

# AstraZeneca

## What science can do!

# Digitalization

# Business Transformation

# Vision

Anders Bergman

Digital Business Transformation Lead

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# Anders Bergman, Business and Academia Experience

## Business:

- **20 years of leadership experience** within Pharma Production, Supply Chain & Digitalisation including leading several different factories responsible for producing some of AstraZeneca's biggest brands.
- **Management Consultant** within Supply Chain (Purchasing, Production, Planning & Distribution) in 23 different companies covering: Production, Automotive, Wholesaler, Storage, Transport & Distribution and Banking.

## Academic:

- Industrial and Societal board **Digital Future**, Stockholm Sweden
- Imperial Business Analytics, **London Imperial Collage Business School**
- Enterprise Transformational Leadership, **MIT Boston US**
- Manufacturing Professionalism Program, **Warwick University UK**
- Logistics Executives Program, **Stockholm School of Economics**, Sweden
- Master of Science in Industrial Engineering and Management, **LiTH Linköping**, Sweden
- Wirtschaftsingenieurwesen at **Fachhochschule München**, Munich, Germany



**Digital Business  
Transformation  
Lead**

**AstraZeneca  
Sweden  
Operation**





# What am I going to talk about

- 1** Why I love working at AstraZeneca
- 2** Examples of Digitalisation within AstraZeneca
- 3** Available jobs at AstraZeneca

Digitalisation at AstraZeneca – Improve for our Patients, our People and our Planet!

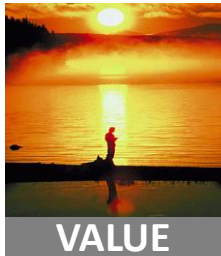


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# Why I love to work at AstraZeneca



# Anders Bergman- Why do I ♥ working at AstraZeneca



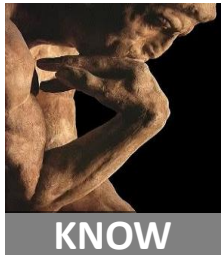
### Great purpose, (patient & planet)

- We extend and improve life with our products!
- Important for patients and for the society



### Great people

- Great colleagues that bring the whole of themselves to work
- Inspiring leaders, best possible CEO 😊



### Physically products and production

- You can understand, feel, hear, see what we do
- It is clear that I do contribute – quick feedback

