

Kite Identification at LA2028

Feedback from brands and manufacturers

1. Four manufacturers currently produce Kites for the IKA Formula Kite Class. The estimated market share is approximately: Flysurfer ~ 85%, Element ~ 10%, Ozone ~ 5%, North Kiteboarding ~ 0%.
2. Models registered for the 2024-2028 cycle:



Figure 1 - Kite models registered for the 2028 Olympics by 4 manufacturers

Many of the brands offer multiple colourways as standard, some examples of which are included in *Appendix A*. Colourways are often achieved by utilising different colours of fabric, so colourway possibilities may rely on the material supplier. It is worth noting that some brands do not work with certain colours, i.e. ozone with red, which will impact design options. Some manufacturers already offer high levels of customisation as standard within their current ranges, examples of which can be found in *Appendix B*.

3. The following options were presented, seeking feedback from manufacturers:
 - 3.1. Option 1: Full kite displaying the national flag and country codes.
 - Full size, full complexity flag covering the majority of the span of the kite along with a central three letter country code.
 - 3.2. Option 2: Kite displaying a national flag of reduced size and country codes
 - Reduced size, full complexity flag located on the wing tips along with a central three letter country code.
 - 3.3. Option 3: Kite in the colours representing the NOC at the Games and country codes.
 - Simplified colour representation, not necessarily including flags, but related to the countries recognised colours that are commonly used at the Olympics (e.g. orange for NED, blue for ITA). Central three letter country code.
 - 3.4. Option 4; variations or alternative solutions proposed by manufacturers.

4. The following shows a summary of feedback received:

	OPTION 1 - FULL FLAG	OPTION 2 - SMALL FLAG	OPTION 3 - COLOURS	OPTION 4
FLYSURFER	Not feasible for complex flags; only simple designs possible. Would need new cutting files and altered sewing. Differences between the flags would cause differences in performance between nationalities, especially for complex designs. Will constitute a build spec change to alter the cutting files. Printing of design instead of alteration of cutting files would increase weight and could cause stability issues. Expected increase in cost of 4-800USD and up to 5 months increased lead time.	Preferred option/most balanced solution. Cutting files would require alteration for the addition of the country code. Flags could be stuck to the kite at the tip sections to reduce added complexity or printed onto the required panels. Proposal would be a plain white kite with country code and flag design added. Works for all countries; compatible with current designs. Minor increase in cost by €50. No additional lead time	Would require single leading edge colour. Country code would require alteration of cutting files and change to building specification. Flags/colours stuck to tip sections. Size of country code is limited due to design constraints. 8-10 months (2027 worlds) approx. increase of €250	
OZONE	Technically feasible but requires additional cuts and stitching as sticking-on the design would add too much weight. Performance should not be significantly compromised, but is dependant on the flag and the final cutting/stitching pattern. Will constitute a build spec change. Complex designs must be simplified to allow for production (i.e. coats of arms, stars etc). Colour could be added via screen printing method (min.order of 5 pieces) - for large areas this would add considerable weight. Additional lead times required but not over a month. Additional cost €800–1500 per kite.	Most balanced solution. Feasible via stuck-on method, within current tolerances, no design changes required. Minor change to performance characteristics due to the extra weight from flag/country code. Limit to the level of detail that can be reasonably produced. Material colours that are not available can be screen-printed onto cut sections with insignificant impact on weight. Additional lead times of up to 4 weeks. Cost €400–800 per kite, but will increase if screen printing of parts is required. Minimum order for screen printing is 5 units per kite size (as flag size would change).	Fairest solution. Currently only manufacture with stock colours, printing onto white fabric could be a possibility. Country codes would be stuck-on. No design changes required. Performance with stock colours would not be affected, however screen-printing of non-stock colours would significantly increase weight and could compromise performance. Additional cost of €500–600 per kite. Additional lead time should be in the region of weeks to a month	NOC colours on wing tips, Country code on wing. Colours could be standard or screen printed (minor increase in weight). Country codes would be stuck-on. No Significant weight or performance differences. Additional cost of €500–600 per kite. Additional manufacturing time should be in the region of weeks up to a month. See Appendix B for suggested design.

	OPTION 1 - FULL FLAG	OPTION 2 - SMALL FLAG	OPTION 3 - COLOURS	OPTION 4
ELEMENT	Not recommended, unfair due to complexity differences. Option not considered by the manufacturer	Feasible but there are complexity issues. Option not considered by the manufacturer.	Preferred option fairest solution. Cutting files can be altered if required. Asymmetric designs should be avoided as could result in an unbalanced kite. Minimal change in weight or performance. Additional colours (not stocked) will increase lead times and cost. Printing possible but will add weight. Additional lead time of up to 6 months. Estimated cost increase of €600	
NORTH	Not feasible. would require re-cutting panels per flag and create performance imbalance. Option not considered by the manufacturer	Feasible; within tolerances. Most balanced Solution. Moderate weight impact, performance would be impacted by ink (increased stiffness). Estimated cost < US\$100 per kite assuming size 500mm x 1000mm. Approx increase in lead-time of 3 months	Potentially feasible but requires non-standard cloth colours, affecting lead time and cost.	

