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# National Public Broadcaster “Teleradio-Moldova” Children's Digital Radio platform Website

## BUSINESS REQUIREMENTS

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## 1. Introduction

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### 1.1 PURPOSE OF THE DOCUMENT

This document presents the detailed business requirements for the National Public Broadcaster “Teleradio-Moldova” Children’s Radio platform Website, that will be delivered by the Promoting European standards in the audio-visual regulation in the Republic of Moldova project.

### 1.2 REFERENCE DOCUMENTS

The list of reference documentation provided in the table below.

NAME/DESCRIPTION	LINK TO THE DOCUMENT
WEBSITE DESIGN REQUIREMENTS	TBC

### 1.3 LEXICON / GLOSSARY

The list of the specific terms and abbreviations used in the document.

TERM	DEFINITION
DIT	DIRECTORATE OF INFORMATION TECHNOLOGY
SLA	SERVICE LEVEL AGREEMENT
TRM	NATIONAL PUBLIC BROADCASTER “TELERADIO-MOLDOVA”
PWA	PROGRESSIVE WEB APPLICATION

## 2. Executive summary

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The project “Promoting European standards in the audio-visual regulation in the Republic of Moldova” aims at improving and diversifying the content broadcasted by the National Public Broadcaster of the Republic of Moldova. Within this specific objective, the Project is supporting the development of a Radio Platform for children, available on the website.

## 3. Background Information

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### 3.1 PROJECT SCOPE AND OBJECTIVES

Within the TRM the multimedia production department for children is designed to offer children the opportunity to spend time efficiently online, having access to good music and a wide range of broadcasts / information cognitive, educational, entertainment, intellectual games, but also the opportunity to study foreign languages, participate in contests and interact with small vloggers from Republic of Moldova. In the scope of the current project is development of an informational, educational and fun web resource in accordance with the preferences and needs of multimedia products consumption of children aged 5-10 years. The main objectives to be mentioned are:

- creating a head-to-head information resource for children, based on truthful information about phenomena, social and cultural processes;
- presenting information in an accessible, fun and instructive manner to the target audience, with complex interpretations;
- providing the target audience with a true and easy-to-understand picture of reality in all its magnitude;
- developing creative and critical spirit;
- socializing the public by promoting intercultural education;
- establishing a reference source in pedagogical and educational activity;
- supporting and carrying out social campaigns aimed at the interests of children;
- cultivating curiosity, stimulating the desire to experiment;
- dissemination of informative-instructive materials by requesting specialists with a high degree of professionalism and skills and by making information accessible;
- creating an online area for multicultural education and developing skills for the efficient use of new technologies.

Tacking in consideration the evolution of the informational technologies and especially the evolution and accessibility of the internet, it is obvious that children are starting interacting with the multimedia and web at a very young age. Creating a safer environment for children, devoid of content inappropriate for their age is a highly important milestone for the multimedia production department that is intended to be achieved by delivering the first digital platform for children within the TRM, which can be safely accessed anywhere and at any time. The materials to be published on the website are made in accordance with the recommendations of psychologists and adjusting the knowledge needs of children from 5 to 10 years. Focusing on this target audience, the multimedia production department for children aims to conceptualize learning as a progressive process, so that children can continuously explore, analyze and update the information they have, challenging their critical thinking skills.

### 3.2 OUT OF SCOPE

Elaboration of the visual design documentation for the website is considered out of the scope for this project.

### **3.3 PRESENTATION OF THE RELEVANT DIRECTORATES / DEPARTMENTS**

The multimedia production department for children operates in compliance with the provisions of the Code of Audiovisual Media Services, the Code of Ethics of Journalists of the Republic of Moldova, all codes and internal regulations of TRM, paying close attention to the protection and promotion of children's rights. At the same time, this department guides activity in strict accordance with the Convention on the Rights of the Child, directly contributing to the observance and implementation of Article 13, whereby "The child has the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of any kind, regardless of frontiers, either in oral, written, printed or artistic form or by any other means, at the choice of the child".

### **3.4 BUSINESS PROCESSES**

At the moment, within the TRM, there is no digital platform, a website that would allow the multimedia production department for children to offer appropriate content for children only. Some of the content currently in production, can be available on the TRM TV channels and on the radio, but not available as a collection within a single platform. The developed website will have the main usage to store and present the audio and video content produced by the multimedia production department for children, thus it does not interfere with the existing business process of the production department, which is more related to analysis, design, preparation, production and editorial of the content. Within the existing business process the website will be mainly used for promoting the produced content and does not involve any workflows or task tracking for the business process assistance or support.

### **3.5 IDENTIFIED STAKEHOLDERS, USERS, ROLES & RESPONSIBILITIES**

The Children's Magazine website will be managed by the TRM multimedia production department for children and administered by the TRM technical department. Within the website administration panel, the system will not offer access control based on the user permission, thus all users with the access to the website administration panel are able to perform the available actions, despite his role and responsibilities.

### **3.6 INTERACTION WITH OTHER SYSTEMS**

The Children's Magazine website is not designed to interact with any of already existing systems within the TRM.

### **3.7 REPLACEMENT OF EXISTING / OLDER SYSTEMS**

The Children's Magazine website is the first digital platform for children within the TRM. It is not replacing any of the existing systems currently in use within the TRM.

### **3.8 PRODUCTION ROLLOUT CONSIDERATIONS**

The multimedia production department for children is in the process of production of a number of the multimedia content that will be initially available on the website on the day one, however the size of content is not considerably large and therefore does not require specific actions for the production rollout.

### **3.9 METHOD OF REQUIREMENTS CAPTURE USED**

The Business Requirements Document is elaborated based on the information gathered from a number of meetings conducted with the members of the multimedia production department for children.

## **4. Business Requirements**

Under the current part of the requirements document are stated all the business requirements and the acceptance criteria for the delivery of the Children's Magazine website.

## 4.1 DETAILED BUSINESS REQUIREMENTS

Each identified business requirement is provided within the following table with a title, short description, detailed description of the scope and a list of acceptance criteria that should be the main reference for user acceptance testing and validation of the developed website.

