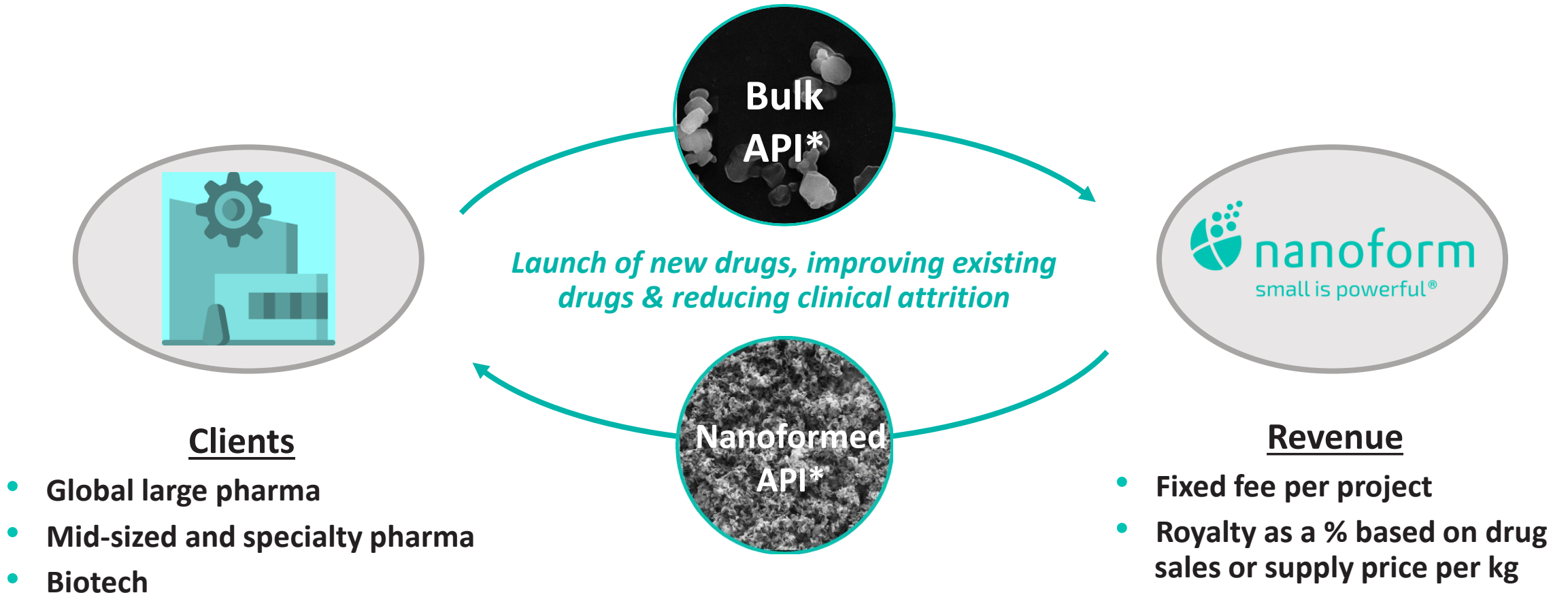
Flaky morphology, dry cake, no flowability



Nanoforming biologics: Superior flowability, aerodynamic performance, high density packing, low injection force, improved material quality and stability properties vs spray drying and lyophilization

Simplified value chain

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



Nanoform business highlights Q3 2024

1

New quarterly record on customer non-GMP projects signed.

2

Revenue growth is back and is expected to accelerate in coming quarters and years.

3

Following completion of in vitro proof of concept studies of a novel plasma-derived therapy formulation with Takeda, Nanoform will provide non-GMP nanomaterial to Takeda for in vivo studies. The first results of these studies are expected in early 2025.

4

Manufacturing of GMP material for pivotal studies and registration batches in Project Nanoenzalutamide continues, pivotal studies to start in 1Q25, with first read-out in 2Q25.

5

Further progress on dealmaking around our product kernels; half a dozen term sheets received, first letter of intent signed and several license/commercial supply agreements on multiple product kernels expected to be signed in coming quarters.