Examples of Proposed Designs received from Flysurfer can be found in *Appendix C*.

Appendix A – Manufacturer Colourways



Figure 2 2 - Colourways offered by Flysurfer – the VMG9 is currently only offered in Dust Pink (Far Left)



Figure 3 3 - Colourways offered by Ozone

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Figure 4 - Element Kites Currently Available Colourway Options



Figure 5 - North Kites offers a single colourway

Appendix B – Examples of Customisation by manufacturers



Figure 6 - Example country code customisation produced by Ozone



Figure 7 - Example full - kite country flag customisation produced by Ozone

Appendix C – Proposed Designs Received From Manufacturers

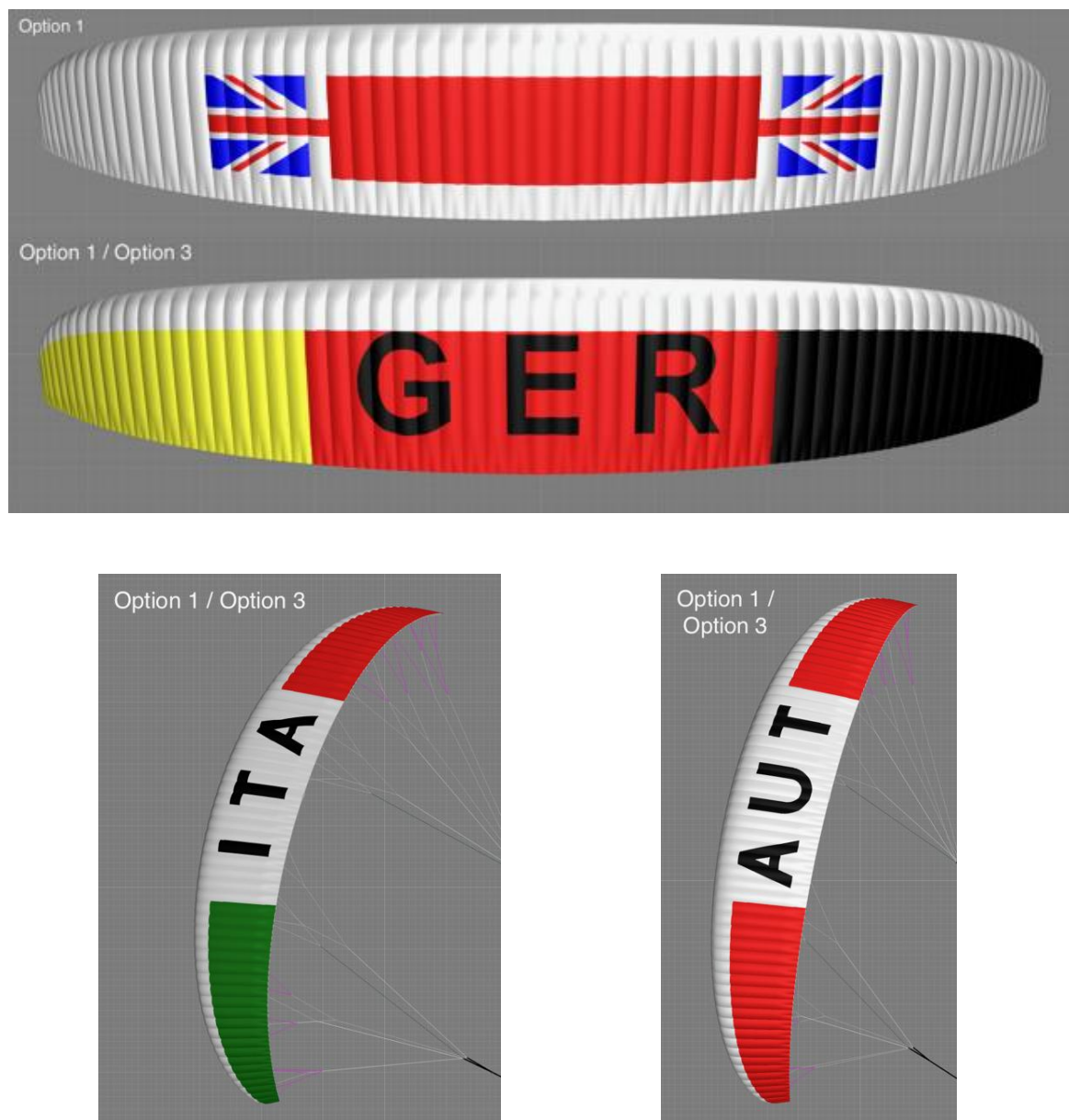


Figure 8 – Designs Provided by Flysurfer as viable designs for options 1 or 3



Figure 9 - Design proposed by Flysurfer as viable for option 2



Figure 10 - Design proposed by Flysurfer as viable for option 3

Option 1: Full kite displaying the national flag and country codes

1. Production feasibility

a. Can you produce the kite as described?

