



# GAME-ER

*February 2026*

**D5.4**

## **Initial version of the Interactive Methodological Toolkit**



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10	GAME ONLY	GO	France
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13	THE UNIVERSITY COURT OF ABERTAY UNIVERSITY	AU	United Kingdom

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## Acknowledgements

This deliverable was developed based on collective efforts from all partners of the GAME-ER consortium.

## DELIVERABLE DETAILS

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## VERSION HISTORY

Date	Version No.	Author	Note
01/05/2025	0.1	Michal Roch, <b>GDACZ</b> Anastasia Baráková, <b>GDACZ</b> Pavel Barák, <b>GDACZ</b>	Platform design preparation and data collection
30/10/2025	0.2	Michal Roch, <b>GDACZ</b> Anastasia Baráková, <b>GDACZ</b> Pavel Barák, <b>GDACZ</b> Luís Leça, <b>INOVA+</b>	Supplier Procurement process closed and initial implementation of the toolkit.
10/02/2026	1.0	Michal Roch, <b>GDACZ</b> Anastasia Baráková, <b>GDACZ</b> Pavel Barák, <b>GDACZ</b>	First draft of the toolkit ready for review.
20/02/2026	1.1	Manuel Alvarez Jerez, <b>PNPTC</b> Mariana Viseu, <b>PNPTC</b>	Internal review of the toolkit
27/02/2026	1.2	Michal Roch, <b>GDACZ</b> Anastasia Baráková, <b>GDACZ</b> Pavel Barák, <b>GDACZ</b>	Integration of inputs
02/03/2026	2.0	Luís Leça, <b>INOVA+</b>	Final Revision and Submission

## GLOSSARY AND ABBREVIATIONS

Cultural and Creative Industries	<b>CCI</b>
Content Management System	<b>CMS</b>
European Commission	<b>EC</b>
European Union	<b>EU</b>
Nomenclature statistique des activités économiques dans la Communauté européenne	<b>NACE</b>
Nomenclature of Territorial Units for Statistics (level 2)	<b>NUTS2</b>
Work Package	<b>WP</b>

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## EXECUTIVE SUMMARY

**D5.4** presents the design, development, and public launch of the initial version of the **GAME-ER** Interactive Methodological Toolkit, made available as an online platform at <https://gameclusters.eu/>. The toolkit serves as a public-facing resource that integrates descriptive and analytical findings from the **GAME-ER** project, drawing on research conducted across WP2, WP3, and WP4.

The initial version has a deliberately focused scope. Its primary purpose is to establish a functional and accessible foundation for gathering feedback from project partners, the Advisory Board, and policy and decision-makers prior to the toolkit's full expansion. At this stage, the toolkit presents research findings from activities completed at the time of its publication — specifically the mapping of the European video game industry carried out in WP2, and the analysis of six studied clusters structured by the analytical grid developed in WP3 and applied in WP4. In doing so, it enables early public dissemination of project findings. Key features of the initial version include:

- An **interactive regional map** allowing users to explore data on video game industry activity across European NUTS2 regions, reflecting the results of the WP2 Europe-wide mapping exercise.
- A **searchable list of regions**, providing an alternative interface to the map for locating specific regional data.
- A **list of studied clusters**, presenting an overview of the six clusters examined in depth by **GAME-ER** (Bordeaux, Brno, Dundee, Fundão, Lyon, and Turin).
- **Individual cluster detail pages**, displaying key quantitative indicators and qualitative analytical findings structured according to the WP3 analytical grid dimensions.

The toolkit was built using an open-source technology stack (Strapi, React.js, Leaflet, and Apexchart) to ensure flexibility, scalability, and long-term maintainability.

Based on feedback gathered during this initial phase and in alignment with the continued research progress of the **GAME-ER** project, the toolkit will be iteratively developed and expanded. The final version will incorporate additional research findings, a self-assessment survey enabling users to identify classification metrics relevant to their own cluster context, and a structured database of actionable policy recommendations.

