This document outlines the strategy for *Sports Engineering*. Version one was approved by the ISEA Executive Committee in June 2021. This is the first revision (version 1.1), and it was distributed to the ISEA Executive Committee in January 2022 and approved in January 2022. Any changes made to this document must be approved by the ISEA Executive Committee.

Dr Tom Allen, Editor-in-Chief

1. Principal Features of the *Sports Engineering* strategy

This strategy document underpins *Sports Engineering*'s overarching Strategic Framework. It outlines our ambition to become the top journal for sports engineering and to move from quartile three to two for Sports Science[1] (according to SCImago), in order to gain an impact factor in the long-term[2].

We seek:

1.1. To be the natural place for sports engineers to publish, and will work with ISEA to ensure that we are providing a quality service for our members and the sports engineering community.

1.2. To publish high-quality articles to benefit society, culture, the environment and the economy, with a focus on sport, exercise, engineering and technology.

We believe:

1.3. That there are beneficial links between academia and industry, and will encourage these to generate impact from our articles.

1.4. That diversity[3] is important for success, and will encourage diversity in all of our activities, while amplifying diverse voices.

1.5. It is important to have an 'open science' culture, and will encourage the use of online supplementary material, including for data and code sharing.

1.6. It is important to communicate science widely, and will promote our articles, particularly via social media.

1.7. That nurturing and supporting our editors and Editorial Board is a key factor in enhancing our reputation and ensuring a bright and sustainable future for *Sports Engineering*.

We will:

1.8. Only publish articles that meet our ethical and scientific rigour standards.

[1] Scimago Journal & Country Rank https://www.scimagojr.com/journalsearch.php?q=17400154821&tip=sid&clean=0

[2] Based on communications with our publisher, we expect to be ready to reapply for an impact factor by 2025.

[3] People of different racial and ethnic, socioeconomic, geographic, academic/professional, gender/sexual orientation, and life experience.

1.9. Focus our resources on supporting our editors, promoting *Sports Engineering* and our articles and initiatives, and developing relationships with organisations with mutual interests.

1.10. *Sports Engineering* will be managed by an Editorial Team, consisting of an Editor-in-Chief, and Associate and Assistant Editors, who are supported by an Editorial Board (Figure 1). The Associate and Assistant Editors will report to the Editor-in-Chief, who will in turn report to the ISEA Executive Committee.

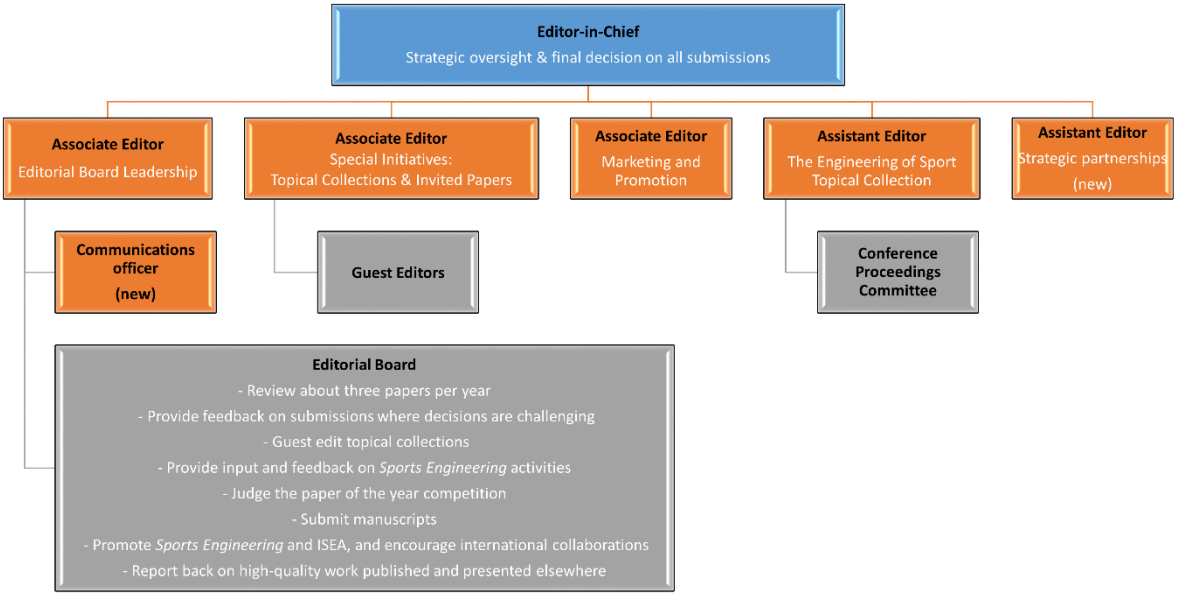

Figure 1 Editorial Team structure. Editorial Board duties will vary between members depending on their background and expertise.

