13th International Association for Sport Information World Congress 11-13 March, 2009 - Canberra, Australia

The Sports Documentation of the German Federal Institute of Sports Science (BISp) - status quo and future objectives and projects.

#### Werner Kloock

Federal Institute of Sports Science (BISp) Bonn, Germany







# 13th IASI World Congress

11-13 March, 2009 Canberra, Australia

Building and sustaining sport information communities - through connectivity, collaboration and sharing



















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### Mr. Werner Kloock

Federal Institute of Sport Science, Germany



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# The Sports Documentation of the German Federal Institute of Sports Science (BISp) - Status quo and future objectives and projects

#### Werner Kloock

Federal Institute of Sports Science (BISp)
Bonn, Germany



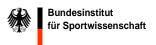








Wir helfen dem Sport ...



#### **Outline**

- 1. Sport organisation in Germany
- 2. BISp: Location and historical background, legal status and structure

#### 3. Documentation and Information

- 4. Information about one of the two research projects: initiation and funding by the BISp: "Coach Campain"
  - a) "Coach profession profile" (Prof. Helmut Digel, Institute of Sport Science University of Tübingen, Germany)
  - b) "Coach information supply" (Prof. Manfred Muckenhaupt, Institute of Media Science, University of Tübingen, Germany)
- 5. Summery



Federal states: 16

Population: >82 millions

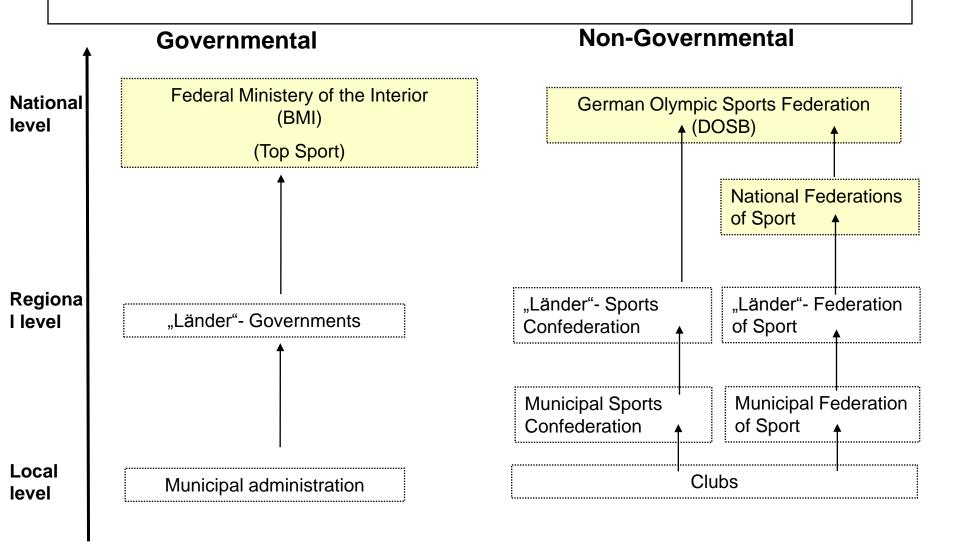
One of three Germans play sports in a club

Top sports (in terms of participation): soccer, handball, basketball, gymnastics/ fitness, athletics

Sport in Germany is autonomous; the German State acts upon the principle of subsidiarity Non-existence of a national sport act

Source: Häußler

### **Organisation of German sport**





#### **Scientific Network System for Performance Sport (WVL)**

The BISp does not act independently but in cooperation with its partners from sports science, sports practice and sports politics







Universities, Special Sport Institutions



Sport Federations (SFs) Science coordinators National coaches, top level athletes







National - & Olympic training centers (OSP



### Location



#### Bundesinstitut für Sportwissenschaft

Graurheindorfer Straße 198 - 53117 Bonn Postfach 170148 - 53027 Bonn

Ph: +49/228/99 640-0 — Fax:+49/228/99 640-9007

E-Mail: info@bisp.de — http:// www.bisp.de



#### Historical Background

- Foundation in 1970
- To contribute to the development of sporting excellence and to ensure an even playing field in international competitions
- Development of research programmes, latest revision in 2007
- Anti-doping analytics & research, laboratories in Cologne and Kreischa, 1975-2005
- Development and support of scientific databases
- Publication of scientific literature
- Launch of the internet portal "Sport Psychology for top level sports" in 2002

#### The Federal Institute of Sport Science (BISp)

was founded by a decree of the Federal Minister of the Interior in close collaboration with the German Sports Federation (DSB/ DOSB) in 1970, based on the awareness that