## 1 INTRODUCTION

### 1.1 Project Overview

The Gaming Clusters Across Multiple European Regions (**GAME-ER**) project aims to explore the emergence, development, and sustainability of video game clusters, with a specific focus on local and regional clusters. The project will develop a comprehensive Interactive Methodological Toolkit, featuring policy and practical recommendations designed to assist local and national policymakers in establishing or enhancing Cultural and Creative Industries (CCIs) clusters within their regions or cities. Existing research often focuses on clusters outside Europe or within major metropolitan areas like Helsinki or Hamburg. However, **GAME-ER** addresses a critical gap by studying the dynamics of smaller, regional clusters, which play a significant role in driving innovation, growth, and regional cohesion. The project's core component involves a comparative analysis of six clusters in five European countries—France, the Czech Republic, Italy, Scotland, and Portugal. These clusters were chosen for their diverse levels of maturity and unique characteristics, including concentrations of creative talent and companies. In addition to this comparative study, **GAME-ER** will conduct a Europe-wide analysis of the spatial organization of the video games industry, specifically focusing on local and regional ecosystems. This research, conducted in collaboration with policymakers and industry stakeholders, will guide the formulation of actionable recommendations using a participatory approach. **GAME-ER** brings together 15 partners from 9 countries, encompassing expertise in social sciences, humanities, policymaking, business, and innovation.

### 1.2 Objectives of the Deliverable

**D5.4** aims to document the design rationale, structure, and technical implementation of the initial public version of the **GAME-ER** Interactive Methodological Toolkit. The specific objectives of this deliverable are to:

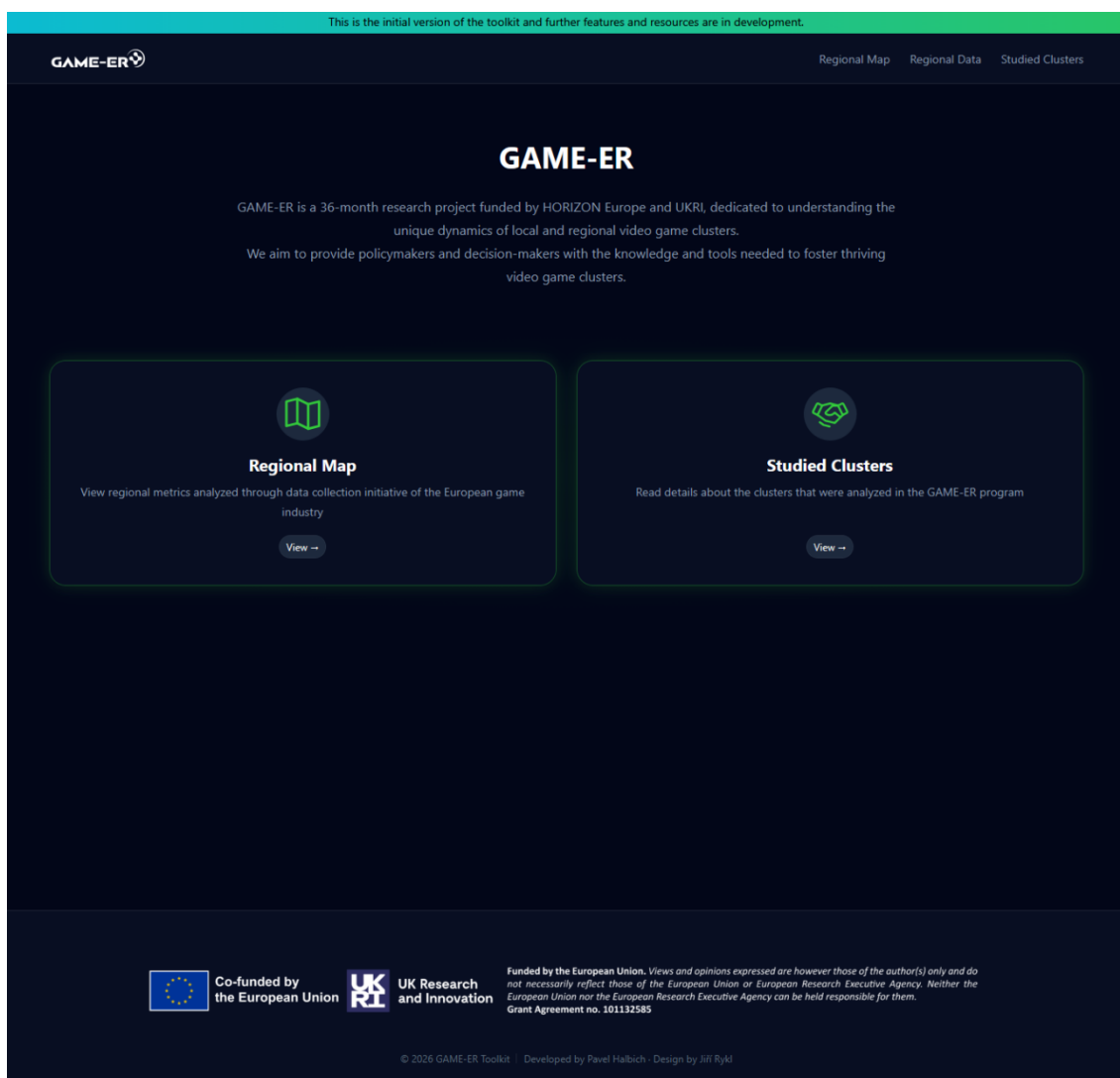
- **Describe the structure and content of the initial version of the toolkit:** Document the main sections of the website, their purpose, and the research findings they present, with reference to the contributing work packages.
- **Explain the technical implementation choices:** Provide transparency on the technology stack and hosting requirements underpinning the toolkit, to support future maintenance, development, and potential reuse by other initiatives.
- **Establish a baseline for iterative development:** Define the scope and limitations of the initial version and outline the planned expansions — including the policy recommendations database and the cluster self-assessment survey — to be incorporated in the final version.
- **Support early public dissemination:** By launching a public-facing platform, enable stakeholders to begin engaging with **GAME-ER** research findings ahead of the project's conclusion and facilitate the collection of structured feedback to inform further development.

