

Tackling the Climate Catastrophe Using New Age Technology: Software-as-a-Service

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1 INTRODUCTION

- As more businesses pledge to become carbon neutral or carbon negative by a specified year, there is increased demand for carbon literacy as well as for tools and services to help businesses track their carbon emissions, and take steps to reduce them or purchase offsets.
- In a response to this, numerous Software-as-a-Service (SaaS) businesses have entered the space to address some of these needs and are offering custom sustainability management tools for businesses to help them create a more transparent supply chain and/or to help them build and reduce their carbon footprint.
- Despite standards being in place, such as Sustainability Accounting Standards Board (SASB) and Global Reporting Initiative (GRI), businesses can still omit or inaccurately account for their emissions.
- According to the Boston Consulting Group, over half of the firms studied acknowledged an error rate of up to 40% (Rathi & Roston, 2021). With the world currently on track to warm by 2.7°C by 2100 (Shepherd, 2021), this information is alarming and defeats the objective of developing cleaner business activities through more transparency.

2 OBJECTIVES

- Understand the limitations of building a carbon footprint for a business
- Explore how SaaS tools could help bridge those gaps
- Outline recommendations for businesses looking to become sustainable aided by technology
- Suggest product recommendations for the teams developing SaaS tools to build the most effective tool that fosters taking action

3 METHODOLOGY

Primary data collection was carried out in the form of:

- An **online survey** that was distributed to 5 Small and Medium-Sized Businesses (SMBs) that participated in a 90-day pilot program where they were asked to build their company's carbon footprint using a SaaS tool.
- 6 semi-structured interviews** with experienced sustainability professionals and SaaS business employees and founders. Interviews were conducted over Zoom and transcribed using Otter.ai, then responses were manually coded in Microsoft Excel based on the series of questions that were asked.

