



### *BOXING - TALENT MANAGEMENT STRATEGY*



The project is co-financed by the  
European Union

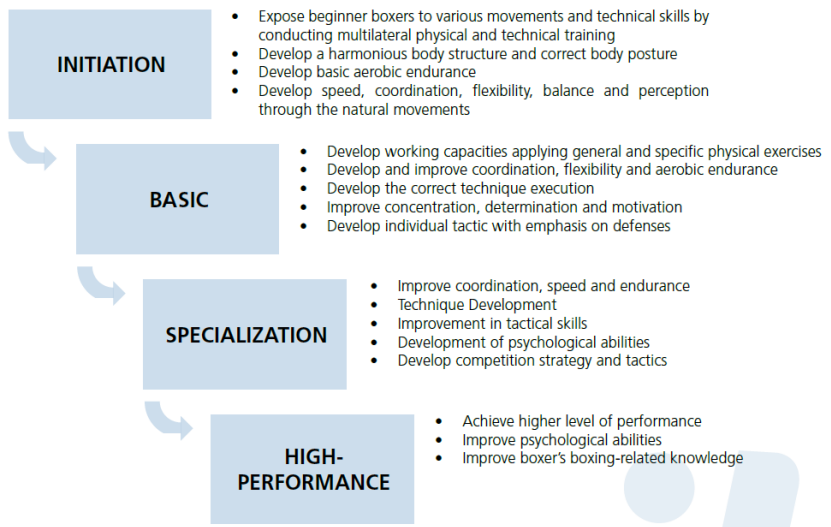
*Good neighbours  
creating  
common future*

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## 1. PREFACE

When working with beginner boxers, the coach should keep in mind that the results will come in later stages and that the entire training process should be divided into separate stages according to the physical growth and age of the boxer, improvement of fitness, and acquisition of technical skills (Scheme 1).



**Scheme 1.** Stages of boxer preparation.

Finding and selecting talents in sports includes three processes that complement each other and sometimes overlap. Namely, it is about the processes of detection, identification, and selection, which are among the most important tasks of modern sports, including boxing. Detection has the basic feature of finding talent in a population that does not play sports, while identification

would mean finding talent in a population that already plays sports - boxing. Selection refers to the identification of talents at different stages of their career, and is a short-term process of selecting candidates for a specific purpose (i.e., selection of candidates for national selection). Therefore, it is only one component of the long-term process of identification and development of talents in sports.



## 2. SITUATION ANALYSIS

This research was conducted on the territory of the Republic of Serbia by the Provincial Secretariat for Sports and Youth as part of the project Improving Boxing in the Border Region (*Sport-improvement of boxing in cross border region*).

The research was conducted in September 2022, through a survey questionnaire that was distributed in electronic form to boxing clubs in the territory of the Republic of Serbia. The questionnaire consisted of 56 questions divided into six categories. The categories that were defined as key during the creation of the questionnaire are:

- A) Services offered by the club;
- B) Human resources;
- C) Material resources;
- D) Number of users;
- E) Trainings; and
- F) Sports results.

The goal of the research was to determine the state of boxing in the territory of the Republic of Serbia and Hungary. It is important to emphasize that the results of this research provide an opportunity to create new programs that contribute to the improvement of this sports discipline in the Republic of Serbia and Hungary.

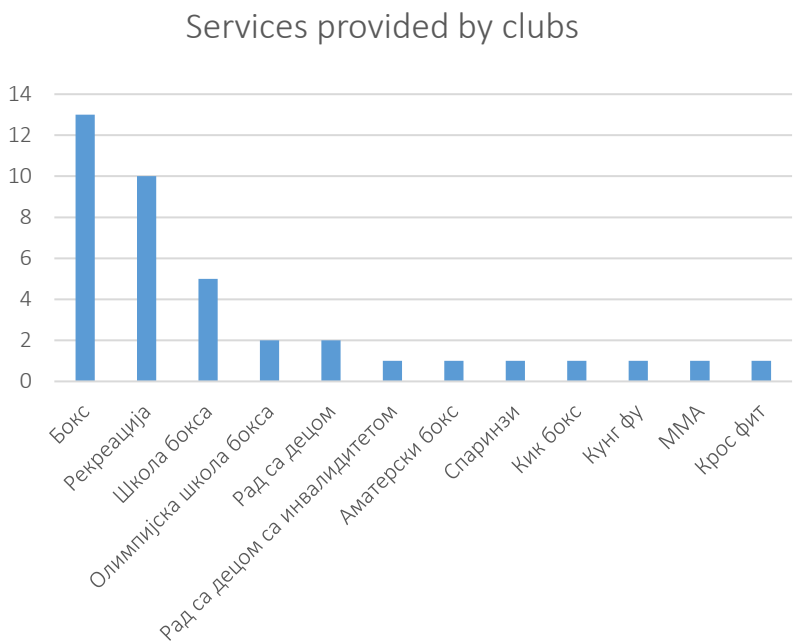
Participation in the research was voluntary. The questionnaire was filled out by representatives of 19 boxing clubs that carry out their activities on the territory of the Republic of Serbia. The questions were a combination of open and closed type. The results were analyzed and are part of this report.

At the beginning of the research, it was necessary to update the existing contact information of the boxing clubs. The information requested from the clubs is: club name, postal address, official email address, club website, information on all social networks of the club, name of the contact person, and telephone number of the contact person. This information has been entered into a database and will be updated periodically. This will make communication with clubs simpler and easier.

100% of clubs have an active email address through which they communicate. 5% of clubs (1 club) have an active website, while 68% of clubs are active on social networks. The social networks where clubs promote their activities are Facebook and Instagram. All clubs have delegated a representative for communication purposes on this project.

## A) SERVICES OFFERED BY THE CLUB

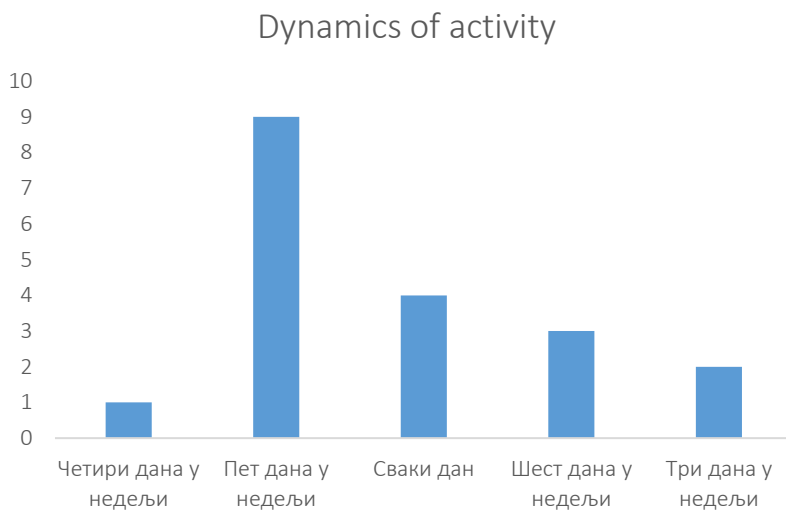
The question "What services does your club offer?" had a multiple choice option. The largest number of clubs involved in the research deals with boxing (13 responses). Ten clubs provide recreation services. Five clubs run a boxing school, while two clubs run an Olympic boxing school. Two clubs provide their services to children, while one club works with children with disabilities. The table below shows all the services offered by the clubs.



