

CENTRE d'ALT RENDIMENT

Sant Cugat del Vallès

CAR



BIG GAMES

Training Centres Olympic Games Legacy



← AEROPORT

CENTRALITAT

Catalan Sports Law (2000)

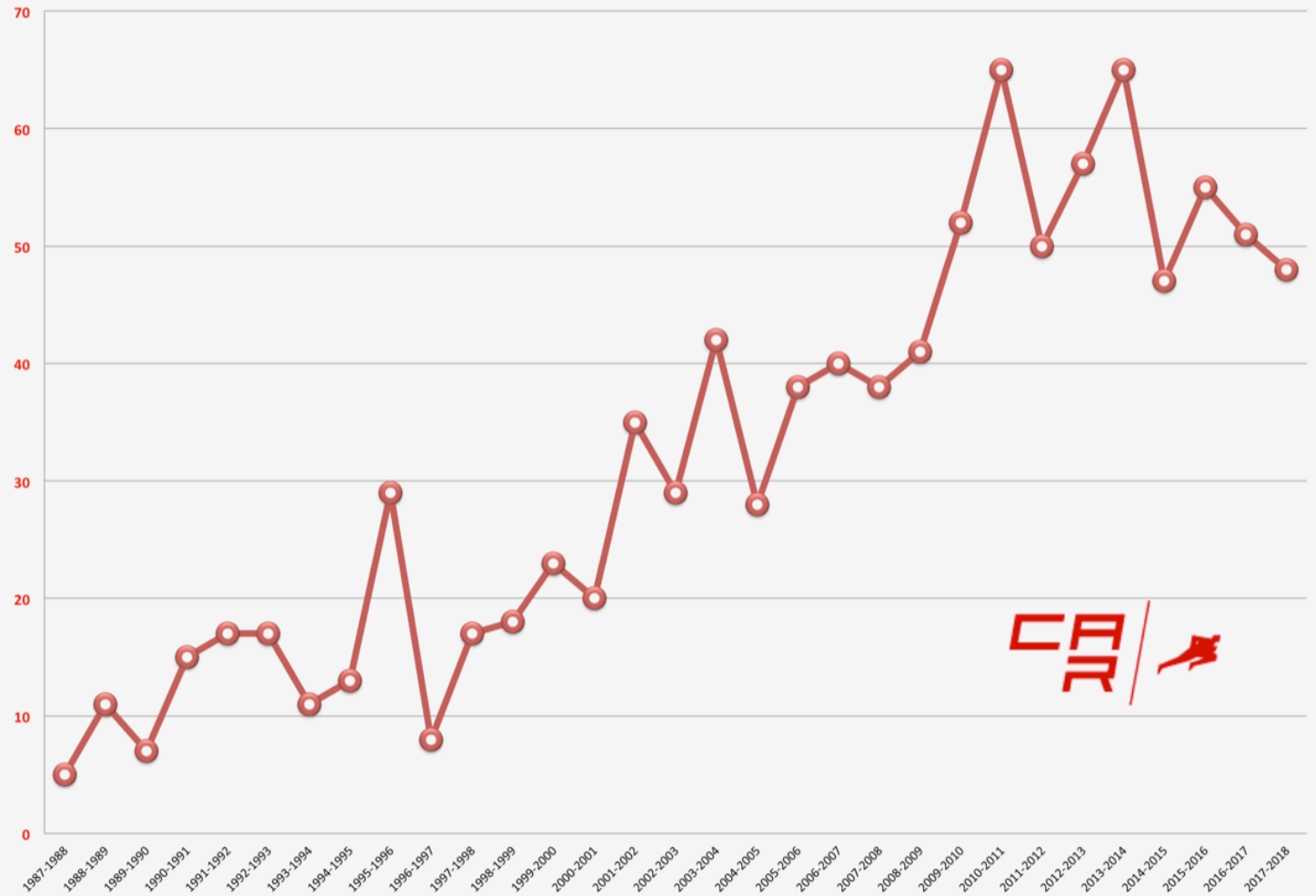
wrt/ Elite and Competitive Sport

... to look after a practice of sports following the principles of the **Olympic Movement** (art. 3.2.h)

