

**EMPOWERING IRISH SPORT** 



# **PLANNING FOR PERFORMANCE** Lucuzatie Sport

COACHING IRELAND THE LUCOZADE SPORT EDUCATION PROGRAMME





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# **CONTENTS:**

The state of the s	Importance of planning	5
	Key Components of Performance	5
	Planning Principles	5
	Goal Setting	6
	Performance Profiling	7
	Reverse Planning	7
	Monitoring Your Progress	8
	Review and Feedback	9
S S S S S S S S S S S S S S S S S S S	The Importance of Planning your sea	son10
	Periodisation and Planning	10
Ž A A A	Planning your Competitive Season	11
Ž Ž	Phases of Training	12
V Ö	Weekly Plan	13
ğ	Daily Plan	13
8		











### PLANNING FOR PERFORMANCE

"Everyone has the will to win, it's only those with the discipline to prepare that actually win"

Bobby Knight NCAA Basketball Coach

#### IMPORTANCE OF PLANNING

Behind any successful athlete or team is a well-prepared coach or management team, who, with their athletes, have carefully plotted their campaign towards success. The quest for sporting excellence requires an understanding of the planning process.

This fact sheet guides you through some of the stages you need to address while you are planning for sporting success, regardless of what level of team or athletes you are coaching.

# KEY COMPONENTS OF PERFORMANCE

Athletic performance is made up of a complex blend of a number of factors. The relative importance of each will depend on the demands of the sport and needs of the individual. One pre-determined factor is genetics. An internationally renowned scientist famously once said "if you want to be an Olympic Champion, choose your parents carefully!" Whilst it is true to say that your genes are established at birth they are, however, also greatly influenced by an athletes surrounding environment. Physiological gifts are easily squandered without the right balance of training, nutrition, and mental desire. As a consequence, it is generally accepted that success in any sporting endeavour is determined by the interaction of a combination of factors including genetics, physical, mental, technical and tactical training and preparation as well as good lifestyle and personal attributes. To effectively train and prepare for competition, attention needs to be paid to each of these areas:

Physical (strength, speed, power, aerobic fitness, anaerobic fitness etc)

Tactical (game or race planning, strategies, etc)

Technical (general and sports specific skills required at each phase of development)

**Mental** (psychological preparation, ability to cope under pressure)

Lifestyle (nutrition, sleep, recovery, education, time management etc)

Personal (beliefs, philosophy, values, approach, attitude etc)

Depending on the needs of the athlete, the performance pathway they are on, the specific demands of their sport and the phase of the training cycle they are in, the relative importance of each of these components may vary.

#### PLANNING PRINCIPLES

- Set Goals These help set targets for the season, prioritise actions and set deadlines.
- Needs Analysis Performance Profiling provides a method to assess strengths and areas requiring attention.
- Plan in Reverse In terms of annual planning, once the performance goal(s) for the season are identified work backwards from that date.
- Flexibility Once the annual plan is mapped-out, allow some flexibility for unforeseen events such as illness or injury or changes in the competition structure.
- Monitoring Effective training programmes should involve constant monitoring. Athletes should be encouraged to 'self monitor' by use of a training dairy. Annual medical screening and regular fitness testing may also be incorporated into the annual plan.
- Review The training and competition plan should be regularly reviewed by the coach and athlete, with







changes incorporated when required

 'Kaisen' – This is the Japanese term for 'continuous improvement'. Performance does not happen by chance. Leave no stone unturned in the quest for excellence.

Each of these critical elements, which form the basis of any effective training and competition plan, will now be outlined in greater detail.

#### **GOAL SETTING**

"A goal without a plan is just a wish" Antoine de Saint-Exupery

Successful people set goals in their lives. Goals are important, as they provide direction and a target to focus your efforts and measure your success. Setting goals will help you to:

- Create a focus for your training
- Prioritise and get more out of your time
- Get better results
- Evaluate performance improvements
- Make the most of your talents

# "SMARTER" GOAL-SETTING PRINCIPLES

"The person who makes a successful living is the one who sees their goal steadily and aims for it unswervingly. That's dedication"

Cecil B. Demille

Successful people from any walk of life, be it sport, business or the arts, commit themselves to reaching their goals or targets. Setting long, medium and short-term goals is a big step on the road to action. Effective goals should always be based on the "SMARTER" principle:

#### S Specific

If the goal is too vague (e.g. "I want to get faster, I want to lose weight"), it will not help performers to focus their attention and plan their route to achieve the goal. Vague signposts or directions are of little use. Goals should be as specific as possible (e.g. "I want to improve my time of PB by 5 seconds").

