



Master Thesis

M.Sc. Cand. Soc. Management of Creative Business Processes

# The Film Industry's Take on Climate Change

- An institutional theory perspective -

Supervisor: Dr. Birke Otto

Sophie Brune (141910)

Characters: 174.165

Number of pages: 77

Date of submission: September, 14<sup>th</sup>, 2022



## Acknowledgements

I would like to express my gratitude to my supervisor Dr. Birke Otto for her guidance and highly valuable feedback during this research and writing process. Furthermore, this research would have never been possible without my interview partners who generously shared their expertise and knowledge. I also want to thank my major program that gave me the opportunity to study creative businesses and together with my minor program within the field of sustainability made it possible to put my two passions into research. Additionally, I am grateful for Jesper Strandgaard Pedersen for his advice.

I want to thank my proofreaders Antonia and Inga for their patience and thoroughness. Furthermore, I am deeply thankful Anna, Alejandro, Alex, Chiara, Luca, and Maiwenn for the all the hours of company in the library, brainstorm help and mental support during this thesis writing process. Lastly, I want to thank the people close to me for just being there and supporting me in various ways, I am grateful to have you around.

## Abstract

This study investigates the film industry's approach to addressing climate change. The film industry has a peculiar position in regard to combating climate change because they do not only create emissions themselves, but they also have a great impact on their audiences through their content. Therefore, it is of great value to understand what the industry does and potentially can do in order to exploit its potential to address climate change. In order to gain this understanding, this paper analyzes the film industry's approach to addressing climate change based on nine semi-structured interviews that were conducted with film industry experts.

This study demonstrates that the film industry offers a variety of initiatives with the ultimate objective of implementing sustainability measures. Various actors have launched these initiatives while their role is either enable, implement or advocate sustainability measures. Furthermore, the initiatives exhibit recurring mechanisms that are summarized into four strategies. Precisely, they raise awareness, develop norms and information media, realize the implementation of the measures, and control the quality of them. Lastly, it is shown that the initiatives influence each other and other actors in the film industry through discourse, inspiration, and force.

I conclude that the film industry addressed climate change by altering its institutions. The process of alteration was influenced by isomorphic pressures and furthermore moderated by institutional sustainability entrepreneurs and led to the diffusion of addressing climate change throughout the film industry.

# Table of Contents

<b>1. INTRODUCTION</b>	<b>1</b>
<b>2. LITERATURE REVIEW</b>	<b>5</b>
<b>3. THEORETICAL FRAMEWORK</b>	<b>10</b>
3.1. INSTITUTIONAL ENTREPRENEURS	11
3.2. ISOMORPHISM	13
<b>4. METHODOLOGY</b>	<b>15</b>
<b>5. FINDINGS</b>	<b>20</b>
5.1. ACTORS	21
5.1.1. <i>Enabling Actors</i>	22
5.1.2. <i>Implementing Actors</i>	23
5.1.3. <i>Advocating Actors</i>	24
5.2. STRATEGIES	26
5.2.1. <i>Raising Awareness</i>	27
5.2.2. <i>Development of Norms and Information Media</i>	31
5.2.3. <i>Realizing Implementation</i>	36
5.2.4. <i>Quality Control</i>	42
5.3. INITIATIVES' INFLUENCE	44
5.3.1. <i>Discourse</i>	44
5.3.2. <i>Inspiration</i>	46
5.3.3. <i>Forces</i>	48
<b>6. DISCUSSION</b>	<b>50</b>
6.1. FILM INDUSTRY AS A FIELD	52
6.2. INSTITUTIONAL ENTREPRENEURSHIP	53
6.3. ISOMORPHISM	60
6.4. FILM INDUSTRY AND CLIMATE CHANGE	64
<b>7. IMPLICATIONS</b>	<b>69</b>
7.1. IMPLICATIONS FOR RESEARCH	69
7.2. IMPLICATIONS FOR PRACTICE	71
<b>8. LIMITATIONS</b>	<b>73</b>
<b>9. CONCLUSION</b>	<b>74</b>
<b>BIBLIOGRAPHY</b>	<b>76</b>
<b>APPENDICES</b>	<b>81</b>
APPENDIX A	81
APPENDIX B	94
APPENDIX C	100
APPENDIX D	113
APPENDIX E	123
APPENDIX F	137
APPENDIX G	144
APPENDIX H	158
APPENDIX I	167

# Table of Figures

FIGURE 1, OVERVIEW OF THE ACTORS THAT ADDRESS CLIMATE CHANGE (SOURCE: PERSONAL COLLECTION).....	21
FIGURE 2, OVERVIEW OF THE STRATEGIES THAT ADDRESS CLIMATE CHANGE, (SOURCE: PERSONAL COLLECTION).....	26
FIGURE 3, OVERVIEW OF THE INITIATIVES' INFLUENCES IN ADDRESSING CLIMATE CHANGE (SOURCE: PERSONAL COLLECTION) .....	44
FIGURE 4, VISUALIZATION OF THE CONCEPT OF INSTITUTIONAL SUSTAINABILITY ENTREPRENEURS (PERSONAL COLLECTION, ADAPTED FROM BATTILANA ET AL., 2009) .....	59
FIGURE 5, VISUALIZATION OF CONCEPTUAL FRAMEWORK: HOW DOES THE FILM INDUSTRY ADDRESS CLIMATE CHANGE (SOURCE: PERSONAL COLLECTION) .....	64

# 1. Introduction

Climate change is the biggest crisis humanity currently faces. It has an influence on our daily lives already through heat waves, drought and fires as well as through floods, storms and loss of species. The reasons behind climate change are primarily human made, which makes it the humanity's responsibility to slow climate change down a consequence. Whereas more and more people agree on actions that have to be taken in order to address climate change privately, many organizations and further their industries occur to still prioritize capitalistic goals greatly over planetary preservation and sustainability<sup>1</sup>.

One of the industries that has a history of disregarding the climate for prioritizing capitalistic goals is the film industry. Indeed, it is one of the most polluting industries worldwide (Another Hollywood Production: Smog, 2006). At the same time it is peculiar in its combination of motives; motivated by financial profit as well as cultural benefits. Furthermore, the film industry does not only pollute directly, it also has great influence on its audiences that pollute themselves. Therefore, the film industry and its approaches to climate changes are an interesting phenomenon to investigate.

## *Context*

In addition to being something that many people can relate to on a personal and individual level, the function of films is also scientifically established. People's perceptions of their society, environment, and planet can be depicted in motion pictures (Colluty & Prereton, 2017; more sources). Films are a potent tool for implementing social change due to the scientific evidence of their influence on human perceptions, opinions, and behavior (Londakova et al., 2021). Obviously, this power can also be used to confront and address the current climate change crisis, which is arguably the greatest challenge faced by modern societies. This impact can be felt in various ways, either as the main topic or in a more subtle manner. In films such as climate documentaries, climate fiction films, and

---

<sup>1</sup> The term "sustainability" as it is used in this paper refers to means that allow us to act in a way that is not worsening climate change or at least decreases the harm to a minimum. Therefore, sustainability is the answer to climate change. It is to point out that, generally, there are several other types of sustainability, such as social sustainability or financial sustainability. In this paper, if not stated specifically, the term sustainability refers to ecological sustainability. Consequently, actions and strategies that allow us to be on this planet as long as possible from an ecological and environmental view.

certain feature films, the climate serves as the primary subject matter. The feature films either depict the climate in a utopian manner via future perspectives and the introduction of potential solutions, or in a dystopian manner via so-called disaster films depicting climate catastrophes (Kim & Park, 2021).

Additionally, there is a more subtle method of influence. On the one hand, there is the negative connotation associated with movie characters' climate-damaging actions, and on the other hand, there is the positive connotation associated with climate-friendly behavior. These connotations can be the verbal and nonverbal responses of other film characters; the use of certain products in the film, such as reusable bottles; or the placement of the climate through, e.g., a drought caused by constant global warming.

This indirect impact of films on climate change through their effect on human behavior is one way to combat climate change, but there is also a more direct approach. The production of motion pictures is notorious for its wastefulness and large carbon footprint, which harms the environment and climate in a direct fashion (BFI Study, 2020; Another Hollywood Production: Smog, 2006). For instance, a film with an estimated budget of over \$70 million produced 2,840 tonnes of CO<sub>2</sub>, which is equivalent to 11 trips to the moon (Meilani, 2021). The negative carbon footprint results from decisions regarding energy sources, transportation, and catering, among others. Thus, a shift toward more sustainable practices can directly reduce carbon emissions and, consequently, be less harmful to the environment.

### *Grand Challenge*

Together, these two direct and indirect opportunities for all film industry participants represent a substantial opportunity. Consequently, organizing the film industry seeks to preserve the planet by combating climate change and harvesting its potential to have a significant impact on the planet and our society. Several initiatives currently aim at achieving this objective, whereas their intensity and effectiveness vary across geographies and institutions. Furthermore, it came about through preliminary research that within the past few years, there has been a change in the film industry's take on climate change and the topic of sustainability has gained vast attention. Some components of this phenomenon are trivial due to the presence of the subject matter in our society in

general, while other components are not yet researched and understood to a sufficient level.

As a consequence, the film industry needs a contemporary outline of initiatives that address climate change in the film industry to get an overview of actions and actors<sup>2</sup> that are involved. This overview will help disseminate what initiatives exist and how they are assisting in this matter. In addition, an awareness of how the industry influences itself in relation to such initiatives lays the groundwork for facilitating and enhancing participation, as well as helps to understand the recent dynamics observed in the film industry. Moreover, enhancing collectiveness and broad participation is, therefore, a crucial next step for the film industry in its mission to combat climate change and exploit its enormous potential. In order to reach this goal, one has to first understand the current dynamics of change within the industry and, importantly, where they originate.

#### *Academic Conversation*

The strategy of this study regarding academic discourse is gap identification. Several fields of research, which will be described below, contribute to the gap. First, there is research on the film industry's response to climate change. It is important to note that this research focuses solely on a subset of the film industry (primarily film production) and therefore does not provide a comprehensive overview of the entire industry.

In addition to the review of literature that has been done on sustainability in the film industry, this paper utilizes institutional theories to combat an analysis of the film industry. Therefore, there is a theoretical framework outlining two main theories that will support the analysis of the described dynamics within the film industry. Although the theoretical framework is part of the academic conversation, it is considered different from the literature review since its relation to the film industry as well as to sustainability and organizational reactions to climate change is very limited. Therefore, the literature has been resembled to a framework in order to then discuss it in relation to the film industry and its approach to address climate change.

---

<sup>2</sup> Within this paper the term “actors” refers to industry stakeholders that carry out operational activities. This is clearly to differentiate from performative actors that play characters in films.



Consequently, the gap in current research consists of how the industry addresses climate change as a whole industry. Precisely, the twofoldness of the film industry with its direct and indirect effects that influence the climate that occur to be addressed by similar or the same actors. Therefore, in order to give an all encompassing overview, research has to look at the two potentials at the same time when looking at the industry from an institutional perspective. Further, contemporary research primarily looks at the film industry's take on climate change on an organizational level, but theories such as institutional entrepreneurship and isomorphism show the importance of investigating it from an institutional perspective. Therefore, there is a gap between research on sustainability in the film industry and research on institutional theories of the film industry.

#### *Research Question*

After pointing out the greater challenge as described above, combined with the described gap in the academic conversation, it came about that there was a need for two things. Firstly, an understanding of the actors, strategies, and initiatives the film industry offers to address climate change is needed. Secondly, an analysis of the interplay and influences within the industry regarding their initiatives in regard to foster addressing climate change is required to further delve into a potential answer to the described challenge.

Therefore, the question that will guide the research strategy was developed as follows:

*How does the film industry address climate change?*

Furthermore, the main research question was further established into two sub-questions that are:

*What are the strategies used in the film industry to address climate change and which actors execute them?*

*How do the initiatives influence change of addressing climate change in the film industry?*

## 2. Literature Review

To be able to obtain an answer to the guiding questions of this research and to establish what is already known regarding the topic of this thesis, an overview of research and theories that are already present is needed for further references and contextualization. Thus, the following section will explore existing studies regarding climate change and sustainability in the film industry.

When it comes to climate change and films, there are several researchers investigating this topic on a level that focuses on individual cases or issues. Thus, there are fields of study investigating a variety of matters. Authors such as Leiserowitz (2004) analyze the impact of the film “The Day After Tomorrow” on its audience. Kääpä (2013) and Tong (2013), to name examples, aim to increase audience understanding of ecocinema, a film genre that discusses and addresses ecological environmentalism. Nonetheless, studies like these examples are not a main part of the further research since this thesis aims at an understanding of the whole industry. For this literature review, therefore, only research analyzing the film industry, or a field within the industry, that analyzes the actors on an organizational or institutional level is included.

### *Film industry directly impacting the climate*

Research has been published on the direct effects the film industry has on climate change, consisting mainly of two books and one report that have been created by the Institute of Environment at the University of California Los Angeles. Although the report has not been published in a scientific journal, it has been written by a professor and has been referred to in the two mentioned books, thus working as a source of knowledge. Therefore, this report is included in this literature review as well. Most studies identify the film industry's non-local and organization, which leads e.g. to travelling, as the main origin of its pollution and wastefulness (Bozak, 2012; Vaughan, 2019; Corbett & Turco, 2006). Corbett & Turco (2006) further elaborate:

“The structure of the industry mitigates against environmental improvement, though: its highly decentralized nature, with its focus on short-term, ever-changing production teams rather than long-term physical supply chains, and the contrast between its high public visibility and financial instability resulting from its complex organizational structure,

stand in the way of its adopting many of the environmental programs that are common in more traditional industries.” (p. 3).

Showing the industry's complexity offers further explanations for reasons not only why the industry has such an impact on the climate but also why it is slower in changing than other industries (Corbett & Turco, 2006).

Further, it is said that there is little awareness of the film industry being polluting or otherwise environmentally harmful to the general public (Bozak, 2012; Corbett & Turco, 2006). Consequently, any publicity related to sustainability and resource-saving actions in the film industry would bring to the public's attention the existence of environmental problems that obviously require resolution (Corbett & Turco, 2006). On the one hand, this leads further to a mechanism where the industry is secretive about its actual impact on the climate and the initiatives it takes to reduce it (ibid.). This lack of transparency is motivated by a fear of sticking out and being “singled-out“ in relation to other production companies (ibid.). On the other hand, little attention by the public leads to less public pressure and fewer voices asking the film industry to change towards more environmentally friendly production practices (Corbett & Turco, 2006; Vaughan, 2019).

Another reason for such behavior related to the climate originates in the industry's typical characteristics of being time-pressured and a resolution stop-and-go-fashion (Bozak, 2012; Culloty & Brereton, 2017). Meaning, that during the initial stages of a project, the processes of a film production are slow (Corbett & Turco, 2006). However, when important agreements with funders or talent are reached, the project enters a mode in which everything must occur quickly (Bozak, 2012; Corbett & Turco, 2006). Consequently, it appears that people from the production team have mandatory attendance on film set, although they do not necessarily have tasks to fulfill (Corbett & Turco, 2006). Film productions reason such behavior with the need for the full team's presence in case of production related emergencies (ibid.).

In addition to the analysis of the origins and motivations of the industry's behavior, several of the researchers point out the main causes that make the impact of the film industry harmful to the ecological environment that will be described in the following.

First, there are common pollutants, that “are defined as the basic primary “criteria” pollutants, such as nitric oxide and carbon monoxide” (Corbett & Turco, 2006, p. 11). The air emissions mainly emerge from the energy supply to the industry by power plants (Corbett & Turco, 2006).

As the second factor influencing the climate, the film industry’s energy consumption is addressed (*ibid.*). In addition to that, Bozak (2012) and Vaughan (2019) take the energy consumption created by distribution into account, meaning, energy that is needed to, for example, run a cinema or distribute films digitally (Bozak, 2012; Vaughan, 2019). Indeed, the digital storage and distribution of films through streaming platforms is oftentimes underestimated (Bozak, 2012; Vaughan, 2019). Further, Vaughan (2019) points out that there is a lack of awareness and analysis of the impacts of digital production techniques, such as the usage of animation and complex video editing techniques.

The third factor is a continuation of the first one, meaning it encapsulates the emissions that are not considered common pollutants. The greenhouse gas emissions include CO<sub>2</sub>, methane, and N<sub>2</sub>O and are mainly created through fuel consumption (Corbett & Turco, 2006). The fuel consumption in the film industry is mainly based on the transportation of goods, the travel of people, and power generators that use fuel (Bozak, 2012). Furthermore, Bozak (2012) and Vaughan (2019) increase the scope of analysis to the whole production and distribution process, thus, including pollution generated by e.g. cinemas and streaming platforms in their analysis. They outline the importance of properly measuring the film industry's impact, from ideas and production to distribution and consumption, meaning the whole process a film goes through.

For the fourth category, Corbett & Turco (2006) address the hazardous waste the film industry generates. Additionally, Vaughan (2019) describes the extent to which the film industry wastes materials and resources such as requisites, stages, or scenery created just for one production and disposed of after the production phase. Further, there is an understanding in the public of the potential for digital technologies to transform the film business into a "green" industry (Bozak, 2012). Contrarily, Bozak (2012) further addresses the fact that the new digital age in cinema distribution demands for an increasing number of gadgets with ever-shortening life cycles that end up in landfills at

an alarming rate and thereby create a significant amount of waste, of which a crucial part is non-recyclable.

Finally, Corbett & Turco (2006) describe more causes of the film industry's impact on climate change, such as fatalities, and oil and tire consumption, whereas neither Bozak (2012) nor Vaughan (2019) point out these explicitly.

After analyzing the causes of climate change within the film industry, some authors offer potential solutions or techniques to address these issues. Accordingly, the industry should organize itself more locally (Bozak, 2012; Vaughan, 2019). On another note, Vaughan (2019) develops an innovative set of tools and a re-imagined energy usage.

