A thesis submitted to the Department of Environmental Sciences and Policy of Central European University in part fulfilment of the Degree of Master of Science

A transition to sustainable circular economy in Bosnia and Herzegovina: Exploring stakeholders' motivations, perceptions, and knowledge

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ABSTRACT OF THESIS submitted by:

Dalija DELIĆ for the degree of Master of Science and entitled: A transition to sustainable circular economy in Bosnia and Herzegovina: Exploring stakeholders' motivations, perceptions, and knowledge

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The Master's thesis explores the state of sustainable circular economy transition in Bosnia and Herzegovina by examining the motivations, perceptions, and knowledge of stakeholders promoting the concept. Additionally, stakeholders' understanding of the relationship between circular economy and sustainable development are investigated. The research employs the qualitative research method of semi-structured interviews with selected subjects and issue-based stakeholder theory as a framework. Findings reveal the political and financial aim of furthering the European Union accession process as the primary motivation of most of the stakeholders. Stakeholders perceived knowledge levels on circular economy in the country were classified as low, notably among the general public and decision-makers. Perceptions of the model largely revolved around the "reduce, reuse, recycle" concepts. However, the circular economy was recognized as the only viable future economic model for the country. Three understandings of the relationship between circular economy and sustainable development were identified: as a potential contributor, a tool for reaching sustainable development, and a structural change of the economic system necessary for the transition towards a sustainable society. Stakeholder engagement and cooperation, with governments assuming a dominant role, were recognized as essential for a successful transition in the country. A future approach to the circular economy must be interdisciplinary, sustained, inclusive, and focused on social and environmental factors. Additionally, strategies and policies implemented by the government should be predicated on national and local contexts.

Keywords: Circular economy, sustainable development, Bosnia and Herzegovina, motivations, perception, knowledge, stakeholder collaboration

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List of Abbreviations

BiH	Bosnia and Herzegovina
CE	Circular Economy
CBAM	Carbon Border Adjustment Mechanism
EU	European Union
GAWB	The Green Agenda for the Western Balkans
GDP	Gross Domestic Product
SD	Sustainable Development
SDGs	Sustainable Development Goals
SMEs	Small and Medium Enterprises
UN	United Nations
UNDP	United Nations Development Programme

Chapter 1: Introduction

The detrimental environmental and social impacts of the current precarious human production and consumption patterns are recognized as one of our planet's most pressing issues (Vlek and Steg 2007). In addition to environmental and climate impacts, unforeseen and unmaintainable rates of natural resources extraction and energy consumption are causing dire socio-economic impacts and exacerbating social inequities in the world (Geissdoerfer et al. 2017; Korhonen, Honkasalo, and Seppälä 2018). The currently dominant economic system is characterized by the linear flow of materials and energy, based on principles of "take-make-dispose" without respecting planetary boundaries (Genovese and Pansera 2019). A need for a paradigm shift was recognized in the 20th century, and the search began for alternative economic models rooted in sustainable development within the planet's capacities.

The circular economy (CE) was recognized as a viable option, presented as an economic model that would address the issues of growing energy and resource use and production of waste (Zwiers, Jaeger-Erben, and Hofmann 2020; Lieder and Rashid 2016). The model aims to do so by extending the lifecycle of materials through the application of the following fundamental principles: "reducing, reusing, recycling, and recovering" (Kirchherr et al. 2018). By implementing CE principles, materials stay active in the economic loop for as long as possible, reducing the need for further extraction and minimizing waste and pollution (Neves and Marques 2022). CE is envisaged as an economic model that would minimize environmental and climate impacts while ensuring further economic growth (Reike, Vermeulen, and Witjes 2018). It was quickly adopted by policymakers and businesses worldwide as an ideal economic model which would lead and aid humanity towards sustainable development (SD) (Korhonen, Honkasalo, and Seppälä 2018; Ghisellini, Cialani, and Ulgiati 2016). However, the relationship between CE and SD and its contribution to a more sustainable society is contested in the literature. Different authors argue that there are definitional

ambiguities surrounding CE and its contribution to SD, specifically the potential negative socio-environmental impacts of the model (Schöggl, Stumpf, and Baumgartner 2020). Therefore, it is essential to further research this relationship, while it will contribute to their conceptual understanding and efficacy of creating a robust and sustainable society (Geissdoerfer et al. 2017).

The concept gained prominence in Bosnia and Herzegovina (BiH) since the adoption of The Green Agenda for the Western Balkans (GAWB). With the signing of the agenda, the country committed itself to a CE transition, improving its resource productivity, and waste management, introducing circularity in business and production and consumption activities (European Commission 2020). So far, little research has been done on the state and the environment of a holistic CE transition in BiH, with most publications focusing on circularity concept implementation in small and medium enterprises (SMEs) (Kahriman and Tandir 2021) or analysing barriers and opportunities of implementing circular economic model (Center for policies and management 2022; LIR Evolution 2020). However, further research should be conducted on understanding the environment of CE transition among stakeholders (businesses, organizations, experts, etc.) promoting this transition.

Even though the stakeholders' perspective and role in CE was previously researched in academia, in most cases, it focused on either the consumers' or enterprises' perspective on CE (Geme et al. 2023; Van Langen et al. 2021; Marjamaa et al. 2021; Rovanto and Finne 2023). In order to understand and harness the potential of CE for a transition towards a sustainable society, it is important to examine the roles and interests of different actors relevant to this transition. A successful CE transition can be accomplished only with solid cooperation and mutual support among all stakeholders based on sound sustainability principles (Lieder and Rashid 2016; Geissdoerfer et al. 2017).

1.1. Research aims and objectives

This study aims to fill in the identified research gaps by examining motivations, perceived knowledge, and perceptions on CE of stakeholders included in model promotion in BiH. Additionally, the study investigates how practice-oriented stakeholders in the country understand the relationship between CE and SD.

The theoretical framework of the research builds on stakeholder theory, which emphasizes the importance of stakeholders' interests and actions in an organization (R. E. Freeman et al. 2010). Stakeholders' interests are informed by their motivations, knowledge, and perceptions and will ultimately form their actions (Marjamaa et al. 2021; Geme et al. 2023). An adapted version of the theory was utilized, based on an issue-focused stakeholder approach, assuming CE as a common phenomenon affecting and being affected by identified stakeholders (Roloff 2008).

The overarching aim of the research is to better understand the current CE transition in BiH, by examining the interests of stakeholders promoting the model and their understanding of what a sustainable CE entail. In order to achieve a holistic, sustainable, and just CE transition, the needs and interests of all involved actors should be acknowledged and addressed. At the same time, their collaboration is necessary for reaching this common goal. Therefore, the research was guided by the following research questions:

- What are the motivations of stakeholders promoting the CE concept in BiH?
- What is the perceived knowledge of stakeholders promoting the CE concept in BiH, and what are their perceptions of CE knowledge among the general public?
- How do stakeholders promoting CE in the country understand and perceive the concept?
- How do stakeholders promoting CE in BiH understand the relationship between CE and SD?

1.2. Thesis outline

The thesis is structured as follows. Firstly, following the introduction, a systematic literature review in Chapter 2 provides a snapshot of published literature on the topics relevant to this study and presents the theoretical framework for the discussion and analysis of the results. Chapter 3 contains a description of the theoretical framework used in the research. Then, the research methodology was presented in Chapter 4, describing the methods used, selection of the sample, data gathering and analysing procedures, and study limitations. Chapter 5 contains gathered results and subsequent discussion, organized by research questions. Lastly, in Chapter 5, a conclusion on discussed findings is provided, containing their implications, contributions, and possible avenues for future research.

Chapter 2: Systematic literature review

2.1. Introduction

A systematic literature review was carried out to identify and consolidate critical concepts and uncertainties in published research on CE. The literature review is divided into seven chapters, each covering research on a specific thematic under CE topic and all contributing to creating a comprehensive framework presenting the background for understanding and addressing the research questions. The method contextualizes CE emergence as an economic model and a context-specific background of CE development and inception in BiH. Additionally, distinct schools of thought and opposing opinions on different aspects and issues concerning CE were presented.

A procedure described in Tranfield, Denyer, and Smart (2003) was followed to successfully carry out the literature review, which identifies three steps in the process: planning, execution, and reporting. In the first stage, relevant keywords and key terms were identified. The primary list of keywords and terms included "circular economy and sustainability", "circular economy in Bosnia and Herzegovina", "stakeholder engagement in the circular economy" etc. Then, web search engines were pinpointed, through which a search for identified keywords was conducted, and relevant academic literature was selected. A choice has been made to use academic research articles as a primary source of material for the literature review, as their main aim is to conduct quality research work that will contribute to knowledge on specific topics. Also, they have been approved and validated by the scientific/academic community through the peer-review process (Maxwell 2012). However, since CE, especially in the context of BiH, is a relatively new and emerging topic, a few articles that have not been peer-reviewed yet were included.

Databases identified for the online research were Science Direct, Research Gate, and Google Scholar. The Central European University online library was used to search for books, academic

articles, and previously published theses. Additionally, other important literature sources, such as reports, white papers, and web-page articles, were obtained through Google's online search tool. The snowball method was utilized to identify further relevant literature based on previously mentioned literature sources (Geissdoerfer et al. 2017).

The second step is called the execution stage, in which a database of relevant literature found was created where articles and information relevant to the topic were collected. After the finalization of writing the literature review, some articles from the database were not included in the review, while the information in them was either already presented in a different article, was outdated, or not directly relevant to the topic. In the final step, named reporting, relevant findings are synthesized and organized to present the topic's background to the reader and highlight the controversies and the research gap (Tranfield, Denyer, and Smart 2003b).

2.2. Understanding circular economy

In recent years, CE has been presented as a fresh and befitting economic approach capable of tackling pressing global socio-economic and environmental challenges attributable to the current, dominant, neo-liberal linear economic model (Geissdoerfer et al. 2017). It aims to prevent further unsustainable natural resource depletion and waste generation and restore the damage done by redesigning and optimizing the supply-demand system (Murray, Skene, and Haynes 2017). This sub-chapter explores the existing literature on the CE model, its emergence, definition, design, main principles, benefits, and critiques.

CE is an alternative economic model that envisages an economy based on reconditioning, remanufacturing, and recycling principles. It aims to create a "closed loop of materials" as an alternative to the currently dominant linear take-make-dispose practices (Gregson et al. 2015; Stahel 2016; Alberich 2022; Millar, McLaughlin, and Börger 2019). CE is designed to offer economic

benefits to the production sector by extending the life of products and materials through repair, remanufacturing, and recycling, businesses can reduce their reliance on costly raw materials and lower their production costs. In addition, a circular economy can create new jobs in areas such as waste management, refurbishment, and recycling (Stahel 2016). The concept has the goal of decoupling economic activity from ever-increasing resource use. In that way, with CE, society could continue with economic growth while at the same time respecting planet boundaries and not affecting the environment negatively (Gregson et al. 2015; D'Amato et al. 2017; Alberich 2022).

CE is a relatively new topic with an emerging research interest, as well as being in the forefront of new policy agendas in countries such as China, Finland or the European Union (EU) (Geissdoerfer et al. 2017; Schöggl, Stumpf, and Baumgartner 2020; Gregson et al. 2015; Reike, Vermeulen, and Witjes 2018). The Ellen MacArthur Foundation is one of the most important sources of information on CE for policymakers, academia, and businesses, publishing a range of reports and publications on the topic. The foundation defines CE as "an industrial economy that is restorative or regenerative by intention and design" based on three principles, driven by design: "eliminate waste and pollution, circulate products and materials (at their highest value) and regenerate nature (Ellen MacArthur Foundation n.d.).

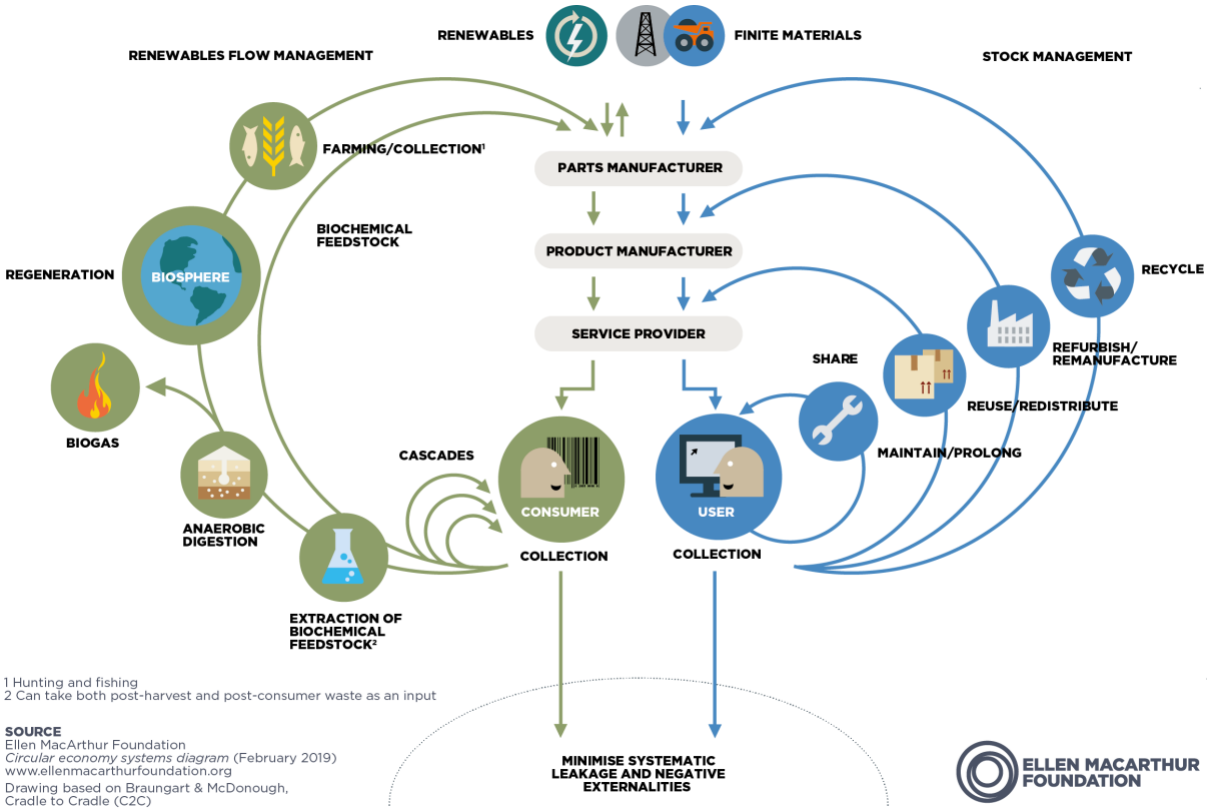

Figure 1: The butterfly diagram: visualising the circular economy (Source: Ellen MacArthur Foundation 2019)

Geissdoerfer et al. (2017) are more extensive with their definition of CE as "a regenerative system in which resource input and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing material and energy loops. This can be achieved through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling." Geng, Sarkis, and Bleischwitz (2019) describe CE as operating on four levels or stages. First, products should be designed to be "recyclable and reusable" (this would be based on "green" supply chains), then products should be manufactured using "clean methods". The second level concerns the companies that should develop new business models to create both private and public value. Thirdly, cooperation and a network of companies and customers should be established. Fourth, sound government policies are crucial for enabling market functioning.

