Sustainability & IT

Funding organisations and calls

Mike Hazas, 2022-05-31

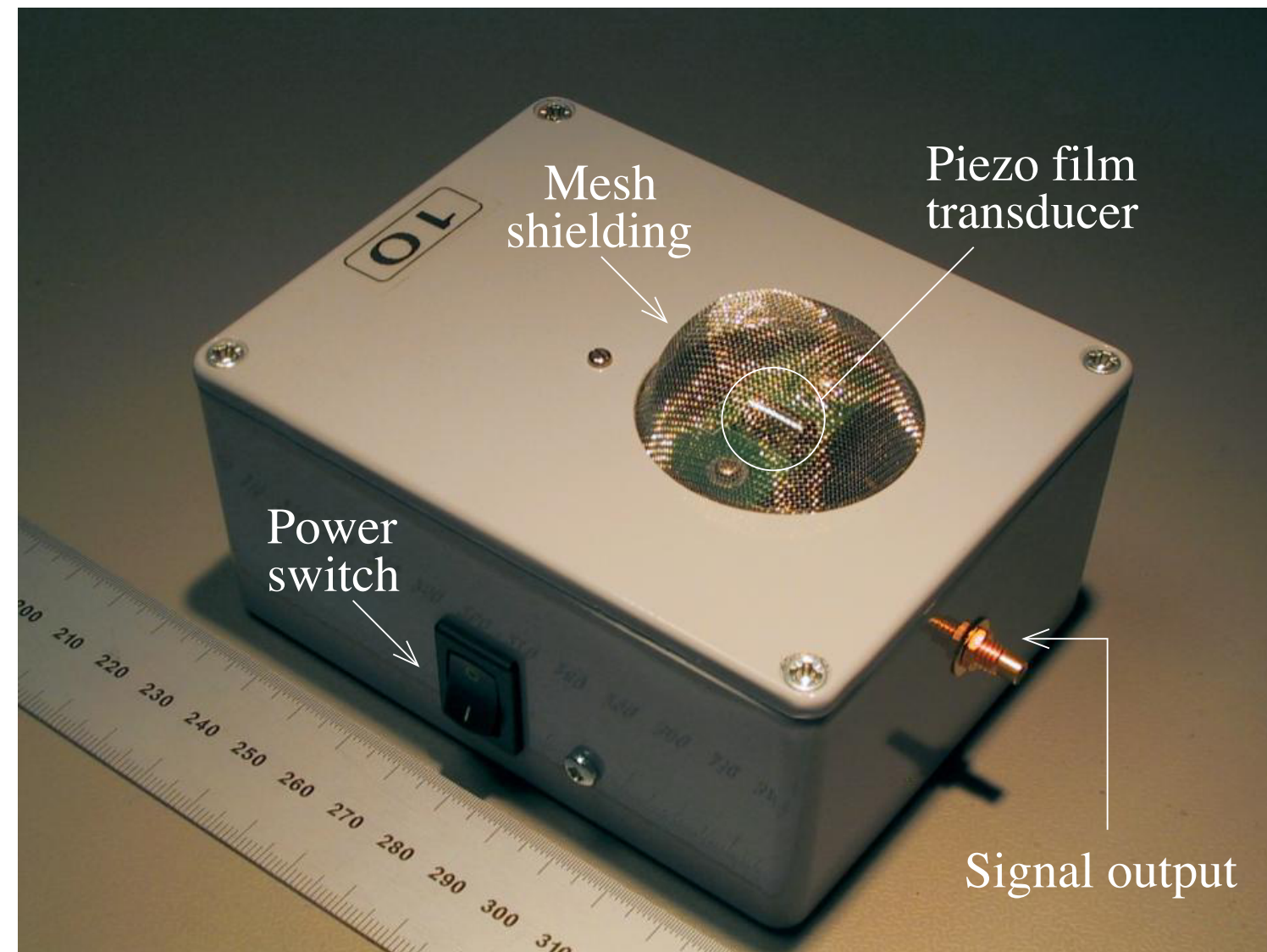# Outline

- about me and my research interests

- funding schemes and calls
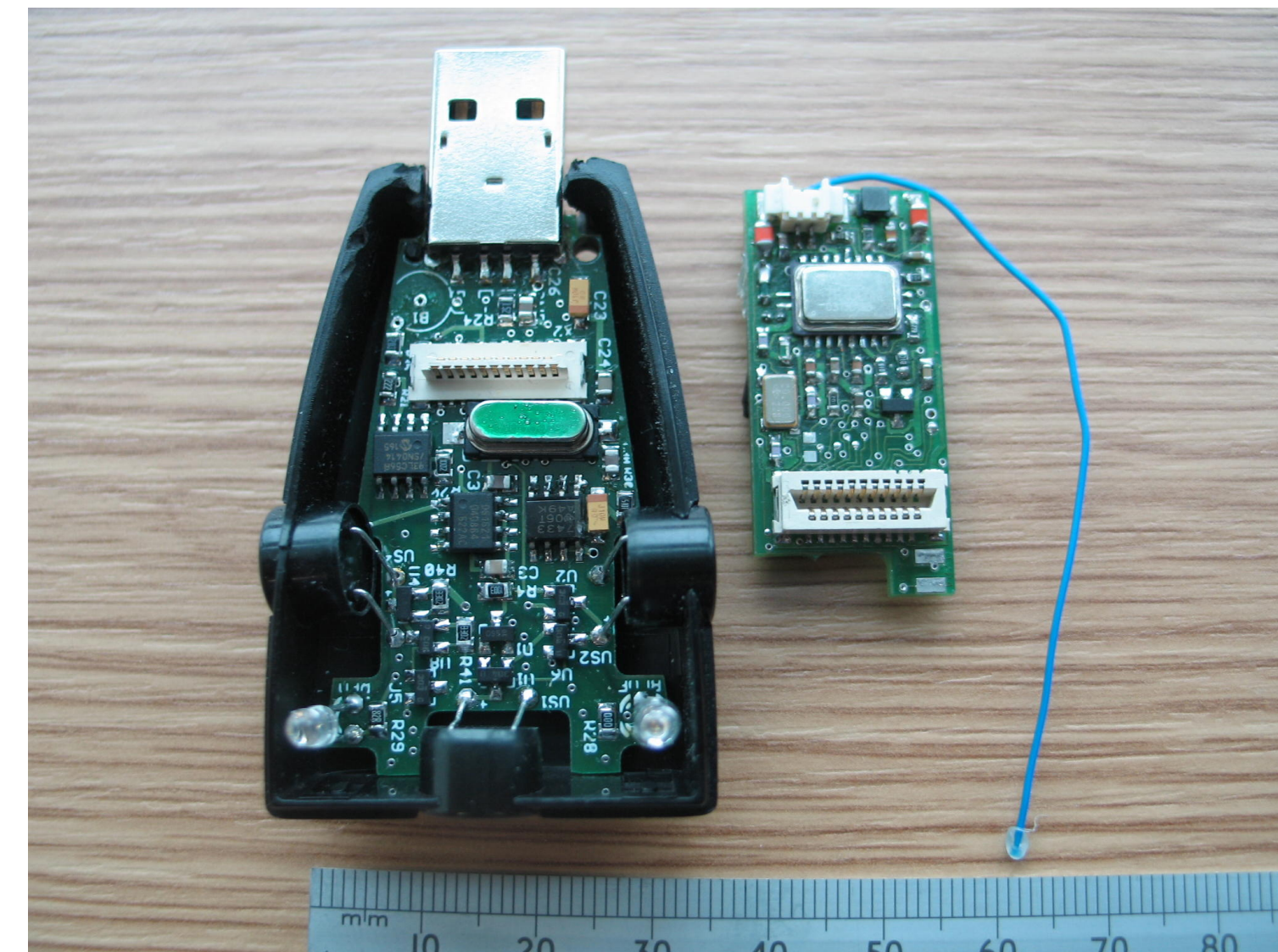
Academic background

