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# The rise of health tech: Wearables in motion

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# Short-term



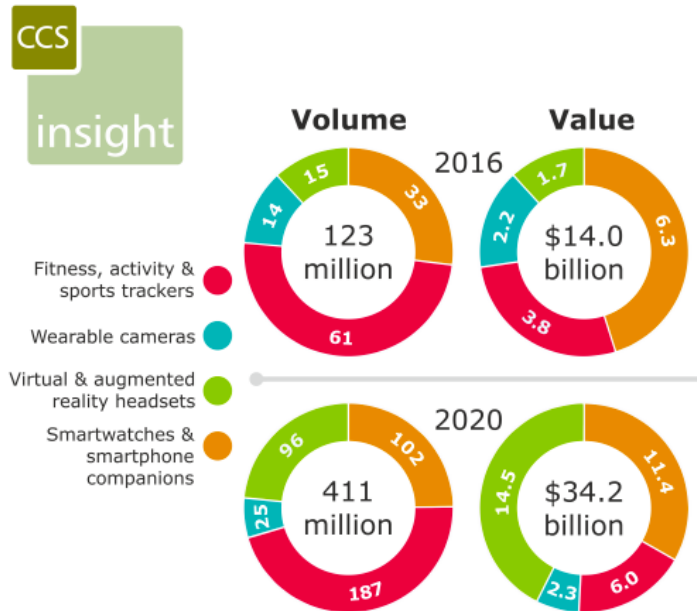
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# Wearables could improve health

Activity tracker market worth \$6bn by 2020 <sup>1</sup>

WHO aiming for 10% reduction of insufficient PA by 2020 <sup>2</sup>



<sup>1</sup> CSS Insight (2016). Global wearables forecast, 2016-2020.

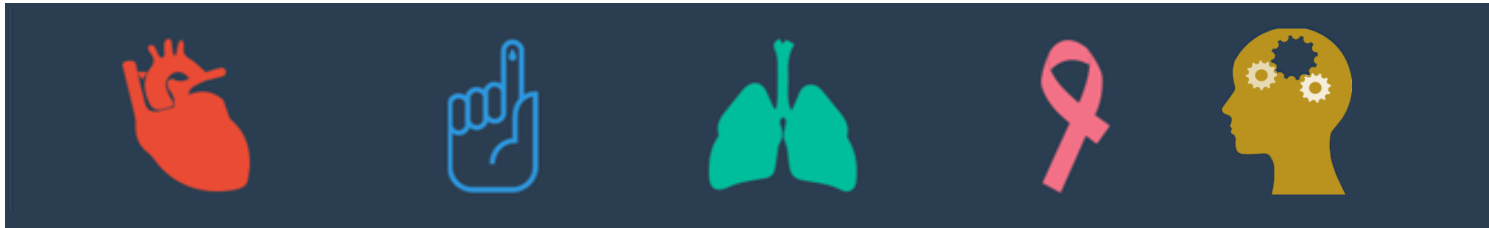
<sup>2</sup> WHO (2013). Global action plan for the prevention and control of non-communicable diseases.



# PA & NCD: What do we know so far?

## Systematic literature review

- Current understanding of long-term relationship between PA & NCD



- >1,000 articles retrieved for screening
- 77 studies met inclusion criteria



# Limitations of current understanding



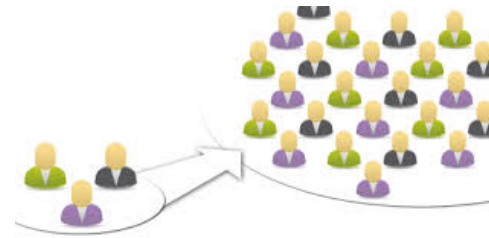
Self-reported



Subgroup contradictions



Limited no. of studies



Not representative of insurance pool



# Need to improve reliability of data



Measurements differ by 20%<sup>3</sup>



Prevent fraudulent use

<sup>3</sup> Case et al. (2015). Accuracy of Smartphone Applications and Wearable Devices for Tracking Physical Activity Data.



