CEDIS

Circular Economy in DIgital Storytelling

Desk Research
Poland

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Index

1. The context

The CEDIS project, which stands for Circular Economy in Digital Storytelling, aims to rethink key concepts such as 'circular economy', 'sharing', 'efficiency', 'sustainable development' and 'everyday behaviour' across Europe. The aim is to reduce the impact of climate change on participants' lives. Inclusion and diversity, environmental concerns, circular economy principles, digital storytelling methodology and digital conversion approach are the core pillars of the project.

In recent years, climate change has affected many regions of the world, resulting in various impacts. The Digital Storytelling School Education Methodology promoted by CEDIS emphasises collaboration and trust. It encourages teachers and students to consider forms of sharing and co-ownership within their protected contexts, as well as sharing assets based on their interests and living environments.

Digital storytelling has emerged as an important aspect of contemporary education, especially in secondary schools. It provides an interactive tool for expression and learning, combining traditional storytelling methods with digital media. In classrooms, the process begins with the selection of a topic relevant to students, ranging from historical events to personal reflections. Students engage in critical thinking and collaborate with peers, refining their stories until they are engaging and impactful.

2. The desk research

The main objective of this working paper was to research and compile general and national data, information, and resources related to Digital Storytelling (DST) as a learning methodology and Circular Economy (CE) as a topic for secondary education.

Project partners investigated previous experiences of using DST to teach Circular Economy across different fields and sectors. The collected material provided an up-to-date overview of digital tools and software, particularly mobile applications, suitable for DST. These tools were analyzed in terms of accessibility for students, ease of installation and use, cost-effectiveness (preferably free), and relevance to current trends in media consumption, such as the shift among young people from platforms like YouTube to TikTok. This analysis contributed to improving teachers' and students' media literacy, including awareness of open-source versus proprietary software and platform-based economies.

Partners selected and documented a set of Best Practices (three per country) related to DST and Circular Economy education, including national initiatives and learning materials available in each partner's language. The research also examined how Circular Economy and Sustainability topics were addressed across different national school curricula, acknowledging country-specific priorities and practices (e.g. plastic waste, electronic waste, sharing economy).

In addition, six video interviews with national experts or activists (one per partner country) were conducted to provide professional insights into DST and Circular Economy. An exemplary list of potential topics for student-produced digital stories and a list of suitable digital tools for their dissemination were also developed.

The desk research consists of 4 different sections

- **DST in the Secondary School Context.**

Report on up-to-date, existing digital tools and devices to apply DST in schools, descriptive types of Digital Stories and their current use in secondary schools and usability in the classroom.

- **Collection of Best Practices.**

Collection of Best Practices of Digital Storytelling on Circular Economy in any field or sector.

- **National Reports about Education.**

Six National Reports about Education on Circular Economy in Secondary Schools (English and the six

project's national languages).

- **Interview with a national expert.**

Collection of high-quality Video Interviews to national experts/activists on Digital Storytelling and on Circular Economy. 1 for each partner

3. Key Findings on DST in the Secondary School Context

3.1 The use of DST in the Secondary School Context.

DST in the context of secondary schools in Poland represents an innovative approach to education. This method has seen increasing adoption across various educational levels, including secondary schools, as educators seek to enhance student engagement, creativity, and learning outcomes.
The integration of DST in secondary education is in line with broader educational reforms aimed at integrating digital skills and critical thinking into the curriculum. DST allows students to create their own narratives using digital tools such as video editing software, computer applications, and a variety of digital devices, supporting not only technical skills but also promoting creativity and personal expression.
Specifically, Polish educational initiatives have started to emphasize project-based learning, where DST can play a pivotal role. Through projects involving digital storytelling, students work on real-world problems, enhancing their ability to research, collaborate, and communicate effectively. This approach has been supported by various educational programs and workshops offered by both governmental and non-governmental organizations aimed at training teachers in digital literacy and storytelling techniques.
Moreover, the use of DST in Polish secondary schools is not confined to language arts or ICT classes. It extends across various subjects, including history, social studies, and even science, allowing for interdisciplinary projects that engage students in deeper learning experiences. For example, in history lessons, students can create digital stories to explore and present historical events from different perspectives.
Unofficial evidence from country suggests that it is positively received by both students and teachers. The method is gaining more and more adherents every year, and its use is expanding to a growing number of school subjects and extracurricular activities. Teachers successfully use DST, for example, during school remedial classes for underperforming students. The method's ability to meet the needs of different learning styles indicates a promising future for DST in Polish education.

