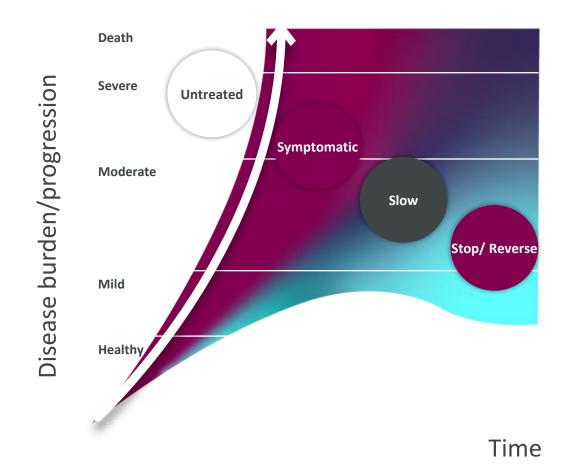
Healthcare (r)evolution





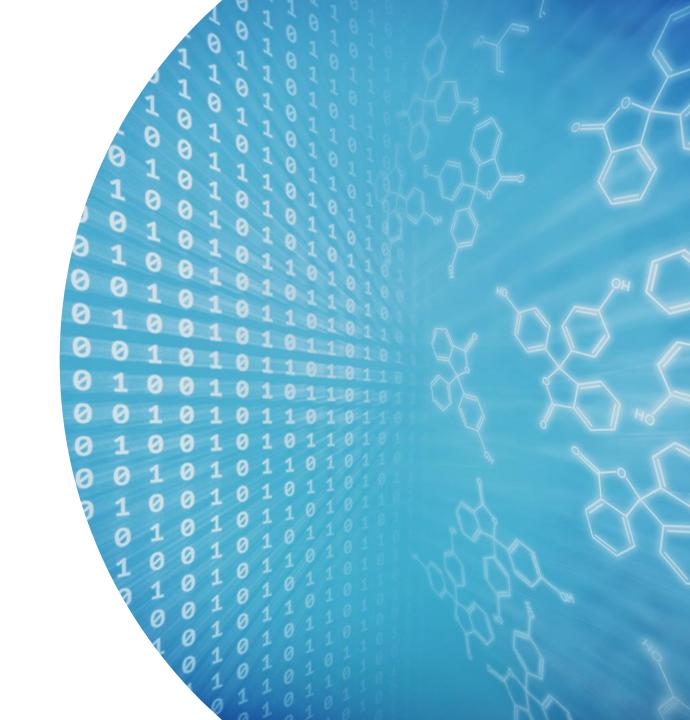


What impact does the development of medicines have on future data center requirements?

Oslo Datacenter Forum 2025

Per Hillertz

IT Site Lead, AstraZeneca Gothenburg



From idea to patient

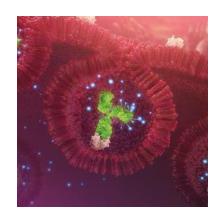


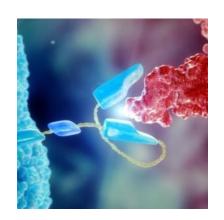


Hi DrugGPT, design me a drug...

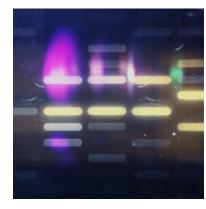


Next generation therapeutics: targeting the drivers of disease in new ways









Antibody Drug
Conjugates
(ADCs)

Radioconjugates (RCs)