# Encourage uptake – discounts & rewards

Objective measurements

Population of interest

Data protection

Range of diseases

Validation systems

Different subgroups

Improve accuracy



#BETHEFORCE



Guide.Motivate.Empower

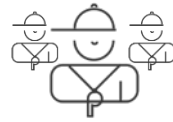


# World's Largest And Fastest Growing Coaching Marketplace



**Vishal Gondal**  
**Founder, CEO**

ex. Founder – Indiagames



A **one-on-one** coaching marketplace with an **integrated** solution



Investors



Acquired for  
 US\$100mn+ by



Launched in  
**Oct 2014**



**Menlo Park,**  
**USA** Headquartered

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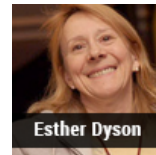
**Amit Singhal**

Google



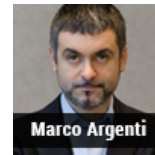
**Deepak S**

DSGCP



**Esther Dyson**

EDventure



**Marco Argenti**

Amazon



**Mike McNamara**

Flextronics



**Neeraj Arora**

WhatsApp



**Steve Luczo**

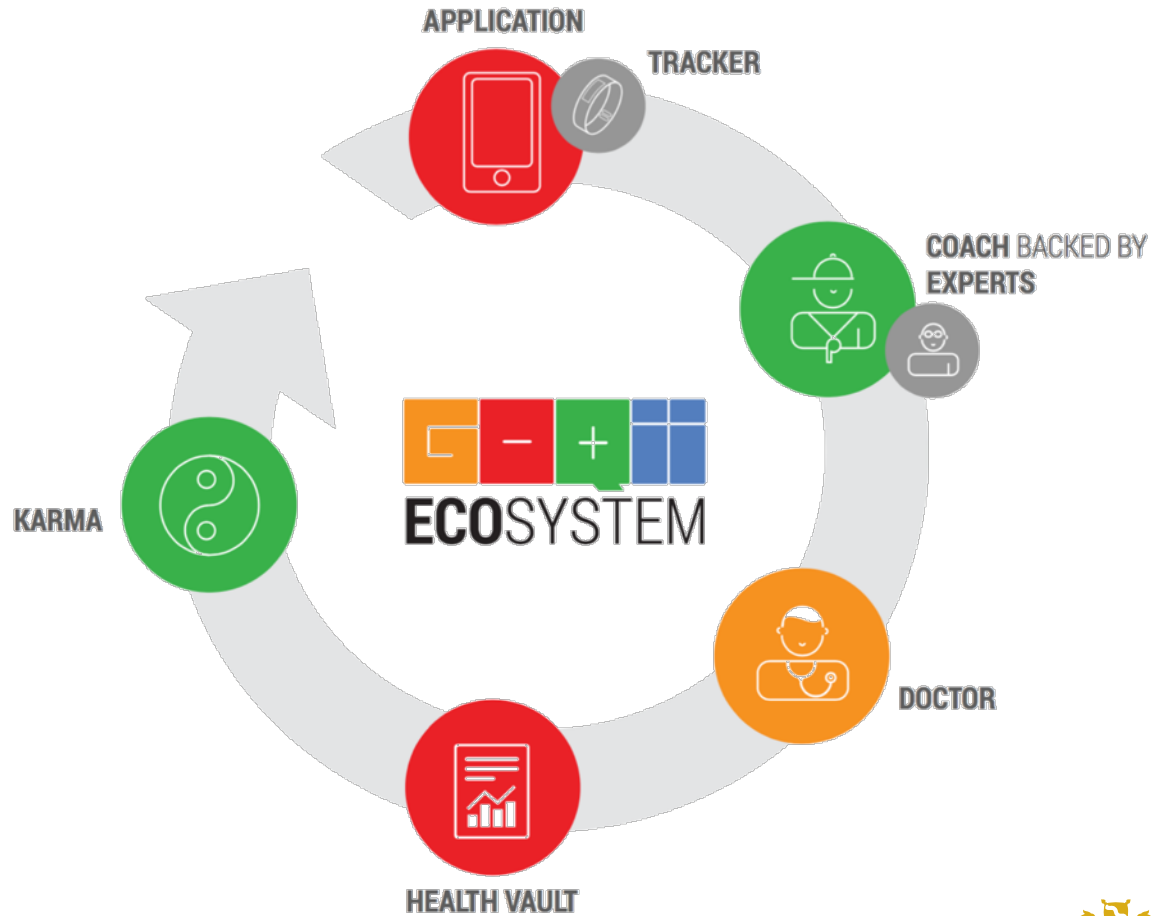
Seagate

And more...



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# GOQii Ecosystem



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# GOQii Philosophy

**GOQii Mission:** Enable people to make a **permanent change** to a **healthy lifestyle**

## 4 Key Pillars Of GOQii Platform



### HOLISTIC

Not just physical fitness, we **enable a path towards a better lifestyle – body, mind & soul**



### HUMAN CONNECT

**Personalized goal setting & positive reinforcement** by “real coaches”



### GAMIFIED

Using game-design for **improving user engagement**  
Users earn **Karma points** which can be **donated** for a **cause**



