# How does a future-fit economy take root?

An analysis of diffusion and adoption of future-fit business practices in brewing and printing companies

Only a few companies are seeking to contribute to a future-fit way of doing business. As such, they are considered major drivers of institutional change. However, conventional companies are not likely to follow these new paths based solely on good examples.

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#### Abstract

In the face of the worsening ecological crisis, more and more people are looking to pioneering companies which have made it their task to be part of the solution to this problem by deploying sustainable production and business practices. But how do these future-fit approaches spread within the economy? We present results from brewing and printing companies which suggest that successful diffusion of these approaches may be more complex than commonly assumed. For example, conventional companies tend not to adopt sustainable business practices merely because they are being promoted by future-fit small and medium-sized enterprises. Rather, change agents in conventional companies must be educated on how specific sustainable business practices serve as concrete solutions. Additionally, these practices must align with the company's predominant view of the problem. Our results stress that future-fit companies cannot be the exclusive drivers of profound change; rather, they can only make their contribution when supported in this effort by science, politics and society in general.

#### Keywords

degrowth, diffusion of innovations, economic alternatives, institutionalization, organizational change, organizational theory, sustainability, sustainable enterprises

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urrent human consumption of natural resources is unsustainable. Already in 1972, Meadows et al. described the unfolding ecological crisis in *The Limits to Growth*. Some 30 years later, the authors were dismayed that, despite a widespread reception of the study, there were only "futile debates and well-intentioned, but halfhearted, responses to the global ecological challenge" (Meadows et al. 2005, p. XVI).

The economy is closely linked with environmental degradation, because the constant growth of industrial capital and output requires an enormous consumption of resources. This holds true for traditional industrial production as well as the post-industrial, service-based economy (Meadows et al. 2005). Recently in academia, this discussion has taken place using the phrases "degrowth" and "postgrowth" (D'Alisa et al. 2015). Economically-based debates tend to invoke more efficient, resource-saving technologies as solutions for environmentally-sound economic growth. However, resource savings are often counteracted by rebound effects subverting the intended decoupling, as in the green growth paradigm (Hickel and Kallis 2019). This is one reason why we observe political movements like Fridays for Future demanding, in alignment with scientific findings, a radical change in society and the economy. The "crises" we refer to (whether ecological, financial or related to COVID-19) may indicate permanent conditions in the future which affect almost every player and situation. Assuming that organizations in highly developed societies are in key positions to do so (Rätzer et al. 2018), we would expect companies to be major players in a future-fit economy, if they accept scientific findings on issues like climate change and align their practices accordingly.

But why do most companies not follow sustainable paths? On the one hand, Liesen et al. (2013) reason that companies are embedded in growth constraints and growth drivers, the logic of which they are not able to escape. On the other hand, few small and medium-sized enterprises (SMEs) demonstrate that another way of doing business is possible (Voß 2010, Gebauer 2018). Why have these approaches not yet been able to spread, even though some of these SMEs actively propagate future-fit organizational practices (Souza and Seifert 2018)?

A major reason could be that managers and entrepreneurs are often unquestioning in their appraisal of successful (and therefore legitimate) types of organizations and management practices (Liesen et al. 2013). A better understanding of alternative forms of business and increased visibility of pioneering companies as role models could contribute to the spread of future-fit business

As only conventional (as opposed to current future-fit) companies can adopt these future-fit institutions, this study will focus on those. For the first time, this article presents research into the institutionalization of future-fit company characteristics using a quantitative approach.

Awareness of ecological crises counterintuitively did not directly lead to a positive assessment of sustainable production. In some cases, printing companies which were aware of pioneering companies in their industry even considered sustainable production in a negative manner.

practices (Liesen et al. 2013) and reinforce their legitimacy (DiMaggio and Powell 1983). Institutions – viewed as social rules which are permanent, binding and determinant according to a neo-institutional understanding (Senge 2011) – are regarded as *future-fit* (German: *zukunftsfähig*) and companies are perceived as *pioneers* if they aspire to a society (and therefore an economy) which preserves planetary boundaries and attempts to counteract social and ecological crises (Biesecker and Hofmeister 2013, BUND et al. 2008).