CE strives to "design out" the generation of waste and pollution by keeping materials and products in use for longer, which would allow more time for natural systems to regenerate and maximize resource efficiency (while minimizing depletion of finite resources) (Morseletto 2023; Neves and Marques 2022). CE promotes concepts like recycling and "repairing, reselling, reusing, refurbishing, leasing" to extend products' lifespan and minimize waste generation and environmental pollution (Reike, Vermeulen, and Witjes 2018).

Recently, the model has been critiqued for inadvertently causing environmental damage with its "sustainable" activities. Murray, Skene, and Haynes (2017) provide examples of Borneo Forest destruction to provide space for palm oil plantations in response to increased demand for "green" fuels. Similarly, considerable areas of tropical rainforests worldwide are cut down to create space for soy fields needed for biofuel production. Additionally, in many cases, the production of "green" technologies relies on unsustainable and unethical mining of rare earth metals, such as neodymium. More generally, authors call out one of the most essential principles of CE – biomimicry, stating that it is reductionist, considering the complicated and holistic interactions occurring in nature, and mimicking nature in isolation is ineffective. They argue that the concept promotes "weak sustainability" while it implies that by "pretending to be biological", technology can achieve what nature already has. Authors suggest "bio-participation" as an alternative approach, where "we learn to play our role in the existent biosphere, rather than mimic aspects of that biosphere, while still existing in technological seclusion" (Murray, Skene, and Haynes 2017).

2.3. Circular economy: An alternative to the linear economy

This sub-chapter provides a short overview of existing literature on CE emergence as a potential alternative economic model to the currently dominant linear economy. Firstly, it introduces the concept of the linear economy, together with its principles and characteristics, then it highlights

the social and environmental issues that arose from its pursuance. Lastly, it delineates the emergence of CE as its alternative, together with critiques of this possibility.

The present-day economic system is characterized by a "linear" flow of resources, i.e., extraction-production-consumption-disposal. The resources are first extracted from the earth and then made into products which are then discarded as waste and their life cycle ends. This system assumes that earth's resources are "abundant, available, easy to source, and cheap to dispose of" (Reike, Vermeulen, and Witjes 2018). The linear economic model has been the dominant model for many decades now; however, in recent times, it raised serious concerns about the problems it is causing to the planet and society (Sariatli 2017). Resource depletion is one of the most significant issues arising from the linear economic model. Finite resources such as fossil fuels, water, minerals, and even wood are being extracted at a rate higher than ever (Michelini et al. 2017). This unsustainable resource depletion is destroying the environment and the planet, threatening our future, and creating inequities and conflicts over access to resources (Neves and Marques 2022; Bonciu 2014).

In addition to depleting the earth of its resources, the linear model generates vast amounts of waste and greenhouse gas emissions, which negatively affect our climate and cause ecosystem degradation and biodiversity losses (Neves and Marques 2022; Jørgensen and Pedersen 2018; Sariatli 2017). As for the social impacts of the linear model, it is shown that the system exacerbates social inequities. While a small percentage of the human population possesses the resources (and with-it wealth), the huge majority lives in poverty, with limited opportunities for work, education, or decent healthcare (Galanis, Veneziani, and Yoshihara 2019).

In light of these issues only growing more pressing, a search for an alternative, more sustainable economic organization began in the 20th century. Oil shocks in the 1970s and the publication of some influential books and reports, such as "The Limits to Growth" and "Our common

future," showed that the current rates of production are not possible nor sustainable for the future (Bonciu 2014; The World Commission on Environment and Development 1987).

Several authors like D'Alisa (2019) and Geissdoerfer et al. (2017) argue that the emergence of CE can be traced back to the mid-1960s when ecological economics pioneer Kenneth Boulding criticized linear and continuous, "cowboy" economy based on "ever-more land to colonize and expand their livestock production". Later, David Pearce and Kerry Turner expand on this, stating that a linear economic model is only possible if one ignores the true nature of the environment, which is a closed system with set limits and boundaries for material extraction. Stahel (2016) claims the concept of CE grew from an idea of "substituting manpower for energy," first described in a report to the European Commission in the 70s. The author critically compares the current linear economic model to a river, "turning natural resources into base materials and products for sale through a series of value-adding steps". Reike, Vermeulen, and Witjes (2018) claim that the first academic literature on CE emerged around the 1990s, and a steep increase in research and publications occurred around the year 2000, growing in popularity since.

Although it is now a well-established fact that our current production and consumption patterns are negatively affecting the well-being of humans and the planet, they are a direct result of the currently dominant "linear" economic system, with a take-make-dispose mindset set in place following the industrial revolution (Vlek and Steg 2007; Alberich 2022). However, some authors are critical of presenting CE as a "more sustainable" alternative to the prevalent linear economic system, particularly regarding the CE goal of decoupling economic activity from negative environmental impacts and, with it allowing for further monetary growth.

For example, Gregson et al. (2015) call the concept of CE an "endlessly recited ideal" and argue that decoupling is impossible to achieve with current infrastructure and technologies for recovering secondary resources from waste. In their research, Ward et al. (2016) found that gross

domestic product (GDP) growth cannot plausibly be decoupled from growing material and energy use. Authors go on to say that it is "misleading" to claim that CE can achieve decoupling. Additionally, they note that GDP does not "measure" or involve general human well-being and call the current pursuit of decoupling GDP growth from environmental degradation a "misguided effort". The authors conclude by stating that "now is the time to recognize the biophysical limits and to begin the overdue task of re-orienting society around a more achievable and satisfying set of goals than simply growing forever" (Ward et al. 2016, 9). Zink and Geyer (2017) researched the economic effects of implementing circularity in production, namely closing material and product loops. The authors concluded that CE activities can result in a rebound effect – increasing overall production rather than reducing it. This effect would offset intended CE environmental benefits.

As the dominant linear economic system proved to be unsustainable, leading to environmental degradation, resource depletion, and social inequalities, CE arose as an alternative solution or a "new frame of mind" (Bonciu 2014) or a "refurbished concept" (Reike, Vermeulen, and Witjes 2018). It appears to be a more sustainable economic model, ensuring a resilient future for the planet, one that could ensure high quality of life for humans while at the same time protecting and nurturing the environment. Even though the unsustainability of the current linear model and the suitability of CE as an alternative to it is supported by the literature, there are still uncertainties and criticisms on some aspects of the model, especially regarding the decoupling of economic growth from resource use (Millar et al. 2019; Gregson et al. 2015).

2.4. Circular economy and sustainable development

Being designed as an economic model that can ameliorate the relationship between economic activities and ecological systems, CE presents a potential paradigm shift needed to achieve social, economic, and environmental sustainability. This sub-chapter will introduce the concept of SD, its

dimensions and conceptualization, the relationship between CE and SD explored in literature so far, similarities and ambiguities.

The most widely known, straightforward definition of SD is as follows: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland 1987). Geissdoerfer et al. (2017) state that SD is a holistic term encompassing many different human values, goals, and interests. However, the contemporary understanding of the concept is mainly based on three pillars of sustainability: people, planet, and profit, which are systematically intertwined and affect one another. Considering this, the authors frame SD in their research as the "balanced and systemic integration of intra and intergenerational economic, social, and environmental performance" (Geissdoerfer et al. 2017).

Some authors see these three dimensions of sustainability simply as overlapping or interconnected, mutually affecting each other. Flint (2013) presented them in the form of a Venn diagram. However, Moir and Carter (2012) criticize this conceptualization of SD for not recognizing the full integration of these three dimensions or pillars.

Sustainable development goals (SDGs) presented by the United Nations General Assembly in 2012 can also be seen as a conceptualization of SD. 17 SDGs represent global goals set by the United Nations (UN) to combat social, political, economic, and environmental issues troubling our planet (United Nations n.d.). Authors like Geissdoerfer et al. (2017) and Millar et al. (2019) argue that the conceptual relationship between CE and sustainability is still being determined. While it is clear that the current linear economic system is negatively impacting different social and environmental realms, and the alternatives to the system, such as CE, should be adopted, it is still unclear exactly how CE will contribute to SD (Millar et al. 2019).

Schöggl, Stumpf, and Baumgartner (2020) argue that the approach to CE in scientific research is ambiguous, with ill-defined narratives surrounding the concept due to CE impacts, framing, and

definition still being discussed. This is despite the efforts of different researchers to define and conceptualize the term clearly. More specifically, the relationship between CE and SD is still under discussion, as it is unclear what effects a more circular economy could have on SD. Namely, how could environmental protection and social equity be ensured while following the trajectory of economic growth envisaged in CE? (Schöggl, Stumpf, and Baumgartner 2020).

Prieto-Sandoval, Jaca, and Ormazabal (2018) agree on this, arguing that a unified perspective on CE is needed to better understand it, improve its implementation, and ultimately contribute to a sustainable society. Based on their research, the authors propose an improved definition of CE: "an economic system that represents a change of paradigm in the way that human society is interrelated with nature and aims to prevent the depletion of resources, close energy, and materials loops, and facilitate sustainable development through its implementation at the micro (enterprises and consumers), meso (economic agents integrated in symbiosis) and macro (city, regions, and governments) levels. Attaining this circular model requires cyclical and regenerative environmental innovations in how society legislates, produces, and consumes" (Prieto-Sandoval, Jaca, and Ormazabal 2018).

The authors argue that CE represents "the most advanced and recent manifestation" of the paradigm shift towards sustainability. Similarly, Korhonen, Honkasalo, and Seppälä (2018) state that a successful CE "contributes to all the three dimensions of sustainable development, economic, environmental and social." However, other authors are more critical of CE's contribution to SD, raising the problem of continued economic growth while protecting the environment and securing human well-being (Gregson et al. 2015; D'Amato et al. 2017; Millar, McLaughlin, and Börger 2019). Millar et al. (2019) even go so far as to state that it is still uncertain whether CE is a more sustainable economic model than a linear economy.

Schöggl, Stumpf, and Baumgartner (2020) analysed the role of SD in the CE research debate. In the early stages of CE research, a win-win situation regarding CE effects on the environment and economic sustainability was assumed, however, this has been repeatedly challenged in recent years. The study found that social topics in CE research are overlooked, and the incorporation of these issues remains to be effectively addressed, together with possible negative effects of CE activities on the environment and general consumer and citizens' inclusion in the model. Geissdoerfer et al. (2017) reached a similar conclusion through their research, finding that social well-being is inadequately dealt with in CE literature, with social aspects mainly focused on job creation, with no concrete understanding of CE impact on general human well-being. Millar, McLaughlin, and Börger (2019) argue that research on how CE addresses social welfare should be a priority.

Schöggl, Stumpf, and Baumgartner (2020) go on to say that a successful transition to CE is not only a matter of raising the model implementation level but promoting and supporting societal changes in production and consumption patterns. Korhonen, Honkasalo, and Seppälä (2018) agree with this, stating that a new consumption culture for CE to reduce the current flow of materials and energy and move towards sustainability. Similarly, Valencia et al. (2023) researched the social dimension of CE. They found that a general "eco-centric approach to decision-making by individuals, managers, and policymakers" is necessary to successfully and sustainably implement the concept.

Furthermore, in Pluriverse: A Post-Development Dictionary, D'Alisa (2019) argues that in the current CE narrative, there is no discussion about possible negative CE impacts on unequal access and distribution of resources, products, and services, which the author marks as "astonishing". The author continues with a critique of CE's current failure to lower global rates of resource use, stating that only 6% of extracted materials are recycled and go back to the production or consumption loop. In comparison, the current maximum recycling potential is around 30%. (Geng, Sarkis, and Bleischwitz 2019) raise a similar point in their article, critiquing the low global recycling rate.

Korhonen, Honkasalo, and Seppälä (2018) provide a sustainability science perspective, reiterating the fact that the current flow of materials and energy as a result of the linear economic system is "running down" the global natural ecosystem, which is now shrinking in size and volume. This means that our current development and growth rate is economically, socially, and ecologically unsustainable. In their paper, the authors analysed relationships between CE and SD, identifying six key challenges that need to be efficiently addressed for CE to contribute to a sustainable society.

Through their research, Geissdoerfer et al. (2017) try and clarify the similarities, differences, and relationships between CE and SD in order to "promote social inclusion, environmental resilience, and economic prosperity".

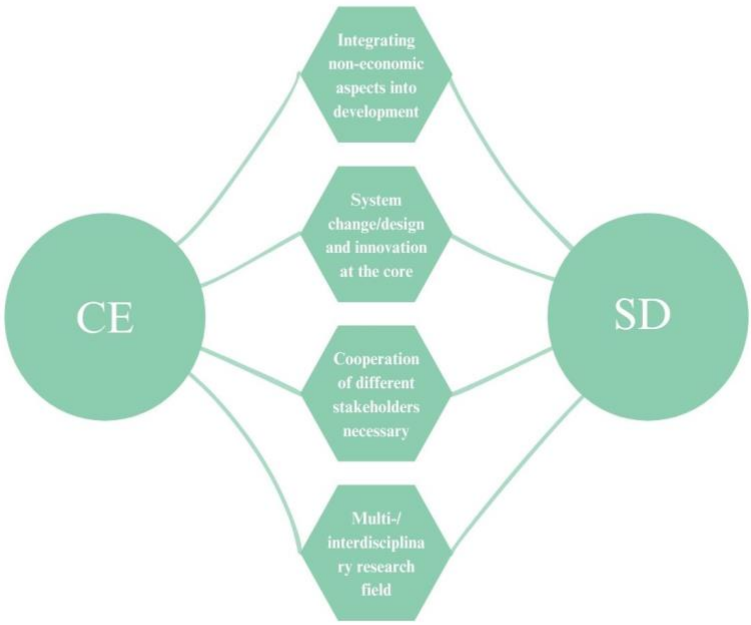

Figure 2: Selected similarities between circular economy and sustainable development according to authors (Geissdoerfer et. al. 2017, p14) (Source: Author's self-development)

Furthermore, Geissdoerfer et al. (2017) discovered that in academic literature so far, CE is viewed as a condition for sustainability, a beneficial relationship, or a trade-off. The authors agree on defining this relationship as a subset relationship, where CE is contained as one of the general aims of sustainability or one of the possible solutions that would contribute to creating a sustainable system. Millar, McLaughlin, and Börger (2019) build upon literature on the relationship between SD and CE by explicitly analysing how CE can be a tool for achieving SD (specifically SDGs). Through their research, the authors conclude that the contemporary model of CE should be understood only as a "more environmentally friendly" alternative to the current linear model and not as an ideal tool for reaching SD.