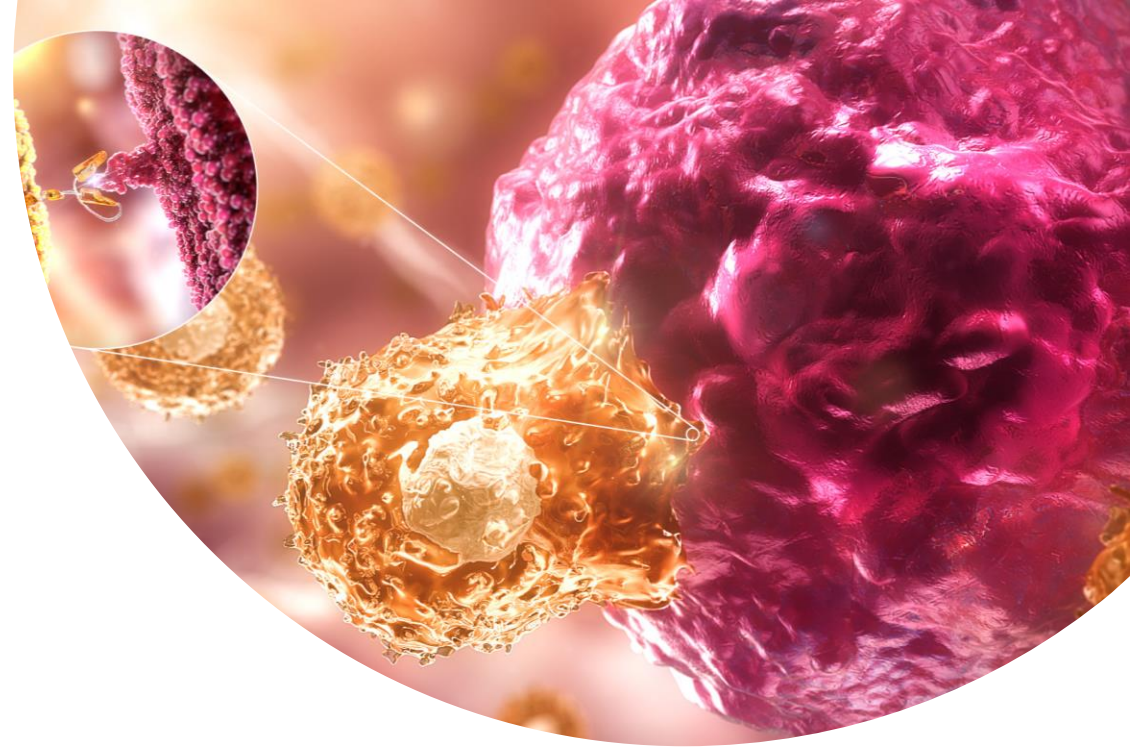


### Great Learnings

- Opportunities to improve and learn (lean, green, digital)
- Striving for Paperless, Touchless and One data



Inspired by our purpose and values, we're transforming the future of healthcare by unlocking the power of what science can do – for people, society and the planet.



## Our purpose

We push the boundaries of science to deliver life-changing medicines

## Our values



We follow the science



We put patients first



We play to win



We do the right thing



We are entrepreneurial



# AstraZeneca at a glance

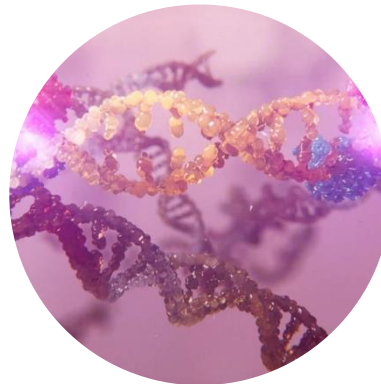
We are a global, science-led, patient-focused pharmaceutical company seeking to unlock the power of what science can do.



Science and  
innovation-led



Patient-focused



Leading in our  
therapy areas

- Oncology
- BioPharmaceuticals
- Rare Disease



Diversified  
portfolio and  
global reach



Positively  
impacting people,  
society and  
the planet



# 2022 global highlights



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**\$44.4bn**

Total Revenue  
(incl. COVID-19 medicines)

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**+25%**

Total Revenue  
growth

---

**\$9.8bn**

invested in our  
science

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**179**

projects in  
development  
pipeline

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**59%**

reduction in Scope  
1 and 2 greenhouse  
gas emissions  
since 2015

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**83,500**

employees

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**198**

successful market  
launches

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**+44m**

people reached  
through our Access  
to Healthcare  
programmes

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**34**

regulatory approvals  
and authorisations  
in major markets





# Our ambition for 2030

“At AstraZeneca, our team is relentless in its focus on pushing the boundaries of science to deliver life-changing medicines.


By living our values and realising our strategic goals, we aim to transform patient outcomes, deliver industry-leading revenue

growth, and ensure our company remains a great place to work.

**By 2030, we expect to launch at least 15 new medicines and be carbon negative, as we make an even bigger difference for people, society and the planet.”**

Pascal Soriot, CEO





Taking action to drive  
sustainability is fundamental  
– for the health of people,  
society, and the planet

