

# Stay Left, Shift Left

## Digital Disruption and Transformation

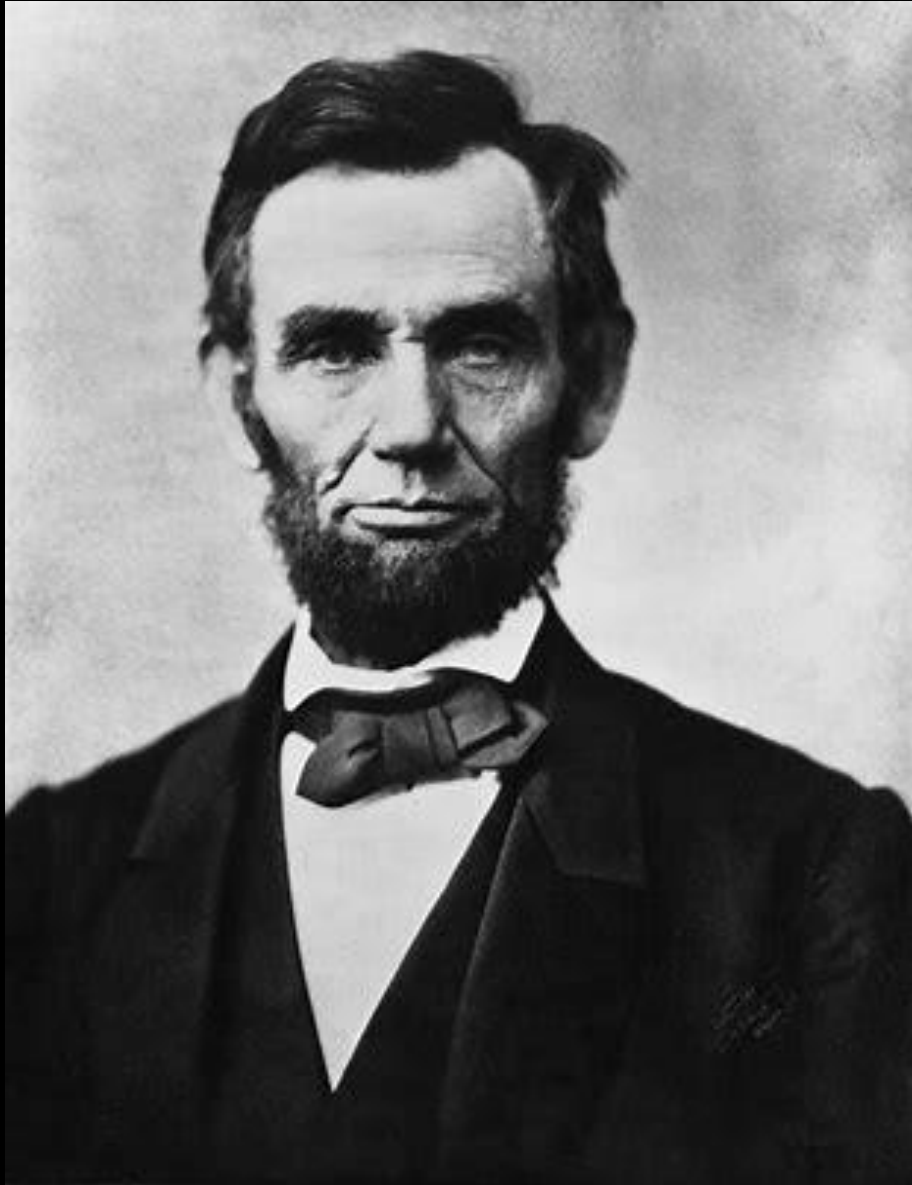
Martin Curley

Director, HSE Digital Academy and Open Innovation

 @martingcurley1

 martin.curley@hse.ie

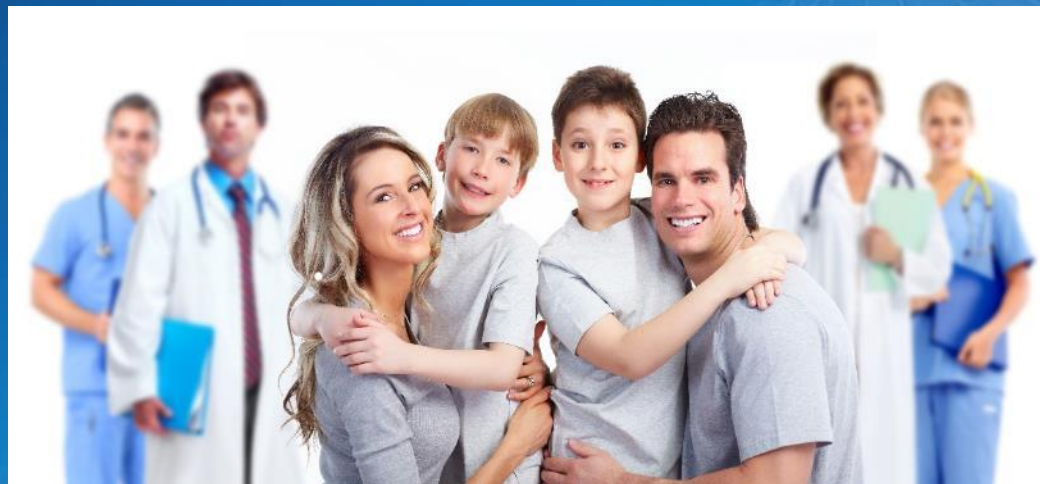
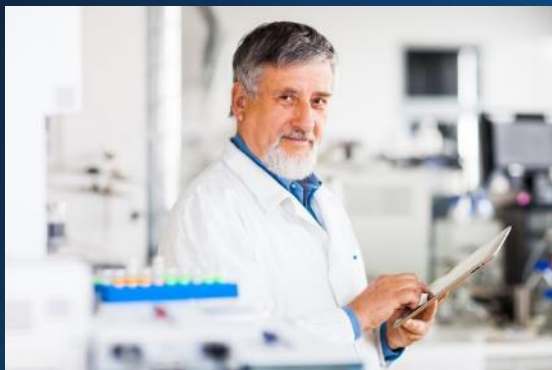




