

# Prévention et Longévité :

Construire le système de santé de demain

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Le projet AXIA Medicine, pour quelle médecine préventive et de longévité aux Etats Unis ?



**Dr Alessandro Riccombeni**  
**CEO**





# Bonjour!



DNAnexus



London  
Business  
School

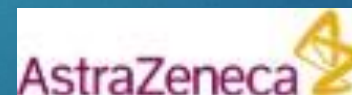


**CEO and Founder**

Alessandro Riccombeni MBA, Ph. D.

- » Cancer Research (**European Oncology Institute**)
- » Omics platforms for Pharma, Diagnostics (**DNAnexus**)
- » **AWS**: International Head of Precision Medicine
  - » EMEA, APJ, Canada, LatAm
  - » Led creation of **Amazon Omics**
- » **Microsoft**: National Genomics Officer

**AXIA**  
MEDICINE



integrated Genomics Initiative

**2 million**



# The Promise of Precision Medicine

**Right treatment, right patient, right time:**

Right Patient,  
Right Treatment,  
Right Time.

**The Right Treatment  
for the Right Patient at  
the Right Time:**

**Right Drug for the Right Patient at the Right time**

**RIGHT PATIENT, RIGHT TREATMENT, RIGHT TIME:**  
Utilizing Early, High-Efficacy Therapies to Improve Outcomes in RRMS





# Longevity: the Textbook



# Precision Medicine is the Door to Healthy Ageing



Predictive

*“identify individuals at risk of disease”*

Preventive

*“prevent illness before it happens”*

Personalized

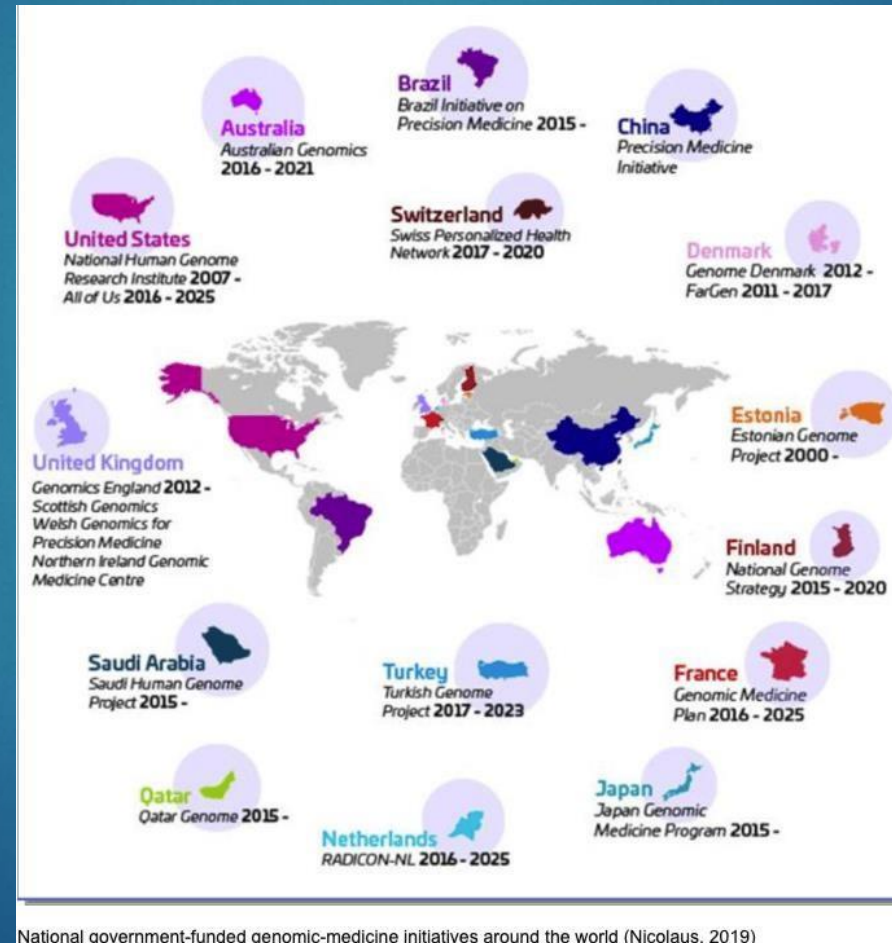
*“tailor care to each individual’s characteristics”*