<b>S.N.</b>	<b>Type of service</b>	<b>Number of clubs</b>
<b>1.</b>	Boxing	13
<b>2.</b>	Recreation	10
<b>3.</b>	Boxing school	5
<b>4.</b>	Olympic Boxing School	2
<b>5.</b>	Working with children	2
<b>6.</b>	Working with disabled children	1
<b>7.</b>	Amateur boxing	1
<b>8.</b>	Sparring	1
<b>9.</b>	Kickboxing	1
<b>10.</b>	Kung Fu	1
<b>11.</b>	MMA	1
<b>12.</b>	Cross fit	1

The largest number of clubs conduct their activities five times a week. In four clubs, activities are carried out every day. In three clubs, activities are conducted six days a week. Two clubs work three days a week, while one club carries out its activities four days a week.

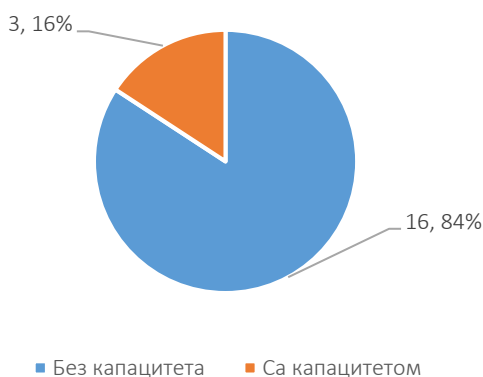
S.N.	Dynamics of service provision	Number of clubs
1.	Five days a week	9
2.	Every day	4
3.	Six days a week	3
4.	Three days a week	2
5.	Four days a week	1
<b>Total:</b>		<b>19</b>



To the question "Which services do you not provide, but still have the capacity for them?" only three clubs gave an answer. Two clubs have the capacity to provide recreation services, while one club states that it has the capacity to provide MMA and Thai boxing services. Clubs that do not have capacity cite a lack of professional staff and finances as reasons.

S.N.	Additional services	Nu	%
1.	Without capacity	16	84%
2.	With capacity	3	16%
<b>Total:</b>		<b>19</b>	<b>100%</b>

Capacity to provide additional services

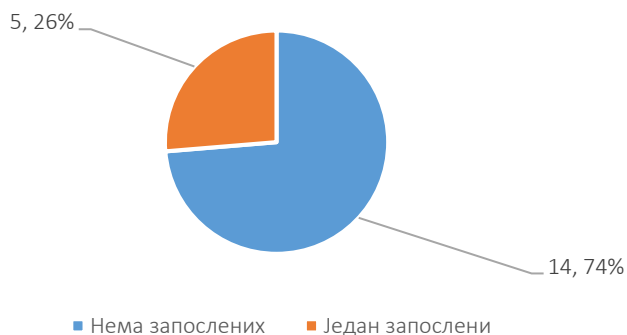


## B) HUMAN RESOURCES

During the analysis of human resources, we found that the largest number of clubs (74%) does not have a single employee under contract for an indefinite period. This may be one of the reasons why clubs do not work on innovation and promotion of services. Five clubs (26%) have one permanent employee. No club has two or more permanent employees.

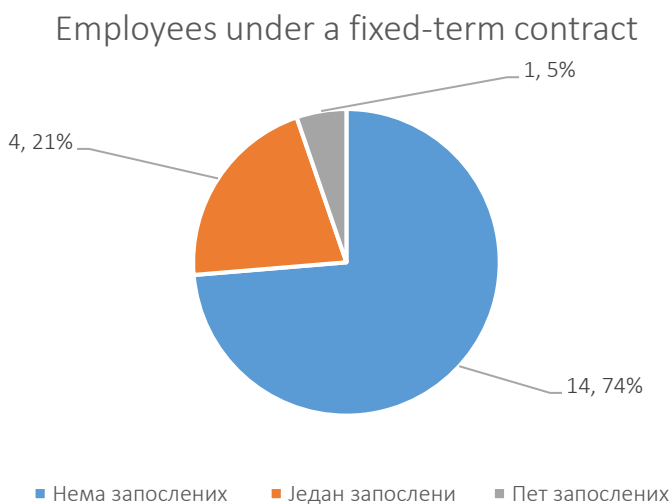
S.N.	Contract for an indefinite period	Number of clubs/associations
1.	No employees	14
2.	One employee	5
Total:		19

Employees under a contract for an indefinite period



In addition, 74% of clubs (14 clubs) do not have a single temporary employee. Four clubs each have one employee on this basis, while one club has five employees on a fixed-term contract.

S.N.	Fixed-term contract	Number of clubs
1.	No employees	14
2.	One employee	4
3.	Five employees	1
<b>Total:</b>		<b>19</b>

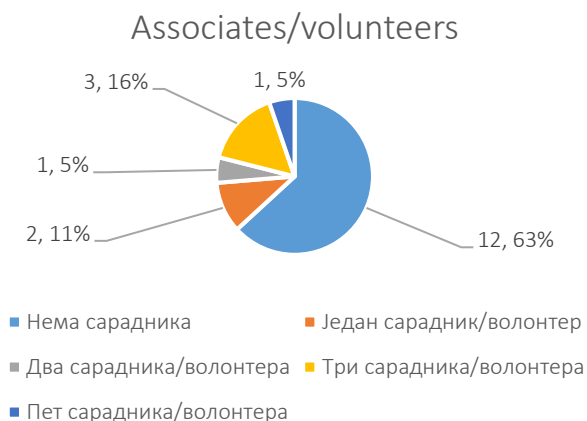


When analyzing the number of employees under other contracts, it is found that 12 clubs (63%) have no associates/volunteers. Two



clubs (11%) employ one associate/volunteer each, and the other clubs employ more associates, a maximum of five associates/volunteers.

S.N.	Other contracts – associates/volunteers	Number of clubs/associations
1.	No associates	12
2.	One associate/volunteer	2
3.	Two associates/volunteer	1
4.	Three associates/volunteer	3
5.	Four associates /volunteer	1
<b>Total:</b>		<b>19</b>

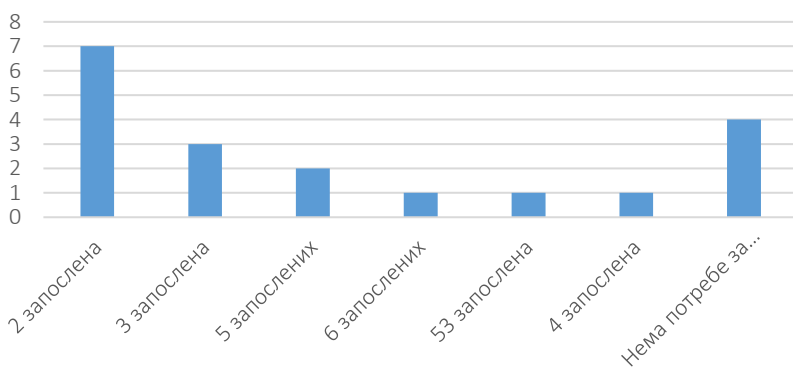


When asked how many employees are needed in order for the club to perform its activities smoothly, four clubs answered that

they have no need for employment. Most clubs expressed the need for two or three employees.

S.N.	Human resource needs	Number of clubs/associations
1.	2 employees	7
2.	3 employees	3
3.	5 employees	2
4.	6 employees	1
5.	53 employees	1
6.	4 employees	1
7.	There is no need for employees	4
<b>Total:</b>		<b>45</b>

Human resource needs



The clubs expressed the need to engage experts who would implement sports programs. Fourteen clubs need to engage experts, while 5 clubs do not need professional support.