<b>BR1 - The system ensures a secured access to the website administration panel</b>	
	<p><b>Description:</b> The content presented on the website is managed within the website administration panel and the access to this area should be highly secured.</p> <p><b>Scope:</b> The system will require authentication for accessing the administration panel. The user accounts are created by the system administrator user by defining next information:</p> <ul style="list-style-type: none"> <li>• First name</li> <li>• Last name</li> <li>• Email address (unique)</li> </ul> <p>When an account is created, the system will be generating an email notification to the specified email address with a link to activate the account. Within the account activation form the user will be requested to enter a strong password that will meet next validation rules:</p> <ul style="list-style-type: none"> <li>• Password length is more than 8 characters</li> <li>• Password contains at least one lowercase letter</li> <li>• Password contains at least one uppercase letter</li> <li>• Password contains at least one digit</li> <li>• Password contains at least one special character</li> </ul> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. The system allows creation of new accounts within the website administration panel</li> <li>2. The system generates email with the account activation link when a new account is created in the system</li> <li>3. The system requires a secured password to be introduced when user accessed the activation link</li> <li>4. The system requires login after the account successful activated</li> <li>5. To access the website administration panel the user is requested to provide their email address and the password</li> <li>6. The system validates the login credentials and only allows access in the system if the credentials are correct</li> </ol>
<b>BR2 - The system allows to reset password for the access to the website administration panel</b>	
	<p><b>Description:</b> A content manager with the access to the website administration panel may request password reset from the login form.</p> <p><b>Scope:</b> To ensure that an existing system account can recover his access into the administration panel, the system provides the ability to reset the password. The reset password function is accessed from the login form and requires a valid email address to be submitted. The system generates a reset password link that is valid 24 hours and can be only used once. On the password reset form the user is requested to provide a secure password that complies with the validation rules described in the BR1.</p>

	<p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. An existing user account can reset his password using the reset password link received on his email address</li> <li>2. A reset password link is valid for 24 hours and can be only used once</li> <li>3. On the password reset form the user is requested to provide a strong password that complies with the system password validation rules</li> </ol>
<b>BR3 - The system administrator can deactivate a user account</b>	
	<p><b>Description:</b> The administrator user has the ability to deactivate an existing account thus it will not be allowed to login into the website administration panel anymore.</p> <p><b>Scope:</b> From the perspective of an enhanced security and control over the accounts already created in the system, the administration user is able to deactivate an existing account. An account that was deactivated will not be allowed to login into the administration panel and the system will ignore sending the reset password links if requested by the user from the login form.</p> <p><b>Benefit:</b> Once an account is created in the system, there will be multiple records and audit logs generated for the user activities. Deleting an account may cause issues to the related entities therefore the recommendation is to deactivate an account instead of deleting it completely.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. Administrator user has the ability to change the user account status into deactivated thus his access into the website administration panel is denied</li> <li>2. Administrator user can activate back an account that was previously deactivated</li> <li>3. A user account that is deactivated cannot login into the website administration panel and cannot request password reset link</li> </ol>
<b>BR4 - A content manager is able to manage with the list of content types</b>	
	<p><b>Description:</b> A content manager user is able to access the list of content types and to perform updates.</p> <p><b>Scope:</b> All the content created by the content management team will be categorized thus it can be properly displayed on the website user interface by categories. The list of initial content types is the next:</p> <ul style="list-style-type: none"> <li>• Audio</li> <li>• Video</li> <li>• Game</li> <li>• Quiz</li> <li>• Parenting</li> <li>• News</li> </ul> <p>Within the website administration panel the content manager is allowed to view, edit, delete and create new content types. Deleting a type is only allowed if there are no content entities referenced to it. When creating a new content type next information will be provided:</p> <ul style="list-style-type: none"> <li>• Content type unique id</li> <li>• Content type title</li> </ul>



	<ul style="list-style-type: none"> <li>• Content type description</li> </ul> <p>When a content type is created the system is also recording the create date and the name of the user account who created it.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. A logged in content manager can access the list of content types</li> <li>2. A logged in content manager can create a new content type</li> <li>3. A logged in content manager can edit an existing content type</li> <li>4. A logged in content manager can delete an existing content type only if it is not referenced to a content item</li> </ol>
<b>BR5 - The system exposes a predefined list of links in the heading navigation menu</b>	
	<p><b>Description:</b> The system is configured to have a predefined list of links in the navigation menu component within the website header section.</p> <p><b>Scope:</b> Within the website header section the navigation menu will only include the most relevant content categories. The header section is the same and is displayed on all website pages per the design and with the preconfigured settings. Based on the initial design only three category links will be present in the navigation menu:</p> <ul style="list-style-type: none"> <li>• Watch (linked to content of type Video)</li> <li>• Listen (linked to content of type Audio)</li> <li>• Play (linked to content of types Game and Quiz)</li> </ul> <p>The content manager is allowed to specify the navigation menu link name.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. From the navigation menu the website visitor is able to access one of three content categories</li> <li>2. Under the category “Play” there is the content from two types of content Game and Quiz</li> <li>3. A content manager is able to update the navigation menu link display name</li> </ol>
<b>BR6 - A content manager is able to manage with the Thematic Categories classification attribute values</b>	
	<p><b>Description:</b> A content item created by a content manager is referenced to a thematic category for offering to the website visitors a more efficient control over the visualized content.</p> <p><b>Scope:</b> The classification entity, thematic category, is a mandatory attribute for all the content item types created on the website. The initial list of the thematic categories includes:</p> <ul style="list-style-type: none"> <li>• Science, mathematics and knowledge of the world</li> <li>• Languages and traditions</li> <li>• History</li> <li>• Cinema and theatre</li> <li>• Literature, stories and philosophy + psy</li> <li>• Music, music culture and sounds</li> <li>• News and actuality</li> <li>• Media and security on the Net</li> </ul>

	<ul style="list-style-type: none"> <li>• Health, well-being, human body, nutrition, citizenship and safety</li> <li>• Financial Literacy</li> <li>• Adventures, challenges, curiosities, humor and games</li> <li>• Vox Pop</li> <li>• Parenting</li> <li>• Legal and Privacy</li> <li>• General knowledge</li> </ul> <p>Within the website administration panel the content manager is allowed to view, edit , delete and create new thematic categories. Deleting a thematic category is only allowed if there are no content entities referenced to it. When creating a new thematic category next information will be provided:</p> <ul style="list-style-type: none"> <li>• Thematic category unique id</li> <li>• Thematic category title</li> <li>• Thematic category description</li> </ul> <p>When a thematic category is created the system is also recording the create date and the name of the user account who created it.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. A logged in content manager can access the list of thematic categories</li> <li>2. A logged in content manager can create a new thematic category</li> <li>3. A logged in content manager can edit an existing thematic category</li> <li>4. A logged in content manager can delete an existing thematic category only if it is not referenced to a content item</li> </ol>
<b>BR7 - A content manager is able to manage with the Age Range classification attribute values</b>	
	<p><b>Description:</b> A content item created by a content manager is referenced to an age range for offering to the website visitors a more efficient control over the visualized content.</p> <p><b>Scope:</b> The classification entity, age range, is a mandatory attribute for all the content item types created on the website. The initial list of the age ranges includes:</p> <ul style="list-style-type: none"> <li>• 5 to 7 years</li> <li>• 5 to 10 years</li> <li>• 8 to 10 years</li> </ul> <p>Within the website administration panel the content manager is allowed to view, edit , delete and create new age ranges. Deleting an age range is only allowed if there are no content entities referenced to it. When creating a new age range next information will be provided:</p> <ul style="list-style-type: none"> <li>• Age range unique id</li> <li>• Age range title</li> <li>• Age range description</li> </ul> <p>When an age range is created the system is also recording the create date and the name of the user account who created it.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. A logged in content manager can access the list of age ranges</li> <li>2. A logged in content manager can create a new age range</li> <li>3. A logged in content manager can edit an existing age range</li> </ol>