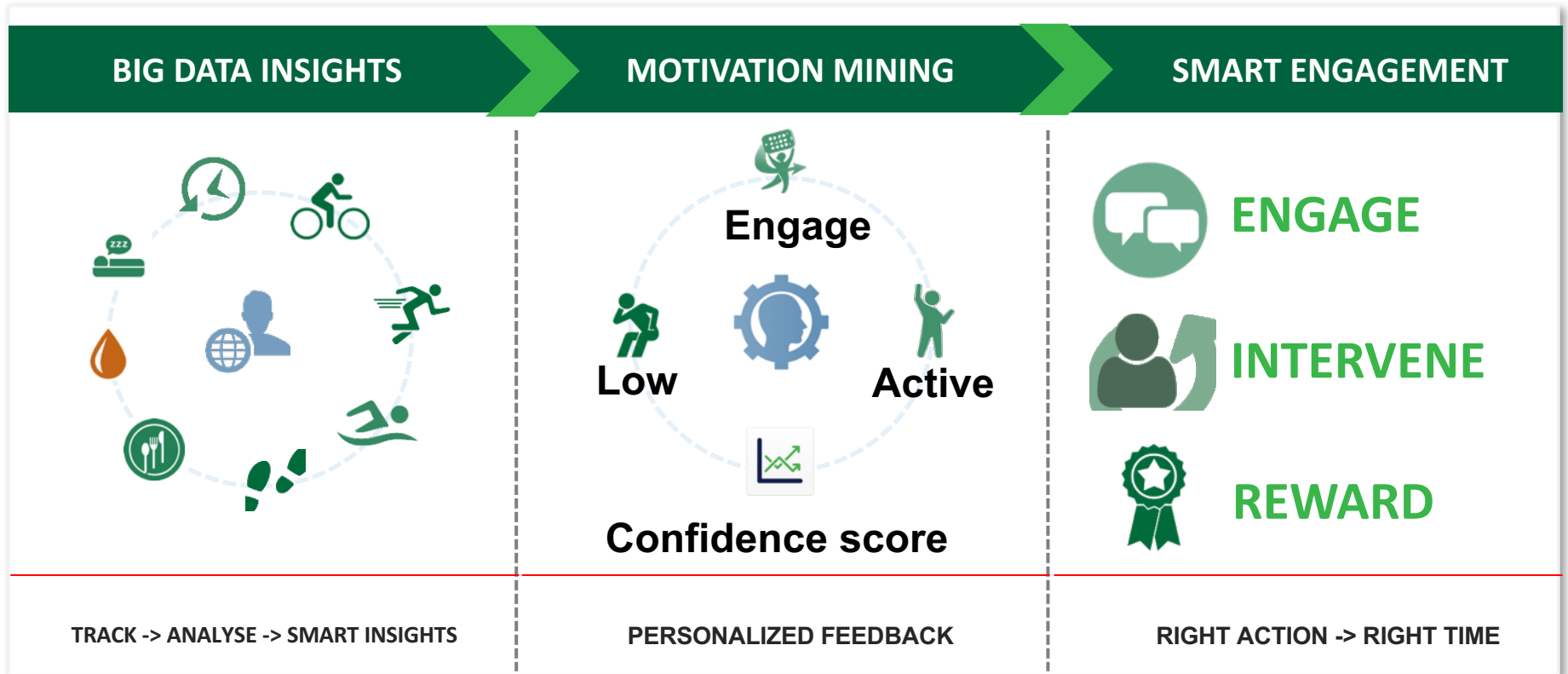
### ANALYTICS DRIVEN

Data engine **enhancing coach effectiveness & making coaching possible at scale**



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# Analytics Driven Approach – Right Advice At The Right Time

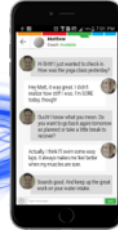


**Predictive, personalized, preventive health & wellness engagement ecosystem**  
helping consumers reach and attain their fitness goals



