

Nanoform Management Presentation

Q3 2022 online presentation and conference call

November 29, 2022 – 15.00 Helsinki time

Our proprietary nanoforming technologies and services span the full range of drug development from small-molecule nanoparticles to large-molecule biologics. We support all phases of drug development, accelerating time to clinic for GMP manufacture while also increasing possibilities and probabilities of success in taking the product to market. Nanoform's technology offerings have the capability to transform the pharmaceutical industry.

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, 2021 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

The Share

- Listed June 4th, 2020, on Nasdaq First North Premier Growth Market in Helsinki and Stockholm
- Tickers: NANOFH and NANOFS
- Significant Nordic, European and US institutional ownership
- All press releases: <https://nanoform.com/en/section/media/press-releases/>

Nanoform

- Global experts in nanotechnology and drug particle engineering
- ~140 employees, ~30 nationalities, ~40 with PhD degree
- Headquartered in Finland with additional senior staff and board members in Denmark, France, Portugal, Sweden, UK, and US
- >3000m² manufacturing site in Helsinki for nanoforming API's
- Strong balance sheet, EUR 76m in cash, no debt

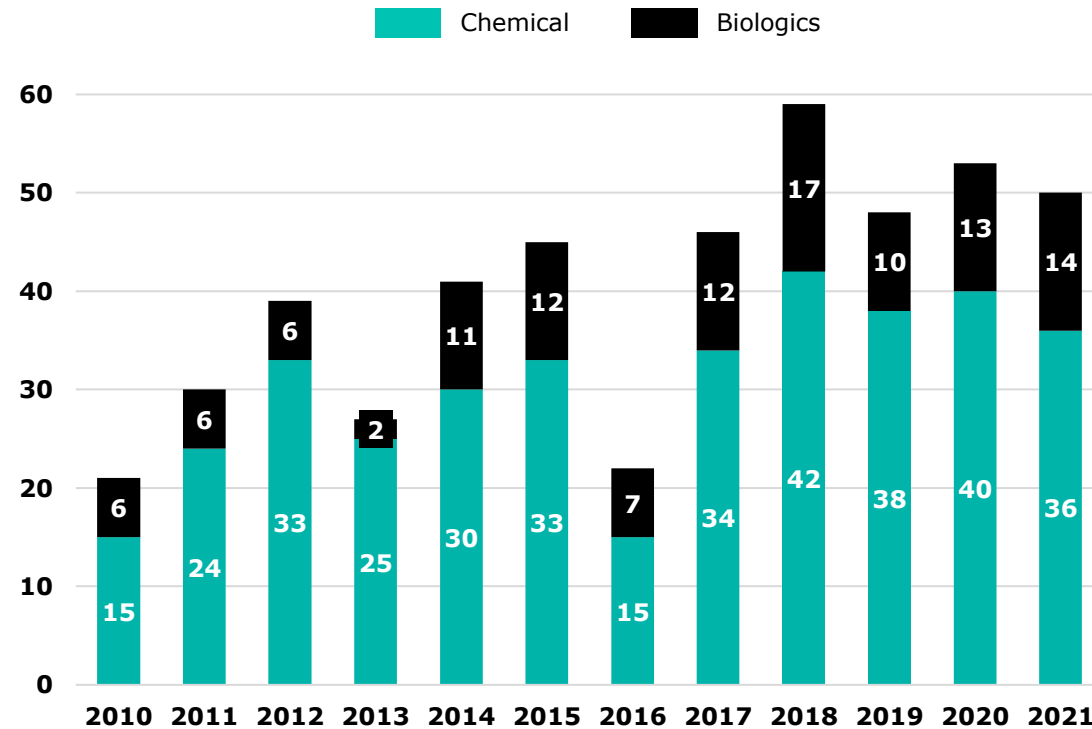
Platform Technology

- CESS® technology for small molecules (chemical compounds) discovered in 2012
- Technology for large molecules (biological compounds) launched in 2020
- Nanoform's clinical results confirm value proposition to the pharma industry

The structural pharma R&D problem

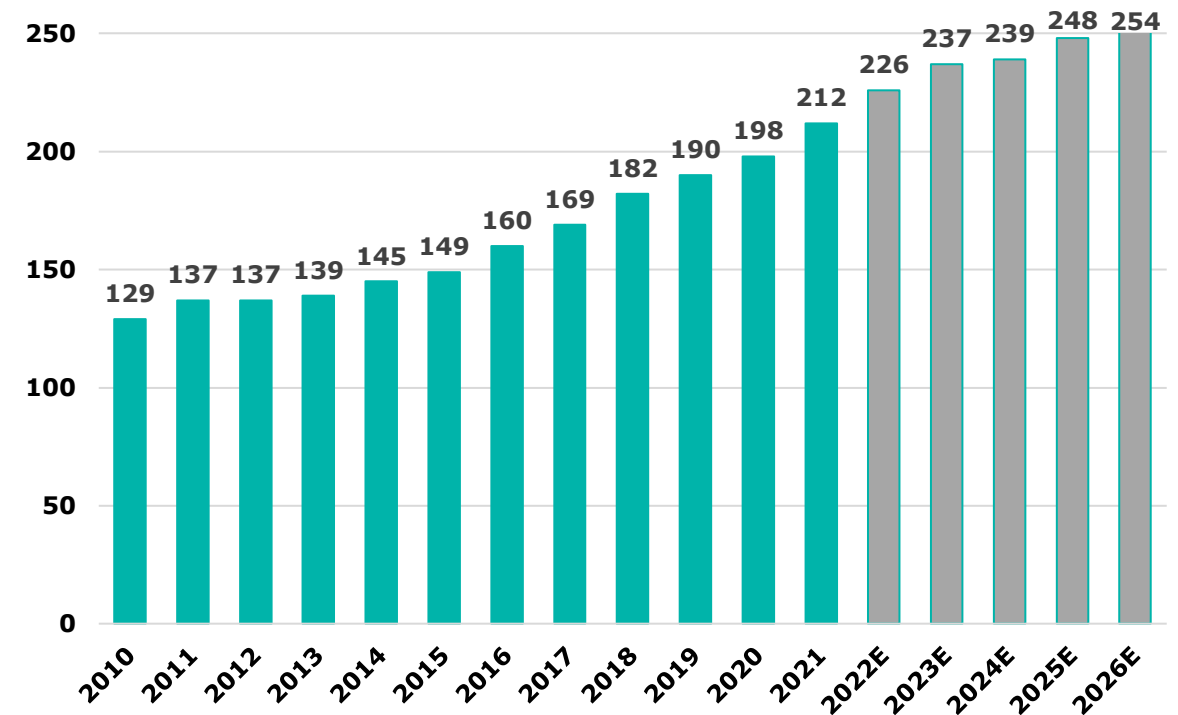
Less than 50 drugs approved in the US annually on average...

Annual number of novel drug approvals by FDA 2010-2021



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

Global pharmaceutical R&D spending 2010-2026E (USDbn)

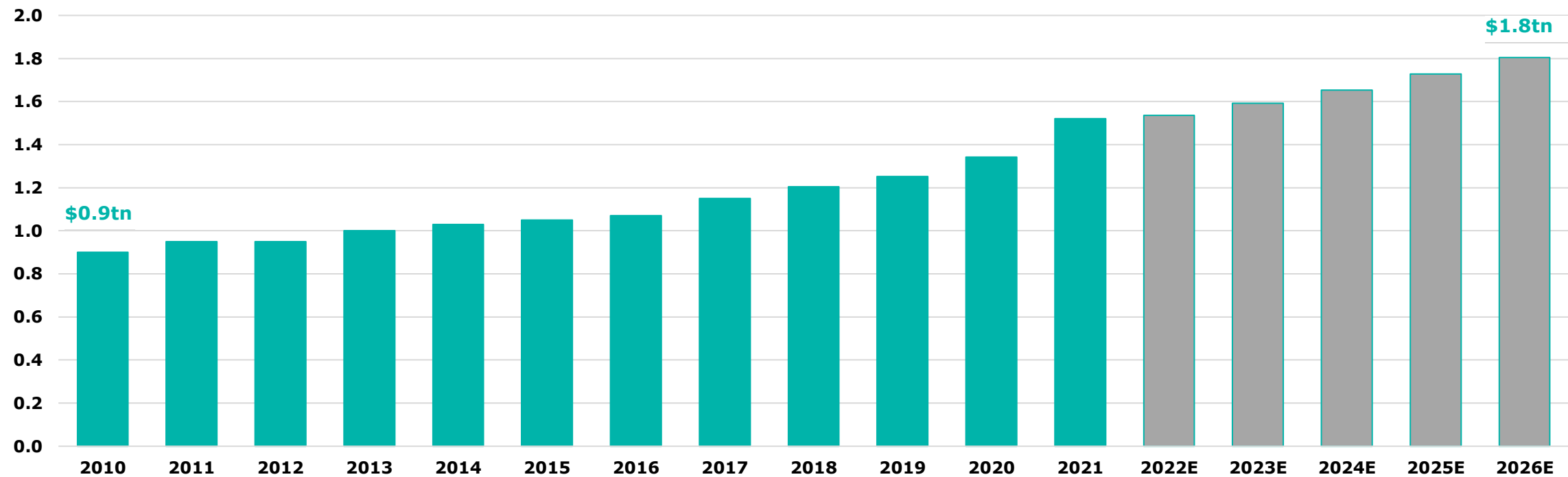


➤ A game changer in particle design is needed to improve R&D yield

Global pharma market projected to reach USD 1.8tn by 2026

Global medicine spending 2010-2026E (USDtn)

Covid net impact 2020-2026E: +\$134B
(Covid vaccines and therapeutics +\$309B and
disruptions in other segments -\$175B)

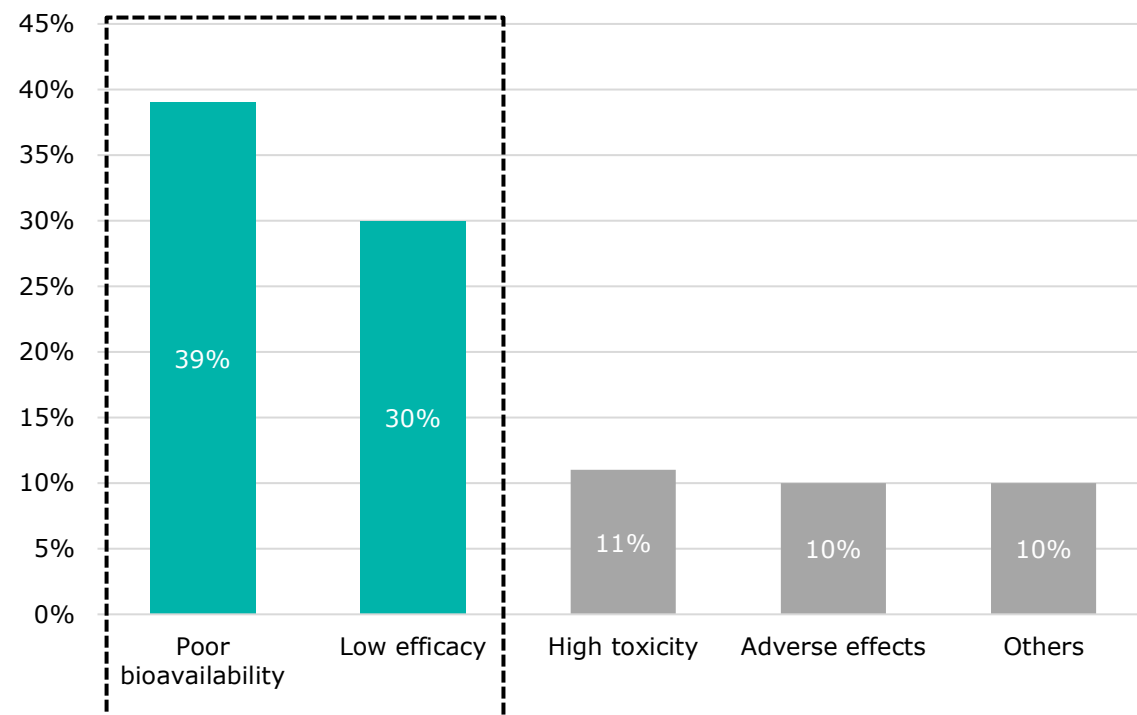


➤ Significant market potential in improving the properties of existing drugs

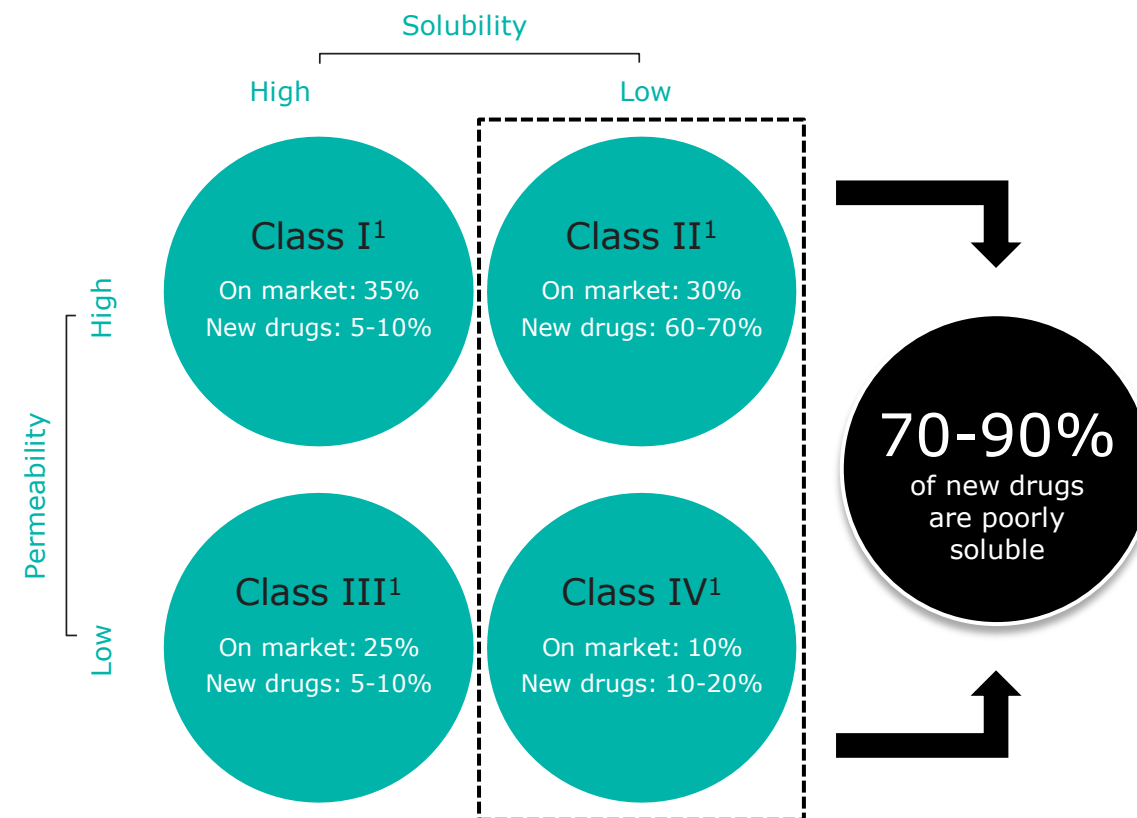
Low bioavailability is the key issue

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

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***

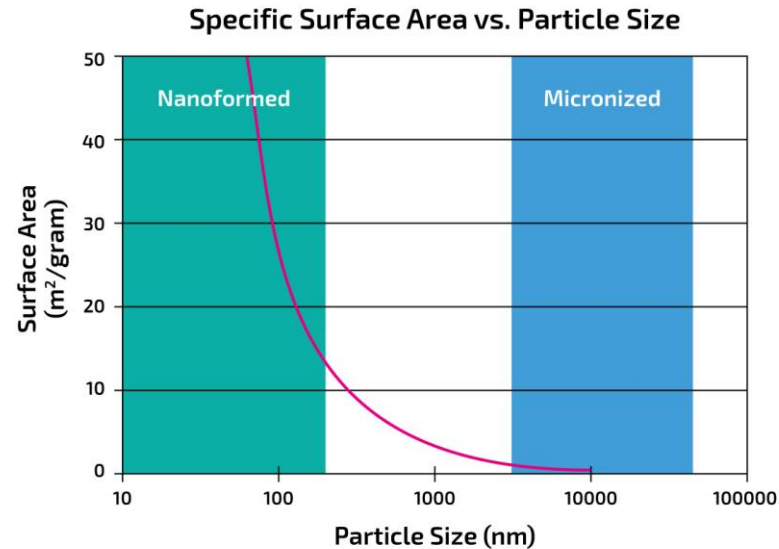
**Enabling
new drugs**

**>19 000
drugs in
development***

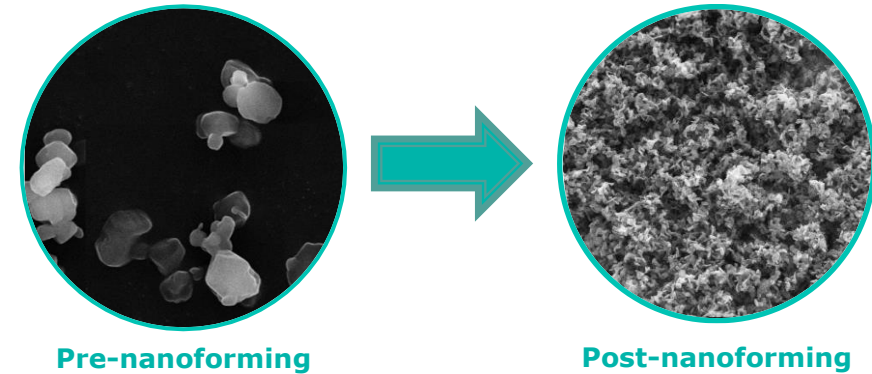
Nanoform's CESS® is the only technology that can manufacture nanoparticles without solvents, excipients, and complex production processes