***“The dogmas of  
the quiet past  
are inadequate  
to the stormy  
present.”***

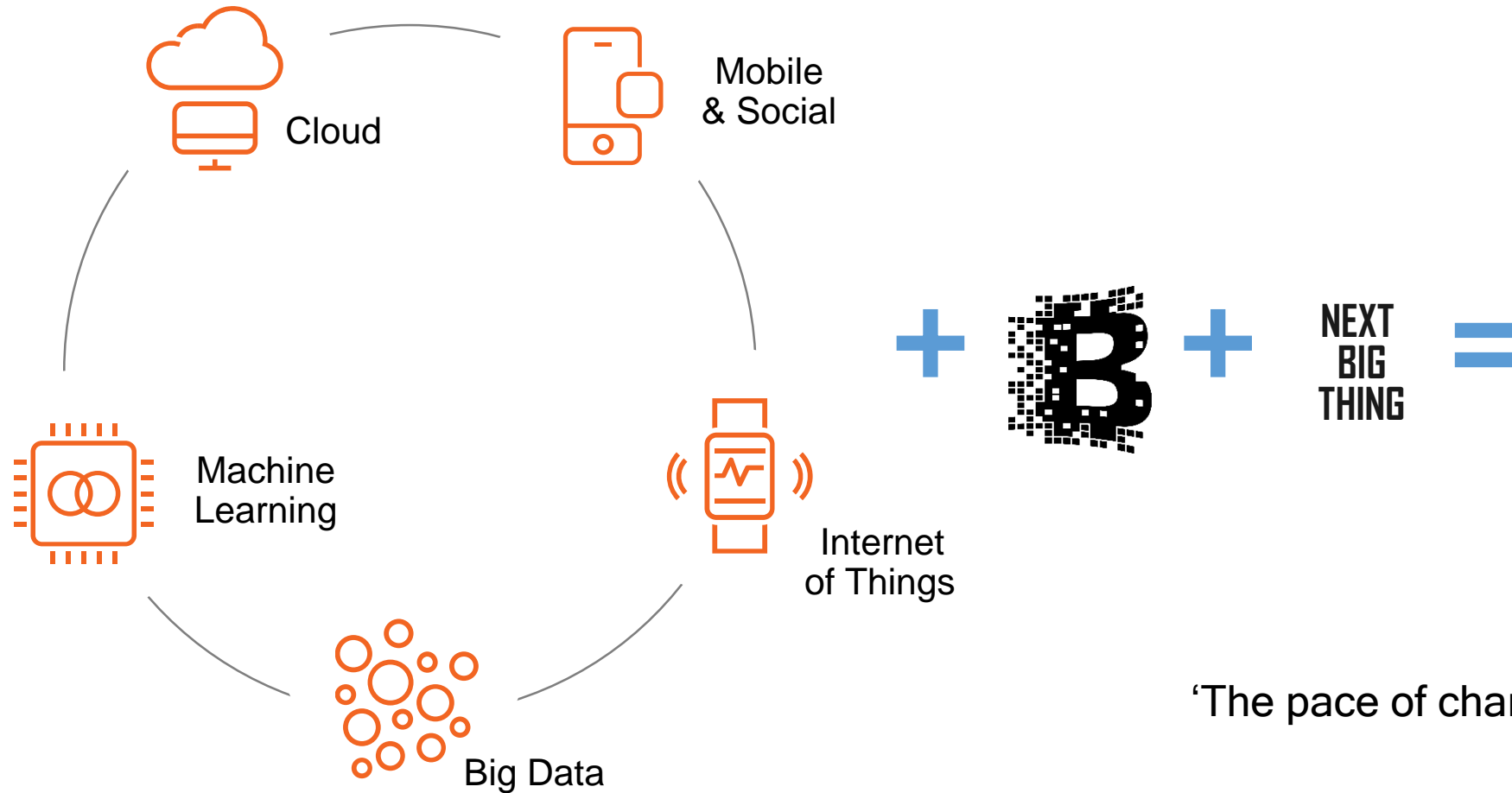
*Abraham Lincoln*

# Who Knows Best?





With multiple Disruptive Technologies arriving at the same time, we are potentially witnessing the biggest change in modern history



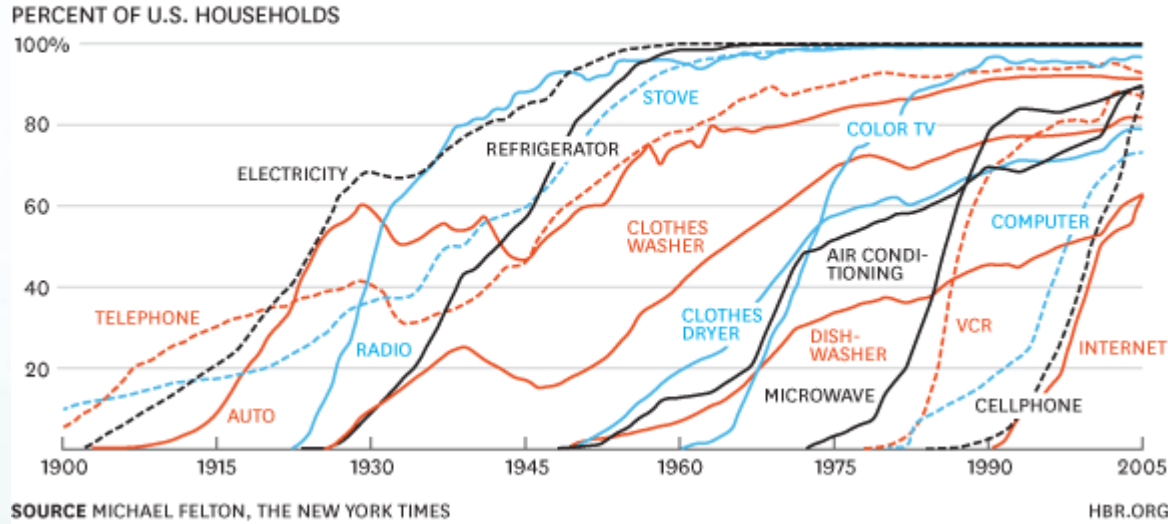
'The pace of change will never be this slow again'

