



# DIGITAL TRANSFORMATION STRATEGY OF RADIO AND TELEVISION OF MONTENEGRO FOR THE PERIOD 2023-2027.

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# INTRODUCTION

Radio and Television of Montenegro has successfully performed the role of the public service media of Montenegro for several decades, changing and evolving together with society. The rapid development of technology has accelerated changes in all aspects of life. The media industry is no exception. On the contrary, habits and methods of transmitting and consuming information and content are one of the areas of life that have undergone the most drastic changes in the 21st century.

New ways of information exchange, technology, transfer and use of data, open up a completely new sphere of possibilities. On the other hand, they also open space for incomparably greater competition than was the case ever before in history. New technologies and media channels have enabled a large number of smaller media to enter the market, which have greater flexibility in experimenting with content and can more easily reach certain populations, especially among young people. VOD platforms have enabled the expansion of giants such as Netflix, HBO, and Disney into the global market and made high-quality productions available on demand, at reasonable monthly subscription cost.

The greatest change in the way of creating and consuming content and information, and indeed a revolution, has certainly been brought about by the expansion of social networks.

In this context, the need for digital transformation of the Public Service is unquestionable and should be seen as an opportunity to redefine its role and the way it serves the citizens of Montenegro. The transformation can be fundamental only if it combines all aspects of work: from content production and broadcasting, decision-making and collaboration, to the structure of the organization and processes within it. In this sense, digital transformation should be perceived as a path that develops a culture of continuous learning, personal and collective development, and innovation.

The driver of digital transformation changes is certainly modern technology. The digitalization of the studio equipment was completed in 2019, giving RTCG the most modern technical resources, including two state-of-the-art mobile reporting vehicles. This has made the necessary step towards a modern media service. However, technology alone is not sufficient for us to talk about a

fundamental transformation. The way in which technological solutions are used to change and improve the way of working, content production, and the functioning of the organization as a whole, are the goals to strive for.

At the very core of digital transformation are human resources. The pronounced hierarchy, centralization of decision-making and responsibility, silo mentality, lack of cooperation, resistance to change, lack of motivation, and lack of skilled personnel for new jobs represent a major challenge for a fundamental business transformation. Solving these issues is an absolute priority and a prerequisite for change.

One of the greatest values of Public Service is the rich program archive, which represents a chronological and cultural treasure and an indispensable historical source of Montenegro. It is an obligation to use the power of digitization to preserve this treasure and make it more accessible, both to the current public and future generations.

Digital transformation represents a complex and layered task. The three main pillars on which this process should be based include:

- 1. HUMAN RESOURCES AND BUSINESS CULTURE**
- 2. PLANNING, PRODUCTION AND CONTENT TRANSMISSION**
- 3. ORGANIZATION AND ADMINISTRATIVE PROCESSES**



# 1. HUMAN RESOURCES AND BUSINESS CULTURE

Modern digital technological solutions are the basis of digital transformation, but its initiator and bearer must be the people. The ultimate goal is not to replace people with technology, but to use digital solutions in the best way to make actual human work more efficient. The transformation must be reflected in all parts of the system and, in order to successfully implement it, all employees must participate in it in some way. From the point where the collective is currently standing, this journey will not be easy or short, but it is necessary and fundamentally important.

Among the employees of RTCG, there is a considerable number of highly skilled professionals. During its long existence, RTCG has produced some of the biggest experts in the field of radio and television, some of whom have continued their careers outside the parent company, while many still work there. However, it is necessary to face the challenges that must be overcome in order to align the system with changes in the industry, and to continue to operate in the long run.

## GENERAL BUSINESS CULTURE

In a time where the speed of change is measured in days or weeks and not in decades like in the past, RTCG still faces questions of basic business culture and digital literacy. A certain number of employees still lack even basic computer skills. The active use

*In systems where business has been conducted in a certain way for a long time, there is often a reluctance to support more radical changes.*

of email communication, keeping minutes of meetings, scheduling meetings through a calendar or respecting meetings in progress, are not standards that all employees adhere to.

## SILO MENTALITY

Cooperation and the flow of information between sectors and teams is not always at a desirable level. This is, on the one hand, caused by internal processes that are not sufficiently clear nor respected, a lack of digital collaboration tools and the general business culture. On the other hand, there is a clear division of "US" and "THEM", without a general sense of unity and continuous teamwork towards a common goal.

## CENTRALIZED RESPONSIBILITY

The limited level of responsibility of a part of middle management additionally affects intersectoral cooperation and complicates internal procedures.

## MOTIVATION FOR IMPROVEMENT

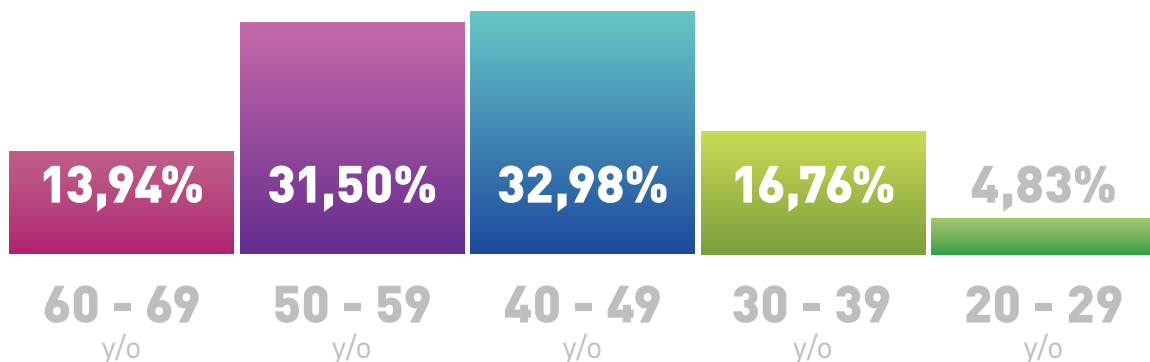
New times bring a new set of necessary competencies, while some are irreversibly left in the past. The question is whether, and to what extent, the entire environment within RTCG stimulates adoption of the new skills, which often imply an expansion of the scope of work that the employee previously performed.

## RESISTANCE TO CHANGE

In systems in which business has been conducted in a certain way for many years, there is often a reluctance to support more fundamental changes. In this sense, RTCG is no exception. Digital transformation implies leaving the comfort zone. Failures and multiple attempts must be viewed as part of the process. Transformation cannot be carried out with prepared answers to all questions at the beginning of the process. Obstacles and difficulties should be seen as challenges, not as excuses to abandon change.