# Our manufacturing network showcases diversity in capability



**US:**  
Mount Vernon



**US:**  
Philadelphia



**UK:**  
Macclesfield



**Netherlands:**  
Nijmegen



**Sweden:**  
Södertälje  
(Snäckviken & Gärtuna)



**Russia:**  
Vorsino



**US:**  
Redwood City



**US:**  
Newark



**UK:**  
Speke



**US:**  
Coppell



**US:**  
Frederick



**France:**  
Dunkerque



**Mexico:**  
Lomas Verdes



**Puerto Rico:**  
Canovas



**Brazil:**  
Cotia



**France:**  
Reims



**Egypt:**  
Cairo



**India:**  
Bengaluru



**Indonesia:**  
Cikarang



**Japan:**  
Maihara



**China:**  
Wuxi



**China:**  
Taizhou



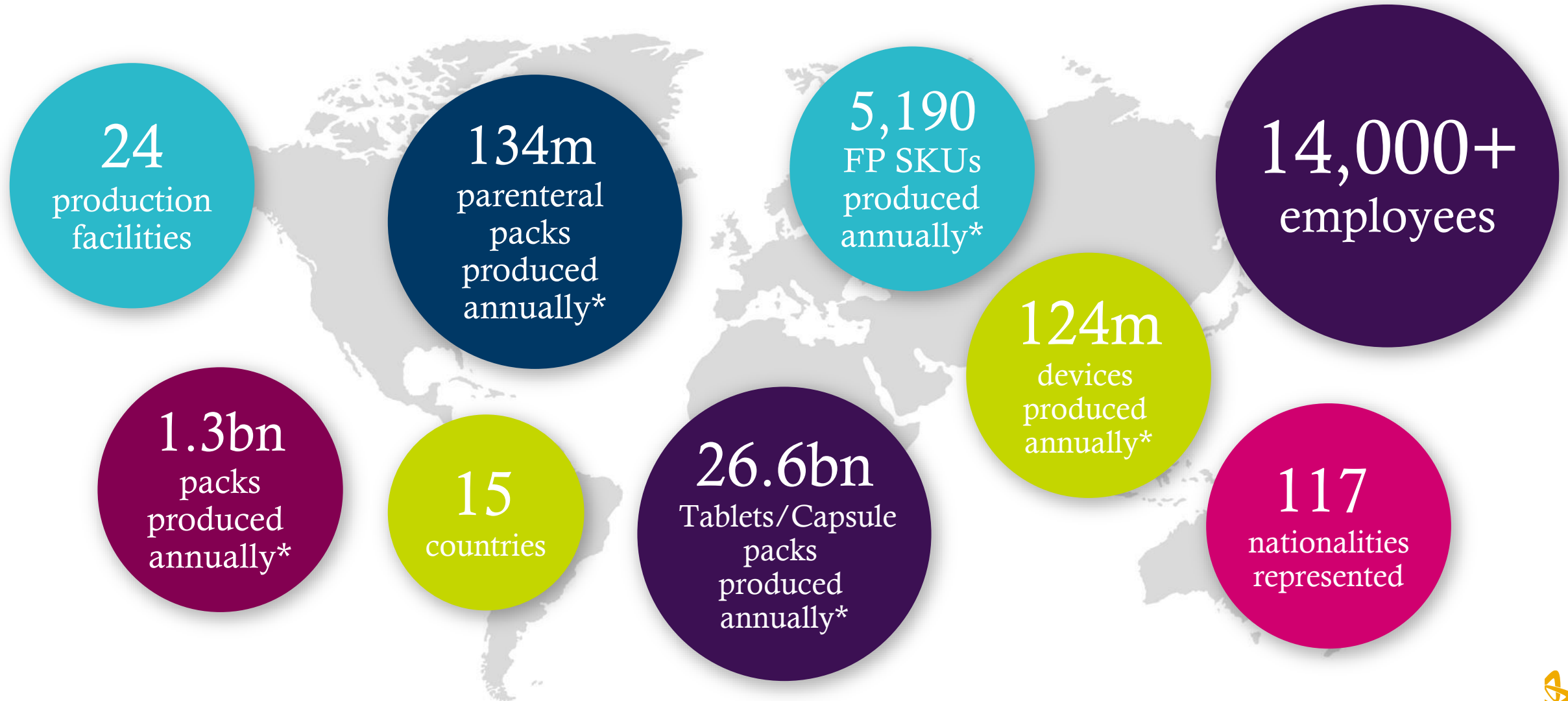
**Australia:**  
North Ryde

STRATEGIC / MULTI-PURPOSE (7)    NICHE / SINGLE PLATFORM (9)    MARKET ACCESS / SINGLE MARKET (7)

Along with 170 global suppliers



# Our strong global footprint supports our outstanding delivery of medicines to patients



# AstraZeneca Sweden Operations - fast facts



**Biggest manufacturing site in AZ**  
>30 products for >100 markets.  
>33% of AZ sales value. Exports of 13 bn USD, 7,6% of Sweden's total export of goods  
13 bn tablets and capsules/year.

**30+**

Commercial  
medicines  
made

**3-5**

NPIs  
launched  
every year

**8-12**

Clinical  
medicines  
made

Modern flexible facilities with **advanced technology and high level of automation.**  
Many different production technologies.

