

# Does Co-working lead to Energy Savings?

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Bhavana Vaddadi is a PhD researcher with a background in Urban Planning and design with Urban Transport as a major.

In this interview, Bhavana Vaddadi shares some of her thoughts on her most recent publication:

## Towards a conceptual framework of direct and indirect environmental effects of co-working

In order to make ITRL's research more accessible to both industry and the public, we asked a range of questions designed to give an overview of Bhavana's paper and inspire you to learn more.

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### *What is the article about?*

The article is about finding out whether co-working spaces could be energy efficient or not. If a number of employees of a company are working at a co-working space closer to their homes, will that really save energy, both for employees and for the employer? Is there a benefit for the employer to allow this? This was one step towards gaining that knowledge, through using a conceptual framework.

The idea came up when we started working on the co-working hub research in Tulinge. We finished collecting travel diaries and decided that we should do something about it first-hand. We constructed a conceptual framework for assessing the direct and indirect environmental effects of co-working based on existing work by Lorenz Hilty, Bernard Aebischer, Nathaniel Horner, Arman Shehabi, and Ines Azevedo.

After doing that, we collected a three week time-use data from travel diaries to find out how people travel and utilize their time for daily activities. My colleagues on this paper are experts in energy and environmental studies which allowed us to collaborate and understand whether co-working spaces can help aid in energy savings.

### *What are the main results of the research?*

We found that it was really good that we had the coworking space because employees really enjoyed working from there. Based on our interviews, we found that they really wanted to make an effort and work at the coworking hub. In that sense, the

fact that the person wants to travel less is already a positive sign, depending of course on what kind of job they are doing and what position they have. The second thing we found is that energy savings can happen, but they do not happen solely because there is a coworking space. What is important is that we need to push in terms of reducing travel times, push in terms of what kinds of work place furniture that we have, the infrastructure that we are trying to provide and more or less follow some kind of regulations, set up either by the company or head of the coworking space, to follow certain energy saving rules and regulations. It is very important to know that just because you have a coworking space, it doesn't mean you'll get energy savings.

### *How would you say that the research could make a positive impact on society?*

When we carried out interviews with participants, we found that they were showing quite a lot of support for something like this. They are now staying closer to home and saving a lot of time. A lot of people had taken up hobbies as they were saving 2 hours per day. So that is very positive. In terms of vehicle usage, a



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# Interview with an ITRL Researcher

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lot of participants moved to more energy efficient transport modes (although some did not switch). So there were many positive personal well-being impacts.

*What should industry be paying attention to in regards to the article?*

Industry could sit down and alter their rules and regulations. What we have learned from the COVID situation now is that a lot of our work can be done through computers or phone. What we understood from the coworking space was that people enjoy working there, enjoy being close to home, and enjoy the good working environment. It would be great for companies to allow employees to perhaps be in the office on certain days, but on other days work closer to home.

In terms of energy savings, it could be beneficial for companies who could rent less office space and instead have smaller activity-based spaces, depending on when people go in and come out. So you don't need large office infrastructure.

*What are the possible implications of the research?*

In order to get the most out of co-working hubs, there is a big role that companies can play. The main issue is that like MaaS, co-working hubs are privately owned services, that is the business model, so most of the places in the centre of Stockholm are run by businessmen and you don't know who owns what, that is the biggest problem we have seen so far.

The companies whose employees are going to the co-working spaces and working, those are the ones who can regulate the co-working sector slightly right now. And in terms of energy savings, those are the biggest stakeholders right now, if they really want it to happen for their companies and their employees.

An important implication is therefore that employers have the power to help reduce the total travel time to and from work, encourage more sustainable transport modes, and encourage the use of heating equipment in co-working spaces that is more energy efficient. The means that the space the employer provides could be significantly reduced as more employees are working at coworking spaces.

*What further research could this lead to?*

We only had 20 participant diaries for this study, so it wasn't a lot of data. It would be great if others working on this topic could carry it forward and study it in more detail. Another thing that we found was that the work routines had a lot of dependency on which transport mode was used. For example, people going to the office used only public transport or car, whereas the work hub could be walking, or cycling too. But it would be interesting to see what causes the relationships to certain types of transport and how they are linked to where people work. Another interesting element would be to explore how time that is saved from commuting is used by participants, as we didn't explore that in detail. How do people use that two hours? Do they travel more? Could that have more negative effects?

*What is the take-home message of this paper?*

If you want to see any kind of positive impact from new services such as co-working, you cannot just establish it and say that this will lead to positive impacts. Appropriate energy saving strategies are needed in order to reap maximum benefits of the positive impacts of co-working.

You can read Bhavana's full pre-print version of the article [here](#), or feel free to [contact Bhavana](#) for more information.