## 2 WEBSITE STRUCTURE AND MAIN SECTIONS

The website is organised into the following core sections, accessible via the main navigation. The overall architecture is designed to guide users from a broad, Europe-wide perspective toward increasingly specific regional and cluster-level information, mirroring the multi-scalar research design of the **GAME-ER** project.

### 2.1 Landing Page

The landing page (<https://gameclusters.eu/>) serves as the primary entry point to the **GAME-ER** Interactive Methodological Toolkit. It introduces the platform's main sections, outlines their respective purpose and content, and orients first-time visitors by providing clear navigational guidance toward the resources most relevant to their needs. In addition to its navigational function, the landing page contextualises the toolkit within the broader **GAME-ER** project, offering a concise overview of the project's objectives, its geographic and thematic scope, and the research activities that underpin the platform's content. This framing is intended to ensure that users can engage with the toolkit's findings with an adequate understanding of the methodological approach from which they derive.



**Figure 1 – GAME-ER Toolkit Landing Page**

## 2.2 Regional Map

The Regional Map section (<https://gameclusters.eumap>) presents an interactive map of Europe allowing users to explore data on video game industry activity at the level of NUTS2 regions, as defined by the Eurostat nomenclature of territorial units for statistics. For each available region, the map provides access to the data points collected as part of the Europe-wide mapping of the video game industry conducted in WP2. This visualisation enables users to identify geographic patterns in the distribution and density of video game industry activity across European regions, offering a spatial perspective that complements the cluster-level analysis presented elsewhere in the toolkit. Regions for which statistically sufficient data could not be collected during the WP2 research process are not displayed in the map interface, in order to ensure the accuracy and reliability of the information presented. Users wishing to explore a specific region in greater depth may do so by selecting it directly on the map or by using the "View Region" button in the left-hand menu, which navigates to the Specific Region Detail page described in Section 2.3.