Cell Therapy

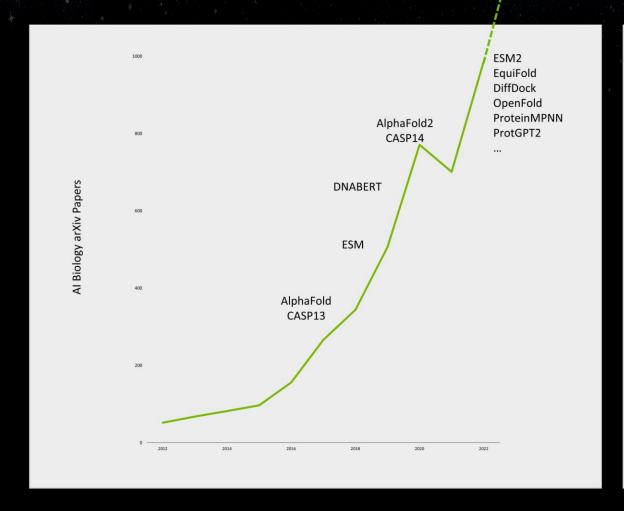
T-Cell Engagers

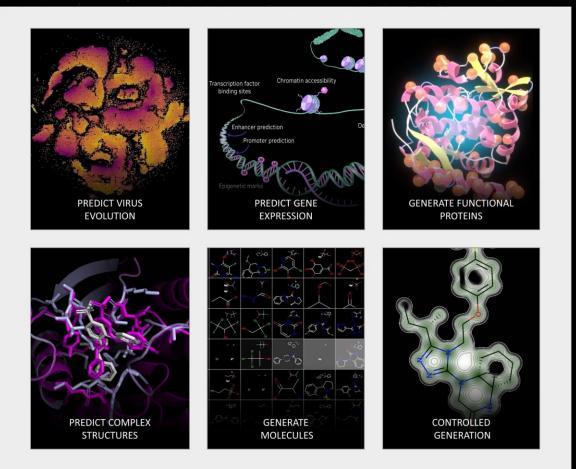
Genomic Medicine



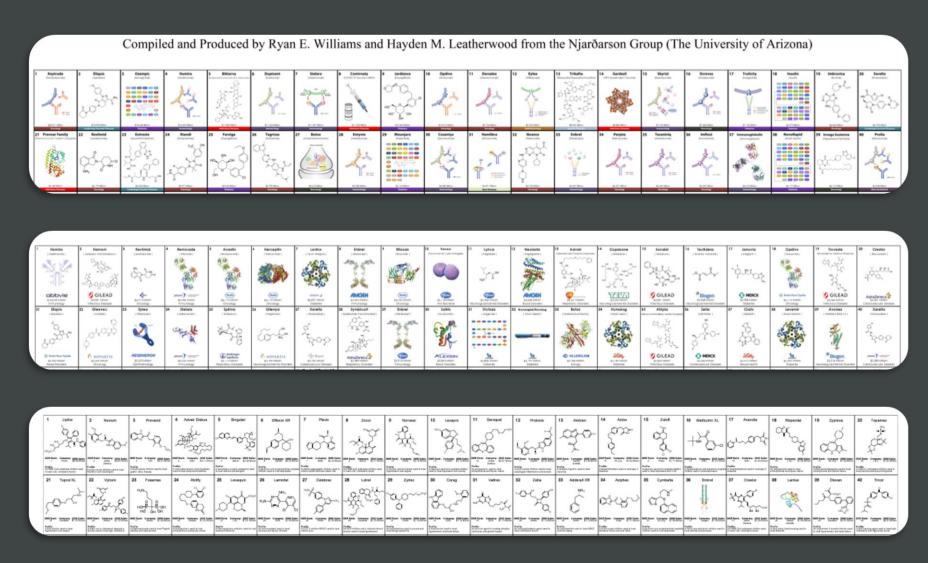
Generative Al is Turning Biology From Science to Engineering

Explosion of Biomolecular Gen Al Research | Joint NVIDIA Biomolecular Gen Al Research





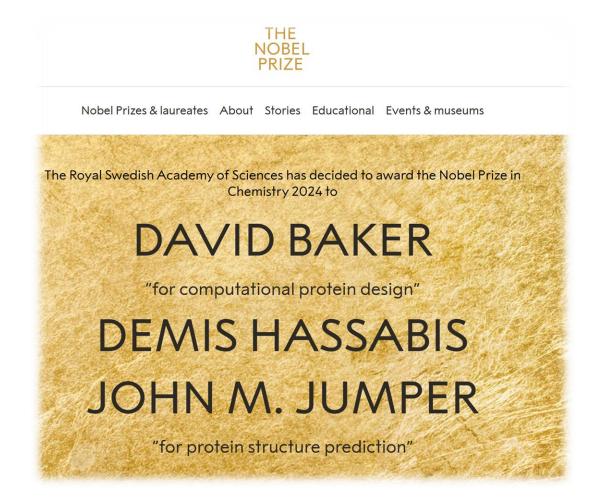
"Top 200 drugs by sales" - New modalities, a driver for much higher computing power demands