2. Ambitions, Goals and Overarching Themes

This document is about *Sports Engineering*'s identity and performance as a journal that publishes high-quality research on sports engineering. Since *Sports Engineering* was founded in 1998, there has been increasing overlap between journals, and to become a quartile two Sports Science journal, we need to be one of the best overall in term of article quality. We can build on our strong performance in 2021, a series of excellent appointments to our Editorial Team and Board and our strategic partnerships to improve our performance. Whilst this strategy is not specifically about gaining an impact factor, following it should help us in our ambition to gain one.

2.1. It is our purpose to publish work that enhances the sports engineering knowledge base and has a positive impact on people's lives. The main reasons we publish articles on sports engineering is to:

I. Benefit the sports engineering community by providing a reputable journal to publish their research and access high-quality articles.

II. Enhance the reputation of ISEA, which gives us more influence and ensures that sports engineering is respected as a discipline with meaningful societal impact.

III. Foster links between academia and the wider sports engineering and technology sector worldwide.

Therefore, the articles in *Sports Engineering* have an influence on almost all of ISEA's activities (Figure 2).

Figure 2 Influence of Sports Engineering (SPEN) on ISEA activities

2.2. Our ambition to be recognised as a leading journal will come from publishing a meaningful volume of high-quality articles that attract the attention of the international research community, and the wider sports engineering and technology sector.

2.3. We will not achieve our ambition without making changes to how we operate and how others perceive us. We must make sound decisions, monitor performance and attract, retain and empower the best editors and researchers. To succeed, we must invest our resources[4] and leadership attention in activities that will increase, i) diversity, ii) the number of high-quality articles, and ii) the size of our readership, e.g. Altmetrics.

2.4. We will continue to concentrate our resources by giving our editors defined roles and responsibilities (Figure 1), and by collaborating with organisations, societies and events for our topical collections and initiatives. These topical collections will provide focal areas for researchers to publish their work, and will allow us to reach new audiences. They will also allow us to support and foster emerging areas, which should bring long-term benefits. These collections will help us to promote the work of our authors and make it easier for our readers to access the most relevant articles.

3. Key Performance Indicators and Targets

To increase the performance of *Sports Engineering* we must develop a set of key performance indicators and associated targets (KPTs) that we can use to shape decisions.

3.1. Our reputation depends on many factors, including:

I. The diversity and range of the work and authors who publish in *Sports Engineering*.
II. The impact outside of academia of the articles we publish.
III. Citations and downloads of the articles we publish.
IV. Our involvement in the international research community.
V. The reputation of ISEA and the publisher.

These factors all depend on the quality of the articles we publish.

[4] Academic publishing models are changing, and we must prepare for a possible decrease in royalties.

3.2. Quality of articles published in *Sports Engineering*

I. We do not currently publish enough high-quality articles[5] to have an excellent reputation. Some of our articles are highly cited and downloaded, but others are not.

II. The transition to publishing selected work from the ISEA conference series, *the Engineering of Sport*, should substantially increase the number of articles we publish. We must ensure that the quality of these extra articles is high.

III. Attractive and timely topical collections, particularly those linked to other organisations and events, should help us to increase the number of articles we publish.

IV. Targeted invitations to excellent researchers should lead to articles of the highest quality, which are frequently downloaded and cited.

KPT: Publish more high-quality articles in *Sports Engineering*. A robust and rigour peer-review process, with a supportive 'hands-on' editorial approach will help to ensure that we only publish high-quality articles. We need to ensure we have an Editorial Team with broad expertise (Figure 1), and pool expertise when making decisions on submissions.

KPT: Continue to increase the Google Scholar h5 Index of *Sports Engineering* [6].