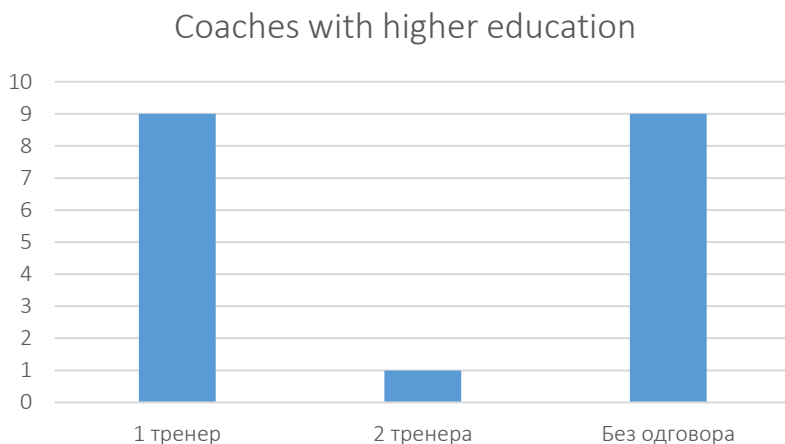


The number of operational coaches varies from one to three. Most clubs (7 clubs) declare that they have one operational coach. Five clubs have two operational coaches each, while four clubs have three operational coaches. Three clubs did not give an answer, which can be interpreted as not having operational coaches.

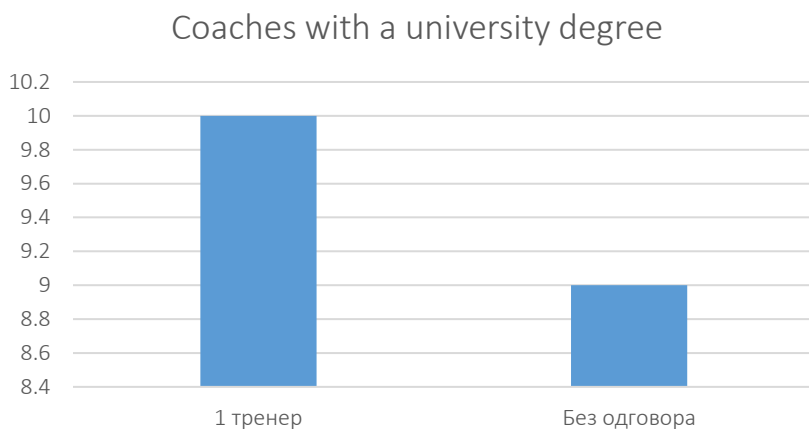
S.N.	Operational coaches	Number of clubs
1.	1 operational coach	7
2.	2 two operational coaches	5
3.	3 operational coaches	4
4.	No answer	3
Total:		19



In 9 clubs, one coach with a completed higher education was engaged, while in one club, two coaches with the same educational level were engaged. Other clubs (9 clubs) did not answer this question.

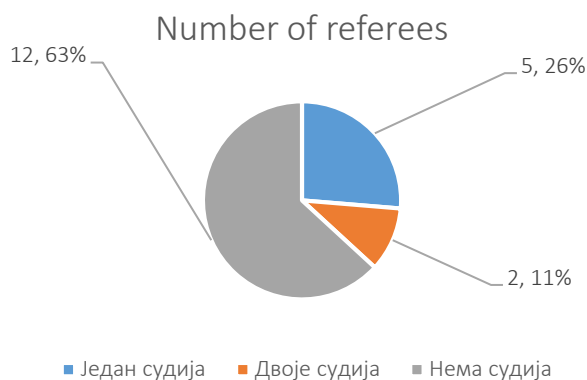


The results are similar when analyzing the answers to the question about the number of coaches with university degrees. In 10 clubs, one coach with a university degree was engaged, while 9 clubs did not give an answer to this question.



When asked how many referees they had, 5 clubs answered that they had one referee. Two clubs have two referees, while 12 clubs answered that they do not have referees.

S.N.	Number of referees	Number of clubs
1.	One referee	5
2.	Two referee	2
3.	Three referee	12
Total:		19



To the open-ended question "What are the educational needs of staff engaged in clubs?", only seven clubs (37%) gave an answer, which further implies that 63% of clubs have no insight into the importance of continuous education. One club gave a concrete answer that they needed additional knowledge in the field of nutrition and supplementation. The other six clubs answered that they needed professional improvement without specifying a specific area.

All clubs (100%) are interested in cooperating with clubs from the surrounding area.

### C) MATERIAL RESOURCES

Clubs mostly rent the space in which they perform their activities (79%). This means that a significant portion of financial resources are dedicated to paying the monthly rent. Only 4 clubs (21%) have a space owned by the club. This allows them to be more competitive in the market, given that they do not have this significant monthly expense.

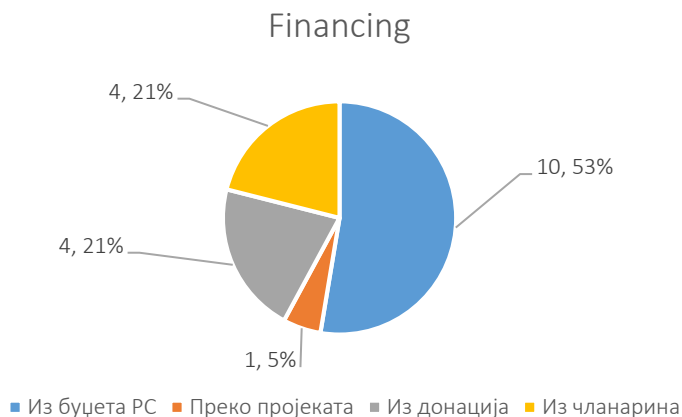
S.N.	Premises for work	Nu	%
1.	The premises are rented	15	79%
2.	The premises are owned by the club	4	21%
Total:		19	100%





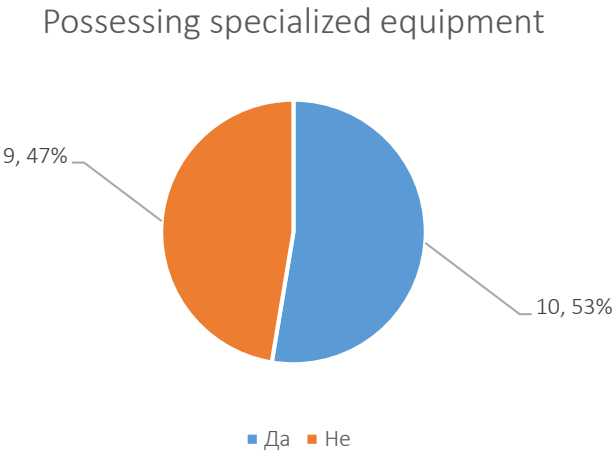
Clubs are predominantly financed from the budget of the Republic of Serbia (53%), through donations (21%), and membership fees (21%). Only 1 club is financed through projects.

S.N.	Financing	Nu	%
1.	From the budget of RS	10	53%
2.	Through project	1	5%
3.	From donations	4	21%
4.	From membership fees	4	21%
<b>Total:</b>		<b>19</b>	<b>100%</b>



100% of clubs express the need for specialized equipment for work. 10 clubs declare that they have specialized equipment for work, while 9 clubs do not have such equipment.