3.2 Types of Digital Stories

Digital stories in Polish secondary schools come in a variety of formats, each corresponding to different educational objectives and strategies for engaging students. They are varied in order to effectively achieve educators' intended lesson objectives, and to suit learners' preferences. The feedback received is therefore important in this context. These types of DSTs include, in particular:

- Personal narratives: Students create digital stories reflecting on their personal experiences, opinions, or growth. This type is widely used in literature and language arts classes to develop students' narrative skills, creativity, and self-expression.

- Historical documentaries: In subjects like history and social studies, students use digital storytelling to explore and present historical events, figures, or eras. These projects often require research, analysis, and synthesis of information, fostering critical thinking and a deeper understanding of historical contexts.

- Explainer videos: Common in science and mathematics classes, explainer videos allow

students to delve into concepts or processes, explaining them in an accessible and engaging way. This type encourages students to understand and communicate complex ideas clearly.

- Instructional guides: Utilized across various subjects, these digital stories provide step-by-step explanations or tutorials on specific tasks or skills. They encourage students to become teachers themselves, reinforcing their understanding by teaching others.

- Public Service Announcements (PSAs): Addressing topics from health education to social issues, PSAs empower students to leverage digital storytelling for advocacy and awareness campaigns. This application promotes civic engagement and persuasive communication skills.

In the Polish educational context, these digital storytelling types are integrated into curricula to enhance digital literacy, critical thinking, and creative expression. They align with the national educational reform goals, aiming to prepare students for the digitalized world. The use of digital stories in secondary schools is supported by teacher training programs and digital tools, facilitating innovative teaching methods that resonate with contemporary learners.

3.3 Usability of DST in the classroom

In Poland, teachers are using DST to enrich students' learning experiences, develop digital fluency and stimulate deeper engagement with academic content through the art of narrative storytelling. This serves as an innovative pedagogical tool, combining technology with traditional teaching methods to foster a dynamic and interactive learning environment.

Examples of DST application in Poland are diverse and impactful. By incorporating DST into *creative writing and literature lessons*, Polish teachers enable students to bring their narratives to life digitally. This method allows for a deeper exploration of literary concepts, characters and themes, enhancing students' analytical and creative abilities. It also provides a platform for students to develop multimedia storytelling skills, combining text with visual and audio elements to convey their stories in a more vivid way. In the context of *history and social studies*, DST becomes a powerful tool to connect students to past and present social issues. By creating digital stories, students can embody different historical characters or represent different points of view, fostering empathy and a multi-faceted understanding of historical events and social dynamics. The use of DST in *language classes* in Poland offers students a unique opportunity to practice and improve their language skills. Creating stories in a foreign language not only helps to expand vocabulary and grammatical fluency, but also to acquire pronunciation and cultural nuances. This approach encourages students to take an active role in language learning, promoting confidence and fluency through creative expression.

Furthermore, the implementation of DST in Polish education underscores the importance of digital literacy in today's technology-driven world. It prepares students for future challenges by equipping them with essential 21st-century skills such as critical thinking, digital competence, and effective communication. Through DST, students are encouraged to think critically about the content they consume and create, fostering a sense of digital citizenship and responsibility.