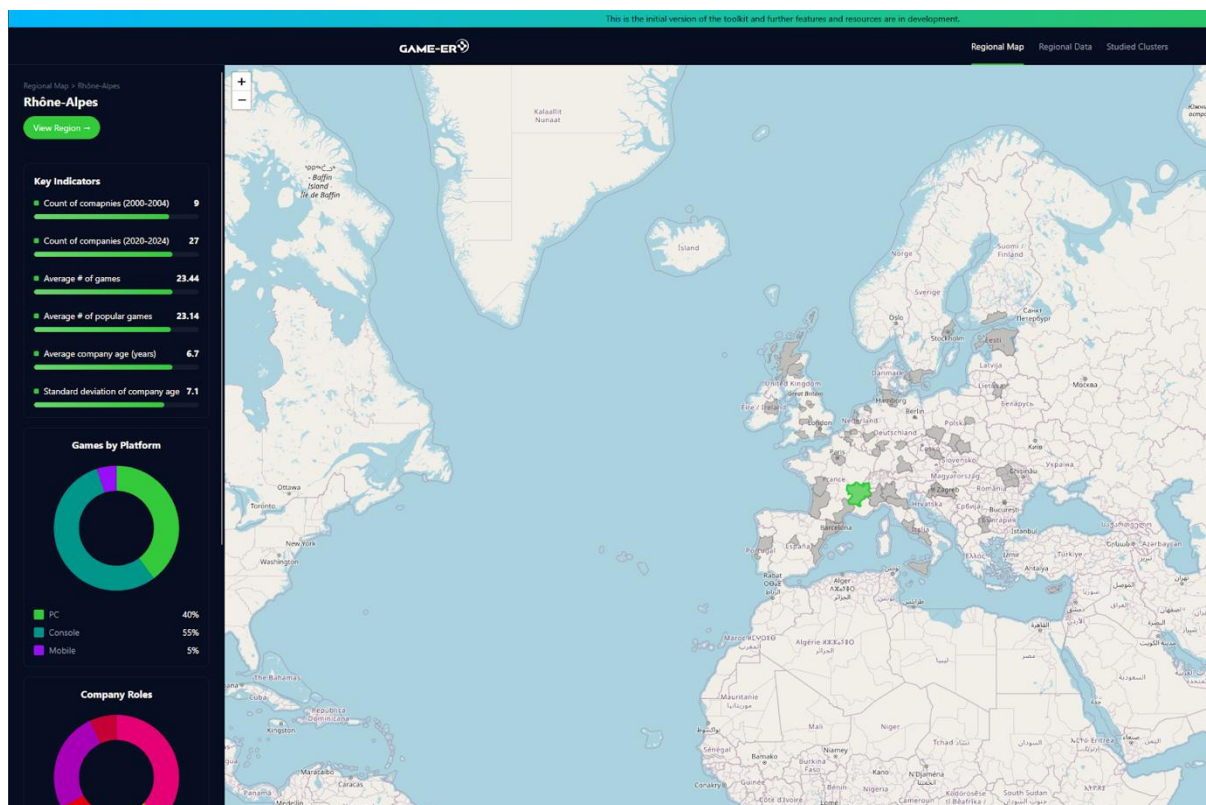
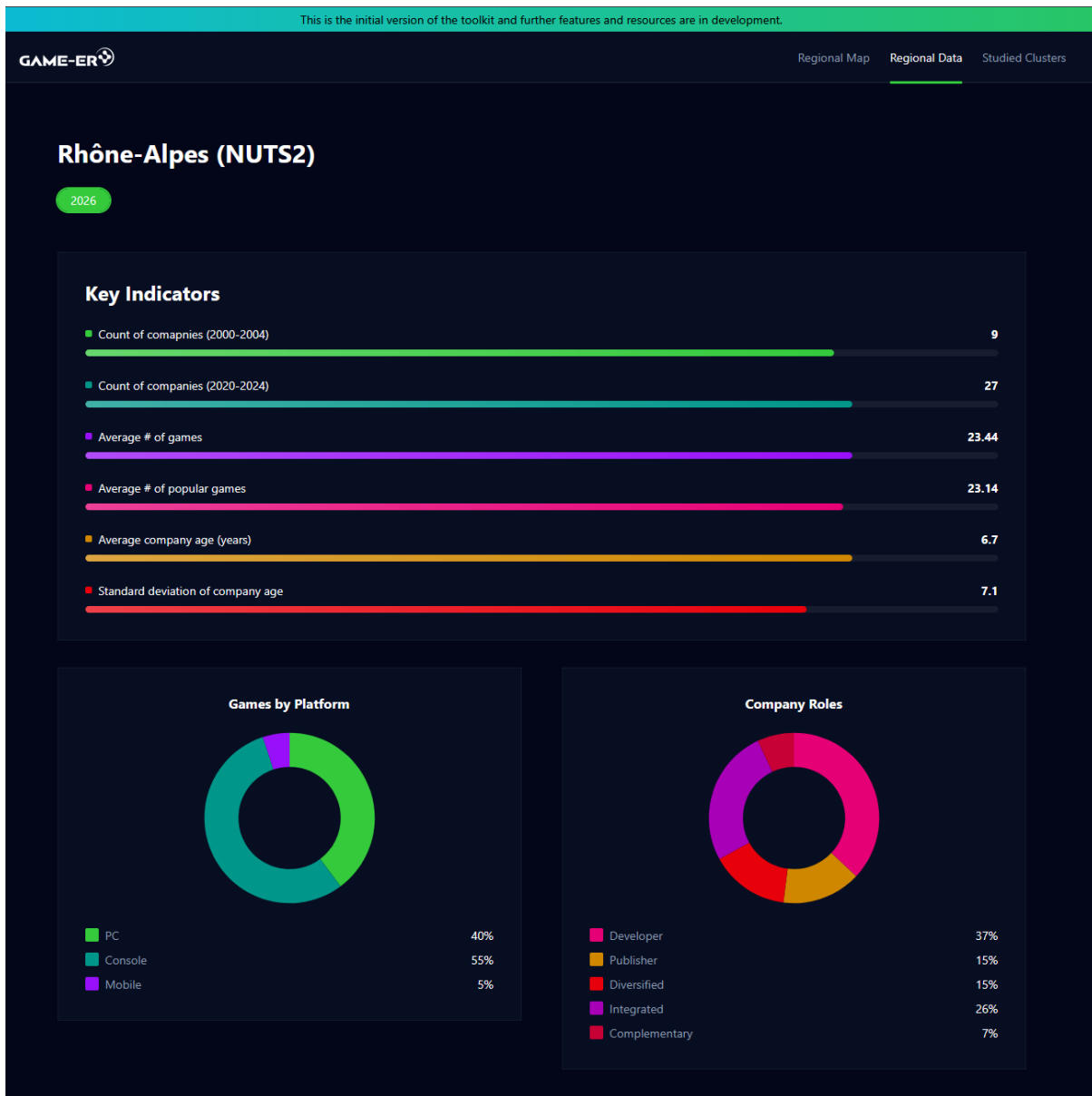