However, even though a conceptual relationship between CE and SD is still being researched and defined in academic literature, the positive effect of CE on the fight against climate change is evident in many cases. Geng et al. (2019) provide examples of Japan and China, where reusing industrial waste in cement manufacturing and reducing energy and material use has considerably lowered greenhouse gas emissions (around 41 thousand tonnes for Japan and 2 million tonnes in China).

2.5. Global development of circular economy

The linear model of resource consumption left many countries facing a wide array of issues in the 21st century. Nations started to search for an alternative model, one that would address problems of resource and energy shortages and pollution while at the same time allowing for continued economic growth and market competitiveness (Zhijun and Nailing 2007). China recognized the potential of CE in addressing these concerns early on and pioneered programmes implementing policies and guidelines comparable with today's CE model back in 1973 (Murray, Skene, and Haynes 2017). However, the term CE was first explicitly used in their 2003 "Cleaner

Production Promotion Law" with which the Chinese government accepted CE as a "national regulatory policy priority" (Geng et al. 2012). Since then, China has been heavily supporting and promoting CE practices connected to extending the life-cycle of products and recirculating waste. This comes as no surprise since the country's resource productivity rates are low while the amounts of waste produced in the country are staggering (Mathews and Tan 2016). China's approach to CE seems rather holistic, promoting specific aspects of CE (such as recycling and resource conservation) but consistently emphasising the importance of the environment and climate preservation (Bleischwitz et al. 2022).

Western nations quickly caught up on the benefits and potentials of the CE model. The United Kingdom's (UK) Ellen McArthur Foundation has published yearly reports on CE since 2012, containing contemporary research, information, and case studies done on different industries (Ellen MacArthur Foundation n.d.). In 2014, the UK government voiced their support for CE initiatives. Since then, CE has grown in importance in the country, with different stakeholders recognizing its benefits and the market becoming increasingly competitive, forcing industries and businesses to adopt CE principles (Upadhyay, Bandrana, and Akter 2022).

France formed a "circular economy club" among parliamentarians, and the country has a strong network of NGOs specifically devoted to circular economy promotion (Murray, Skene, and Haynes 2017). The country also adopted an "Anti-waste Law" in 2020, envisaging an ambitious system-wide transition, with one of the goals being to phase out single-use plastic packaging by 2040 (Ellen MacArthur Foundation 2021). Denmark was among the first European countries to implement a national strategic CE plan in 2018 (European Circular Economy Stakeholder Platform 2018). The Netherlands set an ambitious goal of becoming completely circular by 2050 (Government of the Netherlands 2019).

The United States of America recently started to implement nationwide strategies on CE. One of them is Net-Zero Game Changers Initiative adopted in 2022, which recognizes CE innovation as "the key to achieving net-zero emissions by 2050". Additionally, the US Environmental Protection Agency adopted several strategies concerning CE, and a general rise of CE initiatives and programs around the country is evident (Ellen MacArthur Foundation 2023).

Initial development and adoption of CE policies and strategies occurred primarily in industrialized, Western countries with predominantly capitalist market economies. Genovese and Pansera (2019) argue that this market-oriented, technocratic approach to CE often ignores power relations and societal implications of the transition (shift in levels of freedom and democracy). The authors argue that there are definitively going to be "winners and losers" of the transition, with profound global implications, and raise a series of essential questions on the applicability of the model:

"Is CE applicable to global value chains that base their viability and profitability on the immense disparity of labour and environmental regulations across the Global North and South? And what about the immense reservoir of traditional agro-ecological practices that are already sustainable and sustain the majority of people living in the Global South? Are they going to be replaced in the name of eco-efficiency and circularity?" (Genovese and Pansera 2019, 9).

2.5.1. Circular economy in developing countries

The majority of CE research has been focused on its uptake and functioning in industrialized and developed nations. However, developing countries are important to research because they house the majority of the world's population, which is rapidly growing, and with it, the rates of resource extraction, which are often limited (Mishra, Chiwenga, and Ali 2019).

Employment of the CE model has the potential to provide different benefits to developing countries, such as resource efficiency, economic growth, environmental benefits, and community development. However, the challenges that need to be considered when employing the model in developing countries are substantial, including the lack of infrastructure and technology for implementing the model effectively, in addition to general cultural and behavioural factors in the country (Halog and Anieke 2021).

Fitch-Roy, Benson, and Monciardini (2021) conducted a study on differences in CE policies adopted by countries worldwide. They concluded that developing countries with low GDP promote and implement CE policy packages mostly based on waste management. However, the authors note that some developing countries are "leapfrogging" (Soete 1985) industrialized nations, implementing innovative policies such as bans on plastic bags (Kenya and Rwanda), ban on single-use plastics (Vanuatu), or e-waste management (Uganda).

Authors Ferronato et al. (2019) conducted a study on waste management practices in two developing countries, coming to a conclusion that inadequate solid waste management is one of the main issues regarding material circularity that developing countries are dealing with. This could be attributed to a general lack of economic funds, low public awareness and political will, lack of infrastructure and adequate technologies, and the presence of informal activities. Even if developing countries receive funding (often external) to implement these kinds of projects, in many cases, they are shortly lived and bring no structural changes. As a result of their research, authors concluded that "any CE model cannot be equivalent for every context due to social, environmental, financial and political differences" i.e., implementation of CE practices in developing countries should be more context-specific, taking into consideration the specific needs and circumstances of a country, town or a community (Ferronato et al. 2019).

Multi-stakeholder collaboration was recognized as a primary enabler of CE uptake in developing countries. Shared understanding between stakeholders and other actors in the supply chain results in improved resource efficiency and use of “green” technologies. However, for this to be possible, the government must create a favourable environment for businesses and industries to transition to CE. This should be achieved by establishing a proper legislative and regulatory CE framework (Mishra, Chiwenga, and Ali 2019).

2.6. European Union’s approach to circular economy

CE has gained significant traction in the EU's public and policy arena, illustrated as an ideal required to adopt to move away from social and environmental consequences brought upon by harmful practices of the current linear model (European Environment Agency 2016; Gregson et al. 2015). This chapter explores emergence and understanding of the concept in the EU, its implementation among its members, and critiques of EU's approach to CE.

Colombo, Pansera, and Owen (2019) argue that the first CE policies in the EU were developed in 2014 as a continuation of previously adopted eco-innovation strategies. In 2015 the EU adopted its first CE action plan, with 54 actions to "stimulate Europe's transition towards a circular economy, boost global competitiveness, foster sustainable economic growth and generate new jobs." (European Commission 2015). With measures described in the action plan, the EU aimed to accelerate the transition of its countries towards circularity by "closing the loop" of product lifecycles. It would do so by fostering higher recycling and re-use rates. The end goal would be beneficial for both the economy and the environment. By 2019, all 54 actions were completed, and a comprehensive report on implementing the action plan was published.

Following the adoption of the European Green Deal in 2019, the EU adopted a new CE action plan in 2020 as one of the "main building blocks" of the European Green Deal (European Commission

2020). The Commission directly relates CE with environmental issues and sustainable development, arguing that a transition towards circularity will "reduce pressure on natural resources and will create sustainable growth and jobs" and that it is a "prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss." (European Commission 2020).

In their research on European expectations of CE, Lazarevic and Valve (2017) conclude that the EU envisioned transition to CE as a way to "create a perfect circle of materials within the economy, to move the economy towards a user-based economy, to decouple economic growth and environmental impact, and to unlock new ways to renew European industry".

However, even though the EU member states in their CE strategies explicitly acknowledge the environmental damage that the current economic model caused (Alberich 2022), many authors are critical of CE impact on the environment. CE is seen as an "economic strategy" that would decrease determinantal environmental impact on the planet while at the same time maintaining GDP growth, a notion that many scholars challenge (Ward et al. 2016; Colombo, Pansera, and Owen 2019; Millar, McLaughlin, and Börger 2019).

Alberich (2022) found that the EU member sees CE states as "a way to further encourage EU-wide coordination of economic strategies". The author continues to draw conclusions on CE in the EU, stating that it is a political project meant to form and showcase a new vision of the global economic system, that of the sustainable economy with an emphasis on technological innovation, which would dominate public perceptions.

Gregson et al. (2015) critique EU policies on recycling, stating that the challenges of turning waste into resources within the EU are considerable, while high set standards disqualify many forms of waste from being recycled. Authors conclude by accusing the EU of "creating markets and proxy markets in materials recovery in increasingly moral and moralising ways" which antagonizes the successful transformation of waste into resources. Similarly, Colombo et al. (2019) argue that the EU

has a "weak approach to sustainability" and that the current CE policies cannot generate long-term systemic changes in the EU economic system.

Additionally, Alberich (2022) concludes that there is an implementation gap among EU member states in adopting new technologies and business models to support their CE transition, with the north and centre of the EU leading the transition, with the south and east lagging behind. The author also notes that a constant strive towards innovation and efficiency can have determinantal effects on the environment and further social inequalities in case the concept is not expanded beyond its financial and material dimensions (Alberich 2022).

2.7. Circular economy in Bosnia and Herzegovina

This sub-chapter aims to explore the emergence and general current state of CE implementation in the country. Firstly, a short introduction to BiH's economy and political structure is given, together with its relationship to the EU, to provide a general context through which the emergence of the concept can be examined. Furthermore, the sub-chapter contains a snapshot of relevant academic literature and reports published on the topic, which among others, identify benefits, barriers, and opportunities for CE uptake in the country.

BiH is a resource-intensive economy with a long tradition of brown economies, which employ a large part of the workforce and have a developed infrastructure and value chains. The country is a haven for foreign investments, with primary raw materials and a relatively cheap workforce. In BiH, both the productivity of natural resources extracted and the percentage of generated waste processed are very low; this is coupled with a high percentage of non-hazardous waste exported (The Balkan Forum 2021). The country has a small, open economy, neighbouring the EU, and is heavily reliant on access to the EU market and its financial assistance through various programmes and donations, the EU being the largest trading partner of BiH (LIR Evolution 2020; Center for policies and

management 2022). BiH obtained a candidacy status in the EU accession process in December 2022 (European External Action Service n.d.).

Currently, there is no systematic approach to CE in BiH (LIR Evolution 2020; Center for policies and management 2022). Although there has recently been an evident increase in initiatives to promote and encourage CE practices in BiH, the concept still needs to be developed and explored in the country. CE model gained importance in BiH with the adoption of the GAWB. By signing the agenda in 2020, BiH committed itself to implementing and complying with measures in 5 areas identified in the document, which is linked to the European Green Plan. One of the areas covered is CE, with a particular focus on waste, recycling, sustainable production, and efficient use of resources (European Commission 2020; LIR Evolution 2020; Center for policies and management 2022).

In 2022 a white paper on CE in BiH was published by a non-governmental organization (NGO) – Center for policies and management. It is the country's most comprehensive publication on CE, analysing barriers, enablers, and opportunities for CE implementation and development. Authors of the white paper on CE in BiH hypothesized that financial aid from the EU, intended to assure alignment with the EU regulatory framework, will be a crucial factor in BiH's transition to CE (Center for policies and management 2022).

It is known that CE heavily depends on institutional and regulatory factors for its successful implementation (Alberich 2022). However, the unstable and complex political and institutional environment in BiH makes the adoption of new policies and regulations arduous. This presents one of the main barriers to promoting CE innovation and enabling smooth cooperation between key stakeholders (Circular Economy Report: Bosnia and Herzegovina 2020; Centre for Policy and Governance 2022). Licastro and Sergi (2021) agree on this, identifying BiH's complex and unique political system as one of the key threats facing the country in its transition towards a green economy. The authors labelled BiH a "Three-in-one Country" (Licastro and Sergi 2021), referring to the

country's post-war divide by the Dayton agreement to two autonomous entities – Republika Srpska and Federation of Bosnia and Herzegovina (decentralized federation of Croats and Bosniaks), with three presidents and separate legislative systems (Banović, Gavrić, and Barreiro Mariño 2021).

Furthermore, as Geng, Sarkis, and Bleischwitz (2019) point out, data on flows and stocks of most materials involved in production processes are scarce (even for developed countries), together with research on the costs and efficiencies of these processes. Consequently, it makes it harder to set policies in place and limits the general awareness of CE benefits. This is the case in BiH, where until May 2023 less than 5 papers and reports were published on CE in the country, with little to no concrete information on flows and stocks of primary materials.

Kahriman and Tandir (2021) identified the most common practices, enablers, and barriers of CE implementation for SMEs in BiH. They found that CE practices still need to be widely implemented among SMEs in the country. The most common barriers were availability and effective communication with public administration and general difficulties with completing bureaucratic procedures. The research suggested that the dialogue between stakeholders implementing CE practices and governmental institutions could be significantly improved, enabling more successful implementation of the model among SMEs in BiH. More generally, Licastro and Sergi (2021) identified a "weak free market" and "lack of investment and promotion in green entrepreneurship" as weaknesses in BiH's transition towards a "green economy".

Similarly, the White paper on circular economy in BiH identified the main barriers hampering the transition towards CE. These include existing regulation which is focused on linear economic practices, weak or non-existing markets for CE services, low awareness and knowledge of both consumers and producers on CE benefits, lack of fiscal incentives for CE practices, and non-existence of green public procurement (Centre for Policy and Governance 2022). The white paper also touches on the social benefits of CE transition for the country; these include: "additional employment, income,

feeling of belonging to a community, social networking and improved inclusion, support to local democracy, education, and training system, and improved safety at work, and reducing discrimination, increasing transparency in the public sector". However, the authors acknowledge there needs to be more research and literature on the concrete effects of CE on other social realms besides employment. The paper mentions the relationship between SD and CE, stating that the CE concept is seen as linked to SD or even as a "basis for SD" (Centre for Policy and Governance 2022).

2.8. Identifying the research gap

After conducting the literature review, it is evident that a relationship between SD and CE is still being researched, together with the social impacts (besides employment) that the CE transition would bring. Additionally, there is a lack of research on CE transition in developing countries such as BiH (International Monetary Fund 2023). The EU plays a vital role in the context of BiH. At the same time, it's the main initiator and financer of CE uptake in the country, which could influence the attitudes and motivations of key stakeholders toward adopting the concept. More specifically, there is a lack of literature on how relevant stakeholders promoting the CE concept in BiH (policymakers, NGOs, industries, and companies) understand the relationship between CE and SD and whether sustainability motivates their transition towards CE.

The research aims to bridge this gap by examining and analysing knowledge, motivations/interests, and attitudes of critical stakeholders in BiH involved in the promotion of CE, with a focus on SD, since pure quantitative rise in model adaptation and implementation (number of people implementing CE in the country) is not sufficient for a holistic understanding of the current circumstances needed for a successful transition towards a sustainable society through implementing CE model. This will hopefully identify the gaps in knowledge and awareness about CE principles

among relevant stakeholders in the country since a more general, widespread societal change in production and consumption patterns is needed.