3.4 Digital tools and devices

1.	
Name	Canva
Description (up to 500 characters)	Canva is a user-friendly graphic design tool that enables users to create visually appealing content ranging from social media graphics to presentations. It offers a vast library of templates, images, fonts, and design elements. Canva supports collaboration, allowing teams to work together in real-time. Its accessibility across devices and platforms makes it a go-to solution for both beginners and professionals looking to enhance their digital content.
Keywords	design, collaboration, templates, accessibility, creativity
Language(s)	the tool is supported in multiple languages, including English, German, Spanish, Polish, Italian, French
Best suited for (name comma-separated tasks that can be achieved with the use of this tool)	creating creative projects, creating presentations, creating posters, creating infographics, creating short videos, graphic design, photo editing, creating educational resources
Ease of use (provide a rating of 1 = very easy to use, 5 = extremely hard to use)	1
Price (put 0 for a free tool)	the tool can be used for free, but the PRO version is chargeable (the fee is $119.99 per year per person)
Logo of the tool	
Link	https://www.canva.com/

2.	
Name	Genially

2.	
Description (up to 500 characters)	Genially is a versatile online platform designed for creating interactive and visually appealing digital content, including presentations, infographics, and educational materials. It offers a wide array of multimedia integration options, customizable templates, and collaboration features, making it ideal for educators, marketers, and professionals seeking to enhance audience engagement. With its user-friendly interface and analytics capabilities, Genially empowers users to craft dynamic content that captivates and informs.
Keywords	interactivity, multimedia integration, templates, collaboration, analytics
Language(s)	English, Spanish, French, Portuguese, Italian, German
Best suited for (name comma-separated tasks that can be achieved with the use of this tool)	creating interactive online presentations, creating infographics, creating videos, gamification, interactive pictures, creating newsletters
Ease of use (provide a rating of 1 = very easy to use, 5 = extremely hard to use)	2
Price (put 0 for a free tool)	0
Logo of the tool	
Link	https://genial.ly/

3.	
Name	Prezi
Description (up to 500 characters)	Prezi is a dynamic presentation tool that reimagines how stories and ideas are shared. Unlike traditional slide-based software, Prezi uses a zoomable canvas, allowing presenters to navigate through topics non-linearly, creating a more engaging and memorable storytelling experience. Its visual-centric approach supports rich media integration, from images and videos to graphs, making complex ideas easier to understand. Collaboration features enable teams to co-

3.	
	create and edit presentations in real-time, fostering creativity and ensuring a cohesive narrative flow.
Keywords	interactive presentations, visual storytelling, collaboration, zoomable user interface, non-linear navigation
Language(s)	Prezi is available in multiple languages, allowing users to create presentations in their native language
Best suited for (name comma-separated tasks that can be achieved with the use of this tool)	creating infographics, creating dynamic online presentations, creating collaborative projects, interactive storytelling, visual brainstorming, training sessions, educational lectures
Ease of use (provide a rating of 1 = very easy to use, 5 = extremely hard to use)	2
Price (put 0 for a free tool)	Basic version: $0/month Standard version: $5/month Plus version: $12/month Premium version: $16/month 14-day free trial period possible
Logo of the tool	
Link	https://prezi.com/

4.	
Name	Mentimeter
Description (up to 500 characters)	Mentimeter is an interactive presentation tool that excels in storytelling by engaging audiences through real-time feedback and interactive quizzes. It allows presenters to wrap interactive elements into their narratives, creating dynamic and participatory storytelling experiences. Users can incorporate polls, questions, and slides, encouraging audience participation and making the story more relatable and memorable. This tool transforms passive listeners into active participants, enriching the storytelling process with diverse perspectives and instant engagement.
Keywords	audience engagement, real-time polling, interactive presentations, feedback collection, quiz and survey creation
Language(s)	English, Spanish, French, German, Dutch, Portuguese, Swedish, among others
Best suited for (name comma-separated tasks that can be achieved with the use of this tool)	creating interactive presentations, actively engaging the audience, getting real-time feedback, brainstorming sessions, workshop activities quizzes, Q&A sessions
Ease of use (provide a rating of 1 = very easy to use, 5 = extremely hard to use)	3
Price (put 0 for a free tool)	Free version: $0/month Basic version: $11.99/month Pro version: $24.99/month Premium version: $16/month
Logo of the tool	
Link	https://www.mentimeter.com/