Although there are indeed individual entrepreneurs who wish to achieve systemic relevance through their actions and to initiate a transformation towards future-fit economies (Liesen et al. 2013), their success remains unclear. Knowledge of and favourable attitudes towards future-fit business characteristics, as well as an awareness of social and environmental problems in conventional companies and specifically by change agents, might play a role in the adoption of future-fit business practices. Some empirical studies address the spread of sustainability management practices and strategies in organizations and apply institutional change and diffusion of innovations as theoretical lenses (Curbach 2008, Höllerer 2013, Hsu and Cheng 2012), or assess the institutional establishment and diffusion of future-fit corporate characteristics using the example of time banks (Papaoikonomou and Valor 2017, Joutsenvirta 2016). Management literature continues to vaguely describe practical as well as theoretical contributions to sustainable or post-growth driven business (Johnsen et al. 2017, Rätzer et al. 2018), but has thus far ignored the spread of sustainability-oriented practices. In particular, innovative organizational practices or business models which are spawned in the context of SMEs do not resonate in these academic or structural debates (Cyron and Zoellick 2018). We propose to bridge this gap by studying explanatory factors for a successful diffusion of future-fit corporate characteristics from a microeconomic perspective, specifically exploring the following questions:

- 1. Do future-fit companies act as drivers of institutional change?
- **2.** Is the diffusion of future-fit corporate practices influenced by an awareness of ecological and social problems in conventional companies?

# Theoretical basis

Companies are not isolated entities, but are embedded in a social and macroeconomic context which determines organizational behaviour. Alternative economic concepts (like economy for the common good, solidarity economy and degrowth) have the intention of maintaining planetary and social boundaries. However, these efforts are very heterogeneous and often only share the claim of being an alternative to the status quo. For example, the umbrella term "degrowth" comprises a variety of approaches in numerous disciplines and is represented by scientists and activists alike with varying and sometimes incompatible means and goals (Burkhart et al. 2017). The basic aims of degrowth are a good life for all, the protection of planetary boundaries, selective or no economic growth, local production, a reassessment of (reproductive) labour and more democratic participation. Due to their ability to not only serve as role models but also to test the feasibility of ideas, grassroots initiatives and other projects make degrowth tangible (Burkhart et al. 2017, Kallis 2018).

In management and organization science, "organizing for the post-growth economy has only begun to gain momentum" (Rätzer et al. 2018). However, within the literature of both management and degrowth, it is almost impossible to draw a clear conceptual picture of what "degrowth management" within companies or "business sustainability" covers, other than a general green business model. As said, we assume that companies characterized by principles similar to those of degrowth - namely overcoming growth dynamics, implementing ecological practices, reducing overall economic production, applying sufficiency strategies and promoting social well-being (Burkhart et al. 2017) – are future-fit. Rommel (2017) has generalized such principles of degrowth-compliant organizations and developed a microeconomic model called CSX (Community Supported X). It is based on organizational structures and practices observed in Community Supported Agriculture (CSA); it includes eleven structural characteristics1 and allows for transfer to other sectors. Here, we operationalize the model, thereby developing an empirically sound measurement for characteristics of degrowth-oriented, future-fit companies.

But how do future-fit concepts spread and how does institutional change occur? Societal and macroeconomic transformation is a result of an *active* process of decision-making about certain organizational practices at micro and meso level in corporations. Both neo-institutionalism (DiMaggio and Powell 1983) and diffusion theory (Rogers 2003) can explain such phenomena.