#### M Measurable

Unless performers can measure their progress, they will be unable to assess whether or not they are improving or have been successful (how much faster, e.g. target times). Consider the variety of ways in which you can measure performance (e.g. number of sessions completed, number of successful passes or tackles made in a game etc). Where possible, the majority of the goals set should be under the control of the performer rather than being dependent on other people, such as an opponent's performance (e.g. to win a race).

#### A Agreed

The performer (or individuals within a team) must personally agree and accept responsibility for the goal(s) set. This usually means that they must have some say in setting the goal or target. Unless the performer agrees that this is what they want and can see how it contributes to their overall plan, they are not likely to strive hard to achieve it.

#### R Realistic

If a goal is too difficult, the performer will either fail or become disillusioned by the lack of success. In the same token the goal should be challenging and not something that is easily achieved. Evidence suggests that the highest achievers set the most challenging goals. The real challenge is self-belief.

#### T Time-Phased

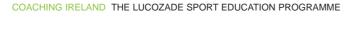
The achievement of long-term 'performance' goals needs careful planning to identify a series of staged short- and medium-term 'process' goals. Progress must be planned in smaller steps or short-term goals – each identifying an achievable goal in a specified time span. Without setting deadlines, there is a danger that all your good intentions will be delayed and/or not achieved.

#### E Exciting

If a goal is too easy, it offers no challenge, little motivation and consequently no satisfaction on accomplishment. Goals need to be exciting.

#### R Recorded

It is essential to write down your goals. Not only does this increase commitment, it also serves as a form of contract. It also helps in monitoring progress. Many athletes pin up their goals in a prominent place such as on the fridge or above their desk as a reminder and constant source of motivation.





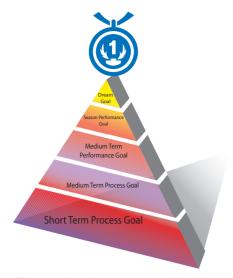


Figure 1. The goal setting process

#### PERFORMANCE PROFILING

In order to gauge an athlete's or team's strengths and weaknesses, an exercise called performance profiling should be carried out. A useful starting point is to identify the critical performance capacities for your chosen sport and then rate how important the following components are for achieving success. These should be broken down into the performance components:

- Physical (Strength, Speed, Power, Aerobic Need to be consistent throughout- either Aerobic Fitness or Cardiovascular fitness- changing from one to the other will cause confusion, Anaerobic fitness)
- Tactical (Game or race planning, strategies, etc)
- Technical (skills required at each level)
- Mental (psychological preparation, ability to cope under pressure)
- Lifestyle (diet, sleep, education, nutrition, time management)

Performance profiling is a simple tool to assist you with your planning and help prioritise your training by rating your current capacity against the level you need to be at to achieve a personal goal. Alternatively you can compare yourself against your team-mates or competitors. The ranking scale for performance profiling is usually 1 to 10, where 1=low and 10= extremely high. An example of a physical fitness performance profile is included in Figure 1. Performance profiles may also be presented in a simplified performance wheel format (see Figure 3) where all performance determinants have been evaluated. This will help you to determine what aspects of fitness to prioritise and target in your training. Where areas requiring attention are identified, these can be remedied through setting specific personal improvement goals and appropriate planning and interventions.

Capacity	Specific Details	Importance (1-10)	Current Status (1-10)
Speed	Reaction speed over 10m	10	7
Anaerobic endurance	Ability to maintain short high intensity workouts	10	6
Agility	High intensity sports specific movements	8	6
Strength	Upper body	9	7
Flexibility	Good range of movement in specific joints/muscle groups	8	2
Recovery	Factor in appropriate active recovery strategies	10	4

Figure 2. Example of Physical fitness Performance Profile example

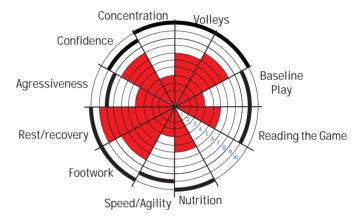


Figure 3. Performance profile example for a tennis player

#### REVERSE PLANNING

Using a one page year planner, work backwards from your major performance goal. Decide on what events, and whether your team or athlete can and should attempt to compete in all the events noted. If there are too many, rationalise so that the athletes will not be over-tired or fatigued by the end of the season. In order to peak at the right time it is important to establish which events you are going to compete in over the season and how your training will have to be adjusted. Getting the right balance between training and recovery are critical to performance. Don't lose sight of your major goal for the year. Other lesser events may have to be sacrificed in order to peak for the major goal. Alternatively, use them as training sessions with a specific focus on competition practice.