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# Effective User Engagement



Interaction & User Engagement



Goal Setting



Positive Enforcement



Motivated Users



Habit Formation



Better Karma

## Wearables + Fitness Apps

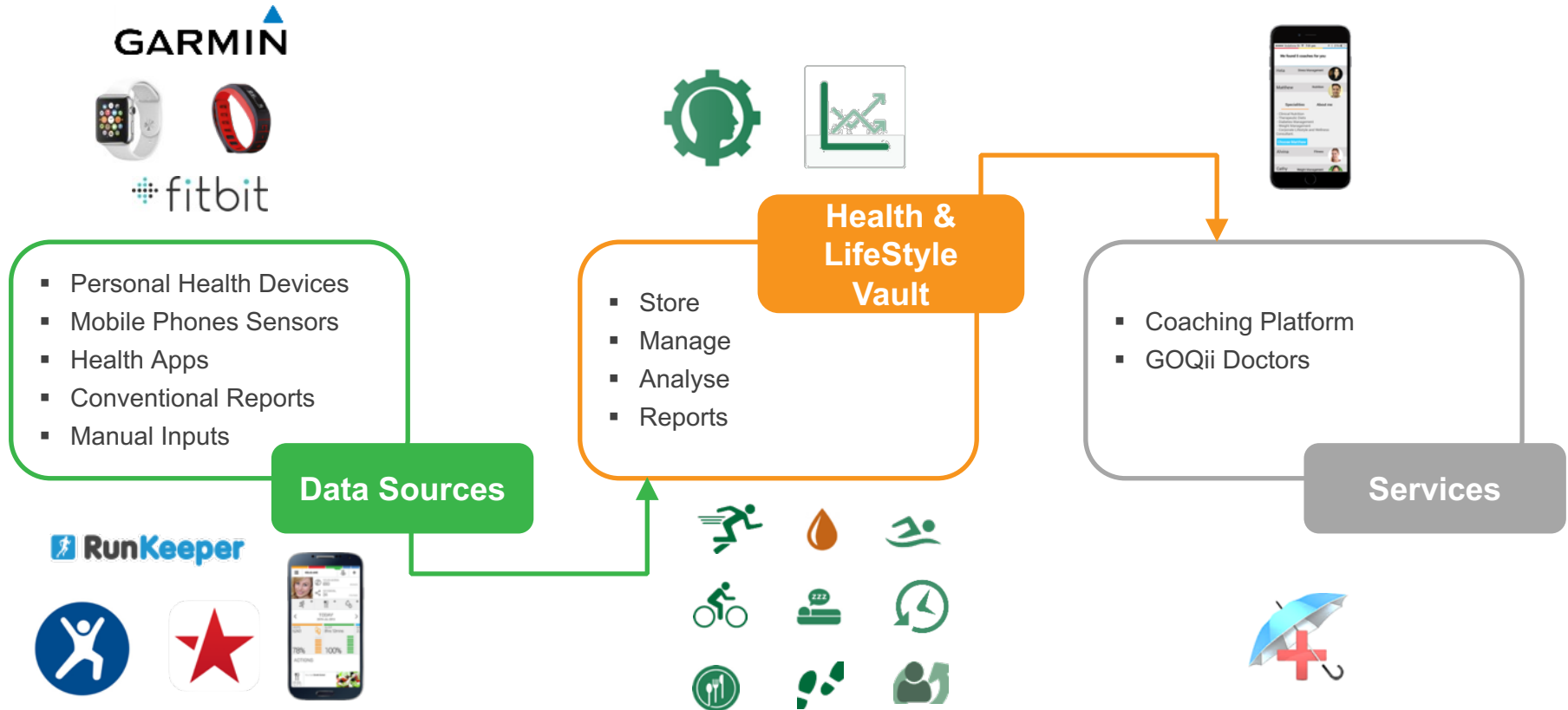


## GOQii APP



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# GOQii – Health & LifeStyle Vault



Store, Track, Access & Share Health And Lifestyle Data On Finger Tip



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# Medium-term



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# Relationship between PA and NCD

- 84% of included studies found evidence of long-term association between PA and risk of NCD
- Provides opportunity for classing once relationships have been refined





# Classing

- Use PA data to set differential risk-rated premiums
  - Telematics already being used for classing in motor
- Potential for classing using a much wider range of variables
  - Weight
  - Blood glucose
  - Heart rate
  - Diet
  - Infectious diseases



# Risk-smoothing

- Policy makers may want to encourage risk-smoothing
  - Stop physically inactive being priced out of the market



- Tension between classing and risk-smoothing already evident in insurance industry
  - Ban on gender segregation of premiums
  - Use of GPS tracking technology



# Balancing classing with risk-smoothing



Policy responses to use of data from PA trackers could set a precedent for other wearables and health tech



# MLC On Track

National Wealth Management Holdin... MLC On Track



MLC On Track