Sociological neo-institutionalism claims that organizations align with the expectations of their institutional environments and are not primarily determined by economic efficiency, but rather by legitimacy motives (Senge 2011). This study draws on the sixstage model of institutional change by Greenwood et al. (2002), where change is caused by technological, legal or social destabilizations (stage 1), leading to some institutions disappearing while other ideas or practices emerge (stage 2 and 3), after which it gains legitimacy through theorization (stage 4), is spread throughout an organizational field (stage 5) and possibly becomes institutionalized (stage 6). The most important stage in ensuring full institutionalization of new management practices or organizational arrangements is theorization (stage 4), causally linking problems to corresponding solutions which are often new practices. As a result, theorization determines the properties of new practices, explaining their concrete contribution to problem-solving (Greenwood et al. 2002), and moral or pragmatic legitimacy is thereby assigned to the practice (Tolbert and Zucker 1996). Diffusion of ideas at the micro level must be considered an individual decision to reject or to actively adopt new management methods, organizational processes or structures based on the interpretation of the organizational environment (Benford and Snow 2000).

Institutionalization employs ideas closely linked to the diffusion model developed by Rogers, who states: "Diffusion is the process in which an innovation is communicated through certain channels over time among the members of a social system" (Rogers 2003, p. 5). Innovations are all ideas, practices and objects subjectively perceived as new (Rogers 2003). The innovation decision process describes five steps that any decision unit undergoes: 1. individuals or organizations learn about an innovation, 2. they gain an affective opinion about the innovation, 3. the innovation is accepted or rejected, 4. the innovation is implemented, and 5. evidence is sought that supports the adoption. Reaching phase four is necessary for the diffusion of innovations. Below, both neoinstitutionalism (DiMaggio and Powell 1983, Greenwood et al. 2002) and diffusion theory (Rogers 2003) are applied to design our theoretical model (figure 1) and to derive hypotheses.

**Knowledge about and attitudes towards future-fit businesses.** According to Greenwood et al. (2002), neo-institutional theory implies that disruptive events like social, ecological or financial crises with high relevance for organizations and their members exert institutional pressure. This calls upon new players, who address the

crisis with problem-solving organizational structures and processes. These pioneering companies actively try to communicate cause and effect, portraying themselves as pioneers in the respective field, with solutions that appear to be diversely adoptable. Such solutions (for example, innovative organizational structures, processes or actions like sustainability-oriented management) gain normative legitimacy within an organizational field as a new business standard (Höllerer 2013, Curbach 2008). Pioneering companies are able to act as role models in their organizational field (Höllerer 2013, Hsu and Cheng 2012). Conversely, awareness of the existence and success of organizational innovations can only arise in conventional companies through the visibility of pioneering companies and their concrete, diverse, successful and future-fit actions (Liesen et al. 2013, p. 28).

**Hypothesis 1 (H1):** The visibility of individual future-fit companies increases familiarity with future-fit companies and their business practices in general.

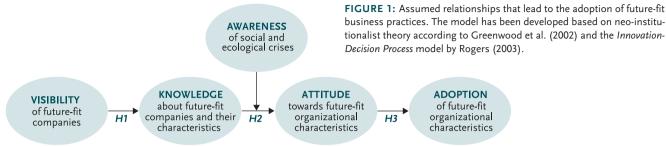
The mere knowledge of future-fit organizational structures and practices can lead to a favourable opinion of them, but does not always do so. The degree of successful theorization and thus the extent of normative legitimization of the new organizational practice determines the effect (Tolbert and Zucker 1996, Greenwood et al. 2002). Interpretation of the institutional pressure emanating from disruptive events has a moderating effect, which can result in an awareness of social and ecological crises. Reports with strong media coverage, such as the IPCC (2018) *Special Report on Global Warming of 1.5°C*, are examples of this.

**Hypothesis 2 (H2):** Knowledge about future-fit companies and their business practices leads to positive attitudes towards future-fit business characteristics. Awareness of social and ecological crises strengthens this relationship.

**Adoption of future-fit business features.** In an early stage of institutionalization, the adaptive, problem-solving character of the new organizational practices to be adopted plays a key role. Later, companies increasingly adopt standardized variants of innovations for reasons of legitimacy (DiMaggio and Powell 1983, Tolbert and Zucker 1996). While adoption for problem-solving reasons is likely to be dominant, normative legitimacy motives should play a role due to sustainability being a morally charged concept (Curbach 2008). Both mechanisms should yield a positive attitude towards future-fit corporate practices, which in turn will encourage the actual adoption of them.