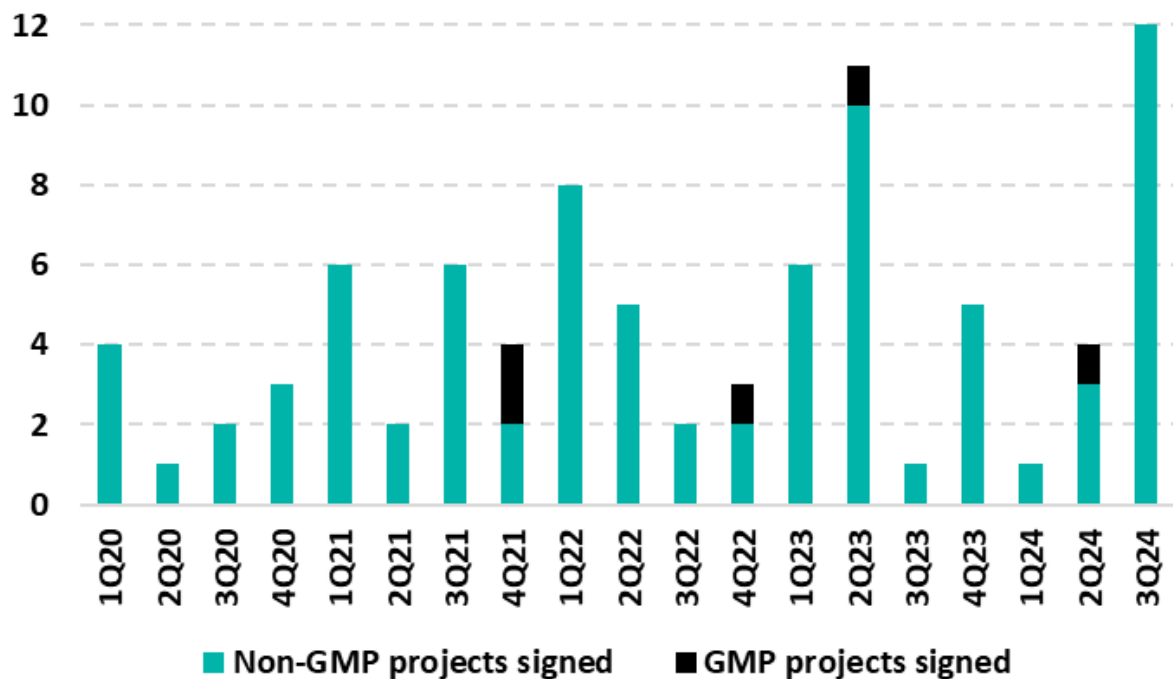


Financials

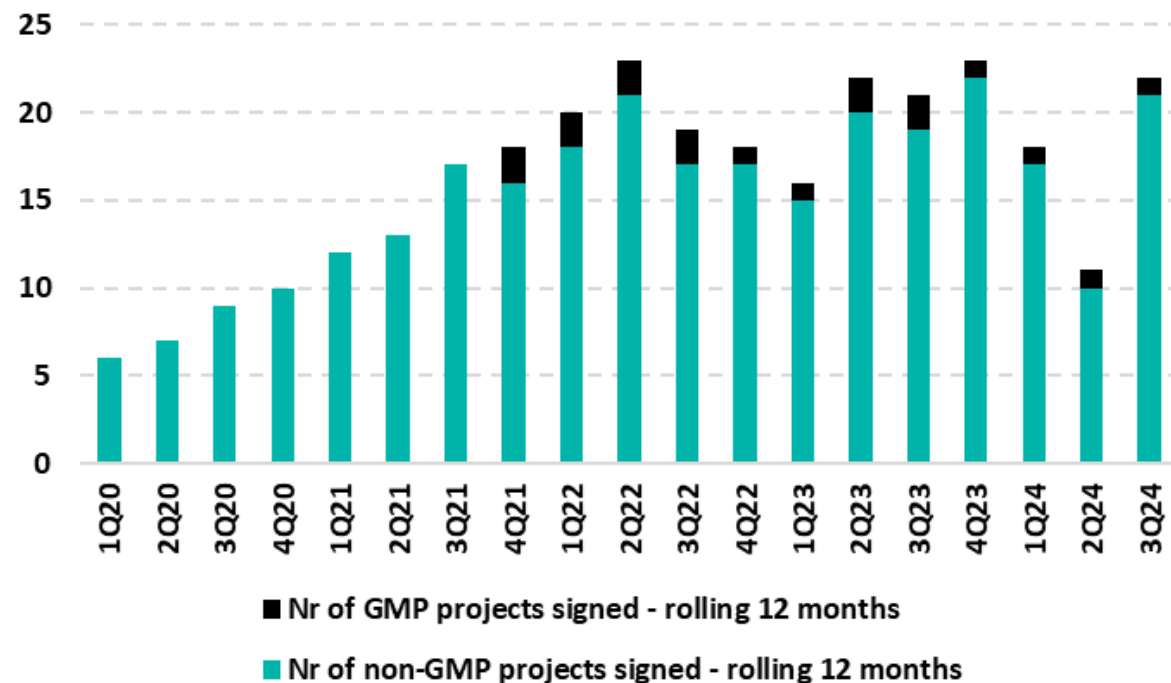
CFO Albert Hæggström

Number of projects signed – new record in a quarter

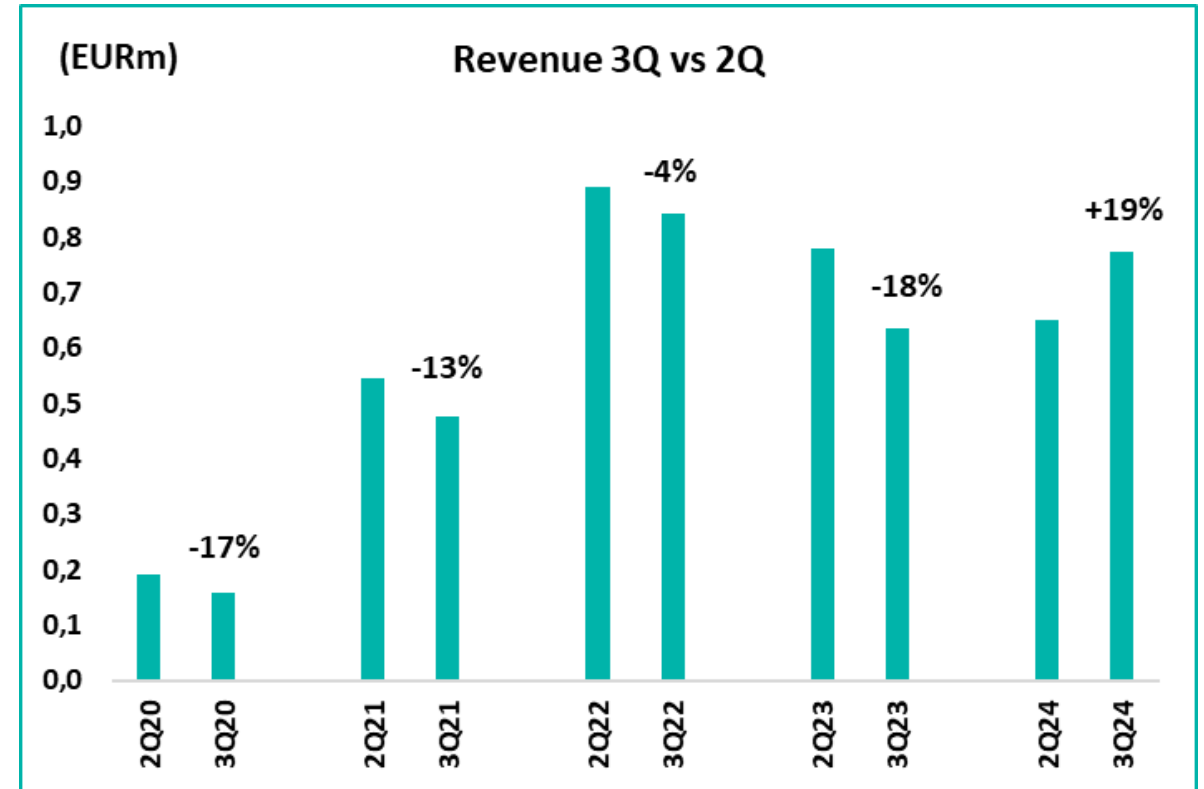
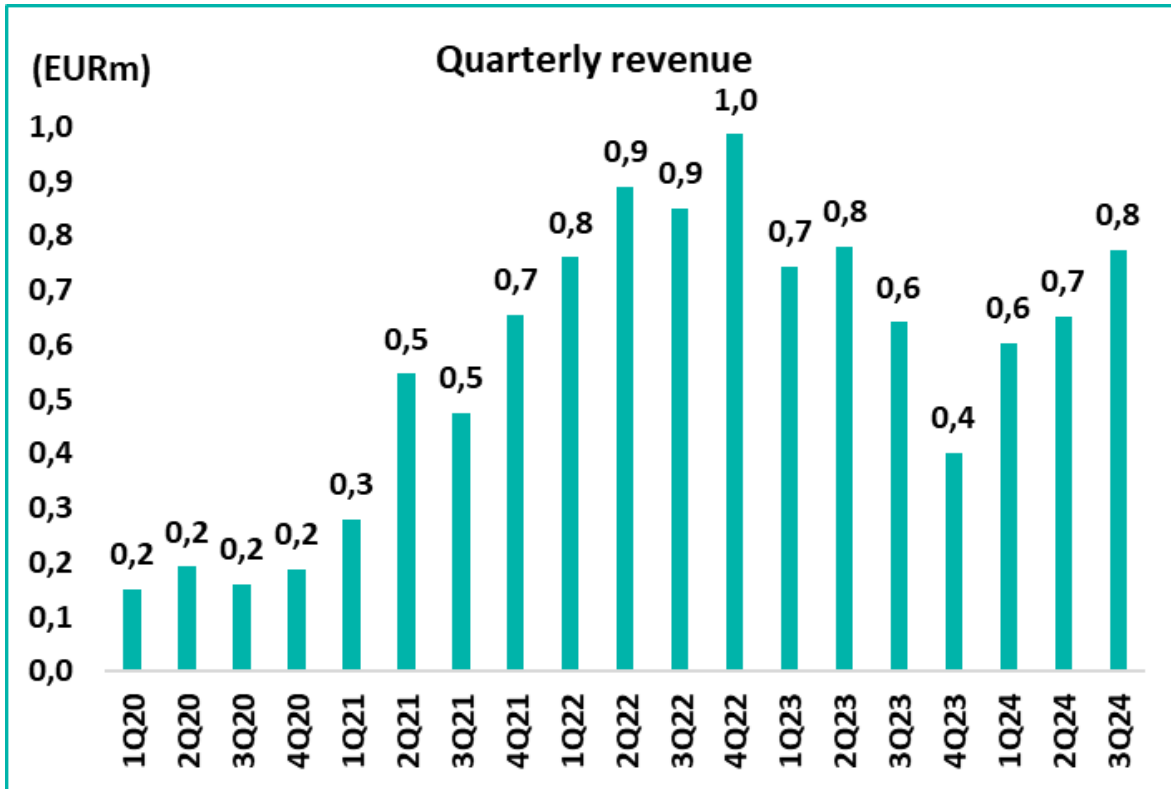
Nr of projects signed - per quarter



Nr of projects signed - rolling 12 months

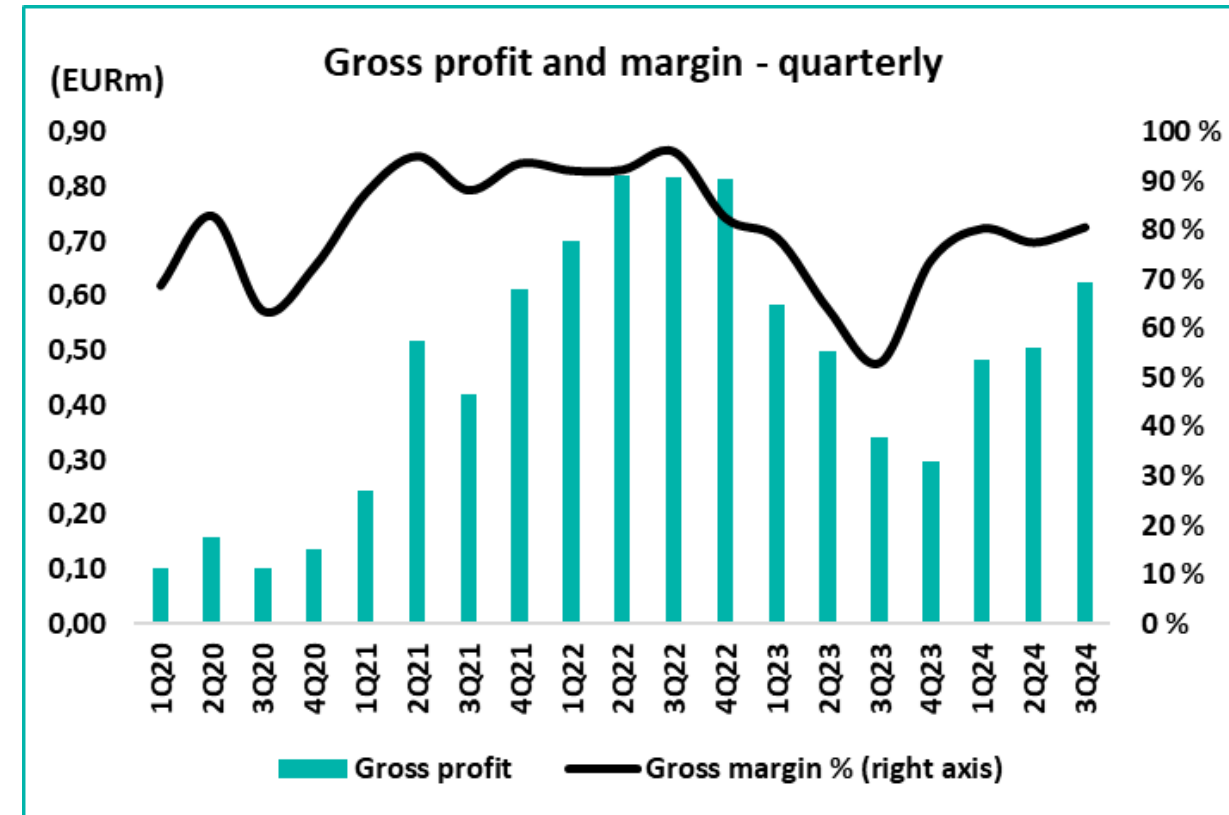
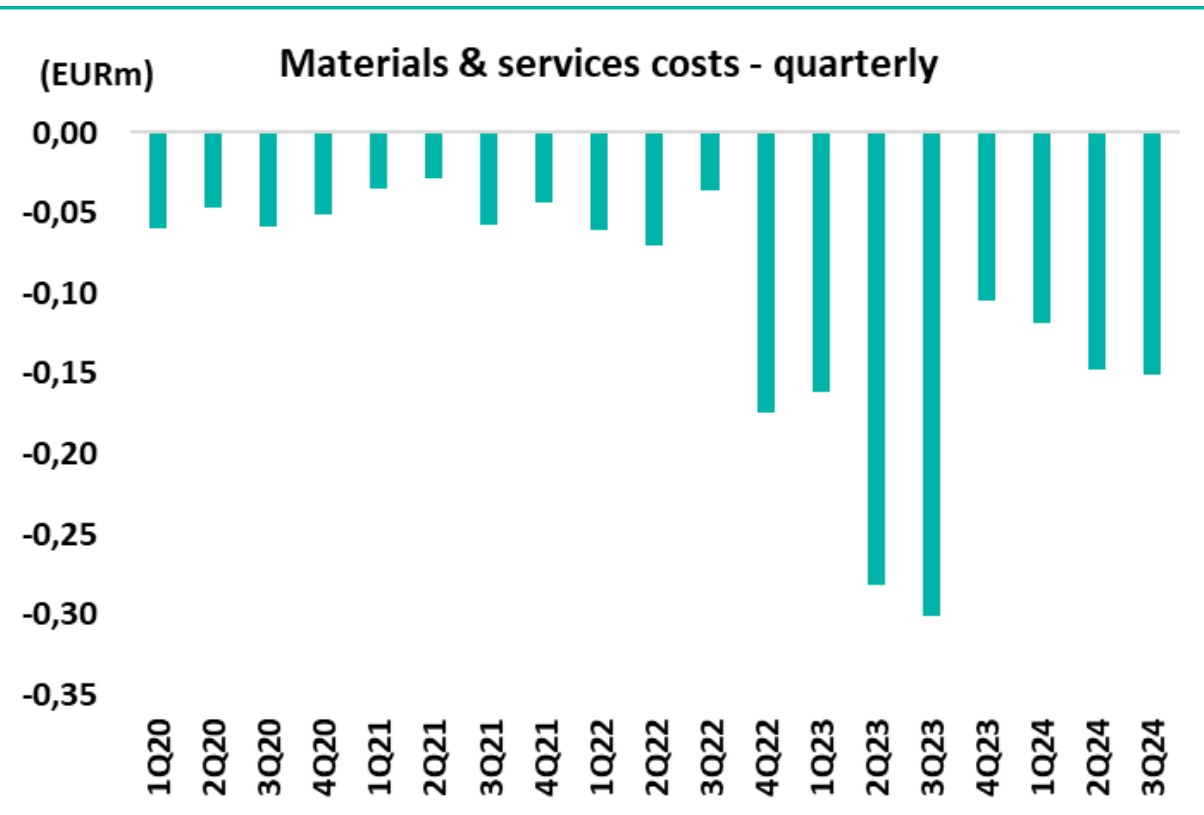


Revenue +21% y/y in 3Q, and +19% q/q despite summer period*



*3Q has historically had lower revenue recognized than 2Q as the hours worked are lower due to summer holiday period

Gross profit and gross margin rose, trend should continue after receiving Fimea license for our new GMP QC lab



Excluding the cost of external GMP QC services, related to the nanoenzalutamide project, our underlying gross margin has remained above 90%. After receiving the license from Fimea for our GMP Quality Control laboratory in August we have insourced most of the GMP QC analysis. This should have a positive effect on the gross margin from 4Q24 forward.