## Welcome to MLC On Track

Thank you for choosing MLC for your insurance needs. We're delighted to have you on board and excited to offer you the opportunity to participate in our wellness program MLC On Track.

### About MLC On Track

MLC On Track allows you to monitor your health and lifestyle information through a Garmin Vivosmart HR fitness tracker, helping you measure your wellness and supporting you to achieve your goals.

It's simple:

- MLC will send your Garmin to you. You'll also need a compatible smartphone.
- Keep track of your health (your activities, fitness and sleep duration) through your personalised customer dashboard.
- MLC will also give you a target wellness score.
- Wear your Garmin daily and earn points. You can earn points by walking, exercising and just getting a good night's sleep.
- Reach your target wellness score within 160 days and you'll receive a discount from your next policy anniversary, for the life of your policy!

Getting started is as easy as five simple steps:

### Five easy steps to a healthier you

# MLC Life Insurance On Track – Target wellness score

- All participating customers have a target wellness score of 900 points to be eligible for premium discounts on their life insurance policies. This can be achieved simply by activities such as:
  - walking 10,000 steps a day (6-8kms) or being active for 1 hour a day
  - sleeping for 7-9 hours a day
  - keeping the fitness tracker on for at least 18 hours a day, and
  - recording a resting heartbeat of less than 85 beats per min.
- Reach 900 points within 160 days, and receive a 5% discount off your premium. Do it again in the next 160 days, and you receive another 5% off, making it a total of 10% discount off your premium for the life of the policy.



