

Cumulated Results of the PhD Project

***“Mapping and Exploring Worker-led Companies as
Transformative Labour Geographies in Germany”***

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Extended Abstract

In the last decades, the social and ecological deficiencies of currently prevailing economic structures have become increasingly obvious in different forms and to varying degrees across the globe. This led to increasing scientific attention across disciplines to understand and address these shortcomings. Integral part of this attention is an enhanced scientific engagement to explore, analyse and discuss possibilities of economic pluralism by shedding light on diverse economic spaces within, next to and beyond capitalist structures.

In this regard, perspectives from labour geography and from geographical research on processes of socioeconomic transformations beyond growth (summarised as ‘transformation research’ in the following) both point out the relational character of economic spaces. This implies that current economic structures are not set in stone but people can and do change them in their diverse roles as economic actors through their actions and decisions.

Against this backdrop, this thesis highlights the central role of workers in current production structures. At the core of a labour geography perspective in which this thesis is grounded, workers are not just passive workforce, but have agency and can (re)shape the work and production structures they are embedded in (‘labour agency’). The main objective of this PhD project is to analyse the transformative potentials of labour agency by means of an intersection between a labour geography perspective and perspectives from transformation research. In this vein, the focus is on understanding and discussing how workers can (collectively) contribute to an economic reorganisation beyond growth.

For this purpose, the empirical focus is on worker-led companies (WLCs) in Germany as illustrative examples for collective labour agency in which workers are in charge of their own skills, time and resources. Hence, they consciously alter work and production structures through collective ownership and decision-making. As further focus of analysis, special attention is (i) on context-specific institutional and socioeconomic conditions that drive and limit the collaborative economic practices of WLCs in Germany and (ii) on their transformative strategies.

In this regard, I conducted a nationwide survey among 158 German WLCs. The results allow for a deeper comprehension of the national political and socioeconomic context in Germany, in which they are embedded. As my study shows, this context differs decisively from examples of WLCs in Southern European and South American countries where most of the earlier research on WLCs was carried out. Hence, in order to enhance and pluralise geographical knowledge on WLCs, this thesis not only sheds light on context-specific motivational drivers, but also on institutional constraints and the (transformative) strategies German WLCs use in order to address them. In this regard,

empirical results disclose that their transformative potential is (still) constrained by the lack of an adequate legal and institutional framework and by their embeddedness in market structures that incentivise capitalist forms of work and production. However, the observed collective aspiration to transform the status quo combined with a culture of solidarity and mutual support appears to be a strong driver to address and cope with these constraints.

Furthermore, and in correspondence to perspectives from transformation research, the empirical insights demonstrate how workers in German WLCs intentionally align their work structures with socioeconomic transformations beyond economic growth, e.g. in the form of work time reduction, integration of care and voluntary work as well as limitations on private profit accumulation. Based on these insights and as a theoretical expansion of the concept of labour agency, I conceptualise and discuss German WLCs as sites of ‘transformative labour agency’, which include an understanding of collective decision-making and ownership as a way of ‘commoning labour’. However, German WLCs do not only implement more-than-capitalist values of solidarity and cooperation within the scope of their own company. A closer empirical look at WLCs in Hamburg and Berlin as cities with a relatively high density of WLCs reveals strongly interlinked collaborative networks. Understood and discussed as ‘worker-led entrepreneurial ecosystems’, I investigate how workers in WLCs might use their agency to diffuse their economic values and strategies to the (local) economic context they are embedded in. To this end, a comparative case study based on in-depth interview data provides insights on collaborative strategies grounded in shared values and sectoral overlaps. Moreover, the case study results allow to develop a sensitivity to differing sociocultural factors and conditions within a similar political and institutional framework. Taken together, insights from the survey and the comparative case study demonstrate how workers in the researched WLCs consciously use their agency to transform work and production structures in the form of increased participation, transparency and a culture of mutual solidarity and support despite institutional and socioeconomic constraints. Included in this is an understanding of work and production as collective task and responsibility, which corresponds to a theoretical conceptualisation of ‘labour as commons.’ A further transformative potential is disclosed in the fact that they apply principles beyond economic growth and profit accumulation. Thus, the applied practices of WLCs in Germany allow for more heterogeneous perception of possible economic activities within the frame of a company. Moreover, collaborative networks of WLCs, conceptualised as ‘worker-led entrepreneurial ecosystems’ (WLEEs) also reveal how elements of transformative labour agency are implemented and diffused beyond the scope of a single company. Theoretically positioned at the intersection of labour geography and transformation research, this thesis evidences and underlines the role that workers can play in socioeconomic transformations

beyond growth by applying their agency in transformative ways. As theoretical contribution to these fields of research, these insights pluralise the concept of labour agency on the one hand, and broaden the set of potentially transformative actors on the other hand. Illustrated by the example of WLCs in Germany, the results of this thesis set the cornerstone and open the doors for a more nuanced and diversified view on sites and forms of transformative labour agency that might prefigure more-than-capitalist work practices in a capitalist present.

Erweiterte Zusammenfassung

In den letzten Jahrzehnten sind die sozialen und ökologischen Defizite der gegenwärtig vorherrschenden Wirtschaftsstrukturen weltweit in unterschiedlichem Ausmaß weltweit immer deutlicher geworden. Dies führte disziplinunabhängig zu einer zunehmenden wissenschaftlichen Aufmerksamkeit, um diese Unzulänglichkeiten zu verstehen und zu adressieren. Dazu gehört auch ein verstärktes wissenschaftliches Engagement für die Erforschung, Analyse und Diskussion von Möglichkeiten des wirtschaftlichen Pluralismus, indem verschiedene Wirtschaftsräume innerhalb, neben und jenseits der kapitalistischen Strukturen beleuchtet werden. In dieser Hinsicht weisen sowohl Perspektiven aus dem Feld der ‚labour geography‘ als auch aus der geographischen Forschung zu sozioökonomischen Transformationsprozessen (im Folgenden als ‚Transformationsforschung‘ zusammengefasst) auf den relationalen Charakter von Wirtschaftsräumen hin. Das bedeutet, dass die gegenwärtigen Wirtschaftsstrukturen nicht in Stein gemeißelt sind, sondern dass die Menschen sie in ihren unterschiedlichen Rollen als Wirtschaftsakteure durch ihr Handeln und ihre Entscheidungen verändern können und dies auch tun.

Vor diesem Hintergrund unterstreicht die vorliegende Dissertation die zentrale Rolle von Arbeitenden in den gegenwärtigen Produktionsstrukturen. Aus einer ‚labour geography‘-Perspektive, auf der diese Arbeit basiert, sind Arbeitende nicht nur als passive Arbeitskräfte anzusehen, sondern auch als handlungswirksame Akteure, welche die Arbeits- und Produktionsstrukturen, in die sie eingebettet sind, (um-)gestalten können ("labour agency"). Das Hauptziel dieses Dissertationsprojekts liegt darin, die transformativen Potenziale von ‚labour agency‘ (Handlungswirksamkeit der Arbeitenden) zu analysieren, indem eine labour geography'-Perspektive mit Sichtweisen aus der Transformationsforschung verknüpft wird.

In diesem Sinne liegt der Fokus auf einem tieferen Verständnis und der Diskussion darüber, wie Arbeitende (kollektiv) zu einer wirtschaftlichen Reorganisation jenseits von wachstumsorientierten Strukturen beitragen können.

*Als empirischer Untersuchungsgegenstand liegt der Schwerpunkt hierzu auf arbeiter*innengeführten Unternehmen (WLCs) in Deutschland als anschauliche Beispiele für kollektive ‚labour agency‘, in denen die Arbeitenden über ihre eigenen Fähigkeiten, Zeit und Ressourcen verfügen. Sie haben also die Möglichkeit Arbeits- und Produktionsstrukturen durch kollektive Eigentumsstrukturen und Entscheidungsfindung in ihrem Unternehmen bewusst zu verändern. Als weiterer Analyseschwerpunkt liegt ein besonderes Augenmerk (i) auf den kontextspezifischen institutionellen und sozioökonomischen Bedingungen, die die kollaborativen*

ökonomischen Praktiken von WLCs in Deutschland begünstigen und begrenzen, und (ii) auf ihren transformativen Strategien, um diese umzugestalten.

Zu diesem Zweck habe ich eine bundesweite Umfrage unter 158 deutschen WLCs durchgeführt. Die Ergebnisse ermöglichen ein tieferes Verständnis des nationalen, politischen und sozioökonomischen Kontextes in Deutschland, in den sie eingebettet sind. Wie meine Studie zeigt, unterscheidet sich dieser Kontext entscheidend von den Randbedingungen für WLCs in südeuropäischen und südamerikanischen Ländern, in denen der Großteil der bisherigen Forschungen zu WLCs durchgeführt wurde. Um das geographische Wissen über WLCs zu erweitern und zu diversifizieren, beleuchtet diese Arbeit daher nicht nur die kontextspezifischen Motivationsfaktoren, sondern auch die institutionellen Zwänge und die (transformativen) Strategien, die deutsche WLCs anwenden, um diese zu bewältigen. In dieser Hinsicht zeigen die Studienergebnisse, dass das transformative Potential von WLCs ist (immer noch) durch das Fehlen eines adäquaten legalen und institutionellen Rahmen sowie durch die Einbettung in Marktstrukturen, die kapitalistische Arbeits- und Produktionsweisen begünstigen, eingeschränkt ist. Jedoch scheint das gemeinsame Streben nach einer Veränderung des Status Quo, verbunden mit einer Kultur der Solidarität und der gegenseitigen Unterstützung, eine starke Motivation und auch Antriebskraft zu sein, um einen guten Umgang mit diesen Beschränkungen zu finden.

In Übereinstimmung mit den Perspektiven der Transformationsforschung zeigen die empirischen Erkenntnisse darüber hinaus, wie Arbeitende in deutschen WLCs ihre Arbeitsstrukturen bewusst auf sozioökonomische Transformationen jenseits des Wirtschaftswachstums ausrichten. Beispiele hierfür sind die Reduktion von Arbeitszeit, die Integration von Sorge- und Ehrenamtsarbeit oder eine bewusste Begrenzung des maximalen Gewinns des Unternehmens. Basierend auf diesen Erkenntnissen möchte ich zu einer Erweiterung des Konzepts der ‚labour agency‘ beitragen, in dem ich deutsche WLCs als Orte der ‚transformativer labour agency‘ rahme und diskutiere. Dies schließt ein Verständnis von kollektiver Entscheidungsfindung und Eigentum als eine Form von ‚labour as commons‘ (‚Arbeit als Allmendegut‘) mit ein.

In Übereinstimmung mit postkapitalistischen Ansätzen und Auffassungen richten deutsche WLCs jedoch nicht nur im Rahmen ihres eigenen Unternehmens ihre Handlungen und Entscheidungen nach Werten der Solidarität und Kooperation aus. Ein genauere empirischer Blick auf die WLCs in Hamburg und Berlin als Städte mit einer relativ hohen Dichte an WLCs offenbart stark vernetzte kollaborative Netzwerke. Verstanden und diskutiert als "arbeitnehmer*innengeführte unternehmerische Ökosysteme", untersuche ich wie Arbeitende in WLCs ihre Handlungswirksamkeit nutzen können, um ihre wirtschaftlichen Werte und Strategien in dem (lokalen) wirtschaftlichen Kontext, in den sie eingebettet sind, zu verbreiten. Zu diesem Zweck

liefert eine vergleichende Fallstudie auf der Grundlage von Tiefeninterviews Erkenntnisse über Kooperationsstrategien, die auf gemeinsamen Werten und sektoralen Überschneidungen beruhen. Darüber hinaus ermöglichen die Ergebnisse der Fallstudie, eine Sensibilität für unterschiedliche soziokulturelle Faktoren und Bedingungen innerhalb eines ähnlichen politischen und institutionellen Rahmens zu entwickeln.

*Zusammengenommen zeigen die Erkenntnisse aus der bundesweiten Umfrage und der vergleichenden Fallstudie, wie die Arbeitenden in den untersuchten WLCs ihre ‚labour agency‘ bewusst nutzen, um Arbeits- und Produktionsweisen durch verstärkte Teilhabe, Transparenz und eine Kultur der gegenseitigen Solidarität und Unterstützung trotz institutioneller und sozioökonomischer Beschränkungen zu transformieren. Dazu gehört ein Verständnis von Arbeit und Produktion als kollektive Aufgabe und Verantwortung, das einer theoretischen Konzeptualisierung von ‚labour as commons‘ (‚Arbeit als Allmendegut‘) entspricht. Ein weiteres transformatives Potenzial offenbart sich darin, dass sie Prinzipien jenseits von Wirtschaftswachstum und Profitakkumulation anwenden. So ermöglichen die angewandten Praktiken der WLCs in Deutschland eine heterogenere Wahrnehmung möglicher wirtschaftlicher Aktivitäten im Rahmen eines Unternehmens. Darüber hinaus wurde in den kollaborativen WLC-Netzwerken in Hamburg und Berlin, die ich als ‚arbeiter*innengeführte unternehmerische Ökosysteme‘ konzeptionalisieren, sichtbar, wie Elemente der transformativen ‚labour agency‘ auch über den Rahmen eines einzelnen Unternehmens hinaus umgesetzt und verbreitet werden.*

Theoretisch verortet an der Schnittstelle von Arbeitsgeographie und Transformationsforschung, belegt und unterstreicht diese Arbeit die Rolle, die Arbeitende in Prozessen sozioökonomischer Transformationen jenseits von Wachstum spielen können, indem sie ihre Handlungsfähigkeit auf transformative Weise einsetzen. Als theoretischer Beitrag zur Forschung in diesen Forschungsbereichen pluralisieren diese Erkenntnisse zum einen das Konzept der ‚labour agency‘ und erweitern zum anderen die Gruppe der potenziell transformativen Akteure. Veranschaulicht durch das Beispiel der WLCs in Deutschland legen die Ergebnisse dieser Arbeit den Grundstein und öffnen die Türen für eine nuanciertere Sichtweise auf die unterschiedlichen Arten und Formen, in denen mehr-als-kapitalistische Arbeitspraktiken trotz institutioneller und sozioökonomischer Einschränkungen in heutigen kapitalistisch ausgerichteten Wirtschaftsstrukturen vergegenwärtigt werden können.

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Part I

1.Introduction

This PhD Thesis starts how I start most of my days in the week: Opening my eyes, getting ready – and channelling my concentration to work. I do this at a specific place at a specific time which may vary from day to day, month to month, year to year. Within my work and as a working person I am also embedded in broader societal and economic structures that consist of place-specific legal and institutional frameworks as well as historically evolved sociocultural values. Currently, my working activities are mainly embedded in a capitalist market system, which means that it is most likely that I need some form of paid activity to earn money with which I can pay my rent, ensure my survival and, if I am lucky, have some spare money to enjoy additional pleasures. In consequence and like most people I know, through my paid work activity I am part of a broader economic system, which is currently mostly organised in a capitalist way. In my concrete case, I am presently paid for producing knowledge and doing research on exactly this role that we *as working people* play in our current economic structures – and their potential transformation.

As a reader of this thesis, you might now have an image in mind of a young German woman who is sitting in front of her laptop, busily typing these lines with a stern concentrated look on her face.

However, you might also be wondering a lot what all this has to do with a text that was given to you as a PhD thesis within the discipline of economic geography.

So let me contextualise this picture for you: In the capitalist market structures that currently seem to prevail, workforce plays an important role to turn (im)material resources in to market goods (e.g. Harvey, 2014; Hudson, 2001;). Yet, under the premise that they are more than a ‘pseudo-commodity’ (Hudson, 2001:18) the economic geographical sub-discipline of labour geography puts workers as active spatial agents in the limelight. While labour geography scholars emphasise how existing economic structures as well as sociocultural contexts hamper the (collective) influence workers can exert (e.g. Coe & Jordhus-Lier, 2010; Hastings, 2016; Strauss, 2020b), they also illustrate how they actively (re)shape their economic environments in different ways (e.g. Aĝar & Böhmer, 2018; Dutta, 2020; Raj-Reichert, 2023; Rogaly, 2009). This capacity is commonly understood as ‘labour agency’ (Carswell and De Neve, 2013; Cumbers et al, 2008;).

Now, while capitalist market structures vary depending on political, institutional and spatial contexts (Hall & Soskice, 2001), the economic developments of the past decades show that they come with decisive social and ecological costs (e.g. Blühdorn, 2017; Brand et al., 2020; Meadows et al., 1972; Rockström et al., 2009). Much research is done to explore strategies and models to address these shortcomings – and find potential solutions and alternatives to the status quo. In this context, a reconfiguration of currently prevailing work structures is often included as an integral

part of a broader socioeconomic transformation, like work time reduction (e.g. Antal, 2018; Gomez-Baggethun, 2022; Seidl & Zahrnt, 2021), recognition of diverse work forms beyond paid labour (e.g. Gibson-Graham, 2008; Lawson, 2007; Oberhauser, 2000; Schmid, 2019b), or approaches of commoning work (e.g. Azzellini, 2016; Bauwens and Ramos, 2018; Helfrich and Euler, 2021). For the sake of better readability, those diverse strands of (geographical) research on processes of socioeconomic transformations beyond growth will be summarised under the term 'transformation research' in the following. A detailed discussion of their nuances and different focal points can be found in Chapter 2.2 below.

With a closer look on the interface between labour geography and transformation research, both research strands show crucial parallels that invite us to increasingly intertwine these existing shared perspectives.

Central assumptions in both research fields are:

- **Current economic structures function at the expense of people and the environment**, requiring a rethinking and transformation of our current economic practices (e.g. Brand et al., 2020; Meadows et al., 1972; Singh, 2019; Strauss, 2020b).
- **Paid work takes a central role in current economic structures** (e.g. Harvey, 2014; Hudson, 2001), often neglecting the importance of other unpaid forms of work (volunteering and care work) (e.g. Carr, 2022; England, 2010; Lawson, 2007; Nierling, 2012).
- **All people engaged in paid work are more than just "human resources."** They are conscious and sentient actors who can have an impact on the world around them through their actions and decisions (e.g. Coe & Jordhus-Lier, 2010; Gibson-Graham, 2008; Herod, 1997).

While there is a high variety and plurality of potential roles and actors for transformative action, the central role of workers within these structures puts them in a key position in transformation processes towards more just socioeconomic structures. .

Against this background, workers as shapers of their environment are at the centre of the analysis in this PhD project. The aim is to investigate the role of work in processes of socioeconomic transformations from a geographical perspective and to make visible already existing examples of transformative work. In addition to increasing the visibility of example companies that break with

conventional structures¹ in the way they work, the aim is also to identify drivers and barriers for transformative work structures. Taking up the term of ‘transformative geographies’ suggested by Schmid (2019a) to describe economic spaces beyond growth and accumulation, the focus in this thesis is on ‘transformative labour geographies’ as forms of labour geographies that simultaneously have a transformative effect on existing labour and economic structures (see Paper 1 in Chapter 2.4). Extending the concept of ‘labour agency’, I further suggest to speak of ‘transformative labour agency’ when *when workers use their agency consciously to alter and diversify modes of work and production in alignment with principles beyond economic growth* (see Paper 2 in Chapter 5.2). Among case examples of labour geographies in which workers actively contribute to structural change, companies owned and managed by the people working there’ are a particularly interesting example. Previous research, mainly from sociology and political science, already provides insights on different expressions of these kinds of companies, which emerge and persist, for example, under the name of worker cooperatives (e.g. Cheney et al., 2014; Matthew, 2017; Pérotin, 2013; Spicer & Zhong, 2022; Stervinou et al., 2015), worker-owned businesses (e.g. Hoffmann, 2016; Parker, 2017; Pencavel et al., 2006) or worker-recuperated companies (e.g. Azzellini, 2016; Larrabure, 2017; Vieta, 2019). Summarised under the term ‘worker-led companies’ (WLCs), they have in common that the workers in WLCs are in charge of their own time, skills and energy and adopt the ‘dual role’ of employees and entrepreneurs². In consequence, workers break with conventional structures by challenging their role as ‘human resources’ and by having a direct impact on the work and production structures of their company. Thus, it is worthwhile to take a look at possible further-reaching transformative potential of the diverse forms of collective and collaborative work spaces. Wearing the theoretical lens of a geographer, the relevance and influence of the spatial contexts and related political, institutional and sociocultural conditions are particularly interesting. With regard to different spatial and sociopolitical contexts, so far, the main attention seems to be on cases in South American and Southern European countries in which WLCs arise as a collective counter-reaction to moments of economic crisis, like in case of the the economic crisis in Argentina 2000/2001 (e.g. Azzellini, 2016; Larrabure, 2017) or the financial crisis 2007/08 (e.g. Kasmir, 2016; Kokkinidis, 2015; Vieta, 2015). As expansion to existing knowledge on WLCs as counter-reaction to crisis, insights from WLCs in Germany can contribute to a further pluralisation of geographical research on the phenomenon and the varying socioeconomic conditions under which they occur. Addressing different scalar contexts, a nationwide survey among German WLCs allows for broader insights on political and institutional conditions, while a comparative case study between the two

1 Understood as employer-employee organisation, typically with a workload of 40 hours/week

2 often framed as ‘worker entrepreneurs’ (Pérotin, 2013) or ‘worker owners’ (Cheney et al., 2014; Vieta, 2015)

German cities Hamburg and Berlin provides access to knowledge about different sociocultural factors within a similar political and institutional framework.

But before we start this explorative journey, let me give you a short description of my background and motivation for a better understanding of where we set off from.

1.1. Background and motivation – Point of departure

The earliest relevant point of departure that led to this PhD Project was that I changed track from European studies to Sustainability Science because I wanted (and still want) to understand and address the societal challenges we are facing today. During my master in Sustainability Science I learned and discussed a lot about the shortcomings of (capitalist) economic structures in the form of social and ecological costs. It became clearer and clearer to me that there is urgent need for action, but also that conceptions of ‘right’ and ‘wrong’ often fall short to complexities and (global) entanglements of current economic organising.

Two initial questions that I carried with me from the master program and that laid the cornerstone for the overall research focus and the research objectives stated below (1.3.) were:

1. At which points do which kinds of economic structures make sense in order to increase social and ecological justice and where are potential leverage points for transformative action in this direction?
2. Who are potential transformative agents and what kind of structures could increase their agency and effectiveness?

While many of the discussions during the master evolved around ethical consumer behaviour in terms of the reduction of waste and CO₂ emissions, sustainability and fair trade labels, and concepts like ‘nudging’ (e.g. Bornemann & Burger, 2019; Lehner et al., 2016) to increase sustainable action of individuals, I got more and more interested in the ‘black box’ of (potentially collaborative) production structures (Roome & Louche, 2016; Vazquez-Brust et al., 2020) – and potential transformative agents in this sphere (e.g. Hug et al., 2022).

In this regard, discussions often concentrate on enterprises as economic and potentially transformative actors, for example in the form of sustainable or social enterprises (e.g. Johannisova et al., 2013; Lekan et al., 2021; Peredo & McLean, 2006; Volkmann et al., 2021). At the same time, to me it seemed that there was little attention on who are the decision-makers and influential (sets of) agents who have the capacities to (re)shape production structures. In this regard, workers are

essential actors whose workforce is necessary to keep production running. As a ‘pseudo-commodity’ (Hudson, 2001) they underlie similar market mechanisms and related dynamics of exploitation for the sake of surplus value creation like natural resources. However, they are not just “[...] pawns to be traded in a market system, but [...] reflective beings that rely on human connection” (Bolton and Laaser, 2013: 517). Hence, this equips people in their role as workers with the capacity and agency to influence these mechanisms and dynamics.

That is how I came to be interested in the role of (wage) workers as central actors in today’s production structures and the field of labour geography, asking myself: how can people use their role as workers to influence economic structures towards increased socioecological justice and where is this already happening?

Here again, it quickly became obvious that labour agency understood as the capacity to shape economic spaces is always entangled with the specific context conditions as well as broader socioeconomic dynamics and (power) constellations (e.g. Coe & Jordhus-Lier, 2010; Nowak, 2021; Raj-Reichert, 2023; Strauss, 2020b). Furthermore, I also noticed soon that my initial understanding of workers as wage workers does not do justice to the complex and heterogeneous forms of work, e.g. including care work or voluntary work (e.g. Gibson-Graham, 2008; McKinnon, 2020)

Nevertheless, for the sake of concision, I decided to concentrate on wage workers as potential transformative actors while staying attentive and inclusive towards elements of care work and feminist perspectives on work (e.g. England & Lawson, 2005; Reid-Musson et al., 2020; Winders & Smith, 2019) during my research journey.

Against this background and on the lookout for economic spaces in which paid workers have a maximal influence on production structures, the case example of companies owned and managed by workers (‘worker-led companies’) became my research focus. From there the journey took off leading to the theoretical, empirical and practical insights summarised in this thesis.

Now before going into detail about them, let me put the research objectives into concrete terms so that they can serve as guidance and compass throughout the ensuing results and analytical discussions.

1.2. Research objectives – a compass

Under consideration of the reflections above, this thesis aims to understand and discuss the potential of labour agency for socioeconomic transformations beyond growth by intersecting labour geography perspectives with perspectives from transformation research. As an illustrative case study, WLCs in Germany are analysed through this interlaced theoretical lens.

This research is guided by four research objectives:

1. Theoretically, the guiding research objectives are to illustrate the (i) ***potential transformative impact of labour agency*** illustrated by the example of worker-led companies (WLCs) and to lay the cornerstone for an (ii) ***conceptualisation of labour geographies as potential transformative economic spaces***.
2. Empirically, the aim is to increase visibility of WLCs as sites of collective labour agency and to carve out ***context-specific political, institutional, sociocultural conditions that might support, but also limit the transformative impact workers in WLCs might have*** within the framework of their companies and beyond.
3. Furthermore, with a focus on and sensitivity to more-than-capitalist economic structures and practices, a further objective is to unfold ***in how far workers in German WLCs use their agency consciously to alter and diversify modes of production in alignment with principles beyond economic growth***.
4. As a final objective, an analysis and conceptualisation of ***collaborative networks of WLCs*** in Hamburg and Berlin ***as ‘worker-led entrepreneurial ecosystems’ (WLEEs)*** purposes the ***disclosure of collective labour agency beyond the scope of a company and its potential transformative impact on local economic developments***.

These stated objectives serve as guiding orientation points and compass needles in order to stay on a coherent path and to not get lost in thicket of intriguing side trails. Yet, I do not want to exclude the possibility that you might find answers to unasked questions. Furthermore, I am quite certain that after the lecture of this thesis, there will be plenty of still-to-be-answered open questions, which I would like you to understand as invitation for further thought, exchange and research pathways.

But for now, let us stay on the outlined path of this thesis which is structured as described in the following.

1.3. Itinerary and structure of the thesis

This thesis is divided into two major parts.

The first part consists of three chapters, including this introductory one. It comprises the overall motivational background and guiding research objectives (Chapter 1) followed by the theoretical coordinates for this thesis.(Chapter 2) and a description and discussion of the research design and applied methodology (Chapter 3). With its theoretical focus, Paper 1 is integrated in Chapter 2 and serves as theoretical foundation for the subsequent empirical works. As I composed and published it in the very early stages of my PhD, I enhanced it by further theoretical insights that I could gain during the explorative journey of my research.

The second part of this thesis consists of three chapters, too, but has a mainly empirical focus. After a short contextualisation of relevant site factors and socioeconomic orientation points of Germany as a research area, Chapter 4 consists of Paper 2 based on the empirical insights of a nationwide survey among German WLCs. Subsequently, Chapter 5 provides a short return trip to the theoretical coordinates to position the concept of entrepreneurial ecosystems within the overall theoretical coordinates, before presenting the results of the in-depth comparative case study between Hamburg and Berlin in the form of Paper 3 as last part of this cumulative PhD project. As conclusive final chapter, Chapter 6 summarises the main findings and the theoretical and practical contributions of the research. It also points to directions for future research

Before introducing and discussing the theoretical coordinates of this thesis, as announced, I will provide you with a short overview on the status, focus and contribution of the three articles that form this cumulative PhD project (see Table 1). Please note that it might come to slight differences in formatting, language (AE or BE) and quotation style between the three papers that are integrated in this thesis below. To provide access to their original versions, I kept them in the style that was requested by the respective journals as indicated in Table 1 below.

Table 1: Papers incorporated and own contributions

No.	Title	Journal	Status	Sequence of Ownership & Own Contribution	Focus and addressed research objective
1.	Transformative perspectives on labour geographies – The role of labour agency in processes of socioecological transformations	Geography Compass	published	Single-authored (100%)	Theoretical and conceptual intersections between labour geography and transformation research illustrated by an integrative literature review on WLCs (1 st research objective)
2.	‘We’re messing up capitalism through collaboration’: transformative labour agency in German worker-led companies	Work in the Global Economy	published	Single-authored (100%)	Conceptualisation and Discussion of German WLCs as sites of transformative labour agency with a focus on institutional and socioeconomic context-conditions (2 nd research objective) and alignments of their transformative strategies to principles beyond economic growth (3 rd research objective); Empirical basis: nationwide survey among 158 German WLCs.
3.	From worker-led companies to worker-led entrepreneurial ecosystems? The cases of Hamburg and Berlin compared	Economic Geography	Under review	Co-authored, fist author (85%)	Conceptualisation and Discussion of collaborative WLC networks in Hamburg and Berlin as ‘worker-led entrepreneurial ecosystems’ with a focus on the impact transformative labour agency beyond the scope of a single company (4 th research objective) Empirical basis: comparative case study between Hamburg and Berlin

2. Mapping the theoretical coordinates

Similar to workers as actors who are *practically* embedded in a broader spatial socioeconomic context, this PhD thesis is *theoretically* embedded in a broader scientific context with certain premises and assumptions connected to the disciplines it is positioned in.

With regard to the relevant research fields, this thesis can be placed at the interface between labour geography as a sub-discipline of economic geography and diverse research strands of geographical research on processes of socioeconomic transformation beyond growth. For the sake of better readability, these diverse strands are summarised under the term ‘transformation research’. Yet, this should not brush aside their nuances and focal points, which are presented and discussed in detail in Chapter 2.2 below, including a differentiated view on the term of ‘transformation’.

In both research fields, there are strong ties to and intersections with feminist (geography) research, which also tint the theoretical lenses applied in this research with their perspectives.

My theoretical Paper 1 (see Chapter 2.4) shows and discusses to what extent the field of labour geography and transformation research intersect. Paper 1 also provides the argumentative foundation to worker-led companies (WLCs) as a particular interesting empirical example. Yet, I will first provide some more coordinates on the ontological and epistemological premisses in both fields, which go beyond the scope of the journal article.

As the main focus lies on the potential contributions of wage workers as active spatial agents and socioeconomic actors, I will first elaborate on the premisses in the field of labour geography.

2.1. Paths and coordinates of labour geography

The path of labour geography as a discrete sub-discipline started with the works of Herod (1997:4) who criticised the marginalisation of workers “as sentient human beings” and the perception and analysis of labour as means of production which prevailed in the field of economic geography until then. Distancing himself from a neoclassical tradition of ‘geography of labour’ within economic geography, he draws on more Marxist traditions within the field, like e.g. applied by Harvey (1976, 2001), Lefebvre (1973), , and Massey (1994).

What this ontologically implies is a more *relational* and *constructivist* understanding of space, in which economic space is not viewed as an empty ‘container’, but as something that is continuously (re-)built and (re-)shaped through social processes, or how Massey describes it:

“The view, then, is of space-time as a configuration of social relations within which the specifically spatial may be conceived of as an inherently dynamic simultaneity. Moreover, since social relations are inevitably and everywhere imbued with power and meaning and symbolism, this view of the spatial is as an ever-shifting social geometry of power and signification.” (Massey, 1994: 3).

Inherent to the works of the named scholars as well as of other Marxist and neomarxist geographic researchers was a focus on class struggle and uneven spatial development under capitalism (e.g. Hudson, 1988; Smith, 1984). Yet, as criticised by Herod (1997) and later summarised and contextualised by Peck (2018), until Herod’s prompt and encouragement, their works have mainly asserted a passive role to labour that is exploited in and by capitalist economic structures. Embedded in the sociopolitical context of labour struggle and movements in the UK and beyond, which also caused a rise of activist and political engaged researchers (Peck, 2018), Herod (1997) lay the ground for a research field focused on workers as active spatial economic actors, famously known as a shift from “geographies of labour” to “labour geographies”. This capacity of workers to shape their (economic) environment is commonly framed as ‘labour agency’ (e.g. Carswell & DeNeve, 2013; Cumbers et al., 2008; Lier, 2007). Early works were much concerned with best-practice cases of labour organizing and the successful implementation of collective labour agency, mostly illustrated by the examples of trade unions (e.g. Sadler, 2000; Tufts, 1998; Wills, 2005). Yet, as the field evolved, more attention was drawn to the varying limits and constraints of labour agency in different sociocultural, spatial and temporal contexts (e.g. Coe & Jordhus-Lier, 2010; Hastings, 2016), or as Coe & Jordhus-Lier (2010: 222) point out: “[...] some workers occupy privileged positions within the broader system, [...] others find themselves in far more marginal, transitory and competitive working environment. The key point here is that there are massively different levels of potential agency within functionally integrated economic networks.” While keeping its political character, the discipline therefore became more self-reflective and nuanced in its endeavours.

This process continued – and is still going on. Strongly informed by feminist economic perspectives we can observe a pluralisation of concepts of labour geographies and labour agency as well as a more diverse understanding of what is understood by work and labour (e.g. Dutta, 2016; England &

Lawson, 2005; Raj-Reichert, 2023; Reid-Musson et al., 2020; Thakholi, 2021). However, in her two reports, Strauss (2020a) criticises that some ontologies, e.g. considering the spatial fix of labour, remain unchallenged and labour geography research “tends to include feminist and anti-racist approaches as minor ingredients.” (ibid, 2020a: 155). In consequence, she calls for a questioning of ontological grounding and the use of critical epistemological approaches. In this vein, Strauss (2020b) argues for an increased awareness of racial capitalisms and including their analyses in the field of labour geography. For her, this not only means to move beyond topics of social reproduction in order to open up conceptions of labour. It also means to remain critical on the inclusivity of the research field itself – and to consider and reflect on *who* feels invited to produce knowledge as a labour geography scholar (ibid: 1219). In a recently published paper, this was taken up by Raj-Reichert (2023). Reporting and drawing on the works of Hughes (2020) and MacLeavy et al. (2021), she invites to “look[...] beyond what we have come to understand in mainstream or traditional ways as forms of labour agency to instead consider a variety of actions as possibilities of agency exercised but for future outcomes of liberation.” (Raj-Reichert, 2023: 190).

