



# Best Practice Report

## MEDGAIMS

**Reference: MED GAIMS-2022**

**Last updated: January 30<sup>th</sup> 2023**



 MED GAIMS



# Best Practices: evaluation of analog and digital games

## Introduction

The MED GAIMS project was developed spanning a period of 3 years and 5 months. During this time MED GAIMS developed 40 gamified experiences at 8 destinations in 4 Mediterranean countries including Lebanon, Spain, Italy, and Jordan. The forty gamified experiences were evaluated by different people and at different occasions including (1) the Open Days, (2) the Internal Peer Review, and (3) the Test Days, and (4) the best gamified experience.

Data collected from the open days, the internal peer review, and the test days was compiled into a report at the end of February 2022, in which the results were analyzed and presented in a summative manner. The results to take into account all the elements of the MED GAIMS project and were not sufficient to output the project's best practices from an expertise gamification point of view.

Our first suggestion to develop the best practices was to use the NPS (Net Promoter Score) methodology, as listed in the first technical report; however, because of the project extension and the delay in the final production of the gamified experiences, the number of final users voting for the different games was too low to be statistically significant.

As a result, we had to adopt another approach, which we will present in the following pages.

# Proposed Methodology

## Who is voting?

**The site owners (and not the developers) are the ones who vote in each country.** The objective is to assess the impact in situ and how each game contributes to the project's KPIs. The site owner is the one who has access to this information in each country.

**Each public partner created a committee of at least 3 people to vote for the preferred gamified experience.**

## What are we voting?

- **Project Objectives:** the 3 specific goals defined from the beginning of the MEDGAIMS project are:

- Incorporate gamification in the management of the tourist destination.
- Job creation, sub-granting game designers.
- Increase the tourist flows to the tourist destinations.

- This metric represents 50% of the total grade.

- **Destination objectives:** in the technical report, each of the partner countries defined the objectives that are sought after in each of their destinations. The objectives represent the goals that are unique to each of the different countries. This metric represents 30% of the total grade.

- Link to the TECHNICAL REPORT: [HERE](#)

- **Strong aspects:** based on the testing and the final user surveys, several strong aspects were identified for each of the gamified experiences; these aspects were listed inside the technical report. This metric represents 20% of the total grade. \*

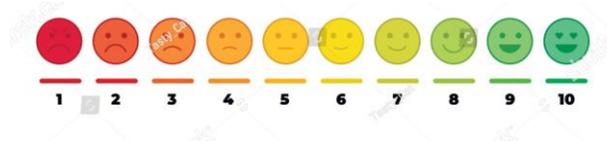
- **Weak aspects:** based on the testing and the final user surveys, weak aspects were also identified for each of the gamified experiences; these weak aspects were listed inside the technical report. This metric represents 10% of the total grade and subtracts from the total. \*

*\* Note: In some cases, the strong and weak aspects can differ from those reported in the technical report because the initial source was provided during test days and the evaluation of the best practices was performed after the final production of the games.*

## How?

Each of the voting metrics is graded from 1 to 10, 0 representing 'Not achieved' and 10 'Completely achieved'.

In each situation the question was posed as follows: **“To what extent did the game achieve the following (Definitions)?”**



## Types of Best Practices

In the MED GAIMS project, two different types of gamified experiences were developed: digital games which can be played on a PC, console, or portable device, and analog games such as board games, books, sticker albums or the like. Accordingly, we developed two different sets of best practices, those corresponding to digital games and others to analog.

## Best practices selection per country

The best practices were designed differently according to each destination country, given that each country has a very different context in terms of game understanding, development, design, technology, and strategy. Had we used the same metrics, any comparison between results risks to be unfair; for example, in Spain (specifically in Barcelona) the gamification culture and associated technologies are more developed than in other countries such as in Lebanon. It would therefore be unfair to compare results on the same absolute scale because of the disparities in sociodemographic variables, gamification culture, implementation budget, and access to game developers. As a result, we proposed 2 best practices per country, analog and digital and 8 best practices in total.

