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EXPLORING DRIVERS AND BARRIERS TO CIRCULAR ECONOMY ADOPTION AMONG SMES: EVIDENCE FROM THE TWO4C PROJECT

Raden Ajeng Arimbi Dyah Lokashinta Wibisono, Agung Juliarto[1], Kees Tesselhof[1], Frank Gruben[1]

Department of Accounting, Faculty of Economics and Business, Diponegoro University
School of Finance and Accounting, Saxion University of Applied Sciences

ABSTRACT

Small and Medium Enterprises (SMEs) play a pivotal role in the transition toward a circular economy (CE), yet they often face significant barriers in adopting circular practices. This research explores the main drivers and barriers influencing CE adoption among SMEs engaged in the TWO4C project, a Dutch–German cross-border initiative aimed at accelerating circular transformation. Using survey data from SMEs in construction, electronics, plastics, metal, and wood industries, the study applies a descriptive quantitative approach.

Findings reveal that internal innovation culture, employee empowerment, and leadership support serve as critical drivers, while traditional mindsets, lack of knowledge, and operational inertia remain significant barriers. Participation in the TWO4C project provides indirect benefits by fostering peer learning, knowledge exchange, and collaboration across borders.

The study contributes to the literature by integrating four theoretical perspectives—Institutional Theory, Resource-Based View (RBV), Transition Management (TM), and Organizational Learning (OL)—to explain CE adoption dynamics. Practical recommendations are provided for SMEs, policymakers, and support institutions to strengthen innovation capabilities, shift cultural mindsets, and leverage cross-border collaboration to accelerate circular transitions.

Keywords: Circular Economy, SMEs, TWO4C Project, Drivers and Barriers, Resource-Based View, Institutional Theory, Transition Management, Organizational Learning

INTRODUCTION

Problem Description

SMEs represent over 99% of EU businesses and employ nearly two-thirds of the workforce (European Commission, 2020). Despite their importance, SMEs struggle to transition toward circular economy (CE) practices due to limited resources, lack of knowledge, and cultural resistance to change. The circular economy promotes minimizing waste, reusing resources, and regenerating natural systems (Ellen MacArthur Foundation, 2015), yet many SMEs remain bound to linear "take-make-dispose" models.

The TWO4C project seeks to address these challenges by supporting Dutch–German SMEs with tools, networks, and peer-learning platforms to encourage CE adoption. Still, little is known about how drivers and barriers interact within this cross-border initiative.

Research Questions

What are the key drivers and barriers to circular economy adoption among SMEs in the Netherlands and Germany, and how does participation in the TWO4C project influence this transition

[1] *Corresponding author*

Sub questions:

1. What are the main drivers that motivate SMEs in the Netherlands and Germany to adopt circular economy practices?
2. What are the main barriers that SMEs encounter in the adoption of circular economy practices, and how can these barriers be overcome?
3. How does the participation in the TWO4C project contribute to the adoption of circular economy practices by SMEs, particularly through cross-border collaboration and knowledge exchange?

Research Objective

The objective of this study is to explore and analyze the key drivers and barriers to circular economy adoption among SMEs in the Netherlands and Germany, and to assess the influence of the TWO4C project on these practices. The research aims to:

1. Identify and evaluate the main drivers that motivate SMEs in the Netherlands and Germany to adopt circular economy practices.
2. Assess the main barriers that SMEs face in adopting circular economy practices and identify strategies for overcoming these challenges.
3. Evaluate the impact of circular economy adoption on the sustainability and resilience of SMEs in the Netherlands and Germany.

THEORETICAL FRAMEWORK

Literature Review

This research is grounded in four theoretical perspectives. Institutional Theory (DiMaggio & Powell, 1983) emphasizes how coercive, normative, and cognitive pressures shape organizational behavior. In the context of SMEs, these pressures manifest through regulatory requirements, social expectations, and industry norms, all of which influence the extent to which firms engage in circular economy adoption.

The Resource-Based View (RBV) (Barney, 1991) stresses the importance of unique internal resources such as innovation capacity, leadership support, and organizational knowledge as sources of competitive advantage. SMEs that are able to leverage these internal assets are better positioned to implement circular practices effectively.

