

Small or medium-scale focused research project (STREP) proposal
ICT Call 5
FP7-ICT-2009-5
[System for Collecting and Analysing Sport Player Physical Data]

Special arrangements apply for the preparation of proposal Part B in the Objectives ICT-2009.9.2 and ICT-2009.9.5. See Annexes 7 and 8 of the Guide for applicants

[SCASPPD]

Small or medium scale focused research project (STREP)

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Version number (optional): v1

Work programme topic addressed

ICT 16 – 2015: Big data – research

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Participant no. *	Participant organisation name	Part. short name	Country
1 (Coordinator)	University of Belgrade, Mathematical Faculty, www.matf.bg.ac.rs	MATF	Serbia
2	Samsung, www.samsung.com	SAM	South Korea
3	Nike, www.nike.com	NIKE	USA

Proposal abstract

The goal of this project is an affordable system that can be used for analysis of players in a team by following given parameters.

Using well-researched and tested algorithms and implementing the approaches reported in latest publications and scientific literature we will produce encapsulated and adaptable system.

The hardware necessary is not readily available so our focus in this area is to develop new solutions and work on its optimization and customization according to final user's needs.

Algorithms and applications will be implemented in C++ system and tested on multiple sports. Improvements will be introduced, following these tests.

The final product will consist of a commercial system that satisfies our goals of affordability, accessibility and interoperability.

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Section 1: Scientific and/or technical quality, relevant to the topics addressed by the call

1.1 Concept and objectives

The project is inspired by the lack of a commercial product available in the market of sport injuries, player data collection and similar spheres of interest.

This technology has the potential to revolutionize computer-use in sports, therefore it would be unethical to keep this technology only for ourselves.

For coaches, doing their best to help their team win is very important. The future of the team depends largely on the players and their physical health. Achieving and maintaining the best position in league or tournament is a tricky business.

In the past, preventing a player injury or keeping him fit throughout the season was a more reactive affair. By that we mean that player would first get hurt (or out of shape) and then we would give him a plan to follow if he wanted to get back to full health and fitness. Another problem is that, even with all the medical advancements, players could get injured for reasons unknown.

Our system is taking the more proactive approach. During the game, players would wear a watch-like device on their wrist which would record various data that the player's body produces (the amount of sweat, pain threshold, muscle exertion etc.). All of the data would be sent and analysed in real time by our application.

With the data collected and analysed, there appear two distinct periods of time of reaction for the coaching staff. During and/or after the game.

During the game, coaching staff can sub the player out or tell him during a break to either take it slow, go harder or keep up the same level of play depending on the data analysed and the risk of injury.

After the game, team doctors and physios can give the player a plan to follow, strengthen the parts of his body that need to be strengthened, follow a diet etc... all of it based on the collected and analysed data.

Together with some of the biggest names in sports we will develop an application and hardware which will collect and analyse vast amounts of data about players during their on-field performance.

Objective 0: Project Management

The goal of this objective is to make sure that every detail of this proposal will be properly taken care of: (a) All deliverables delivered in time, (b) All deliverables delivered in quality levels that satisfies the highest FP7 standards, (c) All deliverables delivered in a form which is consistent and helps convey the essence in a way which is easy to comprehend. For all this to happen, an effective set of system reminders will be set.

Success criteria:

- Optimization of the reporting processes involved in the project (deadlines)
- Optimization of the control processes involved in the project
- Optimizing finances of the project.

Objective 1: To generate use cases, which includes following – a variety of applications, details of functionalities within each application, and definition of parameters of importance

Use cases will be generated by analysing various team and individual sports with the purpose of taking into account a variety of sports and their specific statistics.

Success criteria:

- Opinion of beneficiaries on the need for the generated applications, based on their knowledge about where the major unknowns are
- Opinion of beneficiaries about the functionalities provided
- Opinion of beneficiaries about optimal values of parameters involved.

Objective 2: To develop the system architecture, to determine the functionalities of all building blocks, and to develop hardware (HW), communications, and software (SW) requirements.

All details related to hardware, software and communications have to be developed. Software details include issues like data mining, semantic web, communication between devices, motion detection algorithms. The suggested HW module will consist of using a watch-like device which the players will wear on their wrist. It will collect and then send data to the main application. The interpretation(analysis) of acquired data is a demanding task, which requires a skilled expert.

