



World Sailing

Invitation to Tender

**Competition Technology for World Sailing
competitions 2022-2025**

Version: 3 May 2022

Introduction

World Sailing is the world governing body for the sport of sailing, officially recognised by the International Olympic Committee (IOC).

World Sailing is responsible for:

- the promotion of the sport internationally;
- managing sailing at the Olympic and Paralympic Games;
- developing the Racing Rules of Sailing and regulations for all sailing competitions;
- the training of judges, umpires and other administrators;
- the development of the sport around the world; and
- representing the sailors in all matters concerning the sport.

The principal members of World Sailing are the 'Member National Authorities' (MNAs) and the 'Class Associations'.

We have a clear and ambitious vision:

A world in which millions more people fall in love with sailing; inspired by the unique relationship between sport, technology and the forces of nature, we all work to protect the waters of the world.

Our mission:

To make sailing more exciting, inclusive and accessible for everyone to participate or watch, and use our reach and influence to create a sustainable future for our sport and the waters of the world.

Our journey:

The outbreak of COVID-19 and the resulting global pandemic has seen World Sailing accelerate its move to providing more services, products and access digitally than ever before. 2022 will build on this effort to invigorate and grow the sport, developing a more contemporary face and distinctive voice for sailing and inspiring greater participation across the globe.

Throughout this Olympic cycle, we will change the face of the sport, reaching out to new audiences and opening up a dynamic, new conversation with members, sailors, partners and fans.

This is a new era for World Sailing and the sport, and we are upping the ante; our competition technology services need to reflect this.

The opportunity:

World Sailing invites interested parties to tender for the delivery of Competition Technology services at World Sailing competitions from 2022 to 2025.

This document is intended to guide tenderers wishing to submit proposals to supply competition technology services to World Sailing. It is an outline specification of

minimum requirements for both the technology solution and the delivery of the services at World Sailing competitions.

Competition technology forms part of World Sailing's wider technology strategy as lead by our Vision. The complete suite of competition technology services provide a turnkey solution for all of World Sailing's competition stakeholders – sailors, broadcasters, MNAs, Classes, Organising Committees and spectators – to achieve our Mission.

World Sailing has grouped Competition Technology into the following services:

- Qualification, entry, and registration
- Results, jury, race office and notice board
- Tracking and visual display
- Weather observation and display
- Race Management tools and scoreboards
- Data Analytics
- Digital Officiating – electronic and video
- Broadcast and scoreboard graphics
- Commentator and information systems

The competitions are targeted for Competition Technology services:

The Sailing World Championships and test event:

The Sailing World Championships is held every four years and is the largest gathering of Olympic class sailors. At the 2018 edition in Aarhus, Denmark, more than 1,100 sailors from 84 nations attended with hundreds of thousands of spectators taking to the promenade and spectator dune.

The Hague 2023 is the first and most significant qualification event for the Paris 2024 Olympic Sailing Competition, with 40% of the national quota places available across the ten Olympic events.

The Hague 2023 will also see Para World Sailing Events introduced into the championships for the first time.

Youth Sailing World Championships:

The Youth Worlds was first held in Sweden in 1971. The 2022 Allianz Youth Sailing World Championships in The Hague, Netherlands will be the 51st edition of the championship and will feature 450 sailors from 69 countries in 11 events.

The annual championship attracts only the best youth sailors from around the world and competition is notoriously tough as competitors are selected by their Member National Authority (MNA) from a host of eligible sailors within each nation.

Paris 2024 Olympic Qualifiers:

The Olympic Qualifiers are anticipated to consist of 6 continental qualifiers held across 2023 and 2024, and the last chance regatta held in 2024. All ten Olympic events are expected to be part of each qualifier and be conducted across a week.

World Cup Series and Finals

Launched in 2008, the World Cup Series is the annual circuit of Olympic sailing for elite and professional sailors. The series consists of multiple rounds (typically 3 to 4), and often a final - usually held in the country hosting the upcoming Olympic Games. The ten

Olympic events will be contested at each round of the World Cup Series, with the addition of Paralympic events where possible.

The current plans for this agreement include competitions in United States of America, Spain, Netherlands and negotiations are ongoing with France and Germany.

Para Competitions

Para sailing competitions will include Para World Championships for each class identified as para equipment, in the years in which the event is not included in the Sailing World Championship, Youth/U25 and Intellectual Disabilities events.

The Para sailing World Championship attract the best sailors in each event and are often run in combination with the Open class events guaranteeing participation of a greater number of athletes and becoming a showcase of inclusivity (in terms of physical abilities and gender participation) in sport that has no equal in any other sport.

The opportunity:

Presenting the sport of sailing

World Sailing has a clear vision for the future. To achieve this vision, World Sailing must:

- Stand out in a crowded marketplace of sport and entertainment
- Focus on what makes our sport unique compared to all others: sailing has a special relationship with technology, and this needs to be embraced
- Enable people of all nationalities, ages and backgrounds to become part of our global family
- Use our collective influence to promote an agenda of sustainability and deliver a positive impact on the health of the oceans and water on our planet

Therefore, World Sailing want to work in partnership with selected partners to set a new technology standard in the sport, bringing the world of sailing to life in more effective, fresh, engaging and dynamic ways.

A new vision for competition technology

World Sailing has the unique opportunity to set the global standard for competition technology services of Olympic and para class sailing and wants to harness this opportunity to achieve key objectives and respond to key challenges:

- Set the global standard, demonstrating how best to deliver Olympic and para class sailing, benchmarking against best-in-class standards set by other high-performance sports categories.
- Increase service levels and consistency across the breadth of our sport on all continents, including for the Games.
- Respond to the changing user behaviour, audience expectations, content consumption landscape - evolving viewer habits of youth (using their own mobile device) and changing trends in content consumption (personalised notifications and relevant content experience) – and digital opportunities.
- Add value to sailor and race official biographies and historical performance with increased data accuracy and WS database completeness through the improved use of XRR, calendar and ranking features.
- Effectively harness data to create insight-driven content and better engage audiences to provide optimal value and impact to broadcast, sport presentation and video activity.

In addition to World Sailing's vision to improve services to the sport of sailing as a whole, competition technology has key goals to:

- Reduce requirements for organising committees and race officials to deliver the sport
- Reduce the required competition operating resources and costs
- Minimise manual processes and replace them with automating services wherever possible

Project

Assume the role of World Sailing's competition technology service partner for the period 2022 to 2025 inclusive, as detailed below.

A partner must be able to provide at least one of the following deliverables:

- A qualification, entry and registration system integrated with World Sailing's payment and accounting systems as outlined in Appendix 1
- An integrated, online results, jury, race office and notice board solution as outlined in Appendix 2
- A suitably precise tracking solution with engaging online visual display as outlined in Appendix 3
- A solution to integrate and display online, live FOP weather observations from the providers own and third party devices as outlined in Appendix 4
- Race management tools for users own devices and start vessel scoreboards as outlined in Appendix 5
- A video adjudication solution for Digital Officiating as outlined in Appendix 6
- An electronic adjudication solution from the tracking data for Digital Officiating as outlined in Appendix 3
- Broadcast and videoboard graphics for live production and highlights as outlined in Appendix 7
- A live multi language online commentator and information system to support live broadcast and sport presentation as outlined in Appendix 8

All partners must meet the Data Management requirements set out in Appendix 10.