The foregoing historical and political contextualisation of the field of labour geography reveal ontological and epistemological implications, which I will summarise in the following under consideration of their relevance for this PhD project.

Ontological implications

As could be seen in the foregoing contextualisation, one of the key assumptions within the field of labour geography is a relational understanding of (economic) space that can be actively (re-)shaped and (re-)constructed through human actions and decisions. This is also the premise for the concept of *labour agency*, and allows for a conception of workers as active spatial agents rather than passive ‘pseudo-commodities’ (Hudson, 2001). However, another key assumption concerns the embeddedness of (labour) agency in broader socioeconomic structures and related power dynamics. In concrete terms, the labour geographies and connected forms of labour agency that we could observe and analyse since the initiation of labour geography as a sub-discipline are embedded in a variety of globally entangled economic structures in which capitalistic forms of economic organisation prevail. Through a labour geography lens grounded in Marxist and feminist research traditions, this implies an inherent exploitative dynamic at the cost of labour and activities of social reproduction which are necessary to ensure continued capitalist production and the creation of surplus value (Harvey, 2014; Hudson, 2001; Massey, 1984; Strauss, 2020b). Thus, the category of labour comprising paid work and – informed by feminist scholars – unpaid and care work is mostly perceived in critical juxtaposition to and resistance against uneven economic developments due to a

hegemony of capitalist forms of organisation (Ağar & Böhm, 2018; McDowell, 2008; Rogaly, 2009; Strauss, 2012;).

Within a further pluralising and evolving discipline, recent works by Raj-Reichert (2023) and Strauss (2020b) challenge and broaden these ontological implications by inviting researchers to open their eyes to labour geographies and forms of labour agency that might exist beyond those that seem intuitive when coming from a Marxist and/or feminist economic research tradition. An example in this regard is the overview and critical discussion by Monteith et al. (2021) on different forms of work beyond wage invites to think beyond binaries like in/formal or precarious/decent work. With their understanding of work as “the act of provisioning for material wants and needs” (ibid: 10), Monteith et al. (2021) allow for a broader conceptualisation of work, including a more differentiated view on benefits and struggles of different types of work activities.

Furthermore, both Raj-Reichert (2023) and Strauss (2020b) argue for a closer look on *who* is considered as an actor in analyses of labour agency and *how* labour agency can be exercised and implemented in different socioeconomic and spatial contexts. In this vein, they integrate post-colonial and Global South perspectives in order to challenge and decolonise prevailing understandings of work. Recent examples for a pluralisation of labour geographies in this regard can be found in works by Dutta (2020), Ruwanpura (2016), or Thakholi (2021).

As a final ontological reflexion, Raj-Reichert (2023) suggests to analyse and discuss forms of labour agency as *emergent and in view of their potential future outcomes*. This perspective adds a *time-oriented* layer to existing labour geography research. The ontological consequence is a re-evaluation of labour agency as forms of activities that are mainly anchored in the present and immediate struggles and cause moments of resistance, disruption or liberation *in the here and now*. Instead, there is increased attention to potential impacts of workers’ actions and decisions for the realities of a yet-unforeseeable tomorrow. As will be seen in Chapter 2.3 below, this transformative element of future potentials and possibilities is also inherent to different approaches in transformation research.

In sum, the underlying ontological understanding in the field of labour geography is that workers are sentient agents who carry out different actions for the purpose of production, social reproduction (and potentially other forms of economic actions). Through their actions and decisions they are able to (re-)shape economic space which is understood to be relational, while simultaneously being embedded in and constrained by their different social, political, economic and spatial contexts.

Epistemological implications

As pointed out by Strauss (2020a: 151) “[...] the relationship between ontology, epistemology and theory matters for the politics of knowledge production.” In this vein and under consideration of the foregoing contextualisation of the field, some implications that concern the production of knowledge itself will be elaborated in the following.

From the very beginning of the project of labour geography, it was thought of and framed as both an analytical lens and a political argument. Or like Herod (1997) described it in his work that gave name, voice and space to research on labour geographies:

“But it is also a political argument (to the extent that the theoretical and the political can ever be separated) about whose interests economic geographers choose to try to understand and represent. The social production of knowledge is a political process. Conceiving of workers as simply factors of production or as “variable capital” is to tell the story of the making of economic geographies through the eyes of capital. By proposing [...] arguing for a more active and central role for workers in theory-building and empirical investigations of the creation of economic landscapes, it is also possible to tell the story of the making of economic geographies through the eyes of workers” (Herod, 1997: 26).

Epistemologically, this implies that the focus and orientation of a research project cannot be separated from the societal, political and historical position of the researchers who carry it out. Hence, while one objective is to *understand* the varieties of labour geographies under capitalism, the research field also takes an active stance as a political project (Herod, 1997; Lier, 2007; Peck, 2018). Or as Castree (2007:6) puts it: “Labour geography, in short, is not simply about working people [...], but is in some sense for them too, in all of their diversity.”

With regard to labour geography, the field has its roots in the context of the anglophone community of economic geographers of the 1980s/1990s who observed and criticised the increasingly neoliberalising tendencies in the national economic geographies they were embedded in (e.g. Peck, 2018). Already in 2007, Lier observes that “[s]till, very little attention has been given to this kind of politics outside the Anglo-American world.” While the discipline is much broader today (see e.g. Dutta, 2020; Ruwanpura, 2016; Thahkoli, 2021) – and still in processes of continued pluralisation and diversification, labour geography still relies strongly on English terminologies and connected implications on terms like ‘labour’, ‘agency’ or ‘work/ers’.

As I experience it myself as German researcher doing research in the spatial context of Germany, the anglophone context of the field influences how and in which terms I can understand and create

knowledge on German labour geographies: Through the differences in language and terminologies, I benefit from a shift of perspective. However, under the premise that I want to make my research accessible to a broader global scientific community, I am also limited to express and describe some German particularities accurately, which partly might get lost in translation processes. As part of an emerging labour geography community in Germany, we are often faced with the dilemma of international inclusivity and inclusivity towards German worker communities and practitioners.

Taking up critiques by Strauss (2020b), this raises question on *who* is able and feels invited to carry out research as a labour geographers and *how* this influences the knowledge that is created on (global) labour geographies under currently prevailing capitalist economic structures. This also concerns what is understood and explored as ‘labour agency’ and forms of labour resistance (Raj-Reichert, 2023). As a Western white researcher, I can still relate to understandings of labour as paid activity and trade unions as forms of collective labour agency. I also have an historic understanding of labour struggles/movements embedded in highly industrialised forms of capitalist economic structures. Yet, in my view and connecting to and understanding labour geography as a political project, it is important to recognise that these perspectives and understandings are not self-evident and might also set epistemological limits.

These described ontological and epistemological implications are relevant for this thesis in the following ways:

While the focus in this PhD project is on paid forms of labour activities, the ontology of labour as a broader category allows to perceive and include a more diverse and comprehensive set of activities as labour within the empirical materials. Moreover, as a core assumption of this thesis, it is the relational understanding of space and conception of workers as active spatial agents that allows to uncover potentials for (re-)shaping and (re-)creating economic spaces through labour agency. Here again, it is important to consider the sociopolitical and spatial context that puts its limit on (present) forms of (labour) agency, but also creates both the necessity and the potential to explore labour geographies as spaces of possibility for a socioeconomic reorganisation. With regard to the epistemological implications, an awareness of my own positionality and an integration of participatory research methods are an integral component of my research design. Details on the overall research design and choice of methods, including a subjectivity statement, can be find in Chapter 3 below.

With a particular focus on transformation research as a second research field, I will elaborate on the context as well as connected ontological and epistemological implications of different research strands within this field.

2.2 Paths and coordinates of diverse economies, post-growth geographies and transformation research

With regard to the second research field relevant to this PhD thesis, the theoretical coordinates are a little more difficult to capture in a clear way as geographical research on processes of socioeconomic transformation beyond growth is carried out under diverse names and with varying focal points. Furthermore, and in contrast to the distinct sub-discipline of labour geography, several research areas and communities of scholars with similar research objectives seem to co-exist and have not (yet) found a united umbrella term within the field of economic geography. As indicated above, I use the term ‘transformation research’ as a proxy and a placeholder to allow for better readability.

Latest with report “limits to growth” by the Club of Rome in 1972 (Meadows et al., 1972), there has been an increasing scientific awareness of the social and ecological costs of current economic activities. In reaction to the announced and increasingly dawning climate crisis, but also to the rising social inequalities, many scholars launched themselves – and are still engaged in – the search for and research of potential pathways and approaches to break with these damaging patterns (e.g. Blühdorn, 2017; Chatterton & Pusey, 2020; Rockström et al., 2009; Schmid & Smith, 2021; Wright, 2013). Inherent to the vast majority of these approaches is a holistic perspective on human-nature relations and a recognition of the interconnectedness of social and environmental systems (e.g. McGregor, 2013; Perkins, 2007). Thus, in contrast to a main focus on political and social motivations for economic geographers to challenge capitalist structures, which are present in the field of labour geography, aspects of environmental and ecological justice play a more prominent role. Yet, there are different focal points and analytical approaches, as discussed in the following.

Mainly using a multi-level perspective as an analytical tool, scholars under the label of sustainable transition research (STR) concentrate on sociotechnical innovations as drivers for change towards increased sustainability (e.g. Geels, 2011; Nora et al., 2021; Smith & Stirling, 2010). Yet, in concert with others, Chatterton (2016: 406) observes a “lack of discussion about capitalism, and especially anti-capitalism, as niche, regime, landscape or otherwise”. He invites for the inclusion of post-capitalist approaches both in terms of the research areas with a focus on practical examples of commoning as well as more collaborative and co-creative forms of research itself (ibid: 411f.). In a

similar vein, Feola (2020) points out the 'blind spots' and lack of a critical perspective in STR research on capitalist dynamics. He points out the danger that "[b]lindness to capitalism risks a return to an idealised image of the world economy that constrains, rather than supports the analysis of the sustainability of sustainability transitions, the application of STR to the Global South, and the move towards a forward-looking STR." (Feola, 2020: 248) and calls for a more critical examination of capitalism in STR and increased dialogue with post-capitalist approaches.

Taking a clear standpoint against economic growth as an end in itself, a community of researchers evolves under the label of 'post-growth geographies'. They see a necessity to critically scrutinise the focus on material economic growth by pointing out connected social and ecological externalities as well as issues of de-coupling and the limits of GDP as an adequate measure for a functioning economy (Lange et al., 2022), which is in line with scholars from cognate disciplines like for example Brand et al. (2020), Feola (2020), or Göpel (2016). Furthermore, with a critical view on a Global North focus in post-growth research, scholars like Dengler & Seebacher (2019), Löw (2015), or Singh (2019) expand and interlink current discourses by Global South and post-colonial perspectives.

Research with a critical view on capitalism and growth often includes feminist theoretical perspectives and an attention to multiple and heterogeneous forms and shapes that economic activities and structures can take. One famous research strand in this regard is the research community evolving around Gibson-Graham's (2008) diverse economy approach. They draw attention to invisible forms of economic activities, such as care work and unpaid work, that are needed for the maintenance of economic structures, but that do not receive the same recognition and validation as capitalist forms of economic activities. The emergence of this community and their research engagements was influenced by the political context in which the collapse of the Soviet Union's regime reinforced tendencies of capitalist hegemony and embedded in a research community in which scholar activism became more common. To give space to economic structures and activities beyond capitalism, Gibson-Graham (ibid: 613) announced "the birth of a 'diverse economies' research community in economic geography". Suggested and presented as a "performative ontological project", their research objectives centre around increased visibility of an *already existing* diversity of economic structures. Similar to the field of labour geography, Gibson-Graham (ibid) took Marxist and feminist research traditions as an entry point to take off the glasses of capital as the only theoretical lens to analyse economic structures. Like it is common among labour geographers, scholars within the diverse economy community apply a relational understanding of space and also see potential in the 'everyday practices' and agency of people as

economic actors, arguing that “*everyone* [i]s contributing to (and part of) the economy in different and multiple ways” (Gibson-Graham & Roelvink, 2010: 329; emphasis in original). In concert with other scholars like Federici (2018), Velicu and García-López (2018), or Helfrich & Euler (2021), Gibson-Graham et al. (2016) also discuss ‘commoning’ as a postcapitalist practices. In the context of ‘commoning labour’, the concept of ‘commons will be taken up in more detail in Paper 2 below (see Chapter 4.2).

As mentioned above, these different perspectives intersect in many regards, which invites to use them in an integrated manner. Associated with and engaged in the German community of post-growth geographers, Schmid (2019a+b; 2020) applied a diverse economy approach to post-growth geographies in the form of community-led organisations in Stuttgart (Germany), which shows that these different research strands are not mutually exclusive but can stimulate and enrich each other. Based on a review of de-growth and post-capitalist literature, Schmid (2019a) suggests the term ‘transformative geographies’ to describe such spaces of possibility beyond growth and accumulation, which was source of inspiration for the suggestion of the working term ‘transformative labour geographies’ as introduced in Paper 1 below (see Chapter 2.4).

Despite different understandings of transformation, the common premise is a necessity for encompassing (radical) change across different societal spheres in order to address current social and ecological inequalities. In consequence, this implies the need for a broader paradigm shift in distinction to the term of transition, which, according to Schmid & Smith (2021: 2), refers “more narrowly [to] replacing or altering particular social patterns, often through sectoral or technological shifts.” In line with this, and in reference to Polanyi’s (1957) historical analysis of “the great transformation” that led to today’s market-centred capitalist societal organisation, different German scholars in transformation research call for a similar all-encompassing structural societal change including technologies, regulations and institutions as well as values, norms and mindsets. (e.g. Brand et al., 2020; Göpel, 2016; Heyen & Brohmann, 2017; Schneidewind, 2018). Applied and entrenched by different German political institutions like the scientific advisory board of the German government (WBGU, 2011), the Heinrich-Böll foundation (Heinrich-Böll-Stiftung e.V., 2019) or the Federal Environment Agency (e.g. Wittmayer & Hölscher, 2017; Zieschank & Ronzheimer, 2017) the term ‘the great transformation’ coined by Polanyi alongside with more radical calling for a “social-ecological transformation” are also quite established in German political discourse around climate crisis and a sustainable future.

Yet, the use of the term transformation is not uncontested. Feola (2015) and others like Brand (2016) or Lange & Bürkner (2021) also point out blind spots and ambiguities with regard to its use as a “buzzword”(Feola, 2015: 387) or when used in an undifferentiated manner, which might in fact rather contribute to a manifestation of the structures that are meant to be transformed. Thus, they call for a more nuanced and careful, yet rigorous engagement with the term and its conceptual plurality. A crucial differentiation that is the one between more analytical and strategic/solution-oriented approaches connected to the term (Brand, 2016; Feola, 2015). In their report published by the German Federal Environment Agency, Wittmayer & Hölscher (2017) reach a similar assessment based on their review of (emerging) concepts and methods that can be summarised under the term transformation research. They conclude that the concept of transformation has a two-fold function, both as an analytical and descriptive tool and as a more practically engaged and action-based approach, which includes a reassessment of research itself. Or in their words:

“Transformation research studies and supports fundamental change processes of societal systems towards sustainability from a scientific perspective. These research goals require both descriptive-analytical as well as transformative research approaches, which yield conceptual and actionable knowledge through trustworthy, transparent and reflexive research processes.” (Wittmayer & Hölscher, 2017: 15)

In this double function of research on and support of a fundamental societal transformation in favour of increased social and ecological justice corresponds to the above-described objectives of labour geography as analytical lens and political project. Furthermore, like in the field of labour geography, the contextualisation of a transformation research perspective and cognate research strands reveal ontological and epistemological implications, as summarised in the following.

Ontological implications

A first fundamental premise that might seem self-evident, but can – at least politically – not be taken for granted, is the recognition of a human-caused socio-ecological crisis that is connected with severe costs for present and future human and natural environments. In consequence, in the summarised approaches above, the need for change goes beyond small steps of adaptation, but requires a fundamental structural change and paradigm shift that “requires the involvement of social, symbolic, physical, and material changes, that is, fundamental alterations in e.g., sense-making, worldviews, political and power relations, social networks, and ecosystems, physical infrastructure, and technology, respective” (Feola, 2015: 282).

While path-dependencies and (structural) concentrations of power are recognised and discussed as limiting factors for people's agency as economic actors, there are two ontological implications that are particularly relevant for this thesis:

1. people can (re)shape economic structures through their actions and decisions, which corresponds to the concept of 'labour agency' in the field of labour geography
2. there is an already existing variety and diversity of economic organising that goes beyond the currently prevailing paradigms of capitalism and economic growth

In this vein, Gibson-Graham (2008) offer a performative lens on economic spaces. As introduced above, they introduce an ontology of economic spaces as diverse and dynamic spaces of possibility and imagination that allow for existing, yet unrecognised economies to become visible, and for new ones to emerge. In consequence, this opens up potentials to practically and theoretically engage with the variety of forms and shapes in which economic structures and practices are established, maintained – and performed on a daily basis.

Of further ontological importance in both diverse economy and post-growth geography approaches is a horizontal and non-hierarchical understanding of space that corresponds to and is informed by practice theory approaches (Gibson-Graham, 2008; Gibson-Graham & Dombroski, 2020; Lange & Bürkner, 2022; Schmid & Smith, 2021). Inherent to this perspective is an understanding of (economic) space as performed and sedimented through social practices that are embedded material arrangements and infrastructures (Schmid & Smith, 2021), which expands both ontological and epistemological possibilities within economic geography. In the context of low-carbon urban transformations, Bouzarovski & Haarstad (2019) particularly stress the complexities and multitude of horizontal and vertical scalar structures. Rather than organising scales within nested hierarchies "like Russian Dolls" (2019: 261) – the authors see them as "arenas for articulating the relationships and networks that enable and constrain [...] transformations." (ibid.) In their conclusion, they point out the benefits to understand "how variety of agencies are involved in allowing relatively localised interventions – or elements thereof – to travel from one place to another, or become implemented across a wider variety of territorial and governance contexts".

A final ontological implication is the acknowledgment of negative social and ecological effects as human-induced which leads to implicit and explicit requests for ethical responsibility towards present and future generations. While descriptive and observant analyses are still deemed important to *understand* the ongoing process, many scholars also attribute stewardship to science in order to

foster (economic) developments towards increased social and ecological justice. (e.g. Hölscher et al., 2021; Loorbach et al., 2017; Mertens, 2021; Wittmayer & Schöpke, 2014)

This assumption is densely interwoven with epistemological consequences which are, together with implications from the forgoing approaches, elaborated in the following.

Epistemological implications

While more content-related intersections are discussed in the research article below (see Chapter 2.4), a further theoretical parallel to labour geography research lies in the perception of researchers as active ethical and political agents rather than neutral observers, which puts them in a position of responsibility when it comes to their research objectives and projects. Or how Gibson-Graham & Dombroski describe it in their handbook:

“The performative act of theorizing and researching has the potential to move from the symbolic realm of language and discourse into the material realm of affordances and embodied action – creating states of being, shaping subjectivities and directing experiences. Such a conception of knowledge production acts as a salutary warning to researchers to consciously examine what effects (objects, relations) they are participating in making ‘more real’. At the same time, it is an invitation to upturn and yet still build on Marx’s adage that we understand the world in order to change.” (Gibson-Graham & Dombroski, 2020: 8)

A further epistemological implication lies in the encompassing character of a required paradigm shift and societal transformation with regard to current social and ecological challenges. Here again, there is a call for plurality and diversity not only in *what* we analyse and explore, but also in *how* we do it. This results in calls for and implementations of inter- and transdisciplinary research endeavours, often with a focus on increased participative approaches and collaboration both among different scientific disciplines and areas of practice (e.g. Hölscher et al., 2021; Mertens, 2017; Schneider et al., 2019; Wittmayer & Hölscher, 2017).

Again, this raises questions of positionalities, but also of academic stewardship and the role of science in these processes of socioecological transformations. As a personal conclusion from this, it was a constant part of my PhD journey to stay informed by and in touch with scientists and practitioners from diverse backgrounds, as detailed in Chapter 3 below.

Furthermore, two inner guiding questions co-existing to the more official research questions were and still are:

- How can the knowledge that I create contribute to increased social and ecological justice?
- How can I take societal stewardship in my role as scientist with regard to the social and ecological challenges of our time?

These questions together with mentioned ontological and epistemological implication from both labour geography and transformation research and cognate research strands also informed my research design and methodology, as are elaborated in Chapter 3 below.

But let us for now keep the focus on the theoretical framework and the intersections between labour geography and transformation research that serve as a root network for the subsequent empirical works.

2.3 Brief contextualisation of Paper 1

In the last two sub-chapters we could see how the field of labour geography and transformation research apply similar ontological and epistemological premises. Three shared central implications are

- *a relational understanding of (economic) space*
- *diverse understanding of economy beyond capitalism and the acknowledgment of economic plurality*
- *an understanding of the research area/research strands as analytical tool and political project*

These premises can be considered as important theoretical parallels that support increased intersections between the fields. Now considering the first research objective of Paper 1 to accentuate existing parallels between these two research threads (see Chapter 2.4) you might wonder why these elaborations are not included in the paper. For this, it is important to understand the context of the paper and its position in the PhD thesis:

As a first cornerstone of my PhD project, I did the research and analysis work for this paper before my empirical investigations and at a very early state of my scientific career. My focus was on setting a reference point and creating space and (public) visibility to the identified research gap and connected possibilities of scientific contributions through my theoretical and subsequent empirical work. With a perspective on science as an iterative process (e.g. Morgan & Nica, 2020; Yeung,

1997), I am sure that this paper would turn out very differently if I wrote it today. Yet, from today's perspective, I still agree completely to its lines of arguments and overall content, and a current re-iterated version of it would mainly differ from the published version in terms of thought organisation and more attention to the depth of layers that intersect between labour geography and transformation research. A further insight that I could not have before my empirical investigations, but which enriches me now, is about the inclusion and focus of ecological transformation processes. With my background in sustainability science, I was educated with a very integrated view on these two spheres. In consequence, I saw the potential that (transformative) labour agency could have a major impact on increased ecological justice along production lines. Yet, while it was marginally mentioned in both the survey and the interviews, empirical evidence from my own data was too thin to draw any substantial conclusions in this regard. In dialogue with my empirical insights, despite the integrative framing of 'socioecological transformations' in Paper 1, the other two papers will use the term 'socioeconomic transformations' instead, which fits more adequately to the empirical evidence at hand.

However, when regarded as a stand-alone paper, I would still argue in favour of the term 'social-ecological transformations' as it could open doors for other scholars and future research to see how labour agency can also be transformative in an ecological sense. Examples for already existing research in this regard are the works by Pye (2022), Rätzl et al. (2021), or Stevis et al. (2018).

A further terminological issue is about the umbrella term that is used to describe companies in which workers hold (financial) ownership and decision-making rights over their company and manage it in a democratic way. While my brain did not come up with a better description than "worker-owned/managed companies" in Paper 1 (Chapter 2.4), it fortunately found the more elegant description of "worker-led companies" (WLCs) that I use in Papers 2 and 3 as well as in the framework chapters.

With these additional contextualisations, I will now leave the stage to Paper 1 and let it talk for itself.

**2.4 Paper 1: Transformative Perspectives on Labour Geographies – the
Role of Labour Agency in Processes of Socioecological
Transformations**

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Transformative Perspectives on Labour Geographies – the Role of Labour Agency in Processes of Socioecological Transformations

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Abstract:

Both geographical research on socioecological transformations and labour geography see decisive deficiencies in current capitalist structures centred around growth. To highlight possibilities of economic pluralism, both fields analyse diverse economic spaces within, next to and beyond capitalist structures. A basic assumption in transformation perspectives is that economic structures are not fixed, but can be transformed by people as economic actors. This corresponds to the concept of 'labour agency' from labour geography, i.e. that workers as active agents are able to (re)shape the structures they are embedded in. Despite those common perspectives, these threads of research coexist without having been intertwined. With a focus on wage labour, this paper addresses the potential for an integrative perspective illustrated by the example of companies owned/managed by workers. In charge of their own skills, time and resources, workers can actively break with prevalent market logics, which incentivise trading (human) resources at the lowest price possible. By rejecting core dynamics of capitalist structures, these companies illustrate the workers' potential key role in processes of socioecological transformations. Thus, the derived objectives of this paper are (1) to analyse and accentuate existing parallels between labour geography and research on socioecological transformations, (2) to illustrate the potential transformative impact of labour agency exemplified by companies in worker's hands and (3) to enrich the field of labour geography by an understanding of labour geographies as transformative spaces. This paper serves as a cornerstone and invitation for further research at this interface.

KEYWORDS

agency, labour geographies, ownership, socioecological transformation, synergies, work

1 . INTRODUCTION

In the logic of capitalist market structures that currently seem to prevail, growth is a necessary condition to ensure continuous economic circles of production. By turning (im)material resources through their labour power into vendible commodities, workers play an essential role in these circles (e.g. Hudson, [2001](#); Harvey, [2014](#)). In the pursuit of creating surplus value¹, structures centred around this logic come with decisive costs for both the human and the non-human environment (Blühdorn, [2017](#); Meadows et al., [1972](#); Rockström et al., [2009](#); Wright, [2013](#)). To keep production costs low, companies tend to overuse natural resources and accept rising pollution and CO₂ emissions as well as increasing (global) social inequalities to increase their profits (e.g. Brand et al., [2020](#); Demailly et al., [2013](#); Rockström et al., [2009](#); Schmid, [2019](#)). In a similar vein, labour power is overused and “*purchased as a commodity in exchange for money*” (Lier, [2007](#), p. 815), which leads to exhaustion patterns in form of burnouts and overworked workforces, wage dumping as well as insecure and precarious working conditions (e.g. Neckel & Wagner, [2017](#); A. Smith et al., [2008](#); Strauss, [2012](#)). Perceiving these social and ecological costs as inherent to capitalist market and production structures, many scholars see the necessity of a deeper socioecological transformation beyond capitalist modes of production (Brand et al., [2020](#)). Here, the term transformation is understood as a deliberate process as opposed to a mere observation (Feola, [2015](#)). Workers as active agents and inherent part of production structures have the capacity to (re)shape their environment through their actions and decisions (‘labour agency’) - a fundamental premise in the field of labour geography. Considering the necessity to transform core structures, labour's central role provides workers with a high potential to contribute to such a transformation.

With a focus on wage labour, this paper intertwines perspectives from the field of labour geography with perspectives from research on processes of socioecological transformations. Despite sharing theoretical common ground, the advances that could be achieved by bringing these perspectives together have not yet been pursued. Besides pluralising the field of labour geography, insights on workers' struggles and strategies can offer a different angle on pathways and possible solutions towards a socioecological transformation. Furthermore, an emphasis on the transformative element of labour agency can serve as a gateway to enhancing our understanding of *already existing* and possible future spaces of transformation.

Much research has already been done on diverse economic spaces aligned to principles of a deeper socio- ecological transformation (e.g. Chatterton, [2016](#); Gibson-Graham, [2008](#); Schmid & Smith, [2021](#); Schulz & Bailey, [2014](#)). A shared assumption is that people as economic actors have the capacity to (re-)shape their economic environment through their decisions and actions

(e.g. Gibson-Graham & Roelvink, [2010](#); Hobson & Lynch, [2016](#)). This is similar to the concept of 'labour agency' from the field of labour geography.

Focussing on labour and exploitative conditions for workers, the field of labour geography shares a critical perspective on current capitalist production modes (e.g. Castree, [2007](#); Herod, [1997](#); Lier, [2007](#); Peck, [2018](#)). Labour geography scholars analyse the pluralistic ways in which workers react to, align and resist current labour structures as described above: while some scholars focus on (everyday) life choices (e.g. Carswell & De Neve, [2013](#); Dutta, [2016](#); Rogaly, [2009](#)), others shed light on more organised and institutionalised ways of reacting (e.g. Coe, [2012](#); Cumbers et al., [2008](#); Ruwanpura, [2014](#)). Important contributions to the field are made by feminist labour geographers, who stress the multitude of activities that take place beyond waged labour: although essential for the functioning of social and economic structures, activities of *reproduction* and care often remain invisible and un (der)acknowledged in their existence (e.g. England & Lawson, [2005](#); McDowell, [2001](#); Strauss, [2012](#)).

Regardless of those diverse activities beyond wage labour, capitalist economic practices often centre around production activities based on wage labour (e.g. Hudson, [2001](#)). Companies owned and democratically managed by workers illustrate the transformative potential of wage labour that lies within this sphere. When in charge of their own skills, time and resources, workers can actively break with capitalist market logics that incentivise trading (human) resources at the lowest price possible (e.g. Cato & North, [2016](#)). Thus, in addition to being a resourceful workforce, the workers also hold the role of entrepreneurs, and (transformative) labour agency is consciously translated into action. Worker-owned/managed companies constitute a particularly interesting example as, in their role as entrepreneurial entities, they are to some extent still part of the present economic 'game' but seem to be playing it (partly) according to their own rules.

Yet, while the occurrence of worker-owned/managed companies is deeply interwoven with their respective sociogeographical contexts, so far, they have mainly been analysed from sociopolitical perspectives (e.g. Azzellini, [2016](#); Larrabure, [2017](#); Vieta, [2015](#)). A spatial perspective could expand the knowledge on the reciprocal influence of these companies' emergence as well as their actions and the sociogeographical contexts they are embedded in. Discussed as forms of 'transformative labour geographies' (working term) to describe spaces of work that can contribute towards a deeper socioecological transformation, worker-owned/managed companies demonstrate how workers as spatial agents can create potential transformative impact through their actions and decisions.

At the interface between labour geography and research on processes of socioecological transformations, the main objectives of this paper are thus

- (1) to accentuate existing parallels between these two research threads,
- (2) to illustrate labour agency's potential transformative impact by studying companies owned/managed by workers, and
- (3) to lay the cornerstone towards and invite further spatial research on labour geographies as transformative spaces.

Part II offers an overview of the literature on economic structures and processes of socioecological transformations beyond growth and especially focusses on the role of labour. With these transformative perspectives in mind, the current state of research in the field of labour geography is reviewed and analysed in Part III with a special focus on the parallels to perspectives from research on processes of socioecological transformations. Part IV offers insights on companies owned/managed by workers, which are discussed as illustrative examples of '*transformative labour geographies*' as suggested above. Finally, these examples are put into a broader context emphasising the role of labour in the advancements of socioecological transformations as groundwork for future research.

2. PROCESSES OF SOCIOECOLOGICAL TRANSFORMATIONS AND THE ROLE OF LABOUR

Today, capitalist ways to structure the market often seem to prevail over other forms of economic structures. Pointing out the varieties of capitalism, Hall & Soskice (2001) show that current structures of capitalism are neither generalisable nor coherent but highly dependent on the respective politicogeographical contexts as well as their respective legal and institutional frameworks. Applied to the case of labour, Thelen (2001) shows how different political and institutional frameworks affect the degree of labour market (de)regulation as well as collective bargaining processes between employers and labour unions/organised labour. However, these varieties of capitalism have in common that market participants compete to produce their goods in the cheapest way possible and to sell them for the highest price possible, thus creating the highest surplus value possible (e.g. Hudson, 2001). As analysed by Harvey (2014), these kinds of market structures contain several contradictions. In the context of this paper, the capital-labour relation contradiction is especially crucial: "*The workers are important for the market as buyers of commodities. But as sellers of their commodity—labour power—capitalist society has the tendency to*

restrict them to their minimum price” (Harvey, [2014](#), p. 49). This often results in an overuse of workforce as well as precarious and insecure working conditions (e.g. A. Smith et al., [2008](#); Neckel & Wagner, [2017](#); Cato & North, [2016](#)). Further deficiencies² are becoming increasingly visible, e.g. by the use of natural resources beyond the planetary limits, rising pollution and CO₂ emissions as well as increasing (global) social inequalities (e.g. Brand et al., [2020](#); Demailly et al., [2013](#); Rockström et al., [2009](#); Schmid, [2019](#)).

Solutions to counter these deficiencies have been developed in geography and cognate disciplines. Their theories and concepts range from sharing economy and circular economy approaches (e.g. Demailly & Novel, [2014](#); Hobson & Lynch, [2016](#); Martin, [2016](#)) to approaches framed as ‘degrowth’ (e.g. Foster, [2017](#); Nørgård, [2013](#); Sekulova et al., [2013](#)), ‘post-growth’ (e.g. Antal, [2018](#); Johnsen et al., [2017](#); Schulz & Bailey, [2014](#); Strunz & Schindler, [2017](#)) or ‘post-capitalist’ (e.g. Blühdorn, [2017](#); Pitts & Dinerstein, [2017](#); S. Wright, [2010](#); Zanoni et al., [2017](#)). Known for their ‘diverse economy’ approach, Gibson-Graham ([2008](#)) emphasise the manifold shapes in which economic structures can be and *already are* organised differently and they point out that they exist *alongside* the currently dominant economic arrangements (e.g. Gibson-Graham, [2008](#); Gibson-Graham et al., [2016](#)). Economic practices are recognised as ‘everyday practices’ where “*everyone* [i]s contributing to (and part of) the economy in different and multiple ways” (Gibson-Graham & Roelvink, [2010](#), p. 329; emphasis in original). Consequently, economic actors are not rational and calculating robots but “[...] people with human flaws [...]” (North, [2015](#), p. 438). They are embedded in their respective sociocultural and environmental contexts and are capable of actively (re-) shaping their economic lives.