## AGE STRUCTURE

The age structure of employees at RTCG is another aspect that could be a challenge. Over 45% of employees are over 50 years old, while 78% are over 40 years old. Less than 5% of employees are under 30 years old.



1. Age structure of the Workforce



The age structure is particularly worrying in sectors that should be at the forefront of the digital transformation process, such as IT and technology. This raises the question of how attractive RTCG is as an employer for younger generations and professionals that are specialized in the field of digitalization.



2. Age structure by the organizational unit





## 2. PLANNING, PRODUCTION, AND BROADCASTING

Changes in society, lifestyle, and content consumption have accelerated dramatically. Even though the influence of traditional, linear television is still significant, the transition to digital channels is an inevitable and irreversible process. Development and promotion of digital products and services must be strategically recognized.

Creating content that is relevant to the audience and enabling its consumption through the desired platform and device, at any time, is becoming the ultimate need for the national media companies as well. This task is not simple, but it is inevitable.

The development of technology is dramatic and difficult to keep up with even in markets that are significantly larger than the Montenegrin one. Global conglomerates such as Netflix, HBO, Amazon, or Disney create a lot of content that is available to the global audience and which cannot be competed with, even by some of the world's largest TV productions. The revolution brought by social networks is well noted.

On the other hand, digitalization offers the possibility of a better understanding of the audience, enabling data that can help the media to reach narrower niches of the audience and to more

easily recognize content and access that can be relevant to local communities. In this sense, it is very important to realize the power of data and how it can be used in the service of a more relevant role of the national public service.

Digital solutions can enable faster, simpler, and cheaper execution of all processes of program preparation and implementation. Improving communication, automating work, speeding up data processing, and using advanced solutions should be used to achieve more efficient content production, to create additional space for creativity and experimentation with new formats and ideas.

# 3. ORGANIZATION AND ADMINISTRATIVE PROCESSES

Complicated administration and bureaucracy affect employees at all levels and within all organizational units. Some of the basic challenges include:

## **EXCESSIVE BUREAUCRACY**

The flow of documentation is officially regulated by the Rulebook on the Circulation of Documentation, which was adopted in August 2013. In practice, procedures, necessary paperwork, and the chain of approvals have been overly complicated for various reasons, and it is difficult to determine the basis for the complexity of many procedures. The impression is that in some cases the official process was complicated in order to avoid examples of abuse from practice. This is understandable from the perspective of safer business practices, but it has inevitably led to even more complex bureaucracy that slows down even some of the most basic processes, which should take place much faster and simpler than it is currently the case.

## **CENTRALIZED DECISION-MAKING AND RESPONSIBILITY**

The concentration of responsibility by the office of the general director has

further contributed to the complexity of bureaucracy. Almost all documents require paper form with a series of signatures of all managers in the hierarchy, including the general director. This has almost completely abolished middle management from responsibility, especially in the terms of human resources and finance management.

## **TIME SPENT ON ADMINISTRATIVE TASKS**

During discussions with representatives of all organizational units, time spent on administrative tasks has been recognized as one of the key problems for more efficient job performance. There is a general agreement that simplification and automation of administrative processes would allow for more efficient use of working time and ultimately improve the quality of work.

## **HUGE PAPER WASTE**

The amount of paper used daily in RTCG is not only a financial problem, but also an environmental one. Modern organizations should spread awareness about the importance of green business practices. RTCG as a national media service, financed from

the state budget, has an additional obligation in this regard. This is another reason for the electronic form to replace the use of paper wherever possible.

## **DOCUMENTATION ARCHIVING**

All contracts are properly filed in archive notebooks and archived in paper form. None of this process is digitalized. Various internal documents are archived in different ways within different organizational units, which again makes it difficult for employees to find and use them for any purpose. Unifying the entire archival system and aligning it with the digital strategy is a necessity, both because of the exceptional importance of archived documentation and for its further use for various purposes and needs of RTCG.

## **INFORMATION FLOW**

Pronounced hierarchy and separation of different organizational units has led to the fact that the flow of information between different teams is not at an enviable level. There is often a lack of a comprehensive view of business processes and tasks. This affects transparency, efficiency, and tracking of business processes.





# 4. VISION

The vision focuses on creating a public service that is adaptable, innovative, and accessible to all, while also embracing the opportunities and challenges of the digital age. By being agile and open to innovation, the organization can better serve its users and stay relevant in a rapidly changing environment.

# 5. MISSION

The mission of RTCG digital transformation includes:

- developing a digital business culture that is focused on improving productivity, communication, and flexibility. This involves creating a supportive environment that encourages learning and development, as well as adopting new technologies and approaches that can help the organization stay ahead in a rapidly changing media landscape.
- Digitizing business processes and applying modern technologies to modernize all aspects of production, exchange, storage and transmission of content.
- Preservation program archive is one of the most important tasks of digitization. The archive represents an important historical source and cultural heritage of Montenegro, and it is crucial to ensure its long-term preservation and accessibility.
- Simplification of administration and improvement of business processes will contribute to significant time savings, increase efficiency, improve transparency and speed up the flow of information.





# 6. STRATEGIC GOALS OF DIGITAL TRANSFORMATION

Based on the conclusions drawn from the analysis of the basic pillars of digital transformation, seven strategic goals have been identified. These goals reflect the main challenges and opportunities of the digital transformation process and aim to ensure its successful implementation.

- 1. DEVELOPMENT OF A DIGITAL BUSINESS CULTURE**
- 2. STRENGTHENING COMPETENCIES FOR THE DIGITAL AGE**
- 3. EFFECTIVE USE OF DATA**
- 4. DEVELOPMENT OF DIGITAL SERVICES AND NON-LINEAR AVM SERVICES**
- 5. DIGITALIZATION OF AVM PRODUCTION PROCESSES**
- 6. DIGITALIZATION OF RTCG's PROGRAM AV AND PHONO ARCHIVES**
- 7. DIGITAL ADMINISTRATION**

## 6.1. DEVELOPMENT OF A DIGITAL BUSINESS CULTURE

Digital transformation can be successful only if all parts of the company go in the same direction. The importance, scope, and goal of change must be clearly communicated to all employees. There must be a general awareness of how modern technologies are changing the society we live in and what impact it has on the media globally. Changes that inevitably and irreversibly determine the direction of the organization should be brought closer to employees so that they are not perceived as a threat, but as a path that enables development, facilitates the work process, and in the long run opens up many new opportunities for better quality of work and rational use of time and other resources. Active participation of as many employees as possible and creating an environment that encourages creativity and exchange of ideas, are essential prerequisites for true change and the first step on that path. For this reason, it is recommended that all proposed initiatives under this goal should be implemented or started in the Q1 of 2023.

