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DOCUMENTACIÓN

NUEVAS TECNOLOGÍAS APLICADAS AL ENTRENAMIENTO DEPORTIVO

**Apoyo científico en los Centros de Alto Rendimiento en
Australia y Qatar**

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CAR de Australia y Qatar

Sierra Nevada (Granada)
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ASPIRE

HOW NEW TECHNOLOGICAL SOLUTIONS CAN HELP TALENT IDENTIFICATION

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Aspire

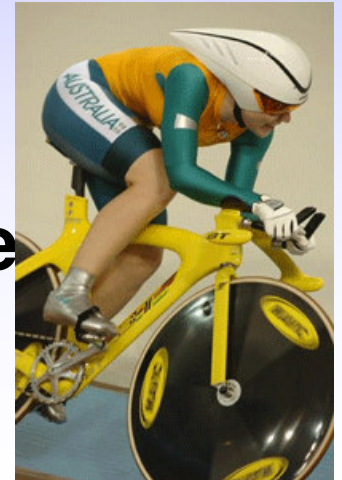
TERMINOLOGY

- **Talent Identification**
 - Raw talent
- **Talent Confirmation**
 - Ongoing process to assess the talent
- **Talent Selection**
 - Selecting young athletes who are already in the sport
 - Can include Talent Transfer



Start of the process; Goal

- **Top performance/ top performer profile**
 - Critical qualities
 - Literature
 - Profiling studies
- **Development of the top performance profile**
 - Development of critical qualities
 - Performance history of top performer



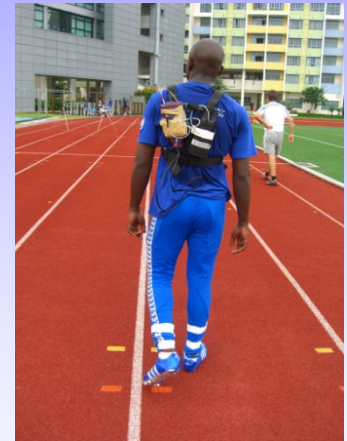
Talent Identification testing

- **Field testing**
 - Testing critical qualities with simple and easy to use field testing equipment
 - Easy to test big numbers



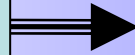
Further testing

- **More sophisticated testing**
 - **Modern technology can certainly help**
 - **Example: Gas analysis in laboratory, but also in field conditions**
- **Technical analysis**
 - **Simple video analysis**
 - **Combination of sensors and video footage**



SCREENING PROCESS

Field testing
- Mass screening



Sophisticated testing
- Limited numbers



Talent Development as part of Talent Identification process

- Besides of being initially talented, rate of improvement is an important factor
 - Changes in physical qualities
 - Changes in technique
 - Growth and maturation



The role of technologies

- In mass testing new technologies can make testing easier and more accurate

For example: Timing gates are getting smaller and easier to use



- **Maturation estimation;**

New easy software to determine bone age from wrist x-ray.

Potential new equipment to replace x-ray;

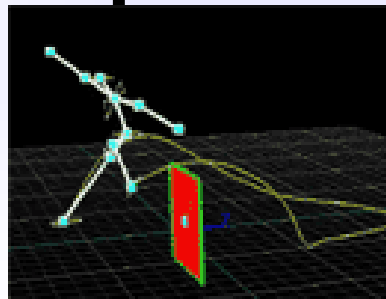
DBM Sonic Bone Profiler™



- **Assessment of technical/ skill development**

**On-line movement tracking system.
Video combined with other sensors
(laser, accelerometers...etc) and
force platforms.**

**Software development to
incorporate different sensors.**



Tracking systems

- **Particularly to analyze team sports**
GPS, GPS/ accelerometer, radio freq.
tracking

**Huge potential particularly if combined
with video.**



Decision making

- **New technologies allow us to assess decision making in field conditions.**
- **Key quality in many team sports**
 - **Role of genetics, experience, practice, unique decisions?**



Genetic research

- **The latest Talent Identification research is genetics.**
- **It is still far away from practical solutions.**



Information technology

- **Software development can streamline processes.**
- **Database development is helpful for selections and development follow up.**
- **Systematic scouting information will help talent selection process.**



THANK YOU FOR
YOUR ATTENTION