These perspectives and approaches demonstrate that while there is a broad spectrum of economic structures and patterns *within* the capitalist framework, the same holds true for economic varieties *outside, next to, and beyond* this framework. Calling for a “continuation and expansion of the efforts to understand transformation beyond growth and accumulation from a spatial perspective” as Schmid ([2019](#), p. 9) does, leads him to suggest the term ‘transformative geographies’ to describe such spaces of possibility beyond growth and accumulation. This is in line with Feola ([2015](#), p. 382), who as a result of his review on transformation concepts, identifies the common objective to “understand [...] and foster socially and ecologically effective responses to [Global Environmental Change], i.e. to achieve change that will generate sustainable modes of societal interaction with the natural environment”. He goes on to differentiate between a more descriptive-analytical and a more solution-oriented approach, the former approach having a stronger focus on the “*understanding* of change as a result of inadvertent or deliberate processes” (Feola, [2015](#), p. 384; emphasis added), while the latter rather focusses on the “*possibility* of deliberate action” (ibid. 385; emphasis added). As with many concepts that have a high degree of elasticity and room for interpretations, the term ‘transformation’ is fraught with the risk of being a

void catchword easily adopted into the systemic structures it seeks to change (e.g. Brand, [2016](#); Feola, [2015](#); Tanner & Bahadur, [2013](#)). In order not to fall into this trap, this paper takes an explicit stand for an understanding of transformation as a “transformation beyond the capitalist mode of production” (Brand et al., [2020](#), p. 166) that extends beyond a ‘greening’ of current structures.

In this paper's context, special attention is paid to the role of labour in these approaches. In post-growth scenarios work-time reduction is often debated (e.g. Antal, [2018](#); Foster, [2017](#); Nørgård, [2013](#); Schor, [2005](#); Sekulova, [2013](#)). Yet, many visions of a post-growth society. also go beyond reducing the number of hours spent with waged labour and extend to reorganising work itself in a more collaborative and community-oriented way. As one illustration of work in a post-growth society, Mair et al. ([2020](#)) map out utopian visions in which securing individual material conditions would no longer depend on work. In their view, “[w]ork in a post-growth utopia should combine an understanding of work as a means of social provisioning with the view that the economy must be materially restricted” (2020: 9)³. Examples of that sort already exist today and are discussed in a growing body of literature. For example, Lange ([2017](#)), Schmid ([2018](#), [2019](#)) and Schmid and Smith ([2021](#)) discuss the role of so- called ‘open workshops’ in the form of maker-spaces, fablabs and repair-café’s as examples for post-capitalist spaces. Offering participative and collaborative ways of production, they constitute a counter project to capitalist modes of production. Yet, they often rely on voluntary work and unpaid labour supplementary to paid labour activities, which impose time- and money-related burdens on the volunteers (Schmid, [2018](#), [2019](#)).

Another example are worker cooperatives (e.g. Healy, [2009](#); Kokkinidis, [2015](#); Parker, [2017](#)). In his discussion of different forms of alternative enterprises, Parker ([2017](#), p. 425) highlights the element of altered ownership in community interest companies, social enterprises or worker cooperatives. He argues that collective ownership incentivises a form of organisation that “work [s] for them, and therefore for others” (ibid). These examples demonstrate that today's economic structures are neither set in stone nor the only possible way to organise them. The “heterogeneity and plurality of economic forms” (Oberhauser, [2000](#), p. 69) is also highlighted by feminist economic geographers. They advocate for shifting the focus away from material throughput (Perkins, [2007](#)) and the discourse of humans as rational autonomous actors separated from nature (Nelson, [1997](#)). Instead, they focus on humans as a part of nature embedded in their (non-) human environment (ibid.). Creating a link between the ‘externalisation’ of environmental resources and the ‘externalisation’ of social reproduction, feminist theoretical

approaches evince how *care work* is, similar to non-human resources, taken for granted and overexploited within current economic arrangements (e.g. McGregor, [2013](#); McMahon, [1997](#); Nelson, [1997](#); Oberhauser, [2000](#); Perkins, [2007](#)). Gibson-Graham differentiate between “wage labor, alternatively compensated labor and unpaid labor” (2008, p. 616), thus listing different examples of non-wage labour (see *ibid*). While forms of non-wage labour are important in showing the diversity of working structures and practices, this paper focuses on the transformative potential of *wage* labour within the (altered) framework of entrepreneurial entities.

In sum, economic structures are highly performative and can be organised in diverse ways. In transformative approaches beyond capitalist production modes, the role of labour is addressed as an inherent part of a trans- formative economic reorganisation. Under the premise that people can (re)shape economy through their actions and decisions, the active role people *as workers* can play seems to be a promising entry point to transform and diversify current economic structures. This is in line with the fundamental premise of labour geography that workers are “spatial agent[s] who actively produce economic landscapes” (Herod et al., [2007](#), p. 252). An explicit link between analyses of labour in geographical transformation research and *labour geography research*, as introduced in Part III, could allow further insights and promote advancements towards a profound socioecological transformation as a deliberate process.

3 . LABOUR GEOGRAPHIES AND AGENCY IN LIGHT OF TRANSFORMATION

In 1997, Herod introduced the field of labour geography as a part of economic geography. Proposing the term ‘labour geography’ as opposed to ‘geography of labour, he shifted the focus on workers from passive fixed components of economic structures to a perception of workers “active geographical agents whose activities can shape economic landscapes in ways that differ significantly from those of capital” (Herod, [1997](#), p. 3). This introduction was embedded in a diversifying and decentralising field of economic geography strongly influenced by post-structuralist perspectives.

In the following two decades labour geography established itself as a sub-field (see Peck, [2018](#) for an historical overview) and as “an approach to place, space, and scale that can explain the plight of workers and opens the way for analyses of contestation and resistance” (Knutsen, [2015](#), p. 163). This is in line with Warren's ([2018](#), p. 702) definition of it being a “project animated by hopes for a more egalitarian world of work and concerns with worsening inequities”. Both definitions imply a

[2007](#); Cumbers et al., [2008](#); Hudson, [2001](#)) and secondly are not mere passive ‘commodities’ but that they can actively (re)shape the economic landscapes in which they are embedded (e.g. Herod, [1997](#); Lier, [2007](#); Rainnie et al., [2010](#)).

Similarly, England and Lawson's ([2005](#), p. 87) understand formations of work as “not simply direct engagements with capitalist social relations, but also entail[ing] complex, contradictory, and differentiated forms across diverse places, cultures, and histories”. In line with other feminist labour geographers, they point out the necessity of and dependence on spheres of (social) reproduction and care work for the functioning of both the economic and broader societal structures (e.g. England & Lawson, [2005](#); Lawson, [2007](#); McDowell, [2001](#); Strauss, [2012](#)).

With a focus on *unpaid* activities necessary for a decent living in human society, they analyse forms and connected struggles of labour *beyond* paid activities embedded in market structures and highlight the pluralistic and diverse shapes work can take (McDowell, [2001](#); Strauss, [2012](#)). Giving room to already existing alternatives *beyond* capitalist structures, this is in concert with a diverse economy perspective and examples of voluntary work and care work discussed in research on processes of socioecological transformations (see Part II).

Those aspects notwithstanding, *paid* labour activities are still central in the machinery of today's economic market structures coined by capitalism. Much research has been done to investigate the spaces, conditions and struggles of workers with a focus on inequalities related to these structures (e.g. McDowell, [2004](#); Peck, [2018](#); Rutherford, [2010](#)). Under the premise of workers as active agents, researchers have highlighted examples of worker resistance. The shared assumption is that workers are “not just [...] pawns to be traded in a market system” (Bolton & Laaser, [2013](#), p. 517), but that they have an *agency* and can impact the structures through their actions and decisions (e.g. Carswell & De Neve, [2013](#); Lier, [2007](#)).

Albeit a matter of conceptual debates (e.g. Coe & Jordhus-Lier, [2010](#); Hastings, [2016](#); Strauss, [2020](#)), the topic of labour agency constitutes a central investigation object to understand people's (re)actions in and to their specific working environments. Much research concentrates on labour agency implemented in organised forms like trade unions (e.g. Coe, [2012](#); Ruwanpura, [2014](#); Sadler, [2000](#); B. E. Smith, [2014](#)) “rather than [on] a broader conceptu- alization of work under capitalism” (Cumbers et al., [2008](#), p. 371). However, in light of declining trade union member numbers in many countries of the Global North (e.g. Ibsen & Tapia, [2017](#); Schnabel, [2016](#); Vachon et al., [2016](#)) the inclusion non-institutionalised forms of labour agency is becoming ever more relevant. In this vein, multiple scholars have analysed the pluralistic ways in which labour agency is translated into action (e.g. Dutta, [2016](#); McMorran, [2012](#); Rogaly, [2009](#)). Connecting labour agency to spheres outside the immediate working context, Carswell and De Neve ([2013](#))

highlight the importance of people's everyday life practices and their impact on their respective working conditions. With a similar perspective, Coe and Jordhus-Lier (2010, p.218) stress that the identity of a 'worker' is but *one of people's* roles next to being, for example "citizens, consumers and family members". In this regard, Hastings (2016, p. 308) proposes a moral economic approach as a "means of connecting worker practice to moral-political norms and sentiments formed by workers primarily outside of work in the wider community or societal level". This is particularly important, when thinking of processes socioecological transformations as deliberate (see Part II). Translating values of socioecological justice into action, the key role of workers as workforce in production processes puts them in a promising position to address and potentially transform existing socioecological inequalities. In this light, labour geographies in which workers break with the logics of the (labour) market can be perceived as *transformative labour geographies*.

As summarised in Figure 1 below, decisive parallels can be detected in the field of labour geography and research on socioecological transformations. Both perspectives address the deficiencies of current capitalist economic structures, and they both reveal the diverse and pluralistic economic spaces that align with, resist against and coexist to these structures. Furthermore, they both assume that people as economic actors and workers have (constrained) agency and can therefore influence economic structures through their (deliberate) actions and decisions.

While there are certainly multiple ways to further interlace these research threads, this paper focuses on wage labour and its transformative potential. As could be seen, for one, labour agency is deeply interwoven with the workers' lives and values outside work, and for another, the potential to transform given structures is not only bound to institutionalised forms of agency. As will become apparent in the following, companies owned/managed by workers constitute both an implemented form of labour agency and are highly related to social values. Challenging core production structures, they will be discussed as potential forms of transformative labour geography in Part IV.

4. COMPANIES IN WORKERS' HANDS—TRANSFORMATIVE LABOUR GEOGRAPHIES?

The conducted literature review evinces the existence of various company forms in which ownership and decision rights have been transformed (e.g. Azzellini, [2016](#); Larrabure, [2017](#); Vieta, [2015](#)). In those types of companies, individual workers are in charge of their own time, skills and resources. As a consequence, their actions and decisions immediately impact production structures. Thus, they do not only constitute forms of labour agency beyond “worker/union-centrism” (Ağar & Böhm, [2018](#), p. 5) but they also challenge current production structures through (increased) democratisation and participation. In this vein, labour agency is implemented in alignment with principles of a deeper socioecological transformation (see Part II) and can, thus, potentially contribute towards it.

Organisational forms that share the idea of increased democracy and worker involvement have been investigated under different names such as worker cooperatives (e.g. Cheney et al., [2014](#); Matthew, [2017](#); Pérotin, [2013](#); Stervinou et al., [2015](#)), employee-owned firms (e.g. Kruse, [2016](#); Lowitzsch et al., [2017](#); Souleles, [2020](#)) and worker-owned enterprises/businesses (e.g. Hoffmann, [2016](#); Parker, [2017](#); Pencavel et al., [2006](#)). An integrative literature review shows that the same terms can be understood in different ways. For example, Lowitzsch et al. ([2017](#)) distinguish between employee/worker-owned firms and labour-managed ones. In the former case, employees are still hierarchically subordinated to managers, while in the latter case the firms are also *managed* by their workers. Pérotin ([2013](#), pp. 37f. + 42), who especially focuses on different regulative member share frameworks, makes a similar differentiation. Yet, she often uses the term ‘employee-owners’ and speaks of ‘labour-managed firms’ when describing different structures and patterns in worker cooperatives (ibid.). Distinguishing between worker cooperatives and employee-owned enterprises, Parker ([2017](#), pp. 428ff.) sees both as varieties of an economy with social and environmental benefits.

However, while worker cooperatives are often presented as promising ways to (re)organise enterprises beyond capitalist structures (e.g. Audebrand, [2017](#); Webb & Cheney, [2014](#)), some scholars perceive them more critically: As early as in 1899 Luxemburg described how cooperatives were torn between survival within a competitive market and assuring the workers' well-being. In their research, Stervinou et al. ([2015](#)), Bretos and Errasti ([2016](#)) or Sandoval ([2016](#)) give evidence that tensions of that sort do not seem to have changed since then. As further point of critique, Ressler and Azzellini ([2016](#)) draw attention to the fact that not all worker cooperatives distribute the company's shares equally and private ownership of production means is rarely scrutinised. In a similar vein, (Ozarow and Croucher [2014](#), pp. 996f.) point out that they often (still) reproduce capitalist patterns and structures. A special case of worker-

owned/managed companies are 'worker-recuperated companies' (WRCs) which mainly evolved as a response to the global economic crisis in 2008 and consequential employment issues. Particularly observable in Argentina, people were not ready to accept their crisis-caused redundancies. As a collective of workers, they decided to buy their respective companies from their previous owners and to manage them democratically themselves (e.g. Larrabure, [2017](#); Raffaelli, [2017](#)). Similar responses to increased bankruptcies of firms and the subsequent rising unemployment rates cannot only be observed in Latin American countries (e.g. Azzellini, [2015](#); Fishwick & Selwyn, [2016](#); Ressler & Azzellini, [2016](#)) but also in Southern European countries, e.g. Italy (Belloc, [2017](#); Tortia, [2018](#); Vieta, [2015](#)), Spain (Gritzas & Kavoulakos, [2016](#); Stervinou et al., [2015](#)), and Greece (Kokkinidis, [2015](#)).

Considering the context of their emergence, WRCs are mainly understood as a response to and resistance against crisis-shaken and malfunctioning economic structures, offering alternatives to well-trodden paths (e.g. Azzellini, [2016](#); Larrabure et al., [2011](#); Petrovic & Cvejic, [2015](#); Raffaelli, [2017](#)). However, Larrabure ([2017](#), p. 3) points out that they are still embedded in "the capitalist present" and perceives them as prefigurative "sprouts of the new" (ibid. 14). Stating that "[f]oreshadowing another world within the present one, workers' self-activity and resistances to capital shape those workers as they, in turn, shape a novel socioeconomic reality", Vieta ([2016](#), p. 57) shares this understanding of prefiguration. He further highlights the importance of '*autogestión*' in WRCs and defines it as the "working peoples' struggles against and beyond today's neoliberal economic order" (ibid, p. 55) and the ability "to create, control and provision with others one's own reality, hence to be collectively *self-reliant* and *self-determining*" (ibid., p. 56; emphasis in the original). Thus, the concept addresses efforts to create working realities beyond capitalism with the conscious collective action of workers to achieve these realities. While the first aspect strongly resonates with post-growth scenarios (Part II), the later show decisive parallels to the concept of labour agency (Part III). Moreover, LeFebvre's (2001, p. 779) understanding of *autogestión* as "a highly diversified practice that concerns businesses as well as territorial units, cities, and regions" underlines the spatial relevance of the concept, inviting further geographical attention. It can therefore be perceived as a bridging component between research on labour geographies and on processes of socioecological transformations. Framed as prefigurative projects that implement the concept of '*autogestión*' WRCs address the intersection between labour geography research and research on socioecological transformations and can therefore be understood as forms of *transformative labour geographies*.

Despite differences regarding their alignments to capitalist production structures, most reviewed literature suggests a high priority on social values within companies owned/managed by workers

(e.g. Azzellini, [2016](#); Kokkinidis, [2015](#); Larrabure et al., [2011](#); Webb & Cheney, [2014](#)).

Furthermore, this literature also points to an increased significance of cooperation and a sense of community beyond the companies' internal needs. For example, Ozarow and Croucher ([2014](#), p. 997) found that self-management by the workers in Argentinian WRCs “engendered a new sense of community, openness and togetherness”. Focussing on the cultural sector, Sandoval ([2016](#)) likewise describes cooperatives as possible solution to *collectively* deal with challenges of increased flexibilisation. As an inherently social activity that is beneficial for the society as a whole, Azzellini ([2016](#)) suggests governing labour collectively *as a commons*. Correspondingly, North ([2015](#), p. 20) argues that “[h]ow profit should be generated, shared and used [...] is also a key element of commoning”. He views this process as the “emancipation of labour from wage slavery and its replacement with democratic control over the labour and production process in a commons of work-sharing” (ibid.).

Finally, the reviewed literature shows that worker-owned/managed companies have been established in very different sectors. Although they are traditionally found in non-capital-intensive industries and small-scale manufacturing and construction (Dickstein, [1991](#)), today, they can increasingly be found in the cultural sector (Sandoval, [2016](#)), the human service sector (Matthew, [2017](#)) or the financial sector (Birchall & Ketilson, [2009](#)). Given this non-specific industry occurrence of worker-owned/-managed firms, they do not seem to be bound to a certain sector (e.g. Cheney et al., [2014](#); Esim & Katajamaki, [2017](#); Stervinou et al., [2015](#)). Considering the need for a broader socioecological transformation beyond a specific sector, this might be an essential quality.

This literature review on different types of worker-owned/managed companies reveals a very pluralistic landscape of work forms. An important differentiation seems to be the one between enterprises in which workers *own* (parts of) the shares and those that are also *managed* by the workers. Despite the manifold variations, a common crucial characteristic feature that sets them apart from conventional work forms is the importance of social and democratic values as well as the valency of cooperation and community. Workers are not merely understood as ‘human resources’ but have a say in the companies' decisions ranging from (partly) shared ownership to complete self-management. Thus, those company types actively break with current market logics that incentivise trading (human) resources at the lowest price possible. In particular the cases of WRCs show how workers have put their agency into practice in times of crises. As the distribution of worker-owned/managed companies appears to be highly spatially uneven, a geographical perspective could provide insights on the sociogeographical contexts in which these companies occur. Such insights might also open up new possibilities for practical knowledge transfer to different contexts.

Discussed as *transformative labour geographies* worker-owned/managed companies combine implemented labour agency ('autogestión') with elements of pre-figuration and disclose possibilities of (economic) transformations: they demonstrate how workers can significantly alter given modes of production through their collective actions and decisions. As discussed above, many scholars suggest that converting capitalist production structures might contribute to a deeper socioecological transformation. Understanding labour geographies as essential part in processes of socioecological transformations could therefore enrich existing labour geography research with a transformative perspective. Furthermore, it could expand the set of actors considered in socioecological transformation processes by highlighting the potential of workers in this regard.

5. CONCLUSION AND OUTLOOK

The purpose of this paper is to enrich the field of labour geography by putting the potential of labour in processes of socioecological transformations in the limelight. With a focus on wage labour, this paper accentuates and intertwines common perspectives in labour geography and research on processes of socioecological transformations for a more integrated perspective. Both strands of research see decisive deficiencies in capitalist economic structures centred around growth. Yet, in geography and cognate disciplines, there are manifold approaches and perspectives on economic spaces beyond and next to growth-oriented practices (Part II). A shared assumption is that people as economic actors can (re)create economic spaces through their actions and decisions. Concurrently, labour geography scholars highlight and analyse the multifarious areas in which labour reacts to, resists against but also is constrained by current capitalist structures. Central to a labour geography perspective, and a further parallel to research on processes of socioecological transformations is the concept of labour agency that emphasises the workers' capability to (re)shape the economic environment they are embedded in. Another analogy is the importance of spaces of reproduction and economic practices *beyond* growth, which stresses the pluralistic shapes economic (labour) structures can take. While these diverse economic practices beyond capitalism are essential in socioecological transformation processes, production structures based on wage labour and accumulation often prevail. In view of the need to transform core structures of today's capitalist economy (see Part II), labour's central role in production puts workers in a key position to alter these structures through their decisions and actions. However, they rather remain on the sidelines in the set of actors considered in processes of socioecological transformations.

In this light, companies owned/managed by workers are presented as one example in which labour agency is consciously translated into action and given production structures are deliberately transformed. A literature review evidences pluralistic organisational forms that comprise workers in a (more) democratic and active way and shows that transformative forms of labour agency have already been implemented. The reviewed literature also reveals a high significance assigned to social and democratic values as well as to the role of community and cooperation. This corresponds well to the importance assigned to such values in research on processes of economic transformations (Part II). Framed as prefigurative *working* spaces and “sprouts of the new” (Larrabure, [2017](#)), this paper situates companies owned/managed by workers at the interface between labour ge- ography and research on processes of socioecological transformations, suggested as forms of *transformative labour geographies*. Furthermore, the concept of ‘autogestión’ that combines efforts towards economic structures beyond capitalism and growth with a focus on workers' agency underpin the relevance of an intersectional perspective on working structures and their potential transformative impact. As Lefebvre ([2001](#)) explicitly highlights the spatial relevance of the concept, geographical examinations of it with focus on workers as transformative agents might enrich existing research.

The papers' core findings can thus be summarised as follows:

- (1) there is a high degree of overlap areas between labour geography and research on processes of socioecological transformations.
- (2) with a focus on labour agency (‘autogestión’), worker can be deemed important actors in forwarding a deeper socioecological transformation, which might open new pathways both in research and in practice.
- (3) worker-owned/managed companies can be perceived as examples for transformative labour geographies that already implement the potential of workers to affect their economic environment aligned to principles of a socioecological transformation.

With regard to future research potentials, the impact of different sociogeographical contexts on the occurrence of such companies as well as the interplay between labour agency and different legal and institutional frameworks raise geographical interest. As further research topic, questions of scale with regard to reach and depth of the impact workers can exert through their actions invite further empirical research and might add to ongoing geographical debates. In this regard, it might be particularly interesting to discuss and analyse if and how forms of transformative labour

geographies can be transferred and extended to different scales. The occurrence of companies in workers' hand in very diverse sectors already suggests a high degree of pliability. Yet, it remains to examine further what kind of barriers these companies meet and in how far increased participatory and democratic working structures might be transferred to different contexts. Finally, in light of recent events,⁴ insights from implemented forms of (transformative) labour agency as a reaction to economic crisis situations could be beneficial in tackling current challenges. Here, the revealed pliability of such companies with regard to industry sectors might be a crucial quality.

More often than not, work is perceived as an inevitable evil rather than an opportunity for creativity and imagination. Being conscious of the transformative potential and the agency of labour in the creation of a more socioecologically just economy can be a first step to bringing a little colour to the grey guise of work and expand the horizon of the imaginable.

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ENDNOTES

¹ increasing the margin between purchase price of labour power and (im)material resources and the selling price at the market.

² particularly when entangled with trends of globalisation and flexibilisation (Harvey, 2001).

³ See also discussion around universal basic income (e.g. Pitts & Dinerstein, 2017; Van Parijs & Vanderborght, 2018).

⁴ Covid-19 and respective socioeconomic consequences.

CONFLICT OF INTEREST

The author declares that there is no conflict of interest.

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3. Methodological orientation guide and toolkit

In order to conduct a coherent research project, the theoretical reflections and theoretical coordinates that inform the pathways and developments of this thesis precondition and influence the methodological research design and the methods that form my ‘toolkit’ to gain empirical insights. Unfortunately, it goes beyond the scope of this thesis to discuss and contrast different methodological premises and paradigms in more detail. However, the foregoing epistemological and ontological implications of the theoretical lens disclose connections to the broader paradigm of critical realism and related philosophical considerations on knowledge creation, which influence the methodological toolkit I used in this thesis and which I, therefore, do not want to leave unmentioned. Thus, the following sub-chapter will provide a short positioning of the research design in the philosophical considerations attached to critical realism.

Furthermore, and as well related to the paradigm of critical realism, both labour geography research and transformation research suggest a methodological toolkit that does not only serve a merely descriptive analysis, but also contains practice-oriented elements and includes an understanding of the researchers’ role as more than mere neutral observants (see Chapter 2). Hence, after giving an overview on the overall research design, including supplementary practice-based components, I will further provide a brief profile of my role as researcher in the form of a subjectivity statement.

3.1 Philosophical coordinates of a critical realism research position

As could already be seen in the ontological and epistemological implication of the theoretical framework, transparency about underlying assumptions and premises is crucial for increased traceability of both theoretical and empirical research processes and analyses.

Coined by Bhaskar (1975), critical realism offers a lens that bridges dichotomous understandings of more objectivist deductive approaches and rather subjectivist social constructionist approaches. While in this paradigm, there is acknowledgment of an existing ‘real’, a critical realist lens provide a more nuanced view by ontologically and epistemologically differentiating between the ‘real’, the ‘actual’ and the ‘empirical’ (Bhaskar, 2008 [1975]; Vincent and O’ Mahoney, 2018). This implies that the world with its (material) properties and causalities (‘the real’) is always entangled with and socially-bound and therefore subjective human perception and knowledge of these properties: as humans (and researchers) we can observe an *empirical* event through our subjective perspective that is based on, but may differ from what is *actually* happening and has its (multiple) cause(s) in *real* properties and (power) structures, as illustrated by the following figure created by Fletcher (2017):

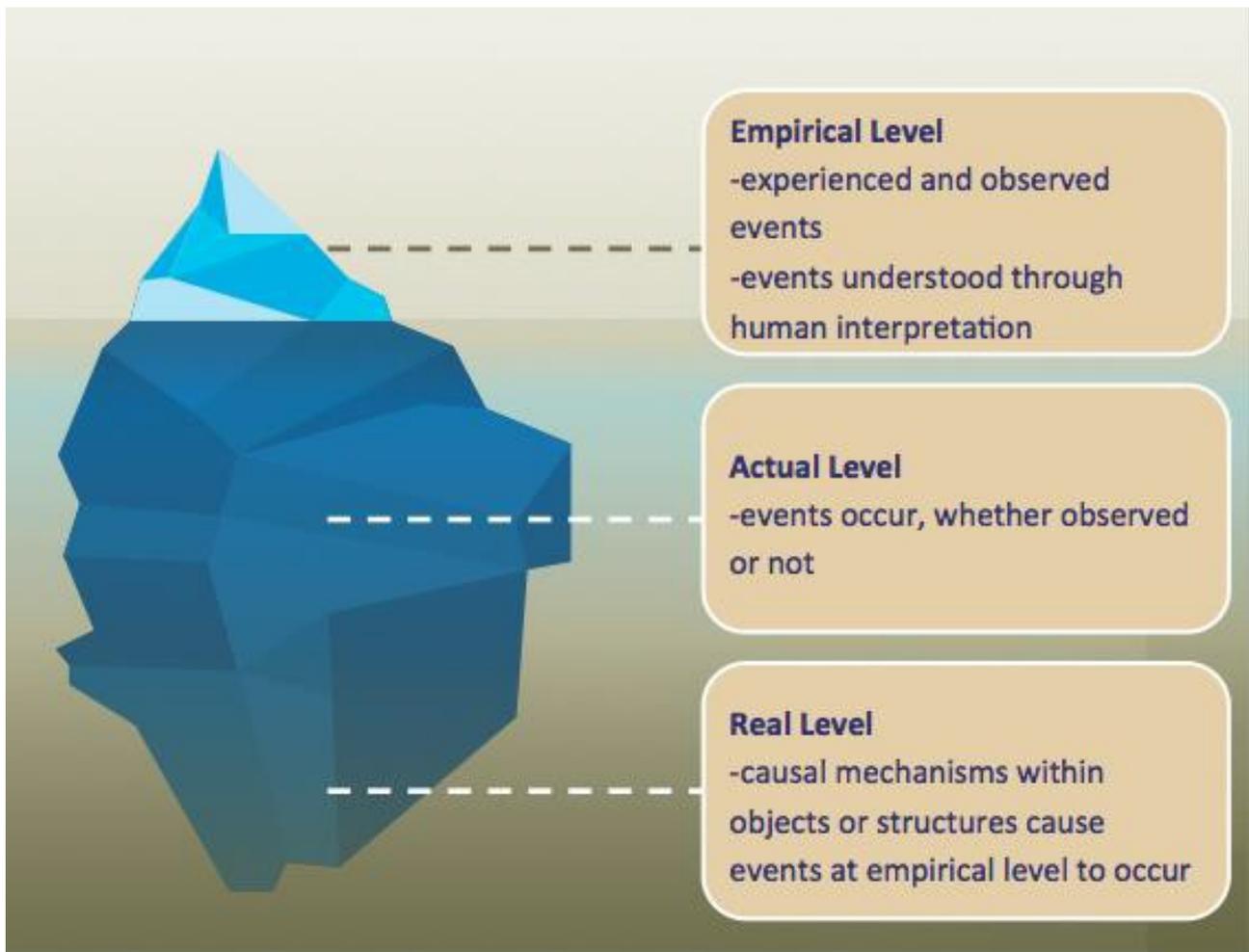


Figure 1: An iceberg metaphor for Critical Realism (CR) ontology and epistemology (Fletcher 2017)

This combination of *ontological* realism and *epistemological* realism allows to account for the complex mechanisms and causalities that lead to the occurrence of actual occurring and empirically observable phenomena and events (ontological realism). Simultaneously this perspective acknowledges human reasoning, agency and consequential actions to create knowledge about and interpret these occurrences and their causes as approximation of the ‘real’ (epistemological realism) (Vincent & O’ Mahoney, 2018; Yeoung, 1997). The general assumption is that an increased (approximate) understanding of the underlying, often invisible *real* mechanisms and causalities will create more nuanced insights of the complex entanglements and reciprocal (causal) interdependencies between different material and sociocultural entities and their related properties. However, while this might help to understand the occurrence of (social) events and phenomena as outcome of multi-layered and ever-emergent context-conditions, scholars like Collier (1998) and Sayer (1997) criticise that cognitive knowledge about certain structures and mechanisms is a

necessary precondition, but does not automatically lead to the capacities and resources that are required for their emancipation. In consequence, they advocate a more careful consideration of the diverse interdependencies and related dilemma and ambiguities of today's multicultural interwoven socioeconomic realities (ibid.). Yet, by taking seriously Bhaskar's (2008 [1975]) initial conception of the (both social and material) world summarised as "conjunctural determination of events and actions in an open world whose emergent entities are subject to dual or multiple control" (ibid: xviii)³, in my conception, these critiques invite more attentiveness, but do not break with the core assumptions of critical realism itself.

Against the background of these very abstract philosophical consideration, let us now look at their concrete implications for the research design and choice of methods. While critical realism neither constitute a method in itself nor prescribes a defined research design or sets of methods, scholars like Ackroyd and Karlsson (2015), Vincent and O' Mahoney (2018), or Yeung (1997) discussed and presented different options as methodological consequence of a critical realism paradigm. Examples range from iterative abstraction and grounded theory approaches to action research and (comparative) case study designs.

At this point, the foregoing ontological and epistemological implications of labour geography and transformation research come into play. In line with a critical realist perspective, research is based on a theoretical perception of social and material realities that have actual structural consequences, but are relational, open and ever-emergent. A further parallel is the assertion of power to human reason, agency and consequential actions. However, particularly in light of aforementioned critiques on the limitations of mere cognitive knowledge enhancement, the core understanding in both labour geography and transformation as both *analytical tool and political project* invites an attentive choice of methods. Especially scholars from transformation research are not only engaged in the understanding of and contribution to societal transformation, but also see potentials in transformative approaches to science and knowledge creation itself. Examples include more descriptive approaches for generation of conceptual understandings as well as more approaches to create more actionable knowledge, which often include participatory and transdisciplinary components (see Wittmayer & Hölscher, 2017 for an overview). While this thesis mainly consists of descriptive-analytical research that "[...] seek to mainly generate conceptual knowledge to describe, explain and evaluate transformation processes." (Wittmayer & Hölscher, 2017: 26), from a very early stage of research onwards, I decided to additionally include more participatory and collaborative elements, e.g. in the form of feedback loops on the survey and questionnaire designs,

3 Foreword written by Hartwig

research reports in a non-academic language as well as presentations and workshops for different non-academic audiences that are related to my research project. The purpose of these additional efforts was on the one hand to include actionable elements to this research project as political project like it is suggested by the theoretical lens of labour geography and transformation research. On the other hand, I perceive the consideration of practitioners' perspectives in the processes of knowledge creation and knowledge communication as potential contribution to translate cognitive insights into emancipatory action, which might address the critiques on a critical realism lens mentioned above. Furthermore, the inclusion of perspectives from practice in the research process supported me in my role as researcher to observe and experience more of the '*actual*' *empirically* (see Figure 1 by Fletcher 2017 above) through adding additional layers of interpretation and making me aware of former blind spots and overlooked occurrences. Nevertheless, this PhD project is not a genuine transdisciplinary project – and does not seek to be one. In consequence, ultimately all empirical data will eventually end up on my desktop and, in my role as researcher in charge for this research project, I still bear the main responsibility for a comprehensible data generation and analysis. Against this background, I will now elaborate on my overall research design and choice of methods.

3.2 Research design and choice of methods – An equipment overview

Under consideration of the different theoretical and philosophical coordinates and related ontological and epistemological implications provided in Chapters 2.1 and 2.2, I developed and implemented the following research strategies to address the stated objectives of this research project. I understand the whole process of knowledge creation as a dynamic and iterative one, which accounts for the methodological and empirical parts of it. For example, constraints like time limits, budget or my skills and capacities as researcher influence my strategies and methods and required constant awareness and, if needed, adjustments and adaptations. In my case, my research design and methodological choices were heavily influenced by the outbreak of the COVID19-pandemic in April 2020, which required severe rearrangements of the original design and also caused temporal delays in its adjusted implementation. While it was always an objective to contribute to increased visibility of transformative and diverse work structures, the development of a mixed-method survey design with both quantitative and qualitative elements emerged partly from the restricted possibilities to carry out field work under pandemic conditions. However, these limitations were not the only reason for the choice of an inventory survey among German worker-led companies. In contrast to other countries like Italy, Greece or Argentina (e.g. Azzellini, 2016; Kokkinidis, 2015; Larrabure, 2017; Vieta, 2015), the specific German institutional and legal

framework already represented a challenge in a very early state of the PhD project as it was not possible to easily gain a comprehensive overview on potential exemplary companies due to the lack of an adequate distinct legal form for worker-led companies in Germany. In consequence, the desktop research that I considered to be a stock-taking preparatory task for the assumingly more relevant qualitative case study work turned out to be a more expensive, but also more empirically significant than expected. Furthermore, the conversations with practitioners in the context of my search for a concise overview on German WLCs also revealed a practical interest in such an overview as practitioners could imagine it as a base for increased networking and mutual support and exchange. Hence, the choice for a survey design as first part of my research design emerged for pragmatic, analytical as well as practice-oriented reasons. Yet, the inventory character of the survey could still keep its preparatory function for a more in-depth qualitative research and it could serve as a filter to identify the most relevant locations for a comparative case study as a second part of this project. Details will be elaborated in the following paragraphs.