# TECHNOLOGY ADOPTION RATES ACCELERATING

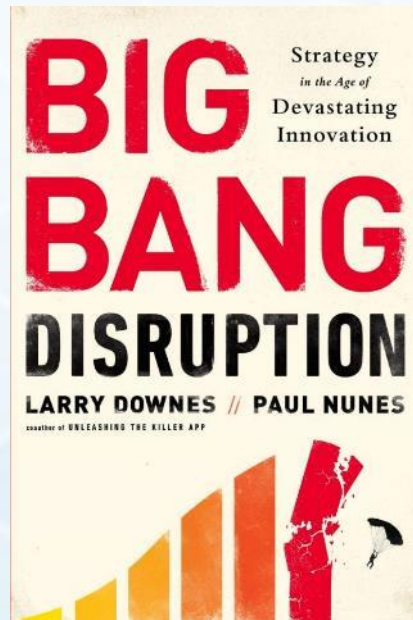
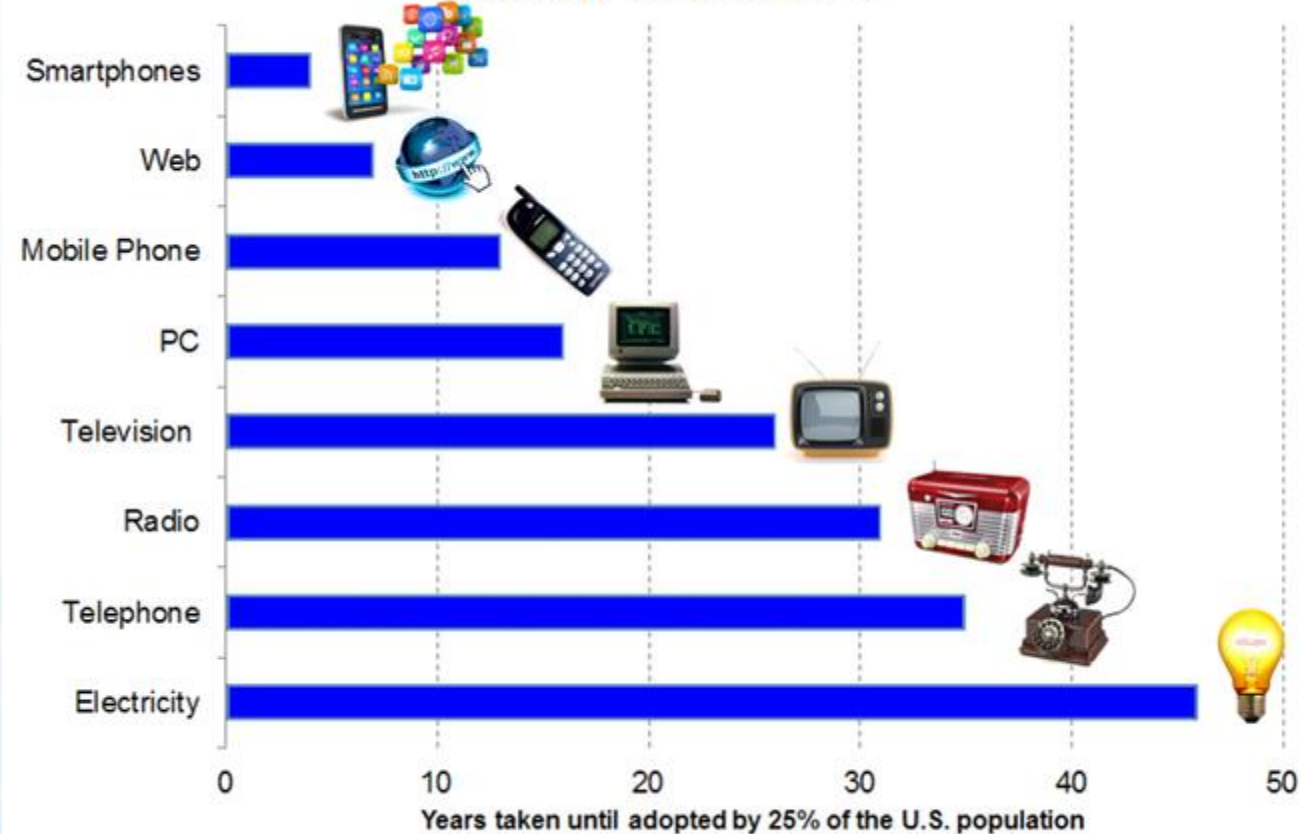


@ehealthireland

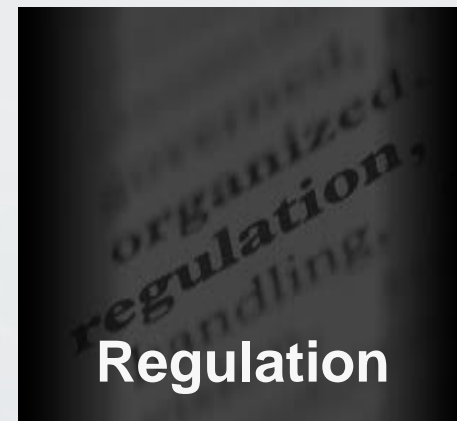
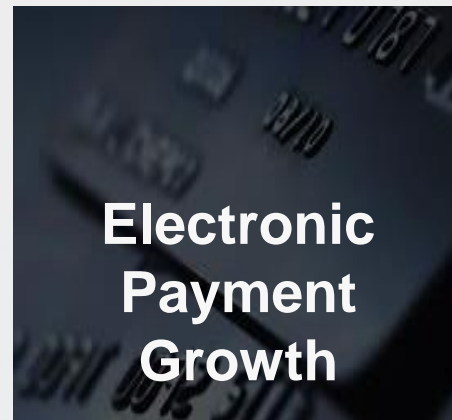
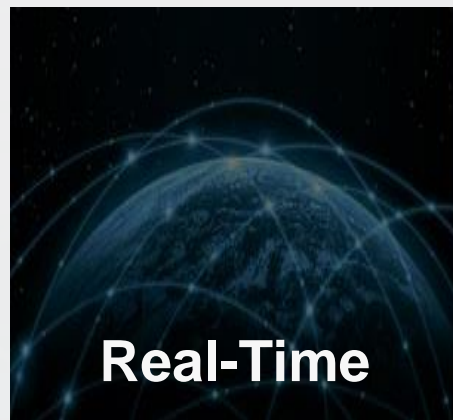
## CONSUMPTION SPREADS FASTER TODAY



## Technology Adoption Rates



# Driving “Old Boring” to “New Sexy”







But significant disruption risks

### Change in Market Capital value: Leading Retailers

COMPANY	MARKET VALUE 2006	MARKET VALUE 2016	% CHANGE
sears	\$27.8B	\$1.1B	↘ 96%
JCPenney	\$18.1B	\$2.6B	↘ 86%
NORDSTROM	\$12.4B	\$8.3B	↘ 33%
KOHL'S	\$24.2B	\$8.8B	↘ 64%
★macy's	\$24.2B	\$11.0B	↘ 55%
BEST BUY	\$28.4B	\$13.2B	↘ 54%
TARGET	\$51.3B	\$40.6B	↘ 21%
Walmart	\$214.0B	\$212.4B	↘ 1%
amazon	\$17.5B	\$355.9B	↗ 1,934%

# Does 'Digital' matter....?

## Digitize or Die

### Survive!

At current churn rates 75% of current S&P 500  
will be replaced within 10 years -

Prof. Mark Perry, U of Michigan

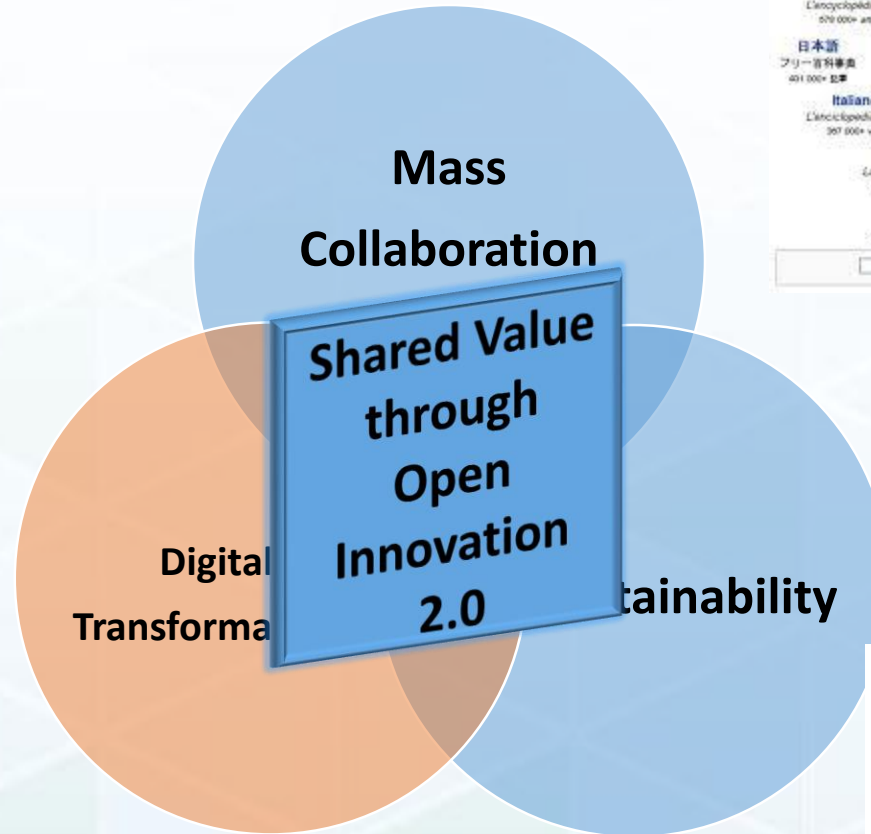
Average length of stay (years) in S&P 500