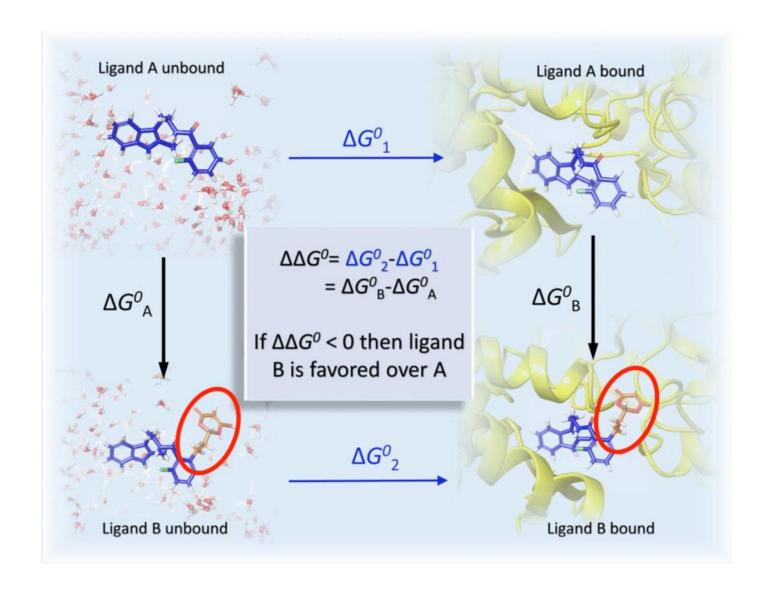
2024 Nobel Prize – Computational protein design







Free energy calculations

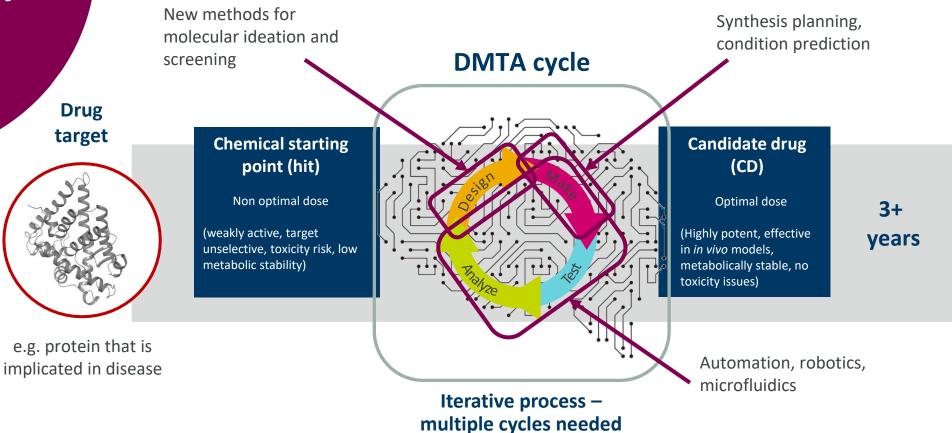




The Drug Discovery Process

At the heart of the drug design process is the **D**esign, **M**ake, **T**est and **A**nalyze (**DMTA**) cycle, which is a core concept for iterative, hypothesis driven design.

How can we accelerate this process?