The table below gives an indication of the competitions that each service will be required. The final scope of each competition will be agreed with each partner at the contract stage.

Service	Sailing Worlds	Youth Worlds*	World Cups#	World Cup Final#	Para Regattas	Continental Qualifiers	Last Chance Regatta
Entries	M	M	O	O	O	M	M
Results	M	M	O	O	M	M	M
Tracking	M	M	O	O	M	M	M
Weather	M	O	O	O	O	O	M
Race Management	M	O	O	O	O	O	M
Analytics	M	O	O	O	O	M	M
Digital Officiating	M					M	M
Graphics	M	O	O	O		O	M
Commentator System	M					O	O

M = mandatory; O = option, * = from 2023 onwards, # = from 2024 onwards

Further competitions, such as class world championships and regional competitions maybe added by mutual agreement between World Sailing and the partner.

World Sailing explicitly makes no promise or offer of Olympic engagement as this is beyond our remit however it is our strong desire to provide consistent and proven services for all stakeholders at all pinnacle sailing competitions.

World Sailing's competition technology service partners will be introduced to the relevant stakeholders and organisers of the Olympic Sailing Competition with a recommendation from World Sailing to provide their services for the test events and Games.

Appendix 11 outlines the current data analytics services provided to World Sailing that competition technology service partners are required to integrate with and support.

Appendix 12 is the contractor and supplier sustainability questionnaire. A soft copy of the questionnaire is available on request for ease of completion.

Appendix 13 contains general information relating to the tender process and offers explanations for some terminology as used in the sailing context.

Proposal Content

In submitting a tender, please include the following information. Please also read the Appendices in detail as some additional requests for information are included here.

1. Company information for each entity involved in the tender
 - a) Name of company;
 - b) Company business address
 - c) Contact details of the person(s) responsible for the Proposal
2. Personnel
 - a) The partner's team must include, at a minimum, experienced personnel for the roles of overall project manager, on venue service manager, integration manager and development manager.
 - b) The team needs to include an appointed coordinator to collaborate with the local organising committee and any host broadcaster.
 - c) Please list the categories in which you will be supplying staff, the names of nominated key personnel and the numbers of staff in each category who would be responsible for performance of any agreement.
 - d) Please include an organisational structure for all competition service personnel on location and off-location.
 - e) Please include a basic timeline detailing responsibilities and actions for these key personnel for a sample competition.
 - f) Provide detail of associated costs to adequately provide for all competition service personnel on location.
 - g) Please detail number of Local Host appointed volunteers, who can act as assistants, operators or technicians, required for the duration of a competition.
 - h) A detailed description of past service provision where the organisation has been involved in regard to previous sailing events and major sporting championships.

Please note that key personnel stated need to be contracted to perform the stated service. World Sailing retains the right to review the awarding of the contract if a change in personnel is deemed, at our discretion, to jeopardise delivery.

Companies may make or be a party to multiple tenders.

3. Financial Proposal

The financial proposal must be set out as a budget, clearly identifying costs against all items included, addressing the requirements in the Appendices. Where costs are depended on a competition specific variable (e.g. duration, entries, race areas, etc), the cost per unit variable should be stated.

Some services and facilities will be provided by World Sailing and the Local Host of the competition. Where there is an opportunity for World Sailing or the Local Host to provide a product or service (e.g. accommodation, shipping, transfer, transport, etc) these costs should be identified and listed separately in the budget.

All tenderers should understand that the budget is fully inclusive of all associated costs and must cover in particular all preparation, service delivery and maintenance costs

including all pre- and post- event production work and all travel, accommodation and associated costs.

Please indicated what upgrades and change requests are included in the budget and when they can be utilised during the term. All tenderers are required to clearly state the methodology for costing change requests.

A company or companies tendering for more than one service shall clearly separate the financial proposal for each service included in the tender.

4. Insurance / Health and Safety

World Sailing's Competition Technology partners are to be solely responsible for the welfare of their personnel and any sickness or injury (to the maximum permitted extent). Damage caused by personnel, contractors, software or equipment is your responsibility so suitable insurance should be arranged.

Illustrate that adequate Insurance, Risk Assessments and Method Statements are in place and adhered to with regard to all equipment, software, suppliers and staff associated with the assignment.

5. Service Deliverables

Minimum requirements for the Service Deliverables are set out in the Appendices. All proposals must indicate how these requirements will be fulfilled. A company or companies tendering for more than one service shall clearly state how each service's requirements will be fulfilled separately and by which company.

Please provide integration and on venue plans including the time required to install and uninstall onsite equipment.

- a) Please indicate equipment/techniques you would use to automate or enhance the attractiveness of the service.
- b) Demonstrate the time and resources required to manage the service for the term.
- c) Provide detail any vessel or athlete boat requirements to deliver the service.
- d) Detail the space and facilities required to deliver the onsite service. Please outline what activities, if any, will be performed from a remote location and where that location is.
- e) Please list network or connectivity facilities required to integrate the service with the partners on venue.
- f) Please list internet and mobile network facilities, and power supply required at the competition venue to deliver the service.
- g) World Sailing welcomes proposals that include a service a user can access on their mobile device via an app in addition to a website.
- h) Detail the resources required to transport all equipment to and from the competition venue, storage, and overnight security.
- i) Detail the Quality Assurance and testing plans to ensure general service suitability and readiness as well as competition specific integration user acceptance tests.
- j) Detail the methodology for managing, approving and deploying change requests.
- k) World Sailing welcomes any initiatives which must be fully costed beyond the minimum requirements set out in the Appendices.

6. Sustainability Strategy

Bidders should make themselves aware of World Sailing's Sustainability Agenda 2030 as this is central to all our activities.

The key objectives of this strategy are:

- a) Protect and enhance sailing's waters and the wider water environment.
- b) Promote research into the impact of sailing on the environment.
- c) Encourage a robust approach to sustainability across the sport and its supporting affiliated industries.
- d) Minimise World Sailing's carbon footprint and promote resource efficiency across the sport.
- e) Create a sound economic base for World Sailing and the sport.
- f) Provide and promote safe and collaborative working environments.
- g) Develop diverse and inclusive operations, promote sailing in an open and accessible way to increase participation.
- h) Communicate the benefits and importance of sustainability and facilitate stakeholder engagement in delivery of this strategy.

Capturing the full benefit of technology and particularly digital services should be a core part of the tender as part of delivering World Sailing's sustainability objectives.

Proposals that enable a safe, fair and reliable competition that is paperless and enables users to interact with the service on their own devices will be viewed favourably.

To deliver sustainability and legacy requirements in line with World Sailing's Agenda 2030, the tenderer should ensure that sustainability considerations and requirements are integrated into each stage of the service delivery process for all supply, rental and licensing deals, with mechanisms in place to ensure the requirements are effectively met. This includes any tendering process that will be executed by the supply chain of a World Sailing supplier.