- |  |  |
|--|--|
|  | 4. A logged in content manager can delete an existing age range only if it is not referenced to a content item |
|--|--|

**BR8 - A content manager is able to manage with the list of Audio and Video Programs**

**Description:** A content of type Audio, Video or Parenting represents a short recording which is one episode of many within the same audio or video program/show.

**Scope:** The entity of type Audio & Video Program, is mandatory reference for content of type Audio, Video and Parenting. The relationship between programs and content is one-to-many (one program includes many content/episodes). The initial list of the audio and video programs includes (titles are in Romanian):

- Descoperă lumea cu voie bună
- Engleza prin cantece
- Daca as fi (vox)
- Place/Nu place (vox)
- De ce (copii dau definiții)
- Sportul (interviuri)
- Guinness
- Trăistuța cu povești (copii)
- Curiozități
- Povestea de seara
- Povesti de zi
- Recomandări carte
- Înviorarea
- Provocări lingvistice
- Intrebari de logica

Within the website administration panel a content manager is allowed to view, edit , delete and create new programs. Deleting a program is only allowed if there are no content items referenced to it. When creating a new program next information will be provided:

- Program unique id
- Program title
- Program description
- Partnership/Responsible
- Program welcome sound (audio file upload)
- Episode intro sound (audio file upload)
- Program representative image (image file upload)
- SEO page title
- SEO page description
- SEO page keywords

When a program is created the system is also recording the create date and the name of the user account who created it. The SEO metadata is exposed to the website page in the HTML meta tags accordingly.

**Acceptance Criteria:**

1. A logged in content manager can access the list of programs
2. A logged in content manager can create a new program
3. A logged in content manager can edit an existing program

	<p>4. A logged in content manager can delete an existing program only if it is not referenced to a content item</p>
<b>BR9 - A content manager is able to create episodes of type Audio, Video and Parenting</b>	
	<p><b>Description:</b> Episode represents a content item created within the website administration panel of type Audio, Video or Parenting that is part of a Program.</p> <p><b>Scope:</b> A content uploaded to the website will be part of a Program with multiple episodes, therefore when creating a new content item, the content manager should be able to make the reference to the appropriate Program and to specify the actual episode sequence number. The entire list of details to be provided on a new episode creation is the next:</p> <ul style="list-style-type: none"> <li>• Item unique id</li> <li>• Item title</li> <li>• Item description (rich text HTML editor)</li> <li>• Item (audio/video file upload)</li> <li>• Image (image file upload)</li> <li>• Program (reference to Programs, allow to select one from available values)</li> <li>• Episode sequence number</li> <li>• Item type (reference to Content Types, allow to select one from available values)</li> <li>• Thematic category (reference to Thematic categories, allow to select one from available values)</li> <li>• Age range (reference to Age ranges, allow to select one from available values)</li> <li>• Recommended quiz (reference to content items of type Quiz, allow to select one or many from available list)</li> <li>• Start date (DateTime selector)</li> <li>• Search keywords</li> </ul> <p>When an episode content item is created the system is also recording the create date and the name of the user account who created it.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. A logged in content manager can access the list of episode content items</li> <li>2. A logged in content manager can create a new episode content item</li> <li>3. A logged in content manager can edit an existing episode content item</li> <li>4. A logged in content manager can delete an existing episode content item</li> <li>5. A logged in content manager can change the ordering of the episodes within a Program by updating the sequence number</li> <li>6. A content episode will be only available on the website if specified Start date is from in the past</li> <li>7. The system allows uploading media files of the next formats: MPEG-4 (MP4), MOV, VAW, MP3, WebM, RTMP.</li> <li>8. The system allows uploading image files of the next formats: JPG/JPEG, PNG, GIF, SVG, PDF</li> </ol>
<b>BR10 - A website visitor is able to download the audio and video content that is part of a Program</b>	
	<p><b>Description:</b> The system is providing an option to download video and audio content that is representing an episode within a Program (refer to BR9).</p>

	<p><b>Scope:</b> A content manager when configuring a new episode of audio or video content is able to specify if the current content is available for downloading. The default state of the configuration is disabled, thus any new content created on the website will have the download option turned off.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. A logged in content manager can configure a content item of type video or audio to enable/disable the download option</li> <li>2. A website user is able to download a content item of type video or audio if that is allowed by the configuration</li> <li>3. The system ensures that the download option for a content item is by default set to disabled.</li> </ol>
<b>BR11 - A content manager is able to create content of type Game</b>	
	<p><b>Description:</b> A content manager can create a content item of type Game that contains a reference to a JavaScript or HTML game that can be played on the visitor's browser.</p> <p><b>Scope:</b> For a content item of type Game, the content manager is allowed to include the embedded code of a game so it can be displayed on the website pages accordingly. When creating a content item of type game next data will be provided:</p> <ul style="list-style-type: none"> <li>• Game title</li> <li>• Game description</li> <li>• Game image (image file upload)</li> <li>• Game embedded code</li> <li>• Item type: Game (reference to Content Types, allow to select one from available values)</li> <li>• Thematic category (reference to Thematic categories, allow to select one from available values)</li> <li>• Age range (reference to Age ranges, allow to select one from available values)</li> <li>• SEO page title</li> <li>• SEO page description</li> <li>• SEO page keywords</li> </ul> <p>The SEO metadata is exposed to the website page in the HTML meta tags accordingly.</p> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A logged in content manager can access the list of games</li> <li>2. A logged in content manager can create a new game item</li> <li>3. A logged in content manager can edit an existing game item</li> <li>4. A logged in content manager can delete an existing game item</li> </ol>
<b>BR12 - A content manager is able to create content of type Quiz</b>	
	<p><b>Description:</b> A content manager is able to create content of type Quiz of a predefined structure and formats.</p> <p><b>Scope:</b> Within the website administration portal, a content manager is able to create quizzes that include question carts of next predefined formats:</p> <ul style="list-style-type: none"> <li>• One question with a list of answers where only one is correct</li> </ul>