Responsible persons: Editorial Team

3.3. Authorship of articles in *Sports Engineering*

I. Articles published in *Sports Engineering* tend to originate from a few research groups based within affluent institutions within well-developed regions of the world. We also tend to acceptance about only one in five articles, because of the quality of submissions and feedback from peer-review rather than a predefined target. To increase the number of articles we publish, we must increase the number and quality of submissions, which will include attracting and supporting a broader range of authors.

II. Support from ISEA should make it easier for a more diverse range of authors, including those without established reputations and facilities for sports engineering, to publish within *Sports Engineering*. This support will be particularly important when *Sports Engineering* becomes an open access journal[7], as publishing fees will only apply to authors from institutions without an open access agreement with the publisher[8]. Open access publishing is beneficial for readers from organisations without a subscription to *Sports Engineering*, and for reaching the public.

III. We will need to ensure that authors are sufficiently satisfied to both submit their future work to *Sports Engineering* and to recommend us.

KPT: Increase the diversity and range of the articles we publish, both in terms of the authors who publish them and the research groups where these authors are based (See Editorial Board duties in Figure 1).

KPT: Further diversify the Editorial Team and Board of *Sports Engineering*.

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[5] 27 articles (including two editorials and an erratum) published in 2021, 24 (including two editorials) published in 2020, and 20 in 2019.

[6] Google Scholar h5 Index was 16 in 2020, 15 in 2019, 15 in 2017, and 13 in 2016: https://scholar.google.com/citations?hl=en&view_op=list_hcore&venue=XjEdLoTqTkQJ.2020

[7] *Sports Engineering* is now a transformative journal, and when 75% of the articles published in a given year are open access, *Sports Engineering* will become an open access journal.

[8] Authors from institutions with an open access agreement with the publisher will have their open access publishing fee covered by the agreement, e.g. https://www.springernature.com/gp/open-research/institutional-agreements

KPT: Ensure that we have an efficient peer-review process, striking an appropriate balance between academic rigour and scrutiny and the time to the first decision. We will diversity our pool of reviewers, and continually appoint new reviewers.

Responsible persons: Editor-in-Chief and ISEA Executive Committee.

3.4. Impact of *Sports Engineering*

I. We need to publish work in *Sports Engineering* that brings benefits to society, and this will be easier if we have strong links with the wider sports engineering and technology sector. For example, we should run initiatives like topical collections in collaboration with other organisations, such as governing bodies, businesses and societies with mutual interests.

II. We should ensure that we have experts from industry engaged with *Sports Engineering*, which could include as authors, reviewers, guest editors and Editorial Team and Board members. Such experts can assist academics in finding the most important, relevant and timely research questions, and they can provide access to large datasets[9] and specialist facilities. When involving industry, we must take appropriate steps to manage conflicts of interest.

III. We must ensure that the work published in *Sports Engineering* is accessible and easily reproducible, which will include continuing to encourage an 'open science' culture and the use of data and code sharing via online supplementary material. For example, data sharing can be particularly beneficial to researchers working in the area of machine learning.

KPT: Increase the number and scope of collaborations that *Sports Engineering* has with other organisations.

KPT: Have more experts from industry engaged with *Sports Engineering*, particularly via topical collections and the Editorial Board.

KPT: Increase the portion of articles with online supplementary material, to make it easier to reproduce, further or otherwise use the work.

Responsible persons: Editor-in-Chief and ISEA Executive Committee.

3.5. Reach and readership of *Sports Engineering*

I. We must increase our readership, to grow both our size and reach. Some of our articles are highly downloaded, but many are not. We will promote each new article via our Twitter account[10], and selected articles via our personal LinkedIn accounts. Selected authors will be invited to summarise their paper in a video on our YouTube channel[11]. The ISEA Executive Committee and the wider sports engineering community can assist in promoting *Sports Engineering* and the work we publish, both online and at events.

II. We will work with our publisher to promote relevant articles around sporting events, and link our topical collections to these events, such as the Football World Cup, the Winter Olympics and the Paralympics.

[9] Sports Engineering could, for example, publish landmark datasets, and invite publications analysing these datasets.
[10] @ISEA_Journal and #ISEA_Journal
[11] (57) Sports Engineering Journal - YouTube

III. We must ensure our authors include high-quality images in their articles, and encourage them to include videos and animations in the online supplementary material[12], to assist us in promoting their work.