Survey Design

As stated by Secor (2010:196) the purpose of a survey is to “represent in summary form basic characteristics’ and ‘answer questions about the relationships between and among these characteristics, sites and subgroups.” Understood as specific form and subgroup of companies, this fits the objective to create more knowledge about German WLCs as potential sites of transformative labour agency. Next to increased visibility of the already existing variety of WLCs in Germany, a further purpose of the survey was to gain broader insights on political and institutional conditions for German WLCs and related drivers and challenges as well as on their diverse motivations and (transformative) strategies, which are discussed in more detail in Paper 2 (see Chapter 4.2).

As illustrated in Figure 2 below, as a preliminary step to the survey, I did a desktop research of various databases of social enterprises, registered cooperatives, and different forms of collaborative decision-making, using different key words such as ‘cooperative and collective work’ and ‘worker ownership’ to identify an overall number of 319 companies that potentially fulfil the following criteria:

1. Workers have (financial) ownership in the company.
2. Workers have (full) democratic decision rights in the company.

As a further selection criterion, most of the companies' activities needed to be based on paid labour, although some of the researched WLCs integrate additional voluntary activities in their work time. Informed by the results of the integrative literature review of Paper 1 (see Chapter 2.4) and further based on preliminary expert interviews and the results of the desk research, I created an online survey questionnaire. After some feedback loops with practitioners and other non-academic persons to ensure comprehensibility among the group of interest, I sent out it to the identified companies with the integrated invitation and allowance to forward it to further potentially interested companies. A combination of 21 closed questions and six open text fields covered more basic information and characteristics like sector, size and locations as well as topic areas like work organisation and decision-making; ownership rights and legal framework; cooperation and partnerships; barriers and challenges and future visions and utopias.⁴

⁴ More detailed information on the survey questionnaire can be found under this link: <https://nextcloud03.webo.hosting/s/goYGT3fT8GWdei9>

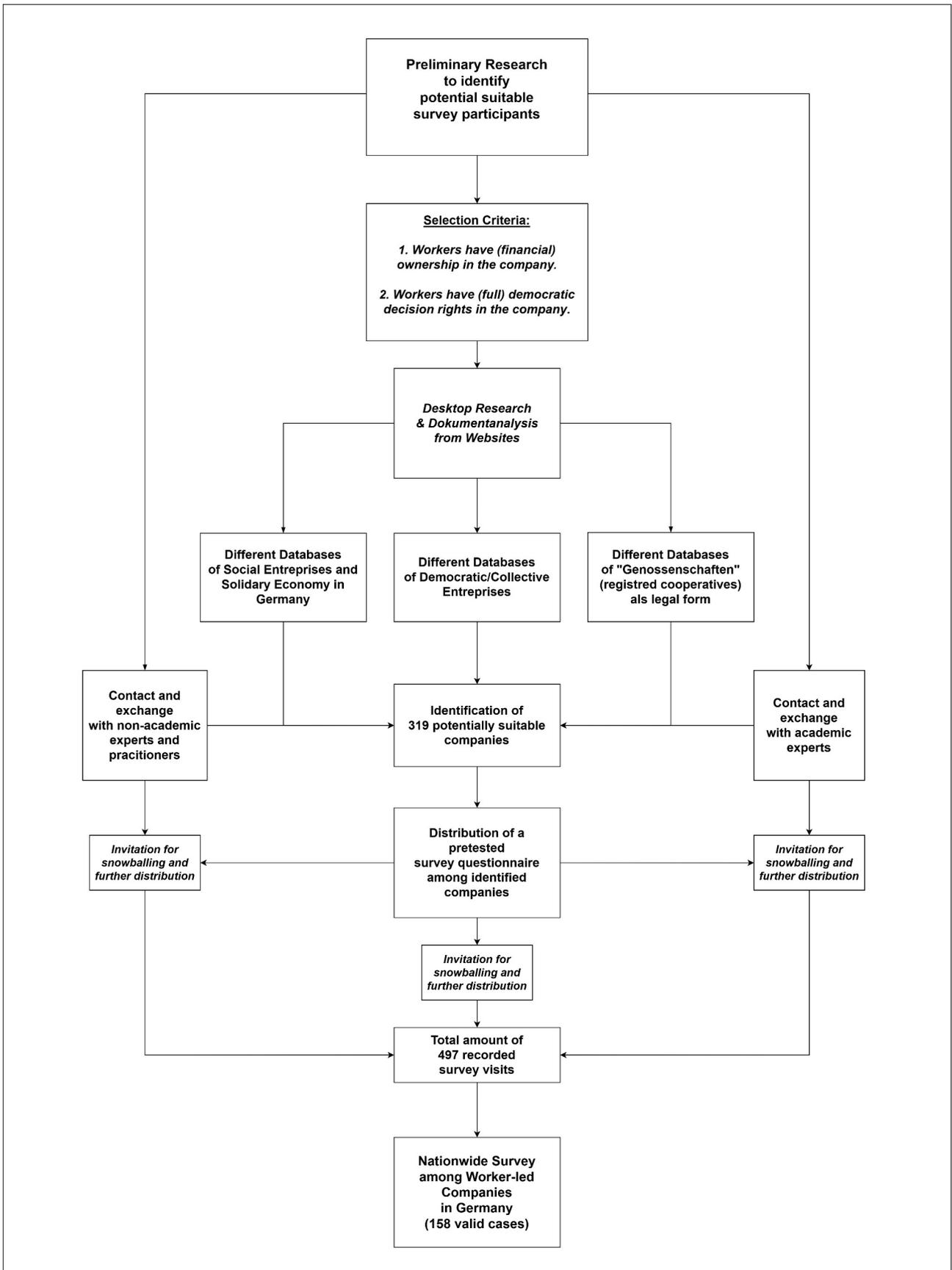


Figure 2: Research Design for the nationwide Survey among German WLCs (own illustration)

Consequently, the retrieved data contains both quantitative data in the form of statistical data and qualitative data in the form of coded texts. With a total of 158 valid cases after data clearing, the response rate yields around 50% of the originally identified number of suitable companies (319) and not lower than 30% if based on the number of survey visits (497) that includes snowballing. As can be seen in the findings and discussion of Paper 2 (Chapter 4.2), both data sets were sorted, analysed and discussed according to their nature. To open windows of opportunity for future cooperation within the research project and beyond, participants had the chance to provide their contact details after the completion of the survey. However, this was not a necessary condition for the participation in the survey and participants could also choose to stay anonymous.

While the survey already yielded a rather extensive data set in itself that, it also had a preparatory function to identify suitable locations for an in-depth comparative case study with a high density of WLCs. The overall design and choice of methods for the second empirical part of this project will be presented and discussed in the following.

Comparative case study design

Generally, qualitative case study approaches are considered suitable to examine *how* and *why* certain phenomena occur under certain context conditions (Yin, 2018). While the survey results allowed for a broader picture of the German landscape of WLCs as expansion to insights from other countries, the objective of the comparative case study was to gain in-depth insights *why* there is a particular high motivation to found and maintain WLCs in certain locations compared to others and *how* the sociocultural conditions and related strategies look like in these contexts. The choice of a *comparative* case study design was informed by the motivation to create more extensive empirical evidence through the juxtaposition of similarities and differences between cases (Eisenhardt, 1989; Eisenhardt and Graebner, 2007) and to “eliminate cross-national policy variation as a confounding factor, while further exposing sub-national variegation as a key consideration” (Spicer & Zhong, 2022:617). Concretely, the survey results revealed a particularly high density of WLCs that participated in the survey in Hamburg and Berlin. Since they are also broadly comparable in their position as city states and their overall (economic) importance for Germany, they seemed suitable for a comparable case study. As illustrated in Figure 3 below, I compared the cases of Hamburg and Berlin based on semi-structured interviews as well as the qualitative survey data of the respective city. I further enriched the data collection by document analyses of the websites of the participating companies and additional expert interviews.

Inspired by a comparable case study on worker cooperatives in Canada by Spicer & Zhong (2022), together with my co-author Robert Hassink, we compared the cases in Paper 3 (see Chapter 5.2) through an entrepreneurial ecosystem lens in order to capture the relevance of cooperation and networking that was already revealed by the survey results of Paper 2. To analyse the cooperative networks of WLCs as '*worker-led entrepreneurial ecosystems*' allowed us to move beyond the scope of a single company and disclose interrelations and synergies while simultaneously doing justice to their diverse, partly ambiguous strategies to transform work and production structures. Further details on this additional theoretical coordinate can be found in Paper 3 (Chapter. 5.2) below.

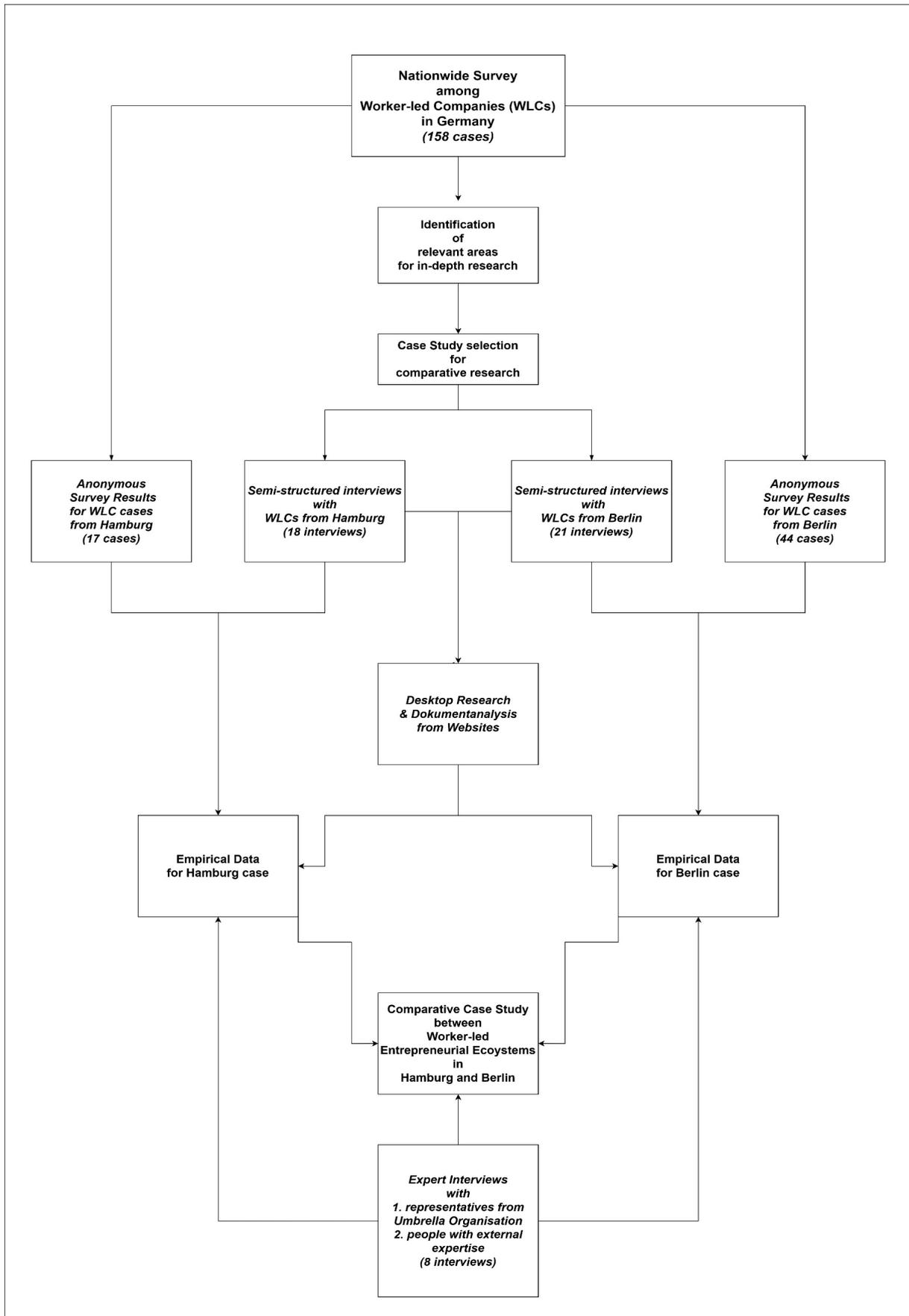


Figure 3: Research Design for Comparative Case Study between Hamburg and Berlin (Grenzdörffer & Hassink, 2023)

Probably, the two preceding research strategies and samples of methods would have addressed theoretical and empirical expectations raised in academic contexts in a sufficient manner. However, in line with transformative research approaches (e.g. Mertens, 2017; Moriggi et al.2020), I want to briefly sketch out how and in which ways I used my role as researcher to render the gained theoretical and empirical insights also accessible for a broader non-academic audience in the following.

Supplementary methods

As already briefly discussed in the respective theoretical framework chapter (Chapter 2.2), transformation research does not only comprise research on processes of transformation. It also encompasses a transformative perspective on science itself towards more collaborative and transdisciplinary approaches with the purpose to move beyond the descriptive-analytical dimension to the additional creation of actionable knowledge (e.g. Franklin, 2022; Hölscher et al., 2021; Wittmayer & Hölscher, 2017). For Moriggi et al. (2020: 293) this includes a the need for ‘responsibility’, understood as “being able to respond to the needs of communities requires designing and adapting methods in line with participants’ capabilities and expectations”, which is grounded in the acceptance of knowledge as performative and “[...] never given, but rather always ‘becoming’” (ibid.).

With the aim to work as closely to practice as possible within the limitations of a PhD project, I planned and allowed myself to be surprised by several practice-oriented side projects next to the required scientific articles for a cumulative PhD thesis.

From a very early stage onwards, I was in regular exchange and conversation with practitioners in the field of democratic and collaborative work structures and initiated and maintained contact to umbrella organisations connected to various groups of WLCs in Germany. When I was nearing the empirical phases of my PhD in winter 2020, I engaged in the established contacts more closely, e.g. by asking for feedback on the planned survey. At a later point in preparation for the interview phase for the comparative case study in Hamburg and Berlin, I pursued a similar practice with regard to the semi-structured interview guides. After both phases of data collection and data analysis, I provided a written project report in everyday language for each the survey results and the interview results respectively. The links to the project reports (in German) can be found in the appendix below (see Appendix). Furthermore, I created an email list via which I sent regular updates on my current work (including delays and struggles) to the research participants.

A quite unexpected practice-oriented path took its course in Summer 2021 as one of the umbrella organisations mediated a contact to an interested journalist from the German newsletter “Süddeutsche Zeitung” who carried out an interview with me. Due to this published interview, several other journalists from different media as well as two Chambers of Handicrafts⁵ got in touch with me, which led to different follow-up projects in the form of additional interviews (see appendix) and workshops at the Chambers of Handicrafts. The exchange with members from small and medium handicraft and construction businesses was particularly interesting for me as they usually come from rather conservative backgrounds and I did not expect them as an audience for alternative and diverse work and company structures. Yet, against the background of skills shortage and problems to find successors to their businesses, as they explained to me, they had an interest in potential solutions to address these problems. The good contact to the Chambers and the keen interest by their members led to the realisation of two online workshops in both of the Chambers respectively since Winter 2021/2022. Furthermore, I participated in some networking events of WLCs in Hamburg and Berlin so that I could gain better access to the scenes and was able to maintain existing contacts and establish new ones. Additionally, I got invited several times by participating WLCs to give short presentations of my work, which I always followed when it did not collide with other duties.

However, in the context of the ongoing pandemic during the last three years, workshops, presentations and events often took place online or were postponed several times in the hope for better conditions, which limited both the quantity of such engagement and the depth of contact that I could establish. Nevertheless, I think it is adequate to say that both the practitioners and me did our best to compensate for the restrictions and constantly adapted our initial ideas and plans to the present circumstances.

As these activities show, I took an active and engaged position in my role as researcher rather than aiming to become a ‘neutral observant’, which aligns to epistemological implications of a critical realist position and to transformation research perspectives in the acknowledgment of subjectivities in human perceptions. In this regard Mertens (2017:20) argues that researchers “need to critically examine their own values, beliefs, and assumptions to get beyond the cultural lens that they bring with them into the research context.” In a similar vein, Hölscher et al. (2021: 14) express that they “[...] embrace the explicit normative starting point of transformation research as an opportunity to make assumptions, values and interests underlying (any) research questions and results explicit”. Convinced by these perspectives, I, too, accept that I cannot change the wires of my mind entirely

5 German original term: Bau – und Handwerkskammern

or rid myself of my subjectivities. In consequence, the least I can do is to make them transparent to, firstly, ensure better traceability of lines of arguments and, secondly, allow you as readers to abstract potential biases from the research results. Thus, the following short paragraph will provide you with glimpse through my personal subjective research lenses in the form of a subjectivity statement.

3.1 Subjectivity statement

As non-comprehensively summarised in Figure 4 below, there is a multitude of factors that influences how I look at the world, how I receive and process information and knowledge, but also how I am perceived in different research contexts like conferences as well as more empirical ones like interviews. If possible at all, it would be a very time- and energy-intensive endeavour to trace which factors play which role in which specific contexts, and I also lack the psychological and sociological expertise to know and tell more about the behavioural and actionable influence of these different factors. Nevertheless, I see the benefit to be transparent about my background and values and share some exemplary research experiences in which they played a role for this research project.

I was socialised in a mostly academic context where my curiosity and the tendency to question what I hear and see was often rather encouraged than punished. The consequent learning that circumstances and structures are not set in stone, but can be criticised, questioned and changed paired with the confidence to implement these thoughts into action certainly plays a role for the overall research project and its objectives. Yet, while I never felt that an academic background made me a 'better/more valuable' person, I already noticed in very early empirical research contexts for this thesis that practitioners from non-academic backgrounds were sometimes reluctant or even suspicious towards me. When asking them about this observation, it often came down to questions of language and formulations which sounded arrogant and pretentious in their ears, but which are part of my daily vocabulary. These experienced discrepancies combined with my theoretical knowledge about transformative and transdisciplinary research (e.g. Hölscher et al., 2021; Mertens, 2017; Morrighi et al., 2020; Schneider et al., 2019) increased my incentive to integrate elements of participatory methods of knowledge co-creation that I deemed possible within my limited time capacities.

often feels easy to me to create a confidential and emotionally safe conversation space: in most cases I had the impression that the practitioners I talked with, felt that they could openly share their experiences with me. In two conversations with people from the LGBTQ*- community it helped that I have both theoretical knowledge on intersectional feminist perspectives (e.g. Gutiérrez y Muhs et al., 2012; Lloro-Bidart & Finewood, 2018; Valentine, 2007) and everyday experiences with close family members and friends. This also opened the ground for insights on a more comprehensive understanding of their specific experiences, and I hope that I could do justice to the “advancing spaces of safety and belonging” for the LGBTQ+ community in fieldwork, as called for by Zebracki & Greatrick (2022).

However, there were also a few experiences in both empirical and academic contexts in which I experienced situations of not being taken seriously in my role or my expertise, or felt the need to prove myself first before being accepted in it. In this regard, it helped me to familiarise myself theoretically with feminist perspectives on research contexts within and beyond the university (e.g. Allen et al., 2021; Settles et al., 2006). Particularly the paper ‘silence/ing of academic women’ by Aiston & Fo (2021) with their analysis of micro-inequities in academic contexts was quite revealing for me. Additionally and even more importantly, the exchange with fellow female* researchers as well as women* from practice supported me to reflect and cope with these situations in a good way.

A final exemplary side-effect of my personal background and identity is the importance of creative expression in my life and the pleasure I take in word images and metaphorical language. These personal interests helped me a lot to formulate the research reports in everyday language, but obviously also left their traces in the composition of my academic papers and the framework chapters of this thesis. Fortunately, I am not the only researcher who sees benefits in a more creative way of science communication, but am in the good company of other scholars like Gascoigne et al. (2020), Kearns (2021), Niemann et al. (2020), or Thaddicken & Reif (2020).

Yet, in spite of all my affinity for creative writing, comprehensibility and clear argumentation remain the main focus. Thus, I invite you as reader(s) to see the more playful elements as what they are: small twisty paths that can be taken as a means of illustration, but that should not distract from the main direction of this thesis.

In this vein, I want to now redirect the attention to the main path of this thesis: the landscape of WLCs in Germany and their transformative potentials.

Part II

4. Visiting and exploring worker-led companies in Germany

From an economic geography perspective, including labour geography, economic and productive activities are always in a reciprocal relationship with their spatial environments and related political, institutional and sociocultural attributes (e.g. Bathelt & Glückler, 2003; 2014; Herod, 1997; Yeung, 2005). In consequence, it is helpful to get an (approximate) understanding for the respective geographical research context before it is possible to draw conclusions from empirical insights.

As presented in Chapter 1.3, the second research objective of this PhD project is to carve out *context-specific political, institutional, sociocultural conditions that might support, but also limit the transformative impact workers in WLCs might have*. To this end, it is important to first get a better understanding and overview of the research area and context in question. In this sense, I will now shortly summarise some important site factors and socioeconomic orientation points that are relevant to the research subject in order to contextualise the circumstances and motivations as well as related barriers and struggles for WLCs in Germany.

4.1 Site factors and socioeconomic orientation points of Germany

As already partly outlined in the theoretical Paper 1, the phenomenon of WLCs is mostly researched in the geographical context of South American countries (e.g. Azzellini, 2016; Larrabure, 2017) and Southern European countries (e.g. Kokkinidis, 2015; Varvarousis & Kallis, 2017) as a reaction to and form of resistance against the drawbacks of economic crisis situations (see also Paper 1 in Chapter 2.4). Over time some of these struggles have had institutional consequences and culminated in the establishment of adequate legal forms or supportive institutional regulations, like they can be found for example in Italy (e.g. Castellini, 2021; Cori et al., 2021; Vieta, 2015) or Argentina (e.g. Meakin, 2022; Ruggeri, 2021).

With its different global economic power position in combination with sociocultural historical path-dependencies, Germany is a particularly interesting research area to examine how and why WLCs in Germany emerge and persist without an immediate pressure to adapt to an economic crisis, but also what their struggles and challenges are.

As already mentioned in the context of the challenge to gain an overview over existing WLCs in Germany (see Chapter 3.2), one major difference to other countries is the lack of an adequate legal form that corresponds with democratically managed company structures in workers' hands. This is particularly interesting because the form of a registered cooperative ('Genossenschaft') exists in principle, and was even acknowledge as immaterial word heritage by the UNESCO in 2016 (Deutsche UNESCO Kommission, 2017). Yet, this term mostly comprises energy cooperatives,

consumption cooperatives (mostly in agriculture), credit cooperatives and housing cooperatives (DGRV, 2022; Walk, 2019;). In these forms of “Genossenschaften” the members consist of consumers, clients, residents or whole companies that join forces to gain a better competitive position in (global) markets, like for example the German supermarket chains “EDEKA” or “REWE”. While in cases of community supported agriculture or energy cooperatives, they might contribute to a democratisation of economic structures and are also perceived as important actors to prevent, mitigate and counteract the impacts of climate crisis (see Schröder and Walk, 2013 for an overview), worker participation is usually not the focus of these forms of registered cooperatives. Thus, worker cooperatives and production cooperatives appear rather marginal and ‘exotic’ within Germany’s landscape of companies (e.g. Flieger, 1999; Klemisch et al., 2014).

However, this was not always the case. Before the fall of the Berlin wall and the German reunification in 1990, worker cooperatives and production cooperatives were a quite common model in former East Germany where every seventh worker was working in a Genossenschaft at the end of the 1980th (Beywl, 1991: 37). Yet, in the transition processes of the reunification only a small number of the former Eastern German worker cooperatives survived: they either went bankrupt, got bought out or changed their legal form into a GmbH (limited liability company). Reasons for this were seen in the lack of institutional support in the reunification processes and the lack of expertise by Western German consultants (Schultz, 2008), but also in existing prejudices and reservations against this company model because it was associated to the GDR control regime (Metz, 1991). These findings correspond to empirical insights from the qualitative interviews, particularly in Berlin where some of the older WLCs had their roots in the Eastern German regime and could share first-hand experiences of the reunification process. Despite this morally loaded past, the image of worker cooperatives and production cooperatives seems to be improving during the last years, and scholars like Klemisch et al. (2014) or Walk (2019) see a potential in them as ‘new players’ for more solidary and cooperative economic structures. In this regard, Klemisch et al.’s (2104) assessment of their potential for succession processes corresponds with the insights I could gain in the workshops at the Chambers of handicraft (see preceding Chapter 3.2). Furthermore, in their most recent research, Apitzsch and Ruiner (2022) analysed and discussed how self-employed workers build alliances under the framework of a ‘Genossenschaft’ to ensure (increased) social and financial security. Examples of this could also be found among the survey participants.

Now while the legal form of ‘Genossenschaften’ and its inherent democratic structures appears to be an obvious choice to implement worker-led production and company structures, it is not the only one. Already in 1999, Flieger could observe and provided an overview on a broad diversity of

(legal) forms and structures in which companies were organised in participatory, cooperative and democratic ways. Beyond the possibility to organise a company within the form of a ‘Genossenschaft’, Flieger (1999) also sheds light on examples of WLCs as a ‘GmbH’ (limited liability company) or a ‘Verein’ (registered association). Whether perceived as a sobering insight (nothing has changed within the past two decades) or a promising insight (there always has been and will be engagement in the creative interpretation of given institutional and legal structures), the discussed models strongly corresponds with the insights of survey findings below.

Flieger (1999) further discusses cases of participatory financial ownership models in which (former) employees are/become financial stakeholders in a company. Most recent insights in this regard are provided by Beyer (2021) and his analysis of models for financial participation in companies by (former) employees in order to “bridge the gap between capital and labour” (Beyer, 2021: 289). With regard to emerging diverse models of financial participation, an interesting actor in the German institutional landscape is the so-called ‘purpose foundation’ who is engaged in the establishment of a new legal form for companies based on the principles of self-governance⁶ and purpose-bound profits⁷ (Purpose Foundation, 2020).

Disregarding the different models and company structures, the aspect of purposeful economic activity and orientation towards a common good of society as a whole seems to be an inherent element of the surrounding institutional and political environment of German WLCs. In this regard, Block et al. (2020) provide an overview on financial and non-financial supportive infrastructure for social entrepreneurship in the DACH region (Germany, Austria and Switzerland). One important actor in this field is the German social entrepreneurship network SEND, which also explicitly highlights the role of social enterprises for increased economic democracy and participation (Anny-Klawa-Morf Stiftung (ed.) 2020: 26ff.). Both through the SEND network and the network around the purpose foundation I could gain information on and access to potential research participants that met the criteria of (financial) company ownership and democratic decision rights (see Chapter 3.2). However, not all of the surveyed WLCs identify with social entrepreneurship and sometimes even actively distance themselves from this economic environment because they perceive it as employee-branding, green washing or ‘democracy washing.’ This already hints at the broad variety of values and perspectives that motivate WLCs in Germany, but also points towards existing ambiguities and different currents within the landscape of German WLCs, which I will discuss in greater detail in Paper 2 and 3 below.

⁶ the company is owned by those who manage it

⁷ gained profit needs to serve the purpose of the company

One last influencing socioeconomic factor for WLCs in Germany is the relevance of Small and Medium Enterprises (SMEs) for the German economic landscape. With one exception all of the survey participants fall into this category, which makes it important to understand the overall conditions for German SMEs to order to comprehend the potentials and limitations of their specific sub-category of WLCs. So let us have a closer look at some facts and figures about them: According to the German Federal Statistic Office, in 2020 nearly all of the registered companies (99,4%) in Germany were SMEs and accounted for 30% of the overall annual revenue of Germany as well as for 42% of the gross value added at factor costs (Destatis, 2022). With regard to their relevance for the German labour market, they provided employment for more than the half of the German population (55%) (ibid.). This is particularly interesting in the context of the empirical findings as survey results show that WLC structures are particularly well implementable in SMEs, which might offer future potentials for workers in so far conventionally structured SMEs. Beyond their economic significance, scholars from different disciplines have also examined the role and potentials of SMEs in the context of green business models (e.g. Sohns et al., 2023), sustainable regional developments (e.g. Kraus et al., 2020) or post-growth oriented entrepreneurship (e.g. Gebauer, 2018). With different focal points, they agree that SMEs in their role as market actors can unfold transformative effects towards increased socioecologically just economic structures. In this regard, Nikolaus et al. (2020: 131) see one beneficial factor for their positive contributions and engagement in the “strong welfare state and a well-developed co-operative system” of Germany, which, according to them, helps circumvent reliance on private financial initiatives like it can be observed in other countries. So, while recent works by Kny (2023) or Nylund et al. (2021) also examine the role of large enterprises in social and solidarity entrepreneurship, SMEs seem to be quite well positioned to take effect as transformative actors.

In consequence, it seems that German SMEs constitute far more than a niche and are simultaneously considered to hold transformative potential. Thus, when it comes to their size, WLCs in Germany seem to be embedded in rather supportive political and institutional conditions and in good company with other SMEs. Yet, this should not neglect the existing struggles when it comes to legal forms. Furthermore, the overall embeddedness in a rather competition-based capitalist market structure often sets adverse incentives to aspirations to create and implement transformative work and production structures. In this vein, Paper 2 that is based on empirical evidence from the nationwide survey among WLCs in Germany, as described in Chapter 3.2 will now provide insights on their motivations, challenges and diverse transformative strategies to ‘common’ work in the form of participatory and cooperative labour-managed company structures.

4.2 Paper 2: ‘*We’re messing up capitalism through collaboration*’ – Transformative Labour Agency in German Worker-led Companies

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‘We’re messing up capitalism through collaboration’ – Transformative Labour Agency in German Worker-led Companies

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Abstract

From a labour geography perspective, workers are capable of (re)shaping economic spaces, commonly understood as ‘labour agency’. This paper conceptualises and discusses German worker-led companies (WLCs) as sites of ‘transformative labour agency’. It demonstrates how workers consciously alter work and production structures through collective ownership and decision-making. In concert with post-growth research, empirical findings show how workers in German WLCs intentionally align their work structures with socioeconomic transformations beyond economic growth. Examples for transformative labour agency are reductions in working time, definitions of work that includes unpaid labour and social reproduction as well as limitations on private profit generation. The paper explores how far collectively managing decision-making and ownership can be understood as a way of ‘commoning labour’. It further analyses how German WLCs prefigure post-capitalist work practices in a capitalist present despite institutional constraints.

Keywords: *labour geography, workers, agency, worker-led companies, socioeconomic transformation, solidarity*

1. Introduction

In the context of current economic trends, many scholars (Meadows et al., 1972; Feola, 2015; Göpel, 2016; Schmid, 2019; Strauss, 2020; Brand et al., 2020; Lange et al., 2021) see ecological exploitation and rising (global) inequalities as inherent parts of a capitalist growth-oriented economy. Consequently, they call for socioeconomic transformations beyond economic growth, commonly summarised under umbrella terms like ‘post-growth’ or ‘post-capitalism’. Yet, as Lange et al. (2021:20) see it, it is not about a demonization of growth *per se*, but about “[...] *adjusting understandings of growth and re-evaluating it, examining the long-term meaningfulness of certain developments and, if necessary, looking for possible alternatives within free social conditions.*”

To describe processes of building pathways to post-capitalist futures within a capitalist present this study adopts Schmid’s (2019: 9) suggestion of ‘transformative geographies’ as a working term ‘*to describe this emerging spatial research agenda on societal change beyond unsustainable trajectories of growth and accumulation*’, and the term ‘transformative’ will be used in this sense.

In this regard, the structure of work and its possible transformations are often mentioned and discussed as part of a broader economic restructuring. Strongly aligned and interwoven, an expanded understanding of work, beyond forms of paid work in conventional employment structures, is emphasized by feminist and post-capitalist scholars (MacGregor, 2014; Koeppe et al., 2015; Antal, 2018) as well as in ‘diverse economy’ approaches (McKinnon et al., 2018; Gibson-Graham and Dombroski, 2020). In addition to the recognition and inclusion of care work and/or socio-political activism, these scholars also see potential for reductions in working time as well as more solidary and cooperative forms of work.

Furthermore, perspectives related to the concept of ‘the commons’ extend beyond the management of natural resources to cultural and social goods which include the workforce as a human resource (e.g. Azzllini, 2016; Bauwens and Ramos, 2018; Helfrich and Euler, 2021). From a labour geography perspective, workers can exert active influence on the environment in which they are embedded (Herod, 1997; Cumbers et al., 2008; Peck, 2018). Combining labour geography and research on transformative post-growth geographies and economies, the term ‘*transformative labour agency*’ is proposed in this paper to describe the ways in which workers consciously alter work and production structures in line with principles that extend beyond economic growth.

Worker-led companies (WLCs) are the focus of this study as a special form of collective, and potentially transformative labour agency. In charge of their own time, skills and energy, workers in WLCs adopt the ‘dual role’ of employee and entrepreneur. Consequently, they have a

direct influence on the design and management of work and production structures. Furthermore, as suggested by case studies from South American and Southern European countries, collectively managing decision-making and ownership can be understood as a way of ‘commoning labour’, often framed in current literature as a post-capitalist practice. Yet, these cases are often associated with moments of collective resistance in the context of economic crisis (Larrabure, 2017; Azzellini, 2016; Vieta, 2015; Kokkinidis, 2015; Castellini, 2021). Thus, ‘commoning labour’ is mostly understood as a way to deal with the negative socioeconomic consequences of economic crises for workers.

