

Leuphana University Lüneburg

Professional School
M.A. Arts and Cultural Management

MASTER'S THESIS

*Cultural Policy Efforts Regarding
Climate Action in German Museums:
Insights from Three Major Cities in Times
of the Energy Crisis*

1st supervisor:

Dr Olga Kolokytha

2nd supervisor:

Dr Patrick S. Föhl

Submitted by:

Ricarda L. Otte

March 6, 2024

Content

Content	ii
Acknowledgements	iii
List of Abbreviations	iv
List of Figures	v
Abstract	1
1 Introduction	2
1.1 Background	2
1.2 Definitions and Limitations	3
1.3 Statement of the Problem.....	6
1.4 Structure	9
2 Review of the Discourses on Sustainability and Climate Action in Museums.....	11
2.1 Sustainability as Cultural Policy Issue in Germany	11
2.2 Environmental Sustainability in Museums: State of the Art.....	15
2.2.1 Introducing, Promoting, and Assessing Sustainable Museums Practices	16
2.2.2 The Status Quo of Environmental Sustainability in German Museums	20
2.3 Document Analysis of Written Data after 24 February 2022	23
2.3.1 Media Coverage on the Potential Effects of the Energy Crisis for Museums ...	25
2.3.2 Official Statements and Recommendations in the Cultural Policy Arena	30
2.4 Conceptual Lenses.....	36
2.4.1 Agency	36
2.4.2 Policy Window.....	38
3 Methods	40
3.1 Research Questions.....	40
3.2 Research Design and Data Collection Methods.....	40
3.2.1 Criteria for Choosing Participants and Sampling	42
3.2.2 Proceedings of the Data Collection.....	43
3.2.3 Research Ethics.....	45
3.2.4 Methodological Background of the Data Analysis.....	46
4 Analysis and Discussion	47
4.1 Analytical Categories.....	47
4.1.1 <u>Urgency</u> : How War and Crises Reveal the Need for Knowledge, Data, Tools .	47
4.1.2 <u>Motivation</u> : The Driving Forces Behind Efforts Regarding Climate Action	49
4.1.3 <u>Alliances</u> : How a Wide Scope of Networks Increase Speed and Intensity	52
4.1.4 <u>Innovation</u> : The Pressure to Act as Source of Invention	54
4.1.5 <u>Agency</u> : Who Is or Feels Equipped to Take Climate Action and Why?	56
4.1.6 <u>Credibility</u> : The Trust Advantage of Museums Should Be Seized	61
4.1.7 <u>Structure</u> : Form Follows Function or the Other Way Around?	64
4.1.8 <u>Self-Evaluation</u> : Assessing Climate Action in Museums	67
4.2 Discussion	73
4.2.1 Dimensions of Agency as the Core of Climate Action	75
4.2.2 The Energy Crisis: Policy Window for What Exactly?	77
4.2.3 Introduction of the Climate Action Vehicle (CAV)	79
5 Conclusion	83
6 References	85

Acknowledgements

The non-linear path to this master's thesis had one constant: my first supervisor Dr Olga Kolokytha, who encouraged me in my plans like no other, had staying power and was incredibly constructive and motivating. Thank you, Olga. I would also like to thank the inspiring Dr Patrick S. Föhl as second reviewer. I am also indebted to my interviewees, who remain anonymous, for their openness, time, and expert knowledge. Without you, the endeavour would have been worthless.

Starting a second degree in the middle of the Covid-19 pandemic, with young children and then remotely while living abroad, was a challenge that I would never have managed on my own. And so, I would like to thank my three wonderful daughters for their patience. The youngest was born the morning after I handed in an important assignment, right in the beginning of the third semester.

Thanks to my husband and accomplice, among so many other things, for giving me precious study and writing time, to my parents for their trust and confidence, and to my In-laws, who came to help more than once when we were in need.

This trip would have been even less fun without all the other MACUMA students. You rock. Good luck to all of you.

Finally, I want to mention that the *Climate Action Vehicle* presented in Chapter 4.2.3 was inspired by the theater set in Lars Eidinger's and John Bock's version of "Peer Gynt" at the Schaubühne Berlin.

List of Abbreviations

ANKM	Aktionsnetzwerk Nachhaltigkeit in Kultur und Medien Action Network Sustainability in Culture and Media
BKM	Die Beauftragte der Bundesregierung für Kultur und Medien Federal Commissioner for Culture and the Media
BNetzA	Bundesnetzagentur Federal Network Agency
BPA	Presse- und Informationsamt der Bundesregierung Press and Information Office of the Federal Government
CAV	Climate Action Vehicle
DBU	Deutsche Bundesstiftung Umwelt German Federal Foundation for the Environment
DKR	Deutscher Kulturrat e. V. German Culture Council
DLF	Deutschlandfunk (German radio station)
DMB	Deutscher Museumsbund e.V. German Museums Association
DW	Deutsche Welle (Germany's international public broadcaster)
FAZ	Frankfurter Allgemeine Zeitung (national daily newspaper in Germany)
ICOM	International Council of Museums
IfK	Institut für Kulturpolitik der Kulturpolitischen Gesellschaft Institute for Cultural Policy of the KuPoGe
Kultur-MK	Kulturministerkonferenz Conference of Cultural Ministers of the Länder
KuPoGe	Kulturpolitische Gesellschaft e. V. Association for Cultural Policy
KSB	Kulturstiftung des Bundes German Federal Cultural Foundation
MSF	multiple streams framework
NEMO	Network of European Museum Organisations
SDGs	Sustainable Development Goals
SPK	Stiftung Preußischer Kulturbesitz Prussian Cultural Heritage Foundation
SZ	Süddeutsche Zeitung (national daily newspaper in Germany)
taz	Die Tageszeitung (national daily newspaper in Germany)

List of Figures

FIGURE 1 ENVIRONMENTAL SUSTAINABILITY CHALLENGES FOR PUBLIC MUSEUM IN AUTUMN 2022.....	6
FIGURE 2 TIMELINE OF SELECTED PUBLICATIONS, STATEMENTS AND ACTIONS IN 2022	24
FIGURE 3 QUOTATIONS ASSESSING THE IMPACT OF THE ENERGY CRISIS ON CLIMATE ACTION EFFORTS.....	72
FIGURE 4 DRIVING FORCES OF AGENCY	76
FIGURE 5 CLIMATE ACTION VEHICLE	82

Abstract

The energy crisis that followed Russia's invasion of Ukraine in February 2022 has a massive impact worldwide, and the increased prices also affect the German museum sector. This research project scrutinizes how measures to save energy fit into the already urgent questions of necessary climate action, which is partly slowed down by the core focus of many museums: the energy-intensive preservation of objects and artworks. Through qualitative interviews, this study examines the positions of museum practitioners, cultural policymakers, and experts in three large German cities that are actively working to bring museums closer to climate neutrality. It turns out that, above all, the commitment to climate action requires agency, alliances on municipal, regional, and national level, adapted political framework conditions, and the anchoring of climate action and environmental sustainability in museum management. External crisis like the energy crisis have the potential to accelerate this process. A *Climate Action Vehicle (CAV)* is introduced to visualize the findings and the components it takes to effectively commit to climate action.

Keywords: sustainability, museum sector, energy crisis, operational ecology, agency, policy window

Zusammenfassung

Die Energiekrise, ausgelöst durch den russischen Angriffskrieg auf die Ukraine im Februar 2022, ist auch im deutschen Museumssektor spürbar, beispielsweise durch gestiegene Gas- und Strompreise. Diese Masterarbeit untersucht, wie sich die resultierenden Energiesparmaßnahmen in die ohnehin drängenden Fragen notwendiger Klimaschutzmaßnahmen in Museen in öffentlicher Trägerschaft einfügen. Diese werden vielfach durch das Kerngeschäft vieler Museen, nämlich die energieintensive Konservierung von Objekten und Kunstwerken, ausgebremst. In qualitativen Interviews mit Fokus auf drei deutschen Großstädten werden die Positionen von Museumsleuten, Mitarbeitenden der Kulturverwaltung und Expert:innen beleuchtet, die sich alle dafür einsetzen, Museen dem Ziel der Klimaneutralität näher zu bringen. Deutlich wird, dass die Energiekrise dieser Herausforderung die notwendige Aufmerksamkeit beschert hat. *Climate Action* in Museen und ihrem kulturpolitischen Umfeld erfordert aber vor allem den nötigen Handlungsspielraum (Agency), Allianzen, angepasste politische Rahmenbedingungen und die Verankerung von Klimaschutz und Nachhaltigkeit im Museumsmanagement. In dieser Masterarbeit wird ein *Climate Action Vehicle (CAV)* entwickelt, um die Ergebnisse zu visualisieren und zu zeigen, was es für effektive *Climate Action* braucht.

1 Introduction

1.1 Background

Russia's invasion of Ukraine on February 24, 2022, not only turned the lives of countless citizens and their families upside-down but marks the definitive end of a peaceful era in Europe. The war that followed has long-lasting effects on a variety of sectors worldwide, including the field of arts and culture. Once it became clear that the political, military, and humanitarian crisis in Ukraine would not come to an end soon, and that the sanctions put on Russia had, in return, an enormous impact on, for example, gas deliveries outside of Russia, the situation became more complex. The aftermath of the invasion was not only a turning point in German energy policy, but effected German cultural policy, too. Suddenly, those who were managing and funding theatres, museums, archives, libraries, opera houses, etc., thus cultural institutions that had already been massively affected by the Covid-19 pandemic, saw themselves confronted with an upcoming energy crisis in the world market and therefore with (expected) exorbitant increases in the cost of electricity, heating, transport, etc. This unprecedented anxiety about autumn and winter 2022 in the face of rocketing energy prices and an ongoing war in Europe was the initial setting of this master's thesis.

In the late summer and autumn of 2022, headlines like "How will European museums cope with the energy crisis this winter?" (McCrea-Hedley, 2022), "Für Bayerns Museen geht es jetzt ums Überleben"¹ (Kratzer, 2022), or "In response to energy crisis, Berlin museum turns off its Dan Flavin neon for first time in 26 years" (Larkin, 2022) dominated cultural reporting in and about Germany. Along with the media coverage, which also featured many interviewees from the museum sector, a long list of organizations, institutions, associations, and other cultural policy players published their statements, declaring specific demands, recommendations, and concerns regarding coping with the energy crisis in the cultural sector, and specifically in museums (Deutscher Kulturrat [DKR], 2022a, 2022b, 2022c, 2022d, 2022e; Deutscher Museumsbund [DMB], 2022b, 2022c, 2022d; Kulturpolitische Gesellschaft [KuPoGe], 2022; Network of European Museum Organisations [NEMO], 2022a; Siegel, 2022).² The concerns described were twofold: In the forefront one was worried about the money needed for the publicly funded museums to cover the extra energy costs. A sector which had been

¹ In case needed, for every quotation in German there is an English translation by the researcher: "For Bavaria's museums, survival is now at stake."

² In Chapter 2.3, Figure 2 visualizes this set of intertwining and overlapping written data.

severely hit by the pandemic due to closures and other restrictions and which had not fully recovered (NEMO, 2022a; Zimmermann & Schulz, 2022) was not at all ready to face another financial crisis. But on the other side it was about the countless cultural assets that might be in danger or destroyed once the correct storage of the works of art in terms of temperature and humidity could no longer be guaranteed – due to energy shortages, financial scarcity or other realistic threats including extreme weather events and wars. A major question mark in the public discourse was whether it would be possible to keep all museums open, given that in neighbouring France, for example, there were museums that needed to reduce their opening hours significantly (Dafoe, 2022; Dege, 2022).

One way or another, rising energy prices were and still are putting enormous pressure on the cultural field and make resource-conserving and energy-saving operations even more urgent in the museum sector (Die Beauftragte der Bundesregierung für Kultur und Medien [BKM], 2022). It remains undeniable that museums in Germany, especially art museums, are among the largest energy consumers in the urban context (Bürger, 2022). In times of climate and energy crisis, museums urgently need to adjust their energy consumption habits. It is therefore even more important to take a closer look at the museum sector and find out which strategies are being implemented or considered. It is not only about how to save energy ad hoc – which was the subject of two governmental ordinances on saving energy that focused on rapid and medium-term impact measures (Bundesministerium für Wirtschaft und Klimaschutz [BMWK], 2022) – but also about long-term sustainability through becoming a resilient, energy-efficient, and risk-aware institution committed to the protection of our cultural heritage and to climate action.

1.2 Definitions and Limitations

There are several terms and concepts that need to be clarified to clearly frame the focus of this research project, most importantly “cultural policy” and “climate action”. “Cultural policy” is used in a broad sense here, including not only cultural administrations, governmental bodies, policymakers, politicians, interest groups, but also the museums themselves and all other types of institutions, associations, and organisations assuming an active role in the cultural landscape of today. This definition is inspired by Maxwell and Miller (2017) who claim, from a US perspective: “For us, the actual conduct of institutions – whether Hollywood studios, journalists’ unions, or museums of fine art – is as relevant a form of cultural policy as, for example, a set of cultural principles adopted by governments” (p.

174). In the German context, an inspirational definition was established by the Institut für Kulturpolitik at the University of Hildesheim³: “We understand cultural policy as political-cultural action by state actors, civil society initiatives, non-profit and private-sector participants who jointly shape the cultural landscape” (Stiftung Universität Hildesheim, 2024). What both definitions have in common is that they do not primarily refer to federal, state, or local politics or policies.

The underlying definition of “climate action” is the one given by Henry McGhie (Network of European Museum Organisations [NEMO], 2022b): “Climate action – in museums or anywhere else – must mean action, that is reducing emissions, supporting others to reduce theirs, adapting to climate change and helping others to do the same, and building climate justice locally and globally” (p. 12). This understanding of “climate action” refers to Goal 13 of the 17 Sustainable Development Goals (SDGs) that are the core of the 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015: “SDG 13: Take urgent action to combat climate change and its impacts” (United Nations, n.d.). Two of the five Goal 13 targets read as follows:

- 13.2 Integrate climate change measures into national policies, strategies and planning
- 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning (United Nations, n.d.)

The SDGs – adopted by the International Council of Museums (ICOM) in 2019 – are an opportunity, if not, by now, a quasi-binding invitation for museums to participate in a global attempt to address the most pressing social and environmental challenges (McGhie, 2019). This strong focus on climate action limits the scope of this research project: “sustainability” is intentionally reduced to its environmental dimension, which is only one out of three, social and economic being the other two dimensions. A further limitation is the time span: the core of this master’s thesis is a deeper look into the second half of 2022, which is defined by the researcher as “the looming of the energy crisis”. However, this limitation cannot be fully adhered to in the empirical interviews because the climate action efforts of the cultural policy actors take place in different time frames.

³ The Institute for Cultural Policy at the University of Hildesheim should not be confused with another Institute for Cultural Policy of the same name which is the Institut für Kulturpolitik der Kulturpolitischen Gesellschaft (IfK) in Bonn, which is no university institute but a think tank, consultancy, and civil society actor whose publication is subject of footnote 4.

The 2022 energy crisis is therefore the first frame of this research project, a second is ongoing climate change which can be described as an unequalled global challenge calling for radical measures, activities, actions, and a systemic transformation in all fields, museums being one of them. The third frame is a specific cultural policy scenario that the Institut für Kulturpolitik der Kulturpolitischen Gesellschaft (IfK) emphasized in its final report on a long-term project called *Nachhaltigkeit und Klimaschutz in der Kulturpolitik*⁴ (IfK, 2023):

Kulturpolitik befindet sich aktuell wie viele andere Politikbereiche in einem Krisenmodus. Dabei sind es nicht nur die Klimakrise und die Pandemie, die mit großen Herausforderungen verbunden sind. Mit dem russischen Angriffskrieg auf die Ukraine im Frühjahr 2022 und der dadurch hervorgerufenen Energiekrise und den wirtschaftlichen Verwerfungen (Inflation) ist der Kostendruck auf Kultureinrichtungen erheblich gewachsen.⁵
(p. 34)

Museums – already “highly complex organisations housing multiple professional allegiances, competing values and interests, and a daunting range of diverse activities” (Sandell & Janes, 2019, p. 8) – are at the core of multiple overlapping crises, and it is essential to investigate their cultural policy environment to analyse their strategies to deal with these challenges.

From a methodological point of view, it is important to mention that a large part of the resources and the data collection used in this research project are in German. In the narrative text, direct quotations, titles, and names of Germany-based institutions, publications, projects, etc. will appear in German and a footnote will provide the English translation and guiding explanation if needed. In some places in the figures, this leads to a mixture of English and German, for example the original German title of a newspaper article may be listed, whereas English narrative text is used to give more detail. The procedure is different for the quotations from the empirical interviews conducted in German. Those used in the narrative text have been translated directly into English to ensure smooth reading. In the Appendix, the complete interview transcripts are accessible, but only in German.⁶ Abbreviations are used where possible.

⁴ The research project could be literally translated as Sustainability and Climate Protection in German Cultural Policy and was funded by the Federal Government Commissioner for Culture and the Media (BKM) as part of a bigger project package (2019-2024) called Profilierung und Qualifizierung der Kulturpolitik in Deutschland (Profiling and Qualification of Cultural Policy in Germany). This final report refers to research results that were produced in various expert reports and studies from 2020 to the end of 2022 (IfK, 2023).

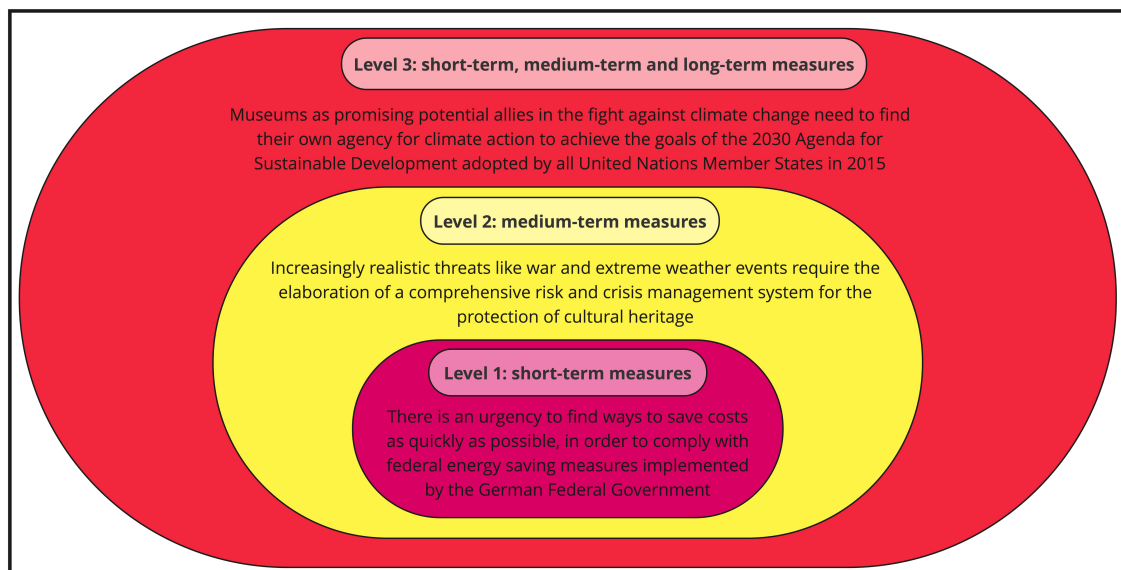
⁵ “Like many other policy areas, cultural policy is currently in crisis mode. It is not only the climate crisis and the pandemic that are associated with major challenges. With the Russian war of aggression against Ukraine in spring 2022 and the resulting energy crisis and economic upheaval (inflation), the cost pressure on cultural institutions has grown considerably.”

⁶ For data protection purposes, the appendices have been removed from the version uploaded here.

1.3 Statement of the Problem

In 2022 it became more obvious than ever that, on the one hand, strategic and long-term museum management with a strong focus on environmental sustainability is needed more than ever and that, on the other hand, the energy crisis and other threats require immediate action and risk management. It seemed as if there was no time to lose to avoid the (temporary) closure of many museums and to be able to continue to protect cultural assets in a suitable way: the core activity of the museum sector. The energy crisis is clearly only one element in a longer chain of extreme challenges that museums and other cultural players have faced in recent years and that mark the background of this research. In autumn 2022, the challenges for public (art) museums in Germany to react to the (upcoming) energy crisis in times of an ongoing war and an omnipresent climate crisis can therefore be outlined in three different layers:

FIGURE 1
Environmental Sustainability Challenges for Public Museum in Autumn 2022
 (Source: Own illustration)



These three layers show the pressure on those affected and in charge, accompanied by despair and helplessness in view of an almost omnipresent lack of knowledge and experience in dealing with issues related to environmental sustainability (Dowidat, 2022; Simon, 2022), in addition to a perpetual lack of resources or other “systemic failures” (Obbema, 2022). In November 2022, Vuillaume and Willkomm (2022), Managing Directors of the umbrella organisation

DMB⁷, which represents more than 1,300 museums and institutions, called the possible closure scenarios that were openly discussed as short-term measures a “sword of Damocles” hanging over the German museums – recalling the experiences from the Covid-19 pandemic. As they pointed out, closures would be inefficient: the energy guzzlers in the museum lie elsewhere than in opening to the public, to name just one of their many reasons against museum closures in general. Finding the real energy guzzlers is therefore the first task in making knowledge-based decisions to save energy and money (level 1 and 3). Already in September 2022, the DMB (2022d) made clear in an official statement that closures would be tantamount to a defeat for culture, economy, politics. Nevertheless, for some museums, it was or would have been the better option – at least this is what Häntzschel pointed out in an article that will be analysed in 2.3.1 as part of the media coverage: “Vor allem kleinere, weniger stark besuchte Kulturinstitutionen könnten sich bald fragen, ob es nicht sinnvoller wäre, vorübergehend zu schließen, statt ihr knappes Budget durch den Schornstein zu blasen”⁸ (Häntzschel, 2022). These are concerns related to level 1 of the sustainability challenges.

To better understand level 2, one key moment that needs to be mentioned here are the floods in Europe in summer 2021 with over 180 people killed in Germany, the majority in the Ahr Valley, a region in the West of Germany. Several museums and cultural sites were affected by this extreme weather event and cultural heritage was damaged or destroyed (Dowidat, 2022). One of the reasons was that the disaster hit the cultural players unprepared (IfK, 2023). In the aftermath, Markus Hilgert (2021) – the Secretary General and CEO of the Kulturstiftung der Länder⁹ since 2018 and before, among other engagements, founding president of the German National Committee of the Blue Shield which advocates the protection of tangible and intangible cultural heritage – wrote about the need to better protect cultural assets. From our point of view today, in an almost prophetic manner, he urged keeping armed conflicts in mind when elaborating emergency scenarios:

Jenseits der natürlichen Gefahren sind es seit jeher vom Menschen verursachte Ereignisse und Situationen, die das kulturelle Erbe bedrohen. Bewaffnete Konflikte galten seit dem Ende des Zweiten Weltkriegs für Europa

⁷ The German Museums Association (DMB) was founded in 1917 as the major advocacy group for Germany's museums.

⁸ “Smaller, less frequented cultural institutions in particular could soon ask themselves whether it wouldn't make more sense to close temporarily instead of blowing their tight budgets down the chimney.”

⁹ The Cultural Foundation of the German Federal States started its work in 1988, its purpose is to assist museums, libraries and archives acquire, exhibit, and preserve cultural assets of national importance on behalf of the, since German reunification in 1990, 16 Länder. (Kulturstiftung der Länder, n.d.)

als unwahrscheinlich. Angesichts global zunehmender geopolitischer und geoökonomischer Rivalitäten können sie jedoch für die Zukunft nicht grundsätzlich ausgeschlossen werden und sind daher als Notfallszenario auch im Risikomanagement von Kultureinrichtungen und kulturell bedeutsamen Stätten wieder stärker zu berücksichtigen.¹⁰ (Hilgert, 2021, p.16)

Since Russia's invasion of Ukraine, his warning has not gone unheeded, and the clear mandate to museums to develop contingency plans (Kulturministerkonferenz [Kultur-MK], 2022) joins the long list of tasks that museum professionals are dealing with today. In the meantime, many Ukrainian museums have been destroyed by Russian missile attacks (Verheyen, 2022) or have suffered severe damage (Kishkovsky, 2022; Timm, 2022). For centuries, the destruction or looting of cultural property has been a common method of warfare (Häntzschel, 2022). Now this is the case in Ukraine. On a completely different scale, countless museums, especially in Europe, were affected, though indirectly, mainly by increasing energy costs that influence heating, ventilation, and air conditioning (HVAC), travel budgets, material, etc. (Hiß & Stockinger, 2023).

Even if it sounds commonplace that "climate change represents one of the most major challenges we face, and one of those with the most impact globally" (Beitin, 2021, p. 147), the museum sector in general has not been very dedicated to engaging in adaption and mitigation (Obbema, 2022) unlocking their potential for level 3 in FIGURE 1. When it comes to addressing climate change, museums are "part of the solution and part of the problem" (McGhie, 2021, p. 20). This insight is not new, but until recently, very little has been done in this respect in German museums, especially compared to the USA or the UK (Brophy & Wylie, 2013), both countries in which, however, cultural funding is also organised in a different way, a significant detail as will be shown in this master's thesis. So, how are public German museums and their cultural policy environment handling this need for climate action, particularly during the 2022 energy crisis? Compared to other (cultural) buildings, museums, especially art museums which are the focus of the qualitative research of this master's thesis, and which usually have extraordinarily high expenditures for HVAC systems due to established international standards in terms of temperature and humidity (Beitin, 2021; Garthe, 2021; Wurm, 2023). Furthermore, they are often located in former industrial buildings or other historic

¹⁰ "Beyond natural dangers, it has always been man-made events and situations that threaten cultural heritage. Armed conflicts have been considered unlikely for Europe since the end of the Second World War. However, in view of globally increasing geopolitical and geo-economic rivalries, they cannot be fundamentally ruled out for the future and must therefore be given greater consideration again as an emergency scenario, also in the risk management of cultural institutions and culturally significant sites."

structures, some of them perceived as iconic landmarks and cultural assets with “strong links to the community in which they are based” (Loach et al., 2016, p. 188), but many are also seen as part of Germany’s “zum Teil energetisch desaströsen kulturellen Infrastruktur”¹¹ (IfK, 2023, p. 1). This makes the museum field particularly dependent on gas and oil supplies and thus vulnerable in the energy crisis. Museums that took the chance, either recently or a long time ago, to opt for different energy sources, like renewable energies, or to invest in energy use reduction, are significantly less affected now (Zimmermann & Schulz, 2022).¹² However, museums, regardless of whether they are located in historic or modern buildings, tend to make negative headlines with their carbon footprint, even when they are not yet finished like the Museum des 20. Jahrhunderts (also known as Museum der Moderne and berlin modern), which is currently being built in Berlin. The planned building was so scandalous in terms of environmental sustainability that Stefan Simon, a leading expert in the field called it “das klimafeindlichste Gebäude unserer Geschichte”¹³ (Bürger, 2022). Only recently, some adjustments have been made due to sustainability concerns (Hiß & Stockinger, 2023; Stiftung Preußischer Kulturbesitz, 2023). It is therefore even more revealing to look how museums and their cultural policy environment rise to this global challenge, which measures they take on what basis, and to decipher the problems, obstacles and blockades which the cultural policy actors encounter in between (IfK, 2023). The museum sector is especially interesting for such research because a) due to its core mission to preserve and share cultural heritage for the future, museums can be seen per se as sustainable institutions (Deutscher Museumsbund [DMB], 2023a), b) it has the highest leverage effect within the cultural realm (Garthe, 2021), and c) in the new ICOM museum definition approved in August 2022 the role of museums to foster sustainability is recognized as crucial (ICOM, 2022).

1.4 Structure

After starting Chapter 2 with a summary of how sustainability became a concern in the German cultural policy field over time (2.1), this thesis will be enriched by a literature review of the ideas around (environmental) sustainability

¹¹ “partly energetically disastrous cultural infrastructure”

¹² One example in Germany is the Haus der Bayerischen Geschichte, a museum about the history of Bavaria in Regensburg on the riverside of the Danube. It wants to become the first museum ever to be self-sufficient in energy (Kratzer, 2022). This is possible thanks to its heat pump using wastewater in winter to increase the room temperature and a heat exchanger that transfers the heat of the rooms to the wastewater in summer so that the museum needs neither oil nor gas. The electricity needed to power that heat pump could soon be generated with the help of photovoltaics on the rooftop. An amendment to the law on the protection of historical monuments will allow solar modules on historical houses in Regensburg in the future, s. also Haus der Bayerischen Geschichte (n.d.).

¹³ “the most climate-hostile building in our history”

in museums, split up into an international (2.2.1) and a national focus (2.2.2), and a close reading of selected media coverage (2.3.1) and German cultural policy statements from the second half of 2022 (2.3.2). Lastly, a sketch of two specific conceptual lenses, namely “Agency” and “Political Window” in 2.4 will help conceptualise the complex challenges public museums are facing. This presentation of the major topics and concerns throughout Chapter 2 will lead to the set-up of the empirical analysis of this master’s thesis in Chapter 3 (Methods) and to the analysis and discussion of the results in Chapter 4. The purpose of this research is to understand the scope of the ongoing cultural policy efforts regarding climate action in German museums, particularly in the light of the energy crisis. In terms of methodology, this research uses mixed methods: an extensive literature review including document and media analysis, and semi-structured qualitative interviews.

2 Review of the Discourses on Sustainability and Climate Action in Museums

The focus on climate action in museums has a multi-dimensional character. In terms of theories, it touches upon many different concepts and discourses that are discussed among scholars: cultural sustainability (Loach et al., 2016; Soini & Dessein, 2016; Stylianou-Lambert et al., 2014), sustainable prosperity (Oakley & Ward, 2018), “green inside activism” (Hysing & Olsson, 2018), “ecological citizenship” (Duxbury et al., 2017) to name only a few. Especially in 2022 and 2023 there has been an abundant amount of literature published regarding museums and sustainable practices. To stay focused, the attention of this master’s thesis lies predominantly in the German museum sector and the cultural policy landscape. The museum sector in Great Britain or the U.S., for example, is far more advanced and engaged in climate action, and many museums started their journey towards environmental sustainability more than a decade ago (Brophy & Wylie, 2013). Deciphering the reasons for this would take a master’s thesis of its own. In brief, although the discourses on sustainable practices and climate change in Germany should not be perceived as narrow-minded or hermetically inaccessible to enriching concepts from the rest of the world, some of the conflicts and impediments that German museums are facing right now are home-grown which will be further outlined in the next subchapter.