Participatory

*“patients become active participants in Healthcare”*



# Precision Medicine Depends on Data

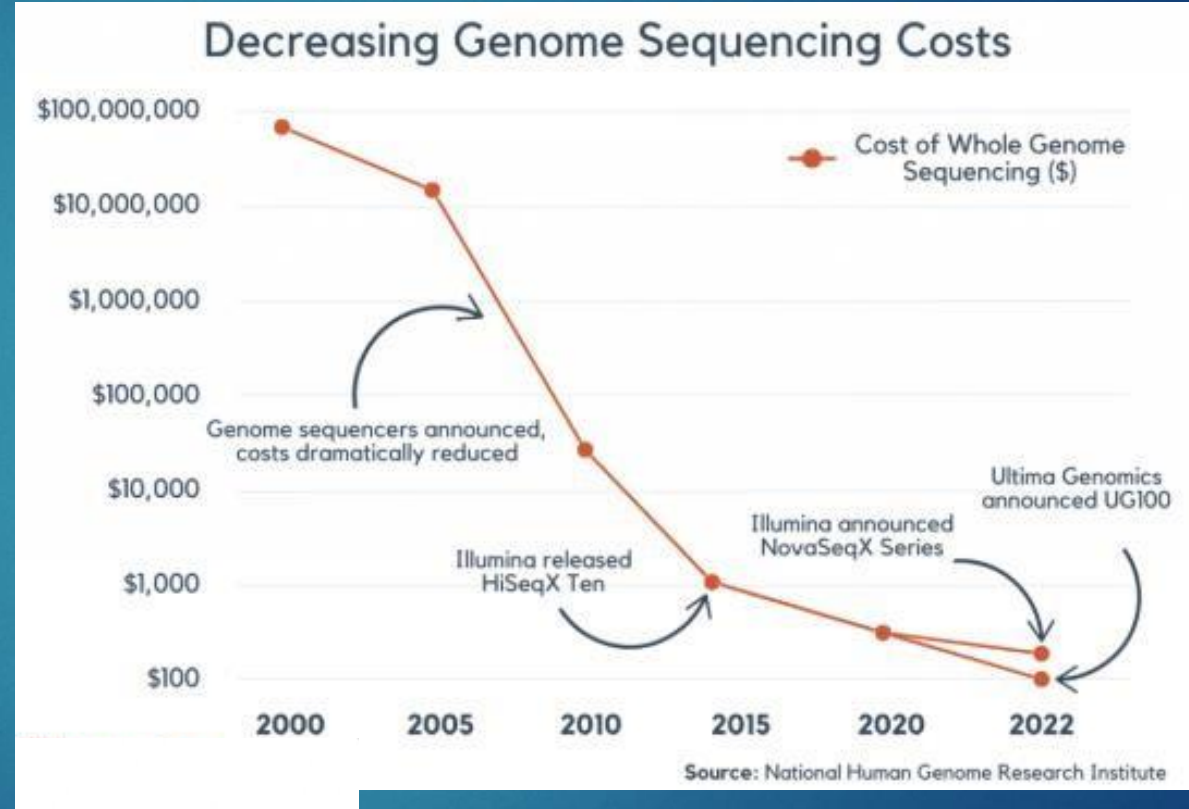
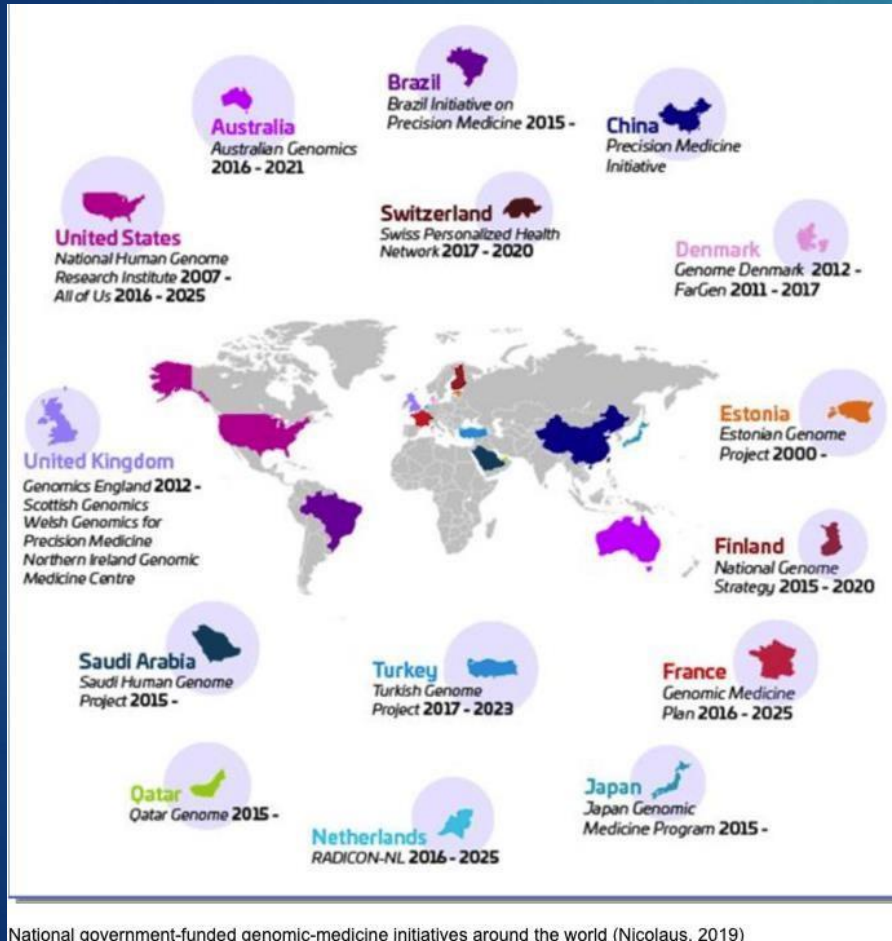