From a broader perspective, Transition Management (TM) (Rotmans et al., 2001) frames CE adoption as a multi-level transformation process. This theory suggests that successful transitions require not only incremental operational changes but also more profound tactical and strategic shifts within organizations and their external environments.

Finally, Organizational Learning (OL) (Argyris & Schön, 1978) highlights the crucial role of knowledge creation, sharing, and retention in enabling firms to continuously adapt to new principles and practices. For SMEs, building learning capabilities ensures that circular practices are not only introduced but also sustained over time.

Together, these perspectives provide a comprehensive framework for analyzing how SMEs navigate the complexities of CE adoption.

Empirical Findings

Empirical studies provide valuable insights into both the drivers and barriers of circular economy adoption among SMEs. Rizos et al. (2016) found that SMEs often face significant obstacles such as resource constraints, lack of information, and reliance on traditional business models, which limit their ability to transition toward circular practices. Kirchherr et al. (2018) emphasized the importance of regulatory frameworks and institutional support, arguing that external pressures and incentives can play a decisive role in accelerating CE transformation. Meanwhile, Cantú et al. (2021) demonstrated that internal factors such as leadership, creativity, and an innovation-oriented culture are essential drivers that enable SMEs to embrace circular models. Complementing this perspective, Bassi and Dias (2019) underlined the role of networks and collaboration in facilitating knowledge exchange and reducing uncertainties during

implementation. Together, these empirical findings provide a solid foundation for analyzing how SMEs in the TWO4C project confront challenges and seize opportunities related to CE adoption.

Conceptual Framework

Based on theoretical insights and prior research, this study develops a conceptual framework to investigate the factors that influence SMEs' adoption of circular economy practices within the context of the TWO4C project. The framework is organized around three interrelated dimensions. The first dimension, internal factors, refers to leadership commitment, organizational culture, knowledge and technical skills, and the availability of both financial and human resources. The second dimension, external influences, encompasses policy regulations, consumer expectations, peer influence, and institutional support, particularly those generated by cross-border initiatives such as TWO4C. The third dimension focuses on perceived benefits and barriers, which reflect the expected outcomes and perceived challenges of CE adoption, including operational costs, innovation potential, competitive advantage, and structural obstacles. Together, these dimensions provide a lens for understanding the drivers and constraints SMEs face when engaging in circular transformations. The framework not only guides the interpretation of findings but also serves as a foundation for developing practical recommendations that address both firm-level and systemic challenges in CE adoption.

Research Gap and Contribution

Although a growing body of literature has examined circular economy adoption among SMEs, most studies focus on national-level analyses or sector-specific cases. They tend to identify general enablers and barriers but pay limited attention to the ways in which CE adoption is shaped by localized support mechanisms, cross-border collaborations, or region-specific initiatives. In particular, the role of structured, transnational programs such as the TWO4C project has received little academic attention. Previous studies by Bassi and Dias (2019) and Zamfir et al. (2017) provide valuable macro-level evidence by highlighting variations in CE uptake across firm characteristics and national institutional contexts. However, these studies do not investigate how SMEs interact with targeted support programs, nor do they explore the interplay between institutional pressures, firm-level resources, and collaborative learning within transnational settings. Similarly, research by Cantú et al. (2021) and Scipioni et al. (2021) underscores the importance of contextual adaptation and organizational learning but is confined to single-country or sector-specific perspectives, leaving cross-border dynamics underexplored.

This study addresses these gaps by examining SMEs actively engaged in the TWO4C project, a Dutch–German initiative designed to accelerate circular transitions. By analyzing survey data collected from participating SMEs, the research provides empirical evidence of how internal drivers such as leadership and innovation capacity interact with external enablers including institutional support, peer networks, and regulatory guidance in a cross-border context. The study makes several contributions to the academic discourse. First, it enhances contextual specificity by shifting the analysis from general frameworks to a regionally embedded perspective, thereby showing how CE adoption unfolds in the distinctive governance and market conditions of the Dutch–German border region. Second, it illuminates cross-border dynamics, offering rare insights into how transnational collaboration and localized support programs shape SME behavior in CE implementation. Third, it advances theoretical integration by applying Institutional Theory, RBV, Transition Management, and Organizational Learning to provide a multidimensional understanding of CE transitions. Finally, it delivers practical insights for policymakers, regional planners, and project designers by offering recommendations for scaling CE adoption through context-sensitive strategies. Ultimately, this study advances both theoretical and practical knowledge of CE adoption among SMEs and contributes to the design of more effective interventions tailored to the realities of firms operating in collaborative, cross-border environments.