The main objective is to develop a system (software platform) for automatic collecting and analysing data. SW platform is determined by the data acquisition process, that is being made by HW module and methods used for collecting data on the field. On that basis a suitable data model, GUI, report contents and views will be specified. All measurements will be performed on field, in live games, that will enable the construction of the knowledge database.

Success criteria:

- Potential speed of processing and communications.
- Software and hardware architecture which permits easy expandability.
- Compatibility with existing platforms.

Objective 3: To establish concrete hardware (HW) and communication details for the system

Basic requirements for this module are:

- Development of the device (Nike)
- Real time acquisition of data from the device (Nike, Samsung)
- Real time data processing (Data Centre - Samsung)
- Real time (wireless or otherwise) communication with tablets or smartphones

Success criteria:

- For hardware, minimal transistor count
- For communications, maximal flexibility

Objective 4: To establish concrete software (SW) details for the system

Implementing sophisticated image processing algorithms for collecting data from real-time 3D visualization. Implementing algorithms for various statistical analysis depending on type of sport being monitored.

Success criteria:

- Error-free structure that collect and analyse data.

Objective 5: To test the demo system in a number of specific sports, in various countries, to compare experiences, to summarize the lessons learned.

Demo system developed in WP5 will be tested in real-production situations in Serie A (football) and NBA League (basketball). Experience from the test can be gained and compared in order to refine the results.

Success criteria:

- Test cases developed according to the needs gathered in WP1
- Specification of issues
- Details of the requirements for mass-production of the system.

1.2 Progress beyond the state-of-the-art

Together with Samsung and Nike, we are planning a series of additions that will take the app's capabilities beyond the ones it currently provides.

We are hopeful that we can sometime in the future deduce psychological state of the player based on the collected data from our device.

A link between injuries/player performance and his physical/psychological state exists and we are hopeful we can use our device to take advantage of it.

One can only look at the Germany football team and their success. They have been a force at the international stage since the early 2000s when they took a step back and restructured their whole system.

1.3 S/T methodology and associated work plan

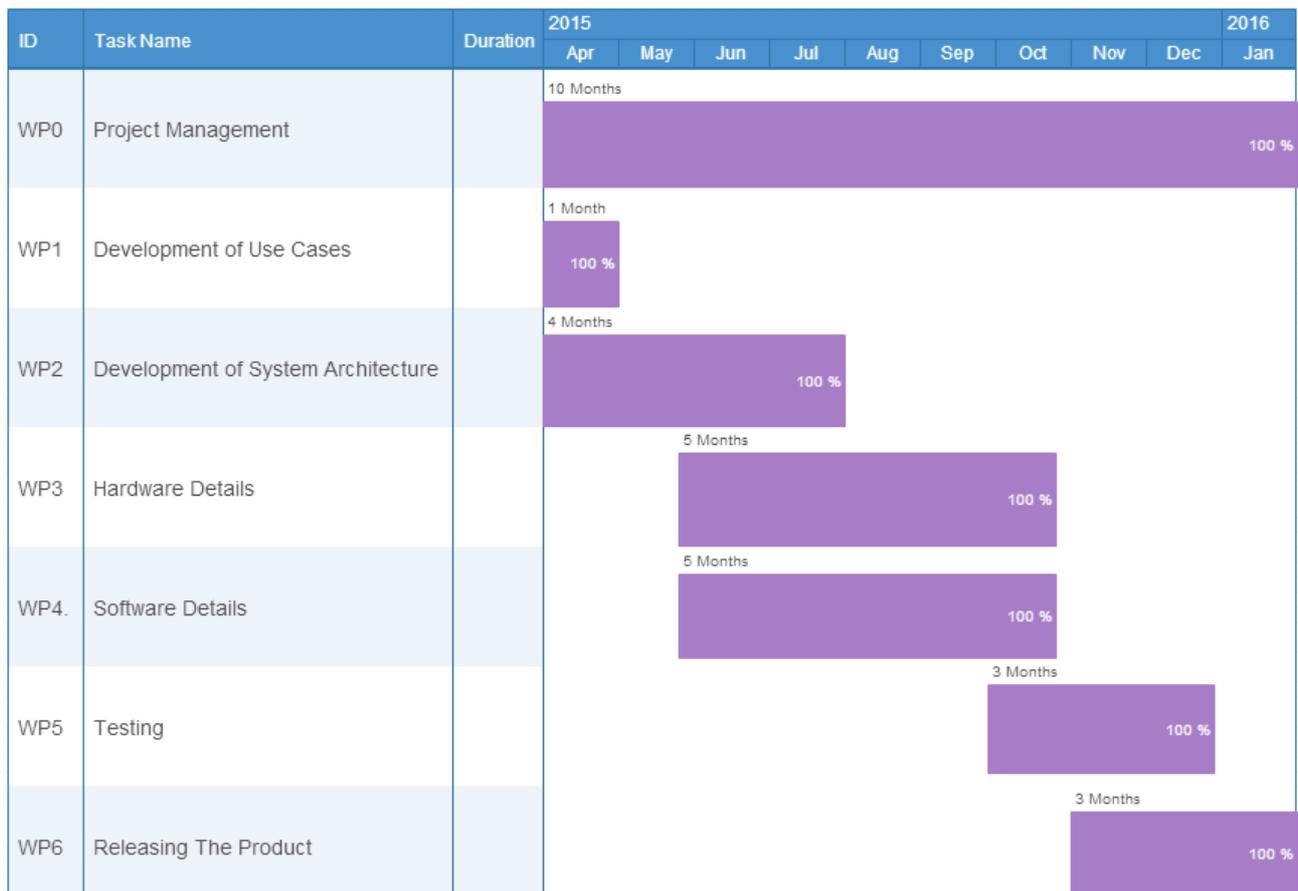
In order to achieve the overall project objectives, the following items are considered as crucial:

- Competent researcher well aware of the state of the art in the research field and able to take the research forward.
- State of the art research infrastructure.
- Ability to work, communicate and collaborate with researchers from various background, in various circumstances and environments.
- Large network of contacts in the research community.
- Public awareness of the benefits of the research in a chosen field and promotion of research results and achievements.

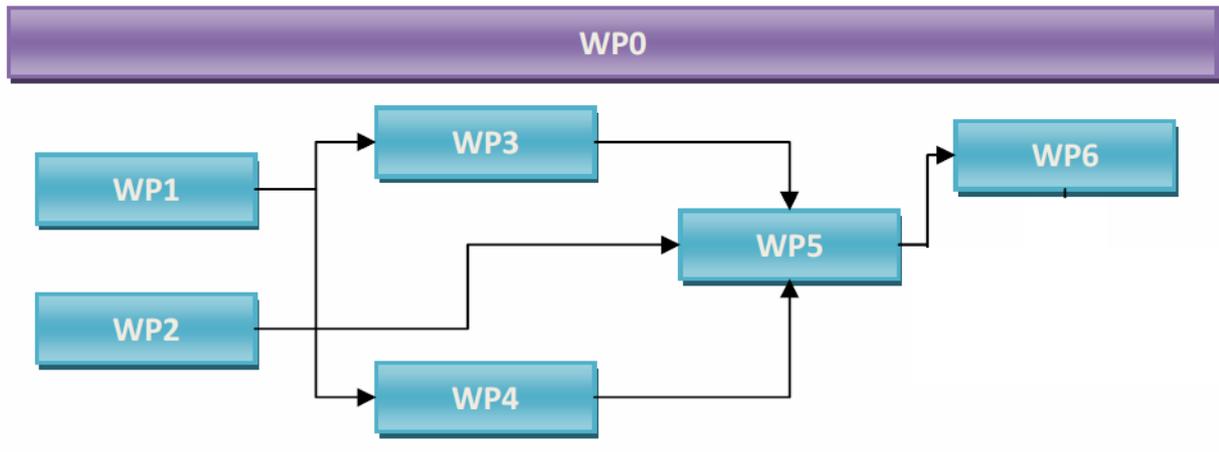
The project is organized in seven work packages as follows:

- WP0 Project Management
- WP1 Development of Use Cases
- WP2 Development of System Architecture
- WP3 Hardware Details
- WP4 Software Details
- WP5 Testing
- WP6 Releasing The Product

The main body of work is included in five work packages (WP1,2,3,4,5). The activities planned in these work packages correspond to the main strands of the project as described above. It is the responsibility of the project management team (WP0) to coordinate these activities to maximize the impact and benefits for everyone involved. Work package WP6 is the end result of the project.



