Among the most important aims of the Royal Spanish Athletics Federation (RFEA) is the promotion and development of athletics. The federation’s strategy in this area comprises a High Performance System, the objectives of which include giving the national team the best possible chance to realise results in international competitions that are consistent with Spain’s level of sporting, economic and social achievements in the last 15 to 20 years.

A great deal of attention is also given to the training and preparation of young athletes who demonstrate the potential to be members of the national team. The success we have experienced in the last few years has come as a result of the continuity of our programme for the identification/selection/
The RFEA programme of talent identification, development and assistance for young athletes

monitoring/ assistance of talented young athletes, which has enabled many to move into the High Performance System and reach their full potential.

The current programme started in 1989 when the government recognised the importance of high performance sport and began to provide an annual budget and other necessary resources for technical training and scientific support. The need to identify, select and monitor new talent to cover the generational turnover in Spanish sports was confirmed at this time. The Superior Council of Sport (CSD), with RFEA technical direction, began a promotion programme aimed at young people between 13 and 17 years old. Its aim was to give economic and management support, from the beginning of a talented athlete’s career through different stages of development right up to consolidation at the highest level of performance.

The programme has been developed and improved by the RFEA’s technical structure in a number of phases over the intervening 14 years. We have studied and evaluated more than 3000 outstanding young athletes and we have been able to provide training camps and other support measures (e.g. economic grants for athletes and their coaches, medical tests, and functional evaluations, grants to go to competitions, assistance and technical support to personal coaches). The continuity of the programme has allowed the RFEA to progressively introduce a number of mechanisms and procedures that can only be used with high performance athletes. For example, we are able to carry out continuous monitoring of athletes and include personal coaches at camps in order to collaborate on training and integrate into the federation structure. This has led to an updated concept of working with young athletes, covering the development process to achieving top-level performances and an appropriate plan for the programme, which is reviewed and elaborated every year.

As a result of this work, we now have an efficient laboratory in which young athletes, in all the different disciplines, with real athletic potential are detected, selected, promoted, and helped. Thus, we have created a seed-bed which is now feeding talent to the High Performance System and the national team. If not for this programme, and the special monitoring of the best young athletes it provides, there is no doubt that only a small number of athletic talents would have come through the existing structures (schools, local, regional, national) to achieve high level performances, as has been the case in the past in both athletics and in other sports. Moreover, those who did come through would, more likely than not, have done so through training that was less than ideal for the long-term aim of securing medals at major international championships.

**Talent identification and selection**

The RFEA’s Technical Committee’s structure has been in place since 1989, the same year that the programme began to develop. It is divided into specialisation sectors (Sprints, Hurdles, Middle Distance, Long Distance/Cross-country, Walking, Jumps, Throws and Combined Events), each led by a National Director. Each sector has all the technical capabilities in all age categories, from child to senior. Their resources for the young athlete categories (Junior, Youth, and Cadet) include coaches, who go to competitions and camps, as well as monitors, who oversee the athletes in the respective categories. Further, there is a Director in charge of the Junior and Youth categories. A working group inside the Technical Department does the permanent work of monitoring, reviewing and improvement of the programme.

The RFEA Medical Department supports the programme through intervention protocols by physicians, physiotherapists and psychologists at the various camps, designating the personnel who are to attend each one.

To develop our programme and its work with the young athlete categories, it was
necesssary to consider the following points and revise our thinking periodically, taking into account the idiosyncrasies of Spanish society, Spanish geography, and the demands of high-level sport:

◆ The age period in which the best results in athletics are currently achieved
◆ The years needed for athlete's proper technical training and maturation
◆ The best biological age to identify, evaluate and select talent in the different athletic disciplines

At the same time, we had to raise questions about the training of children in sport that have no easy and clear answers:

◆ At what age can we identify talent for a specific athletic discipline?
◆ Are there any selection criteria and reliable tests that guarantee proper selection?
◆ Do results improve with early specialisation?

With the answers to these questions you can establish HOW to correctly identify and select talented young athletes, HOW to train them, and WHEN and HOW they must specialise.