#### MONITORING YOUR PROGRESS

#### i) Recording Training

An accurate record of training should be kept. A record of the previous season's training is a good place to start your plan for next year. Carry out a brief evaluation at the end of each training session and a more thorough review at the end of each week or phase of training. Each phase allows you to record how well the plan worked in practice and any other observations which improve future sessions. Things to record include:

- What actually occurred?
- Why you changed your original plan?
- How well your athletes coped with the plan?
- To what extent were the short-term goals and training targets achieved?
- Recommendations or modifications for next phase of the programme or for next season

#### **Monitoring Your Progress**



Figure 4. The Planning Process

#### ii) Self-Monitoring

Athletes should also take responsibility for recording details of their training sessions, evaluating them, and monitoring their own health. An example of a training diary and self monitoring tool is provided in figures 5 & 6. The information you should consider recording includes daily resting heart rate, quality and quantity of sleep, quality of the training sessions, energy levels, muscle soreness, self-confidence and esteem, motivation and enthusiasm, attitude to work/study, attitude to team, communication with team, health/menstrual cycle, body weight, and food and fluid intake.

Monitoring factors such as resting heart rate, body weight and length and quality of sleep can alert the athlete or coach to impending illness or to signs of undue fatigue which, if not addressed, may lead to over-training. The record is also very useful when a review of the year's training is done between the athlete and the coach.

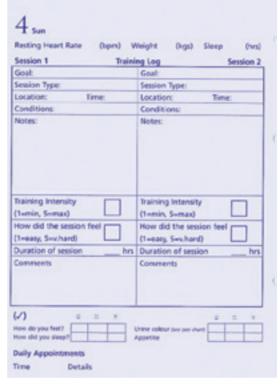


Figure 5. Athlete Diary - Daily Training Record



Figure 6. Athlete Diary - Self Monitoring Tool





#### iii) Screening

The more serious athlete should also have a yearly medical and physiotherapy screen. The screenings should cover all aspects of the athlete's medical history and monitor the athlete's immune status. Regular blood tests may be recommended for athletes to monitor such things as iron status. The physiotherapy screening should look at all the joints and ranges of movement associated with the sport in question as well as looking at potential musculoskeletal imbalances, and should alert the athlete to any injuries that have not been adequately dealt with during the previous season. The physiotherapist can also alert the athlete to any biomechanical deficiencies or any weaknesses in strength or flexibility that may pre-dispose them to injury. The athlete and the coach should also keep a record of injuries, how they occurred, whether they occurred during competition or at training, and the athlete's response to any treatment.

#### iv) Fitness Testing

In order to establish whether your training has had the desired effect, some form of consistent monitoring and/or testing must occur. The type of monitoring you choose will depend on your sport, what time of the season it is, and the resources available. Tests range from simple field tests (e.g. 40m sprint time to measure speed) to more complex and expensive ones (e.g. VO<sub>2</sub> Max assessment in a human performance laboratory to measure endurance capacity). The tests should:

- Include variables that are relevant to your sport
- Be valid and reliable (valid: when a test measures what it claims to measure; reliable: when the results are consistent and reproducible).
- Use a protocol that is as sports-specific as possible (e.g. test runners on a treadmill, cyclists on a bike, etc)
- Be rigidly controlled (e.g. the same conditions must exist from test to test, including the venue, the time of day, the warm-up, the pre-test diet and training the day before testing)
- Be repeated at regular intervals over the annual training cycle
- Results should be appropriately integrated into the training programme
- (McDougall et al, 1991)

Physiological monitoring can be performed in a human performance laboratory using state of the art testing equipment or more simply using field-based tests. A testing programme indicates the athlete's strengths and weaknesses in relation to his or her sport and provides

baseline data for individual training programme prescription. It also provides feedback and can be used as a basis for assessing the effectiveness of the training programme (McDougall et al. 1991).