Gant chart for the workpackages
8/30



Pert diagram for workpackages

Table 1.3a: *Template - Work package list*

Work package list

Work package No ¹	Work package title	Type of activity ²	Lead participant no. ³	Lead partic. short name	Person-months ⁴	Start month ⁵	End month Error: Reference source not found
WP0	Project Management	MGT	3	MATF, SAM, NIKE	74	M1	M12
WP1	Development of Use Cases	RTD	1	MATF	16	M1	M2
WP2	Development of System Architecture	RTD	2	MATF, SAM	15	M1	M4
WP3	Hardware Details	RTD	1	NIKE	12	M3	M7
WP4	Software Details	RTD	2	SAM, MATF	17	M3	M7
WP5	Testing	RTD/DEM	3	MATF, SAM, NIKE	150	M7	M11
WP6	Releasing the Product	DEM	3	MATF, SAM, NIKE	60	M8	M12
	TOTAL				344		

¹ Workpackage number: WP 1 – WP n.

² Please indicate one activity per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium

³ Number of the participant leading the work in this work package.

⁴ The total number of person-months allocated to each work package.

⁵ Measured in months from the project start date (month 1).

Table 1.3b: Template - Deliverables List

List of Deliverables

Del. no. ⁶	Deliverable name	WP no.	Nature ⁷	Dissemination level ⁸	Delivery date ⁹ (proj. month)
D0.1	Minutes from each Steering Committee meeting	WP0	R	PU	M1,M6,M12
D0.2	Project handbook including quality management plan	WP0	R	PU	M1
D0.3	Periodic reports at periods specified in the Grant Agreement	WP0	R	PU	M1,M3,M6, M9,M12
D0.4	Signed Consortium Agreement	WP0	R	PU	M1
D0.5	Audit certificates for each participant at times stated in the contract	WP0	R	PU	M12
D0.6	Final reports at the conclusion of the project (final activity report, supplementary final reports and a report on distribution between participants of the final payment)	WP0	R	PU	M12
D1.1	Top level Use Case Diagrams	WP1	O	PU	M2
D1.2	Detailed Use Case Diagrams	WP1	O	PU	M2
D2	Architecture Specification	WP2	R	RE	M4
D3.1	Report on HW built into the system	WP3	R	PU	M7
D3.2	Report on Communication system built into the system	WP3	R	PU	M7
D4.1	Procedure details	WP4	R	PU	M5
D4.2	Algorithmic details	WP4	R	PU	M6
D4.3	Report on SW built into the system	WP4	R	PU	M7
D4.4	Documented code	WP4	R	PU	M7
D5.1	Report on testing results (MATF)	WP5	R	PU	M10,M11
D5.2	Report on testing results (MCS)	WP5	R	PU	M10,M11

⁶ Deliverable numbers in order of delivery dates. Please use the numbering convention <WP number>.<number of deliverable within that WP>. For example, deliverable 4.2 would be the second deliverable from work package 4.

⁷ Please indicate the nature of the deliverable using one of the following codes:

R = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other

⁸ Please indicate the dissemination level using one of the following codes:

PU = Public

PP = Restricted to other programme participants (including the Commission Services).

RE = Restricted to a group specified by the consortium (including the Commission Services).

CO = Confidential, only for members of the consortium (including the Commission Services).

⁹ Measured in months from the project start date (month 1).

D5.3	Report on testing results (PAN)	WP5	R	PU	M10,M11
D5.4	Report on testing results	WP5	R	PU	M10,M11
D6.1	Project promotional materials	WP6	R	PU	M11,M12
D6.2	E-bulletin/ newsletter released	WP6	R	PU	M11,M12
D6.3	TV and internet marketing campaigns	WP6	R	PU	M11,M12

Table 1.3c Template - List of milestones

Milestones

Milestones are control points where decisions are needed with regard to the next stage of the project. For example, a milestone may occur when a major result has been achieved, if its successful attainment is a required for the next phase of work. Another example would be a point when the consortium must decide which of several technologies to adopt for further development.