3800 employees. 49% women.  
**51,5 % women leaders**  
**Multicultural - 30 different nationalities**

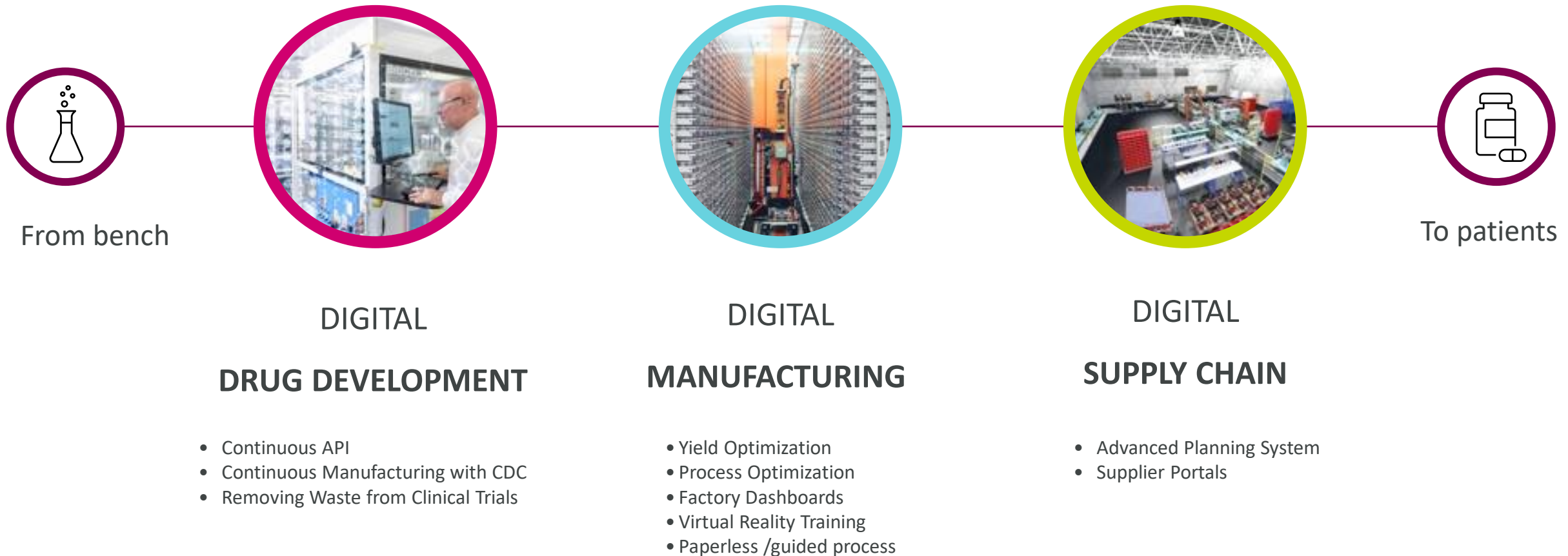


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## Examples of Digitalisation within AstraZeneca



# We are applying digital across our Operations value chain...



# Artificial Intelligence at AstraZeneca

Leadership in AI is transforming the way we work and pace of innovation

*AI is embedded across our organisation*

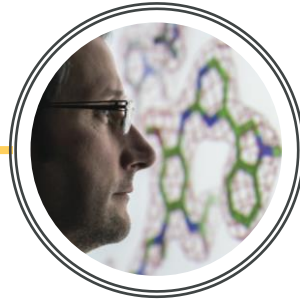
R&D • OPERATIONS • COMMERCIAL

**400+**

data scientists employed

**100+**

active AI projects



## Drug discovery and development

- Clinical trials
- Supportive internal tools and platforms



## Regulatory submission and monitoring

- Clinical forecasting and automation
- Pharmacovigilance



## Manufacturing and supply

- Digital supply chain and manufacturing



## Commercial launch and patient outcomes

- HCP experience
- Patient assistance
- Patient outcomes

**Strategic investment in AI and digital tools has delivered demonstrable productivity gains and improvements in science-led innovation**