1958	1980	2012
61	25	18





# Exploit the Mega Trends



# The Transformation of the Business of Healthcare

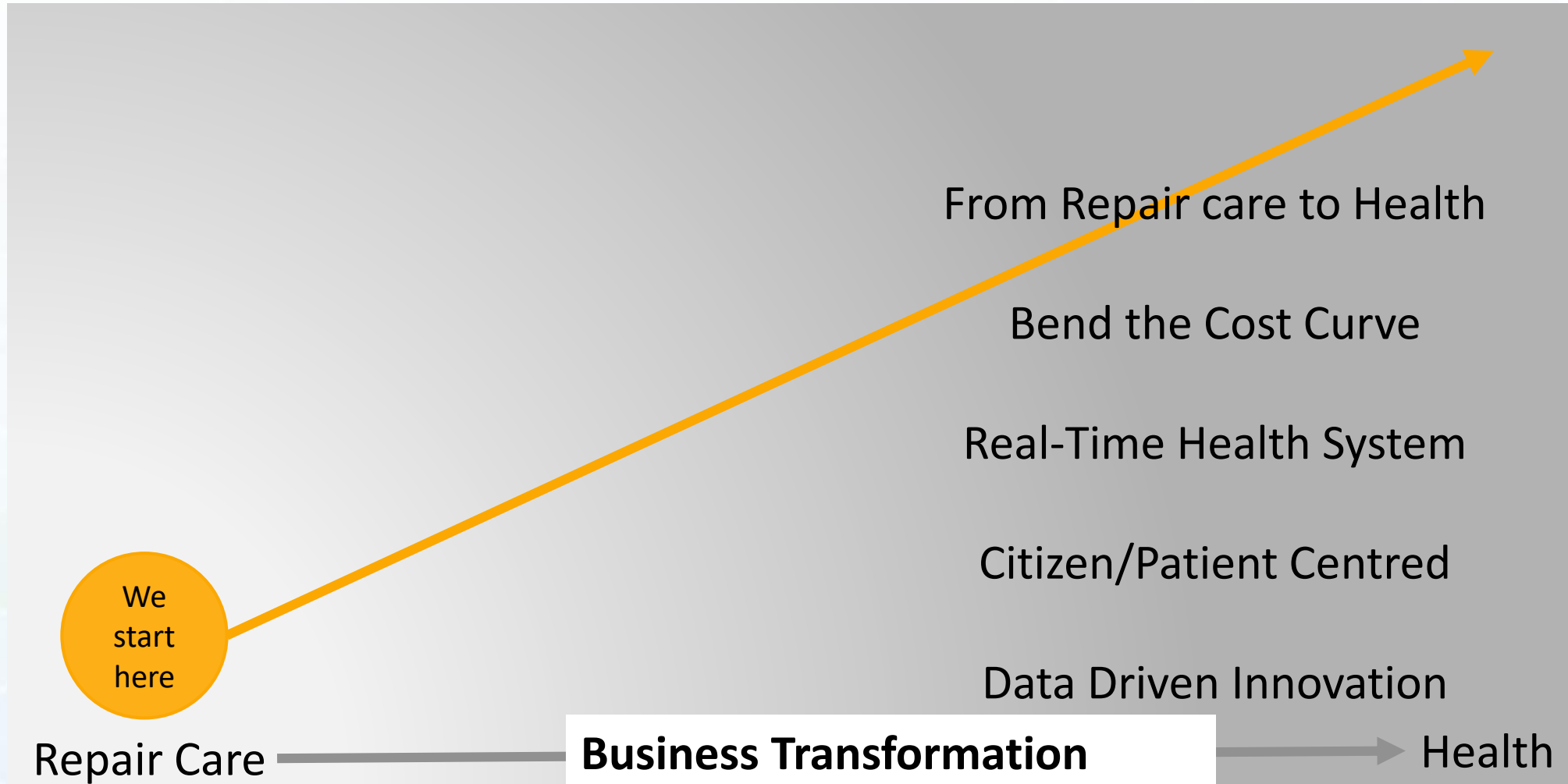


Digital



**Digitalization**

Analog



We start here

Repair Care

**Business Transformation**

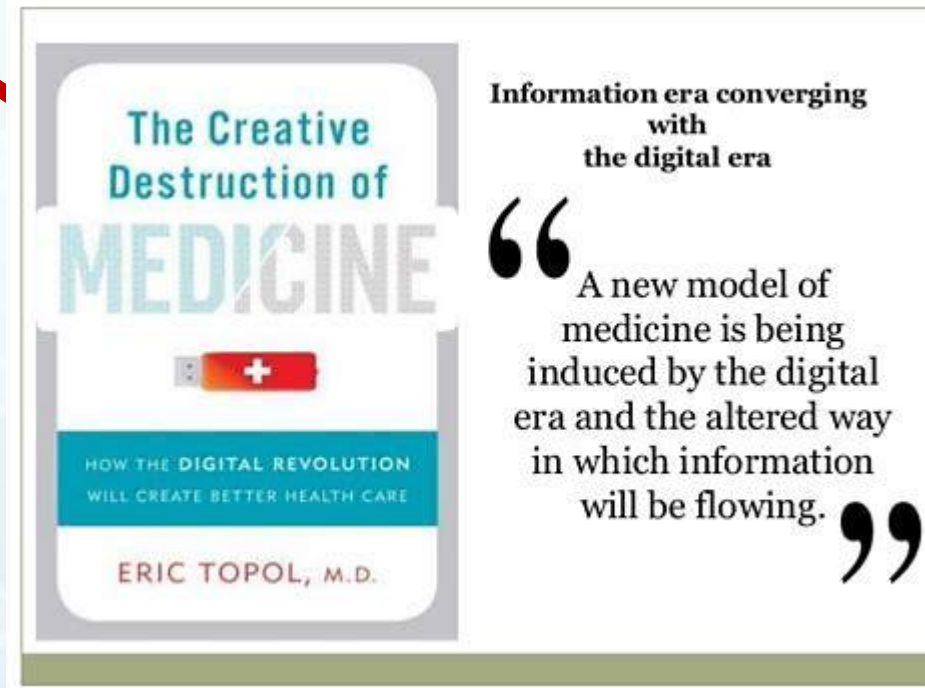
Health

It needs an ecosystem and collective innovation methodology to achieve this!