Chapter 3: Theoretical framework

The theoretical framework presents an underlying structure, a frame within which a theory can be applied to understand the researched phenomena (Maxwell 2012). It "informs the study" and is reflected by the research problem (Merriam and Tisdell 2015). As this research aims to examine and understand stakeholders' knowledge, perceptions, and motivations regarding CE, especially its relationship with SD, a stakeholder theory will be utilized for this purpose.

Murray, Skene, and Haynes (2017) argue that an economic or techno-environmental focus dominates the current published literature on CE. As previously established in this research, social dimension and aspects of CE are often acknowledged less in the literature. This is especially true concerning how different stakeholder groups perceive and understand CE and its relation to SD (Geissdoerfer et al. 2017). However, many authors acknowledge stakeholders' vital role in promoting CE, such as Lieder and Rashid (2016), who determined in their research that mutually supported stakeholder involvement is crucial for a successful CE transition, while they can act as agents of change. Hörisch, Freeman, and Schaltegger (2014) agree that stakeholders are intricately interconnected with extensive power dynamics and impact on their organizational entity. Geissdoerfer et al. (2017) reiterated the necessity of these stakeholder relationships, stating that their cooperation is imperative in satisfying their expectation of sustainable CE.

Donaldson and Preston (1995) claim that companies have moral obligations to regard the interests of all stakeholders, which will in turn, result in long-term profitability for the company. The authors introduced three approaches to viewing stakeholders: descriptive, instrumental, and normative approach. For this research, a normative approach was adopted, in which stakeholders are the focus of analysis, prioritizing them to achieve common goals. This method also offers the most comprehensive view of stakeholders.

3.1. Issue-based stakeholder theory

The most known and cited definition of a stakeholder is "any group or individual who can affect or is affected by the achievement of the firm's objectives" (R. Freeman and Mcvea 2001). In previous literature on stakeholder theory, organizations were always the focal point, a connecting thread linking the stakeholders and to which they relate. However, Roloff (2008) proposes a different approach to stakeholder theory in the context of multi-stakeholder networks, which is issue-based rather than organization-focused. Here, it is not a company that binds all the stakeholders together but rather an issue or a phenomenon that is relevant to all actors and is making them cooperate in a non-hierarchical matter. Building on this approach, a stakeholder definition as described in Salminen, Heikkinen, and Kujala (2023) was adopted for this research, defining stakeholders "as those who influence or can be influenced by a circular economy". It is important to note that the unit of analysis in stakeholder theory is not the "enterprise or a company" (or, for the purpose of this research, "CE as a common issue"), but rather the relevant stakeholders and their relationship (R. Freeman and Mcvea 2001). Authors like Starik (1995) and Gibson (2012) go further in the move beyond the previous narrow, capitalistic, and corporate focus of stakeholder theory towards a more holistic and value-oriented approach to stakeholder management, arguing that sustainability, in terms of human values, should be embedded in stakeholder theory.

Hörisch, Freeman, and Schaltegger (2014) build on this and suggest applying stakeholder theory in the context of sustainability by setting sustainability as a (core) value among stakeholders, creating mutual sustainability interests among the actors, and making stakeholders consider nature in their interests. The authors suggest three mechanisms aiming "(1) to strengthen the sustainability mindsets of stakeholders, (2) to create mutual sustainability interests based on particular sustainability interests, and (3) to empower societal stakeholders to act as intermediaries on behalf of nature."

One of the main concepts employed from stakeholder theory to examine stakeholders' understanding and attitudes towards (sustainable) CE can be stakeholder interests (R. Freeman and Mcvea 2001). The author describes that an "enterprise" may be seen and understood through the perspectives of different stakeholders' interests, which are all interconnected. Suppose this is applied to a modified, issue-based stakeholder theory. In that case, it can be inferred that CE in BiH can be better understood if the interests of relevant stakeholders are examined. Stakeholders' interests can be understood as consisting of various concepts. Marjamaa et al. (2021) perceive stakeholders' interests reflected as value-based motivations (priority, preference, and taste), expectations, and stakes. Geme et al. (2023) argue that stakeholders' knowledge and perception shape their interests and, as such, are crucial elements of stakeholder theory. The author goes on to say that these subjects should be researched and analysed as stakeholders' perceptions have a considerable influence on forming effective strategies and policies.

For the purposes of this research, a combined approach will be adopted, analysing stakeholders' interests in the framework of issue-based stakeholder theory. Interests will be understood as knowledge, perceptions, and motivations, combining the two methods presented in Geme et al. (2023) and Marjamaa et al. (2021). This approach is aimed to provide a holistic overview of the perspective and interests that key stakeholders' promoting the concept of (sustainable) CE in BiH have. Theoretical pre-understanding will inform the analysis of obtained data, putting it into context. A more detailed link to the theory will be provided while discussing specific aspects of the findings and drafting relevant conclusions.

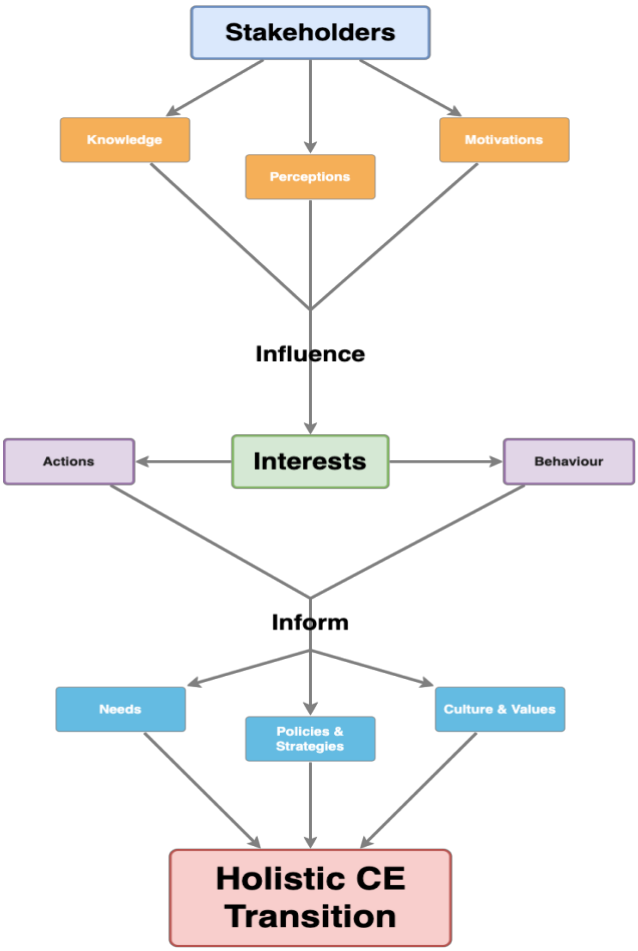

Figure 3: A flow chart depicting the use of issue-based stakeholder theory utilized in the research (Source: Researcher's self-development)

Chapter 4: Methodology

The thesis aims to gain insight into the current state of CE implementation in BiH as an economic model which can be utilized for a transition toward sustainable development. The research attempts to empirically study critical stakeholders' knowledge, perceptions, and motivations toward CE and its relationship with SD by utilizing a basic qualitative research design (Merriam and Tisdell 2015). The literature review identified a significant research gap in conceptualizing the general relationship between CE and SD and research on stakeholders' (policymakers, organizations, and businesses) understanding of the relationship (Geissdoerfer et al. 2017). Additionally, research on stakeholders' knowledge, motivations and understanding of CE in its entirety needs to be improved (Geme et al. 2023; Salminen, Heikkinen, and Kujala 2023).

The focus of this research is not concentrated on specific aspects or models of CE but rather on the concept in its entirety, while the aim is to examine stakeholders' attitudes towards CE as a holistic, all-encompassing term. As Geme et al. (2023) state in similar research done on Uganda, "achieving a holistic transition requires that CE proponents not only understand who the key stakeholders are but also what they know and perceive of CE in its entirety and not its elements". To effectively address this research gap, a qualitative multi-method approach was utilized, consisting of a systematic literature review and semi-structured interviews with relevant stakeholders. A Qualitative approach was adopted to gain a holistic understanding of stakeholders' motivations, perceptions and knowledge, which are subjective in nature and specific to their living contexts (Merriam and Tisdell 2015). Using a multi-method approach reduces reliance on a single method and allows for a more holistic and balanced interpretation of the research question, resulting in more elaborated and all-encompassing conclusions (Roller 2016).

4.1. Semi-structured interviews

For the purposes of achieving the objectives of this research, a choice was made to gather qualitative data by conducting thematic semi-structured interviews with key stakeholders promoting CE in BiH. Merriam and Tisdell (2015) qualify this type of research design as "basic qualitative research". This interpretive study is underlined in constructivism, through which a researcher attempts to understand the "meaning a phenomenon has for those involved". However, this meaning is not simply "discovered" by subjects but is constructed based on their engagement with the world. The central three notions leading a basic qualitative study are: "how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences. The overall purpose is to understand how people make sense of their lives and their experiences" (Merriam and Tisdell 2015, 6).

As mentioned, data was collected through semi-structured interviews in which the interview guide was built on the conceptual framework of the study and the overarching research questions. For the purposes of the research, interview questions were semi-structured and flexible, designed to examine and understand the subject's perceived knowledge and understanding of CE, specifically in the context of BiH, the linkage between CE and SD, and the subject's motivations for promoting the concept.

As the first step in the interviewing process, a purposive sampling method was used to identify the interview sample (Elo et al. 2014). While the research aim is to understand CE transition in BiH from the experiences of stakeholders involved in the concept promotion, purposive sampling was used to identify the most relevant individuals and groups who possess needed information and experience. A homogeneous purposive sampling method was utilized, picking candidates who share a common characteristic – being involved in CE concept promotion in BiH (Etikan 2016). The key stakeholders were identified by critically analyzing available literature and other online sources. The primary resources used to identify relevant stakeholders for interviewing were:

1. Circular Economy Report: Bosnia and Herzegovina. This publication from 2020 named examples of best practices of CE implementation in the country, through which 17 examples of relevant stakeholders of different kinds operating on promoting the CE concept in the country were extracted.
2. Bosnia and Herzegovina Circular Economy White Paper from 2022 identified 16 companies and organizations dealing with CE in their work.

*many extracted stakeholders were overlapping

A preliminary list was drafted using this data, then 13 stakeholders most relevant and suitable for the research purpose were selected. Further research was conducted through the web search engine Google, where newspaper articles, LinkedIn profiles, Facebook groups, university and ministries websites, publications, and other relevant sources were scoured for information.

Based on the gathered data, a homogenous stakeholder database was created, consisting of 21 stakeholders, grouping the subjects into five categories: Businesses, NGOs, IGOs, policymakers, and experts. These categories, and subsequently subjects, were chosen after examining the relevant literature on the development of CE in BiH (reports, academic articles, other non-academic publications etc.) as stakeholders who are involved in promoting the concept of CE in their everyday work. A choice has been made to include only businesses that recognize and implement CE practices as either their primary or core business model (Center for policies and management 2022).

After the subjects were identified, their contact information was found online, and they were contacted via e-mail or telephone with a short request for an interview. A total of twelve interviews were completed (see Table 1). Five interviews were conducted in person in Sarajevo, Kiseljak, and Bihać. The rest of the interviews were conducted online, via Zoom or MsTeams, via online meeting platforms due to interviewees' preference and/or unavailability to meet in person in the proposed time frame. Consent for recording the interviews for the purpose of the research was asked, and all interviewees agreed to be recorded via sound recording application on the researcher's phone. Files

were subsequently transferred onto the researcher's computer and saved there. Additional follow-up e-mails were sent to a few interviewees to either expand on a point made in the interview proving to be relevant to the analysis, or to ask further questions on some unclear parts of the interview.

Table 1: List of interviewed stakeholders (Source: Researcher's self-development)

Stakeholder abbreviation	***Interview technique***
Ministry	In-person
IGO1	In-person
IGO2	Online
Expert1	Online
Expert2	Online
Business2	Online
Business1	Online
NGO1	Online
NGO2	Online
NGO3	In-person
NGO4	In-person
NGO5	In-person

4.2. Data analysis

Data was organized, coded, and analysed based on reoccurring patterns and themes that characterize it to develop a structure for analysing and discussing the results derived from obtained data. The qualitative data analysis method was chosen as it allows for the creation of a systematic

framework through which the researcher describes and analyses a specific phenomenon (Elo et al. 2014). Interpreting the data collected presents the researcher's understanding of the subject's understanding of the topic or phenomenon of interest (Merriam and Tisdell 2015).

The data coding was framed by subjects' and stakeholders' knowledge, motivations, perceptions, and understanding of CE and its relation to SD. Paragraphs, sentences, and phrases generally concerning these topics were identified and selected. Further coding of that identified data consisted of two analysis waves (Ferronato et al. 2019). In the "first order analysis", terms and codes occurring in the data are identified and taken as the subject presented them. The researcher does not convert the phrases into themes or abstractions but rather leaves them as "generalized phrasal descriptions". This step is designed to analyze the data using "informant-centric terms and codes", in this way representing subjects' voices. A "second order analysis" followed, where identified phrasal expressions were converted into concepts and abstractions to help understand and describe the key dimensions of the research questions (Gioia, Corley, and Hamilton 2013).

Table 2: Sample of the coding procedure (Source: Researcher's self development)

Quote from the interview	First-order analysis	Second-order analysis
CE represents an incredible opportunity for BiH, as an economically underdeveloped country, to see its development through the implementation and promotion of the concept."	Economic development through CE implementation	**Understanding**
This is very important in BiH because it has very high air pollution and a high level of underutilization of natural resources, GHG pollution is much higher than the EU average, so these are elements that say that the way we currently operate is not adequate and not good and must be changed.	Environmental issues that BiH faces due to the currently dominant economic system	**Motivations**
Most of the target groups have heard about the concept, ordinary citizens are perhaps the least informed, whoever works on the projects and is affected have heard about it.	People who are working on CE or are affected by it have heard about the concept	**Perceived knowledge**

4.3. Limitations

The researcher focused solely on specific stakeholders promoting the CE concept in the country, not including other actors, such as the general population, industry organizations, media, education organizations, activists, etc. This was due to the time and scope limitations of the research.

Additionally, since all interviewed stakeholders are in some ways involved in the promotion of the CE concept, their perceptions on the topic and the general state of CE development in the country could be biased. As previously mentioned, given the fact that CE is a relatively new and developing model in BiH, not only is the list of stakeholders that would be relevant for this research limited, but the general number of companies, industries, organizations, decision-makers and experts promoting the concept of CE in the country is modest. This resulted in a fairly small sample of subjects willing to participate in the research. However, that does not diminish the fact that the interviewees are relevant stakeholders who promote the circular economy in their daily work and are at the forefront of the development of this topic in the country, making their input and perceptions highly valuable and extensive.

Ethical considerations were included in the preparation and execution of data collection (see Annex 2 for the ethical checklist). During the interviewing process, participants were at no risk greater than in their everyday lives. Informed consent was verbally obtained before starting the interviewing process. Subjects were informed of the possible impacts the research could bring to their professional lives, and anonymity was provided.