FLYSURFER Kiteboarding: Yes, but it will affect lead times and the equal playing field for the athletes. We highly recommend a different solution.

Ozone Kites Ltd: For adding graphical elements that span the whole kite, we would have to use our cut-in/sewn-in method. The stuck-on method is not possible due to the extra weight and it would also create creases for the bigger graphical elements.

Element: This option is unfair for the different countries, some have very easy logos and some are very complicated

North Kiteboarding: No. Implementation would require either full print which would be heavy or different panel cuts, needing CAD work for each flag and depend on that nesting will be change. This would also likely result in performance differences. Material availability and stock levels would be a problem with the range of different colours needed. Price will be fluctuated depend on the Flag.

b. Would changes require alterations to cutting files, stitching, or material composition?

FLYSURFER Kiteboarding: Requires alterations to the cutting files of the VMG³ by erasing the “design cuts”. We have to order every colour from two different suppliers, which affects the supply chain, increases lead times, and results in a higher purchase price for the athletes. Large country codes can cause asymmetry and add weight, resulting in performance loss for some nations.

Ozone Kites Ltd: Yes, the additional cuts would be made manually - potentially also laser cut within reasonable limits, and additional stitching would be needed.

Element: option not considered

North Kiteboarding: option not considered

c. Would your implementation method be considered a “build spec change” or within current design tolerances?

FLYSURFER Kiteboarding: Current design tolerances will need to be adjusted

Ozone Kites Ltd: The overall measurements would stay within design tolerances. The extra cuts and stitching might be considered a “build spec change”.

Element: option not considered

North Kiteboarding: option not considered

2. Impact on equipment

a. Effect on weight, shape, or performance (including any need for prototype testing).

FLYSURFER Kiteboarding: We will need prototype testing due to possible changes in the leading-edge cuts and additional weight. It can cause stability issues that could lead to injuries. No matter if we would print flags or sew them to the kite, it will cause differences between the nationalities because the flags are extremely different. Some need complicated graphics, others very simple. Lots of cutting or little cutting. Lots of molds or little numbers

Ozone Kites Ltd: Performance should not be compromised by this building method, some kites we had made in the past - used in competitions before the IKA disallowed them for the 2020-2024 Olympic cycle - showed very similar flying characteristics. The extra weight of overlapping seams and additional threads will depend on the complexity of the graphical elements of the flags. The more detail, the more overlap and stitching. Extra stitches could also create some additional drag. Due to the asymmetric nature of some national flags, weight could end up being distributed unevenly, which could compromise performance, especially when turning the kite in manoeuvres.

Element: option not considered

North Kiteboarding: option not considered

- b. Whether certain flags (e.g. Union Jack vs Japanese flag) present greater challenges or performance differences.

FLYSURFER Kiteboarding: The more complex the flag, the higher the risk for malfunctions. We are not able to guarantee equal performance for all kites due to those huge differences.

Ozone Kites Ltd: There is a practical limit to the level of graphical detail that can be cut and sewn into the canopy. For example, reproducing the coat of arms of the Spanish or Portuguese flag would be both technically challenging and costly, while offering little visual impact from a distance. A stylized or simplified version of the flags could provide a more effective balance between cost, appearance, and potential performance considerations.

Element: option not considered

North Kiteboarding: option not considered

- c. Performance differences between cloth colours (if colour-based solutions are considered).

FLYSURFER Kiteboarding: In theory, darker colours can lead to higher temperatures and more internal pressure/stiffer canopy. This is only a rumour and not scientifically proven. So from our point of view there is no difference.

Ozone Kites Ltd: We keep only a limited range of fabric colours in stock at our factory. However, any colour can be applied by screen-printing onto white fabric prior to cutting. This process adds extra paint, which increases the overall weight. While the additional weight from smaller graphic elements is usually negligible, larger printed areas—such as one of the stripes on simple flags like the French, German, or Italian—can result in a significant variation from the kite's registered weight.

Element: option not considered

North Kiteboarding: option not considered

3. Printing and design

- a. If printing is possible, what are the implications for specification compliance, performance, and lead times?

FLYSURFER Kiteboarding: Printing, in general, adds weight and increases manufacturing time. Performance loss or stability issues can occur. Weights of kites would be definitely different, caused by the different styles of flags.