# GAME EXPERIENCES OVERVIEW: 4 COUNTRIES

The MED GAIMS project included 20 analog games and 20 digital games as listed below:

	Spain	Jordan	Lebanon	Italy	TOTAL
Analog Games (includes phygital)	5	5	4	6	20
Digital Games	5	5	6	4	20

## General observations

The following general observations can be reported regarding the project development:

- Most of the games fulfilled the general objectives of the project.
- The proposed gamified experiences met the destination objectives.
- There was a difficulty in the adoption of the games at the destination sites because of lack of human resources.
- Some highly technological games will be difficult to maintain after the project end.
- Each country adopted a different strategy for their developed experiences. While Italy and Spain each used one overarching theme that linked each of their ten gamified experiences, Jordan and Lebanon did not and preferred to proposed experiences with each possessing its own theme.
- Italy's games were founded on the concept of proposing the entire city of Alghero as a place to play. Spain's games are founded with a strong underlying technique of storytelling and under a unified common theme of mystery. Jordan's games are based on fun and interaction for the users, in the hope of making their sites more accessible. Finally, Lebanon's games are mainly founded on education through gamification, with a relatively high focus of knowledge transfer, and very useful as educational tools.
- The game development strategies were principally directed by the public partner and site owner in each country.

## Best practices: Italy

Analog Games	6
Digital Games	4

### **BEST PRACTICE FOR ANALOG GAMES:**

#### **“Collezione Alghero (STICKER ALBUM)”**

**Grade: 91,5/100**

“Collezione Alghero sticker album” is an analog experience where a physical traditional stickers album directs its players to visit several locations across the city of Alghero. To play the game, players must collect stickers in person, complete the album, read notes, and solve mini games. The albums were printed in large numbers and placed throughout the Alghero city center at tourism offices and sites.

### **BEST PRACTICE FOR DIGITAL GAMES:**

#### **“Digital Canvas”**

**Grade: 93,7/100**

The Digital Canvas is an interactive screen that was set up in the center of the Alghero city, in the inside of the Torre Sulis, on one of the main streets of the city center. In this game, several large screens show an underwater setting that is typical of the Alghero Sea including local fauna and real historical sinkings. To play, users first draw a figure of an underwater animal that is typical of the area. The picture is then scanned by the game operator and digitized into the existing scene that appear on the screens. Furthermore, the screens are all interactive and different animations are triggered once the user touches different areas of each screen.

**Link to Best Practice Italy matrix: [HERE](#)**

**A summary of the games in Italy:**

**General:**

- The games in Italy include:
  - 3 Mobile apps (digital)
  - 1 Interactive screen (digital)
  - 1 street intervention (analog)
  - 1 live urban game (analog)
  - 2 sticker Album (analog)
  - 2 book games (analog)
- The destination in Alghero designed its 10 games with a common theme, entitled Play Alghero.
- All the games fulfilled all the general project objectives, except for the one on job creation for the case of the in-house game development.

**Digital “Digital Canvas”:**

- The “captivating technology” of the digital canvas is one of the main strengths of the experience.
- The use of interactive assets and the fact that hand painted animals become part of a digital background creates a ‘wow’ effect.
- The placement of the game along a populated and busy street guarantees the flow of potential users.
- The need for a person to run (continuously) and maintain (occasionally) the game constitutes a needed resource.
- The game experience can only be played at the site destination.

**Analog “Collezione Alghero - Sticker Album”:**

- The use of a very simple mechanic like the sticker album and the collection of stickers makes it very easy to understand.
- The games can become an experience that can be played at the destination but also can provide an ‘after experience’ interaction because it can be completed at home, while keeping the users attached to the destination.
- The mechanics of collecting stickers motivated the player to complete the game.
- Some of the stickers need to be placed physically at the destination.
- The sticker mechanics risks coming off as childish for adults.

Note that none of the analog or digital best practices includes a competitive aspect, but instead focuses on exploiting the creative skills of each player. None of the experiences can be regarded as a game in its strict definition; rather, they are regarded as gaming experiences.