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

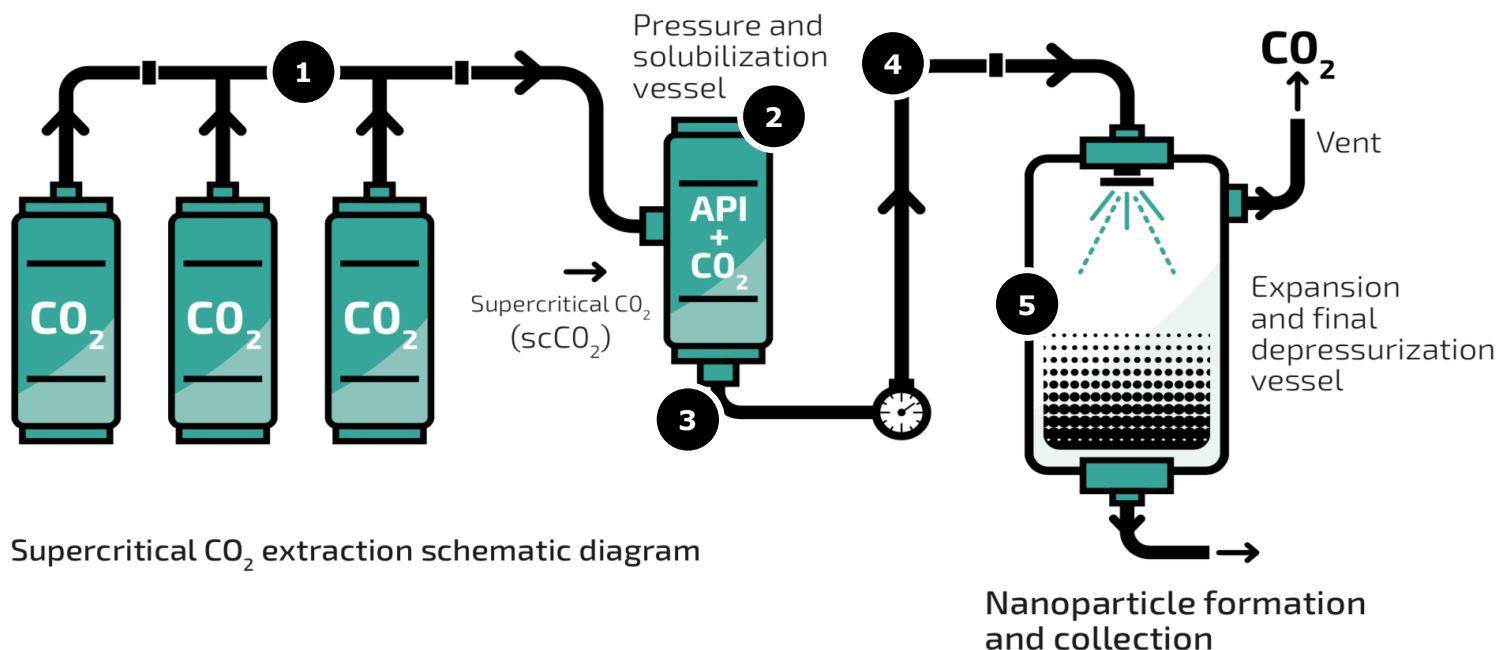


- Smaller particles have a larger surface area
- Larger surface area of particles enables better bioavailability of a drug
- Improved bioavailability implies better absorption of a drug by the body's circular system
- CESS[®] can produce API with large surface areas which can significantly improve the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

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

Small molecules - Patented technology

Controlled Expansion of Supercritical Solutions - CESS®



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

Small molecules - Small is powerful®



Large molecules - Small is now possible 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 6 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**

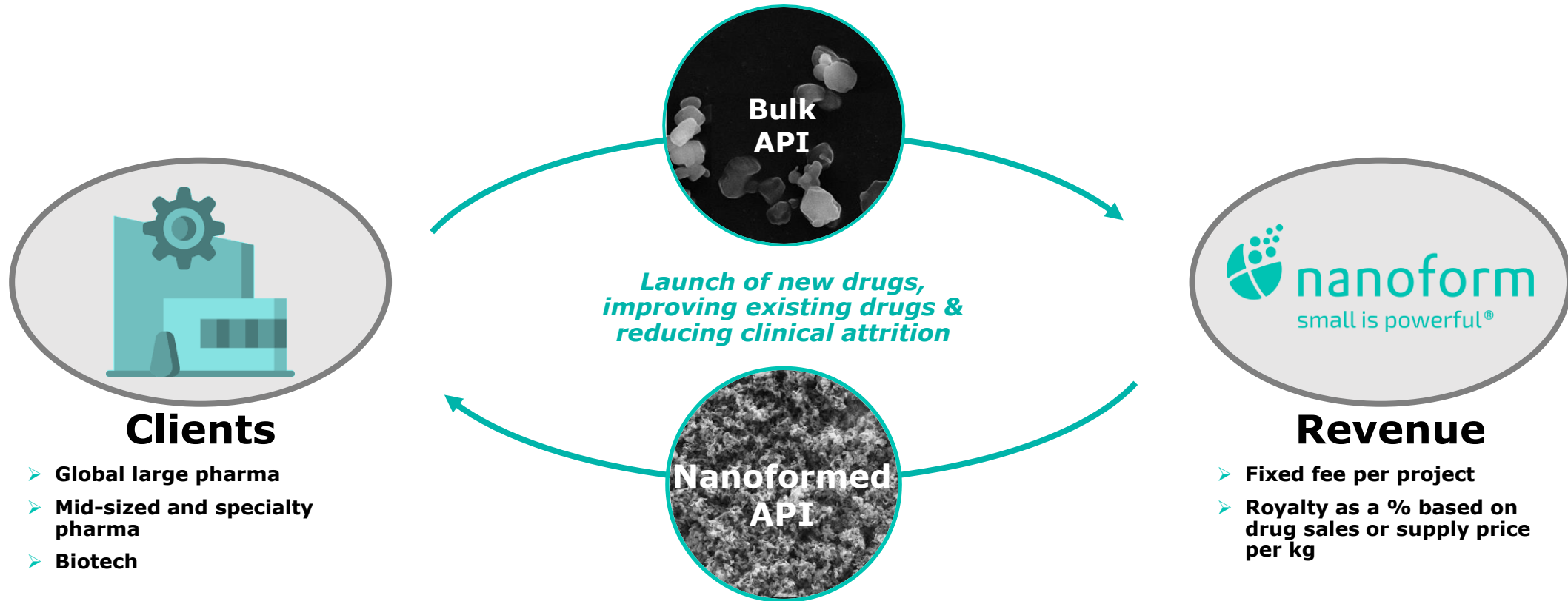
**Tailor
release
profiles**

**Enable
new drug
combinations**

**Lighter
infrastructure
for drug
logistics**

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

Nanoform end of Q3 2022 vs June 2020 IPO

	<i>IPO June 2020</i>	<i>September 2022</i>	<i>Growth</i>
Employees	50	143	~3x
Nationalities	9	30	~3x
PhD's	18	40	~2x
Commercial team	2	11	~5x
Manufacturing lines	5	17	~3x
Customers enrolled	5	33	~7x
Customer projects started	5	45	~9x

Selected Company Milestones 2022 YTD

**ASTRAZENECA PLC
CONCLUDES
TECHNOLOGY
EVALUATION WITH
POSITIVE OUTCOME**

**NANOFORM
PARTNERS
WITH
PHARMANOVIA**

**HIGLY PROMISING
IN-VIVO DATA
FOR
GLIOBLASTOMA
MULTIFORME**

**NEW
COLLABORATION
AGREEMENT
WITH 3 PARTNERS
FOR A BLOCKBUSTER
DRUG
–
GO TO MARKET
COMMERCIAL TERMS
AGREED**

**NANOFORM FILED
TO FIMEA A
"NOTIFICATION OF AN
UPDATE TO
MANUFACTURER'S
AUTHORIZATION"
–
ADDITIONAL API
&
MANUFACTURING LINES**

Nanoform near-term business targets 2022

Topic	Target	Status
GMP Line Capacity	<i>"2 new GMP lines in 2022"</i>	<i>GMP2 achieved, GMP3 on track</i>
Biologics pilot-GMP	<i>"Biologics pilot line for GMP in 2022"</i>	<i>Achieved</i>
Non-GMP Projects	<i>"At least 20 new customer non-GMP projects in 2022"</i>	<i>On track</i>
GMP Projects	<i>"At least 3 new customer GMP projects in 2022"</i>	<i>1 stage gated GMP deal signed</i>

Nanoform mid-term business targets 2025

>70
new APIs
per year

35 lines
of which
7-14 are
GMP
compliant

200-250
employees

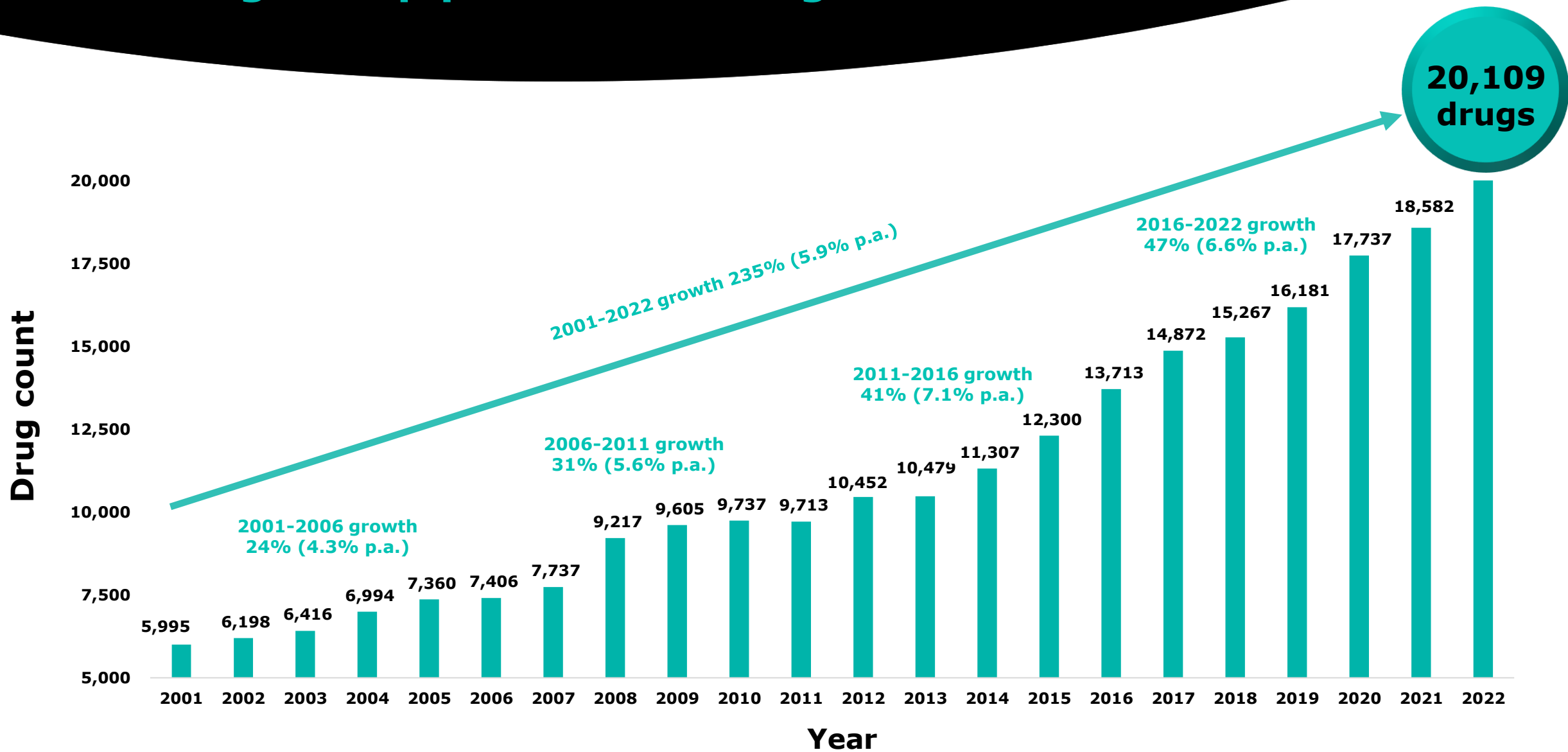
>90%
gross
margin

**Cash flow
positive**

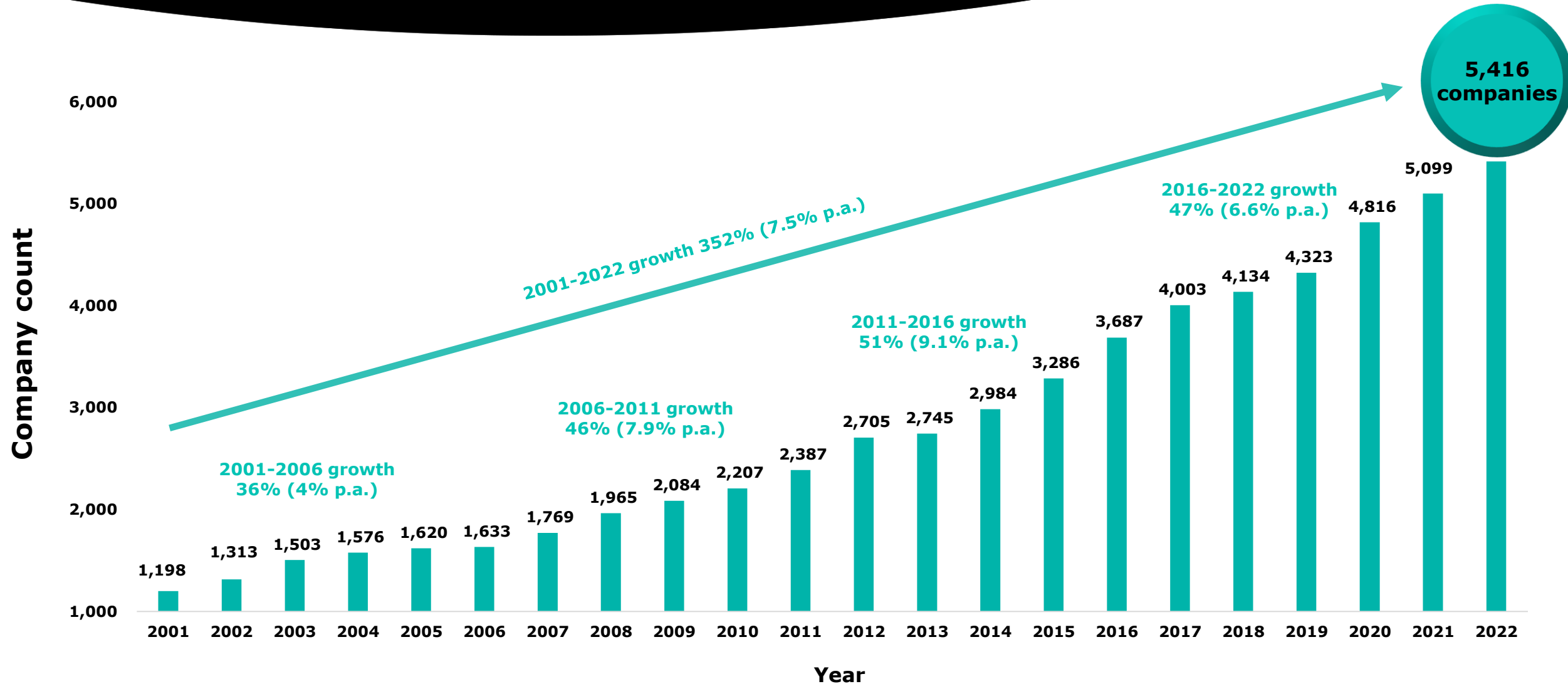
A photograph of two scientists, a man and a woman, in a laboratory setting. They are both wearing white lab coats and safety glasses. The woman is in the foreground, looking down at something in her hands, while the man is slightly behind her, also looking down. The background is a blurred laboratory environment with shelves and equipment. The word "Commercial" is overlaid in white text in the center of the image.