Ozone Kites Ltd: Screen printing of graphical elements could be a remote possibility but large graphical elements that span across panels/seams are hard to align correctly due to the curved shape of the kite's profile and hence the panels. It would add considerable weight, especially with bigger graphical elements. We have not developed a digital sublimation printing method so far that can be applied to the fabrics used. See point 2.c. Screen printing of non-stock colours

adds an additional step to the manufacturing process which can result in slightly higher manufacturing times.

Element: option not considered

North Kiteboarding: option not considered

- b. Are there limitations on printable areas, cloth availability, or colour ranges?

FLYSURFER Kiteboarding: The bigger a printing would be, the more problems occur. Weight in general, weight differences between different nationalities. Cloth color availability due to different suppliers with different lead times. Some suppliers tend to have 4 month lead time....and the min. order quantity of special colors is 2700m per color. 2700m MOQ means more than 10.000€ costs for a special color.... If a raw material shortage happens, we are looking at a delay of at least 3-4 months.

Ozone Kites Ltd: No limitations for screen printed colour ranges onto white fabric, almost any pantone is possible to mix. Of course, no graded colours are possible.
No restrictions on printable areas except the zipper and the area reserved for the warning text, serial number and IKA plaque.

Element: option not considered

North Kiteboarding: option not considered

4. Cost and supply chain

- a. Expected cost implications (per kite).

FLYSURFER Kiteboarding: 400-800 USD per kite, depending on chosen color.

Ozone Kites Ltd: For the sewn-in method, we would have to quote every design mockup, the price will depend on the number of customized panels and complexity of the logo, and on the non-stock colour prints. An estimated price range for the customization fee could be 500-1000€ per kite for the top skin only, or 800-1500€ for both top and bottom. As there are no scale effects – most production steps are manual – the price wouldn't decrease significantly for larger production runs of each design. For screen printed logos, there would be a fixed cost for making the screens, and then a print fee per kite. The amount of screens needed depends on the number of panels to be printed, and on the number of colours used. The minimum order quantity is 5 units per size for each design.

Element: option not considered

North Kiteboarding: option not considered

- b. Additional lead time or supply chain challenges (e.g. need for specific stock of cloth colours).

FLYSURFER Kiteboarding: Five months in the worst-case scenario until the athlete receives the kite.

Ozone Kites Ltd: The customisation process initially requires usually a few days of preparation to define the design and prepare the quote. For the manufacturing process it typically takes 1-2 extra weeks, depending on the workload of our custom logo craftsmen. Screen printing adds another 1-2 weeks. The lead time for ordering specific colour fabrics depends on the production capacity of our suppliers, but usually some weeks rather than months. There is a minimum order quantity that needs to be taken into account that is most likely higher than the orders of a particular country, and the storage space in our factory is limited.

Element: option not considered

North Kiteboarding: option not considered

5. Limitations and constraints

- a. If only partial implementation is possible (e.g. limited sizes or placements), please provide details.

FLYSURFER Kiteboarding: Without altering the leading-edge and trailing-edge design cuts, there is an option to sew in the country codes. The flags can be added in the tip sections on both sides by the federations with a stick tape solution. Anyone can produce these if we set a standard for the material and glue. This way the nationality could be seen from all angles

Ozone Kites Ltd: The position of our standard prints – especially the big Ozone O and the model/size – will need to be considered, as there are cuts, stitching and print screens that are part of the registered design. The position of the 3-letter country codes could interfere with some of the graphical elements of the flag.

Element: option not considered

North Kiteboarding: option not considered

- b. Clarify the drivers of these limitations.

FLYSURFER Kiteboarding: See above arguments

Ozone Kites Ltd: Our logos are screen printed and moving them to a different position would need another investment in screens for each size. The panels are cut around the O logo and would require changes of the cutting files.

Element: option not considered

North Kiteboarding: option not considered

6. Readiness and timeline

- a. Estimated time required to achieve implementation at scale.

FLYSURFER Kiteboarding: Eight months to ten months.

Ozone Kites Ltd: asap

Element: option not considered

North Kiteboarding: option not considered

- b. Whether mid-2026 readiness and mandatory application at the January 2027 Worlds is achievable.

FLYSURFER Kiteboarding: Mid-2026 readiness feels rushed, but achieving 2027 Worlds is easily within reach

Ozone Kites Ltd: Yes.

Element: option not considered

North Kiteboarding: option not considered

7. Other:

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- a. please provide any other feedback or comments you would like World Sailing to note and consider.

FLYSURFER Kiteboarding: Please check the attachment of option 1.

Ozone Kites Ltd: We are investigating a potential digital printing technique. This could be an option once developed and tested.

Element: option not considered

North Kiteboarding: option not considered

Option 2: Kite displaying a national flag of reduced size and country codes

1. Production feasibility

a. Can you produce the kite as described?