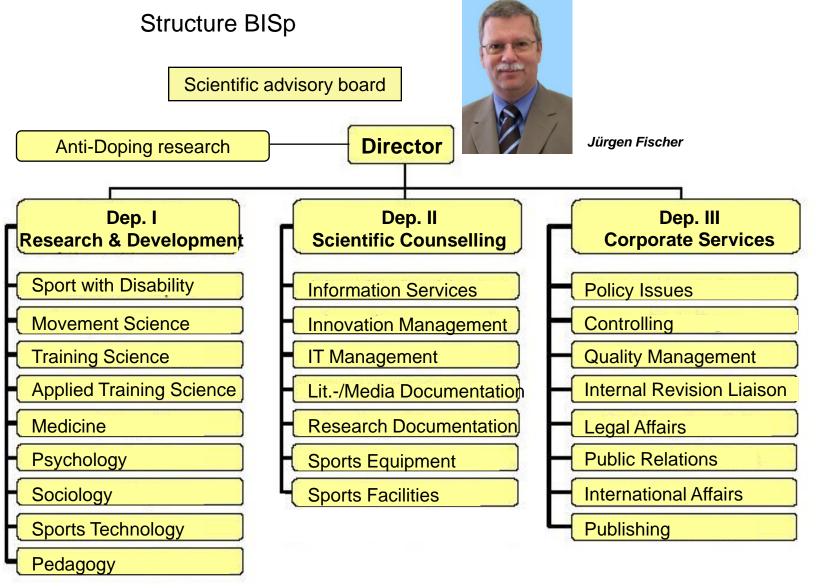
- < in order to give German athletes an equal chance for success in international competitions,</p>
- < sport cannot do without scientific support
- < support of elite sport has the highest priority at the federal level.

#### Legal status:

The Federal Institute of Sports Science/ BISp is

- a federal agency without independent legal capacity, attached to the Federal Ministry of the Interior
- subject to the jurisdictional regulations that apply to the Federal Government and federal agencies in the area of sport
- advised by a directory board







# Major tasks

- Identifying and initiating
- Coordinating

**Evaluation and Transfering** 



Documentation Promotion of research

BISp is responsible for supporting and optimizing

performance at

**Information services** 

Top level sports

(including talent identifcation)

Spor



With the Federal
Ministery
of the Interior BMI



of research

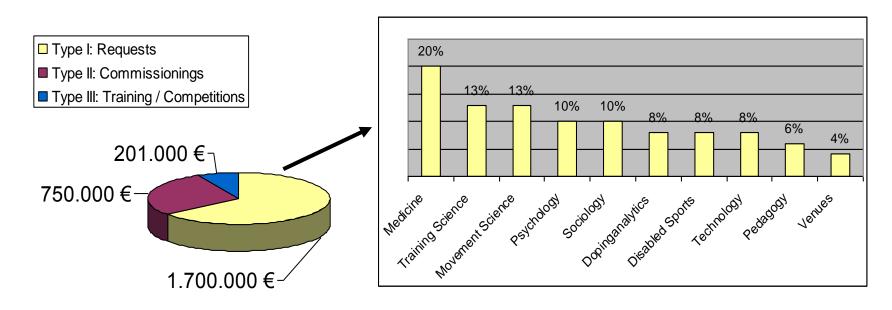


Source: Häußler



#### **Annual research budget**

- Total 2.651.000 €
- Divided into three types of research:



BISp: Department II – "Scientific Counselling": *Documentation and Information* 

- The core of the information processing are the three databases run by the BISp: SPOFOR, SPOLIT, SPOMEDIA, (research, literature and media documentation) as well as the Specialist Sports Information Guide (qualitysecured internet sources)
- These special information products are used for initiation and support of research and for coordinating research projects
- Platforms and portals have been developed as user-friendly search-tools.
   Using these platforms and portals, the BISp's databases can be searched simultaneously

Information services: instruments of co-ordination for the promotion of research projects

SPOFOR contains the description of more than 6.200 sport science research projects from Germany, Austria and Switzerland since 1990

SPOLIT contains national and international sport science literature with more than 161.000 documents (books, journal articles, chapters/articles in books, working papers etc.) since 1970. (Nearly to 4000 publications are annually selected and documentated. SPOLIT covers the sports literature of Germany, Austria, Swizerland and a lot of foreign publications)

SPOMEDIA contains more than 1.600 media (AV-media)

Specialist Sports Information Guide (Fachinformationsführer) contains 1800 documents

#### The database SPOFOR

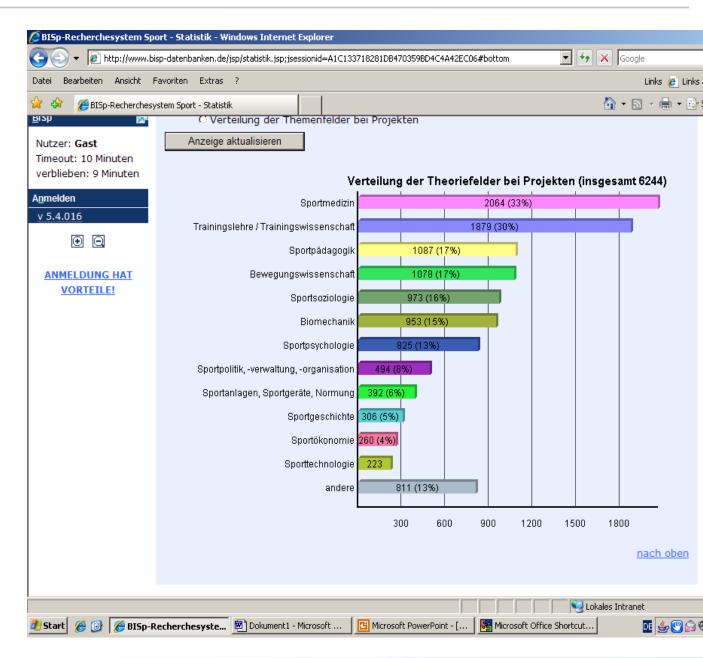
covers 6200 descriptions of research projects with relevance to sport sciences in German-speaking countries (Germany, Austria, Switzerland) since 1990