S. Mejri 2020





# All Genomics Everywhere

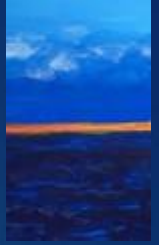


+  
Our  
Future  
Health

UK: 6M citizens



# Precision Medicine Depends on Data... what Data?



Predictive	<i>Emergent clinical observations</i>	<i>Needs patient data</i>
Preventive	<i>Behavioral, socioeconomic, environmental data</i>	<i>Needs patient data</i>
Personalized	<i>Population-scale modelling</i>	<i>Needs patient data</i>
Participatory	<i>Direct patient involvement</i>	<i>Needs patient data</i>





# Fragmented Patient Data Undermines Health and Innovation



## Data is Essential For Patient Health, Yet:



**Most data is outside hospitals**  
(wearables, molecular, lab tests)



**Limited commercial datasets,**  
**siloes** and hard to access



Brokers depend on “**patient data abandonment**”: one-off snapshots

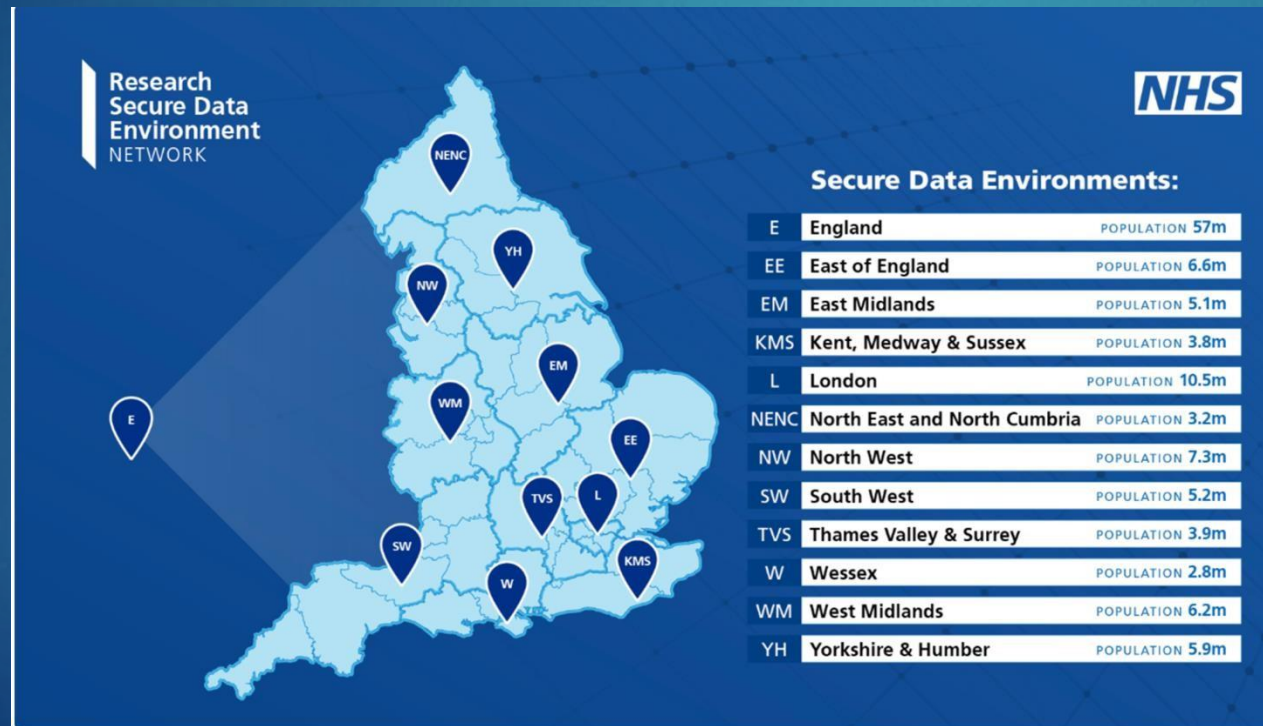


# Infrastructure is a Hard Problem

## Beyond 1 Million Genomes

The **Beyond 1 Million Genomes (B1MG)** project is helping to create a network of genetic and clinical data across Europe. The project provides coordination and support to the 1+ Million Genomes Initiative (1+MG). This initiative is a commitment of 24 EU countries, the UK and Norway to give cross-border access to one million sequenced genomes by 2022.

- Lack of expertise
- Low participation
- **Misaligned incentives**



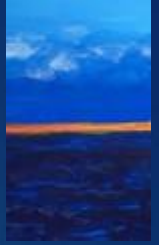




**Our Lives Depend on our Data.**  
**What is YOUR DATA's longevity?**



# Adversarial Incentives: Industry Relies on Patient Data Abandonment



*Individual* → *Tokenised ID*

*Environment* → *Business boundaries*

*Long-term value* → *One-off snapshot*

*Rich Data* → *Data abandonment*

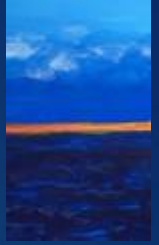