>90% of GMP QC work insourced after getting Fimea license in August

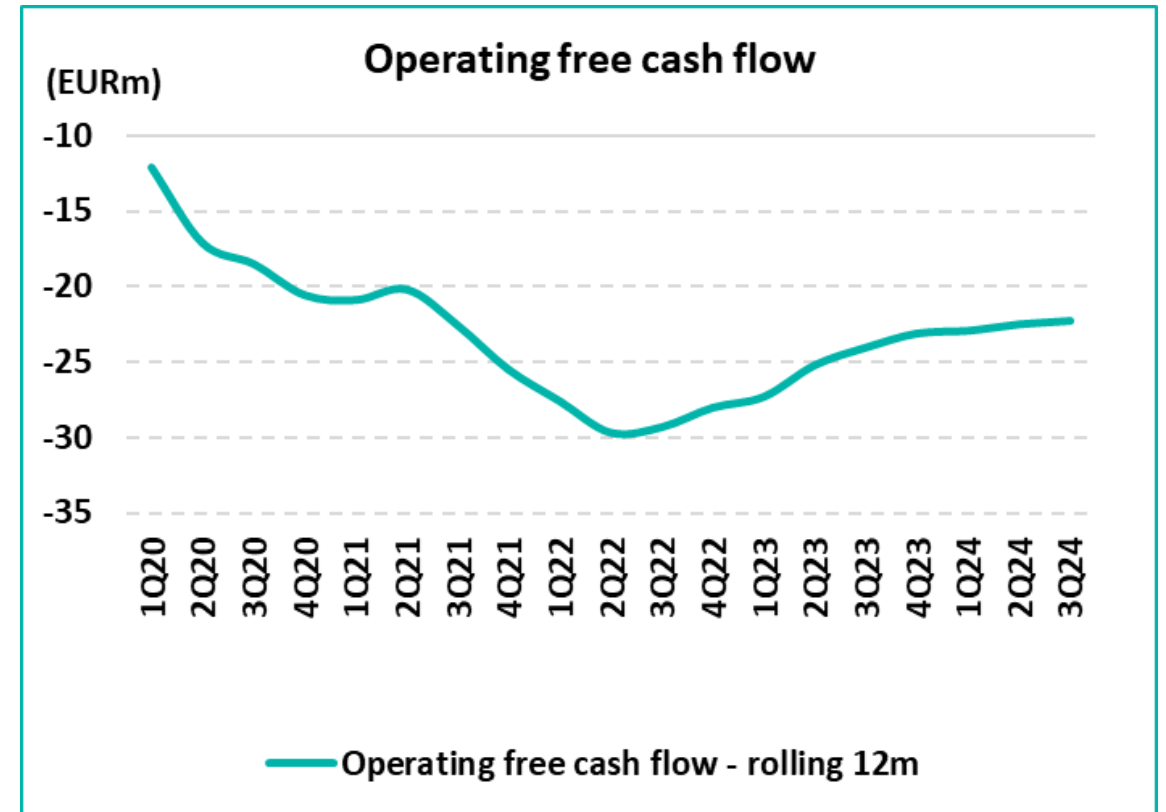
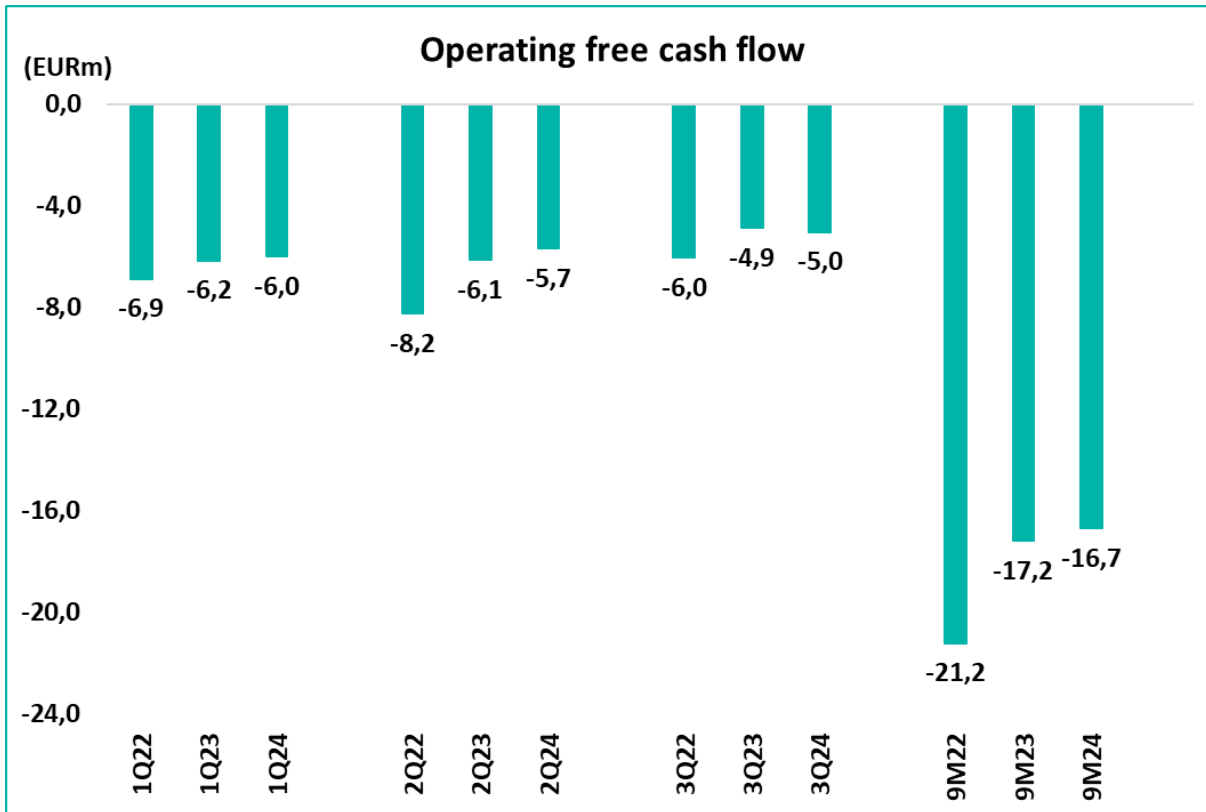
GMP Quality Control outsourced up to September 2024

Nanoformed AP1:	IPC analysis
	Release analysis
	Stability study analysis
	Stabalibity study management
Cleaning validation:	Cleaning sample analysis of line
Bulk API:	Release analysis
Primary packaging material:	Release analysis
Shipping costs:	On all above

GMP Quality Control as of October 2024 and going forward

Outsourced - Bulk API:	Release analysis of residual solvents 1-2 times/year
Outsourced - Back up:	Support analysis if needed
Shipping costs:	Only for external analysis

Improvement in operating free cash flow to continue



At the end of 3Q24, Nanoform had some than EUR 46m in cash & short-term government bonds and no debt

Nanoform near-term business targets 2024

Topic	Target	Status
Customer Projects	<i>Increased number of non-GMP and GMP projects signed in 2024 vs 2023 *</i>	16+1 in 9M2024 vs 17+1 in 9M2023
Operating Free Cashflow	<i>Improved operating free cashflow in 2024 vs 2023 **</i>	EUR -16.7m 9M2024 vs EUR -17.2m in 9M2023
Commercialization	<i>To sign one or several license/commercial supply agreements during 2024</i>	Half a dozen term sheets received, one LOI signed



Product Kernels

Chief Development Officer

Peter Hänninen

Product Kernels

**All
active pharmaceutical
ingredients (API's)
should be Starmapped**

**Nanoform work with
customers/partners to
enable both novel &
existing molecules to
become new and
improved medicines**

**In parallel, to show a
conservative industry
the power of
nanoforming, we create
up to a dozen
'product kernels'**

Product Kernels*

Nanoform 'product kernel' project data					Preclinical (Nanoform)				Clinical (Nanoform)		Commercial (Nanoform)		
Project	Originator	API	Indication	Delivery route / dosage form	PoC	Pre-formulation + in-vitro	Dosage form development + in vivo	PoP* / Dosage form development	Phase 1 / Pilot	Pivotal	Commercial partnering window	Targeted market launch	Expected originator peak sales*
OnConcept (Development partner)	Astellas/ Pfizer	Nanoenzalutamide	Prostate cancer	Oral/ tablet							2024-25	2027	>\$5bln
NAN024	Johnson & Johnson	Nanoapalutamide	Prostate cancer	Oral/ tablet							2024-25	2032	>\$5bln
NAN030	Undisclosed	Undisclosed	Oncology	Oral/ tablet							2025-26		
NAN027	Undisclosed	Undisclosed	Oncology	Oral/ tablet							2025-26		
Undisclosed (Development partner)	Undisclosed	Undisclosed	Inflammation	Oral/ tablet							2025		
NANxxx/LAI	Undisclosed	Undisclosed	Prostate cancer	Long Acting							2026		
Undisclosed (Development partner)	Undisclosed	Undisclosed	Oncology	Long Acting							2026		
NBN008	Undisclosed	Undisclosed	Oncology	High Concentration SC Bio							2026 - 27		



Commercial

CCO Christian Jones

Originator/Innovator customer business

**All
active pharmaceutical
ingredients (API's)
should be Starmapped**

**Nanoform work with
customers/partners to
enable both novel &
existing molecules to
become new and
improved medicines**

**In parallel, to show a
conservative industry
the power of
nanoforming, we create
up to a dozen
'product kernels'**

Commercial Activities



Dr Ajit Shetty, former Chairman of Janssen, and Dr Makarand Jawadekar, former Pfizer global R&D executive, visit Nanoform HQ in Helsinki



Director Sophie Janbon and Director Geof Wolfenden, AstraZeneca Plc, visit Nanoform HQ in Helsinki



Nanoform visit Bluepharma in Portugal, ONConcept® consortium partners for Nanoenzalutamide



Tomoyasu Nakamura and Shigerau Yokohama, CBC, present Nanoform partnership and Nanoform's technologies at 41st Symposium on Formulation and Particle Design in Okayama, Japan



Andreas Liebming, Ph.D., Global Head of Plasma-derived Therapies Pharmaceutical Sciences, Takeda, present Nanoform's Biologics technology



Christian Schneider, Celanese Inc, present Nanoform collaboration and Nanoform's small molecule technology



