# It's About Time!

Conflicts in temporal management across the collaborative innovation development chain in Water Utilities.

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SUMS & TWENTY65

# It's About Time!

* Background
* Our interview data
* What our data tells us about what different Stakeholders mean by ***"time"***
* What the published research tells us we might be able ***to do reduce*** the the ***challenges*** of different kinds of *"time"* to ***increase the success of innovation***
* ***Questions***

# It's About Time! Background

* All innovation in Water Utility Sector (WUS) is collaborative– R&D very largely out-sourced, as you know.
* History - Latham 1994: 'Constructing the Team'; Egan 1998: 'Rethinking Construction' – both trying to make for productive civil engineering and construction
* Further chemical and biological science solutions and the need for consumer co-operation
* Default: different stakeholders must work together
* But ***time*** could have a different meaning for each stakeholder group

# It's About Time!
# Our interview data

* Thematic Analysis of the transcribed interviews from the 4 kinds of stakeholders (plus comments from 2 regulators) produced "perceived risk" factors
* 'Time' is a "perceived risk" – it can threaten project success
* No surprise:
* Porter & Birdi's (2018) systematic review, data presented last year found "***adequate time to plan and execute actions***" as a factor in success or failure of innovation, from testing to implementation

# It's About Time!
# Broad Themes

* Higher Order Classification
  * Management & Regulatory issues and time: Cycles and Money
  * Organizational issues and time - what collaboration does
  * Science – Engineering R&D Time
  * Psychological issues and time - How we think about time

# It's About Time!

* The time concerns of **one stakeholder group only** – the others need to know about:
* ***Academics*** are aware that ***seasonal pitches matter***, although salience of challenge means that a solution is far off – talk about preventing leaks in winter, and problems of drought in summer…
* ***Water companies*** know that they ***can lack memory*** – innovations can be accepted, bought, and then forgotten about.
* ***Supply chains*** really challenged by ***working to cost and to time***, and cash flow (***agile*** does not mean ***'rich'***)

# It's About Time! Everyone's concerns

* Time horizons: ***when things can be done by***, short term vs. long term benefit, and when a project ***has to be completed by***, factors important to ***all stakeholder groups***.
* ***All Stakeholders groups*** are aware of the pressures of money and time, both in ***not over spending***, and on ***time to return on investment*** (business models)
* ***All Stakeholder groups*** are concerned about ***decision time lags,*** whether it is water companies to supply chains, regulators to anyone, or academics wanting quick decisions for companies to agree to support research applications…(driven by funding agencies' deadlines)…

# It's About Time! Everyone's concerns

* The issue of ***how long science and engineering research takes*** to do, and ***imposed time cycle(s)*** is recognised by all stakeholder groups.
  * It is linked with the need for adequate testing time
* ***Long term Relationships - all stakeholder groups*** know that without these nothing much gets done.
  * This means on-going relationships, not just with individuals but with organizations.

# It's About Time!

* Different ***organizational time frame*** versus ***cooperative time frames***
  * These show the different expectations of different role holders in different stakeholder groups
    * Project Managers may see projects very differently from Innovation Teams, Researchers or Supply Chain – we need to find out if this is the case
* The ***"University Year"***, the ***university time cycles***, and ***business time cycles***

# It's About Time!
# University Time Cycles

* For Academics, Water Co, and Supply Chains, the ***academic cycle***, both year, and post graduate, plus ***university agility***, because of its dual role:
  * Education and research
    * This leads to problems with speed of appointment of specialist researchers
    * Uneven time commitment to projects with permanent university staff involvement
    * Emergent factor: MSc projects covering only Spring and Summer months (not Autumn and Winter)

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# *Adequate (funded) time for testing*

* ***Trade Bodies***, the ***Academics***, and the ***Supply Chain*** Stakeholder Groups – ***Adequate (funded) time for testing***
* ***Academics*** recognise that some ***SMEs*** just don't have the resources to KEEP testing, both ***Trade Bodies*** and the ***Supply Chain*** themselves mention this issue.
* Even initial field testing can cause some SME ***to not enter*** the WUS, because of time to test, and uncertain outcome, ***Trade Bodies*** and other ***SME Stakeholders*** say

# It's About Time!
# *Nature of the AMP Cycle*

* ***Trade Bodies***, the ***Academics***, and the ***Supply Chain***

All mention challenges with the ***nature of the AMP Cycle.***

* It hits ***planning***: causing peaks and troughs
* ***Financing***
* ***Adequate resourcing of skills and knowledge*** – everyone is using the same talent pool to innovate with at the same time
* Communications and interest for ***future innovations not captured*** by business plans or company targets, may get lost as they do not 'fit'
  * Trade Bodies do catch these innovations sometimes