FLYSURFER Kiteboarding: Yes, our preferred option.

Ozone Kites Ltd: For adding the country codes and the national flags on the tips, we would use our stuck-on method.

Element: This option is possible, but the same problem with the different country flags and their complexity to print.

North Kiteboarding: Yes. We had allowed for this as per the class rules.

b. Would changes require alterations to cutting files, stitching, or material composition?

FLYSURFER Kiteboarding: Yes, it will require non-critical sections of the kite in the centre, depending on the country code.

Ozone Kites Ltd: No, the stuck-on fabrics would be an extra layer on top of the standard kite.

Element: option not considered.

North Kiteboarding: No.

c. Would your implementation method be considered a “build spec change” or within current design tolerances?

FLYSURFER Kiteboarding: Yes, it will require a change to the “build specification”. We will erase the current design cuts to build the kite in the most uniform way possible. We would only add the minimum cuts necessary for the national code. Effects would be minimal

Ozone Kites Ltd: The stuck-on technique would not require a design change and would stay within tolerances.

Element: option not considered

North Kiteboarding: Within current design tolerances.

2. Impact on equipment

a. Effect on weight, shape, or performance (including any need for prototype testing).

FLYSURFER Kiteboarding: It will add a minor margin of weight (only the sticky tape national flags at wing tips) or even equalize it after erasing the design cuts on the tips.

Ozone Kites Ltd: Performance should not be compromised by this building method, the country codes on kites we had made in the past for the 2020-2024 Olympic cycle showed very similar flying characteristics. The extra weight of the stuck-on fabric will depend on the size of the flags and the country codes.

Element: option not considered.

North Kiteboarding: There will be some impact on weight, and performance as the ink will add weight and stiffness.

- b. Whether certain flags (e.g. Union Jack vs Japanese flag) present greater challenges or performance differences.

FLYSURFER Kiteboarding: Without altering the leading-edge and trailing-edge design cuts, there is an option to sew in the country codes. The flags can be added in the tip sections on both sides by the federations with a stick tape solution (digital printing on it). Anyone can produce these if we set a standard for the material and glue.

Ozone Kites Ltd: There is a practical limit to the level of graphical detail that can be cut from the sticky fabric. For example, reproducing the coat of arms of the Spanish or Portuguese flag would be technically challenging, while offering little visual impact from a distance. A stylized or simplified version of the flags could provide a more effective balance.

Element: option not considered

North Kiteboarding: Yes, more complex flags will require more screens and colours. Also the aspect ratio of flags are not consistent, so there will be some different sizes

- c. Performance differences between cloth colours (if colour-based solutions are considered).

FLYSURFER Kiteboarding: We want to propose complete white kites with sewn-in black country codes. One-Color design without performance compromises

Ozone Kites Ltd: We keep only a limited range of fabric colours in stock at our factory. However, any colour can be applied by screen-printing onto white fabric prior to cutting. This process adds extra paint, which increases the overall weight. The additional weight from smaller graphic elements will be negligible and will result in an insignificant variation from the kite's registered weight.

Element: option not considered

North Kiteboarding: This would need to be tested.

3. Printing and design

- a. If printing is possible, what are the implications for specification compliance, performance, and lead times?

FLYSURFER Kiteboarding: We won't add additional printings, only the country flags at wing tips.

Ozone Kites Ltd: Screen printing of graphical elements onto the sticky fabric could be a possibility. We have not developed a digital sublimation printing method so far that can be applied to the sticky fabrics.

Element: option not considered

North Kiteboarding: Each flag would require it's own screens, so will at lead time to create them. We would have to test the impact, but it should be a consistent impact regardless of flag used.

- b. Are there limitations on printable areas, cloth availability, or colour ranges?

FLYSURFER Kiteboarding: This concept is optimized for product and supply chains.

Ozone Kites Ltd: No limitations for screen printed colour ranges onto white fabric, almost any pantone is possible to mix. Of course, no graded colours are possible.
No restrictions on printable areas except the zipper and the area reserved for the warning text, serial number and IKA.

Element: option not considered

North Kiteboarding: We had allowed a print space as per the class rules. Our kite is white, so there should be a need to change cloth.

4. Cost and supply chain

a. Expected cost implications (per kite).

FLYSURFER Kiteboarding: Minor increase by 50€.

Ozone Kites Ltd: For the stuck-on method of 2 flags and the 3-letter country code on the top skin only, the customization fee would be 400-500€ per kite, for both top and bottom layer 600-800€. As there are no scale effects – most production steps are manual – the price wouldn't decrease significantly for larger production runs of each design. For screen printed logos, there would be a fixed cost for making the screens, and then a print fee per kite. The amount of screens needed depends on the complexity of the flag's design and number of colours used. The minimum order quantity is 5 units per size for each design – to keep the size of the flag constant relative to the size of the kite, please note that the screens would have to be different for each kite size.