Figure 2 – GAME-ER Toolkit Regional Map

## 2.3 Specific Region Detail

The Specific Region Detail page (<https://gameclusters.eu/regions/FRK2> (example URL for a specific region Rhône-Alpes)) presents the complete dataset collected for a selected NUTS2 region. In contrast to the summary information displayed in the Regional Map's left-hand panel, this page provides an extensive and structured overview of all available data points collected for the region, allowing for a more thorough examination of its video game industry profile. This level of detail is intended to support users who require a comprehensive evidence base when assessing the state

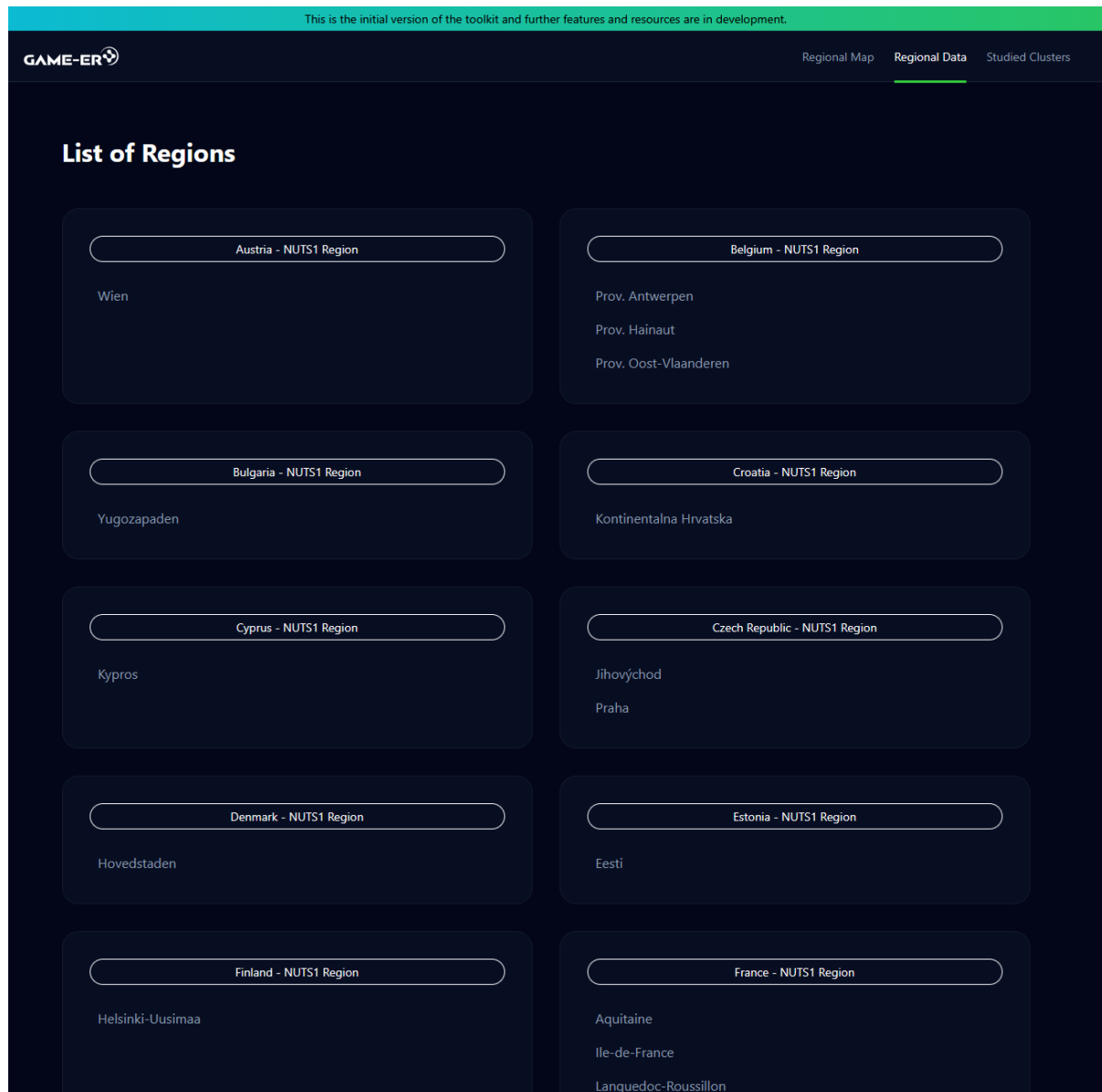
of the video game industry in a specific regional context or when benchmarking their region against others covered by the **GAME-ER** mapping exercise.