A common field-based test battery for a team sport such as football, basketball or rugby may include the following tests:

- 1. Body composition (height, weight, and body fat measurement)
- 2. Speed and power (sprint test and vertical jump)
- 3. Agility test (sports-specific)
- 4. Anaerobic test (such as a decrement test, e.g. 5 x 40m on 30 seconds)
- 5. Aerobic fitness (20m multi-stage shuttle run)
- 6. Strength testing (sports- and training-specific)

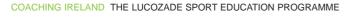
Tests 1-5 can normally be conducted in a single training session as long as the athletes have sufficient recovery time for lactate levels to decrease after the decrement test (at least 30 mins).

The strength tests are better performed on a separate day and should include lifts that have been used in training over the last phase. Ideally, fitness testing should occur at the beginning of the season and after each training phase.

#### REVIEW AND FEEDBACK

"It's a bad plan that admits of no modification" Publilius Syrus (~100 BC)

Reviews of athlete, player and team performances at training and following competitions should occur at regular intervals. It is recommended that the coach and the athlete or team schedule a formal review of progress at least every 6 months or ideally at the end of each training phase. A major performance review should occur at least once a year and following the major competition of the season. Detailed information should be recorded on the factors that influenced the performance from a positive and negative perspective. This information should be used in planning for the following year and in seeking continuous improvement. The more the coach understands the responses of his/her athletes to training, the more successful the partnership will be. The more success and trust that is built up between the two parties, the higher the likelihood of each achieving their goals and the desired performance.







## The Importance of Planning Your Season

"The reason most people never reach their goals is that they don't define them, or ever seriously consider them as believable or achievable. Winners can tell you where they are going, what they plan to do along the way" Denis Waitley

Developing goals is just the first step in the planning process. Paving a route towards the goal is a step that many athletes and coaches often fail to do. In order to reach a goal, a clear pathway towards this goal must be established. Normally a plan will span 12 months, though longer-term plans may need to be considered for Olympic athletes or world cup teams who may work on a 4-year planning cycle. Long-term goals are more easily achievable if shorter-term intermediate goals are also set.

An overview of the suggested planning structure will help you in the planning process. It is easier to start at the top, gradually getting into more detail as you move down through the pyramid.



Figure 7. The Planning Pyramid

#### PERIODISATION AND PLANNING

Periodisation is the planned organisation and variation of training into different sequential cycles. The general aim of periodisation is to avoid or minimise periods of fatigue/exhaustion and to maintain an effective training stimulus, which leads to optimal athletic performance.

Objectives of Periodisation:

- Prioritise training separate "need to do" and "nice to do"
- Focus on long term athlete development
- To exploit complementary training effects at appropriate times

- Provide a variation in training stress
- Manage fatigue and avoid overtraining and burnout
- Achieve a gradual progression towards a performance goal
- Peak at the right times
- Prepare for optimal performance improvement

**Variation:** the basic principle of Periodisation is that in order to maximise training adaptation and optimise fitness gains there is a need for a constant variation in training stress.

**Progressive Overload:** refers to gradually (or progressively) increasing the load that is placed on the body during training. This can be done by increasing the volume of training, the intensity of training, or both.

**Peaking:** refers to being physiologically and psychologically ready and prepared for optimal performance for a particular competition.

**Tapering:** refers to the unloading of training immediately preceding a major competition. Successful tapers result in athletes performing to their full potential. It is generally recommended that training volumes decrease (~40-60%). In contrast training frequency and intensity are normally be maintained (Mujika, 1998 and Bosquet et al. 2007) but with longer periods of recovery both during and after each session.

Rest and Recovery: are important in allowing the body to recover and to positively adapt to the training load put on it. By interspersing heavy training weeks with lighter weeks, the body will adapt (i.e. get fitter and stronger) much more quickly than with continual loading. It also allows time for fuel stores (glycogen) to be replenished. Often an athlete displaying the symptoms of over-training is simply glycogen depleted from too many high-intensity sessions with inadequate recovery or the right nutritional practices (See the Lucozade Sport nutrition fact sheets www.coachingireland.com). The athlete may appear over-tired or is unable to perform up to his/her usual standard during training or competition. During this time athletes are also more susceptible to illness/infections and injury. Rest and recovery are vital parts of tapering for a major event or competition and are also important in staving off psychological factors such as boredom and lack of motivation. Recovery sessions can include things such as hot/cold alternating showers, massage, low-intensity swims or water running, jogging or walking. It is often preferable to utilise active recovery to maximise the recovery effect.