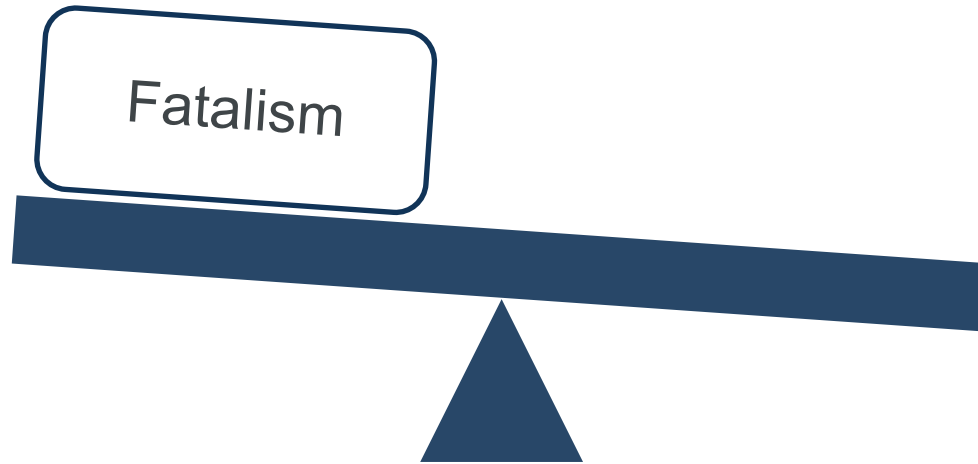
# Long-term



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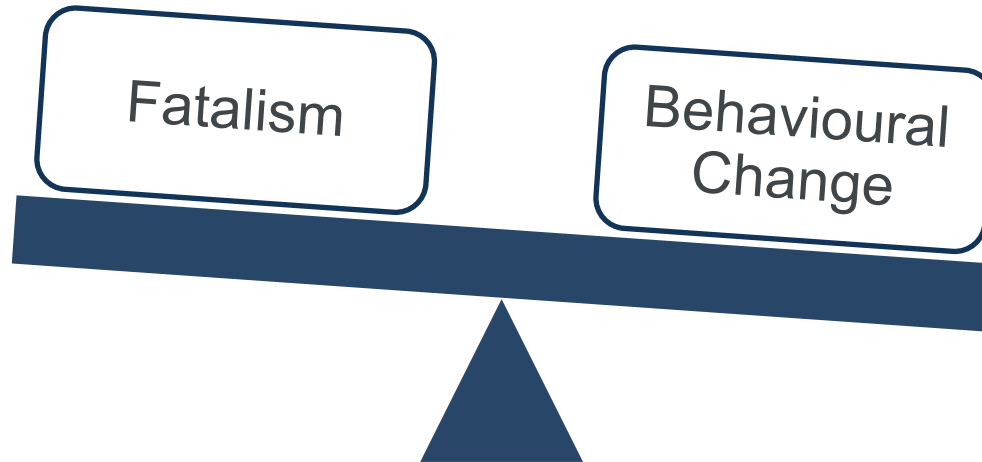
# Moving away from fatalism



- Fatalism
  - Class insurees into smaller and smaller subgroups based on risk of disease
  - View these risks as static



# Towards behavioural change



- Health risks are amenable to intervention
- Reduce disease burden through preventative strategies



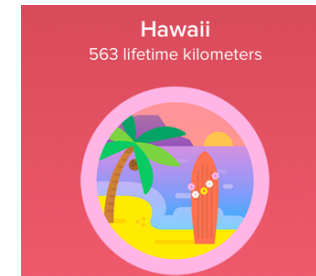


# Encouraging behavioural change (1)

- Self-determination theory suggests extrinsic motivation won't bring about long-term changes in behaviour<sup>4</sup>
  - When external stimulus removed, PA decreases again