Active use of available digital tools and technologies is no longer a matter of choice, but a duty of every employee. Regardless of the scope of work performed, age, or work experience, every employee should be willing to accept general patterns of modern business and cooperation. Working in mixed teams, close collaboration with different sectors, knowledge and idea sharing, and readiness for challenges and changes should be part of daily business routine. At the same time, digitalization should enable the development of additional digital processes and tools for more efficient work and collaboration.

The workplace, as a place where employees work and collaborate, should also be adapted to an environment that promotes agile collaboration with active use of digital tools.

### Operational goals:

#### **ADOPT KEY PERFORMANCE INDICATORS, METHODS OF MEASUREMENT, REPORTING, AND EVALUATION FOR ALL STRATEGIC AND OPERATIONAL GOALS OF DIGITAL TRANSFORMATION, AND DELEGATE THEM TO ALL RELEVANT MANAGEMENT LEVELS**

Digital transformation is a long-term process and it is necessary to define a clear system and monitoring criteria, as well as the distribution of responsibilities that cannot be limited only to top management.

*To truly bring about change and make progress, it is essential to involve as many employees as possible and foster an atmosphere that encourages creativity and the sharing of ideas. These are the necessary foundations for a successful digital transformation*

It is necessary to define clear and quantifiable targets aligned with the strategic goals of digital transformation for managers, sectors and teams, as well as the ways of measuring and evaluating them.

#### **DETERMINE THE GOVERNING BODY, MANAGEMENT MODEL, AND REPORTING OF THE DIGITAL TRANSFORMATION PROGRAM.**

The absence of active support from the top of the organizational hierarchy, non-alignment with the set goals, decentralized management of different projects without regular insight into the broader context, and the absence of delegation of experts in key areas are some of the most common causes of failure of digital transformation processes in actual practice.

Establishing a governing body and determining a management model, monitoring, and reporting of the digital transformation program as a whole, with the active involvement of senior managers, is a necessary prerequisite and the first step on the path of transformation.

#### **CREATION OF THE COMMUNICATION PLAN**

The transformation will eventually affect all parts of the organization. Depending on several factors, not all people are equally ready to embrace changes and participate in them. Certain resistance to change in established ways of working is expected and should be anticipated, so that it does not cause a slowdown in general processes. It is necessary to make a clear communication plan for all employees, which must not be one-sided. It is especially important to hear feedback and encourage the exchange of ideas. It is necessary to create a positive atmosphere regarding changes, but also to show determination to persist in some aspects. Communication should start from the top down to the rest of the organization. In the later phase, the focus is on collaboration and exchange of ideas on all levels.

#### **INFORMATIVE WEB PORTAL INTENDED FOR EMPLOYEES**

Develop a simple web portal intended for employees. The portal would contain news from RTCG, show the tasks of each department, highlight positive examples and articles about achievements in other media companies etc. The portal would also serve as a knowledge base that would consolidate documentation and instructions, making it easier to access them while encouraging employees to create their own instructions and actively participate in the sharing and exchange of knowledge.

The general purpose of the portal is:

- Informing all employees about the company's strategy and key events
- Reminding employees of key values and goals
- Introducing employees to the work of various parts of the system, which promotes better understanding and collaboration

- Motivation by showing the examples of colleagues who make a special contribution through their work
- Encourage team spirit
- Improving the collective's awareness of current events and achievements in the industry
- Easier exchange of information on topics of general interest
- Easy access to internal documents and policies
- Knowledge base
- Allow easy connection via laptop to TV in manager's offices.
- Meeting room scheduling system. A monitor showing the occupancy of the room should be placed in front of each room. The room occupancy calendar should be linked to the global employee calendar.

### ADOPT A PROTOCOL ON BUSINESS CULTURE

The use of digital tools in everyday work has been a standard for a while now. In larger organizations, this use of digital tools must be coordinated and mandatory to establish the principle of general business culture and cooperation. Employees who are struggling or have a reluctance to work with digital tools should be supported in terms of additional training, access to educational material and internal knowledge sharing, but all employees must have a duty to respect the agreed upon principles of modern business practices. The first step is certainly to define what these principles mean and clearly communicate them to all employees.

### TECHNICAL CAPABILITIES NECESSARY FOR DIGITAL BUSINESS

Create an environment that enables and encourages the use of technology in everyday work. Currently, RTCG does not have any multimedia meeting rooms. This represents a limitation for the use of some basic tools for conducting meetings, presentations, and collaboration.

- Room 503 should be equipped for multimedia meetings - monitors and video screens for presentations, video and audio conference calls, smart boards etc.
- Several smaller meeting rooms should be equipped for teams of up to ten people. Each room should have the ability to track presentations (video screen or TV), board, markers, stickers.
- Provide laptops to colleagues who lead teams or have the need to organize frequent meetings.

### ESTABLISH A WORK PERFORMANCE EVALUATION SYSTEM

Different socio-political-legislative aspects have led to a large number of challenges in human resources management, which represents a significant risk for the feasibility of digital transformation. In all parts of the organization, there is a certain percentage of employees who are examples of a professional and responsible attitude towards work, ready to improve themselves and open to change. This group represents the core of RTCG, its potential, and gets most of the work done. However, it is also evident that there is a certain number of employees who either lack sufficient knowledge or motivation for the work they do. The lack of adequate mechanisms for rewarding and sanctioning exacerbates this problem.

By applying appropriate digital solutions, this problem should be approached from a completely different angle. To begin with, it is necessary to determine how the performance of employees can be evaluated and measurable performance indicators need to be defined. Given the wide range of professions within RTCG and the specificities of certain professions, this task is overly complex and should be approached phase by phase. A good practice is to choose a smaller organizational unit in which a pilot project of work evaluation and its impact on employees would be conducted. Based on the conclusions, the model would be expanded to the entire organization. Only after the model has been determined, the work should start on developing a software solution that would facilitate this type of evaluation in a transparent manner. Many software solutions proposed in this document can be a source of data for measuring the performance of appropriate services and teams (production planning software, DMS, administration applications etc).