# Lean Digital: Expanding value to our People, Patients, Planet and Productivity



## Enhanced opportunities for our **People**

- Real-time analytics and collaboration
- Enriched decision making

## Better delivery for **Patients**

- Accelerated launches
- Access to healthcare

## More sustainable solutions for our **Planet**

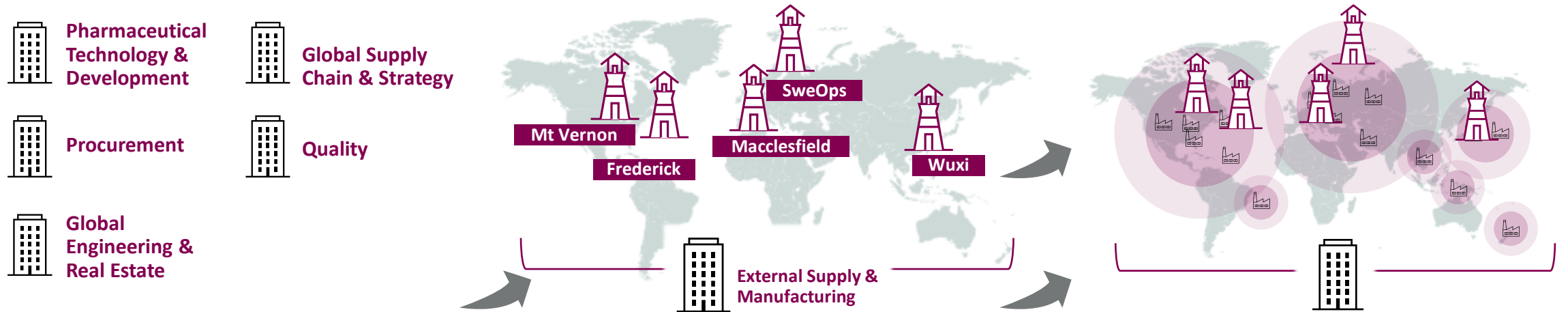
- Improves carbon footprint
- Reduce waste

## Achieving results through **Productivity**

- Opex & Inventory savings
- Annualised benefits



# Global Functions and Lighthouses work together to accelerate and scale across the network



Global functions drive Lean Digital, working alongside...

...Lighthouse sites which develop and industrialise Lean Digital Products for the network...

...before they are quickly scaled and pulled to wherever there is a value opportunity



# Accelerate Smart Factories



Continue to innovate –  
think big, start small,  
learn or scale fast



Make prioritised  
digital building blocks  
available ‘on demand’