#### *Film industry indirectly impacting the climate*

After outlining research that investigates the film industry's direct effects on the climate, the following section considers research addressing the industry's indirect effects. In general there are various ways to depict the climate through films. The most common genre utilizing this is "climate-fiction" (Lowe et al., 2006). It is used to raise awareness of the urgency to act that climate change requires and integrates climate in fiction movies to depict certain potential futures (ibid.). Furthermore, in past years climate change has been more present and addressed in a huge variety of genres (Kääpä, 2014). As a matter of fact, films such as "An Inconvenient Truth" or "The Day After Tomorrow" belong to genres such as documentary or action, thus represent variety in genres addressing climate change (Shanthini, 2016).

Moreover there is research investigating the film industry's take on climate change, precisely the suggestions made to the audience as solutions to combat climate change. By analyzing four different movies, Shanthini (2016) created a "scrutiny of what the movie industry suggested through the movies considered to slow down climate change and to reduce the dreadful impact of climate change upon Mother Earth." (p. 2). In fact, it outlines the potential impact the movies can have on the audience's behavior. People that have seen the films might change their perceptions of the climate and are able to understand an urgency to take action in order to slow down climate change (Shanthini, 2016). In addition, Culloty & Brereton (2017) agree that movies can help to supply sufficient knowledge that is needed to raise awareness regarding climate change.

Furthermore, they describe that films are able to provide information regarding actions that can be taken in order to combat climate change (Culloty & Brereton, 2017). On the one hand, such depictions can make audiences comprehend the significance and urgency of climate change (ibid.). On the other hand, films can stimulate emotional responses within their audiences which can further lead to affection towards the climate and thus, willingness to act on preserving it (ibid.).

Based on this assumption that films can have a significant impact on their audiences, Silk et al. (2018) developed a framework for analyzing the impact of film on biodiversity conservation. It starts with the first interaction between the industry and the audience and continues to the audience's awareness (Silk et al., 2018). Further, it leads to behavioral change and finally ends in conversations regarding climate, thus showing climate awareness.

Additionally, Silk et al. (2018) agree that cinematic depictions have an ability to reach audiences and therefore increase the emotional influence on the audience that is related to the climate. As a consequence, such depictions might play an essential role in the process of raising awareness about the climate, as well as promoting audience engagement in preserving the planet (Silk et al., 2018). However, in addition to this approval, they raise the contradicting argument of dangers that are associated with higher exposure of the environment through cinema. An example of this is the rise in tourist pressure in environmentally fragile regions due to them being portrayed in a film (ibid.).

Another aspect in which the film industry can be criticized in its approach to indirectly support the climate through changing the audience's behavior is its hypocrisy about the sustainable solutions being shown (Shanthini, 2016). A study illustrates this hypocrisy of the examined film with instances such as the major cause of planet destruction being the use of gasoline, but the main character is rescued by a gasoline-powered helicopter at the same time (ibid.). This hypocrisy shows a potential challenge where the industry has to take responsibility for its power to change the audience's perception and behavior and be consistent and factual with the messages, narratives, and motives depicted (Silk et al., 2018).

Based on the review of current literature that researches how the film industry addresses climate change, it appears that there is little research regarding this topic. There is insufficient knowledge not only about what the industry does to address climate change but also about who is involved in such actions. Therefore, it became clear there was a need for an extensive overview of the actors and strategies that address climate change within the film industry, bringing about the first subquestion of this research.

### 3. Theoretical framework

The literature review shows that there is little current research regarding the film industry's approach to climate change. Furthermore, following the exploratory nature of this paper and its inductive approach, there was few preliminary theoretical research. Therefore, the data has been conducted and analyzed first, before further literature has been consulted. The data analysis brought about certain patterns in the data regarding their actors, strategies and influences. Therefore, prior research from a broader field has been consulted in order to build a basis for the theorization that will be discussed in this paper. Furthermore, since this paper addresses the film industry as a whole, institutional theories have been screened. Indeed, the institutional theory will help not only to understand the actors and their strategies within the film industry, but also the dynamics between them and their influences on the rest of the industry. As a consequence, these theories are needed in order to make sense of how the industry addresses climate change, thus helping to answer the research question and spawning the second subquestion of this research.

The conducted data showed that, on the one hand, there are certain actors that play a crucial role within the film industry and its addressing of climate change. As a consequence, institutional entrepreneurship will be consulted in order to understand these actors' positions and roles within the change towards a more sustainable film industry. Indeed, institutional entrepreneurship occurred to describe the behavior of some, significantly impactful actors that address climate change within the film industry. On the other hand, the data showed that there are influences between actors that address climate change already and actors that do not address climate change yet. Indeed, it appears that some actors either initiate to address climate change or implement sustainable measures

based on dynamics between them and other actors. Furthermore, some actors occur to foster change in order to increase the addressing of climate change. Therefore, the concept of isomorphism, which conceptualizes pressures within a field, is used to investigate these dynamics and how they impact the industry's addressing of climate change and their sustainability change.

### 3.1. Institutional Entrepreneurs

In order for change to be fostered, there are two options. Either the change is created or it is transferred (Garud, Hardy, & Maguire, 2007; Maguire, Hardy, & Lawrence, 2004). A central concept in the discipline of institutional change is the concept of institutional entrepreneurs (Battilana et al., 2009). It denotes the activities of actors, who “can be organizations or groups of organizations (Garud, Jain, & Kumaraswamy, 2002; Greenwood, Suddaby, & Hinings, 2002), or individuals or groups of individuals (Fligstein, 1997; Maguire et al., 2004)” (Battilana et al., 2009, p. 68) with an interest in specific institutional situations. Therefore, they gather resources to establish new institutions or transfer existing institutions (Battilana et al., 2009).

Two conditions must be fulfilled in order to be an institutional entrepreneur (Battilana et al., 2009). First, they have to initiate divergent changes, which entails the expression of the vision of change. Divergent changes are changes that deviate from the established organizational model within an institutional framework (ibid.). The institutionalized framework for organizing is a field's consensus on the objectives to be achieved and the means to do so (ibid.). Second, the players must actively participate in the change's realization, such as by rallying allies to support the vision (ibid.). It is to emphasize that actors must actively gather resources to meet the second criteria (ibid.). Essentially, institutional entrepreneurs seek a transformation that ultimately diverges from the status quo institutions. However, in order to be termed institutional entrepreneurs, it is not required that the actors are successful with the execution the transformation (ibid.).

Within the process of institutional entrepreneurship, there are different phases. In the beginning, there are key categories that enable institutional entrepreneurship within the field (ibid.). On the one hand, there are certain characteristics of the field. Their diversity serves as an enabler because it shapes the players' perspectives and gives them varying



degrees of access to resources (ibid.). First, there are shocks and crises, which change the socially constructed field-level harmony, thus they invite innovation and different ideas to regain the harmony (ibid.). As a matter of fact, crises influence the accessibility of resources and the general environment of the field (ibid.). Second, the field's openness to new ideas and the degree of institutionalization and heterogeneity are also field-level characteristics (ibid.).

On the other hand, social status mediates the actors' relationships to their embedded surroundings. Indeed, this applies not only to their social standing but also to their position in the hierarchy (ibid.). It has been argued that actors' understanding of a field (Bourdieu, 1977) and their access to the resources necessary to participate in institutional entrepreneurship are influenced by their social status (Lawrence, 1999).

The next phase of implementation of institutional entrepreneurship considers the development of a vision. It summarizes the efforts conducted to make the case for change and must appeal to the players necessary to accomplish it (Battilana et al., 2009). There are three strategies in order to do so. First, diagnostic framing develops a feeling of urgency and strives to make the failings of the present organization or larger area evident (Suddaby & Greenwood, 2005). Second, prognostic framing delegitimizes current institutional structures and those that are backed by opponents in order to legitimize the actors' proposed structures (Creed, Scully, & Austin, 2002; Suddaby & Greenwood, 2005). Third, motivational framing presents strong arguments in favor of the advocated new vision (Misangyi et al., 2008).

Mobilizing people, as the final phase, encompasses activities performed to win the support and acceptance of people for the new procedures. Such activities are: the use of discourse; resource mobilization; formal authority; and social capital. (Battilana et al., 2009)

## 3.2. Isomorphism

The most renowned and referred to conceptualization of isomorphism was outlined by DiMaggio & Powell (1983). They describe organizational change in relation to their surroundings, precisely the homogenization of organizations within their field. Accordingly, organizations become more similar to other organizations within their field because of the structure of organizational fields. The organizational field is defined as "those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products." (DiMaggio & Powell, 1983, p. 148).

A field can only be institutionally defined if it is comprised of four components: an increase in the level of interplay between organizations in the field; the emergence of sharply defined interorganizational structures of dominance and patterns of coalition; an expansion in the amount of data that a field must process; and establishment of a sense of participation and shared efforts among participants (DiMaggio & Powell, 1983). Organizations aim to change on a constant level up until a point where the cumulative impact of individual change is to diminish the field's variety (ibid.). This diminution of the field's variety, meaning homogenization, describes the concept of isomorphism (ibid.).

There are three different mechanisms of institutional isomorphic change. The first mechanism is coercive isomorphism, which derives from political influence and a challenge of legitimacy (ibid.). The pressures can appear in both formal and informal ways and may appear as coercion, persuasion, or encouragement to collaborate (ibid.). Because of these pressures, organizations behave in accordance with their directives.

The second mechanism is mimetic isomorphism (ibid.). It encapsulates responses to uncertainty that are rather standard and conventional (ibid.). In contrast to the coercive mechanism, the mimetic process is rather voluntary. Organizations prefer to replicate and imitate other organizations and, overall, follow a leader (ibid.). The organization that is followed within this mechanism is defined as the modeling organization by DiMaggio &

Powell (1983) and might not be aware of being followed, or even further, does not even aim at being followed.

The third mechanism consists of normative pressures and is associated with professionalization (ibid.). This professionalization is seen as a group of people sharing the same occupation, defining their circumstances and techniques of work in order to regulate processes regarding their professional development, thus building and gaining legitimacy for their aim to execute their occupation autonomously (ibid.). Furthermore, the authors describe the importance of professional training institutions such as academia in order to develop the norms within a field (ibid.).

#### *Isomorphism in the film industry*

Based on the concept of isomorphism and its iron cage Alvarez et al. (2005) analyzed dynamics within the film industry. First of all, they compare various definitions of the field and adjust the definition that is given by DiMaggio & Powell (1983) to the film industry by adding several other actors such as film schools, consultants, and critics. Moreover, they describe how filmmakers need to gain legitimacy within the cinema field to gain access to opportunities and resources. The isomorphic pressures in the field of cinema are, firstly, conventions that are taught and studied at film schools and other educational institutions, and being evaluated through awards. They serve as normative justification for standardization Alvarez et al. (2005).

Secondly, industry authorities and financially powerful organizations match production processes with budgetary procedures and certain creative subjects (ibid.). Consequently, professional panels evaluate the films' quality (ibid.). Thirdly, production businesses can act as gatekeepers and choose which concepts gain commercial access (ibid.). This allows them to produce a "blueprint" of what is inside or outside and is then replicated by other creatives (ibid.).

In accordance with the outlined concept of isomorphism above, Alvarez et al. (2005) point out that change can be forced by interest and agency. Particularly in the field of film, there are actors who are able to create new boundaries and innovate via unmatched creativity, invention, and productivity.

In relation to this research, the analysis by Alvarez et al. (2005) supports this paper by defining the film industry as a field on the one hand. Thus showing the concepts applicability in the film industry. On the other hand, their analysis shows that there are certain isomorphic pressures in relation to creativity within the film industry, therefore legitimizing the assumption that current dynamics within the film industry in relation to sustainability might be fostered by isomorphism as well. As a consequence, although this paper does not directly refer to the subject matter, nevertheless, it supports this research nevertheless.

## 4. Methodology

The following chapter outlines the research design and methods adopted throughout this paper aiming to support the research question. Indeed, the main focus of this paper lies on the understanding of how the film industry addresses climate change. This does not only arise from the grand challenge that has been outlined, but also from my personal interest in the two areas of film industry and sustainability. Not only is there little research about the film industry and its relation to sustainability in general, it is also not yet investigated what dynamics are included in the phenomenon of addressing climate change within the film industry.

### *Research Approach*

In order to approach this research, there has been preliminary research of document analysis. Several film festival programs have been scanned in order to deliver a starting point of the actors and strategies on how the film industry addresses climate change. Therefore, this analysis led to a rather informed view on the industry and it directed an introduction for the actual data collection. Furthermore, in combination with the little amount of research there is regarding this topic, it determined the inductive research approach (Eisenhardt, 1989). Indeed, the open research question chosen for this paper as well as the literature review and theoretical framework, that rather introduces general key concepts, further underlined the need for an inductive research approach (Eisenhardt, 1989).

### *Methodological Choice*

Following this inductive research approach, the research began with the conduction of data. In order to be able to answer the research question, the methodology of this paper requires a qualitative, interview based study. The objective of qualitative research questions is to investigate the circumstances around the focal phenomenon or notion of an investigation. In addition, it seeks to identify the participants' diverse viewpoints and perceptions (Cresswell, 2009) Precisely, the data collected consisted of expert interviews, thus representing a mono method qualitative methodological choice (Saunders et al., 2009). Furthermore, the current literature does not offer studies that are based on expert interviews, thus increasing the potential value of this methodological choice.

In the preliminary research for this paper, I screened film festivals' programs, in order to gain an overview of current talking points in relation to the film industry and sustainability and climate change. This overview led to a list of 16 events that dealt with climate change in a variety of ways. After following the events that were still accessible, I reached out to several of the events' speakers in order to invite them for interviews. These interviews reflect the exploratory nature of this paper, as it is the research purpose to explore the film industry on its change towards addressing climate change. Precisely, such expert interviews supply a valid overview of the film industry and its fields components, nevertheless are bound to the experts' understanding of the industry (Jerolmack & Khan, 2014). Evidently, the conference speakers resonate around or with the topic of this thesis and have enough legitimacy to be invited to speak in front of a significant number of industry relevant personas, thus making them considerate experts regarding certain parts of the film industry's approach to addressing climate change (Jerolmack & Khan, 2014).

The first round of outreach to potential interview partners was followed by another round based on a search of individuals that fulfilled similar positions as the speakers, either in the same or comparable organizations. As factors of legitimacy, there were parameters such as their history within the industry, their hierarchical level, and their relations to other actors in the field. Moreover, the third cluster of approaches to potential interviewees was finally based on referrals of professionals coming from former interviews. The sum of outreaches finally led to interviews with the following nine

experts, presented in table 1. Thus, I followed both a purposive and a snowball sampling approach which fall under non-probability sampling designs as the possibility of having each member of the population is represented is excluded (Saunders et al., 2009).

Table 1, Overview of Interviewpartners (Source: personal collection)

Outreach	Title	Profession	Affiliation	Appx.
1	PM	Film Festival Project Manager involved in the curation of the festival's climate day	██████████, Denmark	A
1	Director	Director and producer of a documentary that addresses climate change	██████████, Norway	B
2	GFC 1	Green Film Consultant with experience as assistant director	Freelance, Portugal	C
2	GFC 2	Green Film Consultant	██████████, USA	D
2	GFC 3	Green Film Consultant and film producer	██████████, USA	E
2	Professor	Professor of media- and production studies	██████████, Germany	F
3	GFC 4	Green Film Consultant with environmental science and film production manager background	Freelance, Germany	G
3	SSM	Screen Sustainability Manager (SSM) with a background in film production	██████████ UK	H
3	Commissioner	Film commissioner and GFC	██████████ Austria	I

### *Data collection*

With this research strategy I followed a cross-sectional time horizon, meaning a state of the art reflection of how the film industry addresses climate change in the moment of data conduction. In fact, nine interviews of a length of 45–60 minutes were conducted via online face-to-face meeting with visual and sound recording through MS Teams or Zoom. The interviews were semi-structured, making the interviews directed but with room for improvisation. Furthermore, the same interview questions were used for each interview, with minor modifications based on their expertise and position. In regard to the contents of the interviews there was: first, actors the experts see in the industry that address climate change; second, the strategies used and activities initiated by these actors and other stakeholders; third, the effects of the surrounding industry and whether there are dynamics that encourage climate change-related activities in the film industry. Lastly, in order to be more precise with the information given in this paper, additional information from websites has been used to clarify information mentioned by the experts.

### *Coding*

After gathering the data, first, I transcribed all interviews; second, I removed sequences that were irrelevant to my study topic; and third, I coded the interviews. I performed two iterations of open coding. In the first round, interviews were evaluated sentence by sentence in order to assign each a code and ascribe symbolic meaning based on what the interviewees said (Miles, Huberman, Saldana, 2013). Therefore, the coding was guided by the research question and its sub-questions, meaning that I looked for who addresses climate change, how they do this, and how these actions are influenced by actions of other industry stakeholders.

Therefore, in order to unfold the research question I first, explored the data regarding the “address”, awaiting of keywords such as: action, initiative, aim, strategy, role, party, stake, organization, effort, intention, influence, impact, and effect. Furthermore, to discover information relating to “climate change”, the coding was guided by keywords such as: climate change, climate, planet, earth, sustainability, environmentalism, green, and renewable. These keywords are based on my personal understanding of the scope of the grand challenge and research question and, therefore, susceptible for biases. Nevertheless I aimed to fully explore the data and its explanation of how the film industry

addresses climate change. To summarize, regarding the selected coding approach, descriptive coding was primarily used. However, it has been supported by causation coding because of its potential to tag underline interrelations (Miles, Huberman, Saldana, 2013).