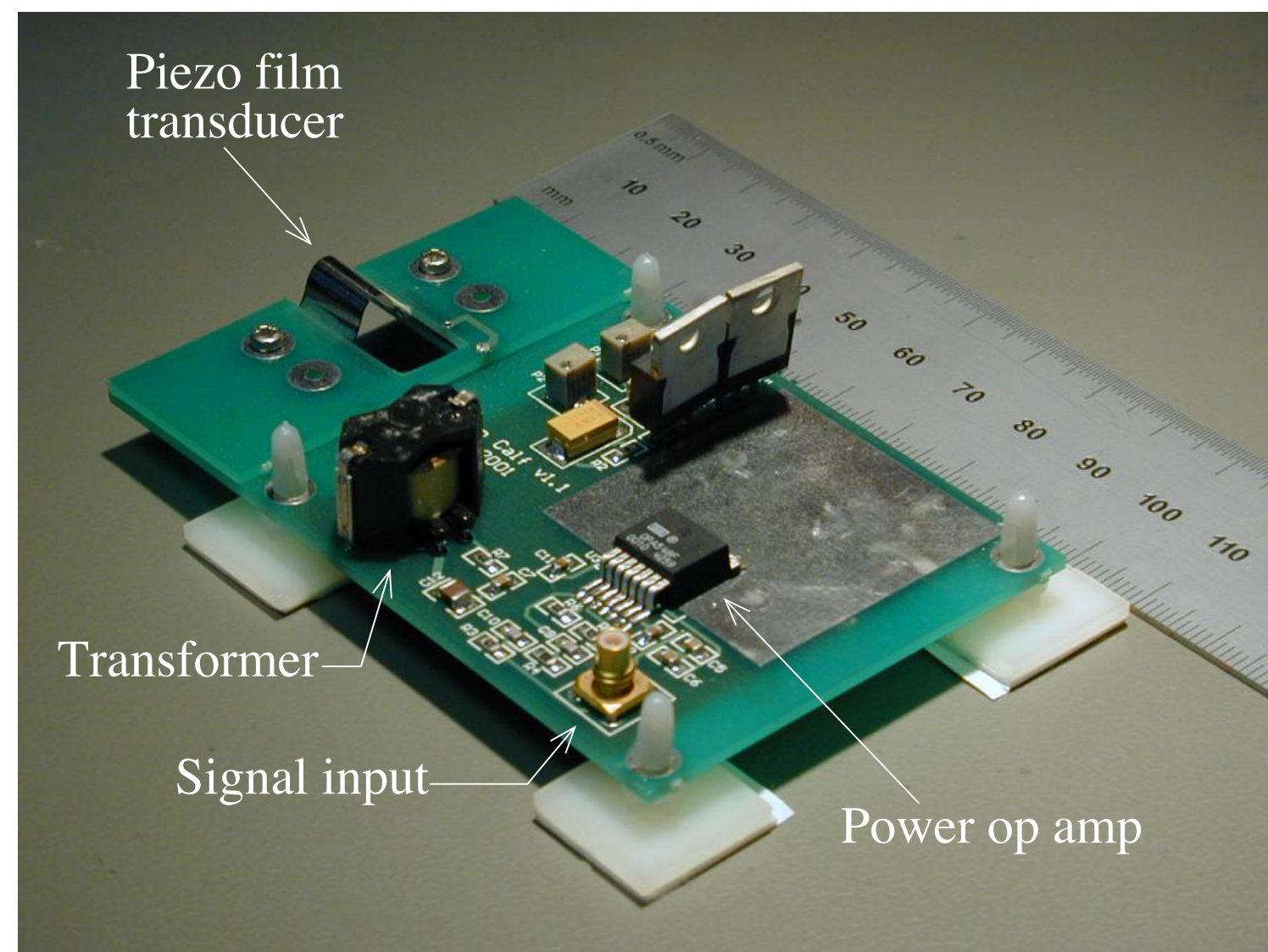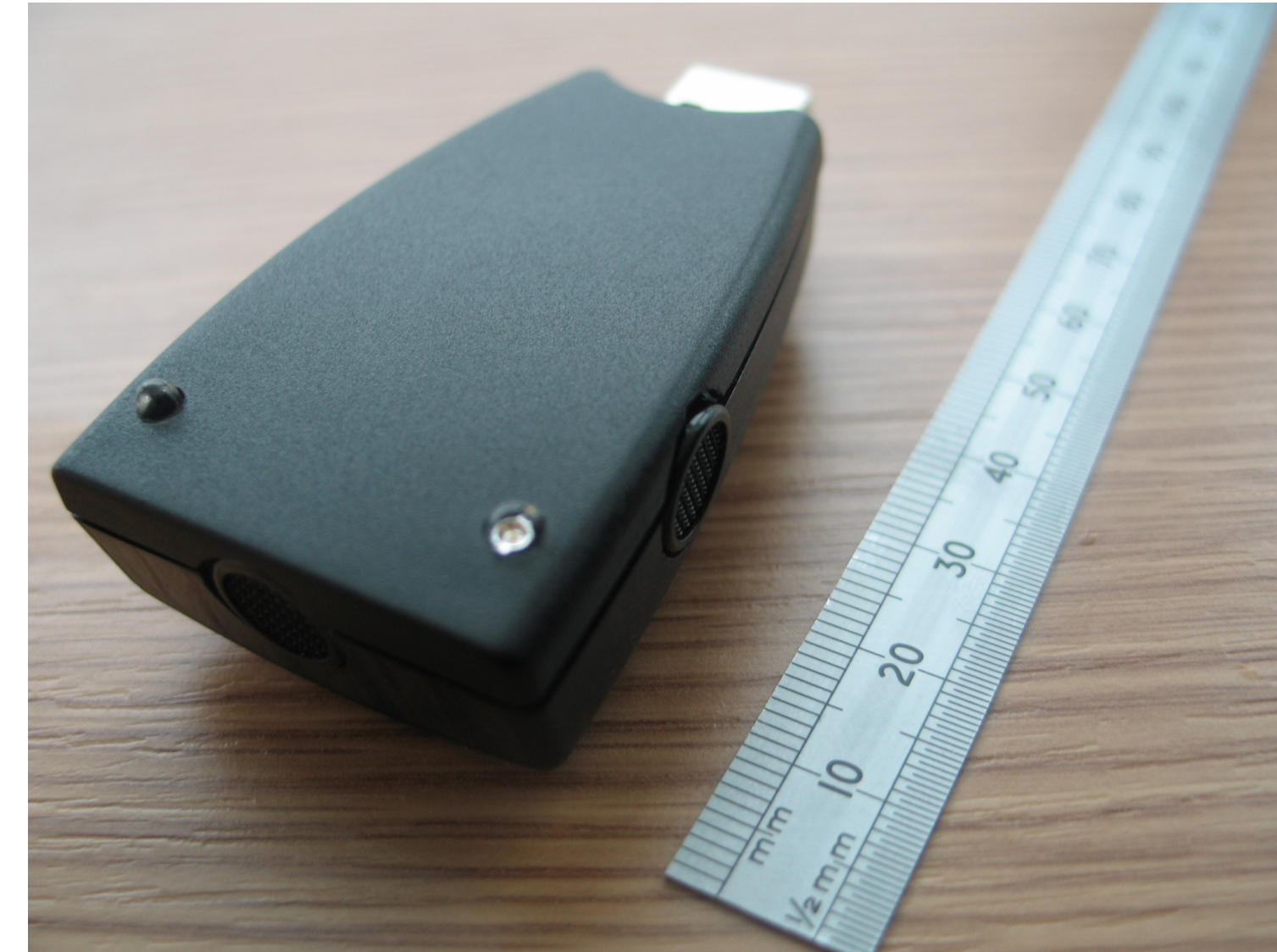|		
1998	BSc Electrical Engineering, w/ Comp. Sci. minor	Rose-Hulman Inst. of Technology (Indiana, USA)
1999	MPhil Signal Processing	Engineering Dept Cambridge
2002	PhD Mobile Computing	Computer Laboratory Cambridge

Broadband ultrasonic positioning

Relative positioning (minimal infrastructure)