*Figure 3 – GAME-ER Toolkit Specific Regional Detail – Rhône-Alpes Example*

## 2.4 List of Regions

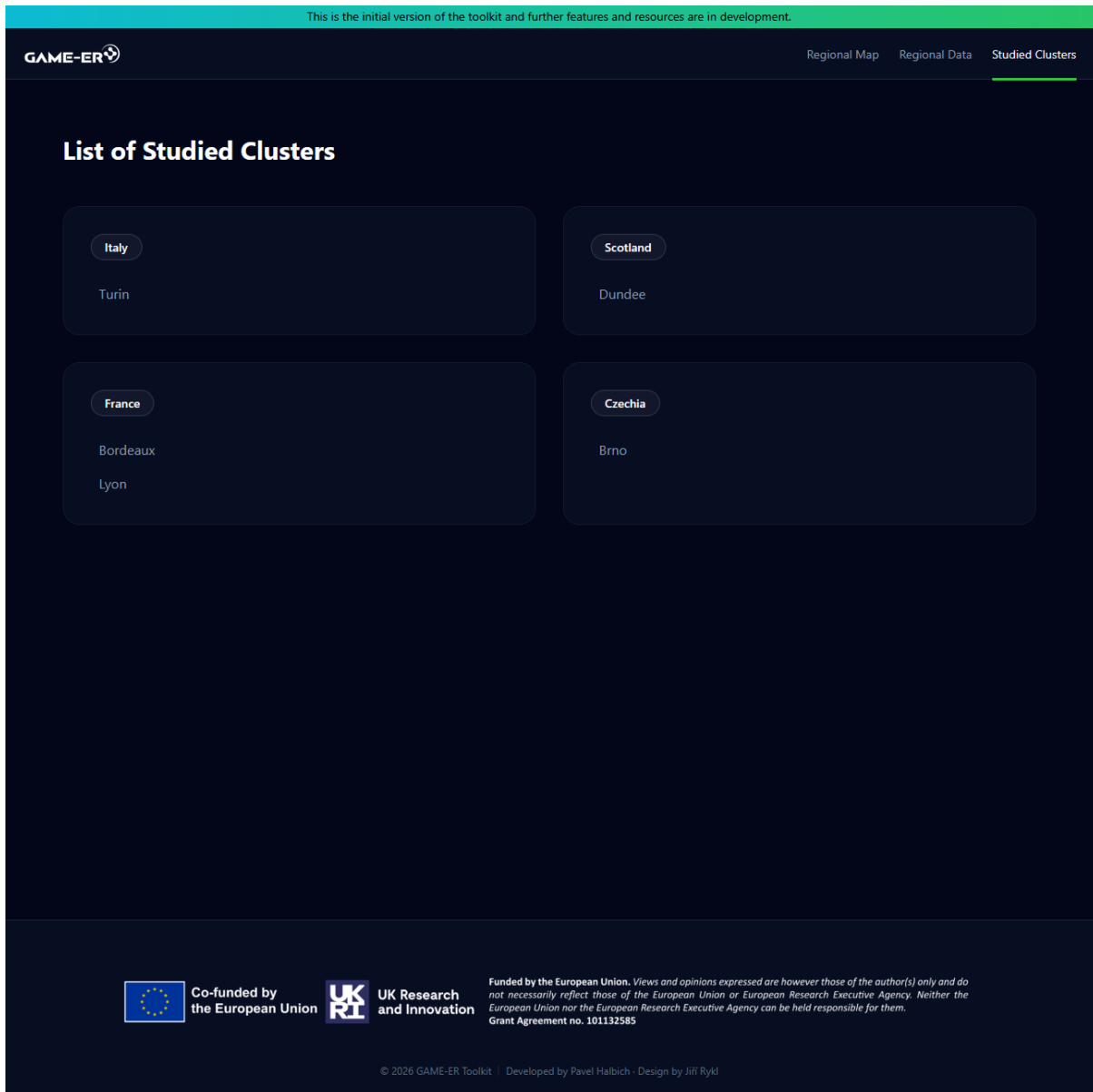
The List of Regions page (<https://gameclusters.eu/regions>) provides a text-based alternative to the Regional Map interface, enabling users to locate and access specific NUTS2 regions by name rather than by their geographic position on the map. This dual-access approach ensures the platform remains navigable for a broad range of users, including those less familiar with European regional geography or who have a specific region already in mind when consulting the toolkit. Selecting a region from the list leads to the same Specific Region Detail page described in Section 2.3, where the complete dataset collected for that region during the WP2 mapping research is presented.