For more information on the principles of training see the "Get fit for Sport" fact sheet.

Table 1. Principles & Periodisation







Based on the principles of periodisation, the training period is usually divided into a number of cycles of varying lengths:

- Macrocycle Usually lasts 10-12 months
- Mesocycle Normally lasts 1-4 months
- Microcycle Generally lasts 5-10 days

#### STAGE 1: PLANNING YOUR COMPETITIVE SEASON

#### Goal Setting

At this stage it is necessary to set the major goals for the season. You must decide what it is that your team or athlete is aspiring towards for the coming year.

#### Calendar/Year planner

Start with a one-page blank calendar for the year. Pencil in all the major events that are occurring in the next 12 months, leading up to the major goal(s). Once the competition structure is finalised use a colour coding system incorporating bright colours for major events and duller colours for lower category competitions which you are going to train through.

#### Commitment

Work out how much time your team or athlete is prepared to spend training for their goal. Most professional or national level athletes and teams train 8-12 times per week or more. A club level 16-year-old may train only 2-3

times per week for their sport. Be aware that many teenagers compete in a variety of sports, and often belong to a number of teams (e.g. school, club, and representative). The more teams they belong to, the greater the demands on the athlete's time and body increasing the potential risk of burnout. Make sure you are aware of what else they are committed to outside their time in your sport, such as other hobbies, studies, part-time jobs and, of course, a social life, and take this into account while preparing your training programme.

#### Season Planning for Team Sports

Often in planning for team sports, you are constrained by the competition structure. In team sports, it is usually necessary for players to perform at an optimal level week in, week out during the season. This requires special consideration when planning the fitness component of training. Table 2 is an example of a phased plan for a rugby season for a first division team.

#### Season Planning for Individual Sports

In coaching an individual sport, there will often be more flexibility in the planning process. Again, the planning process must take into account the major goal. Too often, coaches in individual sports allow their athletes to compete week in, week out, and cannot understand why they don't continue to improve throughout the season or compete well at the major event at the end of the season. Evidence suggests that it is not possible to maintain a physiological peak for more than about 4 weeks. The concepts of **Peaking** and **Tapering** must be taken into

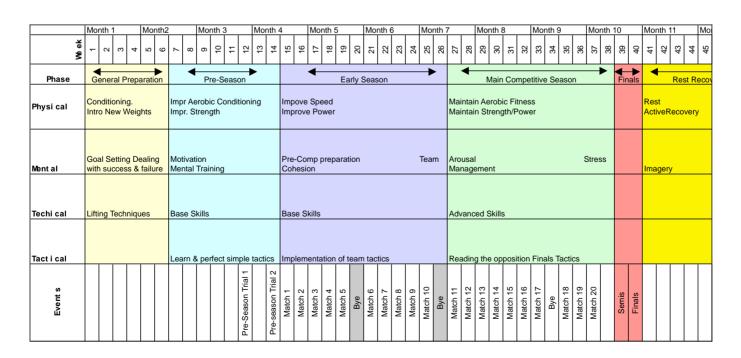


Table 2 - Typical Phased Season Plan for a Team Sport







account while planning for success at a major event (see Table 1). Appropriate periods of rest and recovery are needed to avoid excessive fatigue. Competing too often means that training is compromised during the season, and some of the key training adaptations that were focused on in the pre-season may be lost (e.g. strength, speed or aerobic fitness). A thorough understanding of the basic **Principles of Training** is necessary in order to successfully plan appropriate training sessions. See the Coaching Ireland website (www.coachingireland.com) or the Lucozade Sport fact sheet "Get Fit for Sport" for more information on this topic.

#### STAGE 2: PHASES OF TRAINING

It is recommended that the training/competition year be divided into a number of distinct phases, such as:

- General preparation
- Specific preparation/Pre-season
- Early Competition Phase
- Main competitive Phase
- Recovery

Each phase should have distinct goals in terms of the physical, mental, technical, and tactical aspects of the sport in question. In addition to rest, recovery and nutrition, other lifestyle factors should also be taken into consideration (e.g. the athlete's family situation, work or study commitments, how they are coping at school and so on). Don't forget that sport is only a part of your athletes' lives, and that socialising outside of sport is also

desirable in developing a well-rounded athlete. Evidence shows that athletes who have a balanced approach to their training and preparation and are free from distractions consistently perform better.