2.1 Sustainability as Cultural Policy Issue in Germany

In 2011, Föhl stated that it was not yet possible to speak of a visible and resilient reflection of the word “Nachhaltigkeit”¹⁴ in cultural policy practice in Germany: “Nachhaltigkeit fungiert hier überwiegend, wie in vielen anderen politischen Handlungsfeldern, nicht selten als weitgehend leere Worthölse”¹⁵ (Föhl, 2011, p. 41). For a minute discussion of the genesis of the concept of sustainability and sustainable development in the German cultural landscape and respective research in the field of cultural management, see Föhl (2011), Garthe (2022), and Hiß & Stockinger (2023). For decades, a more general discourse on the relevance of sustainability for culture and how to act in a sustainable manner as a cultural institution was rare and predominantly took place in academia linked to cultural policy think tanks, among committed scholars, few politicians and policymakers, and highly specialised practitioners like those involved in the Forschungsallianz

¹⁴ “sustainability”

¹⁵ “As in many other fields of political action, sustainability often functions as a largely empty phrase.”

Kulturerbe¹⁶ or the Rathgen-Forschungslabor¹⁷ which is also part of the Stiftung Preußischer Kulturbesitz (SPK)¹⁸. One possible explanation for the cultural policy restraint is the fact “dass der Kulturbereich den Wachstumsimperativ der Moderne stets verinnerlicht hat”¹⁹. (IfK, 2023, p. 41). Especially for museums, the premise used to be to maximize the output in terms of visitors, big names, quantity, or further expanding the collection. Arts and culture are strongly linked to the ideas of “Mobilität, Entgrenzung, Fülle, Vielfalt”²⁰ (IfK, 2023, p. 5) – and this is part of their dilemma now. Another reason for the reluctance was the rather technical and scientific side of how sustainability was perceived in Germany by cultural policy players for a long time. Weiß (2023) emphasized that this logic also appeared the other way round when culture and the cultural sphere had not yet been considered as a potential ally either as a sector or as a fundamental dimension by climate and environmental policy. Föhl (2022) summarized that, after a first important discussion of sustainable development in the context of cultural policy back in 2002 and 2003, the discourse on this topic repeatedly broke off. It is only now, 20 years later, that the discussion has been re-started:

Die aktuell drängenden gesellschaftlichen Herausforderungen – allen voran die Corona-Pandemie, der Klimawandel sowie die Ausweitung des russischen Angriffskriegs auf die Ukraine – haben diese Diskussion neu entfacht und beschleunigt [...]. Dabei spielt das Konzept der Nachhaltigkeit in allen denkbaren Facetten eine direkte oder indirekte Rolle.²¹ (Föhl, 2022, p. 172)

A couple of years ago, sustainability or more specifically the environmental dimension of sustainability, became a pressing topic in a broader sense inside and outside certain museums (Hiß & Stockinger, 2023). The driving force behind often roots, on the one hand, in individual interest and commitment to sustainable ideas, to environmental protection and climate empowerment on behalf of staff members and/or managers. On the other hand, according to Weiß

¹⁶ The Cultural Heritage Research Alliance is working on new methods and procedures for the restoration and conservation of cultural assets using the scientific expertise of the three partners from national and cultural sciences and humanities: Fraunhofer-Gesellschaft (Fraunhofer Institute), Leibniz-Gemeinschaft (Leibniz Association) and Stiftung Preußischer Kulturbesitz (Prussian Cultural Heritage Foundation). (Fraunhofer-Institut für Bauphysik, n.d.)

¹⁷ The Rathgen Research Laboratory in Berlin is said to be the oldest museum laboratory worldwide. As the leading institution in conservation science and cultural heritage research it provides and shares precious knowledge on how to preserve cultural assets. Director Stefan Simon is one of the key figures for climate action in museums.

¹⁸ The Prussian Cultural Heritage Foundation was founded in 1957 to preserve the extensive cultural heritage that belonged to the Prussian state collections. The internationally renowned SPK is based in Berlin and unites museums, archives, libraries, and research institutes. It is financed by the federal government and the sixteen Länder. (SPK, n.d.)

¹⁹ “that the cultural sector has always internalised the growth imperative of modernity”

²⁰ “mobility, dissolution of boundaries, abundance, diversity”

²¹ “The current pressing social challenges - above all the coronavirus pandemic, climate change and the expansion of the Russian war of aggression into Ukraine - have reignited and accelerated this discussion [...]. The concept of sustainability plays a direct or indirect role here in all conceivable facets.”

(2023), several core cultural policy institutions such as the Deutscher Kulturrat (DKR)²², the Kulturpolitische Gesellschaft (KuPoGe)²³, the Kulturstiftung des Bundes (KSB)²⁴, the Kulturveranstaltungen des Bundes in Berlin (KBB)²⁵, and the Deutsche Bundesstiftung Umwelt (DBU)²⁶, assumed a significant role. In the past 20 years, they promoted the continuing albeit unsteady development and discussion of the importance of sustainability in German cultural policy and the implementation of first try-outs incorporating sustainability in cultural practices and funding guidelines (Völckers, 2021). The milestones Weiß (2023) mentioned include the Tutzing Manifest (2001)²⁷, the *Über Lebenskunst*²⁸ initiative project by the KSB and the Berlin based interdisciplinary institution Haus der Kulturen der Welt (HKW) from 2009 to 2012, as well as the funding programmes on cultural change and sustainability *TRAFO – Modelle für Kultur im Wandel*²⁹ (KSB) and the *Fonds Nachhaltigkeitskultur*³⁰ by the Rat für Nachhaltige Entwicklung (RNE). Weiß further emphasized that it was then the DKR's and KuPoGe's strong commitment to the UN Agenda 2030 that ultimately helped establish sustainability as a major topic in German federal cultural policy, especially since 2019.

In November 2019, a group of 29 leading German museum directors, scientists and artists published an open letter to Monika Grütters, the Beauftragte der Bundesregierung für Kultur und Medien³¹ (BKM) at the time:

²² The German Cultural Council or German Council of Culture (both translations are in use) is an umbrella organisation of Germany's cultural associations and a political advisory board for cultural politics at federal level.

²³ The Association for Cultural Policy or Society for Cultural Policy (both translations are in use) is a Germany-wide association of people interested in and committed to cultural policy and assumes the role of a Think and Do Tank.

²⁴ The German Federal Cultural Foundation (KSB) was founded in 2002 with its headquarters in Halle an der Saale. Its main task is to promote innovative programmes and projects on a national level. The KSB and the KBB are institutions that stand for the federal government's so-called Neue Kulturpolitik (new cultural policy) launched with the establishment of the BKM and the associated institutionalisation of cultural policy as an independent federal matter (Weiß, 2023). In the context of this research, it is especially interesting to mention that in 2012 the KSB was the first cultural institution to receive the Eco-Management and Audit Scheme (EMAS) certification for its environmental management system (Hiß & Stockinger, 2023; Völckers, 2021)

²⁵ Under the umbrella of the KBB you find four major cultural institutions in Berlin with multiple venues under one overarching structure: Berlinale, Berliner Festspiele, Haus der Kulturen der Welt (HKW) and Gropius Bau (KBB, n.d.).

²⁶ The German Federal Foundation for the Environment, for a deeper understanding of their engagement in the cultural field s. Bonde & Fuhrmann, 2021.

²⁷ The Tutzing Manifesto was the first official call by many institutions and individuals from the fields of culture, ecology, politics, and science "for the strengthening of the cultural-aesthetic dimension of sustainable development" (KuPoGe, 2001).

²⁸ Literally translated as "on the art of living", the German project title *Über Lebenskunst* was kept in English. The project "dealt with the question of how we define 'good living' given the global ecological crisis. Participants from the fields of art, culture, science, education, politics and society developed ideas and approaches for a sustainable living" (KSB & HKW, n.d.).

²⁹ With *TRAFO – Models for culture in transition* the KSB put its focus explicitly, and for the first time, on rural regions in Germany and their cultural productions and operations with a nationwide structural programme. The first phase ran from 2015 until 2021 and funded six model transformation projects in the regions of Oderbruch, southern Lower Saxony, Saarpfalz and the Swabian Alb in four different Länder. (KSB, 2021). The second phase *TRAFO 2* started in 2019 and runs until 2026.

³⁰ For four years until the end of 2021 the German Council for Sustainable Development (RNE) was responsible for the Sustainability Culture Fund for which it received monies from the Federal Chancellery to promote approaches "that make sustainability the centre of cultural norms and lifestyle models" (RNE, n.d.).

³¹ Federal Commissioner for Culture and the Media

Wir fordern [...] eine zentrale Taskforce, die sich einzig den klimapolitischen Herausforderungen in Museen und anderen öffentlichen Ausstellungshäusern widmet, sowie zwischen Länder- und Bundesebene sowie zwischen Ministerien und Museen vermittelt. Sie sollte die Museen beraten, gemeinsam mit ihnen konkrete Ziele formulieren und zügig einen Maßnahmenkatalog für einen nachhaltigeren öffentlichen Kunstbetrieb erarbeiten. Solch ein Benchmarking zu Klimatisierung, Licht, Leihverkehr, Mobilität, Heizung, Abfallmanagement, Neubauten, Material- und Produktwahl etc. könnte als Grundlage für einen Zertifizierungsprozess dienen, an dessen Ende ein staatliches Gütesiegel für Museen steht, um ihren Klimaschutzbeitrag herauszustellen. Dies alles wäre ein wichtiger Beitrag zu einem "Green New Deal", den das gesamte Land derzeit dringend braucht.³² (Beitin et al., 2019)

This demand reveals both the lack of support and regulation in German cultural policy until then, and a clear commitment to promoting a transformation on the part of the museum practitioners and artists involved. Garthe (2021) doubted that such a climate task force for museums could indeed advance the sector sufficiently and accelerate the systemic change needed in the long run. But when Beitin (2021) called this open letter “a first step towards taking action to improve the museum’s current functioning as an ecological problem zone – not only in Germany but also elsewhere” (p.150) it shows the potential impact and the agency of such a collective action. Since then, it was the launch of the cross-sectoral Aktionsnetzwerk Nachhaltigkeit in Kultur und Medien (ANKM)³³ in 2020 that significantly accelerated the shift from debate to action in German cultural institutions. A remarkable number of initiatives, working groups, and training programs trying to activate all sorts of different cultural players and focusing on environmental sustainability were put in place in recent years (Hiß & Stockinger, 2023).

However, in general, the potential of the entire cultural sector regarding climate action had not been recognized outside this specific cultural policy circle for a long time, which is also perceived as “Policy-Schwäche”³⁴ (IfK, 2023, p. 54) of the cultural sector. Jacob S. Bilabel, director of the ANKM, once said in an interview that cultural institutions had created “eine Insel der Seligkeiten”³⁵ for decades: “Dabei hat man gesellschaftliche Entwicklungen zwar auch als für sich

³² “We call for a central task force [...] dedicated solely to the climate policy challenges in museums and other public exhibition venues [...]. It should advise museums, formulate concrete goals together with them and quickly develop a catalogue of measures for a more sustainable public art sector. Such benchmarking on air conditioning, lighting, loans, mobility, heating, waste management, new buildings, choice of materials and products, etc. could serve as the basis for a certification process, at the end of which there would be a state seal of approval for museums to highlight their contribution to climate protection. This would all be an important contribution to a "Green New Deal", which the entire country urgently needs at the moment.”

³³ The Action Network Sustainability in Culture and Media, funded by the BKM, is the major contact point for all questions of operational ecology in the cultural and media spheres (Aktionsnetzwerk Nachhaltigkeit für Kultur und Medien, n.d.; Charles, 2022). The ANKM is a relevant cultural policy player facilitating trainings, consulting, conventions, pilot projects and knowledge transfer.

³⁴ “policy weakness”

³⁵ “an island of bliss”

relevant wahrgenommen, aber nur, um sich damit künstlerisch auseinanderzusetzen. Und eben nicht operativ. Dabei sind erstarrte und innovationsfeindliche Strukturen entstanden.”³⁶ (Jakob, 2021, p. 12) The year 2022, however, seems to mark a turning point for German cultural institutions when it comes to climate action. An important element of this research project will be to find out to which degree this is – in museums – linked to the energy crisis triggered by the war in Ukraine.

In November 2022, the *Jahrbuch für Kulturpolitik*³⁷ was published which assembled a great number of relevant articles under the overarching title *Kultur der Nachhaltigkeit*³⁸. The war in Ukraine and the energy crisis, nevertheless, resonated only in few contributions (Blühdorn, 2022; Föhl, 2022; Kaluza, 2022), most prominently in the foreword by the BKM, Claudia Roth:

Wir befinden uns in einer Zeit vielfältiger, sich überlagernder Krisen: Der brutale Angriffskrieg Russlands gegen die Ukraine gefährdet die internationale Friedensordnung. Er bringt Tod und menschliches Leid mit sich, das wir in Europa nach 1945 bislang für unvorstellbar hielten. Die wirtschaftlichen und sozialen Auswirkungen haben bereits jetzt globale Ausmaße erreicht. Nicht zuletzt stellen die galoppierenden Preissteigerungen – insbesondere im Energiebereich – die gesamte Gesellschaft vor große Herausforderungen. Das betrifft natürlich auch den Kultursektor. Diese Effekte wirken hier umso dramatischer, da er noch immer unter den Auswirkungen der Corona-Pandemie leidet.³⁹ (Roth, 2022, p. 11)

The cultural sector sounds like a severely weakened patient in this second half of 2022, one who had been looking forward to rehabbing but is now struggling with the next aggressive pathogen.

2.2 Environmental Sustainability in Museums: State of the Art

The following section will outline the key publications and voices that have dealt with issues of environmental sustainability in the museum sector. The focus here will not exclusively be on Germany, mainly because there are comparatively few publications that deal with German museums and their climate action efforts

³⁶ “Social developments were also perceived as relevant, but only in order to deal with them artistically. And not operationally. This has resulted in rigid structures that are hostile to innovation.”

³⁷ The Annual for Cultural Policy is published by the IfK since 2001 and reflects the current cultural policy debates in Germany with articles by academics and experts from the field. (Kulturpolitische Gesellschaft, n.d.)

³⁸ “culture of sustainability”

³⁹ “We find ourselves in a time of multiple, overlapping crises: Russia’s brutal war of aggression against Ukraine is jeopardising the international peace order. It is causing death and human suffering that we in post-1945 Europe previously thought unimaginable. The economic and social consequences have already reached global proportions. Last but not least, the galloping price increases - particularly in the energy sector - pose major challenges for society as a whole. Of course, this also affects the cultural sector. These effects are all the more dramatic here as it is still suffering from the effects of the coronavirus pandemic.”

in more detail – the relevant ones will be presented further on, after looking into the English-speaking world.

2.2.1 *Introducing, Promoting, and Assessing Sustainable Museums Practices*

Authors from the USA and UK, namely Sarah Sutton Brophy and Elizabeth Wylie, as well as Henry McGhie, are regarded as the pioneers who actively and continuously put ideas on environmental sustainability on the agenda, inspiring the green-museum movement around the world, and creating a “good buzz about environmental sustainability in museums” how Brophy and Wylie put it in the second edition of their standard work *The Green Museum* (2013) which first appeared in 2008. It offers guidance on how to implement environmentally sustainable practices and products in all the different areas of museum work, from collection care, preservation and programming to facility and waste management. They also connected environmental sustainability to fiscal sustainability very early on, an aspect which is essential for the context of this research project. One of their key messages is: “The environmental sustainability of your institution is a mission-based decision; implementation should come from mission-driven decisions made on a daily basis using your institutional policy for green.” (Brophy & Wylie, 2013, p. 4) However, even in the U.S., climate action efforts in museums still seem limited, as becomes evident in a later publication, when Brophy, then under her name Sutton (2020), stated that “signals to the sector from this limited number of museums are too few and far between to manifest the momentum necessary to create significant action on the worst effects of climate change” (p. 619). She called it “the absence of museums in climate action” (Sutton, 2020, p. 619.). Sutton went on to make an interesting but misleading claim:

In the U.S. there is no formal expectation for energy efficiency from within the museum sector, and external regulatory mandates vary significantly by geographic location. There is too little funding tied directly to this work to elevate it to a financial priority in most museums. The story is different in the United Kingdom and the European Union where funding for arts and culture is dominated by government sources. Political leadership has tied funding to either expectations or requirements that institutions manage their energy use for climate impact mitigation. They require institutions to publish their annual energy scorecards. This has driven important change. (Sutton, 2020, pp. 621–622)

Whereas this is true for the UK (Arts Council England, 2021; Brünger, 2022; Dowidat, 2022), in Germany this is not the case (Charles, 2022) as will be shown further on. To find the reasons why museums are so slow in committing to

climate action, Obbema (2022) empirically analysed the Canadian museum sector identifying the following barriers: “a lack of available funding, staff that are not trained in climate action or sustainability, and a general lack of access to resources such as educational materials, construction materials, energy sources, and more” (p. 106).

Henry McGhie, British consultant and another essential source and pioneer in the field (Feinig, 2022), works on a variety of issues, from the implementation of the SDGs in museum practices (McGhie, 2019, 2022a) to measuring GHGs (McGhie et al., 2022). He also provides guides and toolkits for museums (McGhie, 2021, 2022b) and shares his expert knowledge on international climate change policies and the underlying processes (McGhie, 2020b). In a submission to the United Nations Framework Convention on Climate Change (UNFCCC), he presented ten “emerging gaps that have hindered [...] ACE⁴⁰ in museums” (McGhie, 2020a, p. 8). Obbema’s (2022) results recall McGhie’s findings: lack of a) “budget, commitment, ambition and staff”, b) “serious buy-in from museum leaders”, c) “knowledge, motivation, confidence or skills”, d) “mechanisms to amplify, share and report work”, e) “prioritisation or support (direction, information or funding) from governments or agencies on national and international commitments regarding climate change” (McGhie, 2020a, p. 9). McGhie was asked to provide his assessment on another survey, conducted and published in 2022 by the Network of European Museum Organisations (NEMO)⁴¹ with 578 participating museums in 38 European countries. He pointed out: “Museums are not well plugged into climate action in their countries, in terms of a smooth flow of information downwards from governments and policy makers, and upwards from institutions and sectors for reporting.” (NEMO, 2022b, p. 10)

For gaining a deeper insight into the status quo among European museums, it helps to have a closer look at the main findings of the survey that seem relevant for this research project:

- 1 The strongest impediments towards a sustainable transition are perceived as rooted in lack of a) funds, b) support or policy direction, c) knowledge, and d) lack of strategic relevance (s. p. 38)

⁴⁰ ACE is the abbreviation for Action for Climate Empowerment explained by McGhie (2022b) as “the informal name given to the public-facing and all-of-society aspects of the UN Framework Convention on Climate Change and Paris Agreement. A new Glasgow Work Programme on Action for Climate Empowerment was adopted at COP26 in Glasgow, UK, in November 2021, to run until 2031.” (p. 8)

⁴¹ NEMO was founded in 1992 as an independent network of national museum organisations, it has 154 members from 38 European countries and is based in Berlin. (NEMO, n.d.)

- 2 Although 1 of 3 museums affirmed that there is a team or a responsible person in their institution for climate related and/or sustainable activities, the rest claims that this does not exist, or that they do not know (s. p. 27)
- 3 The museum size has hardly any relevance for the commitment to climate action (s. pp. 20, 22, 31)
- 4 More than half of the museums have installed climate friendly or climate neutral lighting, 1 of 10 uses solar panels while just as much have planned them in the future, and 1 of 5 has a green energy supplier (s. pp. 22–23)
- 5 Only 1 of 4 museums is consulted by its public authorities in case they consider sustainable policies and transformations (s. p. 38)

In the report, NEMO lists seven key findings and the resulting recommendations, also published as separate 2-pager (NEMO, 2022c) to address policymakers and all those involved in working with and in museums. They are grouped around the main themes “relevance”, “framework and guidance”, “policy coherence”, “infrastructure”, “skills and training”, “alliances” and “risk awareness” (NEMO, 2022c, pp. 2–3). This overview provides a sound framework which will be used in Chapter 4 to develop analytical categories. What McGhie makes clear again and again in his publications is that climate action needs to be understood as a joint cultural policy effort that cannot be carried out by the institutions on their own. Every museum should therefore understand how it can relate or contribute to relevant climate action policy frameworks.

The emphasis on existing lacks is only one possible starting point to unlock the underlying reasons for climate inaction. Sandell and Janes (2019) call “the incessant talk of shortage in the museum world — be it money, staff, technology, or public support” a “self-limiting refrain” and continue: “[P]erceived shortages of all kinds have become an overriding excuse for maintaining the status quo in museum practice” (p. 2). They argue that museums not only have the potential but the obligation to strive for a more sustainable planet. The book they edited, *Museum Activism* (2019), provides fruitful and less common positions on why and how museums should or could embrace activist practices to address societal or environmental challenges and tackle different relevant issues that are more conceptual and intellectual in nature. One example is “museum neutrality”, according to Sandell and Janes (2019) and Janes (2023) a myth that needs to be challenged: “There is a widely held belief among museum-governing authorities and staff that they must protect their neutrality [...] lest they fall prey to bias, trendiness, and special interest groups” (Janes, 2023, p. 61). Likewise, Lyons and Bosworth (2019) lament that many museums

locate themselves on the sidelines of crisis, often justifying their passivity by claiming that they do not have the resources or knowledge to address new or controversial issues. This argument, or rather excuse, becomes increasingly tenuous as we face the globally-threatening emergency represented by runaway climate change. (p. 175)

Although their background is in the US museum landscape and their focus is more on how museums can take positions on contested social and political issues than on mere environmental sustainability, the notions of passivity and inaction due to a lack of resources and knowledge or to a supposed institutional neutrality are also relevant for climate action in German museums. In terms of “museum neutrality”, Hiß & Stockinger (2023) claim that the case is different when museums receive predominantly public funding like they do in Germany, stating that this not only gives them a high degree of credibility in civil society, but “erlaubt es ihnen, sich kritisch mit Gesellschaft zu befassen oder auch unbequeme Nischenthemen aufzugreifen”⁴² (p. 3). With respect to museums in Europe, however, McGhie also stated that “museums are fearful of appearing to be somehow ‘political’ or ‘not neutral’”. (NEMO, 2022b, p. 10).

Developing the ideas on museums neutrality further, German museum consultant Garthe (2022, 2023) uses the term “post-neutrality” to think of the positive impact museums can have once they overcome their former passive-neutral stand. In his monograph *Das nachhaltige Museum* (2022)⁴³ – explicitly not a guidebook – Garthe gives an overview on how sustainable ideas evolved into and within the museum field and what it needs to establish a holistic transformative process leading to more sustainable museums. Through his exploratory approach using all three dimensions of sustainability he creates a management tool as a “consistent frame of reference” (Garthe, 2023, p. 2), that had been missing so far from sustainability in museums. In English under the title *Sustainability Management in Museums* (SMM), in German *Nachhaltigkeitsmanagement in Museen* (NMM), this museum specific framework is inspired by the idea of corporate social responsibility (CSR) used in other fields and addresses sustainability management as a long-term project guiding a change process in museums. Like the *sustainability star* (Müller & Grieshaber, 2023), another sustainability framework for museums based on the 17 SDGs, consisting of 16 dimensions plus four essentials, Garthe’s management approach is highly complex

⁴² “allows them to take a critical look at society or address uncomfortable niche topics”

⁴³ An extended and supplemented English version of the German original has been published: *The Sustainable Museum. How Museums Contribute to the Great Transformation* (Garthe, 2023).

and thus not suitable for this master's thesis' focus. This master's thesis will tackle the research gap Garthe (2022) address in his preface:

Der globalen Dimension der Idee der Nachhaltigkeit folgend, blickt das Buch explizit nicht auf die spezifische Situation, die Rahmenbedingungen und Diskussionsstränge in Deutschland. Daraus folgt unter anderem, dass die weit verbreitete gute Praxis in deutschen Museen nicht beleuchtet wird.⁴⁴ (p. 7)

It therefore remains to be seen what such good practice, at least in terms of environmental sustainability, could look like in concrete terms and this is the purpose of this master's thesis.

2.2.2 The Status Quo of Environmental Sustainability in German Museums

To get a more concrete picture of the status quo in the German museum landscape in terms of sustainability, environmental practices, and climate action, a survey with 98 responses from German museum practitioners offers insights which was conducted in 2022 by Museums for Future (MFF) Germany⁴⁵. Given that the survey deadline was in March 2022, the looming energy crisis was not yet covered or analysed. The survey's key findings can be summarized as follows:

- 1 There is a discrepancy between a relatively high personal interest in sustainability and/or climate action (with 93% of the respondents considering these task fields personally very important or important) and a much lower institutional interest (31% of the institutions are considered to have very high, 27% high, 27% moderate, 12% low and 4% no interest).
- 2 82% of the respondents would like to see that addressing sustainability and/or climate action given a very high or high priority in the museum work.
- 3 The prevailing obstacles are lack of a) time capacities, b) financial resources, c) structural anchoring (e.g. in the mission statement, in work processes), d) knowledge about implementation possibilities. Further obstacles rooted in a lack of a) awareness among decision-makers, b) responsibility of individual employees, c) support from cultural policy, d) of resources (including a lack of knowledge about funding opportunities). Other formal obstacles were mentioned, such as listed museum buildings, or the lack of feasibility of structural measures. Soft factors also play a role, whether it is a lack of awareness among employees, or the fact that successes in climate action are not made sufficiently visible and motivation is lacking due to previous negative experiences.

⁴⁴ "Focusing on the global dimension of the idea of sustainability, the book explicitly does not look at the specific situation, the framework conditions and discussion strands in Germany. One consequence of this is that the widespread good practice in German museums is not highlighted." For the English edition of this book, this aspect was even shortened: "Focusing on the global dimension of the idea of sustainability, the book explicitly does not look at the situation in specific countries." (Garthe, 2023, Preface)

⁴⁵ a non-profit organisation specifically founded to raise awareness prior to the German elections in 2021 as a local group of the global MMF Network

- 4 To overcome these obstacles through urgent measures, the respondents opted for a) more knowledge about implementation options, b) more time capacities, c) more financial resources, and d) more structural anchoring, e) more awareness among decision-makers, f) more support from cultural policy, and g) more responsibility on the part of individual employees. (s. MFF Germany, 2022)

These results show, again, that a commitment to climate action depends on a variety of aspects and that Germany, especially, is still a long way to go.

In 2022, for any museum worker, policymaker, or consultant proficient in English, no matter if in Germany or somewhere else, there is no shortage of guidebooks on how museums can start their journey towards climate action (CIMAM – International Committee for Museums and Collections of Modern Art, 2021; Julie’s Bicycle, 2017; Ki Culture, 2021; McGhie, 2021; Museums for Future, 2021; We Are Museums et al., 2021).⁴⁶ Although every museum has an individual setting and starting point and the policy context differs from one country to another, most of the content throughout all these publications is thought as a “toolbox” (McGhie, 2021) so that each institution takes what it needs to get started. The existence of these guidelines shows that information regarding the process of committing to climate action is available and accessible on the internet, but it remains unclear why German Museums still lack the information, knowledge and the mindset needed to make their institutions sustainable in the long term. Whereas recent master’s thesis (Feinig, 2022; Haab, 2022) put the focus exclusively on the museum practitioners’ perspectives, the aim of this research project is to understand the implications for the different cultural policy players, considering museums as part of a larger structure dealing, for example, with framework conditions, criteria for public funding, and multiple forms of alliances inside and outside the cultural field. In this direction Dowidat (2022) provided a valuable introduction to sustainability discourses, difficulties and conflicting goals within German museums and their environment before the energy crisis. Kimmel (2023) also gave a thorough overview on climate action efforts in the museum field in recent years in Austria and Germany.

Once again, it was the KSB taking an important step forward when it launched its nationwide pilot project *Klimabilanzen in Kulturinstitutionen*⁴⁷ in 2020 with 19 cultural institutions, among them many museums, being introduced to

⁴⁶ In May 2023, the DMB published its ample guideline Klimaschutz im Museum (Climate Protection in Museums) which gathers practical recommendations and minimum ecological standards in German (2023a). It was developed by an interdisciplinary group of around 70 museum experts and representatives of science experts under the auspices of the DMB working group Climate protection and sustainability in museums launched in January 2022 (s. Figure 2). This major publication was not yet available in the looming energy crisis this is why it is not in the focus here.

⁴⁷ Carbon Footprinting in Cultural Institutions

climate accounting and management including measuring CO₂ emissions, carbon footprint calculations, and developing further measures (KSB, 2022). This first trial which led to a further KSB project, *Zero*⁴⁸, enhanced reflections on how environmental sustainability could be implemented as a binding requirement for funding, in part due to the fact that there are professionals who expressed that they would welcome more guidance from the public sector (Bürger, 2022). The first pilot project addressing exclusively museums was *Elf zu Null – Hamburger Museen handeln*⁴⁹ with a group of eleven museums, exhibition spaces and memorial sites. It was initiated by the Museum für Kunst und Gewerbe (MK&G) and officially launched on 30 August 2022, in the middle of the looming energy crisis (Freie und Hansestadt Hamburg Behörde für Kultur und Medien, 2022). Hiß and Stockinger (2023) presented some findings, also based on Stockinger's insights as one of the masterminds of the project and Director of Finance at the MK&G. One of the findings is particularly relevant here:

Wirtschaftlicher Druck bewirkt, was moralischer Druck nicht vermag: Der unmittelbare finanzielle Druck der Gas- und Energiekrise des Jahres 2022 beschleunigt und verbreitert die erforderlichen Veränderungen und deren Akzeptanz in nicht dagewesener Form. Bisher war die Nachhaltigkeitswende alleine vom Goodwill Einzelner abhängig. Fazit: Die ökologische Transformation des Kulturbereichs profitiert [...] von klaren Vorgaben seitens der Zuwendungsgeber:innen.⁵⁰ (Hiß & Stockinger, 2023, p. 13)

The authors stressed that one of the dilemmas and conflicting interests in (German) museums hampering a faster turn towards climate action is the fact that the success of a museum is measured by its quantitative output, for example by number of visitors, number of exhibitions, or collection size. There is an increasing demand for qualitative indicators like sustainability commitments to also be considered. Moschell (2022), Head of Department Art and Culture in the city of Dresden, suggested reviewing the annual energy consumption, the use of vehicles or the number of printed advertising materials to track a museum's sustainability.