## 6.2. STRENGTHENING COMPETENCES FOR THE DIGITAL AGE

Society and the media space are changing irreversibly, abandoning old and slow ways of work in favor of digitalization that allows for time and other resource savings, enables more efficient work principles, greater transparency, easier access and exchange of information and business documents among employees. The level of society development, market size, funding and regulatory requirements are some of the factors that can influence the speed of change within different national public broadcasters. However, what is certain is that the changes are irreversible and inevitable.

Changes in the media space, radio and TV industry require a whole set of new skills, while some become obsolete and give way to digital tools that significantly improve and speed up the work process, reducing the number of steps in both simple and complex everyday business operations.

*To ensure the long-term success of the Public Service in the digital age, it is important to make RTCG an appealing destination for young, talented ICT professionals and creative individuals to build their careers.*

Modern technological solutions can reduce the number of performers needed for certain tasks. On the other hand, maintaining and developing technology becomes more complex and requires additional resources. Digital channels, which require diverse types of content, are gaining importance, opening new opportunities, but also demanding completely new concepts and ways of working.

It is necessary for RTCG to create an environment in which employees will be encouraged and motivated to improve themselves and accept new forms of work. Changes must not be ignored or slowed down in order to save a job that has become obsolete. Instead, one should think about how that job can become more relevant to the new era, with the acceptance of new work tasks imposed by this change.

Finding a legal and business framework in which innovative or technology-based work will be encouraged is one of the necessities of modern times and aligning work processes with the principles of digitalization. Despite the initial expected resistance from a certain number of employees, digitalization certainly brings benefits in the long run in every possible way, and this is what must be explained and insisted on.

Making RTCG an attractive place for the development of careers of young, prospective ICT professionals and creatives is one of the ultimate prerequisites for the bright future of the organization.

### **Operational goals:**

#### **CREATE A PLAN FOR ADDITIONAL TRAINING, RETRAINING AND PROFESSIONAL DEVELOPMENT AT THE ORGANIZATIONAL LEVEL**

The new era requires new competencies. By applying innovative technological solutions and by creating and transmitting content in new ways, there is a need for new knowledge and skills, while some become obsolete. This process is irreversible and the number of years spent working in a certain way cannot be an excuse for rejecting the new knowledge and practices.

The problem of insufficient knowledge for working with new technology and a lack of skilled personnel has been identified in almost all parts of the organization. This problem should be approached systematically. It is necessary to recognize the positions that are not adequately filled at all levels, positions that are no longer needed, or will not be needed in the future, and to make a plan for the redistribution and further qualification of such staff. In addition, it is necessary to investigate in which areas the workers are not sufficiently trained to work on the technology used in their work. Employees should be fully involved in this process. Open communication should be encouraged, so that changes are understood not as a threat but as a call and an opportunity for personal development and advancement. The affinities of employees for further training and development should also be considered.

Based on the results of these researches, the goal is to create a detailed annual plan for professional training and development

#### **DEVELOP ONLINE KNOWLEDGE BASE**

Online training is becoming an increasingly dominant way of learning and sharing knowledge. The purpose of the knowledge base is to facilitate the training of all employees, as well as to encourage internal knowledge sharing. A centralized knowledge base would enable access to training materials for all employees and facilitate and encourage internal knowledge transfer. This database can be a part of the employee's informational portal and should contain complete documentation and instructions for use, organized in a way that allows for easy search.

In addition to written instructions, short video tutorials focused on specific tasks and solving common problems that employees encounter should be encouraged. This can also be an excellent way of transferring knowledge within the organization.

#### **STRENGTHEN THE IT SECTOR**

Digital transformation involves the development, management, and the administration of many IT solutions. Only some of them are mentioned in this document. It is certain that the requirements will only increase over time. The current capacities of IT specialists employed at RTCG are limited to two separate and mutually independent departments - IT broadcast and IT technical support. In both departments, work is organized in shifts and the primary function is to support internal users. There are no departments and IT capacities that could be the carriers of digital transformation. Engaging third parties, using ready-made or semi-finished IT solutions is certainly an option and a necessity, but there must be an internal team to lead this process, manage the IT architecture, oversee the IT security, engagement of third parties, administration, and it is desirable to have in-house development to a certain extent.

On the other hand, salaries of IT specialists in the job market significantly exceed the currently set limits and management must find an optimal model for creating such a team.

To begin with, the team must possess at least a senior expert in IT architecture and security.

The reporting and statistics team should include at least one professional database specialist





who would be involved in all projects related to defining, collecting, using, and managing metadata.

### **ESTABLISH ACTIVE COOPERATION WITH THE ACADEMIC COMMUNITY**

Although it is not realistic to expect the development of its own research laboratory at this moment, RTCG can offer extremely attractive resources to young researchers through cooperation programs with universities. It is necessary to examine the possibilities of EBU support in this part as well. Several EBU working groups are dealing with advanced research that could serve as a valuable resource for local scientists, whose work and achievements, on the other hand, can be more than useful for RTCG.

Scholarships for students who would be required to spend a certain part of their working time at RTCG can be an effective way to attract young and creative personnel.

### **DETERMINE A MODEL FOR INCENTIVIZING INNOVATIVE WAYS OF WORKING**

Video reporters are a great example. The first initiatives for reporters who would create, record, and send video contributions on their own are over 25 years old. Today, RTCG has several employees who do this job successfully, which is a confirmation of the concept. This applies especially to informative material and investigative journalism. However, there is no clearly defined framework that would motivate more journalists to leave their comfort zone, further educate themselves and embrace this way of working.

Such changes should not be left to the personal choice and initiatives of individuals but should be defined systemically in financial and organizational terms. It is necessary to determine a sustainable model for promoting modern ways of working, which will further encourage employees to further educate themselves

## **6.3. MAKE DATA ACTIONABLE**

Data is one of the most important resources in the digital world. To be able to use them to their full capacity, it is necessary to define processes and models that enable the transfer, storage, analysis, and management of data in the best possible way. If we cannot classify and find data, then they have no value.

### **Operational goals:**

#### **METADATA – MODELING, COLLECTION AND USE**

Digitalization has enabled the simultaneous transmission of audio-visual information and metadata. Metadata represents information about the content and can encompass a wide range of information - from technical (format, camera type), through archival (time, date, place...), to information about the content itself. For metadata to be useful, it is necessary to define models at the very beginning according to which they will be entered, transmitted, stored and used.