Contacting and involving businesses for participation in the research proved rather difficult. Many identified businesses did not reply to the initial e-mail sent; if successfully contacted via the phone, they were primarily wary and suspicious of someone interviewing them. Additionally, pinpointing specific ministries engaging with the general topic of CE and even SD proved to be more challenging than expected. This could be attributed to the complicated political and organizational structure, with two independently governed entities and one self-governing administrative unit. This is coupled with the fact that webpages of the ministries were often outdated and lacking information. When Ministry was asked for further referral to additional ministries and/or policymakers dealing

with the topic of CE, the subject tiptoed around answering the question directly, and the researcher's effort proved ineffective.

Chapter 5: Results and discussion

5.1. Motivations for promoting circular economy

5.1.1. Dissatisfaction with the current economic model

Stakeholders' motivation towards adopting and promoting the CE model in BiH considerably varied among different interviewed actors. Two NGOs expressed dissatisfaction with the current linear model and its environmental and social consequences as the main motivator. As mentioned, BiH is heavily reliant on "brown industries," which employ a considerable amount of the workforce; however, they have also contributed to the high levels of air pollution in the country and underutilization of other natural resources besides coal (Bertelsmann Stiftung 2022; European Commission 2022). BiH's GHG emissions are much higher than the EU average (Eurostat n.d.), and many industrial plants are old with outdated technology not in line with environmental and safety standards. Stakeholders pinpointed these issues as a reason for considering an alternative approach, which they found in CE. Another issue is that dirty industries and old technologies are imported into BiH from countries with stricter environmental regulations, such as the EU. An example of this practice is when German courts prohibited using diesel engines and cars without EURO 6 standard. This resulted in many of these outdated, environmentally harmful vehicles being imported into BiH from Germany (Glisic 2017).

Improving the current linear practices was recognized as a dominant motivation of Expert1 in their work on promoting the concept of CE in the country. The stakeholder pinpointed the practice of using cheap, synthetic, unsustainable, imported materials in construction. Moreover, the general habits surrounding construction in BiH are based on convenience, cost reduction, and time efficiency, which could all be traced to the logic of the linear economic system. A wish for a more efficient,

sustainable, and long-term system arose where organic and natural local resources, such as wool, wood, limestone, straw, clay, etc., will be responsibly harnessed.

… "we should use the resources and possibilities from our own back yard!" (Expert1).

5.1.2. Resilience of the domestic market

Strengthening and improving the competitiveness and resilience of the domestic market and bolstering economic growth were highlighted as primary motivations of interviewed businesses when it comes to adopting practices of CE. These stakeholders stated that they timely recognized the potential of CE as an economic model and started implementing certain practices in their business operations in order to "keep up with the global trends". However, they pointed out that policymakers on a macro level (ministries and the government) should ensure that both legal and regulatory frameworks are in line with the current global and regional (EU) strategies and legislature on CE. It appears that the BiH government still does not recognize its role in achieving this. According to the stakeholders, this still is not the case in BiH, where a large and complicated bureaucratic and political system in BiH burdens the country's ability to modernize its system and keep up with global trends. This is supported by literature on the topic, where one study showed that the support for green investments and entrepreneurship in BiH is fragile, with policymakers failing to foster the development of alternative and innovative green businesses and strengthen the emerging green market (Silajdžić, Kurtagić, and Vučijak 2015). Businesses and industries were recognized as primary actors who should put pressure on governments and ministries. At the same time, a functioning and competitive market is crucial for a country's functioning and further economic development.

… "The weakest link are decision-makers and people who are in executive and legislative power, including members of parliament, because they do not see their role in the promotion of circular economy. Businesses should put pressure on decision-makers" … (Expert1).

…"The most realistic motivator is feedback from the 'real sector' (production, sale of services and goods), they will be the best indicator that something must be done and changed" … (Ministry)

5.1.3. The potential of profit

The potential economic benefits of CE for businesses were mentioned as additional motivation. Many stakeholders stated that monetary profit and other short-term financial goals will always be a priority in adopting the CE model by businesses and industries in BiH. However, stakeholders underline that this motivation is prevalent in the business sector and among some NGOs working on CE in the country. Given the lack of financial and systematic support by the government, most of the CE projects implemented in the country are financed from foreign sources, most notably the EU (Center for policies and management 2022). This opportunism of domestic stakeholders results from the growing number of published tenders and projects from the EU intended to promote CE in BiH. Some stakeholders went as far as to claim that prior to the surge of CE as an EU strategic objective, there was little to no interest in the concept in BiH.

… "People in BiH, like people everywhere, are very pragmatic, especially in business. In business, people turn to those alternatives that are more profitable for them and that can bring them savings or increase their profits in the short term" … (NGO3).

5.1.4. Maintaining export competitiveness

According to different stakeholders, for many of BiH's industries and businesses, a deciding factor for adopting CE practices was implementing a new EU law. The law is set to come into force in 2026, with the transition phase starting in October 2023, and will directly impact export-oriented businesses and industries in BiH. It is named "Carbon border adjustment mechanism" (CBAM), and

it will tax imported goods sold on EU markets based on their carbon content i.e., how much was emitted while producing the goods. It aims to push the non-EU member states to rethink their climate policies and adopt stricter environmental regulations. BiH produces and exports to the EU considerable amounts of electricity generated from coal (Energetika n.d.), and in general exports around 72% of its produced goods to the EU (Agencija za statistiku Bosne i Hercegovine 2022). Hence CBAM raises significant concerns in BiH's production sector, which is forced to either expressly make their manufacturing processes 'cleaner' or reduce its exports reliance on the EU market (Silajdžić, Kurtagić, and Vučijak 2015; Anita and Marissa 2023). Another relevant consequence of CBAM is the reduced attractiveness of BiH's market for foreign investors.

Moreover, it will likely cause the existing foreign companies and industries to rethink the benefits of their unsustainable operations remaining located in BiH while they took advantage of BiH's lenient environmental and climate regulations so far, a practice called "carbon leakage" (Ben-David et al. 2021; M.P. 2022). Multiple stakeholders referred CBAM as the biggest motivating factor for businesses and industries to start implementing CE model in their practices. This motivation can broadly be identified as adapting to the (foreign) market needs and supply chains and preserving competitiveness.

… "In two years, a carbon tax will begin to be charged in BiH... if we do not join this system... the price competitiveness of BiH will decrease and, of course, the attractiveness of the location for investors... if we do not adjust the ways in which we produce, our companies will not have the price advantage we have today... all companies that have significant exports to the EU are making the transition to the circular economy after this" … (NGO3).

… "Their [industries'] motivation is export, in order to export to the EU, EU rules must be respected" … (NGO1).

5.1.5. European Union accession process

Every stakeholder interviewed highlighted a common motivation all actors promoting CE in BiH have – alignment with EU practices and legislative and regulatory framework. Not only does EU accession rank very high on the list of priorities for most of BiH's stakeholders, but the financial support offered by the EU through different instruments, programs, and projects is indispensable, being the country's biggest provider of monetary assistance (EEAS n.d.). Consequently, the EU was the main instigator of the CE onset in BiH, with the Green Agenda for the Western Balkans instigating the advancement of the model to an objective for objective policymakers, businesses, and the general public (Center for policies and management 2022).

… "Before the signing of the Sofia Declaration, circular economy was not mentioned in the state, it was formally mentioned only then" … (Ministry).

… "All programs are now connected to the EU Green Deal as the supreme strategy for development, and that then spilled over to us. And then it became quite logical that Bosnia and Herzegovina, as someone who wants to be part of the EU and the European Community, should approach those processes and get involved as actively as possible and not to trot behind others" … (NGO4).

The common thread of the interviews was that the EU, as a normative power (Hardwick 2011) has the most significant influence over BiH's values and norms. Some stakeholders mention that even if there were no written obligation for BiH to move towards adopting principles of CE, the heavy dependence on the EU market would force businesses to adapt to the new regulations. This alludes that the EU's power and influence are strong enough to make it a motivator for CE transition, even without direct requirements set or interference with the country. The EU also acted as the main source of knowledge and experience on CE, providing examples of good practices on CE, which in turn motivated actors from BiH to turn to the concept.

… "I feed my motivation in the West, where it all functions well. Then I return to BiH and continue the struggle and try to transfer my knowledge and expertise to students and colleagues at work" … (Expert1)

According to the interviewees, many companies which are now successfully implementing and systematically approaching CE in BiH, have gathered their experiences and expertise working in the EU, and afterwards returned to BiH to apply their knowledge.

… "Companies that made a strategic decision to implement CE are usually companies whose owners are from the EU or people who have been doing business in the EU for a long time and thus learned certain principles and ways of doing business and then came to BiH and apply them here" … (NGO3)

5.1.6. More efficient use of resources

Specific motivations connected to potential environmental benefits of implementing the CE model pointed out by interviewees were pertaining to efficient use of resources, both in extraction and production processes. This motivation was observed with three interviewed NGOs and one expert. Contrastingly, these stakeholders highlighted that many businesses adopt the model of CE solely to promote their image on the market and further their competitiveness, with little consideration for the resource productivity and environmental factors coming with it. This finding complements a study by Cristoni and Tonelli (2018) researching the perception of CE among businesses in Italy. The research found that businesses perceive CE as financially risky, instead prioritizing maximisation of profit with a disinterest in environmental protection.

Context-specific reasoning for businesses' prioritization of profit over the environment could be attributed to the fact that BiH's natural resources are still cheap, plentiful, and easily extractible due to a comparatively lenient regulatory framework (Gekić et al. 2022; Agencija za statistiku Bosne

i Hercegovine 2021). This hypothesis has been featured in conducted interviews as well, in the context of criticizing the country for exporting its raw materials rather than domestically creating additional economic value before exporting the product.

… "Resources are cheap in our country and people are not looking for alternatives to natural resources. People have no motivation to find an alternative" … (NGO3)

5.1.7. Utilization of domestic resources

Additional motivation connected to more efficient use of domestic resources is strengthening the domestic production sector with a more sustainable economic model, which would reduce dependence on foreign investments, which are often detrimental to the environment. Such cases are a lignite coal mine and a thermal power plant in the municipality Stanari, which are in majority ownership of the China Development Bank (Sadiković 2022). However, stakeholders' motivations were not only influenced by examples of carbon leakage and construction of 'dirty industries' in BiH but also growing by foreign direct investments in renewable energy in the region, while the government is investing very little in the development of modern renewable energy sources capacities (You and Kakinaka 2022).

… "We do not manage resources; we just use them" … (Business1)

… "We have an abundance of resources, the question is who will use them, us or foreigners?" … (NGO5)

5.1.8. Waste management system

An inadequate waste management system was cited as a motivating factor of a few stakeholders, representing one of the country's most pressing environmental issues. Around 70% of

the population is a part of the organized waste collection service system, while the recycling rates are below 10%, with some sources claiming them below 3% (The Balkan Forum 2021). A common waste disposal practice by individuals and businesses is illegal or unsanitary landfills or dumping sites (The World Bank 2018; Zukić n.d.). Interviewees mentioned that after they acknowledged the environmental and social consequences of the waste disposal issue in the country, they also recognized the economic potential that waste has if appropriately managed and created added value from it. This motivated them to take up CE practices and promote the concept in their work.

… "I was intrigued by … and how waste can be re-used and given a longer life cycle" … (Expert1)

… "Whoever creates a lot of waste tries to create some value for that waste, tries to convert it into some other value. Businesses see if they can sell it in another industry" … (NGO2)

5.1.9. Environmental protection

None of the interviewed stakeholders listed the environmental benefits of the CE model as their primary motivation for its adoption and/or promotion. Moreover, no stakeholders recognized the protection of the environment or SD as a main motivation of any other relevant actors in the country. Civil society organizations were mentioned as the ones prioritizing the environment the most. However, their reliance on foreign financing sources restricts and strictly dictates activities and, more broadly, issues that they can address and work towards.

However, the ecological motivator can be recognized in different instigators, such as waste management, and reduced and efficient use of natural resources. Through the interviews, all actors did vocalize and recognize the importance of reducing human impact on the planet and achieving SD, overwhelmingly stating that it impacts their decision to adopt or promote CE practices directly or indirectly. NGO4 listed environmental potential in creating green jobs and added value to the

economy and people as their main motivator. However, this was again mostly about generating value from waste and creating new 'green' jobs.

... "Consequential i.e., secondary motivator is environmental protection" ... (NGO2)

5.1.10. Synthesis

According to the stakeholder theory, motivations create stakeholders' interest in matters vital to them, leading to actions (Carroll and Brown 2022). This is why it is essential to research stakeholders' motivations in adopting CE, as they will ultimately influence stakeholder actions, decisions, and engagement. The main findings on motivations among key stakeholders promoting the CE concept in the country are as follows.

Respecting obligations towards the EU obtained with signing the Sofia Declaration, coupled with an overall commitment of aligning BiH's legislative and regulatory framework to those of EU is seen as the common motivator among all stakeholders. This notion goes hand-in-hand with stakeholders' wish to further BiH's economic development. Regarding environmental motivations, they are mostly connected to reduced and more efficient use of resources and waste management.

The overwhelming majority of stakeholders perceived these motivations as a part of the ultimate goal of strengthening BiH's economy and competitiveness. Economic benefits are the underlying motivation of most of the interviewed stakeholders, either through generating profit through CE business practices or utilization of financial funds allocated for CE projects and initiatives. This was particularly evident in interviewed businesses and is confirmed by stakeholders' perceptions about what motivates businesses in BiH to transition to CE. Rovanto and Finne (2023) argue that the motivations of businesses and entrepreneurs in the country determine the general approach and direction of CE in society. Geme et al. (2023) build on this notion, concluding their research with a finding that business actors are the predominant stakeholders in Uganda's CE arena,

with much influence on the country's economic trends. Most of the interviewed stakeholders in BiH vocalized the importance of business and industry sectors, stating their influence on the market trends as the main reason. However, the state was highlighted as the main enabler of a healthy and functioning CE market. Strategically designed government policies and regulations should be adopted for both short and long term to promote and implement circularity (Van Buren et al. 2016; Govindan and Hasanagic 2018).

These motivations manifested in the implementation of many regional, national, and local level programs, sharing of knowledge and expertise on the concept, and the adoption of CE business principles. A certain motivational diversity can be observed from these findings. However, a transition to a just, sustainable, and holistic CE model was a common interest for all stakeholders.

The presented findings on stakeholders' motivations towards CE in BiH align with similar research conducted in Finland, where Marjamaa et al. (2021) concluded that the overwhelming majority of stakeholders' motivations were tied to the national vision of CE implementation. However, the BiH context presents an interesting case, while there is an absence of a strategic approach to CE on a national level. The majority of efforts on CE in the country stem from its formal and informal obligations to the EU. There are still no laws or regulations addressing CE from the national authorities; CE motivations are manifested through efforts on model adoption and promotion either as a part of BiH's international obligations or majorly influenced and financed by foreign IGOs (such as the EU and United Nations Development Programme (UNDP)) and NGOs. However, most of the interviewed stakeholders voiced motivations related to ensuring environmental and social benefits for the country through adopting the CE model.