**Hypothesis 3 (H3):** Companies with a positive attitude towards future-fit corporate characteristics tend to adopt them.

<sup>1</sup> The eleven characteristics are: limited company growth, environmentally-friendly production of goods and services, local production, shared operating costs, cost covering principle, cost transparency, co-production, participatory decision-making, labour-intensification/resource-saving mechanization, joint ownership and solidarity-based funding.



#### Methods

Visibility of future-fit companies. Pioneering companies are the communicative starting point of diffusion (Rogers 2003). Some communicate their organizational structures and processes by themselves, while others are reported on by external players like the media. In these ways, pioneering companies act as role models for conventional companies (Liesen et al. 2013). For our study, we selected six breweries and three printing companies that met the following conditions:<sup>2</sup> a) they were publicly recognized as future-fit; b) they possessed certain name recognition within their industries<sup>3</sup>, and c) there was public information about their organizational features that justified their selection. The brewing and printing industries were the only two sectors with a large enough number of pioneering companies to exert influence on their relevant organizational field.

The visibility of future-fit companies was measured by the relative frequency of their mention in 1. popular media and 2. trade magazines. Visibility was calculated from the total number of articles published in the six biggest German newspapers that mention one of the future-fit companies between 2003 and 2018, weighted with the share of the pioneering companies within their industry. The second indicator was constructed in the same way but using German trade magazines <sup>4</sup> (appendix S1<sup>5</sup>). The values of the printing companies were weighted by a factor of 3 because there are more brewery-related trade magazines available. In addition, the total number of mentions of each company was weighted by the relative share of future-fit companies in the industry. We assume that name recognition strongly correlates with visibility.

**Sample and data collection.** The industry affiliation defines the organizational field. An online questionnaire was sent to 745 breweries and 730 printing companies in Germany (appendices S2, S4, S5 for items, response alternatives and instructions).

Awareness of ecological and social crises. The variables consisted of two item subsets: a) awareness of ecological crises measured with five items from the German version of the New Environmental Paradigm (NEP) Scale by Dunlap and colleagues (Schleyer-Lindenmann et al. 2018), b) awareness of social crises, which reflects the recognition of negative social impacts of the current economy. As there is no suitable, short and validated German measure, we developed five items representing this description (appendix S2).

Confirmatory factor analysis was performed to test whether the two-dimensionality of the variable was a justified assumption. As the data is ordinal and not multivariate normally distributed, the WLSMV<sup>6</sup> estimator was chosen (Li 2016). A two-factor model consisting of the two item subsets was compared with a single-factor model, where all items would represent one construct. For both models, the absolute fit indices indicated an acceptance of the models (see appendix S3). The two-factor solution achieved better values in all indices. The two subscales *awareness eco-crisis* and

awareness social crisis each show a satisfactory internal consisten-

cy (Cronbach's  $\alpha$  = .75 and Cronbach's  $\alpha$  = .72) and the two factors

are strongly related, r = .53,  $p \le .001$ , meaning that awareness of

ecological crises tends to coincide with awareness of social crises.

Knowledge of future-fit enterprises and their characteristics. Conventional companies' knowledge of future-fit companies and their organizational practices was assessed by asking whether the pioneering companies of interest and the characteristics of future-fit companies were known (appendix S4). Future-fit characteristics were used, as in the CSX model (Rommel 2017) (see footnote 1), and the additional dimension *Production for human needs* originating from ideas of solidarity economy (Voß 2010) was added, resulting in twelve characteristics in total.

**Attitudes towards and adoption of characteristics of future-fit enterprises.** The assessment of attitudes towards and adoption of characteristics of future-fit enterprises was combined with a dual-response scale to achieve a short questionnaire. For each of the twelve characteristics, four items were generated, resulting in 48 items in total (appendix S5).

As the questionnaire contained too many items for a factor analysis to be carried out with the given small sample size, the

<sup>2</sup> Although one of the nine companies has ceased operating, the other eight have been in stable operation for between several years and decades; we thus consider their business models to be successful.

<sup>3</sup> This condition was first assessed intuitively and then validated after data collection.