#### **SPOFOR**

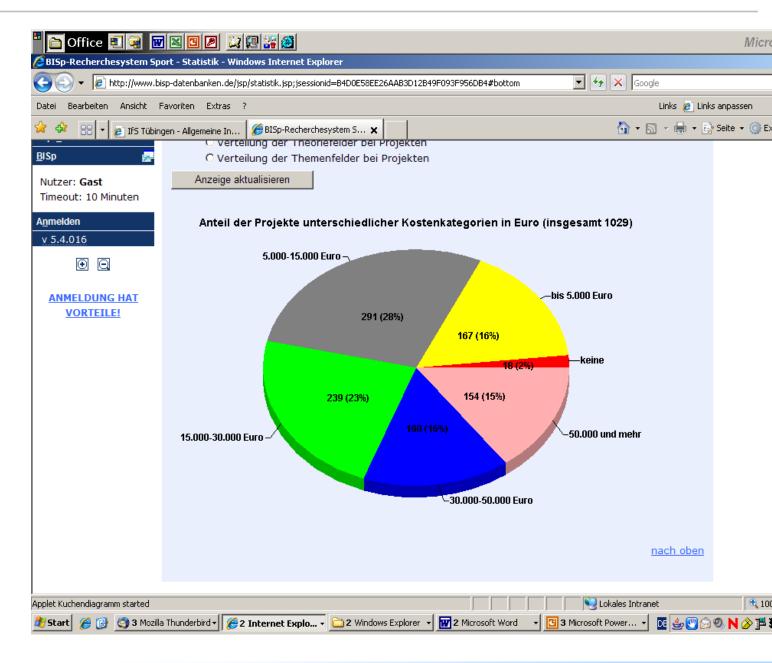
# Research projects





#### **SPOFOR**

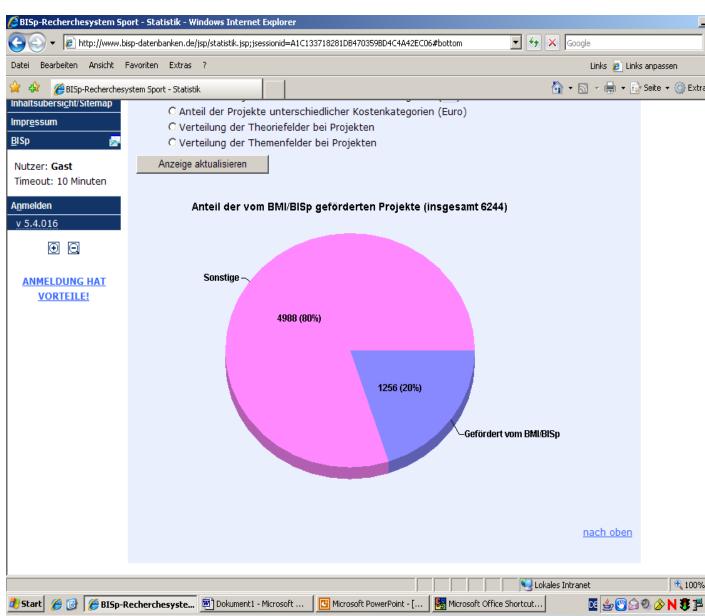
Costs of research projects (EURO)



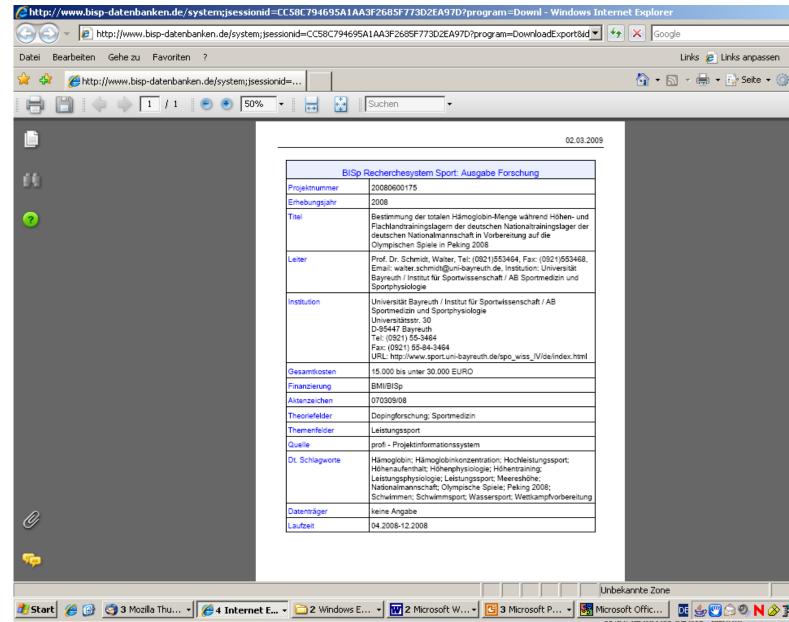


# SPOFOR

research projects funding by BMI/BISp: 20%









SPOMEDIA contains 1.600 media (AV-media)