The following shall be included by the supplier:

- a) Completion of the World Sailing Contractor and Suppliers Questionnaire (Appendix 12)
- b) An outline of how sustainability will be delivered as part of your service. Please include answers to these key questions:
 - Where does it come from, who made it?
 - Carbon impact (embodied carbon, transport and logistics of equipment and personnel, energy use and draw of equipment and IT systems, etc)
 - Adherence to ethical labour practices through your supply chain for example Modern Slavery Act
 - What is it made of?
 - Carbon impact
 - Use of recycled content
 - Materials to avoid for example compliance with EU Reach Directive
 - What is it wrapped in?
 - Packaging – World Sailing is committed to eliminating single use plastics
 - What impact does it have in use?
 - Carbon impact
 - What will happen to it after the event?

- A clear plan for end of life and waste management of equipment, for example compliance with EU WEEE Directive
- c) Carbon management is a key focus for World Sailing to measure, manage and mitigate greenhouse gas emissions associated with World Sailing competitions. Tenderers should include any details of carbon management strategies being employed to help deliver World Sailing's objectives.

7. Commercialisation

The tenderer should consider how World Sailing and the Local Host can maximise commercial opportunities in relation to potential sponsors or other revenue streams. The appointed partner will be expected to liaise with World Sailing and the Local Host to define these commercial opportunities and consider how key sponsors can be featured within the service.

Please detail any additional ideas and support with a similar case study that your organisation has delivered.

Proposals that include a marketing, sponsorship, endorsement, or similar arrangement in return for reduced costs are encouraged.

Unless specifically agreed as part of the financial model, the tenderer should not expect any brand recognition or association with World Sailing, the competition, or Local Host. This includes all outputs, physical items, and electronic items.

The tendered maybe required to provide their services under a brand other than their own, such as a World Sailing or Local Host sponsor or partner. As part of this process the sponsor or partner maybe a party to the service agreement and the tenderer should state any brands or categories under which it cannot provide the service, with particular note to the current World Sailing sponsors.

Planning and Review

World Sailing will work with the appointed Competition Technology partners to set Key Performance Indicators for the service delivery at each competition. These will be defined prior to contract signature.

The appointed Competition Technology partners will need to commit to the following suggested planning and review timetable for the term. All meetings to be face-to-face unless otherwise stated:

- Upon appointment: Broad scoping meeting (London)
- Competition Technology partner initial integration: Planning meeting (London)
- Annual service review: performance review and future scoping (London)
- For each competition:
 - Six months prior: Scoping meeting (competition venue)
 - Three months prior: end-to-end partner integration acceptance test (online)
 - One month prior: Planning meeting (online)
 - Pre-competition: On-site briefing
 - Pre-live races: On-site briefing
 - End of each live day: Review of each day and preparation for the next day of live (1 hour minimum)

- Within ten days of the event: Event de-brief and KPI review (online)

Ownership / Property Rights

World Sailing is the owner of all copyright and other intellectual property rights in all data, documentation, outputs and all other material gathered or produced by or on behalf of the World Sailing Competition Technology partner for the purposes of performing its obligations, including, without limitation, all recorded materials, formats, data points, designs, formulas and the benefit of any third party clearances and or/permissions.

Outputs must be provided to World Sailing, with licensees fully cleared by the Competition Technology Partner (at its cost), for exploitation by or with the approval of World Sailing throughout the world in any and all media in perpetuity.

Process

World Sailing requests electronic proposals for World Sailing's Competition Technology partner to be emailed to Michael Downing at World Sailing no later than 1700 (UTC) on 20 May 2022.

Following receipt of each tender, World Sailing intends to give each such tender due consideration.

By 1 June 2022, World Sailing may request that one or more candidates make further proposals and/or presentations and/or enter further discussions and negotiations, to be concluded by 10 June 2022.

World Sailing will consider tender applications based on the judging criteria outlined in Appendix 9.

World Sailing intends to appoint its Competition Technology partners, subject to legal agreement as proposed by the partner, by 1 July 2022.

For further information, questions about this tender and to submit a tender please contact:

Michael Downing
Olympic Manager
World Sailing (UK) Ltd
Email: michael.downing@sailing.org

Appendix 1

Qualification, entries and registration system

The World Sailing Qualification, Entries and Registration System partner will be responsible to provide a turnkey system that meets the end-to-end qualification, entry and registration process needed for World Sailing competitions.

Qualification

The first step in the process where eligibility for the places in each event in a competition is determined according to a predefined qualification system. There are typically three (3) types of qualification:

- MNA quota – World Sailing determines the number of places a MNA is eligible for in each event in a competition; often paired with a reallocation system based on rankings or first come, first served
- Invitation by ranking – eligibility is determined by a place in the rankings, cascading until the event quota is full
- Open – usually unrestricted typically a first come, first served; often paired with a waiting list if there is a quota for an event

Entry

The entry process is the second step where the user, either the MNA, sailor or support person confirms and pays for their chosen places and any additional items.

The invoicing, payment and receipt process must integrate with World Sailing's accounting package, Xero and is suggested to use World Sailing's payment provider, Stripe. Payments made online should not require any manual handling with minimal cost and any payment by bank transfer should only require manual verification funds are received with the remainder of the process automated.

Once payment is received, the confirmed entry shall be made available for publishing in the entry list.

Registration

The last step in the process where the details of the people (sailors, support persons, etc), equipment and support vessels that will be participating in the competition is gathered.

Only persons with a World Sailing Sailor ID are permitted to register and the registration system shall integrate with the World Sailing Sailor ID database to validate the Sailor ID, offer known information and update the Sailor ID database with new information received.

Competitors must use eligible equipment which they are required to state during the registration process. The registration system shall integrate with the World Sailing equipment database and shall register a maximum number of specified equipment items per competitor for each class of boat.

The registration system will need to be customisable for each event and competition with the ability to collect data, images and file uploads. Systems that offer multiple languages to users and that can customise the Look and Feel for a competition will be viewed favourably.

As each entry's registration is complete this information shall be made available to the results partner for the competition in the agreed format.

World Sailing would like qualification, entry and registration system proposals for the following competitions that comply with their relevant qualification systems:

1. 2023 Sailing World Championships
2. 2023, 2024 and 2025 Youth World Championships
3. 2023/2024 Continental Olympic Qualifiers
4. 2024 Last Chance Regatta