Mesh shielding

Piezo film transducer

OL

Power switch

Signal output

Piezo film transducer

Transformer

Signal input

Power op amp

4

Academic background

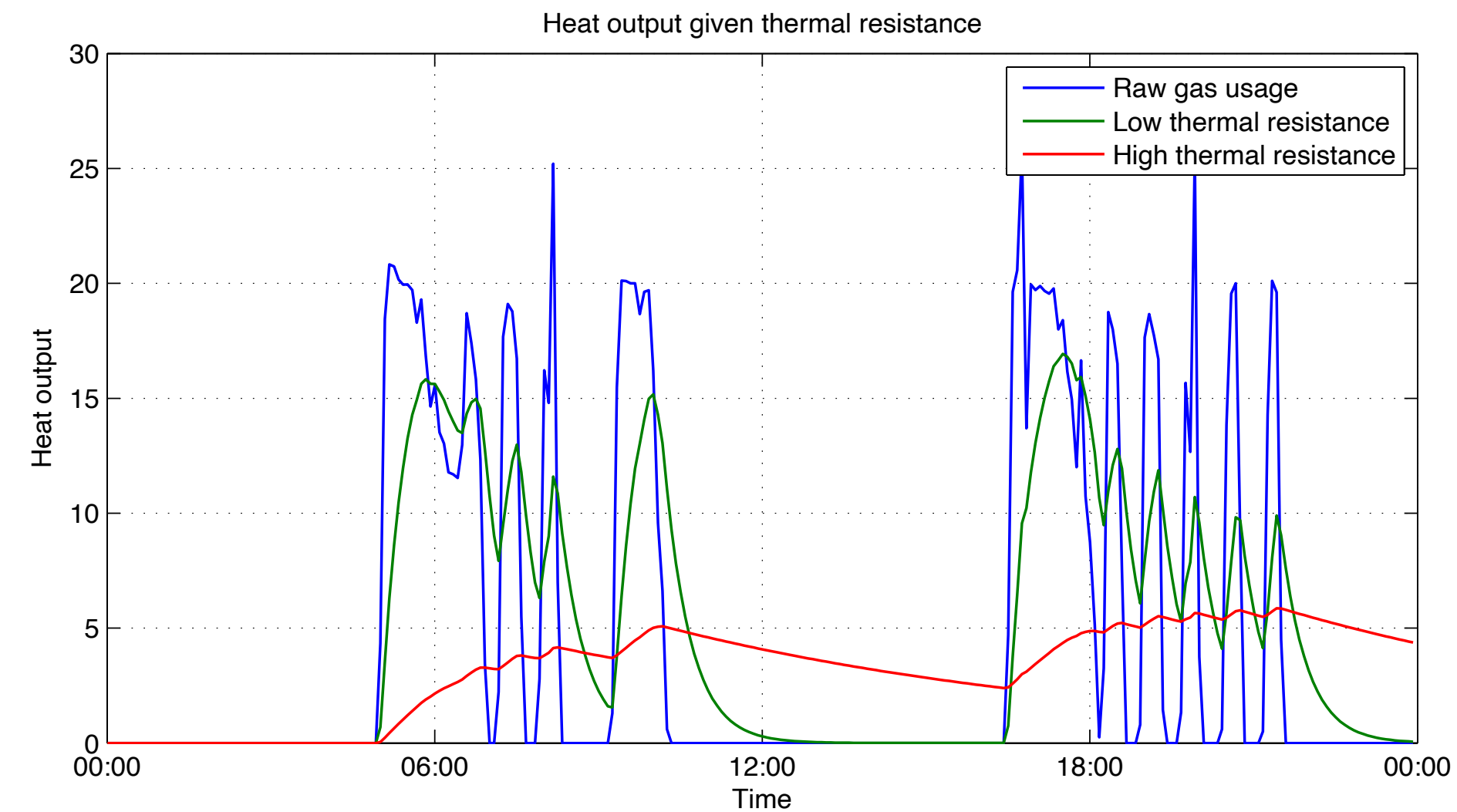|		
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2002	PhD Mobile Computing	Computer Laboratory Cambridge