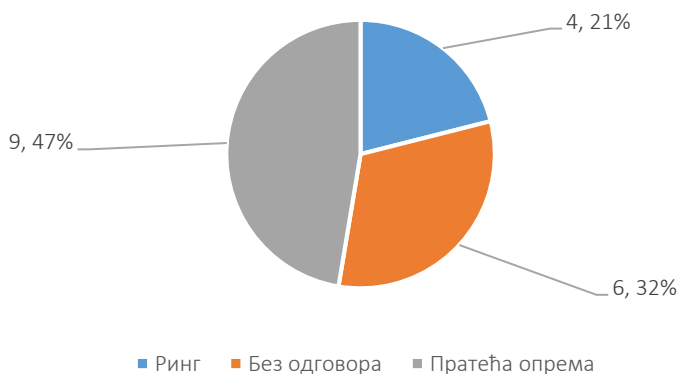
S.N.	Possessing specialized equipment	Nu	%
1.	Yes	10	53%
2.	No	9	47%
<b>Total:</b>		<b>19</b>	<b>100%</b>



To the question "What specialized equipment do you need in order to improve or start your work?" Four clubs need a ring. Other clubs expressed the need for various supporting equipment such as gloves, punches, boxing bags, screws, weights, Federballs, medicine balls, mats, etc. Six clubs did not answer this question, implying that they do not need specialized equipment.

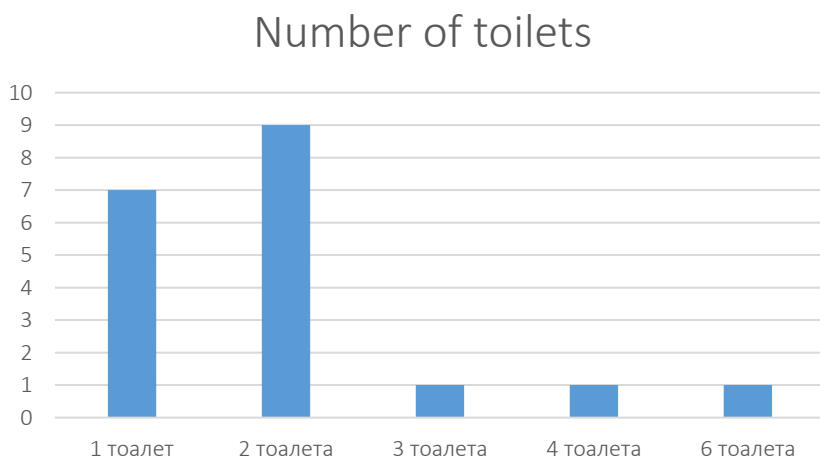
S.N.	A type of specialized equipment	Nu	%
1.	The equipment is not needed for us	6	32%
2.	Ring	4	21%
3.	Support equipment	9	47%
<b>Total:</b>		<b>19</b>	<b>100%</b>

A type of specialized equipment



Most clubs have one or two toilets. Each club has three or more toilets. All clubs have one or two functional dressing rooms.

S.N.	Number of toilets	Nu	%
1.	1 toilet	7	37%
2.	2 toilets	9	48%
3.	3 toilets	1	5%
4.	4 toilets	1	5%
5.	6 toilets	1	5%
Total:		19	100%



S.N.	Number of dressing rooms	Nu	%
1.	1 dressing room	9	47%
2.	2 dressing rooms	10	53%
<b>Total:</b>		<b>19</b>	<b>100%</b>

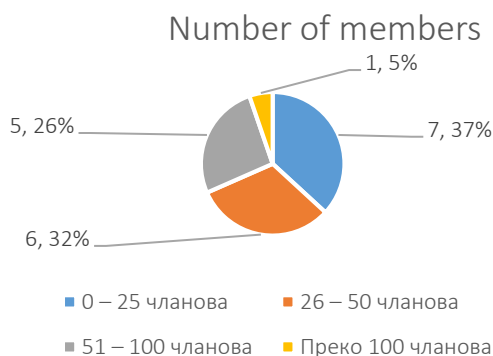


Clubs do not have uniform space for training. Eight clubs perform training sessions in an area of less than 100m<sup>2</sup>. The other 11 clubs carry out training sessions in spaces of different sizes, ranging from 110m<sup>2</sup> to 1200m<sup>2</sup>.

## D) NUMBER OF USERS

The largest number of clubs (7 clubs, 37%) has up to 25 members. With such a small number of members, it is impossible to finance the running costs of the club. This fact puts the clubs in a dependent relationship by the state and/or donations. Only 1 club has more than 100 members, and this club can be largely financed from membership fees. Other clubs, without additional continuous financial support, are not sustainable.

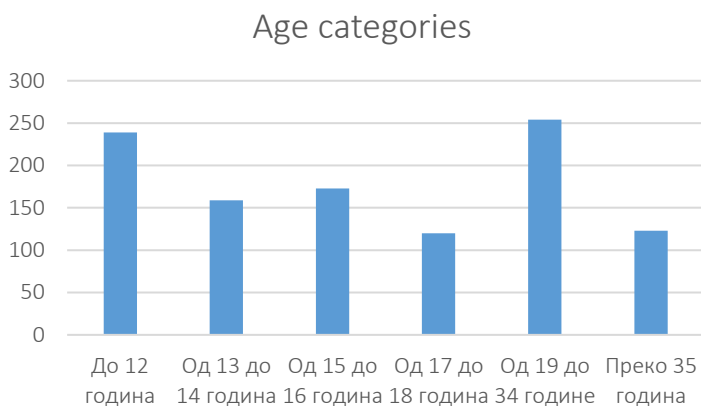
S.N:	Number of members	Nu	%
1.	0 – 25 members	7	37%
2.	26 – 50 members	6	32%
3.	51 – 100 members	5	26%
4.	Over 100 members	1	5%
<b>Total:</b>		<b>19</b>	<b>100%</b>



When analyzing the number of members by age category, we come to the fact that the clubs have the most members in the age

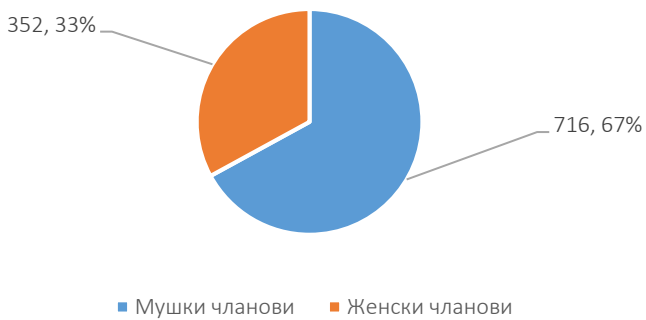
category of children up to 12 years old. After the age of twelve, the number of children involved in boxing gradually decreases. In order to prevent this outflow of children from sports, it is necessary to conduct a campaign that would include children up to 12 years old, as well as their parents, as the target group.

The next thing to notice is that there are significantly more boys/men in boxing than girls/women. This gender mismatch is noticeable in all age categories, except in the category of adults over 35 years old. The mentioned mismatch most likely occurs due to the patriarchal upbringing of children and the strict division into men's and women's sports. Women only in their mature years (the years when they have built self-esteem and self-confidence) notice the benefits of this sports discipline.



S.N.	Members	M	W	Total
1.	Up to 12 years	165	74	239
2.	From 13 to 14 years	102	57	159
3.	From 15 to 16 years	123	50	173
4.	From 17 to 18 years	81	39	120
5.	From 19 to 34 years	176	78	254
6.	Over 35 years	69	54	123
<b>Total:</b>		<b>716</b>	<b>352</b>	<b>1068</b>

Number of male/female members





## **E) TRAININGS**

In this area, the number of weekly training sessions organized by the clubs according to age categories was analyzed, as well as the number of hours per week spent on a specific age category.