	GAME 1 - Playful Itinerary 22	Analog	pp	GAME 2 - Collezione Alghero Sticker Album	Analog (Phygital)	pp	GAME 3 - Collezione Alghero Digital Album 26	Digital	pp
<b>Specific project objectives (50pp)</b>	30	27	45	30	27	45	30	28	46,66666667
Destination objectives (30pp)	40	35	26	40	38	29	40	38	29
Strong aspects (20pp)	60	58	19	40	40	20	40	40	20
Weak aspects (-10pp)	-30	-18	-6	-30	-6	-2	-30	-17	-5,666666667
<b>TOTAL</b>			84,6			91,5			89,5

	GAME 4 - Digital Canvas 27	Digital	pp	GAME 5 - Alghero Expert 29	Analog	pp	GAME 6 - S.Myth - The Missing Sketchbook 30	Analog	pp
<b>Specific project objectives (50pp)</b>	30	28	46,66666667	30	28	47	30	29	48
Destination objectives (30pp)	40	39	29	40	37	28	40	38	29
Strong aspects (20pp)	60	60	20	20	19	19	50	49	20
Weak aspects (-10pp)	-40	-15	-3,75	-30	-13	-4,333333333	-30	-15	-5
<b>TOTAL</b>			92,2			89,1			91,4

	GAME 7 - Murder in Alghero 32	Digital	pp	GAME 8 - Angelica and The King of Algiroids 34	Digital	pp	GAME 9 - Alghero Quest Box 36	Analog	pp	GAME 10 - Alghero Urban Game	Analog	pp
<b>Specific project objectives (50pp)</b>	30	26	43	30	30	50	30	28	47	30	29	48
Destination objectives (30pp)	40	31	23	40	36	27	40	36	27	40	39	29
Strong aspects (20pp)	60	46	15	60	59	20	60	57	19	50	50	20
Weak aspects (-10pp)	-50	-37	-7,4	-30	-14	-4,666666667	-50	-30	-6	-30	-22	-7,333333333
<b>TOTAL</b>			74,5			92			86,7			90,3

## Best practices: Jordan

Analog Games	5
Digital Games	5

### BEST PRACTICE ANALOG

#### Gadara Spinner

**Grade: 86/100**

A board game, with a powerful set up that relates to the site of Gadara. Players must reconstruct 3D models of different ruins while answering questions related to the site; therefore, the knowledge transfer is high as well as entertaining.

### BEST PRACTICE DIGITAL

#### Gadara Not Just a Story

**Grade: 71,8/100**

In a point-and-click video adventure game, the player must choose one of two paths (eras): Roman or Ottoman. Choosing a character determines the nature of the explored locations and proposes puzzles related to that era, the monuments, and their history. The game is offered on a PC/tablet in a game room on site at the Umm Qais/Gadara archaeological site.

**Link to Best Practice Jordan matrix: [HERE](#)**

**A summary of the games in Jordan:**

**General:**

- The games in Jordan include:
  - 2 Mobile apps (digital)
  - 1 Interactive boardgame (digital)
  - 2 Computer games (analog)
  - 2 Live games (analog)
  - 3 Board games (analog)
- The Jordan games were developed for two separate site destinations, including Ajloun Castle and UmQais.
- All the games fulfilled all the general project objectives, except for the one on job creation for the case of the in-house game development.
- The project objective on using innovative technologies was very successful, except for analog games which relied on more classical game playing methods.

**Digital: “Gadara, not just a story”**

- An accurate 3D digital reconstruction of the site of Gadara provides a highly immersive experience.
- In terms of mechanics, this game is like “Road to heaven” but also includes knowledge transfer by having users answer questions or solve riddles related to the history of the site.
- The possibility of choosing a male or female avatar shows sensibility to gender equality.
- The game is currently not available for distribution in the stores so it can only be played on site.