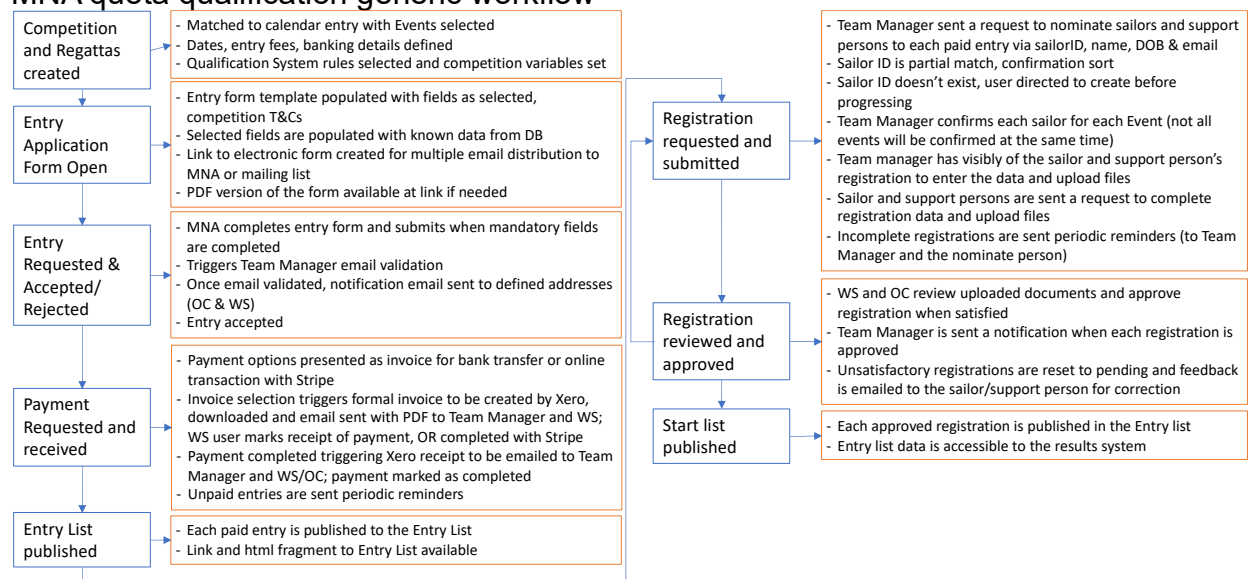
Option One – additional competitions

Proposals for the qualification, entry and registration systems for the following competitions are encouraged:

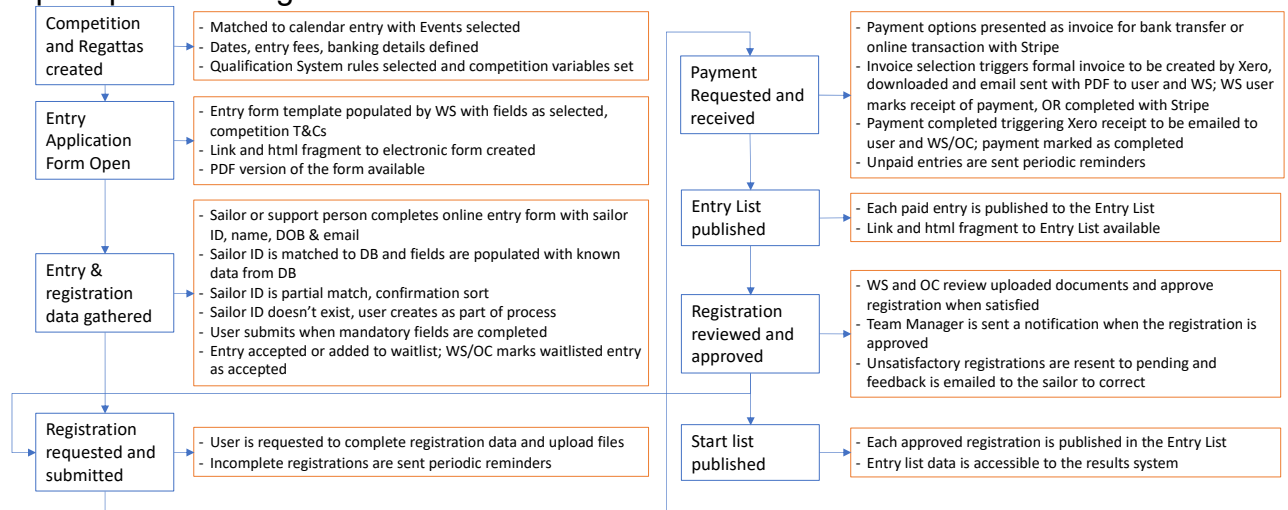
5. World Cup
6. World Cup Final
7. Offshore World Championships
8. Para Events

The following workflows are presented to guide tenderers only and are not to be taken as exacting requirements.

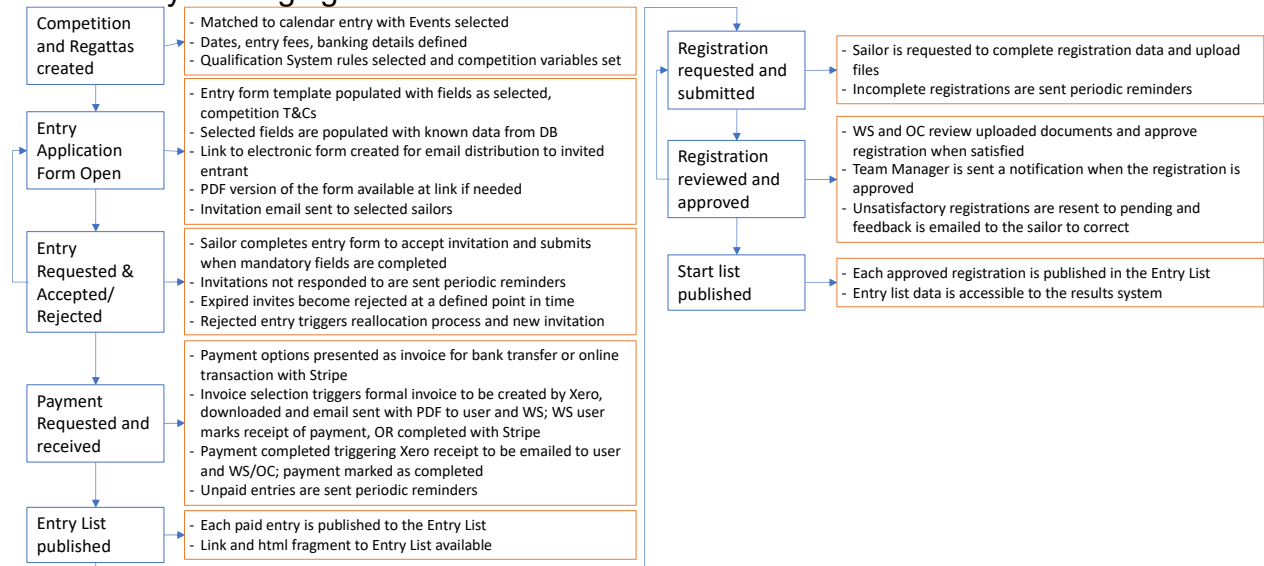
MNA quota qualification generic workflow



Open qualification generic workflow



Invitation by rankings generic workflow



Support

World Sailing will provide subject matter experts to assist the partner to develop the user workflows, interfaces, data fields and World Sailing database links.

Appendix 2

Results, jury, digital race office and notice board

World Sailing is seeking proposals to provide an integrated, online results, jury, digital race office and notice board services.

Results

The gathering, calculating and distribution of scoring and competition information.

Results includes:

1. Preparation and publication of start lists, sign out/in lists and OA supplied equipment lists
2. Collection and publication of on water race information, starting penalties, finish order, finish penalties, race / phase / event / regatta / competition results, medal table
3. Publication of mark rounding information;
4. Provision and interface of outputs for online publication;
5. Provision and interface of outputs for the start vessel persons and athletes via a scoreboard;
6. Management and publication of the competition schedule; and
7. Provision and integration of the above data to the other competition technology partners and World Sailing, particularly time sensitive and competition critical data

Jury

The handling and publication of Judge, Umpire and Jury functions including:

1. Protest time limits;
2. On water penalties;
3. Case and hearing management
4. Role assignments
5. Scoring changes

Digital race office

The functions of the race office include:

1. Online form and process for scoring enquiries;
2. Online form for hearing requests (ie protest forms)
3. Athlete and equipment substitutions;
4. Notices to competitors and competition document management
5. Online form and process for penalty declarations and retirements

Notice board

The notice board services include:

1. Provision of outputs for electronic display at the competition and on websites;
2. Provision of outputs for on demand physical distribution;
3. Provision of data for display in the World Sailing website

The following feature and functionality list is not exhaustive and World Sailing encourages tenderers to be expansive and creative in their provision of the service to offer users with as much information as conveniently as possible.