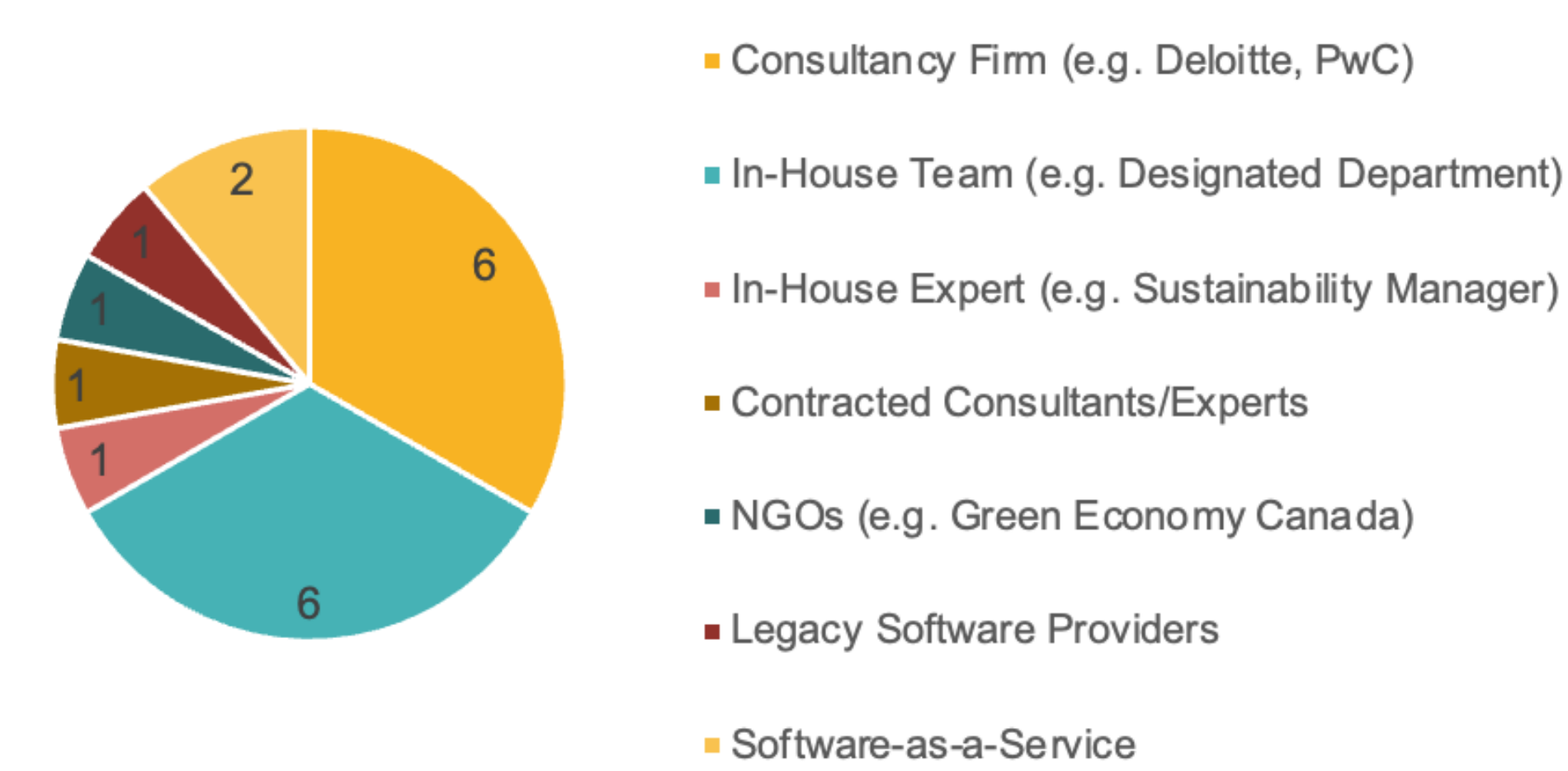
4.1 RESULTS

- 7 responses** from the 5 teams involved in the pilot program
- 4.7/5**: average rating of the overall pilot program
- Positives:**
 - All respondents stated that learning how to develop a carbon footprint and engaging with the experts at the SaaS company were the highlights of their experience.
 - 5 out of 7 respondents said the software was intuitive and easy to use.
 - All respondents felt that the action plan that was produced and shared at the end of the program was helpful, and 6 respondents said they would be sharing their footprints with their customers.
- Improvement suggestions:**
 - Create a simpler process (i.e. calculation components).
 - Need a step-by-step guide for each scope.
- Takeaways:**
 - All teams said they would involve more members to collect data quicker and spend more time on the task internally.
 - 2 respondents described the tool to be simple, but the task felt complex, so they felt intimidated to use the tool without the assistance of the SaaS team.
 - Only 1 company said they would sign up to use the tool while others cited needing time to deliberate on the cost and to get executive buy-in before making the decision.