The second round of coding intended to cluster the codes into fewer and more abstract themes to uncover analytical units and demonstrate interconnections between the previous round's components. This phase resulted in the selection of three main themes relevant to the research question, namely actors, strategies and initiatives' influences. Furthermore, throughout the coding, the data has been analytically abstracted as part of the thematic analysis, leading to typologies and mechanisms. The actors' theme has been coded in regard to their role in relation to addressing climate change and finally led to three types, namely enabling, implementing and advocating actors.

Further, the strategies' theme encompasses codes of raising awareness, developing norms and information media, realizing implementation and quality control, because I aimed to find mechanisms of what actors do to addresses climate change. Thus, looking for activities and initiatives. Lastly, the theme of initiatives' influences revolves around the codes of discourse, inspiration, and force, since it aspires to understand the effects initiatives have on each other and the rest of the field throughout the process of addressing climate change.

### *Theorizing*

The data analysis has been followed by a search for current research that has been published on the film industry's sustainability. This provoked two main fields of research regarding the film industry. On the one hand there is research combating the industry's direct effects on climate, primarily discussing the production side of the industry since their actions directly pollute, create waste, and harm the climate in other ways. On the other hand there is literature concerning the indirect effects of the film industry on climate change, meaning, papers that investigate the effects films have on the climate by mechanisms such as changing people's knowledge, awareness, and behavior.

Furthermore, due to the little amount of current research and in order to make sense of the current situation of the film industry, institutional theory has been screened. This



search had the goal to find theories that delve into the themes, typologies, and mechanisms the data of this research suggested. Indeed, it brought about two main theories that outline the theoretical framework, namely institutional entrepreneurship and isomorphism.

Institutional entrepreneurship has been chosen in order to support typologies and mechanisms found within the actors and strategies. Furthermore, isomorphism was expected to legitimize the findings in relation to the influences and dynamics between the initiatives and the film industry. Altogether, the discussion of findings and the chosen theories aimed at transforming into an adjusted theory that explains how the film industry addresses climate change. Finally, that discussion resulted in the conceptual framework of how the film industry addresses climate change.

## 5. Findings

In order to make sense of the conducted data, it has been investigated and analyzed. Since this paper aims at an understanding of the film industry's approach to addressing climate change and in consonance with two guiding sub-questions, the following section will be outlined as follows: First, it will be analyzed who the actors are that foster sustainability in the film industry according to the understanding of the interviewed experts. This analysis is needed in order to understand what types of actors there are in the film industry. Additionally it contextualizes the strategies and influences that the organizations and individuals initiate and engage with. As a consequence of the analysis, three main categories of actors, precisely enabling, implementing and advocating actors, are found.

Second, The analysis of the actors is followed by an analysis of the strategies that take place in the film industry that address climate change which have been described by the interviewees. It is shown that these strategies can be categorized into four categories, namely raising awareness, development of norms and information media, realization of implementation quality control.

Third, it will be analyzed how the initiatives relate and react to each other in the film industry as a field in order to serve the second sub-question of this research, based on descriptions by the interviewed experts. Throughout the analysis of these influences the industries activities have on each other, three main themes transpired, namely discourse, inspiration, and force.

## 5.1. Actors

The following section outlines the analysis of the actors that are part of the film industry and address climate change. The interviews led to an extensive list of actors that address climate change in various ways. Precisely, the coded data has been scanned for actors, organizations, firms, stakeholders, institutions, businesses, and companies. The analysis of the actors aimed at distinguishing their role, importance, and position within addressing climate change in order to identify responsibilities as well as potentials. As a result, there are three main categories of actors that are depicted in figure 1 and will be described in the following. Furthermore, the third level of the figure outlines the types of actors that belong to each category.

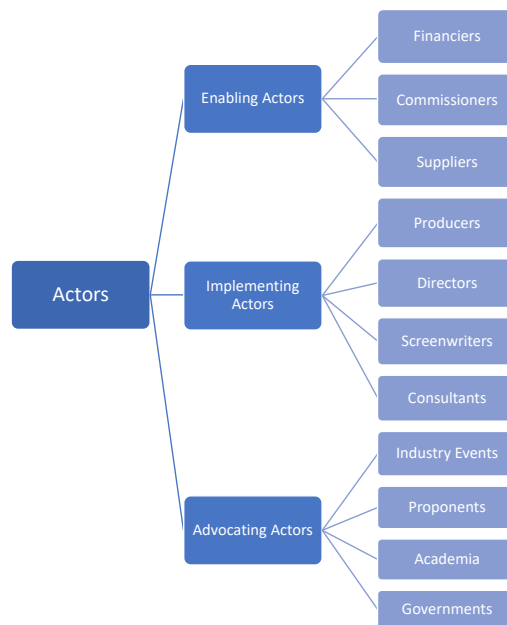


Figure 1, Overview of the Actors that address Climate Change (Source: personal collection)

### 5.1.1. Enabling Actors

The first category of actors are the enabling actors. Their main competency and responsibility encapsulate building grounds in order for film projects to be realized and for sustainability measures to be implemented. These grounds comprise tangible and intangible resources such as financing or mediation of resources such as locations, human resources, or knowledge. There are three main types of actors within this category, precisely financiers, commissions and commissioners, and suppliers.

First, a significant number of the experts emphasized the cruciality of financiers that have an interest in protecting the climate. Financiers are private or public organizations that utilize financial resources in order to realize the organization's motives, such as support of young artists, projects relating to certain topics, or projects developed under certain circumstances (Commissioner). In order to access such funds, projects need to apply to the financiers and will be chosen based on criteria aligned to the motives of support of the financiers (Director). Thus, financiers exchange financial resources for the intangible value a film offers in order to support the financiers' motives. Furthermore, the cruciality of financiers arises from the fact that the majority of film projects are in need of external funds, thus are dependent on financiers which is increased by switching costs and general costs sustainability measures are accompanied by (GFC 1; GFC 2; Director).

Second, on the way to the audience, a film must overcome several obstacles besides gaining financial resources, some of which are guarded by commissions or commissioners. There are numerous types of commissions and commissioners that can be categorized into two broad groups. On the one hand, there are government-related commissions whose objective is to attract and support film productions within their region (Commissioner). The support comes in monetary, tangible, and intangible forms where they are closely related to associations, politics, cultural agents, or other institutions in the film and cinema cultural scene. Thus they are able to provide benefits arising from network effects (Commissioner).

Moreover, they operate as a source of knowledge regarding direct and indirect sustainability measures through a collection of data and media regarding carbon calculators, green production guides, certificates, green suppliers, and best practice case

studies (ibid.). On the other hand, there are commissioners whose responsibility it is to select content for institutions such as television stations and streaming services (ibid.). Therefore, commissions can act as gatekeepers for films on their way to distribution channels. Both functions are substantial in terms of addressing climate change directly and indirectly through the film industry because of the resources the implementation of sustainability measures requires and the distributional support films that implement sustainable measures benefit from.

In addition to the dependence of the described external resources, it has been described within the interviews that the supply of certain production components is not only crucial for production in general but has gained increased importance in relation to addressing climate change (Professor; Commissioner; GFC 1). As a matter of fact, in order to be able to implement certain sustainable measures, the industry has to rely on sustainable tools such as sustainable energy, travel, and catering (Professor; Commissioner; GFC 1). Therefore, only the supply from external organizations of such sustainable technologies enables the industry to actually implement sustainable measures, making the suppliers of such tools enabling actors within the process of addressing climate change.

### 5.1.2. Implementing Actors

The second category of actors encompasses the implementing actors that operate directly on the films, meaning those actors that are closely responsible to produce films. This is naturally followed by a great opportunity as well as a responsibility to address climate change and actually implement the sustainability measures (GFC 1; Director). The actors that have been named throughout the interviews that match this category are producers, directors, screenwriters, and consultants.

First, producers are accountable for the production's strategic decisions (GFC 1). These decisions begin with locating a film project to produce, continue with decisions regarding, for example, financing for the film's director and other members of the creative team, and conclude with decisions regarding the overall scope during the different stages of production (ibid.). As a result, the decision power of the role of producers is accompanied by the extent of their potential to create an environment that allows the implementation of sustainable measures or implement them directly.

Second, directors have been depicted as the ones that are responsible for a film's artistic appearance and its dramaturgy (Director). Therefore, similar to the producers, directors' potential to address climate change lies within their position to take decisions that can include sustainable measures.

Third, screenwriters write the scripts for films that are then produced by producers and dramatically and artistically elaborate directors (SSM). Given the nature of their profession of creating stories and thus the content of a film rather than its actual production, their potential to address climate change primarily lies within the industry's indirect impacts on the climate.

Lastly, consultants such as the Green Film Consultants (GFC) are individuals that consult and supervise film productions to become more sustainable (GFC 1; GFC 2; GFC 3; GFC 4). Typically, they are film professionals that used to be directly involved in the production of films that made use of additional education in order to become a GFC (GFC 1). It is their responsibility to implement sustainable measures on film sets, gather the data regarding the production emissions and finally calculate and report the film productions actual emissions (GFC 4).

### 5.1.3. Advocating Actors

The third category of actors in the film industry that address climate change are the advocating actors. These are actors that are not directly involved in the production of a film but nevertheless play an important role in supporting and advising the film productions and the industry in terms of sustainability measures. There are various kinds of such actors that will be described in the following.

First, there are industry events such as film festivals or film awards and their ceremonies. Since the film industry is characterized by a collection of many different stakeholders with different intentions and responsibilities, the industry has a vast size and variety. Therefore, industry gatherings, where as many stakeholders as possible come together, are of particular importance in order to share knowledge and facilitate networking (PM). They help to connect individuals and organizations with each other that would not have the chance to interact under normal circumstances (PM). Following the nature of such

gatherings, they have the potential to influence the industry and are able to set trends and talking points in regard to addressing climate change.

Second, there are the proponents which are organizations that fully aim to support the film industry. Their support encompasses, e. g., the provision of information and know-how or the development of media the industry can access, such as carbon calculators or databases. An example of such an organization that has been referred to several times throughout the interviews is the British organization albert (GFC 1). Albert was founded as a part of the British Academy of Film and Television Arts (BAFTA) to support the film industry in addressing climate change (GFC 1; GFC 4). Other examples of organizations with such purpose that came about through the interviews are the Green Spark Group, Good Energy, Green Shooting, Sustainable Production Alliance (by Producers Guild of America), and changemakers.film (Commissioner; GFC 2; GFC 3; GFC 4; PM). Furthermore, similar examples to these organizations are individuals where, analogous to albert, their position has been introduced to organizations with the purpose of addressing climate change. For instance, one of the interviewees, the Screen Sustainability Manager (SSM), describes the purpose of her position as supporting the industry to become more sustainable.

Furthermore, there are organizations that are rather external to the film industry that dedicate some of their resources to the film industry. Precisely, as the third actor, there is academia that offers studies to the film industry to educate potential film professionals (GFC 4; Professor). Therefore, they can play an important role to address climate change and the execution of sustainable production measures.

Fourth, states and their governments define a country's correct behavior through laws and regulations, thereby having great power in relation to addressing climate change by potentially prohibiting certain film production measures (GFC 1; GFC 4). Moreover, governments regulate a significant amount of funding that the industry is dependent on, as described in the *Enabling Actors* section. Thus, an adjustment of their motives of support through funding can play an important role within the process of the film industry to addressing climate change (Commissioner).

## 5.2. Strategies

After outlining the actors that participate in addressing climate change in the film industry, the obvious consequence is to analyze their actions. The conducted data has been scanned for descriptions of what the actors do to address climate change. The interviewees described an extensive set of projects and actions, namely the initiatives. The analysis of the initiatives showed certain behavioral patterns that can be comprised to mechanisms. These mechanisms are depicted in the third level of the overview of strategies in figure 2. Furthermore, these mechanisms have been summarized into four strategies based on their main function within addressing climate change and are seen in the second level of figure 2. The following section aims to give an overview of the strategies the industry utilizes in order to address climate change. Given the number of analogies, the initiatives that have a direct and indirect impact on the climate will be discussed in conjunction throughout this section.

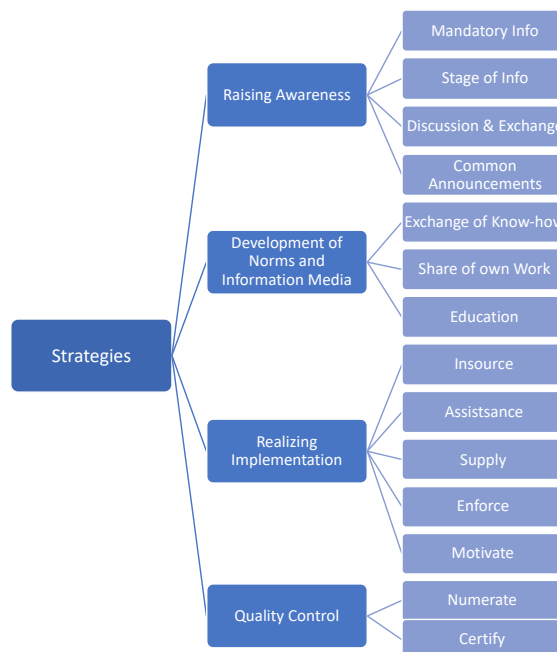


Figure 2, Overview of the Strategies that address Climate Change, (Source: personal collection)

### 5.2.1. Raising Awareness

The following section aims to give an overview of these initiatives within the film industry that raise awareness of the direct effects the industry has on the climate. Those are the ones that raise awareness within the industry itself, not towards the outside or film audience. Throughout the analysis of the data, there came about four mechanisms the industry utilizes in order to raise awareness that will be further outlined below. Additionally, it will be followed by examples of the initiatives the industry uses to employ these mechanisms.

The first mechanism draws on the fact that, for an idea to be realized into a film project, there are certain enabling actors that are paramountly crucial thus, almost every film project has to engage with them. Due to their fundamental role in the sense that it is close to impossible to bypass such initiatives, the initiatives are able to address the matter of climate change in various ways and thereby raise awareness regarding it.

In particular, a significant number of the experts emphasized the importance of film funding in the interest of the climate. As described in the *Actors* section, film funding is bound to certain criteria. Sustainability on film sets can be one of those main motives, and a mandatory criteria within support goals of financiers. Several interviewees specified that, for example, governmental funds connected to the EU have to make certain minimum standards for green production mandatory to receive these funds, following the EU's sustainability goals (Commissioner; GFC 1). Therefore, the confrontation with such mandatory requirements further increases the awareness within the film industry. In addition, financiers can inform professionals about the potential that is inherent in film content to indirectly address climate change through the audience.

In addition to the initiatives of enabling actors, there is a modification of the first mechanism in the initiatives of advocating actors. An example of such an initiative are awards. They have the ability to draw awareness and focus on particular subjects and topics due to the criteria that need to be fulfilled in order to qualify for the award and the characteristics the awards want to highlight within a film (Commissioner). As a matter of fact, this decisive power resembles that of the financiers, with the only difference being that film productions freely apply for an award in comparison to funding.



An example that has been given is the Eisvogel Award (Commissioner) that is awarded by the Federal Ministry for the Environment and the Heinz Sielmann Stiftung in cooperation with the Federal Government's Commissioner for Culture and Media to recognise film productions that make use of sustainable production practices (Eisvogel, 2022). In order to qualify for this prize, one has first to show their recognition of the responsibility to reduce their environmental impact. Second, there had to be meticulously planned and executed production in accordance with environmental protection guidelines. Third, the production process must have incorporated novel and innovative ideas that resulted in a significant reduction in environmental impact (Eisvogel, 2022). As a consequence of these criteria, film productions have to confront their production methods, and therefore the awards raise awareness regarding sustainable production measures.

Additionally, rewarding a film for its content and thereby its indirect impact on the climate follows a similar mechanism as rewarding a film for its production measures. Therefore, awards addressing climate related content help to raise awareness following the first mechanism within the industry to focus on this matter, consequently increasing the industry's power to handle climate change (Commissioner).

The second mechanism originates in initiatives that inform industry actors about the industry's effect on climate change in general on the one hand, and the potential and actual sustainable measures that the industry can implement on the other hand. In order to facilitate this, the industry provides experts and qualified professionals a platform to share their knowledge and address certain matters to an audience of film industry actors. Consequently, the amount of recognition through such presentations can underline the urgency of climate change and contextualize this for the industry.

Several interviewees underline the importance of industry gatherings in order to raise awareness regarding sustainability in the film industry (Commissioner; GFC 4; PM). Speakers and panelists that participate in, e. g., film festivals and their conferences are able to address the climate in distinct ways by sharing ideas, knowledge, and skills regarding topics such as sustainable production methods or means to incorporate the planet into the content of a film. One interviewee who works for a film festival describes the festival's potential as

“this is giving a platform for these ideas to be communicated and disseminated and discussed also. So it's like, we put together these people who will then present what they do, and then maybe learn from each other, or maybe critique each other's work, and then come to new levels of doing something new. Yeah, just like furthering the discussion.” (PM).

She points out that it's not only about broadcasting information but also about jointly improving current ideas or strategies to be more sustainable. Therefore, festivals make use of the second and third mechanisms of raising awareness.

Furthermore, the curation of people that are given a voice and the topics they are specialized in throughout the whole program contextualizes the importance of certain topics. Two of the experts interviewed referred to CPH:DOX, a documentary festival held in Copenhagen (Director; PM). In 2022, for example, they dedicated one full day out of four of their conference to address climate change through the opportunities documentaries have (PM). Consequently, it demonstrates that it is currently one of the most crucial issues the industry must address and thus emphasizes the second mechanism of raising awareness.