Contrary to these experiences, German WLCs were founded independent of broader economic crises. Complementary to extant research, this paper seeks to expand the concept of commoning labour to case examples without an immediate crisis context. For this purpose and as the empirical basis of this paper, 158 German WLCs are investigated from a labour geography perspective by means of a nationwide survey. The survey results reveal diverse implementations of transformative labour agency in German WLCs, that are simultaneously embedded in current structures aligned with capitalism and economic growth. In consequence, they are presented and discussed as sites of ‘transformative labour agency’ in terms of their potential contributions to socioeconomic transformations beyond economic growth. The findings contribute to the pluralization of labour geographies and transformative geographies. The variety of *collectively managed production spaces* allows for the recognition of a broader spectrum of work structures and models of production, which explicitly include elements of reproduction.

Against this background, the guiding **research questions** are:

- (1) What role does the spatial and connected institutional context of Germany play in the implementation of WLCs?
- (2) To what extent can we understand workers’ collective actions and decisions as ‘commoning’ in German WLCs?
- (3) To what extent can we conceptualise German WLCs as sites of transformative labour agency and what are their potential contributions to socioeconomic transformations beyond economic growth?

At the interface of labour geography and post-growth research, section 2 sets out the theoretical framework of WLCs as sites of transformative labour agency. Special attention is paid to the concept of ‘commoning labour’ as a transformative post-growth practice. Following the introduction of methodology underpinning empirical investigation in section 3, section 4 presents

the results of the aforementioned nationwide survey of German WLCs. Section 5 discusses and contextualises the findings in terms of the theoretical reflections, emphasizing the potentially transformative role of labour. Finally, section 6 provides conclusions and identifies future research avenues.

2. Conceptualising transformative labour agency

At the core of a labour geography perspective is the assumption that workers have the capacity to shape economic spaces through their actions and decisions (Herod, 1997; Lier, 2007; Peck, 2018). At the same time, workers play a crucial role in enabling and maintaining local flows of production. While the spatial contexts in which they work, binds them to certain political, institutional and cultural conditions, workers are not inevitably at the mercy of these conditions but can (attempt to) change them, albeit to different extents. This capacity is often subsumed under the term ‘labour agency’ (e.g. Cumbers et al., 2008; Carswell and De Neve, 2013). Scholarship has explored the diverse nature of labour agency within and beyond institutionalised forms (e.g. Coe, 2012; Dutta, 2016; Rogaly, 2009; Ruwanpura, 2015) leading to a pluralising landscape of labour geography research (Peck, 2018).

Yet, the merit of maintaining and reproducing current growth-oriented economic structures is highly criticised and questioned in view of their socio-ecological costs (e.g. (Meadows et al., 1972; Brand et al., 2020)). Scholars in the field of post-growth and post-capitalist economy are engaged in the search of alternative paradigms and approaches that reduce or even avert social and ecological exploitation for the sake of economic profit (Wright, 2013; Schmid, 2019; Schmid and Smith, 2021; Lange et al., 2021). While acknowledging (structural) limitations, there is also an emphasis on transformative processes as *deliberate and intentional* processes through ‘human thinking, feeling, and acting’ (Göpel, 2016: 50f, see also Feola, 2015). With a focus on work, these approaches often include a reframing and restructuring of labour as an inherent part of a socioeconomic transformation beyond economic growth (e.g. Frayne, 2015; Antal, 2018; Mair et al., 2020; Bürkner & Lange, 2021).

Besides more theoretical and abstract reflections on future scenarios, scholars in these research fields also shed light on already existing examples of post-growth and post-capitalist labour organisation in the economic present (e.g. Bürkner & Lange, 2020; McKinnon, 2020; Gibson, 2020; Monteith et al., 2021). While scholars agree that labour and production beyond economic growth can be (re-)structured in very diverse shapes and forms, they all make the case for more cooperative and solidary forms of labour (see Table 1.2).

Furthermore, the understanding of labour often includes more diverse and unpaid forms of work, expanding *beyond* wage labour (see Table 1.4). In this regard, feminist labour geography scholars also point out that the directions of change and the underlying intentions of (labour) agency highly depend on the sociocultural contexts and underlying values (Strauss, 2020; Reid-Musson et al., 2020). This also includes the diverse (ascribed) social identities people hold *beyond* their role as workers and their related ‘values, norms and customs’ (Hastings, 2016: 315) that influence their resources and capacities to act, and equally important (partly) hamper their agency. Applying a geographical perspective, they highlight how these values and identities are always entangled with the workers’ respective spatial contexts (Strauss, 2020; Reid-Musson et al., 2020). However, despite these sociocultural and spatial entanglements, people in their role as workers can also *intentionally change* these values and norms.

Thus, when applying the concept of labour agency, as suggested in the labour geography literature, workers can be potential transformative actors through their actions and decisions. To capture this potential role and capacity, I suggest the working term ‘**transformative labour agency**’ when workers *use their agency consciously to alter and diversify modes of production in alignment with principles beyond economic growth*. Companies owned and managed by workers, constitute particularly interesting examples in this regard. As owners and/or members of the company, workers simultaneously adopt a dual role as employee and entrepreneur (e.g. Webb and Cheney, 2014; Vieta, 2016; Larrabure, 2017). This means that workers have (1) direct influence on core decisions as well as (2) (financial) ownership of the company in an ideal-typical form. Consequently, workers can co-determine work and production structures, including economic restructuring. However, existing research reveals a variety of models. They range from employee-owned firms where workers have financial stakes in the firm but are formally employed (Lowitzsch et al., 2017), to worker cooperatives (Pérotin, 2013; Safri, 2020) and worker-owned businesses (Parker, 2017) in which there is no differentiation between entrepreneurs and employees at all. In this research, they are categorised as worker-led companies (WLCs), acknowledging the diverse forms that management and ownership in workers’ hands can take.

Complementary to existing research on cases from South American and Southern European countries, the inherent *collective* management of work and production in German WLCs is framed ‘labour as a commons’ (Azzellini, 2016; Vieta, 2016; Prassoulis, 2018). In line with suggested transformative labour practices in post-growth and post-capitalist literature, the empirical material from the study in this paper evidences expanded notions of work and modes of production that do not have economic growth as their main objective. Moreover, labour agency in German WLCs appears to go beyond individual life choices and connects to broader ‘mindshifts’ (Göpel, 2016).

Thus, they can be framed as challenging predominant work structures and demonstrating the transformative potential of collective labour agency in building pathways to a post-capitalist future within a capitalist present. Table 1 provides an overview on some of the key transformative labour practices suggested in research on the commons, in feminist research as well as in post-growth and post-capitalist research.

Table 1: Transformative Labour Agency beyond Growth in Theory

Forms of Transformative Labour Agency	Focal Points	Theoretical Discourse
1.1 Commoning Labour	Understanding of labour as a commons: A collective social activity, which can be a sustainably managed resource for the benefit of our (global) society; Commoning labour as a pathway to its decommodification;	Commons and Commoning (de Peuter & Dyer-Witford, 2010; Azzellini, 2016; Varvarousis and Kallis, 2017; Federici, 2018; Helfrich and Euler, 2021)
1.2 Cooperative and Solidary Work spaces	Strong focus on more cooperative and solidary forms of economic practices, which includes labour; Social and ecological sustainability prioritized over profit creation and ‘economic growth’	Post-Growth/Post-Capitalism (e.g. Schmid, 2019; Gibson-Graham and Dombroski, 2020; Chatterton and Pusey, 2020; Banerjee et al., 2021; Lange et al., 2022)
1.3 Work Time Reduction	Work-time reduction as concept for positive socio-ecological impact;	Post-Growth/Post-Capitalism (e.g. Antal, 2018; Mair et al., 2020; Gomez-Baggethun, 2022; Seidl and Zahrt, 2021)
1.4 Understanding and Recognition of Work beyond Paid Work	Understanding of work beyond ‘productive’ activities; Focus on sphere of reproduction: special attention to care work and unpaid forms of work; Emphasis on economic activities outside of market structures	Feminist Economy (e.g. Oberhauser, 2000; England and Lawson, 2005; Katz and Norton, 2017; Winders and Smith, 2019; Reid-Musson et al., 2020; Federici, 2018)

As one focus of this paper, commoning labour will be discussed and presented as one potential form of transformative labour agency in detail below. As will be seen in the findings (section 4), the nature of commoning labour is highly dependent on the spatial and related sociocultural context of the workers. Thus, a geographical perspective can contribute to further pluralisation of understandings of ‘commoning labour’ in different spatial contexts and their specific sociocultural and political conditions.

2.1 Commoning labour as form of transformative labour agency

Shaped by the work of Ostrom, the idea of collectively managing so-called ‘common-pool resources’ (Ostrom, 1990) to ensure sustainable use of resources is well-established in post-growth and post-capitalist research. Early research focused mainly on natural resources and the five main fields of fishery, forestry, irrigation, water management and animal husbandry. Yet, it did not stop there. To date, the concept of the commons has been applied to a variety of fields, including digital and urban commons (van Laerhoven and Ostrom, 2007; van Laerhoven et al., 2020; Helfrich & Euler, 2021). More relevant in the context of this paper, it has been also extended to cultural and social goods that include the workforce as a human resource (e.g. Azzellini, 2016; Bauwens and Ramos, 2018).

In the context of natural resources and addressing the ‘tragedies of the commons’ (Hardin, 1968), the early focus was on the government of common-pool resources to avoid patterns of exploitation. In reaction to, and as an extension of this, the theoretical establishment of the verb ‘commoning’ shifted the focus towards the *relational process* of (re-)production and preservation of (more-than-)human livelihood, framing it as a continuous and social practice rather than a fixed category (e.g. Velicu and García-López, 2018; Gibson-Graham et al., 2016; Federici, 2018). In concert with other feminist scholars, Federici (2018) pointed out how a commons perspective can also contribute to a more holistic perspective on work by including the sphere of (social) reproduction and care work (see also Table 1.4). They made two important points with regard to the definition of commons that are relevant in the context of labour and WLCs:

1. *‘Equal access to the necessary means of (re)production must be the foundation of life in the commons. This is important because the existence of hierarchical relations makes commons vulnerable to enclosures.’* (ibid: 93)

2. *‘Commons are shaped by collective decision-making, through assemblies and other forms of direct democracy.’* (ibid: 95)

This definition makes WLCs a particularly interesting case because the workers involved collectively own and manage both the means of productions and their own time, skills, capacities and energy.

The idea of discussing labour in WLCs as a commons is not new. Based on empirical results from worker-recuperated companies in Argentina, Vieta (2016) and Azzellini (2016) proposed ‘labour as a commons’, understood as a collectively managed resource for the provisioning and maintenance of human needs. In their analysis, Azzellini (2016) demonstrates how Ostrom’s design principles for commons can also be applied to labour power in Argentinian companies. They further show how commoning labour can be framed as a post-capitalist practice that moves beyond an understanding of labour power as a ‘commodity’ to secure monetary profit.

Yet, it is interesting to consider the spatial and temporal contexts in which workers in Argentina and other South American and South European countries joined forces to transform bankrupt capitalist businesses into collective, democratic production sites. Most of the research is based on WLCs that were founded as a reaction to economic crisis. In Varvarousis and Kallis’ (2017:128) words: they were ‘commoning against the crisis’ (see also Kokkinidis, 2015; Castellini, 2021; Larrabure, 2017; Raffaelli, 2017; Prassoulis, 2018). In contrast to these cases, the phenomenon of WLCs in Germany seems to be less temporally defined. Obviously, the current COVID-19 situation also puts a high amount of economic pressure on the German economy, but the cases at hand were all founded *before* the outbreak of the pandemic – not as a reaction to it. Such variation contributes to a broader picture of WLCs as a form of commoning labour. In combination with, to date, a rather unfavourable legal framework (see section 4.1) the question arises: why bother in the first place? What motivates people to take on the challenges of commoning work in circumstances where there is no market failure? From a labour geography perspective, an examination of Germany as a spatial context can add to a further pluralisation of the field by showing how socioeconomic conditions affect the agency of workers differently in different spatial contexts. Additionally, gaining insights from German WLCs can also expand existing knowledge on different applications of transformative labour agency in a globally entangled capitalist present.

3. Empirical methods

In terms of empirical methods, WLCs can be understood as a ‘population subgroup’ of companies in Germany. Preliminary desk research was conducted with searches of databases of social enterprises, registered cooperatives, and different forms of collaborative decision-making. Different key words in the lexical field of ‘cooperative and collective work’ and ‘worker ownership’ were used to identify 319 companies that potentially fulfilled the following criteria:

1. Workers have (financial) ownership in the company.
2. Workers have (full) democratic decision rights in the company.

As a further selection criterion, most of the companies' activities needed to be based on paid labour, although some allowed for additional voluntary activities. Informed by an integrative literature review, five preliminary expert interviews and the results of the desk research, an online survey questionnaire was created and sent out to the identified companies. A survey was used in order to 'represent in summary form basic characteristics' and 'answer questions about the relationships between and among these characteristics, sites and subgroups' (Secor, 2010: 196). Questions covered sector, size and location; work organisation and decision-making; ownership rights and legal framework; cooperation and partnerships; barriers and challenges and future visions and utopias. More detailed information on the survey questionnaire can be found via an external link indicated in the references (Grenzdörffer, 2022). A mix of closed 21 questions and six open text fields were used in order to gain comparable information, but also to leave room for unexpected responses and insights by the participants and 'provide detailed responses in respondents' own words' (Martin, 2006: 6). Consequently, both quantitative data in the form of descriptive statistical data and qualitative data in the form of coded texts are the basis of analysis. Participants could choose to stay anonymous but also had the chance to provide their contact details for further cooperation and exchange after the completion of the survey.

Before distribution, the survey was pretested among 12 individuals from different social and professional backgrounds in order to ensure comprehensibility across sectors and educational backgrounds. In addition to personal e-mail invitations to the identified companies, the link to the online survey was distributed to topic-relevant umbrella networks, so that the link to the survey could be forwarded companies that fell within the survey remit. The link to the online survey was accessible from January until March 2021, with reminders sent out in February.

From 319 companies directly invited to participate and other companies reached through networks and snowballing, 158 questionnaires were considered as valid cases after data cleaning (removal of duplicates, and incorrectly, or insufficiently completed questionnaires). Based on the original sample this yields a response rate of 50%. However, the link was also accessible via networks and 497 visits to the site were recorded (including those who only viewed the online survey without filling it in) including these, the response rate was 32%. It is assumed that the group of 'worker-entrepreneurs' decided whose task it was to fill in the survey. In consequence, they spoke as representatives for their respective WLC, which some of them also explicitly stated in

some open text responses. With regard to their sociocultural background, as part of the preceding desk research the often very transparent website information revealed a well-balanced gender distribution, yet a rather homogeneous group in terms of race and educational background, despite commitments to increased diversity in recruitment.

The majority of WLCs in the survey are small (36.1%) with between 10 and 49 worker-members and micro-enterprises (51.3%) with up to 9 worker-members (see Destatis, 2019 for definition). Considering the relevance of small- and medium enterprises (SMEs) for the German labour market in which 55.1% of the German population are employed (ibid), this makes them relevant show cases despite their rather small size. The companies embraced a broad range of industry sectors from manufacturing to more service-based and cultural activities. Over a quarter of the sample were in education (26.6%), with just under a quarter in the food sector (22.2%) and the service sector (22.15 %) and art and cultural sector (22.2%), with over one in ten in the IT and telecommunication sector (15.8%). Regarding the spatial distribution, a large share of the participants named Berlin as their headquarters (26.2%). Disregarding Berlin, 28.1% were based in medium cities (between 100,000 and one million inhabitants) and 18.9% in cities with less than 100,000 inhabitants, with 15.9% in cities with over one million inhabitants (15.85 % excluding Berlin as an outlier). This suggests that WLCs are neither bound by nor restricted by local or regional contexts, however there are smaller place-specific ‘islands’, for example Kassel and Berlin (Kasseler Kollektive, n.d.; Arps et al., n.d.). Most participants operate nationwide (35.6%), closely followed by those with a local (29.5%) and a regional (28.8%) focus. Few expanded beyond the German borders: only 7.4% of respondents indicated that they operate on a global level and even fewer (6.1%) on a European level. These exceptions usually included online services or those with international partners, e.g. with coffee cooperatives in South America.

4. Findings: Transforming work in German WLCs

‘It is simply clear as day that we need new forms of working together.’ (Interview^(INT) 265)

Reflecting diverse forms of transformative labour agency, German WLCs apply multifarious strategies to interpret and implement paid work in new ways. Examples range from WLCs that collectively manufacture furniture or roast coffee to decentrally organised IT WLCs or other sectors of the creative industry such as communication design and journalism. Yet despite their differences, they are driven by shared aspirations to change standard work structures, as will become apparent in the findings below. In response to **research question (1)**, the paper first looks at the role of spatial

context in terms of related economic and institutional structures that shape the decisions and strategies of German WLCs. Second, the paper reports the motivations and values that drive their actions. Third, it portrays the diverse ways in which German WLCs are commoning decision-making and the management of their companies.

4.1 The spatial context and why it matters

From a labour geography perspective, it is particularly interesting how production and work structures are regulated differently depending on their spatial contexts. This also accounts for the spatial and related institutional conditions under which people establish WLCs. So, how does the German context affect the actions and decisions of workers in WLCs? Overall, the survey results reveal that the space-specific legal regulations of Germany are perceived as a challenge. Although not the most popular answer when asked about external challenges, 15.8% indicated the lack of an adequate legal form as an external challenge (see Fig. 3). Yet, dissatisfaction with current legal forms was clearly not a deterrent, but perceived as a *‘vehicle for [their] effectuality’* (INT 265) or *‘the fastest and most uncomplicated form to found [their company].’* (INT 257) the chosen legal form reflects pragmatism. Participants creatively used existing structures to match their needs.

In terms of legal forms, the most common legal forms were ‘GmbH’ (the German equivalent to a private limited company) with 23.4%, Genossenschaft (‘eG’, the German legal form for registered cooperatives) with 15.8% and ‘e.V.’ (the German legal form for registered charity association) with 15.2% (see Fig.1). Desk research on eGs revealed that many include the clients as voting members, while the working environment remains hierarchical. However, even though it is not a necessary condition for an eG to include democratic structures for workers, nearly a quarter of WLCs used and interpreted it that way. Yet, participants also pointed out the high bureaucratic burden as a reason against the choice of an eG.

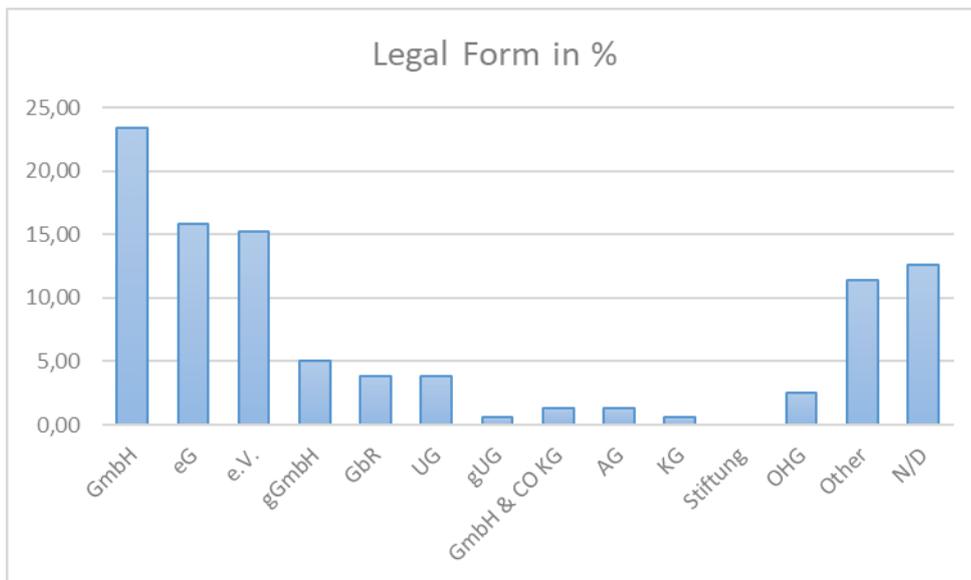


Fig. 1: Legal form in percent (%)

In the case of GmbHs, the most common reasons for this choice were lower bureaucratic and financial hurdles. Additionally, the unrestricted rights to profit, which is restricted in an e.V, allows a more efficient framework to ensure company survival in the current market system. It seems that for most of the participants who chose the GmbH form, it was a compromise rather than an ideal choice. In the words of one participant, ‘an eG might be more suitable, but that appeared to be too big and too expensive for us’ (INT 502). Against this backdrop, it is unsurprising that 11.4% chose ‘other’ as their model. The most common model specified as ‘others’ is a combination of an e.V. and a GmbH, in which the e.V. acts as shareholder of the (limited liability) company. This allows for democratic structures and a charitable purpose, while the company is still able to create profit thanks to the GmbH element. Participants perceived it as a more flexible model:

‘Because for us the objectives [of creating profit and being charitable] do not contradict each other, we have both legal forms. What counts for us are the human connections through which we can have an impact on the actual (economic) system. This is not based on the legal form, but on the relationships that are actually lived.’ (INT 265)

While the legal framework in Germany puts limitations and bureaucratic hurdles on the common financial ownership of a company, the results show how German WLCs develop their own strategies to work around constraints. Participants reported using a combination of different legal forms to implement their values of participation and collective (financial) responsibility.

Yet, in some cases, WLCs need to adhere to the specifics of their chosen legal forms by assigning financial liability to a single person or a smaller group of workers. Consequently, this creates internal hierarchies in terms of responsibility and risk. Thus, the survey shows that worker

co-determination is slightly higher over working conditions than structural company decisions like employment, investment, company dissolution or a change of location (see Fig.2).

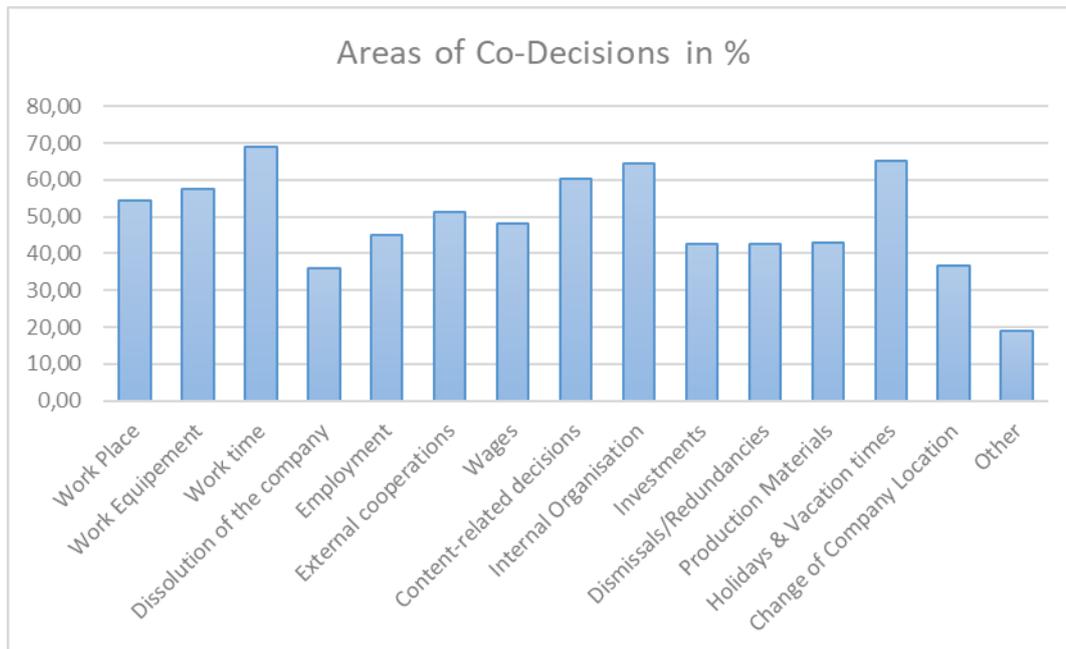


Fig. 2: Areas of co-decision in percent (%)

In response, many of the survey participants indicated that they addressed the resulting imbalances through internal contracts and agreements. This corresponds to research results on Italian cases (Cori et al., 2021; Castellini, 2021; Vieta, 2015) which demonstrate that legal forms are not set in stone, but can be adapted to institutional forms beneficial to WLCs as fruits of labour agency. For example, the Marcora Law facilitates a transfer from investor-owned companies in a crisis to WLCs by providing legal and financial support for such projects (e.g. Lomuscio & Salvatori, n.d; Vieta, 2015). Furthermore, there is a well-established institutional landscape of cooperative umbrella federations, supported by Italian cooperative law. Worker cooperatives in Italy are required to pay 3% of profit into a mutual fund, which allows for financial support of cooperatives (e.g. Vieta, 2015; Zamagni, 2019; Cori et al., 2021). This is in line with observations from Coe and Jordhus-Lier (2010:219) that ‘*[t]hrough employing scalar strategies, labour has in some cases managed to reconfigure political landscapes and renegotiate social hierarchies in ways which are more beneficial to the interests of workers.*’ This observation also find its application in the case of Germany.

The findings reveal the diverse legal forms adopted by German WLCs and their willingness to transform existing structures despite these obstacles. So, what are the roots of this entrepreneurial boldness and the readiness to drift away from ‘mainstream’ paths?

4.2 Motivations and values behind transformative work practices

Participants explained their commitment to WLCs as part of a general dissatisfaction with predominant work environments, including high levels of work stress, lack of creativity and freedom. Nearly one in five (18.4%) indicated frustration with the necessity to compete with other companies to ensure their own survival and a third (31%) perceived the growth paradigm of current market systems as the biggest hurdle to their models (see Fig. 3).

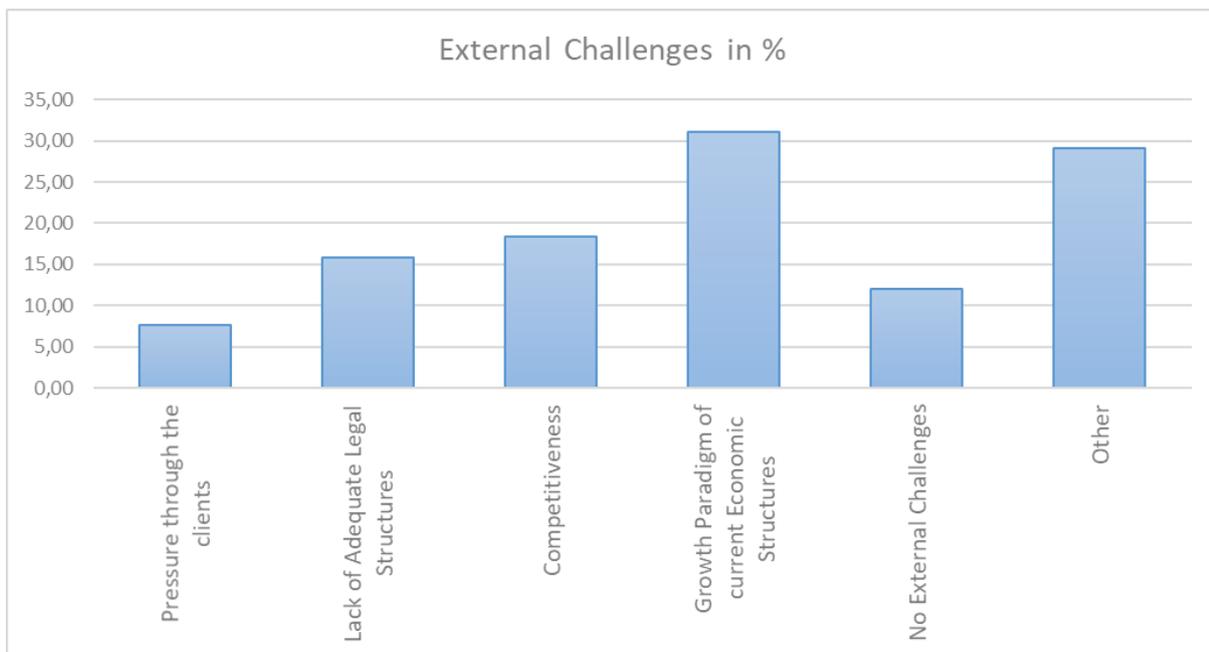


Fig. 3: External challenges in percent (%)

However, instead of accepting the growth paradigm as a given fact, respondents actively take measures to limit their economic growth and one explicitly articulated this in terms of capitalism:

‘All people employed in the company have a say in the means of production and the design of their workplace, but they do not own the shop in the classical sense of being able to turn the shop into a profit or skim off a profit themselves (beyond the salary). This avoids or caps classical capitalist growth and profit orientations as much as possible.’ (INT 157)

Another described how profits are reinvested, including for wider societal benefits:

‘The GmbH is self-owned, which means that we have decided in our statutes/constitution that any profits will be refinanced and that we will operate in a public welfare economy.’ (INT 141)

This was the same for other WLCs and a number expressed a commitment to redistribution in the form of wages:

'The e.V. is the wholly-owned shareholder of the GmbH, so that profits benefit the e.V. and thus socio-cultural projects and the fair payment of employees as well as the maintenance of our spatial and digital infrastructure.' (INT 257)

As already shines through in these answers, most of the survey participants share the desire to have purpose in their work and for their work to have a social and/or political, but also an environmental impact:

'We want to hack the economy and prove that it is also possible to work in harmony with the environment, people and nature (and not against it).' (INT 142)

Hence, beyond the scope of their company, most survey participants indicate that they seek to challenge the dynamics of exploitation and (global) inequalities reflecting collective and individual values outside paid work:

'We want to be able to be in the company as we are in our private lives. This means that we want to behave openly, socially, democratically, ecologically and politically towards all people that are concerned.' (INT 266)

Their motivation to have a beneficial social, environmental and/or political impact not only becomes apparent in profit management, but is also evident in participants' definition of work that includes socio-political engagement or care. Implementing this understanding of work beyond paid work, WLC's collectively decided to have 20/30 hour full-time contracts that consciously aimed to redistribute reproductive activity (see Table sections 2.3 and 2.4):

'We work for wages in order to be able to secure our livelihood. At the same time, we want to live in just personal and societal relationships. So, we also take family work (home schooling, children's day care) and political issues into account in our working time and adapt it to these framework conditions. We also try to distribute reproduction and care work in the company equally on all shoulders'(INT 539)

In addition to facilitating caring activity, respondents stressed the importance of time for engagement with civil society and political activism:

'We work between 20 and 30 hours a week, depending on our wishes and possibilities. We do this consciously in order to still have time for care work, political activism, etc. Furthermore, care activities in the office, such as cooking, cleaning, etc., are explicitly part of working time.' (INT 163)

Yet, despite their motivations and efforts, participants are aware that they are not always able to avoid being part of (self-)exploitative dynamics. In the survey, self-exploitation was indicated as the

main internal challenge for the companies (39.9%) and they still see potential for improvement in wages (48.1%) as can be seen in Figure.4. Furthermore, they still see potential for increased diversity in the backgrounds of their members (39.9%).

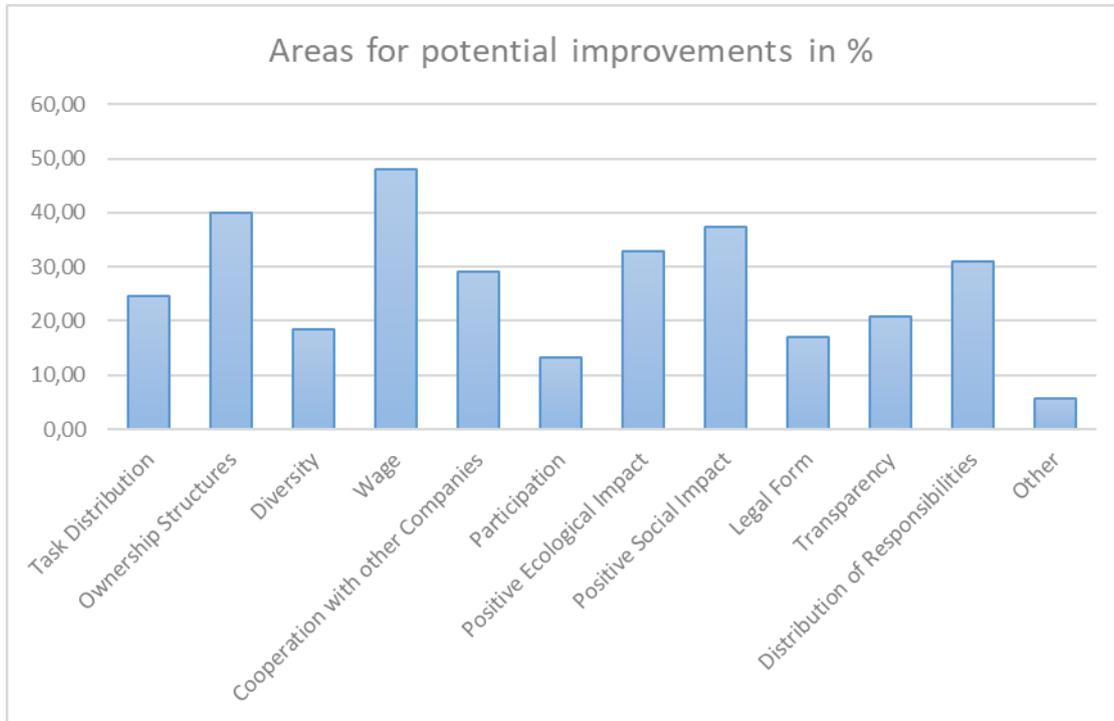


Fig. 4: Areas for potential improvements in percent (%)

Recognising limitations on the scope of action, they compensated by investing effort in transparency, raising consciousness within their client networks and among cooperation partners (see Fig.5), while over half (55.1%) of participants expressed interest in further cooperation and exchange with other survey participants.