Metadata is a valuable resource for the future and when modeling them, the scope should be wider than the current needs or requirements. In that sense, it is necessary to form a working group that will work on defining basic models. The task of the working group is to consider the entire scope of applications, both today and in the future. This includes program material archiving, statistics and reporting, marketing, video and audio streaming, on-demand content, personalization, program planning, development strategy...

The working group should include the following:

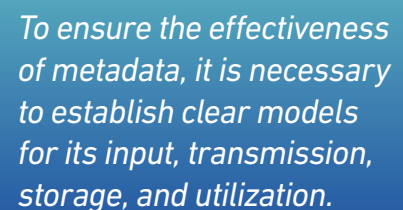
- Defining mandatory and optional metadata
- Adopting models, procedures, and assignments. Who, how, and at what stage (when) are the metadata entered, modeled, and stored. Metadata collection should be automated wherever possible. Where it is not, it must be entered manually and this must be clearly defined by responsibilities and procedures.

- Active cooperation with EBU. Within EBU, a lot of attention and work is devoted to metadata. There are several working groups that deal with this field. It is necessary to consider and use to the greatest extent the achievements and conclusions reached and adapt them to your needs.

### **DEVELOPMENT OF ADVANCED STATISTICS AND REPORTING MODELS**

The general awareness of the importance and data use is not sufficiently developed. Planning and decision-making based on data should be a practice at all levels within the company. RTCG already uses numerous tools for market, rating, and viewership analysis, but there is no systematic and consolidated presence of their use. Analysis and use of data as the basis for further planning and decision-making are more a matter of personal initiatives than established practices.

Currently, the statistics and reporting department is limited to producing reports that RTCG is legally obliged to send to the Agency for Electronic Media as a regulatory body. The reports are created manually using insufficiently clearly defined and often



*To ensure the effectiveness of metadata, it is necessary to establish clear models for its input, transmission, storage, and utilization.*

missing metadata.

There is no centralized approach to collecting, analyzing, and data use for different channels of communication with the public. This makes it difficult to conduct a deeper analysis of general trends, which should be the basis for long-term planning and program and content presentation. For example, the same content can have a drastically different effect and acceptance by the audience on different media platforms (radio, TV, portal, Instagram, Facebook, TikTok). The reason may

depend on several factors: audience structure, material adaptation to the communication channel, time of emission, etc. For all of the above, clear indicators are available, and to gain a general picture of what information, how, through which channel, and at what time to present to the public, it is necessary to regularly monitor all available sources, with regular reports to all relevant subjects.

To enable quality and comprehensive reporting, the following steps need to be taken:

- **Develop a centralized system of databases and data sources**

This measure does not necessarily imply that all data should be physically stored in the same database, but rather refers to an organizational model that will allow for a comprehensive view of the company's operations through a combination of data from all available sources.

To begin, it is necessary to identify key data sources and enable their combination through appropriate access rights, development of inter-databases, specification of necessary reports, etc.

- **Strengthen the statistics and reporting department**

The scope of the statistics and reporting service should be expanded to meet the requirements of internal users. Regular reports relevant to all parts of the business should be defined, which would be automatically or on request sent to all necessary parties. In order for the statistics and planning service to function in this way, it is necessary to assign at least one specialist in working with databases and whose responsibilities would include: database administration, generating reports on request, automating data collection and processing, and generating regular reports.

Such a concept should establish the foundations for more advanced data manipulation in the future, primarily in the direction of advanced personalization and the use of artificial intelligence.

## 6.4. DEVELOPMENT OF DIGITAL SERVICES AND NON-LINEAR AVM SERVICES

Digital transformation of national media services primarily involves a shift from traditional broadcasting of radio and television programs to providers of personalized digital multimedia content via the desired platform, device, and at the desired time.

### Operational goals:

#### OTT PLATFORM

The trend of switching from traditional to online media has been ongoing for over a decade. Video on demand (VOD) platforms have enabled an explosive growth of global players in the world market. Services from giants such as Netflix, Amazon, Disney, or HBO are available in almost all parts of the world, including Montenegro.

The high-budget content they offer, advanced technological solutions that provide superior user experience, personalization, and availability on almost all devices, represent a major threat to local market providers.

*Providing personalized multimedia content via the desired platform, the desired device and at the desired time is the obligation of modern television.*

Although traditional television still has undeniable influence, especially among older populations, the trend of migration towards digital channels will not stop. The ultimate outcome is difficult to predict, but what is certain is that in the foreseeable future, both of these segments will be necessary for the survival of national services.

The development of an OTT platform is a great challenge and should be viewed from a strategic perspective. As a first step, it is necessary to form a working group that will determine a sustainable business model that can position the RTCG streaming service in the long term. In a more than competitive environment. The working group should include competences in the area of audio and video editorial policy, production, legal regulation, finance and technology. The task of the working group is to determine the required functionalities and long-term content editing model. Accordingly, it is necessary to plan the budget for the entire project, conduct a tender for the procurement of technical equipment and create a detailed project plan.

Before putting the platform into commercial use, the model of further work on the platform should be systematically determined, considering all necessary aspects.

#### STRENGTHEN THE PRESENCE ON DIGITAL CHANNELS

The Multimedia Center is a special organizational unit responsible for the development, maintenance, and creation of content on digital channels. The greatest significance among available digital channels holds portal [rtcg.me](http://rtcg.me), which has been active since 2013. In addition to the web portal, a mobile application for iOS and Android devices is also available.

RTCG has active channels on the most important social networks: Facebook, Instagram, YouTube, TikTok, Viber, Telegram. However, there is a lack of a clear strategic approach to these channels. The greatest responsibility for creating content on social networks currently lies with the news desk at the [rtcg.me](http://rtcg.me) portal. The result is an active Facebook page, which primarily serves to publish informative content. This type of page is a great way to increase the number of followers through breaking news and to generate significant traffic to the portal. However, RTCG's program is broader than just the informational aspect. The main profile should primarily reflect the vision and image of the company and show the diversity and achievements of the entire spectrum that RTCG deals with. At the same time, digital channels

should be very active in promoting the brand and all other parts of the system.