1. Results

- a. Automatically receive the mark rounding and finish order from the tracking service provider, if present, for immediate validation by the race official (Mandatory)
 - b. Automatically upload an XRR output according to the latest data dictionary after each race, score change and each Event to the World Sailing portal (Mandatory)
 - c. Interface manual results handling on the water (Mandatory) and support multi data entry function
 - d. Pre-populate outputs with the latest standard text and post competition report outputs
 - e. All printed report outputs mirror the ORIS content and layout as closely as the competition and format permit (Mandatory)
2. Support all activities of an International Jury (Mandatory)
 3. Schedule management
 - a. Real time updates based on competition progress
 4. Online Notice Board display
 - a. Results, Notices to competitors, Protest Time Limits, Case Decisions (Mandatory)
 - b. Competition Status, penalties, weather forecasts, competition documents
 - c. All electronic display outputs contain the equivalent content as the ORIS RTDS outputs in a similar layout
 5. Support all activities of a digital race office by
 - a. Offering all forms and related workflows digitally (Mandatory)
 - b. Controlling the user functions commiserate to their role
 - c. After initial configuration, allowing volunteers to manage and operate the entire competition (Mandatory)
 - d. Offering the user interface in multiple languages
 6. Live push notifications to various users groups of matters relevant to their role
 7. Integration (Mandatory)
 - a. Real Time integration with the tracking, analytics, broadcast, graphics, commentator services
 - b. Live integration with the entry, registration, weather, race management tools, Digital Officiating, website, World Sailing services

Proposals that require only remote support and only recommend onsite operators for large, high status competitions will be viewed favourably

Support

World Sailing will provide Race Officials and other subject matter experts to assist the partner to develop the user workflows, interfaces, outputs and translations.

Option Two – Onsite support

World Sailing is cognisant of the status of its competitions and for those very large or significant competitions, would like a fully costed proposal for the inclusion of an onsite

results operator. The operator would be expected to lead all results operations and provide technical support for the jury, digital race office and notice board services.

The proposal should clearly state:

- Daily rate for the operator
- Accommodation standard and estimated daily cost
- Travel and transfers estimated costs
- Daily sustenance rate for the operator
- Any other factors that will influence the cost of an onsite operator

Option Three - ODF distribution

World Sailing would like to maximise the level and frequency of information provided to the audience so when sufficient data is available at the competition, particularly when there is tracking, the option to populate World Sailing online outputs with ODF is desired.

The results system is expected to generate and distribute to the World Sailing portal, ODF messages according to the agreed version of the Data Dictionary and World Sailing Common Codes during the competition.

The proposal should include the cost of a half day connectivity and end-to-end test as well as the provision of an accurate message set for World Sailing to test with ahead of the competition.

Appendix 3

Tracking solution with visual display and electronic adjudication

World Sailing is seeking proposals to provide Tracking services and where appropriate electronic adjudication for Digital Officiating.

Tracking is the gathering of data from each race area in the Field of Play, by placing a device on every object on the race area, processing this data and providing the calculated information to all downstream clients.

The tracked objects include:

- athlete boats,
- support vessels,
- organising committee vessels,
- officials,
- marks of the course, and
- any FOP boundaries.

Tracking includes:

- Rapidly measuring the location, position and orientation of each tracked object
- Gather race information and official's decisions from the race
- Processing and providing the collected data to downstream clients
- Providing an animated display of the tracked objects with accuracy sufficient to 'tell the story' of each race
- Integration with Virtual Regatta for eSailing activities

Electronic adjudication for Digital Officiating includes:

- Providing an animated display of the tracked objects with the measured accuracy of the tracking device regardless of the level of zoom
- Measuring the position of each boat at the start of a race and providing the starting official a list of boats with their measurements, who could be subject to a starting penalty (ie OCS) as decided by the race official
- Measuring the position of each boat at the finish line of a race and providing the finishing official a list of boats in order with their time, to be validated
- Communicating any start line penalties and the validated finishing order to downstream clients

World Sailing is in the process of defining the exact Homologation standards for tracking devices and these standards will continue to evolve as technology improves. Olympic and Olympic qualification competitions require high precision devices to enable Digital Officiating and particularly the ability to determine start line penalties and the finishing order.

Tenderers should be clear if there are any geographic, regulatory or technical constraints or requirements in their proposal as competitions will be conducted on all continents and service levels must remain consistent.

The following feature and functionality list is not exhaustive and World Sailing encourages tenderers to be innovative and visionary in their provision of the service to gather as much information as possible.

Tracking

1. The tracking device will be assessed on the following elements:
 - a. Accuracy
 - i. High precision data, required for digital officiating for most boats at the Sailing World Championships and the Olympic qualifiers – recommended as accurate to less than 50mm 95% of the time.
 - ii. Standard precision data for statistical and analytical outputs as well as boats not subject to digital officiating – anticipated as accurate to less than 500mm 90% of the time.
 - iii. Low precision data for entertainment outputs from competitions such as the Youth World Championships.
 - b. The latency of the data transmission from the FOP to the user and downstream clients. The ability to support difference client needs such as digital officiating, live broadcast and live streaming as required is recommended.
 - c. Quantity of devices available and quantity of usable simultaneously.
 - d. Physical characteristics and attachment methodology of the device on each equipment / boat type.
 - e. Different cost models are expected in the proposal to suit the status and calibre of the respective competition. For example, daily rates per type of tracker.
2. Enable lower profile competitions to be entirely delivered by volunteers after receiving the shipped hardware.
 - a. Proposals that minimise the number of technicians required for high precision solutions will be favourably viewed.
3. The animated display (Mandatory)
 - a. Live or replay on demand
 - b. Visual aids such as selected by the user:
 - i. Objective identification
 - ii. Boat trails and basic performance data
 - iii. Perspective control
 - iv. Representative boat and crew animations
 - v. Course and weather overlays
 - c. The display can be white labelled or branded as stipulated by the competition's commercial requirements.
 - d. The display service can be included in third party websites as a widget and is available in all territories.
4. Integration (Mandatory)
 - a. Real Time integration with the results, analytics, weather, broadcast, graphics, commentator services
 - b. Live integration with the race management tools, Digital Officiating, website, World Sailing services, eSailing

World Sailing is seeking proposals to provide video adjudication services as part of the Digital Officiating.

Digital Officiating involves the display of digital information for easy decision making for all aspects of every race. Those decision can be made immediately during the race or

after the race. Digital Officiating is conducted from the Race Officials Booth which can be at the competition venue or remotely located.