<sup>4</sup> Brauwelt, Brauindustrie, Getränkeindustrie, getränke markt, Getränkemarkt, Getränkefachgrosshandel in the brewing industry, and Deutscher Drucker and Publishing Praxis in the printing industry.

<sup>5</sup> Please find all appendices in the online supplement: https://www.oekom.de/publikationen/zeitschriften/gaia/supplementary-material/c-157.

<sup>6</sup> WLSMV: weighted least squares with means and variance adjusted (Li 2016).

118 RESEARCH Sabrina Schmidt, Matthias Rätzer

27 items least appropriate for factor analysis were omitted for statistical and content reasons. Subsequently, a principal factor analysis was performed on the attitude scale, resulting in two factors: future-fit organizational structures and local and eco-friendly production. A confirmatory analysis revealed the same two dimensions for the adoption scale. All steps performed and the respective input and output data are described in appendix S6.

Multiple hierarchical linear regression models (HLRs; see appendix S7) were used to test H2 and H3. For each criterion, the baseline models contained only the control variables and the second models contained all predictors and, where applicable, the moderators.<sup>7</sup>

#### Knowledge influences attitudes about future-fit companies

To test  $\it H2$ , we compared all four criteria baseline models containing only the control variables with a second model containing all predictors and moderators. In all cases, the second model fit the empirical data significantly better. The predictors accounted for 94% of the variance ( $R^2$ ) in attitudes towards future-fit organizational structures in the brewery sample and for 85% in the printing industry sample. Furthermore, much of the variance in both samples ( $R^2_{brew}$  = .94,  $R^2_{print}$  = .96) could be explained by the second model, which addressed attitudes towards local and ecofriendly production. Still, many of the predictors lacked significant influence (further statistical data is available on request). For

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#### Results

## Descriptive analysis of the sample

A total of 102 companies took part in the survey (response rate: 6.92%). 94 cases (50 breweries and 44 printing companies) were included in the statistical analysis (see appendix S8 for details). The sample was primarily composed of SMEs with a median company age of 19 years (average age: 45 years).

The two industries differ significantly only in two aspects: 1. future-fit breweries are far more visible in both media types; and 2. breweries are more knowledgeable about future-fit companies within their own industry. In both the brewing and printing sectors, awareness of ecological crises prevails over awareness of social crises and sustainable production methods are better known and more positively perceived (including willingness of adoption) than sustainable corporate structures.

# Visibility leads to knowledge of future-fit companies

Regarding *H1*, we find that for breweries, a high level of familiarity with future-fit competitors is associated with a high presence in both popular media (r = .95, p < .001) and trade magazines (r = .98, p < .001). However, only the relationship between familiarity with future-fit breweries and knowledge about regional and environmentally-friendly production is significant (r = .33, p < .05). Recognition of future-fit companies is likely dependent on their visibility. This familiarity does not have a clear positive impact on knowledge about future-fit business practices. H1 can be regarded as partially confirmed. Some authors argue that other factors – like reports on social and ecological business practices in mass media and personal exchanges with other entrepreneurs and within trade associations – might be more important for a sound understanding of the business characteristics (Rogers 2003).

example, awareness of ecological crises counterintuitively did not directly lead to a positive assessment of sustainable production. Sometimes printing companies which were aware of pioneering companies in their industry even considered sustainable production in a negative manner. The interactions revealed a significant amount about the relationship between the three constructs. 15 out of 24 interactions were significant, with most interactions confirming H2(++ in table 1). We can deduce the following rule: If the predictor and the moderator match content-wise, H2 is affirmed. Regional and environmentally-friendly production methods were congruent in terms of content with an awareness of ecological crises (and analogously, future-fit organizational structures with an awareness of social crises).  $\square^*$  in table 1 represents the only exception to the rule. Two further interactions support at least the assumption that awareness of social and ecological crises has a moderating influence (+ in table 1). Nevertheless, four interactions follow a consistent pattern that can be meaningfully interpreted ( $\square$  in table 1). What they all have in common is that the criterion and the moderator are in contrast with each other in terms of content, which means a formal rejection of H2. In other words, if the ecological crisis is subjectively given greater importance, the contribution which future-fit corporate structures make towards solving the ecological crisis is comparatively small and their assessment is more negative. On the other hand, an awareness of social crises seems to place social problems above all. A high level

<sup>7</sup> The term "criterion" designates the dependent variable to be predicted, while "predictor" designates the independent variable. A moderator variable refers to a variable which influences the effect of the predictor on the criterion. A control variable is a confounding variable whose effect is omitted from the dependent variable. A baseline model is a model where only the control variables are included, while in the second models we include the necessary predictors.