# Open Innovation set to transform healthcare

~~• Open Innovation~~

• Open Innovation 2.0





# Introducing Open Innovation 2.0; OI2



The way is long if one follows precepts (rules), the way is short if one follows patterns - Seneca

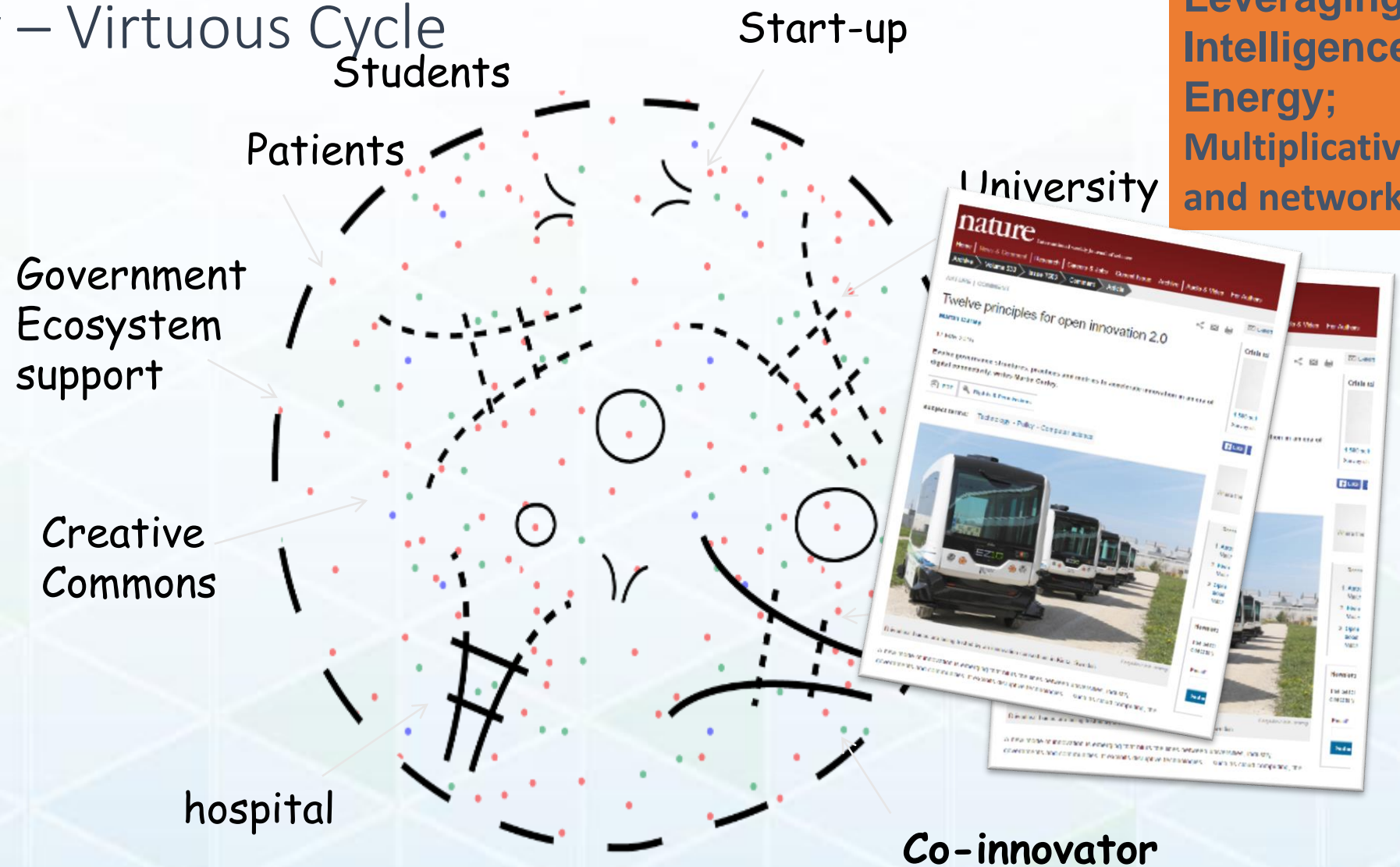


# Open Innovation 2.0: The new mode for Digital Innovation; enabled, fuelled and built using Digital Technology – Virtuous Cycle