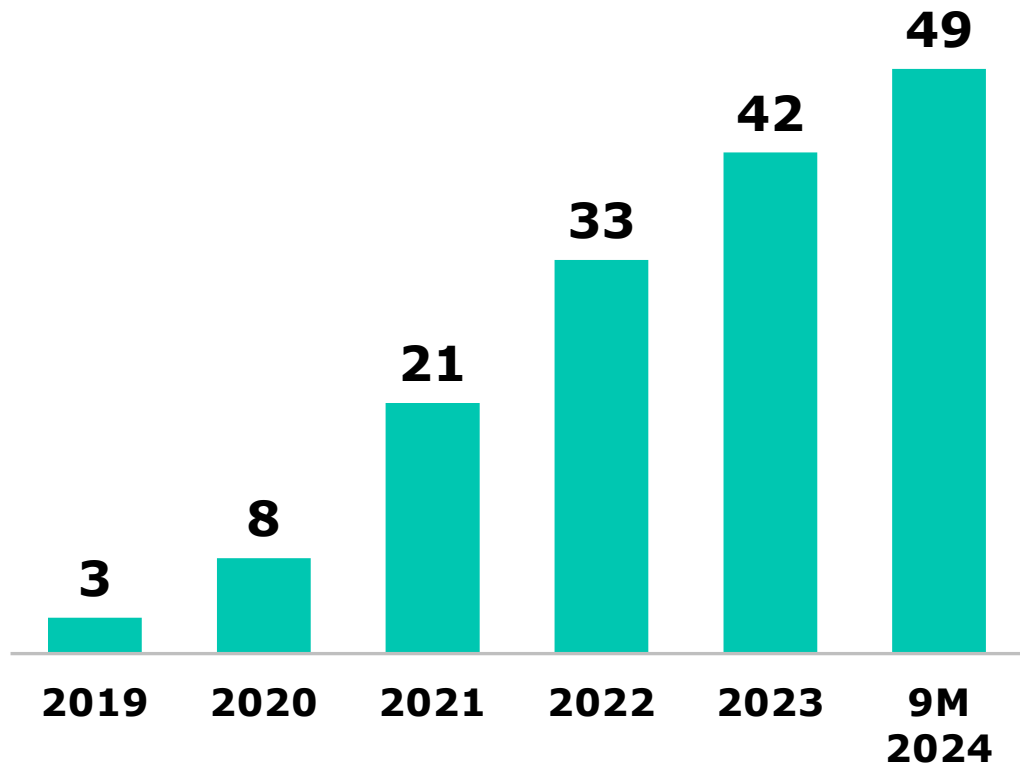
AAPS 2024 PHARMSCI 360

October 20-23, 2024
Salt Palace Convention Center
Salt Lake City, UT

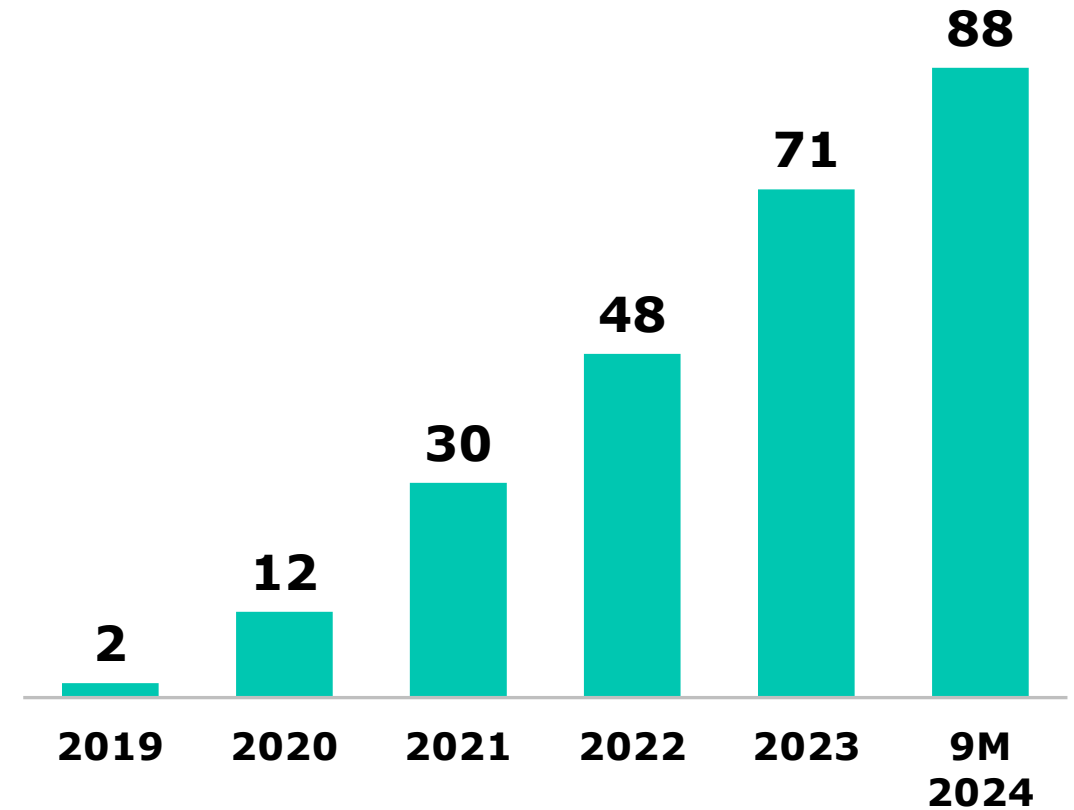


Cumulative number of customers and projects signed

Customers



Customer Projects



Nanoform customer projects – therapy area overview*

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

Customer projects and customer's formulation challenge

	Company Type	Therapeutic Area	Customer Formulation Challenge	Pre-Clinical	Phase 1	Phase 2	Phase 3	Marketed
Small Molecules	Mid-Size Pharma/Biotech	Oncology	Drug Load					
	Mid-Size Pharma/Biotech	Autoimmune	Food Effect/Dose Reduction					
	Large Pharma	Immunology	Dissolution					
	Mid-Size Pharma/Biotech	CNS	Drug Load					
	Large Pharma	Autoimmune	Drug Load					
	Mid-Size Pharma/Biotech	Oncology	Pill Burden					
	Mid-Size Pharma/Biotech	Glioblastoma	Drug Load/Stability					
	Mid-Size Pharma/Biotech	Respiratory	FPF					
	Large Pharma	Oncology	Solubility/Bioavailability					
	Mid-Size Pharma/Biotech	Infectious Disease	Bioavailability/Release Profile					
	Mid-Size Pharma/Biotech	Infectious Disease	Solubility/Bioavailability					
	Large Pharma	Infectious Disease	LAI/Release Profile					
	Large Pharma	Infectious Disease	LAI/Release Profile					
	Large Pharma	Infectious Disease	LAI/Release Profile					
	Mid-Size Pharma/Biotech	Infectious Disease	LAI/Release Profile					
Large Molecule	Large Pharma	Respiratory	FPF					
	Mid-Size Pharma/Biotech	Autoimmune/Oncology	Release Profile					
	Mid-Size Pharma/Biotech	Autoimmune/Oncology	Release Profile					
	Large Pharma	Respiratory	FPF/Drying					
	Large Pharma	Respiratory	FPF/Drying					
	Mid-Size Pharma/Biotech	Endocrinology	High Conc. SuBQ					

Upcoming events

November 20	SEB Healthcare Seminar 2024, Stockholm
November 26	DNB 15th Annual Nordic Healthcare Conference, Oslo
November 26-27	BOS, Manchester
November 28	Stora Aktiedagarna - Aktiespararna, Stockholm
December 11-13	DDL 2024, Edinburgh
December 16	Nordea Growth Day, Helsinki
January 13-16	JPM Healthcare Conference 2025, San Francisco
February 25-26	BIO Asia 2025, Hyderabad
February 27	Nanoform Financial Report 2024
March 11	Danske Bank Small & Mid Cap Seminar, Stockholm
March 16-20	DCAT, New York
March 26-27	DNB/Back Bay Nordic-American Healthcare Conference, New York
June 2-4	DDF, Berlin
June 12	Danske Bank Healthcare Seminar, Helsinki
September 15-16	DDF American Summit, Boston
October 27-28	PODD, Boston
October 28-30	CPHI, Frankfurt



Q & A

Nanoform headquarters in Helsinki, Finland

www.nanoform.com

San Diego - Chicago - New York - Lisbon - Manchester - Oxford - London - Cambridge - Bordeaux - Stockholm - Budapest - Helsinki



APPENDIX

Nanoform has made substantial progress in Nanoforming solutions with in-vitro, in-vivo, and clinical study results

- Oncology:** Replaced amorphous solid dispersion (ASD) formulations with nanocrystalline high drug load formulations, matching bioequivalence for Enzalutamide and Apalutamide where life cycle management **opportunities to reduce tablet burden to a single, smaller, easier-to-swallow tablet** as well as working on Aprepitant in partnership with PlusVitech for lung cancer to develop a regimen with substantially fewer tablets.
- Inhalation:** Engineering nanoformulations of both small and large molecules with excellent fine-particle dose (FPD) and fine-particle fraction (FPF) performance in comparison to spray drying technologies. In biologics, Nanoform has shown FPF >95% vs 50% with spray drying for delivering **high drug load** to the lungs.
- Biologics:** Demonstrated in partnership, with Takeda and other companies, **ultra-high concentrations for subcutaneous drug delivery** with acceptable viscosity for injection (Takeda – Plasma Derived Therapies).
- Ophthalmic:** Multiple projects where nanoparticles have shown improved delivery potential. **High drug load** to the eye enabling smaller implants with no requirement for mesh membranes, eye drop suspensions and ophthalmic inserts.
- Hydrogels:** Shown **high drug load** applications (5 x more than nanomilling) for post-surgical glioblastoma drug delivery and deep penetration across the brain parenchyma **enabling non-recurrence of glioblastoma** where other formulations failed.
- IP:** **Novel technologies, processes and formulations** can enable market opportunities, lifecycle management and strong launch strategies

Nanoform commercial highlights Jan-Sep 2024

- NOV** New **quarterly record** in customer project intake
- SEP** Nanoform and **Celanese** expand collaboration into long-acting biologics delivery through small implants
- AUG** Nanoform initiates collaboration with **Takeda** on their plasma-derived therapy development (biologics)
- JUL** New **US major pharma** signed multi-API contract
- MAY** Nanoformed **high-concentration biologics formulation** for subcutaneous delivery results presented by Takeda at DDF summit in Berlin
- MAY** **Celanese** showcases Nanoform's technology for long-acting small molecule drug release at DDF summit in Berlin
- APRIL** **Global top 5 animal health** company signed new multi-API contract
- APRIL** Nanoform enters sales partnership with **CBC** to bring best-in-class nanomedicine technology to Japan
- APRIL** Nanoform and **PlusVitech** partner to repurpose aprepitant as a treatment for lung cancer
- FEB** **Nanoapalutamide** study demonstrates the advantages of Nanoforming over traditional cancer treatment formulations
- JAN** Nanoform announces important milestone with promising clinical results for patient-centric Nanotechnology-enhanced **Nanoenzalutamide**

Business case Amorphous Solid Dispersions (ASDs)

Amorphous solid dispersion (ASD) medicines are currently the leading formulation strategy for poorly soluble APIs and there are ~50 marketed medicines globally that are ASDs and sell for ~\$50bln annually

Nanoformed and nanocrystalline medicines (e.g. nanoenzalutamide and nanoapalutamide etc) offer an attractive alternative to ASD medicines (and other) with the following benefits:

- *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*

⇒ *Several opportunities for Nanoform to replicate early successes with project kernels nanoenzalutamide and nanoapalutamide*

Project Nanoenzalutamide (oral tablet for prostate cancer)

Clinical results 26.1.2024: Very promising relative bioavailability study of nanocrystalline-enabled enzalutamide* (nanoenzalutamide) tablet formulation.