**Analog: “Gadara spinner”**

- A very powerful and attractive setup with a nice design.
- Very visual game that represents an eagle-view of the site.
- 3D printed reconstructions of the heritage buildings that are part of the game.
- The boxed product can become a nice souvenir.
- Many questions related to the tourist site provides the user an opportunity to learn a lot about the site.
- The use of different questions can provide the gamers with more than one round to play.
- The game mechanics are easy to understand.
- The game mechanics allow scalability towards other sites.
- The use of 3d printed models makes it expensive to produce.

It is important to note that both games were developed by external designers as subgrantees, which better promotes sustainability and job creation. Furthermore, both games were developed for the site of UmQais - Gadara.

	GAME 1 - Ajloun War Against Crusaders 55	Analog	pp	GAME 2 - Archery Battle 57	Analog	pp	GAME 3 - Break into the Castle 59	Analog	pp
Specific project objectives (50pp)	30	21	35	30	27	45	30	22	36,7
Destination objectives (30pp)	40	24	18	40	32	24	40	23	17,3
Strong aspects (20pp)	40	34	17	40	39	19,5	40	34	17
Weak aspects (-10pp)	-40	-21	-5,25	-40	-20	-5	-30	-15	-3,75
<b>TOTAL</b>			64,8			83,5			67,2

	GAME 4 – Gadara Not Just a Story 60	Digital	pp	GAME 5 - Gadara Spinner 62	Analog	pp	GAME 6 – Gadara Unravel the Mystery 64	Digital	pp
Specific project objectives (50pp)	30	23	38,3	30	27	45	30	23	38,3
Destination objectives (30pp)	40	33	24,8	40	36	27	40	34	25,5
Strong aspects (20pp)	40	30	15	80	74	18,5	80	68	17
Weak aspects (-10pp)	-60	-25	-6,25	-70	-18	-4,5	-80	-37	-9,25
<b>TOTAL</b>			71,8			86			71,6

	GAME 7 - Reliving Ancient Gadara 66	Digital	pp	GAME 8 - Road to Heaven 68	Digital	pp	GAME 9 - Tracing Story 70	Analog	pp	GAME 10 - Umm Qais Run 71	Digital	pp
Specific project objectives (50pp)	30	21	35	30	21	35	30	27	45	30	21	35
Destination objectives (30pp)	40	32	24	40	32	24	40	32	24	40	34	25,5
Strong aspects (20pp)	0	0		70	43	12,28571429	70	64	18,28571429	20	20	20
Weak aspects (-10pp)	-50	-43	-10,75	-70	-30	-7,5	-50	-23	-5,75	-80	-39	-9,75
<b>TOTAL</b>			48,3			63,8			81,5			70,8

## Best practices: Lebanon

Analog Games (includes phygital)	4
Digital Games	6

### BEST PRACTICE ANALOG (Phygital)

#### The Mill

**Grade: 82,2/100**

A videogame which includes three levels of minigames related to the milling process, finalizing all tasks allows the player to activate the physical renovated mill on site. In the Mseilha Castle a real water mill and water course is under construction so the users can experience a real installation related to the game.

### BEST PRACTICE DIGITAL

#### Towered

**Grade: 83,9/100**

Towered Fidar is a Tetris-like building experience and puzzle game where the player is tasked with building a medieval tower. The virtual environment and example shown represent the site of Fidar Tower, and the player learns about the Tower's history while playing the game. A fun and challenging puzzle game, which will be available on and off-site.

## Link to Best Practice Lebanon matrix: [HERE](#)

### A summary of the games in Lebanon:

#### General:

- The games in Lebanon are:
  - 3 mobile apps (digital)
  - 3 computer games (digital)
  - 2 phygital games (digital & analog)
  - 2 board games (analog)
- In general, the games achieved the specific objectives of the project.
- Most of the games achieved the destination objectives, but in some cases (specifically the games that don't need to be played on site), the metric 'increase of number of tourists' will be difficult to assess.
- Lebanon proposed more digital than analog games. We attribute this to the fact that the digital possibilities with the use of apps, virtual reality or PC are higher than the limitations provided by the analog games.
- The games in general have an educational purpose, understood as knowledge transfer.
- The look and feel of the games is, in general, family friendly, and intended to be attractive for the younger members of the family.