	<ul style="list-style-type: none"> <li>• One question with a free text field where the website visitor may provide the answer.</li> </ul> <p>A quiz will include a series of questions that may vary from 3 to 10. Before creating the quiz questions the content manager will first create the quiz entity with the following details:</p> <ul style="list-style-type: none"> <li>• Quiz unique id</li> <li>• Quiz title</li> <li>• Quiz description</li> <li>• Quiz representative image (image file upload)</li> <li>• Welcome sound (audio file upload)</li> <li>• Item type : Quiz (reference to Content Types, allow to select one from available values)</li> <li>• Thematic category (reference to Thematic categories, allow to select one from available values)</li> <li>• Age range (reference to Age ranges, allow to select one from available values)</li> </ul> <p>Within the quiz entity, a series of questions can be created with the following details:</p> <ul style="list-style-type: none"> <li>• Question</li> <li>• Correct answer</li> <li>• Answer detailed explanation</li> <li>• List of answers</li> <li>• Question representative image (image file upload)</li> <li>• Quiz Id (reference to the quiz)</li> <li>• SEO page title</li> <li>• SEO page description</li> <li>• SEO page keywords</li> </ul> <p>The SEO metadata is exposed to the website page in the HTML meta tags accordingly.</p> <p><b>Note:</b> It is acceptable to integrate with a plugin that provides the Quiz functionality if it covers all the stated business requirements and can be properly integrated with the website administration panel without introducing any additional complexity, costs or scheduled maintenance.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. A logged in content manager can access the list of quizzes</li> <li>2. A logged in content manager can create a new quiz and new quiz questions</li> <li>3. A logged in content manager can edit an existing quiz and its questions</li> <li>4. A logged in content manager can delete an existing quiz or questions within a quiz</li> </ol>
<b>BR13 - A content manager is able to create content of type News</b>	
	<p><b>Description:</b> A content manager is able to create content of type News which represents articles with different messages, like contests announcement, website updates or photo gallery sharing.</p> <p><b>Scope:</b> Within a news article the content manager has the ability to create different content with the purpose of informing the website visitors about events or updates that are available on the website. To create a content item of type News, the content manager will provide the following details:</p> <ul style="list-style-type: none"> <li>• Article title</li> <li>• Article content (rich text HTML editor)</li> </ul>

	<ul style="list-style-type: none"> <li>• Article representative image (image file upload)</li> <li>• Item type: News (reference to Content Types, allow to select one from available values)</li> <li>• Thematic category (reference to Thematic categories, allow to select one from available values)</li> <li>• Age range (reference to Age ranges, allow to select one from available values)</li> <li>• Article visibility (On or Off)</li> <li>• SEO page title</li> <li>• SEO page description</li> <li>• SEO page keywords</li> </ul> <p>The rich text HTML editor configured for the Article content is also supported to create within the article a photo gallery that can be easily visualised by the website visitors. The Article visibility flag will be used to ensure that website visitors cannot access the outdated announcements or contests. The system is displaying 404 Page if a website visitor is trying to access an article with the visibility set in false. The SEO metadata is exposed to the website page in the HTML meta tags accordingly.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. A logged in content manager can access the list of News articles</li> <li>2. A logged in content manager can create a new News article</li> <li>3. A logged in content manager can edit an existing News article</li> <li>4. A logged in content manager can delete an existing News article</li> <li>5. A logged in content manager can create photo gallery within an existing News article</li> <li>6. A logged in content manager can control News article visibility</li> </ol>
<b>BR14 - A content manager is able to manage with the Announcements banner on the website homepage</b>	
	<p><b>Description:</b> The system provides a banner component for the announcements that is presented on the website homepage and can be configured by a content manager within the website administration panel.</p> <p><b>Scope:</b> When a News article is created, the content manager has the ability to promote the article on the website homepage by including a link reference and short details about the article. Accessing the link within the Announcements banner the website visitor will be directed to the article page. For configuring Announcements banner the content manager is providing next details:</p> <ul style="list-style-type: none"> <li>• Announcement description (rich text HTML editor)</li> <li>• Announcement banner visibility (On or Off)</li> </ul> <p>The announcement banner visibility flag is used to hide the Announcement banner when there are no articles to be promoted.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. A logged in content manager can edit the announcements banner content</li> <li>2. A logged in content manager can control the announcements banner visibility</li> </ol>
<b>BR15 - A content manager is able to create and configure carousel items</b>	

**Description:** For the purpose of promoting the website content the content manager is able to create multiple components of type carousel which will include a number of content items that are gathered in the carousel based on a configured rule.

**Scope:** A component of type carousel represents a web element that displays horizontally a number of items that can be scrolled left and right. Selecting an item from the carousel the website visitor is directed to the details page of the content item.

When creating a carousel item, content manager is able to control next configuration settings:

- Carousel unique id
- Carousel title
- Carousel hero content items (reference to Content Items, allows to select one or many from the list of Content Items)
- Carousel program reference (reference to Programs, allow to select one from available Programs)
- Carousel content reference (reference to content items, allow to select one from available content items of next types: Audio, Video, Parenting and Quiz )
- Carousel content type (reference to content types, allow to select one from the list: Audio, Video, Parenting or Quiz)
- Carousel content thematic category (reference to Thematic categories, allow to select one from available values)
- Carousel content age range (reference to Age ranges, allow to select one from available values)
- Carousel content ordering logic:
  - order by create date descending
  - order by number of views descending
- Carousel content items upper limit
- Carousel visibility (On or Off)

The system allows one or more carousel configuration items for the same Program or content item.

A carousel item configured without a program reference and content reference, is intended to be displayed on the website homepage.

The “Carousel hero content items” allows you to specify manually the content items that will be included in the current carousel. The hero content items are always displayed first in the carousel in the order they are assigned.