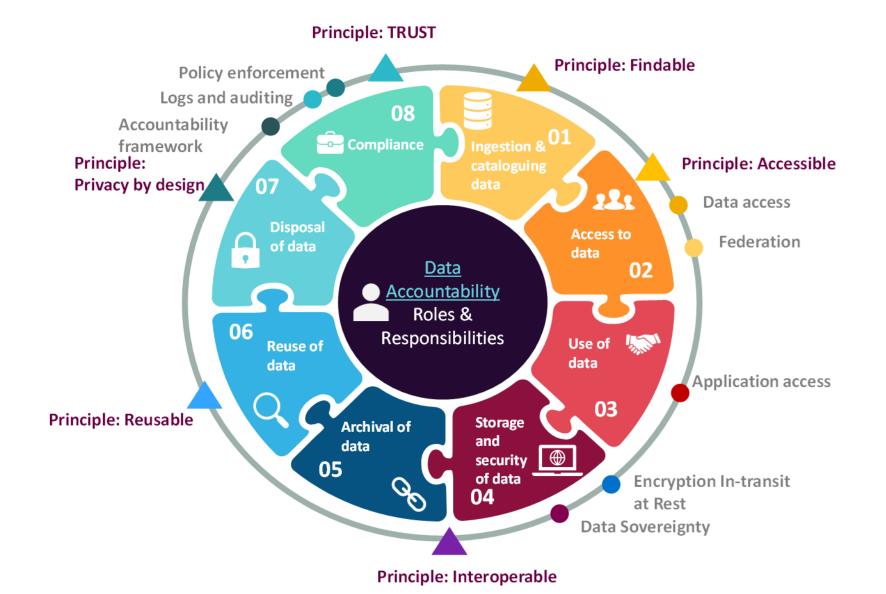






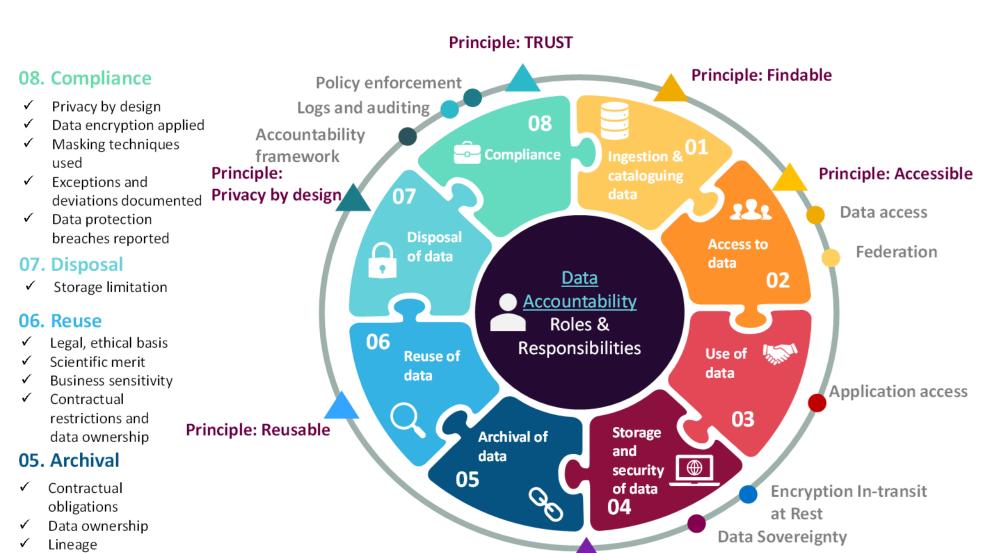


No AI without Trusted and FAIR data





No AI without Trusted and FAIR data



01. Ingestion & Cataloguing

- ✓ Accurate registration of assets
- ✓ Minimum metadata model applied
- Standard model for ingestion used
- ✓ Integrity and quality of processes

02. Access

- ✓ Policy to provide business rules
- Dataset selection according to attributes
- ✓ Purpose, users and time specified

03. Use

- Data location known and maintained
- ✓ Audit trail

04. Storage and security

- Recovery solution in place
- ✓ Error handling
- Transfers into, within and outside the enterprise



Principle: Interoperable

AI scaled across AstraZeneca, accelerated adoption with Gen AI

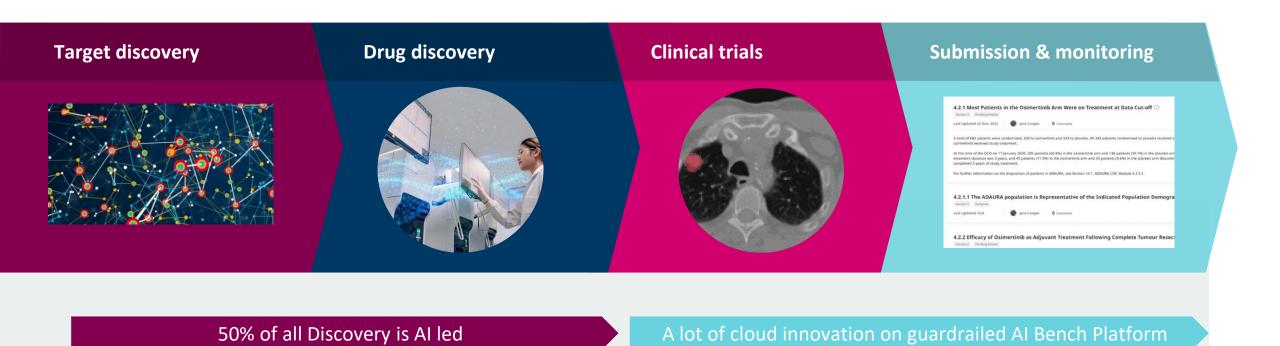


Example how Research Assistant takes Literature search from weeks to minutes, product pipeline decision meetings auto documented by Gen AI.