#### Digital: "Towered"

- Based in Fidar Castle.
- Is a PC game that can be played from home, so no need to be present in the site is required to play the game, but it works as a hook for inspiring future visits.
- The building of the Fidar Tower, using a "Tetris" mechanics make it very easy to understand and easy to play.
- The process used in the reconstruction helps understand from the very foundations how the heritage site is built.
- Provides with a nice view of the surroundings at the time that helps having an idea of how the site looked like in the highlighted moment of its history.

**Phygital: "The Mill"**

- The Mill is a game that uses both analog and digital technologies.
- The game provides accurate information related to the operation of the on-site water mill.
- The game can be played with a mobile app but one must play on site to complete the game and observe the water mill in action.
- A physical construction on site enhances the experience from the screen to the real world.
- The game is eco-friendly because of the concept of water management and clean energy.

	GAME 1 - The Mills 86	Phyigital	pp	GAME 2 - Towered 91	Digital	pp	GAME 3 - TripnTap 96	Analog	pp
<b>Specific project objectives (50pp)</b>	30	26	43	30	26	43	30	24	40
Destination objectives (30pp)	40		34	40		37	40		33
Strong aspects (20pp)	50	39	15,6	50	40	16	50	39	15,6
Weak aspects (-10pp)	-50		-11	-50		-16	-50		-13
<b>TOTAL</b>			82,2			83,9			77,8

	GAME 4 - Time Machine 101	Digital	pp	GAME 5 - A Day in the Shoes of Shoujaa 107	Digital	pp	GAME 6 - Play & Tour 112	Digital	pp
<b>Specific project objectives (50pp)</b>	30	26	43	30	25	42	30	25	42
Destination objectives (30pp)	40		36	40		34	40		32
Strong aspects (20pp)	50	39	15,6	50	39	15,6	50	42	16,8
Weak aspects (-10pp)	-50		-13	-50		-11	-50		-6
<b>TOTAL</b>			83,3			80,6			81,3

	GAME 7 - Save the Castle 117	Phyigital	pp	GAME 8 - Save the Treasure 122	Digital	pp	GAME 9 - Sidon the Boardgame 127	Analog	pp	GAME 10 - The Architect 132	Digital	pp
<b>Specific project objectives (50pp)</b>	30	26	43	30	26	43	30	24	40	30	21	35
Destination objectives (30pp)	40		32	40		34	40		32	40		28
Strong aspects (20pp)	50	38	15,2	50	41	16,4	50	37	14,8	50	34	13,6
Weak aspects (-10pp)	-50		-8	-50		-8	-50		-18	-50		-13
<b>TOTAL</b>			80,9			83,6			75,2			67

## Best practices: Spain

Analog Games	5
Digital Games	5

### BEST PRACTICE ANALOG

#### “Layers of History”

Grade: 91,3/100

A street game based on the ‘choose your own path’ book game mechanics.

The game runs 3 different routes around the streets of the city: the old quarter, the city center, and the new town, all the routes relate to the Agency of Secrets concept, but they are also connected between them, in terms of places and storytelling. Three different agents of different eras are trying to discover the secrets of the city through the curiosities hidden in the streets.

### BEST PRACTICE DIGITAL

#### “The Seventh Book”

Grade: 93,5/100

An app game with different game mechanics and with a powerful conversational adventure mechanics.

The storytelling is based on the story around the seven books of memories of Victor Balaguer. One of the books was supposed to be changed and our mission consists in discovering what happened with ‘The seventh book’.

The first chapter of the game can be played at home, but for developing the story the user needs to be physically in the town. The game evolves around the city, but also interacts with 2 museums, the central market, and the public libraries.