# It's About Time!
# What can we do about it?

* ***Amalgamate*** & ***share data*** on what works under what conditions into documents and tables, and have agreed standards and methods (WIMES) for ***more*** treatments, products and processes (Zakkour et al 2002;
* Discover how much Intellectual Property Rights ***really aid*** innovation to implementation and commercialization for WUS (Hall et al 2013)
* Plan better ***win-win relationships***…

# It's About Time!
# Plan better win-win relationships…

* ***University Cycle***
  * ***Academics*** think in ***academic years***, and in ***degree durations*** (Banal-Estañol et al 2015)
  * Collaborative innovation with all partners requires a different cycle to suit both ***short tem*** and ***long term*** plans
  * MSc projects fall from March-September for f/t courses: where are the autumn/winter projects?
  * Doctorates across 3-4 years

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# Plan better win-win relationships…

* Make university ***awards*** fit with more of the skills needed ***outside*** academia as well as within:
  * Use EU style '***Work packages***' more
    * Smaller, practical products (reports, prototypes, programs) – these both ***make real time output clearer***, and help to hone ***work habits*** for the wider world.
  * This gives ***more rapid feedback*** for both sides, and helps ***industry operatives*** see the reality of ***time*** to complete projects ***within research***, as opposed to managing other types of project (Pagilla, 2007; WSEC-LIFT 2017)

# It's About Time!
# Plan better win-win relationships…

* Be ***clear*** about what each ***stakeholder gets*** from a project
* Be ***clear*** about ***who*** will do ***what*** to an ***agreed date; recognize***, and ***learn*** from, ***slippages***
* Create ***communication structures*** which ***out-live*** their incumbents: make **structural relationships** if there ***can't be personal*** ones (make keeping relationships part of KPI). (Chatenier et al 2010)

# It's About Time!
# Develop for Open Innovation

* Working ***together to innovate*** requires certain ***competencies*** which can shorten process time

* Coach people to employ ***integrative (win–win)*** negotiation strategies not distributive (win–lose) strategies, agree, to disagree (lose–lose) where necessary (Chatenier et al 2010)

# It's About Time!
# Develop for Open Innovation

* Consider ***common goal(s)*** as most important,
* This requires ***knowing*** each others' ***intermediate and strategic goals***, only possible if team diversity is present (Bogers, Foss, & Lyngsie, 2018)
* ***working together*** essential to form timetable to facilitate… ***everyone***
* (including the Finance Officer)

# It's About Time!
# Really Radical Suggestions

* ***Not have AMP cycles in alignment for all Water Co***
  * – 'fighting' over the same service providers in a challenged market
  * ***Sectorial skills shortage*** – addressed by more technical ***apprenticeships***, but this is lagged (Engineering UK 2018)
  * ***Skills void*** – ***up-skill current*** water staff, they ***understand*** WUS.

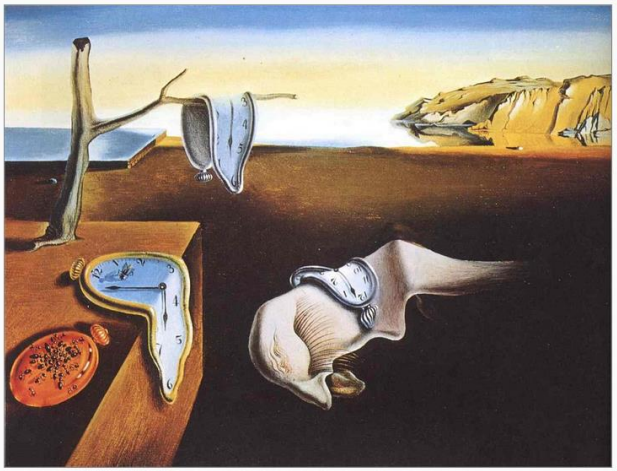
# It's About Time!
# Really Radical Suggestions

* ***Lobby Government for Innovation Lending Bank***
  * ***'Water Investment Bank'***– to support ***smaller SME*** with testing cycle (Lee et al 2013; Geddes et al 2018) – with innovation payback, **loans returned** with ***interest***
  * This would ***support Ofwat*** goals of increasing real, new ***innovation***, not just incremental change, and when successful, return funds to the fund, ***for more innovation***, not just the water company and its *shareholders.*

# It's About Time!

* My impressions of how 'time' affects what happens within collaborative innovation felt like this Dali painting

Persistence of Memory, 1931 by Salvador Dali



Courtesy of www.dalipaintings.com

# It's About Time! Summary

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# *Thank you*

* Questions…

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