Moreover, Greta Thunberg's speech at the Golden Camera Award Ceremony has been brought up as an example that emphasizes the second mechanism of raising awareness by the GFC 4. Thunberg received a special prize in the category of climate protection. In her acceptance speech, she highlighted the urgency of the climate crisis, how the climate crisis leads to other dilemmas such as growing social imbalances, and the role of politics in this crisis (Thunberg, 2019). In addition, she directly criticized certain behaviors of those who work in the film industry, such as their preference for luxurious travel and transportation (Thunberg, 2019). With this speech and the nature of such award ceremonies as industry gatherings, Thunberg manages to address climate change to a wide audience of film industry professionals and thus raises awareness regarding it, following the second mechanism of raising awareness.

The third mechanism utilizes unionizations of industry actors to share their knowledge and discuss information in order to underline the importance of the climate and sustainability measures that the film industry can implement to address climate change directly and indirectly. It has been mentioned several times throughout the interviews that there are certain unions, societies, and working groups that aim to address climate change

in the film industry (Commissioner; GFC 4; Professor). The Commissioner mentioned the Germanbased Union of Green Film Consultants as an important union regarding the matter of this analysis (Commissioner). Within this union, all German-speaking GFCs can come together and share their knowledge and skills, thus applying the third mechanism to raise awareness. One of the experts elaborated on the advantages and importance of this union as follows:

“It's also interesting because, of course, you're always looking at what's next? What are the important strategic steps for the film sector in terms of sustainability? And the whole thing is also about measures that need to be concentrated between funding institutions, filmmakers, and, for example, this new professional group of green film consultants.” (Commissioner).

The fourth mechanism encompasses joint announcements of commitment towards sustainability. Therefore, the topic does not only receive attention in general but also emphasizes its importance. An example of an initiative that follows this fourth mechanism are pledges that can address the industry's direct and indirect effects on the climate (GFC 4; PM). For instance, the GFC 4 mentioned a pledge that gained a lot of media attention due to its release and common signation at the Berlinale 2021. The pledge was made by the German Union of Film Producers and commits the people who have signed it to sustainably producing and conceiving movies in order for them to have a low impact on the environment, therefore addressing the industry's direct effects on the climate (Produzentenverband e. V., 2019).

Additionally, pledges are able to raise awareness to the film industry's indirect impacts on the climate as well. For instance, the British organization “albert” introduced the Climate Content Pledge (CCP) to the industry. The CCP addressed broadcasters and streamers that represent 70 % of what Brits watch (CCP, 2021). They signed the pledge and thereby committed to using their content in order to convey to the audience climate change and how one can tackle it (CCP, 2021). Consequently, albert raises awareness to include climate change as a topic in the programs of the broadcasters and streamers.

Moreover, a few interviewees have mentioned the importance of acting celebrities in the film industry's evolution. There has been a group of actors and actresses that assembled an initiative called “changemakers.film” (Korina). Changemakers.film was founded by three German playing film actors and actresses as a voluntary declaration and

commitment to sustainable film production methods and has been signed by hundreds of professionals (Changemakers, 2020). It consists of 13 points, all aimed at increasing the importance of environmental protection on film sets and sustainability measures within production becoming the standard (Changemakers, 2020). As the GFC 4 points out, such initiatives show various stakeholders the need and urgency to change from traditional film production standards to more sustainable and climate friendly ones and represents the industries aim to change within different categories of industry actors. Due to its nature of being a union and therefore an environment to discuss and exchange information and their commitment to a common agreement such as a pledge, this initiative raises awareness through the third and fourth mechanism.

### 5.2.2. Development of Norms and Information Media

In order to achieve the greater goal of reducing carbon emissions, either directly by the film industry or indirectly by utilizing its impact on audiences, there has to be a foundation of thorough information and knowledge. Indeed, it has been pointed out repeatedly that research is needed to identify and develop efficient sustainability measures (Commissioner; GFC 4, Professor; SSM). Therefore, several actors develop norms and information media that offer informed guidance and reference for other actors of the film industry. On the one hand, norms describe certain minimum standards film production must require in order to be more sustainable. On the other hand, information media encompasses resources of information such as databases, production guides or playbooks. Within the initiatives that develop such norms and information media for sustainable measures, there have been found three main mechanisms.

The first mechanism encapsulates professionals from various industries sharing their know-how with the particular purpose of developing measures that can be used by the industry in order to guide them. Thus, film knowledge and climate knowledge is combined to increase the film industry's knowledge with external knowledge in order to create resources that effectively and efficiently address climate change.

An example of an initiative that utilizes the first mechanism are minimum standards a group of actors generated to create a benchmark for sustainability measures. The minimum standards are the practices that are needed to reach a certain sustainability goal.

These norms are based on academic research combined with practical and professional knowledge and skills (Commissioner; GFC 4; Professor). Precisely, the norms have been developed through the cooperation of the working group, a climate researcher and an environmental scientist who meet on a regular basis (GFC 4). Their joint knowledge allows them to combine the needed information regarding how the industry impacts the climate through the production of films. Furthermore, the climate professionals are able to suggest how to reduce emissions and, in cooperation with the film professionals, develop measures that are actually applicable to the film industry.

After creating the norms, the working group tested them on 100 film productions and revised them (Professor). This process not only improved the applicability of the sustainable measures the norms require but also allowed the calculation of emissions after implementing such measures therefore assessing their effectiveness. The importance of such collaborations has been emphasized several times since they appear to be the only option to create norms that not only decrease emissions to the needed amount but are also likely to be implemented by the industry (Commissioner; GFC 4). In addition to the research regarding sustainable measurements, Green Motion shares the norms, their experiences and the developed sustainability measures with the public, thus making the knowledge accessible to other professionals as well (ibid.). Therefore, they do not only develop norms, but also develop information media other actors can access to address climate change.

In addition, there are more extensive information media for professionals to access in order to qualify the professionals' sustainability measures. The importance of such information media has been supported by almost all interviewees referring to sustainable production guides. These guides are a collection of measures that can be implemented throughout a film production in order to make them more sustainable (Commissioner; GFC 1; GFC 2; GFC 3; GFC 4). According to several of the experts, many GFC or other individuals that are responsible for sustainability measures on film sets use such guides or other information media in order to increase their knowledge of sustainable film production and gain practical suggestions (GFC 1; GFC 2; GFC 3; GFC 4).

An example of such a guide is the Green Production Guide (GPG) by the Producers Guild of America Foundation in cooperation with the Sustainable Production Alliance (GFC 1; GFC 2; GFC 3; GPG, 2022). It offers tools, intangible resources, and vendors that are needed to produce films with a minimal environmental impact as well as good practice examples (GPG, 2022). The category referred to by multiple interviewees is their sustainable practices checklist. It consists of approximately 400 questions to be answered regarding all film set relevant areas that have a direct impact on the climate (GPG, 2022). In contrast to Green Motion, this strategy encapsulates exclusively film industry professionals, thus only partly matching the first type of mechanism of developing information media.

The second mechanism utilizes the work professionals do in order to develop information media as part of their own work nevertheless. The professionals share the information media with the public, making it accessible for other professionals to further increase the effectiveness of their compiled information media. In comparison to the first mechanism, these initiatives are byproducts of the actors' work whereas in the first mechanism certain professionals and actors come together primarily to research and develop the norms and information media.

An example of an initiative pursuing this second mechanism is the Evergreen Prisma, which is part of the Lower Austrian Film Commission (LAFC) (Commissioner). As described in the *Actors* section, commissions aim to support film productions in intangible ways in addition to tangible ones. The Commissioner described how the LAFC made sustainable film production one of their main fields of interest, motivated by their individual understanding of the urgency of climate change as well as the environmental goals set by the EU (Commissioner). Therefore, the LAFC develops sustainable production resources and information media that they use within their regular work.

The LAFC utilizes the Evergreen Prisma as an information media by building a database for sustainable measures. The Evergreen Prisma aims to reflect all relevant aspects of sustainable film production in order to provide an all-encompassing strategy for addressing climate change within the film industry. It reflects the different perspectives that are involved throughout the production of a film (Commissioner). Therefore, it consists of the following six parts: panorama - green experience; pool - discussion guide

and links; tools - green practice kit and CO2 calculator; spotlight - green news; transfer - green filming academy; and connective - green film consultants (Prisma, 2022). Furthermore, they intend to become a central point of competency for green filming in Europe by delivering qualified and verified information and expertise (Commissioner). Given the combination of the LAFC developing the resources for themselves in the first place and transforming them into an information media for the public, the initiative of the Evergreen Prisma aligns with the second mechanism of development of norms and information media.

In addition to the outlined initiatives that address the direct impacts the film industry has on the climate, there are also initiatives that address the industry's indirect impacts. In order to support the industry to develop ideas and stories, there are several initiatives that deliver information media that source creative inspiration on how to address climate through stories (Good Energy, 2022). The Film Festival Product Manager mentioned Good Energy as an extensive source of information (PM).

Good Energy is a consultancy consisting of academics, artists, writers, and advocates that aim to connect the knowledge of climate experts and storytellers that have the opportunity to impact their audiences (Good Energy, 2022). Therefore, they developed a playbook for screenwriters which encompasses a vast variety of information such as general information about climate stories, tips on how to approach the climate through stories or good examples given by loglines and case studies of produced shows and films (Good Energy, 2022). Moreover, the playbook offers inspiration on different ways of integrating the climate into stories and a library of character profiles that address the climate as a further source of inspiration and guidance (Character Profiles, 2022). With the development of this information media, the Good Energy playbook aligns with the second mechanism.

The third mechanism encompasses academia educating film professionals regarding sustainable measures, this impersonating information media. It has been described that various institutions offer educational programs that aim to train film professionals in order to extend their knowledge regarding sustainability measures (Professor; Commissioner).

An example of this is the Green Filming Academy by the LAFC (Commissioner). It aims at giving film professionals a fund of knowledge about how to produce films more sustainably (Green Filming Academy, 2022). The academy offers various workshops for different parts of the industry, such as financiers and funders; different teams that are active on film sets; and producers or writers (ibid.). Therefore, it does not only offer know-how regarding climate friendly production but also regarding inclusion of climate change in the content of a film (ibid.). The academy was conceptualized together with academics and a GFC in order to offer a practice focused view and maximize its applicability (Commissioner).

Their approach is to have a green producing laboratory where they want to use creativity in order to enable a creative and associative process of working for the students to naturally introduce green practices into their way of working (Commissioner). Furthermore, they combine basic theoretical knowledge about green filming with practical exercises such as using a carbon calculator (ibid.). After passing a final examination, attendees receive a certificate for “Green Film Consultants Austria for Cinema & TV” (ibid.). Consequently, this kind of utilization of academia in favor of sustainability measures develops resources in the sense that the GFCs operate as resources of knowledge regarding sustainable measures during the implementation of them on film sets, therefore utilizing the third mechanism.

Most educational institutions clearly differentiate between certificates and degrees. The main difference lies within the number of educational sessions, where a degree requires more units than a certificate (*Degrees, Certificates and Classes, 2022; HDM, 2022*). Since the job of a green consultant is not only becoming more popular but also more needed, universities have started to adapt some of their film related degrees (GFC 4; Professor). They added classes that address sustainable production measures to the curriculum, where some are mandatory and some are electives (ibid.). Although the development of such information media within general film education graduates potentially creates less competency than the certificate described in the previous paragraph, it makes use of the third mechanism as well.



### 5.2.3. Realizing Implementation

The maximization of the implementation of sustainable measures is the main strategic goal of the industry while addressing climate change since only the implementation of sustainability measures reduces emissions from the film industry as well as the film audiences. Therefore, the third strategy found in the industry's addressing climate change is the realization of the implementation of sustainable measures. It is important to emphasize that within this section, the scope of analysis encapsulates the mechanisms the industry uses to realize the implementation of sustainability measures by organizations and individuals. This must be clearly differentiated from the sustainability measures that are actually implemented, meaning, the sustainability measures that finally reduce emissions. This operational level is not the focus of the analysis in this paper. The film industry currently offers a set of initiatives to realize the implementation of sustainability measures that can be distinguished into the following five mechanisms.

The first mechanism encapsulates film productions' hiring of a consultant that plans, supervises, and assesses the sustainability measures in order to realize their implementation. Therefore, the support further means a distribution of responsibility between film productions and the consultant and an insourcing of the task of realizing the implementation of sustainability measures. For instance, GFCs' competency is used to overview, manage, and report sustainability measures on film sets (GFC 1; GFC 2; GFC 3; GFC 4). After being hired, the GFC would create a sustainability strategy for that specific film project, estimating where, how, and to what extent emissions can be reduced using various resources such as green production guides or carbon calculators (GFC 1; GFC 2; GFC 4).

After the outlines of the measures are finalized, the GFCs partly implement sustainability measures such as building a waste management system, organizing renewable energy and sustainable generators, and / or setting up a catering, all aligned with the sustainability strategy (GFC 1; GFC 2). Furthermore, it is their responsibility to collect the data, meaning having an overview of the actual measures that are executed and writing a report detailing the implemented strategy and measures (GFC 2; GFC 4). Several interviewees stated that there are governmental institutions that plan on making GFCs a mandatory part of each film production, thus not only underlying their importance but also displaying

their acquisition of responsibility to reduce emissions (Commissioner; Professor; SSM). Nevertheless, it has been described that GFCs are seen as a transitional solution, whereas their knowledge and responsibility to reduce emissions should shift to film producers and directors to finally make the position of GFCs redundant (GFC 3).

In addition to the GFCs, there are general sustainability consultants for various kinds of institutions following a similar approach as the GFC. These sustainability consultants can be responsible for making organizations more sustainable that are part of the film industry but do not directly produce films, such as industry events (PM). The PM described how they have been consulted to transform their event to be more sustainable.

The second mechanism encompasses the creation of an environment that allows assistance in implementing sustainable measures and, consequently, realizes the implementation. Through this assistance, the responsibility of implementing the sustainable measures stays with the organization or individual of the film production. Examples of initiatives making use of the second mechanism of realizing the implementation of sustainable measures are various kinds of workshops that mainly appear in relation to the industry's indirect effects on the climate.

In regard to such workshops, one organization that has been brought up through the interviews repeatedly is the British organization *albert*. Their workshops assist all kinds of film professionals in the implementation of sustainable measures through the content of films (GFC 1; GFC 4). Furthermore, they consist of a context giving part that teaches about climate change fundamentals, their implications and actions and a content generating part (Training, 2022). Therefore, these workshops facilitate the implementation of sustainable measures by creating an environment that allows *albert* to assist the participating film professionals with implementing sustainable measures, meaning incorporating the climate into the content of their film projects.

Moreover, there is another category of initiatives that follow the second mechanism. The utilization of industry gatherings in order to facilitate the opportunity to jointly improve projects in their different stages. The Film Festival Product Manager describes the aim of the festival as to become more interactive in order to cooperatively improve the projects of artists. Precisely,

“There was a really good day, Climate Day, which is an interactive day. [...] There were some filmmakers presenting their projects or presenting their films where they have worked with very climate relevant issues or processes or whatever. And then people in the audience could give them ideas. And then they would put them on this board with like, post it notes, and then some of them would read them aloud.[...] So the idea is that these conferences should become much more interactive and become more like a think tank, where ideas are developed together and then taken one step further, to something actionable” (PM).

The film festival assists the implementation of sustainable measures within the content of films with this initiative and therefore supports the implementation of them as well.

Furthermore, Doc Society is a non-profit organization that supports documentaries with an extensive set of resource types. It aims at being a center of competency to help documentary productions with all kinds of challenges. The Director describes their experience with Doc Society as follows:

“I think Doc Society has that role in the documentary film industry, that they kind of bring people together and connect people. We worked with them on [our last documentary] as well. So they have been really important for us at least they've been really important and helping us [as a] company kind of connect to people and initiatives and filmmakers and funds and other places. So I just think they have a really big role and I think it's amazing that they decided to focus so much on climate change because I think that's actually going to change things the fact that they have decided that that's what they're going to focus on right now. I don't know if you've heard about this, but Doc Society has organized something called the climate story labs. So they kind of bring together different climate films and in the different regions. [...] I think they play a crucial role, like building different teams around the world who can then organize more locally and regionally.” (Director).

Through this support, Doc Society assists the film productions in implementing sustainable measures, thus aligning with the second mechanism of realizing the implementation of sustainable measures.

The third mechanism follows the principle that if the access to tools that are needed to implement sustainable measures is improved, it makes their implementation more likely by decreasing the usage barriers and therefore facilitates the implementation of such measures. This mechanism primarily takes effect in terms of initiatives that have a direct impact on the climate. An example of such an initiative is a sustainable solutions

marketplace (SSM). They offer an online platform for sustainable products and services that the film industry needs in order to be able to implement sustainable measures such as electrical cars or sustainable generators (GFC 1; SSM). Thus, they increase the access to such solutions and further follow the philosophy of:

“The market needs to expand rapidly to meet the demand. That means that any company who's already made a product that is ready to get used shouldn't be not in use, it should be getting used all the time, and that obviously helps expand the market and the more there's income coming in from that new product.” (SSM).

The fourth mechanism encompasses institutions that make particular sustainability measures mandatory in order to receive resources from them, thus enforcing their implementation. Additionally, there is a reversed mechanism of such enforcement, namely the legislation or enactment of non-sustainable measures. Indeed, by creating laws and regulations that prohibit certain means of production that are not sustainable, sustainable measures will be enforced.

Several interviewees referred to different laws and regulations as powerful tools in order to accelerate the change towards sustainability in the film industry (Commissioner; GFC 2; GFC 4; Professor). It has been described how the state can operate as a regulator to reach this goal (Commissioner; Professor). Furthermore, the climate goals that have been decided at COP26<sup>3</sup> have been outlined as the basis for beneficial laws and regulations as they demand means of sustainable film production (Commissioner; GFC 1; GFC 4). An exemplary law that has been derived from these goals is the climate protection law in Germany (Professor).