According to stakeholder theory, motivations influence stakeholders' interests and are critical for identifying in order to create an environment of healthy stakeholder collaboration, engagement, and value creation (Marjamaa et al. 2021). Moreover, the creation of a comprehensive and holistic

CE, one addressing social, economic, and environmental dimensions, is only possible if stakeholders' motivations are aligned (Lieder and Rashid 2016). Similarly, Kujala, Lehtimaki, and Freeman (2019) argue that value can be created in stakeholder relationships only when stakeholders share joint interests, which are influenced by motivations and expectations. Moreover, a holistic, systematic transition to CE in a country requires collaboration, engagement, and support of all involved stakeholders (Lieder and Rashid 2016).

5.2. Perceived knowledge on circular economy

The interviewed stakeholders were asked about both their perceived knowledge on the CE model and their perception of the knowledge levels of other relevant stakeholders in the country, including the general public. This approach was chosen while using qualitative methods (such as surveys or questionnaires with pre-coded response choices) was not deemed fit for the size and characteristics of the research sample. The aim of the open-ended interview questions on the perceived knowledge of interviewees and other actors in BiH was to gain a holistic overview of the CE state in the country. Additionally, an intentional choice has been made to focus on CE in its entirety and not on specific aspects such as waste management or circularity in manufacturing.

5.2.1. Perceived knowledge among decision makers

The overwhelming majority of respondents stated that general knowledge levels are quite low and basic. Decision makers (the government and relevant ministries) were pinpointed as ones least familiar with the concept of CE and its models.

... "Very few decision makers know the concept of circular economy" ... (NGO3)

... "0% knowledge in the government institutions, for them CE is just a name, and no one thinks about an innovative approach and changing anything. They see it as a way to use European funds and talk about new businesses" ... (NGO5).

... "The level of knowledge about the concept of circular economy among different actors in BiH is just not satisfactory" ... (Expert2)

This is an interesting finding, while the previous literature on the topic recognizes governments as one of the critical stakeholders for CE promotion (Geissdoerfer et al. 2017; Van Buren et al. 2016; Mishra, Chiwenga, and Ali 2019; Lieder and Rashid 2016). The authors argue that government policies and laws create a favorable environment for all stakeholders, which is needed for a systemic CE transition. It would do so by providing incentives, setting-up projects, and raising awareness of CE benefits.

The interviewed stakeholders have pinpointed decision makers as the main actors responsible for a comprehensive circularity transition while at the same time recognizing their inadequate levels of knowledge and interest in CE. According to stakeholders, most of the knowledge and information on CE possessed by decision-makers is solely in the scope of their obligations of aligning their regulatory and legislative framework with the EU framework.

5.2.2. European Union as the knowledge provider

The most important document pertaining to CE adoption is the Sofia Declaration on GAWB, which is aligned with the EU Green Deal. The declaration was signed in November 2020, and its overarching goal is the fight against climate change. CE is one of the five pillars of the declaration, which focuses on integrating the signatory country into the EU supply chains, improving waste management infrastructure, developing consumer-targeted initiatives, preventing plastic pollution,

and implementing smart specialization strategies (Regional Cooperation Council n.d.). However, according to stakeholders, even though BiH signed several international agreements relevant to CE, their implementation is hindered due to the country's complicated political and bureaucratic structure. A generated confusion and transfer of responsibilities amongst decision-makers over which ministries are responsible for promoting and implementing the CE model is omnipresent. Due to the nature of CE, a systematic, interdisciplinary, collaborative approach should be adopted, with most (if not all) ministries being involved in model promotion in the country, each responsible for different aspects of it, which would bring upon profound structural changes needed for the successful implementation of the model (Greer, von Wirth, and Loorbach 2023; Mamaghani 2023; Geissdoerfer et al. 2017). Yet, according to the stakeholders, this is not the case in BiH, where ministries and policymakers remain fragmented in their approach to the issue, transferring responsibilities amongst each other, leaving businesses, industries, and civil society organizations confused about CE jurisdiction in BiH.

… "Ministries and decision-makers often claim that they are not in charge of circular economy when any initiatives related to circular economy and environmental protection are put on the table. It is true that sometimes they are not fully in charge, but it often happens that even the government (in which representatives of all ministries sit) claims that it is not aware that it is in charge of implementing circular economy projects and promoting the concept in the state" … (Expert1)

… "Decision makers only know what is written in the green agenda and without any desire to bring about real change" … (NGO1).

The interviewed stakeholders highlighted the role of the EU as a powerhouse of knowledge on CE, sharing it with BiH through its delegation in the country and financing of different projects and programs. Not only is it the main information and data base on all-things related to the model, but it also demonstrates successful concrete CE implementation examples, showcasing the pathways and potential benefits of the transition. This is beneficial for policy makers and businesses alike, as it

provides them with examples of good practice and technical scientific data, in order to boost their efforts in successfully implementing the model. Additionally, EU projects (such as Horizon Europe 2021 – 2027) brought the topics of sustainable economic development and climate change mitigation through adopting alternative economic models in the public discussion sphere.

… "When decision-makers see concrete examples of circular economy implementation, for example from the EU, they can see that some of our [BiH's] projects also have the potential to comply with circular economy requirements" … (Expert1)

5.2.3. Perceived knowledge levels of the general public

Stakeholders were also asked about their perception of knowledge levels among the general public, i.e., the consumers in the country, based on their previous experience and work. This yielded similar results, with unanimous agreement on the overall unknowledge among the general population in BiH. All interviewed stakeholders collaborated with the public on the topic(s) pertaining to CE, where they had the chance to gauge the perceived knowledge levels of the population. Their opinion was expressed based on these experiences, mainly consisting of projects aimed at or implemented with the local community, round tables, seminars, conferences, workshops, fieldwork, and independent research conducted by the stakeholders.

… "It is evident that people do not really know what the concept of circular economy is … (NGO1)

… "The extent of knowledge – 0; none among ordinary citizens" … (NGO5)

While these findings are not quantitative and are susceptive to generalization and bias if compared to a similar study conducted on Uganda's population, a few commonalities can be found. (Geme et al. 2023) found that around 60% of the surveyed population claims to be familiar with the concept of CE. However, further research found that around 61% believe that CE is synonymous with

recycling. This finding was also deduced from the interviews, where different stakeholders claimed that most of BiH's population associated CE with recycling and waste management. However, unlike research done on Uganda, this research does not use quantitative methods, so no exact comparison between these two studies can be performed.

5.2.4. Consumer awareness

Additionally, interviewees from civil society organizations, businesses, and experts mentioned that the general public needs to be made aware of their power as consumers, not considering the environmental damage production of the purchased good may have caused. One of the factors influencing this phenomenon might be the low purchasing power of BiH's consumers, which was only around one-third of EU's average in 2021 (Gekić et al. 2022). Stakeholders note that price consideration, therefore, plays a significant role in purchasing habits of BiH's population, resulting in choosing to buy cheaper products without much consideration for the environmental impacts their production and distribution have.

Schöggl, Stumpf, and Baumgartner (2020) remarked that the role of consumers in CE transitions is still underrepresented in CE literature and urged the scientific and political arena to give more attention to this important social aspect of the transition. Additionally, (Joensuu, Edelman, and Saari 2020; Van Buren et al. 2016) emphasized the importance of consumers' role in CE transition, with their preferences and requirements directly influencing market changes. Van Buren writes that the Dutch government implemented many policies and incentives to change consumer behavior towards making more sustainable choices, in line with the circular model. This again highlights the importance of stakeholder collaboration and support for creating an integrated approach, with long-term systemic change as a goal.

According to three interviewed stakeholders (two NGOs and one expert), a huge endeavor will be needed to shift this consumer mindset to create a growing demand and beneficial market environment for products produced by implementing CE models. Sharing knowledge and raising awareness were highlighted as crucial first steps in helping consumers recognize and harvest their power to influence the market. These findings complement similar studies on consumer behaviour in CE (Droege, Raggi, and Ramos 2021; Van Langen et al. 2021).

… "There is no totally circular company or product in Bosnia and Herzegovina. The public is not yet familiar with the concept, "something is heard here and there", but they do not know specifically what it means and that their consumption can change the market and what it will mean in their lives" … (Business1).

… "A lot of work will be needed to direct consumers to think about how much their product pollutes the environment, how much it benefits the environment, and how much it does harm, and not just "is this 2 marks [BiH's currency; convertible mark] or 2.5 marks?" … (IGO1)

The needed transition in customer mindset and behaviour is still in the early stages in BiH, with most people unwilling to pay more for an environmentally friendly, ethically made product. Shoppers are not sentient of the power that their choices and behaviour have on the country's market and, consequently the economic and social trends. The specific findings from this chapter on consumer behaviour are complementary to a study published on China, where Hao et al. (2020) concluded that social norms, such as willingness to pay more for an environmentally friendly product, significantly influence consumers' participation in CE transition.

5.2.5. Perceived knowledge of civil society organizations

Even though the general levels of CE knowledge were recognized as unsatisfactory, the majority of interviewees highlighted a positive trend in recent times, with the concept of CE being mentioned more in public discourse and promoted across the country through various projects on both local and national levels, mostly by NGOs. Through the interviews, it was deduced that civil society organizations in BiH act as primary national information and knowledge hubs on CE, educating the general public about the potential and benefits of adopting the CE model and supporting businesses and entrepreneurs. Moreover, civil society organizations in BiH share knowledge and expertise on the topic with the decision-makers by collaborating on different projects and documents and developing strategies and reports intended to support CE promotion and implementation on local and national levels. The foreign trade chamber of BiH was pointed out as one of the most knowledgeable and experienced actors in promoting CE and supporting BiH's economy in this transition.

... "The civil sector has a good knowledge of the concept, they promote it and work on a lot of projects" ... (NGO3)

5.2.6. Synthesis

Geme et al. (2023) argue that it is vital to explore stakeholders' knowledge on a particular issue, while according to stakeholder theory, their interests, and consequently behaviour and actions are influenced by this knowledge. A comprehensive understanding of stakeholders' perceived knowledge of CE should inform decision-makers and other relevant actors in the creation of national policies and business strategies for a systematic CE transition. Moreover, exploring stakeholders' knowledge can help identify information gaps and asymmetries, which can be improved by sharing knowledge and expertise on CE among stakeholders (Moggi and Dameri 2021). Salminen,

Heikkinen, and Kujala (2023) explored stakeholders' perceptions of sustainable CE and found that different stakeholders emphasized the need for the creation of a platform or a community where knowledge would be shared among stakeholders, fostering a collaborative environment between them. This would ultimately help in the creation of a shared understanding and approach to CE among different actors. Such a matrix of information and meaning could be seen as CE culture, while sharing and commonly agreeing on knowledge proponents can be referred to as the creation of culture (Garling and Evans 1992).

The findings on perceived knowledge among BiH's key stakeholders promoting the concept of CE demonstrate that there is plenty of room for improvement. According to interviewed stakeholders, perceived knowledge levels among the actors not involved with CE in their work, i.e., the general population, are nearly nothing. Moreover, stakeholders pinpointed decision-makers as ones not familiar with the basis of the concept. Zwiers, Jaeger-Erben, and Hofmann (2020) see knowledge as fundamentally connected to practices. According to them, a deep understanding of relevant information, problems, norms, cultural aspects, and beliefs creates a "capability to act" for the actor. According to interviewed stakeholders, BiH's decision-makers do not possess either basic system knowledge or "transformative" knowledge, which would drive them to challenge the status quo. Their knowledge was limited by the scope of their formal obligations towards the EU. However, without demonstrating strong national capacities based on shared knowledge, expertise, and collaboration between all stakeholders, BiH will remain reliant on external funds and susceptible to EU hegemonic ways. According to issue-based stakeholder theory, the creation of value should be achieved through a collaborative effort between all relevant stakeholders (in the original stakeholder theory, it is between the organization and stakeholders) (R. E. Freeman et al. 2010).

Therefore, establishing a national, multi-stakeholder knowledge-sharing platform is needed in BiH, one that could be centered around one focal organization, either the government or a civil

society organization. In this way, knowledge and expertise asymmetries could be levelled, examples of best practices could be shared for inspiration, and all stakeholders' general aims and interests could be unified. Civil society organizations would play a key role here since they were perceived as the most knowledgeable. Moreover, the experts claimed to possess a general basic understanding of the concept with higher expertise on certain CE aspects pertaining to their work. Creating a shared arena for the mutual exchange of interests, opinions, knowledge, and experience of stakeholders would generate value that is created by stakeholders' input and therefore is more beneficial for all (Moggi and Dameri 2021). As mentioned previously, the role of local communities needs to be emphasized, providing them with a platform for productive communication of their cultures, knowledge, needs, and interests (Montgomery, Dacin, and Dacin 2012).

5.3. Understanding and perceptions of circular economy

5.3.1. Circular economy as an alternative economic model

When asked about their understanding of the CE concept, stakeholders' answers varied considerably. Interviewed businesses mostly understood CE as a potential alternative to the currently dominant linear economic model, which would keep the materials in the extraction-production-use cycle for a longer period of time. They saw this as dually beneficial, while it minimises (or even eliminates, according to some stakeholders) waste in nature and landfills and, at the same time, creates additional value from otherwise disposed of products. Some experts and NGOs also shared this view of the model, where the use of waste is maximised, and it is treated as a resource. Business2 understood CE as a socio-economic system that would completely halt the extraction of natural resources and only use resources and products already in the economic cycle. At the same time, Business1 saw CE as abolishing the extraction of new resources altogether.

... "With circular economy, matter stays in the cycle for as long as possible and only things that can't really be used in any other way are removed" ... (Business1)

... "In real circular economy, there is no extraction of new resources, only the ones we have are used. Or inventing new materials that were not there before" ... (Business2)

Additionally, CE is seen as an economic model which will strengthen the BiH's internal market, improve competitiveness of its businesses and industry and alleviate the country out of unfavourable economic conditions. It's perceived as a path which BiH can take to move closer to developed, Western countries. CE is also viewed as a model which will ensure effective and responsible management of resources, which is, as previously mentioned, a current burning issue in BiH. In general, according to stakeholders from the business realm, CE presents a huge opportunity for the country to further develop economically in a way which is conscious and responsible for both nature and people. The model is seen as tightly bound to the concept of (economic) development.

... "Bosnia and Herzegovina should focus on topics that can get us out of the economic crisis, which is circular economy" ... (Business1)

... "Circular economy can in the best way provide the country with opportunities and possibilities to use its local resources and develop in a way that is clean and responsible towards man and nature" ... (Expert1)

NGO's perceived CE model in a similar way, in regard to its potential reduction of the use of natural resources and general improvement in resource efficiency. However, in these interviews, an additional aspect of waste management was added to it.

... "Circular economy implies resource efficiency, which implies waste management" ... (NGO1).