4.2 RESULTS

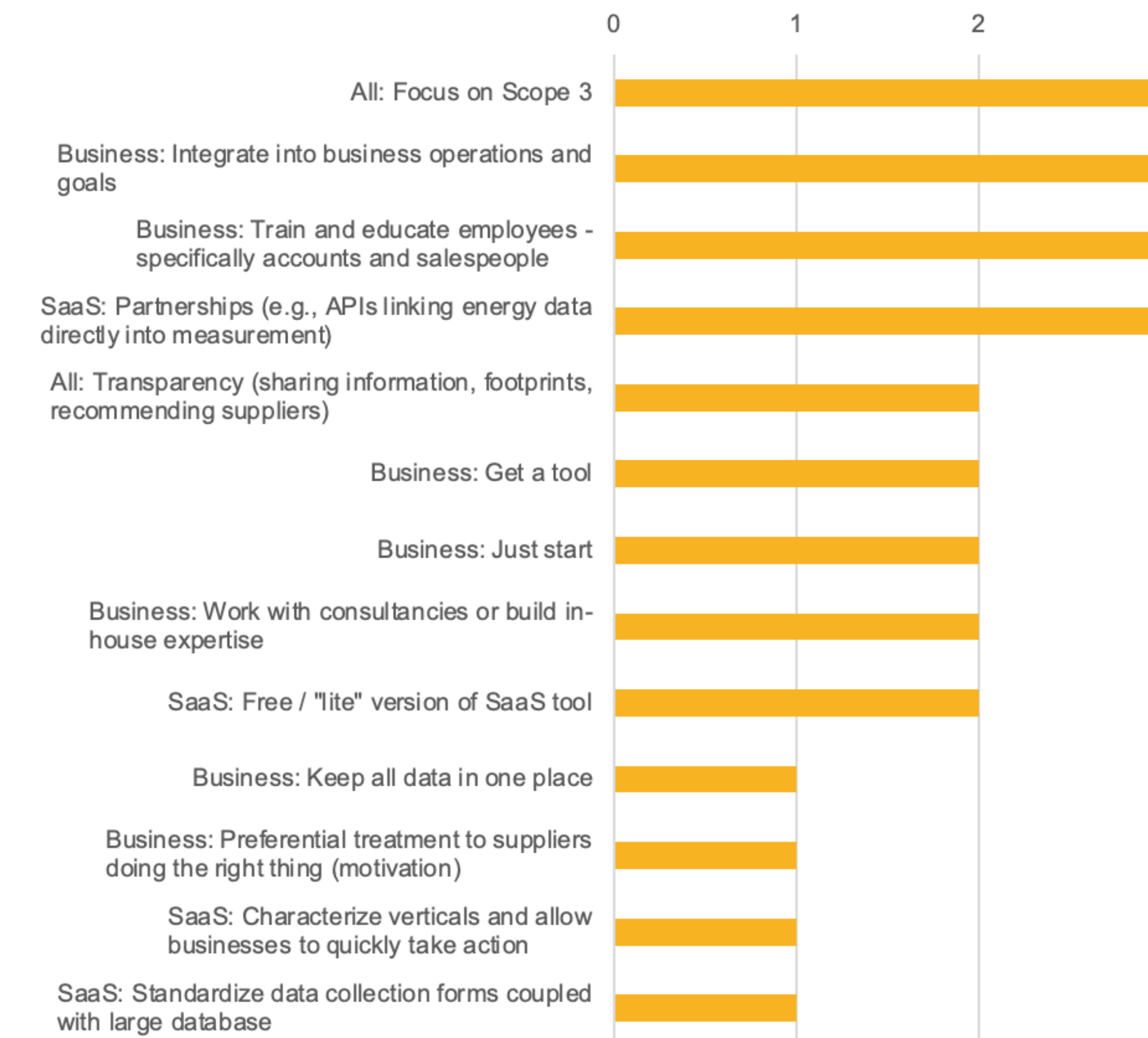
Q: Throughout your professional experience, what channels have you seen businesses take to build their carbon footprints?

Common Carbon Measurement Channels



Q: How do you see businesses or external resources (e.g., SaaS tools) bridging these gaps?

Recommendations to Overcome Carbon Footprint Limitations for Businesses and SaaS Tools



5 CONCLUSION

- The carbon SaaS industry is booming with paid and free product offerings for businesses from well-funded start-ups, such as Sweep, Persefoni, and Emitwise, to established technology giants, such as Google and IBM.
- There is consensus among sustainability professionals that these tools can enable businesses to easily measure and manage their carbon emissions by eliminating limitations such as difficulty collecting high-quality data, providing expertise, developing carbon literacy, and decreasing the time and resources required for these tasks through integrations and partnerships.
- However, businesses need to be motivated to take on this task first. Motivators could be in the form of policies or market signals, through procurement activities, that reward businesses undertaking sustainable practices.
- Businesses must remember that just making the commitment to be sustainable and starting their climate journey is a good first step. Businesses must also stop fearing greenwashing as it leads to inaction. As long as businesses are transparent and are steadily working towards achieving Net-Zero through the integration of sustainable practices in their business operations, we can lower our global emissions and slow down climate change.