Commercial

Global drug R&D pipeline size and growth



Global number of companies with active pipelines



Chicago

Vice President
Business Development
Sergie Letser



San Diego

Vice President
Business Development
Dr. Chris Worrall



New York

Vice President
Business Development
Eric Peter



Cambridge

Chief Commercial Officer
Christian Jones



Helsinki

Commercial Associate
Britta Madison



Helsinki

Commercial Associate
Leonor da Silva



Oxford

Commercial Insights Officer
Dr. Jamie Unwin



Durham

Vice President
Business Development
Dr. Nathalie Huther



London

Business Development
Manager
Hui Yi Tee



Bordeaux

Vice President
Business Development
Frédérique Bordes-Picard



Lisbon

Business Development
Manager
Joana Moreira da Silva



Customer projects signed

9M/2020



9M/2021



9M/2022



Commercial Relationships Q4/2019-Q3/2022

7 major pharma companies

e.g. Astra Zeneca and Boehringer Ingelheim

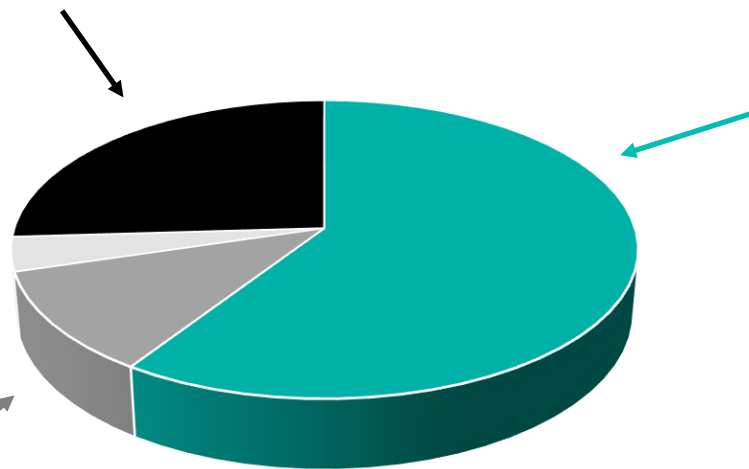
**22 mid-sized,
specialty pharma &
biotech companies**

e.g. Pharmanovia, Herantis and TargTex

1 co-development

3 collaborations

e.g. Aprecia and Celanese Corp



TargTex and Nanoform Present Tumour Eradication in Rodents from a Nanoformed Glioblastoma drug

TargTex CEO Dr João Seixas and Nanoform CCO Christian Jones presented on October 25th highly promising *in-vivo* data, enabled by a nanoformed drug product for the treatment of **glioblastoma multiforme (GBM)**, at the PODD Conference (Partnerships and Opportunities in Drug Delivery), in Boston USA. The data was generated for a planned Phase 1/2a clinical trial, due to commence in early 2024. Nanoform delivers GMP grade nanoformed material to TargTex for the clinical trial.

Nanoform is an innovative nanoparticle medicine enabling company and TargTex is a European biotech company and a customer to Nanoform.

The drug is a selective Ca²⁺ channel blocker* delivered by implantation at the site of the resected tumor in the brain. Nanoform and TargTex have collaborated in the optimization of a **hydrogel formulation enabled by nanoformulation of the drug**. Other 'technology and approach'-providers previously failed to deliver the necessary performance.

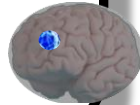
The study was conducted in a rat model for GBM in which GBM tumor cells are injected into the brain. After 2-3 weeks, the nanoformulated hydrogel was delivered locally in the brain of the animal, on top of the tumor.

The study results showed long term survival of 40% of the treated animals and no tumor cells were detected histopathologically in these animals at sacrifice. The nanoformed drug product provided a controlled release and deep drug diffusion across the brain parenchyma. The data showed no systemic exposure and the drug was not toxic at maximum loading concentration.

The study was performed at a dose that can be increased by at least 2-fold. Future studies are planned to be performed at increased drug concentrations with the goal to further improve long term survival.

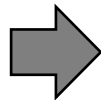
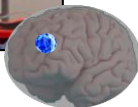
Small is a powerful ingredient in formulations and provides hope for patients, businesses, and drugs. The data further validates Nanoform's potential to enable new therapies by combining capabilities across its service offering: Starmap®, nanoforming, and nanoformulations.

Glioblastoma (GBM)

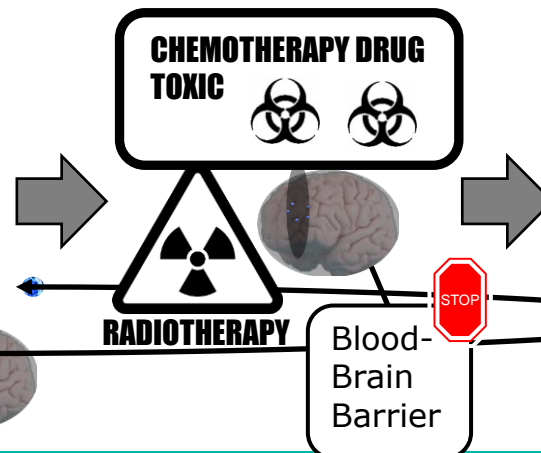


±200k yearly

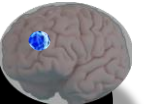
Most common and aggressive primary brain tumor
16 months life expectancy
1 FDA approved **drug** in the last 20 years



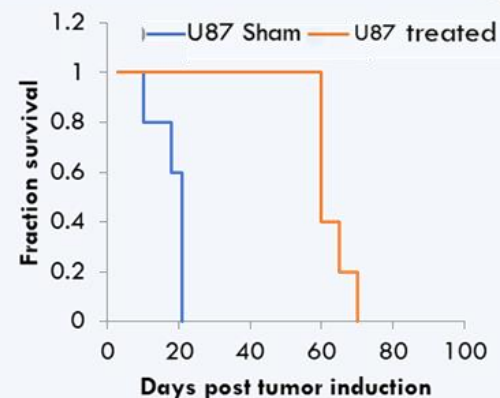
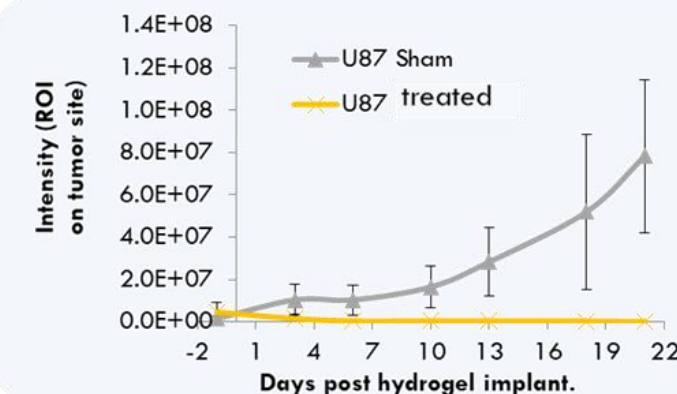
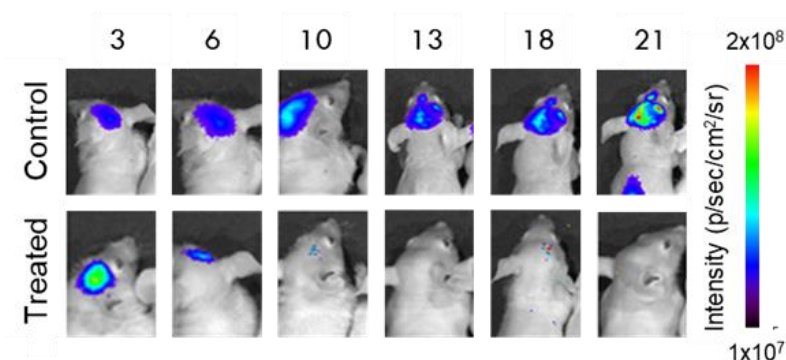
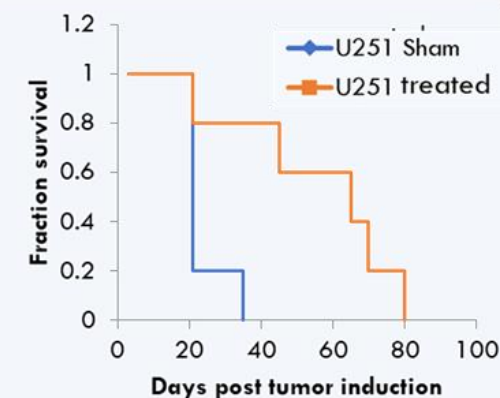
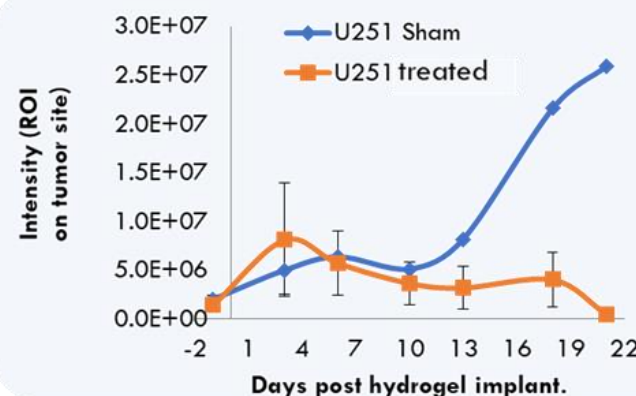
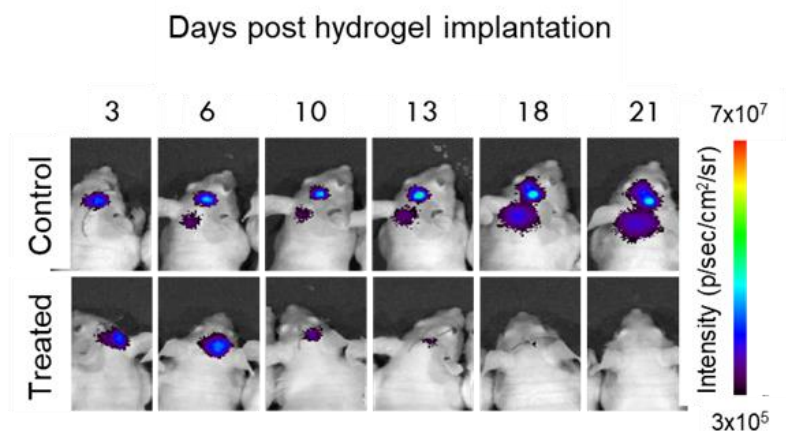
Craniotomy



**Recurrence
After ± 9m**



Validation of localized therapy approach with first prototype hydrogel



Single dose administration of the drug@hydrogel formulation abolishes Primary GBM with safe histological profile

Development of tailored hydrogel



Drug Delivery Challenge


























The first prototype hydrogel was effective for primary tumor eradication but did not prevent tumor recurrence. This formulation also posed restrictions on dosing.

Hydrogel Optimization

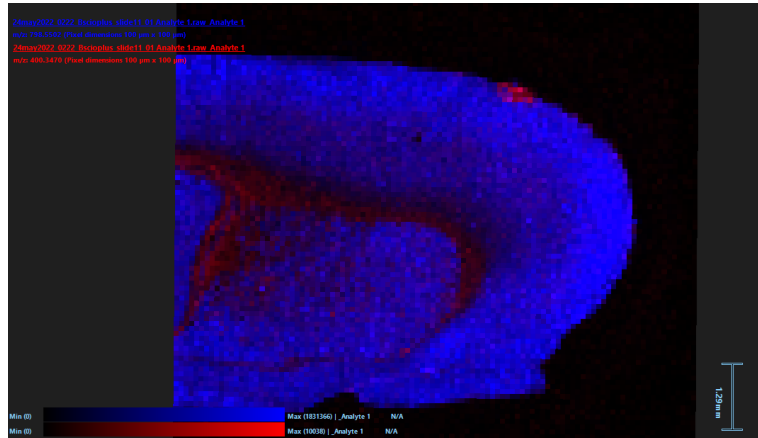
- Thermo-responsive hydrogel
- Sterilizable, non-toxic, biocompatible, biodegradable...
- FDA approved excipients
- Controlled drug release
- Increased drug loading

Development of tailored formulation

Hydrogel Optimization

	Excipients Screening	Nanomilling	Nanoformed material
Solubility			 
Tuning of release kinetics			 
Particle size control			 
% API incorporation			 
Need for stabilizers and/or additives			
Storage stability			
GMP-scale up			

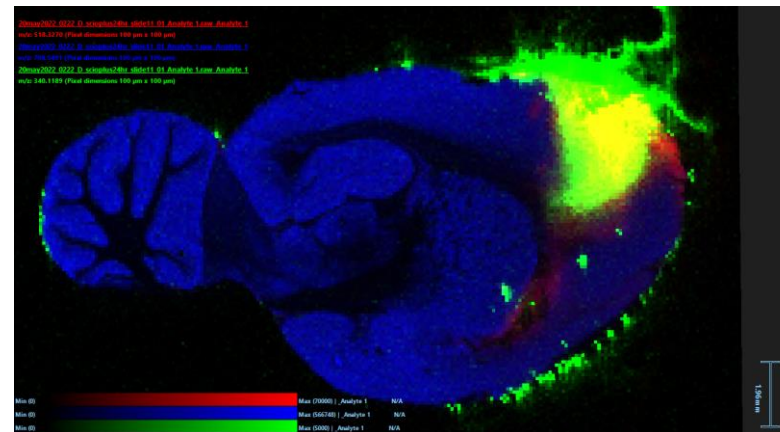
Development – Results: Nanoformed hydrogel diffusion



Untreated rat brain

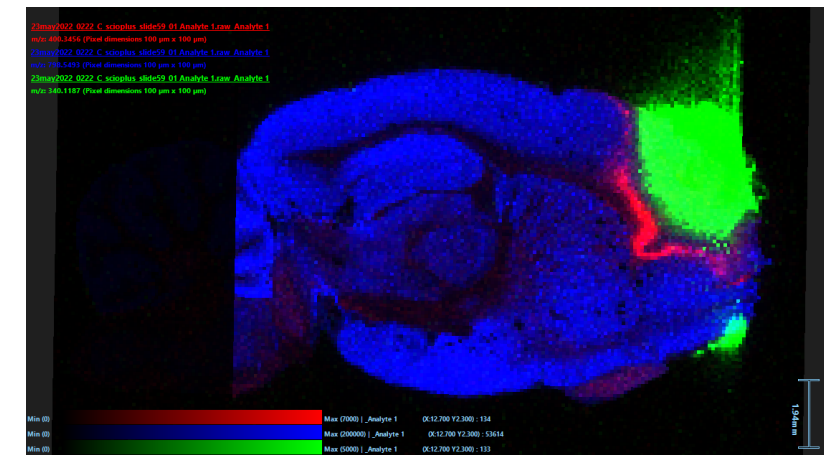
Nanoformed particles enable deep drug diffusion across the brain parenchyma.