5.	
Name	Adobe Spark
Description (up to 500 characters)	Adobe Spark is a versatile, user-friendly online platform designed to empower users to create stunning visual content effortlessly. It combines the functionalities to design graphics, web pages, and short videos in one intuitive interface. Perfect for educators, students, and professionals, Spark enables the creation of professional-looking presentations, social media posts, and visual materials without the need for advanced design skills. With its array of templates and easy-to-use design elements, Adobe Spark transforms ideas into captivating stories and visual projects.
Keywords	graphic design, video editing, digital storytelling, content creation, web development
Language(s)	English, Spanish, French, German, Italian, Portuguese, Dutch, Japanese, Korean, Chinese (simplified)
Best suited for (name comma-separated tasks that can be achieved with the use of this tool)	graphic design, web page creation, short video production, social media content creation, educational presentations, promotional materials, personal storytelling, event invitations, project portfolios, classroom projects
Ease of use (provide a rating of 1 = very easy to use, 5 = extremely hard to use)	3
Price (put 0 for a free tool)	unlimited use of Adobe Spark is available for free a Premium plan is also available, you get 30 days for free and then pay US$9.99 per month
Logo of the tool	
Link	https://spark.adobe.com

4. Collection of Best Practices of Digital Storytelling on Circular Economy

4.1 Introduction to the selection of the best practices

The collection of best practices in digital storytelling on the circular economy showcases innovative and effective approaches to communicate the principles and benefits of this sustainable model. The selection criteria for these best practices were meticulously chosen to highlight initiatives that not only educate and inspire but also drive actionable change towards a more sustainable future.

The primary criterion was the relevance of the storytelling to the circular economy, focusing on narratives that clearly demonstrate circular principles such as reduce, reuse, recycle, and recover. Projects were selected based on their potential impact on public awareness, understanding, and motivation to adopt circular economy practices. Emphasis was placed on the use of creative and innovative storytelling techniques that engage audiences in compelling ways. This includes the use of multimedia elements, interactive platforms, and unique narrative approaches that captivate and educate simultaneously. Furthermore, best practices were chosen based on their ability to reach a wide audience, including non-specialists. Projects that made complex concepts accessible and engaging to the general public were prioritized, as well as those that encourage inclusivity and participation from diverse groups. The sustainability of the storytelling approach itself, in terms of environmental impact and resource use, was considered. Additionally, practices that demonstrated potential for scalability and adaptation by other communities or sectors were highly valued. Finally, the effectiveness of each initiative in conveying the message of the circular economy was a key selection criterion. This includes clarity of the message, the emotional and intellectual engagement of the audience, and the ability to inspire action.

These initiatives serve as benchmarks for future efforts to communicate sustainability and environmental stewardship through the powerful medium of storytelling.

4.2 Best practices

1	
Case study name	The Circular Economy Stories by the Circular Economy Club (CEC)
Description of the context in which the best practices have been developed	The Circular Economy Club (CEC) launched "The Circular Economy Stories" initiative to share success stories, innovative practices, and educational insights into the circular economy from around the world. The project aims to inspire action and foster a global community of practice by highlighting real-world examples of circular economy principles in action.

Location	Global
How the methodology of DST have been used to develop contents related to the Circular Economy	CEC employs digital storytelling through various formats, including video interviews, written case studies, and interactive webinars. These stories feature insights from entrepreneurs, businesses, policymakers, and educators who are leading the way in circular economy implementation. The DST approach is used to make the circular economy concept tangible and relatable, showcasing the diverse ways in which circular principles can be applied across different sectors and cultures.
Target group involved	The target audience is circular economy enthusiasts, professionals, businesses, policymakers and the general public interested in sustainability and circular practices.
Three most important issues the case study addresses	• Innovation in Circular Economy: Highlighting innovative business models and technologies that promote resource efficiency and waste reduction. • Policy and leadership: Showcasing how leadership and policy initiatives can drive the adoption of circular economy practices. • Education and community engagement: Demonstrating the role of education in spreading circular economy principles and engaging communities in sustainable practices.
Outcomes of the case study (link)	The initiative has successfully raised awareness of the circular economy, connected a global community of circular economy practitioners, and facilitated knowledge exchange and collaboration. It has inspired businesses and governments to adopt circular practices and contributed to the growing momentum of the circular economy movement worldwide. https://www.circulareconomyclub.com/gd-home/about-cec/
Key words (or hashtags) related to the case study	#CircularEconomyClub #CECStories #CircularEconomy #Sustainability #Innovation