2008	BA Sociology	Lancaster University

Thermal comfort

Heat output given thermal resistance

- modelling of room-level parameters for prediction and control

- heating intervention to engage inhabitants in personal adaptation
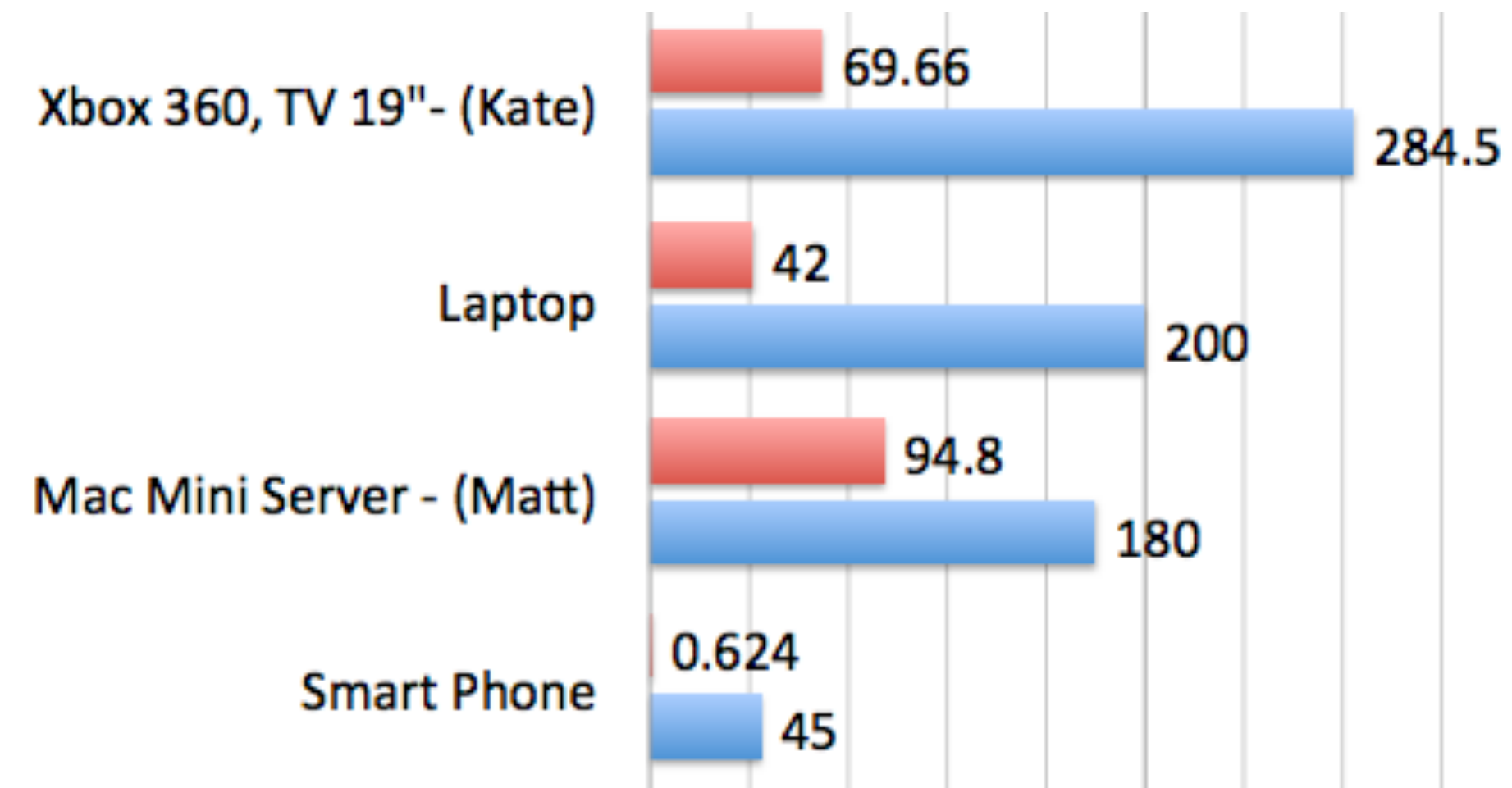