We can summarise the conclusions we at the RFEA reached to delimit the age categories of the programme (and its stages), to define the programme's aims and to identify the instruments needed to achieve them:

1. In light of the current national and international competition programmes for these ages, the entire young athlete search process (identification, evaluation, selection, control, and monitoring of training to reach high competitive levels) must be set in advance.

2. There is a short age span for the best integration of motor aptitudes. With growth and maturation there occurs a great number of ways of expressing motor abilities and this, linked with a bigger body and psychological development after puberty can allow us to make better selections. Children have motor aptitudes that are valid for most sports, and it is convenient to develop this integration and motor variety. Early specialisation will utilise, in most cases, these skills to accelerate the process, but will not make them better.

3. Specialisation must start only when there is a firm knowledge of the athlete's actual condition and future potential. This is even more necessary when we are talking about an outstanding talent. The process must start by adapting the sport activities to the child's needs, making them varied in order to develop all the physical qualities without looking for medals prematurely.

4. In the talent identification process there is a major problem of large performance differences according to the degree of maturity (or biological age) of the child. More than a 20% difference can be found in performances within the same chronological age.

5. We also must take into account that children are still growing up until the age of ossification of the growth centres and they undergo large hormonal and morphological transformations during puberty. These points increase the difficulty of making a correct evaluation and must be taken into account when planning training, as it is necessary to properly quantify young people's efforts in all kind of activities.

6. It is not proper to guide children toward just one specialty at an early age; instead, it is necessary to keep many paths open until they have finished developing.

7. Depending upon the discipline and the age at which systematic training is started, it requires six to ten years to reach high performance levels. This is confirmed by the average age of Olympic champions.

8. We must take into account the factor of psychological fatigue (burn-out) caused by high intensity specialised training at a young age.
For all these reasons, we consider that in athletics, it is not necessary or convenient to begin the identification, evaluation, selection and systematic monitoring before the age of 14-15 years (biological). We also consider that the process of development required to place an athlete in the RFEA’s High Performance System will take a minimum of 5 or 6 years. This puts the athletes who have come through this programme at about the end of the Junior category (age 19). Even though ages at which athletes in different specialities reach this point of development are not homogeneous, the training in our programme is such that it provides the RFEA with the appropriate strategy to achieve the athlete’s best performance at the best age.

This is the best system that we have found to solve the problems of identification and selection over the past 14 years. Although we can report very good results, we know that it must be adapted to new demands and improved if we are to continue to progress.

In general, the two most important effects of the programme are:

1. Most of the athletes joining the national team are younger, compared to previous generations, and are consistently obtaining excellent results.

2. At the same time there is increased quality and consolidation in Spanish athletics, thanks to a large number of athletes with good technical training who have reached high-level performance and reach the national team at older ages.

These effects can be confirmed through the results of the national team at major international championships in recent years.

At the 2001 IAAF World Championships in Athletics in Edmonton, 63.6% of the Spanish team had participated in the programme.

Of the 105 medals obtained by Spain in the 20 senior level international track and field championships between 1994 and 2002 (Olympic Games, World Outdoor and Indoor Championships, European Championships and European U23 Championships), athletes who had participated in our programme won 50.5% (53). If, however, we exclude the athletes who were already too old to participate in the programme when it started in 1989 the figure rises to 88.3%!

**Phases of the RFEA programme**

Our programme has two phases, determined by the age and different training requirements:

1. Phase I (between 14 and 17 years old) Objective: Talent detection, evaluation, selection and monitoring.

2. Phase II (18 and 19 years old) Objective: Talent control and monitoring toward high performance. (Exception: some younger athletes with outstanding talent who have the ability to compete in the World or European Junior Championships are included so they can have access to the activities of the 2nd phase in preparation for these events.)

One of the most important aspects of any system is the correct structuring of the categories and the test regime so as to permit a programme of training and competition that can be adapted to the child’s growth and psychological development. All countries, national federations, coaches and sports administrators are faced with the same issues.

