MAGAZINE n°166

TRIATHLON - DUATHLON - AQUATHLON - PARATRIATHLON - BIKE AND RUN - SWIMRUN



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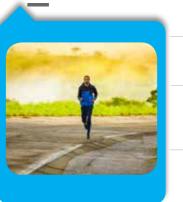


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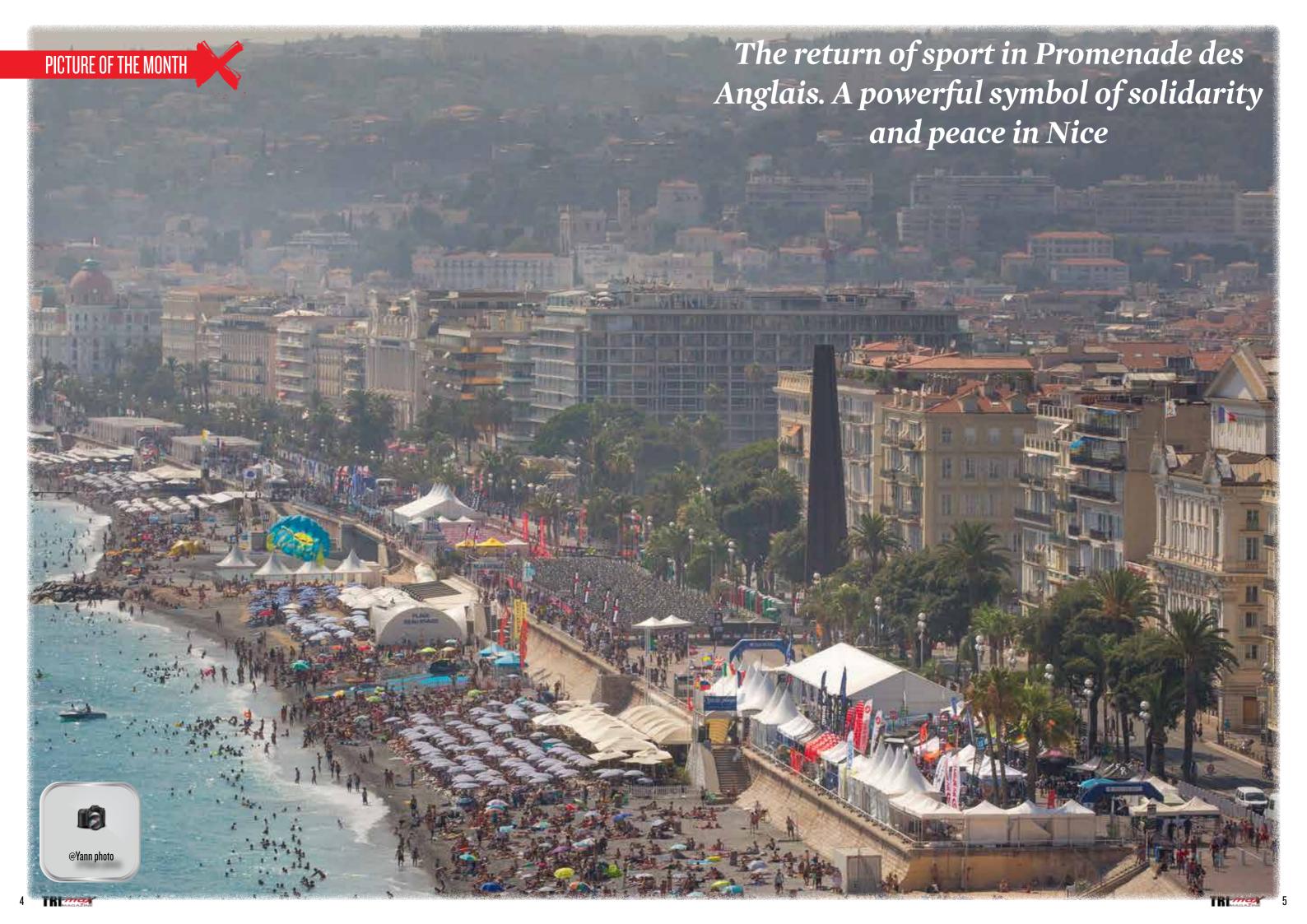


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Challenge Walchsee: #TrilnTheHeartOfTheAlps





thousands of enthusiastop stars from all over the world, – these are only some of the attributes that can be used to say what the event of the Challenge Walchsee-Kaiserwinkl is about. At the foothills of the Kaiser Ranges, Walchsee-Kaiserwinkl is one of the most beautiful triathlon destinations on the planet. Easy to reach from Munich, Salzburg or Innsbruck.

backdrop, After the host of the ETU Eua demanding course, ropean Championships last year, CHALLENGE WALtic spectators along the route, CHSEE-KAISERWINKL invites athletes from all parts of the world into the picturesque Kaiserwinkl to the 8th edition on September 3rd, 2017. In addition to a high-class professional field, more than a thousand five hundred age-class athletes will be on the startline at the crystal clear Lake Walchsee. An exciting race for professionals and age group athletes is guaranteed!



THE COURSE

The 1.9km-long swimming

distance is covered in Lake Walchsee in the foothills of mighty Kaisergebirge Mountain Range. 25m-deep Lake Walchsee with a water temp of 20°C -24°C and drinking water quality offers perfect conditions for a fast swim time.

The two loops 90km

spectacular Challenge Walchsee bike course through Austria's Tyrol region is undulating, a challenging course with its approximately 1200 of altitude difference. With breathtaking views of the surrounding area Challenge Walchsee boasts a truly unforgettable bike course.