CAR's Mission: ... **the will to develop athletes in all their sports and personal dimensions ...**

effort, dual career, innovation, overcoming, respect

CAR Athletes Medals Olympic Games / Paralympic + World / Europe Ch.
from 1987/88 yo 2017/2018 (31 Seasons)



30.000



**Athletes training
in CAR until
2018**

350 80



**Athletes and
coaches
2018/2019**

185



**Technical,
scientific and
education
professionals**

1387



**International
athletes
2018**

46



**Olympic
and Paralympic
Medals**



**International
network**



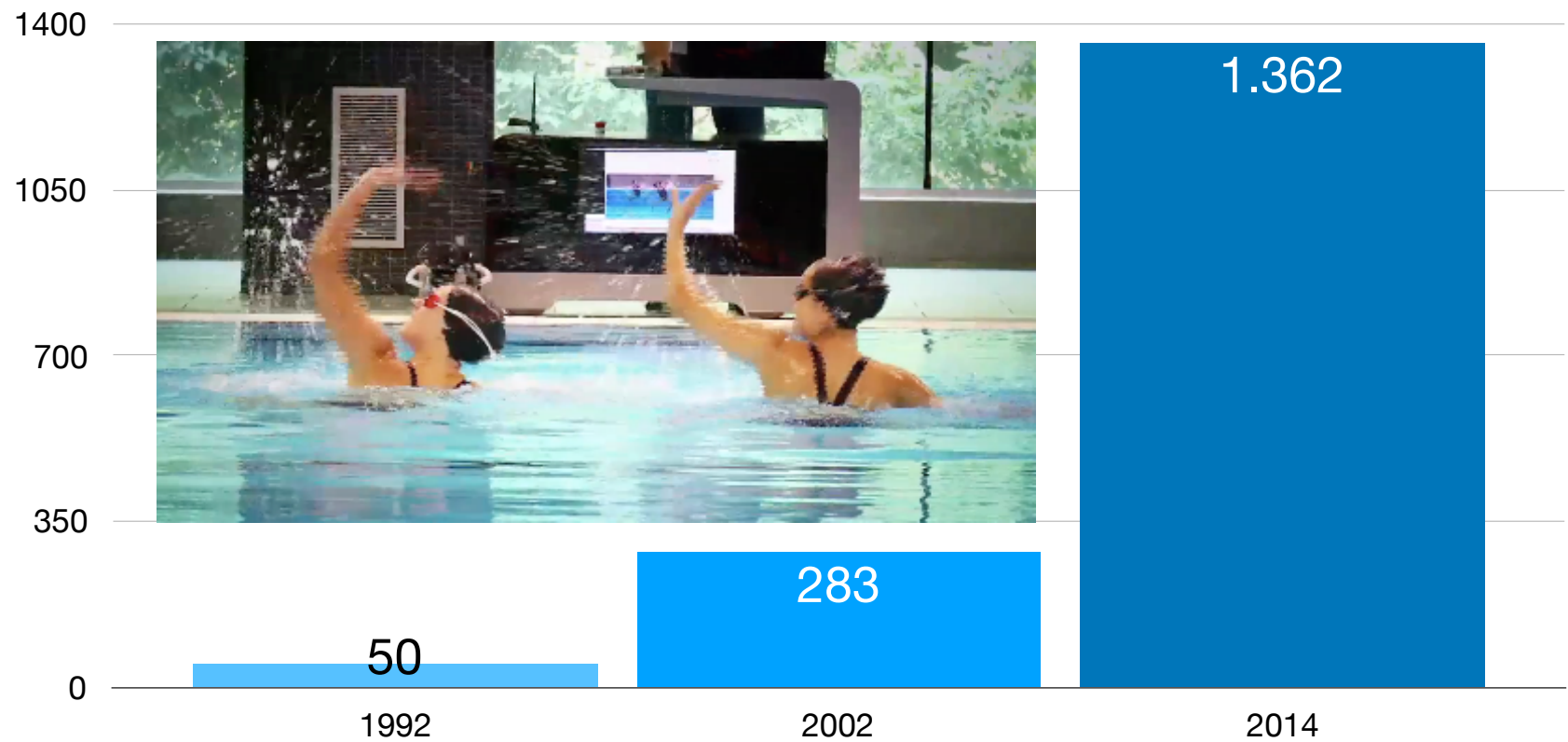
**IAAF
Certification**

100%



**Athletes passed
the qualification
exam to the
university**

Artistic Swimming Federative Licenses in Catalunya



OLYMPIC SCIENTIFIC PROJECTS

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Preface to Olympic Scientific Projects