**Figure 4 – GAME-ER Toolkit List of Regions**

## 2.5 List of Studied Clusters

The List of Studied Clusters page (<https://gameclusters.eu/clusters>) provides an overview of the video game industry clusters that were identified and examined in depth by the **GAME-ER** project as part of the empirical research conducted in WP4. Users can select a specific cluster from the list to access the detailed research findings associated with it, as presented on the individual Cluster Detail pages described in Section 2.6. The list is structured to be expandable in future iterations of the toolkit, as additional clusters may be incorporated in line with the continued development of the platform.

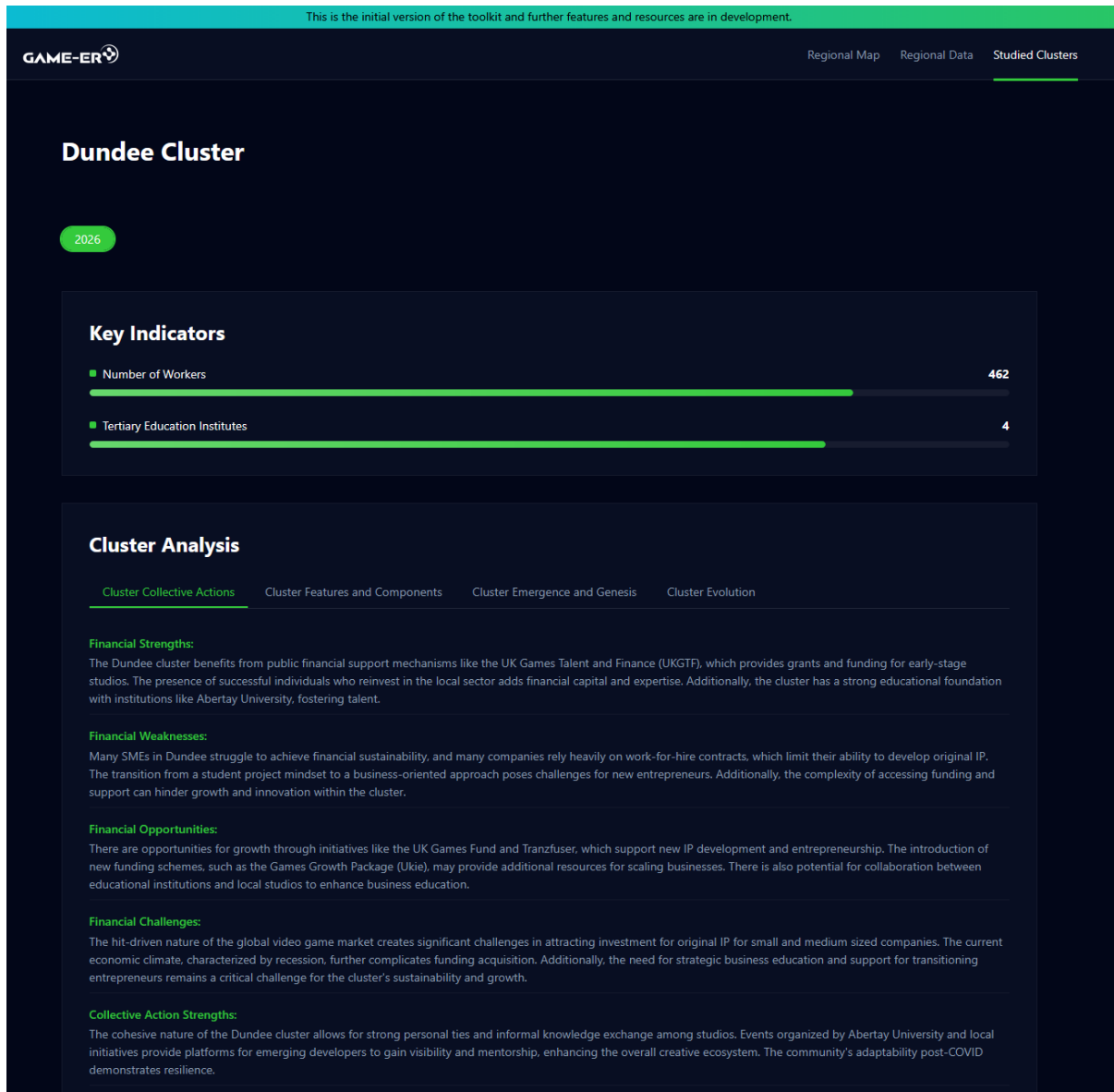


**Figure 5 – GAME-ER Toolkit List of Studied Clusters**

## 2.6 Detail of Studied Clusters

The Cluster Detail page ([https://gameclusters.eu/clusters/CL\\_Dundee](https://gameclusters.eu/clusters/CL_Dundee) (example URL for a specific cluster Dundee)) presents the full research findings generated by WP4 for a specific video game industry cluster. The page is structured around two complementary types of content. First, a set of **key quantitative indicators** provides measurable data on the cluster's scale, composition, and economic profile, as collected during the WP4 empirical fieldwork. Second, a **qualitative cluster analysis** section presents structured summaries of findings across the analytical dimensions defined by the WP3 analytical grid covering aspects such as cluster governance, collaboration dynamics, institutional frameworks, typology, and cluster evolution over time.

This dual structure is intentional. By combining quantitative indicators with qualitative analytical findings, the page aims to offer users a rounded and evidence-based portrait of each cluster, supporting comparisons across the six case studies and providing a reference point for policymakers and cluster managers seeking to contextualise their own regional experiences against the **GAME-ER** findings. The consistent application of the WP3 analytical grid across all cluster profiles also ensures that findings are presented in a comparable and coherent format throughout the toolkit.



**Figure 6 – GAME-ER Toolkit Detail of Studied Clusters - Dundee**

### 3 TECHNICAL IMPLEMENTATION

The toolkit was developed as a web application using an open-source technology stack, selected to ensure scalability, flexibility for content management by non-technical consortium members, and long-term maintainability beyond the project's duration.

- **Strapi** is used as a headless Content Management System (CMS), providing the platform's backend infrastructure. It enables authorised consortium members to manage and update the toolkit's content — including regional data, cluster profiles, and analytical findings — through a role-based access system, without requiring direct intervention in the codebase.