#### STAGE 3: WEEKLY PLAN

Once you have the phased plan completed, it is then easier to consider the weekly plan. You should only prepare the weekly plans at the beginning of each phase. While it is highly desirable to plan well in advance, you must also be aware that a certain amount of flexibility needs to be built into your programme. You need flexibility to change the programme if athletes are fatigued suffering from illness or injury or if the training programme is not resulting in the desired training adaptation. Other factors such as changes in the competition schedule, or the weather disruptions may necessitate changes to the plan. Table 3 is an example of a weekly plan for a competitive rugby team. Note that rest/recovery sessions and days off are scheduled throughout the week. The weekly plan should refer to the goals outlined in the phase plan (see Table 3).





# TABLE 3 – OUTLINE OF SAMPLE WEEKLY PLAN FOR A SENIOR CLUB RUGBY TEAM (GENERAL PREPARATION) SUMMARY

Phase: General	Phase: General Preparation Week 4 (7 sessions)						
Goals:							
Physical: Aero	Physical: Aerobic Fitness						
Strength							
MON	TUES	WED	THURS	FRI	SAT	SUN	
Am	Am	Am	Am	Am	Am	Am	
Aerobic		Recovery	Rest day	Aerobic	Team	Recovery	
fitness		session		fitness	training;	session	
20-30 mins		(pool)		Intervals	social game 2	(massage)	
(moderate				(max	x 30 mins		
intensity)				intensity) 10			
				mins			
				recovery			
Pm	Pm	Pm	Pm	Pm	Pm	Pm	
Weights:	Rugby body	Weights:		Weights:		Rest day	
strength	circuit	strength		strength			
lower body	training	upper body		lower body			
Mental			Mental			Mental	
Mentai							
Technical			training skills		Practice base	training skills	
Technical					skills		
Tactical					Learn and		
Tactical					practise		
					simple tactics		
	1	1	1		mipic tactics		

#### STAGE 4: DAILY PLAN

The daily plan should contain more detail than the weekly plan and should include goals for each session in terms of physical, technical, tactical and mental components, where appropriate (see Table 4).

# TABLE 4 – FRIDAY TRAINING SESSIONS FROM WEEKLY PLAN IN TABLE 3

Date: TIME: AM	Date: TIME: PM
Session: AEROBIC FITNESS Physical Goals: Keep heart rate above 80% max	Session: WEIGHTS Physical Goals: Increase leg press and hang cleans 5kg from last week
Aerobic Fitness	Weights: Strength Lower Body
Warm Up: 10 mins warm up jog 10 mins stretch  Main Activity: 2 x (10 x 90 seconds on, 90 seconds off) sets 5 mins recovery between reps  Cool Down: 10 mins stretch 10 mins slow jog/skip	Advanced group only 10 mins warm up stretch  3 sets x 12 reps 1. Leg press 2. Sit-ups 3. Lunges 4. Crunches 5. Cleans 6. Back extensions 7. Hamstring curls Cool Down: 10 mins stretch/flexibility
Notes: Venue: Park-on grass Divide the group into 2 (faster and slower athletes). Blow whistle to commence. Try to cover the same distance for each run Rest: Take HRs. Active, i.e. walk/jog slowly Repeat activity	Goals: Physical: Increase leg press & hang cleans 5kg from last week. Timing: Slow down, explosive up. Mental: Focus on task and control breathing. Technical: Excellent technique. Stop exercise if technique fails.
Goals: Physical: Keep HR above 80% max Mental: Focus on task and relaxed running style. Tactical: Group work. Each group to stay together, encouraging the team to work together and individual encouragement of those fatiguing Technical: Relaxed running.	
Feedback/review:	





#### "Confidence is in my preparation" Darren Sutherland

In order to plan successfully in sport, you should:

- Set achievable but challenging goals
- Identify strengths and weaknesses in your team or athletes
- Plan your season in advance
- Adhere to the general principles of planning and training and address any identified weaknesses
- Evaluate progress regularly and adapt training accordingly
- Monitor training, health and injury status
- Review goals regularly



Performance\_Layout 1 07/09/2010 15:06 Page 15





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