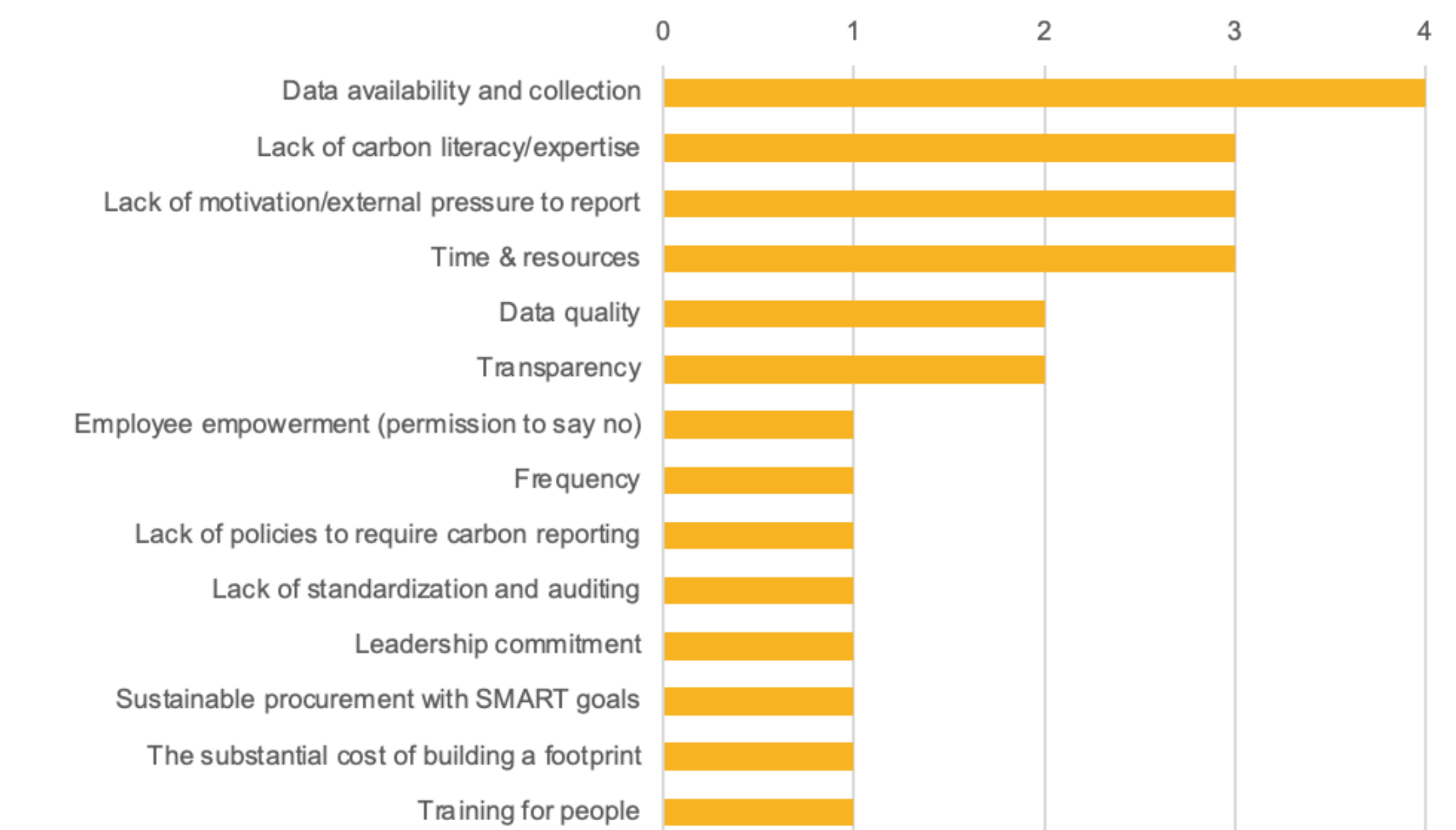
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Shepherd, D. (2021, October 15). Over 90% of Firms Aren't Measuring Emissions Correctly, BCG Says - BNN Bloomberg [News]. BNN Bloomberg. <https://www.bnnbloomberg.ca/over-90-of-firms-arent-measuring-emissions-correctly-bcg-says-1.1665654>

Q: What do you consider to be the biggest limitations with building carbon footprints for businesses?

Biggest Limitations with Building Carbon Footprints



Q: What are some features you would like to see in SaaS tools for measuring carbon footprints / see the space evolve and grow?

Product Recommendations for SaaS Companies and Tools