METHODOLOGY

Research Design

This study adopts a quantitative research design with a descriptive approach to explore the main drivers and barriers influencing the adoption of circular economy (CE) practices among SMEs. A structured survey was used as the primary tool for data collection, enabling a systematic and objective analysis of responses from a diverse group of SMEs participating in the TWO4C project. This design allows for the identification of patterns, frequencies, and relationships among variables relevant to CE adoption, aligning with the study's theoretical focus on internal firm capabilities and external institutional pressures.

Data Collection Method

The data for this research were collected through a standardized survey questionnaire distributed to SMEs participating in the TWO4C project. The survey included a mix of close-ended and scaled questions designed to capture respondents' perceptions, experiences, and challenges related to CE implementation. The survey was developed and administered by the TWO4C project consortium, ensuring its alignment with the project's goals and relevance to circular economy transitions.

The survey covered various themes, including innovation, stakeholder collaboration, external policy support, resource efficiency, and internal motivation for CE. For the purpose of this thesis, only responses directly relevant to **drivers and barriers** were selected for analysis. This focused approach enhances the precision and relevance of the findings to the research objectives.

Respondents were asked to rate each item on a six-point scale: *Almost Always True*, *Usually True*, *Often True*, *Rarely True*, *Almost Never True*, and *Don't Understand the Question*. This structure allowed for nuanced quantification of SME attitudes and behaviors toward CE.

Sampling Technique

This study employs a non-probability purposive sampling method, targeting SMEs that were directly involved in the TWO4C project. These firms were chosen based on their engagement in CE-related activities and their exposure to institutional support under the project, making them ideal participants for examining the interaction between internal capabilities and external influences in CE adoption.

The sample includes SMEs from various sectors such as construction, electronics, plastics, metal constructions or mechanical engineering, and wood. representing a diverse range of organizational structures and resource constraints. This sectoral diversity supports a comprehensive understanding of CE dynamics across industries operating within the Dutch-German border region.

Data Analysis

The collected data were analyzed using descriptive statistical techniques, including frequency distributions, means, and standard deviations, to summarize key characteristics and trends. Each driver and barrier was categorized based on the six-point response scale, and total responses per category were counted manually in Microsoft Excel. The distribution of answers was then reviewed to determine the most common perceptions across firms.

For deeper insights, cross-tabulations and correlation checks may be applied to examine potential relationships between types of firms (e.g., by sector or size) and their experience with specific CE drivers or barriers. Excel was used for all quantitative analysis tasks, providing a structured and replicable approach to data processing.

This empirical strategy allows the study to move beyond anecdotal evidence and offer evidence-based insights grounded in data collected directly from SMEs operating in a cross-border CE initiative.

Validity and Reliability

Ensuring the validity and reliability of the research instruments and data is essential for producing trustworthy results. The content validity of the survey was safeguarded by the TWO4C consortium, which included experts from academia, industry, and regional authorities. The survey

items were carefully designed to capture theoretical constructs such as institutional influence, internal readiness, stakeholder collaboration, and perceived implementation barriers, with many questions adapted from previously validated instruments in CE and innovation research. Construct validity was reinforced by limiting the analysis to questions directly related to drivers and barriers, ensuring alignment with the core objectives of the study. Reliability was supported through the standardized format of the survey, which relied primarily on closed-ended and scaled questions that minimized subjective interpretation. The uniform administration of the instrument across all participating SMEs further ensured consistency in responses. Although formal reliability statistics such as Cronbach's Alpha were not calculated due to the scope of the study, internal reliability was indicated by recurring themes and logical consistency across answers. The high completion rate and absence of major missing data, combined with clear and distinguishable trends in response patterns, strengthen the reliability of the findings. Moreover, the structured use of Microsoft Excel for data processing provided transparent documentation of each analytical step, thereby enhancing replicability and overall research credibility.

FINDINGS

Introduction

This chapter presents the results of the survey conducted among SMEs participating in the TWO4C project. It aims to answer the central research question: "What are the key drivers and barriers to circular economy adoption among SMEs in the Netherlands and Germany, and how does participation in the TWO4C project influence this transition?" The findings are organized around the main drivers and barriers identified through survey analysis, followed by a discussion linking these results to the theoretical framework and existing literature.