⁴⁸ Zero is conceived as a nationwide sustainability campaign inviting a broad range of cultural institutions to strive for "climate-neutral artistic and cultural projects" (KSB, n.d.).

⁴⁹ Eleven to Zero – Hamburg museums take action, in cooperation with the ANKM and supported by the Behörde für Kultur und Medien (Hamburg Ministry of Culture and Media), aimed at drawing up a carbon footprint for each institution in a first step and, in a second step, at training 17 employees as transformation managers in order to integrate the gained knowledge into everyday museum life (Brosda, 2022; Museum für Kunst & Gewerbe Hamburg [MK&G], 2023). One take-away of the joint carbon footprints (Scope 1 and 2) was that 90.4% of the emissions of the eleven institutions result from their electricity and heat consumption (MK&G, 2023).

⁵⁰ "Economic pressure is achieving what moral pressure cannot: the immediate financial pressure of the gas and energy crisis of 2022 is accelerating and broadening the necessary changes and their acceptance in an unprecedented way. Until now, the sustainability turnaround has depended solely on the goodwill of individuals. Conclusion: The ecological transformation of the cultural sector benefits from clear guidelines from the funding bodies."

This call for alternative indicators is also one of the demands of the *Dresden Charta for Sustainability in the Cultural Sector* published in January 2022:

Legal entities and public financiers must define further framework conditions. This includes, among other things, the expansion of the performance indicators of the cultural enterprises (e.g. in the budget) to include sustainability indicators, the introduction of a climate budget for cultural enterprises, enabling the use of funds for sustainability measures within decided budgets, and the inclusion and consideration of cultural enterprises in the planning of municipal sustainability strategies.
(Landeshauptstadt Dresden, 2022)

The *Charta* is a self-commitment of several dozen cultural institutions to environmental sustainability, climate action and ultimately climate neutrality. It is linked to Dresden's *Kulturentwicklungsplan*⁵¹ (KEP) from 2020 and is, according to Föhl (2022), one of the first KEP in Germany that explicitly refer to sustainability and, more concretely, to environmental sustainability as one aspect to be worked on throughout the cultural scene in the upcoming years.

From what has been outlined so far, the pioneers do exist, but the commitment of German museums to climate action should not be taken for granted.

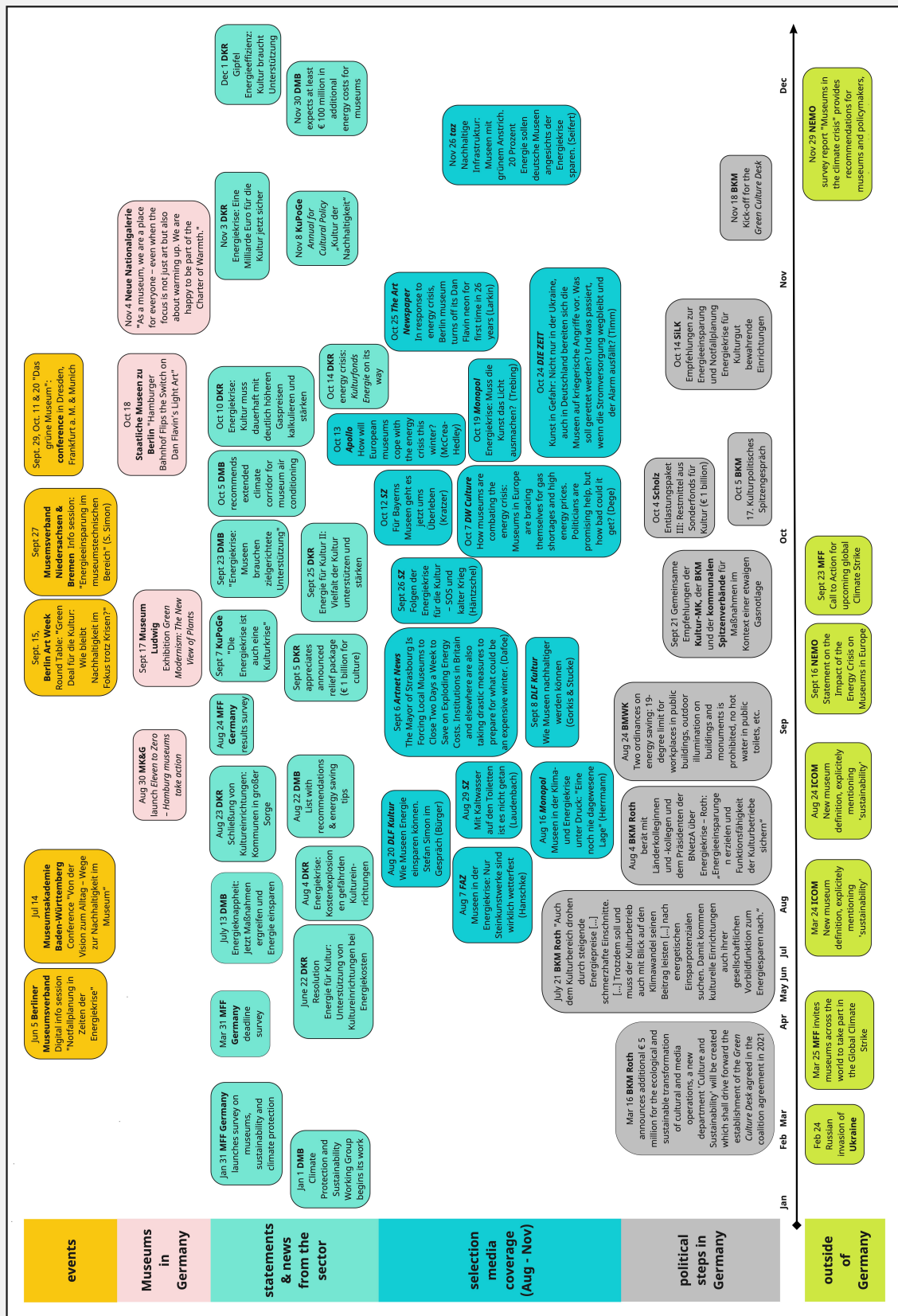
2.3 Document Analysis of Written Data after 24 February 2022

A timeline (s. FIGURE 2) helps to visualize the chronology of a relevant selection of publications, statements, actions, and events to better understand the dependencies, correlations, and the stream of discourse in this field in 2022 during the peak of attention on the energy crisis. The media coverage (blue) which will be analysed in the following (2.3.1) is the core element here because it is a resonance chamber for the political statements and steps taken in view of the looming energy crisis.

⁵¹ A Cultural Development Plan is part of a Cultural Development Planning process, a concept-based tool used in participation-orientated cultural policy, for example, on municipal level and aims for cooperative democracy. In the end of a KEP process, a strategic document on the development of the broadly desired future culture within a certain municipality, for example, serves as guideline for cultural administrations and all cultural policy stakeholders, s. Föhl (2017, 2022, 2023) and Föhl & Wolfram (2016) for more background information, current practices, and assessment.

FIGURE 2

Timeline of Selected Publications, Statements and Actions in 2022 (Source: Own illustration)



Note. For reasons of space, in-text citation is not used; all sources are provided in the reference list (Chapter 6). All abbreviations used can be found in the List of Abbreviations.

2.3.1 Media Coverage on the Potential Effects of the Energy Crisis for Museums

Fourteen publications are particularly relevant in the context of this master's thesis because of their sound research, their diverse interlocutors, and their timing. The articles, podcasts and radio features were published and aired between August 8 and November 26, 2022, in national or international (online) newspapers, magazines or broadcast services, either in English, German or both (only Dege, 2022⁵²). The focus is either exclusively or predominantly on the situation in museums. FIGURE 2 provides the exact publication date, medium, original title, and the last name(s) of the author(s). It is not the aim here to run an in-depth content analysis but to condense facts and arguments while noting the publication date in relation to the other timeline elements. Generally, given the quantity and variety of media coverage available, it seems as if for the reporters, hosts and editors, museums served as impressive and appealing protagonists and settings. There are different possible reasons for this: Firstly, in many places, museums are found in prominent buildings, often centrally located in historical structures. The fact that many of them are among the buildings with the highest energy consumption (Bürger, 2022; Hanschke, 2022) doesn't come as a big surprise. Secondly, museums usually enjoy a high degree of public confidence. Going to a museum is one of the German population's favourite cultural activities and ranks far ahead of going to the opera, theatre, or classical concerts (Stiftung für Zukunftsfragen, 2023). Around half of all Germans go to a museum at least once a year. Laudenbach (2022) indirectly brought up another reason: Although museums seem downright ascetic compared to much more energy-intensive industries (such as cruise tourism, fast fashion, trade shows, or aviation), he argued, certain attributes, namely liking to comment on the world situation and not necessarily celebrating dull consumption, mean that museums can hardly escape their ecological and environmental responsibility and the consequences of the energy crisis, should they want to retain some credibility and trust.

At the beginning, in August 2022, the publications were clearly written under the influence of the extremely hot summer of 2022. The "Gluthitze der letzten Wochen"⁵³ (Hanschke, 2022) was in fact the warmest summer on record in Europe (Copernicus Climate Change Service, 2023) which stands in harsh contrast to the effects expected for the – back then – upcoming wintertime. During that extreme heat wave, many museums, especially those operating in newer buildings with lots

⁵² Only the English version will be used.

⁵³ "scorching heat in recent weeks"

of glass and open spaces, had extreme difficulty managing the temperature in their exhibition rooms or depots (Hanschke, 2022). At the same time, some advertised themselves as cool indoor place during the hot summertime (Bürger, 2022; Herrmann, 2022). In broad terms, the publications transmit how serious the situation was perceived not only by museum professionals, but also by policymakers and other stakeholders.

In some cases, the authors directly referred to official (cultural) policy announcements and appeals. In particular, the statements of the BKM, Claudia Roth, echoed in many reports (Dege, 2022; Gorgis & Stucke, 2022; Hanschke, 2022; Häntzschel, 2022; Herrmann, 2022; Laudenbach, 2022), namely a) her call upon museums to live up to their role model function when it comes to making a tangible contribution to reduce the energy consumption and b) the argument that energy savings are also necessary from a financial perspective (Presse- und Informationsamt der Bundesregierung [BPA], 2022b). This latter aspect had long been neglected or ignored and only came to the fore with the energy crisis. In this complex situation of wartime, energy crisis, climate crisis und dystopian scenarios, the journalists assumed the function of analysts, facilitators, and interpreters. This becomes most evident when Häntzschel (2022) outlined the arguments, the underlying assumptions, and the intended impact of a 15-page paper (Kultur-MK, 2022) published on September 21, 2022 by the leading German ministers and senators responsible for cultural policy: the Kultur-MK⁵⁴ under the umbrella of the Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland⁵⁵ (KMK), the BKM and the central associations of municipalities like the Deutscher Städtetag⁵⁶. They agreed on recommendations for measures in the context of a possible gas emergency, focusing on institutions preserving cultural property. According to Häntzschel's reading, this paper "malt düstere Szenarien für die nahe Zukunft aus"⁵⁷ (Häntzschel, 2022) and he maintained the alarmist tone which is characteristic of his text because the explicit and implicit messages of the respective paper seemed, to him, unusually drastic: "Liest man das, fällt es schwer, den Gedanken wegzuwischen, die Verantwortlichen bereiteten sich nicht nur auf Gasknappheit vor, sondern insgeheim auch auf Krieg"⁵⁸ (Häntzschel, 2022). This quotation makes clear what is the scope of this complex issue: the measures

⁵⁴ Standing Conference of the Ministers of Cultural Affairs (Culture MK)

⁵⁵ The Standing Conference of the Ministers of Education and Cultural Affairs of the states in the Federal Republic of Germany

⁵⁶ German Cities Council

⁵⁷ "paints gloomy scenarios for the near future"

⁵⁸ "Reading this, it is difficult to dismiss the idea that those responsible are not only preparing for a gas shortage, but also secretly for war."

needed to save energy in the short term are only one aspect, but the emergency scenarios that are being played out by politicians and those responsible in the museums form the bigger picture and range from acute gas shortages over natural disasters such as floods and fires to cyber-attacks, terrorism and war. The fact that only a few museums have had the capacity and know-how to adequately address these issues so far is hardly surprising, even if there are sites that have been more sensitized to risks in the past than others like the Staatliche Kunstsammlungen Dresden (SKD)⁵⁹: they were hit by the dramatic flood in the summer of 2002, whereupon the risk and emergency management were broadly renewed, likewise after the spectacular theft in their Green Vault in 2019 (Timm, 2022).

Official statements by museums also find their echo in the media coverage, for example one sent out by the contemporary art museum Hamburger Bahnhof in Berlin (Staatliche Museen zu Berlin, 2022). Given that from September 1, 2022, onward, outdoor illumination on buildings and monuments was prohibited in Germany (BMWK, 2022), also museums were obligated to no longer illuminate their facades or to switch off the illumination earlier – above all a symbolic act in the public sphere pointing out the role model of the cultural sector. However, in some cases like the Hamburger Bahnhof, apparently this was motivated by saving energy (Staatliche Museen zu Berlin, 2022). According to an expert, by turning off Dan Flavin’s iconic light installation illuminating the façade since the museum’s opening in 1996, one would save around 0.3 percent of the museum’s annual electricity consumption which is more than it might seem (Trebing, 2022). The directors of the Hamburger Bahnhof called the measure a “difficult step” and expressed their hope that it “will also inspire rethinking sustainable museum planning in general” (Staatliche Museen zu Berlin [SMB], 2022). Larkin (2022) gives this singular measure an additional twist when quoting Till Fellrath, one of the directors: “We are sure that many museums are asking similar questions at the moment, lastly also due the skyrocketing energy prices that will have a significant impact on cultural funding at large.” It is interesting that this is formulated as an assumption. Instead of endeavouring to make a concerted joint declaration, museum directors still often think in terms of their individual museums. Fellrath’s point, the impact of the energy crisis on cultural funding in a long-term perspective, is a separate topic that will not be analysed throughout this master’s thesis, but this quotation helps understand the mindset of the (potential) interviewees in this study.

⁵⁹ Dresden State Art Collections

A prominent voice throughout the publications is conservation scientist Stefan Simon, director of the scientific branch of the Staatliche Museen zu Berlin (SMB) called Rathgen-Forschungslabor⁶⁰ and a luminary in the field of museum technology and sustainability. On every occasion, interviewee Simon painted a dramatic picture of the situation in and for museums and emphasized that the energy crisis arose as an additional crisis scenario on top of the ongoing climate crisis and long overdue measures, all topics on which he commented already in earlier publications (Kuhn, 2020; Reinhardt, 2021a, 2021b; Wojcik, 2019). He also clearly articulated what is needed from the political side: “[N]atürlich ist die Politik gefragt, nicht nur am Sonntag vom Grünen Museum zu sprechen, sondern wirklich auch diese Ideen in die Wirklichkeit umzusetzen, und wir brauchen dazu risikobasierte, evidenzbasierte Vorschläge“⁶¹ (Bürger, 2022). Given that Simon’s main concerns, similar to Hilgert (2021), are risk awareness and risk management, he is the one putting the museum people’s fears into perspective when stressing: “Cultural assets are not lost because the relative humidity is set incorrectly in museums, but because there’s a fire, because of a natural disaster, or because of a war, like the one we’re experiencing in Ukraine at the moment.” (Dege, 2022) Nevertheless, the introduction of an extended climate corridor (see Bürger [2022] and DMB [2022e] for the technical background, and Sutton [2020] for insights into the general, long-lasting debate on this, mainly in the U.S.), officially recommended by the DMB in early October 2022, is a milestone in the museum sector’s struggle to fight climate change. According to Simon, it also promises essential energy savings (Dege, 2022). Until this recommendation (DMB, 2022e), strict international standard values were considered sacrosanct for lenders, restorers and insurers, and many museums had not questioned them ever since (Dege, 2022; Hiß & Stockinger, 2023).

Furthermore, the 14 publications touch upon a huge variety of aspects, difficulties, but also measures and ideas, from structural changes to improve energy efficiency, for example through insulation, geothermal power, or solar panels even on listed buildings (Kratzer, 2022), sustainable exhibition building and recycling (Gorgis & Stucke, 2022; McCrea-Hedley, 2022) to curating exclusively or predominantly from the collection (Seifert, 2022). The list of interviewed museum professionals is ample and diverse. Some also mentioned already completed closures or reduced opening hours. In their podcast, Gorgis and Stucke (2022)

⁶⁰ Rathgen Research Laboratory, s. footnote 17.

⁶¹ “Of course, politicians are called upon not only to talk about the Green Museum on Sundays, but also to actually turn these ideas into reality, and we need risk-based, evidence-based proposals to do so.”

dealt in passing with the question of why the focus on environmental sustainability had only recently become so urgent in the museum business, although the findings themselves and the need for (political) action were not new. Their interviewee Nina Schallenberg, in 2022 still curator and sustainability officer at the SPK and in the meantime working at the Jewish Museum Berlin, gave one reason for this: the enormous planning lead time. For example, for the Museum der Moderne in Berlin (still under construction) the many different participants and conflicting interests makes it difficult to steer in a particular direction. The ideas competition for this new building was launched in 2015 – under different architectural, technical, and political auspices than today. Miriam Szwest, curator at the Museum Ludwig and responsible for the exhibition *Green Modernism* which opened on September 17, 2022, for example, cited another reason: so far, no museum has been obliged by state requirement to act sustainably. From her point of view, the increasing political pressure is therefore a big opportunity (Seifert, 2022). However, Hanschke (2022) noted a displeasure in the cultural field about the fact that there was little exchange with the affected institutions on part of the BKM before Claudia Roth went public with her demands. Häntzschel (2022) went even further when analysing the 15-page paper and criticized the recommendations and guidelines from the ministers for being far removed from the reality of the institutions. The example he gave referred to the request to work with complete inventories of the collection holdings as central prerequisite for security management in institutions preserving cultural property, which Häntzschel considered rather unrealistic for many museums, given that they have not brought their inventories up to date since World War II, and that they often have no overview of loss and misplacement.

Throughout the publications, references to the Covid-19 pandemic were made, especially when it came to the questions of (temporary) closures and where museums and other cultural institutions are to be placed in the pecking order of social and political value. The fear or gloomy premonition of once again not playing an essential role as a cultural sector and being passed over in political decisions ran deep after the pandemic experience when museums had to close for long periods for the first time in decades. When Dafoe (2022) outlined the situation in museums in the U.K., he used a quotation by Sharon Heal, director of the U.K.'s Museums Association, that she had given *The Guardian*:

We are getting concerned calls almost every day from institutions saying their anticipated energy bills are five times what they were last year. They say: 'This is the dealbreaker for us. This is worse than Covid.' And these are big, significant, city-wide institutions [...] (Dafoe, 2022).

In Germany, the Bundesnetzagentur⁶² (BNetzA) is the responsible federal authority for deciding who will receive a minimum gas allowance once there is not enough supply anymore for the whole country. Here again, it was Häntzschel (2022) who accurately deciphered the power asymmetry and showed, for example, that cultural institutions lacked agency because of too little advocacy and political lobbying outside their bubble. The BNetzA, for example, does not include cultural institutions in the group of protected customers and does not grant them any special regulations - for the author a symptomatic and disturbing mindset:

Schließlich lässt sich an den verschiedenen Szenarien, die gerade für die drohende Gaskrise geschrieben werden, einmal mehr ablesen, wie niedrig der Stellenwert der Kultur in der staatlichen Verwaltung ist - und wie schwach ihre Lobby. Das betrifft die Kultureinrichtungen, die die Bundesnetzagentur für entbehrlich hält. Das betrifft - anders als in der Pandemie - nun aber auch die dort aufbewahrten kulturellen Schätze, an deren Schutz man offenbar keinen Gedanken verschwendete.⁶³ (Häntzschel, 2022)

The museums find themselves not only confronted with multiple crises, but the war in Ukraine and its consequences have turned into the greatest threat to art in recent decades (Timm, 2022). However, even for the cultural policymakers and politicians with this higher authority, there seems to be a glass ceiling taking away their room to manoeuvre and hampering their political agency. Section 2.3.2 will look at the official press statements, including the statement made after the meeting between Klaus Müller, President of the BNetzA, and the BKM, Claudia Roth.

2.3.2 Official Statements and Recommendations in the Cultural Policy Arena

In the German federal system, cultural matters and cultural policy fall under the responsibility of the states and municipalities.⁶⁴ However, the federal government can give cultural policy recommendations for topics considered of national relevance, for example in cooperation with the Kultur-MK. The way Gray (2016) characterized the museum sector in England could also be considered true for Germany:

⁶² Federal Network Agency

⁶³ "After all, the various scenarios that are currently being written for the impending gas crisis show once again how low the status of culture is in the state administration - and how weak its lobby is. This applies to the cultural institutions that the Federal Network Agency considers dispensable. However, unlike during the pandemic, this now also affects the cultural treasures stored there, the protection of which has apparently not been given a second thought."

⁶⁴ For an extensive introduction to Germany's cultural policy system, s. Blumenreich (2022).

[I]t is a small policy environment both in its own right and in comparison with other arenas of public policy, whether assessed in terms of amounts spent on it or the number of staff employed within it, and it has become a compactly self-contained policy arena that is capable of being made sense of in ways that larger policy environments (such as education or health) may not as a result of the more complicated inter-organizational and policy spill-over effects that are associated with these larger sectors. (Gray, 2016, p. 117)

Before the Covid-19 pandemic and the energy crisis, it was rare that the German museum sector as such would be of any deep interest for politicians outside its “specific relatively isolated policy universe” (Gray, 2016, p. 118). Being considered as a cultural heritage and public good, however, museums enjoy increased public and therefore political attention when their existence is jeopardised, especially if these are mainly exogenous influences that supposedly affect the museums through no fault of their own. It is at these times, when the museum sector is moved from its peripheric political position into a more central one, when sector-specific or cultural industry-wide actors speak out, either to proactively formulate their specific demands or to react to political and governmental expectations and pressures. It might be important to add here, that the policy responses to the Covid-19 pandemic and to the energy crisis differ from the more “ideologically-driven external policy requirements” (Gray, 2016, p. 121) that the cultural field was used to, and that these policies challenge all those involved in a new way.

In the energy crisis, the BKM regularly spoke out in the political discourse. The first official announcement relevant here was published on March 16, 2022 (Presse- und Informationsamt der Bundesregierung [BPA], 2022a) stating that the federal budget for culture and media would be increased to a total of 2.14 billion euros which corresponded to an increase of around 10% compared to 2021. At this moment, the (potential) impact of the war in Ukraine was not yet her focus although the war was used as a frame to emphasize that the Federal Government was strengthening the BKM's ability to act for democracy by promoting freedom and diversity, sustainability and participation in culture and the media. Roth expressed her ambition to continue guiding the cultural sector out of the pandemic aftermath, while at the same time the budget was aimed at tackling important projects from the coalition agreement through budget allocations dedicated to culture and climate:

Auch der Klimaschutz wird in der Kultur- und Medienpolitik des Bundes zukünftig eine größere Rolle spielen. Deshalb sind für die ökologische und nachhaltige Transformation des Kultur- und Medienbetriebs insgesamt 5 Millionen Euro zusätzlich vorgesehen. Die Kulturstatsministerin betont: „Mit

den neuen Mitteln werden wir ein Referat ‚Kultur und Nachhaltigkeit‘ schaffen, das den Aufbau der im Koalitionsvertrag vereinbarten Anlaufstelle [Green Culture] vorantreiben soll und zugleich die Nachhaltigkeitspolitik in meiner Behörde verantworten wird.“⁶⁵ (BPA, 2022a)

Jacob S. Bilabel (2022), director of the AKNM, posted this as big news on LinkedIn emphasizing: “Darauf habe ich 11 Jahre gewartet”⁶⁶ which stresses the scope of this announcement. Weiß (2023) interpreted this increase of the BKM’s budget and the establishment of this new department as one more sign “dass eine Institutionalisierung einer an Nachhaltigkeit ausgerichteten Kulturpolitik eingeleitet ist”⁶⁷ (p. 4). The new department assumes the role of federal cultural policy player and becomes, for example, an important addressee and counterpart for the DMB, the most prominent and specialised voice for the museum sector, partly funded by the BKM. As an umbrella organisation, the DMB acts as spokesperson at the level of federal politics whereas its members mostly operate on a municipal or regional level. Since 2019, the DMB has been explicitly dealing with the topic of sustainability, which became one of its transversal topics in 2021, the year the DMB joined the ANKM as partner (s. DMB, 2021a). In January 2022, a working group exclusively dedicated to climate protection and sustainability was officially installed. For Germany’s museums, these first months of 2022 therefore brought in two additional and clearly defined players to the cultural policy realm with a concentrated load of attention, funds and personnel dedicated exclusively to sustainability and climate action.

In the looming energy crisis, the DMB appeared in the cultural policy arena with three official statements (Deutscher Museumsbund [DMB], 2022b; 2022d; 2022f) and two concrete guidelines and recommendations (Deutscher Museumsbund [DMB] 2022c, 2022e; s. FIGURE 2). The main message for their members, the museums, is already formulated mid-July:

Mit einem aktiven Beitrag zur Energieeinsparung können die Museen einer möglichen Schließung im Winter und einem drohenden Verteilungskampf aktiv entgegenwirken. Mit effizienten Maßnahmen können die Museen zudem einen wichtigen Beitrag zum Klimaschutz leisten und einen Wandel in der

⁶⁵ “Climate protection will also play a greater role in the federal government’s cultural and media policy in the future. For this reason, an additional 5 million euros have been earmarked for the ecological and sustainable transformation of cultural and media operations. The Minister of State for Culture emphasises: ‘We will use the new funds to create a ‘Culture and Sustainability’ department, which will drive forward the establishment of the contact point [Green Culture Desk] agreed in the coalition agreement and will also be responsible for sustainability policy in my authority.’” In the coalition agreement, it reads “We are establishing a one-stop shop ‘Green Culture’ that offers skills, knowledge, data collection, advice and resources for ecological transformation.” (Social Democratic Party of Germany (SPD), Alliance 90/The Greens, & the Free Democrats (FDP), 2021, p. 115)

⁶⁶ “I’ve been waiting 11 years for this”

⁶⁷ “that an institutionalisation of a cultural policy geared towards sustainability has been initiated”

Energienutzung und Energiegewinnung einläuten, der dem Thema auch langfristig Priorität in den Häusern verleiht.⁶⁸ (DMB, 2022b)

Recalling the three different levels outlined earlier in FIGURE 1, it becomes clear that the DMB sees the urgency for short-term measures but adds another aspect: saving energy might also help the museums avoid possible closures. The more co-operative and active museums are in saving energy, the hope seems to be, the milder the assessment of political decision-makers. The proactive will be spared. But the prospect is not to be trusted, as the choice of the word “Verteilungskampf” (“distribution battle”) clearly shows. Furthermore, the DMB links the urgent endeavours of saving energy and changing the use and generation of energy to climate action and to a long-term change in priorities. Eight days later, on July 21, 2022, a first press statement by BKM Roth was released on the topic of energy management in times of the war in Ukraine after a discussion with representatives from various cultural institutions (BPA, 2022b). Roth’s inserted quotation reads as follows:

Der furchtbare und verbrecherische Angriffskrieg in der Ukraine betrifft alle Lebensbereiche. Auch dem Kulturbereich drohen durch steigende Energiepreise und die knappen Gasreserven schmerzhaft Einschnitte. Besonders zu schützende Artefakte und Archivalien benötigen energieintensive klimatische Bedingungen, um sie auch für künftige Generationen erhalten zu können. Trotzdem soll und muss der Kulturbetrieb auch mit Blick auf den Klimawandel seinen Beitrag leisten, um Energie einzusparen. Darum unterstütze ich die nun ergriffenen Initiativen, die mit Hochdruck nach Einsparpotenzialen suchen. Damit kommen kulturelle Einrichtungen auch ihrer gesellschaftlichen Vorbildfunktion zum Energiesparen nach.⁶⁹ (BPA, 2022b)

Apart from the general commitment to the needs of the cultural field, there are at least four interesting key messages here:

- 1 “[S]chmerzhaft Einschnitte” (“painful cuts”) must not be seen as limited to financial cuts. They may also refer to museum closures.
- 2 Like the DMB, Roth also links the need to save energy to the overarching scenario of climate change - if savings must be made, then at least for a relevant and necessary cause.

⁶⁸ “By making an active contribution to saving energy, museums can actively counteract possible winter closures and the threat of a distribution battle. With efficient measures, museums can also make an important contribution to climate protection and herald a change in energy use and energy generation that will prioritise the issue in the long term.”

⁶⁹ “The terrible and criminal war of aggression in Ukraine affects all areas of life. The cultural sector is also threatened by painful cuts due to rising energy prices and scarce gas reserves. Artefacts and archives that require special protection need energy-intensive climatic conditions in order to be preserved for future generations. Nevertheless, the cultural sector should and must do its bit to save energy, also in view of climate change. That is why I support the initiatives that are now being taken to energy-saving potential. In this way, cultural institutions are also fulfilling their social role model function for energy saving.”

- 3 The different cultural sectors are now responsible for detecting and spreading their specific potential to save energy. For the German museums, it is the DMB.
- 4 Museums have a duty to set an example, including their energy consumption.

