



ProPASS

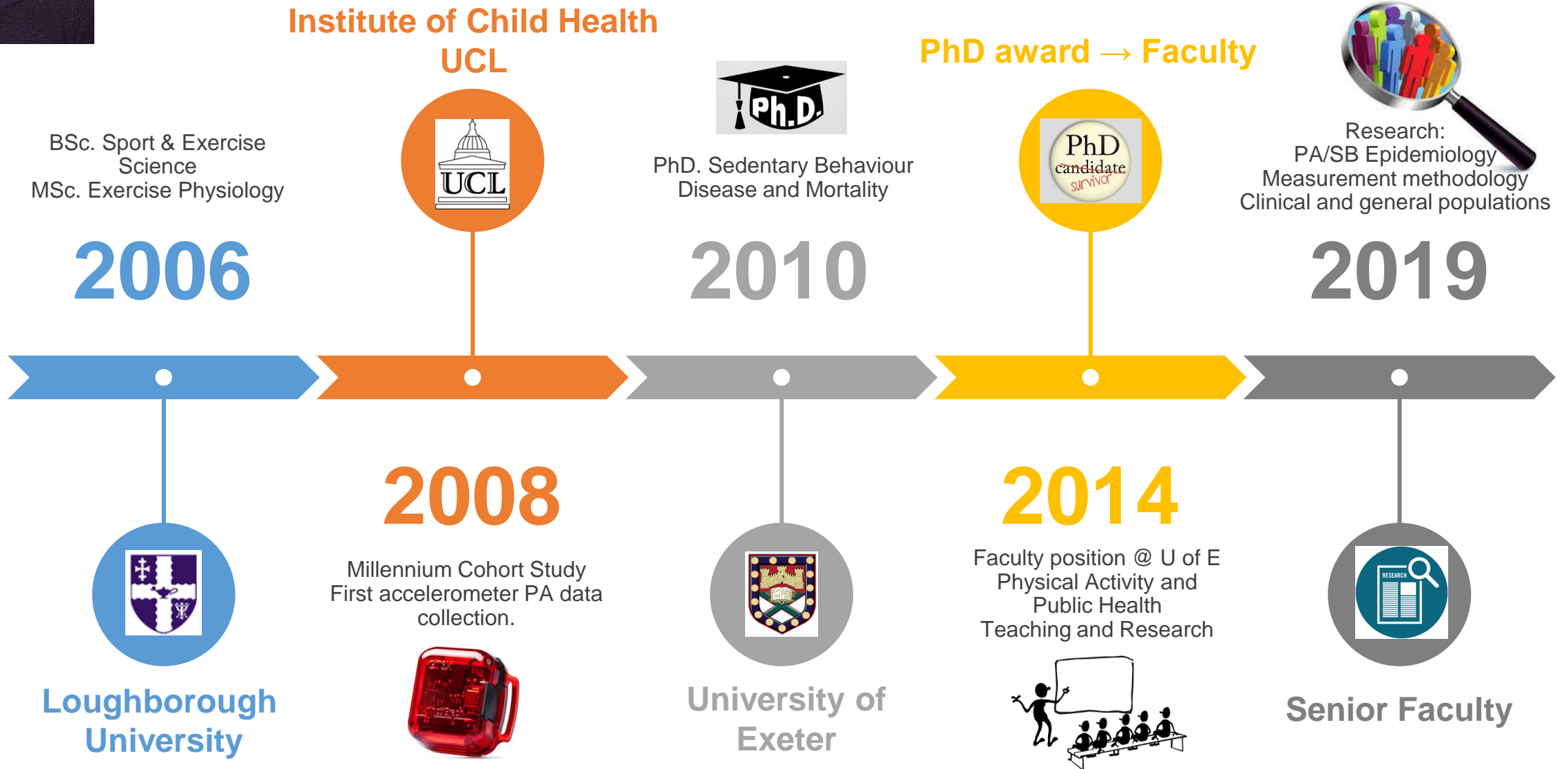
Prospective Physical Activity, Sitting,
and Sleep Consortium

Early Career Award Presentation

Dr Richard Pulsford



A little about me...



'Cathedral thinking'

'Building of substantial future-proof foundations before the plans for grand roofs, spires and ornate decoration are clear'

Aim: To future-proof the foundations of the consortium to ensure that it:

1. Allows future innovation in PA data processing (by retaining raw acceleration data from wearable devices)
2. Integrates live contextual data that captures as much as possible of complex systems in which behaviour occurs
3. Is sustainable: a) Multiple funding sources
b) Expansion of membership

1) Futureproofing accelerometer data collection

The way we work with accelerometer data is developing

PA variables available 10 years ago may not help with today's research questions – retrospective harmonisation is tricky!