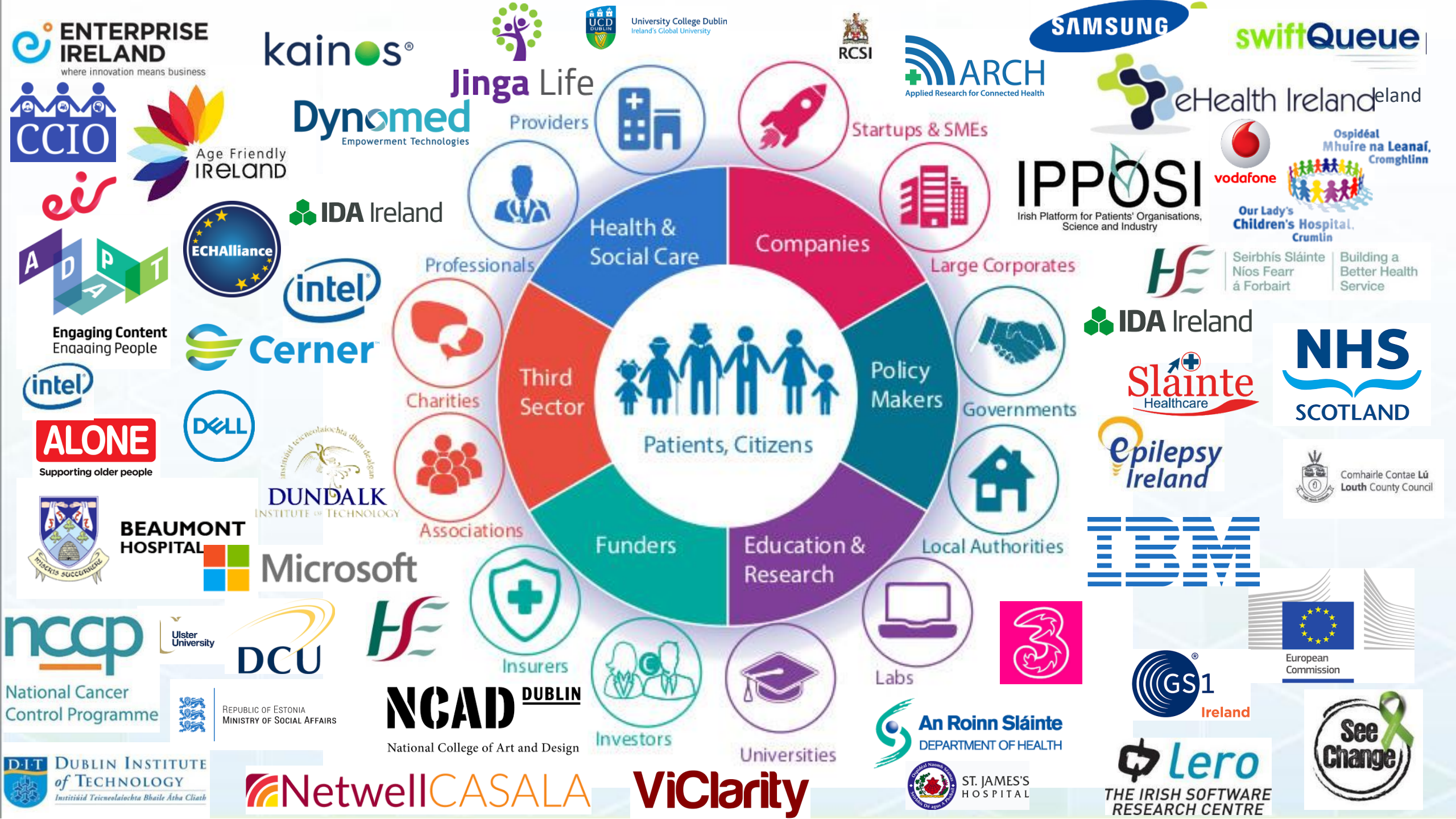
@ehealthireland

**Leveraging Collective Intelligence and Energy; Multiplicative, Synergy and network effects**



**Co-innovator**  
Source: M Curley/B Salmelin



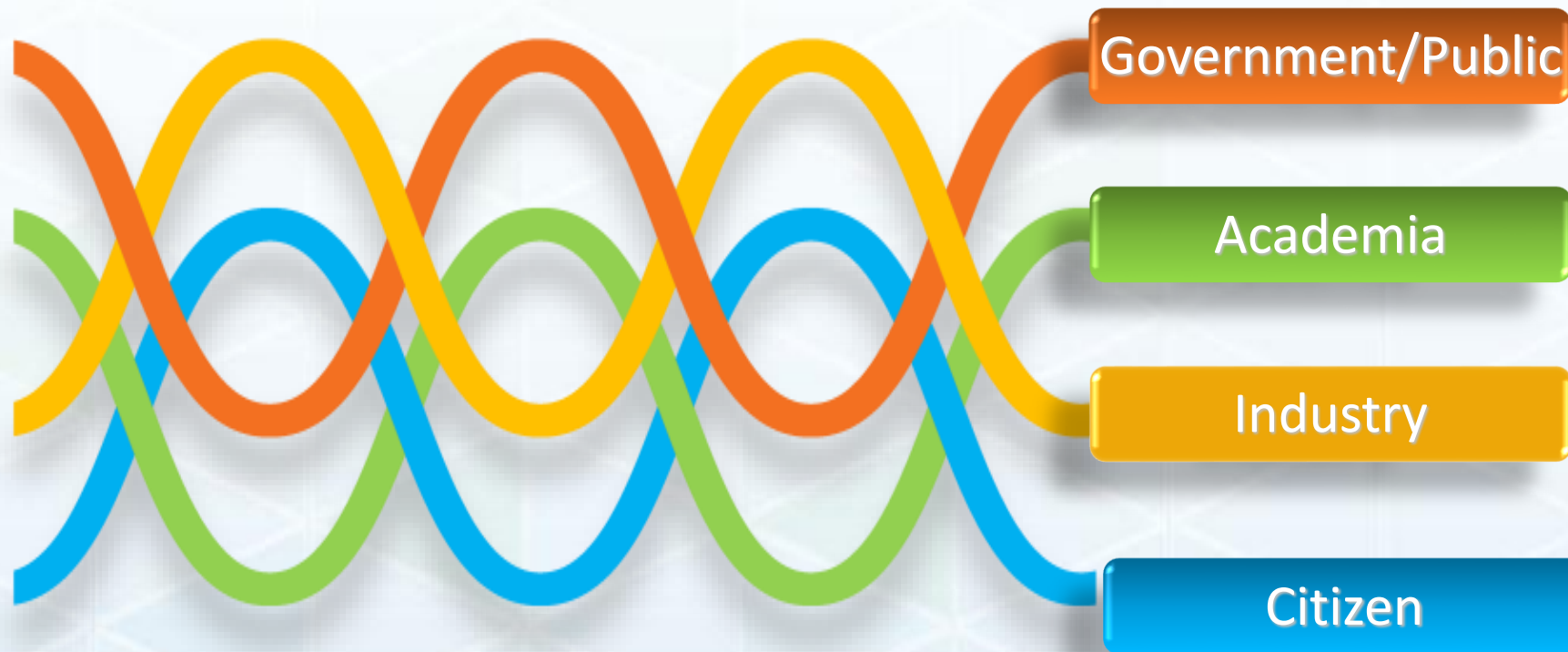




# Quadruple Helix Innovation



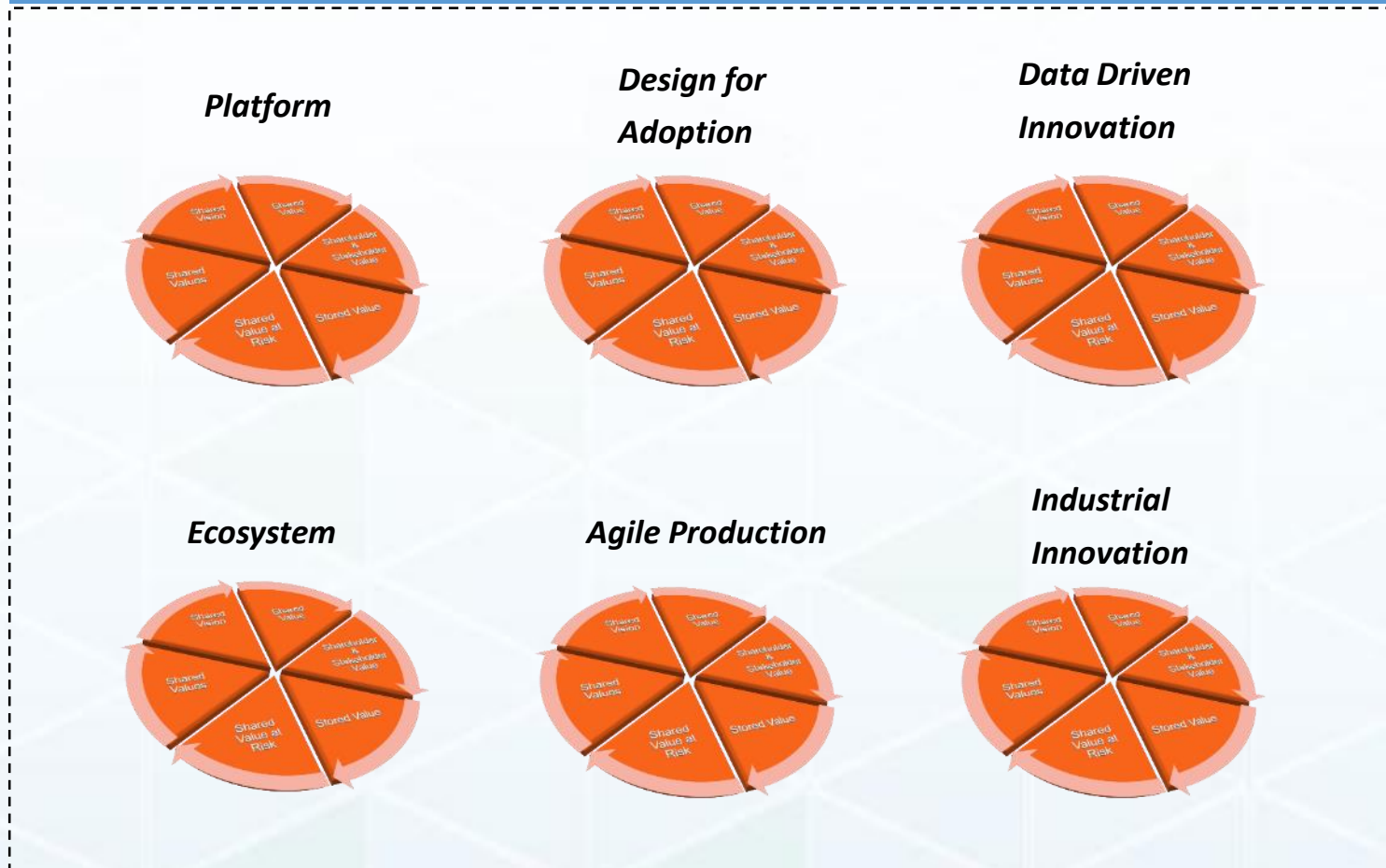
Government, Academia, Industry and Citizens collaborating together to drive structural changes far beyond the scope of any one organization could achieve on it's own