Sabrina Schmidt, Matthias Rätzer RESEARCH 119

**TABLE 1:** Significant interactions regarding hypothesis H2. For explanations see footnote 7 in the text. ++ = confirmation of interaction, + = confirmation of moderation;  $\square$  = no confirmation, but meaningful pattern;  $\square$  \* = no confirmation even though predictor and moderator match, meaningful pattern anyway; x = inconsistent result; empty cells represent non-significant results.

	SAMPLE	BREWERIES			PRINTING COMPANIES		
		PREDICTOR: KNOWLEDGE OF					
CRITERION: ATTITUDES TOWARDS	MODERATOR: AWARENESS OF	future-fit companies in own industry	future-fit organizational structures	local and eco-friendly production	future-fit companies in own industry	future-fit organizational structures	local and eco-friendly production
future-fit organizational structures	ecological crisis			++			++
	social crisis		++	Х		++	Х
local and eco-friendly production	ecological crisis	х	++				
	social crisis		<u></u> *	+	+	++	

of knowledge about future-fit corporate structures simultaneously reduces the perceived importance of ecological production and results in its poorer assessment. For the prediction of attitudes towards future-fit corporate practices, the content fit between knowledge about future-fit companies and their characteristics and sensitivity to social and ecological problems plays a major role. The last three interactions (x in table 1) are inconsistent and require further research.

#### Attitudes impact adoption of future-fit corporate characteristics

H3, assumed that companies with a positive attitude towards future-fit corporate characteristics tended to adopt them. In both industries, attitudes and the willingness to adopt correlated significantly in both subscales. Four baseline models were compared to a second model with all predictors, which in all cases explained a significantly higher share of the variance. Adding the predictors explained an additional 13% of variance in the adoption of local and eco-friendly production in the brewery sample ( $R^2 = .83$ ). In the printing sample, it was possible to predict over half of the variance in the dependent variable ( $R^2 = .57$ ). The predictors in the brewery sample accounted for 80% and in the printing sample for 68% of the variance in willingness to adopt future-fit organizational structures. In both industries, a positive attitude towards local and eco-friendly production predicted the tendency to adopt it. Similarly, the adoption of future-fit organizational structures was predicted by positive attitudes towards them. The empirical data supports H3. The importance of a content-wise fit between attitudes and adoption could also be recognized.

#### Pioneering companies as drivers of change

To examine whether pioneering companies act as drivers of institutional change, four HLRs were carried out, building on the models for predicting adoption readiness by adding two additional predictors: the recognition of future-fit companies in one's own sector and the familiarity with future-fit corporate structures and sustainable production. None of the four models could explain a significantly higher share of the variance in the dependent variable than the respective second model. Surprisingly, the relationship be-

tween the recognition of future-fit enterprises and the decision for or against the adoption of sustainable enterprise characteristics was not statistically supported. One reason for this could be that the two industries do not differ in their knowledge of, their attitudes to or their adoption of future-fit corporate characteristics. Our results show that the role of future-fit companies as drivers of institutional change and role models for conventional companies must be critically questioned.

#### **Discussion**

Climate change and the loss of biodiversity pose one of the greatest challenges to mankind thus far (Rockström et al. 2009). How can planetary boundaries be maintained while at the same time providing a good life for everyone? Part of the answer lies in the nature of the global economy and its growth paradigm (Meadows et al. 2005). In this work, we have analysed 1. which factors influence the diffusion of future-fit corporate characteristics that foster degrowth principles, and 2. whether existing future-fit companies serve as drivers of institutional change.