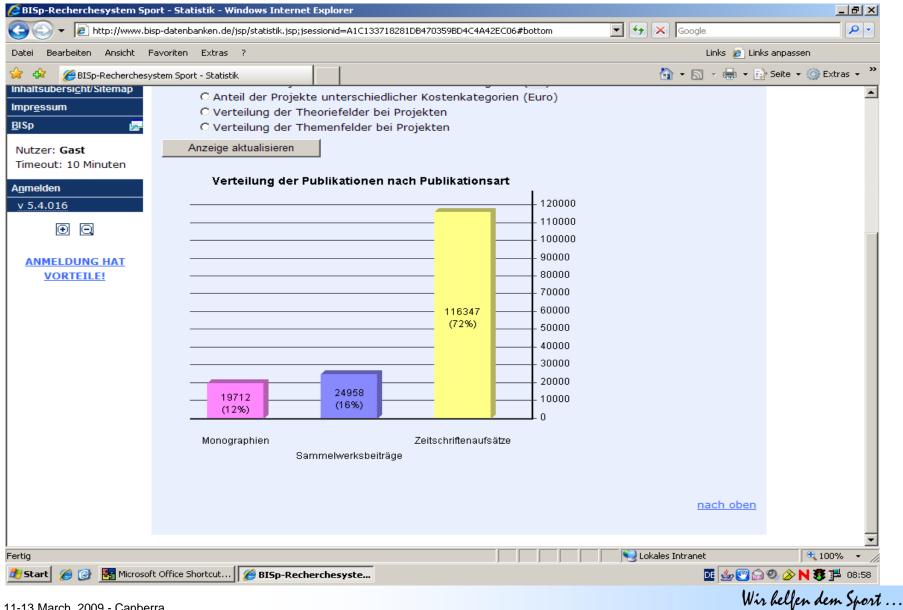
#### **SPOLIT**

contains national and international sport science literature with 161.000 documents (books, journal articles, chapters/articles in books, working papers etc.) since 1970





#### Publication type in SPOLIT

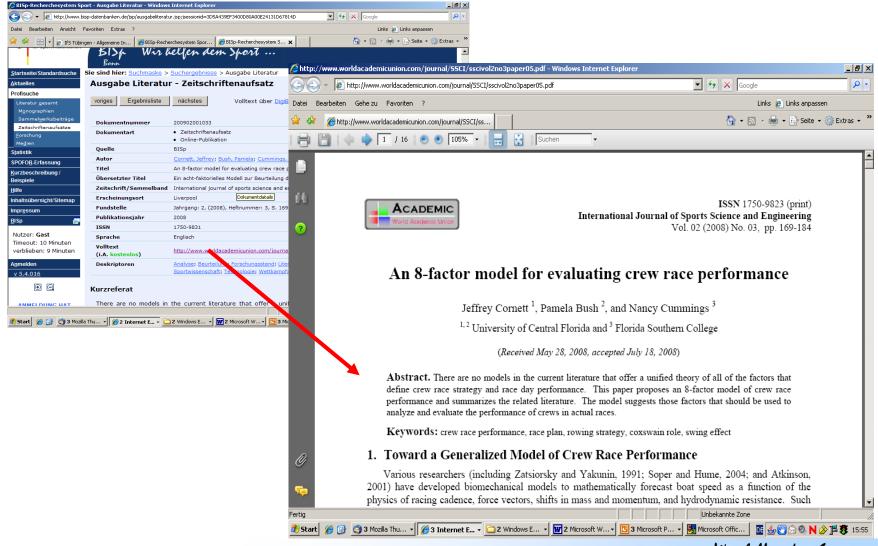


#### Direct access to the media (through links to digital fulltexts, online ordering, electronic document delivery) if possible