To improve the talent identification and selection process and to raise the level of ability of athletes coming into our programme, it is necessary to increase the emphasis of athletics in the school physical education curriculum and promote information to enhance the practice of athletics in after-school sports activities.
The importance of competitions, which are essential to the long-term development of the athlete, increases with age. However, it is important to take a long-term view and put the emphasis on the natural build up competitive spirit rather than results obtained by forced and exhaustive training. This does not mean that results don’t matter, as they are a valid means of evaluation of the system, but achieving excellent results in championships and other international competitions is not a priority for athletes in Phase I of our programme.

We have concluded that, for psychological, physical, technical, teaching and organisational reasons, TWO YEAR age groupings are the most practical. The following table shows the relationship between the developmental age groupings we use and the national and international competitions on the athletic calendar.

### Integration into the RFEA High Performance System

The long-term development process for achieving success at an international level requires continuity in the sense that the best junior athletes developed in Phase I of our programme transfer to the RFEA High Performance System. The emphasis of Phase II is on assisting athletes to make this transition. Attention is focused on a smaller number of our best young athletes in order to give them more personal assistance and individual treatment for their special training needs.

<table>
<thead>
<tr>
<th>AGE (Years)</th>
<th>CATEGORY</th>
<th>LEVEL OF COMPETITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-13</td>
<td>Child (Infantil)</td>
<td>Local and regional (autonomous communities) Spanish middle schools championships for outdoor track &amp; field, cross country</td>
</tr>
<tr>
<td>14-15</td>
<td>Cadet (Cadete)</td>
<td>Local and regional Spanish championships for indoor track &amp; field, outdoor track &amp; field, cross country and walking</td>
</tr>
<tr>
<td>16-17</td>
<td>Youth (Juvenil)</td>
<td>Local and regional Spanish championships for indoor track &amp; field, outdoor track &amp; field, cross country and walking International championships U-18: World: IAAF World Youth Championships in Athletics, Gimnasiada European: European Youth Olympic Festival, Jean Humbert Cup International U-18 team matches.</td>
</tr>
<tr>
<td>18-19</td>
<td>Junior</td>
<td>Local and regional Spanish championships for indoor track &amp; field, outdoor track &amp; field, cross country and walking International championships U-20: World: IAAF World Junior Championships in Athletics European: European Junior Championships International U-20 team matches</td>
</tr>
</tbody>
</table>
A transcendental role in the RFEA strategy is the direct help to the athletes through economic grants. Grants are structured progressively according to the level of performance at the international championships that form part of the Federation’s objectives or the performances reached in a specific period of the year and in particular conditions.

Grants are increased for athletes U-20 and U-18 as a first step of their integration into the grants system. We feel that this economic stimulus makes a large impact at a time when young athletes have a difficult time in deciding their future.

The role of the coach has a vital importance in the training of young athletes who will be High Level athletes in the future. Economic compensations for the best athletes’ coaches have contributed to the improvement of the training conditions. There are also grants and awards for personal coaches of the athletes included on the programme, thanks to grants or to the SECOND PHASE activities.

The creation of a European U-23 Championship by the European Athletic Association has made it necessary for the RFEA to extend the programme of special assistance to athletes aged 20 to 22 (called the Promesa category in Spain) in disciplines where the levels of performances in Spain are high and these athletes would not otherwise be included in the RFEA High Performance System.

The PROMESA Programme retains a philosophy similar to the Phase II of our programme:
- Economic grants and aids for athletes and their coaches.
- Training camps: individuals, with high performance groups, prior to championships
- Medical tests, examinations and functional assessments
- Grants for travel to national and international competitions
- Assistance and technical support to personal coaches

Talent identification, development and assistance programme objectives

1. Annual objectives

- To detect, identify, evaluate, and promote youth with special capabilities in the different athletics disciples who can be integrated in the future into the High Performance System and the National Team in the different age categories.
- To continue to follow and control the better athletes in the Junior category, assisting them in all possible aspects, in order to continue to prepare them for the World and European Junior Championships.
- To advise and promote the coaches of these athletes, seeking their integration into the activities.
- To introduce the programme to the autonomous (regional) communities and establish lines of activity along with the regional federations to optimise the use of available resources.