Nanoforming benefits: 1) Opportunity for an improved and differentiated finished product, 2) Development of a 160mg, single tablet per day regimen may be preferable for patients in need of reducing their total number of daily pills 3) Unique IP position may allow the nanoenzalutamide product to enter the market prior to other generic competition based on the ASD formulation, which is currently patent protected in the US and Europe until 2033

Next steps: Manufacture Nanoformed material for registration batches and EU/US **pivotal bioequivalence clinical trials that are expected to start in 1Q 2025**, with first read-outs in 2Q 2025. **License and commercial supply agreements are expected to be signed in coming quarters.**

Target launch: Submissions of dossiers 1H 2026, launch after expiry of the enzalutamide substance patent in USA 2027 & in Europe in 2028. Nanoenzalutamide is expected to progress via the ANDA (Abbreviated New Drug Application)/Hybrid generic pathway and as such will need to show bioequivalence vs the originator product, Xtandi®. In the eyes of the regulators, bioequivalence typically means 80% - 125% of the Cmax and AUC in a large cohort study in fed and fasted states with a 90% confidence interval. The global annual sales of Xtandi® is presently USD 6bn and growing. We plan nanoenzalutamide to take a meaningful share of this market through its highly patient centric product differentiation (1 tablets 4 tablets) and unique IP position (different technology, crystalline product, different excipients), while not forgetting its green attributes. We expect nanoenzalutamide to be the first nanoformed medicine to reach the market.

Value added medicine companies vs originators: We see the program to be attractive to value added medicine companies as a uniquely differentiated and high value supergeneric product that can enable a product launch before market entry by other generic products based on the ASD formulation, for which the originator currently holds patents in both Europe and the US (with expiry dates in 2033). For the originator company we believe that the nanocrystalline single tablet product offers a patient centric life cycle extension opportunity with compelling sustainability advantages that would be difficult for generic competitors to match. Avoiding the inherent stability challenges associated with amorphous materials is also a clear benefit for any company considering alternative formulation approaches.

Takeda (plasma-derived formulations for rare conditions)

MAY 7, 2024 - NANOFORMED HIGH-CONCENTRATION BIOLOGICS FORMULATION FOR SUBCUTANEOUS DELIVERY RESULTS TO BE PRESENTED BY TAKEDA AT DDF SUMMIT

The proof-of-concept study data support the potential of Nanoform's patented biologics platform to achieve high protein concentrations in suspension formulations that are suitable for subcutaneous injection, as shown by results of syringeability and injectability studies.

Controlling the viscosity and aggregation of protein-based solutions is important for pharmaceutical formulators. Because injection volume is limited by the device, therapeutic protein formulations which are to be delivered via intramuscular or intravenous injection need to be highly concentrated. At protein concentrations greater than $200 \text{ mg} \cdot \text{mL}^{-1}$ however, viscosity increases to significantly higher than 20 cP (centipoise) to quickly exceed the maximum 40 cP viscosity deemed acceptable for a conventional subcutaneous injection.

AUG 15, 2024 - NANOFORM COLLABORATES WITH TAKEDA ON THEIR PLASMA-DERIVED THERAPY DEVELOPMENT

Nanoform enter into a pre-clinical development agreement with the Plasma-derived Therapies Business Unit of Takeda Pharmaceuticals Inc. to develop innovative plasma-derived therapy formulations for the treatment of rare conditions. Following the completion of in vitro proof of concept studies of a novel plasma-derived therapy formulation, Nanoform will provide non-GMP nanomaterial to Takeda for in vivo studies. The first results of these studies are expected by early 2025. It is the intention of both Nanoform and Takeda to develop medicine candidates to clinic and then take them as products to the market.

Nanoform Biologics' nanoforming technology can deliver large-molecule drug particles of tuneable size and morphology, while retaining biological activity. The technology can be applied across the biologics field, from 1 to 150kDa, to enable novel routes of delivery, enhance drug loading, tailor release profiles and engineer new drug combinations.

Project Nanoapalutamide (oral tablet for prostate cancer)

FEBRUARY 19, 2024 – APALUTAMIDE STUDY AGAIN DEMONSTRATES THE ADVANTAGES OF NANOFORMING OVER TRADITIONAL CANCER TREATMENT FORMULATIONS

Positive results from own pre-clinical, in-vivo study of a nanocrystalline-enabled apalutamide oral formulation, which shows potential to enable a much smaller tablet than Erleada[®], (Erleada is a registered trademark for Apalutamide owned by Johnson & Johnson / Janssen Biotech, Inc.) a nonsteroidal antiandrogen (NSAA) blockbuster amorphous solid dispersion (ASD) medicine used to treat prostate cancer. The nanocrystalline-enabled formulation provided high serum concentration (Cmax), fast time to peak drug concentration (Tmax), and 100% absolute bioavailability.

Nanoform's nanocrystalline formulations enable significantly higher drug loading, allowing for smaller pills and a reduced pill burden. Its technology is free from organic hydrocarbon solvents, offering an environmentally sustainable alternative.

NOVEMBER 18, 2024 – PROJECT NANOAPALUTAMIDE PROGRESSING ACCORDING TO PLAN

We were pleased with the positive results from a recent in vivo study comparing Nanoform's tablet prototypes with the currently marketed product. The results provide confidence in our choice of the lead tablet prototypes and are expected to further accelerate interest among potential partners. Based on earlier experience with Nanoenzalutamide, we expect that following further optimization of the formulation, the next major development milestone for this project is a pilot PK study in humans during 2H2025.

Project Glioblastoma (hydrogel for central nervous system cancer)

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 (October 2023). 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.

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.

Dr Ajit Shetty, former Chairman of Janssen, the Janssen Pharmaceutical Companies of Johnson & Johnson, and Dr Makarand Jawadekar, former Pfizer global R&D executive, visting Nanoform HQ in Helsinki - September 16th, 2024



Takeda showcases Nanoform technology for high concentration biologics

– DDF Summit Berlin 2024

Global DDF Summit Formulation

Feasibility study with **nanoform** small is powerful®

Nanoforming of IgG

IgG was successfully solidified to **nanoparticles** (D50: 900 nm)



Example ID: 20240130_LTW001_I@B01_Q24
Date: 21 Jan 2024
Time: 11:28:05

Testing of drying impact

Protein was confirmed to be stable during solidification.



Batch

Batch	Aggregates %	Monomer + dimer %
LTW001_bulk	8.63	99.37
20240130_LTW001_I@B01_Q24	0.23	99.77

40% IgG suspension

Benzy Benzoate **MCT oil**

Confirmed to be injectable



Viscosity: ~70 cp.
Injection force: 8 - 9N
25G, 1.3 ml/min

Takeda Pharmaceutical Company Limited

Celanese showcases Nanoform technology for long acting small molecule drug release

– DDF Summit Berlin 2024



Global
DDF Summit
Drug Delivery & Formulation

Long-Acting Implants for CNS Disorders *Multiple Sclerosis*

Fingolimod Implants for Multiple Sclerosis

- Clinicians have noted the need for convenient, patient-centric therapies for RRMS patients where “set it and forget it” would be values over daily orals
- Collaboration with Nanoform CESS® Nanoparticle Engineering Technology and Celanese VitalDose® EVA
- Fingolimod loaded implants showed overall slowing of drug release and minimization of initial burst release often associated with highly loaded drug systems
- Implants rods sized 2 – 2.3mm D x 10 – 11mm L used for release and smaller rods can be prototyped
- A 3.5mm D x 4cm L rod can be prototyped to elute 0.5mg/day for a 1 year implant

Cumulative Release per Surface Area ($\mu\text{g}/\text{cm}^2$)



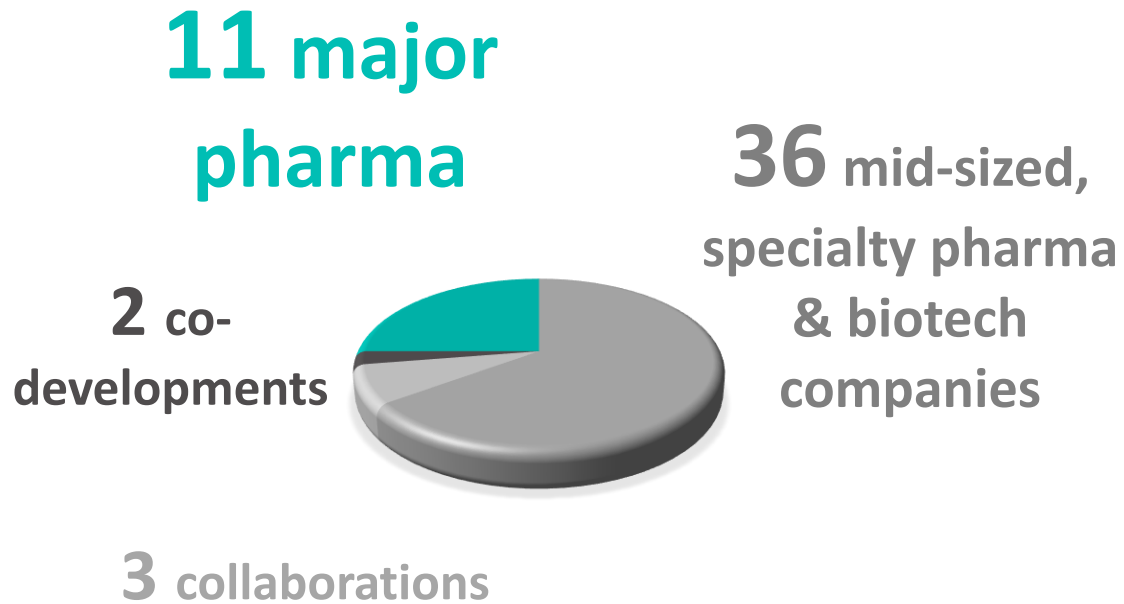
Days	EVA + 50% bulk Fingolimod ($\mu\text{g}/\text{cm}^2$)	EVA + 50% 125 nm Fingolimod ($\mu\text{g}/\text{cm}^2$)
0	0	0
2	2500	2000
4	3000	2500
6	6500	4500
8	9500	6000
10	12500	7500
12	14500	8500
14	15500	9000
16	16000	9500
18	16000	10000
20	16000	10500
22	16000	11000
24	16000	11500
26	16000	12000
28	16000	12500
30	16000	13000
32	16000	13500
34	16000	14000
36	16000	14500
38	16000	15000
40	16000	15500

Nanoform growth since IPO 2020 in brief

	<i>IPO June 2020</i>	<i>September 2024</i>	<i>Growth</i>
Employees	50	177	~3x
Manufacturing lines	5	20	~4x
Customers enrolled	5	49	~9x
Customer projects started	5	88	~18x
Patents granted	5	42	~8x