Element: option not considered

North Kiteboarding: A price estimate would be less than US\$100. Some simple flags (eg: Japan) could cost less, and other more. We are aiming for an average cost. This will cover the design time to prepare files, screen cost, printing cost.

b. Additional lead time or supply chain challenges (e.g. need for specific stock of cloth colours).

FLYSURFER Kiteboarding: We do not expect any additional lead times.

Ozone Kites Ltd: The customisation process initially requires usually a few days of preparation to define the design and prepare the quote. For the manufacturing process it typically takes 1-2 extra weeks, depending on the workload of our custom logo craftsmen. Screen printing adds another 1-2 weeks.

Element: option not considered

North Kiteboarding: Cloth changes would add months to the lead time, longer if custom colours are required.

5. Limitations and constraints

a. If only partial implementation is possible (e.g. limited sizes or placements), please provide details.

FLYSURFER Kiteboarding: No further explanation required.

Ozone Kites Ltd: The position of our standard prints – especially the big Ozone O and the model/size – will need to be considered, as there are cuts, stitching and print screens that are part of the registered design.

Element: option not considered

North Kiteboarding: We had worked on a 1:2 ratio with a 500mm height, 1000mm width

b. Clarify the drivers of these limitations.

FLYSURFER Kiteboarding: no answer given.

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Ozone Kites Ltd: Our logos are screen printed and moving them to a different position would need another investment in screens for each size. The panels are cut around the O logo and would require changes of the cutting files.

Element: option not considered

North Kiteboarding: Printing across multiple panels is not ideal as it takes longer to produce and runs the risk of misalignment.

6. Readiness and timeline

- a. Estimated time required to achieve implementation at scale.

FLYSURFER Kiteboarding: Three months.

Ozone Kites Ltd: asap

Element: option not considered

North Kiteboarding: Creating designs and screens will take approximately a 2-3 weeks extra for new flags. Reorders would be a custom order, so 3 months

- b. Whether mid-2026 readiness and mandatory application at the January 2027 Worlds is achievable.

FLYSURFER Kiteboarding: Mid-2026 is achievable.

Ozone Kites Ltd: Yes.

Element: option not considered

North Kiteboarding: This should be possible

7. Other:

- a. please provide any other feedback or comments you would like World Sailing to note and consider.

FLYSURFER Kiteboarding: This is, in our opinion, the best solution for every party. Production optimized, high visibility, ensures equal chances and performance. Please check the attachment of option 2.

Ozone Kites Ltd: We are investigating a potential digital printing technique. This could be an option once developed and tested.

Element: option not considered

North Kiteboarding: no answer.

Option 3: Kite in the colours representing the NOC at the Games (e.g. blue tones for ITA, orange tones for NED) and country codes.

1. Production feasibility

a. Can you produce the kite as described?

FLYSURFER Kiteboarding: Yes, but requires a uniform leading-edge colour to fulfil the necessary lead times.

Ozone Kites Ltd: Currently we could only manufacture kites with our stock colours. Screen printing other colour ranges onto white fabric could be a possibility. For adding the country codes, we would use our stuck-on method.

Element: This is for us the easiest way to identify the nationality and is faire for all countries, we are just limited in different colours. As soon as it will be a special colour, the production coast will increase, because we can't cut 10 layers at the same time. If the colour is in our stock, the extra coast for special colour is 300.- Euros, the printing from the country codes, env. 200.- Euros per kite. If the colour is not in stock, this will depend of the availability from Porcher in France, 3 to 6 months per colours and we need to take a minimum quantity of rolls. This will increase the price as well. We can produce all sizes in all colours; there is no extra work for us

North Kiteboarding: Potentially. Material availability and stock levels would be a problem with the range of different and custom colours needed. Lead times would be increased. Costs would need to be increase due to having to carry more stock of material.

b. Would changes require alterations to cutting files, stitching, or material composition?

FLYSURFER Kiteboarding: Yes, it will require non-critical sections of the kite in the centre, depending on the country code

Ozone Kites Ltd: The stuck-on fabrics would be an extra layer on top of the standard kite and would not require any changes.

Element: We would like to keep our identity by keeping our design. If needed, we can adapt to your request and change the cutting files. We wouldn't like to have asymmetric colour design; this could result that the kite is turning to one side

North Kiteboarding: option not considered.

c. Would your implementation method be considered a "build spec change" or within current design tolerances?

FLYSURFER Kiteboarding: Yes, it will require a change to the "build specification". We will erase the current design cuts to build the kite in the most uniform way possible.

Ozone Kites Ltd: The stuck-on technique would not require a design change and would stay within tolerances.

Element: We would be in the current tolerances

North Kiteboarding: option not considered.

2. Impact on equipment

a. Effect on weight, shape, or performance (including any need for prototype testing).