Retention of raw acceleration data will allow continued innovation

SLEEP 34.5%	SEDENTARY 51.1%	ACTIVE 14.9%	EXERCISE 0.1%	BUTTON PRESSES 25
■ Asleep 29.1%	■ Inactive 51.1%	■ On the go 2.9%	■ Working out 0.1%	● Hot drinks
■ Active period 5.5%	■ Sitting 0%	■ Standing 9.7%	■ Running 0%	
	■ Transport 0%	■ Walking 2.3%	■ Swimming 0%	
			■ Cycling 0%	

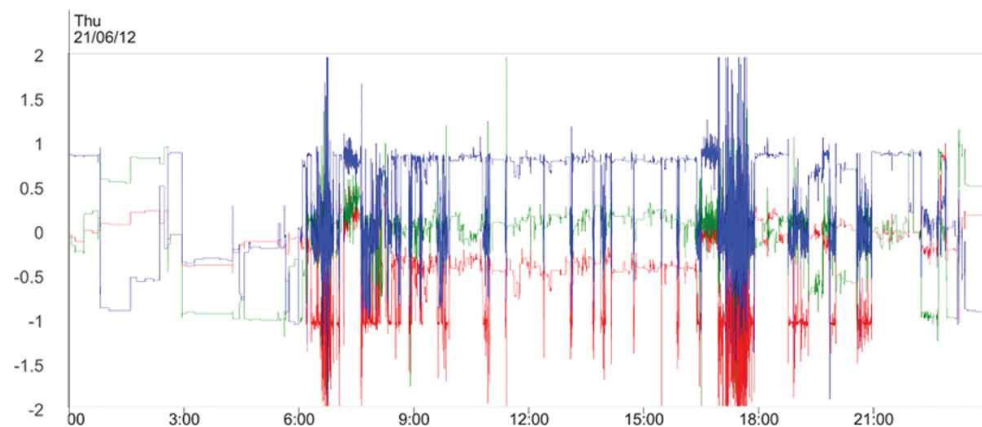
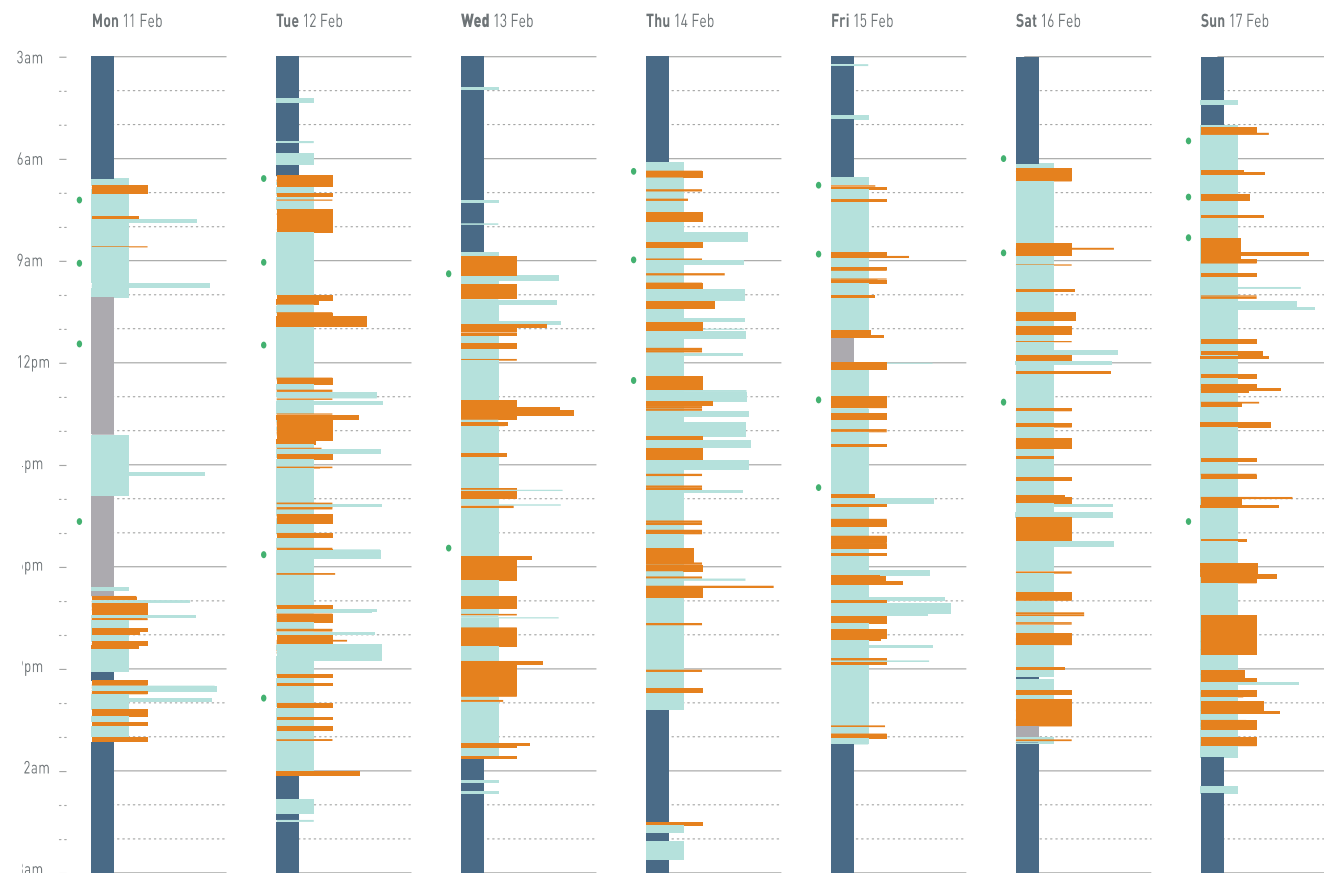
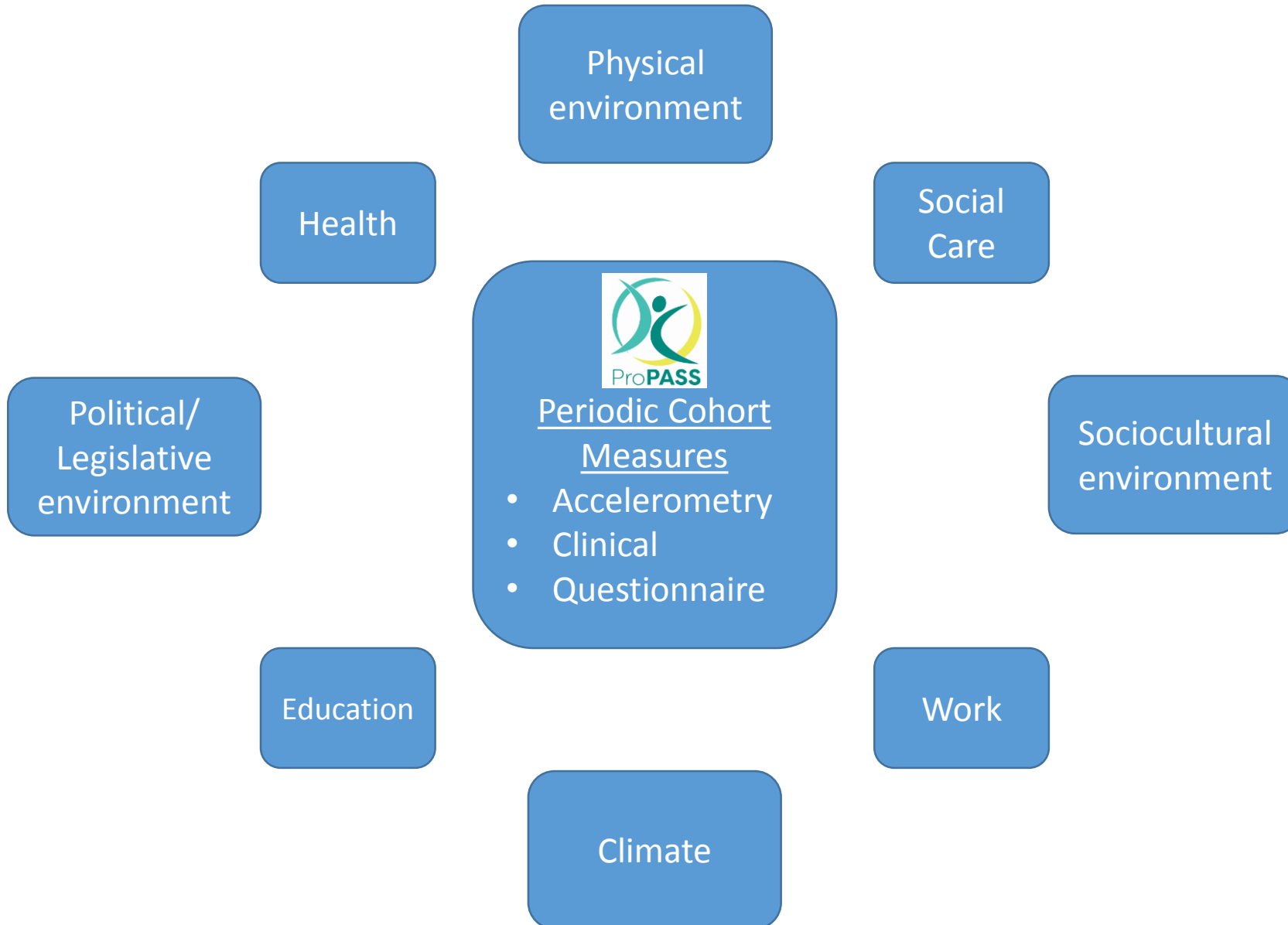