Commercial Relationships 2019 – Q3 2024

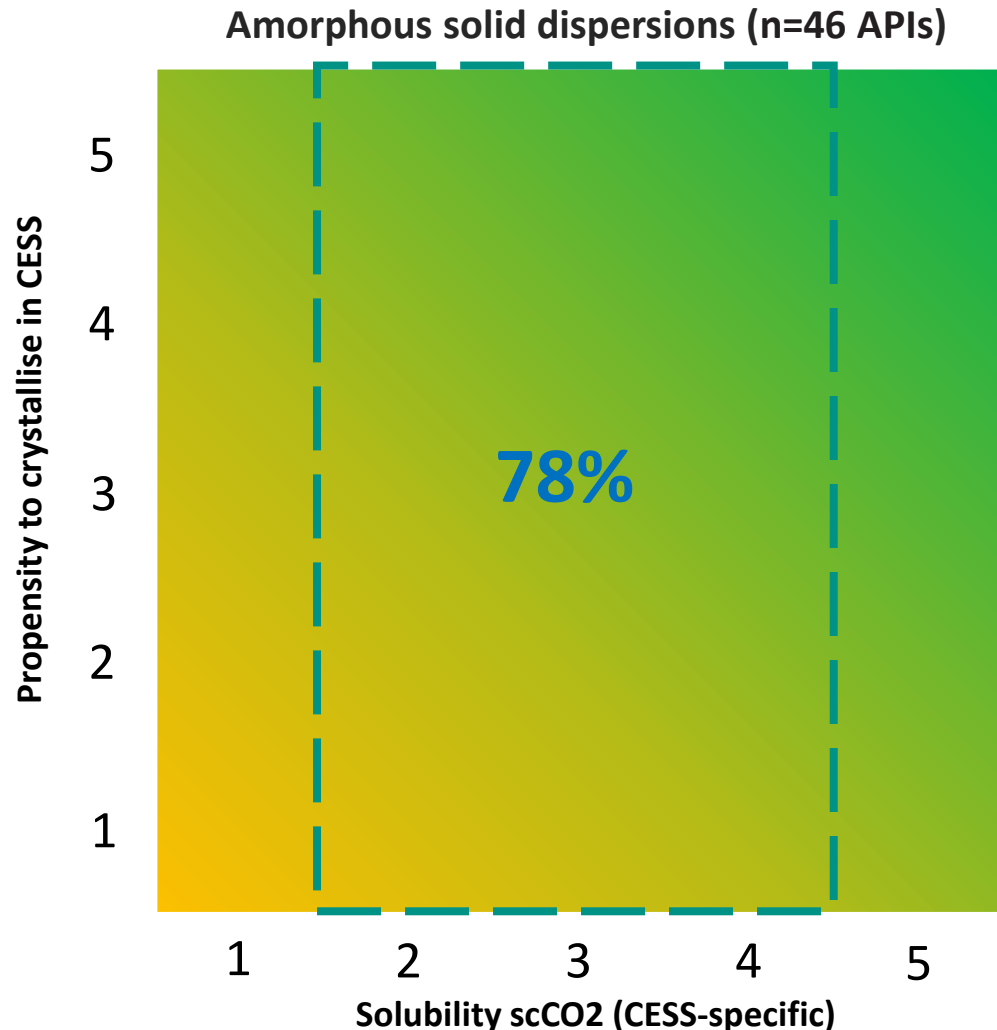
Customer mix



Selection of partners



STARMAP® predicts that nanoforming is an attractive alternative to ASDs (Amorphous Solid Dispersions)



- ✓ 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 globally for ~USD 50bn, while there are 30+ candidates disclosed in the clinical pipe-line and most likely hundreds in the preclinical state.
- ✓ The Nanoenzalutamide and Nanoapalutamide projects are first examples of what nanoforming potentially can do to/for ASDs

Nanoform uses its expertise at the interface of nanoparticles and polymer science to enable a more patient- and planet centric alternative to ASDs

Within marketed ASDs 31/39 passed our STARMAP® screen and are predicted to be amenable to nanoforming*

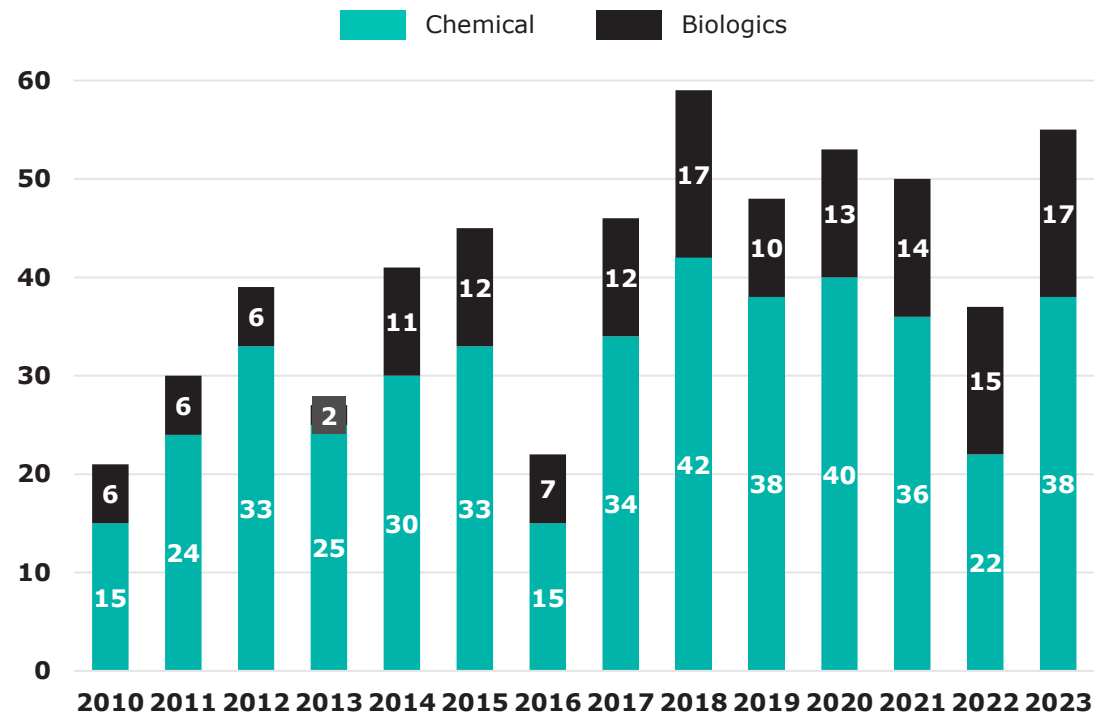
Belsomra® suvorexant
Braftovi® encorafenib
Cesamet® nabilone
Deltyba® delamanid
Erleada® apalutamide
Febuxostat® febuxostat
Gavreto® pralsetinib
Incivek® telaprevir
Intelence® etravirine
Jinarc/Samsca® tolvaptan
Kaletra® ritonavir/lopinavir
Kalydeco® ivacaftor
Lynparza® olaparib
Norvir® ritonavir
Noxafil® posaconazole
Orkambi® ivacaftor/lumacaftor

Pifeltro® doravirine
Prezista® darunavir
Prograf® tacrolimus
Qinlock® ripretinib
Sotyktu® deucravatinib
Sporanox® itraconazole
Stivarga® regorafenib
Sunlenca® lenacapavir
Symdeco/Symkevi® ivacaftor/tezacaftor
Tavneos® avacopan
Trikata® ivacaftor/tezacaftor/elexacaftor
Tukysa® tucatinib
Xtandi® enzalutamide
Zokinvy® lonafarnib
Zortress® everolimus

The structural pharma R&D problem in the pharma industry

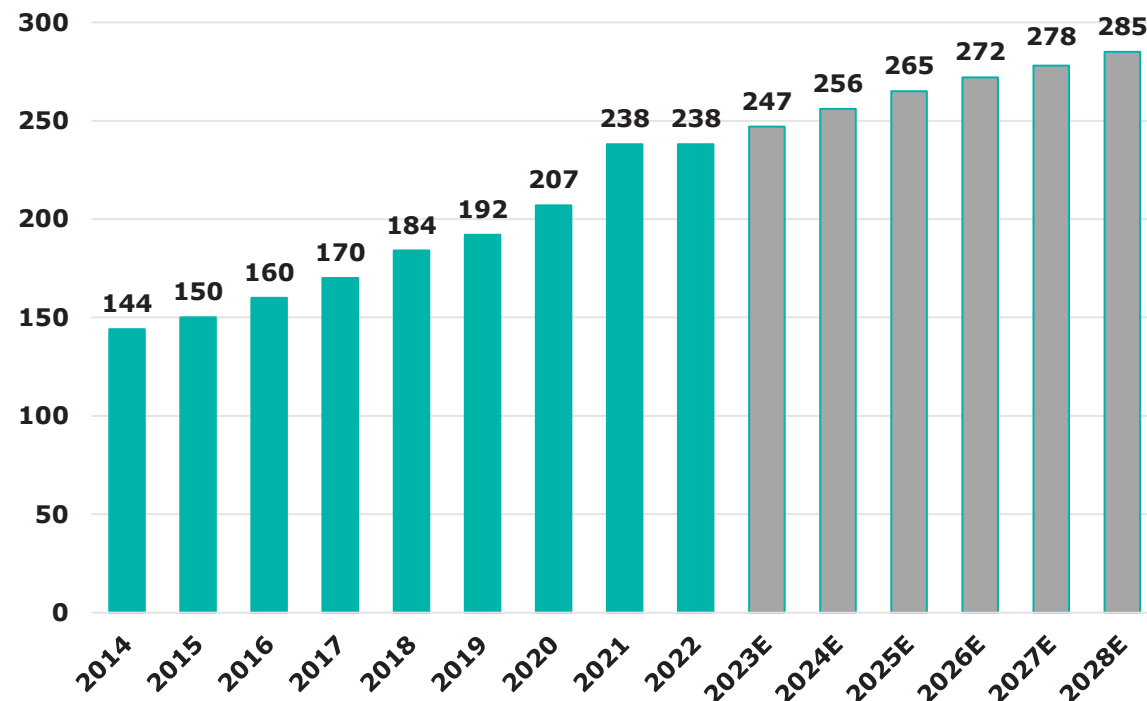
Fewer than 50 drugs approved in the US annually on average...