AI for our Research platforms scaled across R&D Processes

Act as our "digital co-workers" assisting our employees, creating value for R&D everyday





Target discovery

From

Months of effort to gather and analyze information



To

Use of AI to get recommendations in seconds

Nature comms publication

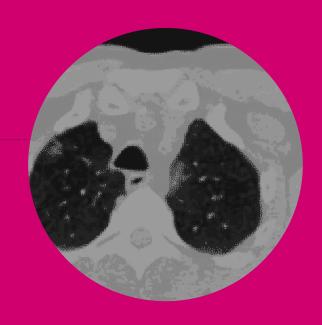




CLINICAL TRIALS

From

Manually annotate CT scans



To

Use of AI as assistant to annotate and track exact 3D location, monitor response or relapse

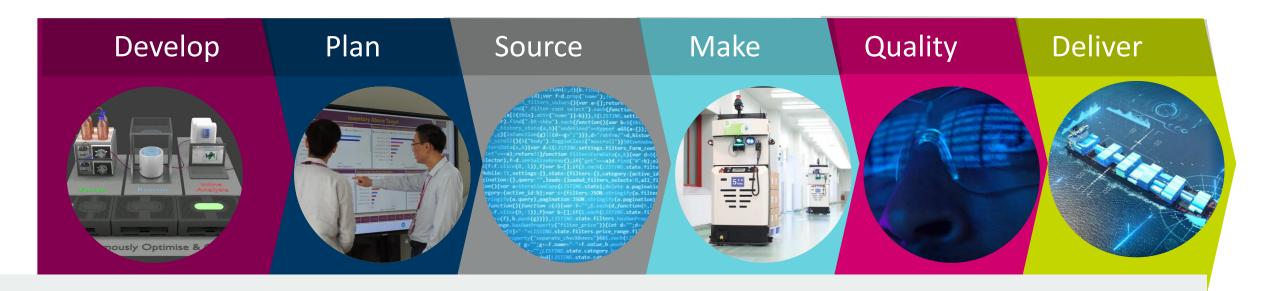
AACR poster 2023





AI platforms scaled across Operations

Act as our "digital co-workers" assisting our employees, creating value for Operations everyday



Al is embedded across all global process areas

A lot of cloud innovation on guardrailed AI Bench Platform



Develop

From

Insights
generated
through physical
experimentation



То

Real-time end-to-end Digital Twin, *in-silico* modelling

- Advanced Continued Process Verification
- Digital Twins for Continuous API production





AI platforms scaled across Commercial

Act as our "digital co-workers" assisting our employees, creating value for patients everyday



Al is embedded into Commercial Process

A lot of cloud innovation on guardrailed Al Bench Platform



Undertreated Patients

From

Believing there are patients who are undiagnosed or undertreated



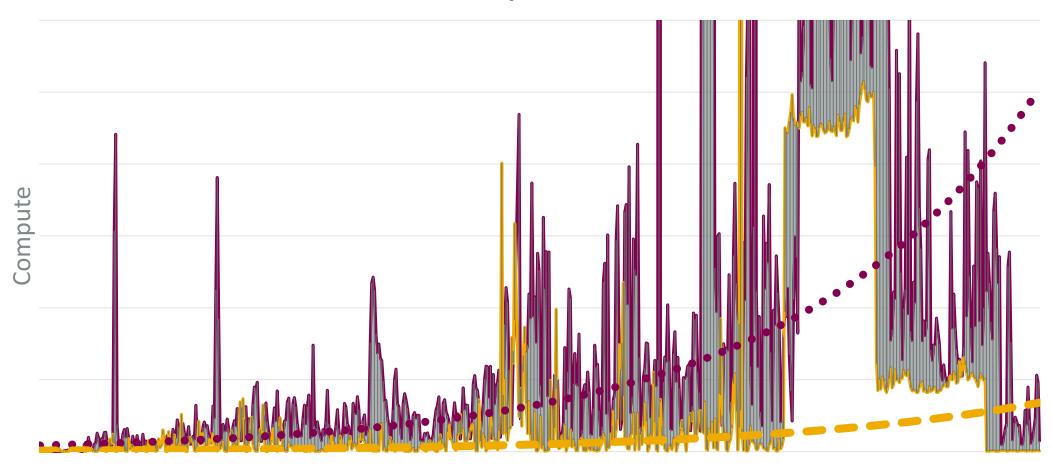
То

Use of AI to identify help health systems and governments identify patients not being treated to medical guidelines or undiagnosed