Another aspect is mentioned at the end of the statement: considering the high temperatures in the summer of 2022 and the general challenges of climate change, the meeting participants suggested that cultural institutions should expand their role as social spaces in overheated cities (BPA, 2022b). Two weeks later, on August 4, Roth invited the Ministers of Cultural Affairs of the federal states and Klaus Müller, the president of the BNetzA, to discuss the consequences of the energy crisis and how a gas supply freeze would threaten Germany's cultural infrastructure. The introduction of the official statement (Presse- und Informationsamt der Bundesregierung [BPA], 2022c) concluded by announcing increased cooperation between the federal and state governments in the coming months. This is followed by three quotations: from Roth, Ina Brandes (Minister of Culture of North Rhine-Westphalia and by rotation Chair of the Kultur-MK) and Müller. Roth showed her commitment to ensuring that all cultural institutions remain open to the public. Brandes went more into detail:

Kultur ist besonders in Krisenzeiten wichtig für die Verständigung und den Zusammenhalt unserer Gesellschaft und wird durch die Verfassung geschützt. Kulturangebote sollen trotz der großen Herausforderungen der Energiekrise für das Publikum da sein. Zudem sind Archive, Museen und Bibliotheken, wenn sie zum Beispiel bedeutsames Kulturgut aufbewahren, Teil der kritischen Infrastrukturen. Daher muss ihre Energieversorgung im Notfallplan Gas auch bei Alarmstufe 3 priorisiert werden. Gleichzeitig sind alle Kultureinrichtungen aufgefordert, so viel Energie zu sparen, wie es geht. Sie müssen sich auch auf Notfälle bei der Energieversorgung vorbereiten. Kultureinrichtungen und -verbände, Kommunen, Länder und Bund werden zusammen Lösungen erarbeiten.⁷⁰

Müller is quoted at the end with a vague and generally valid statement: "Damit der Kulturbereich mit seinen wichtigen gesellschaftlichen Funktionen auch bei reduzierten Gaslieferungsmengen seinen Beitrag leisten kann, müssen wir alle zusammen solidarisch Gas einsparen und dürfen es nicht zu einer Gasmangellage

⁷⁰ "Especially in times of crisis, culture is important for understanding and cohesion in our society and is protected by the constitution. Cultural offerings should be available to the public despite the major challenges of the energy crisis. In addition, archives, museums, and libraries, for example, are part of the critical infrastructure if they store important cultural assets. Their energy supply must therefore be prioritised in the gas emergency plan, even at alert level 3. At the same time, all cultural institutions are called upon to save as much energy as possible. They must also prepare for energy supply emergencies. Cultural institutions and organisations, local authorities, federal states, and the federal government will work together to develop solutions."

kommen lassen”⁷¹ (BPA, 2022c). In no way did he grant the cultural sector any privileges in the supply of gas. There can be no question of prioritisation. In a statement sent out the same day, the DKR criticised the fact that no mention has been made of whether and how cultural institutions will be financially supported during the energy crisis to offset the massive rise in costs: “De facto bedeuten gleichbleibende Kulturretats in diesem Herbst und Winter eine deutliche Kürzung der Mittel. Ich hoffe, dass hier das letzte Wort noch nicht gesprochen ist”⁷² (Deutscher Kulturrat [DKR], 2022b).

On August 22, 2022, the DMB published a list of more than 50 recommendations on how to save energy and how to prepare for a temporary complete failure of the gas and power supply. The overview is clustered in general recommendations, museum-specific measures, and specific tips in the areas of energy, HVAC and lighting (DMB, 2022c). The tone is not alarmistic, rather rational and pragmatic. The only external reference included was to the website *SiLK – Guidelines for the protection of cultural property*, compiled by the Konferenz Nationaler Kultureinrichtungen (KNK)⁷³ to help cultural institutions evaluating 14 potential risks from fire to severe weather to theft and violence (Siegel, Schöne, & Dohrmann – SiLK GbR, 2024). One month later, one of five appeals in a DMB statement issued on September 23, 2022, addresses appropriate financial resources for the museums to deal with higher energy costs and energy cost back payments, a second appeal tackles investment funds to make the museum sector more energy-efficient, ecological, and sustainable in the long term (Deutscher Museumsbund [DMB], 2022d). On October 4, 2022, the *Entlastungspaket III*, a third federal relief package was approved including one sentence that turned out to be particularly important for the cultural field including museums: “Im Sonderfonds des Bundes für Kulturveranstaltungen vorhandene Restmittel sollten auch in 2023 genutzt werden, um gezielte Hilfen für Kultureinrichtungen zur Verfügung zu stellen.”⁷⁴ (Presse- und Informationsamt der Bundesregierung [BPA], 2022d) These relief packages were implemented in early 2023 as *Kulturfonds Energie des Bundes* (Presse- und Informationsamt der Bundesregierung [BPA], 2023a, 2023b) as will be outlined in Chapter 4.

⁷¹ “In order for the cultural sector with its important social functions to be able to make its contribution even with reduced gas supply volumes, we must all work together in solidarity to save gas and not allow a gas shortage to occur.”

⁷² “De facto, constant cultural budgets this autumn and winter mean a significant cut in funding. I hope that the last word has not yet been spoken here.”

⁷³ German Conference of National Cultural Institutions

⁷⁴ “Remaining funds in the federal government’s special fund for cultural events should also be used in 2023 to provide targeted support for cultural institutions.”

2.4 Conceptual Lenses

The two theoretical approaches of “Agency” and “Policy Window” will now be discussed to gain a new perspective and deepen understanding.

2.4.1 Agency

“Agency” is a complex sociological, philosophical and psychological concept which promises to be a fruitful lens for the empirical approach of this master’s thesis. In this context, “agency” refers to “the ability to take action or to choose what action to take” (Cambridge Dictionary, n.d.). One of the examples given by the *Cambridge Dictionary* reveals how “agency” is intrinsically linked to action and activism: “The protest gave us a sense of agency, a sense of our own power to make a difference” (Cambridge Dictionary, n.d.). Landau-Donnelly et al. (2022) used the term “Agency” in a German narrative to define “Zugang zu Handlungsoptionen und Handlungsmacht”⁷⁵ (p. 2). The word “agency” also contains the “agent” and “agentic”, this helps to even better grasping this concept. Throughout various publications (Fritsche, 2022; Fritsche et al., 2017; Fritsche & Masson, 2021; Stollberg et al., 2015) Fritsche and his colleagues elaborated on the role of “collective agency” in, for example, collective climate action, the ideas of “perceived agency” and “collective environmental agents”. According to them, agency motivates members of a group (in the case of this master’s thesis this can refer to multiple forms of alliances) perceiving this group “as a collective agent”. And the members “perceive collective climate agency when climate protection seems to be a collective goal, or norm, which the group actively pursues and is likely to attain” (Fritsche & Masson, 2021, p. 116). Brosda (2022) used the German term “Gestaltungsspielraum”⁷⁶ (p. 128) when elaborating on the fact that due to the cultural sovereignty of the German states, the players on municipal and state level possess the necessary room to manoeuvre, thus the agency to enter in a discursive exchange with everyone involved on specific sustainable strategies for the different cultural sectors.

As Drydyk (2013) pointed out, not only have the definitions of “agency” and “empowerment” multiplied in a confusing manner, but these two terms are now being used interchangeably. For him, there is an essential difference: “[W]hile empowerment entails expanded agency, it is not reducible to expanded agency, because empowerment has a conceptual link with well-being that agency cannot

⁷⁵ “access to options and power to act”

⁷⁶ Usually translated as “room to manoeuvre” or “scope of design” but in the context of this research, “agency” fits better.

have” (p. 250). It is exactly this missing link to well-being which makes the concept of “agency” so useful for the purpose of this study. When Emirbayer and Mische (1989) proposed a “differentiated conception of agency” (p. 963), they not only deciphered its various components, but they also added a temporal aspect:

What, then, is human agency? We define it as the temporally constructed engagement by actors of different structural environments – the temporal relational contexts of action – which, through the interplay of habit, imagination, and judgment, both reproduces and transforms those structures in interactive response to the problems posed by changing historical situations. (Emirbayer & Mische, 1989, p. 970)

This understanding of multidimensional scenarios where various actors from different structures are confronted with challenges possessing temporal orientations which demand responses that either lead to reproducing or transforming the structure helps grasp the complexity of everyday practice in museums. Gray (2016) used the concept of “agency” in the setting of publicly funded museums and galleries in England and scrutinized how structure and agency interact in the context of policymaking there:

While groups of professional actors within the museums sector may well disagree with each other about what the exogenous demands that are placed upon them actually mean, and what the most appropriate response to these demands may be, their individual and collective responses to these demands can certainly be identified as examples of agency at work within the sector. (Gray, 2016, p. 118)

When characterizing the museum sector and its position in the political sphere in England, Gray summarized: “[W]hile on occasion museums and museum policy can become matters of political moment, they are generally left to their own devices, allowing internal actors a freedom of action and room for manoeuvre that is not always to be found in other policy sectors” (Gray, 2016, p. 118). Although Obbema (2022) did not use the term “agency”, she indirectly provided a definition for the absence of “agency” when outlining the results of a survey among Canadian museums: “[T]here were 14 individual answers that indicated it was either not in the museum’s power to develop or implement a [environmental sustainability] plan” (pp. 99–100). Hollows (2019) also emphasized this strong link between agency, structure, and power, but also brought up the previously mentioned connotation of “activism”, that it often starts as bottom-up movement, which is especially relevant and accurate in the realm of museums and climate action:

Activism doesn't necessarily mean conflict or protest; it can be on a small as well as a large scale. It does not have to be conducted by someone who identifies themselves as 'an activist' or who holds a particular position in society or within an organisational structure. Activism doesn't belong to 'other' people; we all have agency and therefore we all have the capacity to make change. Recognising and owning our agency is the first step towards making change; then it is about what we do and how, and equally what we don't do. [...] Agency is a form of power and my research revealed contradictions in the ways that people viewed this and understood the relationship between formal governing structures and control processes and their own agency. Those actively working to deliver or support change in practice were often bypassing formal structures and hierarchies to achieve change more quickly. Here, the use of personal agency to subvert dominant, institutional power structures can be understood as a form of activism, although it was not always conceived as such. (Hollows, 2019, p. 86)

Apart from personal or individual agency it is collective agency that plays a big role in society, especially in the context of overwhelming crises like Covid-19 or climate change that are impossible to solve as individual (Fritsche, 2022). Fritsche et al. (2018) "highlight the collective dimension of pro-environmental action" given that "environmental goals are usually collective goals (e.g., national transition to renewable energies) which can only be successfully pursued collectively" (p. 245). The Analysis and Discussion section in Chapter 4 will reflect on how structural factors define the presence or absence of individual or collective agency in the cultural policy setting of museums.

2.4.2 Policy Window

The idea of a policy window is a key moment in John Kingdon's multiple streams framework (MSF) and is defined as "an opportunity for advocates of proposals to push their pet solutions, or to push attention to their special problems" (Kingdon, 2013, p. 165). The MSF applies three separate "streams" (s. Derwort et al., 2022, for a compact summary):

- 1 the *problem stream* (crises and disasters for example, so-called "focusing events" (Kingdon, 2013, p. 165))
- 2 policies or solutions (for example concrete ideas and proposals elaborated by lobbyists, specialists, etc.)
- 3 politics or political forces (this stream is linked to factors like public opinion, changes in administration and legislation, etc).

Once these three separate streams collide and converge, a policy window emerges, which is a constellation that happens infrequently: a severe problem is recognized, a promising solution is available and certain political developments

accelerate the transition from demands to outputs. An occurring policy window influences the “decision agenda”: “Think of a queue of items awaiting their turn on a decision agenda. Somehow, the items must be ordered in the queue. The opening of a window often establishes the priority in the queue” (Kingdon, 2013, p. 167). Political entrepreneurs such as researchers and lobbyists are the ones who are skilled and ready to seize the opportunity by coupling the separate streams in the right moment. According to Kingdon, a policy window will never stay open for long and there are a variety of reasons why it closes. For this master’s thesis, the most relevant might be the following two:

First, participants may feel they have addressed the problem through decision or enactment. Even if they have not, the fact that some action has been taken brings down the curtain on the subject for the time being. [...] Third, the events that prompted the window to open may pass from the scene. A crisis or focusing event, for example, is by its nature of short duration. (Kingdon, 2013, p. 169)

Kingdon developed the MSF based on his findings in U.S. Congress, but it has been applied to many different contexts since first published in 1984. It has been specifically applied to explain policy change processes and transformational change, most recently the German energy transition (Derwort et al., 2022), or the lobbying for Cultural Education (Steigerwald, 2022). Mintrom and True (2022) review the Covid-19 pandemic as a policy window for policy changes on the local and national level intended to reduce violence against women and recall: “Crises have long been seen as creating policy windows” (p. 144). Whether this also applies to the 2022 energy crisis and if it can be considered as a policy window for climate action in German museums will be discussed in Chapter 4.2.2.

3 Methods

3.1 Research Questions

The point of departure was the assumption that the year 2022 – especially due to the war in Ukraine and the resulting energy crisis – would retrospectively be perceived as a landmark year for climate action in German museums. In contrast to the climate crisis being “the crisis of our time” (C. Roth, personal communication, 18 November 2022), the energy crisis should be perceived as a singular additional crisis here, like the Covid-19 pandemic, both surrounded by multiple crises that are all linked to the climate crisis. Whereas the pandemic could be retrospectively perceived as a catalyst for virtual productions, streaming or remote cultural consumption (s. for example Harris, 2021), the war in Ukraine and the resulting energy crisis might significantly accelerate climate action measures or at least maximise the interest in an ecological transformation. Furthermore, observations like an intensified interest in collectives and networks, in finding a common voice and in focusing joint action will also be taken into consideration, since these could be implications of the current state of crisis. So far, it seems as if a holistic comprehension of the energy consumption of a museum or project is the crucial first step when addressing climate action, and although many museums had not yet started this “first journey” (KI Culture, 2021, p. 8) before, the events of 2022 forced them to. When elaborating on the now increasing focus on environmental sustainability in cultural planning processes, Föhl (2022) stated that, in order to reduce complex topics to the core issue and thus to avoid tackling sustainability in all its dimensions at once, it is common to start by focusing on environmental sustainability in the cultural field (p. 175). This mindset is also the underlying assumption of the research at hand.

The research questions are formulated like this: How are German museums handling the need for climate action, particularly in times of the 2022 energy crisis? What are the cultural policy implications? To what extent has the economic pressure caused by the energy crisis accelerated and intensified the commitment to climate action?

3.2 Research Design and Data Collection Methods

Germany is home to more than 6,800 museums (Staatliche Museen zu Berlin – Stiftung Preußischer Kulturbesitz [SMB], 2023, p. 6) spanning an immense variety of sizes and focuses. To narrow this number down, this research focused on publicly funded museums (51%) or museums that are both publicly and privately

funded (4% according to SMB, 2023, p. 32). These museums were selected because the interplay with their governing and funding bodies and the implications for cultural policy are more complex and intertwined and therefore more fruitful from the researcher's perspective than private museums. Furthermore, the choice fell on art and design museums. Although they account for less than 11% of all German museums, they lead in visitor numbers (19,9%), given that one in five visits was to such a museum in 2021 (SMB, 2023, pp. 17–19). Their popularity is one of the reasons for the research focus, the second is that art museums tend to have a high output in (temporal) exhibitions which often negatively affect the institutions' carbon footprint alongside their often energetically problematic buildings.

For the empirical research, three German cities were chosen from the north, east and west of Germany, all of them among the twenty largest German cities. The idea was to not only interrogate museum practitioners with a strong affiliation to climate action, but also key individuals in the cultural administration of the respective cities, and experts and enablers from national think tanks, associations, and funding institutions. Publicly funded museums are part of a complex cultural policy interplay. It seemed essential for a thorough analysis of the joint efforts regarding climate action in German museums to consider the interrelations and the exchange with the other players. The core of the empirical analysis are nine semi-structured expert interviews in a qualitative research practice, which is, according to Renz (2022), the most popular qualitative method in German-language cultural policy research (p. 9). These expert interviews were supposed to help the researcher understand contexts, subjective perspectives, individual cases, dependencies and generate new, non-theoretically constructed insights. This is the added value of qualitative cultural policy research (Renz, 2022, p. 6). The research design thus combines aggregated (anonymised) single case studies and desk research. This orientation towards individual cases goes hand in hand with careful attempts to make generalisations when interpreting the data. The underlying epistemological principle of this qualitative research can be characterized by "contextuality", "the understanding of complex relationships", and "the principle of openness" (Flick et al., 2004, p. 8). It can also be characterized by using questions that have an open formulation and the understanding that qualitative research is "predominantly a text-based discipline" which "produces data in the form of text" and "concentrates [...] on the textual medium as a basis for its work" (Flick et al., 2004, p. 8).

3.2.1 Criteria for Choosing Participants and Sampling

For this master's thesis, it was essential to talk to individuals who hold valuable expertise and knowledge in the research field. As Sutton (2020) summarizes: "Leaders in building climate change awareness [in museums] are early and outspoken adopters and innovators" (p. 619). The aim was to include key figures in Germany actively engaged for many years in climate action in museums or within their cultural policy network. Thus, it was important to find interviewees that could be considered "first movers" or "change agents" themselves, and if the individual was not considered a "change agent", then their museum, association, administration. Nevertheless, it was crucial not to involve too many of the prominent voices whose positions are already present in the public discourse outlined through the analysis of the media coverage (2.3.1) to really get added value that has not yet been broadly published. To identify potential interviewees performing a key role in the formation, articulation, and development of climate action in the setting of German museums, a mind map was used (Appendix 1) visualizing key institutions, key figures, their networks, dependencies, and connections.⁷⁷ The main purpose in the choice of the informants was to simultaneously limit cases and gain multiple perspectives from a variety of angles. Therefore, the interview cohort was subdivided beforehand into three segments with three individuals each from the three different relevant fields.

Museum Practitioner (MP): Three practitioners were selected from three subsidized art and design museums in three major cities, one in the north, one in the east and one in the west of Germany. These museums differ considerably in size, architecture, founding history, funding, and organisational structure. What unites them is that they took over a leading role in their cities, their Länder or on national level due to their commitment to climate action through their climate-related network activities inside and outside their arena. The interviewed practitioners work in the fields of curation, sustainability management, project coordination, and administrative management. Each interview partner is considered as single-case analysis outlaying specific local circumstances, practices, possibilities, and impediments. From an external perspective all three of them seem to have agency in their position although this might have only developed over time. During the analysis it will be possible to see if they are also able to identify and to use their agency, which is, according to Hollows (2019), the first step towards making change.

⁷⁷ For data protection purposes, the appendices have been removed from the version uploaded here.

Cultural Policymaker (PM): Three policymakers from the cultural administrations were chosen, one in each of the three respective cities. They work in crucial or top administrative positions in the field of, for example, the set-up, management and follow-up of funding guidelines, knowledge transfer, agenda setting, networking. In one case, the interviewee's focus lies exclusively on museums, the other two are not limited to this field, but do have strong expertise and responsibility here. Their professional and political background is diverse and so is the political landscape in the cities they work in. Two of the three municipalities have declared a climate emergency which is a political statement to prioritise climate protection in local political action. All policy becomes climate policy by declaring a climate emergency which has a strong influence on the scope of action, on planning processes and which is a political impulse for change that comes with certain strategies and goals.

Contact Person (CP): Three experts from the field of cross-sectoral or sector-specific cultural associations, national funding bodies and think & do tanks were asked to participate, all renowned for their long-standing and/or deep knowledge and experience as advisors, lecturers, consultants, speakers, funders, advocates, etc. Especially the PMs and the CPs can be understood as potential "policy entrepreneurs" in the sense Kingdon (2013) described them as key figures for change, "central in moving a subject up on the agenda" (p. 180) due to qualities like persistence, opportunism, expertise, sense of timing, and diligence.

3.2.2 Proceedings of the Data Collection

The researcher sent out ten first-hand interview requests between April 18 and June 29, 2023, via e-mail, either directly or through the press and communication department of the respective institution or organisation. Six experts responded right away or after a follow-up reminder and were willing to participate, one interview request was delegated internally to a more suitable or more available person who then got back directly instead, offering to be part of the interview cohort. Two other experts suggested a colleague as substitute whom the researcher contacted then (both are not included in the ten requests because they were facilitated internally). One person refused the first-hand interview request without nominating a substitute. Given the choreography of the three cities in the north, east and west of Germany, the interview requests were sent out with a time delay and overlapped with the first interviews that had already been conducted. In two cities, the respective museum or the corresponding informant was contacted before the person in the cultural administration. In the third case, the interview with

the informant from the cultural department took place first and then the most suitable museum was contacted. In general, the counterpart in a city could only be approached once the first participant had agreed to guarantee having two insider perspectives from each city without additional singular informants (apart from the three CPs who were clearly designated from a very early stage on). However, thanks to the mapping in the research phase, a list of twelve potential interview partners was already available before the first enquiry. In the end, five of these were interviewed, while the other four interviewees were either nominated as substitutes by someone from the list (2) or were completely new (2).

The first e-mail contained a brief statement of the research purpose and the researcher's background plus an interview request for a virtual meeting giving the necessary information about the duration (approximately 45 minutes), the schedule for the entire research project and the topics to be covered. After agreeing on a date and time for the virtual interview, a *Data Privacy Agreement* (s. Appendix 2) and a personalised interview guide (s. Appendix 3) was transmitted.⁷⁸ About two thirds of the open interview questions were identical for each interviewee, one third dealt with more specific questions related to the informants' experiences and concerns. The open questions were based on the analysis of the existing literature, the media coverage, other written data, and on publicly available statements of the interviewees or their workplace. The interview guide helped orient the interviewee on the topics beforehand. During the interviews, the questions were adjusted depending on the course of the actual conversation. According to Hopf (2004), all nine interviews can be described as "relatively flexibly applied semi-standardized interviews", the interview guide gave "plenty of freedom of movement in the formulation of questions, follow-up strategies and sequencing" (p. 204). The ability to spontaneously abandon the interview guideline and to formulate specific follow-up questions is valued as an important requirement for a well-equipped interviewer (Hopf, 2004, p. 207).

The interviews were conducted between May 12, 2023, and September 8, 2023. They were all individual interviews and were scheduled on workdays within normal office hours. The interview language was German, the mother tongue of all the participants and the researcher. The quotations needed for this master's thesis were then translated to English by the researcher and proofread. The interview setting was the participants' working environment, thus their office or home office workplace in Germany, which can be considered as natural context.

⁷⁸ For data protection purposes, the appendices have been removed from the version uploaded here.

Nevertheless, given that the interview took place virtually via the video meeting platform *Zoom*, the setting of this internet-based communication played a significantly inferior role. Most of the participants blurred the background of their video as did the interviewer. This option is one of several available virtual backgrounds and is state of the art to keep meetings professional even in a physical location that is private. The pure interviews last between 34 and 54 minutes each (excluding introductory words, technical interruptions, and small talk). The audio was recorded in *Zoom* with a backup recording on a mobile device. The collected data were fully transcribed with the software *plain x* and the transcriptions then manually revised. Finally, the transcripts were manually coded and organized within *f4analyse*, a computer-assisted qualitative data analysis software (CAQDAS) which also facilitates the comparison and grouping of different text passages and the use of memos as part of the analysing process. Renz (2022) emphasized that in contrast to journalistic interviews, text transcription of expert interviews is merely an intermediate step in the generation of working material, which then requires in-depth interpretation in order not to stagnate in direct quotation (s. p. 10).

3.2.3 Research Ethics

For social researchers, ethical reflexivity and conduct are an important baseline for all steps taken while conducting their (qualitative) research projects (Deutsche Gesellschaft für Soziologie, 2017). Concerning the principle of informed consent, all (potential) research participants that were approached for this master's thesis "were given as much information as might be needed to make an informed decision about whether or not they wish to participate" (Bryman, 2012, p. 138). The informants' and the researcher's safety and well-being were always taken into account, any facet of harm to whomsoever involved was avoided. A *Data Privacy Agreement* was transmitted to the informant with a *Declaration of consent* which was signed before the interview took place. Participation in this research project was voluntary, the interviewees' anonymity and privacy, and the confidentiality of all given information and judgements were assured. No one except for the researcher had access to the collected material (audios, transcripts, detailed information about the interview including the personalised interview guideline) which was stored on the Leuphana university server. In terms of anonymisation techniques for the interview transcripts the purpose was a factual or relative anonymisation. Although it does not entirely exclude the possibility of re-identifying the person(s) and institution(s) concerned, the effort needed for this would be

disproportionate. An anonymisation log was used with all replacements and removals, furthermore, a list was kept guaranteeing consistency in the anonymization process. The use of general descriptive replacements like “[MUSEUM NAME]” allowed the removal of specific identifying information that could be used to identify either the informants or the institutions they work for (Deutsche Gesellschaft für Soziologie, 2017).

In the coding process, every interviewee was assigned a code corresponding to their segment: MP1, MP2, MP3 for the museum practitioners; PM4, PM5, PM6 for the policymakers; CP7, CP8, CP9 for the three contact points. The numbers correspond only to the chronological order of the interviews within each segment, but not to the order in which all nine interviews took place. On a master list, these codes matched with the interviewee’s identity so that the researcher could trace the individual data when needed (s. Bui, 2014, p. 85). It is important to mention that it became clear throughout the interviews that most of the interviewees, especially, but not exclusively the MPs, fill(ed) multiple functions and roles over time or at the same time, either within the organization they work for, or due to their professional biography and specialization. The individual perceptions thus consist of different streamlines and experiences that need to stay anonymous.

3.2.4 Methodological Background of the Data Analysis

Bui (2014) distinguished between two ways of reporting findings from narrative data: organizing them a) around the major themes and patterns emerging during the data analysis, and b) around the research questions (s. pp. 182–187). The baseline of every analytical strategy, however, should lie in the “interchange between material and theoretical prior knowledge” (Schmidt, 2004, p. 253). For this research, the most suitable way of analysing the nine transcribed interviews was an inductive approach detecting the key topics and aspects through repeated coding and retrieval techniques that also make possible the comparison between different text passages or groups, for example when comparing the answers to the same question from different informants. The topics were then grouped in wider themes that led to the formulation of a set of eight analytical categories that serve as sub-headings in the following chapter. Following Döring (2023), the first part of the analysis was a repeating coding procedure on a case-by-case basis and then, later, on a cross-case basis (p. 589). The aim was to use the theoretical knowledge and assumptions to detect these major categories.

4 Analysis and Discussion

“The museum world is the moon landing of sustainability, everything is complicated.”
(CP8, par. 13)

The interviews provided the researcher a wealth of topics concerning efforts regarding climate action in German museums and their respective cultural policy environment. The interviewees spoke freely about their experiences, beliefs, concerns, and the major impediments that they or their institutions find themselves confronted with on their journey towards climate neutrality. The original framing of the study – the energy crisis resulting from the war in Ukraine – helped to limit the time span and the focus. In this chapter a set of eight major categories will be presented that emerged throughout the interview analysis: urgency, motivation, alliances, innovation, agency, credibility, structure, and self-evaluation. The definition of each category is made clear in the respective heading. These major topics will then be discussed against the backdrop of the findings from the review of the discourses, the document analysis, and the conceptual lenses – policy window and agency. Concrete examples of the efforts regarding climate action that the interviewees mentioned will be referred to throughout the subchapters.

4.1 Analytical Categories

4.1.1 ***Urgency: How War and Crises Reveal the Need for Knowledge, Data, Tools***

Among the interviewees, a strong sense of urgency was expressed. Sometimes it was paired with a certain relief about the achievements so far, the measures planned, and the increased (media) attention given to the need for climate action in museums, sometimes with despair and resignation. This depended on the interviewees' experience during 2022 and their professional scope. The way PM5, responsible for the entire cultural sector in one of the three major cities selected for this research, recalled what 2022 was like: “For us, the energy shortage and the associated difficulties were quite dramatic, because we didn't know how bad it would really get, nobody knew” (PM5, par. 43). Focussing on museums, CP8 explained that “the situation has now come under the spotlight because we simply have something between 30 and 50% more energy costs on average” (par. 40). The energy crisis generated public and political interest and pressure to act which was perceived very differently by the interviewees: as catalyst for increased climate action (e.g. the extended climate corridor) and increased communication of the museum's needs and demands towards the

cultural administration, or, more simply, as incentive to start with the most common short-term measures: lowering the room temperature and converting to LED lighting. Apart from that, the team around MP2, for example, was prompted by the war in Ukraine and the energy crisis to ultimately create an emergency plan: “[The energy crisis] was a good trigger, or an alarm moment that made us realize where we are definitely not prepared.” (MP2, par. 9)

On the other side, the attention put on the energy crisis and the overall urgency came with downsides. Due to the high (media) presence – CP8 stated: “Of course it went down well, the idea that museums as places of high culture, as de facto bulwarks against transformation, have suddenly got moving” (par. 28) – somehow “a kind of relaxation instead of agitation” (CP8, par. 29) occurred, and the deceptive impression “of everything having been said about sustainability and culture” (CP8, par. 29) although not much has happened so far. Furthermore, according to CP8, this extrinsic pressure led to the simultaneity of an “over-developed problem awareness” (par. 35) and an “under-developed action knowledge” (par. 35), also called “over-sensitization vs. under-activation” (par. 35). The interviewee added that, by the end of 2022, “we haven’t succeeded, and by us, I mean the cultural sector and the actors involved, haven’t succeeded in building up competences and capacities” (CP8, par. 35). Moreover, the focus on the energy crisis and the need to save energy seemed to have drowned out other relevant topics like the precarious working conditions in the cultural sector. It also limited the semantics of the term “sustainability” and the short-term measures needed explicitly to reduce energy consumptions. MP1 remembered that for the museums the overall focus was saving costs through lowering the room temperature, which is short-sighted:

In the long term, you can’t simply leave employees sitting in temperatures of 19 degrees in the winter, that won’t work. And I think there are other ways that are better suited to making long-term savings, and I think it is important that we start to rethink the way museums actually operate. That, of course, is a focus that was not in the foreground due to the energy crisis and the Ukraine war, because the political focus, and our focus, was on energy dependency, which is a pretty low-hanging fruit. (MP1, par. 11)

According to CP9, for funding bodies and funded projects, the urgency that was felt throughout the sector had another, “curious side-effect”: In the applications that were submitted before the war started, measures like “lowering the temperature in the exhibition rooms and examining the climate corridor” were planned which were then “implemented from one day to the next in the summer

[2022], without experimentation, simply because there was an economic necessity” (CP9, par. 15). This pragmatic shortcut to a long and complex decision-making process from previous years seems characteristic of the time of the energy crisis.