**23andMe just collapsed.**  
**What happens to 15+ Million DNA profiles now?**





# Adversarial Incentives: Industry Relies on Patient Data Abandonment



~~Individual~~



*Tokenised ID*

~~Personalized~~

~~Environment~~



*Business boundaries*

~~Predictive~~

~~Long-term value~~



*One-off snapshot*

~~Preventive~~

~~Rich Data~~



*Data abandonment*

~~Participatory~~



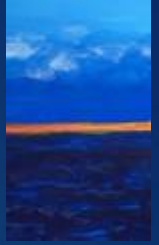


**To Make Precision Medicine real,  
We Need to **Realign Incentives****





# Precision Medicine Depends on Life-long Patient Data



## The End of Artificial Data Scarcity



**Individuals control and manage all their data, for life**



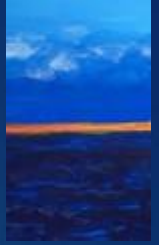
**Data sourced from patients:** no more silos, no interruptions



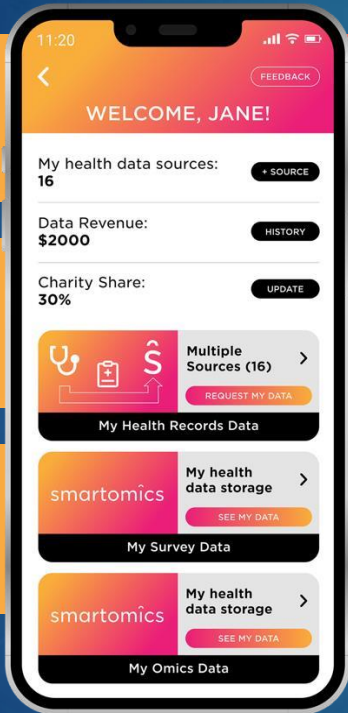
**Life-long enrichment** of personal data: no more guesses



# Axia Medicine is the only platform where patients control their data and can share it with industry, on their terms



## Patients Smartomics App



**Take control**  
of your health  
data

**Monetize** your  
data for  
research

**Access** Industry  
services

# AXIA

MEDICINE



**The Most Comprehensive Picture  
of Personal Health**

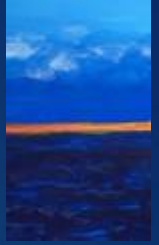
**Individuals Drive and Shape the  
Health Data Economy**

**Evolving Needs, Evolving Industry  
Engagement: No More Silos**





# Conclusion



- Precision Medicine is the foundation of healthier, longer lives
- **Data Infrastructure** is an unsolved challenge
- **Misaligned incentives on data** undermine Care and Research
- **Patient-driven Data Governance** is the key to longer, healthier lives
- **To Live Longer, you MUST control your Health Data**



# Merci

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