smart radiator valve

6

Home energy and peak shifting

- renewable energy forecast, time-shifting practices

Impacts of ICT

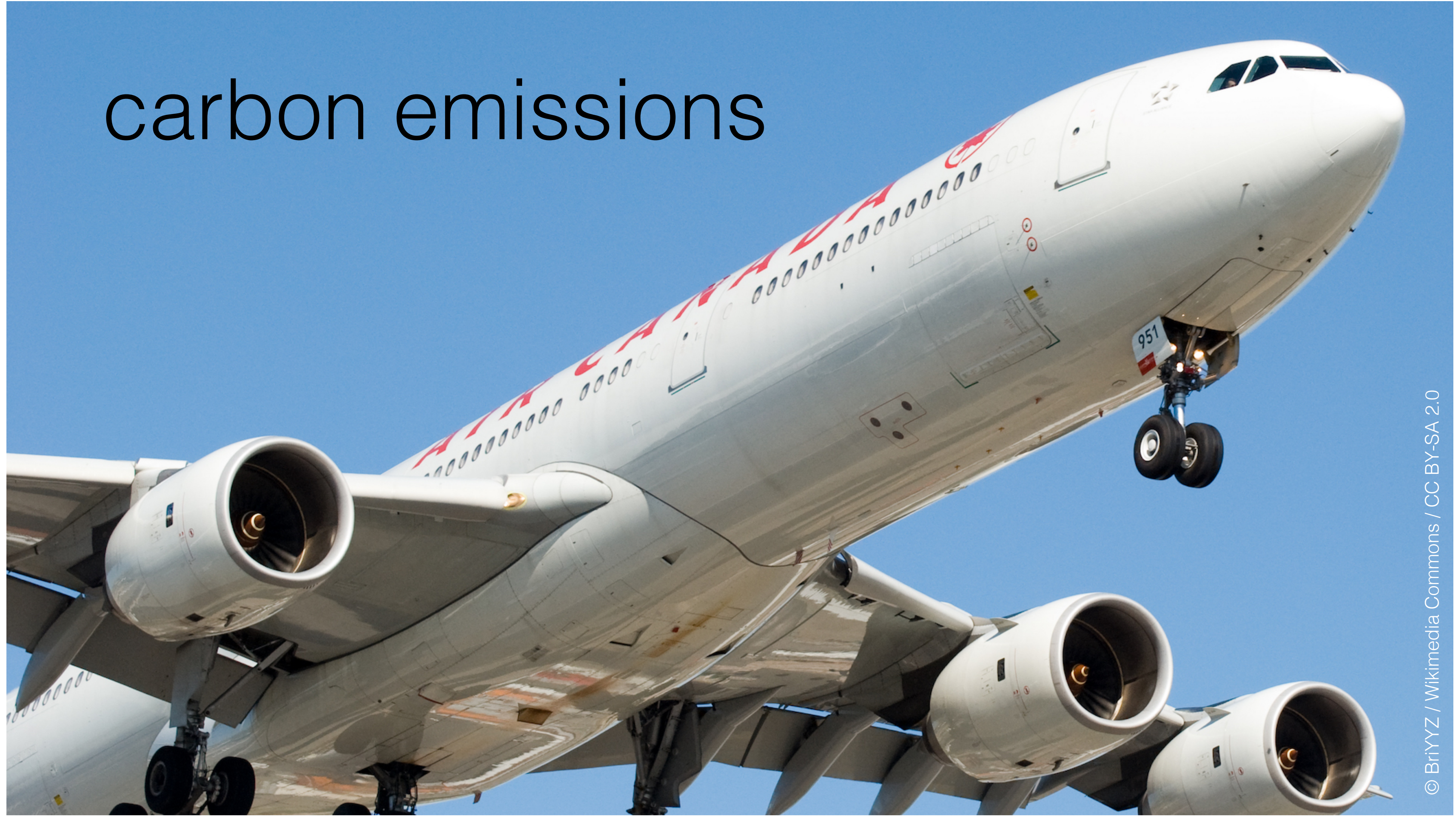- home ICT: mains vs. manufacturing