24h post-dosing



Drug penetration through rat brain parenchyma (green & yellow)

72h post-dosing



Drug penetration through rat brain parenchyma (green)

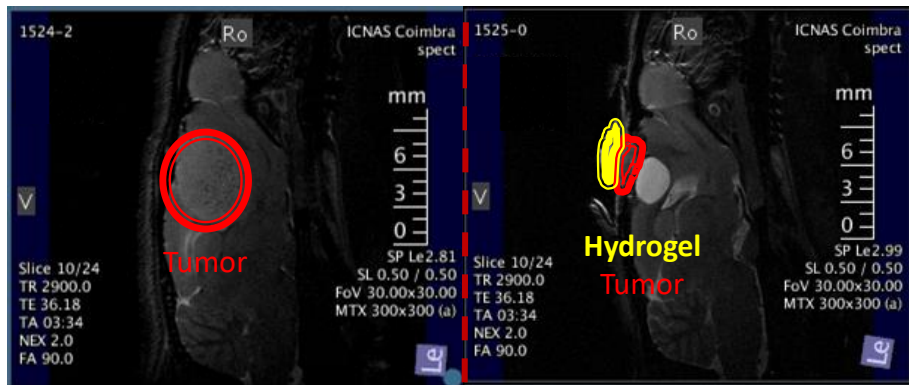
Efficacy – Complete Tumor Eradication with Nanoformed hydrogel



TARGTEX
TARGETED THERAPEUTICS

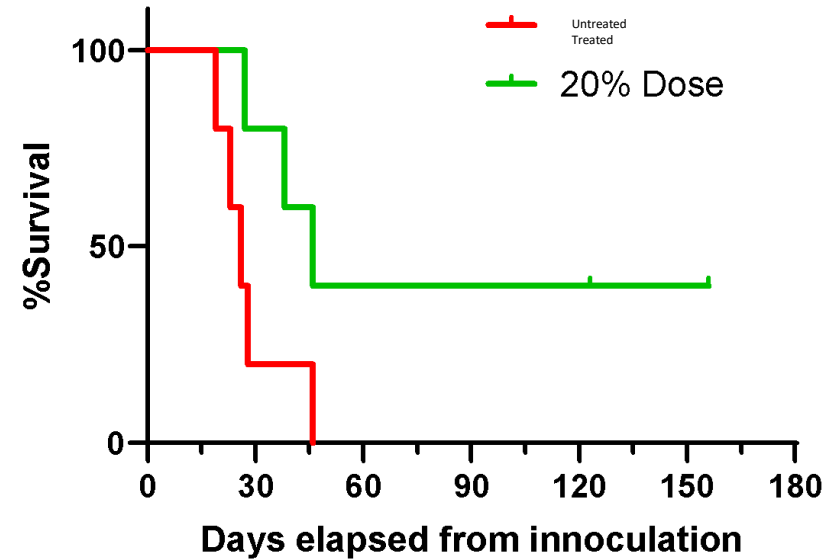
RNU-U87 xenograft rat model

Day 12 post treatment



Untreated

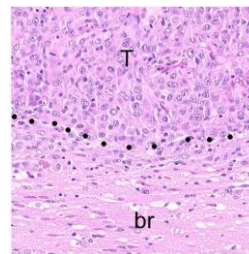
Treated group



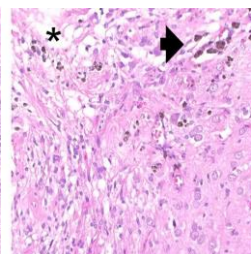
40% Long Term
Survivals with
complete tumor
eradication

Next Steps: increase
drug load and
improve % survival
and long term
survival further

No microscopic tumor cells
detected at LTS' time of sacrifice



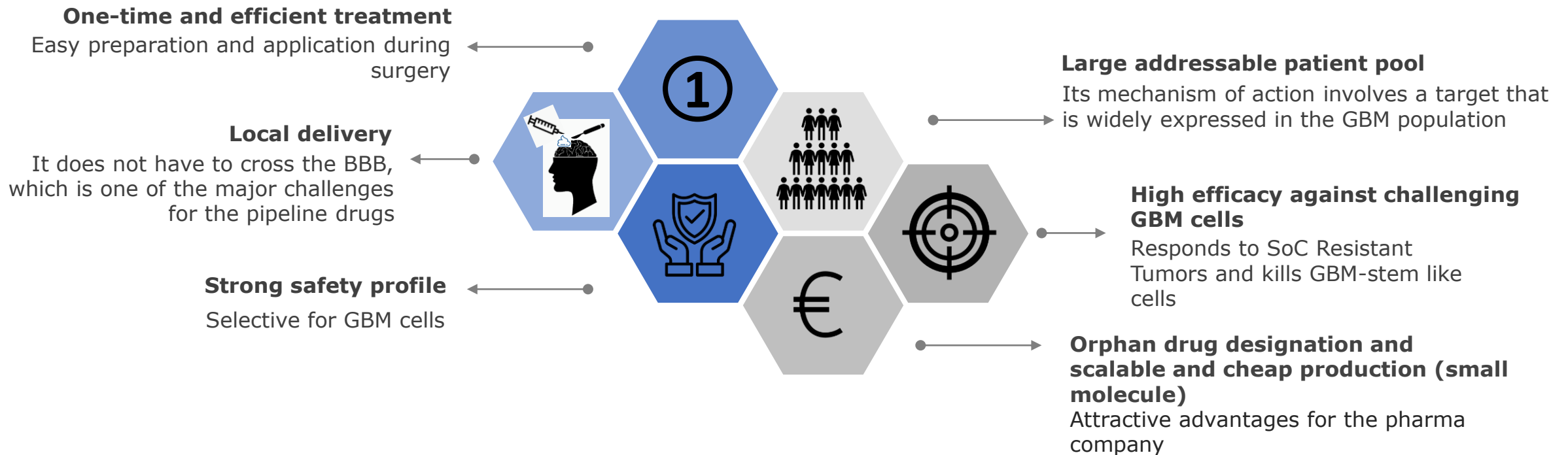
Untreated



Treated

T tumor
br brain
***** Focal
necrosis
residual
inflammation

Product Differentiation for GBM



TargTex and Nanoform Partnership Enabled....

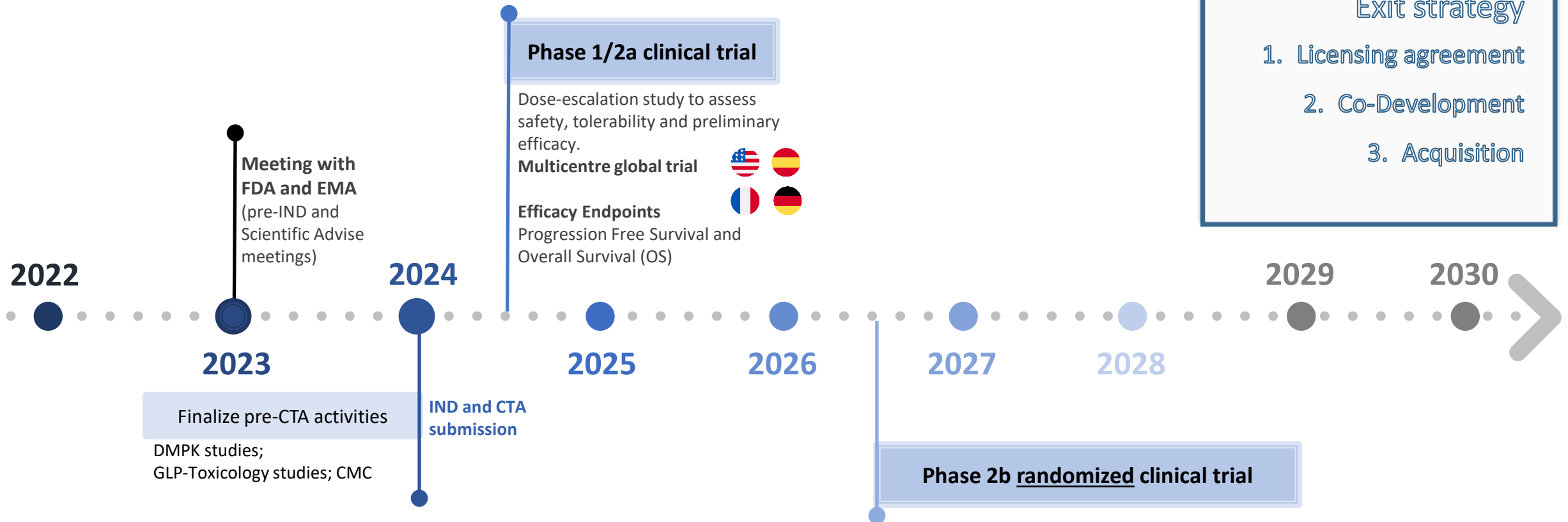


- **Tumor eradication** in rodents (rat) with only 44% of maximum drug loading dose
- **Deep brain penetration** demonstrated by MSI (Mass Spectrometry Imaging)
- PK data shows **no systemic exposure**
- **Non-toxic** at maximum loading concentration
- **GMP-scalable** formulation; manufacturing agreement signed with Nanoform
- Together we will explore the ***power of small*** for other localized oncology treatments!

Roadmap

Exit strategy

1. Licensing agreement
2. Co-Development
3. Acquisition



New collaboration agreement - for a blockbuster drug

Nanoform Finland Plc

Partner 1

**European
Headquartered
International
Company**

Partner 2

**European Pharmaceutical
Development and
Manufacturing
Organisation**

Partner 3

**European Pharmaceutical
Development and
Manufacturing
Organisation**

Development and commercialization of a more patient centric version of a current blockbuster drug
- go to market commercial terms agreed