Annual number of novel drug approvals by FDA 2010-2023



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

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

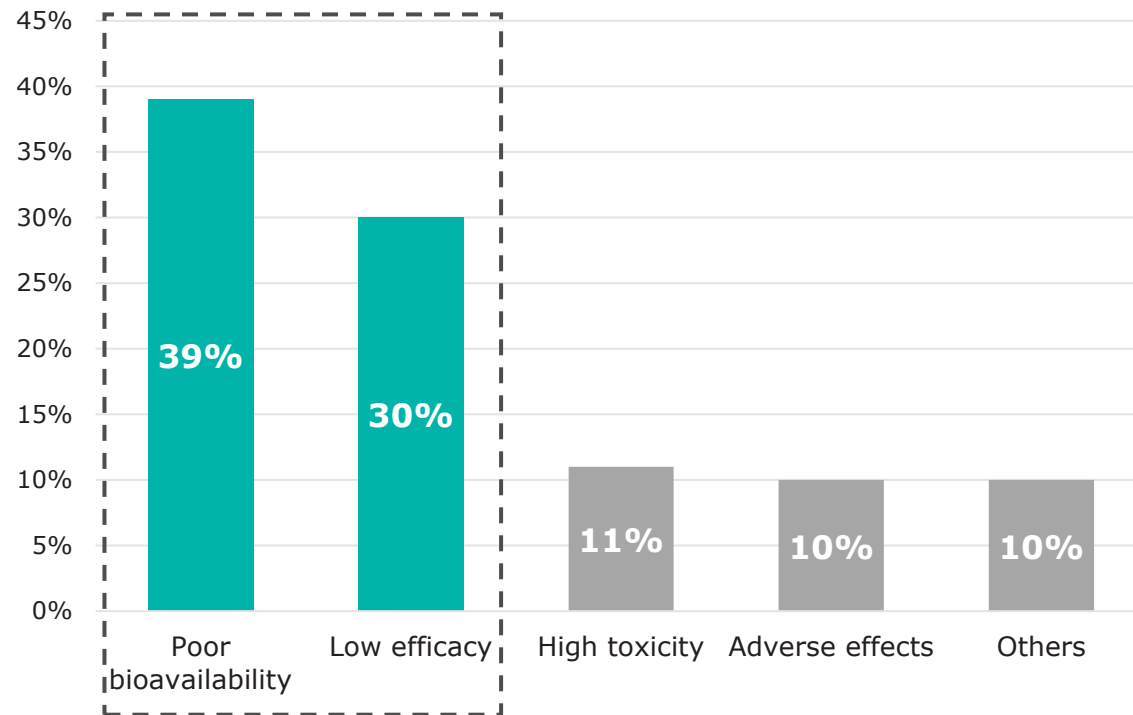


➤ A game changer is needed to improve R&D yield

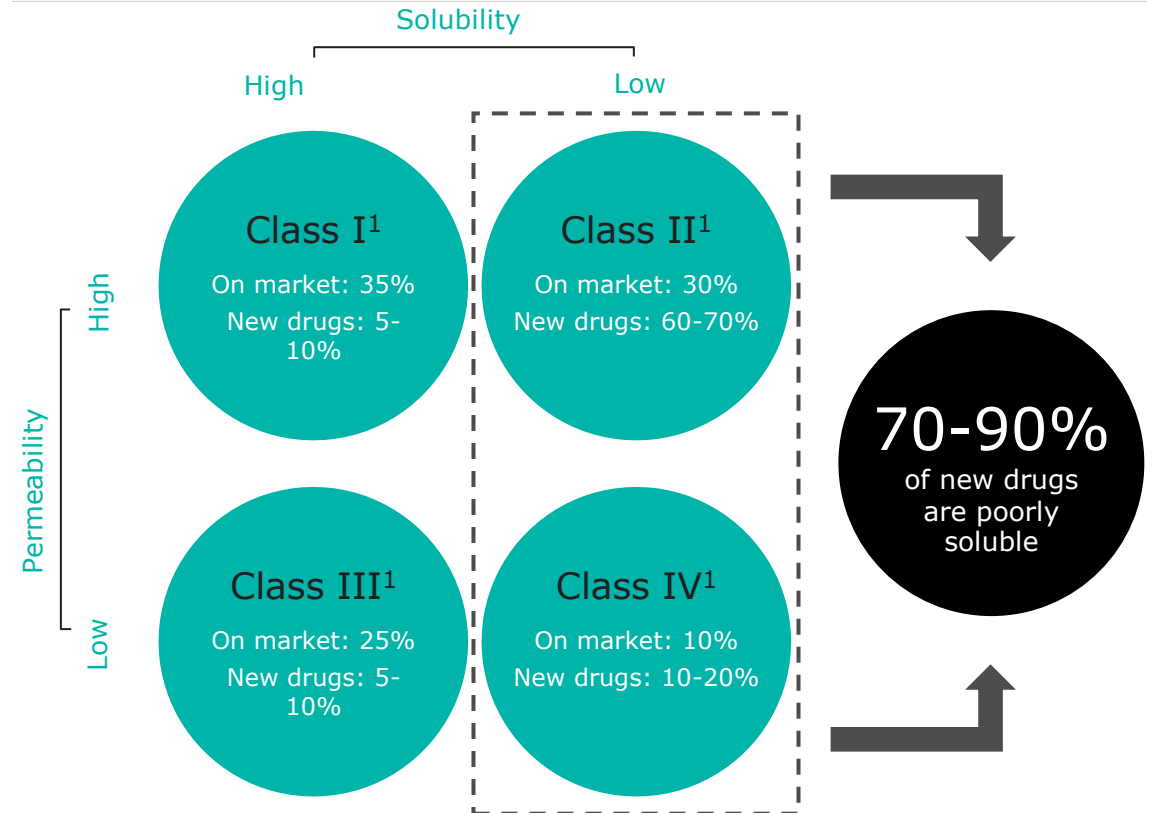
Low bioavailability is the key issue

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

Small molecules - Small is powerful®



Nanoform is here to fill the gap

Enabling
new drugs

> 20,000
drugs in
development*

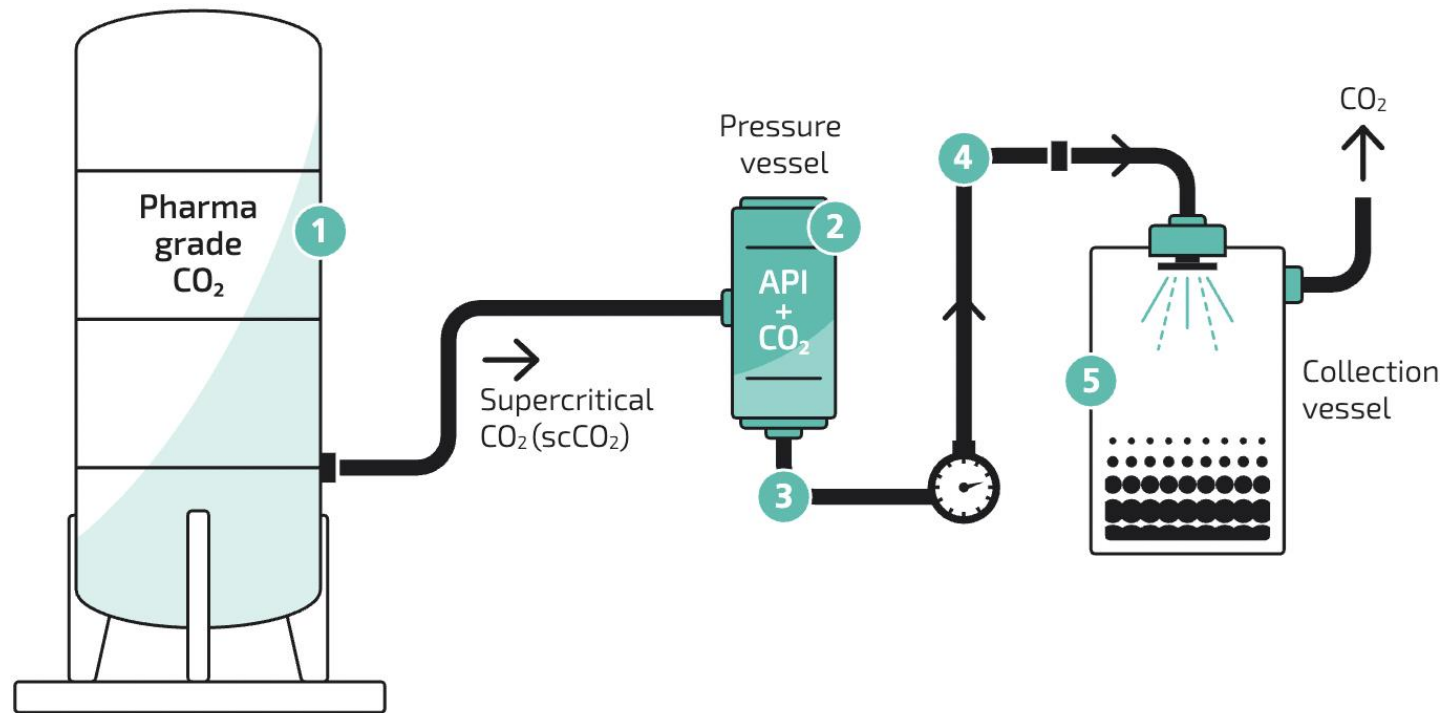
Improving
existing
drugs

> 5,800
existing drugs*

Giving
unsuccessful
drug candidates a
second chance

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

Controlled Expansion of Supercritical Solutions - CESS[®]



- 1 Supercritical CO₂ is guided into a pressure vessel loaded with API
- 2 Increasing the pressure and temperature in the vessel dissolves the API in supercritical CO₂
- 3 The CO₂ 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 CO₂ is sublimated resulting in final nanoparticles ready for collection and formulation

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

CESS® Superior to Existing Technologies

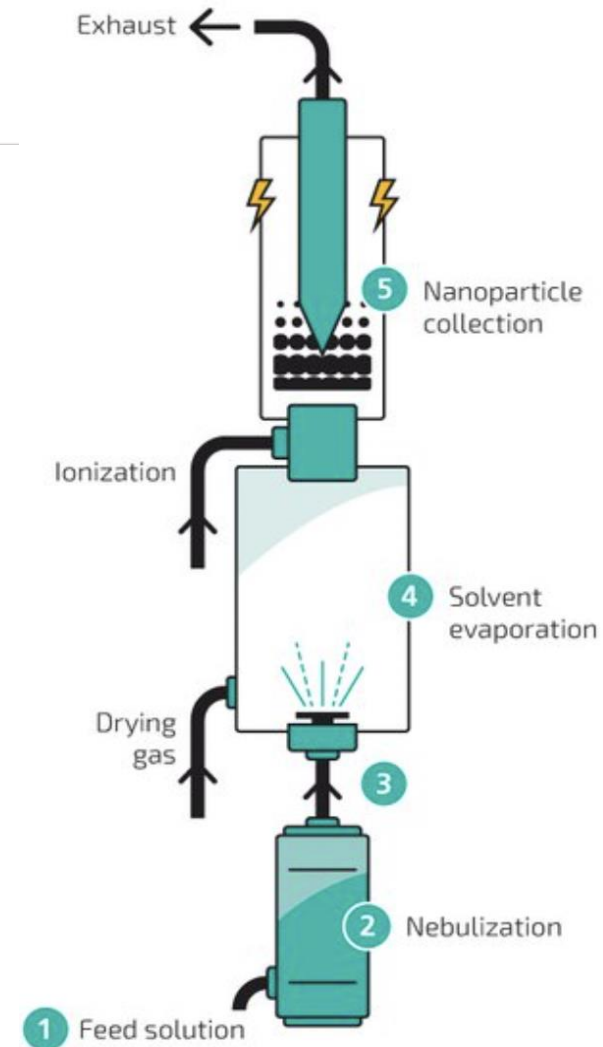
	Controlled Expansion of Supercritical Solutions (CESS®)	Solid dispersion (e.g. spray drying)	Jet milling	Nanomilling
Description	Extracts API from supercritical CO ₂ by applying controlled reduction in pressure	API is dispersed into a solid material, which dissolves when exposed to an aqueous media	Application 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

Large molecules - Proprietary technology

Green
technology

Nanoforming process for biologics

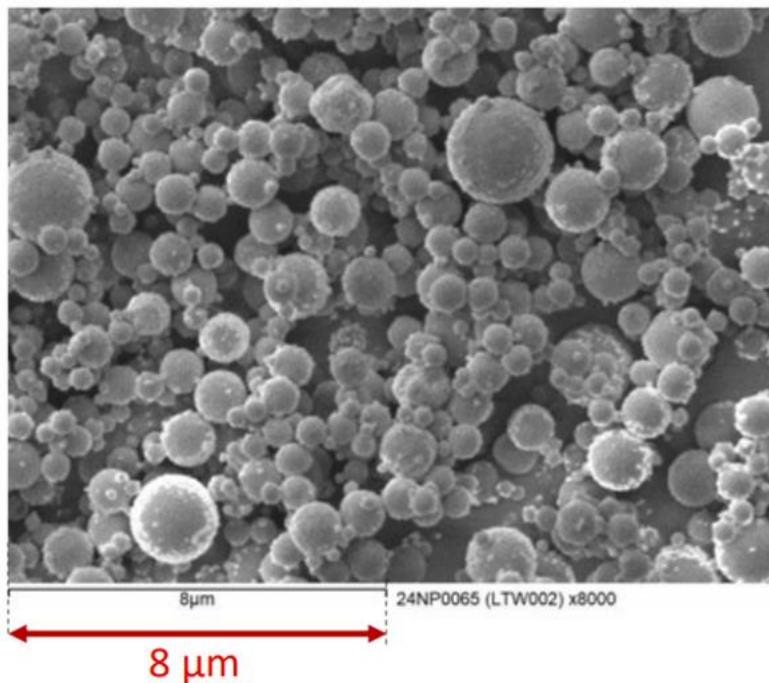
- 1 API containing feed solution is pumped into the nebulizer
- 2 Feed solution is nebulized into a carrier gas
- 3 Mist is transported into the drying chamber via a connection pipe
- 4 Mist is dried using low-temperature drying gas
- 5 Dried particles are charged by the ionizer and collected using electrostatic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