The 1992 Barcelona Olympic Games were "the best Games of history," said Juan Antonio Samaranch, president of the International Olympic Committee (IOC). The success of these Games was due to the fact that all of the people involved took the Games as a personal challenge, a personal goal.

The 1992 Barcelona Olympic Games achieved many records: record number of athletes, record number of countries, and record number of sports. With respect to technology, these Games were the fastest Games in transmission of data from venue to venue and to the rest of the world. We in sport biomechanics contributed to these successes thanks to two new world records:

- Record in fast presentation of qualitative biomechanical information broadcast around the world
- Record number of IOC-approved Olympic projects

With respect to the first record, my team, biomechanists from the Olympic Training Center (CAR) of Barcelona, in collaboration with the Centro de Estudios e Investigaciones Técnicas (CEIT) of San Sebastián, Peak Performance Technologies of Englewood, Indiana University at Bloomington, the Sportschule of Köln, and Silicon Graphics of Mountain View, California, made possible for the first time the presentation to the general public of biomechanical data calculations and 3-D graphic representation in a very short processing time, approximately 5 hours. The results of different events were broadcast to many countries around the world: Spain, Catalonia, the U.S., Australia, Germany, Brazil, and Chile.

The second record, the number of IOC-approved biomechanics Olympic projects, was possible due to the effort of the Biomechanics and Physiology Subcommittee Chairman, Prince Alexandre de Mérode. A high number of applications (27) were submitted approximately two years before the Games. In order to satisfy the maximum number of researchers willing to work in biomechanical Olympic projects, the IOC created work groups commanded by a leader. The number of projects was reduced to 14, distributed among track and field, gymnastics, swimming, and equestrian events. The number of researchers involved in these projects was finally established at 65. The record is symbolic, of course, since the wish of the IOC Biomechanics and Physiology Subcommittee has always been to have the maximum number of researchers and projects involved during the celebration of an Olympiad and its final party represented as Olympic Games.

It was a unique experience to meet, host, help, and get to know biomechanists coming from different parts of the world, from the scientific as well as the personal point of view. In this sense, it is an honor to thank the Biomechanics and Physiology Subcommittee of the Medical Commission of the IOC for its

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Olympic Scientific Projects

support, sponsorship, and scientific leadership, transmitted through its distinguished members, especially Subcommittee Chairman Prince Alexandre de Mérode.

I want also to thank the Barcelona '92 Olympic Organizing Committee (COOB) for logistic help on scientific and bureaucratic matters (camera locations, maps, technical assistance, transportation, and accreditation), and Eastman Kodak for film support.

I want to thank the authors of the following articles for contributing to this special section of the *Journal of Applied Biomechanics*. Following issues of *JAB* will feature more papers on Olympic Scientific Projects.

Let me close this preface by bringing to mind the spirit of the Barcelona Olympic Games: "friends for life."

*Professor J.A. Prat, Special Section Editor
Centre d'Alt Rendiment, Barcelona*



1992 Olympic Biomechanical Projects

Alexandre de Mérode (Chairman)

