# Introduction (E-Viz &) TEDDINET

*Plymouth, 10 September 2015*

Dan van der Horst

University of Edinburgh

[www.teddinet.org](http://www.teddinet.org)

# Why the E-Viz project is important

- The 'invisibility' of energy is one of the key problems in managing energy use.
- Feedback is essential to better understand one's energy use (measure <-> manage).
- How do we help ourselves and others to move from understanding to 'good' action? What kind of feedback helps people to reduce energy wastage?
- Need to experiment, with people & technology
- Need to share the lessons learned

# Background processes

- Smart meters are coming in any case (better through  government policy) – along with other smart technologies and associated ICT.

- Smart meters are neither landmines (inherently bad) nor penicillin (inherently good)

- Multiple rationales for smart metering, but which ones 'drive' the deployment?

# Who benefits

- Depends on national context (e.g. level of electricity theft; level of renewables; level of privatisation)
- Depends on technical & policy context (e.g. peak demand for AC; or need to integrate lots of RE)
- Depends on how much of the industry savings are passed on to consumers (regulator's role; other policies paid by consumers through their bills)
- Depends on role & views of households and their potential motivations for action
- Original optimism about 'consumer benefits' (up to 15%, or even 20%), but…

# Fall back, rebound, spill-over (etc)

Concerns about (current) IHD feedback from energy smart meters:

1. 'Interest-deficit' (rather than 'information-deficit') for those not using their IHD (Wallenborn et al 2011; Pierce et al 2010a, 2010b).

2. Information provided by IHDs is confusing and difficult to understand or relate to people's everyday energy use (Van Dam et al 2012).

3. Interested & informed people often feel unable to act without compromising wellbeing (Hargreaves et al 2010; Buchanan et al 2014)

4. 'fallback' effect; initial effects of feedback from IHDs can drop off over time (Hargreaves et al 2010; Wilhite and Ling 1995).

5. Narrow focus on saving money (rather than energy or the environment) reduces the likelihood of 'behavioral spillovers' (Buchanan et al 2014) & increases the risk of 'rebound'.

6. Feedback from IHDs may legitimise the bulk of energy demand as natural, normal, necessary or 'good' (Strengers 2009; Hargreaves et al 2013).

# Challenges ahead

- In the UK (and neighbours), smart metering is linked both to demand reduction and to renewable energy integration (climate policy; env. sustainability; broad public support in principle)

- If we want to have social/societal benefits from smart metering, then we need citizens to engage with this deployment (and vice versa). There is a key role for universities to facilitate that.

- A big (t)ask, requires knowledge & skills sharing, collaboration beyond the boundaries of projects, universities, states…

# Transforming Energy Demand Through Digital Innovation *network* (TEDDINET)

**Aims** (in short):

- To enhance collaboration between research projects
- To help achieve more external 'impact'

**Resources** (in short):

- Website, email bulletin, newsletter, publications
- Money for meetings (+ acad & logistical support)
- Flexible options incl. commissioning reports, co-sponsor placements?

**Team** (in short):

- Post-docs: Sam Staddon (Network Coordinator) & Tom Kane
- Principal investigators: Dan van der Horst & Steven Firth

www.teddinet.org

# (indication of) future activities

- Network communications (website, email bulletin, newsletter + more)
- Thematic workshops:
- Special journal issues (and/or books)
- Annual meetings & engagement with industry
- High level themes
- Commissioned reports/outputs
- EERA smart cities representation