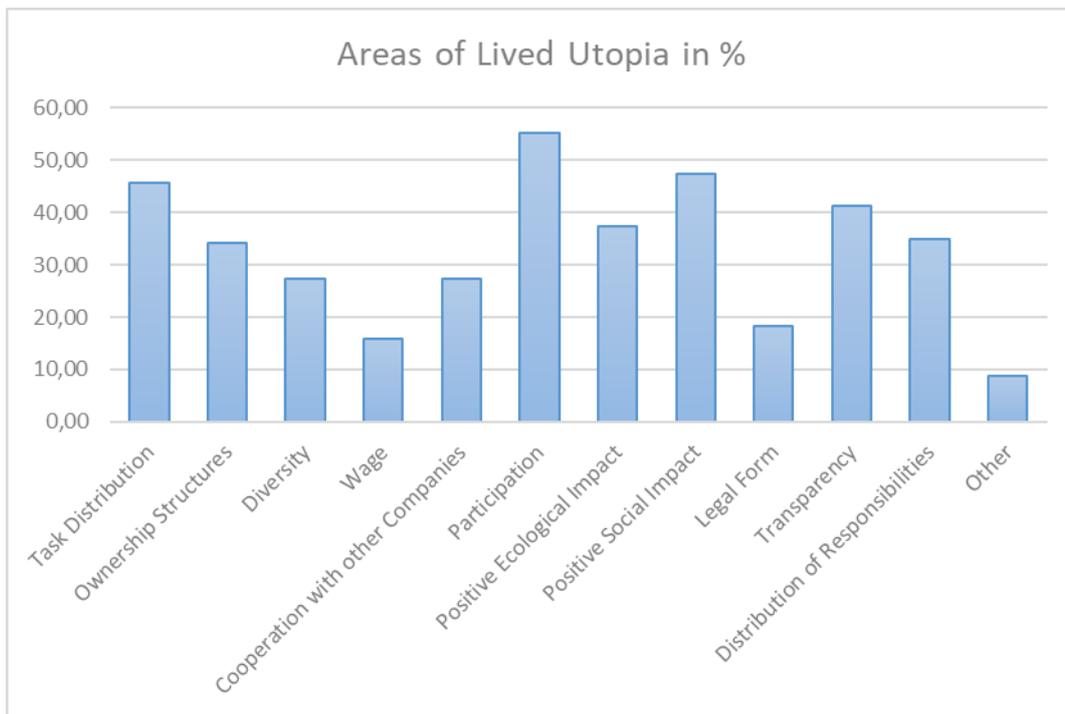


Fig. 5: Areas of lived utopia in percent (%)

In terms of transformative effects on society, while over a third (37.3 %) of the participants saw potential for improvement in terms of positive social impact, nearly half (47.5%) were already quite satisfied with their social impact and suggested some sort of lived utopia (see Fig.5).

While conscious of their limits when it comes to an implementation of their values, German WLCs also demonstrate that an understanding work as *‘achieving self-set goals together that are meaningful to the world.’* (INT 460) is more than just an empty phrase. Further, aiming for *‘[...] cooperation instead of competition, both within internal structures and globally.’* (INT 274), they go beyond a positive societal impact of their products by applying an understanding of labour as a commons, evidenced in the following section.

4.3 Commoning decision-making and management in German WLCs

‘Many cooks improve the broth – the company is ours!’ (INT 60).

As can be seen above, the values and utopian visions German WLCs strive to implement, sometimes requires strategic compromise and pragmatism, especially regarding their legal forms. Despite variety in strategies, the results show that the focus is strongly on collective and collaborative approaches to ensure worker-led forms of work and production. Considering the selection criteria for the selected sample, collective decision-making and (financial) ownership are inherent to the companies. Consequently, the workers manage the companies *in common* (see also

Table section 2.1). This sense of community and shared responsibility when working on and towards a common purpose strongly shows in their survey responses, with an emphasis on collective decision-making:

‘Everyone works towards goals that are developed together and discussed again and again, and everyone contributes to them according to their own ability and possibilities.’ (INT 226)

Again, there was a clear sense of challenging the existing economic system, through distribution of labour:

‘We try to mitigate the effects of capitalism with the means available to us or to distribute them over many shoulders’ (INT 495)

Survey results further show that collective decision-making is embedded: 19.6% of the participants indicate participatory decision-making over all areas and 26.6% in 13 of 14 areas. This further corresponds to 34.5% of the participants indicating grass-root democratic structures for decision-making. The following quotes provide just a small glimpse in the diversity of different models and approaches. For one, there was *‘co-decision for all who are ready to take responsibility.’* (INT 446), and another emphasised worker democracy, stating, *‘every person who is affected should also have the right to participate in all decisions’* (INT 142). Yet another participant distinguished between strategic and daily decision-making:

‘All central decisions are made together by consensus, but all collectivists have sole power of representation for everyday decisions.’ (INT 457)

A further respondent also stressed decision-making and autonomy over work:

‘Work is distributed in self-managed departments and coordinated in joint rounds.’ (INT 478)

It is clear that all participants put much thought and effort in their respective strategies for decision-making. The high level of consciousness and deliberate intent to enable collaborative work and production within and beyond the company is evident. Commitment to and strong identification with ‘their’ WLC were often explained by values like collaboration, participation and community. Survey results indicate participants wanted to meet the needs of and create equal opportunities for all members of the organisation and collaboratively develop protective mechanisms against self-exploitation: in the voice of one participant:

‘Everyone works towards jointly developed and constantly re-discussed goals, and everyone contributes to them according to their own ability and possibilities.’ (INT 226)

Another participant emphasised the recognition of different capacities to contribute and need to recognise reproductive work, including in wages:

‘There are different forms of work that are valued differently in society. (Productive work such as manufacturing, or reproductive work such as care work, housework, etc.). Through a needs-based wage concept (as opposed to an hourly wage) and the time flexibility we take away, we try to take this dichotomy into account.’ (INT 491)

Individual skills and capacities are perceived *as part of* a mutually constituting unity, with structures allowing for both individual *and* collective agency, respecting the differences and circumstances of all members as multifaceted persons as well as the joint mission and responsibilities connected to the company’s purpose. As another participant put it:

‘Work should serve the success of a common goal oriented towards the common good. In doing so, people should take good care of themselves, but also work together efficiently, honestly and cooperatively. We know from each other what we are working on and where help is needed.’ (INT 274)

Survey participants also indicated a strong willingness to continuously and collectively (re-)adjust their strategies to circumstances. This proved to be particularly helpful in light of the temporal context of the survey amid the COVID pandemic that heavily affected both people and economies worldwide. German WLCs showed resilience and, to the researcher’s knowledge, all survived the pandemic. Only 7.6% perceived their company as existentially at risk by the crisis. Thus, the majority managed the challenges of the pandemic without critical threat, though 10.8% with losses in some areas that they could not compensate for. Approaching one in five (17.7%) stated that they positively adapted to the new circumstances and 9.5% even indicated positive economic outcomes during the pandemic. This corresponds well to findings from worker cooperatives in Italy that also seem to have a higher resilience in times of crisis (Cori et al., 2021), though it is not possible to assess the long-term consequences at this point.

The results of this study provide evidence of an understanding of work as a pool of resources, time and skills that is managed *in common* to ensure a collective purpose within and beyond the company. This reflects research on WLCs from other countries, in which labour and production are framed as commons (e.g. Azzellini, 2016; Vieta, 2016). While German WLCs were not *born* out of an immediate economic crisis, their crisis management during the pandemic can still be perceived as ‘commoning against the crisis’ like suggested by Varvarousis and Kallis (2017). Viewing these findings through the paper’s conceptual lens (see section 2), the paper now turns to discussion of transformative labour agency.

5. Discussion: German WLCs as sites of transformative labour agency

The empirical findings reveal a wide variety of companies in Germany in which people *collectively and consciously* reshape (their) work and production structures. In line with an understanding of labour as commons (see section 2), survey results suggest that the time, energy and skill workers in German WLCs provide is treated as a pool of available *common resources to foster societal well-being*. Thus, German WLCs disclose forms of commoning labour as a post-capitalist practice through aligning collective decision-making and ownership to economic principles beyond economic growth.

From a labour geography perspective, the socioeconomic context of Germany is particularly interesting. In contrast to research on cases from South American and Southern European countries, German WLCs were founded independently of immediate crisis and not as a direct reaction to it. Thus, they are not obvious examples of ‘commoning against the crisis’ (Varvarousis and Kallis, 2017). However, the findings reveal common roots in general dissatisfaction with conventional work structures. A majority of the survey participants connect their dissatisfaction to broader structural (economic) challenges. In consequence, especially in the light of rising social inequalities, precarious job situations and increasing burnout rates as structural ‘side-effects’ of current economic developments (e.g. Brady and Biegert, 2017; Neckel and Wagner, 2017), a deeper look at their motivations suggests that they could be framed as more indirect cases of ‘commoning against the crisis’. Yet, due to the global socioeconomic position of Germany, the WLCs function more as a smoke detector than a fire brigade; they create awareness and act upon the socio-ecological costs of growth-oriented economic structures without being a collective response to immediate emergency.

However, as with cases from South American and Southern European countries, tensions arise from the necessity to participate in existing markets to ensure their own survival. There are challenges in the prefiguring of more collaborative work forms while confronted with ‘the need to continue to engage in competitive markets for pragmatic reasons’ (Vieta, 2019: 413). Additionally, German WLCs especially struggle with the lack of an adequate legal form. This puts a bureaucratic burden on them that is not inherently necessary as examples within other national systems show (Vieta, 2015; Cori et al., 2021). However, they find creative solutions to deal with the legal constraints by combining different existing forms. Correspondingly, Cori et al. (2021:158) found that Italian cooperatives ‘[...] revealed themselves to be resourceful and energetic in renewing themselves, coming up with new needs, trends, experiences, new market responses and solutions in

an associative, democratic and cooperative form.’ Such exigencies underpin economic resilience, and appear to have helped German WLCs to deal with the given economic challenges from the pandemic. These are features that may prove useful in future economic crises and suggest the potential impact of transformative work structures on overall economic performance, resilience and, foremost, the well-being and security of the people involved.

With respect to other constraining factors, survey results suggest that WLCs as work forms have their limits in terms of size. With one exception, all fall into the category of SMEs. This might raise concerns about scalability and to what extent collective work structures can be scaled up to medium-sized and large enterprises. Yet, in fact over half of the workers in Germany are employed in SMEs (Destatis, 2019), with major relevance for the German economy. Moreover, Parker (2017:430) stresses the transformative potential of SMEs and sees their benefits in ‘stimulat[ing] locally resilient economies, or regional innovation systems, as well as shortening supply chains.’ This is in concert with findings that reveal a strong connection to and awareness of broader socio-ecological challenges amongst workers in German WLCs - and the desire to purposefully react to them.

Hence, German WLCs demonstrate that commoning labour is possible and can overcome institutional structures. They use their collective transformative agency not only for the sake of their company, but also have extensive implications for work and production structures *beyond* the scope of their own company. The following section will provide more insights on how German WLCs are commoning labour that is conducive to socioeconomic transformations beyond economic growth.

5.1 Transformative labour agency in practice

Participants’ perception of growth-oriented market logics as the biggest external challenge implies dissatisfaction with the currently predominant growth-paradigm. This is in line with post-growth discourses and corresponds to existing research from other countries that frames WLCs as post-capitalist prefigurations (Kokkinidis, 2015; Vieta, 2016). With the exception of a small number of cases identifying as a ‘coalition of self-employed’ (11.39%) who joined forces for pragmatic reasons, most German WLCs *explicitly* articulate values beyond economic growth. The priority is on *both* individual *and* collective needs *beyond* questions of production and supply-demand. This is especially crucial in the light of Peredo and McLean’s (2019:11) observation that ‘[...] subjecting labour to the supply–demand–price mechanism of the market creates a fundamental vulnerability to other damages by allowing one dimension of the labourer’s life to subjugate other dimensions that are necessary to a complete human existence.’

Here it becomes apparent how wider social and political values that extend beyond work may have an impact on labour agency (Hastings, 2016). Most participants from WLCs strongly identify with values centred on community, trust, and solidarity. Hence, in line with Federici's (2018:95) conception of commons, they take 'responsibility for the reproduction of the shared wealth, natural or produced.' This awareness and assumed responsibility is evidenced by the fact that products and services are often perceived as tools to secure jobs while having a social, ecological, and/or political impact, rather than a means to the end of increased personal or company profit. Another transformative aspect lies in a different understanding of working time and work itself. While the paper's focus is on *paid* forms of occupations in WLCs, the cases at hand show that care work is partly included (see section 4.2).

Further examples of transformative labour practices include reduction in working time, or caps on the maximum financial growth of the company. There is diversity in practice despite shared values aligned with principles beyond economic growth. Therefore, WLCs should be rather perceived as a spectrum than a homogeneous category. Although a more detailed and nuanced picture of different applied transformative strategies within German WLCs requires more in-depth research, Table 2 already allows a first glimpse at some practical applications of different forms of transformative labour agency.

Table 2: Transformative Labour Agency beyond Growth in Practice (developed based on Table 1)

Forms of Transformative Labour Agency	Focal Points	Practical applications in German WLCs
2.1 Commoning Labour	Understanding of labour as a commons: A collective social activity, which can be a sustainably managed resource for the benefit of our (global) society; Commoning labour as a pathway to its decommodification;	‘Commoning’ of ownership and decision-making structures; (Individual) skills and workforce acknowledged and mobilised for societal needs and benefits
2.2 Cooperative and Solidary Work organisation	Strong focus on more cooperative and solidary forms of economic practices, which includes labour; Social and ecological sustainability prioritized over profit creation and ‘economic growth’	Overall emphasis on individual, societal and planetary well-being; Partly active limitation of company’s ‘growth’ (e.g. through donating generated profit beyond a set limit);
2.3 Work Time Reduction	Work-time reduction as a concept for positive socio-ecological impact	Different approaches ranging from 20/30 hours ‘full-time contracts’ to recognition of voluntary work as working time; Partly recognition of care work within and outside the company as working time
2.4 Understanding and Recognition of Work beyond Paid Work	Understanding of work beyond ‘productive’ activities; Focus on sphere of reproduction: special attention to care work and unpaid forms of work; Emphasis on economic activities outside from market structures	Visibility of very diverse forms and shapes of work next to conventional labour structures; Partly recognition of care work within and outside the company as working time; Overall emphasis on (emotional) needs beyond ‘productive functioning’ as a workforce

Lastly, the survey results themselves combined with participants’ willingness to openly discuss struggles and challenges, reveal that many German WLCs explicitly want to ‘let their ideas travel’. Hence, they do not only *practice* elements of a ‘great mindshift’ (Göpel, 2016) in the application of a transformative (economic) paradigm, but they also *communicate* it to others in their work-related and everyday interactions. Advocating and recommending their model to others shows that workers in German WLCs would not want to go back to ‘normal’ despite the consistent challenges in their work. As one participant put it, ‘*there is no other way. How could we still look at ourselves in the mirror otherwise?*’ (INT 91). Consequently, German WLCs already live ‘real utopias’ (Wright, 2013) and implement post-capitalist elements within a ‘capitalist present’

(Larrabure, 2017). As a result and in response to **research question (3)**, they can well be understood as *sites of transformative labour agency*.

At the same time, it is important to acknowledge Germany's overall beneficial global position. Some of the survey participants indicated an awareness of their positions and apply practices of transformative labour agency *beyond* their own contexts in order to tackle structural inequalities. In line with calls from Reid-Musson et al. (2020) and Strauss (2020), this opens doorways to increase awareness of economic practices aligned with the (global) dynamics of structural discrimination and examine how comparably privileged workers can take on the positions of allies by tackling inequalities beyond their own struggles.

6. Concluding remarks and outlook

German WLCs constitute a diverse landscape of transformative labour geographies. Their diversity becomes not only apparent in their dispersed locations and industry sectors, but also in different applied strategies to live their visions of work. Central to workers' involvement in WLCs is the idea of labour agency, the conviction that their actions and decisions can (re)shape both their individual situation and their socioeconomic environment.

However, they are still a minority of German companies. Addressing **research question (1)**, this can be partly explained spatially by the lack of an adequate legal form in Germany. Furthermore, the average size of the WLCs is quite small, which might be perceived as limitation. Nevertheless, considering the important role of SMEs in the German labour market, their size might work in favour of potential policy adaptations. Yet beyond 'upscaling', WLCs not only reach wider communities in terms of values through their value chains, but also demonstrate how current economic and institutional structures can be (re-)interpreted in creative ways. Further analysis might explore the apparent necessity of 'upscaling' as the only way to create an effective transformative shift.

Empirical insights from Germany could contribute to a further pluralisation of labour geography research in at least two regards. On the one hand, further inquiries on the specific local conditions under which German WLCs emerge and their potential for diffusion could increase insights on the drivers and barriers at the local and regional level. On the other hand, the findings could open new pathways for a knowledge transfer of the transformative potential of labour agency beyond national borders and allow for transnational mutual learning to address global socioeconomic ecological inequalities.

Regarding **research questions (2) and (3)**, WLCs are paradigms of *transformative labour agency* in multiple regards. First, they change the inherent nature of a company since actors hold ‘dual roles’ as entrepreneurs and employee, which challenges the status of labour as ‘pseudo-commodity’ (Hudson, 2001). The empirical insights show the diverse forms in which WLCs collectively manage their workforce in terms of time, skills and energy. In line with existing research (see section 2), this suggests an understanding of labour as commons. The research sheds light on ways to organise work within the existing institutional framework, but *beyond* conventional labour structures.

As a focus of analysis, the presented study discussed how commoning labour in German WLCs cannot only be understood as transformative labour agency itself, but also leads to the implementation of other transformative labour practices. One example is the extended notion of work beyond bare economic production with different understandings of working time and activities included in a (full time) contract (see section 4.2). Through the inclusion of *unpaid* and externalised activities such as care work and voluntary socio-political engagement into *wage* labour, WLCs blur the lines between spheres of production and social reproduction. Thus, they break with predominant market logics that incentivise production as a means to create profit.

Presented as post-capitalist practices, the analysis of diverse ways to organise work in German WLCs open gateways to future research and a more nuanced examination of different implementations of transformative labour agency. Overall, the results show how collective labour agency in German WLCs is conducive to socioeconomic transformations beyond economic growth through commoning labour with courage and care. Although partly limited by existing legal forms and embedded in structures favouring growth-oriented economic practices, they can be considered as transformative labour geographies that ‘loosen up’ the concentration of predominant economic practices and open new pathways to different forms of work structures – or in the workers’ voice ‘*mess up capitalism through collaboration*’ (INT 193).

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5: Analysing collaborative networks of WLCs in Hamburg and Berlin

As continuation of the foregoing research results from the nationwide survey and with persistent curiosity how WLCs in Germany “*mess up*⁸ *capitalism through collaboration*” (INT 193)⁹, I engaged in the second phase of my empirical field work based on the research design presented in Chapter 3.2 from Winter 2021/22 onwards. During the process of data coding and analysis from the interviews, the collaborative network character of WLCs in Hamburg and Berlin became more and more apparent. Inspired by a case study in Canadian worker cooperatives by Spicer & Zhong (2022) and in dialogue and discussion with my co-author Robert Hassink, we found the concept of entrepreneurial ecosystems suitable to capture the empirical insights from the comparative case study adequately. Prior to a detailed look at these insights and their discussion in the frame of the co-authored Paper 3 of my PhD below, the next sub-chapter will briefly position the concept of entrepreneurial ecosystems within the overall theoretical coordinates as presented in Chapter 2.

5.1 Theoretical coordinates revisited: Transformative labour geographies and entrepreneurial ecosystems

While so far, the concept of entrepreneurial ecosystem (EE) is mainly applied in cases of capitalist and conventionally structured enterprises (e.g. Brydges & Pugh, 2021; Cloutier & Messeghem, 2022; Pugh et al., 2021; Spigel, 2022), it discloses several characteristics that make it suitable and applicable to understand and analyse beyond-capitalist and more diverse forms of economic actors and activities as well. What makes the concept apt for an adaptation in the first place is the focus on the *agency* of relevant economic actors, which differentiates the concepts from similar concepts like clusters or regional innovation systems (see e.g. Brown et al., 2022). This fits well with the concept of (transformative) labour agency and an relational understanding of economic spaces that people in their role as economic actors can (re)shape through the actions and decisions, as discussed in Chapter 2. Particularly the interrelation between the agency of economic and entrepreneurial actors with their surrounding political, institutional and socioeconomic network and environment which is covered by an EE lens corresponds well to ongoing structure-agency debates within the field of labour geography (e.g. Strauss, 2020a). In consequence, it can contribute to a further conceptual pluralisation of this ongoing research. While workers so far remained at the sidelines of analyses of EEs, Spicer & Zhong (2022) made a start in this respect with their case study on Canadian worker cooperatives.

8 And personally, I would add “diversify capitalism”

9 Direct quote from survey entry, cited as in Paper 2

Furthermore, the absence of sectoral focus which is an inherent characteristic to the EE concept (e.g. Brown et al., 2022; Spigel, 2017), allows to capture cross-sectoral cooperation among WLCs. Combined with the increased attention to sociocultural attributes (see *ibid.*), the EE lens allows explore how WLCs implement more-than-capitalist economic values beyond the scope of their company. As a last important characteristic, there is an inherent emphasis on economic networks in the form of exchange, cooperation and (external) supportive actors and infrastructure that compose the ecosystem (e.g. Schäfer & Mayer, 2019; Spigel, 2017; Stam, 2018). Hence, in line with both labour geography and transformation research perspectives, this sets the ground for a conceptual analysis of diverse forms of economic collaboration and mutual support and collective economic action. Recent examples for such a conceptual transfer can already be found in research on sustainable EEs by Theodoraki et al. (2022) or Volkmann et al. (2021) as well as on social EEs by De Bruin et al., 2022. Thus, if combined with perspectives from transformation research (see Chapter 2.2), an integrated view on material, social and cultural attributes that restrain and foster economic activities might help to understand and capture the heterogeneity and complexity of existing economic structures, including more-than-capitalist ones.

Against this background, Paper 3 as final article of this PhD project will now put workers in the limelight of the concept of EEs and present the in-depth insights from collaborative networks of WLCs in Hamburg and Berlin, framed and discussed as ‘worker-led entrepreneurial ecosystems’.

5.2. Paper 3: From worker-led companies to worker-led entrepreneurial ecosystems? The cases of Hamburg and Berlin compared

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From worker-led companies to worker-led entrepreneurial ecosystems? The cases of Hamburg and Berlin compared

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Abstract

Workers as active spatial agents have the capacity to (re-)shape their (economic) environment ('labor agency'). As focus of this paper, worker-led companies (WLCs) present a particular form of transformative collectively organized labor regimes. Yet, WLCs do not only implement values of collaboration and mutual support within their own company, but also diffuse them due to cooperation with other companies, often in a regional context. Against this background, this paper aims to explore and discuss cooperative networks of WLCs in what we coin worker-led entrepreneurial ecosystems in Hamburg and Berlin. Both cities have a relatively high density of WLCs. In-depth interview data reveal that while the focus and the cooperation strategies differ, they share strong cross-linkages and collaboration based on shared values and sectoral intersections. Thus, the organized collaborative networks of WLCs in Hamburg and Berlin demonstrate how they are actively restructuring both local economic structures and related institutional frameworks through their collaborative actions and decisions in more-than-capitalist worker-led entrepreneurial ecosystems. In consequence, insights from this study contribute to a theoretical extension of the entrepreneurial ecosystem concept and show how worker-led entrepreneurial ecosystems can be expressions of transformative labor agency.

Key words: *worker-led companies, transformative labor agency, worker-led entrepreneurial ecosystems, labor geography, Hamburg, Berlin*

1. Introduction

When thinking about important (local) economic actors, workers are often not the first ones that come to mind. Yet, research in the field of labor geography has clearly demonstrated in the last decades how workers can influence economic structures through their actions and decisions and how they can, thus, be considered as active spatial agents (Herod, 1997; Lier, 2007; Peck, 2018). This capacity is commonly summarized as ‘labor agency’ (Cumbers et al, 2008; Carswell and De Neve, 2013). While workers are always embedded in – and partly hampered by – their specific spatial-economic contexts, labor geography research also reveals various ways and strategies in which workers (re-)shape these contexts in which they are embedded.

One particular strategy of collective labor agency are companies that are owned and managed by the workers themselves. In these cases, workers hold a double role as workforce and entrepreneurs simultaneously (e.g., Webb and Cheney, 2014; Vieta, 2016; Larrabure, 2017). Acknowledging the variety of forms and models (e.g. worker cooperatives, employee-owned firms, worker-owned businesses) in which they are investigated, they can be summarized as ‘worker-led companies (WLCs)’ (see Grenzdörffer, 2022). They are often discussed as case examples to show how companies and production structures can be organized in more democratic and collaborative ways, and, in consequence, contribute to a more diverse picture of economic spaces (e.g. De Peuter and Dyer-Witherford, 2010; Azzellini, 2016; Gibson, 2020).

Yet, with a few exceptions (e.g. Spicer and Zhong, 2022), the focus often seems to be on their cooperative *internal* reorganization and their strategies and struggles to sustain in the more conventional economic structures they are embedded in. To the authors’ knowledge, geographical research on forms of mutual support and cooperation *between* WLCs appear to be rather in the margins.

Thus, this paper aims to expand existing knowledge in this regard by analyzing collaborative networks of WLCs as part of local economic environments. As empirical base, this paper draws on insights from two cases of worker-led collaborative networks in Hamburg and Berlin. Based on a previous nationwide survey in Germany (Grenzdörffer, 2022), these two cities revealed a particular high density of WLCs and therefore seem suitable for further investigations in this regard. The

database consists of in-depth qualitative interviews, document analyze as well as relevant data from the aforementioned survey.

Inspired and convinced by a comparative case study on worker cooperative entrepreneurial ecosystems in Canada (Spicer and Zhong, 2022), we found the analytical concept of ‘entrepreneurial ecosystems’ to be fitting to capture the well-organized collaborative networks of WLCs in Hamburg and Berlin. While the definitions of an ‘entrepreneurial ecosystem (EE)’ vary (see Malecki, 2018 for an overview), there seems to be a shared understanding of EEs “as a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship” (Stam, 2015: 1765). Spigel (2017) highlights the importance of different material attributes, but also social and cultural ones, e.g. in the form of entrepreneurial norms and values, for the functioning and maintenance of an EE. The relevance of values, such as cooperation, democracy and mutual support in the internal structures of WLCs invites a closer look at how these values also might be prominent with regard to external forms of collaboration with other companies and economic actors. Hence, the concept of EE seems to be well applicable to investigate these elements of economic networks.

With the aim to extent and pluralize existing conceptions of EEs, we suggest ‘**worker-led entrepreneurial ecosystem (WLEE)**’ as an ecosystem that allows to put workers at the core of collaborative entrepreneurial networks and makes them central actors in (local) production networks. We understand it as an extension to the concept of worker cooperatives entrepreneurial ecosystem presented by Spicer and Zhong (2022), as it allows for a broader range of company models in which workers are the central actors and decision-makers. Furthermore, current research on WLCs also suggest that they are often motivated by values beyond the generation of profit and capitalist market incentives (e.g. Kokkinidis, 2015; Larrabure, 2017; Castellini, 2021). Therefore, increased attention to collaborative EEs beyond capitalist ones can also contribute to a more complete picture of local economic activities. Moreover, it might increase the visibility of potential solutions to drawbacks and shortcomings of capitalist economic structures.

From a geographical perspective, it is particularly interesting to look at different spatial contexts and their implications for economic activities. In the context of WLCs, existing research already revealed how different country-specific institutional frameworks as well as the overall economic conditions of a country influence the occurrence of WLCs (e.g. Vieta, 2015; Raffaelli, 2017; Grenzdörffer, 2022). Yet, the comparative study of Spicer and Zhong (2022) between two different

Canadian regions shows that not only the national context matters, but also different local particularities can play a decisive role for the functioning and maintenance of a WLEE. By comparing the cases of Hamburg and Berlin which are exposed to the same national institutional framework and also have the same political status as city state in Germany, these local particularities in the form of specific material, social and cultural attributes can come to the fore. This allows for a clearer picture of drivers and barriers for WLEE regardless national institutional and legal frameworks.

Embedded in the described theoretical framework, this paper's comparative study between WLEE in Hamburg and Berlin is guided by the following research questions:

1. To what extent does the concept of worker-led entrepreneurial ecosystems help to understand the collaborative networks of WLCs in Hamburg and Berlin?
2. What role do the different material, social and cultural local attributes in Hamburg and Berlin play for the establishment and maintenance of these worker-led entrepreneurial ecosystems?
3. To what extent can WLEE help to expose local ecosystems with norms and values that go beyond capitalistic ones?

In order to address these questions adequately, the paper is structured as follows. With a labor geography perspective, the second section sets out the theoretical framework of worker-led entrepreneurial ecosystems. Following the introduction of methodology and the choice of cases in the third section, the fourth section presents the results of the aforementioned comparative case study between Hamburg and Berlin. The fifth section discusses and contextualizes the findings with regard to WLEE as promising concept to expose local entrepreneurial ecosystems with norms and values that go beyond capitalistic ones. It closes with some theoretical reflections and suggestions for identifies future research avenues.

2. From entrepreneurial ecosystems to worker-led entrepreneurial ecosystems: towards a theoretical framework

The concept of entrepreneurial ecosystems firstly emerged in the USA and Canada in the mid-2000s and became very popular in different disciplines, such as management studies, entrepreneurship studies and later in economic geography in the 2010s (Schäfer and Mayer, 2019; Malecki, 2018). Its popularity among policy-makers is reflected by Brown et al. (2022) recently calling it the latest regional policy blockbuster. The founding figures, Brad Feld, Boyd Cohen, and Daniel Isenberg were mainly entrepreneurs or had close relations to entrepreneurial activities and were not much interested in theoretical underpinnings. Later, after 2013, when the concept became more popular in Europe, several European scholars, such as Colin Mason, Ross Brown, and Erik Stam tried to conceptualize entrepreneurial ecosystems and also discussed the concept in a broader conceptual context, comparing it with established, similar concepts, such as clusters and regional innovation systems (Brown et al., 2022; Rocha and Audretsch, 2022). Key differentiating characteristics are “[...] the stronger focus on agency in terms of the key entrepreneurial actors, the lack of sectoral focus and a stronger emphasis on the socio-economic and cultural aspects underlying entrepreneurship [...]” (Brown et al., 2022, 2). The focus, therefore, is clearly on individual entrepreneurs rather than on companies, and their shared norms and values concerning entrepreneurship in the specific ecosystem.

Schäfer and Mayer (2019) identify four key topics of recent research on the concept, namely the evolution of entrepreneurial ecosystems (see also Brown et al., 2022), relational aspects, such as social and cultural capital and internal and external networks (Spigel, 2017), issues related to measuring entrepreneurial ecosystems (Stam, 2018) and the extension of different actors in entrepreneurial ecosystems. In his analysis of common structures of entrepreneurial ecosystems, Spigel (2017) differentiates between material attributes (e.g. infrastructure, institutions, local markets), social (e.g. social networks, mentors, support systems) and cultural attributes (e.g. cultural beliefs, histories of entrepreneurs).

Recently, entrepreneurial ecosystems have been diversifying into different sub-groups, reflecting the increasing differentiation of norms, values and motivations for entrepreneurship. Examples are sustainable entrepreneurial ecosystems by Theodoraki et al. (2022) and Volkmann et al. (2021), although, to be fair, Cohen (2006) already referred to them in 2006, as well as social entrepreneurial

ecosystems (De Bruin et al., 2022). Yet, embedded in hegemonic capitalist notions of entrepreneurship and in related profit-oriented constellations of material, social and cultural attributes, such ‘other’ alternative forms of entrepreneurial ecosystems are to date rather in the margins of scientific and political attention. Under this consideration, we found the theoretical conceptualization of ‘othering’ suitable to better grasp internal and external dynamics of diverse entrepreneurial ecosystems. The term has its origin in the context of postcolonial studies and power dynamics and degradation practices connected to race (Said 2003; Bhabha 1994). With a less severe and (life-) threatening connotation, this concept has recently been used in economic geography, by Franz et al. (2018) in the context of South-North firm acquisitions and by Lange and Bürkner (2021) in the context of post-growth geographies in Eastern Germany. In both papers, they argue that the process of othering includes a sense of superiority and an external framing of a certain group as different by the majority/hegemonic group. Furthermore, according to Lange and Bürkner (2021), the self-identification as opponents or ‘underdogs’ in resistance to hegemonic groups of actors might run the risk to reproduce existing power relations by accepting this position rather than changing it. They thus invite for a more differentiated and ambiguous view on ‘deviant’ practices and actions, both within and outside of ‘alternative’ forms of economies.

Worker-led entrepreneurial ecosystems can be seen as part of the above-mentioned diversifying trend of EEs. In WLCs, workers own and manage a company collectively and hence hold a double role as entrepreneurs and workforce simultaneously. In consequence, they already inherently combine two elements that are often framed as opponents to each other and consequential mutual ‘others’. Looking at collaborative entrepreneurial networks of WLCs, we suggest the **‘worker-led entrepreneurial ecosystem (WLEE)’** as an ecosystem that makes them central economic actors and that allows to put workers at the core of (local) production networks. As mentioned in the introduction, we understand it as an extension to the concept of worker cooperatives entrepreneurial ecosystem presented by Spicer and Zhong (2022) as it allows for a broader range of company models in which workers are the central actors and decision-makers.

In the tradition of the labor geography research, workers have been in the spotlight as active spatial and economic actors since Andrew Herod (1997) invited a shift of perspective from ‘geographies of labor’ to ‘labor geographies’ and, hereby, laid the foundation of a new sub-discipline. Starting from a focus on trade unions as forms of (collective) labor agency, the discipline has been and still is pluralizing, which today allows for a broad variety of shapes and forms in which labor geographies and related expressions of labor agency are explored and analyzed (see Peck, 2018 for an

overview). In recognition and acknowledgment of the limitations of labor agency due to different socio-cultural, economic and spatial context (e.g. Coe and Jordhus-Lier, 2010; Hastings, 2016; Strauss, 2020), we find it equally important to look at its potentials beyond coping and resistance strategies in the context of traditionally organized (capitalist) companies. As conceptualized in earlier works (Grenzdörffer, 2021, 2022) and in dialogue with other scholars in the context of ‘transformative geographies’ (Schmid, 2019; Hug et al., 2022), we see potentials of WLEE to be a local expression of ‘transformative labor agency’: workers actively use their central role in production structures to actively alter and re-interpret economic systems and related production structures. In line with the attention to socio-cultural norms and values in both labor geography and EE literature (Hastings, 2016; Spigel, 2017), we see the relevance of norms and values as motivational drivers for diverse expressions of labor agency as well as the establishment and maintenance of EEs beyond the conventional ones.