Biomechanics and Physiology Subcommittee

Medical Commission

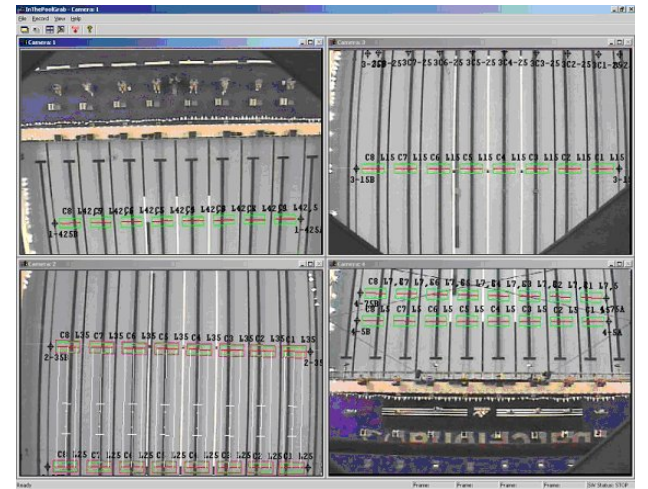
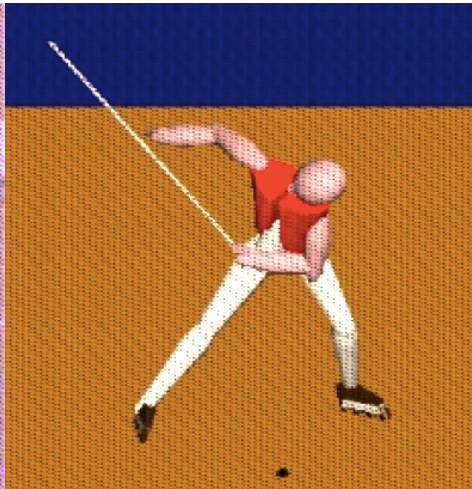
5 Track&Field, 3 Swimming, 3 Gymnastics & 3 Equestrian

65 researchers from 5 continents

Prat, J. A. (1994) 'Preface to Olympic Scientific Projects', *Journal of Applied Biomechanics*, 10(2), pp. 145–146.

1996 Olympic Biomechanical Project GEST - Georgia's program —> Canal+ France





Sharing knowledge w/ international society

European projects (GEES, B_Wiser, Experimedia, We_Care)
Association of Sport Performance Centres (ASPC)

and,

IOC - OS Sciences Applied to Sport programs
Entourage as our work model



IOC - Olympic Solidarity programs

Sciences Applied to Sport

- . 18 coaches per course / 300 academical hours / 90 days
- . 42 editions in 21 years
- . 577 participant coaches
- . 30 countries - 3 continents
- . 42 sport disciplines

ICECP - new OS collaboration

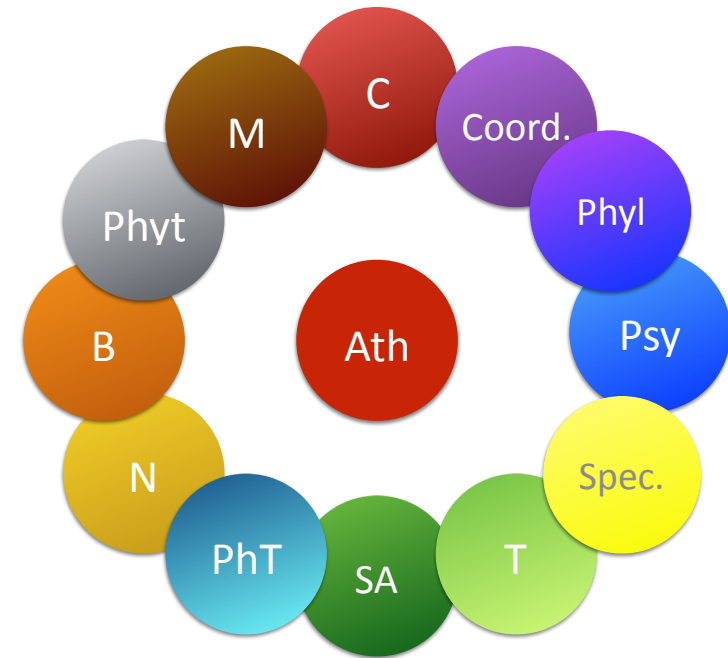


Entourage

CAR collaborates w/ Athlete Learning Advisory Board from IOC, developing the Athlete365 program

The IOC Athletes' Entourage Commission focuses on **issues that relate to the relationships** between athletes and the people around them, such as coaches, agents, managers, sponsors, family and friends.