Respondent Overview

The dataset analyzed in this study consists of responses from SMEs engaged in the TWO4C project, representing diverse sectors including construction, electronics, plastics, metal constructions or mechanical engineering, and wood. The respondents varied in size, industry background, and geographical location within the Dutch-German border region, providing a broad view of SMEs' perspectives on circular economy (CE) adoption.

Survey Findings

Drivers of Circular Economy Adoption

The survey results reveal several internal and external factors that act as drivers for circular economy adoption among SMEs.

A significant majority of respondents indicated positive experiences regarding internal innovation culture:

- Encouragement to bring creative ideas was reported as "Usually True" or "Almost Always True" by most SMEs.
- Structured procedures for connecting new ideas to organizational purposes were widely acknowledged.
- Inspiration and exploration of new solutions without judgment were also commonly reported.

These findings suggest that SMEs participating in the TWO4C project benefit from an internal environment that supports innovation, creativity, and purpose alignment all crucial factors for embracing circular economy practices.

Table 1
Data Respondent for Drivers

DRIVER SUMMARY		Encouragement to Grow Talents	Clarity of Purpose	Collaborative Idea Building	Personal Vibrancy at Work
1	Almost Always True	90	140	84	75
2	Usually True	55	42	58	72
3	Often True	39	13	38	31
4	Rarely True	10	6	17	21
5	Almost Never True	3	0	0	1
6	Don't Understand Question	9	5	9	6

DRIVER SUMMARY		Trying and Learning from New Approaches	Unrealized Creative Ideas	Outcome-Based Incentives	Focus on Results and Improvement
1	Almost Always True	93	52	59	87
2	Usually True	60	41	70	64
3	Often True	39	52	61	44
4	Rarely True	11	47	6	8
5	Almost Never True	0	10	1	0
6	Don't Understand Question	3	4	9	3

DRIVER SUMMARY		Seeking Inspiration Broadly	Individual Creative Contribution
1	Almost Always True	23	45
2	Usually True	50	60
3	Often True	74	51
4	Rarely True	47	41
5	Almost Never True	4	4
6	Don't Understand Question	8	5

This innovation-friendly internal culture demonstrates a clear readiness to experiment with new approaches and reflects the presence of dynamic capabilities, a concept central to the Resource-Based View (RBV). Firms that actively nurture innovation, support employee creativity, and align new ideas with organizational goals are more likely to adapt successfully to complex transitions such as those required for CE.

These results echo the role of Organizational Learning (OL) in enabling CE transitions. The willingness to explore new solutions, coupled with clear mechanisms for integrating those ideas, shows how SMEs are building a culture of continuous learning an essential foundation for adopting circular business models and remaining competitive in evolving markets.

Barriers of Circular Economy Adoption

Despite strong internal support for innovation, the survey also highlighted the persistence of cultural inertia:

- In response to the statement "We do things the way they have always been done," a noticeable proportion still selected "Often True" or "Usually True."
- However, many also selected "Rarely True" or "Almost Never True," suggesting that while traditional practices exist, they are increasingly being challenged.

This duality indicates a transitional phase in organizational culture: some SMEs are actively questioning old habits, while others still struggle to break away from legacy systems and established routines. This is a classic example of cognitive lock-in described in Institutional Theory, where prevailing norms and belief systems continue to shape organizational behavior.

Table 2
Data Respondent for Barrier

BARRIER SUMMARY		Following Traditional Practices
1	Almost Always True	29
2	Usually True	15
3	Often True	68
4	Rarely True	63
5	Almost Never True	27
6	Don't Understand Question	4

Role of TWO4C Project Participation

Although the survey did not include items explicitly evaluating the impact of the TWO4C project, the overall positive responses regarding innovation culture and openness to new ideas suggest that SMEs may have benefited indirectly from their involvement in the initiative. The TWO4C project's emphasis on peer learning, cross-border cooperation, and knowledge exchange likely contributed to shaping a more innovation-friendly environment among participating SMEs.

This pattern aligns with the Organizational Learning (OL) framework, particularly through the activation of interorganizational learning mechanisms. By engaging with other SMEs, industry experts, and academic partners, participants likely experienced increased exposure to new practices and collaborative problem-solving. This learning-by-interaction process supports the knowledge transfer and retention required for effective circular transitions.

