

# Ideas to reduce carbon emissions at each stage of the Survey Cycle

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# Background

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# Why am I talking about Carbon Emissions in surveys?

- In 2021 NatCen and the University of Southampton were commissioned by the Welsh Government to review the design of the National Survey for Wales (NSW)
- Up until March 2020 (NSW) was CAPI only
- Post Covid-19 the Welsh Government wanted to revisit the design
- We were asked to review different survey designs against a set of survey quality criteria
- One of the quality criteria was on 'Carbon Emissions'



SOCIAL RESEARCH NUMBER:  
27/2022  
PUBLICATION DATE:  
07/04/2022

Review of options for the National  
Survey for Wales



Mae'r ddogfen yma hefyd ar gael yn Gymraeg.  
This document is also available in Welsh.  
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**What is the survey industry currently doing around carbon emissions?**

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## ‘Track, Report and Reduce’ schemes

Track	Report	Reduce
<ul style="list-style-type: none"><li>• Travel: E.g. Car mileage/ flights</li><li>• Buildings: Electricity/ Gas</li><li>• Resources: E.g. Computer hardware/ office supplies</li><li>• Third party emissions: E.g. servers/ waste disposal</li></ul>	<ul style="list-style-type: none"><li>• Progress reports to management and stakeholders</li><li>• Targets and pledges</li><li>• Voluntary accreditation schemes</li></ul>	<ul style="list-style-type: none"><li>• Reduce travel</li><li>• Conserve electricity</li><li>• Reduce ‘single-use’ office supplies</li><li>• Staff awareness schemes</li><li>• Supplier vetting</li> <li>• Off-setting</li></ul>

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## Organisation level ‘track, report, reduce’ schemes are great... but...

- These schemes are at the ‘organisational-level.’ Solutions are generic i.e. they could apply to any industry.
- Should we be better at thinking about carbon reductions via **survey design**?
- ‘Survey-level tracking’ reporting and reduction schemes do not appear to be in place or if they are not being by practitioners disseminated... yet



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**Opportunities to build awareness and reductions throughout the survey life-cycle**

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# Commissioning and governance

## Survey commissioners

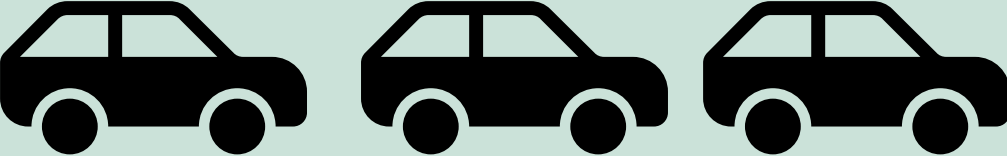
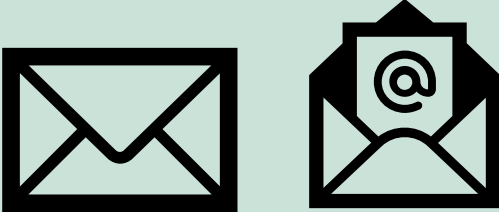
- Are you asking about survey agencies environmental credentials as part of your procurement procedures?
- Are you being made aware of the environmental impacts of your survey design choices? Are you being offered alternatives?
- Are environmental considerations being discussed alongside other quality criteria and restraining factors?
- Are survey level emissions being measured and disseminated alongside other quality indicators?

## Research Governance

- Are environmental impact reviews part of your standard survey assessment procedures?
- Could environmental impact be built into existing review processes e.g. ethics reviews?



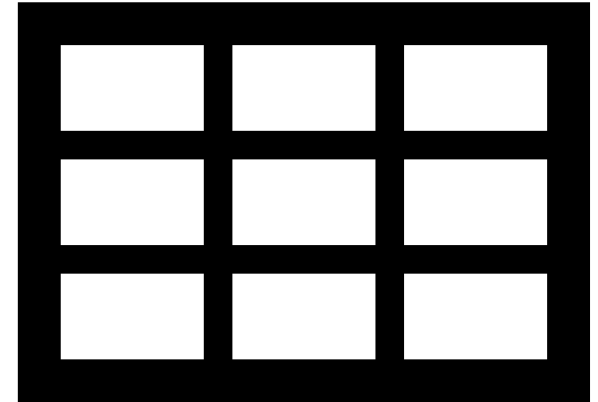
# Survey design: Mode and resources needed per interview