6	Bill's Battlers	5,286	207,324
7	Marty's Missiles	5,595	206,974
8	Crawford's Crusaders	6,197	204,582
9	Woody's Warriors	6,403	203,906
10	Coco's Comets	6,405	195,943



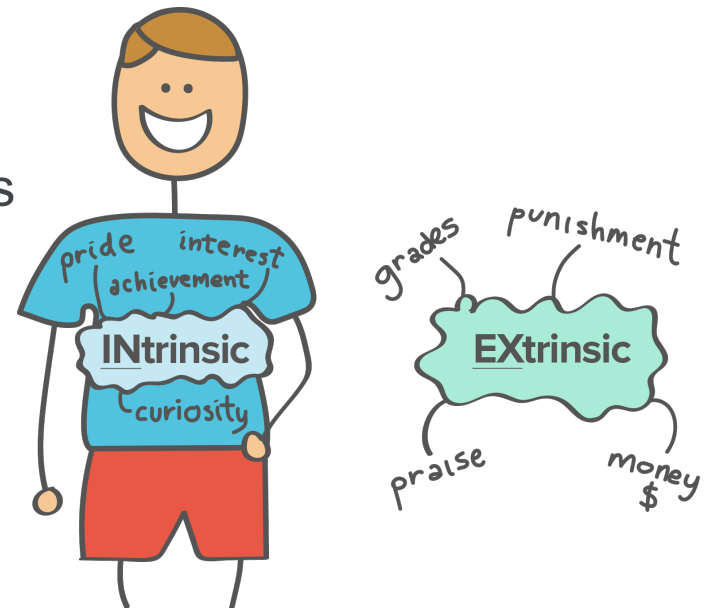
- 50% of people stop using PA trackers in first few months

<sup>4</sup> Deci & Ryan (2002). Handbook of Self-determination Research.



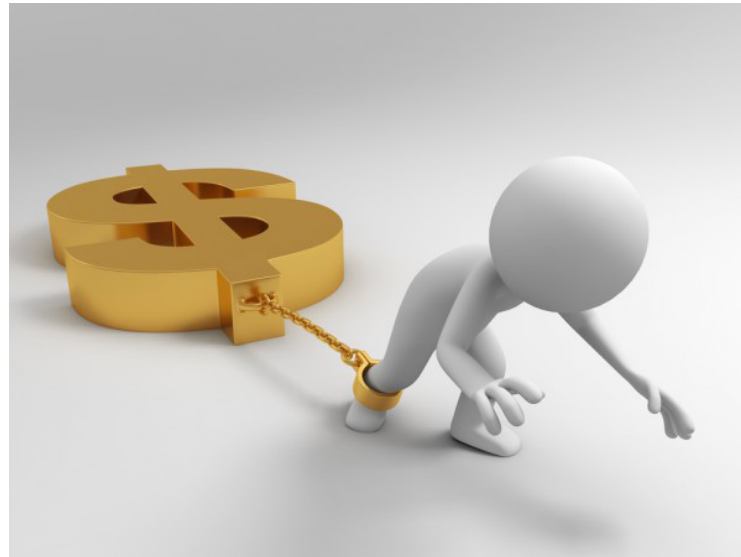
# Encouraging behavioural change (2)

- Intrinsically motivating stimuli are more effective
- Insurers could pioneer internally motivating strategies
  - Explain underlying virtues of PA
  - Informal education
- Personally-tailored approach
  - Collaborate with health professionals
  - Recommended level of PA
  - Motivational messages