Digital officiating consists of two elements:

- Electronic Officiating is the presentation of tracking data for Race Officials to make decisions and thus requires high precision tracking data. For arbitrary decisions the system proposes rule breaches to the Race Officials to consider.
- Video Officiating is the presentation of footage for Race Officials to make decisions and thus requires footage of the race to be available

Live decisions shall be communicated to the relevant race officials and the data integrated into the other competition technology services. World Sailing envisages this service developing to enable live decisions being communicated digitally to sailors during the race.

Electronic adjudication for Digital Officiating

5. User selects which feed and perspective to use and zoom functionality retains the output to scale (Mandatory)
6. Accurate representation of the known tracking and projection information only (Mandatory)
7. Projections and accuracy margins can be displayed by the user
8. User selects which tracked objects to display
9. User option to display object identification, boat trail, course, race time, wind, grid, overlap and course heading overlays

Support

World Sailing will provide Race Officials and other subject matter experts to assist the partner to develop the user workflows, interfaces, outputs and performance standards.

Appendix 4

Live weather observations and display

World Sailing is seeking proposals to provide a solution to integrate and display online, live Field Of Play weather observations from the providers own and third party devices.

With weather being fundamental to sailing, knowing what the weather on each race area in the Field of Play is critical to the delivery of the competition and athlete preparation. World Sailing is looking for proposals that gather as much available information as possible and make it available to all client groups to ensure those competitions and those sailors with fewer resources have access to the best possible information to make their decisions. The weather service includes:

1. Measuring observations of
 - a. Wind,
 - b. Current, and
 - c. WGBT
2. Measuring the location of the weather station
3. Processing observations
 - a. Immediate,
 - b. Historical,
 - c. Average, and
 - d. Trend
4. Providing a visual display of the weather observations.
5. Provide authorised users live access to the weather measurements via
 - a. Historical data download
 - b. Live API

The following feature and functionality list is not exhaustive and World Sailing encourages tenderers to be proactive and inventive in their provision of the service to gather as much information as possible.

Weather stations

1. Accuracy of the observations considering the stability and role of the recording platform.
2. The latency of the data transmission from the FOP to the user or downstream client.
3. Quantity of devices available to measure observations.

Data points

4. Wind: strength and direction (Mandatory).
5. Wet Bulb Globe Temperature (Mandatory).
6. Current: strength and direction.
7. Live and recent historical observations: 3/5/10/15/30 minute average, and 3/5/10/15/30 minute trend

Display

8. Live, average or trend data as selected by the user
9. Chart, tabular or graphic view as selected by the user
10. FOP, race area, course and vessel overlay options
11. User selected data points and colour codes
12. User set data alerts
13. Large screen/tablet/mobile friendly outputs
14. Online full screen for large screen passive display (Mandatory)

Integration (Mandatory)

15. Live integration with third party devices such as existing local weather stations / buoys, race committee units and support vessel units
16. Real Time integration with the results, tracking, analytics, broadcast, graphics, commentator services
17. Live integration with the race management tools, Digital Officiating, website, World Sailing services, eSailing, authorised users

Proposals that don't require technicians onsite and that are not language specific will be favourably viewed.

Support

World Sailing will provide Race Officials and other subject matter experts to assist the partner to develop the user interfaces and outputs.

Appendix 5

Race management tools and start vessel scoreboards

World Sailing is seeking proposals to provide race management tools and scoreboards for start vessels.

Race management tools

Many decisions are made by different race officials during a competition and a tool is required to gather these decisions, provide data to support the decisions and align this information with all clients. The tool shall be accessible to the race officials on the FOP as well as in the venue (i.e. Bridge, boat park or office area), typically by placing a tablet with each official.

The Race Management Tool should:

1. Capture Bridge actions and decisions.
2. Gather on water race management actions.
3. Link to the tracking player to show race officials the location of selected boat/s, marks/s or vessel/s
 - a. last known time and location.
 - b. Boat trail.
 - c. for safety or compliance activities.
4. Integration
 - a. Real Time integration with the results, tracking, analytics, broadcast, graphics, commentator services.
 - b. Live integration with the weather, Digital Officiating, website, World Sailing services.

Support

World Sailing will provide Race Officials and other subject matter experts to assist the partner to develop the data fields, user interfaces and outputs.

Option Four – race situation output

World Sailing is seeking proposals to improve the information available to race officials to improve the scheduling and decision making. Tenderers are requested to provide an option to include a race situation output for race officials when the source data such as tracking and weather is available. Suggested features include:

1. Actual course layout with marks and vessels per Race Area and the FOP.
2. Estimated race duration and finish time for the selected race using weather data and typical Class performance averages.
3. Current weather observations and trends.
4. Competition and race progress.

Scoreboards

Scoreboards on start vessels are used to display real time race management information such as course, weather, race time, time of day or commercial information to all stakeholders. The information from one scoreboard should be visible from both sides, port and starboard, of the start vessel.

Proposals should include the following per scoreboard:

6. General installation requirements ie shipping, space, weight and windage
7. Power and operating requirements
8. Visibility specifications
9. The lead time to confirm the number of scoreboards needed for a competition

Proposals that do not require full time power or that can be run from typical onboard power sources will be viewed favourably.

Support

World Sailing will provide Race Officials and other subject matter experts to assist the partner to develop the outputs.

Appendix 6

Video adjudication system for Digital Officiating

World Sailing is seeking proposals to provide video adjudication services as part of the Digital Officiating.

Digital Officiating involves the display of digital information for easy decision making for all aspects of every race. Those decision can be made immediately during the race or after the race. Digital Officiating is conducted from the Race Officials Booth which can be at the competition venue or remotely located.

Digital officiating consists of two elements:

- Electronic Officiating is the presentation of tracking data for Race Officials to make decisions and thus requires high precision tracking data. For arbitrary decisions the system proposes rule breaches to the Race Officials to consider.
- Video Officiating is the presentation of footage for Race Officials to make decisions and thus requires footage of the race to be available

Live actions and decisions shall be communicated to and from the field of play to the relevant athletes and race officials, and the data integrated into the other competition technology services. World Sailing anticipates this service requiring hardware for umpired races that enables live decisions to be communicated digitally to sailors – i.e. during a medal race/medal series race.

Video adjudication for Digital Officiating

1. Timeline manager to enable race officials to stop/start/rewind/fast forward each feed during a race as well as after the race (Mandatory)
2. Clip export functionality so the selected period from selected feeds can be used immediately in hearings (Mandatory)
3. Display and record all selected host broadcast camera and dedicated officiating camera feeds with audio
4. Image zoom and highlight functionality is desirable

Support

World Sailing will provide Race Officials and other subject matter experts to assist the partner to develop the user interfaces.

Appendix 7

Broadcast and videoboard graphics

World Sailing is innovative seeking proposals to provide graphics services to the host broadcaster for live TV and live streaming, and to sport presentation for in venue videoboards. Proposals should be ambitious about making the sport as accessible and exciting to view as possible.

The graphics service is to provide the following graphics for broadcast and videoboard graphics:

- timing and tracking graphics;
- results graphics;
- virtual graphics;
- 3D graphics; and
- augmented graphics.

World Sailing's Broadcast and Video Production and Distribution partner will be responsible for providing event-specific video intro / outro graphics.