**Nanoformed
blockbuster
drug**

Nanoform commercial team events 2022

30
events
&
>700
meetings



DCAT Week

NYC
March

aaps
NERDG

Connecticut
April

Drug Discovery Chemistry

San Diego
April



PBP
WORLD MEETING

Rotterdam
March

BioTrinity

London
April

Bio Integrates

London
May

BiOMERISRAEL

Israel
May

aaps National Biotechnology CONFERENCE

Anaheim
May

CPHI

Philadelphia
May

RDD2022
Respiratory Drug Delivery

Florida
May

SWISS BIOTECH DAY

Basel
May

BOS BASEL

Basel
June

DDF Summit
Drug Delivery & Formulation

Berlin
June

NILS DRUGS 2022

Malmo
September

Crystal Engineering Research Conference
Maine
June

Bio

San Diego
June

DDF Summit
Drug Delivery & Formulation

San Diego
September

PharmaTech Integrates

Glasgow
September

13th APS PharmSci
International Conference

Belfast
September

BIO EUROPE®

Leipzig
October

Pharma Integrates

London
November

aaps

Boston
October

PODD

Boston
October

CNS SUMMIT

Florida
November

CPHI

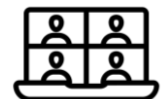
Frankfurt
November

BOS MANCHESTER

Manchester
November

DDL2022
DRUG DELIVERY TO THE LUNGS

Edinburgh
December



Online events

BIOTECHGATE

February

BIO-EUROPE SPRING®

March

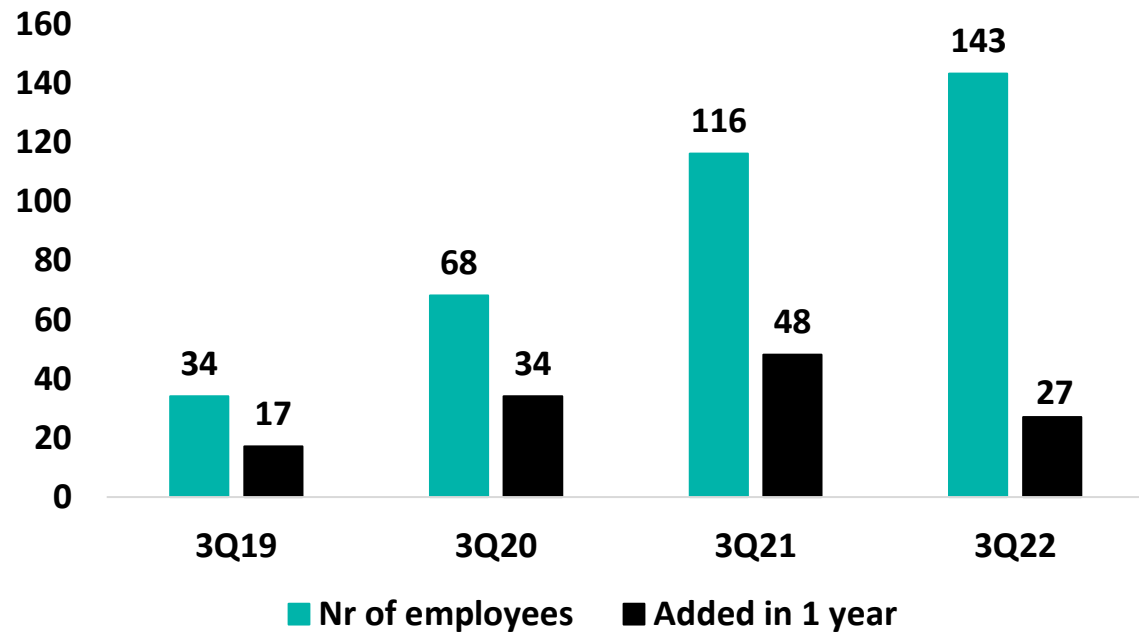


3Q22 and 9M22 Financials

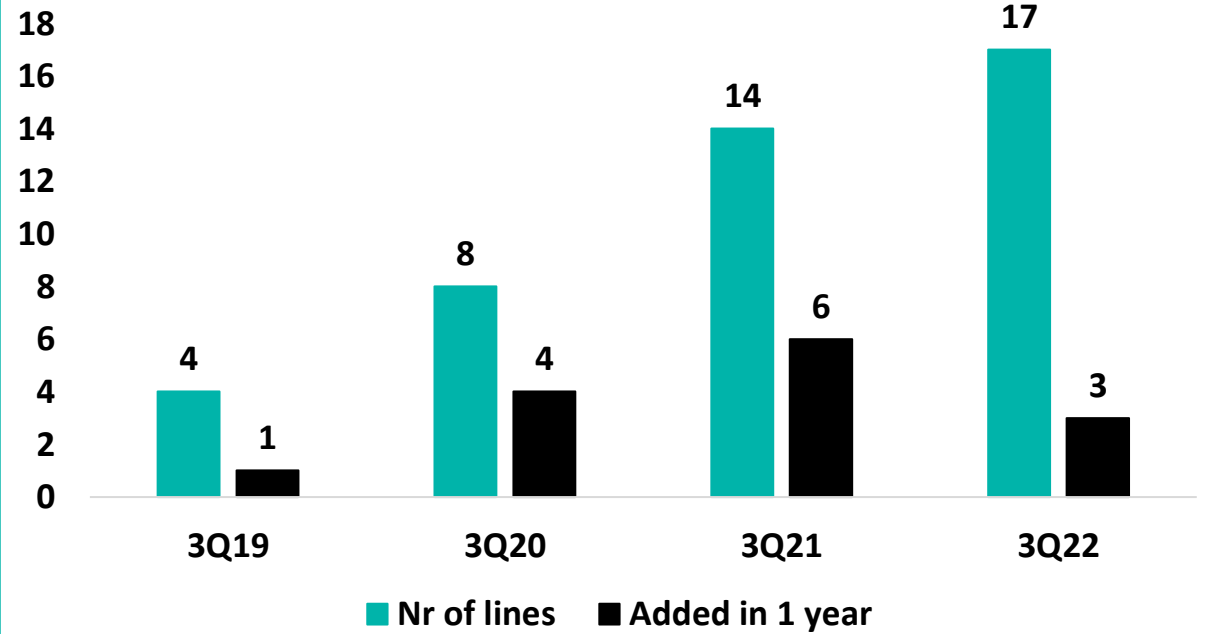
Business Model

Nr of employees & nr of lines ~ 4x during last 3 years

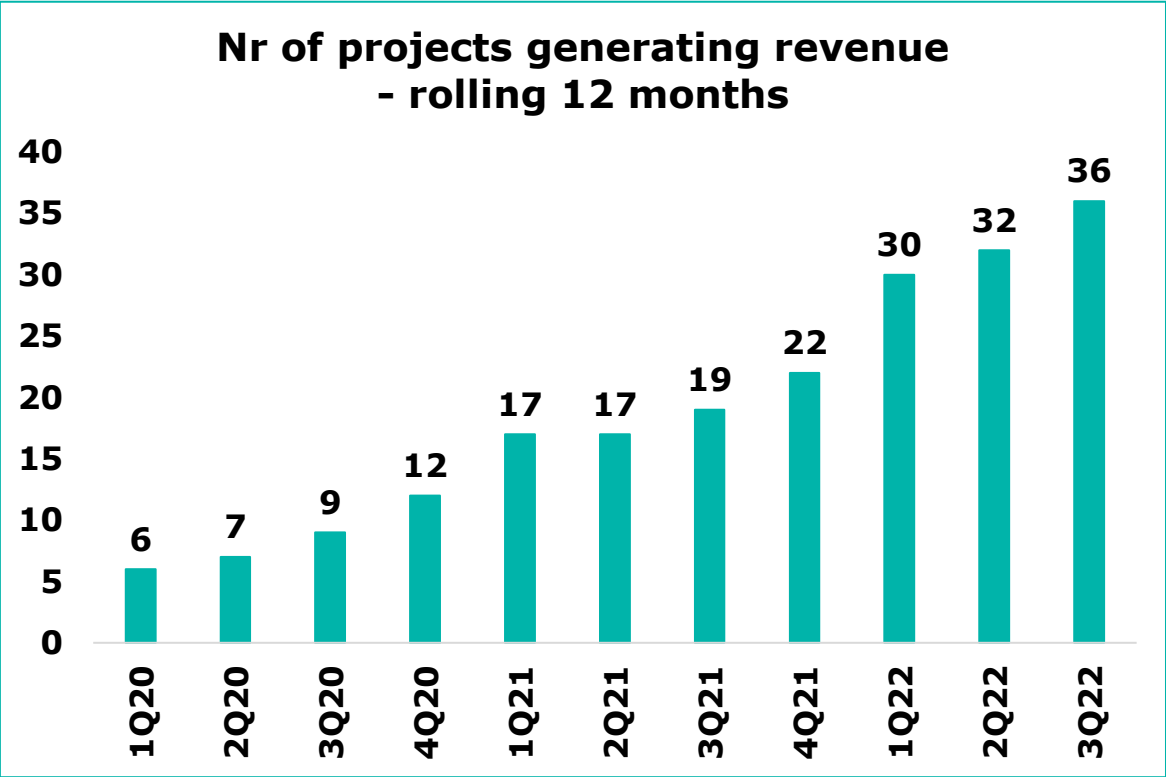
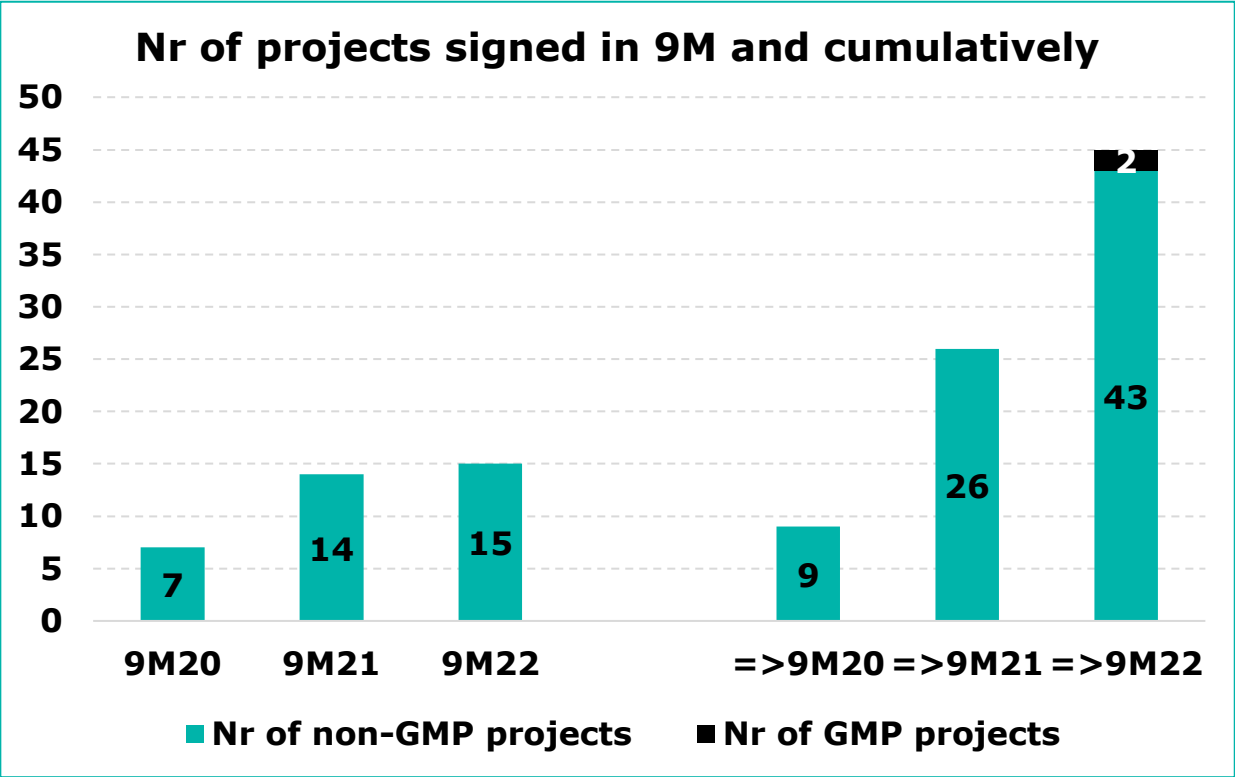
Nr of employees



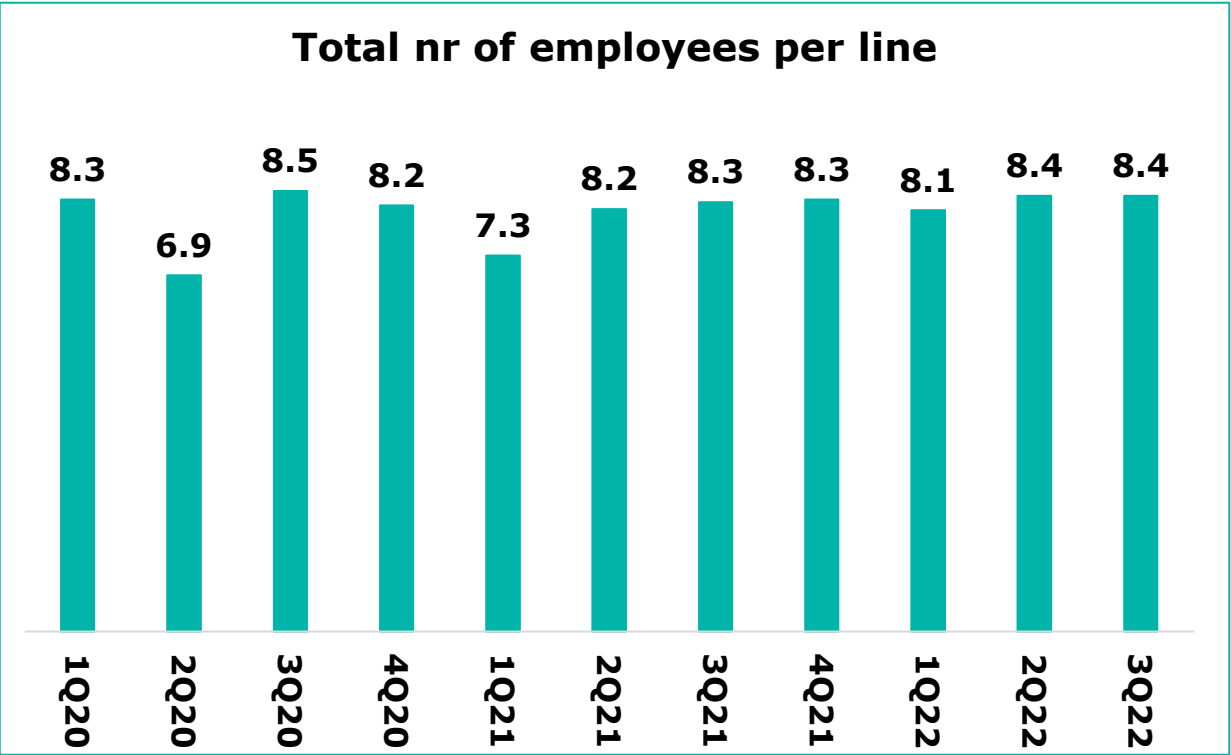
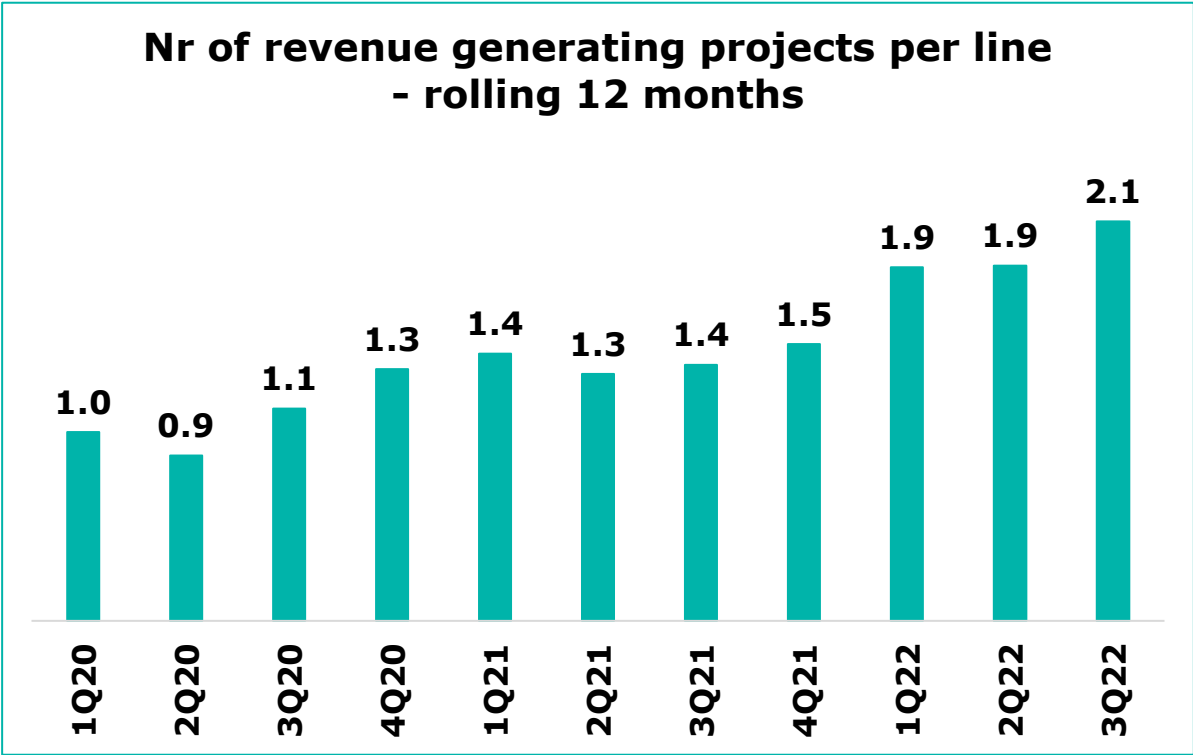
Nr of lines



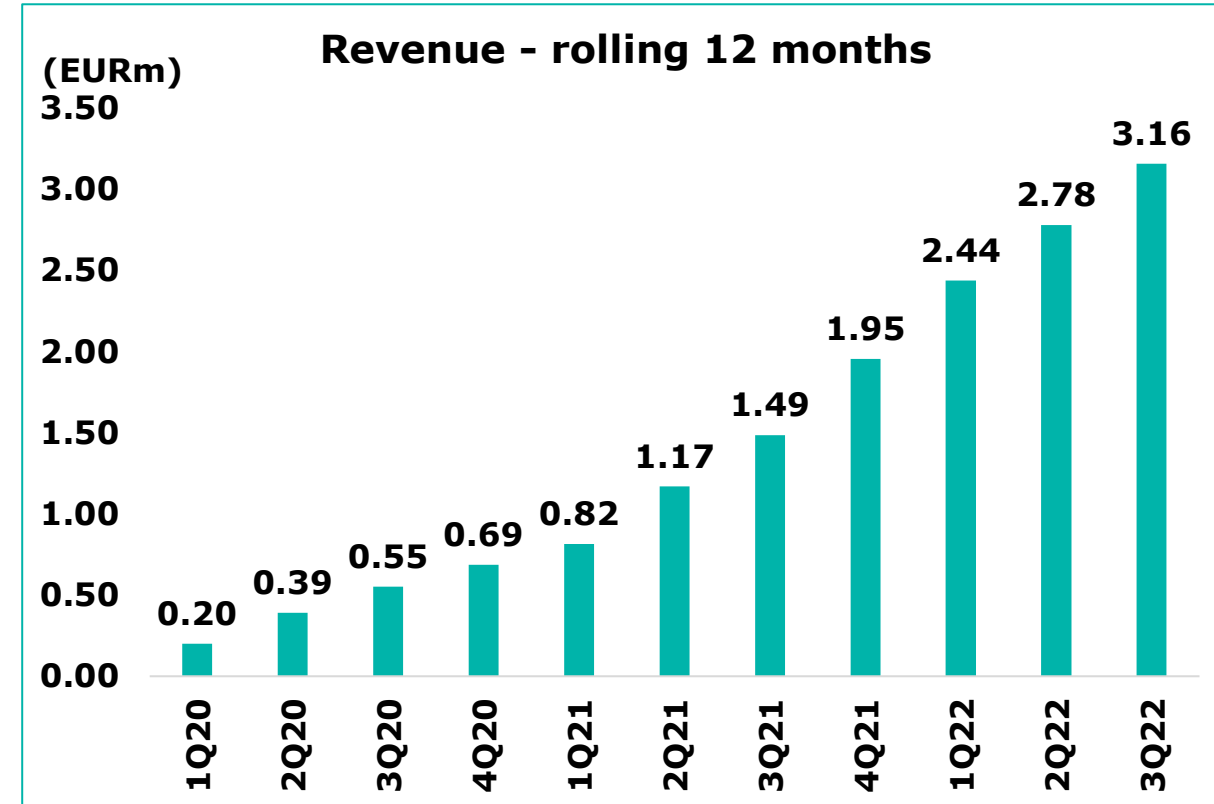
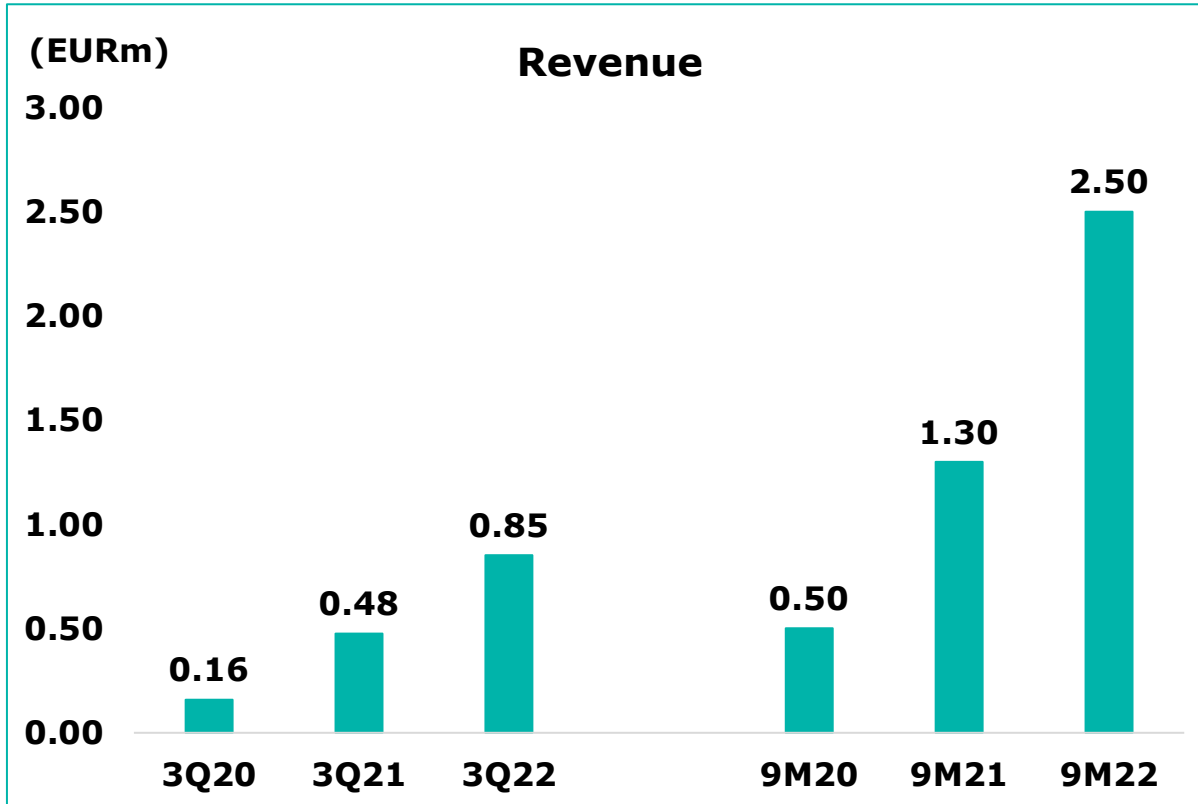
Number of projects



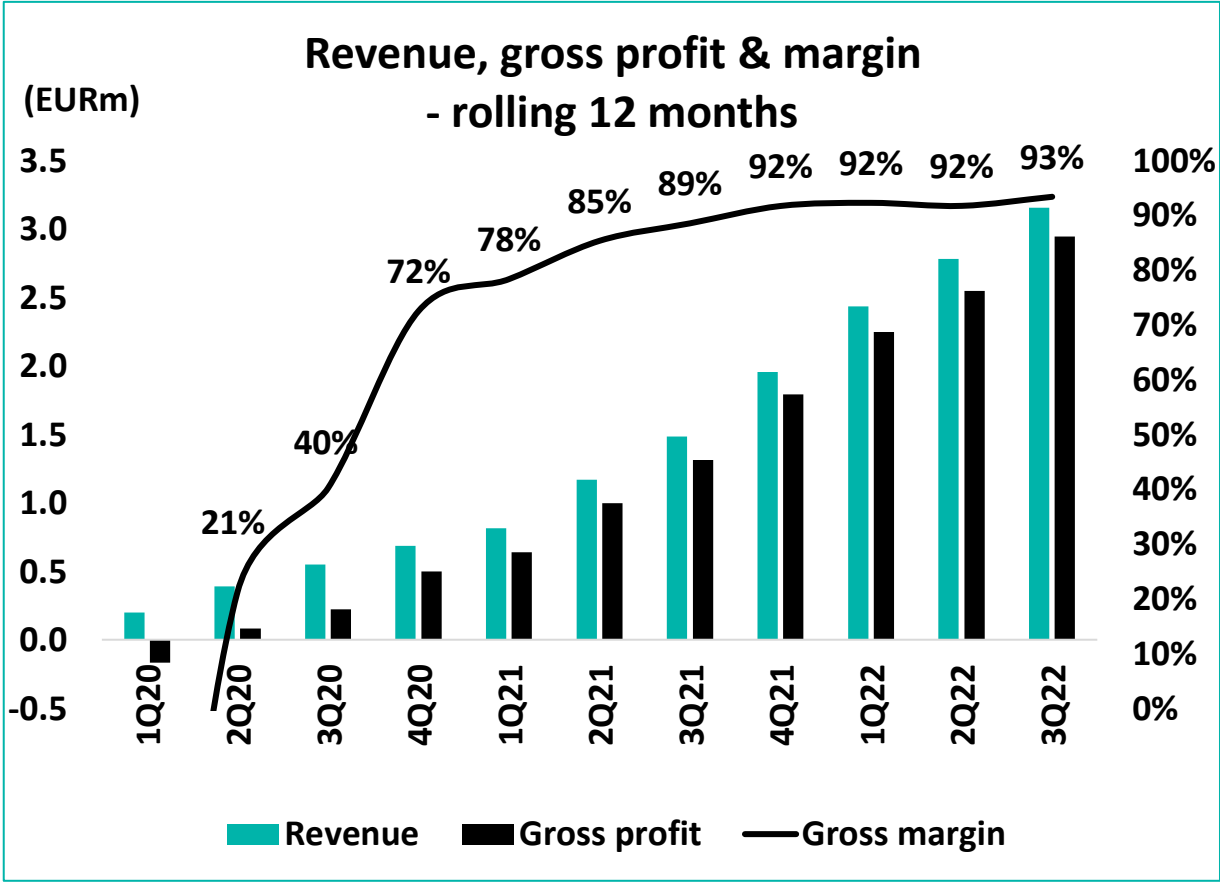
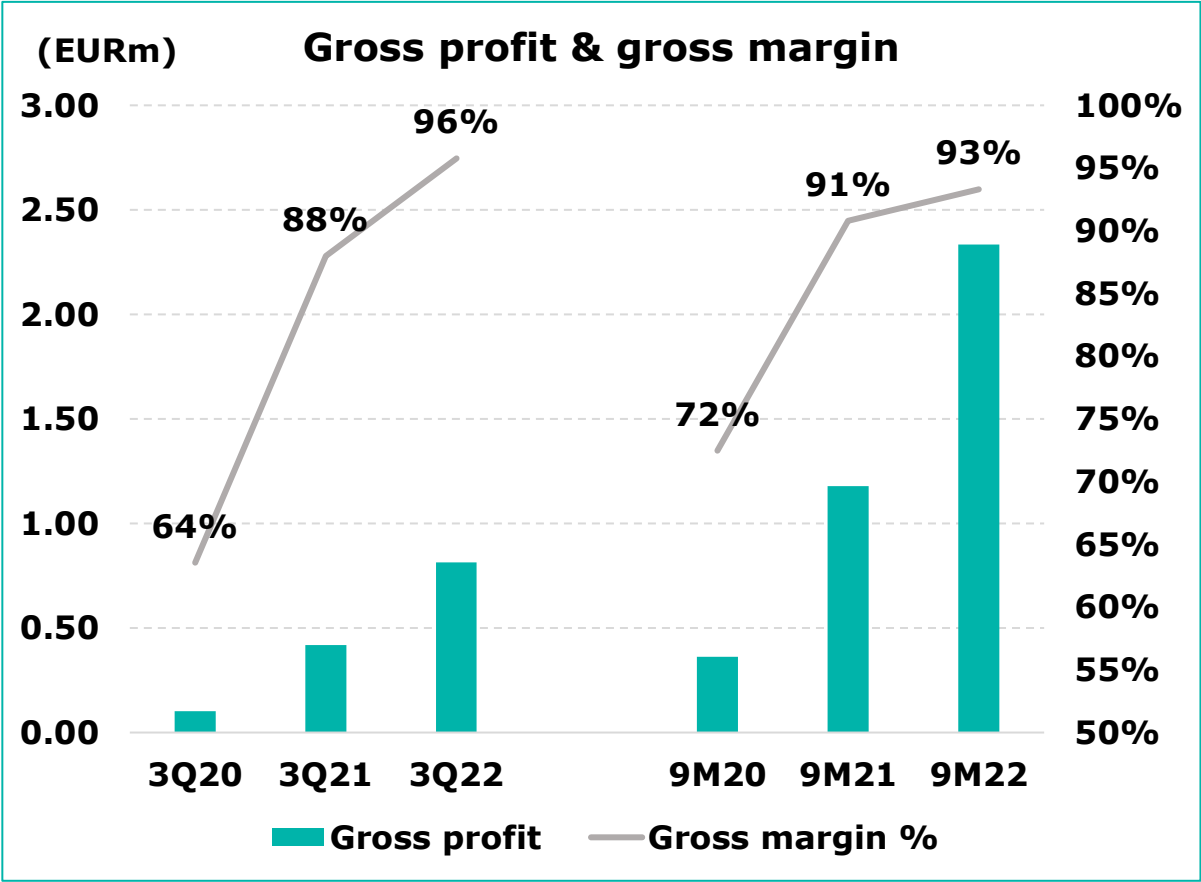
Scale & automation will enable efficiency & cost synergies



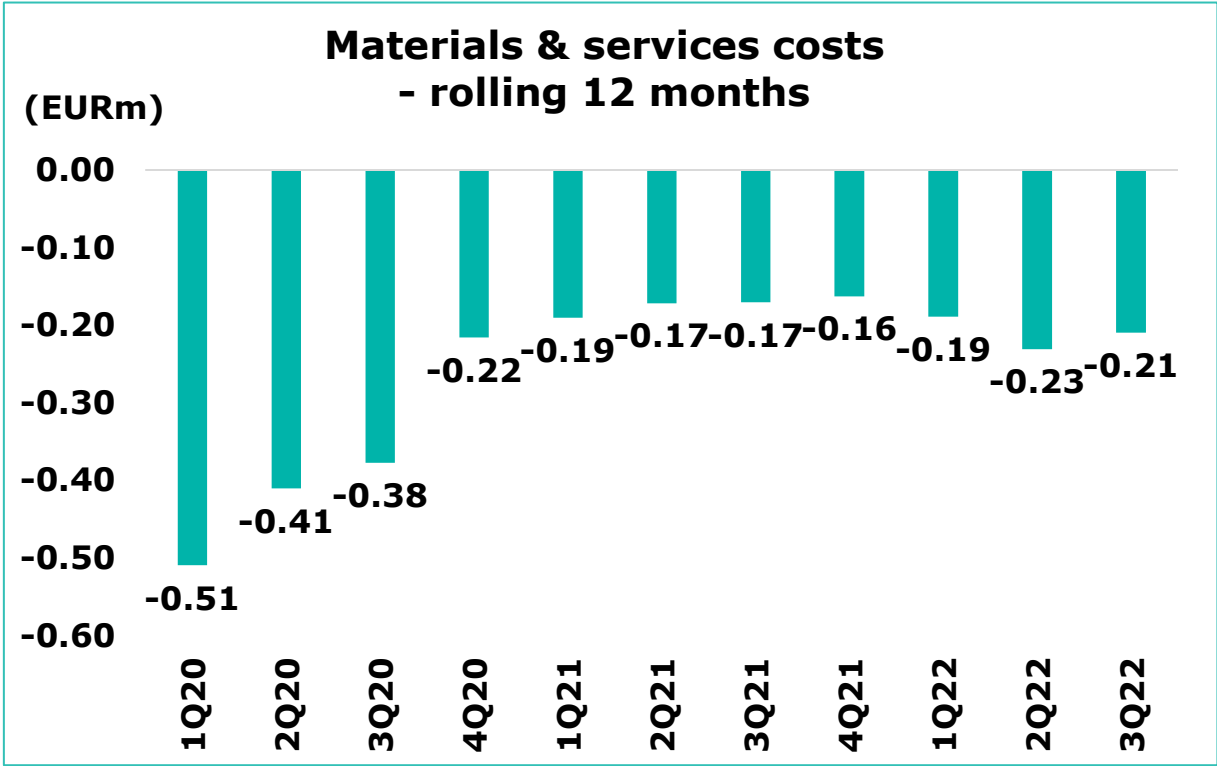
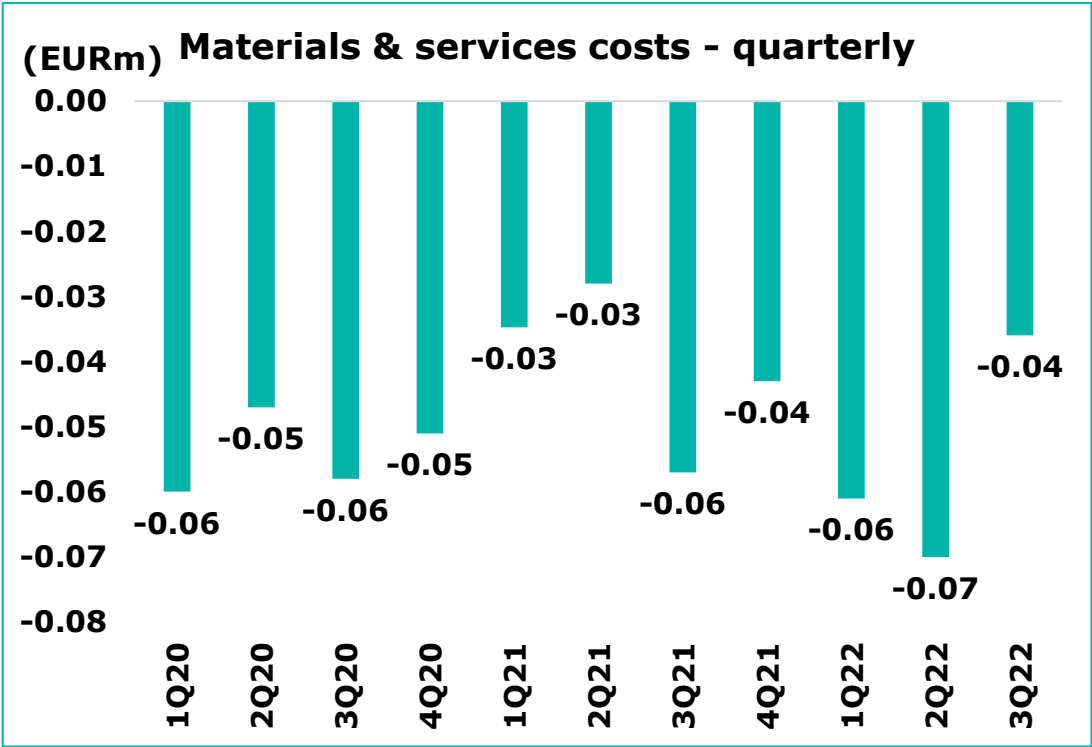
Continued revenue growth



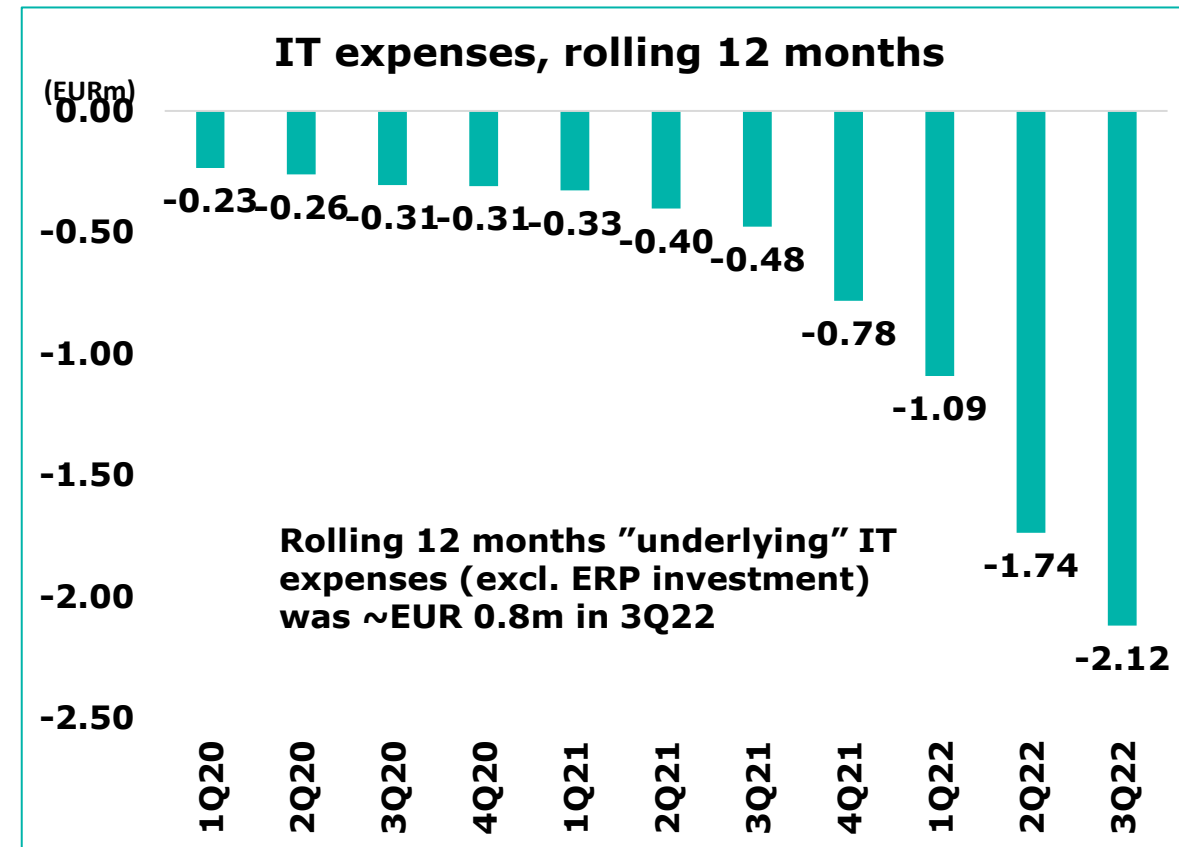
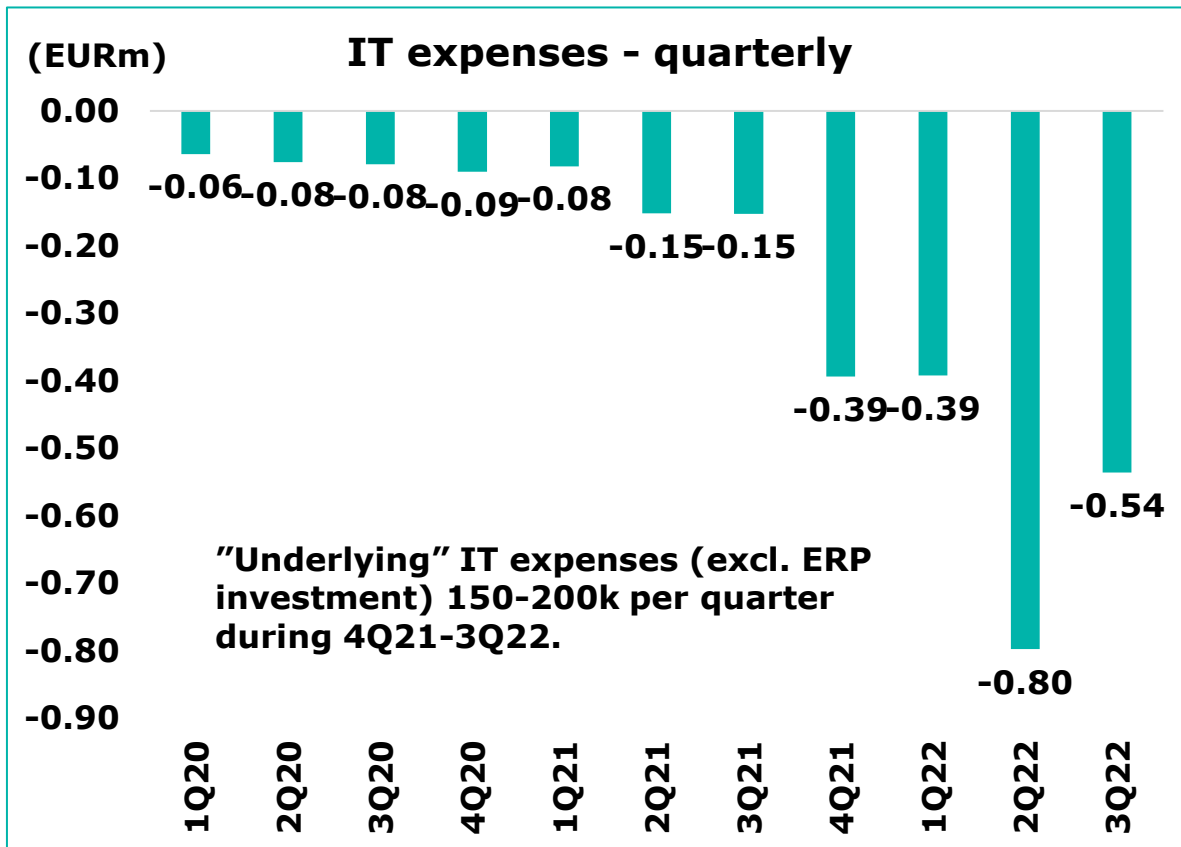
with record gross profit and gross margin



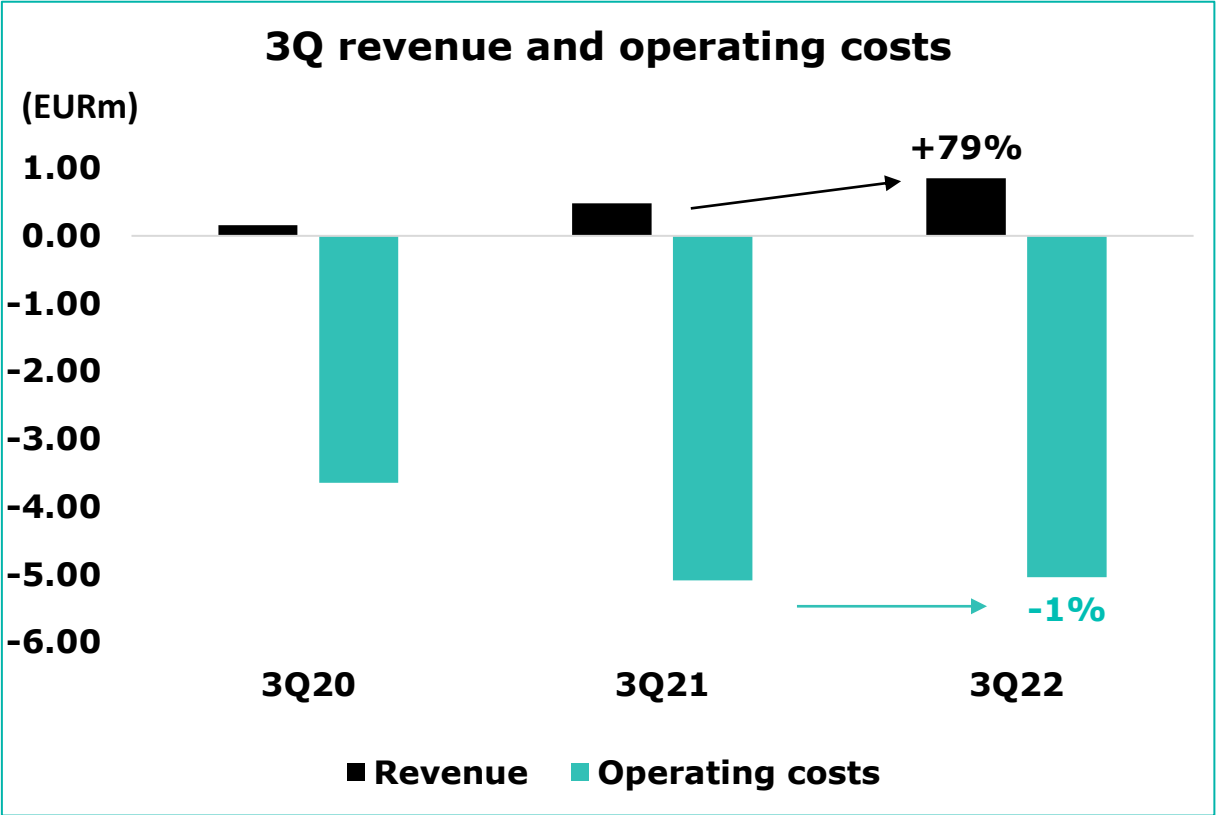
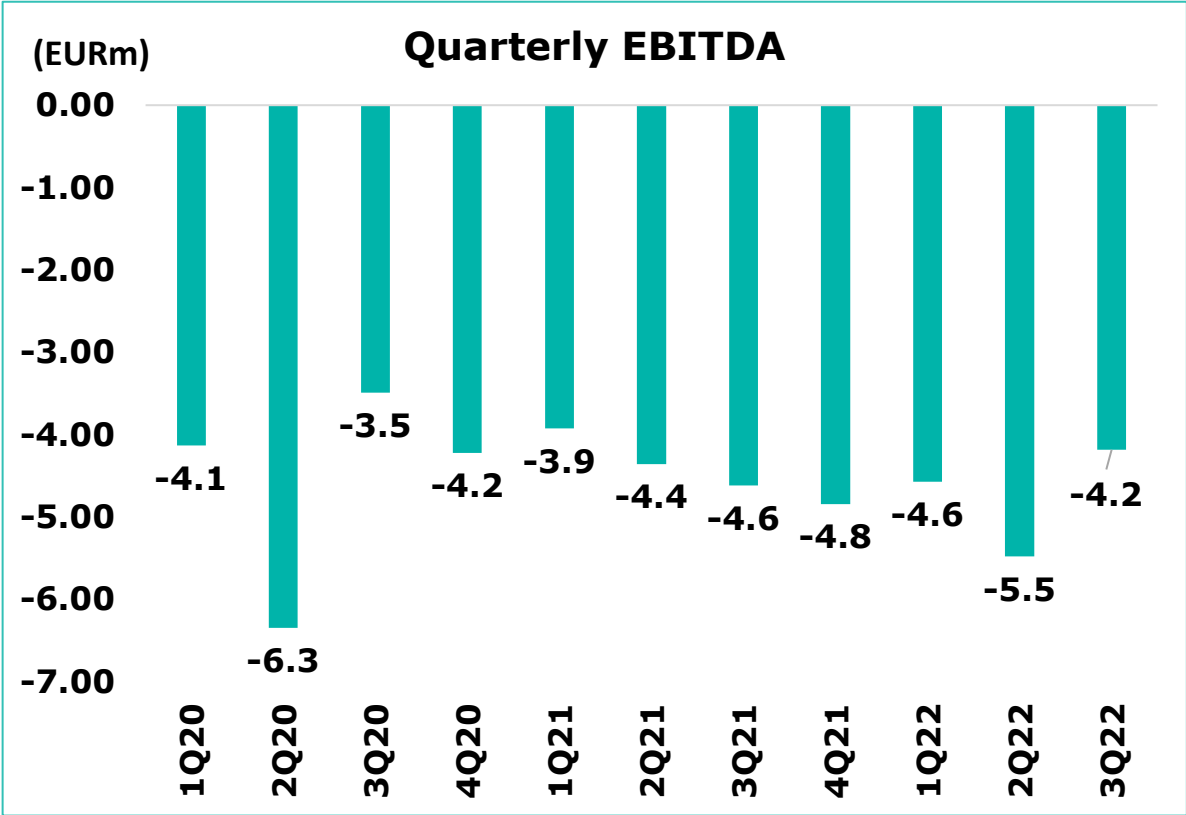
materials costs on a low level despite growing volumes



IT expenses risen as planned due to investment in new ERP system



Smallest EBITDA loss since 1Q21, as revenues up and costs flat



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 % based on drug sales or supply price per kg</u> Estimated royalty fee of 1-20%

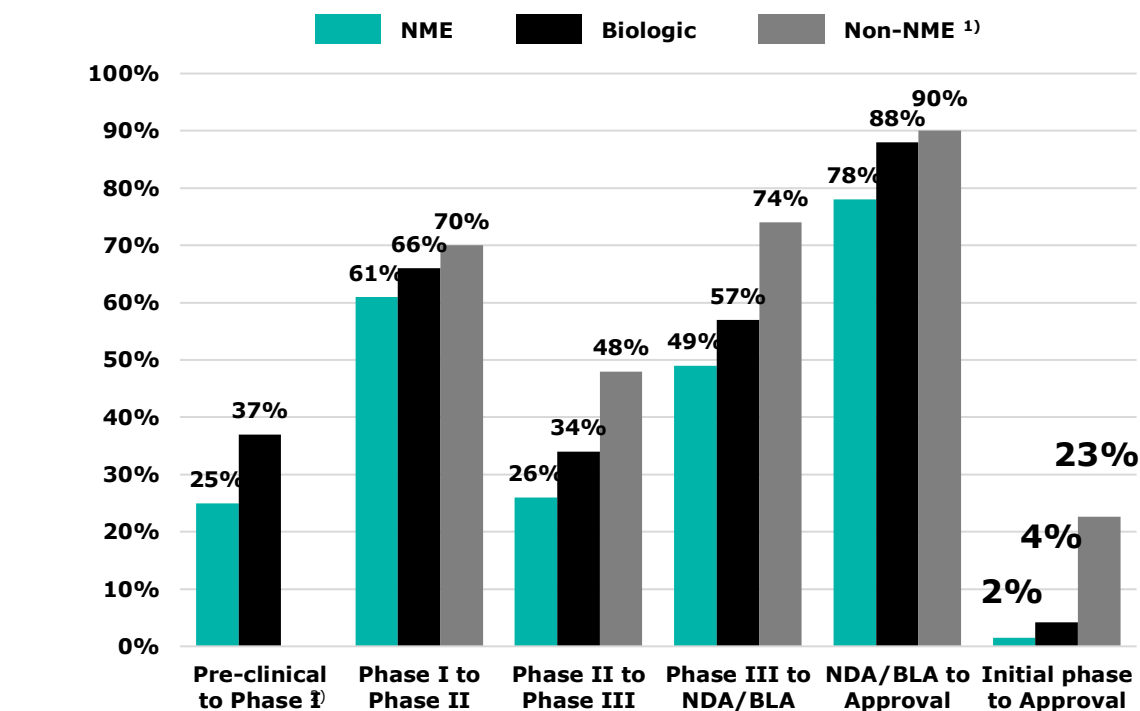
➤ Attractive business model with diversified risk profile due to not having to carry the cost & risk of drug development or being dependent on a single drug

Revenue drivers & industry attrition rates

Nanoform pre-clinical and clinical revenue drivers

Non-GMP		GMP	
Proof of Concept (PoC)	<ul style="list-style-type: none"> # of active customers # of APIs per customer Price per PoC per API 	Phase I, II & III	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Attrition between PoC and PoP Price per PoP per API Time lag between PoC and PoP 		<ul style="list-style-type: none"> # 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
Proof of Process (PoP)		Drugs on the 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 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**

Financial KPI's

Financial KPI's

EUR thousand	7-9/2022	7-9/2021	1-9/2022	1-9/2021	1-12/2021	1-12/2020	1-12/2019
Revenue	851	475	2,501	1,300	1,955	687	49
Revenue growth %	79%	198%	92%	159%	185%	n.m.	n.m.
Gross profit	816	419	2,334	1,180	1,792	497	-323
Gross margin	96%	88%	93%	91%	92%	72%	neg.
EBITDA	-4,186	-4,615	-14,243	-12,898	-17,745	-18,196	-6,900
Operating loss	-4,796	-5,108	-15,979	-14,312	-19,705	-19,423	-7,344
Loss for the period	-5,155	-4,513	-16,506	-14,123	-19,690	-19,441	-7,554
Basic EPS (EUR)	-0.07	-0.06	-0.22	-0.21	-0.29	-0.35	-0.19
Net debt	-69,220	-74,788	-69,220	-74,788	-68,070	-54,156	-3,640
Net debt excluding lease liabilities	-76,329	-82,372	-76,329	-82,372	-75,733	-59,977	-6,626
Investments in property, plant, and equipment	-1,857	-1,804	-6,920	-4,462	-7,737	-2,336	-1,804
Operative free cash flow	-6,044	-6,420	-21,164	-17,361	-25,482	-20,532	-8,704
Cash and cash equivalents (end of period)	76,329	82,372	76,329	82,372	75,733	61,025	7,303

Income statement

Condensed interim financial information January – September 2022

Consolidated statement of comprehensive income

EUR thousand	Note	7-9/2022	7-9/2021	1-9/2022	1-9/2021	1-12/2021
Revenue	4	851	475	2,501	1,300	1,955
Other operating income			0		0	0
Materials and services		-36	-57	-167	-120	-162
Employee benefits	7	-3,029	-3,635	-10,665	-10,088	-13,791
Depreciation, amortization, and impairment losses	6	-610	-493	-1,736	-1,414	-1,960
Other operating expenses	5	-1,973	-1,399	-5,912	-3,990	-5,747
Total expenses		-5,647	-5,584	-18,481	-15,611	-21,660
Operating loss		-4,796	-5,108	-15,979	-14,312	-19,705
Finance income		106	759	601	2,190	2,585
Finance expenses		-461	-163	-1,108	-1,999	-2,567
Total finance income and expenses		-355	596	-507	191	18
Loss before tax		-5,151	-4,512	-16,486	-14,121	-19,687
Income tax		-4	-1	-20	-2	-3
Loss for the period		-5,155	-4,513	-16,506	-14,123	-19,690

1-9/2022 comments

➤ Revenue grew by 92% to EUR 2.50 million in 9M22, stemming from 33 different customer projects (18 projects in 9M21). The impact from the two GMP contracts signed in 4Q21 was yet modest on the revenue recognized. Revenues are recognized over the lifetime of the projects, based on expenses (mostly hours worked) booked for the projects. In Q3 there is a seasonal effect due to the summer vacation season.

➤ The gross profit almost doubled to EUR 2.33m in 9M22 (1.18), while the 3Q22 gross margin hit a new all-time-high of 96%. As the total operating costs fell by 1% in 3Q22, it led to the smallest EBITDA loss since 1Q21, EUR -4.2m (-4.6m), despite the increased IT costs due to the ongoing ERP project.

➤ Cash position was EUR 76.3 million (EUR 82.4 million).

5. Other operating expenses

EUR thousand	7-9/2022	7-9/2021	1-9/2022	1-9/2021	1-12/2021
Premises expenses	38	92	101	144	100
IT expenses	536	153	1,725	386	780
Marketing and communication expenses	206	162	548	452	589
Consultant and professional fees	288	225	927	848	1,150
Travel expenses	83	44	250	80	146
Voluntary personnel related expenses	167	164	580	548	745
R&D expenses – external	251	149	616	688	930
Other expenses	405	410	1,164	842	1,306
Total	1,973	1,399	5,912	3,990	5,747

The increase in other operating expenses stems mainly from the ongoing ERP project (IT expenses) and increased smaller purchases related to property, plant, and equipment which do not fulfill the activation criteria (other expenses).