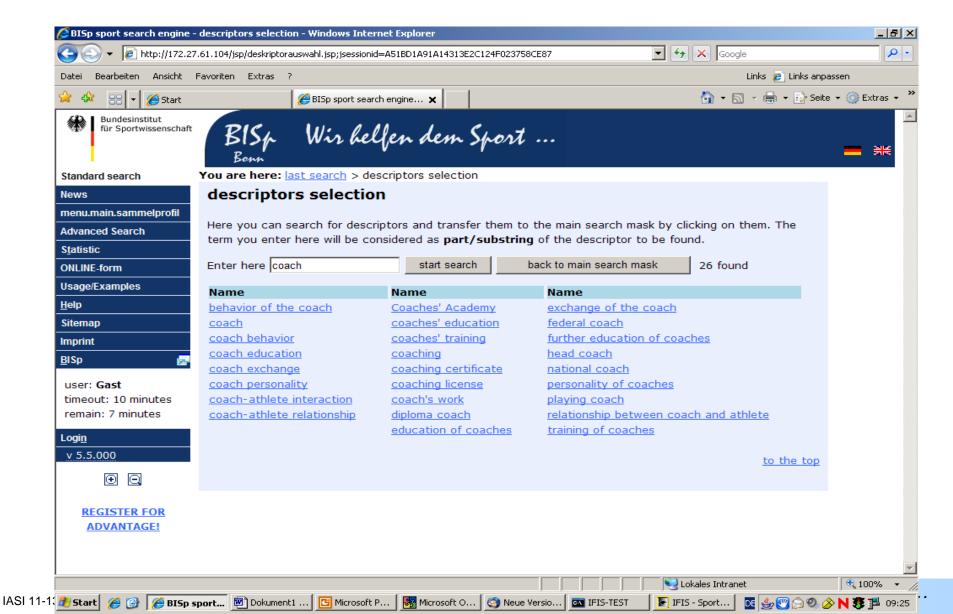


#### Digital fulltexts in SPOLIT





#### Terminology: "coach..."

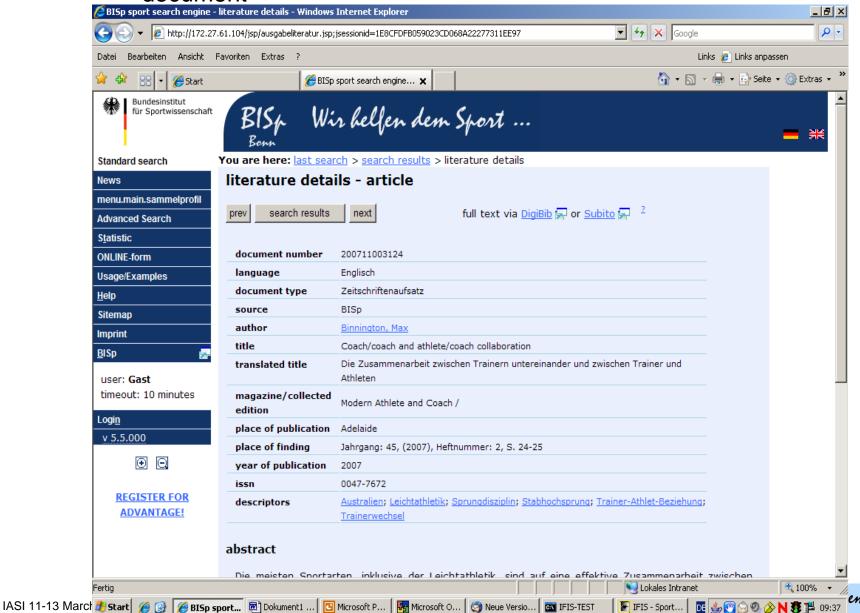


#### SPOLIT – search results

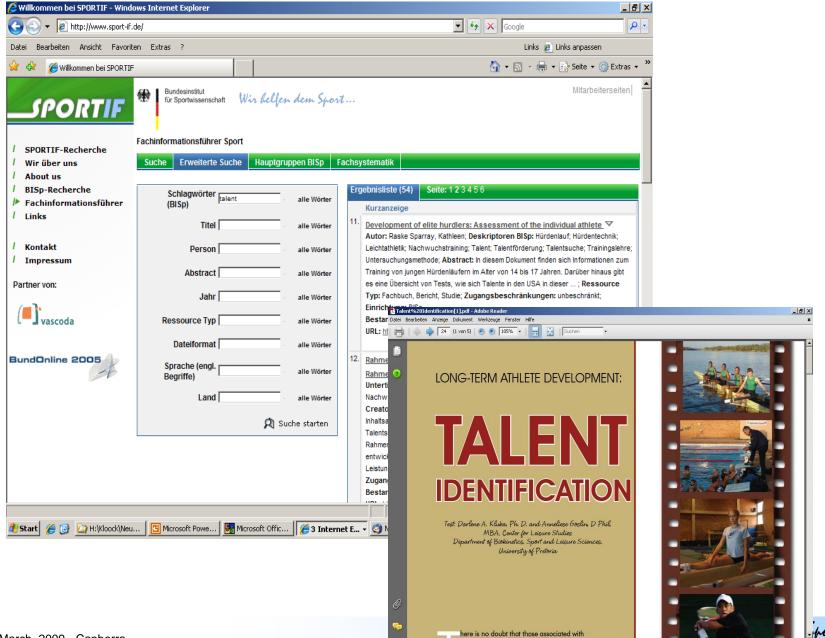




#### SPOLITdocument



### Specialist Sports Information Guide



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### Future objectives and projects

more international literature (in SPOLIT)
 status quo (161.000): literature in

German: 74.000

English: 65.000

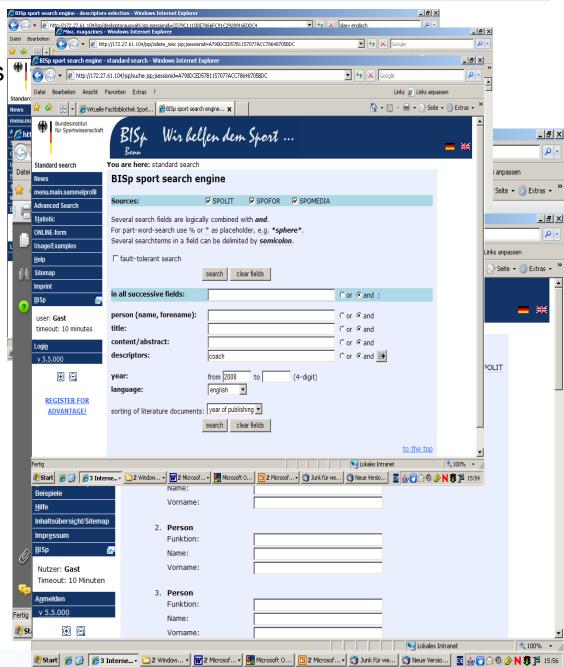
others: 22.500

(=87.000)

international

literature)

- search with English descriptors
- more digital fulltext
- more transparancy (list of journals etc.)
- more interaction/ communication with users/ authors etc.
- further development of platforms (autumn 2009: e. g. <u>www.bisp-datenbanken.de</u> in