2	
Case study name	Rekopol Organizacja Odzysku Opakowań S.A.
Description of the context in which the best practices have been developed	Rekopol Organizacja Odzysku Opakowań S.A. is a prominent example of Poland's commitment to the circular economy, focusing on the recovery and recycling of packaging waste. Established as part of Poland's broader strategy to enhance recycling rates and reduce landfill use, Rekopol plays a critical role in

	managing the lifecycle of packaging materials, from collection through to recycling and re-use.
Location	Nationwide operations across Poland
How the methodology of DST have been used to develop contents related to the Circular Economy	While not exclusively a digital storytelling project, Rekopol's initiatives are often showcased through various media and educational campaigns that highlight the importance of recycling and the circular economy. Through their website, social media channels, and collaborations with schools and communities, Rekopol educates the public about responsible waste management and the benefits of recycling, using stories and case studies to engage and inform.
Target group involved	The target groups include consumers, businesses (especially producers and retailers), educational institutions, and local communities across Poland.
Three most important issues the case study addresses	• Waste reduction: Promoting the reduction of waste generated by packaging. • Recycling and recovery: Enhancing the infrastructure and processes for recycling packaging materials. • Public awareness and education: Raising awareness about the importance of recycling and engaging the public in sustainable waste management practices.
Outcomes of the case study (link)	Increased recycling rates for packaging materials, greater public engagement with recycling programs, and contributions towards Poland's environmental sustainability goals. https://kampania17celow.pl/parter-glowny-rekopol-organizacja-odzysku-opakowan-s-a/
Key words (or hashtags) related to the case study	#Rekopol #RecyclingPoland #CircularEconomy #SustainablePackaging #WasteReduction

3	
Case study name	Eco-educational initiatives in Gdańsk
Description of the context in which the best practices have been developed	The city of Gdańsk has been active in incorporating sustainability and circular economy principles into its urban development and educational programs. These initiatives aim to engage the community in sustainability practices, reduce waste, and promote recycling and reuse. While this example may not represent a case study of digital storytelling in the strictest sense, it illustrates how digital platforms and content can play a role in educating and engaging the public around sustainability and the circular economy in a Polish

	context. Poland's growing focus on sustainability and the circular economy is likely to inspire more targeted digital storytelling projects in the future.
Location	Gdańsk, Poland
How the methodology of DST have been used to develop contents related to the Circular Economy	While not a single case study focused solely on digital storytelling, Gdansk's approach includes using digital platforms, social media, and online educational resources to spread awareness about the circular economy. This includes interactive campaigns, informational videos, and online workshops aimed at educating the public and encouraging sustainable practices.
Target group involved	The initiatives target a wide audience, including schoolchildren, families, local businesses, and the general public in Gdansk and the surrounding areas.
Three most important issues the case study addresses	● Environmental education: Integrating circular economy concepts into the educational system to cultivate a sustainability-minded generation. ● Community engagement: Encouraging active participation in recycling, waste reduction, and sustainable urban living. ● Policy and implementation: Developing and implementing policies that support circular economy practices in urban development and waste management.
Outcomes of the case study (link)	These initiatives have led to increased public engagement in sustainability practices, improved waste management and recycling rates, and the development of policies supporting the circular economy in Gdańsk. https://informacja-lokalna.pl/co-slychac-w-pilotazu-programu-zielonej-edukacji-hevelianum-raportuje-17-01-2024/
Key words (or hashtags) related to the case study	#GdanskGreenCity #CircularEconomyPL #SustainableGdansk #EcoEducation #PolandRecycles