Although this is not the subject of this master’s thesis, it should be mentioned, that, of course, apart from adaptation and energy saving measures, there was a third realm linked to this sense of urgency: helping the Ukrainian people. Three interviewees explicitly commented on their institution’s or municipality’s commitment in this regard.

4.1.2 Motivation: The Driving Forces Behind Efforts Regarding Climate Action

A huge variety of motivation types to engage with climate action on an institutional or individual level came to light throughout the interviews. They can all be placed somewhere between one end of the spectrum, intrinsic motivation, and the other end, extrinsic motivation. Firstly, there was motivation clearly linked to the urgency of the energy crisis and external or internal policies on energy saving requirements resulted from this:

Economic pressure (caused by energy crisis): Some informants explicitly mentioned “economic pressure” (PM6, par. 11), “economic necessity” (CP9, par. 15) or stated that, due to the “strong financial motivation [...], suddenly there was even more willingness to deal with the issue” (CP9, par. 15). Furthermore, the financial savings which started as a short-term adaptation to economic pressure resulted in motivation to continue or add to the energy-saving measures after the immediate crisis had passed. However, this economic pressure as an extrinsic motivation seemed more important on a policymaking level than it was for the MPs’ side. On the one hand, this has pragmatic reasons:

The rising energy costs are not directly felt by the museums, because the buildings are looked after by the municipalities, and the facility management and building administration department calculates the costs of all the buildings as a whole, so we can’t even exactly define the change in energy costs of an individual building. (PM5, par. 16)

Nevertheless, many museums seized this momentum to learn about where their energy really comes from and the implications: “We found out during the crisis that our district heating, where we first thought ‘Well, we use district heating, we’re not dependent on gas’, was 100% natural gas” (MP2, par. 14). For those already very committed to climate action, this economic pressure arose on top of their existing climate action strategies, apparently without any further consequences. For the

policymakers' and advisory side, CP8 emphasized that there was a cultural policy vacuum which became ultimately obvious:

[T]he elephant has been in the room the whole time, it has become a herd of elephants over the years, everyone knew that it was there, but you could still get around it a bit, and now there is a very harsh reality that says OK, if we don't find a way of offering culture-specific energy consulting in the shortest possible time, we will either have to print money. Or give less money to culture, to museums. So, of course, that's a pretty tough message. But it describes reality. (CP8, par. 40)

Other existing or emerging formal policy settings: Especially in the case of the two municipalities that declared a climate emergency, one of the key goals for the administration is to become net zero by 2035 or 2040 which applies to their cultural sector. This (from the perspective of the museums) extrinsic form of motivation is thus linked to concrete policies or the emerging need to develop them to launch immediate (climate) action. As MP2 noted: “[Y]ou can feel that the time is coming when reporting will be legally compulsory” (par. 36).

Existing or emerging funding requirements (on a voluntary basis): In pilot projects, carbon footprints of entire institutions or individual projects such as exhibitions is a mandatory part of the funding guidelines. Applying and then implementing and fulfilling the strict funding requirements “that you submit to voluntarily” (CP9, par. 26) is also a form of motivation. It comes with conviction, ambition, the urge for innovation, curiosity paired with pioneering spirit and resilience. CP9 emphasized that there was a surprisingly high number of applicants for a relatively complicated project funding linked to climate neutrality which “shows the willingness and openness of the institutions” (par. 33). This form of motivation is closely linked to the following:

Intrinsic motivation (institutional level): There are museums and funding bodies that show an intrinsic motivation for climate action because sustainability is a core element of their mission, vision or founding history, and their institutional leadership. This motivation can also have its origin in external driving forces like wanting to implement a voluntary environmental management standard such as EMAS. However, another interviewee questioned this type of motivation:

[V]ery few of the museum people have suddenly discovered their long-lost intrinsic motivation for sustainability, it's that they hope to gain something from it. They know: their contract expires in a year's time, and they want to apply for jobs internationally, so of course it's good if you've done a bit of sustainability in your organisation, so to speak, and also have media coverage on it. (CP8, par. 71)

Intrinsic motivation (individual level): The driving force behind climate action in museums and their cultural policy environment often lies, especially in the beginning, in the commitment of individual employees or key figures. They are perceived by the policymakers as “strong protagonists in the museums who are simply incredibly committed and were so even before the energy crisis. And I think that’s where the energy comes from to pick up the pace now” (PM5, par. 19). This form of motivation is often the original source of a domino effect that leads to activities and ultimately to a broader climate action strategy that is applied on an organisational or institutional level. Peer pressure in the form of inspiration through encounters with or reading about museums or cultural institutions that are far more advanced can be a catalyst. Small, tangible successes can help in this process to make climate action efforts more visible. Nevertheless, those who are guided by their intrinsic motivation and maintain that level for a long time seem to be a vulnerable group:

For me, the biggest challenge as the person who perhaps provided the initial spark, though of course I’m not the only one working on it now, is living what I preach, because I realise [...]: the danger of burning out is enormous. And the more tired I get [...] the less successful I am in showing by example how this path can actually give us quality of life along the way. (MP2, par. 48)

One cornerstone which arose several times during the interviewees was knowledge acquisition through trainings, for example on operational ecology and sustainability or transformation management. Applying for or being offered such a course or certificate was perceived as an important step, especially for those with a background more in arts and humanities than in facility management, engineering, or natural sciences, and can help amplify an individual motivation level into an institutional one.

External events, movements, key figures: Headlines, increased awareness, and public attention on either a) climate change and the need for climate action through, for example, the *Fridays for Future* movement, or b) on museums as public spaces and stages, for example, for civil disobedience when climate activists attack artworks, seem to help linking the field of climate action to the field of museums.

Transformation: Treating climate action as one element of a huge change process that inevitably needs to take place within cultural institutions can also be motivating. It ties existing challenges together instead of seeing these topics in competition. Several interviewees referred to this more organizational

perspective. PM4 emphasized the need for empowerment and dialogue from the administrative side towards the practitioners:

In a process like this, a transformation process like sustainability, and other transformation processes, I think, it is at least as important not only that you empower the person, but also that you accompany them in the process and teach them how they can tackle these processes themselves. (PM4, par. 4)

4.1.3 Alliances: How a Wide Scope of Networks Increase Speed and Intensity

The overarching key message evoked by the entire interview cohort was that climate action needs collaborative and cooperative approaches. No cultural institution will ever manage to do this process alone. Knowledge transfer and know-how were perceived by all as crucial to start a broader climate action movement across the museum sector by being more assertive, more savvy, more visionary. Working groups, networks and a wide spectrum of alliances turn out to be useful arena in this regard. The alliances mentioned in the interviews vary from internal, to cross-sectoral, to national:

On a national level, museums only (interest group): Especially in crisis times, a strong voice and the position of national interest groups seems to be helpful in providing guidance and answers, but also to facilitate change. CP7 remembered how terrified the museums were at the beginning of the energy crisis and how gratefully they accepted, for example, the recommendations issued by the DMB. The streams of information and guidance have different directions, not only top-down, but also bottom-up and horizontal from peer to peer, especially within the different working groups:

We're currently seeing lots of enquiries from other museums, from the working group on sustainability [at the DMB], who come to us to get ideas for their future exhibitions and yes, I think it is important that we all go one step further. And also that we help to pass on knowledge, facilitate knowledge transfer. (MP3, par. 21)

Although the exchange and guidelines for the sector can be helpful, in the end, every museum finds itself in a unique situation in terms of energy consumptions and resources. As MP2 put it: "[I]t's all so incredibly individual" (par. 5). Especially early movers like all three MPs, do not necessarily perceive the recommendations given, for example the DMB guidebook *Klimaschutz im Museum*⁷⁹, as decisive

⁷⁹ Climate Protection in Museums, s. footnote 46.

support (anymore). This is different from the policymakers' side since they have to keep an eye on all their funded institutions, not only the early movers.

On a national level, different sectors (initiated by the BKM): The ANKM is perceived as a strong climate action enabler, a hub for knowledge acquisition and exchange, and an essential cultural policy actor. The DMB and some museums are among the ANKM's official partners. This growing core alliance is considered as a "club of the willing" (CP8, par. 24).

On a national level, different sectors (initiated as part of a training or funding scheme): Another example for a fruitful alliance on a national level was when the participants of a certain funding scheme for climate-neutral projects which came along with extra trainings and workshops met in an academy setting on a regular basis.

On a regional level (cultural administrations from two municipalities): PM4 described a close cooperation with another municipality for developing a certain tool which had not yet been available elsewhere:

[T]his is an extremely productive, really great process in the sense that we are helping and supporting each other here and not every municipality has to reinvent the wheel for itself, which saves resources, so that's also what it's all about, that we don't develop things from scratch five times, but once is enough and then it can be made available to others. (PM4, par. 46)

This shows an important side aspect: environmental sustainability "is not considered a competition in Germany, it's more that people try to help each other" (MP1, par. 39) to increase speed and impact.

On a municipal level: Here, the amplest variety of alliances was mentioned by the interview cohort, most of them emerged top-down, others bottom-up, others on a horizontal professional level. Some alliances are museums only, others unite the entire cultural sector or exist between policymakers from different departments. The main advantages perceived by the interviewees were the following:

By coming together and informing ourselves and raising our voices, we can of course build up a lot more pressure on the various players, but conversely we also become interesting for politicians, because culture operates through visibility, and if the whole cultural scene or a large alliance from it in [CITY NAME] becomes truly climate-neutral, or somehow takes steps forward, then of course that's a great thumbs up moment, a great way of showing 'we're onto this'. (MP2, par. 15)

[W]e [...] can help each other, the proximity gives us the opportunity to work together, including on a level that doesn't necessarily have anything to do with ecology (MP1, par. 28)

to combine the expertise that everyone has in their own area, because that's when we're quickest (PM6, par. 22)

Forming alliances and networks is an active process which is linked to the rest of the cultural policy environment. MP1 put it this way when referring to an interdisciplinary museums-only municipal network: "A network has formed that wants to change things and that has obtained permission from management level to be able to do so. I don't think that should be underestimated" (MP1, par. 32). This statement highlights the fact that it can take an official endorsement to feel empowered and entitled. This connection to empowerment and agency also applies for cross-departmental working groups within individual museums (MP2, MP3). The latter have a strong impact on climate action anyway, which has already been subject in the subchapter 4.1.3. Finally, there are alliances on a cross-industry level, in the case of MP3, for example, "beyond the context of your own museum" (par. 39) with a wide spectrum of initiatives (mainly but not necessarily from the region) that are actively addressing climate action through innovation – an aspect which will be tackled in the next subchapter.

4.1.4 Innovation: The Pressure to Act as Source of Invention

The ambition to find innovative, experimental approaches to develop new, sustainable ways became especially visible on the MPs' side. In their interviewee testimonies, there is something light-footed, ludic, intriguing about their ambition. The examples referred to circular material (re-)usage, to sustainable or recycled materials used in the exhibitions or in the outside areas of the museums, sometimes by completely repurposing the original (often industrial) function of a material or surface. To achieve this, often in cooperation with other initiatives, sometimes at the interface with industrial productions, can be ground-breaking. PM5 described this innovative moment as somehow intrinsic in the process of cultural production itself:

Not doing different things, but doing things differently, that's actually the point and I think that's important, we don't have to completely change our content, but we have to produce it differently, we have to generate it differently and so on, and I think it can actually be a lot of fun, ultimately, to think about things like that, because you mustn't forget: in museums, but I also see it in theatre and opera and so on too, they're actually all pretty creative people, they have to get to grips with new situations all the time anyway. And how do we do that now? (PM5, par. 38)

This joy of doing things differently, of exploring, also has an enormous potential to manifest the cultural approach to sustainability which is supposed to

inspire society and other sectors. Furthermore, as MP3 noted, it is about having a real impact in times of climate change:

I believe that in order to have an impact outside the museum context, and climate research confirms this - museums or cultural institutions can be good catalysts for change and the cultural dimension is very important as a source of ideas, even and especially with regard to climate change. And I believe that this is exactly how we can have the greatest possible impact. (MP3, par. 39)

For CP9, this new narrative and artistic quality that the cultural field can present to others is part of its handprint. However, innovation is seen as a fragile process, often linked to special funding, to extra time and burden, and to experimenting – this is threatened by a massive need to economise, especially due to the energy crisis and the war in Ukraine. Throughout the interviews, innovation is by no means limited to its technical side but covers the use of new ideas and methods in general. The way of working together and finding means of accelerating climate action can also be innovative, especially when they emerge as a reaction to the multiple crises. PM6 refers to the Covid-19 pandemic when acknowledging how it changed workflows, pace, and the exchange between funding bodies and cultural institutions:

[T]o see what works and how, and interdisciplinary projects can be organised, and projects involving more than one institution. In terms of thinking and structure we did see some of that during the pandemic, I have to say - digitalised, rapid exchange between the institutions, not everything about the pandemic was negative. There were also certain positive effects that I think we can take with us and use again for other challenges [...]. (PM6, par. 9)

Funding can be seen as a potential catalyst for innovation, but the agenda-setting and the set-up of the funding requirements as such should already be considered as an innovative act. When asked about the possible long-lasting impact on institutions through temporary project funding, for example with a focus on environmental sustainability, CP9 explained:

[The] experiences have been very, very, very different here. Some projects give rise to things that allow new structures to grow. And there are other projects that orbit around the institution like a satellite, and when the satellite is gone, the whole issue is gone. So, I think it's difficult to generalise, but of course we want these funding programmes to be built in such a way that they have a greater chance of actually having an impact on the institutions. (CP9, par. 31)

What becomes clear throughout the interviewees' testimonies is a high willingness to try out new approaches and the confidence that this is the right way to go: "I think you have to come up with new ideas, somehow, and then it will work" (PM5, par. 41). But there is also the recognition that, being public institutions, such processes may take time, be stopped, or leave little to no trace due to a lack of support of certain stakeholders that can't be left out:

It's a constant process of trial and error, and in moving forward we see who's moving with us and who isn't. And then we have to try and learn, give ourselves the time to learn and think about how we can address people differently so as not to make them angry or exclude them, because that's what's happening at the moment, if we push too far for some people, then there's trouble. (MP2, par. 50)

Particularly in this category the notion of activism came through: Achieving new methods, implementing new ideas, convincing others of "even the smallest things" (MP2, par. 43) seems to release a special energy that could also be interpreted as (collective) agency.

4.1.5 Agency: Who Is or Feels Equipped to Take Climate Action and Why?

The presence or absence, the identification, and the exercise of agency to commit to climate action in the field of museums is a core aspect of this analysis. For the cultural policy environment of the German museum sector, different nuances and forms of agency were identified from the interviews. They can be divided into a variety of collective agencies, but also, to a minor degree, of individual agency, which refers here to the professional individual (not the private):

Agency qua key position: PM5 mentioned the impact and the scope of specific cultural policies, especially in times of multiple crises, when resuming:

Both with Covid-19 and the energy crisis: None of the players we fund, and we have more than 50 cultural organisations, including from the independent scene, that we support, none of them went bust, so we were able to get them all through. (PM5, par. 48)

PM5 saw and find themselves in the key position to "get others through", thus PM5 is entitled to exercise their agency of choice and action to make a difference. This dimension of agency is also reflected by PM5 when describing how political agenda setting works:

[W]e have said in cultural development planning that diversity can be one of the top issues or social sustainability, but that we also need to work on environmental sustainability as an individual issue, I think you just have to make these kinds of decisions. They must come from the top down. Otherwise it's not going to work. (PM5, par. 31)

Being in the position to foster change and exercise agency is an aspect that PM6 also mentioned. However, interviewee PM6 was not talking about themselves here, but citing a museum director who made a reference to climate activists: “I don't have to glue myself to the road because I have the leverage to change things. And now it's my turn to change things and I'm doing that in the area where I am” (PM6, par. 46). This quotation outlines the different scopes of agency and who has access to what kind of agency. One could assume that such a key position does not necessarily have to be linked to the actual position within the hierarchy but to encouragement and receiving permission, internally, to take action, thus, to exercise agency. However, some informants referred to a glass ceiling which existed at different levels, for example between executive museum directors and their funding bodies, who, in the context of this research, are mostly cultural administrations. CP8 explained the dilemma as follows:

[O]n the one hand you have directors [...] and they do a lot, but if on the other hand you don't have the funding institutions or the institutions that are ultimately the sponsors of these institutions actually making the demands or providing a regulatory framework, then there is no room for manoeuvre⁸⁰ for them. This has nothing to do with big or small, or north or east, but ultimately if we are both funded by the local authority in [CITY NAME], then we can do just as much as the local authority in [CITY NAME] demands of us. (CP8, par. 18)

This also shows how strongly agency and structure are interwoven, an aspect which will be dealt with in the upcoming subchapter. Nevertheless, the MPs were very positive about the cultural policymakers they are dealing with:

I feel that our endeavours are seen and taken seriously and supported. [...] Yes, it helps enormously to have a person who is so sensitised and so well-connected, who can give us contacts when we need further help, we didn't have that before. (MP2, pars. 18–19)

Another glass ceiling might separate the top management from the staff working in the same institution if there is a lack of leadership skills or of support when putting climate action on the agenda. Altogether, this can be summarised as

⁸⁰ In German CP8 said “Handlungsspielraum” which is usually translated as “room to manoeuvre” or “scope of action” but the de facto meaning is “agency” the way the concept is used in this research.

follows: those in official key positions tend to have a better chance of exercising agency.

Agency qua action: According to PM5, one major principle, when it comes to working towards climate neutrality, is “Just do it”: “[I]f you start just to do it, then you lose the notion, I suppose it’s arrogance somehow, that it’s exhausting and annoying and that only vegan city dwellers are interested in it anyway, and you realise that it’s actually a basic attitude” (PM5, par. 36). A certain hands-on attitude is also addressed by others. In activities like separating waste, recycling, urban gardening, etc., agency gets a participative twist and becomes collective action. Nevertheless, it becomes clear throughout MP2’s testimony, that it was and is a time-consuming process with frustrating moments. For example, if important donors disapprove, this can slow down or even prevent climate-sensitive decisions because “they definitely think that the climate crisis is just my political opinion and that it has no place in the museum” (MP2, par. 51).

Agency qua knowledge, skills, tools: From what has been said in the interviews, in many cases there is a lack of knowledge and skills that hampers exercising or reclaiming agency. CP8 put this way:

At some point we thought about going to the moon and everyone said yes, we’re going to the moon and we thought about going climate-neutral, yes, we want to go climate-neutral and now all of a sudden you simply don’t know how to do it. (CP8, par. 14)

Knowledge acquisition is therefore key for a commitment to climate action, especially due to its many technical facets. However, concentrating on this time-consuming process of acquiring knowledge comes with the risk of not taking action and ignoring the potential of the above-mentioned ‘agency qua action’. It is therefore even more important to team up and to actively seek advice which can have an empowering effect: “[W]e give specific instructions for action, also with the message ‘hey, if we can do it, then you can actually do it, too’” (MP1, par. 44).

Agency qua policies: Official requirements and mandatory reports can help frame activities and measures, to gather necessary information like numbers, outputs, etc. Furthermore, policies can foster structure, credibility, and transparency. The practitioners interviewed are waiting for such obligations. Some of them are already part of certain pilot projects. On the policymakers’ side, the motto is ‘better thorough than hasty’: “If we don’t prepare these things properly, systematically, then we won’t save CO2 anywhere.” (PM6, par. 45)

Agency qua collective: Agency towards climate action seems to be linked, in all testimonies, to knowledge, on the one hand, and to the (official or unofficial) legitimisation of the process on the other. According to the interviewees, it is possible to develop and exercise (more) agency as a group. These groups may take the form of an inter-departmental working group without strict hierarchies, a network of neighbouring institutions or on a municipal level that deals with municipal energy and facility management:

We don't have the sole decision-making power, so just to give you an example, we couldn't even decide on which electricity supplier to use. We had to put pressure on the [HEAD OF CULTURAL DEPARTMENT] at the time to ensure that the tender for the city of [CITY NAME], that the next tender would be formulated in such a way that it had to be green electricity, and so we ended up with green electricity for the whole of [CITY NAME]. (MP2, par. 8)

MP1 was mentioning both the power and limits of collective agency:

We want to change things. We want to do things, but everyday life still exists. We are lucky that the directors have said 'OK, you have our blessing, go for it', but of course what they're also saying is 'yes, but please don't forget that you also have a role in the institution'. (MP1, par. 24)

PM6 compared the situation now with an example of climate action from German history to illustrate that it takes time to prepare certain processes, especially in terms of policymaking and education:

[I]f you look at the discussions going on on the subject of environmental protection, these are the same discussions we had in the mid-1980s about waste management and waste streams, where everyone also said, woah, impossible. Now we have an extremely highly professionalised system in this country with a very sophisticated industry that takes care of the whole thing, and the legal obligation to separate rubbish. You can still say 'no, this doesn't work and that doesn't work', but it has worked - a system has been established and somehow people were taught about waste separation beforehand and we all collect bottles at home and put them in an extra pile, and I think we are undergoing a similar process at the moment. (PM6, par. 49)

Agency qua critical mass: Agency can be provided to the whole sector as soon as a significant number of people and institutions are reached that are openly committed to climate action through their strategies and activities, for example by "letting exhibitions run longer, doing fewer exhibitions, having fewer loans flow in" (MP2, par. 37). However, for now, "that still hurts like crazy" (MP2, par. 37). The number of people from museums and their cultural policy environment who want to commit to climate action is growing daily. The question

is if they also have the agency to do so: “[S]ometimes you have to be in a key position and have the expertise to be able to do anything with this issue” (PM6, par. 52). Those who have the agency need to join: “that is the catalyst” (PM6, par. 52).

Agency qua visibility: The cultural sector often operates in iconographic or at least remarkable or recognizable buildings which provide a visibility that can be actively used to transmit a certain message. This might, for example, when stopping illuminating major sights at night:

[T]hen everyone knows, OK, now they mean business, now it's serious. I think that's what the move was good for and moves like that always work well in culture, you can make a statement like that and I think that's the great strength, people are really going to react to it. (PM5, par. 44)

Agency qua societal role: Museums are not just any public institutions. Their high level of public trust and credibility comes with a societal role and responsibility. Museums, like libraries, could become public places to warm up during cold weather: “[I]f more people say they can no longer heat their homes because they can't manage it economically, then of course a museum can also be a place where people can meet [...]” (PM6, par. 32) The societal impact and the reputation of an institution can influence the degree of agency, too, because it comes with a certain dynamic:

[T]he [CULTURAL FUNDING BODY] is distinctly perceived as a driving force, that's great, it has a certain, I'll say authority, not authority perhaps, but it has a certain standing in the discourse that many people look to, and that's great of course, and we want to use that. (CP9, par. 13)

The mission, vision and founding myth (MP3) of an institution can also help recognise and use an existing agency.

Agency through participative processes: PM4 emphasized how important and precious it is to play an active role in this huge transformation project towards climate-neutrality that is not only a national concern but part of the cultural sovereignty of the municipalities and states:

Now we still have the opportunity to actively work together on the process, to participate and to transform ourselves rather than just be transformed at some point or only be able to implement whatever measures are brought in. Now we can help shape the process, to a certain extent at least. (PM4, par. 44)

Additional crises like the energy crisis, however, reveal the state of emergency that everyone is in already which might restrict instead of fostering agency:

What we describe as a crisis is actually a transformation. It's happening whether we like it or not, it's just this panicked desire, which we understandably have, that we somehow still have some room for manoeuvre, this room for manoeuvre is just getting narrower from month to month and that's the big panic, that we realise, wow, a few things are going wrong, if we don't come up with a very good idea soon, then it's going to be tricky. (CP8, par. 88)

4.1.6 Credibility: The Trust Advantage of Museums Should Be Seized

The three PMs explicitly expressed the importance of credibility and trust when it comes to empowering organizations to engage with sustainability topics and climate action. They see themselves as responsible for facilitating trainings, knowledge transfer and fostering participatory approaches in a way that clearly addresses the practitioners' needs. As PM5 put it:

The municipality must make the offers, nobody else can, and they have to be made in a credible way so that we meet people where they really are. If we come up with super ambitious climate balances, then they say 'yes, that's all well and good, but we can't do that or don't know how' and so on. So, we need to find out where they stand. And then roll out our offers there. (PM5, par. 29)

PM4 further outlines that the interaction with the local organizations requires respect and sensitivity and a common goal:

[Y]ou first have to sensitise the actors to the process, of course, which also means you have to win them over to a certain extent, and gain their trust that this is not just a fancy add-on, that we're not just doing a bit of occupational therapy here, so to speak, with the workshops and questions, but that what we want to know from the practitioners, for example their challenges, needs, that that will really flow into the process, into the city's sustainability strategies. (PM4, par. 15)

The key message of the offerings to the institutions was formulated by PM4 almost like a promise: "[W]e won't leave you to do it alone, but we will take this step together" (PM4, par. 19). The premise was to address everyone accordingly and to give them certain tools to make the journey easier. Reflecting on their own administrative work and work ethic, PM6 insisted how crucial it is in such an administrative position to keep thoroughness and accuracy as core attitudes, although there might emerge a supposed hurry and high (public)

pressure, for example regarding accelerating the installation of photovoltaic systems on the roofs of listed museum buildings:

You can't just say 'Let's forget about the protection of listed buildings because we've got to install solar panels on every museum.' [...] We're talking about complicated technical processes, legal processes, financial processes, and the whole thing can only work if you set it up properly from all sides. (PM6, par. 19)

Given that museums are seen as credible institutions in society, it is even more important to stay focused in policy decisions and refrain from the hysterical and dystopian tendencies, something seen in the intensive media coverage about potential museum closures analysed in chapter 2.3.1. PM6 referred to previous closures during the pandemic and resumed:

What is new, I think, is the hysteria with which it is regarded, this sense of 'oh God, that could happen to us again', and that's what I think is dangerous [...]. We need to talk to each other properly and establish what concrete issues we're actually talking about. Hysteria is of no use to us at all, nor is scaremongering, because then we're back to the two divided camps: those who say, 'yes, I've always been indifferent to museums anyway, close them down, nobody needs them', and those who say that they are places of culture and exchange that are urgently needed. (PM6, par. 31)

All PMs are very much aware of the social role model function of the cultural sector especially in terms of climate action. They also feel how significant it is to show commitment, not only for the practitioners but for the audiences:

[U]ltimately, I believe that it's really about credibility. I believe that our cultural programmes are aimed at a democratic, free and free-thinking audience, and I do believe that these people expect us to take these issues seriously and find an answer to them. (PM5, par. 35)

This commitment seems symptomatic of "a new generation of cultural politicians" (CP8, par. 60) in some places in Germany. Compared to the previous generation(s), this one "ultimately understands that it is primarily about creating framework conditions and not about patronage, opening an exhibition here and doing a little premiere there" (CP8, par. 60).

For museum practitioners, several dilemmas that are strongly linked to credibility have emerged. For them, climate action entails a high degree of intellectual and moral complexity that is different from other cultural sectors. This comes from museums' main function: the conservation of artefacts. CP8 described it as follows: "People whose job and vocation are actually to preserve things as

absolutely as possible suddenly have terms such as transformation and change thrown at them, which naturally creates a certain discrepancy” (CP8, par. 11). According to CP8, this evokes “a feeling of doing everything right and at the same time doing everything wrong” (par. 13) which can be interpreted as a difficult position to show and feel credibility in decisions and activities. CP8 went further when explaining why it is in fact even more complicated, a fact which is possibly linked to the construct of publicly owned museums:

You could be the managing director of a very large institution right now and you wouldn't have seen an electricity bill in your entire life because you simply don't pay them. You're given this institution and you've covered all the issues well, you've done inclusion, diversity, digitality, sustainability and now suddenly someone asks you about electricity consumption. And that was the situation that we had in 2022, that in the context of, let's say, the war of aggression in Ukraine, energy prices suddenly went up for whatever reason, and the BKM [...] and other cultural funding administrations suddenly wrote letters to museums, among other institutions, not just museums, to all theatres, all libraries and so on, but to museums in particular, where they said: 'Attention, you will have noticed. We have an energy crisis, we must all make savings of 20% now, can you just give us ten ideas on how you can make savings of 20%?' They really did get letters like that. And some didn't have the faintest idea what to do, [...] and the honest answer would be 20% of what? Electricity, heat? What? They've never seen anything like it and that shows the somewhat schizophrenic situation that rational people who are in charge of museums today are unfortunately in right now. (CP8, par. 15)

If this lack of knowledge and responsibility is the case, then it might diminish the museum practitioners' credibility further. From their perspective, credibility is also linked to the wording of official requests from the cultural administrations and the maxim for their own actions. In terms of the energy crisis and the official premises to lower the room temperature, which via post as friendly request, MP2 outlined that they had no measuring devices and therefore had to guess the room temperature, which felt absurd. PM5 admitted: “It was all a bit symbolic, or partly symbolic, let's say, including what we did” (par. 43). This here mentioned lack of tools, lack of data, lack of technical devices seems to be another burden for MPs that became particularly visible through the energy crisis.

On the contrary, the fact that the way museums commit to climate action and try to make informed decisions can help them be perceived as trustworthy and credible institutions is another aspect that arose during the interviews. Becoming visible as a public institution that is strongly committed to climate action was a key issue for all three MPs. They emphasized that their museums have published and/or plan to publish various documentation and evaluations of their operations, either on the respective museums' websites or as part of a stand-alone publication.

The motivation is twofold: they hope to help others (MP3) and they want put pressure on themselves.

In the bigger picture, credibility should be the baseline of every strategy and policy although this is sometime difficult. One interviewee recalled a decisive moment when they opted against extensive external corporate funding for a position exclusively dedicated to climate management inside the museum:

We had been promised a large amount of funding but then the funding body wanted to use their financial commitment to influence the museum and wanted things to take place here that we couldn't support for various reasons. It was really annoying, because we had invested a lot of time, and I was so optimistic. We were getting this person, a new position, which would be great for everyone. But I'm proud of us for turning it down. It was a decision of conscience, and we didn't sell out, so to speak, we said 'OK, this really big amount of money to finance this well-paid position over many years plus other things, but we're not doing it, it goes against our ethical programme.'