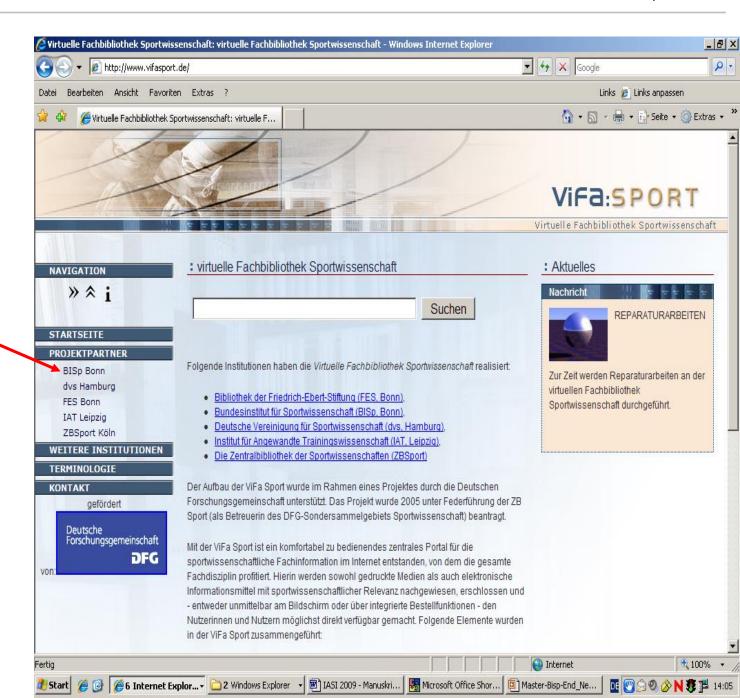


BISp is partner in the project (platform)

VifaSport

and member in the Steering Committee

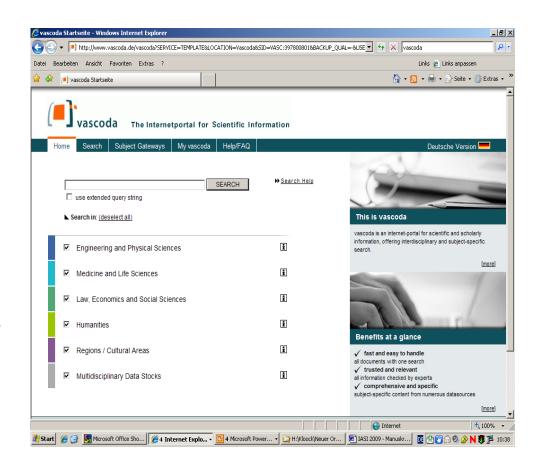
www.vifasport.d





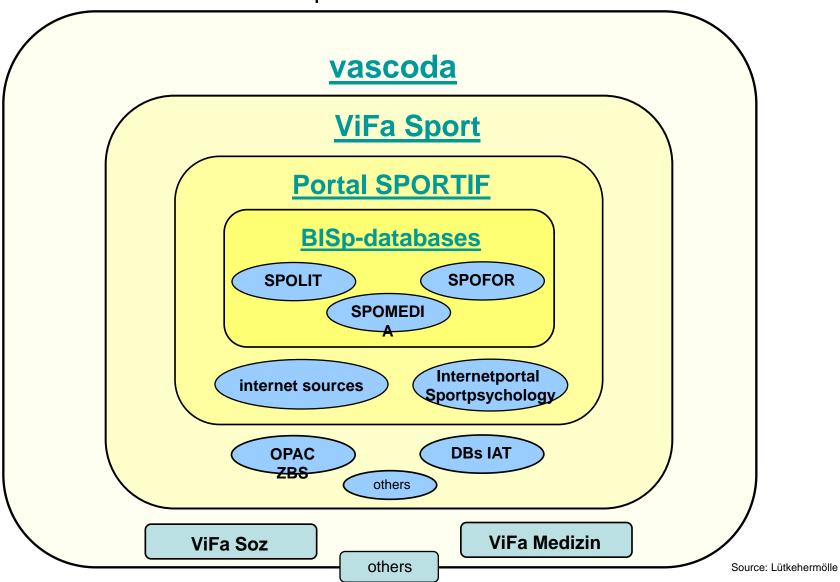
#### Platform vascoda

- vascoda is a cooperative network of major German libraries and information providers and their international partners. The vascoda gateway systematically integrates the resources of participating institutions, thus offering a variety of search strategies. vascoda will become an important venue for research by providing efficient access to a great variety of relevant resources
- The BISp-databases (SPOFOR, SPOLIT, SPOMEDIA) and SPORTIF are provided in the internet portal vascoda (www.vascoda.de).