In addition to laws and regulations, there are other initiatives that follow the fourth mechanism of realizing the implementation of sustainable measures. A film must overcome several obstacles on the way to the audience, some of which are guarded by commissions or commissioners, others by financiers (Commissioner; Director; SSM). Therefore, the enabling actors as described in the *Actors* section are able to make chosen sustainable measures mandatory in order to access their resources, thus enforcing the implementation of them (Commissioner). It has to be noted that this kind of enforcement

---

<sup>3</sup> UN climate change conference

primarily relates to sustainable measures that address films' direct impacts on the climate.

The TV station SKY offers an example of such enforcement to the implementation of sustainability measures. The GFC 4 describes how SKY requires precise carbon consumption figures in order to receive their funding. Indeed, they further hold back a certain amount of the fund until the actual emissions have been proven after finalizing the film production (GFC 4). Thus, it monetarily incentivizes film makers to implement these measures and holds them accountable for their reports. Furthermore, this enforces the implementation of the sustainability measures as described in the fourth mechanism through gatekeeping of crucial resources.

The last initiative following the fourth mechanism consists of pledges. They can be utilized regarding direct and indirect impacts on the climate by the film industry (GFC 4). Additionally, pledges can be used to hold organizations and individuals accountable for their initiatives to address climate change. As a matter of fact, pledges are signed commitments to certain actions, and thus, failure to execute such actions reneges on that promise (GFC 4). Consequently, the party that initiated the pledge has grounds not only to criticize the renegeing party but also to hold them accountable and enforce the implementation of sustainability measures in the film industry. An example for such an initiative in relation to the industries indirect effects on the climate is the CCP by albert.

The fifth mechanism follows the sense that if the implementation of sustainable measures is recognized or rewarded, it will motivate organizations or individuals to act in a similar way. As a consequence, the likelihood of a higher number of implemented sustainable measures will be increased. The most obvious example of an initiative following the fifth mechanism is awards. The Eisvogel Award has been used as an example that brings attention to sustainable film production. Indeed, its authority exceeds that strategy since it further recognizes and rewards these measures that potentially lead other film productions to follow this example.

Furthermore, such awards can not only reward films in relation to their direct impacts on the climate, but also in relation to their indirect impacts. Since the measurement of the indirect impacts and the sustainable measures of the film industry that are attached to

them is too complex to be defined within e. g. laws and regulations, the fourth mechanism can not apply for these measures. Therefore, this fifth mechanism gains in importance within the strategy of realizing the implementation of sustainable measures in order to address the film industry's indirect effect on the climate.

Another initiative that utilizes the fifth mechanism lies within the decisive power of commissioning organs to choose the programs of various distribution channels. Therefore, the commissioning organs have the authority to prioritize films that address climate change within their content and the production of the film (Commissioner). Such prioritization can motivate other film productions to implement these sustainability measures, just according to the fifth mechanism.

Moreover, this initiative by the commissioning organs is seen within financiers in a similar manner. Precisely, an independent film producer explained how funding plays a crucial role in realizing their productions (Director). Furthermore, she described how they had to outline their impact campaign that was connected to their film, which addressed climate change and its consequences for a Kenyan farmer (ibid.). Therefore, it ensures not only that the topic of climate will be addressed but also that the film's potential to use its capability to have significance is extended as much as possible.

Lastly, the data showed that a significant number of initiatives was driven by certain actors' personal motivation (Commissioner; GFC 4; SSM). Not only do the experts describe the addressing of climate change as of high importance for them personally, they also outline that there are initiatives that only came about due to a decision makers personal understanding of the urgency to act regarding climate change (GFC 4, SSM). Based on that personal motivation, these actors are more likely to implement sustainability measures. Therefore, many of the initiatives and the implementation of sustainability measures occurs to be moderated by employees' personal motivations.

#### 5.2.4. Quality Control

Since common sense in our society increasingly tilts towards a need for more sustainability efforts, companies see the opportunity to use sustainability measures to improve their company image without necessarily introducing measures that are beneficial for the climate, a concept commonly known as "greenwashing". Some of the experts have also observed this phenomenon in the film industry (Professor). Therefore, it is important that the film industry has strategies that control the quality of the sustainability measures the industry offers. Thus, this section analyzes the initiatives that are part of the strategy to control the quality of addressing climate change. Indeed, within the initiatives, there occur two main mechanisms that will be described in the following.

The first mechanism encompasses the calculation of carbons that have been produced during a film production and therefore shows the quality of sustainability measures that have been implemented in order to reduce the carbons. Additionally, the calculations break down the high complexity of sustainability measures and their efficiency into numbers that are more obvious and straightforward than verbal assessments.

Numerous experts have described carbon calculators as a crucial instrument for the quality control of sustainability measures (Professor; Commissioner; GFC 1; GFC 3; GFC 4). As the name indicates, carbon calculators are tools that help to calculate the carbon emissions that are produced during the production of a film. Therefore, they provide an overview of the emissions in order to detect further potential for reduction and for measurability of the introduced means of sustainability (GFC 1; GFC 4; Professor). Further, these calculations lay the ground for certifications and potential carbon offsets through CO<sub>2</sub> certificates as well as create comparability of the sustainability between different film productions or towards benchmarks (GFC 4; Professor). Common calculators that have been named in the interviews are the carbon calculator by albert and the "Eureca" by Interrec Europe and the EU.

The second mechanism follows the logic that, if there is an institution that assesses the quality of implemented sustainability measures and labels or certifies them in case they reach a certain standard, then a certain quality standard of implemented sustainability measures is attached to each production that received such a label. Therefore, quality

control is not only centralized to that institution but also translates and simplifies the work of control for other institutions and actors that are dependent on these certain standards (Commissioner).

Initiatives that follow this second mechanism are certificates for GFC. In the past years, several educational institutions have introduced new programs that lead to the certificate of a “green consultant” or “green film consultant” and thereby start to establish a new profession (Commissioner; GFC 1; Professor). The certificate helps the individuals to legitimize their complex skills and knowledge, and it helps the production companies to choose a qualified person to support them with their sustainability measures (Commissioner). The GFC 2 elaborates on how the process of obtaining the certificate helped her to broaden her understanding of environmental science, despite having an exclusive background in film. Furthermore, they said,

“I think it kind of got my foot in the door and added legitimacy to something that doesn't necessarily need prerequisites because it's so new and the positions are really in their infancy. And productions are trying to figure out how to even navigate all of this. So adding that little bit of expertise really, really helped me, I think.” (GFC 2).

With this statement, they underline the importance of a strategy for quality control on the one hand and the effectiveness of the initiative of certificates that supports that strategy on the other hand.

In addition to the certificate labeling the profession of GFC, there are certificates and labels that designate film productions that abide by certain norms (Commissioner, GFC 4; Professor). The Professor described the introduction of the “green motion” label by the working group Green Shooting as “It's all about minimum ecological standards, and that has really blown some energy into the industry.” and thus underlining its power and importance. In order to receive this certificate, a production has to prove the implementation of 19 of the 22 criteria provided by the green motion label (Professor; ÖKologische Mindeststandards Greenmotion, 2022). Therefore, the green motion label allows industry actors to simply assess if a film has been produced sustainably bound to a certain quality of sustainability.



### 5.3. Initiatives' Influence

After describing the actors and the strategies they employ, there is a foundation for future investigation. Hence, in order to answer the research question, especially the second sub-question, it is needed to analyze how the outlined initiatives influence and relate to each other in terms of addressing climate change. The interviewed experts described various ways of how initiatives have various impacts on other actors within the field that therefore either lead to the introduction of other initiatives or a change within the current behavior of the actors. Therefore, impacts, influences, and effects between the actors and initiatives within the data have been identified in order to analyze the initiatives' influences. This analysis finally led to three main influences, namely, discourse, inspiration, and force as seen in figure 3. Together with the mechanisms they consist of, these influences will be described in the following.

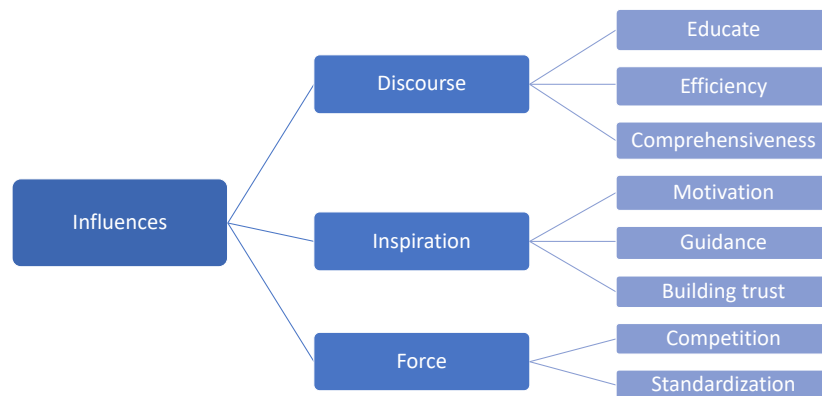


Figure 3, Overview of the Initiatives' Influences in addressing Climate Change (Source: personal collection)

#### 5.3.1. Discourse

Several interviewees express the complexity of sustainability within the film industry. They describe how an extensive variety of institutions and organizations need to be involved in order to implement and foster change within the film industry due to this complexity (Commissioner; Director; SSM). Further, they emphasize the effect it has when there is discourse regarding addressing climate change within the industry and its actors and initiatives.

In addition, it has been expressed how the complexity of the industry due to the interrelations between institutions on different levels leads to an increased need of discourse within the industry regarding the matter of sustainability (Commissioner). For example, the Director explains how a film festival that intentionally brings together organizations and individuals engaged and interested in climate change organizes collaborations between financiers and filmmakers. As a result, they increase the probability of such collaborations and the creation of climate related films.

In order to further understand the discourse of the industry, one has to understand its primary mode of action, which appears to lie within the exchange of information and resources (Commissioner; SSM). Therefore, the three foldness of the importance of this exchange will be described through three mechanisms in the following.

First, discourse is needed in order to educate individuals and organizations about the possibilities and necessities addressing climate change encapsulates (GFC 2; SSM). It has been described how mediation of information helps to increase the implementation of certain measures. For instance, interviewees refer to green production guides they reference to increase their implemented sustainability measures (GFC 2; GFC 3; GFC 4). In addition, the importance of education and being informed does not only refer to the discourse with stakeholders that are in the beginning phase of implementing sustainable measures. It further refers to all stakeholders involved in addressing climate change and their requirement to be up to date in terms of sustainable measures that the industry can implement to impact climate change directly and indirectly. (Korina, Commissioner).

Second, discourse can avoid redundancy within initiatives addressing climate change. Therefore, it further avoids exhausting energy that is spent in redundant initiatives, thus increasing efficiency in the industry's addressing of climate change (Commissioner, Director; SSM). As the SSM describes, "all of us will learn from each other and the questions that we're asking or having ideas in the space around whatever the thing is. So just from an efficiency perspective as well, it's quite helpful."

Third, the discourse within the industry helps to spot gaps in addressing climate change, thus increasing its comprehensiveness (Commissioner). The Commissioner describes the work that aims to find gaps within the industries' approach and to solve the

fragmentariness of the initiatives to address climate change as “harmonization work” by saying:

“It is actually a strong point to carry out harmonization work so that this patchwork does not necessarily remain forever and the same thing is invented five times again, but we can actually take the next steps wisely by harmonization work and also by coordination work and exchange and further development, so that we save more CO<sub>2</sub>, because that is basically the point of the whole thing.” (Commissioner).

Thus, they emphasize the need for an overview of existing initiatives in order to determine what the industry lacks in its mission to become more sustainable as well as discourse about it. In addition, the GFC 3 explains the origin of the fragmentariness by the industry's tendency to work in silos and a missing discourse.

### 5.3.2. Inspiration

In addition to the discourse and the benefits that follow it, there are further influences various initiatives have on each other. Interestingly, some sort of trend has also been observed by the experts in relation to sustainability measures (GFC 1; GFC 2; PM; SSM). Some of the experts explain such a trend with an increasing number of examples of initiatives that other organizations and individuals can follow (GFC 1; GFC 2). As a consequence, an inspiration attached to successfully implemented sustainability measures can be observed, due to other film productions following such examples. This inspiration occurs to function in two distinct ways whereas these two mechanisms will be described in the following.

First, in regard to the motivating potential of initiatives on actors, the GFC 1 explains how good examples of implemented sustainability measures can help to motivate and convince others. Indeed, actors demonstrate that the implementation of sustainability measures neither disrupts the usual production nor creates an extensive extra effort in order to address climate change. Therefore, there appears to be a contagious effect regarding sustainability measures on film sets (GFC 1). Additionally, good outcomes of initiatives that implement sustainability measures can appear as something desirable and thus motivate other actors to implement them as well (GFC 2). Furthermore, it has been described how certain institutions, such as film festivals, could use their reach and influence to present a good example. Indeed, through accomplishing industry gatherings

in a sustainable manner, certain sustainability measures appear natural and therefore motivate others to implement them as well (GFC 2).

Second, a significant number of the experts described how they gravitated towards good examples or have been guided by them. It has been elaborated how decisions towards sustainability taken by certain actors made other actors of the film industry follow their exemplary decision (GFC 2, SSM). Such examples appear to legitimize certain decisions and initiatives that address climate change. As the GFC 2 described:

“Obviously, Netflix is doing very well in terms of their content, [...] so they obviously have money, but if they keep doing these sustainability initiatives more and more, hopefully other streaming services like Hulu will get on board [...] and say like, oh, okay, Netflix is still on an upward trend and have sustainability initiatives. So okay, maybe we can do it and fit it into the budget”.

The third mechanism of inspiration follows the example’s opportunity to build trust. Trust is of paramount importance in the film industry, where the SSM explained that mechanism as follows:

“I think because film and TV is such a high pressure environment, when you're on the ground and when you're making a film that if anything goes wrong, people are hesitant to use that supplier again or, you know, nobody wants to be the person who introduced the new supplier and then it didn't work, or the the product didn't show up or whatever. So I think it is quite a difficult industry to change because of it being a high pressure environment. But hopefully the more that we can make things easy and streamlined for productions to actually set up the systems around them, so that it's just an easy process for them to do something different.” (SSM).

This vignette underlines the influence examples of implemented sustainability measures have through building trust by demonstrating the measures validity and outlines the third mechanism.

### 5.3.3. Forces

In recent years, experts noticed a trend toward sustainability in the film industry (Commissioner; GFC4; Professor). Precisely how some projects motivate other businesses or people to take sustainability measures by serving as an exemplary model (GFC 2). However, it occurs that some actors address climate change less voluntarily than described in the previous section, thus being forced. Therefore, the following section will analyze forces coming from initiatives that influenced other initiatives to implement sustainability measures that utilize two distinct mechanisms.

First, organizations and individuals perceive a need to address climate change by observing the implementation of sustainability measures within organizations with which they compete (GFC 3). It has been stated that there are concerns about falling behind the general competition or appearing as an antiquated institution if certain sustainability measures are not enacted (GFC 3). Whereas implemented sustainability measures appear as competitive advantages in relation enabling actors. Therefore, the consequence of this mechanism is the occurrence of a force to implement sustainability measures by initiatives that is fostered by competitive advances. The GFC 2 further describes the mechanism as:

“Then HBO Green existed, and now I know Netflix is doing a lot of good things like that. They're growing fast. So I think the momentum is starting back up, which is really nice. [...] And as the studio's kind of jump on to that as well, a lot of them are doing, like I said, like their in house things like on video, like getting solar panels and tracking their carbon emissions, but it's really installing, also pre production, that might not be based in the studio. But yeah, hopefully, I think more things are popping up, I'm seeing positions pop up. [...] And these companies are saying like, okay, we do need to get on the union [of actors implementing sustainability measures] to get the ball rolling and be able to compete.” (GFC 2).

Second, the enabling actors and the target audience are not the only groups with the ability to generate force. Indeed, the film industry's actors are able to foster change towards sustainability by standardizing the implementation of sustainability measures (SSM). This comes about through repetitively working in a rather sustainable way by implementing sustainable measures to finally create a new principle of working within the industry (ibid.).

Moreover, the professor compares this mechanism with innovation theory, where early adopters create principles that force other actors to reach that principle in order to stay socially and professionally accepted. The Screen Sustainability Manager describes an example as follows:

“So, for instance, like the work I'm doing, I work very closely with Screen Scotland and they give funding to specific productions. So we're thinking a lot about, well, how do we put criteria on that funding to make sure that they are at least adhering to specific standards. But if they're doing that, if they've already done that through one film where they've had funding, but then they go on another project, which is also albert certified or going for Albert certification, and then you go on a different project and that has an environmental coordinator on it. And it's just like the processes start to change separately. But then gradually it just becomes the new way of working, the new normal.” (SSM).

Therefore, following the principle leads to a routinization of the implementation of sustainability measures that further fosters addressing of climate change.

Finally, this standardization not only applies to films' production but also to the films' content. Precisely, a frequent depiction of film characters in a rather environmentally friendly manner leads to the standardization of such depictions (Korina). As a consequence, these depictions become more socially and professionally accepted and therefore force film productions to implement these sustainability measures.

## 6. Discussion

The previous chapter described the main findings of this research that indicate that there are categories of actors and strategies, and that there are influences between the initiatives the industry offers in order to address climate change. First, it showed that there are a variety of actors that are involved in this process. Therefore, these actors have been grouped into three categories, based on their role in addressing climate change. This categorization finally led to the categories of enabling, implementing and advocating actors.

Furthermore, these actors show a diverse set of initiatives for addressing climate change that use certain mechanisms that finally lead to four main strategies. The strategies have been summarized as raising awareness of the climate and sustainability measures; developing norms and information media for sustainability measures; realizing the implementation of sustainability measures; and controlling the quality of sustainability measures. Lastly, the findings indicate that there are influences between the initiatives that lead to more discourse, inspiration, and force and impact the process of change within the film industry.