5.3.2. Circular economy as synonymous with recycling

When asked about general perceptions of CE in the country, both among other relevant stakeholders and the general public, majority of interviewees replied that in most cases, CE is seen synonymous with waste management and recycling. It is seen as a way to solve the problem of inadequate waste infrastructure, low recycling levels, and illegal dumping practices currently present in BiH. While waste management is such a pressing issue in the country, many people are focusing on this as something that CE could potentially successfully address while overlooking other aspects of the model. Interviewees suggested that this could also be the case as waste management and recycling are fairly simple, everyday terms familiar to most stakeholders. At the same time, the general levels of knowledge on CE and its terminology are still quite poor among the majority of BiH's population. Additionally, one of the most prominent projects implemented in BiH, advertised and described as a CE project, is "Zero Waste Municipalities" carried out by CENER21 NGO and applied in three BiH's municipalities (CENER21 2021). According to interviewed stakeholders (two NGOs and one business), this might have affected the public perception of CE as an economic model solely addressing inadequate waste management and achieving zero waste.

... "When talking about circular economy in the country, we mostly talk about waste, which is an indication of how many people really don't understand the concept" ... (IGO1)

... "People, and even decision-makers, often equate the circular economy with recycling" ... (NGO3).

... "I have the impression that when talking about circular economy in the country, it is primarily understood as waste management, which is only a small segment of it. Little attention is paid to production processes, resource management and production of green products, which are key parts of circular economy. Municipalities with zero waste are mostly mentioned, which is primarily related to municipal waste management" ... (NGO4)

5.3.3. Interdisciplinary and holistic circular model

The overwhelming majority of interviewed stakeholders reflected on the holistic, interdisciplinary, and complex nature of the CE concept. Many stated that CE permeates all aspects of life, and a systematic change in both human behaviour and political, economic, and social organization is necessary for a successful transition to responsible and sustainable CE. Three NGO representatives and two experts pointed out that CE requires a change in how we live our lives by moving away from the convenience of the linear model and towards making responsible, mindful, and sustainable choices daily. Shared economy and minimizing ownership were mentioned as concepts that should be given priority in order to reduce the use of natural resources in production and move towards a more sustainable future. The shared economy was highlighted throughout the interviews as an ideal future system for consumers, especially in the cities. However, the shared economy can have significant negative social effects, such as unstable and unsecured employment, lack of responsibility for businesses, and reduced affordable long-term housing (Malhotra and Van Alstyne 2014).

By another NGO, CE was classified as integral for all aspects of the organization's day-to-day work, not only for topics directly related to the CE model. Additionally, most of the interviewed stakeholders, including the ministry, perceived CE as "the future" and a long-term solution, the only economic model that BiH should adopt, one that can successfully address both economic and environmental challenges facing the country and the world.

... "[CE] is quite comprehensive and complex, because it is not only the economy but everything in life" ... (IGO1)

... "For a circular economy transition, the mindset must change, both of ordinary people in the field and of decision makers" ... (NGO4)

... "The circular economy connects resources, energy and the environment, and we must strive for it and work for a better future" ... (NGO1).

Droege, Raggi, and Ramos (2021) conducted a study on perceptions of the necessity of CE assessment and found that the public sector is often seeing the CE model as just another short-term sustainability trend, which will be replaced by a different one in no time. However, these notions were not evident in CE perceptions in BiH, while all stakeholders recognized CE as a serious, necessary, useful, and long-term sustainable economic model. This is not to say that interviewed stakeholders had no issues or critiques towards CE implementation in BiH. However, they are mostly concerned with the country's political, administrative, and financial issues, not the model per se.

5.3.4. Circular economy as "nothing new"

Another interesting finding observed through stakeholders' discussions their perceptions and understanding of the CE concept is as follows. The majority of stakeholders did not describe the CE practices as new or invented. On the contrary, interviewees reflected on the similarities between CE practices and traditional customs and lifestyles already present in the country for hundreds of years. They provided examples of zero-waste life, sharing economy, and reuse and refurbishment of goods. These were, in most cases, an economic necessity for people but also a mindset based on the ethics of living in harmony with nature and polluting as little as possible. Different stakeholders claimed that due to the predominantly rural lifestyles in BiH, people were always conscious of their impact on nature, wanting to preserve and protect their living environment. This social mindset provides a solid foundation for BiH's transition towards the model, as people are familiar with such practices.

According to three interviewees (two NGOs and one expert), this spilled over to the business realm, resulting in many businesses nowadays implementing CE practices in their operations without recognizing them as CE. One expert pointed out this is an encouraging start, showcasing people's

willingness to move towards a more sustainable, alternative socio-economic system.

Furthermore, they highlighted the role of innovative approaches and technological solutions supporting and exacerbating this transition (Expert1).

... "Traditionally we [BiH's population] have, especially in rural areas, a connection with circular economy. We don't call it circular economy, but in that... let's say 'poverty' that most people have, we don't throw anything away, we use everything more than once, we practically still have it in our roots and tradition, the thinking that leads us to circular economy" ... (Expert1)

... "Circular economy is nothing new, it has been around for hundreds of years, it just didn't have that 'fancy name'" ... (IGO1)

... "When lectures on circular economy are held, many people say: 'Well, we already do that!'" ... (NGO4)

Van Langen et al. (2021) emphasized the importance of developing an environmentally favourable cultural approach that would engrain in people the values of care towards nature and humans. Alongside the government's imposed regulatory measures, this was deemed the most important driver of the CE transition. Genovese and Pansera (2019) build on this cultural approach, arguing for a more diverse set of CE formulation rather than "one size fits all concept". The new proposed frameworks of CE would consider power disbalances, cultural diversities, and normative aspects. In the context of BiH, the conducted interviews showcased a developed ecological culture among the population, in which traditions of respecting nature and adopting principles, such as reusing, refurbishing and reducing, are present in everyday lives. Moreover, BiH's national and local stakeholders (excluding IGOs' representatives) voiced a need for a different CE approach and definition, which is not practically rooted in EU hegemony.

5.3.5. Context-specific circular economy

While some actors highlighted the importance of innovation and new technologies in the successful spread of the CE model, others criticized this understanding, arguing that CE implementation in BiH should be simplified and specific to the context of BiH as a developing country. Two NGOs pointed out that the CE understanding and definition presented by the big regional or international actors (such as the EU or UNDP) should not be blindly accepted and integrated into local initiatives and projects. Interviewees argued that regardless of these organizations' financial and normative power, their regulation and general approach to CE should be critically evaluated by BiH's experts and authorities, logically and strategically adapting it to the national and local circumstances, considering cultural and normative aspects. In this context, capacity building, raising awareness, and connecting different national and local stakeholders in collaboration were highlighted as aspects on which future national strategies and programmes should primarily focus.

... "Circular economy already exists in Bosnia [and Herzegovina], and the people who do it should just be supported. They [EU and UNDP] are inventing hot water for something that already exists and just needs to be supported" ... (NGO5).

... "Cooperation, synergy and coordination between all stakeholders who have the same goal must be better. We need a comprehensive approach with regulatory measures, education, cooperation between all interested parties and infrastructure investments" ... (NGO1).

Even though the majority of stakeholders recognized the EU accession and utilization of funds as priority motivations of BiH's key actors, critiques towards the EU policies and strategies meant to be implemented in the country for the lack of a context-specific, inclusive CE were omnipresent during the interviews. Juncos (2011) builds on this notion, stating that EU policies implemented in BiH with the aim of increasing local capacities and developing ownership often fail to address the

interests and needs of the ones whom they target. Genovese and Pansera (2019) criticize the vagueness and generalization in EU CE policies, overlooking the social implications of the transition. The authors state, "According to EU institutions, CE is supposed to happen automatically in Western market economies. The role of people, class relations and power asymmetries, indigenous people, women, plants and animals are generally overlooked" (Genovese and Pansera 2019, 8).

One NGO representative pointed out that due to the lack of a systematic and integral approach to CE in the country, little is known about the current situation and, therefore the feasibility of implementing foreign-imposed programmes containing CE practices. Even when reports and assessments are published on this topic, they are mostly conducted by regional and international organizations and experts. Additionally, suppose national and local experts and organizations are included. In that case, they are often given the role of simple advisors or external consultants without much control and input on the assessment's final results. This is partly due to the low levels of awareness of the CE model and its importance among the scientific and research community in BiH. However, the national authorities' lack of financial funding for such projects presents a more significant issue.

5.3.6. Local perspective to circular economy

Three stakeholders (two NGO representatives and one expert) highlighted that a local, bottom-up approach to CE is necessary, which, according to them, regional and international organizations need to understand or address. The importance of small and achievable initiatives and projects was stressed. One NGO criticized UNDP's and EU's approach to CE, stating that many social aspects are overlooked in the imposed CE transition, such as recognizing and respecting the needs and expertise of local communities in BiH. Moreover, according to three other NGOs, due to the nature of foreign-funded CE projects, even when local and national organizations and authorities carry them out,

projects are often short-lived, without a proper monitoring and evaluation system in place ensuring the longevity of achieved results. Which often leaves local communities in disadvantageous positions. Additionally, as previously stated, national policymakers prioritise their obligations to the EU and any other foreign actor, which provides considerable financial support to CE projects. The content of these proposals, regulations, and obligations are often overlooked, not evaluated, or surface-level assessed by the ministries meant to adopt them, exposing themselves to criticism from other national and local stakeholders.

This unequal relationship between the EU and national decision-makers has been addressed in the literature, with Juncos (2011) critiquing the manner in which BiH's government accepts imposed policies, which are often created without considering the country's specific needs and issues. Juncos argues that due to the hegemonic nature of the EU and the amount of power it has over the Western Balkans countries, BiH leaders have no other option but to accept the proposed policies without trying to change their content.

… "For the most part, these documents are written by foreign experts, who write a wish list for Bosnia and Herzegovina that is the same as in Armenia and Azerbaijan and that is not adapted to our context. Maybe it is adapted to some EU directives, but the EU accession process should be negotiated. All those directives should not just be transferred to Bosnia [and Herzegovina] without any critical review. And in the end, you transfer all those directives to your legislature and sign agreements with 'figs in your pocket' without really wanting to commit and without really recognizing it as a potential and a need" … (NGO4).

5.3.7. Synthesis

Schulz, Hjaltadóttir, and Hild (2019) argue that actors' perceptions of CE are crucial in achieving holistic CE transition. Moreover, since there is still no universal definition and

conceptualisation of CE, it is important to explore different understandings of the concept to avoid "circular washing" or poor realization of circularity (Kirchherr et al. 2018; Prieto-Sandoval, Jaca, and Ormazabal 2018). A narrow focus on specific aspects of the model, such as waste management or reduced use of resources, can result in a technocratic perspective on CE, overlooking more critical environmental and societal concerns (Corvellec, Stowell, and Johansson 2022).

Stakeholders' understanding of CE was primarily connected to the "3R framework," i.e., reduce, reuse, recycle (Reike, Vermeulen, and Witjes 2018). CE was seen as an alternative economic model which would solve the burning issues of waste management and unsustainable resource extraction. The model is expected to bring economic benefits to the country, such as improving the competitiveness and strength of its internal market while at the same time improving the position of export-based businesses in foreign markets. Stakeholders noted that among the general public, the term is seen as synonymous with recycling as a phase of waste management. Similar findings on the public's understanding of CE were found in Uganda (Geme et al. 2023) and Italy (Van Langen et al. 2021).

Many stakeholders understood the CE model solely through a lens of the country's obligation to EU policies and strategies on CE – GAWB, i.e., the Sofia declaration. The interviewees from all groups heavily criticized decision-makers' seemingly blind acceptance of this EU-proposed model structure. The stakeholders argued for a non-hegemonic, inclusive, country-specific CE strategy that would be developed both for and by BiH's population, taking local communities and circumstances into account.

5.4. Relationship between sustainable development and circular economy

During the interviews, stakeholders were directly inquired about their understanding of the CE and SD relationship. However, even in their replies to other questions, themes of sustainability

and SD and their relations to CE emerged. After the data analysis, some common threads stood out, resulting in grouping the results into three perceptions of the CE and SD relationship. This chapter's findings align with previous research on the relationship between SD and CE in literature by Geissdoerfer et al. (2017). The author identified three overarching views of this relationship in literature, where CE is viewed "as a condition for sustainability, a beneficial relation, or a trade-off" (Geissdoerfer et al. 2017, 22).

5.4.1. Circular economy as a part of sustainable development

Three NGOs and two experts understood the relationship between SD and CE as them sharing a common goal. CE was characterized as a model of sustainability, which could help and guide people to a more sustainable future and living. Both terms were classified as interdisciplinary and complex, requiring devotion and critical thinking and a broad, holistic approach in their implementation. CE is a part of SD only if people harness it responsibly and adopt it as a philosophy of life, not just cherry-picking some of its aspects. To do so, people must set aside their personal interests and be guided by logic and reason (Expert1).

... "Circular economy helps us to be responsible and sustainable in the future. Sustainable development is a philosophy I learned from my ancestors and it is the only true path if we want future generations to have the opportunity to live on this planet" ... (Expert1)

Similarly, stakeholders believe that applying the CE principles is a way to ensure SD, while it's a concept that supports the demands and needs of modern society. It does so by providing different benefits to society, such as job creation, introducing morality into business, preserving and improving the environment, and developing empathy through practical care for future generations and ecosystems that depend on people. These benefits of CE were seen as directly contributing to SD. These interviewees saw SD as a necessity and the only viable path for humanity, one that requires a

systemic change and an interdisciplinary approach based on collaborative solid efforts from all stakeholders, including the general public. In this understanding, CE is seen as a subset of SD, as one of the possible contributors to the general aim of SD (Geissdoerfer et al. 2017). This view is in line with findings highlighted in research conducted by Millar, McLaughlin, and Börger (2019). The authors conclude by stating that CE should be seen as merely a more environmentally friendly alternative to SD, but not as an ideal tool of achieving it.

… "I believe that everyone's ultimate goal is sustainable development, because without it life on earth will not be possible in the future" … (Expert2)

5.4.2. Circular economy as a tool of achieving sustainable development

Most NGOs directly related CE as having more sustainable economic practices than the current linear model. They mentioned examples of sustainable extraction and use of resources as the main contribution to SD, as the ever-growing extraction and use of natural resources was recognized as one of the world's most pressing environmental and social challenges. Some NGOs and both IGOs perceived CE as a tool necessary for achieving SD goals while simultaneously providing economic growth and prosperity for the country, effectively bringing it out of underdevelopment. In this view, the implementation of circular practices is seen as a precondition of SD. Lieder and Rashid (2016) define the relationship between CE and SD similarly, with CE seen as improving both the economic performance of industries and businesses. This economy-centred view of the CE and SD relationship was evident in both rather small national NGOs and IGO delegations in the country alike. An interviewed representative from an IGO delegation in BiH stated that SD is the end goal of the CE model. However, the reasoning provided was the notion that SD would ensure the resilience of the economy, strengthening its capacity to absorb hits and overcome crises. The Ellen MacArthur Foundation and the EU both perceive CE similarly, emphasizing economic benefits provided by the

model, including the creation of new jobs (Ellen MacArthur Foundation n.d.; European Commission 2015).