SPORTIF

### platforms





BISp - Information services and publications

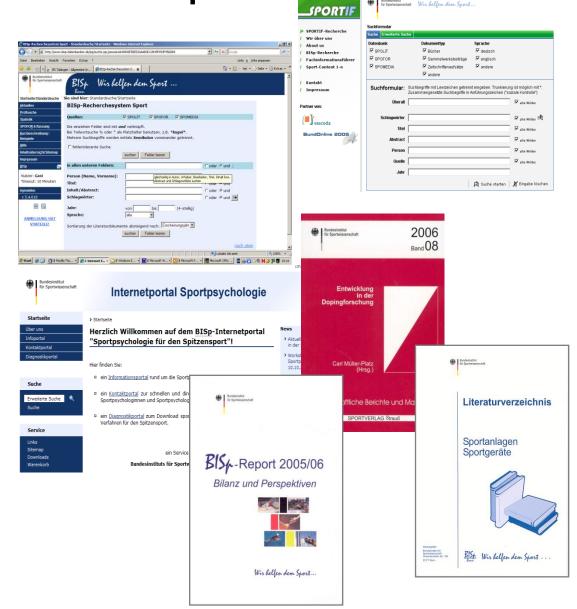
 Databases/ platforms (free access)

SPOLIT, SPOFOR, SPOMEDIA

quality-secured internet sources

Internetportal Sports Psychology

- Scientific series
- Journal "Sport Science"
- Reports of research projects
- Athletes manuals
- Broschures on sport facilities and equipment



SCIENTIFIC SUPPORT FOR THE "COACH CAMPAIGN" IN GERMAN TOP LEVEL SPORTS

"Coach profession profile"

Prof. H. Digel

Institute of Sport Science University Tübingen

"Information and Knowledge Management for Coaches – Initial Results of a scientific study"

Prof. M. Muckenhaupt Institute of Media Studies/ University Tübingen



#### Berufsfeld Trainer

Trainer im Spitzensport spielen eine entscheidende Rolle für das Erzielen sportlicher Höchstleistungen. Sie sind die zentralen Bezugspersonen der Athleten und haben großen Einfluss auf deren Wettkampfleistung.

Dennoch ist die Bezahlung in vielen Bereichen vergleichsweise gering, die berufliche Handlungsautonomie in der Regel eingeschränkt und die Anstellung vielfach von kurzer Dauer. Hinzu kommen une ähbeitliche Karrier everläufe, Rekntrierungswege und Zugangsvoraussetzungen sowie höchst unterschiedliche Tätlicketifselder und Aufgabenstellungen.

Drei Fragen stehen im Zentrum des Forschungsprojekts:

- Wie sehen T\u00e4tigkeitsfeld, Anstellungs- und Arbeitsbedingungen von Trainern im olympischen Spitzensport aus?
- Unter welchen Bedingungen lässt sich der Beruf des Trainers im olympischen Spitzensport als dauerhafte und gut bezahlte Position mit einer dominanten Stellung etablieren?
- Wie sehen (ideale) Karrierewege von Trainern im olympischen Spitzensport aus?

#### Untersuchungsdesign

Repräsentative Fragebogenerhebung, leitfadengestützte Experteninterviews, Dokumentenanahyse

Befragung von insgesamt 2500 Trainern, Managem und Funktionären

#### Informationsversorgung von Trainern

Das Anforderungsprofil im Hochlekstungssport wachst kontinuierlich. Zugleich werden die Lebensylten des Wissens immer klüzer. Gefordert sind aktuelle und gesichterte Informationen für die Trainingsgestaltung und Leistungsüblerpführing, die Gesunderhaltung und Wiederherstellung der Sportler, die Steuerung psychischer Prozesse, die Talentsvole und Talentfürferung.

Die Leitfrage des Projekts lautet deshalb: Wie kann die Informationsversorgung von Trainern optimiert werden – in den Verbänden, der Kommunitaction unterein ander, der Aus- und Fortbildung und den Informationssystemen? Zentrale Forschungsfragen sind:

- Welche Informationsangebote gibt es für Trainer?
- Welche Informationsquellen nutzen Trainer?
- Wie bewerten Trainer die Informationsquellen im Hinblick auf ihre spezifischen T\u00e4tigkeitsfelder?
- Welchen Informationsbedarf haben Trainer und welche Anforderungen stellen sie an die gewünschten Fachinformationen?
- Welche Modelle eignen sich für eine Optimierung der Informationsversorqung?

#### Untersuchungsdesign

Tagebuchstudien, leitfadengestützte Experteninterviews, Fragebogenerhebung

Inhaltsanalysen des Informationsangebots













#### SCIENTIFIC SUPPORT FOR THE "COACH CAMPAIGN" IN GERMAN TOP LEVEL SPORTS

# "Information and Knowledge Management for Coaches – Initial Results of a scientific study"

(Prof. M. Muckenhaupt, Institute of Media Studies/ University Tübingen)

- The Central Questions
- Current Situation: What information sources are available to coaches?
- Use: Which information sources are coaches using? How much time do they spend with those sources?
- Value: What criteria do coaches use to evaluate and rate their information sources?
- Needs: What are the coaches needs, and what requirements do they have for information relating to their field?
- Optimization: Which solutions are well suited to optimize the information needs of the coaches?



## **Application – Methods**

### in Advance:

- Interviews with Experts
- Diary Study

### **Questionnaire**

- Use, Analysis/ Needs of Information Sources/ Content/ Topics
- Time constraints, Access to Information

## Qualitative Study of Available Sources / Is - Should Be Analysis

- Specialized Publications
- Training Guidelines
- Internet Sources

### **Performance Level of Coached Athletes**

 almost 80 percent of the surveyed coaches train athletes competing at a highly competitive level: World class Athletes, Professional Athletes, Top National Athletes

### What sets German Trainers apart?

 High level of training, Years of professional experience, Prior personal experience as successful, professional athletes

## The Importance of Information Sources

- A purely publication-based model is ill-suited for coaches.
- Coaches rely on dialogue and visual forms of communication.
- Mobile information systems suite the lifestyle of the frequently travelling coaches.
- Systems that are personalized to the coaches' needs and requirements will have a higher likelihood of acceptance.