### **Members up to the age of 12**

<b>S.N.</b>	<b>The number of trainings</b>	<b>Number of clubs</b>
<b>1.</b>	No training	2
<b>2.</b>	2 trainings	1
<b>3.</b>	3 trainings	7
<b>4.</b>	4 trainings	1
<b>5.</b>	5 trainings	6
<b>6.</b>	6 trainings	1
<b>7.</b>	12 trainings	1

<b>S.N.</b>	<b>Number of hours</b>	<b>Number of clubs</b>
<b>1.</b>	No trainings	2
<b>2.</b>	2 hours a week	1
<b>3.</b>	3 hours a week	3
<b>4.</b>	4 hours a week	4
<b>5.</b>	5 hours a week	4
<b>6.</b>	6 hours a week	3
<b>7.</b>	10 hours a week	1
<b>8.</b>	18 hours a week	1

## Members from 13 to 14 years old

S.N.	The number of trainings	Number of clubs
1.	No training	1
2.	2 trainings	0
3.	3 trainings	4
4.	4 trainings	1
5.	5 trainings	10
6.	6 trainings	2
7.	12 trainings	1

S.N.	Number of hours	Number of clubs
1.	No training	1
2.	2 hours a week	0
3.	3 hours a week	3
4.	4 hours a week	2
5.	5 hours a week	4
6.	6 hours a week	2
7.	7 hours a week	2
8.	8 hours a week	1
9.	9 hours a week	1
10.	10 hours a week	2
11.	18 hours a week	1

## Members from 15 to 16 years old

S.N.	The number of trainings	Number of clubs
1.	No training	2
2.	2 trainings	0
3.	3 trainings	1
4.	4 trainings	2
5.	5 trainings	11
6.	6 trainings	2
7.	12 trainings	1

S.N.	Number of hours	Number of clubs
1.	No training	2
2.	2 hours a week	0
3.	3 hours a week	0
4.	4 hours a week	1
5.	5 hours a week	5
6.	6 hours a week	2
7.	7 hours a week	2
8.	8 hours a week	3
9.	9 hours a week	1
10.	10 hours a week	2
11.	18 hours a week	1

## Members from 17 to 18 years old

S.N.	The number of trainings	Number of clubs
1.	No training	1
2.	2 trainings	0
3.	3 trainings	1
4.	4 trainings	2
5.	5 trainings	11
6.	6 trainings	3
7.	12 trainings	1

S.N.	Number of hours	Number of clubs
1.	No training	1
2.	2 hours a week	0
3.	3 hours a week	0
4.	4 hours a week	1
5.	5 hours a week	2
6.	6 hours a week	3
7.	7 hours a week	3
8.	8 hours a week	4
9.	9 hours a week	2
10.	10 hours a week	2
11.	18 hours a week	1

## Members from 19 to 34 years old

S.N.	The number of trainings	Number of clubs
1.	No training	2
2.	2 trainings	0
3.	3 trainings	2
4.	4 trainings	1
5.	5 trainings	9
6.	6 trainings	4
7.	12 trainings	1

S.N.	Number of hours	Number of clubs
1.	No training	2
2.	2 hours a week	0
3.	3 hours a week	0
4.	4 hours a week	1
5.	5 hours a week	2
6.	6 hours a week	2
7.	7 hours a week	2
8.	8 hours a week	3
9.	9 hours a week	3
10.	10 hours a week	3
11.	18 hours a week	1

## Members over 35 years old

S.N.	The number of trainings	Number of clubs
1.	No training	5
2.	2 trainings	0
3.	3 trainings	4
4.	4 trainings	0
5.	5 trainings	7
6.	6 trainings	2
7.	12 trainings	1

S.N.	Number of hours	Number of clubs
1.	No training	5
2.	2 hours a week	0
3.	3 hours a week	3
4.	4 hours a week	2
5.	5 hours a week	4
6.	6 hours a week	0
7.	7 hours a week	1
8.	8 hours a week	1
9.	9 hours a week	2
10.	10 hours a week	1
11.	18 hours a week	0

In all age categories, most clubs perform 5 training sessions per week. The maximum number of hours per week intended for a

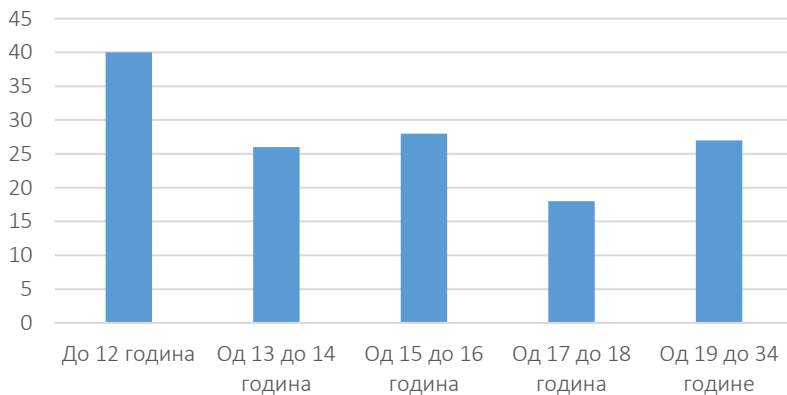
specific age category is 18 hours and is represented in all age categories except the oldest. No significant difference in hours was observed in relation to age categories, which indicates that all age categories have equal opportunities to engage in this sports discipline.

## F) SPORTS RESULTS

Presentation of the number of medals at the national competitions in 2021:

S.N	Age category	Number of medals
1.	Up to 12 years	40
2.	From 13 to 14 years	26
3.	From 15 to 16 years	28
4.	From 17 to 18 years	18
5.	From 19 to 34 years	27
<b>Total:</b>		<b>139</b>

Medals at national competitions in 2021

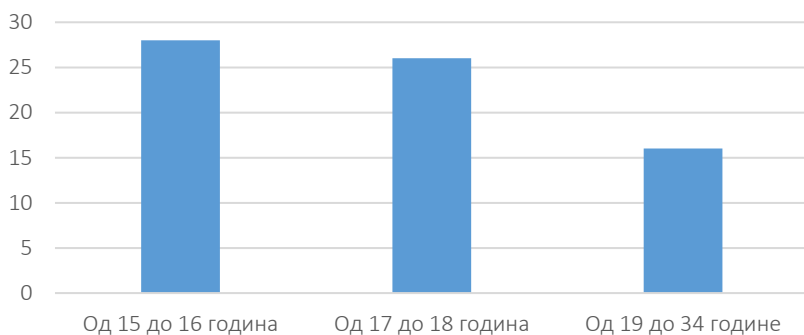




Presentation of the number of medals at the international competitions in 2021:

S.N	Age category	Number of medals
3.	From 15 to 16 years	28
4.	From 17 to 18 years	26
5.	From 19 to 34 years	16
Total:		70

Medals at international competitions in  
2021



### **3. DEFINING STRATEGIC GOALS**

This strategy includes five fundamental strategic principles, i.e. general goals:

1. The increase includes citizens engaging in boxing on the territory of the Autonomous Province (AP) of Vojvodina within boxing organizations and through various forms of unorganized boxing
2. Development of boxing on the territory of AP Vojvodina through increasing the number of sportsmen and women who practice boxing
3. Improvement of boxing through the development of sports infrastructure and its adaptation to the needs of boxing
4. Strengthening the financial and human capacities of sports clubs and organizations in the field of boxing
5. Promotion of boxing through available media channels and the organization of domestic and international events

**1. The increase includes citizens engaging in boxing on the territory of the Autonomous Province (AP) of Vojvodina within boxing organizations and through various forms of unorganized boxing**

Boxing can be available to residents of AP Vojvodina both through services provided by legal entities registered in this area, such as sports clubs, and through the unorganized and independent practice of this sport. However, boxing is rarely carried out independently because the organization of such an activity usually involves the involvement of other people, such as head coaches, conditioning coaches, sparring partners, or medical staff. In addition, as already mentioned, access to this activity is also possible in a way that is not organized, i.e., in the form of sports recreation (according to the Law on Sports: the field of sports that includes voluntary physical exercise, i.e., sports activities for the purpose of rest, refreshment, entertainment, improvement of health, or to satisfy the needs for movement, socializing, and play in all aspects of the population).