# OI2 core patterns



## Culture

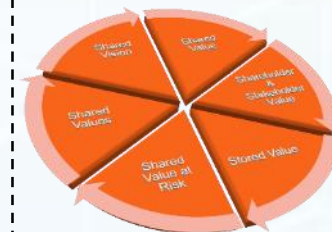


## IT Backbone

**Vision  
Value,  
Values**



**Profit,  
Prosperity,  
Probability**



OI2 is multiplicative



**Alignment  
Agility,  
Acceleration**

# Shared Purpose



.....before this decade is out, of landing a man on the moon and returning him safely to the earth





## SLÁINTECARE IMPLEMENTATION STRATEGY



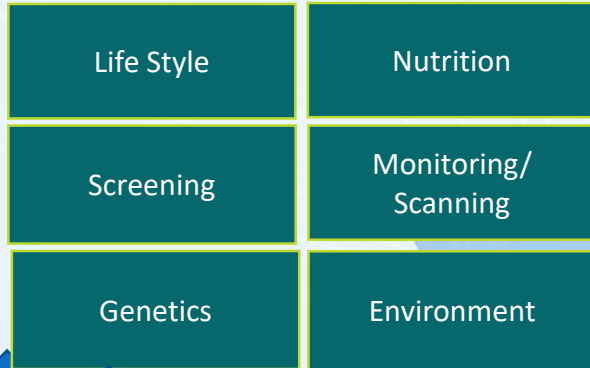
# Stay Left, Shift Left



## Preventative/Proactive Healthcare

Emergency / Elective

The Continuum of Care  
**"Shift Left!"**



## Home Care



## Primary/Community Care



## Acute Care



Clinician Experience  
Quality of Life  
Quality of Care

Shift Left – Highest Quality of Life at the highest possible cost avoidance

Cost of Care

€

€€

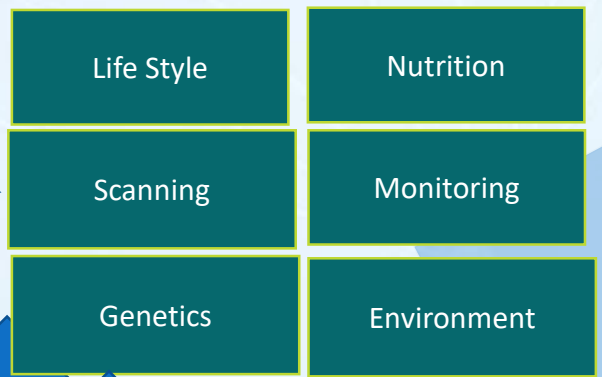
€€€

€€€€

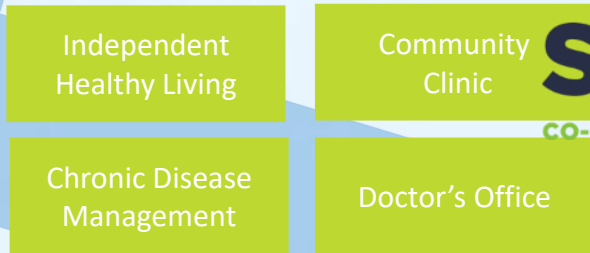
# Stay Left, Shift Left: Moore's Law for Healthcare



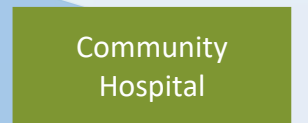
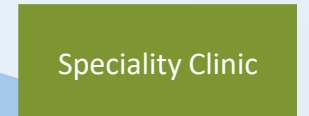
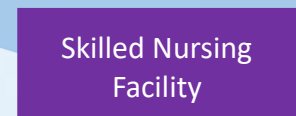
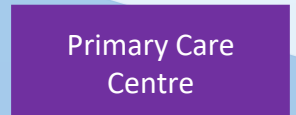
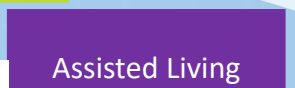
## Preventative/Proactive Healthcare



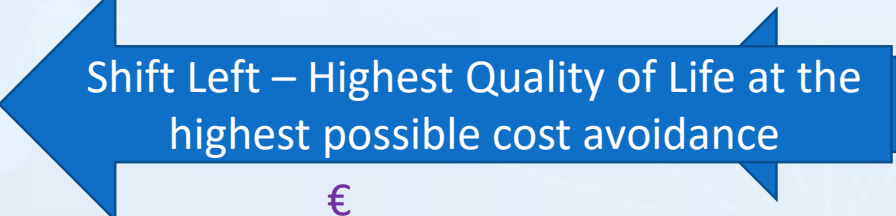
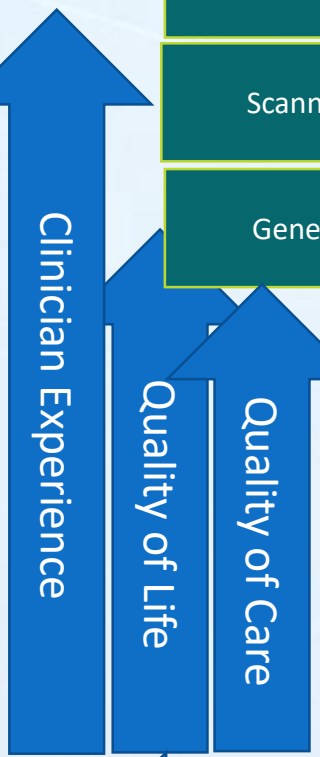
## Home Care