Compute use over time





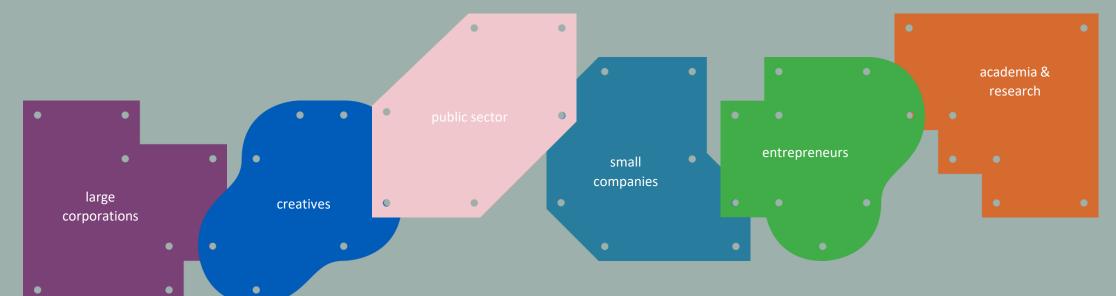






Co-Creating the Future of Health

Companies, scientists, entrepreneurs and talent from all over the world continuously share ideas and cooperate in order to find the health innovations of tomorrow.





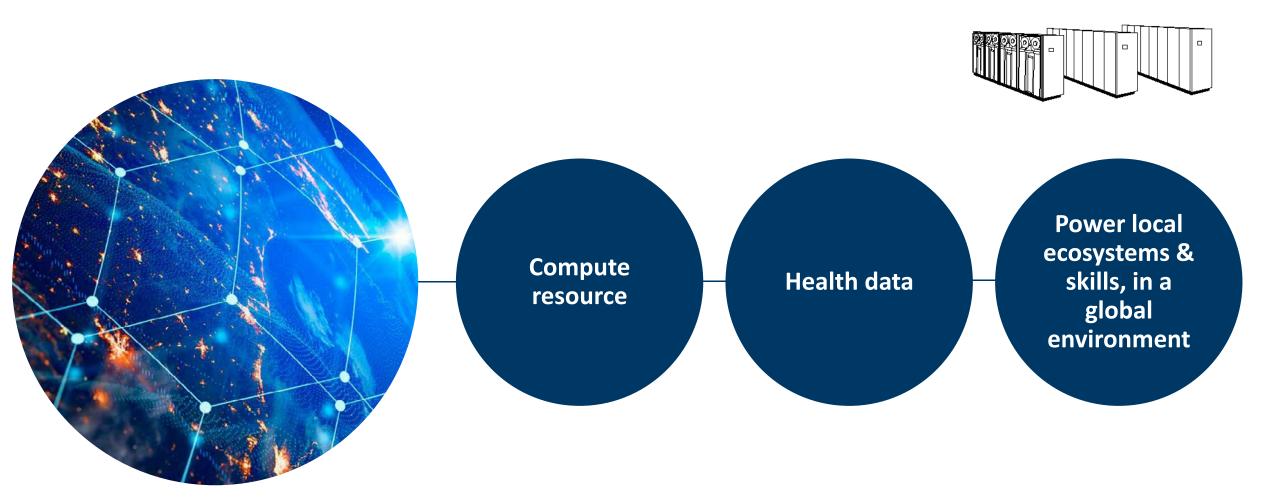


"If we don't fail, we don't innovate enough."

Pascal Soriot, CEO AstraZeneca

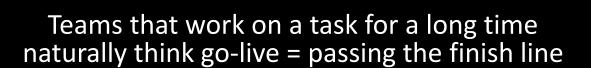


Digital infrastructure brings together technology, data and connectivity in the ecosystem that underpins collaboration, innovation and efficiency











REALITY is that for the majority of individuals, it means passing the starting line





THANK YOU FOR LISTENING!



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