Regarding participation in boxing via sports clubs, it is relevant to note that the possibilities for this are limited. According to current data, there is a really small number of sports clubs in the territory of AP Vojvodina where citizens can engage in boxing. Therefore, it is necessary to provide material and other resources in order to promote boxing, opening new boxing clubs but also

stimulating and improving the work of existing ones in the entire territory of AP Vojvodina. Such activities can be performed through the support and assistance of the competent national or provincial sports federation.

Since participation in recreational boxing can cause various injuries to the locomotor system, it is extremely important to provide an individual approach to each person based on their health condition, physical predispositions, age, current level of fitness, etc. Moreover, it is necessary to provide access to educational sessions to all persons interested in participating in recreational boxing and thus familiarize them with the advantages and limitations of engaging in this type of physical exercise. In addition, with the presence of competent personnel, recreational boxing can cause various physiological benefits such as increasing aerobic capacity, muscle strength, flexibility, and balance, but also improving the psycho-social aspect of the human being through the reduction of anxiety and depression, a positive influence on mood, and stimulating social interactions.

## **2. Development of boxing on the territory of AP Vojvodina through increasing the number of sportsmen and women who practice boxing**

There is no database that would provide exact information regarding the current number of male and female boxers in Serbia. However, it can be assumed that the number of sportsmen and women who are able to participate in international competitions is quite scarce. Therefore, it is necessary to encourage children and adults to actively participate in this sport, whether it is competitive or recreational boxing. In addition, it is desirable to further stimulate athletes who compete in other combat sports to engage in boxing activities.

### **3. Improvement of boxing through the development of sports infrastructure and its adaptation to the needs of boxing**

The infrastructure and equipment necessary for successful boxing is quite demanding and diverse, and its improvement and adaptation to the needs of male and female boxers is a truly extensive and complex job. The ways to realize this process can be multiple, but it is still best and safest to opt for a combination in which local public authorities, private capital, the provincial budget, but also project financing, which can be of exceptional importance for larger-scale investments, will contribute. However, during project financing, it is required to take care of the necessary documentation, permits, and certificates, considering that it is usually very specific equipment that is very difficult to acquire and for the use of which there are different rules.

#### **4. Strengthening the financial and human capacities of sports clubs and organizations in the field of boxing**

As mentioned earlier, sports clubs and organizations in the field of boxing are quite limited in terms of the human capacities necessary for their successful functioning. Similarly, the current financial possibilities of boxing clubs on the territory of AP Vojvodina are not in accordance with the needs and requirements of the further development of this sport. Moreover, it is imperative to provide financial resources that would enable the purchase of new equipment and the education of professional staff, as well as money with which to apply for projects that can enable future financing (project financing).

Precisely because of personnel and financial difficulties, it is desirable to include as many factors as possible from the fields of sports, education, tourism, and ecology in order to create conditions for the systematic solution of the mentioned problems, both at the provincial and municipal levels. Therefore, only the common engagement of the Provincial Secretariat for Sports and Youth, the Sports Association of Vojvodina, the competent city association, private and state institutions, but also the non-governmental sector operating in the fields of environmental protection, sports, and tourism can lead to exact and visible results. It is necessary to create a competent staff in the provincial branch association that will be able to

supervise and manage experts who are engaged in boxing clubs on the territory of AP Vojvodina.

In terms of project financing, it is also necessary to invest certain funds in the training of personnel who would apply for various programs (local, national, and international). After that, the next step is establishing cooperation with partners with whom the projects would be implemented, identifying topics and programs to which there is a possibility of applying, submitting applications, and later implementing the project itself in accordance with its requirements. After this, the involvement of the provincial and local authorities, which would provide for pre-financing or co-financing of such projects in their budgets, is again necessary. Finally, finding sponsors and donors whose values are compatible with those promoted by boxing would certainly contribute to strengthening the financial capacity of clubs and organizations in the field of this sport on the territory of AP Vojvodina.



## **5. Promotion of boxing through available media channels and the organization of domestic and international events**

Boxing, as a combat sport, has considerable media potential due to its reputation in sports circles and authenticity, as well as the attraction of an audience that prefers to enjoy fights until the last breath. Media owners, editors, and journalists show affection for this sport because the attention of the sports public is stimulated through various photos and recordings noted during boxing matches, that is, it can be stated that boxing has a solid commercial profitability. Sports channels that specialize in boxing, i.e., for showing fights in the ring, as well as a large number of productions that deal with filming boxing matches, confirm the connection between the media and the mentioned sport.

Media can also be used as a tool to promote certain implications of boxing such as stimulating a healthy lifestyle, pushing one's limits, developing sportsmanship, etc. In addition to all of the above, the media potential of boxing is also reflected in the great reputation that athletes can have if their results and achievements are properly exploited - from the motivation of the population to participate in recreational boxing, through the animation of sponsors and donors, to the influence on athletes from other sports in terms of achieving top results at domestic and international competitions.

#### 4. RECOMMENDED ACTIVITIES

Finally, within the already mentioned general goal, special goals were identified, as well as activities that must be conducted within them, indicators of such activities, and individual measures/tasks.

<b>1. The increase includes citizens engaging in boxing on the territory of the Autonomous Province (AP) of Vojvodina within boxing organizations and through various forms of unorganized boxing</b>			
Special goals	Activities	Activity indicators	Measures/tasks
Increased number of boxing clubs on the territory of AP Vojvodina	A public invitation was sent to informal associations and athletes to acquire a legal form in the form of establishing sports clubs in the field of boxing with adequate legal assistance from the branch association	Invitation sent	Formation of the procedure, i.e. the procedure that is necessary for the registration of the sports club
Improved connection of boxing clubs with	Engagement of the provincial boxing association	Published and transparently available required documentation;	Drafting of regulations and basic working documents; Development of a

the relevant association		Union operative for work; Submitted and approved request for financing the activity	work plan and program; Provision of material resources for association activities
Stimulation of recreational boxing in the territory of AP Vojvodina	Providing the necessary conditions for recreational boxing	Number of injuries during participation in recreational boxing activities	Providing all necessary information on protection and prevention during recreational boxing

## 2. Development of boxing on the territory of AP Vojvodina through increasing the number of sportsmen and women who practice boxing