FLYSURFER Kiteboarding: It will add a minor margin of weight or even equalize it after erasing the design cuts on the tips.

Ozone Kites Ltd: Performance should not be compromised by this building method, the country codes on kites we had made in the past for the 2020-2024 Olympic cycle showed very similar flying characteristics. Screen printed non-stock colours onto white fabric would increase the overall weight significantly, even if only used for 1/3 of the surface area. If used on only one part of the kite, the additional weight would end up being distributed unevenly, which could compromise performance, especially when turning the kite in manoeuvres.

Element: The weight would be nearly the same, the performances wouldn't change

North Kiteboarding: option not considered.

- b. Whether certain flags (e.g. Union Jack vs Japanese flag) present greater challenges or performance differences.

FLYSURFER Kiteboarding: The flags can be added in the tip sections on both sides by the federations with a stick tape solution. Anyone can produce these if we set a standard for the material and glue.

Ozone Kites Ltd: Non applicable for this option.

Element: With option 3, there wouldn't be a big difference between different countries

North Kiteboarding: option not considered.

- c. Performance differences between cloth colours (if colour-based solutions are considered).

FLYSURFER Kiteboarding: No.

Ozone Kites Ltd: We keep only a limited range of fabric colours in stock at our factory. However, any colour can be applied by screen-printing onto white fabric prior to cutting. This process adds extra paint, which increases the overall weight. While the additional weight from smaller graphic elements is usually negligible, larger printed areas can result in a significant variation from the kite's registered weight.

Element: There shouldn't be a difference between different colours (option 3)

North Kiteboarding: option not considered.

3. Printing and design

- a. If printing is possible, what are the implications for specification compliance, performance, and lead times?

FLYSURFER Kiteboarding: No printing required.

Ozone Kites Ltd: We have not developed a digital sublimation printing method so far that can be applied to the fabrics used.

Element: If we need to print, this will complicate the production process, because we can't do it in house. The lead times will increase, and the price would be different to each Flag

North Kiteboarding: option not considered.

- b. Are there limitations on printable areas, cloth availability, or colour ranges?

FLYSURFER Kiteboarding: Cloth availability can only be ensured if the leading-edge colour is uniform (such as white) due to different suppliers with varying lead times. If a raw material

shortage happens, we are looking at a delay of at least two months. Leading edge cloth supplier has a MOQ of 2700m per special color. This is strong limit if leading edge would be part of the national color.

Ozone Kites Ltd: Not answered.

Element: There are no limits, but as more you print, as heavier the kite will be in the end

North Kiteboarding: option not considered.

4. Cost and supply chain

a. Expected cost implications (per kite).

FLYSURFER Kiteboarding: Approximately 250€, if leading edge is uniform for all kites

Ozone Kites Ltd: For the stuck-on method of the 3-letter country code on the top skin only, the customization fee would be 300-400€ per kite, for both top and bottom layer 500-600€. As there are no scale effects – most production steps are manual – the price wouldn't decrease significantly for larger production runs of each design.

Element: For option 3, there are cost implications for the order of new colours, it's hard to make an estimation. We think about 600.- Euros per kite for special colours

North Kiteboarding: option not considered.

b. Additional lead time or supply chain challenges (e.g. need for specific stock of cloth colours).

FLYSURFER Kiteboarding: Four months in the worst-case scenario until the athlete receives the kite.

Ozone Kites Ltd: The customisation process initially requires usually a few days of preparation to define the design and prepare the quote. For the manufacturing process it typically takes 1-2 extra weeks, depending on the workload of our custom logo craftsmen. The lead time for ordering specific colour fabrics depends on the production capacity of our suppliers, but usually some weeks rather than months. There is a minimum order quantity that needs to be taken into account that is most likely higher than the orders of a particular country, and the storage space in our factory is limited.

Element: The additional lead time can be up to 6 months, if the colour isn't in stock by Porcher Sport

North Kiteboarding: option not considered.

5. Limitations and constraints

a. If only partial implementation is possible (e.g. limited sizes or placements), please provide details.

FLYSURFER Kiteboarding: The size of country codes is limited due to technical design constraints—a maximum of five cells from the center of the kite to each side.

Ozone Kites Ltd: The position of our standard prints – especially the big Ozone O and the model/size – will need to be considered, as there are cuts, stitching and print screens that are part of the registered design.

Element: Not answered.

North Kiteboarding: option not considered.

- b. Clarify the drivers of these limitations.

FLYSURFER Kiteboarding: no answer given.

Ozone Kites Ltd: Our logos are screen printed and moving them to a different position would need another investment in screens for each size. The panels are cut around the O logo and would require changes of the cutting files.

Element: Not answered.

North Kiteboarding: option not considered.

6. Readiness and timeline

- a. Estimated time required to achieve implementation at scale.