… "In a nutshell, sustainability is the ultimate goal of circular economy ... what is the way out for an economy when the crisis comes? That is sustainability, which brings resilience to the economy" ... (IGO2)

Both IGOs reiterated the notion that CE strives to SD. However, monetary growth remains the primary goal of the economy, but the circular model will ensure that the economic impact on the environment is minimized, protecting the environment and the climate. Therefore, according to these stakeholders, economic growth can go hand-in-hand with reducing the negative effects of the economy on the environment and realizing SD i.e., decoupling is possible to achieve.

… "These are seemingly two completely opposite concepts [economic growth and environment protection] that must be put closer together and people must understand that it is not "either/or" but that it can go together" ... (IGO1)

This narrow, economy-centred understanding of SD can be classified as "weak sustainability perspective" while it does not assume radical change of the status-quo (Schröder et al. 2019). Additionally, Ghisellini, Cialani, and Ulgiati (2016) conclude that CE is not a good tool for growth-focused economies, and it "cannot be claimed to support further economic growth".

5.4.3. Circular economy without economic growth

Opposingly, NGO5 and Business2 vocalized a different view of SD and CE's relation to it, where the "development" part came second to ensuring the general sustainability of the social, political, and economic system. CE is still seen as a potential way of contributing to SD, where a society that functions in harmony with nature and respects social justice laws will be created.

However, it is not seen as synonymous or as sharing a common goal. Priority is given to the ecological and social dimensions of SD, seeing economic growth as an irrelevant and unwelcome factor. Continued depletion of resources as a consequence of economic growth is seen as unacceptable, and the problem of biophysical limits, i.e., planetary boundaries, is recognized (Kirchherr et al. 2018).

A certain dissatisfaction with how the CE model fails to address critical social aspects was expressed. Participatory and inclusive decision-making processes, equitable access to resources, and representation and involvement of different cultures and backgrounds were some of the social aspects stakeholders felt marginalized in the CE transition. The relevant literature has emphasized similar issues, concluding that it is still unclear how CE can contribute to certain social aspects of SD, such as ensuring social justice and equity (Geissdoerfer et al. 2017; Murray, Skene, and Haynes 2017; Korhonen, Honkasalo, and Seppälä 2018).

In this perception of CE and SD, the centrality of the economy is dropped, putting environmental protection and ensuring social well-being in focus. Long-term environmental and social aspects are regarded as superior to any short-term economic goals. Similarly, the CE model approach to economy and growth is seen as different from current neoliberalism policies, where every CE practice and action should have no negative impact on the environment. A need for a radical change in the system is recognized to move away from the current economic and world regimes. This understanding of SD can be classified as a "strong sustainability perspective" where in order to achieve SD, a profound systemic change of the current neoliberal economic model is needed (Schröder et al. 2019).

… "The term 'sustainable development' is a cliché, it is not even development but a sustainable state and harmony of nature and people" … (NGO5)

… "Circular economy could provide a different kind of growth, one that is not capitalist, not neoliberal, and only then can we talk about real sustainability" … (Business2)

Chapter 6: Conclusion

This research aimed to gain insights into BiH's transition towards sustainable CE by examining motivations, knowledge, and perceptions on CE and its relationship to the SD of stakeholders promoting the model. The study used qualitative research methods in semi-structured interviews with selected subjects. The discussion on findings was framed by the issue-based stakeholder theory, which emphasises the importance of stakeholders' interests in multi-stakeholder networks focused on achieving a common objective (Roloff 2008). Stakeholders' interests are defined by their knowledge, perceptions, and motivations. Exploring and understanding stakeholders' interests is considered crucial for a sustainable and holistic CE transition on all levels, while it directly influences their actions, engagement, and relationships (Marjamaa et al. 2021).

The research found that furthering the country's EU accession process was the overarching motivator for most stakeholders in BiH. This entails delivering on assumed CE promotion and implementation obligations described in the Sofia declaration on the GAWB. Additionally, CBAM was recognized as a primary motivator of export-oriented industries and businesses, forcing them to adopt more sustainable business models. Improving low rates of domestic resource productivity proved to be a prominent motivator, connected to strengthening the domestic market and encouraging value-creation, consequently lowering dependence on primary materials export. Motivations regarding specific, practical CE applications were primarily concerning waste management and recycling, which pose a huge issue for the country. Potential environmental and climate benefits of the model were not recognized as a primary motivator of interviewed stakeholders. However, the majority of stakeholders explicitly recognized the need for establishing a more sustainable, environmentally respectful society.

A need for deepening the knowledge of CE of all stakeholders, including the general public, was recognized through the research. Perceived knowledge levels of the public, i.e., consumers on

the concept and its benefits, are low. Perhaps the most staggering finding is the sub-basic knowledge level of decision-makers in BiH. At the same time, the governments are expected to take the lead role in CE transition by promoting the concept through different initiatives and incentives, something the BiH government is failing to do. There is no systematic approach to CE in the country, and civil society organizations and experts support the transition through a fragmented, individual-based approach. Establishing a national knowledge-sharing platform for the mutual exchange of interests, opinions, knowledge, and experience of different stakeholders and the public is necessary for furthering the understanding of CE and improving the chances of its holistic transition.

Stakeholders' understanding of CE was found to be primarily connected to the "3R framework," i.e., reduce, reuse, recycle. Stakeholders from the business realm perceived CE as an economic model capable of addressing the country's problems with waste and resource use while simultaneously improving its economy and furthering growth. However, many stakeholders reflected on the complex, intradisciplinary nature of CE, which requires a systemic change for its transition. All stakeholders were certain that CE is the future and the only viable economic model the country should adopt. A critique on the current understanding of CE within EU definition and imposed strategies was expressed, with stakeholders arguing for national and local actors assuming the leading role in the transition, focusing on socio-environmental aspects and local perspectives.

Three understandings of the CE and SD relationship by interviewed stakeholders were identified. The first is perceiving CE as a part of SD, one of the possible contributors to the model. SD and CE are seen as sharing a common goal. In this view, CE is understood as holistic, socially, and environmentally beneficial, while the economic goals are seen as important but subservient to those of sustainable development. The second view presents CE as an economic tool for reaching SD. SD here is understood from an economy-centred perspective, entailing further growth and resiliency of the economy. Social and environmental aspects fall into the background, and monetary growth

remains the primary goal of the economy. However, the circular model is envisaged to minimize the impact on the environment. This view is heavily based on the possibility of decoupling economic growth from environmental implications. The third understanding of CE and SD presents a picture where further economic growth is not welcomed. CE contributes to SD by restructuring the current economic system based on capitalist principles and values. Development in SD does not entail economic development but rather social and environmental well-being.

The research showed that stakeholders' motivations, perceptions, and knowledge range from the narrow view of CE as a provider of economic benefits to a bearer of systemic change and a contributor to the creation of a sustainable society, displaying both individual and common interests in the model. However, all stakeholders recognized the CE transition as beneficial and necessary, expressing irrefutable intention for its realization. Moreover, stakeholder engagement and cooperation through multi-stakeholder networks working towards a common goal will be crucial in achieving a holistic CE transition in BiH. At the same time, every actor plays a pivotal role in the transition. Governments from all levels must assume a more prominent role in the country by providing initiatives, setting up pilot projects, sharing knowledge, and creating a generally favourable atmosphere for CE activities in the country. The authorities should establish a systematic approach to CE in collaboration with all relevant actors, one that is not entirely based on strategies and recommendations of influential IGOs in the country but rather adapted to the national and local contexts. Based on the presented findings, the future approach to CE in BiH must be interdisciplinary, sustained, inclusive, social, environment-focused, culturally sensitive, and concrete.

This research contributes to deepening the current understanding of sustainable CE in the country and informs governments and policymakers about stakeholders' critical role in that transition. It also adds to the existing body of literature on the topic and, more specifically, CE implementation in transitional economies such as BiH. The research offers a valuable perspective on CE transition in

EU candidate countries, where CE implementation is heavily influenced by the power relations between the two. While the study sheds light on the need for more active government involvement in promoting and supporting CE transition in BiH, it serves as a reference for policymakers in designing and implementing effective CE initiatives and strategies. Additionally, it has the potential to further stakeholder collaboration by deepening the understanding of each other's interests and perceptions of a sustainable CE transition.

Possible avenues for further research include in-depth qualitative research on knowledge disparities among the general public in BiH. This would aid governments, policymakers, and NGOs in effectively addressing the knowledge gaps among the population through different strategies and incentives. Specific environmental and climate impacts of CE practices on BiH could be investigated, aiming to quantify environmental outcomes of CE activities, deepening the discourse on CE relationship to SD. A need for a long-term monitoring and evaluation system was recognized through the research. A potential research project could be establishing a systematic framework for long-term monitoring and evaluation of implemented CE policies in BiH, which would ensure the sustainability of the transition.

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Annex 1

Table 1: List of interviewed stakeholders (Source: Researcher's self development)

Stakeholder	Group	Abbreviation	Interview technique
Ministry of Foreign Trade and Economic Relations of BiH	Policy maker	Ministry	In-person
United Nations Development Programme in BiH	IGO	IGO1	In-person
Delegation of the EU to BiH	IGO	IGO2	Online
Dr. Sanela Klarić	Expert	Expert1	Online
Lorena Felić	Expert	Expert2	Online
Maja Halilović Biodizajn	Business	Business2	Online
Ekopak	Business	Business1	Online
Cener21	NGO	NGO1	Online
Lir Evolution	NGO	NGO2	Online
Center for policies and management	NGO	NGO3	In-person
Heinrich Böll Stiftung Sarajevo	NGO	NGO4	In-person
Center for Environment	NGO	NGO5	In-person

Annex 2

Checklist on Ethical Issues in Research

This checklist is intended as a guide for CEU students/researchers in planning, designing and carrying research, and for applying approval to the Ethical Research Committee. The numbers in brackets indicate the relevant section of the Guidelines on Ethical Research. In case applying for approval from the Ethical Research Committee, provide explanatory answers that enable the Committee to assess whether the Guidelines were followed.

A. General information

1. Project name/Title of thesis/dissertation:
Circular economy in Bosnia and Herzegovina: Exploring stakeholders' motivation, attitudes and behaviour
2. Name(s) of Applicant(s):
Dalija Delic
3. Contact information of applicants:
E-mail: delic_dalija@student.ceu.edu; Mobile: +38670412505
4. Department/Research Center:
Department of Environmental Sciences and Policy at CEU
5. Research Supervisor (if applicable):
Zoltán Illés
6. Supervisor's contact information:
E-Mail: illesz@ceu.edu
7. Date by which a decision on this application is required in order that the project can proceed as planned, if approval is required:
18. 5. 2023
8. Expected date of completion:
1. 6. 2023
9. Abstract of the project/thesis/dissertation:

The master thesis aims to explore current state of circular economy model and practices in Bosnia and Herzegovina through investigating relevant stakeholders' motivations, attitudes and expectations toward implementing circular economy in the country, while stakeholder collaboration is crucial for a systemic transition from current linear economic model to circular economy. Through this, the research will also investigate how sustainability is understood in the context of circular economy by key actors involved in the promotion of the model in Bosnia and Herzegovina.

B. Funding

10. Sources, researchers' and their organisation's financial interests and ethical issues in case of external funding:
No external funding is involved.

C. Participants
[If the research does not involve human subjects, go to section D.]

11. Does the study involve human subjects, and how? [Who will participate in the research? How will the subject/respondent group be chosen, what sampling techniques will be deployed? In which ways the participants will be involved? (2.1)
Yes, the study involves human subjects for purposes of conducted structured and semi-structured interviews. Subjects are selected trough stratified sampling method, selecting actors/stakeholders involved in promoting and implementing circular economy in the country. Preliminary list includes businesses, entrepreneurs, NGOs, EU representatives for the country, policy makers and ministries etc.
12. Are there potential benefits and hazards for the participants? [Are there risks to the subject entailed by involvement in the research? Have procedures been established for the care and protection of subjects? Will the participants be informed of possible risks and hazards?] (2.2 – 3.4)
It is not envisaged that participants would be in any risk that would be grater of that in their normal everyday lives. However, researcher will make sure that any risk regarding participation in research will be minimized. Participants will be informed of possible impacts and risks on their future (professional) life as a result of research ahead of time.
13. Does the research involve any risks or pose danger to the researcher(s)? [If yes, what procedures will be adopted to minimize the risks? Have the health and safety guidelines relevant to the area and character of the research been consulted and implemented?] (4)
No, the research does not involve any danger or risks to the researcher. Local health and safety guidelines have been consulted and implemented.
14. Will all procedures ensuring that consent is informed be followed? [Including the possibility for withdrawing consent] (5.1)
Yes, most definitely. Possibility of withdrawing consent will be included for the participants.
15. Are the recruitment procedures well planned, and risks of coercion considered? [Is there any sense in which subjects might be "obliged" to participate – or are volunteers being recruited? Does the participation of research involve financial or other remuneration?] (5.2)
Yes, process of informed consent will be strictly adhered to by the researcher prior to starting the interviews. The participation in research does not involve any financial or other remuneration.

16. Does the research involve incompetent adults, children or contexts where obtaining consent is impossible (i.e. public context, groups)? [Which "consent"-procedures will be applied instead?] (5.3 – 5.5)
No, the research will only involve competent adults.
17. Does the research involve deception? [This will not be applicable to many studies. In case deception of participants is involved: how is the impossibility to employ alternative non-deceiving method of research justified? How is the deception integral to the viability of research? Will debriefing be employed and how will the participant's reactions influence the use of the data obtained?] (5.6 – 6)
No, the research does not involve deception.
18. Will confidentiality and anonymity be secured?(8)
Yes.
19. Will data protection and storage requirements be followed? (8)
Yes.
20. Are there any plans for future use of the data beyond those already described?
Not right now.

D. Other Aspects:

21. Dissemination of findings: [What is the anticipated use of the data, forms of publication and dissemination of findings etc? In areas where information is jointly owned by participants as co-researchers attention should be paid to how they want to use the data.]
Collected data will be coded and analysed for the purpose of writing a master thesis. Publication is currently not envisioned. In dissemination of data, all relevant privacy rules of CEU's Data Protection Policy shall be followed, as applicable.
22. Have you considered how to ensure that ethics considerations are reviewed as the project proceeds? [This is particularly relevant for projects that go on over a longer time period.]
Field project including interviews with human subject as a part of this research is planned to last for less than 15 days. If needed, further ethics considerations will be included and updated as the project goes on.
23. Is there any other information, which you think would be relevant to the reviewers', or your own, consideration of the ethical issues raised in this documentation?

No.

DECLARATION
The information supplied above is to the best of my knowledge and belief accurate.

Signature of Applicant:

Date: