



**Request for Proposals**

# **Comprehensive Data Management Solution for the European College of Sport Science**

**Deadline: 15 April 2025**

# 1. Deadlines & Contact

Publication	<b>15 January 2025</b>
Email-Q&A deadline	<b>31 March 2025</b>
Proposal submission deadline	<b>15 April 2025</b>
Information of shortlisted providers	<b>31 May 2025</b>
Invitation to optionally attend ECSS	<b>1-4 July 2025</b>
Congress in Rimini, Italy	
Proposal presentation and meeting in Cologne, Germany	<b>August/September 2025</b>
Provider selection confirmation	<b>October/November 2025</b>
Provider transition period	<b>January to December 2026</b>
Provider take over	<b>January 2027</b>

The minimum contract term for the comprehensive systems with annually recurring services is **five years**.

## **Contact for Questions:**

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# 2. Introduction & Background

The European College of Sport Science (ECSS) is a non-profit association dedicated to advancing and disseminating multi- and interdisciplinary research in the fields of sport science, exercise, physical activity and health. Established in Nice, France, in 1995, the ECSS has become the foremost global community in sport science with around 2500 members, with its office being located in Cologne, Germany. Its core business is organising Europe's largest sport science Congress hosted in a different European city each year. The annual four-day in-person Congress attracts around 3000 international participants and is complemented by a parallel industry exhibition with over 40 exhibitors. The Congress serves a broad audience, including researchers, scientists, academics and industry professionals discussing cutting-edge scientific research. The programme features around 300 sessions in either oral or poster presentations, the majority of which take place across approximately 15 rooms hosting parallel sessions. In addition, the ECSS manages its own peer-reviewed *European Journal of Sport Science* (published by Wiley), organises several webinars throughout the year and provides ongoing support to its members.

The Request for Proposals (RFP) is issued to identify qualified providers of data management solutions for both the College and its Annual Congresses and the required

services for both pillars are closely intertwined. The ECSS business year is scheduled from August to July with the Congress being its peak held in early July of the respective year. Some services are required year-round, while others are limited to a certain time period, depending on the lifecycle of the Congress.

The objective of this RFP is to identify a reliable and experienced partner who can provide comprehensive data management services tailored to the needs of the ECSS, including a seamless transition from our current supplier to ensure continuity and data integrity. The selected provider will play a crucial role in supporting our mission by streamlining and enhancing our operations, ensuring long-term reliability, fostering a strategic partnership and supporting organisational growth. Through this RFP, we aim to engage a provider who not only demonstrates technical expertise and operational excellence but also aligns with our organisational values. As an example, a comprehensive, scalable and user-friendly platform is required that will enhance the management of the College - as well as support Congress-related processes such as membership administration, payment processes, scientific data management, streamlined registration and abstract submission processes, seamless communication among members and Congress participants and ensure the secure handling and sharing of data throughout the year.

### 3. Scope of Work

We are seeking a comprehensive data management solution to effectively manage the entire lifecycle of our Congresses and associated activities. The following outlines our service requirements and expectations for providers to propose data management solutions that align with our current (as well as future) needs. We strongly encourage potential partners to review the accompanying appendix for full and detailed descriptions of the required services as they are currently managed, to understand and address our needs best. We also welcome proposals that may not be able to cover the full scope of required services and encourage the submission of potential alternative solutions to address these gaps, where applicable. Suggestions for structural and/or technical improvements while maintaining performance are welcome.

- a. **ECSS Account & Database:** The individual ECSS account serves as the central link between our association and members and/or congress participants, managing all related processes. A centralised ECSS database holds all generated data, supporting administrative functions across various workflows.
- b. **Websites:** Hosting and ongoing maintenance for the following four websites: College, upcoming Congress, subsequent Congress and the *European Journal of Sport Science*.
- c. **Back Offices, Data Management & Analytics:** Administrative back office systems for both College- and Congress-related processes, including financial management, search engines and descriptive Congress statistics based on the ECSS database. Real-time analytic dashboards should track abstract submission statistics, event metrics and provide post-event reporting, including attendee participation and engagement, session

popularity and overall event success. Data export capabilities for further analysis and reporting are essential.

- d. **Proposal & Abstract Submissions & Review Systems:** A user-friendly system to manage abstract submissions, review processes and final acceptance or rejection decisions. The abstract submission system should allow customisation for integration with award and travel grant applications based on pre-set criteria. The reviewing system should be differentiable for different reviewer groups, with an administrative back office for oversight.
- e. **Congress Registration Management:** Streamlined registration for participants, including payment processing, participant tracking and integration with follow-up registrations and monitoring for social events and catering, once the Congress registration fee is paid.
- f. **Congress Programme Building:** Automated pre-compilation of abstracts into sessions based on topics, followed by manual coordination of session and presentation assignments and author notifications.
- g. **Chair Management System:** A gradually opening portal available within the ECSS account for pre-defined Congress participant groups to sign up as session chairs. It should include a monitoring tool and reminder functionality.
- h. **Presentation Upload System & Speakers Ready Room:** A system for individual file uploads of oral presentations or E-posters through the ECSS account. Files should be automatically saved to the ECSS database and server for retrieval during sessions at the Congress. The Speakers Ready Room is located on-site, technically staffed while supported by volunteers and used to manually upload oral presentations directly into the system which were not uploaded via the ECSS account beforehand.
- i. **Session Room Presentation System:** A centrally connected system with real-time access to retrieve uploaded presentations from the ECSS database (following a file upload in the ECSS account or the Speakers Ready Room) on laptops in each session room.
- j. **Congress App:** Integration of the Congress programme into an event application, with automated updates when the database source is changed. The app should allow participants to personalise their agendas and receive event notifications. It should also display exhibitors, speakers and Congress participants, etc. as well as allow for Q&As, polls, surveys and customisation options. Integration with social media platforms for event promotion and engagement is welcome.
- k. **Boarding Pass & Congress Check-In:** An automated system for issuing boarding passes (QR code) to Congress participants, which will be scanned during on-site check-in. The system should capture all registration details, including additional event registrations (social events, catering) and generate printed Congress badges and voucher.
- l. **Exhibitor Booking Platform:** A customisable platform connected to company accounts, allowing stand bookings and payment processing for stands and sponsorship items. Once confirmed, the respective exhibitor profiles should be automatically added on the online exhibitor list.

- m. **Communication & Collaboration Tools:** The system should support anonymous post-Congress surveys, issue year-round personalised newsletters and host webinars.
- n. **Data Security & Compliance:** The proposed solution must include data encryption and secure access protocols to protect sensitive personal information. Compliance with relevant data protection regulations (such as GDPR) is required.

The ECSS does not own the hardware necessary for the proposed (software) solutions. Additionally, a dedicated point of contact is required year-round to provide ongoing support and facilitate the implementation of technical processes. For the Congress, it is essential to ensure that technical staff are adequately allocated to set up, network and manage all systems, guaranteeing seamless operations throughout the entire event.

We request that your proposal includes a comprehensive overview of the hardware requirements and staff support, along with a breakdown of the associated costs for both year-round support and the on-site software solutions for the Congress.

## 4. Proposal Requirements

To ensure a comprehensive and fair evaluation, besides an executive summary and a detailed service solution overview for the above-mentioned criteria, the proposal should include the below elements. Please contact us if you require further information from our association in order to properly prepare your proposal.

### 4.1. Company Overview & Reference

Please share a brief overview of your company, including experience in providing data management solutions for large-scale (1500+ PAX) events. Please provide contact information for at least two references from clients who have used the proposed service solutions for similar events or congresses, particularly in the scientific or academic domain, if possible.

### 4.2. Technical Specifications

Please provide a detailed description of your software's features and capabilities including system architecture and platform specifications (e.g., cloud-based, on-premise) for the required services where applicable. Outline the scalability and flexibility of the solution, including any customisation options, considering our individualised concept and possible integration capabilities with third party tools or systems (e.g., CRM, marketing platforms, payment gateways).

### 4.3. Security & Compliance

Please provide information on the security features of the platform, including data encryption, backup protocols and user authentication methods. Outline your assurance of compliance with relevant data privacy and protection laws.

## 4.4. Implementation Plan

The transition from our current supplier is planned for 2026. Please propose a timeline for (software) implementation and deployment, including key milestones, deliverables and associated costs. Please mention if you can provide a training and support plan for College/Congress staff and participants and if user manuals and helpdesk resources are available. Outline details regarding ongoing technical support and maintenance pre- and post-event as well as during the event days.

## 4.5. Pricing & Licensing

Please provide a clear breakdown of pricing for software licensing, setup, customisation and any additional services (e.g., data migration, integration). Propose for the services that your company is able to support and identify any services that may not be supported, if applicable. Suggested alternative solutions for these services will be appreciated.

Outline optional add-ons or features with associated costs as well as general payment terms and conditions. Please indicate any other costs related to your proposed service solution that may apply but are not explicitly listed above. We appreciate your evaluation of the possibility of non-profit and package price reductions - please mention where applicable.

# 5. Evaluation Criteria

The evaluation of proposals will be based on the following criteria. Each proposal will be assessed for its alignment with the project objectives, technical capabilities, usability, cost-effectiveness and provider reliability. The evaluation process will consider the following key factors:

### a. Technical Capabilities

- *Functionality*: How well does the solution meet the specific needs of the College and the Congress based on the required and covered services?
- *Integration*: How well does the software integrate with third party systems (e.g., CRM, Email marketing platforms, website)?
- *Scalability*: Can the solution handle the scale of data expected for the Congress, both in terms of volume and complexity?
- *Data security and privacy*: Does the solution comply with relevant data protection regulations and industry best practices for securing sensitive participants data?
- *Customisability*: To what extent can the software be customised to fit the specific needs of the College and the Congress?

### b. Cost and Value for Money

- *Pricing model*: Does the provider offer a transparent and competitive pricing structure, including licensing fees, implementation and ongoing support costs? Are price reductions for non-profit organisations available?

- *Return on Investment:* Does the proposal demonstrate clear value in terms of time savings, enhanced participant experience and improved event management efficiency?
- c. User Experience**
- *Ease of use:* Is the interface intuitive and user-friendly for both event organisers and participants?
  - *Mobile accessibility:* Does the (software) solution offer mobile-friendly features for on-the-go access by participants and staff?
- d. Provider Experience and Reputation**
- *Event experience:* Has the provider previously provided data management solutions for congresses or large-scale events?
  - *References:* Does the provider offer relevant references or case studies demonstrating success in similar projects?
  - *Client support:* What level of customer support is provided during implementation, throughout the event and post-event? Does the provider offer training, onboarding and troubleshooting support?
- e. Implementation and Timeline**
- *Implementation plan:* Does the provider offer a clear and realistic implementation timeline, including milestones for deployment, testing and go-live?
  - *Time to onboard:* How long will it take to set up the system, train staff and get the software ready for use?
  - *Migration and data import:* How will the provider handle the migration of existing data (e.g., from past events, CRM systems), including risk mitigation?

## 6. Proposal Submission Guidelines

- **Format:** Proposals must be submitted in electronic form as a single .pdf-file and in English language with a maximum of **40 pages**. Please note that proposals will be judged on **clarity and relevance**, not length. Supplemental materials may be submitted in Excel or PowerPoint formats, if necessary.
- **Method:** Submit proposals via email to [thomas.giel@sport-science.org](mailto:thomas.giel@sport-science.org) with the subject line “RFP Data Management Response: [Your Company Name]”.
- **Deadline:** Submissions must be received by 30 April 2025 (CEST). Late submissions will not be considered.
- **Acknowledgment:** You will receive a confirmation of receipt email within 24 hours of submission. If not, please contact [office@sport-science.org](mailto:office@sport-science.org).

## 7. Terms & Conditions

This RFP document is provided for informational purposes only and is not an offer to enter into an agreement with any party. Instead, it is a request to receive proposals from companies interested in providing the services specified herein. The ECSS reserves the

right to reject any proposal, in whole or part and/or to enter into agreements to provide services with any party at its sole discretion.

The ECSS reserves the right to amend or withdraw the RFP at any time without notice. By responding to this RFP, the bidder acknowledges and agrees that the ECSS shall not be liable for any costs, damages, expenses or any other obligations incurred by the bidder as a result of responding to or participating in the RFP.

The governance of the ECSS is based on the principles outlined in the ECSS Charter and Bye-Laws, which define the association's name, registered seat and the structure of its governing boards.

## 8. Confidentiality Statement

Responses to this RFP are considered confidential and are intended solely for the review and consideration by the ECSS. No part of the submitted response, including information marked as confidential, will be disclosed to any third party without prior written consent from the bidder.



# Appendix

## Detailed descriptions of the required software and services

### 1. ECSS Account & ECSS Database

The ECSS account is the central connection point between the ECSS and its members, Congress participants, company representatives as well as companies/organisations, with links to all relevant ECSS database tables and should be structured as a role system. When creating an ECSS account, it should first be possible to select the category (individual person, company representative, company/organisation). For the first two categories, in addition to general information about the person, relevant details regarding scientific profile or company information are requested, which is stored in the central ECSS database.

The ECSS account for these two categories has an identical structure and is divided into four sections, each of which provides the relevant information and options:

1. Personal information (ID, name, membership status, E-mail address)
2. Affiliation (institution, profession, scientific field)
3. myMembership & Benefits (newsletter, account update, membership management)
4. myCongress (everything related to the Congress)

The account includes integrated payment processing (credit card and PayPal) for memberships, Congress fees, webinars and ticket sales for social events of the Congress. Payment confirmations and invoices are automatically available for download in the account once payment has been completed.

The account enables the submission of proposals and abstracts (see **Abstract Submission System**) and access to further booking and registration options (see **Registration System**) for the Congress catering and social events as well as **Webinars**. These different systems can be activated and deactivated as required by the admins for the users in the ECSS account.

The third account category includes general information about the relevant company/organisation, which is stored in a separate data sheet in the ECSS database. In addition, a company logo can be uploaded based on certain specifications. This account is linked to the **Exhibitor Booking Platform** and is ultimately used to manage and book services for the congress-internal industry exhibition (SportEx).

### 2. Websites

All websites listed below must be hosted and kept up to date with regard to technical components. If necessary, content changes must also be implemented in accordance with the specifications of the ECSS Office.

- a. *Congress website*: The static Congress website is installed with all available technical functions. Initially, it will primarily contain static text articles, but will be continuously updated and expanded with static and dynamic content (e.g. individual sessions of the scientific programme including biographies and abstracts of the speakers and session rooms (see **Programme Overview & SB Chair Back Office**), as well as exhibitor list) as soon as new information is available from the ECSS Office. An essential component is also the integration of filter functions in the scientific programme. Here it should be possible to search for authors, titles, key words, rooms, etc.
- b. *College website*: Website with all available technical functions and contains primarily static text articles with occasional adjustments or updates.
- c. *EJSS website*: Website with all available technical functions and contains primarily static text articles with infrequent adjustments or updates.

Ensuring website functionality on all mobile devices, accessibility and the implementation of search engine optimisation strategies (SEO optimisation) is required as well.

### 3. Proposal Submission System & Administration

Multi-stage and time-limited online system for submitting proposals for the so-called invited programme via individual ECSS accounts (submission is only possible for members). Includes an input mask with partially automatically filled-in fields from the ECSS account, drop-down menus, free text input and document uploads. A format check and categorisation of the content with regard to editing and visibility rights as well as links to other systems (**Programme Overview & SB Chair Back Office**, etc.) take place in the background. After the submission deadline, the content is released for review in selected ECSS accounts (Scientific Board Member), including a simple evaluation system.

Internally, the submissions can be viewed via a separate monitoring tool.

On request, a demonstration video of the current process solution can be made available for better understanding.

### 4. Congress Pre-Database

This database stores all the information of the submitted proposals:

- Session description
- Speaker information including contact details, institution, CV, profile picture
- Individual title and abstract of the speaker
- (Assignment of day, time and room of the session/presentation - after placement, see **Programme Building & Notification to Authors**)

This content is dynamically integrated into the Congress website so that changes in the database are automatically updated on the website.

## 5. Invitation Letter for Plenary & Invited Speakers & Chairs

Personalised invitation letters are sent to around 110 people with individual role assignments, as well as the title, date, time and room of the session and information on commitments and concessions. The session information is generated dynamically from the **Congress Pre-Database**.

## 6. Volunteer Administration

Around 80 volunteers support the final Congress organisation in almost every area. The general (ECSS Office) and technically relevant (data management providers) tasks will be explained in person in a short training session onsite (approx. 60 minutes, usually on Monday of the Congress week).

Technical support:

- **Speakers Ready Room:** introduction to the **Session Room Presentation System**, procedure for uploading speaker presentations and assigning them to the system, procedures in case of technical difficulties or format problems (see also **Speakers Ready Room Software**).
- **Session rooms:** Check in the presentation system whether all presentations for the current session have been uploaded and prepared correctly. Change of individual presentations, Q&A support with microphones, support in the event of technical problems (see also **Session Room Presentation System**).

After the Congress, each volunteer can download an automatically generated, official certificate of participation and involvement in the Congress from their individual ECSS account.

## 7. Abstract Submission System

A system that is linked to the central ECSS database and other systems (e.g. **Reviewing System & SB Chair Back Office** and **ECSS Account & ECSS Database**) to allow automatic processes in the background.

It is a multi-step online platform that is used for a limited time to submit abstracts via the ECSS Account. The system includes input masks with partially automatically filled data generated from the ECSS account database and prerequisite checks for participation in award competitions and travel grants, free text input, drop-down menus and upload functions. Due to the variable submission requirements, the abstracts are assigned to different categories (access rights, possibly different abstract entry masks, etc.) before the submission can be finalised and each abstract is automatically recorded in the database. A monitoring tool runs in the background, which records the submissions per day and week.

The abstract submission includes the application for several awards and travel grants, for which the aforementioned prerequisite checks in the database and document uploads are required during the submission process.

After successful abstract submission, users receive an automatic email confirmation and can check the status of the submission and their potential applications in the ECSS account itself. Any missing documents or necessary corrections are also noted here.

In the background, the submitted abstracts are automatically assigned to the ECSS accounts of a selected group of people (reviewing panel members) based on the 5 general fields and 20 subtopics of the Congress. These persons have access to the reviewing system via their ECSS accounts, which lists the abstracts assigned to them and includes a simple evaluation system (see also **Reviewing System & SB Chair Back Office**).

On request, a demonstration video of the current process solution can be made available for better understanding.

## 8. Abstract Authors Line

When submitting abstracts, the correct entry of author names must be guaranteed so that they are displayed correctly in the scientific programme and in the Book of Abstracts according to a specific format (e.g. Max Mustermann becomes Mustermann, M.). The challenge is the international participation in the Congress and the diverse name structures. At the same time, the scientific accuracy of the presentation is crucial in order to ensure a search in the Book of Abstracts and the citation eligibility of the scientist (see **Book of Abstracts**). It may be necessary to manually check and standardise the list of authors.

Below are a few fictional examples of names as they are submitted and must subsequently be corrected to:

- Example 1: Patrick J.E. Anderson → Anderson, P.J.E. (*awareness of further initials*)
- Example 2: Prof. John Philips → Philips, J. (*exclusion of titles*)
- Example 3: Bin Mei Yang → Yang, B.M. (*Asian countries often do not differentiate between first and last name*)

## 9. Reviewing System & SB Chair Back Office

Once an individual abstract has been successfully submitted via the ECSS account, the system recognises which reviewer is responsible for the thematic review by specifying the general field and subtopic and sorts the abstracts according to a role system.

Each reviewer has access to a reviewer platform embedded in the ECSS account, via which the abstracts assigned to them are available. The evaluation includes a simple rating system from 1-5, a presentation format recommendation as a drop-down menu and a comment function, which are stored in the system.

The Chair of the Scientific Board has admin access to a higher-level back office. The entire reviewing process can be monitored via this back office. The chair can view evaluations and track the progress of individual reviewers. This system is also used for the **Proposal Submission System & Administration**.

During the official programme building of the Congress, the individual abstracts are assigned in groups to superordinate sessions, which in turn are assigned to a day, a time and a room (see also **Programme Overview & SB Chair Back Office** and **Programme Building & Notification to Authors**).

On request, a demonstration video of the current process can be made available for better understanding.

### **10. ECSS YIA Reviewing System & Scientific Board Administration**

The Back Office of the Chair of the Scientific Board also includes a separate reviewing system for the ECSS Young Investigators Award (YIA), as individuals/abstracts applying for participation in this award are evaluated in a differentiated manner via a role system. It also coordinates the group of approximately 20 ECSS YIA reviewers.

If an abstract is submitted for participation in the ECSS YIA, the relevant requirements and uploaded documents are checked for completeness and correctness by the ECSS Office using a separate monitoring tool. If the requirements are not met, the award application will be rejected and the abstract will be released into the normal reviewing process (**Reviewing System & SB Chair Back Office**) and automatically assigned. If the requirements are met, the abstract will be released to the back office of the Chair of the Scientific Board.

From there, the chair has the option of manually assigning the abstracts to the approx. 20 YIA reviewers (Scientific Board), taking into account their scientific expertise (note: access to the abstracts from the reviewers via the ECSS account does not change, but the evaluation system is slightly modified and there are two reviewers per ECSS YIA abstract instead of just one reviewer). The back office offers real-time insights into the individual progress of the evaluations, including reports on the ratings and comments submitted by the reviewers. Finally, there is an overview of all submitted abstracts and their ranking based on the average of both reviewers' ratings per abstract.

### **11. GSSI Sports Nutrition Award Evaluation & Administration**

The GSSI Sports Nutrition Award is open to applications from people who submit an abstract on the topic of 'Nutrition', among other requirements. This application and the relevant prerequisite checks are also integrated into the submission process.

After internal ECSS review via the reviewing system, the GSSI Award abstracts are made available to three additional external reviewers via the ECSS account so that a further review can be carried out using a slightly modified rating scale.

### **12. Registration System**

The registration system is embedded in the ECSS account and reflects the individual payment of the Congress fee in the first instance, with further registration options available in separate booking portals for the Congress after successful payment in the second instance:

- Booking of the **Congress lunch** with presentation of options and allergens as a drop-down menu (excluding payment; linked to internally used monitoring tools via individual bookings on the one hand and a summarised overview of the selected options per day on the other). The selected dishes are printed out in the form of vouchers at check-in on site (see **Congress Check In System**).
- Participation in the **charity run** (including mandatory payment of a minimum donation amount; linked to an internally used monitoring tool that shows the individual registrations with donation amount and details of the selected T-shirt size, selectable during the registration process for the charity run).
- Participation in the **Congress party** (including payment if applicable; linked to an internally used monitoring tool via the registrations).

### 13. Payment System

The payment system is an external application from a credit card company that processes transactions securely and in encrypted form and reports the information about the successful payment directly back to the database. It is set up as a product list with a shopping basket to cover the various application areas of payment transactions and can be activated and deactivated by the administrator as required. Payment options are credit card and PayPal. The system is embedded in the ECSS account so that each payment can be automatically saved in the database and assigned to the relevant persons and the user has immediate access to the services paid for. Areas of application of the payment system are:

- **Members:** People can start their ECSS membership by paying the annual fee for the first time. Two-factor authentication is used to agree to an automatic annual account debit at the beginning of the year for the membership fee, unless active cancellation has been made in the ECSS account by a defined deadline. After successful payment, the membership status is automatically updated in the ECSS account and entered in the ECSS database. Discounted Congress fees, for example, are linked to this. The invoice is generated automatically and can be downloaded from the ECSS account.
- **Congress fee:** The amount of the Congress fee differs between a reduced price for members and students and the regular price for non-members. For paid accounts, additional congress registration options can be activated (see **Registration System**). Payment of the fee will be noted as status in the ECSS account and the invoice will be generated automatically and can be downloaded from the ECSS account.
- **Donation related to the ‘Bengt Saltin Run’:** By paying a minimum donation amount (variable upwards), the registration for the charity run is processed. The payment and thus the participation is confirmed as a status in the ECSS account. The invoice is generated automatically and can be downloaded from the ECSS account.

- **Webinars:** Webinars are accessible to members free of charge via the ECSS account, non-members must pay a participation fee and register for a webinar. Successful registration is automatically saved in the system and activates access to the webinar in the ECSS account. The invoice is generated automatically and can be downloaded from the ECSS account (see **Webinar**).
- **Exhibitor Booking Platform:** Exhibitors can pay for their booked services online directly in their company/organisation account (see **ECSS Account & ECSS Database** and **Exhibitor Booking Platform**).

#### 14. Online Settlement

The Online Settlement is linked to the payment system and the ECSS database and provides a tabular overview of all Congress fees paid in real time. Included is information on the ECSS account ID, the payment method, the gross amount paid and the payment date. Bank transfers can be entered manually via the ECSS database for the respective member. At the end of the table is a total of the congress fees received.

#### 15. Back Office

The Back Office is used for both membership and Congress management and retrieves its content from the ECSS database. It includes a search engine with filter options for fields that must be entered when creating the account (country of origin, membership status, title, gender, profession, general field, scientific field, payment status and year, ECSS account ID, surname, E-mail address) as well as the abstract ID (which is generated individually and automatically upon submission).

The membership administration also offers pre-structured overviews of membership numbers sorted by country, age group, profession, general field and scientific field as well as a call-up of the membership fees paid, presented in tabular form by ECSS account ID, fee, date and time, membership category, year of birth and gender per calendar year, which can be called up in real time.

Congress management provides an overview of the number of people per registration category and is linked to the congress statistics (see **Congress Statistics**), the **Online Settlement** and other Congress-related monitoring tools (catering, charity run, congress party, etc.).

#### 16. Congress Statistics

The Congress statistics provide a detailed overview of the descriptive and demographic background of the submitted abstracts and total registered persons. This includes analyses of the Congress participant structure, including distribution by category (regular participants, students, members, exhibitors, etc.), country representation, profession, general field, abstract topic, etc.

#### 17. Programme Overview & SB Chair Back Office

The Programme Overview is an internal tabular representation of the approximately 240 sessions and the associated details (chairs, speakers, abstracts, etc.) of the four-day scientific programme, sorted by day, time and room in chronological order. This internal presentation reflects the session placement and management of the Scientific Board Chair from the Back Office. Short-term changes can be flexibly adapted in the back office and are automatically updated in the display.

This session placement also provides the basis for the dynamic integration and presentation of the programme on the congress website (see **Websites**).

### **18. Session Builder**

For all submitted and accepted abstracts, the Session Builder compares the presentation format requested by the author with the presentation format confirmed by the reviewer. The abstracts can also be filtered according to the 20 topics and the presentation category (invited, oral, poster, YIA (oral and poster), E-poster).

### **19. Programme Building based on Mathematics (Pre-Session)**

The individual abstracts are automatically compiled into so-called pre-sessions on the basis of the evaluations of the reviewers on which this system is based and taking into account the respective categories (general field, sub-topic, evaluation, etc.). These are used as the basis for the finalisation of the scientific programme during programme building (see **Programme Building & Notification to Authors**).

### **20. Programme Building & Notification to Authors**

Towards the end of March, after completion of the review process and with the help of the pre-sessions, the individual abstracts are assigned to thematically superordinate sessions by around 12 people. These sessions will in turn be assigned to one of the Congress days, a room and a time. After completion of the programme, the individual presentation information (session title, date, time, room) is made visible in the individual ECSS accounts and a personalised E-mail with all relevant information is sent to the authors.

Note: This is usually an in-person meeting with appropriate technical support, as it requires a lot of exchange and discussion.

### **21. Congress App**

The Congress app reflects the entire scientific programme, offers individual exhibitor profiles, floor plans of the exhibition and the Congress rooms/halls, offers sponsor options, chat and survey options, gamification if necessary, push notifications, linking options to social media, etc. Due to the complex programme structure and the presentation of several thousand abstracts and speaker profiles, the performance requirements for the app are very high. The information should be linked to the abstract database to avoid manual data entry of the scientific programme and to enable automatic updates when the source in the database is adjusted.



## 22. Book of Abstracts

After finalisation of the scientific programme and before the start of the Congress, the Book of Abstracts (the official, citable, scientific reference work of the Congress; approx. 1000 pages) will be produced as a digital PDF document. The ISBN number will be provided by the ECSS. The structure is organised according to presentation format and chronologically according to the Congress days, time, sessions and rooms through to the individual abstracts. The author index is generated by entering the author names when submitting abstracts and saving them in the database (see **Abstract Authors Line**). The Book of Abstracts is available for download in the ECSS accounts and will also be published on the College website after the Congress.

## 23. E-poster & Oral Presentation Upload System & Monitoring

For the presentation formats Oral (.ppt, .pptx, .pdf) and E-poster (.pdf) an upload function will be activated in the ECSS accounts. For oral presenters it is optional, as they can alternatively go to the Speakers Ready Room (see **Speakers Ready Room Software**) onsite to upload their presentation to the server. For E-posters, the upload is mandatory so that it can be displayed at the Congress.

The uploaded files are checked by the system for technical specifications (file format, size, etc.). If these do not match the specifications, the upload will fail and must be re-uploaded after adjustment. The file name of the uploaded document is overwritten with the ECSS account ID of the submitting person. Accepted E-posters will automatically be added to the Congress programme and the PDF document of the E-poster will be available in addition to the abstract on the Congress website of the scientific programme.

Onsite, 5 screens of about 50 inches with 5 laptops will be needed to allow real-time access to all uploaded E-posters via a dedicated search engine. This system should only allow access to the E-posters and no access to other internet resources.

## 24. Chair Management System (CMS)

Two chairs are required per oral and poster session. The CMS will be activated in stages for three different groups of Congress participants (1. invited speakers, 2. professors, 3. PhDs) in the ECSS account. Based on the session title, date, time and room, they can select a predefined maximum number per presentation format and register as a chair, which is automatically transferred to the ECSS database and updates the chair display of the respective session on the website accordingly. As soon as two people have registered as chairs for a session, it is no longer displayed in the selection. The selected sessions, together with the corresponding abstracts, are in turn stored in the individual ECSS accounts of the chairs for preparation and can be accessed.

The CMS is linked to a monitoring tool that can filter according to the three groups of people and shows for which session no, only one or already two chairs have been entered, including the chair names and ECSS account IDs. People can also be manually assigned to a session as a chair.

An advantage is a reminder function that sends an automatic reminder to the selected group of people (those who have not yet made a selection) to register as a chair at the touch of a button.

## 25. Boarding Pass

A few days before the start of the Congress, each participant will receive an E-mail with a link to a PDF document with a personalised barcode; the boarding pass. The document is also stored in the ECSS account. The boarding pass is generated by special software so that the scanned barcode is linked to the individual data and associated bookings of the Congress participant (registration category, membership status, additionally booked events such as the charity run, party and congress catering, see **Registration System**). The barcode is scanned at check-in onsite (see **Congress Check In System**).

## 26. Congress Check In System

There are around five staffed check-in counters onsite, complete with laptop, printer and barcode scanner. The participants show their boarding pass and the barcode is scanned (see **Boarding Pass**). The registration software retrieves the participants' data and the predefined print fields on a perforated A4 sheet of paper are automatically filled in and printed with the participant details for the congress badge and the additional services booked (tickets and vouchers).

*Note: Alternative solutions for a paper-free and personnel-efficient variant, but without losing the other individual ticket information, are welcome (e.g. activation of tickets and vouchers via the congress app, if possible).*

A sixth counter will be used for onsite troubleshooting and registrations and will be supervised by a person who is well versed in the details of Congress registration and will support participants with problems such as outstanding payments, missing documents or other technical problems.

## 27. Official Congress Certificates

In addition to proof of invoicing (see **Payment System**), other automatically generated Congress-related documents can be retrieved in the ECSS account:

- **Letter of Acceptance:** As soon as the submitted abstract has been accepted for the scientific programme, the Letter of Acceptance will be made available in the ECSS account with the official E-mail confirmation to the author. It includes details about the ECSS and the relevant Congress, personal information and the submitted abstract.
- **Letter of Attendance:** As soon as a participant has been checked in onsite, the Letter of Attendance will be made available in the ECSS account. This includes details about the ECSS and the relevant Congress as well as personal information.
- **Confirmation of Presentation:** If authors have also checked in onsite, the confirmation of presentation will be made available in the ECSS account. It includes details about the ECSS and the relevant Congress, information about the person and the presentation.

## 28. Session Room Presentation System

The presentation system is installed on the laptop in each of the 15 session rooms and connected to the internal network. All presentations that have been uploaded to the corresponding sessions in the Speakers Ready Room (see **Speakers Ready Room Software**) can be searched for and selected via a simple user interface. The software displays a chronological list of authors within the session and recognises whether all presentations have been successfully uploaded. If a presentation is missing, the corresponding speaker is highlighted in colour (or similar).

We are currently working with a stationary server and VLAN connections. If a cloud solution is proposed, please present a contingency plan in case the internet fails.

## 29. Speakers Ready Room Software

Authors of oral presentations who have not yet uploaded their presentation via their ECSS account must do so onsite in the Speakers Ready Room. Volunteers support the technical onsite team and help the authors with the upload (see **Volunteer Administration**). The system allows a simple folder structure sorted by date, room, time and session title to save the presentation correctly. A test checks the file format (.ppt, .pptx, .pdf) and compatibility with the presentation system. A status display confirms the successful upload or notifies you in the event of problems.

## 30. Exhibitor Booking Platform

The exhibitor booking platform is integrated into the company/organisation account (see **ECSS Account & ECSS Database**) and is primarily used to manage and book sponsorship opportunities and stand space for the upcoming trade fair. The account administrator can select the desired services, add them to their shopping basket and finalise their booking online via the payment system (see **Registration System**). An automatic booking confirmation is sent to the customer and to the ECSS office to prepare the invoice. There is an administrator tool in the background that allows the services offered in the Exhibitor Booking Platform to be modified. Sold stand spaces are noted by the respective company/organisation in the separate exhibitor data sheet in the ECSS database and shown as sold in the platform in real time. As soon as receipt of payment has been confirmed manually, the exhibitor profile can be activated for the online exhibitor list based on the details of the company/organisation account.

## 31. Congress Questionnaire

At the end of the Congress, we ask our participants to complete a feedback questionnaire. This largely comprises questions with a scale response as well as some socio-demographic background information and open questions. The questionnaire should be anonymised and the data should be exportable for further analysis.

## 32. Abstract Transfer and ECSS Congress Abstract Database

After the Congress, each abstract is converted into a single PDF, transferred to a separate database and archived. This database contains only the Congress history, i.e. all abstracts since the first Congress in 1996 and forms the basis for accessing the ECSS Congress Abstract Database (CAD). The CAD is a search engine that can be filtered by Congress, topic, country, presentation format, author or keyword. The existing data must be transferred and the implementation of future Congress data must be easy to implement.

### **33. Newsletter**

According to the content specifications of the ECSS office, around 70 personalised newsletters are sent by E-mail to various addressee groups in a financial year (July-June). These addressee groups are defined via the ECSS database and contain, among other things, individual links that take recipients directly to their personal ECSS accounts, for example, without the need to log in again. A dispatch log and statistics on opening and click rates are created in the background. This is a mass mailing of several thousand recipients per newsletter. Around 500,000 individual newsletters are sent out over the course of the year.

### **34. Webinars**

Around four to six webinars are organised throughout the year. Access is implemented in the ECSS accounts and redirects users to an overview of all webinars from previous years. Past webinars can be accessed by ECSS members free of charge. Future webinars can be accessed in order to register for them. Participation is free for ECSS members, external users must pay a fee when registering (see **Payment System**). The meeting links for listeners and speakers can be provided by the ECSS. The system must be set up so that participants can dial in 15 minutes before the start of the webinar via the webinar platform. The webinar is recorded and saved on the server so that all registered persons and all ECSS members can view the recording afterwards.