Continuity also exists on the official YouTube channel, where almost all recorded shows are regularly published in full. The RTCG brand strength survey from June 2022 shows that citizens of Montenegro are only slightly aware of the existence of the YouTube channels of media houses. According to this research, the impact of YouTube channels is uniform for all TV stations and significantly below the European average, which represents a clear potential for further development. There is no clear strategy for creating content on other social networks, but rather it depends on individual engagement and initiative. Some shows have their own profiles on social networks, which are managed and run independently of official channels.

According to research from June 2022, in just two years, the number of citizens who watch TV every day has decreased by 8%, while the number of respondents who use the internet and news portals every day has increased by 15%. This trend clearly indicates that the importance and influence of digital channels is irreversibly approaching the influence of linear television, and it is to be expected that they will surpass it in the foreseeable future, especially among younger populations. In accordance with this, it is necessary to revise the strategy for social media presence, define processes and responsibilities, and form a creative team ready to respond to the dynamic demands of content creation for various digital channels.

- **Form a social media editorial team**

Social networks represent a huge source of opportunities for experimenting with new forms, genres, and expressions of creativity in a much more accessible, faster, and cheaper way than is the case with traditional TV programs. Social networks also have their own rules that change at a fast pace. To be relevant, the content must be adapted to the specificities of each channel individually. On the other hand, RTCG as a public media service must not be subject to trends at all costs, but rather the entire presence must convey the vision and identity of the brand. That is why it is important to emphasize the significance of the social media channels and create a team that can create fast, high-quality, and actual content.

- **Define a strategy for presence on digital channel**

The strategy should include how content is created and distributed on all digital channels. It is necessary to recognize the strengths, weaknesses, threats, and opportunities of social networks. Identify target populations and how to create content that will be relevant, while respecting the basic principles and brand of RTCG. It must include close cooperation with other editorial teams and have clearly defined goals. One of the undeniable advantages of digital channels is their measurability. The importance of data must be recognized at the center of the strategy and method of monitoring and its impact on decision-making must be defined.

## 6.5. DIGITALIZATION OF AVM PRODUCTION PROCESSES

The RTCG Production Sector needs to be reformed in terms of its organizational model, with a focus on work processes, task delegation, analysis, reporting, and evaluation of work performance

An internal analysis of ways to improve the work of the production sector was conducted in July and August 2022. As a result, some of the key challenges currently faced by the sector were identified:

- The staff is not sufficiently trained for work with new technology
- Insufficient number of skilled staff who can handle more complex projects and tasks
- Untimely planning, imprecise and incomplete information/instructions
- Cumbersome administration and procedures
- Disregard for basic work tasks (delays, failure to perform rehearsals)

Excel tables for team organization, work schedules posted in paper form on bulletin boards, and Viber groups as the main tool for team communication, are quick solutions for urgent situations. However, this type of organizational management is not efficient even for much smaller organizations. The way of exchanging, usage controlling and storage of various types of multimedia material is also questionable.





## Operational goals:

### DIGITAL PROCESSES FOR MULTIMEDIA PRODUCTION

In a survey conducted among employees in November 2022, the responses to the question "What, in your opinion, has digitalization of technology brought to RTCG and what problems has it created?" were almost unanimous in the assessment that the digitalization of studio technology has brought new opportunities and quality, but that they have not been used to their full capacity due to inadequate training of employees. Even three years after implementation, the old way of working does not seem to have changed much. Instead, it is transferred to a new environment, which is technically several generations ahead of the previous one. Additional training of employees, although necessary, would not solve this problem by itself. It should be perceived from a different angle and the way of work should be fundamentally transformed. This implies the design, modeling and development of digital processes related to all parts of audio, video and multimedia content production. It is necessary to include the way in which material is managed and records are kept of all rights arising - from copyright to exploitation, number of broadcasts, copying permits, material protection and the like. The ultimate outcome should be increased efficiency, cost reduction, protection of copyrights, exchange of metadata and greater flexibility in program production.

A significant part of the EBU's activities covers this segment, so active cooperation with this organization is suggested as an initial step in order to receive recommendations, conclusions, examples of best practice, but also concrete solutions that the EBU can offer.

Considering the complexity of the project, and the specifics of the industry, the engagement of qualified professionals is of crucial importance for the success of the project. In addition to internal experts from all parts of production and technique, it is desirable to engage an external expert with experience in transformation of this type, who would participate in the creation of a precise specification and project plan.

Instead of heavy systems, processes should be broken down into smaller functional units to enable greater flexibility and scalability of the entire system. The target architecture should be based on cloud and open-source technologies, using modern frameworks for development, testing, and implementation.

### DEVELOPMENT OF PRODUCTION PLANNING APPLICATION

The application should enable simpler organization of the process and work of all teams in the production sector. In addition to the classic schedule of performers and shifts, which today are carried out using Excel, this application should provide assignment of tasks, their tracking and statuses. Additionally, the application would allow

the entry of important information, which would trigger notifications to the relevant parties, depending on the level of importance. All employees in production would have an overview of plans or their parts, as well as specific tasks, through the application.

All changes to the initial plan would be entered directly into the application and in this way would be visible to all interested parties in real time.

### IMPLEMENTATION OF TICKETING SYSTEM

Issues with technical equipment and software have been identified as an obstacle to more efficient work, by a large number of production and editorial managers. However, there is no summary of these problems, nor any information on whether the problems have been reported to the relevant colleagues and what actions were taken accordingly. The ticketing system will enable collecting issues and management of their full life cycle – from creation to resolution. It would allow the submission of proposals and suggestions for improvement and planning for further development in accordance with them.

There are a number of tools on the market for these purposes that can be quickly adapted to RTCG needs. The reporting of observed problems and requests, as well as their management by responsible teams, should be imposed as a mandatory practice, not a matter of individual choice.






## 6.6. DIGITALIZATION OF RTCG'S PROGRAM AV AND PHONO ARCHIVES

During its many decades of existence, Radio and Television of Montenegro has created a vast amount of audio and video material that today has immeasurable cultural and historical value. However, the old materials are on media that are prone to decay. There is no catalog of the entire material, which limits search and prevents clear insight into this invaluable resource of RTCG.

To preserve this material for future generations and make it easier to be reviewed, searched, and used, it is necessary to digitize the entire archival material.