Comparison of Nanoform's proprietary biologics technology vs existing technologies

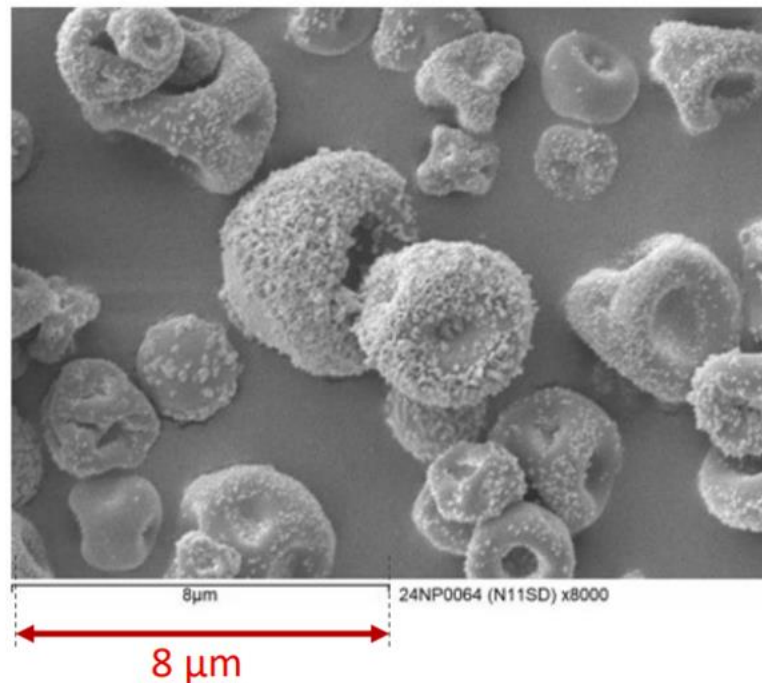
Nanoformed

Perfect spheres, highly flowable and aerodynamic, great packing and injection properties



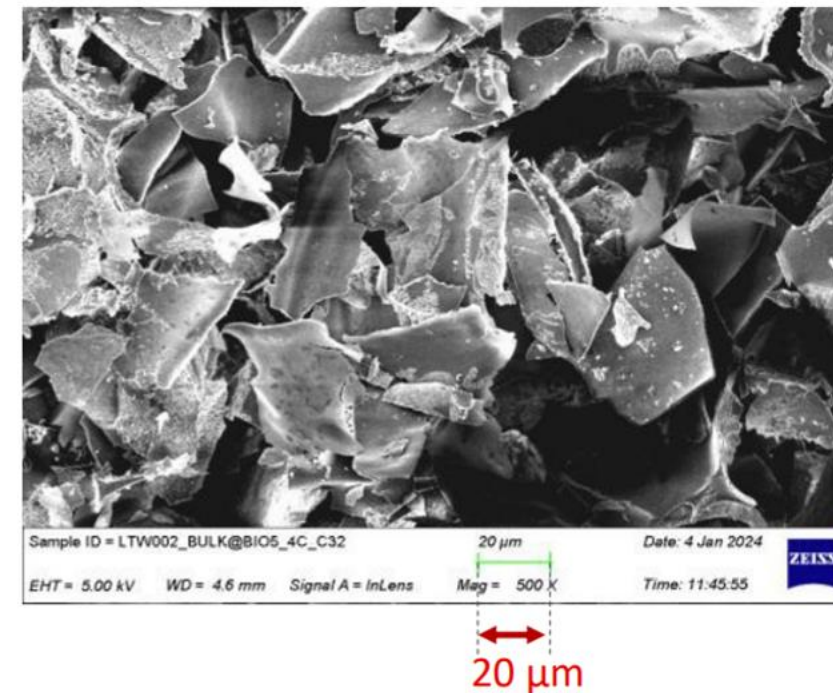
Spray dried

Sticky, poor flowability, raisin shaped



Lyophilized / freeze dried

Flaky morphology, dry cake, no flowability



Nanoforming biologics: Superior flowability, aerodynamic performance, high density packing, lower injection force properties, improved material quality and stability properties vs spray drying and lyophilization

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

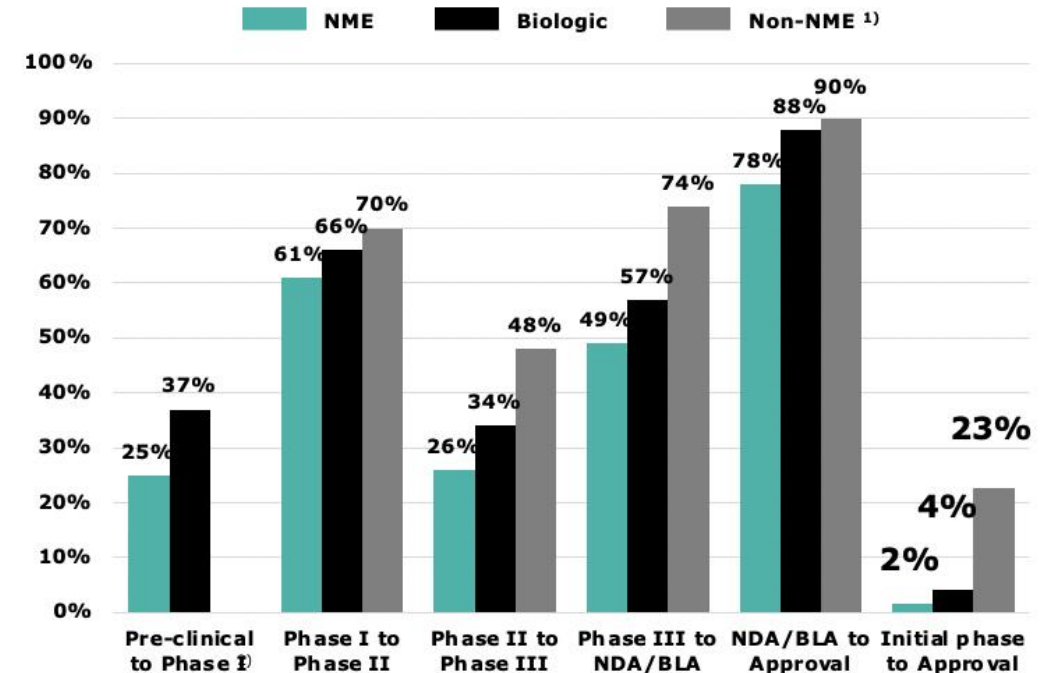
Phase I, II & III and/or 505(b)(2)

- 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

Nanoform – Attractive revenue model

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"> <i>Proof of concept study</i> - assessment of the possibility to nanoform a specific API <i>Proof of process study</i> - definition of parameters to establish the optimal process and controls for a specific API 	<ul style="list-style-type: none"> API for clinical trials are manufactured in Nanoforms GMP facility Supply of material for customers' Phase I, II and III trials Nanoform gets paid regardless of the outcome of the trials 	<ul style="list-style-type: none"> Drugs that have passed the trials and reached commercialization In practice, if a company has taken its drug through Phase II trials, it is difficult to switch manufacturer Significant potential from patent extension (505b2 projects) of drugs already on the market
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%

Nanoform mid-term business targets 2025

>70
new APIs per
year

35 lines
of which
7-14 are
GMP compliant

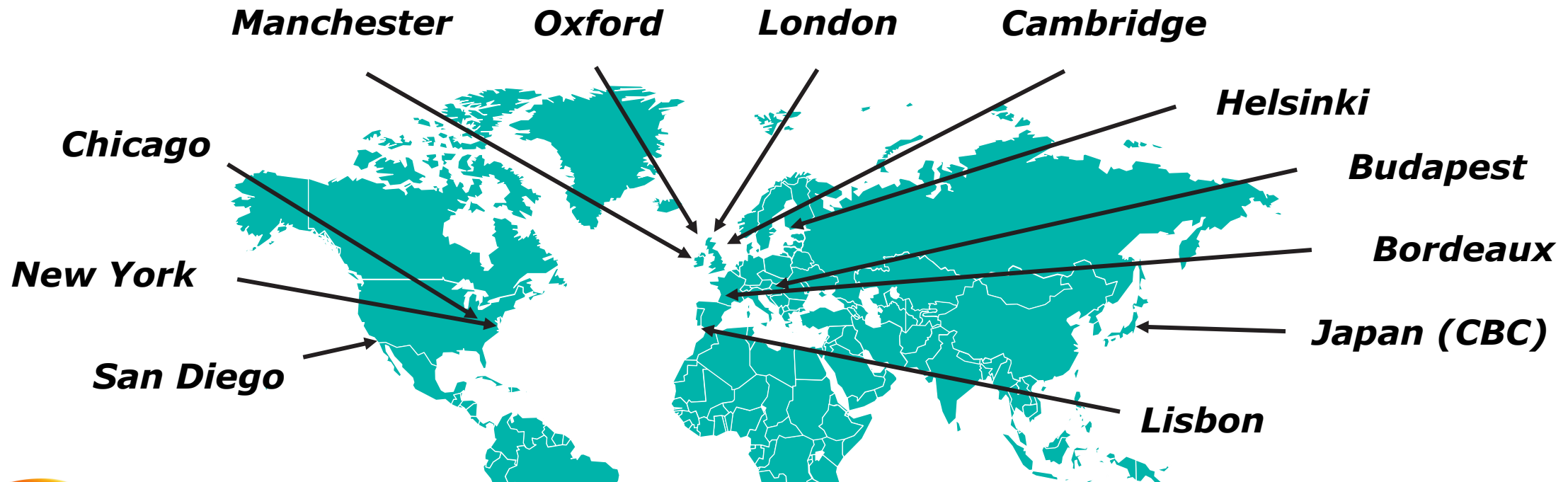
200-250
employees

>90%
gross margin

Cash flow
positive

Experienced global sales team driving commercialization

– Locations and previous experiences



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 and 204,000 options*



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: 384,000 options*



General Counsel & Chief Development Officer; 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 530,000 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: 130,000 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: 726,419 shares and 670,000 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: 413,720 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 224,516 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: 101,386 shares and 380,000 options*
- **Key experience:**



Albert Hæggström

CFO and Board Member

- 20 years of finance and investing experience
- Prior roles include positions at Alfred Berg, BNP Paribas, Nordea and SEB
- *Current ownership: 726,419 shares and 670,000 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: 45,051 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: 45,051 shares and 38,630 options*
- **Key experience:**



Selection of Nanoform Institutional Shareholders





FURTHER ENQUIRIES

CEO Edward Hæggström - edward.haeggstrom@nanoform.com, +358 29 370 0150

CFO Albert Hæggström - albert.haeggstrom@nanoform.com, +358 29 370 0150

DIR Henri von Haartman - hvh@nanoform.com, +46 76866 50 11