(MP2, par. 52)

4.1.7 Structure: Form Follows Function or the Other Way Around?

Several interviewees emphasized the need for “structure” to be capable of fostering climate action. This referred a) either to an organizational structure inside the museums demanding to set up a structure for the first time, to change or to expand the existing structure, or to completely rethink it. Furthermore, it referred b) to the need for structural framework conditions through policies, c) to the different steps of a process including policymaking, and d) to the way museums, cultural administrations, funding bodies, interest groups, etc. generally operate – in comparison to other (cultural) institutions. One of the core conflicts seems to be the decision of who is responsible internally for the field of sustainability, where to locate that person in the hierarchical structure, and how to ensure that these individuals have sufficient time, agency, and resources at their disposal. On behalf of the interviewees, there were several options mentioned to achieve this. For some, the solution lies in creating positions for so-called transformation or sustainability managers who were trained in courses like the ones the ANKM facilitates equipping (future) employees with the knowledge and skills needed. According to CP8, offering such further trainings responds to a lack of capacities among the existing staff that have other duties and foci:

You can't say to a curator 'why don't you do a bit of sustainability', you can't say to a director 'if you're bored after 7.30 pm, you can do a bit of sustainability', that's simply outrageous. If this task is so big, we must train people, we have to empower them and then we have to pay them reasonably for it. (CP8, par. 56)

Although there are already dozens of graduated or certified transformation and/or sustainability managers, many of whom continue to work in their previous institutions, often museums, and apply their knowledge there, apparently the demand for skilled staff and managers is much higher. Acknowledging that generating and paying additional positions is less likely in public museums, MP2 proposed to spread sustainability knowledge among the departments:

I am firmly convinced that we need the experts here in the museum, and in every department, which means that people must somehow be released from their other work by contract or otherwise, and then use 10 to 20% of their working time for sustainability, ecology, climate protection and so on. That needs to be written down somewhere and accompanied by a commitment from top management to a process, it can be a joint process, to seeing where can we release working time or what else do we have to change?
(MP2, par. 24)

From the policymaking angle, PM4 shared a similar view when emphasizing that sustainability, like any other transformation process, should be incorporated into the structures within the institutions:

[I]t's not necessarily about creating new jobs for every transformation process, but rather - and this is the conflict-laden and perhaps slightly painful aspect of a transformation process - that you incorporate the processes into your own structures, step by step, so to speak, incorporate sustainability or digitalisation, remembrance culture, etc. into the structures, implement them and think about them. (PM4, par. 29)

All three MPs stated that the workload for those involved in sustainability and climate action within the museums so far was exorbitant. Various structural reasons were cited, including exogenous pressure like commitments such as contributing to a highly appreciated but time-consuming participatory policy process: "This week alone I have eleven hours of workshops as part of this municipal process" (MP3, par. 23). But other reasons lie mostly inside the institutions:

Half of the staff at [MUSEUM NAME] are actively involved in the sustainability team, [EXACT NUMBER RATIO], which is great, we do it in our working hours and we all do a great job, but we are at the limit of what we can do, all of us, and [official obligations] would just be enormously helpful in establishing even better structures, hopefully or in raising awareness that what we are now doing in parallel to our jobs is not a hobby. We need to work even more closely together really and not just leave it up to each individual person, kind of 'if you can manage it, that's great'. (MP2, par. 24)

MP1's observation was similar: "The network consists of not many more than 20 people, and they're all doing it on top of their normal workloads, and that's not really sustainable in the long term so that's actually our biggest difficulty" (par. 24). The wish for strong (cultural) climate policies that could help museum practitioners set up a structure by generating exogenous pressure is another topic that arose several times during the interviews. MP2 had a similar impetus when telling:

Everything that comes from outside, not just from us, from within the team, but which shows there is outside interest and that the pressure is increasing, is incredibly helpful. I'm just waiting for legal requirements to finally materialise, such as writing sustainability reports, submitting greenhouse gas balances and so on – that would help us enormously to get out of this 'it's all just voluntary' dead-end. (MP2, par. 23)

This quotation also shows how intertwined structure is with agency.

But as long as we don't manage to change that, we won't be able to free up the people. That's what I experience at the museum: the registrars department is so crucial to improving our transport balances. They don't even have time to catch their breath, though, let alone get their heads round these issues, even though they really want to. They were part of the [sustainability] team from the very beginning, and we have to free them up somehow. (MP2, par. 37)

CP9 was intuitively summarizing these demands and thoughts articulated by the other interviewees when saying: "What is actually needed is a holistic view of the organisation and not fragmentation into individual aspects." (CP9, par. 5) Nevertheless, the individual aspects of such an ample challenge tend to dominate the daily work of the museum practitioners. MP2 described that the in-house team dealing with sustainability in the respective museum still didn't have an annual budget on its own: "We've always found ways, through other budgets, the exhibition budget, for example, but it's exhausting and so we're currently looking at which funding options we can use to pay for it." (MP2, par. 33) Although this aspect doesn't seem to have critically limited the team's agency, it shows a step within the process to make progress and a strong desire or need for structure – by reclaiming positions, responsibilities, budgets, reports. A strategic approach like the one thriving for climate action in museums is perceived by the entire interview cohort as strongly linked to structure. For CP7 the question of how to achieve and to implement certain climate action measures needs an answer which deals with the social aspects of working in a museum:

We now have the measures, wonderful, but we have to think about how we can get there. And I think we need to take a much more social approach, i.e. completely rethink our structures and how we work and what we do, how we deal with our employees. (CP7, par. 35)

This does not only address museums but the whole sector. The need to start and keep asking these or similar question applies to everyone involved. On a larger scale, the questions that were articulated, predominantly by the PMs and CPs, were, the ones requesting alternative key figures and indicators for artistic directors. These indicators should be based on ecological and environmental criteria (CP8, CP9), mandatory carbon footprinting and climate strategies (MP2, CP7), or the principle that traveling farther than an eight-hour train journey will no longer be funded (CP9). CP8 had a clear message to cultural policymakers when outlining the “rule of three” for effective climate action in museums:

[F]inally make it mandatory, give those who are already doing it reasonably well a good pat on the back, but then also make sure if you want it and facilitate it and require it, that you also have people who are reasonably paid to do it. (CP8, par. 71)

PM6 echoed this sentiment when pleading repeatedly in favour of proper preparation as key for effective climate action, emphasizing that “if we don’t prepare this properly now, then we won’t get to the point of saying that you’ll only get money if you do this and that” (PM6, par. 45). PM5 put it similarly when recalling the set-up of a cross-sectoral training course on environmental sustainability on the municipal level: “I think we’ve done it, with all the speed that can be expected from an administrative process like this, it can’t be done any faster, and I think that’s all OK” (PM5, par. 11).

4.1.8 Self-Evaluation: Assessing Climate Action in Museums

When reviewing the status quo of climate action efforts in the German museum sector, each interviewee sent out very different signals. In general, the group of the three PMs seemed the most optimistic, the CPs the most pessimistic and the MPs merely realistic. When asked how their museum came to play such a pioneering role in terms of environmental sustainability, MP2 answered: “I wish I felt that way. To be honest, I can see that we are present in some ways, but I can also see that we are at the very beginning” (par. 2). This modest self-assessment sets the tone for an avant-garde that has long since realised the scale of the mammoth task of climate action. And depending on position, agency and political

insight, the assessment is then either more optimistic or more pessimistic. The reasons for the latter can be found in a long list of impediments, dilemmas, and obstacles given in the interviews. There are countless aspects from a) Germany's federalist cultural funding that doesn't help to drive certain processes forward on a large scale in comparison the UK with the Arts Council as a dominant national funding body setting certain requirements (CP9), to b) the diversity of the museum landscape in Germany with enormously disparate collections and needs (MP1, CP7), to c) an overwhelming lack of knowledge, tools, budget. Nevertheless, according to the interviewees the sector has now "got into action"⁸¹. Within the interview cohort, climate action is not perceived as being limited to certain measures and strategies but has to do with the museums' role model function, the democratic mandate and mission:

We are places of education, and we are places of exchange and democracy, and that is a form of democracy training that we can certainly advocate and say 'yes, that is what we stand for and that is what we are fighting for'.
(CP7, par. 43)

Taking a stand as an institution is something that runs through the practice of the museums and their funding bodies in general. MP1 mentioned "gender issues, migration policy, and social sustainability issues, i.e. homelessness" (par. 54) as examples, CP9 "restitution and post-coloniality" (par. 48). Paired with more general societal challenges and transformation processes like digitisation, participation, remembrance, inclusion and the aftermath of the pandemic, the demands on museums are extremely high (CP8, CP9). In view of this burden, clear gradients become visible at various points. In terms of numbers and impact, for example, the size of a museum does make a difference when it comes to reducing emissions:

It makes sense to start with the large institutions, because that's where the big emissions are, so if a small local history museum in rural region XY does something, then that's good too. But of course, the effect is not as great as when a large museum in Hamburg, for example, does it. (CP9, par. 45)

According to CP9, this has further implications for the likelihood of being funded as part of a nationwide pilot project or a project funding focusing on climate-neutrality:

⁸¹ The corresponding idiomatic expression in German, "ins Handeln kommen", is used a lot right now, especially in relation to environmental sustainability.

Of course, the larger institutions are more likely to receive funding because of their reach, because they have the capacity, because they have the resources. A smaller museum that employs five people is hardly going to be able to conjure the resources out of nowhere. (CP9, par. 43)

This reinforces a certain feeling of being left behind among some cultural staff, a nuance that several interviewees have already been confronted with:

[T]he [NETWORK NAME] almost broke apart because some people were so frustrated that they threatened to leave. It was like 'OK, we're still talking about, I don't know, how to separate paper waste from the rest and you're talking about photovoltaic systems, we're out'. (MP2, par. 42)

And then they see that of course and say to themselves 'it's great that a large institution is getting a lot of money to try something like this out, but what does it have to do with us? It's not even a model for us to imitate, because we can't plausibly replicate it.' (CP9, par. 44)

Such perceived inequities or disparate (starting) positions and velocities are inherent to the cultural scene and become visible through very different challenges. When focusing on climate action in museums, another dilemma is the location and the accessibility of a museum given that visitor emissions make a huge part of its carbon footprint (CP7, MP1, MP3). Especially for museums in rural areas, this is a sensitive topic which did not only come up now in the context of climate audits. It creates a lot of frustration as CP7 experienced in a meeting with museum practitioners in Eastern Germany:

[T]hey often feel left behind anyway, they somehow feel like that and then someone comes along and says 'Yes, why don't you fight for a bus stop on your doorstep, that would be much better', and they say: 'Yes, we've been doing that for 20 years, but nothing has changed'. (CP7, par. 31)

Urban museums tend to be more accessible by public transport or bicycle but at the same time many of them want to address a broader public than the local audience, including international visitors, and therefore need other incentives and strategies for their mobility concept to reduce their own and their visitors' emissions (CP9). Collecting and assessing the data needed for climate audits in the first place is another problematic issue and there are ambitions to solve this, for example through participative and cooperative processes on municipal level (PM4, MP3) when trying to develop tools and means to get and to work with these data, for example to estimate visitor travel emissions for Scope 3 in GHG accounting. The status quo among German museums and cultural institutions is more than heterogeneous in terms of their climate action efforts and the opinions on how to

deal with this gap, and how or when to close it, reveal partly contrasting positions among the CPs and PMs. CP8, experienced in working with different kinds of cultural sectors, always stands with the avantgarde:

At some point we said we are building the 'club of the willing'. We can only work with those who want to. [...] to put it bluntly, I believe that this transformation can't be inclusive, so this weird politician-speak 'We have to take everyone along and offer something that works for everyone, only then can we put it out there' is, I think, absolutely the wrong approach, especially in view of what little time we have and the limited capacities available. (CP8, par. 24)

On the PMs' side, PM5 used a similar term, "club of the determined", when referring to the large public institutions, "the ones we push first" by training and enabling them as "early movers" of environmental sustainability. But PM5 pledges "to take the others with us right from the start, and then perhaps we need to make the offers a bit more low-key, lower the threshold a bit" (par. 31). PM5's approach is to invite all cultural professionals and institutions almost at the same time, no matter if they are public or private, small or big, civil servant or freelancers. Then, the purpose is to develop common guidelines that will be recommended first to the municipal institutions "to set a good example" (par. 21). PM5 emphasized that this is the approach that is "politically desired" (par. 21). From CP7's point of view, the federal government somewhat discovered the museum sector through the energy crisis as another potential flagship, following the film industry who had moved forward much earlier:

I think they want to take the museums as role models somehow, kind of 'hey, look, the museums are already doing this and this and this', in order just to try a few things out now [...] one sector needs to lead the way and do something about it. (CP7, par. 66)

In terms of climate action in times of the energy crisis, a realistic self-assessment does not seem possible because the extra funds made available to the cultural sector during the energy crisis staved off the worst impacts. Therefore, the experiences of 2022 do not entirely reflect what might happen during another crisis where such funds are not available. These funds created a sense of relief: "In the end, I don't think it was as bad as expected" (CP7, par. 11). But, according to CP8, things can still turn out differently: "When the money is no longer there, they say, things will be managed very differently, that's the sword of Damocles. I'd consider it lucky that it hasn't fallen down already." (CP8, par. 46). FIGURE 3

shows the disparity among the interviewees regarding whether the energy crisis turned into a catalyst for climate action or not.

Some interviewees have also used the current situation to scrutinise the role of museums much more fundamentally and to consider what else needs to happen to shake Germans up even more: MP2 feared that “the message really needs to be that things like the [flooding in the] Ahr valley happen that are not war-related, because they actually open people’s eyes even more” (par. 56). CP8 imagined museums in the future in overheated cities and during freezing winters as monoliths that offer shelter in winter and summer, where people would be allowed to “sleep or camp or bum around, why not?” (par. 49).

FIGURE 3
Quotations Assessing the Impact of the Energy Crisis on Climate Action Efforts
 (Source: Own illustration)



4.2 Discussion

Henry McGhie's definition of climate action given in Chapter 1.2 was the following: "Climate action – in museums or anywhere else – must mean action, that is reducing emissions, supporting others to reduce theirs, adapting to climate change and helping others to do the same, and building climate justice locally and globally." In the original source (NEMO, 2022b) he continued by emphasizing: "If we are not achieving these goals – all of these goals – we are only talking" (p. 12). From what has been scrutinised in the interviews, climate action is something that many German museums and their cultural policy environment are willing to commit to. There are serious attempts and joint efforts to achieve as many goals as possible – but there is still a lot of talking, too. The (looming) energy crisis plays a very ambiguous role here. By putting climate action in the bigger contexts of the climate crisis, shrinking public funding and the need to apply a holistic understanding to sustainability with all its dimensions, all nine interviewees presented a macro understanding of climate action, the energy crisis and the problems that arose for the museum sector. They – undoubtedly – assumed their role as experts from the investigated field. In all three cities that were part of the research, a "club of the willing" – a group of museums or different cultural institutions that formed an alliance to better tackle the need for climate action – existed before the second half of 2022 or was about to be created. Their mission became more relevant and present in the public once the attention was put on the possible impact of the upcoming energy crisis. In addition, many interviewees or their institutions are also part of regional or national climate networks. Nevertheless, especially in the CPs' and the MPs' testimonies, traces of impatience, resignation and exhaustion were noticeable due to the multiple impediments that slow climate action down.

The financial scope of the energy crisis transmitted through the media and most concretely through the governmental ordinances on saving energy (and thereby public money and energy supplies) created unprecedented economic pressure on all museum stakeholders. Other ongoing or recent crises like the Covid-19 pandemic or the climate crisis did not cause pressure in the same way. This financial impact and the urgency are crucial characteristics that transformed the energy crisis into a catalyst. The question is: a catalyst for what? Some interviewees perceived it as a catalyst for climate action due to concrete measures, increased attention, and a series of (financial) decisions. By others it was seen as a brake that has massively narrowed the focus of environmental sustainability

almost solely to energy consumptions. It turned out that this additional crisis has had the effect of a magnifying glass. In the second half of 2022, many shortcomings within the museum landscape came to light:

- 1 a lack of knowledge, skills, numbers, technical advice, tools, know-how
- 2 a lack of agency (either of recognising, owning, or activating it) to commit to climate action
- 3 a lack of knowing potential allies
- 4 a lack of funds, for example to invest in infrastructure and energy efficiency
- 5 a lack of structure(s)
- 6 a lack of a critical mass of museums committed to climate action sending out important messages like fewer exhibitions, fewer loans, etc.

Despite all these deficiencies, the “sword of Damocles” (Vuillaume & Willkomm, 2022) did not fall: the museums stayed open, horror scenarios did not materialise, no gas shortages, no blackouts occurred. This is especially interesting because this master’s thesis deals with different temporal levels: the dystopian tone throughout the media publications presented in 2.3.1 was perceived by some in the interview cohort as part of a hysteria. However, these comments were retrospective, given that the interviews were conducted only from May 2023 onwards. One of the reasons for this relativisation are federal policies that provided cushioning: relief packages, support funds (in the cultural field the *Kulturfonds Energie des Bundes*⁸²), and energy-saving government restrictions on public bodies (max. room temperature of 19 degrees, no warm water in public toilets, no outdoor illumination, etc.).

However, the rising energy and material costs were felt throughout the country. They revealed public museums’ dependence on municipal facility management departments and on neighbouring cultural institutions, which makes a meticulous breakdown of the costs of the individual facilities almost impossible. This further complicates the measurement of the required 20% energy savings. “20% of what?” was an emblematic rhetorical question which CP8 used in the interview and thus pointed not only to the ignorance of many museum managers in terms of energy consumptions, but also to the helplessness and ignorance of the policymakers who had issued such requests. From what has been said by the three PMs, however, they see themselves responsible in their position as municipal agents to make credible and realistic offers to the professionals and institutions in

⁸² s. BPA (2023a, 2023b), DKR (2022g), Freie und Hansestadt Hamburg. Behörde für Kultur und Medien (2023)

their local cultural scene. So, more precisely, as policymakers, they turn their responsibility into agency by encouraging and supporting climate-friendly policies, practices and enabling knowledge acquisition and transfer through trainings.

4.2.1 Dimensions of Agency as the Core of Climate Action

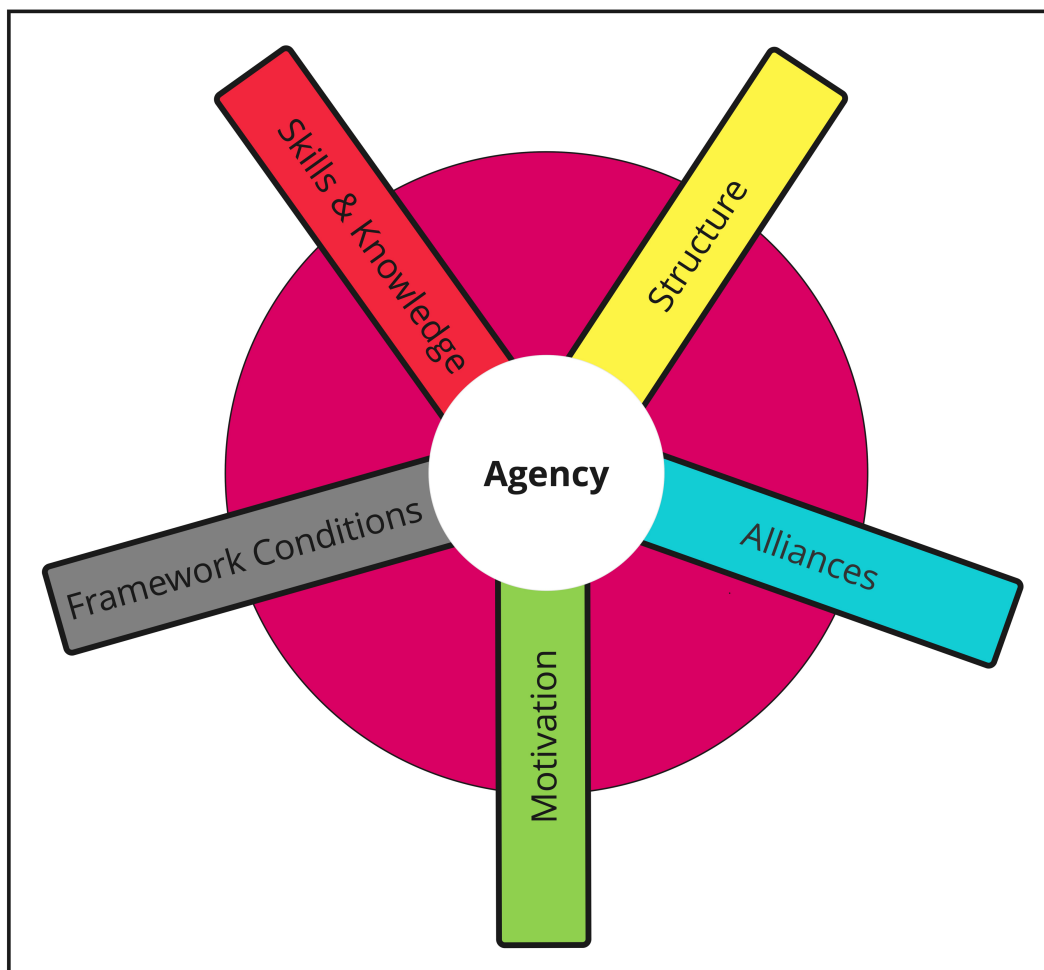
Most of the above-mentioned deficiencies correspond to previous findings from the surveys outlined in 2.2.1 and 2.2.2 (McGhie, 2020a; MFF Germany, 2022; NEMO, 2022b; Obbema, 2022). However, the fact that most of the perceived deficits are, after all, closely linked to a lack of agency has not been sufficiently emphasized – this is one of the main findings of this research. What became clear is that it takes a set of elements for an effective commitment to climate action. Individual and collective agency are major components which have been underestimated so far in the German museum context. Climate action needs to be driven forward by human beings and to become agents they need to identify and activate their agency both inside their institutions and on a local or broader level. The interview analysis has provided important insights that help understand what it takes for agency to emerge and to be utilised, but also to grasp its conceptual diversity:

- 1 Agency is strongly linked to (organizational) **structure**. Certain key positions automatically include agency which can be activated anytime. Regarding climate action, from this top-down perspective, agency can be exercised in agenda-setting for example, in building capacity and advocacy alliances. Serious commitment from museum managers, advocacy groups and policymakers can foster progress on all three levels of environmental sustainability challenges faced by public museums (FIGURE 1).
- 2 Bottom-up structures like local networks, in-house working groups and other **alliances** depend on collective action and (small) successes so that collective agency can emerge or can be perceived. This can change once official climate action positions are created which then brings agency and can ultimately lead to more professional practices.
- 3 Cultural policymakers and funding bodies can strengthen the museum practitioners' agency through **framework conditions**, reporting requirements and guidelines focusing on environmental sustainability. To develop them, pilot projects and participatory approaches on municipal or regional level are an effective, albeit time-consuming tool. Climate action in museums is primarily implemented at local level and regional level.
- 4 **Skills and knowhow** are an important essence of agency because they help define and measure the scope and outreach of (potential) climate action activities. If they are acquired within a group, this strengthens potential alliances and the sense of collective agency. Shared knowledge leads to more transparency and is the fastest way to facilitate action.
- 5 As outlined in Chapter 4.1.2: There is a huge variety when it comes to **motivation**. Even if motivation is one of the main components of agency,

it is not decisive whether the commitment to climate action is intrinsically motivated, for example, in economic necessity or in the funding myth of a museum. Within the same institution, individuals and other stakeholders can be driven by different motivations.

FIGURE 4 helps visualize these five essential driving forces of agency.

FIGURE 4
Driving Forces of Agency (Source: Own illustration)



Activating and using agency to commit to climate action can be understood as a counter-draft to the neutral attitude inherent to many museums (discussed in 2.2.1). The major aim for museums should be not only climate-neutrality for the sake of it, but integrity: “If enough museums awake to the present, integrity is poised to replace neutrality as a core belief.” (Janes, 2023, p. 99)

In the second half of 2022, this multidimensional conception of agency became a pivotal element in the way public museums in Germany and their cultural policy environment were able to tackle the energy crisis. But it also helps analyse climate action efforts on all three levels mentioned in FIGURE 1. In the German context, agency is particularly inherent to the cultural sovereignty of the states (Brosda, 2022), an aspect PM5 brought up:

[W]hen municipalities or cultural institutions say on their own initiative 'hey, we can make a contribution here that is credible for us, here, in our situation', then it's more effective than if we follow some rule from Berlin. I believe that Berlin has already behaved correctly in not setting too many overly strict guidelines. (PM5, par. 43)

However, Berlin is usually the place where federal policymakers and “policy entrepreneurs” (Kingdon, 2013, p. 180) exercise their agency through key position. Here is where political will and appealing policy responses could converge once a policy window opens, which in turn could benefit everyone.

4.2.2 The Energy Crisis: Policy Window for What Exactly?

From what has been seen in Chapter 2, it can be assumed that the energy crisis caused a policy window as defined by Kingdon (2013). A policy window which emerged in Germany in the late summer and autumn of 2022 is a possible explanation for some of the activities and the general attention put on climate action in the cultural policy field. This was a “problem window”, which opened “by the appearance of compelling problems” (Kingdon, 2013, p. 194) with the energy crisis as focusing event, and not so much as a “political window” initiated by “happenings in the political stream” (Kingdon, 2013, p. 194). Nevertheless, several developments in the political stream need to be given as background: the Green Party’s rise to governmental power in the German federal election in 2021 making it a member in the new traffic light coalition was an important political change. It led to the switch from conservative Monika Grütters, member of the Christlich Demokratische Union Deutschlands (CDU)⁸³ to Claudia Roth (Bündnis 90/Die Grünen)⁸⁴ as BKM in late 2021. A few months later, Roth announced extra funds for the ecological and sustainable transformation of cultural and media operations (s. 2.3.2). Neither the political and societal impact of the Greens in government should be underestimated here nor the high presence of the (potential) effects of the energy crisis on museums and other cultural sectors in the public discourse as outlined in 2.3.1. Mintrom and True (2022) emphasized the role of pre-conditions “in opening spaces for policy change” (p. 144), so the aspects mentioned might have influenced the emergence of such a policy window. On a federal level, cultural policy players like the DMB, the DKR, the ANKM and NEMO were potential “policy entrepreneurs” in the position to prepare for, seize or exploit such a policy window. One of the prerequisites is to be capable of perceiving that such a window of

⁸³ Christian Democratic Union of Germany (CDU)

⁸⁴ Alliance 90/The Greens

opportunity is about to open. Depending on their advocacy skills and efforts before and during the opening of the policy window, they could influence the political decisions needed on a national and local level to reduce the impact of the energy crisis on museums in Germany.

From what was outlined in 2.3.2, one of the indications of successful advocacy work could be the non-occurrence of temporary closures of museums which were feared, especially by the DMB (DMB, 2022d; Vuillaume & Willkomm, 2022) and NEMO (2022a). The experiences during the Covid-19 pandemic might have helped them to explicitly express their desire to prevent any new closures or reduction of open hours. In addition, there are some measures in 2022 that clearly support and promote the cultural sector. The idea of not letting the remaining corona aid for the cultural sector expire at the end of 2022, but to rededicate it and use it to support culture in the energy crisis, was introduced by the DKR, which also applies to the name for this aid fund: *Kulturfonds Energie* (DKR, 2022g). This financial support package to lessen the financial burden of increased energy costs for cultural institutions was then approved by the German Bundestag and officially implemented in early 2023 (BPA, 2023a, 2023b). This concrete example shows that the policy window was seized primarily for preventing financial damage and less for fostering “real climate action” – how McGhie put it (NEMO, 2022b, p. 12) – including, for example, concrete investments in the infrastructure of the museums. To sustainably reduce emissions in museums, however, there were already support programmes in place before the energy crisis; listed on the DMB website, for example (DMB, n.d.).

The timing of the kick-off event for the *Green Culture Desk* in November 2022 (s. also FIGURE 2) can be seen as another example for a policy response within this policy window: Whereas “a one-stop shop ‘Green Culture’ that offers skills, knowledge, data collection, advice and resources for ecological transformation” (Social Democratic Party of Germany [SPD], Alliance 90/The Greens, & the Free Democrats [FDP], 2021, p. 115) was already part of the coalition agreement in autumn 2021, the event as such with a panel discussion was framed by the message that the cultural sector needs to find an answer to rising energy prices and other major challenges in resource-conserving and energy-saving operations. The BKM claimed: “Let’s make this a departure into a more climate-friendly future that benefits us all, the economy, the cohesion of Europe, but also culture, the lifeblood of our democracy” (BKM, 2022). It took almost another year, though, to officially launch the *Green Culture Anlaufstelle* (Presse- und Informationsamt der Bundesregierung [BPA], 2023c) so there was

still a lot of talking, but little “real climate action”. In between, the already mentioned DMB guidebook, funded by the BKM, *Klimaschutz im Museum* full of practical recommendations was published in May 2023.

The interviewees’ assessment of the impact of the energy crisis on climate action efforts (FIGURE 3) showed that the emergence and the exploitation of a policy window is not unanimously perceived as such. This might root in the fact that on the municipal and state level in question for this research, cultural policies and climate policies addressing the SDGs were initiated long before the energy crisis. Another reason was outlined by Mintrom and True (2022) who investigated how policy entrepreneurs seized the Covid-19 pandemic as policy window. According to them, “while some people might be adept at exploiting the window of opportunity that they have perceived, others could fumble and see the opportunity pass them by” (p. 145). This heterogeneity also resonates in the interviewees.

At this point, when assessing the impact of the energy crisis, the emergence of a policy window and the status quo of climate action efforts in the field of German museums, the limitations of this research project become clear. Whereas the researcher finishes this text in early 2024, the interviews took place between May and September 2023. In between, dozens of new *transformerys*⁸⁵ have completed their training on environmental sustainability to name only the most prominent way of knowledge acquisition right now. Many institutions took the chance to participate in consulting processes, the *Green Culture Anlaufstelle* has taken up its work, etc. A free carbon footprint calculator for the German cultural sector was launched in late autumn 2023 (Presse- und Informationsamt der Bundesregierung [BPA], 2023d). Until then, such a tool wasn’t available apart from a test phase; this was considered “a huge deficit” (PM4, par. 35) in the interviews. It is therefore all the more important to emphasise the added value of this research since, as will be seen in the following, skills and knowledge are only one of several crucial elements for climate action.