2. Medium-term (3 to 6 years) objectives

- To achieve, progressively, among those athletes who have participated in the programme, percentages of participation in the Spanish team selection, of approximately:
  - 90% in Youth (under 18)
  - 80% in Junior (under 20)
  - 70% in Promesa (under 23)
- To continue the follow-up and control of the most outstanding athletes, assisting in the development of their abilities toward the high performance levels.
- To promote and shape those coaches who evolve along with their outstanding athletes toward the High Performance System and integrate them into it.
To collaborate with the regional federations on the progressive implementation of programmes of detection, selection, and promotion of talented athletes, coordinating these activities to obtain a more efficient system.

3. Long-term (6 to 8 years) objectives

- To attain, over a long period, about 70% of athletes who have participated in the programme to achieve selection to the Spanish teams.
- To consolidate the continued inclusion of those personal coaches of the athletes integrated into the high-performance system.
- To establish athletic profiles of each of the event groups and disciplines that the athletics calendar comprises; processing objective and quantitative data collected from all the camps in order to determine new identification parameters and selection criteria of athletic talent for athletics.
- To reach out into most of the autonomous communities to develop programmes for detection of talented athletes and achieve adequate structuring of all their activities according to the those of the national programme.

4. RFEA objectives for high level junior competitions

- 2001 European Junior Championships-goal: 4 medals, 11 finalists, 15 semi-finalists (The Spanish Team achieved 5 medals, 9 finalists, 18 semi-finalists)
- 2002 World Junior Championships-goal: 1 medal, 4 finalists, 8 semi-finalists (The Spanish Team achieved 3 finalists, 10 semi-finalists)
- 2003 European Junior Championships-goal: 3 medals, 12 finalists, 15 semi-finalists
- 2004 World Junior Championships-goal: 1 medal, 4 finalists, 9 semi-finalists

Practical activities

1. Phase I Activities

School Holidays Camps

At these camps, held during the Holy Week, summer and Christmas holidays, we carry out initial and follow-up testing in the technical, medical and psychological areas. The aim is to profile each athlete through the accumulated results so comparisons can be made against athletes of the same age and discipline. We also conduct exercises that evaluate other aspects of the training and athletic capabilities of the athletes.

At the end of each camp, a meeting of all the involved coaches is held. The objective is to evaluate the athletes and identify future top performers. Meeting in this way allows the coaches to combine all of the evaluations for all of the disciplines and give more consistency and weight to their conclusions.

Information on the three areas (technical, medical and psychological) is prepared and mailed to the participating athletes’ personal coaches at the end of the camp. It is also sent to local and area sectors of the Federation as well as to the Directors of the RFEA Technical Committee.

The participation and involvement of the personal coaches of the more talented athletes is strongly encouraged. Through this involvement, we hope to improve the follow up to the camp’s activities and contribute to the professional growth of the coaches, so that they can continue to evolve along with their athletes. Aside from being able to participate actively, which contributes to their experience, the camps help to develop each coach’s understanding of the RFEA’s technical and conditional models for their
discipline and gives them a chance to compare their knowledge with the Federation’s coaches.

The convocatory of each camp is produced by a letter of convocation addressed to all athletes and members of technical team, giving notice of details established for each: dates, places, lodging and transportation arrangements, documentation requirements, etc. This information is published on the RFEA website and distributed to all regional federations.

October Camps

To expand the follow-up of the more talented athletes and to intensify the work of evaluating, we conduct an additional camp in October. The more talented athletes from Phase I are summoned, together with their personal coaches, to work with the RFEA’s High Performance Directors to plan their further development.

Working Sessions

Simultaneous with the October camp we hold working sessions concerning the present and future of the young athlete categories. These sessions are open to all who are involved in youth athletics. The objectives are to spread information about the work of the RFEA, introduce the programme and assist with the development of youth group coaches, many of whom train athletes participating in the programme. The RFEA also invites all the Technical Directors who are responsible for the youth categories in the regional federations to participate.