Milestone number	Milestone name	Work package(s) involved	Expected date ¹⁰	Means of verification ¹¹
M0.1	Kick-off meeting	WP0	M1	Minutes from kick-off meeting
M0.2	Consortium agreement signed	WP0	M1	Consortium Agreement with partner signatures
M0.3	Project shut-down, all deliverables achieved	WP0	M12	Final deliverables report
M1	Finished Use Cases	WP1	M2	Use Case Documentation
M2	System architecture defined	WP2	M4	Architecture specification
M3	HW details defined and clarified	WP3	M7	HW report
M4	SW details defined and clarified	WP4	M7	SW report
M5	System tested in real life scenarios	WP5	M10-M11	Reports on the testing results
M6	Project marketed	WP6	M11-M12	Project marketing campaign

¹⁰ Measured in months from the project start date (month 1).

¹¹ Show how you will confirm that the milestone has been attained. Refer to indicators if appropriate. For example: a laboratory prototype completed and running flawlessly; software released and validated by a user group; field survey complete and data quality validated.

Table 1.3d: *Template - Work package description*

Work package description

Work package number	WP0	Start date or starting event:		M1			
Work package title	Project Management						
Activity type¹²	MGT						
Participant number	1	2	3				
Participant short name	MATF	SAM	NIKE				
Person-months per participant	44	15	15				

Objectives

Project Management – The goal of this objective is to make sure that every detail of this proposal will be properly taken care of.

Description of work (possibly broken down into tasks) and role of partners

Deliverables (brief description) and month of delivery

- Minutes from each Steering Committee meeting (M1, M6, M12)
- Project handbook including quality management plan (at the kick-off meeting) (M1)
- Periodic reports at periods specified in the Grant Agreement (M1, M3, M6, M9, M12)
- Signed Consortium Agreement (M1)
- Audit certificates for each participant at times stated in the contract (M12)
- Final reports at the conclusion of the project (final activity report, final management report, supplementary final reports and a report on distribution between participants of the final payment) (M12)

¹² Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package description

Work package number	WP1	Start date or starting event:	M1				
Work package title	Development of Use Cases						
Activity type¹³	RTD						
Participant number	1						
Participant short name	MATF						
Person-months per participant	16						

Objectives

Use cases will be generated by analysing various team and individual sports with the purpose of taking into account a variety of sports and their specific statistics.

Description of work (possibly broken down into tasks) and role of partners

Deliverables (brief description) and month of delivery

- Top level Use Case diagrams (M2)
- Detailed Use Case diagrams (M2)

¹³ Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package description

Work package number	WP2	Start date or starting event:	M1				
Work package title	Development of System Architecture						
Activity type¹⁴	RTD						
Participant number	1	2					
Participant short name	MATF	SAM					
Person-months per participant	7	8					

Objectives

Description of work (possibly broken down into tasks) and role of partners
To develop the system architecture, to determine the functionalities of all building blocks, and to develop hardware (HW), communications, and software (SW) requirements.

Deliverables (brief description) and month of delivery

- Architecture Specification (M4)

¹⁴ Please indicate one activity per work package:
RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package description

Work package number	WP3	Start date or starting event:	M3				
Work package title	Hardware Details						
Activity type¹⁵	RTD						
Participant number	3						
Participant short name	NIKE						
Person-months per participant	12						

Objectives

To establish concrete hardware (HW) and communication details for the system

Description of work (possibly broken down into tasks) and role of partners

Deliverables (brief description) and month of delivery

- Report on HW built into the system (M7)
- Report on Communication system built into the system (M7)

¹⁵ Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package description

Work package number	WP4	Start date or starting event:		M3			
Work package title	Software Details						
Activity type¹⁶	RTD						
Participant number	1	2					
Participant short name	MATF	SAM					
Person-months per participant	7	10					

Objectives

To establish concrete software (SW) details for the system

Description of work (possibly broken down into tasks) and role of partners

Deliverables (brief description) and month of delivery

- Procedure details (M5)
- Algorithmic details (M6)
- Report on SW built into the system (M7)

¹⁶ Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package description

Work package number	WP5	Start date or starting event:		M7			
Work package title	Testing						
Activity type¹⁷	RTD/ DEM						
Participant number	1						
Participant short name	MATF	SAM	NIKE				
Person-months per participant	50	50	50				

Objectives

To test the demo system in a number of specific sports, in various countries, to compare experiences, to summarize the lessons learned.