**Acceptance Criteria:**

1. A logged in content manager can create a new Carousel
2. A logged in content manager can edit an existing Carousel
3. A logged in content manager can delete an existing Carousel
4. A logged in content manager can control the Carousels visibility
5. A logged in content manager can specify the maximum number of the content items to be displayed in a specific carousel
6. Carousel configured with Hero content items will display these items first in the list in the order they are assigned
7. Carousel configured with a Program reference is displayed along all episodes within that specific Program
8. Carousel configured with a Content reference is displayed on the page with that specific content only



	<ol style="list-style-type: none"> <li>9. Carousel configured with both Program and Content references is displayed on the page with that specific content only, ignoring the Program reference</li> <li>10. Carousel configured without Program and Content references is displayed on the website homepage in the predefined section per the website design</li> <li>11. Carousel will only contain content items of specified content type.</li> <li>12. Carousel with a defined content thematic category is only including content of the specified thematic category</li> <li>13. Carousel without a defined content thematic category is including content of all thematic categories</li> <li>14. Carousel with a defined content age range is only including content of the specified age range</li> <li>15. Carousel without a defined content age range is including content of all available age ranges</li> <li>16. Content items included in the carousel can be ordered by create date with the most recently created content first in the list</li> <li>17. Content items included in the carousel can be ordered by number of views with the most viewed content first in the list</li> <li>18. The system ensures that the items in a single carousel are not from the same Program, thus if two content items that are part of the same Program are the most recently created then only one will be included in the carousel</li> </ol>
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#### BR16 - The system provides a web media player

	<p><b>Description:</b> The video and audio content uploaded to the website by the content managers is presented to the website visitors via a web media player component.</p> <p><b>Scope:</b> The same web media player component is used by the system to present both audio and video content to the website visitors. The web media player is supporting next control options and features:</p> <ul style="list-style-type: none"> <li>• Play / Pause</li> <li>• Mute / Unmute</li> <li>• Move to next / Move to previous</li> <li>• Automatically play next media item within the same Program</li> <li>• Full screen / Exit full screen</li> </ul> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A website visitor can play and pause a media</li> <li>2. A website visitor can mute and unmute a media</li> <li>3. A website visitor can enlarge the web player on full screen and exit full screen</li> <li>4. The system automatically plays next item within the same Program and stops playing when the last item is finished</li> </ol>
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#### BR17 - The system counts the views of audio and video content items

	<p><b>Description:</b> The system stores the number of views for the content items of type Audio and Video.</p> <p><b>Scope:</b> Every time a website visitor is playing a video or audio content, the system is increasing the views count. A view is counted even if the website visitor does not play the content till the end. A view is counted once per an active user session. A content manager</p>
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	<p>is able to hide the number of views from the website user interface via a configuration in the website administration panel.</p> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. The system stores views count for the audio and video content</li> <li>2. The system displayed the views count for each individual content item</li> <li>3. The system hides the views counts from the website user interface if the views count display feature is disabled</li> </ol>
<b>BR18 - A website visitor can appreciate video and audio content items</b>	
	<p><b>Description:</b> The system provides the ability to appreciate a content of type audio and video.</p> <p><b>Scope:</b> To appreciate a content the website visitor is able to select one or many from a predefined list of emoticons. Once an emotion is selected it is recorded and the system will display the count for each particular emoticon. The system ensures that an emoticon can be selected only once per an active user session. A content manager is able to hide the emoticons via a configuration in the website administration panel.</p> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A website visitor can select an emoticon for a particular audio or video content</li> <li>2. The system counts the number of emoticon selections per content item</li> <li>3. The emoticons are not displayed on the website if the feature is disabled</li> </ol>
<b>BR19 - The system provides the ability to post comments to programs of video or audio content</b>	
	<p><b>Description:</b> A website user is able to post a comment on the page of a Program.</p> <p><b>Scope:</b> The comment message submitted from the website user interface will only be displayed on the website after it is reviewed and approved by a moderator team. A new comment will be created in status To Review and can be updated to Approved or Declined after the review process. On the website will be only displayed comments in Approved status. A content manager can hide the comments component from the website user interface via a configuration available in the website administration portal. To submit a comment the website visitor can provide next information:</p> <ul style="list-style-type: none"> <li>• Name</li> <li>• Comment</li> <li>• Attachment (image file upload, max 5MB)</li> </ul> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A website visitor can submit a comment for a specific Program of video or audio content</li> <li>2. The system will only display comments that are in status Approved</li> <li>3. The comments component is not displayed on the website if the feature is disabled</li> </ol>
<b>BR20 - A website visitor can search through the website audio and video content</b>	

	<p><b>Description:</b> The system provides search functionality which will help the website visitor to find easier the audio or video content they are interested in.</p> <p><b>Scope:</b> The search functionality is configured to search through content of type Video and Audio only, thus it should not present in the result content of any other types like Parenting or News articles. For the search index next content item related properties will be used:</p> <ul style="list-style-type: none"> <li>• Content item title (search score: 50)</li> <li>• Content item description (search score: 10)</li> <li>• Content item search keywords (search score: 40)</li> </ul> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A website visitor can search through the website audio and video content</li> <li>2. The system provides the search results ordered by accumulated search score</li> </ol>
<b>BR21 - A website visitor can filter the items on a category page and in the search results</b>	
	<p><b>Description:</b> The system provides a content items filtering mechanism constructed based on the content items classification attributes.</p> <p><b>Scope:</b> A website visitor that is opening a category page or is performing a search, is able to refine the list of items in the page by selecting one or many filtering options. Based on the content in the page the filtering component may include next options:</p> <ul style="list-style-type: none"> <li>• Filter by content type (audio / video; relevant for the search results)</li> <li>• Filter by age range</li> <li>• Filter by thematic category</li> </ul> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A website visitor is able to filter content items on a category page or search results by the age range</li> <li>2. A website visitor is able to filter content items on a category page or search results by the thematic category</li> <li>3. A website visitor is able to filter content items in the search results by the content type</li> </ol>
<b>BR22 - A website visitor can sort the items on a category page and in the search results</b>	
	<p><b>Description:</b> The system provides a content items sorting mechanism available on category and search results pages.</p> <p><b>Scope:</b> A website visitor that is opening a category page or is performing a search, is able to reorder the list of items in the page by selecting one from the available list of Sort By options. The Sort By options are the next:</p> <ul style="list-style-type: none"> <li>• Alphabetically from A to Z (by the content item title)</li> <li>• Alphabetically from Z to A (by the content item title)</li> </ul> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A website visitor is able to reorder content items on a category page or search results in alphabetical order from A to Z</li> <li>2. A website visitor is able to reorder content items on a category page or search results in alphabetical order from Z to A</li> </ol>

**BR23 - The system plays the welcome sound when website visitor accesses a program or quiz**

**Description:** Everytime a website visitor is accessing a Program (Video/Audio) or a Quiz, the system will play the welcome sound that is attached to the related entity within the system

**Scope:** A website manager has the ability to upload a short audio file and attach it to a Video or Audio Program (see BR8) or to a Quiz (see BR12). If the audio file exists, then the system will play it every time a website user is accessing the related content. A program or quiz without an audio file, will load without any sound effect. In case of Programs, the welcome sound will only play if the website visitor is accessing the Program from a category page, which will result in opening the Program page without starting automatically an episode to play.