# Behavioural change approach may require public funding?

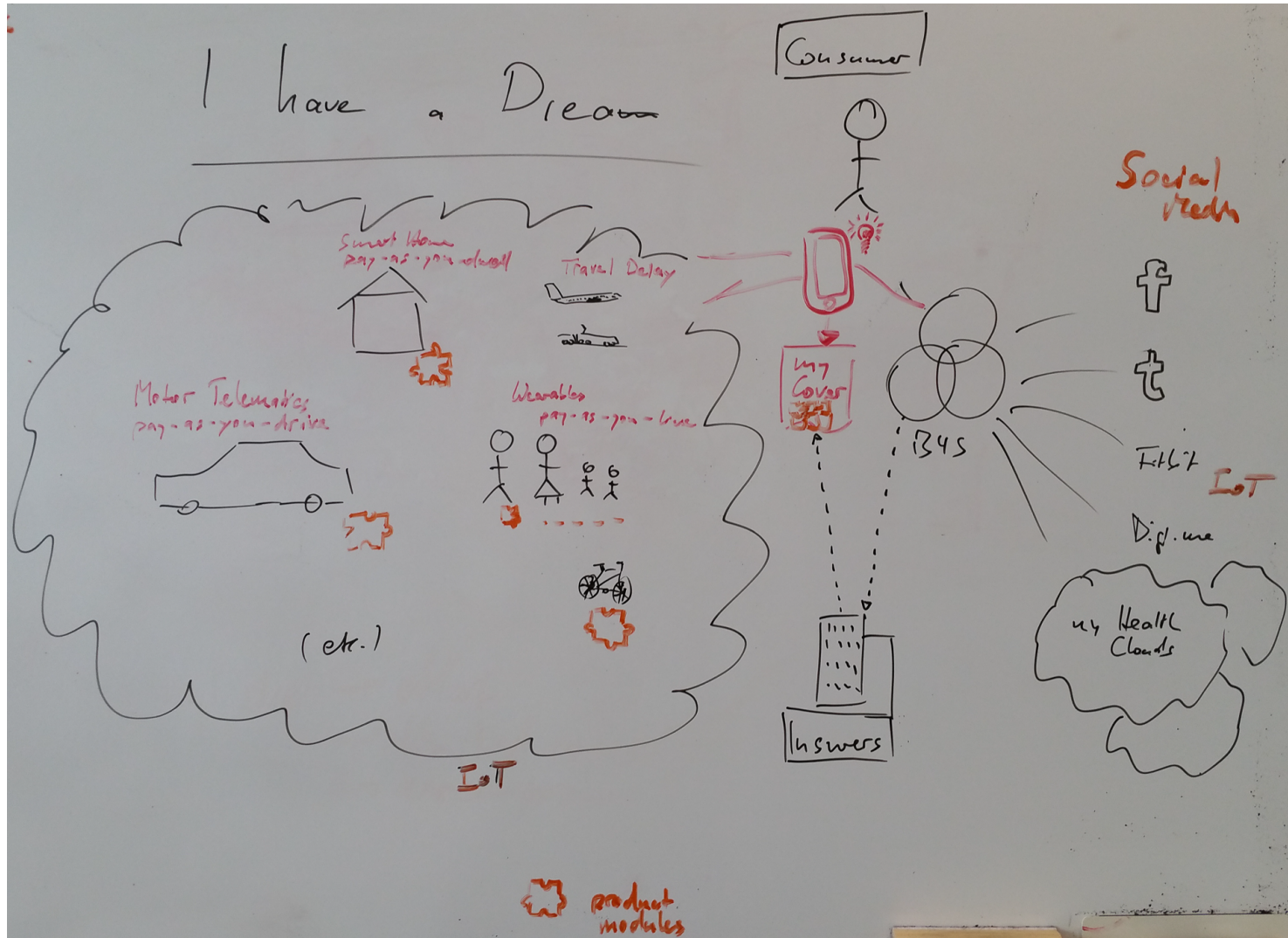
- Has potential reduce society's disease burden
- If insurees can switch providers then insurers may not actualise cost savings



# The Dream – All the Cover You Need in 5 Minutes a Year

## Your Individual Jigsaw of Modular Products

### Tailored to You on Your Data



# Questions

# Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenters.



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