Additionally, the TWO4C project may have provided institutional scaffolding a form of normative and cognitive support that helps SMEs reframe CE adoption not just as a regulatory burden, but as a strategic opportunity. This role is consistent with Institutional Theory, where external institutions shape organizational behaviors by creating new norms and expectations.

Furthermore, TWO4C can be viewed as an enabler within the Transition Management (TM) framework, facilitating progress from awareness to action. Through capacity-building tools such as the Quick Scan and structured collaboration formats, the project may have catalyzed early-stage transformation by lowering perceived barriers, offering technical guidance, and fostering a collective learning ecosystem.

Although causality cannot be fully established through this survey alone, the findings strongly suggest that cross-border collaborative initiatives like TWO4C play a valuable role in enhancing SME readiness for circular economy adoption. For future research, incorporating pre/post participation comparisons or qualitative interviews would help assess these influences in more depth.

Discussion

The findings of this study reinforce existing literature that highlights the significance of internal innovation capabilities, organizational culture, and institutional support in shaping CE adoption among SMEs (Rizos et al., 2016; Kirchherr et al., 2018). From the Resource-Based View, innovation-friendly cultures, dynamic capabilities, and learning orientation emerge as key internal resources that position SMEs to adopt circular strategies. At the same time, Institutional Theory explains the persistence of traditional practices and cultural inertia, which remain major barriers despite the availability of external support.

The role of the TWO4C project appears particularly valuable in creating adaptive organizational climates by fostering openness to new ideas, collaboration, and peer learning. This aligns with Transition Management perspectives, where SMEs are gradually making operational and tactical adjustments but still require sustained support to achieve deeper strategic transformation. Finally, insights from Organizational Learning emphasize that knowledge sharing and reflection are central in overcoming resistance and uncertainty, enabling firms to experiment and innovate more confidently.

Overall, the results suggest that SMEs engaged in the TWO4C project are moving in the right direction but must continue to strengthen internal capabilities, address cultural barriers, and leverage cross-border collaboration to achieve long-term CE transitions.

CONCLUSION AND SUGGESTIONS

Conclusion

This study explored the drivers and barriers influencing circular economy (CE) adoption among SMEs through evidence from the Dutch–German TWO4C project. The findings show that innovation-oriented cultures, openness to creativity, and strong leadership act as key enablers, consistent with the Resource-Based View. At the same time, traditional business practices and entrenched routines remain major obstacles, as explained by Institutional Theory. While the survey did not directly assess the impact of TWO4C, the positive innovation climate observed among participants suggests that its collaborative format has indirectly supported cultural change, peer learning, and openness to new ideas, aligning with Organizational Learning and Transition Management perspectives. Overall, SMEs in the project demonstrate meaningful progress toward CE adoption, though sustaining momentum requires continued efforts to strengthen capabilities, shift cultural mindsets, and expand collaborative ecosystems.

Limitations and Suggestion

While this study provides valuable insights, several limitations should be acknowledged. The reliance on a quantitative survey restricted the ability to capture deeper organizational experiences that qualitative methods could reveal. The survey also did not directly measure the perceived impact of TWO4C, meaning conclusions about its role are indirect. Furthermore, the sample consisted only of SMEs already engaged in TWO4C, creating potential selection bias and limiting generalizability. Future research should adopt mixed-methods approaches, combining surveys with interviews to capture richer insights, and use longitudinal designs to track CE adoption over time. Comparative studies across different regions or countries would also clarify how varying policies, cultures, and institutions affect adoption. Addressing these gaps would strengthen academic understanding and provide more actionable guidance for policymakers and practitioners.

Based on the results, three recommendations are proposed to accelerate CE adoption among SMEs. First, firms should build on their innovation strengths by institutionalizing creativity and leadership support, ensuring that innovation is aligned with organizational purpose and sustainability goals. Second, cultural resistance must be addressed through engagement and awareness programs that reshape mindsets, share success stories, and create open dialogue across organizational levels, consistent with Institutional Theory's emphasis on normative change. Third, SMEs should fully leverage cross-border collaboration by participating in learning labs, mentorships, bilingual toolkits, and networking events that facilitate practical knowledge exchange. Programs like TWO4C can be further enhanced with policy support, funding, and regulatory

alignment. Together, these steps—strengthening innovation, shifting mindsets, and fostering collaboration—represent the most impactful levers for accelerating CE adoption among SMEs.