Operational KPI's

Operational KPI's

	7-9/2022	7-9/2021	1-9/2022	1-9/2021	1-12/2021	1-12/2020	1-12/2019
Number of new customer projects signed during the period							
Non-GMP	2	6	15	14	16	10	2
GMP					2		
Total number of new customer projects	2	6	15	14	18	10	2
Number of lines (end of the period)							
Non-GMP	16	13	16	13	14	8	4
GMP	1	1	1	1	1	1	
Total number of lines (end of period)	17	14	17	14	15	9	4
Number of employees (end of period)	143	116	143	116	125	74	43



Q&A

www.nanoform.com

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



Appendix

Selection of Nanoform Institutional Shareholders¹



SAMPO  GROUP

Handelsbanken
Wealth & Asset Management



SISSENER 



CARN CAPITAL



Nanoform educational material

VIDEOS

CPhI Discover 2021 presentation: "Overcoming Drug Development Challenges with Nanotechnology" – Nanoform, Johnson Matthey and Quotient Sciences experts shared insights into the power of sparse-data AI in drug development and the collaborative studies investigating the performance of our CESS® technology. <https://nanoform.com/en/article/video-cphi-discover-2021-presentation/>

Nanotechnology Fireside Chat at Partnerships in Drug Delivery (PODD) 2021: Fireside chat between Nanoform and AstraZeneca representatives discussing the potential of nanoscale medicines and delivery devices to benefit patients. <https://nanoform.com/en/articles-videos/> (choose Video 1 on November 26, 2021)

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) - one of their top 5 most popular webinars of 2021! <https://player.vimeo.com/video/684197206?h=6dac8c956d>

Nanoform's client TargTex: TargTex CEO João Seixas discusses the value Nanoform's CESS® technology delivered for TargTex's novel drug candidate targeting glioblastoma. <https://nanoform.com/en/articles-videos/>

The Nanomed Zone webinar: We showcased the results from our collaboration with Johnson Matthey in our webinar with The Nanomed Zone: "How CESS® technology stacks up against the competition: the smaller, the better!" <https://nanoform.com/en/article/video-the-nanomed-zone-webinar/>

ARTICLES

The power of predictive AI can de-risk drug development and improve efficiency, enabling new and enhanced therapeutics to reach patients more rapidly: we delved into this topic in CHEManager. Discover their insights here, including how our pioneering AI-based STARMAP® platform can help: <https://www.chemanager-online.com/en/news/nanoparticle-engineering>

Solid Form Strategies for Increasing Oral Bioavailability: We discussed the power of CESS® and other industry-standard techniques with Drug Hunter. <https://drughunter.com/resource/solid-form-strategies-for-increasing-oral-bioavailability/>

Small is Powerful: A Globally Unique Capability for Nanoforming HPAPIs: We discussed 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/>

Small is a Powerful Ingredient for Patient-Centric Formulations: We explored the new dawn of patient-centric innovations and formulations with PharmTech <https://www.e-digitaleditions.com/i/1481708-pharmaceutical-technology-october-2022/10>

OTHER MATERIALS

Nanoform brochure to pharma industry: <https://nanoform.com/en/brochure-november-2021/>

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>

Positive results from first-in-human trial of Nanoformed piroxicam: Overcoming Drug Development Challenges with Nanotechnology: CESS®-nanoformed piroxicam demonstrated the power of CESS® for improving solubility, dissolution and in vivo absorption. <https://nanoform.com/en/wp-content/uploads/sites/2/2021/05/positive-results-from-first-in-human-trial-of-nanoformed-piroxicam.pdf>

Nanoform PODD video: Discover the milestones we have achieved over the year, including our partnership with TargTex to help bring a drug to fight glioblastoma to clinical trial. <https://youtu.be/ow1KIY15NOo>

Nanoform PODD presentation: This presentation introduces how nanoparticles produced by leading technology, and subsequent thermoresponsive hydrogel formulation development, enabled a glioblastoma product to progress towards clinical development. <https://nanoform.com/en/wp-content/uploads/sites/2/2020/03/nanoform-and-targtex-how-drug-delivery-is-enabling-a-clinical-trial-for-glioblastoma-podd-presentation-oct-25-2022-in-boston-usa.pdf>

International team of highly skilled professionals

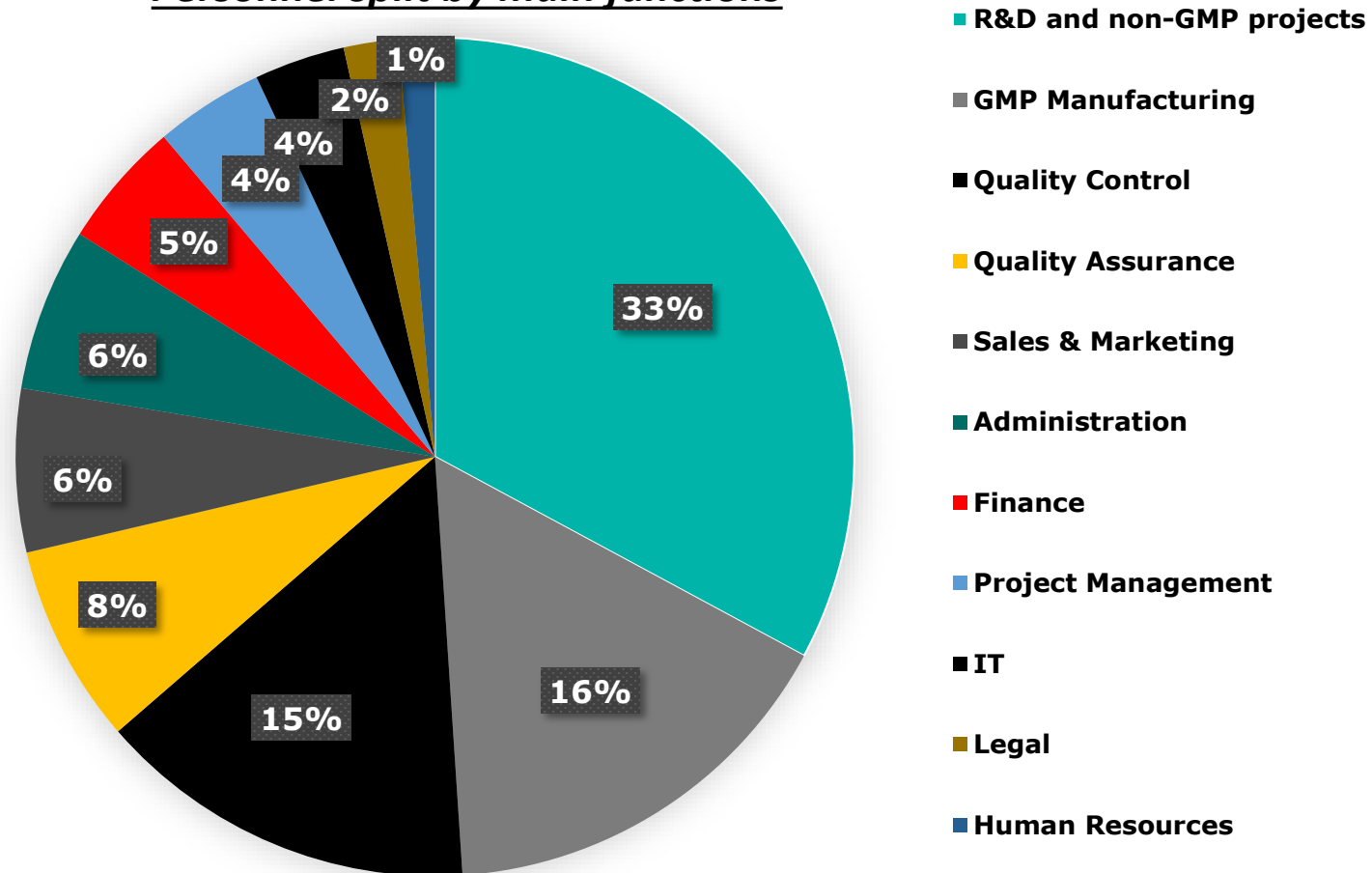
~140
employees

~30
nationalities

Balanced
combination
of experts
from business
and academia

~40 PhD's
from different
fields including
physics, pharma,
and
biology

Personnel split by main functions



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 a large number of scientific projects
- *Current ownership: 5,409,405 shares*



CTO; Ph.D. (Pharmaceutical Technology)
Niklas Sandler



- Previously Vice Rector for Research Affairs and Professor of Pharmaceutical Technology at Åbo Akademi University
- Extensive experience in industry and academia
- **Key area of expertise:** Pharmaceutical product development and material science
- *Current ownership: 20,000 shares and 260,000 options*



CCO; M.Sc. (Chem.)
Christian Jones



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



Director Human Resources; LL.M
Johanna Tuomisto



- Previously HR Director, Finland at Thermo Fisher Scientific
- Senior Vice President , Administration at Finnvera Oyj, and as a Legal & HR Director and Partner at Evli Bank Plc
- **Key area of expertise:** Human resources
- *Current ownership: 50,000 options*



CFO and member of the Board; B.Sc. (Econ.)
Albert Hæggström



- 20 years of finance and investing experience
- Prior roles include senior positions at Alfred Berg, BNP Paribas, Nordea and SEB
- *Current ownership: 701,135 shares and 400,000 options*



Head of Manufacturing; Ph.D. (Chem.)
David Rowe



- Previously Particle Size Reduction Lead for GlaxoSmithKline
- Has chaired the PSR Centre of Excellence
- **Key area of expertise:** Technical leadership within new chemical entities and commercial assets
- *Current ownership: 290,000 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 expertise:** Legal, Compliance, IPR
- *Current ownership: 103,125 shares and 230,000 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: 39,794 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: 701,135 shares and 400,000 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
- Extensive experience in process development and patenting
- Senior positions within several Danish biotech companies
- *Current ownership: 12,181 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: 12,181 shares and 38,630 options*
- **Key experience:**



Successful technology evaluation by **AstraZeneca Plc**

In Q2 2022 **AstraZeneca Plc** concluded its thorough technology evaluation of **Nanoform's** proprietary **CESS® Technology**.

The outcome of the technology evaluation was positive, and AstraZeneca is now ***moving forward to an identification and implementation stage for the technology where it will look to implement the technology on current and future development projects.***



Nanoform partners with Pharmanovia

Press release
Nanoform Finland Plc
July 14th, 2022

Nanoform and Pharmanovia to breathe new life into iconic medicines

Helsinki, Finland – Nanoform Finland Plc., an innovative nanoparticle medicine-enabling company, today announced that it has partnered with Pharmanovia, **a fast-growing specialty pharma business with a portfolio of over 20 branded drugs in 140 markets.**

The new strategic partnership aims to add value to branded prescription medicines. **Pharmanovia will look to apply Nanoform's proprietary nanoparticle technologies and formulation know-how to leading established pharmaceutical brands.**

The partnership starts with an iconic branded medicine where both parties see value in enhancing bioavailability for patient benefit. The value of the *stage-gated agreement* is according to Nanoform's business model for non-GMP and cGMP work.

STARMAP® and STARMAP® Online

What do we do?

Our STARMAP® Online platform leverages cutting-edge sparse-data AI to pick winners among candidate molecules that are predicted to be best amenable to CESS®-powered Nanoforming and that exhibit optimal production characteristics.

How do we do this?

When existing data alone is not sufficient for generating specific predictions, sparse-data AI comes to the rescue. Our STARMAP® online platform augments experimental results with detailed expert knowledge to allow sensible predictions to be made regarding drug development success. Currently, we are launching a digital version of our CESS® technology that allows us to perform in silico experiments in large quantities and to create predictions of Nanoformability.

Why do we do this?

Our game-changing CESS® technology lies at the heart of our operations and offers a unique opportunity to both bring failed assets back to life again and accelerate APIs to the clinic. The STARMAP® platform can have wide applicability in drug discovery and development as well as in lifecycle management for existing marketed drugs and 505(b)(2) like product development strategies. As CESS® has the potential to drastically improve several characteristics of APIs relative to other technology platforms, we recognize that it is vital to apply STARMAP® widely to rapidly identify for our customers the APIs with the greatest potential for nanoforming success. Additionally, past AI-based technologies were trained on old particle engineering techniques such as micronization, limiting prediction accuracy. This opens up the possibility that previously disregarded drug candidates can be revisited with the latest technology and transformed into a drug development success story.

Latest STARMAP® presentations:
www.nanoform.com/en/starmap/

Small molecules - CESS® Superior to Existing Technologies

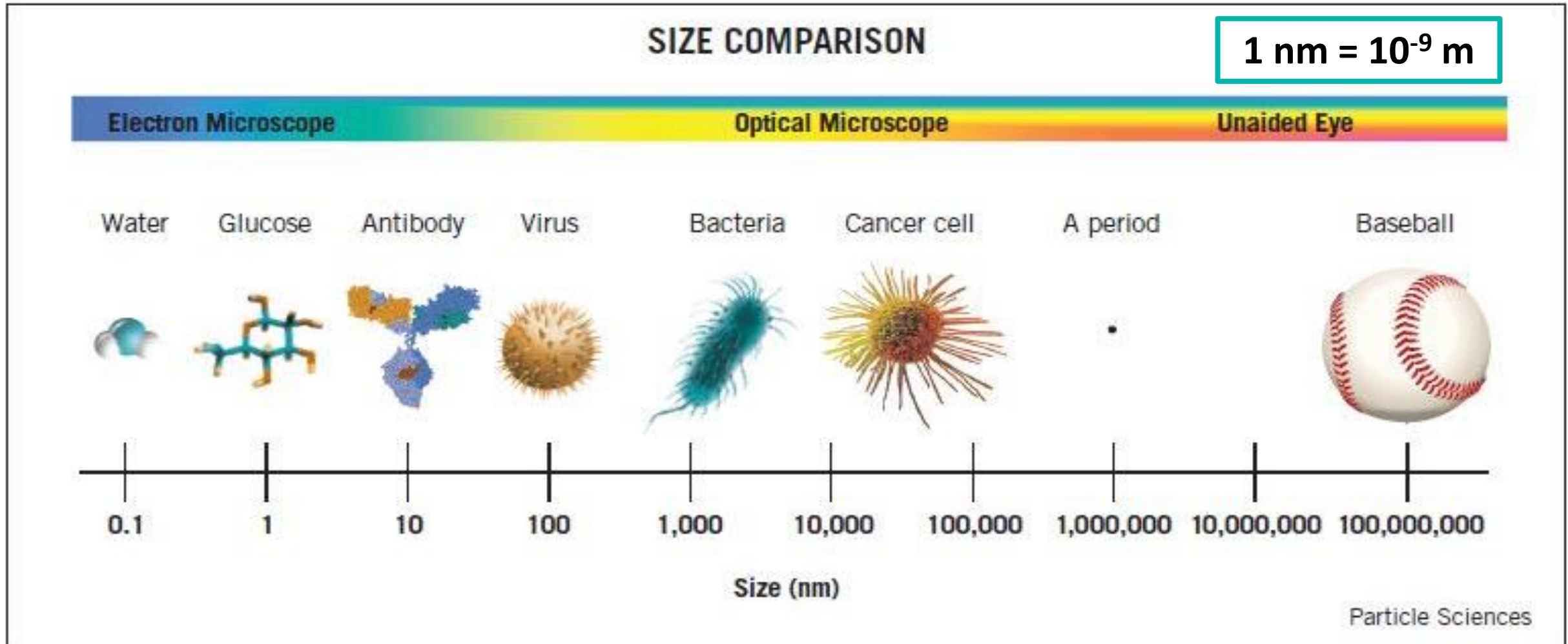
CESS® comparison with existing technologies

	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

Achieved near-term business targets

Topic	Target	Status	
GMP Approval	"GMP approval expected no later than Q3 2020"	Achieved - GMP certificate awarded April 2020	✓
Ongoing Client Intake	"For 2020, our ambition is to accelerate our growth by winning more new customers than in 2019"	Achieved – 4 new customers by July 2020	✓
First GMP Project	"Start of first GMP project before year-end 2020"	Achieved – First GMP campaign started in October 2020	✓
Clinical Trials	"First dosing in humans in 2021"	Achieved – First dosing in humans announced December 2020	✓
Biologics	"First commercial Biologics PoC project signed in 2021"	Achieved – First Biologics PoC agreement signed February 2021	✓
Non-GMP Line Capacity	"At least 3 new non-GMP lines in 2021"	Achieved – 3 new non-GMP lines ready in Q1 2021	✓
Customer Projects	"At least 12 new non-GMP customer projects and at least one new GMP project in 2021"	Achieved – 14 non-GMP and 1 GMP project signed by November 2021	✓

How small is a nanometer (nm)?



FURTHER ENQUIRIES

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Director of Investor Relations Henri von Haartman

hvh@nanoform.com / +46 7686 650 11

FINANCIAL CALENDAR

**Feb 28, 2023 - Annual Review 2022, Financial Statements for
financial year 2022**

**For all events see: [https://nanoform.com/en/investor-
calendar/?event_category=all](https://nanoform.com/en/investor-calendar/?event_category=all)**