Considering the amount of material and the fact that the quality of the process will directly affect the possibility of its future search and use, it is necessary to create a sustainable concept, with a clear methodology, dynamics and quality control. The necessary steps on this path include:

- Define metadata
- Cataloging of existing material
- Project plan with precisely defined strategy, dynamics, resources and targets
- Procurement and implementation of the technical solution
- Organization of the archive digitization process
- Regular performance evaluation in accordance with the assigned project plan and quality



*Digitalization of the entire archival material is necessary in order to preserve this valuable resource for future generations and facilitate easier search and use.*

Damaged materials of value should be digitally processed in order to preserve and make them accessible to the public. In this direction, it is necessary

to set up a commission with sufficient competencies and jurisdiction in terms of importance assessment, which would determine priorities and needs for additional digital processing. This would ensure that damaged materials are properly restored and preserved for future use.

## 6.7. DIGITAL ADMINISTRATION

Paper documents should be replaced with electronic forms wherever possible. In the next three years, we cannot expect the complete elimination of paper documents, but their use can be drastically reduced, making work processes significantly more efficient, transparent, and environmentally conscious. This shift towards digital forms will also improve the accessibility and security of the information, as well as facilitate collaboration and communication within the organization.

Process automation should also be used for the review of existing procedures. Transparency and the ability to track overall activities will eliminate the need for many steps that currently serve as security measures. At the same time, this goal should be used to redistribute part of the responsibility to middle-level managers, which will speed up the administrative processes, but also free up the general director's office from involvement in daily tasks that should be the responsibility of lower levels in the hierarchy. This will allow for more efficient and effective decision-making at all levels of the organization.

### Operational goals:

#### INTERNAL PORTAL DEVELOPMENT (IT ARCHITECTURE, IT SECURITY, SSO AND ACCESS MANAGEMENT)

Digitalization of the entire business is a complex and long-term task. In order to be successful and beneficial, it must be based on principles that include scalability, the ability to make fast changes, the use of new technologies and work systems, independence from third parties and security. Instead of cumbersome systems that would meet all requirements, a modular

architecture should be adopted, which would allow the application of different solutions for different needs, but with a unified approach and user experience. Requirements and needs should be divided into smaller parts in order to enable fast development and application and reduce interdependence of different processes. Wherever justified, development should be based on cloud solutions and open-source technologies. This approach will ensure that the digitalization of the business is flexible, adaptable, and sustainable, and that it delivers real value and benefits to the organization and its stakeholders.

Instead of replacing existing systems, it is important to find ways to leverage and integrate them with new applications and functionality. This approach will help to preserve the value and knowledge that has been invested in the existing systems, and it will minimize disruption and costs.

This approach involves the development of a web portal for all employees, which would serve as a gateway to access different internal applications. The applications should have minimal interdependencies and be able to rely on different databases, technologies, and other resources. It is recommended to aim for greater uniformity in terms of design, user experience, and technologies, but this is not a strict requirement. For each application, the best approach should be determined based on the specific requirements and constraints.

The portal should provide a single sign-on (SSO) solution, which would allow users to access all their applications with a single set of credentials. This would reduce the need for multiple logins and passwords, and it would improve security and compliance. The portal should also include an access management system, which would allow administrators to control which users have access to which applications, based on their roles and permissions.

The portal should be developed using modern web technologies and frameworks, which would provide a responsive and mobile-friendly user interface, as well as the scalability

*Digital administration enables increased efficiency, cost savings, better distribution of responsibilities,, greater transparency, and more effective communication between sectors.*

and performance needed to support a large number of users and applications.

The internal portal should be the starting point for the digitalization of administrative processes to establish guidelines for the development and implementation of all other applications.

### **DEVELOPMENT OF AN APPLICATION FOR THE ADMINISTRATION OF BUSINESS TRIPS AND TRAVEL WARRANTS**

The nature of the work at RTCG requires a large amount of fieldwork and travel warrants. On average, about six hundred travel warrants are issued by RTCG each month. The procedure for each travel warrant involves three phases, each of which requires approval in the form of a paper document with eight signatures, including that of the general director, creating a huge administrative burden.

The web application for travel warrants will cover all steps of this process:

- Creation of the travel warrant request
- Approval of the request by the relevant managers
- Issue of the travel warrant
- Tracking of expenses and reimbursement
- Archiving of the completed travel warrant

The application will provide a user-friendly interface for employees to create and submit their travel warrant requests.

The application will also allow managers to review and approve the requests, and it will provide them with

real-time visibility into the status of all travel warrants, as well as the ability to track expenses and manage budgets. By automating this process, the application will reduce the administrative burden on employees and managers, and it will improve the efficiency and accuracy of the travel warrant process. It will also provide a secure and auditable record of all travel warrants, which will facilitate compliance and transparency.

### **DEVELOPMENT OF AN APPLICATION FOR VACATION AND SICK LEAVE ADMINISTRATION**

Submitting requests and decisions for vacations is a process that affects all employees, especially those responsible for approvals and administration. The current procedure involves the exchange of documents in paper form, which are manually signed by the chain of approvers.

The application will enable:

- Submission of vacation requests by employees
- Approval by the supervisor
- Integration with the payroll system
- Overview of used and remaining vacation days, available to both the employee and the supervisor manager

### **DEVELOPMENT OF AN APPLICATION FOR THE ADMINISTRATION OF LOW-VALUE PROCUREMENT**

The administration of low-value procurement involves a complex process that consists of multiple iterations, each of which involves the exchange of paper documents with signatures from up to six authorized approvers, including the financial director, the assistant director for administrative affairs, and the general director.

The application will enable:

1. Submission of a request by an authorized employee, including all necessary documentation
2. Electronic approval
3. Overview of approved orders by the payment department
4. Confirmations of received goods and/or services
5. Submission of invoices
6. Payment confirmation

7. Detailed reports on all requests and their status
8. Integration with the document management system for processes that include signing of relevant contracts
9. Integration with the document archive.

The application implies transparency of the process and precise cost tracking, which will enable the distribution of financial responsibility, accelerate the process and facilitate procurement administration.

### **USE OF QUALIFIED ELECTRONIC SIGNATURE AND ELECTRONIC SEAL**

According to the Law on Electronic Identification and Electronic Signature adopted in March 2020, a qualified electronic signature has the same legal effect as a handwritten signature. This has enabled the signing of all contracts in electronic form. However, the appropriate processes for the application of qualified electronic signature and electronic seal in public administration have not yet been developed. As an institution funded from the national budget and subject to appropriate legal obligations, RTCG needs to align its strategy for the application of qualified electronic signature and electronic seal with public administration. Although this initiative is not at the top of priorities for 2023, it is important to take it into account when developing interdependent projects and applications, such as a document management system..