5. National Reports about Education on Circular Economy in Secondary Schools

5.1 Introduction

Circular Economy Education in secondary schools in Poland represents a pioneering approach towards integrating sustainable development principles into the national educational framework. Recognizing the critical role of younger generations in shaping a sustainable future, the Polish education system has embarked on embedding circular economy concepts into secondary education curricula. This initiative is driven by Poland's commitment to the European Union's directives on environmental sustainability and circular economy, aiming to transition from a linear model of consumption to a more sustainable, circular model. Through subjects such as biology, geography, and technology, students are introduced to the principles of reducing waste, reusing resources, and recycling materials to minimize environmental impact. Innovative teaching methodologies, including project-based learning, workshops, and collaborations with local businesses and environmental organizations, are employed to provide students with practical experience in circular economy practices. This educational shift not only equips Polish youth with the knowledge and skills necessary for participating in a sustainable economy but also fosters a sense of environmental stewardship and responsibility towards future generations. By integrating Circular Economy Education into secondary schools, Poland is taking significant steps towards achieving its sustainability goals and preparing students to contribute to a more resilient and environmentally conscious society.

5.2 From Linear to Circular Economy, the directive of the Ministry of Education

The Polish government's guidelines for transitioning from a linear to a circular economy are anchored in a comprehensive strategy that emphasizes sustainability, resource efficiency, and innovation. Central to this transition is the adoption of the "Closed Loop - Circular Economy" policy, which sets forth specific objectives and actions designed to minimize waste and maximize the reuse and recycling of resources across various sectors of the economy.

Key components of the policy include:

- Introduction of laws and regulations that encourage the adoption of circular economy practices. This includes incentives for businesses to design products that are easier to repair, reuse, and recycle, and the implementation of stricter waste management regulations to reduce landfill use.
- Financial mechanisms such as subsidies, grants, and tax benefits are provided to support businesses that adopt circular economy models. This includes funding for research and development in sustainable materials and technologies, as well as support for startups and SMEs that contribute to the circular economy.
- Educational programs and campaigns are launched to raise awareness among consumers, businesses, and policymakers about the benefits of the circular economy. This involves integrating circular economy principles into educational curricula and providing training for workers in sectors transitioning towards more sustainable practices.
- The government promotes collaboration between public entities, private sector businesses, academic institutions, and NGOs to foster innovation and share best practices in the circular economy. This includes the creation of platforms and networks for knowledge exchange and joint projects.
- Investment in research and development of new technologies and solutions that facilitate the transition to a circular economy. This includes support for sustainable product design, renewable energy, and waste-to-energy technologies.

With the implementation of these guidelines, the Polish government aims to transform the national

economy into a more sustainable, resilient and globally competitive one.

5.3 Conceptual Background of Circular Economy in (Poland)

The conceptual framework of the circular economy in Poland is rooted in the transition towards sustainable development, aiming to reduce environmental impact and enhance economic resilience by redefining growth and focusing on positive society-wide benefits. This framework is built on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems. In practice, it involves a systemic shift across various sectors — from manufacturing and energy to agriculture and waste management — encouraging innovation and efficiency in the use of resources.
Poland's approach to the circular economy is aligned with the European Union's action plan but tailored to its unique economic, environmental, and social contexts. It encompasses a broad range of policies, initiatives, and practices, including promoting recycling, developing green technologies, and encouraging sustainable consumption and production patterns. Furthermore, the framework places a strong emphasis on collaboration among government entities, businesses, academic institutions, and civil society to foster a culture of sustainability. Through educational programs, financial incentives, and legislative measures, Poland aims to facilitate the integration of circular economy principles into the fabric of Polish society, driving towards an economic model that is not only environmentally sustainable but also economically viable and socially inclusive. Such a holistic approach underlines the country's commitment to playing an active role in the global transformation towards a more sustainable, closed-loop future.