This overview of not only the actors but also their strategies solves the grand challenge of an missing overview of how the industry addresses climate change and who is involved with it. Indeed, the overview is informative in the sense of understanding what the industry does. It further shows that different categories of actors also utilize different mechanisms and therefore different strategies. Consequently, it shows that one category of actors for example does not necessarily use specific strategies. This underlines the diversity of initiatives that address climate change and shows that on the one hand actors make use of several strategies and on the other hand strategies are used by several actors.

This diversity can lead to confusion as some of the experts also pointed out by arguing that there is more discourse and information exchange needed. Contrarily, this diversity may be an indication that climate change is addressed from a variety of perspectives. This variety of perspectives might make it impossible to avoid sustainability measures throughout a film project as the number of initiatives, thus the confrontation with the matter, increases. Furthermore, this overview shows that there are initiatives such as

albert that provide initiatives to address climate change directly and indirectly. Therefore, underlining the importance to investigate these two impacts at the same time as they overlap in terms of actors that introduce them. Furthermore, the analysis reveals that both direct and indirect impacts employ the same four strategies, which is yet another indication that they should be studies concurrently.

However, an important aspect within this overview is that there are many initiatives that act in different dimensions. These dimensions differ in various ways such as where they operate geographically, where many of the initiatives appear to have a rather local reach. For instance, the initiatives of the LAFC such as their Evergreen Prisma or their Green Film Academy participate in the strategies to implement sustainability in an effective way, but are quite limited geographically to Austria. Therefore, the mechanisms these two initiatives utilize primarily have an impact on the film industry in Austria.

This example leads to the assumption that although the variety of initiatives of the global film industry appears to be extensive and fruitful, the reality film productions face in their surroundings is a different one. Indeed, the findings show that although there are many initiatives that came about throughout the past years, the change in the industry in order to address climate change and become more sustainable is not only an ongoing process but also is the film industry in a rather early stage of change.

Therefore, in the following, institutional theories will be consulted in order to make sense of the current situation of how the film industry addresses climate change. As a matter of fact, such analysis is needed in order to be able not only to answer the research question of this paper but also to provide eligible implications as well as recommendations to foster the process of change. First, it will be discussed to what extent the film industry can be defined as a field on account of prerequisites of institutional theories. Second, the concept of institutional entrepreneurs will be discussed in relation to the findings of the paper in order to understand the origin of the film industry's change. This will be followed by the discussion of isomorphism that will help to understand the diffusion of change that has been introduced by institutional entrepreneurs. Lastly, the findings as well as the discussion of theory of this paper will be contextualized to former research on this topic.



## 6.1. Film industry as a field

In order to be able to discuss the film industry under the perspective of institutional theories, one has to analyze if the film industry can be defined as a field, since these theories have been conceptualized for fields instead of industries. The organizational field describes the organizations that accumulated build and organizational life that consists of key suppliers, organizations that produce similar products, regulatory agencies, and resource and product consumers. Within the film industry, the key suppliers are described as the enabling actors as they supply tangible and intangible resources. The organizations that produce similar things are the implementing actors as they indeed produce the films.

Furthermore, financiers, commissioners, and governments function as regulatory agencies through their enabling function and their influences as described within the force influence. Lastly, due to the research design, product consumers are not part of the film industry as outlined in this paper. Together, these actors create the organizational life DiMaggio & Powell (1983) describe as the institutional field.

However, in addition to these actors, this analysis shows that there are further actors that are significant to the field, especially throughout addressing climate change. Therefore, the data of this paper suggest increasing the categories of organizations within the field as described by DiMaggio & Powell (1983) as the category of advocating actors. Indeed, the advocating actors occur to have great influence on their field as well as they stimulate dynamics between the actors in the field. Moreover, Alvarez et al. (2005) incorporate actors such as academia and consultants that suit the category of advocating actors in their definition of the field that further is part of the film industry as well. Thus, they support the inclusion of advocating actors in the definition of the film industry as a field.

Furthermore, a field must be compromised by the following four components in order to be defined as an institutional field: an increase in the level of interplay between organizations in the field; the emergence of sharply defined interorganizational structures of dominance and patterns of coalition; an expansion in the amount of data that a field must process; and establishment of a sense of participation and shared efforts among participants (DiMaggio & Powell, 1983).

Furthermore, in relation to the four components that institutional fields suggest, the film industry shows a compliance with all four of them. First, within the film industry the actors increased the frequency of interaction, as primarily shown through initiatives by proponents and further described by the discourse influence. Second, the film industry shows not only hierarchical but also coalition patterns through the order between enabling actors and implementing actors and in the unions within advocating actors. Third, alongside the initiatives of addressing climate change, there is an increase in information the industry has to process in order to change production standards and content related habits. Finally, a mutual awareness between the participants is evident as elaborated within the raising awareness strategy.

Although this mutual agreement does not entail the whole industry, this paper shows that there is consensus to a certain degree. To summarize, the film industry aligns with the criteria in order to be defined as a field. As a consequence, the theories of institutional entrepreneurship and isomorphism can be applied in order to discuss how the film industry addresses climate change.

## 6.2. Institutional entrepreneurship

Institutional entrepreneurship is a conceptualization of the role of certain actors within institutional change. These actors, namely institutional entrepreneurs, hold peculiar legitimacy and importance in addressing climate change as a consequence. Additionally, this concept can be used in order to make sense of the source of the institutional change of addressing climate change the experts observe in the film industry.

Within institutional entrepreneurship, actors have an interest in certain institutional situations and change the institutions towards that (Battilana et al., 2009). In the scope of this examination, the actors aim for more sustainability measures implemented in and by the film industry. The greater goal of the implemented sustainability measures consists of the reduction of the industry's own emissions on the one hand and the exploitation of the industry's potential to have an influence on the audiences to reduce their emissions on the other hand. Therefore, the actors change institutions in order to foster change within the whole industry.

There are two conditions an institutional entrepreneur has to fulfill in order to be defined by this concept. First, they have to initiate divergent changes, meaning they have to express a vision of change (Battilana et al., 2009). In the context of the film industry, the changes that entail the actors' addressing climate change deviate from the traditional working methods within the film industry. As pointed out in the *Findings* section, the film industry presents various initiatives that represent visions of change because their actions show alternative working methods that led to new habits within the industry.

Furthermore, the variety of initiatives shows the industry's consensus on the need to address climate change, demonstrating their common vision of change. Indeed, it follows the nature of this analysis that actors are only included if they aim to change the film industry in that regard. Whereas the film industry as a field consists of a wide range of actors who do not address climate change, thus they do not appear in the findings of this synopsis. Hence, this vision is not shared by the whole film industry.

The second condition addresses the active participation of actors in the realization of change. As a consequence, actors in the film industry must actively gather resources to address climate change to meet the second criteria of institutional entrepreneurs. In fact, all initiatives that are included in this paper gather tangible or intangible resources in order to address climate change. In order to further understand if the actors that are outlined in this paper are characterized by institutional entrepreneurship, it has to be analyzed if they further follow the stages of institutional entrepreneurship. The first stage revolves around the enabling conditions of institutional entrepreneurship. On the one hand, there are field characteristics. The first field characteristic describes the disruption of the harmony of the field by a crisis, which further has an influence on the field's access to resources. The film industry as a field faces climate change as an obvious crisis.

Although the industry is not yet significantly influenced by it, climate change and its slow reaction to human actions appear to become an unstoppable process, whereas its significant influence on the film industry is expected. As a consequence, all the outlined actors fulfill the field characteristic of disruption of harmony.

The second field characteristic concerns the heterogeneity of the field. If organizations are highly differentiated from each other, there will be more internal contradictions in the

institution. As a consequence, there arises a tension between them and the organizations are more likely to critically reflect on the institutions and thus more likely to aim for change (Battilana et al., 2009). As shown by the outlined actors, the film industry offers a spectrum of different categories of actors who relate to each other in different ways. Further, there are certain dynamics between the actors, such as a power dynamic between enabling actors and implementing actors, that can be understood as tensions. Therefore, the film industry as a field shows a variety in institutional arrangements and therefore can be characterized as heterogeneous.

On the other hand, there is the actor's social status that influences the actor's understanding of the field and the actor's access to resources that are necessary to participate in institutional entrepreneurship (Bourdieu, 1977; Lawrence, 1999). Within the actors this paper describes, there are actors that have a social status that enables institutional entrepreneurship. For instance, there are the enabling actors who are special in the sense that film productions rely on their support and are therefore dependent on them. Consequently, a hierarchy is introduced between the enabling actors and the implementing actors.

Another example of a special social position is found in the advocating actors since they are supporting the film industry, which makes the benefits rather one sided to the actors that receive the support. Furthermore, some of the advocating actors are financially independent of the film industry and therefore have a peculiar social position. An example of such actors within advocating actors is academia or positions such as the Screen Sustainability Manager. Lastly, there are the GFCs, whose social position is special in the sense that implementing actors ask for their expertise in order to implement sustainability measures by outsourcing that responsibility. Thus, if a film production wants to implement sustainability measures that directly address climate change, they are dependent on the GFC; this dependency leads to a particular social position of the GFC.

Furthermore, advocating actors such as the proponents are further affiliated with other institutions and fields. These affiliations allow them access to different resources. As a consequence, such actors are more likely to introduce institutional entrepreneurship (Battilana et al., 2009). Contradictingly, albert is an example of how rootedness in the film industry can be beneficial in order to promote and implement sustainability

measures. As they are one of the most established initiatives in the industry, one could argue that the BAFTA as a parent organization provided legitimacy to some extent. Therefore, the example of Albert questions the argument of Battilana et al. (2009) to the extent that not necessarily the actors with external influences are the most likely to introduce institutional entrepreneurship.

The second stage of institutional entrepreneurship entails the development of a vision of change. In this paper, this vision is the aim to address climate change and see sustainability measures implemented within the film industry. There are three strategies to frame the vision, with the film industry utilizing all three of them. The first, diagnostic framing, is depicted as the film industry not being able to continue with traditional practices as the planet will be harmed to great extent by the emissions the industry and general public produces. Literature states that this strategy of developing a vision encapsulates showing that the present way of working or the surroundings of the industry will fail, in this case, showing the urgency of climate change.

There are some examples of such framing within the initiatives, primarily the ones that use the strategy of raising awareness. Actors that utilize this strategy are: all enabling actors through making information regarding climate change and sustainability measures mandatory; industry events through facilitating information and presenting it to a wide audience; proponents through discussing and exchanging information regarding climate change and sustainability measures; and proponents and all implementing actors through common announcements of their vision to address climate change.

Second, prognostic framing delegitimizes the traditional standards of the film industry by introducing new standards that include sustainability measures. It is principally exploited by initiatives that participate in the strategy of realizing the implementation of sustainability measures. As a matter of fact, all the enabling actors and governments do so through enforcing the implementation of sustainability measures and supplying the industry with needed resources.

Further, prognostic framing encapsulates the insourcing of implementing sustainability measures by the GFC from the implementing actors. Lastly, within the advocating actors, the proponents use the prognostic framing by assisting the implementation of

sustainability and enforcing it through pledges. In addition, they make use of the strategy that controls the quality of the sustainability measures, which numerates and certifies sustainability measures and thus delegitimizes the traditional measures of producing a film.

Third, motivational framing consists of the presentation of strong arguments for the new way of working, meaning the implementation of sustainability measures. Initiatives that develop norms and information media demonstrate to the industry the potential solutions there are in order to address climate change. Commissioners and academia utilize education regarding the addressing of climate change to make strong arguments, thus frame motivationally. Moreover, proponents and all implementing actors exchange their know-how in order to develop norms and information media, which offers the film industry a new perspective in which sustainability measures are implemented and underlines the importance of a change within the industry.

Further, commissions, proponents, and all implementing actors offer initiatives within which they share their own work in order to propose sustainability measures. Additionally, the proponents assist film production with the implementation of sustainability measures, meaning they argue in order for the sustainability measures to be implemented. In order to directly motivate actors to implement sustainability measures, industry events as well as commissioners utilize rewards for films that implement sustainability measures through awards or good placement within distribution channels, thus offering good arguments to implement such measures.

In addition to these three framings, an important aspect within the film industry is that many actors are driven by their personal motivations. In comparison to traditional institutional entrepreneurship, actors react to certain situations within the industry that primarily concern their organization's situation. Whereas in relation to the matter of this paper, many actors are further driven in their vision by a personal and private interest in addressing climate change to preserve the planet. Therefore, further research on institutional entrepreneurship could investigate the interplay of personal motivation and the organization's situation within the institutional context.

The last stage of institutional entrepreneurship encompasses the mobilization of allies, meaning the actors try to win support for their vision of addressing climate change from other actors in the film industry. Proponents and GFC make use of discourse within panels that are hosted by industry events in order to obtain supporters. This effect is enhanced due to these actors' social capital, thus combining the two ways of mobilizing people. Moreover, commissioners and financiers mobilize resources for sustainability measures that are implemented by the implementing actors and consequently mobilize allies. In addition, commissioners, financiers, and governments win support through formal authority by making the implementation of certain sustainability measures a law or regulation.

This discussion of institutional entrepreneurship with the current status of actors and strategies that address climate change finally shows that there are several types of actors that, through their initiatives, can be defined as institutional entrepreneurs as they transform their institutions. Precisely, the types of actors that fulfill the conditions and are present in all three stages of institutional entrepreneurship are: financiers, commissioners, GFC, proponents, and industry events.

However, there are only a few individual actors that can be identified as institutional entrepreneurs. For instance, there is the proponent organization albert that is part of the BAFTA, which allows them a peculiar and powerful social position. Furthermore, they offer initiatives that address the different stages of institutional entrepreneurship. Their climate content pledge is utilized in order to raise awareness and manifest and communicate their vision to initiate divergent change by addressing climate change indirectly. Further, these pledges make use of albert's social capital and thus, mobilize allies by making other actors of the film industry sign the pledge. As their position has been described as highly impactful by the experts, albert evidently transforms its institution of BAFTA, thus can be defined as an institutional entrepreneur.

However, albert as an actor offers further initiatives. First, they raise awareness through the CCP. Second, they develop norms and information media through their website that offers an extensive database of information. Third, they realize the implementation of sustainability measures through assisting implementing actors within their workshops. Lastly, they control the quality of sustainability measures with their carbon calculator.

Moreover, although the discussion of the theory primarily introduced by Battilana et al. (2009) further showed a great extent of similarities between institutional entrepreneurship and the data of this paper. Indeed, the strategies the industry offers outlined in this paper appear to align with institutional entrepreneurship to a great extent. However, there is some distinctness, which potentially leads to an alteration of institutional entrepreneurship as conceptualized by Battilana et al. (2009).

Indeed, the initiatives of albert further suggest such an alteration. In light of the academic conversation in which this synopsis participates and the theoretical framework, the adjusted theory is named institutional sustainability entrepreneurship and is depicted in figure 4. In accordance with Battilana et al. (2009), there are enabling criteria, namely field characteristics and the actor's social status. However, in accordance with the findings of this paper and further supported by the example of albert, the following four stages of institutional sustainability entrepreneurship came about.

The first stage raises awareness regarding the change that the actors want to implement in the field. Second, there should be research and development of new norms and information media regarding these changed norms and their potential measures to achieve the norms. Third, the implementation of changed measures has to be realized. Fourth, the implemented measures that facilitate the change have to be controlled regarding their quality. Additionally, the first three stages are moderated in their impact by the actors' personal motivation. Precisely, actors are more likely to become aware, adapt to new norms and information, and implement sustainability measures if they also have a personal motivation to address climate change.

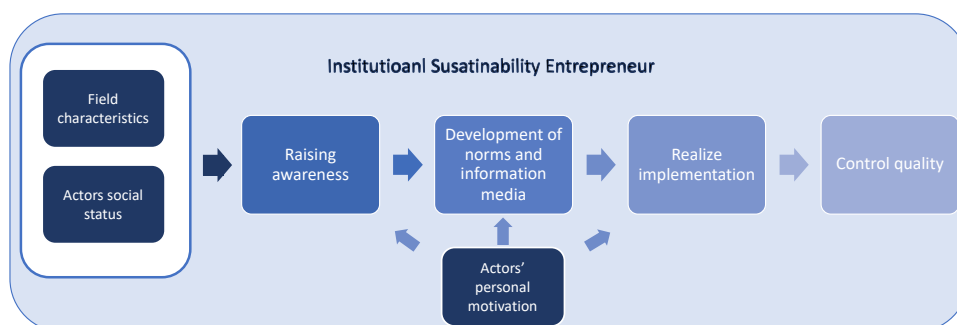


Figure 4, Visualization of the Concept of Institutional Sustainability Entrepreneurs (personal collection, adapted from Battilana et al., 2009)



### 6.3. Isomorphism

All things considered, institutional entrepreneurship does not fully explain the current situation within the film industry and how it addresses climate change. This leads to the assumption that there are other influences that brought about some of the described initiatives that go further than the personal motivation of the initiators. Therefore, the following section will discuss the influence the initiatives in the film industry have on each other in relation to addressing the climate and increasing the implementation of sustainability measures. Meaning, it discusses dynamics explaining why one actor would introduce an initiative based on the initiatives of another actor.

DiMaggio & Powell (1983) describe how, within isomorphism, organizations aim to change until there is homogenization within the field that diminishes variety in regards to certain characteristics. Indeed, the current scene within the film industry shows that actors in the field aim at a homogenization towards more implemented sustainability measures. This leads to the assumption that the existence of one initiative leads to the introduction of another initiative, thus, to homogenization in terms of addressing climate change. DiMaggio & Powell (1983) conceptualized three mechanisms that describe this homogenization.