Description of work (possibly broken down into tasks) and role of partners

Deliverables (brief description) and month of delivery

- Report on testing results (MATF) (M10,M11)
- Report on testing results (SAM) (M10,M11)
- Report on testing results (NIKE) (M10,M11)

¹⁷ Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Work package description

Work package number	WP6	Start date or starting event:		M8			
Work package title	Releasing the Product						
Activity type¹⁸	DEM						
Participant number	1	2	3				
Participant short name	MATF	SAM	NIKE				
Person-months per participant	20	20	20				

Objectives

To release a software for commercial use.

Description of work (possibly broken down into tasks) and role of partners

Deliverables (brief description) and month of delivery

- Project promotional materials (M11,M12)
- E-bulletin/ newsletter released (M11,M12)
- TV and internet marketing campaigns (M11,M12)

¹⁸ Please indicate one activity per work package:

RTD = Research and technological development; DEM = Demonstration; MGT = Management of the consortium.

Table 1.3e Summary of effort

Summary of effort

A summary of the effort is useful for the evaluators. Please indicate in the table number of person months over the whole duration of the planned work, for each work package by each participant. Identify the work-package leader for each WP by showing the relevant person-month figure **in bold**.

Partic. no.	Partic. short name	WP0	WP1	WP2	WP3	WP4	WP5	WP6	Total person months
1	MATF	44	16	7	0	7	50	20	144
2	MCS	15	0	8	0	10	50	20	103
3	PAN	15	0	0	12	0	50	20	97
Total		74	16	15	15	17	150	60	344

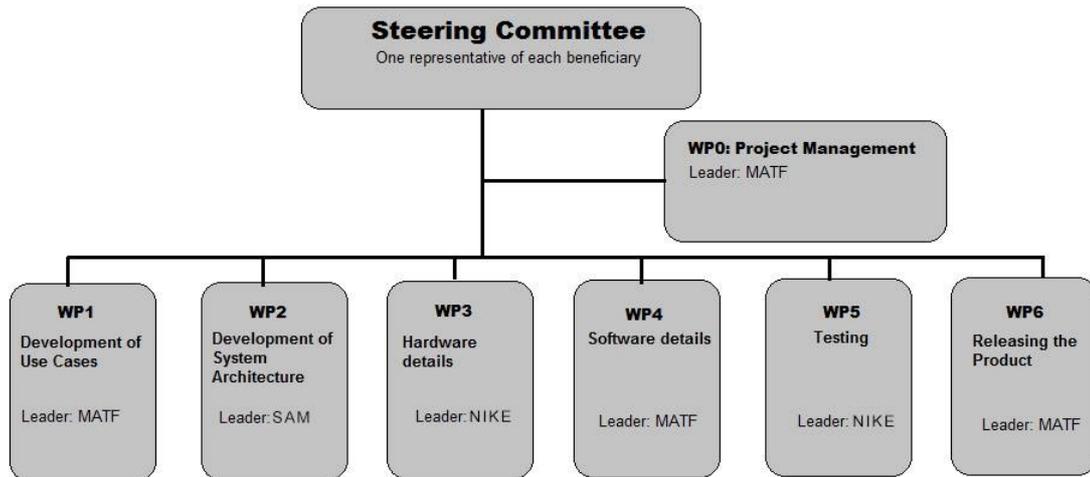
Section 2. Implementation

(Maximum length for Section 2.1 - five pages)

2.1 Management structure and procedures

The management structure in SCASPPD (WP0) is outlined in the following figure.

It follows closely the organisation of the work in six WP in order to ensure a close link between decision making and organisation of the work, as well as efficient communication of decisions to the consortium.