5.4 Circular Economy and Sustainable Development

The comprehensive approach of Poland to the development of the circular economy and sustainable development is characterised by a strategic combination of policy integration, stakeholder engagement and innovation. The country has actively aligned its national strategies with the European Union's ambitious circular economy package and the Sustainable Development Goals (SDGs) to foster an economy that is restorative and regenerative by design. Specifically, Poland has implemented policies that incentivize businesses to adopt circular practices, such as reducing waste, enhancing recycling, and encouraging the development of sustainable products and services. The government has also focused on modernizing its waste management systems and promoting energy efficiency across various sectors. Furthermore, Poland has invested in research and development to spur innovation in green technologies, recognizing the role of scientific advancement in facilitating a transition to sustainability. Public-private partnerships play a crucial role in this transition, with collaborations aimed at driving circular initiatives in industries ranging from manufacturing to energy. Educational campaigns and programs are also integral, aiming to raise awareness among citizens and businesses about the benefits of sustainability and circular economy practices. Integrating all these efforts, Poland is not only working to reduce its environmental footprint, but is also increasing its economic competitiveness and ensuring social well-being. At the same time, Poland strives to create a balanced approach to sustainable development within its borders.

5.5 (Poland) perspectives On Circular Economies

Poland's perspective on the Circular Economy is deeply integrated with its strategic frameworks, notably through the implementation of the Closed Loop Economy (GOZ) model and the National Reconstruction Plan (KPO). The GOZ model serves as a foundational pillar for Poland's transition towards a sustainable, resource-efficient economy, emphasizing the importance of minimizing waste, extending product lifecycles, and fostering the recycling and reusing of materials. This approach aligns with Poland's broader environmental objectives and its commitment to the European Union's circular economy goals, focusing on innovation, sustainability, and competitiveness. The National Reconstruction Plan (KPO), a strategic initiative designed to fuel Poland's post-pandemic recovery, further encapsulates the country's ambition towards circularity. It allocates significant resources towards green investments, digitalization, and sustainable infrastructure projects that are pivotal for the circular transition. The KPO underscores the synergy between economic recovery and sustainability, aiming to propel Poland towards a greener, more digital, and resilient future. By weaving the principles of the circular economy into these strategic frameworks, Poland is not only targeting environmental benefits but also envisioning a holistic economic transformation. This integrated approach highlights Poland's proactive stance on adopting circular economy practices, focusing on reducing environmental impact while stimulating economic innovation, improving resource efficiency, and enhancing the quality of life for its citizens. Through the GOZ model and the KPO, Poland is setting a clear path towards a sustainable and circular economy, marking significant steps in its journey towards environmental stewardship and economic resilience.

6. Interview with a national expert/activist on Digital Storytelling and on Circular Economy.

6.1 Introduction of the expert

Krystyna Khorrami is an expert in circular economy at the Polish Ecology Association and University Professor. Her scientific activities are complemented by cooperating with business and administration as a trainer and consultant.
She is also active in Erasmus initiatives at the Technical University of Rzeszow, and has coordinated the TOUCAN project (The future of tOUrism without a CArbon footprint), no. 2021-1-PL01-KA220-VET000025053, which was implemented 01.01.2022 – 01.01.2024. The project was initiated for the tourism sector to promote circular economy solutions in order to make the tourism sector more sustainable and in line with the environmental objectives set by the EU.

6.2 Interview highlights on the Circular Economy

In the interview, the expert highlighted that the formation of the young generation's awareness of sustainable development relies on two key areas: formal education and practical experience. According to her, it is important that young people receive adequate education at the elementary, secondary and

higher school levels to help them make environmentally conscious decisions. At the same time, she noted that the environment in which young people function on a daily basis is equally important, as it is their daily experiences and practices that have a major impact on their attitudes.

She noted that significant changes have been made in Poland's education system to allow young people to acquire the necessary knowledge and skills for circular economy. Educational programs have been changed so that students can consciously choose pro-environmental behavior. In addition, she pointed to opportunities provided by practical experiences, such as visits to companies that adhere to sustainable development principles, and the Erasmus program, which allows young people to compare environmental solutions in different countries.