- **React.js** serves as the frontend framework, enabling the development of a modular, component-based user interface. React's approach to building interactive and responsive web applications ensures that the toolkit performs consistently across devices and screen sizes, which is important given the expected diversity of the user base.
- **Leaflet** is an open-source JavaScript library used to power the interactive regional map feature. Its mobile-friendly design and wide adoption in open-source geospatial projects make it well suited to presenting the NUTS2 regional data collected in WP2.
- **Apexchart** is an open-source JavaScript library used to render data visualisations, including the graphs and charts displaying quantitative indicators on regional and cluster detail pages.

For hosting, the solution requires a secured HTTPS-certified connection, a Node.js operating server, and an SQL database. These requirements are standard for contemporary web applications and are compatible with a wide range of cloud or institutional hosting environments.

## 4 CONCLUSION

**D5.4** documents the design rationale, structure, and technical implementation of the initial public version of the **GAME-ER** Interactive Methodological Toolkit, launched at <https://gameclusters.eu/>. This initial version represents the first concrete output of WP5's policy-facing activities, translating the research conducted across WP2, WP3, and WP4 into a publicly accessible online platform.

At this stage, the toolkit fulfils several key functions. It makes the results of the WP2 Europe-wide mapping exercise accessible through an interactive regional map and associated region detail pages, enabling users to explore data on video game industry activity across European NUTS2 regions. It also presents the cluster-level findings of WP4 in a structured format aligned with the analytical dimensions of the WP3 analytical grid, ensuring coherence between the project's empirical research and its public-facing outputs.

The initial version is explicitly conceived as a foundation rather than a final product. Its limited scope is intentional, reflecting the phased development approach adopted by the **GAME-ER** consortium. The platform will be iteratively refined on the basis of feedback gathered from project partners, the Advisory Board, and early users from the policy and decision-making communities. The final version of the toolkit will incorporate the complete set of project research findings, a cluster self-assessment survey enabling users to benchmark their own cluster context against the analytical framework, and a structured, searchable database of actionable policy recommendations — together fulfilling the toolkit's ultimate objective of serving as a practical, evidence-based resource for policymakers and cluster managers across European regions.