It is expected that World Sailing's graphics partner will provide the following graphics:

1. Schedule
2. Athlete introduction/biography
3. Start lists and results
4. Leader boards
5. Informative weather graphics
6. Competitor information
7. Course previews
8. Race progress and timings
9. Boat Performance indicators such as speed, VMG, gain/loss
10. Course and race area information such as line bias, course axis

World Sailing and the Broadcast and Video Production and Distribution partner will agree the specific list of graphics to be provided, the Look and Feel of the graphics for each competition and the location of the graphics cabin with the graphics partner. The Broadcast and Video Production and Distribution partner will be responsible to collect the graphics signals from the Broadcast Graphics provider in the graphics room and provide them with any audio and video connections required to provide the graphics signals. The graphics catalogue will be agreed with the provider prior to the contract signing.

For reference of the type of graphics required, tenderers should reference recent productions such as the Aarhus 2018 Sailing World Championships, Tokyo 2020 Olympic Sailing Competition, SailGP, the America's Cup and the eSailing World Championships. These events should be regarded as benchmarks and World Sailing welcomes innovative approaches which goes beyond the established standard of viewer experience, making the sport more accessible to more people.

In addition to these graphics services, World Sailing would like to receive proposals to have the opportunity to purchase additional services, including:

- Integrated overlay graphics

- Integrated augmented graphics
- Virtual graphics
- Onboard graphics
- Additional language graphics
- eSailing graphics

Support

World Sailing will provide broadcast production and other subject matter experts to assist the partner to develop the outputs and runsheets.

Option Five – Integrated overlay graphics

World Sailing would like the option to display integrated overlay graphics such as the start line, finish line and gate lines.

Option Six – Integrated augmented graphics

World Sailing would like the option to display integrated augmented graphics such as the course ladder, pinned boat and mark IDs, pinned boat performance and rank information, weather data, mark zones and mark roundings.

Option Seven – virtual graphics

World Sailing would like the option to display virtual graphics that closely reason the race including realistic boat design and behaviour, controllable perspective, course information, race information and boat performance information.

Option Eight – onboard graphics

World Sailing would like the option to have a boat's ID and performance information such as race rank, current speed and estimated overall rank displayed in a strap graphic automatically whenever the boat's onboard camera feed is taken. This is to help the audience understand what they are seeing and allow side by side comparisons to be more informative.

Option Nine – graphics in additional languages

World Sailing would like the option to have the graphics provided in more than one language. Tenderers are requested to propose two options:

- a. The videoboard graphics in the local language as well as English as part of the same feed
- b. The broadcast graphics in the language as requested by a Rights Holding Broadcaster in a separate feed that is directly aligned to the English feed

Appendix 8

Commentator and information system

World Sailing is seeking proposals to provide a commentator and information system to compliment the host broadcast feed of World Sailing competitions.

It is envisaged that this system will be used by commentators, likely off venue, on their own device alongside a visual display of the tracking and the live feed as part of a domestic broadcast. The number of users will be restricted to a limited number of authorised commentators to support data to be accessed live around the world.

It is expected the system will offer information on:

1. Schedule, focussing on the current day
2. Results data: entry lists, start lists and results
3. Tracking data, focussing on the broadcast race: live race situation, current and predictive leader board, race progress and timings
4. Weather data: observations and trends
5. Competitor information with links to World Sailing sailor profiles
6. Analytics data: boat performance, course and race area information

The following feature and functionality list is not exhaustive and World Sailing encourages tenderers to be proactive and inventive in their provision of the service to enhance the broadcast as much information as possible.

Technical performance

1. Service synchronised or ahead of the live broadcast at the server level.
2. Minimal bandwidth requirements during live competition for the user.
3. User can select from multiple languages as agreed between World Sailing and the International Broadcast and Video Production and Distribution partner from the list of languages present in the Tier 1 distribution priorities.
4. The user's settings (language, time zone, etc) and favourites can be customised and retained between sessions.
5. Users can highlight their favourite country and or boat for easy identification.

Screen content

6. Current day schedule
7. Overall competition schedule
8. Entry and start lists per phase and event
9. Results per race, phase and event
10. Leader board per race and event
11. Weather data per race
12. Competitor per race
13. Analytics per race
14. Race incident list

Integration (Mandatory)

15. Live integration with the results, tracking, analytics, weather, authorised users, website

Support

World Sailing will provide commentators and other subject matter experts to assist the partner to develop the user interfaces, navigation and wireframes.

Appendix 9

Judging Criteria

World Sailing will be considering tender applications based on the following criteria:

- Team experience and credentials (for technical development, service delivery and sailing knowledge)
- Quality of product and user experience
- Timelines to service delivery and service delivery track record
- Level of detail supplied
- Cost and value
- Innovation in product and service offerings
- Opportunities identified that go above and beyond
- Sponsorship alignment along with marketing and commercial opportunities presented
- Alignment with and understanding of World Sailing's vision and mission
- Cultural fit: proactive, can-do approach

Appendix 10

Data Management

Integration

The tenderer acknowledges that timely, efficient, and secure integration between World Sailing, the organizing committee and the other competition technology providers is a fundamental tenant to the service agreement.

World Sailing specifies only the use of XRR, ODF and its API to integrate with its systems. Unless there is no mutual agreement on an integration between service providers World Sailing will not specify how other integration is to occur. Services providers are given the freedom to implement a solution between them that meets the performance requires so there are no additional costs for this to World Sailing. It is likely there will be different interfaces between different service providers.

When providing data to World Sailing the service provider shall proactively push the data and when requiring data from World Sailing shall proactively pull the required data from the World Sailing systems.

Quality Assurance

The provider will be required to provide a Quality Assurance Plan to World Sailing for approval. The plan shall include general service suitability and readiness test as well as competition specific tests.

Precision performance devices will require homologation before being accepted for use. Any material software or hardware upgrades will need homologation. The service provider should expect to meet the costs of homologation.

The Quality Assurance plan may require World Sailing or the organizing committee to attend in person. The service provider shall cover the cost of 1 person to attend and wherever reasonable this test shall be scheduled to coincide with another activity requiring travel to minimize the costs.

Proof of Concept demonstration will be a precondition of the service agreement and User Acceptance Tests will be required for each competition. End to End testing will be required for competitions of significant status to World Sailing and in complex delivery environments, World Sailing may require the service provider to participate in rehearsals ahead of the competition.

Privacy

The tenderer shall provide a summary demonstrating how they shall meet World Sailing's data privacy policies as well as the regulatory requirements, recognising the global nature of the participants, data storage and competition venues.

Ensuring data privacy is a core principle of the service and all data collected and generated in the performance of the service shall remain the property of World Sailing. The service provider shall not collect or store any data beyond what is needed to deliver the service to the user.

Security and Safety

The tenderer shall provide an overview of its data integrity, user account management, data privacy, hardware and software security measures.

The tenderer shall provide an overview of its contingency, redundancy and back up plans to ensure the reliability and continuity of the service.

The ability to provide continuous service so a competition isn't interrupted is of fundamental importance. Service Level Agreements will be established for each competition commensurate with the status and scope of services provided for the competition.

Global use

The proposal shall demonstrate the User Interface of the service. A simple interface for each user group is expected and proposals that include the service and outputs in multiple languages will be viewed favourably.