Follow-up at championships

Experts from the RFEA’s Technical Committee attend the Spanish (Cadet and Youth) Championships to follow-up the athletes in competition. They also have a chance to continue this work with the athletes and their coaches. Medical personnel are also present to assist in monitoring the athletes.

2. Phase II Activities

School holidays camps

For the athletes and coaches involved in Phase II of the programme, we hold two blocks of camps in the school vacation periods of Holy Week and Christmas. The activities of the camps reflect their different positions within the athletic calendar and we believe they are important preparation periods for the winter and summer seasons. The camps allow for direct follow-up on the athlete’s condition at the particular point of the season and a chance to carry out training in good conditions and away from the usual training sites and routine rhythms of life. They are also a chance for the athletes to receive specialist technical assistance together with the athletes from the High Performance System, who hold their camps during the same periods.

Pre-World and European Junior Championship camps

In the weeks immediately prior to the major international junior championships we hold special preparation camps for the athletes in the programme. The aim is to provide a period of training under the best possible conditions for each discipline. As the needs will vary from discipline to discipline, the locations, dates, and durations of these camps will vary accordingly.

Follow-up and control camps

In addition to the camps described above, we hold a series of weekend camps, which do not interrupt the school or training programmes of the athletes. These camps provide a chance to follow up the work of the other camps and control the athletes’ training programmes so we can correct in time any problems and confirm our line of work. We also do functional evaluations and medical assessments.
Conducting these camps also allows us to strengthen the communication between the RFEA technical structure, the various Sector Directors, the Junior Director, the programme and the personal coaches. Through this communication we can better meet the needs of the coaches and athletes that arise during the year. We can also respond to strategies of control and follow-up determined by the RFEA Technical Committee.

Participation in competitions

All the preparation culminates in the competition. We examine the performance of the athletes who participate in national or international competitions between May and July. The objective of these performances, in those athletes who need it, is to complete the preparation process started in training with the minimum number of competitions so as to achieve the best possible results in the European Championships. In these national meetings we enhance events or series for junior athletes.

Local community and regional federation activities

The administrative development of athletics in the young athlete categories primarily corresponds to the autonomous communities and the regional federations. This is because the RFEA intends to promote among all institutions involved in youth athletics acceptance of standard programmes of development, coordinating them in a way to best utilise all of the available resources.

The activities that the RFEA has developed toward the autonomous communities and regional federations include:

- Information about the programme, its objectives, and the calendar of camps throughout the year.
- Feedback of information about their athletes in who participated in the prior camps (including all the results of tests and evaluations obtained of all athletes and the training programmes in all the disciplines)

- At the start of the season collect information from the federations about the coaches or people in charge of the development of the younger categories, in with the goal of establishing contact with them and creating a line of dialogue.
- Convene planning days for those coaches responsible for the youth categories of the federations looking toward the present and future of the youth categories and other annual meetings.
- Offer the federations the opportunity to assist and actively participate in camps for those coaches in the communities who work with the youth categories
- Encourage a greater presence from athletes from the communities that have shown a low level of participation in the programme in earlier years and stimulating similar programmes.
- Lend support to the federations that request similar programmes in their community.
- Co-ordinate with the federations that develop similar programmes to give better support to those responsible

Selection criteria

We carry out the selection using the following criteria for each Phase, taking into account the information and norms provided by:

- Directors of the RFEA Technical Committee
- Technical Directors in charge of the different specialties in the camps
- Coaches designated by the Technical Committee to be observers at all the Championships of the Youth categories.

This system has been improved and perfected over more than 14 years of this type of development programme. We appreciate and value the expert opinion and subjective evaluation of the coaches involved in camps, national, international and other competitions of the Programme.
The RFEA programme of talent identification, development and assistance for young athletes

1. Phase I

General objective criteria
◆ Level of capabilities for age and discipline
◆ Appropriate body type for the discipline
◆ Motor development and specific skills in competition
◆ Years of sports training in the discipline
◆ Level of training

As a result of all the preceding we distinguish several different classes:
◆ Spanish Champion Cadet and Youth
◆ All-time best mark Spanish Cadet and Youth
◆ Represent the national age team in international competitions

For athletes who participated in the camps of the programme, the information of the functional evaluation, physio technical, medical and psychological tests undergone, as well as the information obtained in the camps of the regional federations, is taken into account.