As contribution to a more comprehensive picture of local economic structures as well as of expressions of labor agency, we will now present, compare and discuss collaborative networks of WLCs in Hamburg and Berlin as WLEE and potential forms of transformative labor agency.

3. Empirical Methods

In order to explore how the concept of EEs can be applied to cooperation networks among WLCs, a comparative case study approach is applied, which seems suitable for several reasons. First, a case study approach allows to address explanatory questions about *how* and *why* something happens and to examine the relationship between an observed phenomenon and its (spatial) context in-depth (Yin, 2018). Furthermore, the applied *comparative* case study approach enables a broader exploration of a phenomenon. It supports a more robust base for theory building due to extended empirical evidence and allows to move beyond initial impressions and a simplistic understanding by the juxtaposition of similarities and differences between cases (Eisenhardt, 1989; Eisenhardt and Graebner, 2007).

Within the context of case study research, the topic of case selection is a delicate one – and hence matter of debate. Critiques include the danger of biases in the selection process and issues of validity and generalizability (Flyvbjerg, 2006). While a selection based on randomness might prevent biases and give the choice of cases a more ‘objective’ notion, Seawright and Gerring (2008) point out the danger of an unrepresentative sample when randomizing a small sample. They thus

argue in favor of a purposive case selection process. This is also in line with Eisenhardt's (1989:537) statement that "... random selection is neither necessary, nor even preferable" and Gerring and Cojocaru's (2016: 417) "plea for transparency" when it comes to case selection. Inspired by a similar study on Canadian cases of worker cooperative ecosystems (Spicer and Zhong, 2022), this empirical study seeks to extend existing practical and theoretical knowledge on forms of EEs beyond mostly discussed capitalist ones. The argument from Spicer and Zhong (2022:617) seems convincing to "... eliminate cross-national policy variation as a confounding factor, while further exposing sub-national variegation as a key consideration" through a case selection within the same country. In reference to their study, the gained insights can evidently also serve as base for increased cross-country comparison in the future. Within these parameters, the two German regions to compare worker-led entrepreneurial ecosystems were selected and investigated as illustrated in the following graphic (see Figure 1).

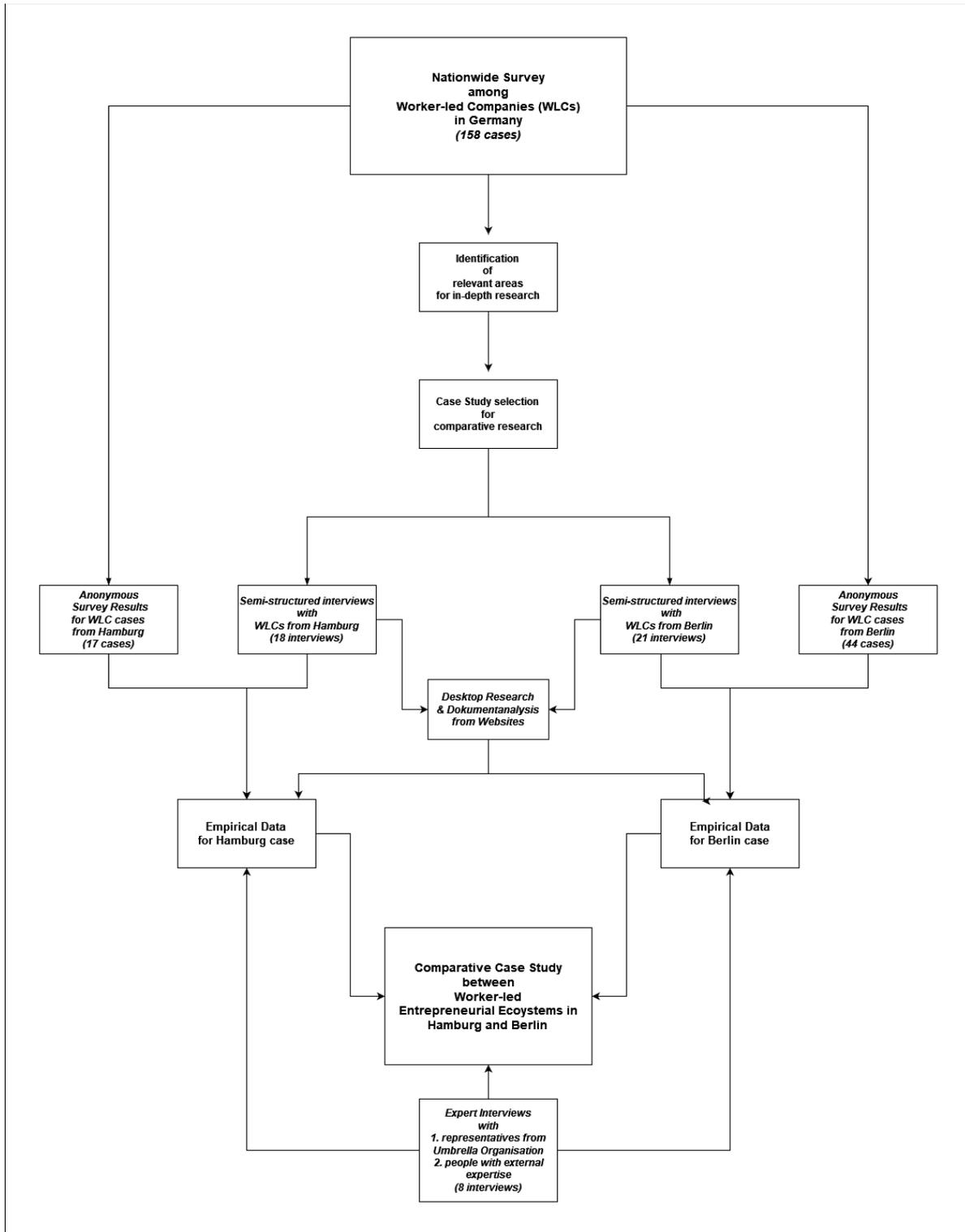


Figure 1: Research Design (own illustration)

We build on a previous nationwide survey that allowed for a first inventory of WLCs in Germany, which were discussed as forms of ‘transformative labor agency’ in previous work (Grenzdörffer, 2022). The two areas in which most of the participating WLCs are located are Berlin (44

participants) and Hamburg (17 participants). Already in the survey results, it became apparent that cooperation and networking play a major role for the (economic) well-being of the surveyed WLCs. In order to allow in-depth insights in the forms of cooperation within a specific region and the role spatial conditions plays in that, we generated data through semi-structured interviews with WLCs in Hamburg (18) and Berlin (21) which were combined with already existing data on Hamburg and Berlin from the nationwide survey.

In addition to the interview data, the websites and available documents of the participating WLCs were examined with a special focus on potential cross-linkages and existing co-operations.

Finally, to gain a comprehensive picture, eight local and supra-regional experts, partly from relevant umbrella organizations, were interviewed. In the findings in the next section, they are indicated as organizational experts (OE) and legal experts (LE).

All data were coded based on the “flexible coding” approach suggested by Deterding and Waters (2021) with a focus on intraregional cooperation and networking between WLCs in Hamburg and Berlin.

This collection of data allowed us to systematically compare between WLEEs in Hamburg and Berlin. The results from this comparative analysis will be presented and discussed in the following.

4. Findings: Analyzing worker-led entrepreneurial ecosystems in Hamburg and Berlin

Already in the very early stage of research, it was obvious that among the researched WLCs, community, cooperation and solidarity are highly valued both internally and in contact with other companies. In the following presentation of empirical results, the focus will be on the external co-operations and their potential role and contribution to the formation and maintenance of worker-led entrepreneurial ecosystems. Results from both locations reveal two different kinds of co-operation that both play a decisive role within the respective WLEE: sector-based co-operations and value-based co-operations. In creating and cultivating these collaborative relations, the embeddedness in the local economic context seems crucial. Yet, due to digitalization and the necessary distancing measures during the pandemic decentral organizing becomes more usual. Thus, the lack of beneficial location factors can partly be compensated for by overlaps and cross-linkages to other locations.

To allow for a systematic comparison between the WLEEs in Hamburg and Berlin, results from both locations will be introduced with regard to general characteristics. In a second step, findings from

both cases will be presented in terms of sectoral ecosystems and value-based and cross-sectoral ecosystems.

4.1. Hamburg's worker-led entrepreneurial ecosystem and the role of sectoral closeness

Empirical insights from the interview data, questionnaire data and additional desktop research all suggest a very dense collaboration network and a high willingness to mutual support among WLCs in Hamburg. In consideration of beneficial material attributes, the benefits of an urban environment are mentioned as a location factor that allows for access to a larger supporting customer network and better opportunities for collaboration with other WLCs. Furthermore and in the context of international cooperation mostly in the coffee sector, most of the coffee WLCs mentioned the Hamburg's harbour as beneficial material attribute for maintaining their business with low transportation costs and efforts. Yet, there seems to be very little supportive institutional infrastructure in the form of organizational or legal support besides the aforementioned umbrella organization. This is also pointed out by one of the coffee WLCs:

“And that's just... this activity of people on the spot. For example, in Berlin, existing associations certainly ensure that there are more well-founded foundations of collectives than in other cities, in the big cities, where there is something like that. Hamburg is also quite good in this respect. In the last few years, we've had about 15 new collective foundations in Hamburg. That's quite good. A lot has happened, especially in the IT and consulting and social sectors. But yes, that is clear. I wouldn't say that Hamburg is a stronghold of collectives. It's more like Berlin or Kassel or Wendland” (HCO1, Pos. 50).

However, in the same breath, they also emphasize that:

“we are not looking for binding or more binding joint structures in Hamburg. We are thinking more nationwide. In fact, we are looking for more binding nationwide networking in terms of higher-level solidarity and higher-level structures. We are thinking nationwide, and we will certainly establish structures for this in the next year and a half” (HCO1, Pos. 56-57).

They also mention the difficulties to maintain networking activities that are external to their daily work and cannot directly be implemented in their respective productive and entrepreneurial activities.

“I watch with such a quiet sorrow and a little guilty conscience how there's actually a lot happening right now. [...] And I see that and I read that and I think ‘I just don't have the energy to be there.’ I think, they always invite to new meetings. I think I'm supposed to go, but I can't get it done. I just... I'm doing 24-hour loading now. I'm doing 20 hours on another project at the game studio, and I have two little kids” (HF1, Pos. 79).

In consequence, it is unsurprising that the intra-sectoral cooperation is much stronger and much more densely organized than the cross-sectoral cooperative activities.

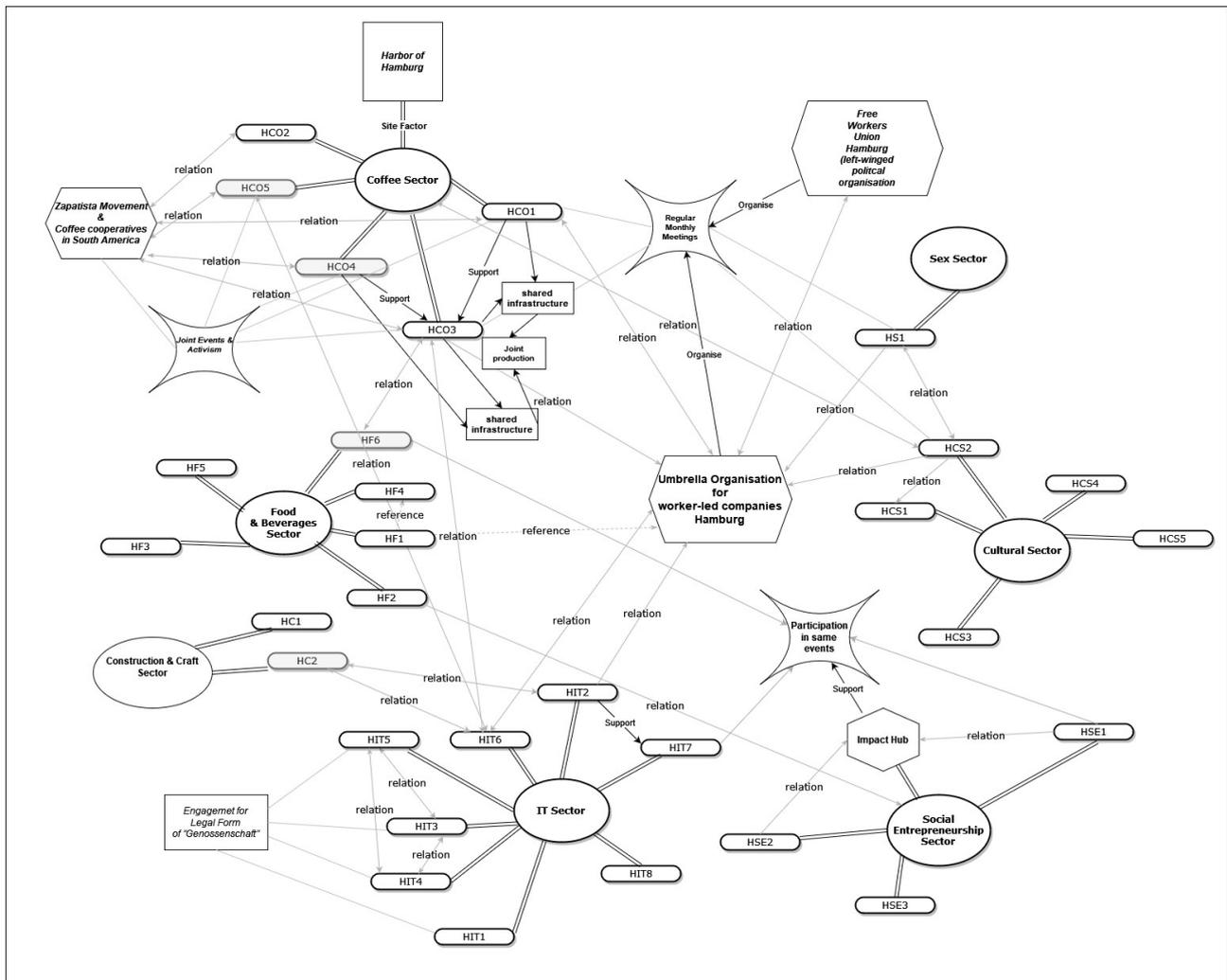


Figure 2: Worker-led Entrepreneurial Ecosystem of Hamburg (own illustration)

In this figure and a similar figure for the case of Berlin, primary data from the interviews and the survey is displayed in white, whereas secondary data from desktop research, document analysis and references from primary data is displayed in grey. Table 1 explains the sector references, which we also use for the direct quotes from the interview data.

Table 3: Sector References for Hamburg

<i>Sectors</i>	Hamburg
<i>Cleaning Sector</i>	N/A
<i>Coffee Sector</i>	HCO
<i>Communication Sector</i>	N/A
<i>Consulting Sector</i>	N/A
<i>Craft and Construction Sector</i>	HC
<i>Culture and Social Sector</i>	HCS
<i>Food And Beverages Sector</i>	HFB
<i>IT Sector</i>	HIT
<i>Sex Industry Sector</i>	HS
<i>Social Entrepreneurship Sector</i>	HSE
<i>Transport Sector</i>	HT

With regard to the displayed relations and references in this figure and the figure of the WLEE in Berlin below, we did our best to detect all existing cooperative relations. Yet, since it might be possible that we missed some cross-linkages and intersections, we cannot claim to be exhaustive in this regard.

Sectorial ecosystems

Two sectorial ecosystems that seem particularly active and well-organized are the coffee sector and the IT sector.

Within the IT sector, the survey data revealed that IT WLCs are well locally connected and in cross-sectoral cooperation with WLCs from the coffee or construction sector in Hamburg (see Figure 2). Particularly two IT WLCs (HIT2 and HIT6) are connected to the umbrella organization “*Kunst des Scheiterns*” (‘Art of failure’) and are politically engaged in beyond-capitalist forms of economy. Coexisting to this, there is a strong collaborative network among IT WLCs that have a “*Genossenschaft (eG)*”, which is equivalent to a registered cooperative as a legal form. An especially interesting case is H13 where the former employers sold their company to their employees and changed the legal form in order to do that. Beyond content-related cooperation, HIT1, HIT3, HIT4 and HIT5 share this conviction and engagement for improving conditions in Germany for eG as an alternative legal form for more cooperative ways to organize a company. As one reason for this, several of them point out the increased security of their legal form because the profit of the company can legally only be used to serve the members. So private profit distribution for only a small number of people is legally impossible in their legal framework.

With regard to the coffee sector, the revealed picture looks a little different. A strong culture of collaboration and mutual support reveals itself in the use of shared infrastructure to roast their coffee beans or the organization and participation in joint events. It also became apparent that one of them (HCO1) is especially successful and therefore plays a major supporting role for others. When asked about it, they shared that from a very early stage onwards they wanted to prevent themselves to become too greedy in case of success. So they set up an internal contract to limit their profit and to organize redistribution in case they reach this limit. Being financially very successful, they can now implement their redistribution plan according to which they invest 13% of their profits into ecological measures in partner countries, 7% in other social projects and 7% in networking and support for WLCs (HCO1). Beyond financial support, they also let other WLCs profit from their experiences in the form of advisory support and consultation.

Yet, they cannot claim exclusive responsibility for the well-functioning ecosystem of coffee WLCs in Hamburg. Rather it is the density of collaborative action and willingness to help each other out that enables the maintenance and well-being of this ecosystem. This prevailing feeling of solidarity does not stop at Hamburg’s borders, as can be seen by the production of a “solidarity coffee” in close cooperation with coffee cooperatives from South American countries, and mutual visits and

events with them. Beyond business relations, most of the surveyed and interviewed coffee WLCs do not only identify themselves as coffee companies but also as political actors, mostly with a critical perspective on current capitalist economic structures. Or in their words:

“We do coffee trade and coffee trade is always based on disgusting colonialism and worst exploitation and destroys nature, no matter how we do it. And it's quite clear that if you want to have fun at work somehow, if you still have any conscience or want to look in the mirror, you have to do things quite differently than usual. And it's quite clear that if you want to remain a human being, you have to do it in a really reflective and careful way. The fact that we now only grow organic coffee is not enough” (HCO1, Pos. 92).

“That's why it's such a thing for me that there's such a connection between political work and wage work, and that it's stupid if you do a lot of political work while also doing wage work that's not commercial, so that you can't have such a high hourly wage as if you're super efficient and economically oriented in your job and only ever do the things that bring in money. And reject all others, which do not bring money, then one would have also a higher hourly wage. But somehow we don't want that either” (HCO3, Pos. 176-177).

“And in this respect, you can just warm up this economic concept. And of course it must be primarily constantly (re-)created and needs to be not profit-oriented. or profit defined in a completely different way. So that profit is not only something on the account, but that it simply has something to do with my quality of life” (HCO2, Pos. 421-422).

Value-based and cross-sectoral ecosystems

As could be seen, norms and values already played a role within the described sectoral collaborative networks among Hamburg's WLCs.

One of the very first contacts to Hamburg's collaborative network among WLCs was the aforementioned umbrella organization “*Kunst des Scheiterns*” which took it on as their task to provide information and support on how to build and maintain a WLC. Beyond these informational and advisory tasks, they are also organize regular networking events to increase cooperation and exchange between WLCs in Hamburg.

Not only was it the first address to stumble upon, when searching for more information on WLCs in Hamburg; especially the regular networking events were also a point of reference, which were very

often mentioned in a positive way during the interviews, like for example mentioned by one of the coffee WLCs:

“I am always at the collective networking meeting, which is once a month. An open meeting at the FAU, the "black cat". And there are often other collectives from Hamburg” (HCO3, Pos. 115).

As the association has an explicit political orientation and is also closely collaborating with the left-winged Free Workers’ Union of Hamburg, the role of (political) values also became apparent in a quite early research state. This is also shown in the many cross-sectoral relations and references among Hamburg’s WLCs, as displayed in Figure 2 below. Furthermore, many refer in the interviews to a supportive environment and collaborative attitude among WLCs from different sectors, like described by a sex shop WLC:

“In Hamburg, there are more and more coffee collectives. [...] And with them we have already had a lot of exchanges, also about legal questions, how to organize it well, how to build it up. From another collective, HCS2, we receive our books, and they have supported us from the beginning” (HS1, Pos. 66-67).

With regard to other sectors and cross-sectoral collaboration, it is interesting to observe that there seems to be a divide between left-winged political WLCs and those that identify more with the social entrepreneurship sector. While interview and survey data revealed cross-sectoral cooperation and exchange among the left-winged WLCs, mostly organized within the context of the regular networking events, there seems to be very little contact and cooperation to WLCs associated to the social entrepreneurship sector.

Some of the interviewed WLCs even actively distance themselves from this sector. As one WLC describes it:

“The problem is that the term "worker-led collective" is not protected. So any start-up can call itself a worker-led collective, as you sometimes see in advertising. But they are not a political collective, they just work together. But they do have a boss and are somehow hierarchically oriented. And they're also interested in acting in a capitalistic way, in the sense that it's all about increasing capital somehow and about growth. And that's just not the case with us. We don't want to grow for the sake of growth” (HS1, Pos. 46).

Based on the fear to reproduce what they seek to change, this perspective reveals a strong group identity opposed to companies which have their focus on economic growth. It also implies the acceptance of the own position as economic 'other' in resistance to hegemonic profit-driven forms of companies.

Yet, while WLCs that associate themselves with the social entrepreneurship sector are using different strategies and appear to be less activist at first sight, they do not seem to be less critical towards profit-orientation. As they put it:

"We don't work to maximize profit, we work to maximize well-being and satisfaction."

(HIT7, Pos.15)

Therefore, the shared interest in fundamentally transforming current profit-driven economic structures might also open doors for future cooperation.

Overall, the landscape of WLCs in Hamburg reveals the existence of a WLEE next to the capitalist ones, consisting different well-connected spheres. While there are existing weak ties among all of them (see Figure 2), the strongest evolves around a community of WLCs engaged in politically left-winged activism within different sectors. Both in the coffee sector and in the IT sector, there seems to be a couple of successful and active WLCs who play a major role in the further development and maintenance of the ecosystem. While the focus seems to be on sector-based collaboration, shared values seem to be the base for well-functioning cooperative relations, which assigns a major role to social and cultural attributes. Yet, material attributes also contribute to the well-functioning in of the WLEE in the form of infrastructure for joint events, meeting places and shared facilities.

Furthermore, the material attribute of Hamburg's harbor plays a major role for WLCs in the coffee sector. However, while not unimportant, material attributes seem to play a rather secondary role as the culture of mutual support and collaboration in almost all of the cases extends beyond Hamburg's borders, which shows in many relations and references to WLCs in other German cities and the participation in nation-wide engagement for WLCs.

4.2. Berlin's worker-led entrepreneurial ecosystem and the importance of cross-sectoral cooperation

In contrast to the rather concentrated organization of Hamburg's worker-led entrepreneurial ecosystem around a few central actors, the picture of Berlin's WLEE looks quite different – and quite overwhelming at first sight (see Figure 3). Table 2 explains the sector references, which we also use for the direct quotes from the interview data.

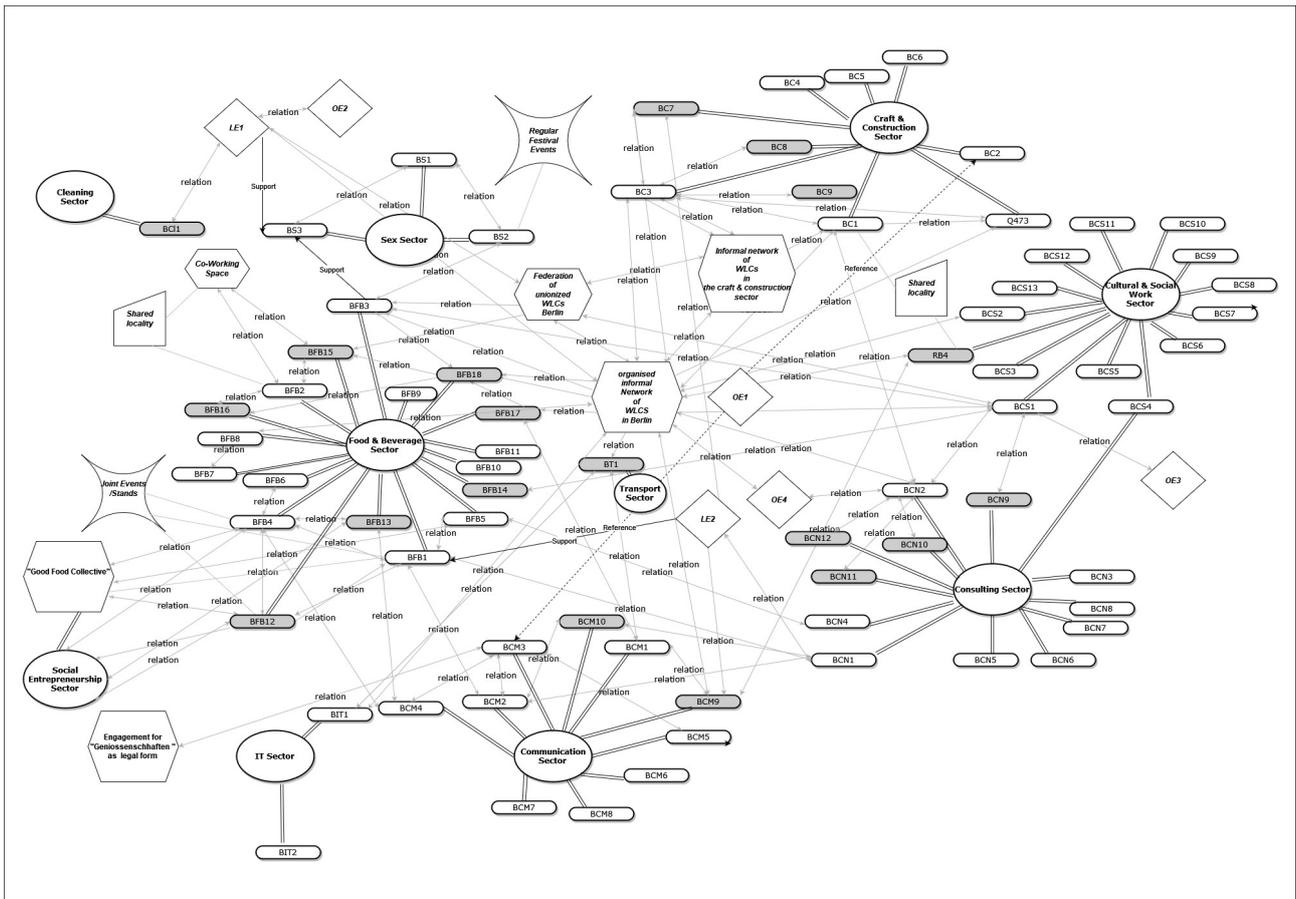


Figure 3: Worker-led Entrepreneurial Ecosystem of Berlin (own illustration)

Table 4: Sector References for Berlin

Sectors	Berlin
<i>Cleaning Sector</i>	BCL
<i>Coffee Sector</i>	<i>included in “Food and Beverages”</i>
<i>Communication Sector</i>	BCM
<i>Consulting Sector</i>	BCN
<i>Craft and Construction Sector</i>	BC
<i>Culture and Social Sector</i>	BCS
<i>Food And Beverages Sector</i>	BFB
<i>IT Sector</i>	BIT
<i>Sex Industry Sector</i>	BS
<i>Social Entrepreneurship Sector</i>	BSE
<i>Transport Sector</i>	BT

It is quite apparent that the density of collaboration and number of sectors involved is relatively large compared to the WLEE in Hamburg. This might be partly due to the generally higher density of enterprises in Berlin compared to Hamburg. Yet, from the interview and survey data, it becomes also apparent that the cultural and social economic infrastructure is quite different from the one in Hamburg.

Whereas comparably few cross-sectoral relations and co-operations could be observed in Hamburg, it felt like a never-ending network in Berlin as new relations and cross-references kept appearing during the process of analysis. While it is beyond the scope of this article, to describe and analyze every cross-sectoral relation in detail, Figure 3 reveals a highly active and well-connected collaboration network among Berlin’s WLCs. One reason for this might also be the high willingness to actively engage in political and societal activities – and also feel empowered to do so by the surrounding environment. In this regard, the fact that Berlin is the capital city of Germany and therefore is highly political can be considered as an important location factor, as is also observed by some of the surveyed WLCs:

“And I think, okay, Berlin is the capital of NGOs, and politics just takes place there. And I think it's simply an important place to be present and to take part” (BCM3, Pos.32).

“When you're in the capital, you get the feeling relatively quickly that there is somehow a solution for everything and case then encourages each other. It's also really cool that this network exists” (BFB4, Pos. 68).

The openness to find intersections and to collaborate between these different spheres was not only connected to the political environment, but also to the overall cultural attitude and atmosphere in Berlin which is described as follows:

“I think Berlin is like that because there are a lot of people there, of course, and they just live differently, lead a different life. More in freedom and self-determined, otherwise they would not live in Berlin. I think that many are freelancers and simply want to live other work models. I think that's why it's such a thing in Berlin” (BCN1, Pos. 82).

Furthermore, there are several examples of shared infrastructure or of close contact to other WLCs that are located in the same neighborhood (“Kiez”), which also brings to light the importance of spatial proximity.

Sectoral ecosystems

With regard to collaboration between Berlin’s WLCs, the empirical data reveal both intra- and cross-sectoral networks of collaboration. In contrast to the emphasis on coffee and IT in Hamburg, the most important sectors in Berlin are the food and beverage sector, with a main focus on beverages, and the craft and construction sector. Similar to the coffee sector in Hamburg, Berlin’s WLCs in the craft and construction sector identify strongly with left-winged political values. Organized in an informal sector-specific network, they do not only support each other with their expertise in different fields and collaborate in ongoing projects, they are also engaged politically and translate these values into their (daily) work. One example for this, is the application of solidary pricing and the implementation of projects that they are not paid for.

“That is just not our free time, that’s our wage job. That's why we can't support all of them, but we try to redistribute a little bit [...], so to speak, that we look when some projects have less [...] and other groups have more [...] and we try to make that transparent. And we also try to offer possibilities how we can make things less expensive. So, for example, we say

okay, we'll teach you how to do things yourself. You don't necessarily have to pay us for that" (BC1, Pos. 196-200).

Similarity to the case with the coffee sector in Hamburg, in Berlin, one woodwork and gardening WLC (BC3) is especially successful and therefore plays a major supporting role for others. While being a little less financially successful, the WLCs BC1 can also be considered an important actor in the maintenance of the network. Particularly impressive for both of them is that they are not only engaged in collaboration and networking with other WLCs within and beyond their sector, but also regularly participate in sector-specific events with other forms of companies. While not their main focus, they aim at increasing the visibility of other forms of work and economic structures beyond their 'social bubble', like for example with the nationwide federation for garden landscape construction.

With regard to the food and beverages sector, the empirical data reveal a dense collaboration network within the beverage sector. For example, they regularly participate in networking events and festivals together. As explained by one beverage WLC, they do not only support each other in gaining visibility, but they can also reduce costs, e.g. through sharing booth fees and equipment. Or in their words:

"For example, there was a trade fair "Future Festivals" [...] and such a festival needs drinks. So we made a booth together with other WLCs, which we called "Future of drinks". And that was definitely quite good. We could share the cost of registration for a small stand there, where we then stood in the name of our four companies. Because these stands at trade fair are usually relatively expensive. [...] The aim is that one perceives us somehow together. And that then it also becomes clear for the festival organizers or also for others: Ok, if you have them, then you can also have these others, that you bundle that" (BFB1, Pos.69-71).

Some of the beverage WLCs also maintain close association to the social entrepreneurship and start-up scene of Berlin. In this context, several of them are also part of the so-called "Good Food Collective" which also include non-worker led companies from the organic food and beverage sector.

Value-based and cross-sectoral ecosystems

In this respect, and similar to the case of Hamburg, the attitude towards social entrepreneurship and ‘new work’ in start-ups and progressive companies appears to be a very controversial topic among Berlin’s WLCs across the sectors. While there is consent on the value of increased participation and democracy at work, the opinions differ on what is considered as a form of ‘democracy-washing’ and what is considered authentic and consequent enough.

“And at the same time, I also distance myself from the companies that say: ‘Hey, we are now the new society, the new New York’ and [...] we are now doing holocracy, because that is the solution to all problems’ or so that I hear. I sometimes have the feeling with organization that this is such a hype that now all must do it like this. But I believe that this does not change the principles of work, but that it rather shifts the problem elsewhere” (BCM3, Pos.39).

“The companies use that [...] for employer branding and so on. And that's just not okay. So it's under such a cloak and then again, they just to do the same old crap. That can't be the solution” (BCN1, Pos.34).

Comparable to the Hamburg case, there is an informally organized network between some of Berlin’s WLCs that is in close cooperation with the left-winged Free Workers’ Union of Berlin. In this regard, one food WLC (BFB3) is worth mentioning in particular: They do not only hold a central role in the maintenance of the Free Workers’ Union network, but they were also several times mentioned as supportive force in the foundation and/or transformation process of a (new) WLC. Yet, in contrast to the central role of the Free Worker’s Union in Hamburg, the data from Berlin reveal a rather decentralized character of the WLEE that consists of a broader and more diverse set of actors. This includes a set of organizational experts, diverse consulting companies who support and advise WLCs as well as legal experts who support WLCs to find an adequate legal form that serves their purposes best. Or as they describe it:

“Otherwise, we have also been advised in the early days. I don't know if you know LE1. They are actually lawyers who do a lot of work in the collective field, including workshops and so on. And together with him, we decided on this business model” (BS3, Pos. 35).