### **DOCUMENT MANAGEMENT SYSTEM (DMS)**

On a monthly basis, approximately two hundred requests, fifty contracts, and a hundred decisions pass through the legal department and the archive. Each request must be approved by authorized individuals with a handwritten signature or a facsimile. Decisions related to work assignments also undergo a series of approvals, after which they are archived and delivered to employees in paper form in case of potential legal claims and deadlines under the Labor Law. All contracts are exchanged in paper form and are archived after being approved by authorized individuals.

Software for exchanging, managing, and tracking documentation would save a significant amount of time, greatly accelerate these processes, make them more transparent, and facilitate the tracking and search of documentation. Clearly defined process flow, change management and overview reports would address many of the current problems and reduce the chain of approvers.

The market offers a large number of ready-made DMS solutions. Many of these solutions include advanced search, process tracking, and document archiving. On the other hand, custom solution would be more flexible, scalable, and better suited to the proposed modular approach. In order to decide about the optimal direction, a deeper analysis is needed, taking into account the following aspects:

- A detailed specification based on the current and future needs of the organization
- The availability and cost of commercial DMS solutions
- The resources available within the organization for developing and maintaining a custom DMS
- The use of a qualified electronic signature and electronic seal

- The potential for integration with other applications, especially internal portal and digital document archive.
- The potential benefits and drawbacks of each approach.

## DIGITAL DOCUMENT ARCHIVE

A huge amount of different types of documents circulating within the organization pass through the archive. The collection, storage and search of this bulky documentation has not been digitized in any part. This type of archived document management not only requires additional resources and prolongs business processes, but also causes a number of other problems, primarily in terms of finding archived documentation.

Digitalization of document archives is a necessary step towards a more modern way of working. As part of the Integris system, the InfoDjel application was developed for electronic archiving and management of documentation. Given the huge amount of documents that come to the archive in paper form, the application requires additional resources to deal with the scanning and input of these documents. This is also the reason the application is

not currently in use. By automating the process and reducing the number of documents that are transferred in paper form, this problem could be significantly reduced. All documents that will be managed in electronic form should be automatically archived, without the need for additional time.

In this direction, it is necessary to examine the possibility of the InfoDjel application for integration with external applications (travel orders, small value purchases, DMS ...), the quality of search and user interface, and determine whether it is better to upgrade the existing application or develop a new one.



**OVERVIEW OF OBJECTIVES**

	<b>STRATEGIC GOALS</b>	<b>OPERATIONAL GOALS</b>
<b>HUMAN RESOURCES AND BUSINESS CULTURE</b>	<b>Development of a digital business culture</b>	Adopt key performance indicators, methods of measurement, reporting, and evaluation for all strategic and operational goals of digital transformation, and delegate them to all relevant management levels
		Determine the governing body, management model, and reporting of the digital transformation program.
		Creation of the communication plan
		Informative web portal intended for employees
		Adopt a protocol on business culture
		Technical capabilities necessary for digital business
		Establish a work performance evaluation system
	<b>Strengthening competencies for the digital age</b>	Create a plan for additional training, retraining and professional development at the organizational level
		Develop online knowledge base
		Strengthen the IT sector
Establish active cooperation with the academic community		
Determine a model for incentivizing innovative ways of working		
<b>PLANNING, PRODUCTION AND CONTENT TRANSMISSION</b>	<b>Make data actionable</b>	Metadata – modeling, collection and use
		Development of advanced statistics and reporting models
	<b>Development of digital services and non-linear avm services</b>	OTT platform
		Strengthen the presence on digital channels
	<b>Digitalization of avm production processes</b>	Digital processes for multimedia production
		Development of production planning application
		Implementation of ticketing system
	<b>Digitalization of RTCG's program av and phono archives</b>	Define metadata
		Cataloging of existing material
		Project plan with precisely defined strategy, dynamics, resources and targets
		Procurement and implementation of the technical solution
		Organization of the archive digitization process
Regular performance evaluation in accordance with the assigned project plan and quality		
<b>ORGANIZATION AND ADMINISTRATIVE PROCESSES</b>	<b>Digital administration</b>	Internal portal development
		Development of an application for the administration of business trips and travel warrants
		Development of an application for vacation and sick leave administration
		Development of an application for the administration of low-value procurement
		Use of qualified electronic signature and electronic seal
		Document management system
		Digital document archive





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# 7. CONCLUSION

The process of digital transformation is a long-term journey that must involve all parts of the organization. Its success depends primarily on a clear vision, decisive leadership, adequate resources, and openness to change. No matter how advanced some technical solution is, its application should not be the main focus or goal. Mapping existing processes and ways of working in the digital world cannot bring fundamental improvement. Instead, it is necessary to examine the essence of the limitations of the current way of working, both from the perspective of the organization's operations and in terms of future challenges that national public media must face. The goal is to use digital achievements to overcome these limitations and enable a true transition towards a new age media service.

It is important for top management to set the direction for digital transformation and ensure that all employees understand and support the goals and objectives. Digital transformation should be perceived as an ongoing process that will continue to evolve and change as new technologies and digital services develop. Understood solely as a necessity that brings numerous benefits to both employees and the organization as a whole, the process of digital transformation must be approached fundamentally, from all sides, with the mandatory participation of all employees.

Having a skilled and adaptable workforce is essential for the success of digital transformation. Engaging professionals with the necessary expertise, retraining and upgrading the workforce, changing the mindset, encouraging open communication, agility in work and exchange of ideas, are necessary first steps in creating the foundation for successful digital transformation.

While the importance of linear television remains significant, the development of digital services and platforms must be placed in a more central focus. Existing work processes must be improved and adapted to the modern era to achieve greater efficiency, but also to enable further evolution of the national public service.

Given the scope of changes and the speed at which the entire industry and digital landscape are evolving, the process of digital transformation should be open to change and improvement. In this sense, it needs to be regularly reviewed and adapted to what has been learned.

In order to keep the document concise and feasible, some aspects that may significantly affect the development of the industry in the future have not been analyzed. For example, the use of artificial intelligence, the possibilities that 5G and web3 technologies bring to the industry, personalization of content, etc. RTCG should strengthen the capacity to own research teams whose focus of action would be directed to these opportunities. The development and application of these technologies on the global market, as well as the possibilities of their application for the further development of RTCG, should be actively monitored, especially through cooperation with EBU.