IV. We should collaborate with conferences, events and societies to give us opportunity to promote *Sports Engineering* to new audiences, which will include offering prizes.

KPT: Increase downloads[13] of all of our articles, including the least popular.

KPT: Increase the portion of open access articles we publish[14].

Responsible persons: Editorial Team and Board, ISEA Executive Committee and the wider sports engineering community.

3.6. Sustainability of *Sports Engineering*

I. The future of *Sports Engineering* relies on the quality of the Editorial Team and publisher. Without a strong Editorial Team and committed publisher, *Sports Engineering* will not flourish. We must support and nurture our Editorial Team, providing them with appropriate training, personal development and remuneration. We must recruit and support future editorial talent, while planning for changes to the Editorial Team, particularly the Editor-in-Chief.

II. The ISEA Executive Committee, or a representative, will meet with the Editor–in-Chief well before the end of their term, to discuss their ambitions and plans.

III. The Editor-in-Chief will meet with each Associate or Assistant Editor well before the end of their term, to discuss their ambitions and plans.

IV. While we do not necessarily wish to change publisher, we must always be prepared for a change in circumstances.

KPT: Make the decision to reappoint, or replace, Editorial Team members well before the end of their term.

KPT: Sign a contract with the current, or a new, publisher well before the end date of the previous contract.

Responsible persons: ISEA President and Executive Committee.

4. Key Characteristics of Author and Editorial Support and Empowerment at *Sports Engineering*

This section describes the characteristics that we wish *Sports Engineering* to be known by as a journal that publishes high-quality articles. It also outlines the developments in approach that are needed for us to achieve the goals in Section One.

4.1. Support for authors

We will:

I. Offer funding to cover open access publishing fees for researchers who do not have the means to do so[15], which will help in diversifying the articles we publish.

II. Seek to lead the sector in ensuring that the decisions we make concerning research ethics align with our values as leaders in sports engineering. ISEA will include a statement on research ethics on their website.

[12] Encouragement from editors on a case-by-case basis, as opportunities arrive.
[13] Total downloads were 118k in 2021, 92k in 2020, 69k in 2019, 58k in 2018, 50k in 2017 and 36k in 2016.
[14] Promoting institutional open access agreements with the publisher should help.
[15] Journal Open Access Publishing Award – International Sports Engineering Association

III. Instigate a step-change in how we market and promote our articles and initiatives, and be bold and imaginative in how we communicate with the public and specialists.
IV. Celebrate our best articles with awards.
V. Publish timely editorials that provide guidance to authors. For example, industry representatives could outline the problems that they would like academics to address.
VI. Run topical collections to support emerging research areas for sports engineering.

4.2. Support for reviewers

We will provide:

I. Reviewers with clear guidance and support, while actively seeking feedback about the reviewing process and amending practices.
II. Support for researchers with limited reviewing experience, e.g. by pairing them with experienced reviewers and Editorial Board members, and allowing them to carry out reviews through the guidance of established researchers in the field.
III. Appropriate acknowledgement and credit to our reviewers.

4.3. Support for editors

I. The ISEA Executive Committee will appoint a publishing lead, who will:
- Communicate with and support the Editorial Team.
- Communicate with the publisher.
- Prepare for a change in circumstances regarding our publisher.

II. The ISEA Executive Committee will ensure:
- The Editorial Team have a suitable budget, and autonomy to use it in an efficient and effective manner to meet the targets outlined in this strategy.
- An appropriate and beneficial publishing deal for *Sports Engineering*. They must ensure that they plan and sign the contract with the current, or a new, publisher at least one-year before the end of the current contract.
- Editors are given a term of at least three years in the first instance.
- That at least six-/three-months before the end of the Editor-in-Chief's/Associate Editor's term, that either, i) the contract to extend the term of the current editor is signed, or ii) a new editor is in place and shadowing the outgoing editor.

III. We will:
- Ensure that our editors are not overworked, and that we have sufficient capacity, contingency and flexibility to allow for breaks, such as holiday, maternity/paternity and sick leave, and busy periods of work.
- Support our editors in attending conferences and events where they wish to undertake promotional and development activities for *Sports Engineering*.