**Link to Best Practice Spain matrix: [HERE](#)**

**A summary on the games in Spain:**

**General**

- The games in Spain are:
  - 3 mobile apps (digital)
  - 2 virtual Reality games (digital)
  - 3 street Games - Book (analog)
  - 1 board game (analog)
  - 1 escape book game (analog)
- Most of the games fulfill the project specific objectives and most of them the destination objectives. The ones that do not fulfill the 'increase in tourism flow' are the ones in which the player visits places across the city during the game.
- Both destinations are located inside Vilanova i la Geltrú, with 2 different contexts: the city center with a more cultural tourism profile and the sea front closer in spirit to the traditional sun and sea model.
- The 10 games were deployed under the theme of the Agency of Secrets. This strategy is a powerful storytelling experience that uses the city to set the entire experience. The design of the production was conceived as a transmedia campaign in which each game constitutes one chapter of the story. The more the game is played the more knowledge is transferred to the player.

**Analog: "Layers of History"**

- A complete street game backed by considerable research.
- The book itself provides routes that help one discover the old quarter of the city.
- The game itself is in fact 3 routes connected with a common story, and at the same time very well integrated within the world of the Agency of Secrets.
- The mechanics of the games are very easy to understand.
- Once the mechanics are understood, the game is very easy to play. It can however become 'too easy' for some.
- The production of the game can be expensive because of the relatively large number of pages.

### **Digital: “The Seventh Book”**

- An accurate app game that becomes a new chapter in the transmedia storytelling of the Agency of Secrets.
- The first chapter of the game can be played anywhere but to finish the game one needs to visit the destination.
- The different stages of the game include the visit to 3 museums, the central market, and the 3 public libraries of the town.
- Beautiful artwork and design, with interesting game mechanics developed by a professional team.
- The designer team consists of a group of academics interested in the creation of gamified experiences.
- The long dialogues sometimes can become boring for young people.

‘Underground’ is yet another game that is considered ‘best experience’ in MED GAIMS for Spain. It is a virtual reality experience; however, because its deployment requires technical support that the site owners do not possess, it was not ranked as highly as the other games. We found that the ‘Underground’ game attracted the most attention of from the press, and tourists during the trade fairs.

An important note is that one of the selected sites (V́ctor Balaguer Museum) was closed for renovation at the beginning of 2022. As a result, one of the games (Surge et Ambula - analog) will not be deployable on site before the re-opening of the museum. To mitigate this issue, we developed a 3d digital model of the museum to allow tourist to visit it, albeit it in a virtual manner.

	Game 1: AGENCY OF SECRETS	Digital		Game 2: SURGE ET AMBULA	Analog		Game 3: SMUGGLERS	Analog	
			DD			DD			DD
Specific project objectives (50%)	30	25	41,7	30	25	41,7	30	20	33,3
Destination objectives (30%)	40	40	30	40	40	30	40	35	26,25
Strong aspects (20%)	40	39	19,5	40	40	20	30	30	20
Weak aspects (-10%)	-30	-22	-7,3	-30	-16	-5,3	-30	-18	-6
<b>TOTAL</b>			83,8			86,3			73,6

	Game 4: UNDERGROUND	Digital		Game 5: SOULS	Digital		Game 6: LAYERS OF HISTORY	Analog	
			DD			DD			DD
Specific project objectives (50%)	30	30	50	30	30	50	30	30	50
Destination objectives (30%)	40	38	28,5	40	35	26,25	40	38	28,5
Strong aspects (20%)	50	50	20	40	40	20	50	50	20
Weak aspects (-10%)	-40	-25	-6,3	-30	-15	-5	-30	-18	-6
<b>TOTAL</b>			92,3			91,3			92,5

	Game 7: THE GRANDPA	Digital		Game 8: THE 7TH BOOK	Digital		Game 9: ESCAPE BOOK	Analog		Game 10: GASTROSECRETS	Analog	
			DD			DD			DD			DD
Specific project objectives (50%)	30	30	50	30	30	50	30	30	50	30	30	50
Destination objectives (30%)	40	40	30	40	40	30	40	35	26,25	40	40	30
Strong aspects (20%)	50	50	20	50	50	20	30	30	20	40	40	20
Weak aspects (-10%)	-30	-30	-10	-30	-24	-8	-30	-25	-8,3	-40	-35	-8,8
<b>TOTAL</b>			90			92			87,9			91,3