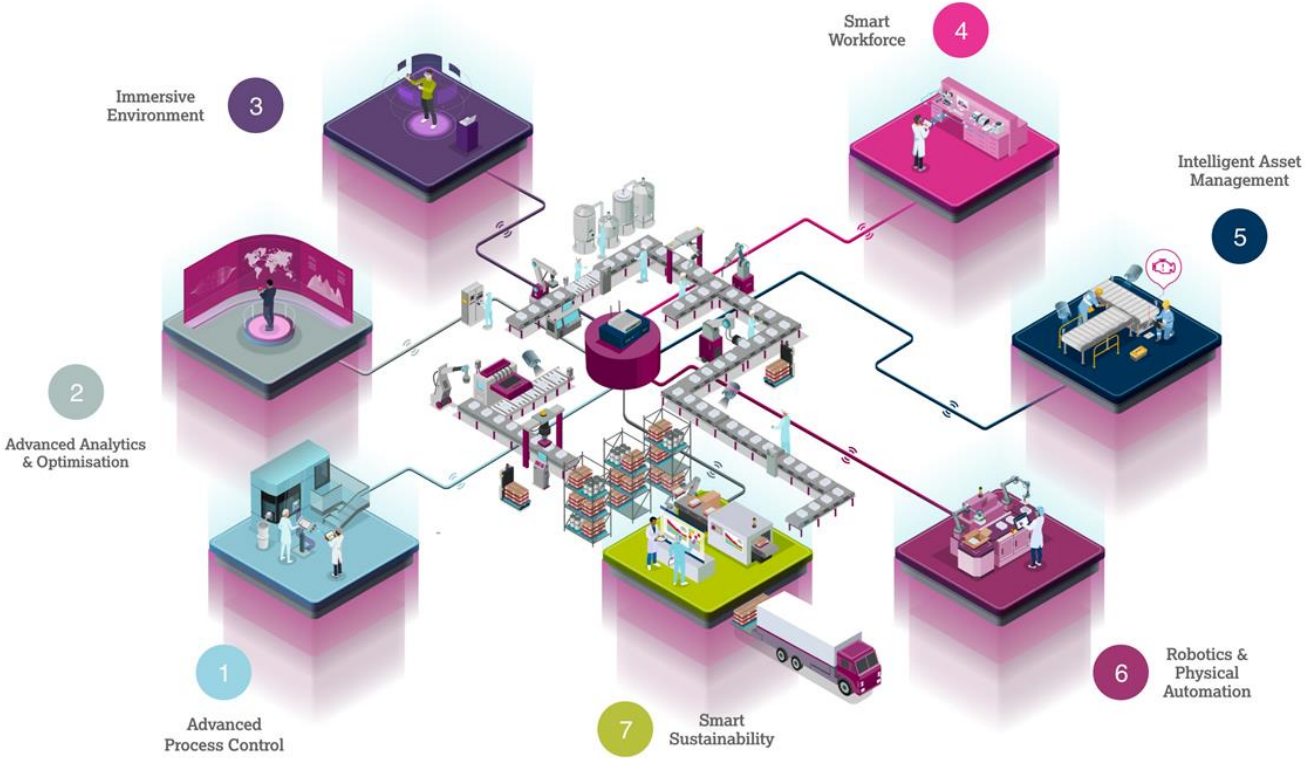


Focus on people –  
capabilities, collaboration  
& mindset



# We are delivering value through Lean Digital Products...

Strategic selection of Lean Digital Products to be deployed where there's an opportunity to create value.



# ...and Lo-Co/No-Co Solutions

Simple digital solutions (Low-Code/No-Code developed at Low or No Cost, using a Lean mindset and existing platforms...



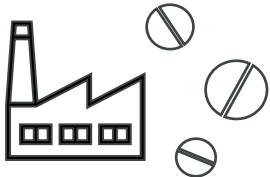
... in relentless pursuit of simplification



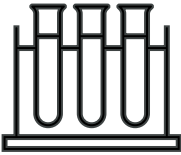
# Digital Twins: Scheduling Optimization at SweOps



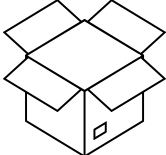
Dispensing Digital Twin



Formulation Digital Twin



QC Digital Twin



Packing Digital Twin

E2E Flow ambition

Automating the scheduling of tasks to optimize the use of assets and resources:

Which Order?

Which sequence?

On Which equipment?

Which operator /personal?



# Sweden Region Examples - Value Creation by Lean Digital



## TrakSYS for manufacturing Intelligence

- Enabling real time visualization and OEE improvement
- >20% OEE increase across 12 assets (~17FTE/year)
- CAPEX avoidance ~6MUSD



## PAS-X/Electronic Batch Records

- Reduced deviations, Productivity increase and reduced carbon footprint
- 3 Mill less A4Sheets /year
- 8MUSD cost avoidance



## Lo-Co/No-Co

- Global Digital Tier and hundreds of Lo-Co/No-Co digital products (PowerBI, RPA, Cobots, Tulip)
- Simplifying daily work
- Supporting war on waste



## Digital Twins

- Scheduling Optimisation through the manufacturing flow (Dispensing, Formulation, QC)
- Increased OTIF, productivity and more efficient management of safety stock



## IoT asset tracking

- Internet of Things solution provide improved visibility of container location and status
- Ensure optimized cleaning schedules to avoid downtime and less risk for scrapping



## Business analytics dashboards

- 55 business analytics dashboards, 1350 end-users and >82 000 sessions/year
- Driving performance & improvements E2E, support reducing airfreight with 26.000 tons CO2 & 10 MUSD



# My learnings from digital implementations

- Leadership – Pull from business
  1. Sponsors and Product Owners appointed
  2. Resources – Introduced POD, “Two-pizza team” (IT critical resources like Architects, Full stack developers)
  3. BAU-model for further improvements before project closure
- Clear value – Strive for an improvements or solving problems!
  1. Crucial to see the value of the Improvement!
  2. Move from Technology focus to Value focus!