The first mechanism is coercive isomorphism, which challenges the legitimacy of an organization through political influence (DiMaggio & Powell, 1983). Certain countries aim to introduce laws in order to regulate the sustainability of film production. Indeed, such initiatives are the highest degree of coercive isomorphism according to DiMaggio & Powell (1983) and pressure the industry to introduce initiatives that lead to compliance with the introduced laws. Furthermore, the data in this paper shows that some initiatives have a forcing and encouraging influence over other initiatives.

As a matter of fact, the *Influences* section describes the forcing influence with two main mechanisms. Precisely, initiatives delegitimize other organizations by creating a competitive advantage through implementing sustainability measures. These films are then preferred by either distribution channels or the final audience of films. Gatekeepers require certain standards of production that force the film productions to implement the required standards as a consequence. Therefore, utilizing gatekeeping by crucial actors

such as the enabling actors further encourages and coerces the implementation of sustainability measures and the addressing of climate change by introducing new initiatives.

In addition to the conceptualization of DiMaggio & Powell (1983), this data adds a secondary effect of enforcing the implementation of sustainability measures. In fact, the confrontation with sustainability measures by certain institutions leads to a routinization of them. Consequently, this routine further increases the likelihood of actors implementing sustainability measures.

The second mechanism, mimetic isomorphism, encompasses organizations that imitate and replicate other organizations and their behavior as a response to uncertainty (DiMaggio & Powell, 1983). Within the film industry, several actors follow examples in which sustainability measures have been successfully and effectively implemented. In alignment with the mimetic isomorphic pressures, actors have a guiding or motivating influence on other actors. As described in the *Inspiration* section, actors that address climate change and legitimize sustainable behavior therefore make them look more applicable to other actors, which in return makes them mimic the initiating actor's behavior.

Although DiMaggio & Powell (1983) describe that oftentimes the modeling organization is not aware of being mimicked, the actors that are described in this paper are not only aware of the imitation but also aim at fostering this mimetic pressure. Therefore, this isomorphic pressure is intensified by the industry's communication and presentation of successful examples of the implementation of sustainability measures.

The third mechanism consists of normative isomorphic pressures and is associated with the professionalization of processes to create new norms (DiMaggio & Powell, 1983). The film industry brought about several groups of people that share the same occupation throughout the process of addressing climate change. The most significant ones are the GFCs, whose profession has been described in the *Strategies* section. Their circumstances and working techniques have been defined through several working groups and unions. Furthermore, this new profession of GFC has been manifested through certificates that outline and administer it. Through their consultancy and implementation of sustainability

measures on film sets, they create new norms of a rather sustainable routine on film sets. Although it is not specified by DiMaggio & Powell (1983) that normative pressures can come about through the creation of new positions, the film industry evidently shows this possibility in order to create normative isomorphic pressure.

Furthermore, the film industry introduced the strategy of developing norms and information media to address climate change. Indeed, the initiatives that facilitate this strategy help to introduce new norms and build the information media that are paramount for other strategies to address climate change. Moreover, the discourse category within the *Initiatives' Influences* section further explains the process of building norms and information media as it further explains the effects of sharing knowledge and being connected within the industry. Thus, the strategy and influence both reflect normative isomorphic pressures. Finally, although DiMaggio & Powell (1983) state that the training for developing norms has to be brought about by academia and professional training institutions, the film industry shows that private companies and even individual professionals can play a significant role in developing norms.

The described isomorphic pressures further align with some of the findings of Alvarez et al. (2005), who investigated isomorphism within the film industry in relation to creativity. Their findings describe how filmmakers need creative legitimacy to gain access to resources and, as a result, tend to be creatively homogeneous with other filmmakers. This paper's findings suggest a similar situation in which film productions still need to gain legitimacy and the implementation of sustainability measures is an additional factor that influences decisions regarding the film's access to resources. Therefore, it demonstrates that there are structures in place that permit certain isomorphisms, highlighting a location where decisions regarding sustainability measures should be made. Precisely, according to Alvarez et al. (2005), isomorphic pressure originates in conventions taught in educational institutions and is evaluated through awards.

Despite the fact that this paper's findings support the significance of awards in addressing climate change, it has been demonstrated that the influence of educational institutions is notable but relatively minor in comparison to the number of initiatives by other actors. Nonetheless, the contrast between the two studies demonstrates that there are institutions, such as educational ones, which have a significant impact on the film industry and can

therefore be utilized to promote change. Recognizing the findings of Alvarez et al. (2005) in conjunction with the findings of this paper leads to the conclusion that the homogenization of a more sustainable film industry is more likely if educational institutions increase their focus on climate change.

In addition, Alvarez et al. (2005) highlight the influence of industry authorities and financially powerful organizations that participate in budgetary processes and evaluate films according to specific criteria. Therefore, this existing decision based structure can be utilized in order to address climate change, as the data of this paper suggests. As a consequence, Alvarez et al. (2005) support the argument that the film industry can exhaust the potential that lies within the enabling actors in order to create coercive isomorphic pressures to increase the industry's addressing of climate change.

Moreover, Alvarez et al. (2005) note that actors in the film industry are capable of establishing new norms and boundaries. These mechanisms also apply in relation to sustainability, and actors create new boundaries as they show that the implementation of sustainability measures is possible. In addition, some films that address climate change manage to innovate for the industry by successfully implementing sustainability measures. According to Alvarez et al. (2005), as a result of their success, other film productions are likely to imitate them.

In summary, this discussion of empirical data and the theoretical framework have demonstrated that actors within the film industry that address climate change create isomorphic pressures on other actors in the field through the three different isomorphic pressures. This enables actors to be more likely to address climate change, as well as foster their already existing sustainability efforts. Therefore, according to the isomorphism hypothesis, the film industry will adapt to the initiatives and increase its efforts to combat climate change. However, it is difficult to measure both the change and the homogenization because addressing climate change involves numerous degrees and dimensions.

Additionally, it has been established that institutional sustainability entrepreneurs have a unique role within the film industry in regards to addressing climate change. Due to their high legitimacy, they can foster change and further enhance the isomorphic pressures,

subsequently promoting the addressing of climate change and the process of it. As a result, institutional sustainability entrepreneurs can be seen as moderators of the process of addressing climate change within the film industry. Based on the four steps included within the concept of institutional sustainability entrepreneurs, their actions have been validated, as well as scientifically supported, as a crucial part of this moderating role. Indeed, the role of scientific facts within processes of change is of paramount importance in relation to climate change since the crisis is becoming increasingly urgent and has to be addressed efficiently and effectively.

Consequently, the analysis and discussion of the film industry's response to climate change and the institutional theories led to the derivation of a framework. This conceptual framework describes the film industry's scene of addressing climate change and is illustrated in figure 5.

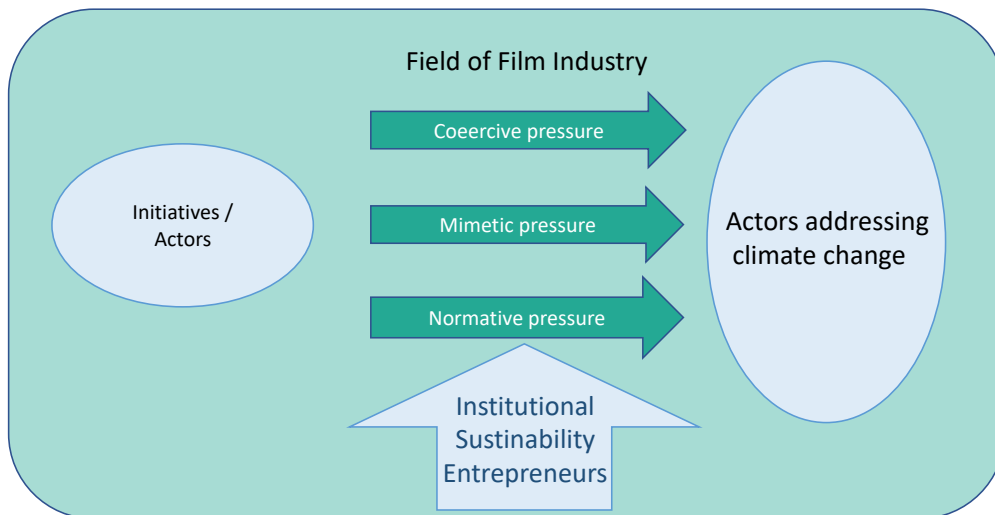


Figure 5, Visualization of Conceptual Framework: How does the Film Industry address Climate Change (Source: Personal collection)

#### 6.4. Film industry and climate change

After contextualizing the findings of this paper with institutional theories, it is essential to understand the position of this research in relation to other research that examines the film industry and its attempts to address climate change. The general literature that researches the film industry and how it addresses climate change focuses on the

organizational level. However, there is some research that investigates the film industry's direct and indirect effects on the climate.

First, regarding the direct effects of the film industry on the climate, there are studies that describe how the film industry pollutes emissions. This research lays the groundwork for the development of sustainability measures capable of reducing these pollutants. Despite the fact that this paper does not examine the sustainability measures and their function, the insights regarding their implementation and application provide new information that undermines the measures. In order to achieve the ultimate objective of reducing emissions, it is crucial, for instance, to comprehend the relationship between suppliers of specific technologies and the sustainability measures that employ these technologies.

Second, the literature identifies the film industry's remarkable decentralization as a contributing factor to its high levels of pollution. In fact, the data in this paper suggest that more local and regional film production is required. Consequently, the support of local commissions and organizations such as Doc Society is essential for addressing climate change. Indeed, their local resources and networks enable them to assist film productions in producing more locally, thereby reducing the film industry's emissions.

Thirdly, studies suggest that productions avoid standing out with their sustainability efforts, resulting in a lack of transparency regarding their sustainability measures. However, this paper's findings paint a different picture. On the one hand, many contemporary film productions share and even promote the fact that they are produced sustainably to some degree. This openness is fostered by rewards for such efforts, such as awards or specific distributional placement, as well as a societal shift to demand such behavior. On the other hand, the lack of transparency is explained by a competition between actors addressing climate change for film productions in which they are permitted to implement sustainability measures. Consequently, providing a new justification for the absence of transparency and counterargument for concealing the implementation of sustainability measures.

Fourthly, previous research suggests that one of the greatest obstacles to sustainable film production is its inherent time constraints. As a result, a significant amount of human and financial resources are wasted in an effort to shorten the duration of the project. This

emphasizes the significance of planning film productions in a way that not only allows sustainability measures to be implemented, but is also sustainable. This paper offers solutions to this problem, such as a production that is relatively local, since local crews can work on demand rather than wasting resources by waiting on sets because they are too far away to return home.

In conclusion, the detailed description of how the industry pollutes contributes to the understanding of not only why sustainability measures are necessary, but also what they address. Consequently, this paper benefits from the overview of pollutants provided by other researchers, whereas the academic conversation benefits from this paper's broader scope of institutionalism.

In relation to the film industry's indirect effect on the climate, there are studies demonstrating that films have an effect on their audiences. Indeed, it is essential to comprehend how films can influence audiences in order to develop effective climate change addressing strategies. As they analyze films such as climate-fiction films, the current literature focuses on the potential for films to address climate change as one of the film's primary themes. Nonetheless, this paper expands the capacity of film content to address climate change. Specifically, it demonstrates that there are initiatives that assist film productions in subtly incorporating climate or climate change into their content. Actors such as Albert or Good Energy provide resources and information media to, for example, introduce a climate-conscious character into a story as a sustainability measure.

In addition, Silk et al. (2018) criticize the manner in which films address climate change, arguing that the depiction of certain environmental settings can lead to an increased interest in such settings and, consequently, ecotourism. Due to the fact that this paper does not discuss sustainability measures directly, such critical thinking is not a direct component of this analysis. However, the general tone of this paper is that the greater the number of initiatives that address climate change, the better. Nonetheless, Silk et al. (2018) identify an issue that requires further investigation, namely, the necessity of analyzing the extent of the usefulness of addressing climate change and the investigation for a potential degree and aspects of when it becomes counterproductive.

Moreover, Shanthini (2016) and Silk et al. (2018) describe hypocrisy in certain films that address climate change. Accordingly, the content depicts sustainable solutions that are not necessarily sustainable or the depicted sustainability is not consistent. The approach of this paper also attempts to address a certain hypocrisy, specifically one that occurs when a film addresses climate change through its content but is produced in an unsustainable manner. As a result, this paper analyzes the initiatives for addressing the direct and indirect impacts on the climate that the film industry has in order to propose an all-encompassing overview for the film industry that can reduce such hypocrisy, as the literature demonstrates that this is one of the most compelling arguments against implementing sustainability measures. In conclusion, such research on how the industry can have an indirect impact on the climate is crucial in order to develop sustainability measures for the industry's indirect impacts on the climate as well. Therefore, such literature is paramount for the analysis of this paper.

Finally, the discussion of the theoretical framework and current literature relating to the subject of this paper reveals a gap within the literature. On the one hand, there is literature examining the relationship between the film industry and climate change. However, this primarily focuses on the production of films and, therefore, the industry's direct impacts on the climate. The research relating to the industry's indirect impacts on the climate rather focuses on single films and misses to investigate this matter from a wider scope, such as the potential the industry has to indirectly affect climate change. Furthermore, the depicted strategies of indirect impact on the climate only outline a part of the impacts and disregard many approaches such as climate placement or climate characters.

On the other hand, there is literature analyzing industries as they change. Precisely, the institutional theory that relates to the dynamics that are described in the film industry encompasses institutional entrepreneurship and isomorphism. Institutional entrepreneurship has not been studied in relation to the film industry so far. Additionally, although isomorphism has been studied in the context of the film industry, it has not been studied in relation to sustainability in the film industry.

As a result, there are two main gaps in the literature that this paper occupies. First, this paper fills the gap by investigating initiatives that address climate change and, therefore, the industry's direct and indirect effects simultaneously, whereas current research looks



at them separately. This simultaneous analysis does not only address the certain hypocrisy of addressing climate change through the content of a film but producing it with non-sustainable measures. It further allows an analysis of influences between actors from both sides and, indeed, is supported by actors that address the industry's direct and indirect impacts simultaneously. For instance, the advocating actor Albert offers the carbon calculator that addresses the direct sustainability measures, whereas the climate content pledge and certain workshops address the indirect sustainability measures. Therefore, if one wants to understand the film industry and its institutional coherence, one has to take the actors and all their actions into account. As a consequence, if considering all the actors' actions within the field, one has to look at the initiatives that directly and indirectly address climate change.

Second, this paper fills the gap in research to analyze the institutional aspects of the film industry's addressing of climate change. There is little understanding of the greater picture of the film industry's take on climate change. Therefore, this study adds to current research and allows to get an overview of the industry. The overview of actors and strategies has great value for current research since there is an evident lack of knowledge of how the industry addresses climate change. On the one hand, the lack arises from the separation of direct and indirect effects. On the other hand, it arises from the momentum in the industry where many new initiatives have been launched within the past few years. Consequently, it is possible to understand the coherence within the industry, which is a paramount aspect to further supporting the industry in order to address climate change.

Indeed, this paper further adds to the literature by making sense of the influence between and of the initiatives on the rest of the film industry. As a consequence, not only is the current change in the industry understood better, but it also allows to imply suggestions on further actions within the industry in order to foster the change towards climate change mitigation.

## 7. Implications

The previous chapter demonstrates that the paper's findings align with and contribute to current research. In addition, the discussion of literature in conjunction with the findings from the film industry enables the inference of suggestions for not only future research but also future practical behavior. Consequently, a description of implications for future research and implications for practice will be provided in the following.

### 7.1. Implications for Research

It has been demonstrated that this research contributes to the existing literature on the film industry's response to climate change. Although the findings are very congruent with some concepts, they also provide new viewpoints and insights for the scientific community. Consequently, this paper lays the groundwork for additional research into the subject through a variety of examinations.

First, the discussion offers a description of an adjusted conceptualization of institutional entrepreneurship. The findings of this paper reveal a pattern of strategies that the industry employs to address climate change and to initiate change in their field. After consulting existing theories to validate these patterns, a new theory was developed. Indeed, institutional sustainability entrepreneurship alternates the stages of institutional entrepreneurship by transforming them into raising awareness, developing norms and information media, realizing implementation, and controlling quality. Following the advice of Battilana et al.'s (2009) conceptualization, institutional sustainability entrepreneurship maintains the enabling characteristics they propose. Furthermore, the actor's personal motivation has been added as a moderator. Due to the scope of this research and its methods, it has to be further investigated if this conceptualization of institutional sustainability entrepreneurship has further validity.

Additionally, advanced research might examine if institutional sustainability entrepreneurship functions as an explanation of the process of change by investigating the film industry through different research designs. Indeed, it is to be audited if this concept can be confirmed within the film industry and potentially even in other, similar

industries. For instance, qualitative research that uses a representative sample of a significant number of professionals could widen the scope of further research.

Second, the film industry employs mimetic isomorphism by presenting good practice examples intentionally. However, it has been discovered that film producers that emphasize their sustainability efforts contradict current research. It is currently unknown if actors in a field possess the ability to utilize isomorphic pressures in this manner. In addition, the findings indicate that a greater number of players than in classical isomorphism are capable of generating normative isomorphic pressures. However, the generalizability of these findings cannot be guaranteed. In the future, it may be necessary to investigate if such an application of isomorphism and the broader concept of forcing institutions to increase isomorphic pressures are valid. A potential research approach addressing this implication could be a comparative analysis of current literature of isomorphism that can delve into the definitions and outlines of isomorphic pressures.

Thirdly, this paper suggests that there is a connection between isomorphism and institutional sustainability entrepreneurship. However, due to the research design, this paper is unable to investigate time frames with such precision. On the basis of this presumed interaction between the two conceptions, future research might focus on gaining a greater understanding of two aspects. On the one hand, further research should investigate the dissemination of the change towards sustainability. Isomorphic pressures appear to play a crucial role in this. However, the evidence indicates that there are more dynamics causing this transition that may be explicable through additional research. A case study that analyzes an initiative that changed due to the influences by the industry can offer significant insights and might be a research approach to further investigate this matter.

