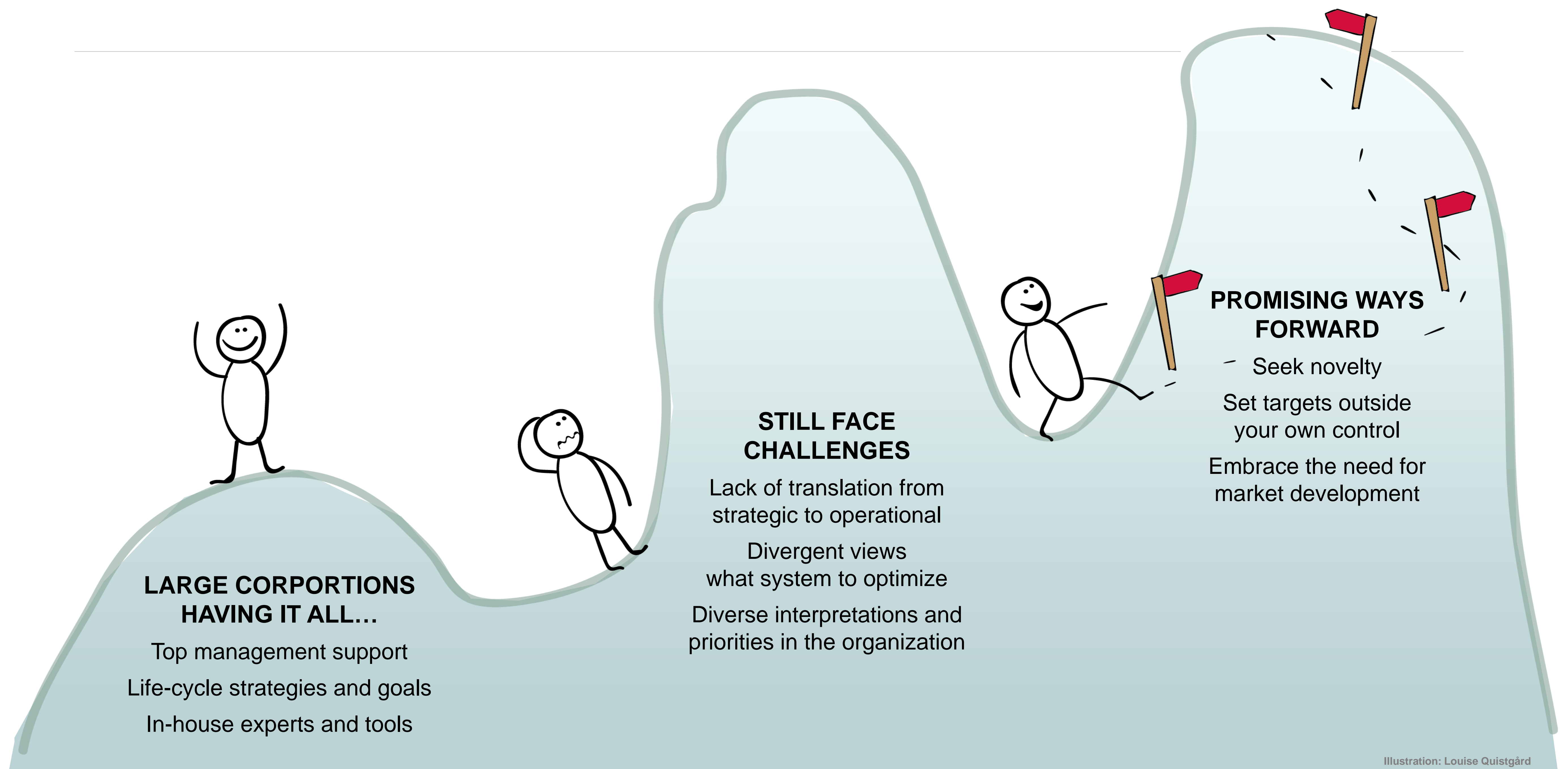


ORGANIZATIONAL CHALLENGES and SOLUTIONS

for practical implementation of life cycle improvements

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Why focus on organizational challenges?

By studying organizational challenges for companies working with life cycle management (LCM), this study seeks better understanding of why many companies still struggle with implementing LCM, despite good intentions to do so. With life cycle assessment (LCA) experts and tools in place, challenges may yet relate to intra-organizational aspects (like internal resources, tradeoffs and budgets) or lack of incentives along the value chain. This study further explores such organizational challenges, with particular interest in energy efficiency along the value chain.

Multiple literatures explored

A review is made on a range of research scholars, on drivers, barriers and ways forward to increase energy efficiency along the life cycle. Literature on life cycle assessment (LCA) and life cycle management (LCM) are complemented with previous research in green supply chain management, operations management, green lean, and energy efficiency. These provide additional insights on organizational and commercial challenges and limitations when attempting to apply a life cycle energy perspective, such as lack of motivation and discord incentives in the value chain.

Case studies in large experienced companies

Six case studies are made in three large production companies representing different industry sectors (engineering, automotive and chemical). Data is collected through interviews and workshops with representatives from both the life cycle metric departments and other functions such as innovation and business management.

The studied companies are all well experienced in LCM, with strategic capacity in top management support, strategies and goals for their life cycle ambitions; organizational capacity in senior LCA experts and tools in in-house sustainability departments; and a key position in their value chains; all of which are important aspects for success according to the literature.

Challenges of many kinds

Despite favorable conditions, many challenges exist. Strategic challenges include lack of translation from strategic to operational levels, and divergent views on what system to optimize. Intra-organizational challenges include diverse interpretations and priorities of the many employees, with their respective context and trade-offs. Examples of challenges along the value chain are split motivations and weak stakeholder interest.

Ways forward – preliminary results

Preliminary results show a range of promising ways forward, such as:

Seek novelty for internal motivation and competitive edge – Being the first in some respect – e.g. the first carbon-neutral site of its kind – increases motivation in the entire organization, from operation managers to public relation officers – as well as brings competitive advantage.

Target energy/carbon targets outside your own control – Setting, and following up, quantitative carbon targets for the entire value chain, challenge existing roles and practices and encourage ideas on how to reach a more holistic approach to energy in value chains.

Embrace the need for market development – Recognizing the need to manage the product portfolio from an energy perspective is a challenging insight, leading to a discussion about the possibility and responsibility to induce market changes for the sake of energy efficiency.

Team up with likeminded in the value chain – Many customers and suppliers are reluctant to challenge existing routines. A way forward seems to be to align with companies showing similar green ambitions – even if these are found among your 2nd or 3rd tier suppliers or customers.

Rethink scope of business – The practice of developing profitability and efficiency together with partners, oppose the trend in many companies to outsource everything but core business. Business units offering services together with products seems to be more successful in this respect.

Discussion and further work

The results point to the need for companies to elaborate on their role and possibilities to change practices, even in operations outside of their own control. Promising ways forward include strategies to engage and motivate people to take action across functions and beyond what is traditionally perceived as their scope of action.

Further work includes to estimate quantitative effects of selected case studies. Workshops will also be held with academia and industry to develop recommendations on ways of working for companies aiming to increase energy efficiency throughout their value chains.

Contact

Any comments, reflections or own experience? Please get in touch!
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