The proposal is expected to be compatible all common devices, across operating systems and across platforms. Where the proposal includes an application, accessibility to the application shall be clearly explained.

The tenderer shall explain how the service is available in all sailing locations around the world, particularly addressing the different telecom and regulatory environments.

Changes

The Look and Feel of all outputs should be expected to change between competitions. The tenderer accepts to implement these changes without cost.

The tenderer acknowledges competition formats, Events and Equipment may change throughout the term and will be different across the various competitions. The tenderer commits to providing a service that can make these changes and they form part of the service at no extra cost to World Sailing. Changes with extreme impact on the service provider will be agreed in conjunction with World Sailing along with any compensation.

Acknowledging the eligible MNAs and NOC may change due to compliance, membership or political reasons throughout the term, the tenderer commits to keeping the relevant identification marks aligned with World Sailing policy and the relevant competition, particularly country codes, names and flags.

Appendix 11

Data Analytics

World Sailing is not seeking proposals to provide Data Analytics services however this information is included so bidders can consider the implications for their proposal.

Analytics is the display of information that has been calculated from the collected data to identify patterns, explanations, or unusual information to enhance the story for the audience or future athlete performance.

Data should be presented on:

1. Sailor performance;
2. Boat performance; and
3. Sailor biometrics,
4. At the following levels of analysis:
 - a. Within a race;
 - b. Within the regatta; and
 - c. Within the competition.

This service shall integrate:

1. In real time with the results, tracking, broadcast, graphics, commentator services
2. Live integration with website and World Sailing services

This service is currently performed by SAP, World Sailing's Technology partner. Tenderers should review SAP's current offerings to familiarise themselves with the analytics service – sapsailing.com.

Service providers shall integrate with SAP to enable the delivery of this service by SAP.

Appendix 12

Contractor and Supplier Sustainability Questionnaire

World Sailing takes sustainability very seriously and is considered a leading International Federation in promoting sustainability at every stage of the sport. World Sailing has implemented a sustainability management system utilising ISO 20121 and is committed to comply with all the requirements of the standard. Like many other organisations, World Sailing is on a journey to improve its internal sustainability practices including diversity, equity and inclusion, and environmental objectives.

The objective of this sustainability questionnaire is to better understand our supply chain and take our contractors and suppliers along with us on our journey to a sustainable future. A soft copy of the questionnaire is available on request for ease of completion.

All information and personal data collected will be confidentially stored and will be processed in accordance with [World Sailing's privacy policy](#).

Company Name:	
Name of individual completing:	
Position:	
Contact email:	
Date:	

World Sailing Department this work is relevant to:		
1. What percentage of your staff in positions of responsibility are:	Women/Female	
	Minority Person(s) in your country of operation	
	Disabled Person(s)	
2. Is your business classed as any of the following?	Small/ micro business (less than 50 people)	YES/NO
	Community interest company	YES/NO
	Not for profit	YES/NO
	Social enterprise	YES/NO
	Charity	YES/NO
3. Which of the following policy statements do you have? If 'Yes' please supply copies	Sustainability	YES/NO
	Environmental	YES/NO
	Diversity and Inclusion	YES/NO
4. Have you set environmental, social and economic objectives as a result? If "Yes" please provide details		YES/ NO
5. Do you hold any of the follow externally verified certifications? If "Yes" Please supply certificates	Environmental Management System ISO14001	YES/NO
	Sustainable Event Management System ISO20121	YES/NO
	Sustainable Business B-Corp	YES/NO

	Quality Management System ISO9001	YES/NO
	Other If "Other" Please specify	
6. Does your company carry any legally required environmental registrations as a result of your work activities If "YES" Please provide details of the registrations you hold and copies of certificates e.g., waste carrier licence, packaging registration schemes, hazardous waste producer		YES/NO
7. Have you had any environmental enforcement notices or prosecutions as a result of an environmental incident over the past two years If "YES" please supply details		YES/NO
8. Do you have procedures for dealing with environmental incidents, such as spillages? If "YES" please attach details		YES/NO
9. Do you have arrangements for minimising waste, recycling and segregating waste in accordance with your duty of care? If "YES" please attached details		YES/NO
10. Do you monitor and measure your sustainability impact?		YES/NO
11. Do you have a sustainable procurement policy or code? If "Yes" please attached details		YES/NO
12. Do you measure, reduce and offset the carbon impact of your products and services? If "Yes" to offset – please provide certificate	Measure carbon impact	YES/NO
	Measure and reduce	YES/NO
	Measure, reduce and offset	YES/NO

Appendix 13

Other information

World Sailing's invitation to tender for its Competition Technology services document will assist interested parties in preparing and submitting a proposal.

The information contained within the invitation to tender summarises World Sailing's requirements but does not purport to contain a complete description of the relevant subject matter.

World Sailing and the Local Host reserve the right to appoint additional personnel to undertake tasks and assignments outside of the tender parameters at its discretion.

World Sailing reserves the right to select part, all or none of the services offered by potential partners.

Whilst every effort has been made to be transparent in the creation of this tender, tenderers should not place complete reliance on the content of this information and World Sailing or the Local Host is not liable for any consequence of unforeseen changes.

The decision-making process and the decision to award a contract to any particular tenderer or to none of the tenderers is entirely at the discretion of World Sailing.

Please note that although consideration will be given to price, World Sailing are not obliged to accept the best financial proposal and may select any proposal in its absolute discretion.

All costs incurred in tendering for this contract are at the expense of the tenderer. Any costs incurred by the tenderer for further meetings that may be required to execute the progression of this tender or the contract will be at the expense of the tenderer.

World Sailing and the Local Host reserve the right to amend or cancel this process in its discretion without consequence.

Terminology

Competition	One regatta or a series of regattas
Regatta	One or multiple Events over a set period of dates
Event	One or many races for which a prize or title is award An Event can be for one or many types of Boats An Event may contain single or multiple Phases
Race	A unit of activity with a single start and finish Races may be grouped into Phase
Phase	One or many Races that must be completed before progressing to the next phase A Phase may have multiple subphases
Entry List	A Boat or Team that will compete in a Competition
Registration	A sailor that will complete in a Boat or Team in a Regatta
Boat	A combination of unique equipment for an Event A class is a type of boat

Team	A combination of sailors that compete in a Competition Sailors in the team may change between Regatta
Start List	A list of boats that will start a Race, Phase or subphase Maybe a partial subset or entire Entry List
Results	A list showing the finish order, points and rank that corresponds for a Competition, Regatta, Event Race, Phase or subphase
Team Manager	Primary contact for a Team prior to the regatta
Team Leader	Primary contact for a Team during a regatta May also be the Team Manager or Support Person
Team Doctor	Dedicated contact point for Team Medical actions during a regatta
Media Liaison	Primary contact point for Team Media actions May be the Team Leader during a regatta
Latency	Real time is less than 1 second Live is less than 3 seconds
Race Official	As defined by the Racing Rules of Sailing and World Sailing Regulations
Support Person	A coach is a support person As defined by the Racing Rules of Sailing and World Sailing Regulations
Class	As defined by World Sailing Regulations
Sailor	Helm, Crew, Owner
MNA	Member National Authority
NOC	National Olympic Committee



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