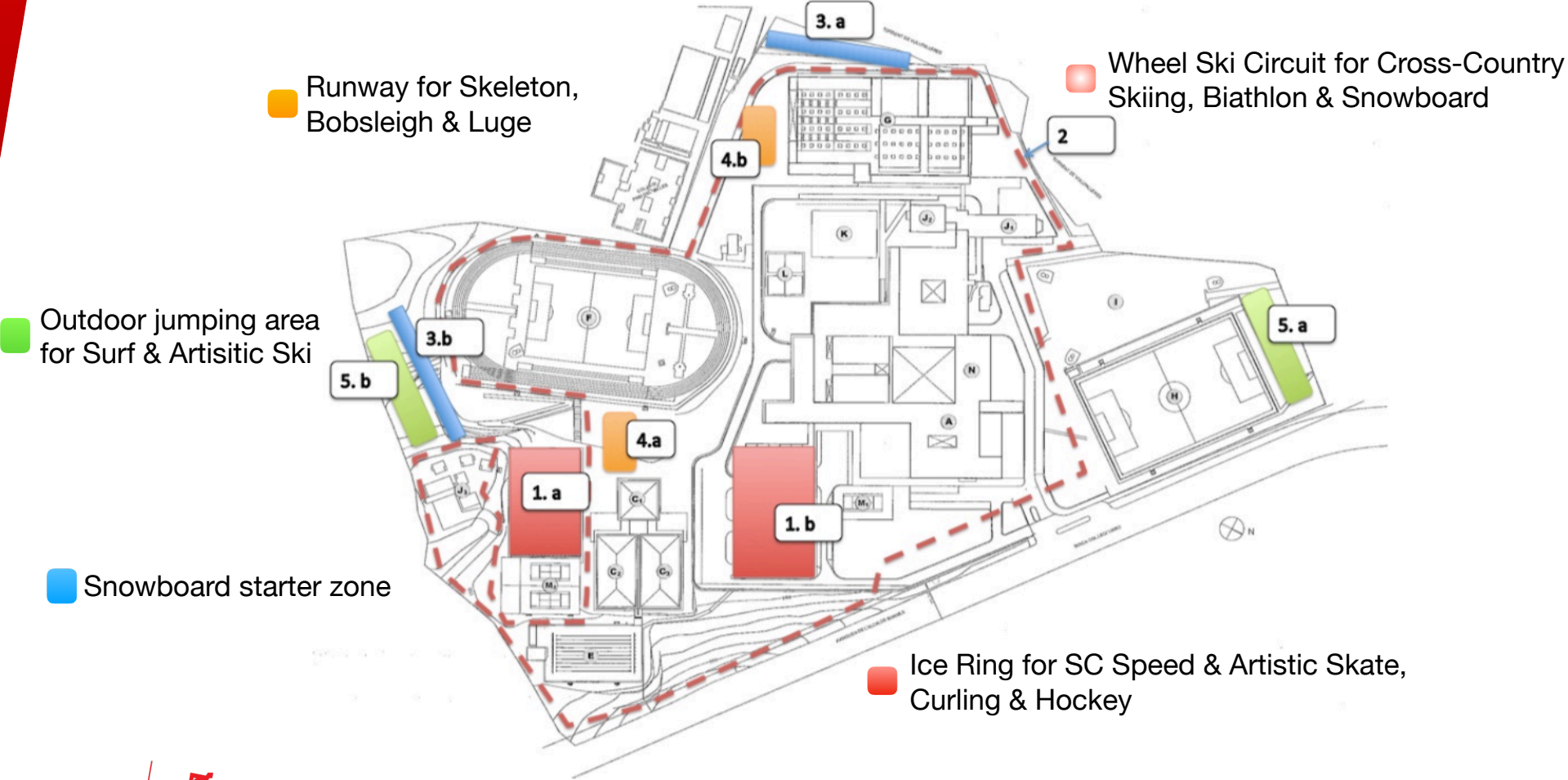


Based on, Rogerson, L., (2006). *Examining Collaboration on Interdisciplinary Sport Science Teams*. University of Alberta

CAR's Interdisciplinary Model:

Team of professionals, lead by the coach, that work following an interdisciplinary model, based on generous and reliable shared knowledge, professional trust and respectful confidentiality.

CAR's project - Barcelona-Pirineus 2030 WOG & WPG



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Gràcies!!!

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