As a further parallel to the Hamburg case, the political engagement to change societal and economic structures is often based on a critical perspective towards capitalism, and many of the surveyed WLCs strive for – and already live – forms of economic organization that go beyond that. This is how two of them describe their visions and motivations:

“Then we hope that we can contribute to the spread of emancipatory thoughts in society and that society will change its way of thinking. Or maybe just a large part of society. That then also has consequences. This includes throwing the capitalist logic of exploitation overboard, i.e. proceeding in a needs-oriented manner and also understanding that doing so somehow harms no one” (BC1, Pos. 235-236).

“We also do not believe that we have the panacea for a better world. We just try to take up as much space as possible in the scales, in the limits that the system shows us, with our alternative thoughts” (BFB3, Pos. 162).

Yet, as one of the interview partners observe, living utopia is also sometimes less glamorous than some might have imagined it:

“Being in Berlin means for me that there are spaces of practice. One problem in France and in Paris was that many people have talked about the post-revolution as a kind of dream of “all problems are solved there”. And I find exciting here because I was ten years in different projects. And then you realize the everyday reality is very with basic, partly boring stuff (laughs)” (BCM1, Pos. 135-137).

Overall, the WLEE in Berlin is characterized by a climate of cross-sectoral support and collaboration that also spreads beyond the ecosystems of WLCs into other forms of companies. Furthermore, there seems to be a high level of risk-taking and experimentation, which is combined with strong political and societal engagement. Similar to the WLEE in Hamburg, few successful and very engaged WLCs appear to play a major role for the WLEE by empowering and supporting others in their ways. Yet, in contrast to the Hamburg case, WLCs in Berlin are additionally supported by assisting external actors, such as consulting associations/companies, umbrella organizations and legal experts. In consequence, some of the tasks that WLCs in Hamburg have to integrate into their daily business, can be externalized in Berlin, which fosters increased (productive) efficiency and leaves more time for other kind of activities. While the density of local

collaboration within Berlin is already quite high, most of the surveyed WLCs are also well connected to other WLCs on a national scale.

5. Discussion and Outlook

5.1 Collaborative Networks of WLCs as entrepreneurial ecosystems

Understood as community of local entrepreneurs embedded in different material, social and cultural contexts (see theoretical part), collaborative networks of WLCs in Hamburg and Berlin reveal characteristics of entrepreneurial ecosystems in several regards. Starting from a very pragmatic viewpoint, the interviewed WLCs in both Hamburg and Berlin pointed out the importance of joint meeting places and reported on examples of shared infrastructure to reduce costs and support each other in their entrepreneurial activities. In a very basic sense, this implies that the emergence and maintenance of an entrepreneurial ecosystem is always tied to a specific local context with related *material attributes*. Beyond the bare necessity of facilities to meet and/or organize events, the empirical data revealed a few further material attributes that influence the entrepreneurial activities of the WLEEs in Hamburg and Berlin. In both cases, the interviewed WLCs consider the urban environment with connected access to a broad client network and access to (digital) infrastructure as beneficial. Furthermore, the harbor in Hamburg plays a crucial role for the coffee WLCs in Hamburg as it enables short transportation ways for the coffee beans as an import good. Here it becomes already apparent how *material attributes* are interwoven with entrepreneurial norms and values because not only do the coffee WLCs see the benefits of reduced costs but also of reduced CO₂ emissions. In the case of Berlin, the most relevant material attributes is its political function as Germany's capital, which provides closeness to political actors and institutions. Moreover, Berlin has a strong reputation as a start-up hub and beneficial environment for social innovation (Kritikos, 2016; McFarlane et al., 2023; Wöbken, 2022). This also includes support services, such as funding, conferences or consultancy, which creates a beneficial climate for entrepreneurial creativity and risk taking. In a more emergent way, interview participants from Hamburg observe similar developments by referring to impact hubs or start-up events. Data from both cases also disclose the benefits of an urban environment in this regard.

Yet, in both Hamburg and Berlin, the findings also revealed a very ambiguous *cultural* attitude towards the start-up and social entrepreneurship scene among the participating WLCs. Here the internal organization of the companies as worker-led and the attributed importance of their independence and (collective) agency as 'worker-entrepreneurs' come into play. While they share the experimental risk-taking spirit and the desire to create a positive social impact through their

entrepreneurial activities, many of them see the danger of ‘democracy-washing’ and a reproduction of labor-exploitative structures they seek to change. Their consciousness about their embeddedness in entrepreneurial rather than labor-oriented market structures, but also about their capacity to re-interpret these structures makes them prone to understand themselves as ‘others’ to a majority of profit-oriented entrepreneurs and companies. While this collective self-identity might also create ‘blind spots’ and ambiguities, which sometimes prevent collaboration with potential allies, such as the social entrepreneurship sector, it also creates a strong community feeling and culture of mutual support concerning foundation and maintenance of other WLCs.

In this respect, it is particularly helpful to understand and conceptualize WLC networks as entrepreneurial ecosystems with a focus on “advantages [...] related to *resources specific to the entrepreneurship process*” (Spigel, 2017: 52; italics in the original) rather than for example clusters with their focus on specific sectors. While in both cases, there are sectors that play an especially prominent role and have their own ‘sectoral ecosystems’, most of the participating WLCs are simultaneously involved in cross-sectoral and value-based forms of collaborations. However, and as a striking difference between the two cases, the WLEE in Hamburg seems to be much more centered around sectorial ecosystems than it is the case in Berlin. This also becomes apparent in the *cultural attribute* of entrepreneurial history and related success stories of local WLCs: in Hamburg, one coffee WLCs is considered particularly successful and plays a central supportive role for other WLCs in the coffee sector. While there is also engagement in cross-sectoral collaboration and support within and beyond Hamburg, compared to Berlin, connections across sectors seem to be less decentralized and dense. In contrast, two successful pioneers from the construction sector and the food sector in Berlin are very actively engaged beyond their own sectors and were also often referred to in other interviews.

With regard to other *social attributes*, both in Berlin and Hamburg there are strong bounds to and engagement in local political groups of the Free Workers’ Union. Here again, the role of collective labor agency as inherent part of the company organization as WLC becomes apparent. In both cases, this joint political engagement also can be seen as the pivotal point of cross-sectoral collaborative networks, which are considered crucial for the emergence and maintenance of EEs in the literature (Spigel, 2017; Spicer and Zhong, 2022). However, in Berlin the social network seems much more established, including different support structures in the form of umbrella organizations as well as organizational and legal advisors and mentors. In comparison, the WLEE in Hamburg

still has a more emerging character. In this regard, it is interesting to observe that many of the interviewed WLCs in Hamburg mentioned cooperation with and inspiration from WLCs in Berlin. Thus, we can tentatively assume a pioneer role of the Berlin WLEE for the one in Hamburg. These cross-regional relations between Berlin and Hamburg, but also with other regions in Germany and potentially abroad invites further research into nationwide or international cross-collaboration between different local WLEEs.

5.2 Worker-led and value-based entrepreneurial ecosystems beyond capitalism

Taken together, the collaborative networks of WLCs in Hamburg and Berlin can be well considered as entrepreneurial ecosystems based on entrepreneurial norms and values beyond capitalist ones. Evidently, they need to participate in the competition-based market to ensure their survival, which runs the danger of reproducing structures they seek to transform. Yet, while remaining wary against ‘democracy-washing’ practices, evidence from both WLEEs in Hamburg and Berlin demonstrate how WLCs manage to diffuse their internal culture of community, solidarity and mutual support beyond the borders of their own companies as part of a larger interwoven and collaborative ecosystem. Thus, the collaborative networks in Hamburg demonstrate how workers can use their agency not only to build worker-led forms of companies, but even a whole ecosystem based on their values and collective form of organizing. In this sense, the WLEEs in Hamburg and Berlin challenge, extent and diversify conventional understandings of entrepreneurial ecosystems and can therefore be understood as expressions of *transformative labor agency* (Grenzdörffer, 2022). With a clear focus on purposeful work and a positive social (and in some cases ecological) impact through their entrepreneurial activities, they proof how beyond-capitalist entrepreneurial ecosystems can be established and maintained in coexistence to more conventional ones. While the empirical insights in Hamburg and Berlin also disclose internal ambiguities and contrasting perspectives within the two WLEEs, in both cases, there seems to be a consensus to think and live work and production structures beyond profit accumulation. In consequence and corresponding to research from Schmid (2019) with a focus on maker spaces and Hug et al. (2022) with a focus on firm-level agency, our empirical findings help to enhance the spectrum of potential transformative actors and the potentially transformative (economic) geographies they create and maintain through their decisions and actions.

Furthermore, our analysis contributes to a more comprehensive and pluralistic understanding of local ecosystems and the role that different entrepreneurial norms and values play for their emergence and maintenance. In the context of (perceived) superior and hegemonic profit-oriented

entrepreneurial values, future research on the concept of economic ‘othering’ and related drivers and barriers for a more diverse understanding and implementation of local entrepreneurial ecosystem might be fruitful. Moreover, since we only marginally touched upon the impacts of WLEE on broader economic structures, such as e.g. value chains or effects on institutional and political structures, future research could focus on potential transformative effects on the surrounding local economies and beyond. One approach could be to investigate circuits of values, as recently done by Lekan et al. (2021) in the context of the circular economy.

As a final thought, we see potential for increased dialogue and mutual learning between different local entrepreneurial ecosystems in appreciation and recognition of the diverse forms economic action can take. Through the lens of an ecosystem, a more nuanced view of the heterogeneity of production structures might allow identifying fruitful synergies and cross-fertilization to create a balanced and socio-ecologically just economic environment. We therefore want to close with the invitation for an open mind and open eyes to varieties and pluralistic expressions of economic activities and structures in a geographical context.

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Figure and Table Captions

Figures

Figure 1: Research Design (own illustration)

Figure 2: Worker-led Entrepreneurial Ecosystem in Hamburg (own illustration)

Figure 3: Worker-led Entrepreneurial Ecosystem of Berlin (own illustration)

Tables

Table 1: Sector References for Hamburg

Table 2: Sector References for Berlin

6. Concluding reflections and outlook: Transforming work, transforming economic structures?

“What helps is to keep each other challenged with respect to both the radicalness of the imagined outcomes (what do we deem possible) and the amount of change in this direction that the next, often little, steps could bring (what do we do to make it happen).” (Göpel, 2016:2)

After three and a half years of work, this research project is now drawing to a close – and so does this PhD thesis (or in the used metaphorical imagery ‘travel journal’) in which I presented, analysed and discussed the theoretical and empirical findings of my explorative research journey through the landscape of WLCs in Germany conceptualised as sites of transformative labour agency.

I now remain with the beautiful, yet challenging task to capture and summarise the key findings and main contributions in a concise and conclusive way before providing an outlook on potential (policy) implications for practitioners and a glimpse of further research directions as potential starting points for future subsequent research journeys.

For matters of coherency and traceability, I will summarise the most relevant theoretical and empirical insights along the research objectives stated in Chapter 1.3.

6.1 Summary of the main findings and research contributions

As guiding compass to this thesis, the first theoretical research objective was to **conceptualise labour geographies as potential transformative economic spaces** illustrated by the example of companies that are owned and managed by workers, later on summarised as worker-led companies (WLCs).

By **theoretically** combining and intersecting insights from the field of labour geography with perspectives from transformation research, Paper 1 “*Transformative perspectives on labour geographies – The role of labour agency in processes of socioecological transformations*” published in Geography Compass discloses decisive intersections between these two strands of research. As illustrated by figure 1 of Paper 1 (see Chapter 2.4), scholars from both fields see *deficiencies in current capitalist economic structures in the form of socioecological cost* and argue for a more-than-capitalist understanding of economic spaces. As part of this attention to economic diversity and pluralism, they pay scientific attention to *already existing examples of more-than-capitalist economic structures*, including work. As central shared premise for the emergence and maintenance of such diverse economic spaces, scholars from both fields highlight the human

agency to (re)shape current economic structures. This includes the potential transformative capacities of people in their role as workers. While there are various other roles and activities in which people could use their agency as economic actors beyond being a wage worker, the central argument of the paper evolves around the central role that wage workers hold in today's production structures, which puts them in a key position for transformative action. With the aim to identify possible cases for potentially transformative economic impacts through labour agency, an integrative literature illustrates the argument by the example of WLCs where workers have immediate impact on the work and production structures of their company. These theoretical insights and the secondary data from the literature review served as the foundation for the subsequent empirical works. Based on the premise of research as an iterative process, I enhanced the conceptual insights from the Paper 1 by additional ontological and epistemological intersections between the labour geography and transformation research on the basis of further theoretical learning and in dialogue with my empirical findings. As a result, I could identify two further intersections as theoretical common ground between the two strands of research:

1. A relational understanding of economic spaces that acknowledges the structural limitations of existing socioeconomic and spatial materialities while simultaneously asserting agency to human action
2. A conception of the two research fields as both an analytical and a political project, which includes a strong focus on the creation of actionable and practice-oriented knowledge

As theoretical contribution to both fields and in line with calls for pluralising labour geography (e.g. Peck, 2018) and increased inter- and transdisciplinary transformation research (e.g. Hölscher et al., 2021; Hug et al., 2022; Schmid & Smith, 2021), these considerations and reflections can be understood as cornerstone and invitation for a **transformative labour geography perspective** as conceptual lens for future research.

Put into practice, the empirical findings of this thesis are based on both quantitative and qualitative research on WLCs in Germany as an illustrative example for sites of transformative labour agency. Stated as further research objectives, the empirical attention was on the **context-specific political, institutional, sociocultural conditions that might support, but also limit the transformative impact of German WLCs** (2nd research objective) and on the various ways in which **workers in German WLCs use their agency consciously to alter and diversify modes of production aligned to principles beyond economic growth** (3rd research objective) within and beyond the scope of their company.

In this respect and in response to the ***second research objective***, Paper 2 based on a nationwide survey reveals a diverse landscape of German WLCs across the country and located in various industry sectors. Yet, in contrast to legal and institutional conditions in other countries, the phenomenon of WLCs in Germany appears to be (still) in the margins of the overall political, institutional and economic awareness. Survey results disclose bureaucratic hurdles in the form of a lacking adequate legal form and respective institutional infrastructure for WLCs in Germany, which leads to high variety of (combined) legal forms, ownership models and decision-making strategies. In this respect, the empirical evidence demonstrates how workers in German WLCs re-interpret current economic and institutional structures in creative ways despite a rather unfavourable institutional and legal framework. Despite their diversity, German WLCs show common characteristics when it comes to their size and the complexity of their production structures: With one exception, they can all be categorised as SMEs and, apart from some examples in the food sector, they operate on a local to national level with rather short supply chains. Considering the relevance of SMEs in the German economy, this makes them prone to benefit as well from a rather supportive socioeconomic environment for conventional German SMEs, although, to date, WLCs are still a minority group among them.

One additional influential factor that influences the context for WLCs in Germany is Germany's political past as a divided country and the transition processes subsequent to the fall of the Berlin wall. In former Eastern Germany, worker cooperatives were quite common (see Chapter. 4.1), but especially after the reunification they were associated with the GDR regime, and thus, politically loaded. Furthermore, the lack of experience with worker cooperatives in former Western Germany made it difficult to maintain them in processes of reunification and economic integration between the formerly separated countries. These associated ambiguities are still partly present today. In conversations with research participants, particularly members from the older generation of different WLCs in Berlin shared both challenges with transition processes after the fall of the Berlin wall and still ongoing external and internal reservations with company concepts that come too close to GDR versions of 'socialist' companies. As contribution to increased *geographical* insights, this demonstrates how expressions of transformative labour agency are always entangled with and embedded in their spatial context with related political and socioeconomic factors and path dependencies.

However and despite these partly problematic associations, throughout the open text fields of the survey and the interviews, there appears to be a general agreement on the necessity to transform current work and production structures in more collaborative and solidary ways among the research

participants. With different focal points and (sector-specific) expertise and knowledge, the main purpose seems to be on the creation of a positive social (and in some cases ecological) impact through their entrepreneurial activities. Addressing the **third research objective**, WLCs in Germany, thus, show how they think and live work and production structures beyond profit accumulation. Moreover, the collective management of their work time, skills and energy within the surveyed WLCs suggests an understanding of labour as commons, which is in line with research from Argentina (Azzellini, 2016) or Greece (Varvarousis & Kallis, 2017). Further alignments to principles beyond economic growth that break with predominant capitalist work and production structures could be seen in practices like worktime reduction, active profit limitation and the inclusion of unpaid and externalised activities such as care work and voluntary socio-political engagement into wage labour. Evidence for their more-than-capitalist organisation based on an internal culture of community, solidarity and mutual support could also be found in the in-depth interviews with WLCs from Hamburg and Berlin.

Additionally, results of the comparative case study between Hamburg and Berlin disclosed how the interviewed WLCs in these cities apply these transformative economic practices beyond the scope of their own companies as part of larger interwoven and collaborative ecosystems. In response to the **fourth research objective** and discussed as ‘worker-led entrepreneurial ecosystems’ (WLEEs) (see Paper 3 in Chapter 5), they challenge, enhance and diversify local economic structures through the establishment and maintenance of beyond-capitalist entrepreneurial ecosystems based on collective forms of organisation and values of collaboration and mutual support. Nevertheless, it is evident that they must participate in the competitive market in order to survive, which entails the risk that they will reproduce some of the structures that they are trying to change. Striving to stay coherent in their values, this also creates a certain wariness against ‘democracy-washing’ practices, which sometimes leads to ambiguities within the WLEEs, with particular reservations towards social startups and social enterprises. Yet, it is an inclusive culture and attitude of mutual support that prevails, and most of the research participants emphasized that they are always ready to share their knowledge, expertise and strategies with others who want to organise themselves in similar ways. Thus, workers from WLCs in Hamburg and Berlin demonstrate how they manage to implement expressions of transformative labour agency within and beyond the scope of their companies and in coexistence to more conventional companies and entrepreneurial ecosystems.

In light of the main objective to ***analyse the transformative potential of labour agency illustrated by the example of WLCs in Germany***, let me summarise in a nutshell the constraints that (still) represent a challenge for WLCs in Germany as well as the most important drivers and consequential potentials.

As became evident, workers in the researched ***WLCs consciously and collectively use their agency to reshape and recreate work and production structures based on values of collaboration, democratic participation and mutual solidarity***. While the workers from the examined companies come from different educational, professional and sociocultural backgrounds, they ***share the aspiration to challenge and transform the status quo of work and production structures***. With a critical perspective on economic growth and profit accumulation as an end in itself, they apply principles beyond growth, as exemplified above. Yet, WLCs in Germany are still embedded in economic market structures that incentivise and endorse capitalist forms of work and production. In consequence, the ***possibilities to implement more-than-capitalist practices are constantly constrained and contested by the need to survive economically***. A further limiting factor for the cases at hand is the ***insufficiently adapted legal and institutional framework in Germany***. Hence, WLCs in Germany are left to create individual solutions and find their own ways to implement their visions, which comes along with increased bureaucratic efforts and time investments that they then lack for their actual work. However, research results evidenced that these constraints did not deter WLCs in Germany to pursue their visions. Thus, while they are limited in their actions, the research participants did not perceive them as insurmountable hurdles. The most relevant factor to ensure economic survival while implementing more-than-capitalist economic principles can be seen in the ***culture of mutual solidarity, support and learning***: instead of behaving competitively towards each other, the empirical results disclosed how WLCs in Germany ***share their strategies with each other and help each other out*** in their struggles and uncertainties. Particularly the insights from the comparative case study on the ‘worker-led entrepreneurial ecosystems’ in Hamburg and Berlin evidenced a ***cross-sectoral culture of economic collaboration beyond the scope of a company*** and despite different internal structures and focal points.

Overall and in line with current research directions, the empirical insights from the nationwide survey in Germany and the comparative case study between Hamburg and Berlin add, on the one hand, to an increasingly ***diversified and pluralist understanding of labour geographies***. This includes a perspective on work as collective task and responsibility – ‘labour as commons’. On the other hand, they also ***enhance the set of potentially transformative actors*** that are considered relevant in processes of economic transformations beyond growth from a transformation research

perspective. In consequence, a perspective of workers as potentially transformative actors expands the range ***of economic possibilities when it comes to work and production structures***. While more stable and suitable legal and institutional framework conditions would obviously support the engagement of WLCs in Germany, the evidence of diverse transformative strategies and joint efforts to create solutions ***inspires courage, creativity and curiosity for a more nuanced and heterogeneous understanding of economic activities both in theory and in practice***.

With regard to the practical implications and to do justice to the role scientists can play in the creation of more actionable and practice-orientated knowledge, as advocated both in labour geography and transformation research, I will outline some implications and potential future avenues to translate the insights of my research into practice.

6.2 Implications and future avenues for practitioners and policy-makers

The foregoing summary of drivers, constraints and potentials allows for some political recommendations and potential pathways for practitioners, as detailed in the following.

As became obvious in the foregoing empirical explorations, in contrast to situations in other, mainly Southern European and South American countries, the legal and institutional framework conditions seem to be rather unfavourable for WLCs in Germany. While research participants managed to find creative solutions to implement collective ownership and decision-making structures within the existing legal possibilities, they also criticised the considerable additional bureaucratic efforts they need to make and the lack of a more supportive adequate legal form for their endeavours. As insights from countries like Italy show (e.g. Cori et al., 2021; Vieta, 2015), there are already existing examples of suitable legal solutions and supportive institutional infrastructures, like for example a registered legal form for worker cooperatives which is supported by tax reduction. In consequence, this invites ***transnational learning and exchange at a policy level in the establishment of a suitable infrastructure for collaborative work and production structures***.

In this regard, both the relevance of SMEs for the German economy and the existing legal form of a 'Genossenschaft' already create a fertile ground future developments towards an adaptation of current framework conditions for WLCs in Germany. Beyond benefits for the workers in terms of self-determination and stress reduction through shared responsibility, the ***resilience of WLCs in times of economic crises*** (e.g. Cori et al., 2021) can be seen as a further potential. Moreover, the high interest of German Chambers of Handicraft in my research results (see Chapter 3.3 and appendix) discloses how WLCs could also offer a ***solution for existing succession struggles and skill shortage*** in German SMEs, mostly in the construction and handicraft sector.

Yet, the conversations with practitioners during the workshops (see Chapter 3.2) also revealed how little knowledge there is about work and production structures that diverge from the most common way of a conventionally organised limited liability company. Thus, a further recommendation for policy-makers and institutional practitioners concerns **information and education on more-than-capitalist work and production structures**. Examples could be to provide information on diverse legal and organisational forms on relevant websites for entrepreneurship and to offer educational programs and workshops. These programs might be particularly important for apprentices and early career practitioners in order to make them aware of their (transformative) labour agency and the diversity of possibilities they have to engage in economic activities.

Another supportive factor derived from the empirical insights from the comparative case study is the **establishment of institutional support in the form of legal and organisational advisory experts**. While literature on entrepreneurial ecosystem stresses the importance of such a supportive institutional environment (e.g. Brown et al., 2022; Spigel, 2017), targeted efforts in this respects appear to be mainly implemented in cases of capitalist entrepreneurial ecosystems, which opens doors to **similar engagements for more-than-capitalist entrepreneurial ecosystems in order to foster (local) economic diversity**. Furthermore, to date, many of the research participants take on such advisory tasks themselves in their work time. These additional roles as legal and organisational experts hamper them to fully engage in their actual work and production activities, which might create unnecessary competitive disadvantages.

As a final implication for practice, empirical insights from the WLEEs in Hamburg and Berlin revealed the **relevance of cross-sectoral network organisations and regular collaborative engagement**, for example in the form of joint events. In this vein, research participants informed me about ongoing engagements for a nationwide collaborative network and a recent joint networking event in April, 2023. Furthermore, the **visibility of pioneers and best-practice cases and transparency about internal structures and external collaboration** were deemed very valuable.

Before moving on to the last sub-chapter of this thesis with a glimpse on the horizon of future research avenues, I want to close this part with an image that one of the research participants shared with me:

“In French we say "contre-courant". There is a very strong river which goes in this way, and we are trying to go the other way. The more we are progressing, the more I realise what a challenge it is to tell it and to make a story around it. Yet, it didn't destroy my joy and willingness to dive right into it.” (BFB2, Pos.231-251)¹⁰

10 Direct interview quote, cited as in Paper 3

6.3. Limitations and directions for future research

A considerable number of working hours ago, I started this explorative journey through the landscape of transformative labour geographies in the form of WLCs in Germany with a very open mindset and eagerness to learn in April 2020. While I was again and again surprised and intrigued by some unexpected turns and twists along the way in the form of theoretical revelations, unsuspected empirical insights and unforeseeable practice-orientated activities, I also remain with a bundle of open questions and a curious mind for still-to-be-explored theoretical and empirical future avenues.

One major area that I expected to address within my research, but that did not meet my empirical realities are the potentials of WLCs for *environmentally* transformative labour agency. While I set the theoretical coordinates for my empirical investigations to cover for both social and ecological transformative effects of labour agency, engagements for increased environmental justice through a transformation of work and production structures in WLCs appeared rather in the margins of the collected data. Although there was a huge awareness on topics of sustainability, climate crisis and their interrelation with current capitalist structures, the data on knowledge implementation into practice was too thin to draw any generalisable conclusions from it. Thus, in concert with recent scientific engagements on labour-nature relations (e.g. Carr, 2022; Corwin, 2023; Pye, 2022; Räthzel et al, 2021), this opens pathways for ***investigations of transformative labour agency within and beyond WLCs with specific focus on issues of environmental justice.***

Yet, this should not diminish the existing insights on socioeconomically transformative practices applied in WLCs in Germany and the revealed alignments of their economic activities to principles beyond growth. Particularly, the ***conceptualisation of ‘commoning labour’ in the form of collectively owning and managing production might be interesting to pursue in different (spatial) contexts:*** what happens if labour in the form of work time, skill and energy is understood and implemented as commons? How could this look like in different sectors and under different spatial, economic and sociocultural conditions? What are the drivers and barriers? As such a conceptualisation and implementation of labour is (still) aspiring and often not in the awareness of possibilities, Raj-Reichert’s (2023) focus and attention to ontologies of future and emergent forms of labour agency might be helpful in this regard.

Moreover, the ***effects of WLEE on broader economic structures***, such as value chains, have only been touched on marginally. Hence, future research could focus on potential transformative impacts on connected supply chains and broader (global) production structures, for example by increased attention to circuits of values (e.g. Lekan et al., 2021). With a more global focus, research on inter- and transnational collaboration between WLCs could add to and enhance the rich literature on

Global Production Networks (e.g. Carswell & DeNeve, 2013; Cumbers et al., 2008; López, 2021) by a transformative labour geography perspective. Scientific engagement in this regard would also support ***inter- and transnational knowledge exchange on political, institutional and socioeconomic framework conditions for (networks of) WLCs.***

A further interesting avenue to pursue in future research would be a ***continuation of scientific engagements with the entrepreneurial ecosystem concept from a transformative labour perspective.*** While this thesis culminated in a suggestion of collaborative WLC networks as ‘worker-led entrepreneurial ecosystems’, there is much space to build upon the gained insights, e.g. with a focus on dialogue and collaborations between different forms of entrepreneurial ecosystems, but also by further integrating perspectives of economic ‘othering’ as suggested in the Paper 3 above (see Chapter 5.2).

Taking seriously the focus and inclusion of actionable knowledge creation advocated by transformative research approaches, I further see a huge potential in ***research projects on transformative labour geographies with a more integrated transdisciplinary approach*** than applied in this thesis. Besides the general character of a PhD project with its limited temporal, financial and personnel capacities, my endeavors and efforts in this respect were as well strongly shadowed and restricted by the ongoing COVID19 pandemic during the last three years. However, already within the limited capacities of my PhD project, I could experience how the inclusion and dialogue between actors with different expertise and knowledge backgrounds helped to detect blind spots and to foster mutual learning on all sides.

Furthermore, this thesis starred workers in WLCs as potential transformative actors. Yet, they are not the only ones, but more diverse (groups of) paid and unpaid workers as well as other sets of (economic) actors can take on their roles as active and transformative agents in more diverse ways, as demonstrated by scholars with a focus on a different constellations and contexts in this respect (e.g. Carr, 2022; Gibson-Graham & Dombroski, 2020; Hug et al., 2022; Nierling, 2012; Schmid, 2019a+b). Thus, I see potentials for a fruitful dialogue and enriching synergies between broader sets of potentially transformative actors, both through interdisciplinary knowledge exchange, e.g. between natural environmental science and social, political and geographical science, and through transdisciplinary approaches based on collaboration between scientists and practitioners.

As a final thought, I would like to shortly come back to the starting point of this thesis and my role as academic worker: Inspired, but also challenged by the empirical insights I could gain during the last years, I asked myself – and also was asked several times – where it might be possible to align work in universities and other research contexts to principles beyond growth, as demonstrated in

non-academic sectors by the WLCs in Germany, and how expressions of transformative labour agency could be implemented in an academic working context.

On this note, I want to close this thesis with an invitation for a curious mindset towards heterogeneous and pluralistic expressions of work, production and economic activities both in theory and in practice. Or as expressed through the method of poetic inquiry (e.g. :

*“a swift lift.
a shift of mind.
a new point of view.
[...]
and with enough space
to store
all the helpful questions, doubts and warning calls
that still last,
casting their shadows from the past,
we start to explore
the fragments and gaps
of our own mental walls,
start to draw maps
of the worlds that lie beyond:
always in (re)search of this sweet and fond
little place
where the imagined and the possible meet. “¹¹*

11 You can find a full pre-published version of this creative research project under the following link:
<https://nextcloud03.webo.hosting/s/jNXF6C2X4MxNdok>

References of Framework Chapters

(Chapters 1, 2.1-2.3, 3, 4.1, 5.1, 6)

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Appendix

Project Reports (German):

Grenzdörffer, S. (2021): Entdeckungsreise durch die Landschaft transformativer Arbeitswelten in Deutschland. *Projektbericht zur Online-Umfrage "Arbeit transformieren, Wirtschaft transformieren?"* <https://cloud.wechange.de/s/cAAxrWmz4JQtHTF>

Grenzdörffer, S. (2023): Transformativ Arbeitende Ökosysteme in Hamburg und Berlin. cEinblicke in kollaborative Netzwerke, utopische Biotope und unternehmerische Permakultur. *Alltagssprachlicher Projektbericht..* <https://cloud.wechange.de/s/s5tMS8P7H3P7EGf>

Workshops:

Beck, W., Grenzdörffer, S. & Zimmermann, T. (2023). Webseminar - Teamübernahmen, Mitarbeiterbeteiligungen, u.v.m. - Alternative Formen der Betriebsübergabe im Handwerk. Webseminar ausgerichtet von der Handwerkskammer Freiburg. <https://www.hwk-freiburg.de/de/presse-medien/newsroom/webseminar-teamuebernahmen-mitarbeiterbeteiligungen-uvm-alternative-formen-der-betriebsuebergabe-im-handwerk-1002>

Grenzdörffer, S. (2022). Kollektivbetriebe“, Handwerksbetriebe ohne Chefs – ein Zukunftsmodell? *Impulsvortrag und Diskussion beim Arbeitskreistreffen Junger Bauunternehmer*. Ausgerichtet vom Baugewerbeverband Niedersachsen.

Grenzdörffer, S. & Pingo (Kaffeekollektiv Quijote) (2021). Kollektivbetriebe - Firmen ohne Chefs/Selbstbestimmtes Arbeiten, ein Zukunftsmodell? *Online-Workshop*. Ausgerichtet vom Baugewerbeverband Niedersachsen.

Grenzdörffer, S. & Zimmermann, T. (2022). Impulsveranstaltung: Alternative Formen der Unternehmensnachfolge. *Online-Impulsveranstaltung*. Ausgerichtet von der Handwerkskammer Freiburg. <https://www.hwk-freiburg.de/de/presse-medien/newsroom/impulsveranstaltung-alternative-formen-der-unternehmensnachfolge-787>

Media:

Newsletter Article:

Siebert, J. (2021). Kollektivbetriebe im Handwerk: Eine Firma, kein Chef. *Süddeutsche Zeitung*. <https://www.sueddeutsche.de/karriere/klempner-kollektivbetrieb-handwerk-1.5309597>

TV contribution:

Lemmer, A. (2021). Quer. <https://www.br.de/br-fernsehen/sendungen/quer/210624quer-100.html>. Bayerischer Rundfunk.

Radio contribution:

Grenzdörffer, S. & Neelsen, W. (2021). Alle verdienen das gleiche. Es gibt keinen Chef oder keine Chefin. *Radio-Interview*. Rubrik: Wirtschaft. NDR Radio Info.

Blog article

Grenzdörffer, S. (2022). Status Quo. New Work. *Les Enfant Terribles. Gutes Neues Arbeiten*. <https://enfants-terribles.org/magazin/transformative-arbeitsumgebungen/>

Podcast:

Björn Braunschweig & Sinje Grenzdörffer. 2022:Verändern neue Arbeitsweisen „die“
Wirtschaft? Podcast: SpacEconomics, Folge 36:
<https://mehrblogs.uni-jena.de/spaceconomics/arbeit-transformieren/>

Further scientific article contributions:

Grenzdörffer, S., Kaiser, J., Mainz, F., & Middendorf, M. (2022). The diversity of property: a potential for a social-ecological transformation. *GAIA-Ecological Perspectives for Science and Society*, 31(2), 77-81.

Grenzdörffer, S. (2022). Transformatives Arbeiten in Deutschland. *Ökologisches Wirtschaften - Fachzeitschrift*, 37(3), 23–26. <https://doi.org/10.14512/OEW370323>.

Eidesstattliche Erklärung

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains

- no material previously published or written by another person, except where due acknowledgement has been made in the text.
- no material which has been accepted for the award of any other degree or diploma from the university or other institute of higher learning, except where due acknowledgement has been made in the text.

This thesis has been prepared subject to the Rules of Good Scientific Practice of the German Research Foundation.

This doctoral work was conducted from October 2019 to June 2023 under the supervision of Professor. Dr. Robert Hassink at Department of Geography, Kiel University.

No previous academic degree was withdrawn.

Kiel, den 29.09.2023



(Signature)