### **General Conditions - Time**

- In an average 50-hour work week, about ¼ is spent on information activities.
- The largest allotment is spent on information exchange, the smallest on obtaining new information.

# General Conditions – Attitudes Toward Information - Taking the Trainers' Attitude Seriously

- Coaches are trained to communicate. They prefer personal contact when exchanging and obtaining new information.
- Coaches generate knowledge alone, and in groups.
- Information and knowledge management for coaches needs to take into account these general time constraints and the attitudes of the coaches.

# General Conditions – Uses for Information - Taking the Trainers' Attitude Seriously

- Coaches prefer informal methods of obtaining information (Access Paths).
- Coaches prefer to apply information from contacts/conversations and observations/analysis/results
- Coaches learn about specialized information for their sport from events, conventions and sports publications.



### Coaches and Science: Are coaches science-adverse?

- Coaches are largely interested in scientific studies.
- They're very interested in the specialized knowledge of other coaches.
- 76 percent of coaches have a college degree, 63 percent of those have a background in sports science.
- The assumption that coaches rely primarily on their own experience is not true personal experience ranks last on their list.

### Science and Coaches: Are the academics coach-adverse?

- Formal, scientific sources provide little information that is readily incorporated into a workout or practice.
- When it comes to learning about the newest sport developments, event and conventions rank higher than trade journals.
- Coaches say the greatest need is for trade journals for each type of sport.
- Coaches desire scientific information and research that is directly applicable to the sport.

### **Information Source - Trends**

- Specialized / Magazines
- Training Guidelines (Rahmentrainingspläne)
- Internet sites
- Continuing Education Events and Seminars
- Environment of Communication (kommunikatives Umfeld)



## **Specialized Publications**

Information Overload, and little relevant input for coaches

# Specialized Publications - statements to open ended questions (F25) ordered by frequency

- Too little time to search, read and apply
- Too little available (marginal value)
- Information not relevant in practice/ rarely applicable/ missing real-world connection
- No information about availability, good information often inaccessible
- Ambiguity about the quality of the results, missing validation, deficiencies in the methods
- Too much information available on the market, with no filter on the flood of information
- No processing or editing / executive summary / publications too extensive
- Nearly everything is written in a foreign language
- Too specialized / too expensive / outdated



### **Quality pays off**

Example: Training Guidelines "Ski-Nordisch"

- commonly used
- little demand for improvements
- high quality results during the "Is-Analysis"

### **Internet Sites**

- Generally very heterogeneous, narrow selection of topics (of little use for topcoaches)
- Virtual databases are unknown or used rarely by the majority of coaches.
- Internet sites from institutions are accepted marginally more.
- Sites from clubs and sports organizations (Verbände) are often used, but primarily for news content.
- Example Sites from Sports Organizations (Verbände)
- No training exersises
- No summaries of current literature, no reviews, links to literature databases, sporadic literature lists (DBV, DSV)
- Primary news content: Upcoming Events, Sport Headlines, Contact Lists

## **Continuing Education - Demand - Answers to Open Ended Questions**

- Practical experience, connecting theory and practice, no theory
- without application
- More specific content, often too superficial
- Better instructors/speakers (top-coaches, international experts,
- former professional athletes, none without practical experience)
- Better separation/distinction between competitive sports and
- leisure sports
- Combine sport groups (i.e. martial arts, ball-sports)



## Information and Knowledge Management

- Coaches' current methods for sharing information, and their needs, were assessed through interviews with experts, diary-studies and a quantitative survey of 1.500 coaches. At the same time, a qualitative study analyzed the publications available to coaches, including websites, trade journals and training guidelines.
- Elite coaches in Germany are especially qualified they have many years of professional experience and, as athletes, were successful at the national and international level.
- Like their international counterparts, German coaches use informal methods of obtaining new information: exchanging information with colleagues, personal observations, data analysis and training seminars. The assessment of publications and information-use revealed no distinct differences among different sports.
- One of the study's recommendations highlights the need to tailor an information system to the needs of coaches, and not the other way around. The coaches should not have to adapt to the traditional information channels. The system that supplies coaches with information needs to be reliable, centrally-managed and built on the newest technology available in order to meet coaches' needs which can be summed up as, "Current, relevant and useful information for the success of the athlete."

## Summary

- The organisation of German sport within the federal structure of Germany characterised by autonomy of sport and subsidiary support of the government
- The Federal Institute of Sport Science (BISp) supports research projects and scientific databases within the Scientific Network for German Top Level Sports
- The Dept. "Scientific Counselling" of the BISp produces all necessary scientific information products for sports research in Germany (databases, platforms, portals with more than 170.000 documents/ sources), BISp-Homepage
- Future objectives: optimisation of the scope of the databases and platforms in technology and contents(e.g. more international literature/ documents, platform(s) in English (terminology in English)
- The "Coach Campain" in German top level sports is an example for research support directed to high level sports by the BISp. Further research in this field is in progress: "coach information supply"



## Thank you for your attention!



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