However, she stressed that one of the weak points in the current educational system is the competence of teachers, especially in terms of generational differences. The younger generation of teachers, who grew up in a different educational environment, may have a better understanding of modern technologies and sustainability issues than the older generation. Nevertheless, the woman stressed that further work is needed to improve teachers' competencies in this area.

Also, in the interview was the belief that educational processes in the field of sustainability and the circular economy must be adapted to the needs of different generations. The expert noted that older generations prefer more traditional learning methods, while younger generations are more willing to use modern tools such as online games. She stressed the importance of adapting teaching methods to these diverse needs.

6.3 Interview highlights on the use of Digital Storytelling

The respondent highlighted the importance of adapting educational methods to the diverse needs of different generations, particularly through the use of digital tools, precisely such as digital storytelling, for example. She noted that younger generations are more inclined to interactive and visually engaging learning methods, such as those offered by digital platforms and storytelling techniques. These methods allow students not only to absorb information, but also to actively engage with the content, making learning more dynamic and relevant.

The expert pointed out that while older generations may prefer traditional education methods, younger students benefit from innovative approaches such as DST, which can transform complex concepts into accessible and understandable narratives. This method is in line with the preferences of younger people, who often use technology to learn and are accustomed to digital environments.

She also indicated that DST can play a significant role in bridging the generation gap in education by offering a versatile tool that can be adapted to different learning styles. For younger students, DST can make learning more fun and engaging, while for older generations it can serve as an effective way to convey new ideas in a more engaging format.

6.4 List of the main topics to develop during the school lessons

- Technology and innovation in sustainability and circular economy - Examining the role of modern technology in promoting sustainable development, including digital tools, renewable energy sources, and innovative solutions for reducing waste.

- Intergenerational learning and collaboration - Addressing the differences in how various generations perceive and approach sustainability, fostering mutual understanding and collaboration between younger and older learners.

- Engagement through digital media - Encouraging students to create digital content (videos, infographics, stories) to raise awareness of circular economy challenges and solutions.

- Practical examples of circular economy - Exploring real-world examples, such as companies implementing circular practices, which the expert mentioned as crucial for students to witness sustainability in action.

- Global circular economy practices - Comparing international approaches to circular economy through initiatives like Erasmus, which the expert highlighted as important for broadening students' perspectives on sustainability.

7. Conclusion and recommendations

- Digital storytelling is a highly effective tool for teaching circular economy concepts in secondary schools. It allows students to engage with complex sustainability topics in an interactive and relatable way, enhancing their understanding and retention.

- DST's interactive nature is particularly well-suited to digital-native students, who benefit from visually engaging and participatory forms of learning. This approach encourages creativity and active involvement, making the learning process more dynamic and impactful.

- There is a strong need to integrate DST more systematically into the school curriculum. This should include dedicated projects and assignments that leverage DST to explore CE topics, such as waste reduction, recycling, and resource efficiency. Interdisciplinary projects that combine DST with subjects like science, geography, and economics should be promoted. These projects not only deepen students' understanding of CE but also develop essential skills such as critical thinking, problem-solving, and collaboration.

- One of the significant challenges identified is the varying levels of digital literacy among teachers, which can limit the effective use of DST in the classroom. Addressing this through targeted professional development programs is crucial. Teachers need support in learning how to use digital tools effectively and incorporate them into their teaching practices. Schools should provide ongoing training and resources to ensure educators are confident in using DST and can guide students in creating meaningful digital narratives related to CE.

- Increased collaboration between schools, businesses, and local communities is essential to provide students with practical, real-world examples of CE in action. Partnerships could include company visits, guest lectures from industry experts, and community projects focused on sustainability. Such collaborations would allow students to see how CE principles are applied in different sectors and contexts, making their learning more concrete and relevant.

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Wspieranie przejścia na model gospodarki o obiegu zamkniętym. Dobre przykłady organizacji zarejestrowanych w EMA. wytyczne polskiego rządu dotyczące przejścia od gospodarki linearnej do gospodarki o obiegu zamkniętym