**Acceptance Criteria:**

1. The system plays a welcome sound for Program or Quiz if the audio file exists in the configuration of the related entity
2. The system load Program or Quiz page without a sound if no audio file exists in the configuration of the related entity
3. The system plays a welcome sound for a video or audio Program only if it is accessed from the category page
4. The system does not play a welcome sound for a video or audio Program if the page is accessed by a click on a particular episode within a carousel.

**BR24 - The system plays the episode intro sound when website visitor accesses an episode**

**Description:** Every time a website visitor is accessing a content item episode, the system will play the episode intro sound that is attached to the related Program within the system.

**Scope:** If the episode intro sound is attached to a Program (BR8), the audio file will only play in two cases:

- a website visitor accesses a content item from a carousel and when directed on the page of the Program
- a website visitor manually selects an episode from the Program list of episodes

After the intro sound played the selected episode starts playing too. In case the website visitor does not select manually a next episode, it will be automatically started by the system and the intro sound will be skipped.

**Acceptance criteria:**

1. Episode intro sound is played if the episode is manually started by the website visitor
2. Episode intro sound does not play if the episode started automatically by the system

**BR25 - A website content manager is able to configure live streaming on the website**

**Description:** A website content manager is able to do the setup for a player that allows to play .m3u8 streaming video links.

	<p><b>Scope:</b> A content manager can promote live events on the website by configuring the media player with the live streaming and enabling the link for accessing the player to be visible in the website header. By default the link for accessing the live streaming player is not visible in the website header.</p> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A logged in content manager is able to configure live streaming player</li> <li>2. A logged in content manager is able to enable the live streaming access link</li> <li>3. The system displays the live streaming access link in the website header when the setting is enabled</li> <li>4. The system hides the live streaming access link from the website header when the setting is disabled</li> </ol>
<b>BR26 - A website visitor is able to subscribe to the email newsletter</b>	
	<p><b>Description:</b> The system provides the ability to the website visitors to subscribe to the email newsletter.</p> <p><b>Scope:</b> A website visitor is able to subscribe to email newsletters providing a valid email address and submitting it through a dedicated form on the website user interface. The system will ensure that the provided email address is of a valid format. A content manager is able to access through the website administration panel the list of subscribers and to download the emails into a CSV file for passing it into a separate system for mailing. The system provides email address and subscription date in the CSV file.</p> <p>When an email address is submitted through the subscription form the system validates if the email already exists in the system before saving it, thus no duplicated entries are created.</p> <p><b>Acceptance Criteria:</b></p> <ol style="list-style-type: none"> <li>1. A website user is able to subscribe to email newsletter from the website user interface dedicated form</li> <li>2. The system validates the email format before it can be saved into the system</li> <li>3. The system validates that email is not subscribed already before saving in the system</li> <li>4. A logged in content manager is able to access the list of subscribers in the website administration panel</li> <li>5. A logged in content manager is able to download to a CSV file the list of subscribers</li> </ol>
<b>BR27 - The system presents the website footer section on all pages</b>	
	<p><b>Description:</b> The footer section is the same and is displayed on all website pages per the design and with the preconfigured settings.</p> <p><b>Scope:</b> The footer section is designed to include next type of elements:</p> <ul style="list-style-type: none"> <li>• TRM and Partners logo images</li> <li>• Social media links with appropriate icons</li> <li>• Contact details section</li> <li>• Multiple links to content pages</li> <li>• Email newsletter</li> </ul>

	<p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A website visitor is able to interact with the website footer elements on every page within the website</li> <li>2. The system displays the footer elements accordingly to the website design</li> </ol>
<p><b>BR28 - The system prompts visitors to submit a statistical request form when first time accesses the website</b></p>	
	<p><b>Description:</b> For a new browsing session the system is requesting the website user to provide his name, age and gender.</p> <p><b>Scope:</b> For tracking and assessing the audience of the website the system provides a request form that can be completed and submitted by website visitors when they are first time interacting with the website. The form will be presented in a modal window that will show up after a predefined period of time after the browsing session was started (i.e. 10 seconds). The request form will consist of next data fields:</p> <ul style="list-style-type: none"> <li>• Name</li> <li>• Age</li> <li>• Gender</li> </ul> <p>The website visitor can opt for not submitting the form by simply closing it. Once submitted the form should not be displayed to the website visitor for the time he is browsing the site within the same browser and does not clear the website cookies. The submitted forms are stored to the website database for statistical analysis. The system allows to control the visibility of the request form, thus with a configuration within the administration panel, a content manager is able to disable the request form so it does not appear on the website.</p> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A website visitor is able to submit a statistical request form by providing all requested details</li> <li>2. The statistical request form submission is stored within the cookies does it does not display again before the cookies expires (assume cookie expiration 1 year)</li> <li>3. A content manager can enable and disable the statistical request form through a configuration in the administration panel</li> <li>4. A content manager can access the submitted data and to export it into a CSV file for further processing</li> </ol>
<p><b>BR29 - The system incorporates the PWA technology for an enhanced performance and user experience</b></p>	
	<p><b>Description:</b> At the development of the website the PWA (Progressive Web Apps) technology should be incorporated so the content from the website can be also accessed offline.</p> <p><b>Scope:</b> The system should offer the possibility to their visitor to access the content offline so they can listen, watch and play the preferred content without a need to be always connected to the internet. For this purpose, the website should be supporting the PWA technology with all the related techniques and best practices for delivering the content online and offline.</p> <p><b>Acceptance criteria:</b></p>