**We dislike change  
forced upon ourself**

-Afraid that the change  
will make something worse

**We love and enjoy  
improvements**

+All improvements are changes

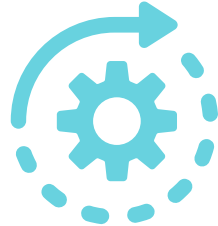
/Anders Bergman



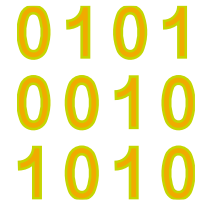
# Lean + Digital = Sustainable



+



+



+



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## Engaged People

- Op Model & org design
- Skills & capabilities
- Culture & Mindset

## Efficient & Simple Process

- Simplified processes
- Skilled process owners
- Clear decision rights

## Robust Data

- Data quality
- Data governance
- Insights & Analytics

## Latest Technology

- Reusable Platforms
- Connected Data
- Rapid Agile Delivery

## Accelerated Value

- ...for patients
- ...for our people
- ...for our business
- ...for the planet

## Lean



## Digital

## Sustainable



Water  
Energy  
GHG



3

Available jobs  
at AstraZeneca



# How to find jobs at AZ – Visit Early Talent!



High/Secondary School Students

Undergraduates

Graduates

Postgraduates

SEARCH JOBS 

AstraZeneca is a place for bold disruptors shifting from academia to industry. This is where you can think differently to cut through the noise, add value, and bring fresh ideas to our teams and projects. As a respected specialist, you'll be empowered to take credible risks, own it and run with it, with all the support you need. Because like you, we have passionate and driven experts looking to change the game and make an impact.



Commercial Leadership Development Programme (MBA)



Masters



PhDs



Postdoc Programme



R&D Postdoctoral Challenge



[Early Talent](https://astrazeneca.com/earlytalent)  
([astrazeneca.com](https://astrazeneca.com))




# 77 Job ads at AstraZeneca in Sweden today 20<sup>th</sup> of Oct 2023


 Industrial PhD  
Engineering – Sweden  
Operations  
Södertälje, Stockholm County,  
Sweden


 SAP S/4HANA Data  
Design Lead – Enterprise  
Planning  
Multiple locations

 Digital Technical Expert  
för investeringsprojekt –  
Sweden Operations  
Södertälje, Stockholm County,  
Sweden


 Cyber Security  
Engineering - Associate  
Director  
Multiple locations

 Senior Digital Strategy  
Director, Digital Health  
R&D  
Multiple locations


 Digital Strategy Director,  
Digital Health R&D  
Multiple locations

 Senior Data Engineer  
Gothenburg, Västra Götaland  
County, Sweden

 Ops IT Senior Business  
Analyst – Supply Chain /  
Product Security  
Multiple locations

 Data Management  
Manager  
Multiple locations

 Nordic IT Data Engineer  
- Nordic Marketing  
Company  
Multiple locations

 Global Classifier Analyst  
Multiple locations



[Early Talent  
\(astrazeneca  
.com\)](https://astrazeneca.com)



# 33 Job ads at AstraZeneca in Södertälje today 20<sup>th</sup> of Oct 2023



Director, Statistics  
Multiple locations



Data Management  
Manager  
Multiple locations



Global Data Steward  
Multiple locations



Industrial PhD  
Engineering – Sweden  
Operations  
Södertälje, Stockholm County,  
Sweden



Data Governance Analyst  
Multiple locations



Principal Scientist /  
Principal Engineer  
Multiple locations



Front End Study  
Manager, Capital  
Projects – Global  
Operations  
Multiple locations



Senior Process Scientist  
– Global Operations,  
Sweden Biologics  
Södertälje, Stockholm County,  
Sweden



Senior Enterprise  
Architect  
Multiple locations



Master Data Associate-  
12 month secondment or  
FTC.  
Multiple locations



Associate Solution  
Architect  
Multiple locations



Master Data Agent-  
Sweden Operations  
Södertälje, Stockholm County,  
Sweden



Global Data Management  
Lead  
Multiple locations



Business Analyst  
Södertälje, Stockholm County,  
Sweden



Digital Technical Expert  
för investeringsprojekt –  
Sweden Operations  
Södertälje, Stockholm County,  
Sweden



[Early Talent  
\(astrazeneca.com\)](https://astrazeneca.com)





# What did I talk about

- 1** Why I love working at AstraZeneca
- 2** Examples of Digitalisation within AstraZeneca
- 3** Available jobs at AstraZeneca

Digitalisation at AstraZeneca – Improve for our Patients, our People and our Planet!



# Questions & Answers



Thank you!

Tack  
Thank you  
Merci  
Danke  
Obrigado  
Gracias  
Spasibo  
Xie xie  
Dankie  
Gracie



#WeAreSweOps – You can trust us because we have great people