4.2.3 Introduction of the Climate Action Vehicle (CAV)

What became clear in the interview analysis: even among the avantgarde of climate action in German museums and their cultural policy environment, it turns out that although the need for climate action was understood and the motivation was there already (long) before the warning call of the energy crisis, not enough is

⁸⁵ This is what the ANKM calls the about 400 alumni of the months-long training program they have hosted since 2021. The program is aimed at future transformation managers. The transformerys stay in contact with each other through the ANKM platform. Getting access to this alumni network is presented as one of the incentives for prospective participants (Aktionsnetzwerk Nachhaltigkeit für Kultur und Medien, 2024).

happening. More than ten years ago, Brophy and Wylie (2013) stated that the implementation of environmental sustainability in museums “should come from mission-driven decisions made on a daily basis using your institutional policy for green” (p. 4). This reveals the gap that exists on a global scale since for museums in Germany this seems still an ambitious demand, given that setting up an “institutional policy for green” is a concern tackled only today in 2024. The energy crisis shed light on what is still missing for “real climate action” and where this commitment is still being slowed down. To visualize the findings, the researcher created the *Climate Action Vehicle* (CAV, FIGURE 5). It is inspired by two of CP8’s quotations. One is the motto quotation of the Chapter 4; the second reads as follows:

At some point we thought about going to the moon and everyone said yes, we’re going to the moon, and we thought about going climate-neutral, yes, we want to go climate-neutral and now, all of a sudden, you simply don’t know how to do it? (CP8, par. 14)

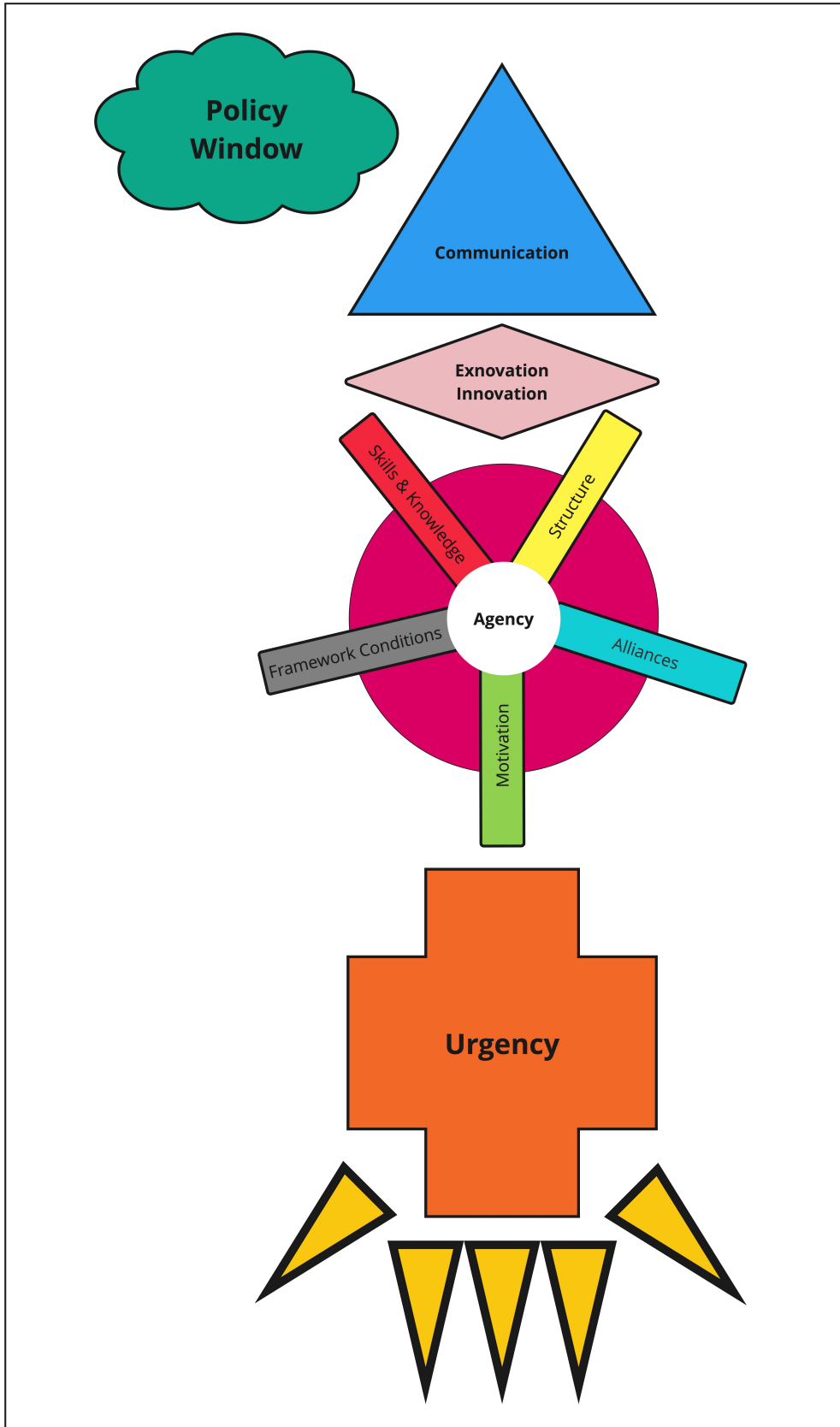
The purpose was to “craft” a vehicle that makes this journey towards climate-neutrality more feasible and effective for the museum sector. The central element is the steering wheel. It shows that “Agency” is the core of climate action. Its five driving forces are the handles that make navigation easier just like when steering a sailing boat. The fewer handles, the more difficult it is to stay on course, especially in stormy weather. The “Urgency” element is the foundation: it has different inputs, the energy crisis being only one of them, furthermore alarming scientific publications like the *Climate Change 2023* report (Intergovernmental Panel on Climate Change, 2023), extreme weather events like the 2021 floods, at some point in the future also exogeneous pressure like compulsory reporting requirements. As was shown in 4.1.4, “Innovation” plays an important role in the process towards climate-neutrality. It can accelerate and diversify certain activities, it can be inspiring, but it is not mandatory. This also applies for “Exnovation”, defined by Hiß & Stockinger (2023) as “Abschied von eingeübten Mustern”⁸⁶ (p. 13) and often an important premise for innovation. “Communication” is essential for transmitting credibility, integrity, engagement, advocacy work and assuming the role model museums have for society. It is also key for sharing knowledge on climate impacts among all museum stakeholders, for introducing artistic practices tackling climate action and making sustainability strategies and successes publicly available. A “Policy Window”, if well prepared and exploited, can help speed up,

⁸⁶ “saying goodbye to well-practised patterns”

but it is like a rare constellation of stars and waiting for it could bring any endeavour to a standstill. The *CAV* is supposed to be helpful for everyone involved with museums by showing the important elements of climate action and their interplay. As becomes easily visible, it is not enough to read guidebooks and toolkits on how to become a greener museum to immediately succeed in climate action. The strength of the *CAV* is its low threshold, its accessibility, and its universal usability. It works for individual agency and collective agency, for policymakers and for museum practitioners, researchers, advocates, trainers, consultants, etc. It enables a proactive approach towards climate action by deciphering its components.

In a way the *CAV* is an intellectual continuation of the 2-pager that NEMO (2022c) conceived, visualizing the key findings of its survey and the resulting recommendations. The seven main topics were “relevance”, “framework and guidance”, “policy coherence”, “infrastructure”, “skills and training”, “alliances” and “risk awareness” (NEMO, 2022c, pp. 2–3) and show some overlap with the *CAV* components. However, in the *CAV*, the links and connections between them are now visible immediately.

FIGURE 5
Climate Action Vehicle (CAV) (Source: Own illustration)



5 Conclusion

The purpose of this master's thesis was to get insights of the on-going cultural policy efforts regarding climate action in German museums during the energy crisis. The interviewees experienced, with a mixture of impatience and confidence, how museums and cultural policy tackle the ongoing crises and challenges. Although climate action is clearly perceived as relevant, not enough is happening due to a set of impediments that correspond to previous findings. One of the seven recommendations presented by NEMO in its survey results seems extremely relevant for Germany: "Increase communication between governing and funding bodies and museums, encourage cooperation and develop cohesive, comprehensive frameworks for museum work" (NEMO 2022b, p. 4). This was also one of the major findings of this research: a key to good climate action practice are participation processes, initiated by the municipality, for example fostering circular material (re)usage, setting up and implementing tools like a carbon footprint calculator. Once the museums perceive themselves as change agents within a wider cultural-political framework, climate action becomes less technical and boring, but a social, ecological, and economic mission. Strategic museum management with a strong focus on ecological sustainability and risk awareness is now more needed than ever and should to be anchored in the museums' core mission. A positive side-effect of the energy crisis is the increased awareness, due to broader media coverage, of the urgent need for a sustainable transition: on a political level it is about creating framework conditions and opportunities to accelerate climate action measures, and to cooperate with the museums, associations, and think-tanks.

The conceptual lenses of "Agency" – which also implies structure in the way Gray (2016) applied it – and "Policy Window" have shaped this master's thesis. They confirmed the complex interplay between the different players but also stressed the opportunities for museums and their environment. This approach culminated in the CAV which is conceived as a new conceptual lens to assess climate action in the future. Whereas it has come into being in the museums field, it could easily be used for different sectors as well which could be a subject of future research. The CAV could also help assess the data from two surveys that were launched in autumn 2023 and whose results have not yet been published (Deutscher Museumsbund [DMB], 2023b; Deutsche Umweltstiftung [DBU], 2023a). The first one is part of the Germany based project *Green Museum and Climate-Friendly Culture. Environmental Management of Climate-Related Risks in*

*Museums*⁸⁷. The purpose of the questionnaire for museums is to obtain a general overview of the status quo of environment, sustainability, and climate protection in the German museum landscape by considering input from international examples.⁸⁸ The second survey launched by the DMB is less complex and serves more as a mood survey among German museums around the question “Wie aktiv setzen Sie Klimaschutz im Museum um?”⁸⁹ as a follow-up to the DMB guidebook (DMB, 2023a) on climate protection published in May 2023.

When asked in an interview in spring 2023 if the energy shortage is boosting the debate about more sustainability in German museums, Stefan Simon, director of the already mentioned Rathgen Forschungslabor and very engaged with climate action from the very beginning, answered:

Ja, die aktuelle Energiekrise stärkt das ökologische Bewusstsein im Museumsbetrieb. Ich sehe diese Entwicklung mit einem lachenden und einem weinenden Auge. Lange Zeit haben meine Forderungen nach mehr Nachhaltigkeit kaum jemanden interessiert. Jetzt vergeht – wegen der aktuellen Lieferengpässe beim Gas und anderen Energieträgern – kaum ein Tag ohne Anfrage von Medienvertretern und Museumsverbänden zur Frage, wie beispielsweise Museen sparsamer mit ihren Ressourcen umgehen können. Dabei ist die Dramatik der Klimakrise unabhängig vom Notfallplan Gas längst Realität.⁹⁰ (Wurm, 2023)

His statement unveiled some of the dilemmas this research project was dismantling. From what became clear through the empirical analysis: it needs a political will, a critical mass, and a top-down commitment to make climate action happen. This critical mass is triggered best by a variety of alliances, including predominantly but not exclusively locally driven approaches in collectives or convoys, either from one single field like *Eleven to Zero* in Hamburg, from the cultural sector in general or as a cross-sector initiative. Climate action is not a walk in the park; the more forces are pooled, the better.

⁸⁷ It is funded by the DBU and ran as cooperation between the interdisciplinary research institute Forschungsstätte der Evangelischen Studiengemeinschaft (FEST), the Rathgen-Forschungslabor as well as Staatliche Museen zu Berlin (SMB) which are both part of the SPK (Deutsche Umweltstiftung [DBU], 2023b).

⁸⁸ It consists of 30 questions, for example “In what form is sustainability anchored in your museum?” and “What options do you see for reducing energy consumption and improving the museum’s indoor climate/microclimate?”

⁸⁹ “How actively do you implement climate protection in the museum?”

⁹⁰ “Yes, the current energy crisis is strengthening ecological awareness in the museum business. I see this development with one laughing eye and one crying eye. For a long time, my demands for more sustainability hardly interested anyone. Now - because of the current supply bottlenecks for gas and other energy sources - hardly a day goes by without media representatives and museum associations asking how museums, for example, can use their resources more sparingly. Yet the dramatic nature of the climate crisis has long been a reality, regardless of the gas emergency plan.”

6 References

- Aktionsnetzwerk Nachhaltigkeit in Kultur und Medien (n.d.). *Über uns*.
<https://aktionsnetzwerk-nachhaltigkeit.de/uber-uns/>
- Aktionsnetzwerk Nachhaltigkeit in Kultur und Medien (2024). *Weiterbildung „Transformationsmanager*in Nachhaltige Kultur“*. <https://aktionsnetzwerk-nachhaltigkeit.de/transformationsmanagement-kultur/>
- Arts Council England (2021). *Essential read: Environmental Responsibility*.
<https://www.artscouncil.org.uk/blog/essential-read-environmental-responsibility>
- Beitin, A. (2021). Is the Museum of the Future Green? Institutional Challenges of a Changing Ecological Consciousness in Art and Culture. In L. Emmerling et al. (Eds.). *Museum – futures* (145–156). Turia + Kant.
- Beitin, A., Bonvicini, M., Bündge, H., Bußmann, F., Daur, J., Dziewior, Y., Emmert, C., Gorschlüter, P., Groos, U., Jansen, G., Klar, A., Köhler, T., Kuball, M., Leissner, J., Luckow, D., Majewski, A., Mühling, M., Nachtigäller, R., Odenbach, M., . . . Wesseler, M. (2019, November 7). Offener Brief: Wir brauchen einen "Green New Deal" für Museen. *Monopol*.
<https://www.monopol-magazin.de/offener-brief-klimaschutz-museum>
- Bilabel, J. S. (2022, March 17). *Darauf habe ich 11 Jahre gewartet: Aktuelle Pressemeldung von Claudia Roth, Beauftragte der Bundesregierung für Kultur und Medien: 5 Millionen ...* [Post]. LinkedIn.
https://de.linkedin.com/posts/jbilabel_greeneculture-transformation-kultur-activity-6910130172960587777-hm8n
- Blühdorn, I. (2022). Unsere Freiheit, unser Wohlstand. Zur Krise des öko-emanzipatorischen Projekts. In Kröger, F., Mohr, H., Sievers, N., & Weiß, R. (Eds.). *Jahrbuch für Kulturpolitik 2020/2021. Kultur der Nachhaltigkeit* (pp. 59–68). Bielefeld: transcript Verlag. <https://doi.org/10.14361/9783839461730-006>
- Blumenreich, U. (2022). *Country Profile Germany. Compendium of Cultural Policies and Trends*. https://www.culturalpolicies.net/wp-content/uploads/pdf_full/germany/Full-Country-Profile_Germany2022.pdf

- Bonde, A., & Fuhrmann, C. (2021). Die vierte Säule der Nachhaltigkeit. Das Engagement der Deutschen Bundesstiftung Umwelt im Kulturbereich. *Politik & Kultur*, 10, 19. <https://www.kulturrat.de/publikationen/zeitung-pk/ausgabe-nr-102021/>
- Brophy, S. S., & Wylie, E. (2013). *The green museum: a primer on environmental practice* (2nd ed.). AltaMira Press.
- Brosda, C. (2022). Nachhaltige Kulturpolitik als Politik der Vielen. In Kröger, F., Mohr, H., Sievers, N., & Weiß, R. (Eds.). *Jahrbuch für Kulturpolitik 2020/2021. Kultur der Nachhaltigkeit* (pp. 125–131). transcript. <https://doi.org/10.14361/9783839461730-012>
- Brünger, S. (2022). Ökologische Kulturförderung zwischen Anreizen und Auflagen. *Ökologisches Wirtschaften*, 37(4), 11. <https://www.oekologisches-wirtschaften.de/index.php/oew/article/view/1901>
- Bürger, B. (2022, August 20). Wie Museen Energie einsparen können. [Audio podcast episode]. In Fazit. *Deutschlandfunk Kultur*. <https://www.deutschlandfunkkultur.de/wie-museen-energie-einsparen-koennen-100.html>
- Bui, Y. N. (2014). *How to write a master's thesis* (2nd ed.). Sage.
- Bundesministerium für Wirtschaft und Klimaschutz (2022, August 24). *Robert Habeck: "Pressing ahead with energy conservation" Federal cabinet approves energy conservation ordinances* [Press release]. <https://www.bmwk.de/Redaktion/EN/Pressemitteilungen/2022/08/20220824-habeck-pressing-ahead-with-energy-conservation.html>
- Bryman, A. (2012). *Social Research Methods* (4th ed.). Oxford University Press.
- Cambridge Dictionary (n.d.). Agency. In *Cambridge Dictionary*. Retrieved January 1, 2024, from <https://dictionary.cambridge.org/de/worterbuch/englisch/agency>
- Charles, S. (2022). Culture Climate Circle. Eine Koalition der Entschlossenen. In Kröger, F., Mohr, H., Sievers, N., & Weiß, R. (Eds.). *Jahrbuch für Kulturpolitik 2020/2021. Kultur der Nachhaltigkeit* (pp. 179–190). transcript. <https://doi.org/10.14361/9783839461730-029>

- CIMAM – International Committee for Museums and Collections of Modern Art (2023). *Toolkit on Environmental Sustainability in the Museum Practice*. <https://cimam.org/news-archive/toolkit-on-environmental-sustainability-in-the-museum-practice/>
- Copernicus Climate Change Service (2023). *European State of the Climate 2022*. https://climate.copernicus.eu/sites/default/files/customuploads/ESOTC2022/PR/ESOTCsummary2022_final.pdf
- Dafoe, T. (2022, September 6). The Mayor of Strasbourg Is Forcing Local Museums to Close Two Days a Week to Save on Exploding Energy Costs. *Artnet News*. <https://news.artnet.com/art-world/energy-crisis-european-museums-2170843>
- Dege, S. (2022, October 7). How museums are combating the energy crisis. *Deutsche Welle*. <https://www.dw.com/en/how-museums-are-combating-the-energy-crisis/a-63371625>
- Derwort, P., Jager, N., & Newig, J. (2022). How to Explain Major Policy Change Towards Sustainability? Bringing Together the Multiple Streams Framework and the Multilevel Perspective on Socio-Technical Transitions to Explore the German “Energiewende”. *Policy Studies Journal*, 50(3), 671–699. <https://doi.org/10.1111/psj.12428>
- Deutsche Gesellschaft für Soziologie (2017). *Ethik-Kodex der Deutschen Gesellschaft für Soziologie (DGS) und des Berufsverbandes Deutscher Soziologinnen und Soziologen (BDS)*. https://soziologie.de/fileadmin/user_upload/dokumente/Ethik-Kodex_2017-06-10.pdf
- Deutscher Kulturrat (2022a, June 22). *Energie für Kultur: Unterstützung von Kultureinrichtungen bei Energiekosten. Resolution des Deutschen Kulturrates* [Press release]. <https://www.kulturrat.de/positionen/energie-fuer-kultur-unterstuetzung-von-kultureinrichtungen-bei-energiekosten-2/>
- Deutscher Kulturrat (2022b, August 4). *Energiekrise: Kostenexplosionen gefährden Kultureinrichtungen* [Press release]. <https://www.kulturrat.de/presse/pressemitteilung/energiekrise-kostenexplosionen-gefaehrden-kultureinrichtungen/>

- Deutscher Kulturrat (2022c, August 23). *Schließung von Kultureinrichtungen – Kommunen in großer Sorge*. <https://www.kulturrat.de/presse/pressemitteilung/schliessung-von-kultureinrichtungen-kommunen-in-grosser-sorge/>
- Deutscher Kulturrat (2022d, Sept 5). *Entlastungspaket: 1 Milliarde Euro für die Kultur. Deutscher Kulturrat begrüßt Entscheidung* [Press release]. <https://www.kulturrat.de/presse/pressemitteilung/entlastungspaket-1-milliarde-euro-fuer-die-kultur/>
- Deutscher Kulturrat (2022e, Sept 25). *Energie für Kultur II: Vielfalt der Kultur unterstützen und stärken* [Press release]. <https://www.kulturrat.de/positionen/energie-fuer-kultur-ii-vielfalt-der-kultur-unterstuetzen-und-staerken/>
- Deutscher Kulturrat (2022f, Oct 10). *Energiekrise: Kultur muss dauerhaft mit deutlich höheren Gaspreisen kalkulieren* [Press release]. <https://www.kulturrat.de/presse/pressemitteilung/energiekrise-kultur-muss-dauerhaft-mit-deutlich-hoeheren-gaspreisen-kalkulieren/>
- Deutscher Kulturrat (2022g, Oct 14). *Energiekrise: Kulturfonds Energie kommt* [Press release]. <https://www.kulturrat.de/presse/pressemitteilung/energiekrise-kulturfonds-energie-kommt/>
- Deutscher Kulturrat (2023). *Mit Kultur Nachhaltigkeit befördern – Nachhaltigkeit in der Kultur stärken* [Press release]. <https://www.kulturrat.de/positionen/mit-kultur-nachhaltigkeit-befoerdern-nachhaltigkeit-in-der-kultur-staerken/>
- Deutscher Museumsbund (n.d.). *Förderdatenbanken*. <https://www.museumsbund.de/foerderprogramme-klimaschutz-und-nachhaltigkeit/>
- Deutscher Museumsbund (2021a). *Bulletin: Ganzheitliche Nachhaltigkeit im Museum gestalten. Bulletin (4)*. <https://www.museumsbund.de/publikationen/bulletin-421/>
- Deutscher Museumsbund (2021b). *Die Soziale Dimension der Nachhaltigkeit. Museumskunde, 86(1)*. <https://www.museumsbund.de/publikationen/50777/>

- Deutscher Museumsbund (2022a). Bulletin: Klimaschutz und Nachhaltigkeit im Museum, *Bulletin* (3). <https://www.museumsbund.de/publikationen/bulletin-3-22-klimaschutz-und-nachhaltigkeit-im-museum/>
- Deutscher Museumsbund (2022b, July 13). *Energieknappheit: Jetzt Maßnahmen ergreifen und Energie einsparen*. <https://www.museumsbund.de/energieknappheit-jetzt-massnahmen-ergreifen-und-energie-einsparen/>
- Deutscher Museumsbund (2022c, August 22). *Energieeinsparungen: Jetzt praktische Handlungsempfehlungen umsetzen*. <https://www.museumsbund.de/energieeinsparungen-jetzt-praktische-handlungsempfehlungen-umsetzen/>
- Deutscher Museumsbund (2022d, September 23). *Energiekrise: Museen brauchen zielgerichtete Unterstützung*. <https://www.museumsbund.de/energiekrise-museen-brauchen-zielgerichtete-unterstuetzung/>
- Deutscher Museumsbund (2022e, October 5). *Museumsbund empfiehlt neue Richtlinien für die Museumsklimatisierung*. <https://www.museumsbund.de/energiekrise-museumsbund-empfiehl-neue-richtlinien-fuer-die-museumsklimatisierung/>
- Deutscher Museumsbund (2022f, November 23). *Deutscher Museumsbund rechnet mit mindestens 100 Mio. Euro Energie-Mehrkosten für Museen*. <https://www.museumsbund.de/deutscher-museumsbund-rechnet-mit-mindestens-100-mio-euro-energie-mehrkosten-fuer-museen/>
- Deutscher Museumsbund (2023a). *Klimaschutz und Nachhaltigkeit in Museen*. <https://www.museumsbund.de/wp-content/uploads/2023/05/dmb-leitfaden-klimaschutz.pdf>
- Deutscher Museumsbund (2023b). Umfrage zu Klimaschutz im Museum. Retrieved October 17, 2023, from: <https://www.museumsbund.de/umfrage-klimaschutz/>
- Deutsche Bundesstiftung Umwelt (2023a). Questionnaire for Museums. Retrieved October 17, 2023, from: <https://survey.lamapoll.de/Fragebogen-f-r-Museen-engl>

Deutsche Bundesstiftung Umwelt (2023b). *Grünes Museum und klimagerechte Kultur. Umweltmanagement klimabezogener Risiken in Museen.* https://cms.dbu.de/projekt_38571/01_db_2848.html

Die Beauftragte der Bundesregierung für Kultur und Medien (2022, November 20). „Green Culture“-Veranstaltung in Berlin. *Roth: Aufbruch zu mehr Nachhaltigkeit in Kultur und Medien.* <https://www.kulturstaatsminister.de/SharedDocs/Standardartikel/DE/2022/11/2022-11-20-green-culture-berlin.html>

Döring, N. (2023). *Forschungsmethoden und Evaluation in den Sozial- und Humanwissenschaften* (6th ed.). Springer. <https://doi.org/10.1007/978-3-662-64762-2>

Dowidat, S. (2022). Vom Klimakiller bis zum Vorreiter – über Nachhaltigkeit in Museen. Ein Überblick. In Kröger, F., Mohr, H., Sievers, N., & Weiß, R. (Eds.). *Jahrbuch für Kulturpolitik 2020/2021. Kultur der Nachhaltigkeit* (pp. 404–414). transcript. <https://doi.org/10.14361/9783839461730-029>

Drydyk, J. (2013) Empowerment, agency, and power. *Journal of Global Ethics*, 9(3), 249–262. <https://doi.org/10.1080/17449626.2013.818374>

Duxbury, N., Kangas, A., & De Beukelaer, C. (2017). Cultural policies for sustainable development: four strategic paths. *International Journal of Cultural Policy*, 23(2), 214–230. <https://doi.org/10.1080/10286632.2017.1280789>

Emirbayer, M., & Mische, A. (1998). What Is Agency? *American Journal of Sociology*, 103(4), 962–1023. <https://doi.org/10.1086/231294>

Feinig, E. (2022). *Museen als Verbündete einer klimagerechten Transformation. Handlungsfelder und Potenziale* [Unpublished master's thesis]. Universität für angewandte Kunst Wien, Austria. <https://services.phaidra.bibliothek.uni-ak.ac.at/api/object/o:38747/get>

Flick, U. (2004). Triangulation in Qualitative Research. In Flick, U., von Kardorff, E., & Steinke, I. (Eds.). *A Companion to Qualitative Research* (pp. 178–183). Sage.