	<ol style="list-style-type: none"> <li>1. Resources accessed on the website application being online can be accessed offline afterwards</li> <li>2. The website application displays the offline page for the pages that were not visited before</li> <li>3. The website application regularly refreshes the stored content thus it does not offer outdated content</li> </ol>
<b>BR30 - A website visitor is able to download and install to home screen the PWA for a quick access to the website</b>	
	<p><b>Description:</b> From the website user interface the user should have an option to download and instal on his device home screen the quick reference to the website.</p> <p><b>Scope:</b> Taking in consideration the target audience of the website, it is important to provide an option for quick and simple access to the website. The download link will be available within the website footer and on a click will download and automatically install the website reference to the user's device homescreen. Due to PWA technology the website can be displayed in offline mode offering access to the content already stored on the user's device local storage.</p> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A website visitor is able to add the website shortcut to his device home screen from a link on the website</li> <li>2. A website visitor is able to access the website by a tap on the website shortcut on his device</li> </ol>
<b>BR31 - The website is integrated with a web analytics service</b>	
	<p><b>Description:</b> The website is integrated with a web analytics service for tracking and reporting the website traffic.</p> <p><b>Scope:</b> The TRM holds a Google Analytics account that can incorporate the tracking of the new website. The TRM technical department will be providing the integration script generated from their account for the defined domain name of the developed website, that should be included in the source code of the website so the tracking and reporting is enabled properly.</p> <p><b>Acceptance criteria:</b></p> <ol style="list-style-type: none"> <li>1. A web analytics service can be easily integrated with the website</li> <li>2. The website traffic is available in the Google Analytics account</li> </ol>

## 4.2 INTERFACE REQUIREMENTS

The website design requirements are elaborated by a service provider in collaboration with the TRM multimedia production department for children and will include the design mockups, recommendations for a user experience aligned with the target audience of the website and references to the usability and accessibility standards. Some of the main aspects covered in the design requirements are the following:

- Website mascot
- Icons and logos

- Website page layout (for all existing page types)
- Style and positioning of the elements within website pages (images, links, buttons, forms, grid, player etc.)
- Color schema and fonts definition
- Animations and sound effects

The website design is also covering the requirements for the website mobile view thus all the page elements are aligned and positioned accordingly to the device screen size.

There are no specific requirements to the design of the website administration panel, however this area should be developed following the best approaches of making it simple and intuitive to the content managers.

### 4.3 USER PROFILES

Based on the user responsibilities within the system, there are next distinct user profiles:

- Website administrator: The administrator user has full access to the system resources and configurations. One of the main responsibilities of an administrator user within the system is managing the content manager accounts as described in the business requirements BR1 and BR3.
- Website content manager: A content manager has full access to the website content administration and in his responsibilities is the creation and management of content of all types available within the system as described in the business requirements table of the document.
- Website visitor: A website visitor represents any person that is accessing the website user interface from a browser. The system does not provide user registration functionality therefore there are no visitors of different types. Any person that is accessing the website user interface can navigate through the website pages and access all the content available on the website without any restrictions or limitations.

The access to the website administration panel is authorised only for the Website administrator and Website content manager users as described in the business requirement BR1.

## 5. Technical Requirements

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The up-to-date Developers Standards and Good Practices Set describes the Process and IT Norms and Standards of the Council of Europe and is available at: <http://vdd.coe.int>.

### 5.1 OPERATIONAL ENVIRONMENT STANDARDS

There are no operational environment standards specific to the current system.

### 5.2 HARDWARE AND INFRASTRUCTURE REQUIREMENTS

The website hosting will be handled within the TRM data center where all necessary hardware and software resources for the website to operate 24/7 will be allocated. The development company is responsible for installation and configuration of the web servers with all the software needed for the website application to function. A requirement from TRM data center is to have the media and web application on separate virtualized servers, thus the backups can be more efficiently managed.

The development company will advise TRM technical staff on what minimum hardware resources should be allocated to the server for being performant.

The TRM data center recommendations for server configuration are to use Ubuntu Server for the operation system so it can be efficiently managed by the TRM technical staff in the future and for any other software installed on the server it should be the latest official versions with any available security patches installed.



The development company will support the costs for software licenses in case that is needed for the web server configuration.

### **5.3 ACCESS MODES AND SECURITY REQUIREMENTS**

The system is not intended to collect user sensitive information and does not provide possibility for creating website user accounts. For the website administration panel, the system ensures a secured access for the authorised accounts only per the business requirement BR1. The content management and administrator user accounts are only used to access and manage the website content and are not linked with any other systems currently available within the TRM.

### **5.4 OPERATIONAL SECURITY**

All the Hardware, Media and Administration controls will be managed within the TRM data center by the technical department.

### **5.5 BUSINESS CONTINUITY PLAN (DISASTER RECOVERY)**

The system information backup and restore functionalities in the event of some technical problems leading to losing or deteriorating the current information, will be managed within the TRM data center by the technical department.

### **5.6 BACKUP AND ARCHIVING**

The system should be built in a way that all the media content uploaded to the website (audio, video, images) is saved on a dedicated server for media storage only, separately from the web application server. This infrastructure configuration allows to set up a more efficient backup strategy. The backup scheduler will be determined by the TRM technical department.

### **5.7 SERVICE LEVEL: AVAILABILITY, PERFORMANCE AND SUPPORT**

The developed system should provide a reliable level of service to both, website visitors and website content management users. The website reliability and availability, same as data integrity, capacity and scalability will be managed within the TRM data center per the existing policy for the web services support and maintenance.

The performance of the website, same as the performance of the administration panel, will depend on a number of factors including network performance, media server specification, application and database server specification, client computer specification and system load. In a suited environment the target page load time for the website pages should be considered within a range of 3 - 5 seconds.

In the development of the website should be considered technics and best practices to improve the website speed metrics, as per examples provided in the next list:

- Lazy loading technique could be used on the audio and video programs where each episode can be loaded to the user's browser on his request only, thus not delaying the entire page load waiting for all content items to be loaded.
- Caching - specify appropriate caching time for the static resources like website logo, icons, styles on the browser level.
- Serve the media content from the media web server.
- Use of SVGs over PNGs for logo, icons and simple animations to reduce the overall size of the page.
- Prefetch and preload techniques could be used for instance for a smoother transmission from an episode to another by loading the next episode in the background while the selected episode is playing.

For children between 5 and 10 years old it might be not obvious when a page is loading slow and he should simply wait, thus they could start tapping or clicking on every visible element interrupting the

current requests and initiating new ones, thus creating more load and getting frustrated with not seeing the expected content. It is very important to make it visible and clear when some content takes time to load and update so the user understands that he has to wait before interacting again with the page. This could be relevant for the Quizzes where once a response was submitted the user has to wait for its validation before proceeding to the next question.

## 5.8 SYSTEM DOCUMENTATION

As part of the developed system is expected to get delivered a set of system documentation for the different aspects of the website which will include administration guides, setup guides and technical documentation.