Special goals	Activities	Activity indicators	Measures/tasks
Improved cooperation with institutions, federations, and clubs that can contribute to the increased inclusion of women and people with disabilities in various segments of boxing	Enhancing the level of cooperation with institutions, federations, and clubs that can contribute to increasing the inclusion of women and people with disabilities in various aspects of boxing	Number of new organizations with which cooperation was established; Number of jointly conducted activities	Strengthening cooperation with the mentioned institutions; Implementation of common projects or activities with the mentioned institutions
Provided conditions, resources, and capacities (including material and technical	Providing appropriate boxing education; Providing adequate training and	Number of educational events organized; Number of trainings and preparations	Organization of educational gatherings and seminars; Organizing the necessary preparations and training; Identifying

conditions) in order to enable the manifestation of the maximum potential of boxers, including conditions for training, preparation, and education about the mentioned sport	preparation; Providing the necessary technical resources for successful boxing	conducted; The total number of purchases made	the indispensable resources and creating a procurement plan
Competent staff to work with athletes is provided	Creating experts in the field of boxing	Compliance of competent education, professional qualification of staff, and objective needs of boxing on the territory of AP Vojvodina	Collaboration between clubs and educational institutions in order to create experts
Improved conditions for achieving high-level sports results in the field of boxing	Organization of international boxing competitions on the territory of AP Vojvodina	Number of organized events - competitions	Competing, preparing, and organizing international boxing events in which sportsmen and sportswomen from

			the territory of AP Vojvodina can participate
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### 3. Improvement of boxing through the development of sports infrastructure and its adaptation to the needs of boxing

Special goals	Activities	Activity indicators	Measures/tasks
Establishment of a database on the condition of infrastructure and equipment for participation in boxing on the territory of AP Vojvodina	Research aimed at collecting data on the condition of sports infrastructure and equipment related to boxing on the territory of AP Vojvodina	Published conclusions on the mentioned investigation	Defining the research procedure, collecting, processing, and analyzing data
Creating the database based on the need to improve or build new sports infrastructure, as well as the need to adapt existing infrastructure to the needs of boxing	Investigation concerning the need to improve or establish a new sports infrastructure, as well as the need to adapt the existing boxing infrastructure	Published research conclusions	Determination of the investigation procedure, collection, processing, and analysis of data
Systematized sports facilities suitable for boxing	Categorization of sports facilities suitable for practicing boxing	Published ranking data	Ranking of sports facilities

#### 4. Strengthening the financial and human capacities of sports clubs and organizations in the field of boxing

Special goals	Activities	Activity indicators	Measures/tasks
Improved the capacities of clubs and the relevant branch association to write projects in different formats (local, national, and European Union (EU)) in order to improve all aspects of boxing	Improving the capacities of clubs and the relevant branch association to apply for project funding at the local and provincial level; Capacity building for analyzing EU programs, identifying eligible calls, choosing the most appropriate partnerships, and writing applications for EU projects	The number of organized educational sessions and the number of submitted and approved projects; The number of completed educational sessions and the number of registered and approved projects	Performing educational sessions for employees in sports clubs and branch associations for writing projects for the needs of competitions at the local and provincial level; Conduction of educational sessions for staff employed in sports clubs and branch associations for writing projects at the level of the European Union
Use of available funds on the territory of AP Vojvodina for the	Applying to the call for project submissions at various international programs	The number of submitted projects as well as the number of approved	Defining the topic of the project, construction of the project analysis, and selection of partners for cooperation



development of boxing		projects for financing	
Animation of sponsors and donors from the country and abroad in order to further stimulate the promotion of different segments of boxing	Providing financial resources for the development of boxing clubs on the territory of AP Vojvodina	Number of sponsors and donors	Competing for sponsors and donors
Improve the level of competence and knowledge of experts in sports clubs and staff in the relevant branch association in order to achieve efficient and complete boxing development	Education of experts engaged in boxing clubs and staff in the relevant branch association in the areas of administrative and project work, modern information systems, reporting according to innovative legal formats, etc.	Number of organized events	Organizing educational sessions

## 5. Promotion of boxing through available media channels and the organization of domestic and international events

Special goals	Activities	Activity indicators	Measures/tasks
Organizing various media campaigns in order to promote boxing	Organizing media campaigns on social networks for the purpose of exposing boxing and animating as many athletes and recreationists as possible	Valorization of the campaign and success through the reaction of target groups	Conception, planning, and implementation of the campaign itself
Improved collaboration between sports journalists and athletes - boxers, as well as improving the knowledge and competence of journalists in the field of boxing	Organization of expert-specific seminars for sports journalists in order to familiarize them with certain characteristics of boxing	Number of educated journalists	Designing, planning, and lobbying to conduct educational events

Organizing international boxing events on the territory of AP Vojvodina for the promotion of boxing	Provision of funds necessary for conducting international boxing events on the territory of AP Vojvodina	Number of competitions for which applications have been submitted to the appropriate international bodies	An attempt to animate as many competitors as possible to participate in international events on the territory of AP Vojvodina
Organizing national boxing events on the territory of AP Vojvodina in order to promote boxing	Provision of funds necessary for conducting national boxing events on the territory of AP Vojvodina	Number of engaged athletes	Organization of competitions and promotion of boxing matches

## 5. CONCLUSIONS

From the available literature, it is possible to determine three basic directions of research, i.e., models of detection, identification, and selection of athletes:

A model based on a scientific approach to the detection, identification, and selection of talents in sports from an early age, which was developed by scientists and coaches, especially from Eastern Europe.

A model which primarily investigates the development of talented athletes ("talent development") and which was practiced by researchers and coaches from the West, mainly from the USA and Canada.

The combined method has been applied the most in recent times, and it is characterized by elements of both methods.

General settings of the first, so-called "eastern model," can be summarized as follows: - Talent is largely innate, i.e. it depends on the heritage. Using a variety of data sources (testing athletes, family data, and sports experts' opinions), talent can be identified early in an athlete's career. - Such early indications of talent are the basis for predicting the top performance in a particular sport. - Talent is, in principle, specific to a particular sport. The mentioned "Eastern" model implies monitoring and testing the athlete from the very beginning of his sports career. Testing includes practically all characteristics of anthropological status,

with special emphasis on psychological characteristics. Furthermore, the speed of adoption of certain contents is determined, as well as the speed of progress in certain abilities of young athletes, and in addition, numerous family data (morphological characteristics, health status, etc.) are collected, which predict the ultimate achievements of young athletes.

Unlike the Eastern model, in which scientific methods are included from the very beginning in the processes of discovering talents, choosing a suitable sport, and selection for club and representative selections, the so-called Western system marks the free choice of sports with an emphasis on engaging in a greater number of sports activities in the early phase of a career dominated by enjoyment and fun. According to this theory, talent is not largely hereditary, nor is it necessary to detect it at an early stage. The key, however, is to enable young athletes to develop their skills, as well as enjoy and motivate them during training. The mentioned model is characterized by the fact that the sports career is divided into several phases, each of which is distinguished by the following elements: a) The first phase is the selection phase, in which the family and the environment stimulate the child to try several different activities. The emphasis is on play and fun, not on classic training and competition. b) In the second, so-called specialization phase (12-13 years old), the child's interest is directed towards one or two sports. At training, in that phase, an effort is made to maintain a balance between

organized play and training so that the child continues to engage in that activity with enjoyment and to prevent giving up and demotivation. c) In the third, so-called investment phase, one strives for peak performance and trains hard to achieve it. Considering the numerous top achievements of athletes, both from the former USSR and Eastern Europe, as well as the Western world (primarily the USA) in all age categories, it is possible to conclude that both models have a scientific and practical foundation.