## Primary/Community Care



MAKING SPACE FOR HEALTHY MINDS



€

€€

€€€

€€€€



# A pivotal transformation required!



 @ehealthireland



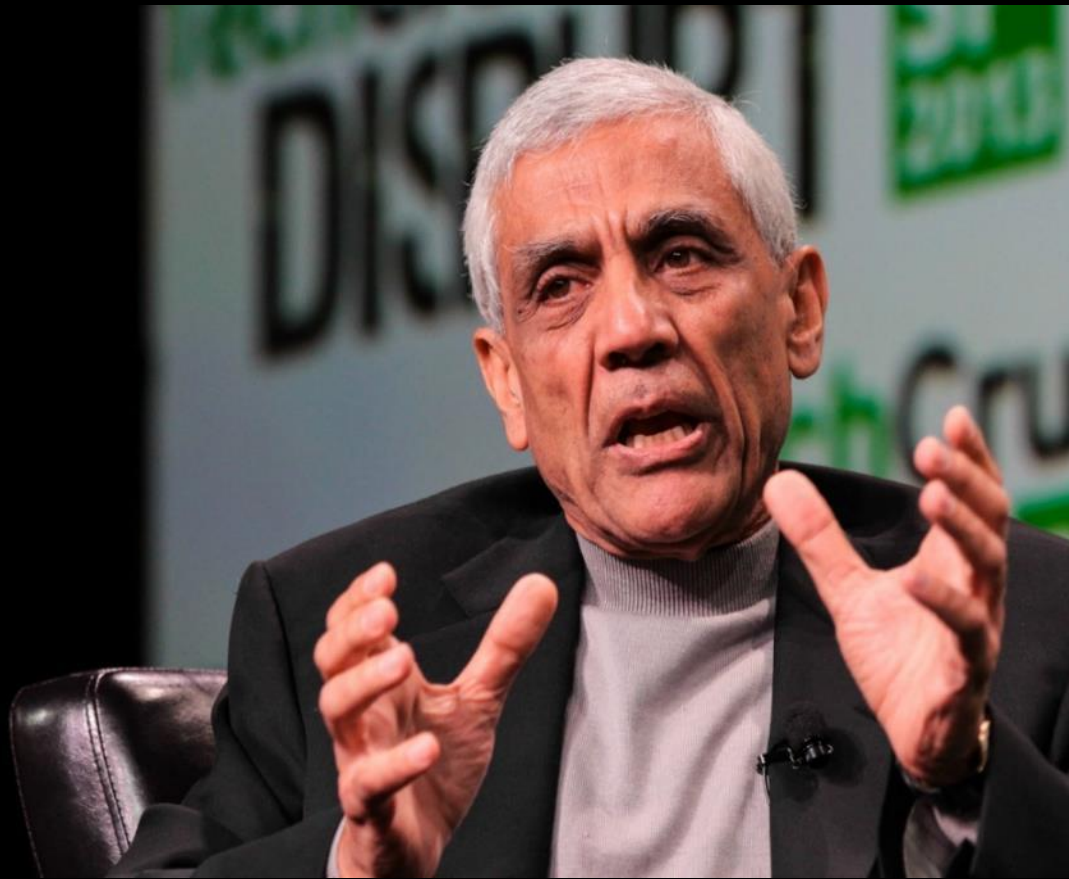
# Project Oak is live at St James Hospital!



 @ehealthireland







*“In the next ten years Data Science will do more for medicine than all of the biological sciences combined.”*

*Vinod Khosla*



# Reimagining Medicine

....Through the use of “Digital and Data Sciences”  
....Deliver Better Outcomes for Patients



**How we deliver treatments**



**How we operate**



*“We need to become a focused medicines company that’s powered by data science and digital technologies,”... Novartis CEO Vasant Narasimhan*

# Evolve Strategy to a Shared Vision

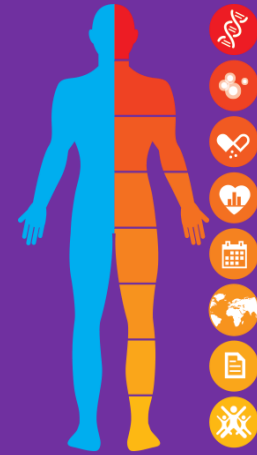
## Care Networking

shift from institutions to preventative, proactive, mobile, home-based, & community care.



## Personalised Care

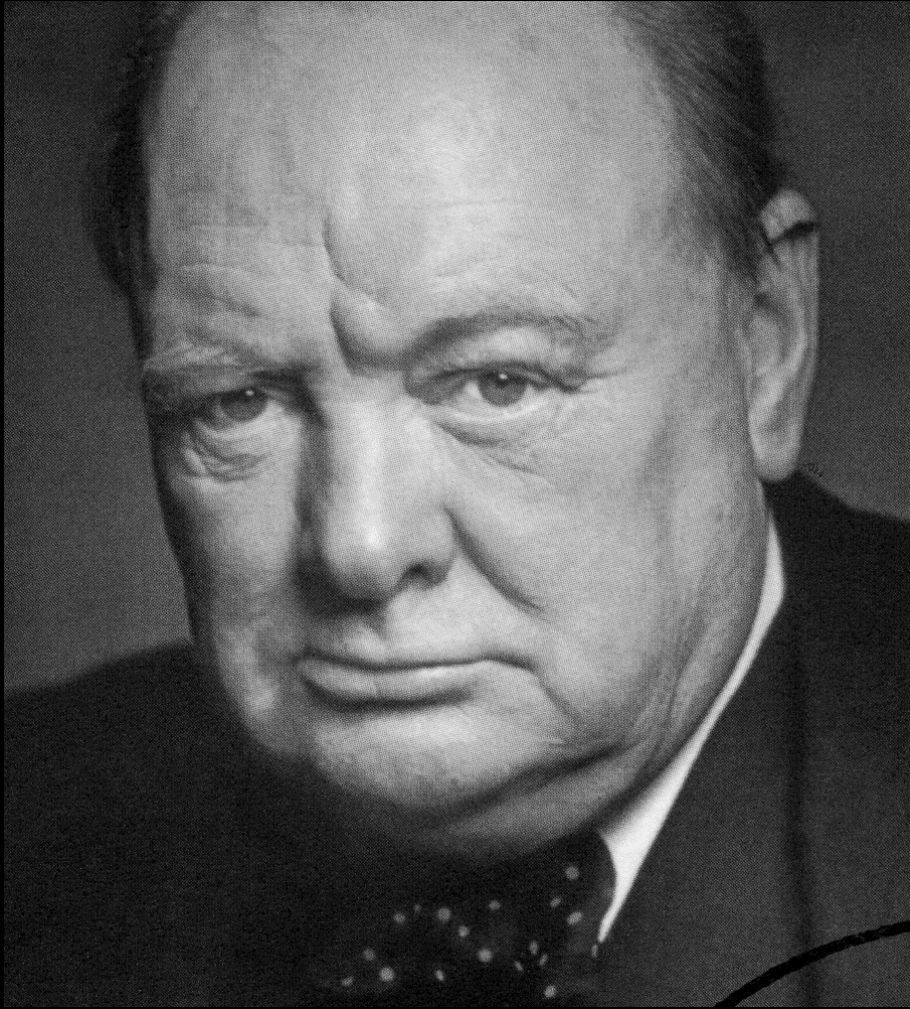
shift from population-based to person-based prevention and treatment



## Care Anywhere

shift from solo to community and team-based care across orgs and IT systems





***“You make a living by what you get, you make a life by what you give.”***

*Winston Churchill*



# Thank you!

Martin Curley, Director, Digital Academy and  
Open Innovation, HSE



[martin.curley@hse.ie](mailto:martin.curley@hse.ie)



[@martingcurley1](https://twitter.com/martingcurley1)



eHealth Ireland