- HCI and environmental public policy, a case study

one tenth
of global electricity

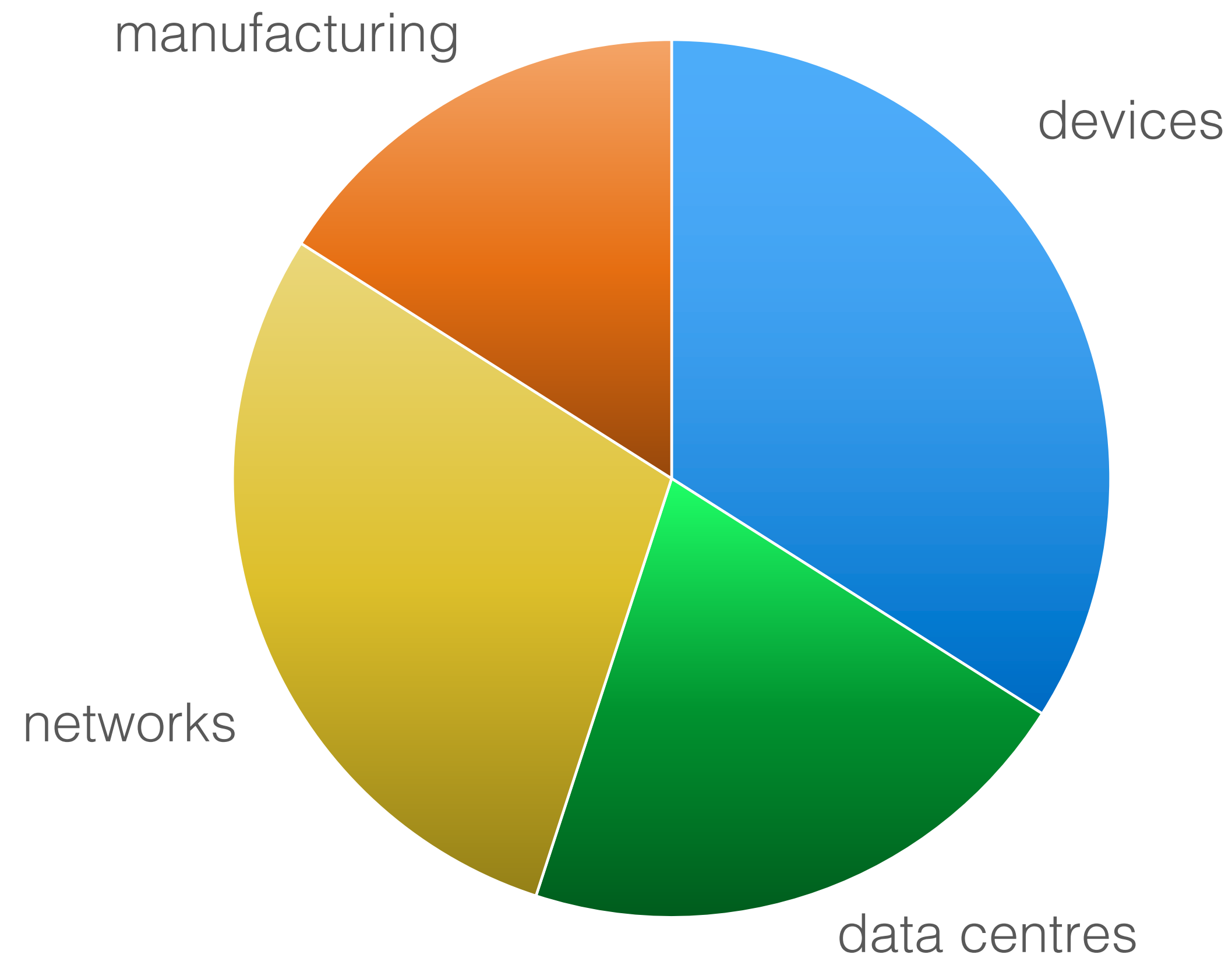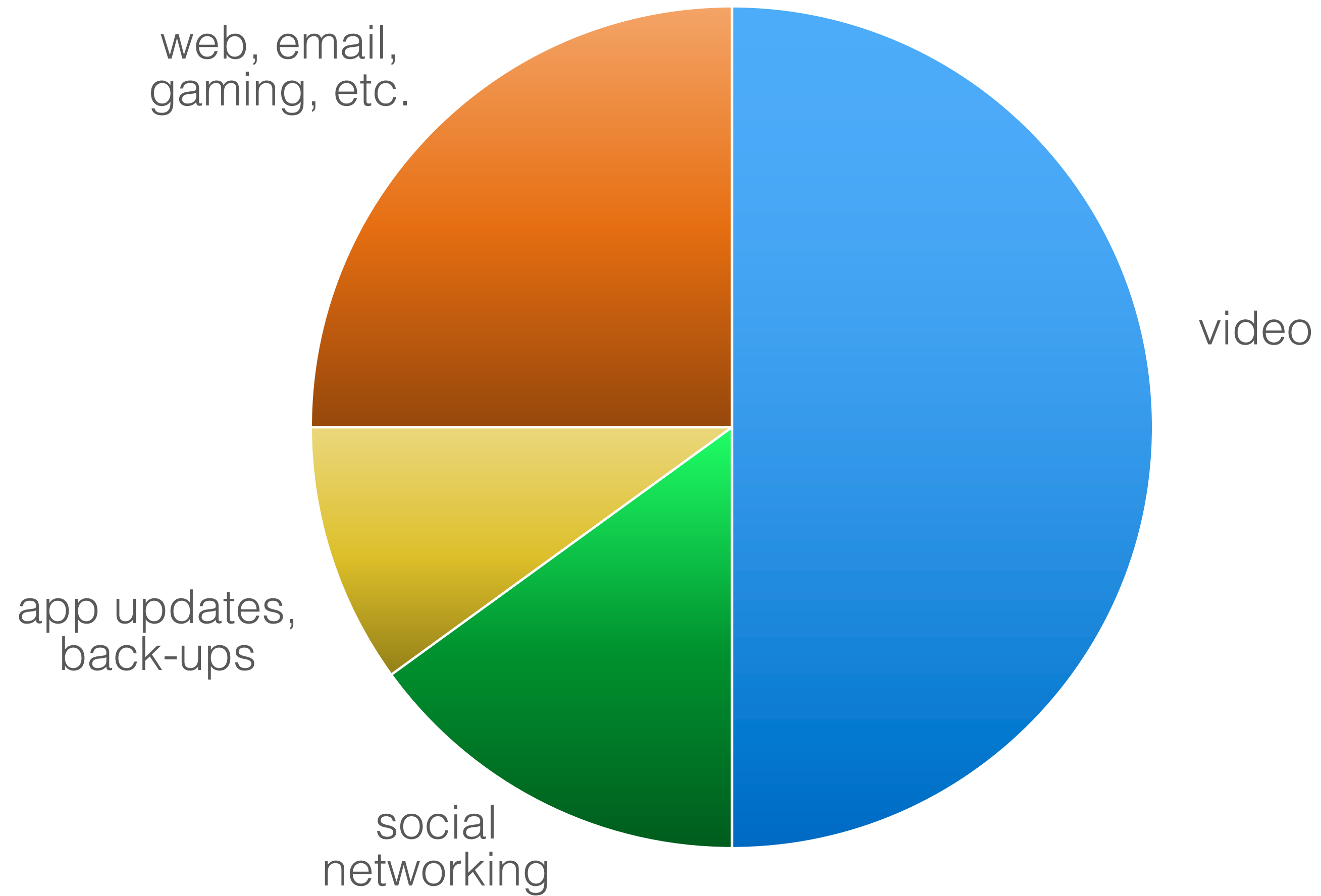carbon emissions