When developing the model of detection, identification, and selection in boxing, the previous knowledge of both mentioned models (Eastern and Western) will be respected, and in the end, a combined specific model for boxing will be proposed. The detection process in boxing is carried out in the younger school population through the animation of children for boxing school, but it can also be carried out in preschool age. In this primary phase, it is first necessary to conduct detailed medical examinations in order to examine the health and general physical development of the children and possibly detect physical defects and possible diseases. Given that at the age of 6–9, children have not yet differentiated their motor abilities, there are generally more motorically capable children and less capable children. In other words, it is very likely that, for example, a boy who performs excellently on a coordination assessment test will simultaneously be fast, agile, explosive, or simply - above-

average motor skills. Therefore, when selecting children for boxing school, in addition to the mentioned detailed health examinations, it is advisable to conduct one of the tests to assess basic motor skills (best coordination), which will be a good indicator of the child's general motor skills. The processes of identification and selection are conducted in parallel, so they can be observed together. In boxing, the mentioned processes can be divided into two phases: The first phase is carried out during and after puberty. The key role of the coach in that period is to be able to recognize the difference between children of the same chronological age, but significantly different biological ages. Namely, it is to be expected that children who are late in their biological development will achieve lower results than their peers, both in ability assessments and in competitions. However, usually for those children whose development starts later, it lasts longer. Eventually, such children catch up and even overtake children who developed earlier. There are a number of different methods for determining biological maturity. It is a non-invasive, reliable, and simple to implement method of assessing biological maturity using three anthropometric measures: height, sitting height, and leg length. After determining the biological maturity of young boxers, it is necessary to select the most talented among them as precisely as possible. Therefore, it is necessary to determine the dynamics of motor-functional, anthropometric, and technical-tactical parameters, because the organism has reached a

certain level of adaptation to the specifics and requirements of boxing.

Numerous studies confirm that motor skills and anthropometric characteristics greatly distinguish successful boxers from less successful ones, so it is necessary to use them as important criterion for identification and selection in boxing. As is known, success in boxing, depending on the weight category, is influenced to a certain extent by virtually all motor-functional abilities. It is known that strength (especially muscular endurance) and cardio-vascular endurance (especially the aerobic component) have a relatively low innate coefficient and can be significantly improved with timely and correctly dosed training. Therefore, boxing coaches could make a big mistake if they made the identification and selection of young boxers based only on the evaluation of these abilities. Unlike those two abilities, coordination and explosive power, on the other hand, have a high coefficient of innateness, so the conclusion arises that precisely the high level of these abilities should be of great importance in the selection of gifted boxers. Testing in this phase should be conducted at least twice a year and would include a larger number of tests to assess basic and specific motor-functional abilities. The results of the tests should primarily indicate the dynamics of progress for the tested boxers in the applied tests over a certain period of time. From the previous research, it can be concluded that it is necessary to conduct a large number of different tests



because otherwise it will be difficult to assess the motor-functional potential of boxers. In addition, it is necessary to analyze the technical success of athletes (the scope and variety of technique, and the implementation success of fighters) throughout the year in training and in competitions. At this stage, children's talent for boxing should not be judged on the basis of competition results. Namely, as has been emphasized many times, children grow and develop intensively, so such an assessment is often not objective. The second and, at the same time, final stage of talent recognition is carried out in the junior and senior years, with the aim of selecting representative candidates. That phase must be highly correlated with the specifics of boxing. It includes an assessment of the athlete's health, assessment of specific motor-functional abilities and technical tactical knowledge, and determination of the competitor's psychological profile (ability to adapt to training and competition, emotional stability, etc.). Unlike the previous period, in which the dynamics of progression in motor-functional abilities and technical-tactical knowledge were primarily monitored, in this phase the tested abilities and knowledge are monitored and compared with the model values of top boxers. In the final phase of the recognition of talent, emphasis is given to determining the psychological profile of each athlete in order to determine whether he possesses cognitive-conative (psychological) characteristics, which are of great importance for

success in boxing. This is especially important because boxers of that age have finished the phase of intensive development, and the aforementioned features have almost taken on their final structure.

### Key points and guidelines in talent detection and identification

According to the scientific literature and currently available evidence, several crucial factors have been identified that discriminate successful athletes from less successful ones:

1. Numerous studies highlight the importance of motor skills in recognizing future elite athletes. More specifically, a successful athlete must possess a moderate or high level of aerobic and anaerobic strength, good results in agility tests, as well as an enviable development of the muscular system in order to quickly generate large amounts of force during explosive movements that are essential for success in modern sports.
2. Differences in anthropometry and somatotype also represent a significant determinant of sports potential and final achievements in athletes' careers. Studies published in eminent world journals in the field of sports science suggest that elite athletes are characterized by high percentages of muscle mass and low values of body fat. More precisely, top athletes have a mesomorphic body type.
3. Science recognizes and highlights the importance of genetic factors as an indicator of the talent and possibilities of sportsmen.

Moreover, by applying different and advanced diagnostic tests, it is necessary to determine whether athletes possess genes that make them predisposed to long-term activities in which negligible amounts of force are produced - aerobic activities, or to sports dominated by explosive movements - anaerobic activities.

4. In addition to the mentioned exact parameters, monitoring the psycho-social aspect of an athlete's life (anxiety control, motivation, self-efficacy, family support, adequate education, meeting cultural needs, etc.) is also a factor that must be valued during the potential identification of top athletes. Of all the factors listed, anxiety control is probably the most relevant parameter in separating elite athletes from those who compete in lower-ranked competitions.

Finally, it is important to emphasize that it is necessary to conduct scientific studies that will examine the validity and applicability of the presented model in boxing. Moreover, sports scientists and coaches engaged in boxing should certainly use the above model when detecting and identifying future successful boxers (champions).

Analyzing the research results, it can be concluded that there is space for improvement in each of the areas covered by this research. When it comes to the services provided by the clubs, a passive attitude towards innovations is noticeable. Only 16% of

clubs currently have the capacity to provide additional services. Other clubs, which do not have the capacity, cite the lack of professional staff and finances as reasons. On the other hand, something that is positive is that all clubs show their willingness to cooperate. Given that there is readiness, it is necessary to work on the improvement of existing human resources. One of the ways is to present examples of good practice from the region to club representatives. It is also necessary to connect the clubs with the Sports Faculties and introduce them to current theoretical and scientific achievements. Associating theory and practice will contribute to the improvement of this sports discipline. Education that would be organized for club representatives should be practical and interactive.

The largest number of clubs (74%) does not have a single employee under contract for an indefinite period. Only 4 clubs did not currently express the need for engaging professional staff. To the greatest extent, clubs rent the space in which they perform their activities, and they are predominantly financed from the budget of the Republic of Serbia.

There is a noticeable trend of a decrease in the number of club members after the 12th year. That is why it is important to promote boxing from an early age. It is necessary to include parents in all promotional activities for minors. Special attention should be paid to the promotion of women's boxing.

Several clubs expressed the need for a ring, and a large number of clubs committed to supporting equipment. Despite the lack of human and material resources, the clubs manage to implement their activities and succeed in national and international competitions. This indicates a high level of motivation among the staff at the clubs. However, if human and material resources remain at this level, it is very likely that there will be a loss of motivation and the gradual closing of clubs. That is why it is necessary to work on the continuous education of professionals, the innovation of services in clubs, and the exchange of examples of good practice. In addition, it is necessary to provide clubs with financial sustainability and provide them with the necessary equipment.



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