FIGURE 1 One day of tri-axial accelerometer data (x = red, y = green, z = blue).

2) A comprehensive picture



If human behaviour occurs in dynamic complex systems, we should aim to capture as much of these systems as possible

- Pursue further data linkages
- Health, education, built environment, employment are common
- Geospacial, sociocultural, climate and political legislative data – less so
- Use of LIVE data
- Data is routinely collected available and underutilised

2) Live data allowing responsive research



LIVE data

- Health and social care
- Education
- Employment
- Geospacial Env.
- Sociocultural Env.
- Political/Legislative Env.
- Climate



3) Funding



Evaluation

- Public health interventions
- Infrastructure development
- Changes in policy or healthcare practice
- Sporting events

Costs usually paid to external organisations - could come to ProPASS

Consultancy

- Policy development
- Health practice

Example: PA guideline development



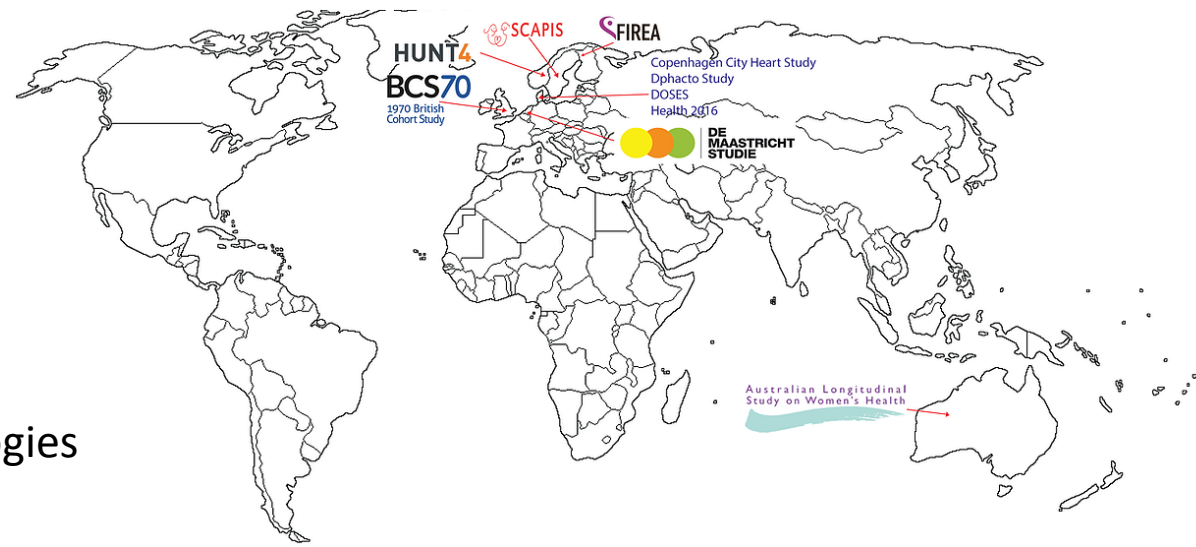
Traditional funders

Government
Charities
Research Councils

4) Expansion and Innovation

Expansion, with focus on areas that:

- Are currently underrepresented
- Have unique geographies and behavioural or disease aetiologies



How?

ProPASS conference, ProPASS Journal

- Innovation in data collection, linkage and sharing
- Important PA outputs from prospective cohort studies
- Raise profile of consortium and allow identification of potential collaborators
- Competitions focussing on innovation in methodology - rewarded with ProPASS doctoral scholarships supporting innovation in longitudinal research - which benefits the consortium



My potential contribution

Contribution to or leadership of aspects of:

- Development of accelerometry protocols/behavioural metrics to understand links between PA and health outcomes
- Consortium expansion
- Efforts towards attraction of funding





Thank you!