Some parts of the theoretical model (figure 1) were supported by empirical data. Therefore, the model is to be modified and improved. Utilizing explanatory and confirmatory factor analyses we found a distinction between eco-friendly production and future-fit corporate structures as well as between the awareness of social and ecological crises. Surprisingly, the influence of visibility and recognition of future-fit companies on the adoption of future-fit company characteristics could not be clearly established, either directly or indirectly. Future-fit companies act as initiators of institutional change, as they develop and test the practices to be institutionalized. The common notion of future-fit companies acting as role models (Hsu and Cheng 2012, Liesen et al. 2013) could not be confirmed by our research. One explanation for this may be that future-fit companies lack legitimacy, with neo-institutionalist theories suggesting that companies are more likely to follow larger or more successful companies when deciding for or against a new practice (Höllerer 2013). Our results indicate that 120 RESEARCH Sabrina Schmidt, Matthias Rätzer

the role of future-fit companies in the diffusion of sustainable business practices is smaller than expected. This may be due to a theoretical or methodological gap, something that needs to be considered in further work. Moreover, there is no direct link between attitudes and behaviour in general. Other phenomena which may have occurred, such as economic obstacles, are not addressed in this study.

Recently, due to debates on corporate social responsibility, sustainable production and management methods have increased in legitimacy (Curbach 2008). In this sense, social and ecological problem awareness can be understood as an interpretation of institutional pressure influencing the adoption of future-fit corporate characteristics through attitudes. Having said that, future-fit organizational structures are perceived as significantly less legitimate, becoming apparent in a low adoption rate and underlining the importance of successful theorization, which, as a scheme of causally linking problems and solutions, is the decisive factor that gives a new practice moral or pragmatic legitimacy (Greenwood et al. 2002). Consequently, the contribution of future-fit corporate structures to the solution of a specific problem must be articulated more clearly. However, it is questionable whether this can be achieved by future-fit companies themselves, as currently they are neither sufficiently well-known nor accepted as role models; thus, other players with better standing (such as credible and wellknown NGOs, CEOs, business consultancies, public authorities and scientific authorities) might be better suited. A key result and important practical implication of this work, in particular for change agents, is that the adoption of future-fit corporate characteristics is more viable if it is related to the perception of the problem already prevalent in a company.

Self-selection and participation bias in the sample represent limitations of this study. Furthermore, the organizational field was defined in simplified terms by industry affiliation, while a consideration of interactions between players would be more realistic

(Walgenbach and Meyer 2008). Future work could apply structural equation modelling instead of sequential HLRs. Gathering a larger sample would alleviate the need for item reduction in the attitude and adoption scale for an explorative factor analysis, potentially leading to an improved selection of suitable items and thus a better questionnaire. Moreover, it is worth investigating how different communication channels and information conveyed influence knowledge and attitudes (Rogers 2003). A more detailed analysis of current theorization efforts could identify important factors which promote the dissemination and acceptance of future-fit solutions. While the focus of this work was on institutionalization processes, the deinstitutionalization of conventional practices – for example, by reducing their legitimacy (Walgenbach and Meyer 2008) - would be an equally interesting field. We suggest a stronger use of modern organizational theories for investigating future-fit companies in order to facilitate the development of concrete hypotheses.

In summary, it remains questionable whether a radical transformation of the current economic and social system is even possible and if so, whether it can be achieved quickly enough when, despite the urgency, only incremental changes are taking place in organizations. From an institutional perspective, this reflects the common reality of institutional change, where radical transformations rarely happen (Streeck and Thelen 2005). Nevertheless, pervasive change is not impossible; it just takes more time. Kallis' (2018) notion of "radical change in a reformist garb" is quite fitting. Ultimately, the results of this work indicate that futurefit companies cannot be the sole drivers of profound change and must be understood as one of many players contributing to the greater effort of a social-ecological transformation. Our results strongly call for new alliances between smaller pioneering companies and larger, more credible players, as only these are able to legitimize future-fit business practices as a solution for social-ecological crises.



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Sabrina Schmidt, Matthias Rätzer RESEARCH 121

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