On the other hand, there is the need for delving into the extent to which institutional sustainability moderates the change within a field. It has been described how there are other influences that might also contribute to the aim to address climate change, such as personal motivation. Moreover, that leads to the question of validity if institutional sustainability entrepreneurship fosters isomorphic pressures within the field of the film industry which has to be understood further.

Fourth, based on the conversation between current literature and the findings of this paper, it appears that there is a need for further research regarding sustainability measures that address the industry's indirect impacts on the climate. The findings of this article reveal that there is a comprehensive list of sustainability measures that address the content of films, although the existing literature only explores a small number of them. Consequently, future studies could investigate ideas such as the influence of climate aware characters that are depicted in films. Document analyses of films' contents might deliver further details regarding the depictions of the climate within films. Thus, they can provide as a source of data for additional studies.

Fifth, literature suggests that there are potential negative effects of addressing climate change through films, such as an increase in ecotourism based on the locations portrayed in films. As this paper does not discuss the potential negative consequences of addressing climate change through the film industry, further research might investigate this affiliation. Potentially, qualitative data collected from tourists at locations that have been portrayed in a film could deliver insights to further analyze the hypothesis raised by the literature.

## 7.2. Implications for Practice

The outline of the grand challenge that this paper focuses on suggests that a substantial portion of this paper's value is derived from its empirical nature and overview. Moreover, it implies that such an overview is not only required in research, but perhaps even more so in practice, as many actors in the film industry are unaware of how the industry addresses climate change, thereby limiting their actual response to the issue. Therefore, in order to assist the industry in becoming more sustainable, the following section outlines repercussions that can be translated into recommendations for the practice.

Initially, it has been noted that some of the actors in the film industry can be categorized as institutional sustainability entrepreneurs. Among these, proponents who are members of the group of advocating actors are the predominant type, it has been demonstrated how they introduce initiatives that support the industry and combat climate change. In fact, one of this type of actor's initiatives is the Screen Sustainability Manager position. Her position has been described as not only effective, but also crucial in the context of the

expanding discourse within the industry. Given that such discourse leads to normative isomorphic pressures, it is not only her actions that promote sustainability within the industry, but also their secondary effect of exerting pressure on the industry. Thus, positions like hers appear to have great impact on the industry, leading to the suggestion of implementation of more positions of such kind within film related institutions.

Furthermore, the data suggests that increasing isomorphic pressures would be advantageous for the industry. It has been demonstrated that enabling actors possess a unique influence in the film industry and, consequently, in the industry's shift toward greater sustainability. Therefore, it follows that these enabling actors should utilize their power to increase the coercive isomorphic pressure as well. In particular, the film industry is advised to persuade actors to utilize these effects by, for example, requiring the implementation of sustainability measures in order to access resources. For instance, local governments can introduce certain policies that bind enabling actors to such requirements.

In addition, it has been demonstrated that, in accordance with mimetic isomorphism, if there are good examples of addressing climate change, actors are willing to imitate them. Therefore, the communication and presentation of good examples that other film productions and film industry actors can learn from and imitate are crucial if the industry is to adopt a more homogenized approach to climate change. Allowing such good practices to present their work at industry events, i.e., providing a platform for their communication to reach a wide audience, is an example of explicit action for the industry.

Lastly, it is demonstrated that industry discourse is of great importance in relation to the change the film industry is experiencing. Thus, an improvement in such discourse will aid the industry in its efforts to address climate change. Currently, there are certain unions and working groups in place. Nonetheless, the merger of unions that already address climate change and unions from the more traditional part of the film industry could have a significant impact. In order to accelerate the process of change, confronting traditional professionals with newly introduced or potential new norms will be highly effective. On a broader scale, their promotion of discourse within the industry appears to play a central role in the formation of such standards. A medium where such connection can occur, such as a forum where several unions can exchange their knowledge and ideas, is one way to foster such connectivity.

## 8. Limitations

The implication for further research already imply some of the limitations of this paper, thus they will be further delineated in the following. The limitations of this paper are bound to its methodology and to the research process. First, The generalizability of this research is limited in the sense that the data collection focussed on expert interviews. Although they have great expertise, the data derived from their information is limited to their understanding of the film industry. Furthermore, although I added data supporting information from websites in case certain initiatives have been mentioned throughout the interviews but not explained, this does not allow an all encompassing overview of all the initiatives that are present in the industry.

Furthermore, the research question aims for an understanding of how the film industry addresses climate change. Because of a missing specification, it infers that the global film industry should be encapsulated in this analysis. Nevertheless, the interviewees are located in film industries in the United States, Germany, Austria, United Kingdom and Portugal. As a consequence, their view on the industry is not only biased by that, but also limited to their regions to a certain extent. Therefore, this paper is limited in terms of its global generalizability, since its data has a strong focus on geographical Europe and the United States. Furthermore, the interviews indicated that there are significant differences in how the European film industry addresses climate change compared to how the American film industry addresses climate change. Therefore, the generalizability of the outcomes are limited to geographical differences.

Second, I used the institutional frameworks in order to explain dynamics of changes within the industry. It is important to say that the initiatives that I analyze do not reflect the whole industry. Quite the opposite, although the film industry offers a variety of initiatives that address climate change, the part of the industry that these initiatives reflect is rather small. In fact, the film industry has a significant amount of change process ahead in order to reach the maximums of potential in addressing climate change directly and indirectly.

Third, in respect to the research design, this paper cannot take time frames into account which further leads to limited validity about certain connections and resononings. Indeed,

the relation between institutional sustainability entrepreneurship, other actors, and isomorphism can only be fully understood if the time variable is taken into account to understand the chronical order. This chronical order would be needed in order to finally analyze the influential order of who influenced whom.

Fourth, there are limitations arising from the scope of this paper in relation to time and space. Although I tried to depict the whole film industry, the limited space of this thesis did not allow me to include that part of the film industry that processes distribution of films. Precisely, although this paper includes all parties involved starting from idea generation it reaches its limit when a film arrives at a distribution channel. Therefore, distributional channels such as cinemas, streaming platforms and TV are not included in this analysis as their investigation in terms of sustainability would require a lot of time and space.

## 9. Conclusion

Based on the fact that the climate crisis is the biggest current crisis our society faces, not only individuals but also organizations, institutions, and industries need to face this crisis and adjust their behavior. As a consequence, this paper aimed to understand how the film industry addresses climate change. Precisely, which actors are involved, what strategies they offer, and how they influence each other. The greater aim of this understanding is to enable implications for the film industry, in order to foster the decrease of emissions of themselves and our society generally.

A qualitative, interview based research design, following an inductive approach, has been applied to explore the phenomenon of how the film industry addresses climate change. Moreover, in order to further contextualize this research, current literature has been considered that pertained to the findings the collected data brought about.

Indeed, previous research has shown how the film industry pollutes and what potential solutions there are to that. Furthermore, it described the indirect impact films can have by influencing the behavior of their audiences. However, in order to understand how the industry addresses climate change in its full scope, institutional theories have been consulted. These theories not only explain the source of addressing climate change, but

they also elaborate on the dynamics observed in the industry, finally explaining the current scene of how the film industry addresses climate change.

The film industry addresses climate change with their initiatives that have been outlined through the strategies within the *Findings* section. However, to delve deeper into the research question and understand certain actors' addressing of climate change, the data has been confronted with the concept of institutional entrepreneurship. Indeed, certain actors behavior in the film industry aligns with the concept of institutional entrepreneurship to some extent. Yet, the discussion of the findings of this paper with the theory gave rise to an adjusted conceptualization of institutional entrepreneurship.

Institutional sustainability entrepreneurship outlines the addressing of climate change by actors in the film industry through transforming their institutions. According to the adjusted concept, there are two enabling conditions of field characteristics and the actors' social position. If these conditions are fulfilled, the actors follow four distinct changes that finally lead to their film institution addressing climate change. Consistent to the strategies the film industry offers, these stages are raising awareness, development of norms and information media, realizing implementation of sustainability measures and quality control. Moreover, these stages are moderated by the actors' personal motivations.

However, in order to fully answer the research question, the broader level of the whole industry has to be considered as well. In fact, peculiar actors generated isomorphism towards addressing of climate change that has been moderated by institutional sustainability entrepreneurs. The isomorphism arose from coercive, normative and mimetic pressures that led actors to homogenize with the field in terms of addressing climate change.

This paper adds to the current literature with this answer to the research question. Precisely, this research fills a gap in simultaneous investigation of the film industry's addressing of climate change that arises from current literature's separate investigation of the direct and indirect impacts. Furthermore, the film industry in relation to sustainability has not yet been investigated on an institutional level. Therefore, this paper adds to the current literature in that regard as well.



## Bibliography

Alvarez, J. L., Mazza, C., Strandgaard Pedersen, J., & Svejenova, S. (2005). Shielding Idiosyncrasy from Isomorphic Pressures: Towards Optimal Distinctiveness in European Filmmaking. *Organization*, 12(6), 863-888. 10.1177/1350508405057474

*Another Hollywood production: smog.* (2006, 11 14). Los Angeles Times. Retrieved August 24, 2022, from <http://www.latimes.com/archives/la-xpm-2006-nov-14-me-film14-story.html>

Battilana, J., Leca, B., & Boxenbaum, E. (2009). How Actors Change Institutions: Towards a Theory of Institutional Entrepreneurship. *The Academy of Management Annals*, 3(1), 65-107. 10.1080/19416520903053598

*BFI study.* (2020, 09 02). The Guardian. Retrieved August 24, 2022, from <https://www.theguardian.com/film/2020/sep/02/bfi-study-calls-on-film-industry-to-urgently-reduce-emissions>

Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge, UK: Cambridge University Press

Bozak, N. (2012). *The Cinematic Footprint: Lights, Camera, Natural Resources*. Rutgers University Press.

*CCP.* (2021, 11 3). Albert. Retrieved August 10, 2022, from <https://wearealbert.org/2021/11/03/broadcasters-and-streamers-sign-up-to-the-climate-content-pledge/>

*Changemakers.* (2020). *Changemakers.film*. Retrieved July 26, 2022, from <https://changemakers.film/#>

*Character Profiles.* (2022). Good Energy Stories. Retrieved August 13, 2022, from <https://www.goodenergystories.com/playbook/characters>

- Corbett, C. J., & Turco, R. P. (2006). *Sustainability in the Motion Picture Industry*. Retrieved 06 15, 2022, from <https://www.ioes.ucla.edu/wp-content/uploads/mpisreport.pdf>
- Culloty, E., & Brereton, P. (2017). Eco-film and the audience: Making ecological sense of national cultural narratives. *Public Applied Environmental Education & Communication*, 116(3), 139-148. 10.1080/1533015X.2017.1322011
- Creed, W.E.D., Scully, M.A., & Austin, J.R. (2002). Clothes make the person? The tailoring of legitimating accounts and the social construction of identity. *Organization Science*, 13(5), 475–496. 10.1287/orsc.13.5.475.7814
- Degrees, Certificates and Classes*. (2022). Santa Monica College. Retrieved July 27, 2022, from <https://www.smc.edu/community/sustainability/degrees-certificates-classes.php>
- DiMaggio, P. J., & Powell, W. W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, 48(2), 147- 160. JSTOR. 10.2307/2095101
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review*, 14(4), 532-550. 10.2307/258557
- Eisvogel*. (2022). Eisvogel – Preis für nachhaltige Filmproduktionen. Retrieved July 26, 2022, from <https://eisvogel-filmpreis.de/en/>
- Good Energy*. (2022). Good Energy: A Playbook for Screenwriting in the Age of Climate Change. Retrieved August 13, 2022, from <https://www.goodenergystories.com/playbook>
- GPG*. (2022). Green Production Guide. Retrieved August 10, 2022, from <https://www.greenproductionguide.com/>
- Green Filming Academy*. (2022). Lower Austrian Film Commission, Evergreen Prisma. Retrieved August 2, 2022, from <https://www.lafc.at/greenguide/transfer.php?ggid=2&aid=27&cp=0>

*Green Shooting*. (2021). Green Motion by Green Shooting. Retrieved August 10, 2022, from <https://www.oekologische-mindeststandards-greenmotion.de/ueber-den-arbeitskreis-green-shooting/>

*Green Shooting*. (2022). Minimum ecological standards for German cinema, TV and online/ VoD productions. Retrieved July 27, 2022, from [https://www.oekologische-mindeststandards-greenmotion.de/files/16\\_Oekologische\\_Mindeststandards/Dokumente/220726\\_AK\\_GreenMotion\\_Engl\\_Ecological\\_Standards\\_July\\_26\\_2022\\_final\\_neu.pdf](https://www.oekologische-mindeststandards-greenmotion.de/files/16_Oekologische_Mindeststandards/Dokumente/220726_AK_GreenMotion_Engl_Ecological_Standards_July_26_2022_final_neu.pdf)

Garud, R., Jain, S., & Kumaraswamy, A. (2002). Institutional entrepreneurship in the sponsorship of common technological standards: The case of Sun Microsystems and Java. *Academy of Management Journal*, 45(1), 196–214. 10.2307/3069292

*HDM*. (2022). Certificates Green Consulting. Retrieved July 27, 2022, from <https://www.zertifikat-green-consulting.de/>

Jerolmack, C., & Khan, S. (2014). Talk Is Cheap: Ethnography and the Attitudinal Fallacy. *Sociological Methods & Research*, 43(2), 178–209. 10.1177/0049124114523396

Kääpä, P. (2013). Understanding the audiences of ecocinema. *Interactions: Studies in Communication & Culture*, 4(2), 107–111. 10.1386/iscc.4.2.107\_2

Kääpä, P. (2014). *Ecology and Contemporary Nordic Cinemas: From Nation-building to Ecocosmopolitanism*. Bloomsbury Publishing. 10.5040/9781628929959

Kim, H. H. D., & Park, K. (2021). Impact of Environmental Disaster Movies on Corporate Environmental and Financial Performance. *Sustainability*, 13(2), 1-35. 10.3390/su13020559

Lawrence, T.B. (1999). Institutional strategy. *Journal of Management*, 25(2), 161–188. 10.1177/014920639902500203

Leiserowitz, A. A. (2004). Day After Tomorrow: Study of Climate Change Risk Perception. *Environment: Science and Policy for Sustainable Development*, 46(9), 22-39. 10.1080/00139150409603663.

Lowe, T., Brown, K., & Dessai, S. (2006). Does tomorrow ever come? Disaster narrative and public perceptions of climate change. *Public understanding of science*, 15(4), 435-457. 10.1177/0963662506063796

Maguire, S., Hardy, C., & Lawrence, T.B. (2004). Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada. *Academy of Management Journal*, 47(5), 657–679. 10.2307/20159610

Misangyi, V.F., Weaver, G.R., & Elms, H. (2008). Ending corruption: The interplay among institutional logics, resources, and institutional entrepreneurs. *Academy of Management Review*, 33(3), 750–770. 10.5465/amr.2008.32465769

*Ökologische Mindeststandards Greenmotion*. (2022). Ökologische Mindeststandards. Retrieved July 27, 2022, from <https://www.oekologische-mindeststandards-greenmotion.de/oekologische-mindeststandards/>

*Prisma*. (2022). Lower Austrian Film Commission, Evergreen Prisma. Retrieved August 2, 2022, from <https://www.lafc.at/greenguide/>

Produzentenverband e. V. (2019, 12 02). *Production Pledge*. Green Pledge for sustainable film production. Retrieved August 10, 2022, from [https://static1.squarespace.com/static/5f6ca045aea86435e9c14842/t/60b4c03a3ca1b14e7d21b8d3/1622458427339/191202\\_Green\\_Pledge\\_and\\_FAQ\\_final.pdf](https://static1.squarespace.com/static/5f6ca045aea86435e9c14842/t/60b4c03a3ca1b14e7d21b8d3/1622458427339/191202_Green_Pledge_and_FAQ_final.pdf)

Sakellari, M. (2015). Cinematic climate change, a promising perspective on climate change communication. *Public Understanding of Science (Bristol, England)*, 24(7), 827-841. 10.1177/0963662514537028

Saunders, M., Thornhill, A., & Lewis, P. (2009). *Research Methods for Business Students*. Prentice Hall.

Shanthini, R. (2016). A critical review of popular technological solutions for climate change as evident in the movie industry. *Sri Lanka Journal of Social Sciences*, 39(1), 1-14. 10.4038/sljss.v39i1.7398

Silk, M. J., Crowley, S. L., Woodhead, A. J., & Nuno, A. (2018). Considering connections between Hollywood and biodiversity conservation. *Conservation Biology*, 32(3), 597-606. 10.1111/cobi.13030

*Spectrum*. (2022). Good Energy Stories. Retrieved August 13, 2022, from <https://www.goodenergystories.com/playbook/the-climate-story-spectrum>

Suddaby, R., & Greenwood, R. (2005). Rhetorical strategies of legitimacy. *Administrative Science Quarterly*, 50(1), 35–67. 10.2189/asqu.2005.50.1.35

Thunberg, G. (2019, 03 31). *Acceptance Speech Greta Thunberg*. Speech Great Thunberg Youtube. Retrieved 07 26, 2022, from <https://www.youtube.com/watch?v=29k-f9K0NmQ>

Tong, C. (2013). Ecocinema for all: Reassembling the audience. *Interactions: Studies in Communication & Culture*, 4(2), 113-128. 10.1386/iscc.4.2.113\_1

*Training*. (2022). albert. Retrieved August 13, 2022, from <https://wearealbert.org/events/training/>

Vaughan, H. (2019). *Hollywood's Dirtiest Secret: The Hidden Environmental Costs of the Movies*. Columbia University Press.