- Flick, U., von Kardorff, E., & Steinke, I. (2004). What is Qualitative Research? An Introduction to the Field. In Flick, U., von Kardorff, E., & Steinke, I. (Eds.). *A Companion to Qualitative Research* (pp. 3–11). Sage.
- Föhl, P. S. (2011). Nachhaltige Entwicklung in Kulturmanagement und Kulturpolitik: Neustart oder Placebo? Grundlagen und Diskussionsanstöße. In Föhl, P. S., Glogner-Pilz, P., Lutz, M., & Pröbstle, Y. (Eds.), *Nachhaltige Entwicklung in Kulturmanagement und Kulturpolitik. Ausgewählte Grundlagen und strategische Perspektiven* (pp. 19–68). VS Verlag für Sozialwissenschaften. https://doi.org/10.1007/978-3-531-94114-1_1
- Föhl, P. S. (2017). Kulturentwicklungsplanung. In Klein, A. (Ed.) *Kompendium Kulturmanagement. Handbuch für Studium und Praxis* (4th ed.) (pp. 157–179). Vahlen.
- Föhl, P. S. (2022). Nachhaltigkeit in der Kulturentwicklungsplanung. Was macht Kulturentwicklungsplanung nachhaltig? In Kröger, F., Mohr, H., Sievers, N., & Weiß, R. (Eds.) *Jahrbuch für Kulturpolitik 2020/2021. Kultur der Nachhaltigkeit* (pp. 171–178). transcript. <https://doi.org/10.14361/9783839461730>
- Föhl, P. S. (2023). Kulturentwicklungsplanung als Starthilfe transformativer Kulturpolitik. Ein Rück- und Ausblick. In Crückeberg, J., Heinicke, J., Kalbhenn, J., Landau-Donnelly, F., Lohbeck, K., & Mohr, H. (Eds.) *Handbuch Kulturpolitik*. Springer VS. https://doi.org/10.1007/978-3-658-34381-1_48-1
- Föhl, P. S., & Wolfram, G. (2016). Partizipative Kulturentwicklungsplanung als Wegbereiter für neue Formen der kulturellen Teilhabe und des Community Building. In Mandel, B. (Ed.), *Teilhabeorientierte Kulturvermittlung. Diskurse und Konzepte für eine Neuausrichtung des öffentlich geförderten Kulturlebens* (pp. 265–279). transcript. <https://doi.org/10.1515/9783839435618>
- Fraunhofer-Institut für Bauphysik (n.d.). *Cultural Heritage Research Alliance*. <https://www.ibp.fraunhofer.de/en/business-units-and-products/cultural-heritage-research/cultural-heritage-research-alliance.html>
- Freie und Hansestadt Hamburg. Behörde für Kultur und Medien (2022, August 30). *Elf zu null – Hamburger Museen handeln*. *Hamburger Museen*,

Ausstellungshäuser und Gedenkstätten starten gemeinsames Projekt zur Nachhaltigkeit und Betriebsökologie [Press release]. <https://www.hamburg.de/pressearchiv-fhh/16451486/elf-zu-null-hamburger-museen/>

Freie und Hansestadt Hamburg. Behörde für Kultur und Medien (2023). *Kulturfonds Energie des Bundes*. <https://www.kulturfonds-energie.de/index.html>

Fritsche, I. (2022). Agency Through the We: Group-Based Control Theory. *Current Directions in Psychological Science*, 31(2), 194–201. <https://doi.org/10.1177/09637214211068838>

Fritsche, I., Barth, M., Jugert, P., Masson, T., & Reese, G. (2018). A Social Identity Model of Pro-Environmental Action (SIMPEA). *Psychological Review*, 125(2), 245–269. <https://doi.org/10.1037/rev0000090>

Fritsche, I., & Masson, T. (2021). Collective climate action: When do people turn into collective environmental agents? *Current Opinion in Psychology*, 42, 114–119. <https://doi.org/10.1016/j.copsyc.2021.05.00>

Garthe, C. J. (2021). Klimaschutz im Museum. Herzstück oder Feigenblatt eines systemischen Wandels? *Kultur Management Network Magazin*, 158, 53–58. <https://cdn.kulturmanagement.net/dlf/2d62d7fdaaa6c1b14722da5a1dcec61a,1.pdf>

Garthe, C. J. (2022). *Das nachhaltige Museum: Vom nachhaltigen Betrieb zur gesellschaftlichen Transformation*. transcript. <https://doi.org/10.14361/9783839461716-011>

Garthe, C. J. (2023). *The Sustainable Museum: How Museums Contribute to the Great Transformation*. Routledge. <https://doi.org/10.4324/9781003195207>

Gorgis, E., & Stucke, J. (Hosts). (2022, September 8). Wie Museen nachhaltiger werden können [Audio podcast episode]. In *Lakonisch Elegant. Deutschlandfunk Kultur*. <https://www.deutschlandfunkkultur.de/lakonisch-elegant-kulturpodcast-energiekrise-klimawandel-nachhaltigkeit-museen-100.html>

- Gray, C. (2016). Structure, Agency and Museum Policies. *Museum and Society*, 14 (1), 116–130. <http://wrap.warwick.ac.uk/86143/>
- Haab, T. (2022) *Culture and Sustainability: A Case Study of Museums in Austria* [Unpublished master's thesis]. University of Graz, Austria. <https://unipub.uni-graz.at/obvugrhs/download/pdf/8286007?originalFilename=true>
- Hanschke, K. (2022, August 7). Museen in der Energiekrise: Nur Steinkunstwerke sind wirklich wetterfest. *Frankfurter Allgemeine Zeitung*. <https://www.faz.net/-gsa-auoz6>
- Häntzschel, J. (2022, September 26). Folgen der Energiekrise für die Kultur – SOS und kalter Krieg. *Süddeutsche Zeitung*. <http://www.sz.de/1.5663543>
- Harris, T. (2021). Covid-19 as a Catalyst for The Enculturation of Online Video Performance: The Online Stage During The Coronavirus Lockdown. *Sonic Scope: New Approaches to Audiovisual Culture*, 2. <https://doi.org/10.21428/66f840a4.24608bfd>
- Haus der Bayerischen Geschichte (n.d.). *Energiespar-Museum: Nachhaltigkeit und Energieeffizienz am Haus der Bayerischen Geschichte*. <https://www.museum.bayern/museum/gebäude/energiespar-museum.html>
- Herrmann, P. (2022, August 16). Museen in der Klima- und Energiekrise unter Druck: "Eine noch nie dagewesene Lage". *Monopol*. <https://www.monopol-magazin.de/museen-der-klima-und-energiekrise-unter-druck>
- Hilgert, M. (2021). Krisen mitdenken. Notfallvorsorge als Aspekt nachhaltiger Kulturpolitik. *Politik & Kultur*, 10, 16. <https://www.kulturrat.de/publikationen/zeitung-pk/ausgabe-nr-102021/>
- Hiß, S., & Stockinger, A. (2023). Kultur und Nachhaltigkeit – Aufbruch der Museen in die Transformation. In Sonnberger, M., Bleicher, A., & Groß, M. (Eds.) *Handbuch Umweltsoziologie*. Springer VS. https://doi.org/10.1007/978-3-658-37222-4_41-1
- Hollows, V. (2019). The Activist role of museum staff. In Janes, R. R., & Sandell, R. (Eds.) *Museum Activism* (pp. 80–90). Routledge. <https://doi.org/10.4324/9781351251044>

- Hopf, C. (2004). Qualitative Interviews: An Overview. In Flick, U., von Kardorff, E., & Steinke, I. (Eds.). *A Companion to Qualitative Research* (pp. 203–208). Sage.
- Hysing, E., & Olsson, J. (2017). *Green Inside Activism for Sustainable Development*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-319-56723-5>
- ICOM – International Council of Museums (2002). *Museum definition*. <https://icom.museum/en/resources/standards-guidelines/museum-definition/>
- Institut für Kulturpolitik der Kulturpolitischen Gesellschaft (2023). *Nachhaltigkeit und Klimaschutz in der Kulturpolitik. Projektabschlussbericht*. [https://kupoge.de/download/2023/Nachhaltigkeit und Klimaschutz in der Kulturpolitik2.pdf](https://kupoge.de/download/2023/Nachhaltigkeit%20und%20Klimaschutz%20in%20der%20Kulturpolitik2.pdf)
- Intergovernmental Panel on Climate Change (2023). *Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, H. Lee and J. Romero (Eds.)]. <https://doi.org/10.59327/IPCC/AR6-9789291691647>
- Jakob, J. (2021). Die Brücke vom Wissen zum Handeln bauen – Interview mit Jacob Sylvester Bilabel. *Ökologischer Fußabdruck. Das Magazin von Kultur Management Network*, 158, 7–13. <https://www.kulturmanagement.net/dlf/2d62d7fdaaa6c1b14722da5a1dcec61a,10.pdf>
- Janes, R. R. (2023). *Museums and Societal Collapse: The Museum as Lifeboat*. Routledge. <https://doi.org/10.4324/9781003344070>
- Janes, R. R., & Sandell, R. (2019). Posterity has arrived: The necessary emergence of museum activism. In Janes, R. R., & Sandell, R. (Eds.) *Museum Activism* (pp. 1–21). Routledge. <https://doi.org/10.4324/9781351251044>
- Julie's Bicycle (2017). *The Museums' Environmental Framework*. https://juliesbicycle.com/wp-content/uploads/2022/01/Museums_Environmental_Framework_2017.pdf

- Kaluza, H. (2022). In Kröger, F., Mohr, H., Sievers, N., & Weiß, R. (Eds.). *Jahrbuch für Kulturpolitik 2020/2021. Kultur der Nachhaltigkeit* (pp. 203–210). <https://doi.org/10.14361/9783839461730-020>
- Ki Culture (2021). *Energy Ki Book*, Volume I. Stichting Ki Culture. <https://www.kiculture.org/ki-books/>
- Kimmel, T. (2023). Making museum repositories greener. *Reposition. Journal of reflective positions in Art and Research*, 1, 41–55. <https://www.researchcatalogue.net/view/1840995/1840996/0/0>
- Kingdon, J. (2013). *Agendas, Alternatives, and Public Policies* (2nd ed.). Pearson.
- Kishkovsky, S. (2022, October 11). Kyiv cultural sites reportedly damaged in Russian bombardment. *The Art Newspaper*. <https://www.theartnewspaper.com/2022/10/11/kyiv-cultural-sites-reportedly-damaged-in-russian-bombardment>
- Kratzer, H. (2022, October 12). Für Bayerns Museen geht es jetzt ums Überleben. *Süddeutsche Zeitung*.
- Kuhn, N. (2020, December 1). Kunsthäuser sind oft CO2-Schleudern: „Wir brauchen eine Klima-Taskforce für Museen“. *Tagesspiegel*.
- Kultur-MK (2022, September 21). *Gemeinsame Empfehlungen der Kulturministerkonferenz, der Beauftragten der Bundesregierung für Kultur und Medien und der kommunalen Spitzenverbände für Maßnahmen im Kontext einer etwaigen Gasnotlage unter besonderer Berücksichtigung Kulturgut bewahrender Einrichtungen*. [Press release]. https://www.kmk.org/fileadmin/Dateien/pdf/PresseUndAktuelles/2022/2022_09_21-Empfehlungen.pdf
- Kulturpolitische Gesellschaft (2001). *Tutzinger Manifesto*. <https://kupoge.de/ifk/tutzinger-manifest/pdf/tuma-gb.pdf>
- Kulturpolitische Gesellschaft (2022, September 7). *Positionierung des Präsidenten der Kulturpolitischen Gesellschaft: „Die Energiekrise ist auch eine Kulturkrise.“* [Press release]. <https://kupoge.de/wp-content/uploads/2022/09/Pressemitteilung.pdf>

Kulturpolitische Gesellschaft (n.d.). *Jahrbuch für Kulturpolitik*.
<https://kupoge.de/product-category/jahrbuch-fuer-kulturpolitik/>

Kulturstiftung der Länder (n.d.). *Mission statement*. <https://www.kulturstiftung.de/cultural-foundation-of-the-german-federal-states/>

Kulturstiftung des Bundes – KSB (n.d.) *Zero. Climate-neutral artistic and cultural projects*.
https://www.kulturstiftung-des-bundes.de/en/programmes_projects/sustainability_and_future/detail_1/programm_zero.html

Kulturstiftung des Bundes – KSB (2021). *Evaluation des Programms „TRAFO – Modelle für Kultur im Wandel“ der Kulturstiftung des Bundes. Kurzbericht Mai 2021*.
https://www.kulturstiftung-des-bundes.de/de/projekte/transformation_und_zukunft/detail/trafo_modelle_fuer_kultur_im_wandel.html

Kulturstiftung des Bundes – KSB (2022). *Carbon Footprinting in Cultural Institutions*.
https://www.kulturstiftung-des-bundes.de/en/programmes_projects/sustainability_and_future/detail_1/carbon_footprinting_in_cultural_institutions.html#:~:text=The%20pilot%20project%20“Carbon%20Footprinting%20in%20Cultural%20Institution”%20was%20initiated,%2Dcalled%20“convoy%20process”.

Kulturstiftung des Bundes – KSB, & Haus der Kulturen der Welt – HKW (n.d.).
ÜBER LEBENSKUNST. Initiative for culture and sustainability.
http://www.ueber-lebenskunst.org/downloads/uelk_projekt_01_en.pdf

Kulturveranstaltungen des Bundes in Berlin GmbH – KBB (n.d.). *About KBB*.
<https://www.kbb.eu/en/ueber-die-kbb>

Landau-Donnelly, F. (2023). Kulturpolitik und aktivistische Allianzen. In Crückeberg, J., Heinicke, J., Kalbhenn, J., Landau-Donnelly, F., Lohbeck, K., & Mohr, H. (Eds.) *Handbuch Kulturpolitik*. Springer VS.
https://doi.org/10.1007/978-3-658-34381-1_16-1

Landau-Donnelly, F., Schad-Spindler, A., Fridrik, S., & Marchart, O. (2022). Eine Konflikttheorie der Kulturpolitik. In Crückeberg, J., Heinicke, J., Kalbhenn, J., Landau-Donnelly, F., Lohbeck, K., & Mohr, H. (Eds.) *Handbuch Kulturpolitik*. Springer VS. https://doi.org/10.1007/978-3-658-34381-1_3-1

- Landeshauptstadt Dresden (2022, January 13). *Dresden Charta for Sustainability in the Cultural Sector*. https://www.dresden.de/media/pdf/kulturamt/20230403_CHARTA-Kultur-EN.pdf
- Larkin, A. (2022, October 25). In response to energy crisis, Berlin museum turns off its Dan Flavin neon for first time in 26 years. *The Art Newspaper*. <https://www.theartnewspaper.com/2022/10/25/lights-out-berlin-museum-turns-off-its-dan-flavin-neon-to-save-electricity>
- Laudenbach, P. (2022, August 29). Mit Kaltwasser auf den Toiletten ist es nicht getan. *Süddeutsche Zeitung*. www.sz.de/1.5647164
- Loach, K., Rowley, J., & Griffiths, J. (2016). Cultural sustainability as a strategy for the survival of museums and libraries. *International Journal of Cultural Policy*, 23(2), 186–198. <https://doi.org/10.1080/10286632.2016.1184657>
- Lyons, S., & Bosworth, K. (2019). Museums in the climate emergency. In Janes, R. R., & Sandell, R. (Eds.) *Museum Activism* (pp. 174–185). Routledge. <https://doi.org/10.4324/9781351251044>
- Maxwell, R., & Miller, T. (2017). Greening cultural policy. *International Journal of Cultural Policy*, 23(2), 174–185. <https://doi.org/10.1080/10286632.2017.1280786>
- McCrea-Hedley, O. (2022, October 13). How will European museums cope with the energy crisis this winter? *Apollo – The International Art Magazine*. <https://www.apollo-magazine.com/european-museums-energy-crisis/>
- McGhie, H. A. (2019). *Museums and the Sustainable Development Goals: a how-to guide for museums, galleries, the cultural sector and their partners*. Curating Tomorrow. <http://www.curatingtomorrow.co.uk/wp-content/uploads/2020/01/museums-and-the-sustainable-development-goals-2019.pdf>
- McGhie, H. A. (2020a). *In response to mandate Decision 15/CP.25, paragraph 2 Information on steps taken by global museums to implement the Doha work programme and in relation to Action for Climate Empowerment, including activities and results, best practices, lessons learned, and emerging gaps and needs*. <https://www4.unfccc.int/sites/SubmissionsStaging/Documents/202002131238---Curating%20Tomorrow%20Doha%20Review.pdf>

- McGhie, H. A. (2020b). Evolving climate change policy and museums. *Museum Management and Curatorship*, 35(6), 653–662. <https://doi.org/10.1080/09647775.2020.1844589>
- McGhie, H. A. (2021). *Mobilising Museums for Climate Action: Tools, frameworks and opportunities to accelerate climate action in and with museums*. Museums for Climate Action. <https://www.museumsforclimateaction.org/mobilise/toolbox>
- McGhie, H. A. (2022a). *Understanding the Sustainable Development Goals and targets: a guide for galleries, libraries, archives and museums*. Curating Tomorrow. <http://www.curatingtomorrow.co.uk/wp-content/uploads/2022/10/Understanding-the-SDGs-and-Targets-2022.pdf>
- McGhie, H. A. (2022b). *Action for Climate Empowerment, a guide for galleries, libraries, archives and museums*. Curating Tomorrow. http://www.curatingtomorrow.co.uk/wp-content/uploads/2022/04/action-for-climate-empowerment_2022.pdf
- McGhie, H. A., Black, T., Indriago, G., Kapustina, C., & Chu, J. (2022). *Measuring and Reporting Greenhouse Gas Emissions: an introduction for museums and cultural institutions*. Curating Tomorrow & Co2Action. <https://curatingtomorrow236646048.wordpress.com/wp-content/uploads/2022/10/measuring-reporting-greenhouse-gas-emissions-2022.pdf>
- Mintrom, M., & True, J. (2022). COVID-19 as a policy window: policy entrepreneurs responding to violence against women. *Policy and Society*, 41(1), 143–154, <https://doi.org/10.1093/polsoc/puab017>
- Moschell, J. (2022). Nachhaltige Entwicklung im Kulturbereich als Steuerungsaufgabe der Kulturverwaltung: Forderung und Förderung. In Kröger, F., Mohr, H., Sievers, N., & Weiß, R. (Eds.). *Jahrbuch für Kulturpolitik 2020/2021. Kultur der Nachhaltigkeit* (pp. 305–313). transcript. <https://doi.org/10.14361/9783839461730-031>
- Müller, M., & Grieshaber, J. (2023). The sustainability star: a model for museums. *ICOM Voices*. <https://icom.museum/en/news/the-sustainability-star-a-model-for-museums/>

- Museums For Future (2021). *The Declaration of Museums For Future*.
<http://museumsforfuture.org/declaration>
- Museums For Future Germany (2022). #14 *Ergebnisse und Reflexionen zu unserer Umfrage "Museen, Nachhaltigkeit und Klimaschutz"*.
<https://museumsforfuture.org/tpost/n2xmk8xdm1-14-ergebnisse-und-reflexionen-zu-unserer>
- Museum für Kunst & Gewerbe Hamburg – MK&G (2023). *Elf zu Null. Hamburger Museen handeln*. <https://elfzunull.de>
- Network of European Museum Organisations – NEMO (n.d.). *About us*.
<https://www.ne-mo.org/about-us>
- Network of European Museum Organisations – NEMO (September 16, 2022a). *Statement on the Impact of the Energy Crisis on Museums in Europe*.
https://www.ne-mo.org/fileadmin/Dateien/public/NEMO_Statements/NEMO_Statement_Energy_Crisis_in_Europe_16092022.pdf
- Network of European Museum Organisations – NEMO (2022b). *Museums in the climate crisis. Survey results and recommendations for the sustainable transition of Europe*. https://www.ne-mo.org/fileadmin/Dateien/public/Publications/NEMO_Report_Museums_in_the_climate_crisis_11.2022_2.pdf
- Network of European Museum Organisations – NEMO(2022c). *Museums in the climate crisis. Findings & recommendations at a glance*. https://www.ne-mo.org/fileadmin/Dateien/public/Publications/NEMO_Report_Museums_in_the_climate_crisis_2-page-Recommendations_11.2022.pdf
- Oakley, K., & Ward, J. (2018). The art of the good life: culture and sustainable prosperity. *Cultural Trends*, 27(1), 4–17.
<https://doi.org/10.1080/09548963.2018.1415408>
- Obbema, D. (2022). Climate versus culture: how Canadian museums are confronting the climate crisis. *Museums & Social Issues*, 16(2), 95–133.
<https://doi.org/10.1080/15596893.2023.2208625>
- Presse- und Informationsamt der Bundesregierung – BPA (2022a, March 16). *Kulturstaatsministerin Roth: „Wir stärken die Kultur- und Medienpolitik des*

Bundes“ [Press release]. <https://www.bundesregierung.de/breg-de/bundesregierung/bundeskanzleramt/staatsministerin-fuer-kultur-und-medien/aktuelles/kulturstaatsministerin-roth-wir-staerken-die-kultur-und-medienpolitik-des-bundes--2016668>

Presse- und Informationsamt der Bundesregierung – BPA (2022b, July 21). *Kultureinrichtungen und Bund beraten über Energiesparen – Kulturstaatsministerin Roth: „Kulturbetrieb hat Potenzial und Vorbildfunktion zum Energiesparen und wird seinen Beitrag leisten“* [Press release]. <https://www.bundesregierung.de/breg-de/aktuelles/kultureinrichtungen-und-bund-beraten-ueber-energiesparen-kulturstaatsministerin-roth-kulturbetrieb-hat-potenzial-und-vorbildfunktion-zum-energiesparen-und-wird-seinen-beitrag-leisten--2063630>

Presse- und Informationsamt der Bundesregierung – BPA (2022c, August 4). *Kulturstaatsministerin Claudia Roth berät mit Länderkolleginnen und -kollegen und dem Präsidenten der Bundesnetzagentur über Energiekrise – Roth: „Energieeinsparungen erzielen und Funktionsfähigkeit der Kulturbetriebe sichern“* [Press release]. <https://www.bundesregierung.de/breg-de/aktuelles/kulturstaatsministerin-claudia-roth-beraet-mit-laenderkolleginnen-und-kollegen-und-dem-praesidenten-der-bundesnetzagentur-ueber-energiekrise-roth-energieeinsparungen-erzielen-und-funktionsfaehigkeit-der-kulturbetriebe-sichern--2069242>

Presse- und Informationsamt der Bundesregierung – BPA (2022d, October 4). *Besprechung des Bundeskanzlers mit den Regierungschefinnen und Regierungschefs der Länder am 4. Oktober 2022 in Berlin* [Press release]. <https://www.bundeskanzler.de/bk-de/suche/besprechung-des-bundeskanzlers-mit-den-regierungschefinnen-und-regierungschefs-der-laender-am-4-oktober-2022-in-berlin-2131782>

Presse- und Informationsamt der Bundesregierung – BPA (2022e, October 5). *Bund und Länder bekräftigen Bedeutung von Kunst und Kultur in Krisenzeiten* [Press release]. <https://www.bundesregierung.de/breg-de/suche/bund-und-laender-bekraeftigen-bedeutung-von-kunst-und-kultur-in-krisenzeiten-2132124>

Presse- und Informationsamt der Bundesregierung – BPA (2023a, January 26). *Kulturstaatsministerin Roth kündigt Start des Kulturfonds Energie des Bundes im Februar an: "Kulturangebote gerade in Krisenzeiten sicherstellen"* [Press release]. <https://www.bundesregierung.de/breg-de/aktuelles/kulturstaatsministerin-roth-kuendigt-start-des-kulturfonds-energie-des-bundes-im-februar-an-kulturangebote-gerade-in-krisenzeiten-sicherstellen--2160636>

Presse- und Informationsamt der Bundesregierung – BPA (2023b, February 15). *Kulturfonds Energie des Bundes ist online – Kulturstaatsministerin Roth: "Kulturszene in all ihrer Vielfalt tatkräftig unterstützen"* [Press release]. <https://www.bundesregierung.de/breg-de/aktuelles/kulturfonds-energie-des-bundes-ist-online-kulturstaatsministerin-roth-kulturszene-in-all-ihrer-vielfalt-tatkraeftig-unterstuetzen--2165568>

Presse- und Informationsamt der Bundesregierung – BPA (2023c, September 29). *Nachhaltigkeit in Kultur und Medien: Start der Anlaufstelle Green Culture* [Press release]. <https://www.bundesregierung.de/breg-de/suche/bund-startet-zentrale-anlaufstelle-green-culture-kulturstaatsministerin-roth-kultur-und-nachhaltigkeit-zusammendenken--2226550>

Presse- und Informationsamt der Bundesregierung – BPA (2023d, October 11). *Bund, Länder und Kommunen verabschieden einheitlichen Klimabilanzstandard für Kultureinrichtungen* [Press release]. <https://www.bundesregierung.de/breg-de/aktuelles/bund-laender-und-kommunen-verabschieden-einheitlichen-klimabilanzstandard-fuer-kultureinrichtungen-2229594>

Rat für Nachhaltige Entwicklung (RNE) (n.d.). *Sustainability Culture Fund*. <https://www.nachhaltigkeitsrat.de/en/projects/sustainability-culture-fund/>

Reinhardt, A. (2021a, January 28). *Nachhaltigkeit im Kunstbetrieb: Grüne Museen* [Radio broadcast]. *Deutschlandfunk*. <https://www.deutschlandfunk.de/nachhaltigkeit-im-kunstbetrieb-gruene-museen-100.html>

Reinhardt, A. (2021b, December 5). "Museen haben keine andere Alternative, als grün zu werden" [Radio broadcast]. *Deutschlandfunk*. <https://www.deutschlandfunk.de/ist-das-museum-ein-klimakiller-stefan-simon-vom-rathgen-forschungslabor-i-g-dlf-66ae6192-100.html>

- Renz, T. (2022). Empirische Methoden in der Kulturpolitikforschung. In Crückeberg, J., Heinicke, J., Kalbhenn, J., Landau-Donnelly, F., Lohbeck, K., & Mohr, H. (Eds.) *Handbuch Kulturpolitik*. Springer VS. https://doi.org/10.1007/978-3-658-34381-1_63-1
- Roth, C. (2022). Vorwort. In Kröger, F., Mohr, H., Sievers, N., & Weiß, R. (Eds.). *Jahrbuch für Kulturpolitik 2020/2021. Kultur der Nachhaltigkeit* (pp. 11–13). transcript. <https://doi.org/10.14361/9783839461730-001>
- Schmidt, C. (2004). The Analysis of Semi-structured Interviews. In Flick, U., von Kardorff, E., & Steinke, I. (Eds.). *A Companion to Qualitative Research* (pp. 253–258). Sage.
- Seifert, S. (2022, November 26). Nachhaltige Infrastruktur: Museen mit grünem Anstrich. *taz*. <https://taz.de/Nachhaltige-Infrastruktur/!5894001/>
- Siegel, A. (2022, October 14). *Empfehlungen zur Energieeinsparung und Notfallplanung Energiekrise für Kulturgut bewahrende Einrichtungen*. SicherheitsLeitfaden Kulturgut (SiLK) der Konferenz Nationaler Kultureinrichtungen (KNK). https://silk-project.de/wp-content/uploads/CDR_Leitfaden_Energie_BKM_KULTUR_221014_SiLK-2.pdf
- Siegel, A., Schöne, K., Dohrmann, A. – SiLK GbR (n.d.). *SiLK – Guidelines for the protection of cultural property*. <https://www.silk-tool.de/en/>
- Simon, S. (2022). Kein »Weiter so« – Die Zeit der musealen Glaspaläste ist vorbei. *Politik & Kultur*, 11, 28. <https://www.kulturrat.de/wp-content/uploads/2022/10/puk11-22.pdf>
- Social Democratic Party of Germany (SPD), Alliance 90/The Greens, & the Free Democrats (FDP) (2021). *Dare more progress – Alliance for Freedom, Justice and Sustainability. Coalition Agreement 2021 – 2025*. https://italia.fes.de/fileadmin/user_upload/German_Coalition_Treaty_2021-2025.pdf
- Soini, K., & Dessein, J. (2016). Culture-Sustainability Relation: Towards a Conceptual Framework. *Sustainability*, 8, 167. <https://doi.org/10.3390/su8020167>

- Staatliche Museen zu Berlin – Stiftung Preußischer Kulturbesitz (2022, October 18). Hamburger Bahnhof Flips the Switch on Dan Flavin's Light Art [Press release]. <https://www.smb.museum/en/whats-new/detail/hamburger-bahnhof-flips-the-switch-on-dan-flavins-light-art/>
- Staatliche Museen zu Berlin – Stiftung Preußischer Kulturbesitz (2023). Ausgerechnet: Museen 2021, *Sonderhefte der Zahlen & Materialien*, 9, [Rahemipour, P., & Grotz, K. (Eds.)] Institut für Museumsforschung. https://www.smb.museum/fileadmin/website/Institute/Institut_fuer_Museum_sforschung/Publikationen/Materialien/Sonderhefte/Institut-fuer-Museumsforschung-2021-Ausgerechnet-Museen.pdf
- Steigerwald, C. (2022). Shaping cultural policy discourse in Germany: the case of 'Cultural Education'. *International Journal of Cultural Policy*, 28(1), 89–106, <https://doi.org/10.1080/10286632.2021.1893314>
- Stiftung für Zukunftsfragen (2023, September 5). *Freizeit-Monitor 2023. Kultur boomt – mit einer Ausnahme*. <https://www.freizeitmonitor.de/2023/kultur-boomt-mit-einer-ausnahme/>
- Stiftung Preußischer Kulturbesitz (2023, April 18). Das Museum der Moderne „berlin modern“ am Kulturforum wird ein nachhaltiges Haus für alle [Press release]. <https://www.preussischer-kulturbesitz.de/pressemitteilung/artikel/2023/04/18/das-museum-der-moderne-berlin-modern-am-kulturforum-wird-ein-nachhaltiges-haus-fuer-alle-1.html>
- Stiftung Preußischer Kulturbesitz (n.d.). *Profile of the Stiftung Preußischer Kulturbesitz*. <https://www.preussischer-kulturbesitz.de/en/about-us/profile.html>
- Stiftung Universität Hildesheim (2024). *Our Institute*. <https://www.uni-hildesheim.de/en/fb2/institute/kulturpolitik/>
- Stylianou-Lambert, T., Boukas, N., & Christodoulou-Yerali, M. (2014). Museums and cultural sustainability: stakeholders, forces, and cultural policies. *International Journal of Cultural Policy*, 20(5), 566–587, <https://doi.org/10.1080/10286632.2013.874420>

- Sutton, S. (2020). The evolving responsibility of museum work in the time of climate change. *Museum Management and Curatorship*, 35(6), 618–635, <https://doi.org/10.1080/09647775.2020.1837000>
- Timm, T. (2022, October 19). Kunst in Gefahr. *Zeit Online*. <https://www.zeit.de/2022/43/museen-sicherheitsmassnahmen-kunst-ukraine-krieg-stromversorgung/komplettansicht>
- Trebing, S. (2022, October 19). Energiekrise: Muss die Kunst das Licht ausmachen? *Monopol*. <https://www.monopol-magazin.de/lichtkunst-hamburger-bahnhof-energiekrise-dan-flavin-muss-die-kunst-das-licht-ausmachen>
- United Nations (n.d.). *Goal 13: Take urgent action to combat climate change and its impacts*. [https://sdgs.un.org/goals/goal13#targets and indicators](https://sdgs.un.org/goals/goal13#targets_and_indicators)
- Verheyen, S. (2022). Raketen auf Museen. *Politik & Kultur*, 11, 9. <http://www.kulturrat.de/wp-content/uploads/2022/10/puk11-22.pdf>
- Völckers, H. (2021). Warum einen CO2-Rechner zu nutzen eine kulturelle Tat ist. *Politik & Kultur*, 10, 19. <https://www.kulturrat.de/publikationen/zeitung-pk/ausgabe-nr-102021/>
- Vuillaume, D., & Willkomm, S. (2022). Die Krise als das neue Normal – Welche Auswirkungen hat die Energiekrise auf die Museen? *Politik & Kultur*, 11, 28. <https://www.kulturrat.de/wp-content/uploads/2022/10/puk11-22.pdf>
- We Are Museums, EIT Climate-KIC, & Ki Culture (2021), *Museums on the Climate Journey*. https://drive.google.com/file/d/1MnRKHK7n74W2G-wRsC9Fv9Svx_nrT2VV/view
- Weiß, R. (2023). Allgemeine Nachhaltigkeitskultur – Neuorientierung der Kulturpolitik im Horizont von Klimawandel und UN Agenda 2030. In Crückeberg, J., Heinicke, J., Kalbhenn, J., Landau-Donnelly, F., Lohbeck, K., & Mohr, H. (Eds.) *Handbuch Kulturpolitik*. Springer VS. https://doi.org/10.1007/978-3-658-34381-1_23-1
- Wojcik, N. (2019, December 12). How sustainable are Germany's museums? *Deutsche Welle*. <https://www.dw.com/en/how-environmentally-sustainable-are-germanys-museums/a-51643169>

Wurm, P. (2023, March 3). Nachhaltigkeitsexperte Stefan Simon: Museen sollen grüner werden! *Tip Berlin*. <https://www.tip-berlin.de/stadtleben/nachhaltigkeit-stefan-simon-museen/>

Zimmermann, O., & Schulze, G. (2022). Extrawurst für die Kultur? Corona- und Energiekrise überfordern den Kulturbereich. *Politik & Kultur*, 11, 3. <https://www.kulturrat.de/wp-content/uploads/2022/10/puk11-22.pdf>