CAPI and Knock-to-nudge only	All modes
<p data-bbox="290 529 1021 576">Approx. 122g CO<sub>2</sub> per km travelled</p> 	<p data-bbox="1365 529 2033 576">Approx. 20-50g CO<sub>2</sub> per mailing</p> <p data-bbox="1409 644 1989 691">Approx. 0.2g CO<sub>2</sub> per email</p> 

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## Sampling and sample management

- Ensure sample contact details are complete and kept up to date as far as possible.
- Have multiple channels for updating contact details
- For CAPI:
  - review strategies for clustering to improve fieldwork efficiency/ reduce mileage
  - Look for ways to minimise volume of deadwood in sampled addresses



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## Respondent communications

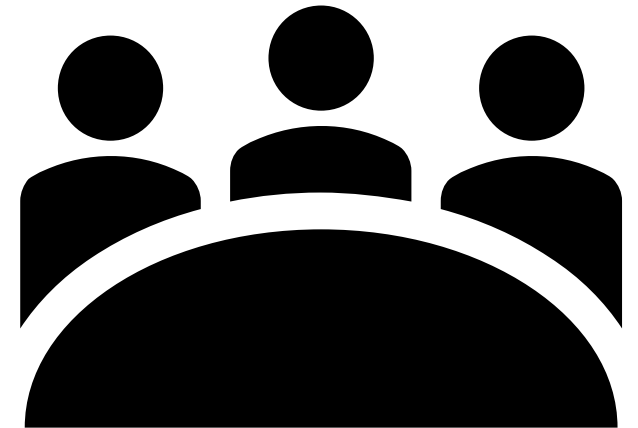
- Reduce the number and length of respondent communications as far as possible.
- Reduce the need for reminders by having timely filters on completed cases.
- Use lighter materials for mailings (e.g. smaller envelopes, lighter paper). Consider monochrome designs over full-colour designs.
- Stringent checking and sign-off procedures to avoid wastage via error.
- Avoid pre-printing approaches where letters are printed in bulk for the whole survey period.



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## Interviewer briefings and debriefings

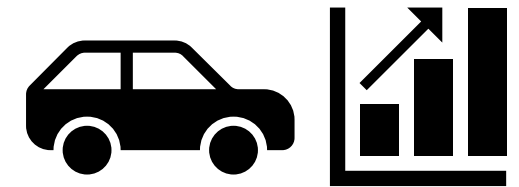
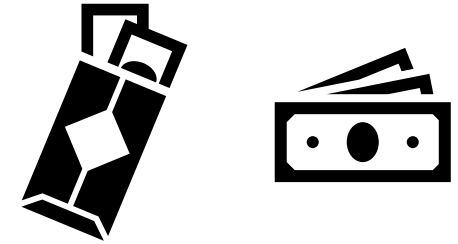
- Virtual briefings save on mileage
- Minimise number of printed materials for interviewers:
  - Instruction booklets
  - Copies of letters and respondent facing information
  - Calling cards
- Quantity control over the volume of supplies provided at briefings
  - Set up systems where interviewers can order extra supplies as needed
- Simplicity begets efficiency



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## Fieldwork

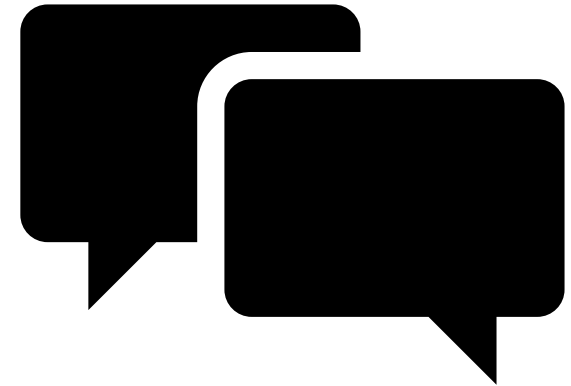
- Different incentives have different carbon footprints
  - e-vouchers have a lower carbon footprint than physical vouchers, gifts have the highest carbon footprint and may end up in land-fill unused.
- For CAPI/ Knock-to-nudge
  - Mileage increases disproportionately towards the end of an assignment, as interviewers make multiple trips to hard-to-contact households with lower success rates. Reissues also have disproportionately high mileage
  - Better data on efficient interviewer allocation and efficient calling patterns could reduce mileage – more work needed in this area



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## Analysis and dissemination

- Could data on emissions be collected as standard and made available alongside other KPIs?
- Could more process data e.g. on trips (number of trip, times of day) and contact attempts become a archived deliverable as standard?
- Findings on successful and unsuccessful carbon reduction schemes, and trade-offs with data quality, should be shared by practitioners



# Thank you

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