- Guide for the installation of scheduled assistance - the document must contain the description of the following compartments:
  - general information:
    - system requirements (platform);
    - specification of the scheduled assistance required for software operation;
    - particularities of standard software configuration for software operation;
  - installation mode - in that compartment, it is necessary to describe successively the steps that should be taken to install the scheduled assistance.
  - software preparation for operation - in that compartment, it is necessary to describe the place of insertion and the content of files necessary for adjustment and configuration and how to edit them.
- Developer's guide - the scheduled assistance of the site developed must be qualitative and sufficiently documented, so that it is possible to maintain and develop the source code based on it. Requirements regarding the composition of the documentation:
  - system requirements - presenting the requirements for the composition and characteristics of the technical means, including the requirements for the composition and characteristics of the technical means, operating system, including the need to install additional software (support for network protocols etc.);
  - specifications for scheduled assistance - presenting the composition of the scheduled assistance required for operating the software, the main development tool, the tool for creating the help systems, the means of installation and the particularities of setting them up;
  - software description - must consist of:
    - structure of the project and the catalogues used to develop the software;
    - description of software, procedures-functions, procedures stored in the section: destination, input and output data, algorithm, values of process status indices and modified parameters in the process of processing and recording in tables/files.
  - description of system architecture - must consist of:
    - system components - presenting the specification of scheduled and information assistance at the level of objects, functions, place in the system;
    - the application program project - describes the technology of the implementation of the applicative software, the means of realization and the description of the algorithm for each component;
    - interfaces and interaction procedures - describes the functionality and structure of interfaces and the interaction of components.
  - description of the database - must consist of:
    - database object specification - describes the database object type, database object name, destination of the database object;

- description of the table structure - is shown separately for each table in the composition by the item number, item identifier, item name, item type.
- The source code - the project source code should be available as a repository with restricted access on the internet within a hosting service for software development and version control. The source code and ownership remains with the beneficiary at the end of the project's finalisation.

## 6. Critical considerations

### 6.1 ASSUMPTIONS

Next list of the assumptions must be considered:

- the web servers for web application and for the media are available within the beneficiary data center
- the website design specifications are available and provided in time by the beneficiary

### 6.2 CONSTRAINTS

Next list of the constraints must be considered:

- the beneficiary ensures that its technical department makes available the web servers for configuration, installation of necessary software and production rollout preparation.
- the beneficiary ensures that the respective staff from multimedia production department for children will collaborate closely with the development team.

### 6.3 RISKS

Category	RISK	Impact	Probability	Overall gravity	Proximity	Current Mitigation	Assigned to
What type of risk is this?	RISK TITLE in capitals followed by the risk description (Risk is a specific situation in the future which is undesirable, can be avoided or mitigated and is measurable)	Severity of the risk occurring (from 1=Low to 4=High)	Likelihood of the risk occurring (from 1=Low to 4=High)	Overall rating reflects the combination of Probability and Impact	When is the risk likely to occur (in X months)	Specific measures in place to counter the risk	The person appointed to keep an eye on the risk
Tendering	There are no sufficient Bidders to validate the tender	4	2	3		The tender files are well documented and submitted to multiple service providers available on the market	
Tendering	The Bidders offers are above the allocated budget	4	2	3		Specify in the tender file the project estimated cost	
Development	The developed website does not fully comply	2	2	2		The developed website should be checked against	

	with the business requirements					the Acceptance Criteria of each business requirement stated in the document of Business Requirements	
Timing	The website is not complete developed by the project deadline	3	3	3		Conduct regular meetings with the development team management to check the progress and address in time any potential blockers.	
Operation	The beneficiary infrastructure is not ready to host the new website	2	1	2		Coordinate internally with the beneficiary the infrastructure setup progress to ensure it is scheduled to complete before the project development ends.	
Operation	The content management team does not feel comfortable with the website content management	2	3	3		Ensure that the content management team is involved in the training sessions and are clear about the delivered user guides.	

## 7. Data Requirements

### 7.1 DATA INPUTS

The system is designed to store multimedia content uploaded to the website only via the administration panel by the content managers, therefore this type of data is reviewed and selected rigorously to be appropriate for children of 5 to 10 years old.

Interacting with the website user interface the website visitors are able to submit data into the system through four interactive forms:

- Comments form - within comment form the user is able to provide his name and a comment. The message will always go through a review before it can be displayed on the website. The review of the comments is managed by the content management team. (business requirement BR19)
- Newsletter subscription form - within this form the user is able to submit his email address for receiving email newsletters. The email is stored in the system database and processed by the content management team for sending updates and news about the website (business requirement BR26)

- Identity request form - within the modal window the user will provide his name, age and gender. The data is stored in the system database and can be used by the content manager to build statistical reports (business requirement BR28)
- Content rating - a website visitor is able to select an emoticon to appreciate a particular content (business requirement BR18)

## 7.2 DATA OUTPUTS AND REPORTING REQUIREMENTS

For a reporting purpose the website is collecting next information:

- Visitors age and gender submitted via identity request form. The collected information will be used internally by the multimedia production department for children to understand children of what age are visiting the website the most.
- Content ratings and views count will be used to understand what type of content is more appreciated by the visitors.

The system is not supposed to automatically generate reports. All the collected information will be available for content managers to be processed outside of the system.

## 7.3 DATA MIGRATION

There are no requirements for data migration.

# 8. User Documentation and Training Requirements

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Before the production rollout of the developed website it is important to ensure that the website content management team is well familiarised with the website structure and content management tooling. For this the content management team should attend a number of training sessions provided by the development company. The purpose of the training sessions is to explain functionalities of managing with user accounts, with the website content, with all the collected data, and to clarify any questions that may appear, so at the end, the persons who attends the trainings, should be able efficiently to deal with tasks like:

- creating new user accounts within the system
- creating content of different types
- processing the collected data like newsletters subscription emails

The format and number of training sessions to be determined by stakeholder based on personnel availability. All the training sessions should be planned efficiently by creating a training schedule before the development of the website completes.

The training sessions should be also delivered with the next user documentation:

- Website administration user guide - the document describes configuration settings of the website and the step by step guidelines on how to manage with the content manager user accounts.
- Website content management user guide - the document describes how a content manager can interact with the website administration portal for managing the website content of all available types. The document should clearly specify the configuration steps for the available components with examples of possible results. It is also important to specify the dependencies within the system components thus the assignments and relations are performed correctly.

The development company is responsible for preparation of the documentation however the beneficiary will take the responsibility on maintenance and further update of the documentation.

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[End of document]