The management in SCASPPD relies on

- **Efficient communication tools on internet**
Working document and reports can be organized in sub-domains and exchanged between authorized participants. MATF also provides a teleconference facility, that allows sharing of documents on internet.
- **Straightforward planning of activities**
All work packages will follow the schedule. Discussions and negotiations will be held at the annual SC meetings (Milestones 0.1, 0.2, 0.3)
- **Straightforward reporting process**
Each work package leader will contribute annually an activity report to the coordinator for reporting to the Commission. The list of deliverables and milestones is extended down to the WP and task level. That obviously introduces some duplication, but that will ensure clear understanding by each work package leader of his deliverables and milestones
- **Central office**
A central office will be set-up for coordination activities, reporting to the Commission and the organisation of meetings and travels in the project.

Steering Committee

The **Steering Committee** (SC) will be composed of one representative from each participant in the project. Each beneficiary has one vote. The chair of the SC is the Project Coordinator. The SC is the executive body of the Consortium. The SC shall monitor and review the work progress and will take executive decisions by simple majority on scientific and administrative

issues that may arise during the implementation of the project, and more specifically on

- detailed planning of technical work and deliverables
- detailed monitoring of technical progress,
- preparation and collection of technical progress reports

The SC will be convened annually one month before the end of the reporting period, with intermediate teleconference meetings, when necessary

Project Co-ordinator

The Project Co-ordinator (PC) will be responsible for the co-ordination and management of all activities in the project, including the overall supervision and regular follow-up of the progress in all work-packages. The PC will chair and organize the SC meetings, and will be in charge of the preparation of the Periodic Reports and Final Report to the EC. The Deputy Project Co-ordinator (DPC) will assist the PC in the daily management tasks and will replace the PC in case of absence

WP Leaders

The WP Leaders will manage the RTD, coordination and support activities in the framework of their own WP. They have the responsibility for ensuring effective cooperation between the participants in each WP, for monitoring the task progress, including the milestones, and for producing the deliverable reports in their WPs. They will contribute to the preparation of all other reports regarding the activities of their WPs, which are requested by the Project Coordinator.

2.2 Individual participants

(Maximum length for Section 2.2: one page per participant. However, where two or more departments within an organisation have quite distinct roles within the proposal, one page per department is acceptable.

The maximum length applying to a legal entity composed of several members, each of which is a separate legal entity (for example an EEIG), is one page per member, provided that the members have quite distinct roles within the proposal.)

For each participant in the proposed project, provide a brief description of the legal entity, the main tasks they have been attributed, and the previous experience relevant to those tasks. Provide also a short profile of the individuals who will be undertaking the work.

2.3 Consortium as a whole

(No maximum length for Section 2.3 – depends on the size and complexity of the consortium)

Describe how the participants collectively constitute a consortium capable of achieving the project objectives, and how they are suited and are committed to the tasks assigned to them. Show the complementarity between participants. Explain how the composition of the consortium is well-balanced in relation to the objectives of the project.

If appropriate describe the industrial/commercial involvement to ensure exploitation of the results.

i) Sub-contracting: If any part of the work is to be sub-contracted by the participant responsible for it, describe the work involved and explain why a sub-contract approach has been chosen for it.

ii) Other countries: If a one or more of the participants requesting EU funding is based outside of the EU Member states, Associated countries and the list of International Cooperation Partner Countries¹⁹, explain in terms of the project's objectives why such funding would be essential.

¹⁹ See CORDIS web-site, and annex 1 of the work programme.

2.4 Resources to be committed
(Maximum length for Section 2.4 – two pages)

Describe how the totality of the necessary resources will be mobilised, including any resources that will complement the EC contribution. Show how the resources will be integrated in a coherent way, and show how the overall financial plan for the project is adequate.

In addition to the costs indicated on form A3 of the proposal, and the effort shown in section 1.3 above, please identify any other major costs (e.g. equipment). Ensure that the figures stated in Part B are consistent with these.