General subjective criteria
◆ Maturation level by external references (observation)
◆ Emotional intelligence for sport
◆ Degree of competitiveness
◆ Facility of technical execution
◆ Expert criteria of coaches

2. Phase II

Objective criteria
◆ To have been on an international team in the two prior years, or during the current year.
◆ To have participated in the World or European Junior Championships in current or two prior years.
◆ To have achieved a Spanish Junior record in the previous or current year.
◆ To have been a champion or sub-champion in the Spanish Junior or Youth Championships: indoor, outdoor, cross country or walk in the previous or current year.
◆ To rank among the top three in the current year Spanish Junior outdoor championships.
◆ To be a scholar athlete of the RFEA.

Subjective criteria

The Technical Committee of the RFEA through the Sector Directors can include in the programme athletes who do not fulfill any of the objective criteria for various reasons (injuries, a large number of athletes of similar test abilities, or recent inclusion into athletics), who have body characteristics or strong motor development abilities appropriate to their discipline, or who have shown special abilities in competition.

Functional evaluation tests and physical-technical controls in Phase I camps

1. Evaluation tests common to all participants
◆ 30 m Flying start
◆ Vertical jump
◆ Weight throw backward. Boys: 5 kg, Girls: 3 kg
◆ Medicine ball throw from in front to overhead 3 kg
◆ Flexibility: Trunk flexion box metre rule
◆ Coopers 12 minute run test
◆ Shuttle run

2. Functional tests specific for each event group/discipline

Sprints:
◆ Common test - 150 meters
◆ Test for 100/200 m athletes: 60 m from starting blocks
◆ Test for 300/400 m athletes: 300 m
Middle distances/steeplechase:
- 300 m
- 2 x 1 min with rest of 3 min

Hurdles
- General test for 110 m h/100 m h athletes- 50 m flying start
- Specific test for 110 m h/100 m h athletes - 2 x 50 m hurdles flying
- General test for 300/400 m h athletes: 150 m
- Specific test for 300/400 m h athletes - 2 x 150 m hurdles

Jumps
- Common test for all five jumps from standing start

Specific Tests:
- High Jump - jump for height with knees bent
- Long Jump - long jump from a short approach
- Triple Jump - five jumps with 6 steps approach
- Pole Vault - pole vault with 6 step approach to take-off

Throws

Common Test for all - Standing triple jump from feet together.

Specific Tests:
- Shot put - complete throw
- Discus - complete throw
- Javelin - throw with 5 step approach
- Hammer - complete throw

Race Walking
- Conconi test while walking
- Sit-ups in one minute

3. Sport Medicine Information
- Medical history, personal and family history studies and dates
- Sports history, prior sports participation
- General inspection
- Blood pressure
- Cardiac auscultation
- Basal electrocardiogram and for those with prior changes or symptoms
- Abdominal inspection and palpation
- Peripheral pulse palpation
- Examination of nose and mouth
- Vertebral column, and upper and lower extremities
- Weight, height, and span

4. Psychological Evaluation

Sports psychology file:

In this we collect general aspects of personal data, sports activity and practice, strengths and difficulties which presented, psychological and physical data, knowledge of most frequent problems before and during competitions.

Profile tests:
- Profile of Mood States (POMS)
- Psychological Inventory of Sports Status (LOEHR)
- Illinois Self-evaluation questionnaire
- Sports Competition Anxiety Test (Martens)
- Self-knowledge about psychological variables during competition

These tests are done during the course of the camps so that we can also use other evaluation tests.

We also begin training in cognitive techniques:
- Stress management control
- Control of thought processes
- Basic training in practicing imagery
- Training in techniques of attention and concentration