What does the energy go into?

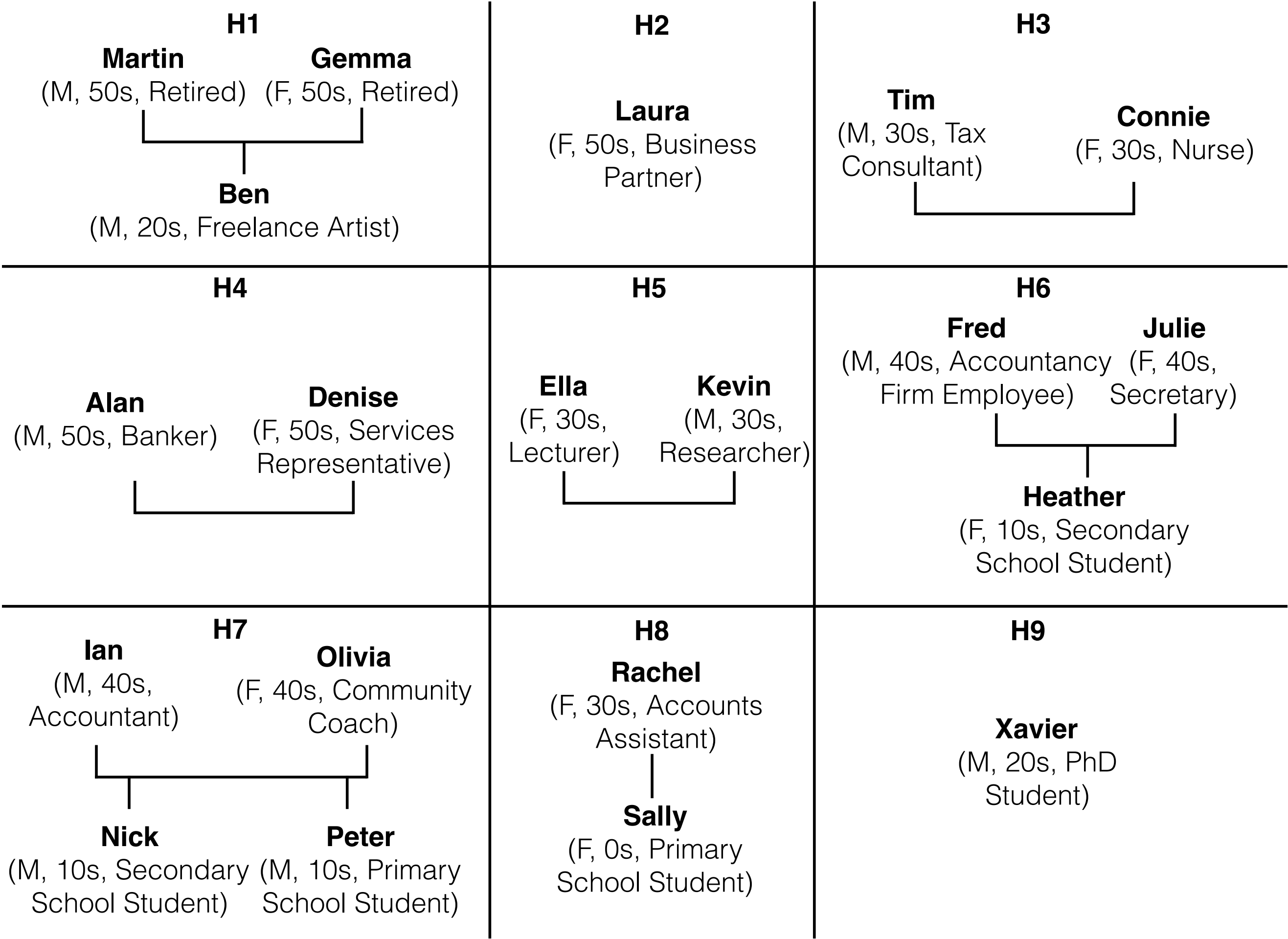# What is the Internet *for?*

web, email, gaming, etc.

video

app updates, back-ups

social networking

But to find out what the Internet is *for*, we need more detail about what happens in homes.