FLYSURFER Kiteboarding: Eight months to ten months.

Ozone Kites Ltd: asap

Element: Depending on which option you are going for, it could take until 4 months to put all in production

North Kiteboarding: option not considered.

- b. Whether mid-2026 readiness and mandatory application at the January 2027 Worlds is achievable.

FLYSURFER Kiteboarding: Mid-2026 readiness feels rushed, but achieving 2027 Worlds is easily within reach.

Ozone Kites Ltd: Yes.

Element: This should be possible for all options

North Kiteboarding: option not considered.

7. Other:

- a. please provide any other feedback or comments you would like World Sailing to note and consider.

FLYSURFER Kiteboarding: This option requires longer lead times and can lead to a constrained playing field. Please check the attachment of option 3.

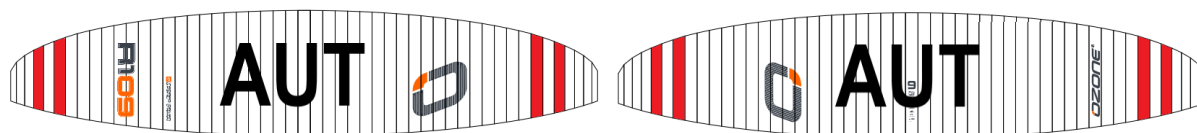
Ozone Kites Ltd: We are investigating a potential digital printing technique. This could be an option once developed and tested.

Element: no answer.

North Kiteboarding: option not considered.

Option 4: Other options proposed by the brands

- **Ozone Kites LTd:** Kite tips in the colours representing the NOC at the Games and country codes



1. Production feasibility

- a. Can you produce the kite as described?

Currently we could only manufacture kites with our stock colours. Screen printing other colour ranges onto white fabric could be a possibility. For adding the country codes, we would use our stuck-on method.

- b. Would changes require alterations to cutting files, stitching, or material composition?

The stuck-on fabrics would be an extra layer on top of the standard kite and would not require any changes.

- c. Would your implementation method be considered a “build spec change” or within current design tolerances?

The stuck-on technique would not require a design change and would stay within tolerances

2. Impact on equipment

- a. Effect on weight, shape, or performance (including any need for prototype testing).

Performance should not be compromised by this building method, the country codes on kites we had made in the past for the 2020-2024 Olympic cycle showed very similar flying characteristics. Screen printed non-stock colours onto white fabric for 2 or 3 panels only would not increase the overall weight significantly, and the additional weight would be distributed evenly.

- b. Whether certain flags (e.g. Union Jack vs Japanese flag) present greater challenges or performance differences.

Non applicable for this option.

- c. Performance differences between cloth colours (if colour-based solutions are considered).

We keep only a limited range of fabric colours in stock at our factory. However, any colour can be applied by screen-printing onto white fabric prior to cutting. This process adds extra paint, which increases the fabric's weight. Additional weight from smaller surface areas are usually negligible.

3. Printing and design

- a. If printing is possible, what are the implications for specification compliance, performance, and lead times?

We have not developed a digital sublimation printing method so far that can be applied to the fabrics used.

- b. Are there limitations on printable areas, cloth availability, or colour ranges?

4. Cost and supply chain

- a. Expected cost implications (per kite).

For the stuck-on method of the 3-letter country code on the top skin only, the customization fee would be 300-400€ per kite, for both top and bottom layer 500-600€. As there are no scale effects – most production steps are manual – the price wouldn't decrease significantly for larger production runs of each design.

- b. Additional lead time or supply chain challenges (e.g. need for specific stock of cloth colours).

The customisation process initially requires usually a few days of preparation to define the design and prepare the quote. For the manufacturing process it typically takes 1-2 extra weeks, depending on the workload of our custom logo craftsmen. The lead time for ordering specific colour fabrics depends on the production capacity of our suppliers, but usually some weeks rather than months. There is a minimum order quantity that needs to be taken into account that is most likely higher than the orders of a particular country, and the storage space in our factory is limited.

5. Limitations and constraints

- a. If only partial implementation is possible (e.g. limited sizes or placements), please provide details.

The position of our standard prints – especially the big Ozone O and the model/size – will need to be considered, as there are cuts, stitching and print screens that are part of the registered design.

- b. Clarify the drivers of these limitations.

Our logos are screen printed and moving them to a different position would need another investment in screens for each size. The panels are cut around the O logo and would require changes of the cutting files.

6. Readiness and timeline

- a. Estimated time required to achieve implementation at scale.

asap

- b. Whether mid-2026 readiness and mandatory application at the January 2027 Worlds is achievable.

Yes.

7. Other:

- a. please provide any other feedback or comments you would like World Sailing to note and consider.

We are investigating a potential digital printing technique. This could be an option once developed and tested.