REFERENCES

Bassi, F., & Dias, J. G. (2019). The use of circular economy practices in SMEs across the EU. *Journal of Cleaner Production, 237*, 117582. https://doi.org/10.1016/j.jclepro.2019.117582

Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2016). A literature and practice review to develop sustainable business model archetypes. *Journal of Cleaner Production, 65*, 42–56. https://doi.org/10.1016/j.jclepro.2013.11.039

Cantú, M. G., Sasmita, A., Adawiyah, R., & Mulyadi, M. (2021). Circular economy implementation in SMEs: A systematic literature review. *Sustainability, 13*(2), 1021. https://doi.org/10.3390/su13021021

Cowan, D., & Vossen, B. (2018). Circular business models for small and medium-sized enterprises: A case study approach. *International Journal of Business and Social Science, 9*(3), 118–127. https://doi.org/10.30845/ijbss.v9n3p13

De Jesus, A., & Mendonça, S. (2018). Lost in transition? Drivers and barriers in the eco-innovation road to the circular economy. *Ecological Economics, 145*, 75–89. https://doi.org/10.1016/j.ecolecon.2017.08.001

Dey, P. K., Malesios, C., De, D., Budhwar, P., Chowdhury, S., & Cheffi, W. (2020). Circular economy to enhance sustainability of small and medium-sized enterprises. *Business Strategy and the Environment, 29*(6), 2145–2169. https://doi.org/10.1002/bse.2492

Ellen MacArthur Foundation. (2015). *Towards the circular economy: Economic and business rationale for an accelerated transition.* https://www.ellenmacarthurfoundation.org/assets/downloads/TCE_Ellen-MacArthur-Foundation.pdf

European Commission. (2020). *Small and medium-sized enterprises (SMEs).* Retrieved from https://ec.europa.eu/growth/smes_en

Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The circular economy – A new sustainability paradigm? *Journal of Cleaner Production, 143*, 757–768. https://doi.org/10.1016/j.jclepro.2016.12.048

Huisman, J., & Salvi, A. (2020). Cross-border collaboration in circular economy initiatives: Insights from the Netherlands-Germany border. *Sustainability, 12*(15), 6097. https://doi.org/10.3390/su12156097

Kirchherr, J., Reike, D., & Hekkert, M. (2018). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling, 127*, 221–232. https://doi.org/10.1016/j.resconrec.2017.09.005

Lieder, M., & Rashid, A. (2016). Towards circular economy implementation: A comprehensive review in the field of business models. *Journal of Cleaner Production, 115*, 36–51. https://doi.org/10.1016/j.jclepro.2015.12.042

Nuñez-Cacho, P., Molinero, C. M., Corpas-Iglesias, F. A., & Lopez-Gamero, M. D. (2018). Environmental management and circular economy: What do companies in the EU think? *Sustainability, 10*(11), 4011. https://doi.org/10.3390/su10114011

Rizos, V., Behrens, A., Kafyeke, T., Hirschnitz-Garbers, M., & Ioannou, A. (2016). Implementation of circular economy business models by small and medium-sized enterprises (SMEs): Barriers and enablers. *Sustainability, 8*(11), 1212. https://doi.org/10.3390/su8111212

Rizos, V., Behrens, A., Kafyeke, T., Hirschnitz-Garbers, M., & Wietschel, M. (2016). The circular economy: A new sustainability paradigm? *Resources, 5*(1), 16. https://doi.org/10.3390/resources5010016

Scipioni, A., Mazzi, A., & Mastrogiacomo, L. (2021). Organizational learning and the transition to a circular economy in SMEs. *Journal of Management and Governance, 25*, 1143–1164. https://doi.org/10.1007/s10997-022-09653-6

TWO4C. (2023). *Two4C project overview*. https://deutschland-nederland.eu/en/projects/two4c/

Zamfir, A. M., Mocanu, C., & Grigorescu, A. (2017). Circular economy and decision models among European SMEs. *Sustainability*, *9*(9), 1507. https://doi.org/10.3390/su9091507