Project timelines - TEDDI, BuildTEDDI and TEDDINET: (Opportunities to pass on the lessons learned).
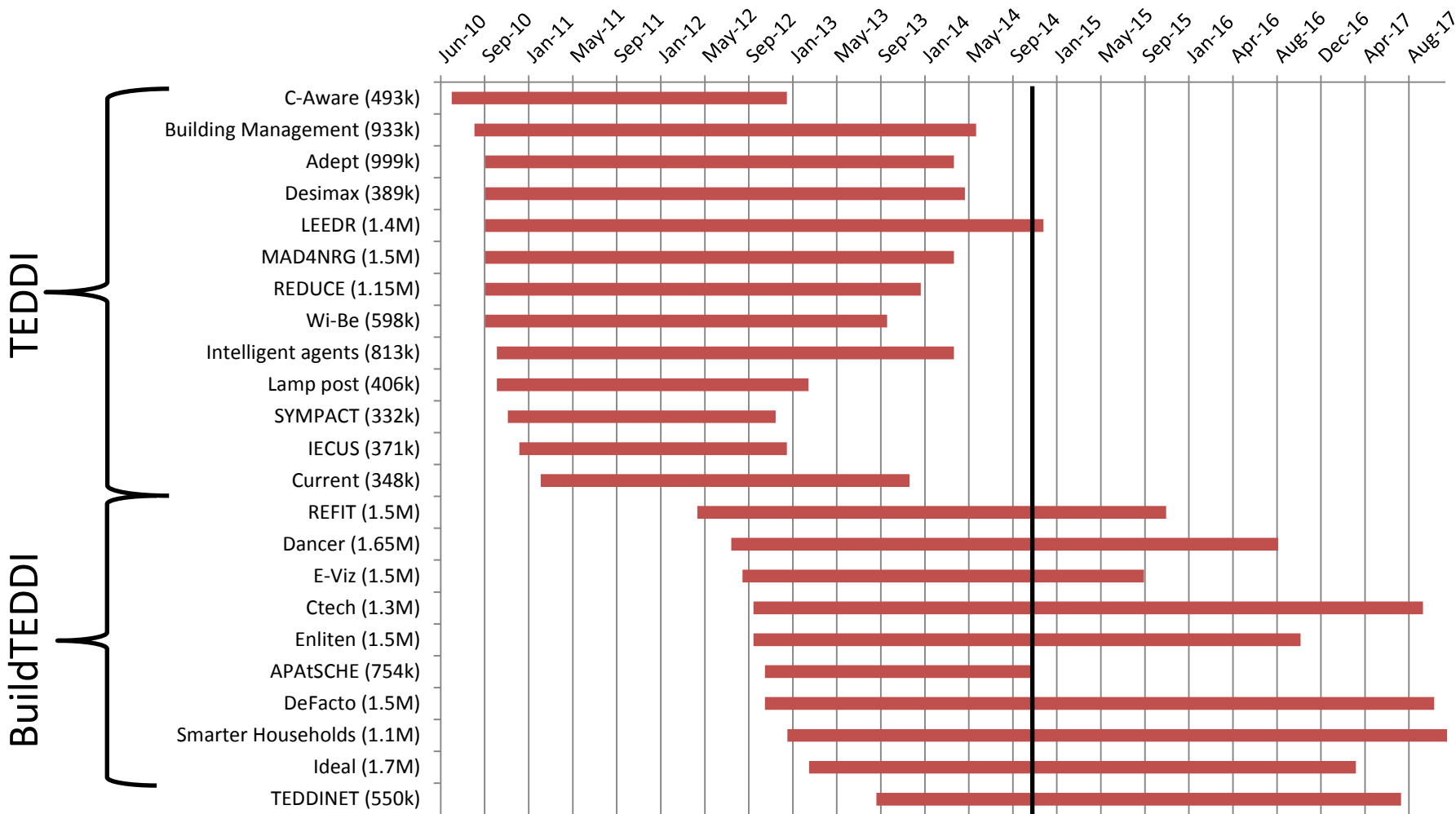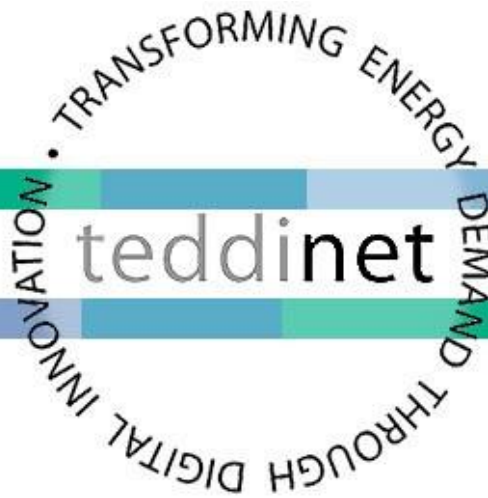
TEDDINET 4 U;

ideas & suggestions always very welcome!

sign up for our **newsletter** &
to **share your news and work** with others
[www.teddinet.org](http://www.teddinet.org)