20 participants across 9 households

H1
Martin
(M, 50s, Retired)   **Gemma**
(F, 50s, Retired)

Ben
(M, 20s, Freelance Artist)

H2
Laura
(F, 50s, Business Partner)

H3
Tim
(M, 30s, Tax Consultant)   **Connie**
(F, 30s, Nurse)

H4
Alan
(M, 50s, Banker)   **Denise**
(F, 50s, Services Representative)

H5
Ella
(F, 30s, Lecturer)   **Kevin**
(M, 30s, Researcher)

H6
Fred
(M, 40s, Accountancy Firm Employee)   **Julie**
(F, 40s, Secretary)

Heather
(F, 10s, Secondary School Student)

H7
Ian
(M, 40s, Accountant)   **Olivia**
(F, 40s, Community Coach)

Nick
(M, 10s, Secondary School Student)   **Peter**
(M, 10s, Primary School Student)

H8
Rachel
(F, 30s, Accounts Assistant)
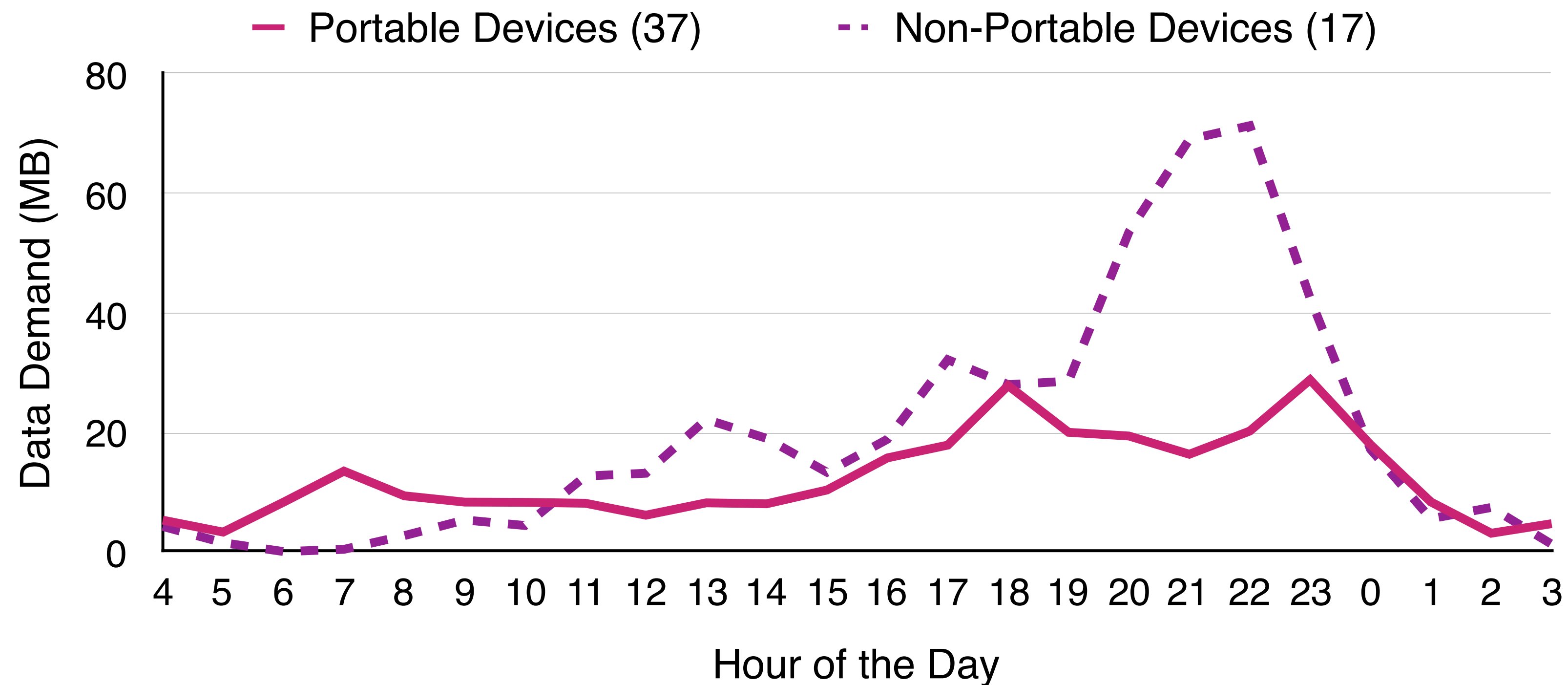
Sally
(F, 0s, Primary School Student)

H9
Xavier
(M, 20s, PhD Student)

Jun 2017-Jan 2018, UK

4. Devices enable new watching possibilities

[The new ways of watching]

Funding schemes and calls

VR

- special calls, e.g. "Research on social consequences of digitalization" (last week)

- choosing the subject area (corresponding to a specific discipline and reviewers) could make it difficult

Formas

- Formas Open and Formas Early Career, April (yearly)

- and the recently closed call for PhD schools

- tend to be more empirical, or have an on-the-ground element

- must speak to sustainability goals, both

  - Swedish https://www.sverigesmiljomal.se/

  - United Nations https://www.un.org/sustainabledevelopment/sustainable-development-goals

Energimyndigheten

- E2B2

- MESAM

- and others more technically focused

- even more applied than Formas

- need a single strong partner or multiple others

  - MESAM requires at least one signed letter of support

- deadlines move around

Wallenberg

- lots of planning - overheads not fully covered and need letter from vice rektor

- less transparent (and examples harder to find)

- pre-application phase in Jan/Feb (dept then faculty)

- final deadline late March.

- Knut och Alice: covers the IT discipline, but lots of TekNat competition

- Marianne och Marcus: not our discipline, but special emphasis given to sustainable society; and they welcome applications relating to IT. less competition within UU (and not via TekNat)

Mistra

- often for environmental research (life sciences)

- usually much larger amounts (8m SEK or more) meant to build consortia or doctoral training schools

- but worth keeping an eye on (or just ask Mike)

- https://www.mistra.org/

Stiftelsen för Strategisk Forskning

- usually calls for much larger grants and consortia

- https://strategiska.se/

Trafikverket

- the Transport Administration's Research and Innovation Plan has parts which focus on sustainability research:

  - http://trafikverket.diva-portal.org/smash/get/diva2:1629752/FULLTEXT02.pdf

- Descriptions of their previously funded research:

  - http://trafikverket.diva-portal.org/smash/get/diva2:1629764/FULLTEXT02.pdf

various ML/AI calls

- there are lots of these, and some may allow for a sustainability application