Section 3. Impact

(Maximum length for the whole of Section 3 – ten pages)

3.1 Expected impacts listed in the work programme

This solution is primarily targeted at assisting the analysis of training, preparation and tournaments. Further this platform allows coaches and scouts to process substantial amount of data (Big Data) to find and evaluate key situations in matches to improve player and team performance. To optimize training and tactics, adequate and significant data is indispensable resource for coaches and players for contextualizing information and drawing appropriate conclusions. Platform is expected to revolutionize the sport experience for coaches, players, fans and the media (aiding them to deliver a better informed commentary).

3.2 Dissemination and/or exploitation of project results, and management of intellectual property

Dissemination is grouped into two major groups of activities: internal and external.

The internal activities are targeting researchers from the organizations participating in the project. A series of project workshops, lectures and exchanges of researchers are planned to address this need.

The external activities are what is generally referred to when dissemination is discussed. These activities are targeting research community, general public and industry in order to promote results and achievements of the project. The following external dissemination channels and activities are planned:

- Website and presentation
- Demonstration of new research infrastructure
- Conferences and publications
- Seminars and workshops
- Access through media (local TV and radio stations, newspapers)

Section 4. Ethical Issues

(No maximum length for Section 4 – depends on the number and complexity of the ethical issues involved)

Describe any ethical issues that may arise in their proposal. In particular, you should explain the benefit and burden of their experiments and the effects it may have on the research subject. The following special issues should be taken into account:

Informed consent: When describing issues relating to informed consent, it will be necessary to illustrate an appropriate level of ethical sensitivity, and consider issues of insurance, incidental findings and the consequences of leaving the study.

Data protection issues: Avoid the unnecessary collection and use of personal data. Identify the source of the data, describing whether it is collected as part of the research or is previously collected data being used. Consider issues of informed consent for any data being used. Describe how personal identify of the data is protected.

Use of animals: Where animals are used in research the application of the 3Rs (Replace, Reduce, Refine) must be convincingly addressed. Numbers of animals should be specified. State what happens to the animals after the research experiments.

Human embryonic stem cells: Research proposals that will involve human embryonic stem cells (hESC) will have to address all the following specific points:

- the necessity to use hESC in order to achieve the scientific objectives set forth in the proposal.
- whether the applicants have taken into account the legislation, regulations, ethical rules and/or codes of conduct in place in the country(ies) where the research using hESC is to take place, including the procedures for obtaining informed consent;
- the source of the hESC
- the measures taken to protect personal data, including genetic data, and privacy;
- the nature of financial inducements, if any.

Identify the countries where research will be undertaken and which ethical committees and regulatory organisations will need to be approached during the life of the project.

Include the Ethical issues table below. If you indicate YES to any issue, please identify the pages in the proposal where this ethical issue is described. If you are sure that none of the issues apply to your proposal, simply tick the YES box in the last row.

Notes:

1. For further information on ethical issues relevant to ICT, see annex 5 of the Guide for applicants.
2. Only in exceptional cases will additional information be sought for clarification, which means that any ethical review will be performed solely on the basis of the information available in your proposal.

ETHICAL ISSUES TABLE

	YES	PAGE
Informed Consent		
• Does the proposal involve children?		
• Does the proposal involve patients or persons not able to give consent?		
• Does the proposal involve adult healthy volunteers?		
• Does the proposal involve Human Genetic Material?		
• Does the proposal involve Human biological samples?		
• Does the proposal involve Human data collection?		
Research on Human embryo/foetus		
• Does the proposal involve Human Embryos?		
• Does the proposal involve Human Foetal Tissue / Cells?		
• Does the proposal involve Human Embryonic Stem Cells?		
Privacy		
• Does the proposal involve processing of genetic information or personal data (eg. health, sexual lifestyle, ethnicity, political opinion, religious or philosophical conviction)		
• Does the proposal involve tracking the location or observation of people?		
Research on Animals		
• Does the proposal involve research on animals?		
• Are those animals transgenic small laboratory animals?		
• Are those animals transgenic farm animals?		
• Are those animals cloned farm animals?		
• Are those animals non-human primates?		
Research Involving Developing Countries		
• Use of local resources (genetic, animal, plant etc)		
• Impact on local community		
Dual Use		
• Research having direct military application		
• Research having the potential for terrorist abuse		
ICT Implants		
• Does the proposal involve clinical trials of ICT implants?		
I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL	x	