The 21.1 km Challenge Walchsee Run Leg

is an undulating four loop course around Lake Walchsee as runners pass farm houses and in between fields and meadows, all set against the backdrop of Kaiser Massif.

The finish line is situated in the heart of Walchsee, next to the transition area with beautiful view on the lake and on the Kaiser Massif and with an enthusiastic crowd celebrating the athletes crossing the finish line.

Junior-Challenge

The classic Middle Distance is not the only competition. According to the motto of the worldwide challenge race series - «Challenge for all» - the Junior Challenge takes place traditionally on Saturday, where the Kids can show what they can, while parents, relatives and fans ensure that there







is a great atmosphere along the route. The competition is a classic aquathlon, in which you swim and run with different distances for different age classes. Like in the last years, we are again expecting a family party with a difference.

The area is not only famous for its scenery, but also for the warm-hearted and welcoming locals. No wonder, that in the last few years Challenge athletes are not only guests, but also have become friends.

In Kaiserwinkl, families will also find everything for a perfect summer holiday – variety, excitement and pure adventure. You get to choose from a variety-packed range for young and old alike – fun for all the family and special opportunities available exclusively for children.

The weekend around the Challenge Walchsee-Kaiserwinkl is an event for young and old, for all those who enjoy sports.

See you on 3rd September in in Austria in the Tyrol!

www.challenge-walchsee.at

Five reasons to race:

- 1) Takes place in one of Austria's most scenic regions the Tyrol
- 2) Spectacular but testing cycle course
- 3) Kaiserschmarrn! (local pancake delicacy)
- 4) Easy to reach
- 5) Fun family festival for all ages





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Challenge Davos Festival covers new grounds



Challenge Davos Festival is the newest addition to the CHALLENGEFAMILY European race calendar an its first Swiss destination. The festival offers a unique endurance challenge up Flüelapass, multiple new race formats on roads completely closed for traffic and an attractive programme for spectators and guests.



Taking place between 16th - 17th September 2017, Challenge Davos Festival will combine the internationally orientated middle distance race of CHALLENGEFAMILY (on Sunday) with the national triathlon series "TRI Circuit" with short distance events (on Saturday). In addition, with the aim to bring together even more endurance athletes, the festival will also include an innovative time trial effort by bike, roller-skis or inlineskates (or even by run) up the Flüela mountain pass.

Middle Distance Race

What is the key value of "middle distance" race? Can it only be defined by its standard distances? Or do you count in your expected effort and time requirements as well? So, is Davos' setting with 1.9 km of swimming, 50 km of biking and 21.1 km of running worthy for a "middle distance" when you look at its challenging 1770 positive altimeters on the bike course? Race Co-Organisator and 4 time Olympian triathlete Sven Riederer is clear about it: "We talk about a middle distance



format. Athletes will need approximately the same time to finish, that's why all cut-off time are set respectively."

"We wanted to create a unique triathlon event that covers new grounds" says Ernst Bromeis, president of the organization committee. The bike course through breath-taking Alpine mountains will be held on the road leading up Flüelapass (2383m above sea level), which will be completely free from traffic. "It's a unique experience to enjoy the scenery in silence and to hear only your own breathing rhythm, the wind and the flowing water". Supporting this idea, leading and support cars and motorcycles will be mainly electric driven.

Assumingly, Davos will be the first non-drafting triathlon, where drafting on the bike is no issue. Technical Officials have agreed to not sanction packs of riders due to the very limited effects of drafting on this challenging route up and down each side of the mountain pass. Participants will be having time enough to prove their (own) cycling strengths.

The swim and run course are spectacular in their own rights. The swim will be held in Lake Davos with its refreshing and drinking-safe waters. The course is partly set along the shores what gives family, friends and spectators an opportunity to cheer on the athletes. The predominantly flat run course travels around the lake and offers beautiful views what will help participants to get to the finishline.

"We are excited to share the 'high altitude' experience with athletes, media and partners," concludes Zibi Szlufcik, CEO Challenge Family and Co-Organisator of Challenge Davos Festival.

Innovative Side-events

The middle distance race is regarded as the centrepiece of the programme, but the weekend is packed with other race opportunities. On Saturday, triathletes can participate in an "olympic distance" event with a 1.5k swim, 24k bike with a turn on the Flüelapass (820 altimeter gain) and a concluding 10k run. This race is the closing event of the Swiss

TR may

triathlon series followed by an award ceremony at the event partner hotel Intercontinental Davos (also the venue of other event activities and locations like press conference, briefings, pasta party and expo).

Also on Saturday, the Flüela Challenge is scheduled, a time trial event up Flüelapass for age groupers and professional athletes. The distance can be covered per road bike, rollerski, inline-skates or by running. The finishline is on top of Flüelapass after a 12k effort with



815 altimeters) The transport back to the valley is organized. Athletes of each discipline will be ranked separately as well as in a general ranking. So new questions will have to be answered: How many inline skaters will be faster than the average biker? How much time will you lose compared to pro athletes?

Destination Dayos

Perched 1,560 metres above sea level, situated in the heart of the Swiss canton Graubünden, Davos is the highest town in Europe and famed for the diversity of sports, leisure and cultural offers, the Spengler Cup, the Kirchner Museum and the World Economic Forum. Davos' has a long tradition for endurance sports events, for example the Swiss Alpine Marathon (first mover in trailrunning) and Davos Nordic (world cup cross country skiing) Davos' diversity fits perfectly with the polysportive nature of triathlon. For the well-earned celebration after the races, Davos offers a wide range of nightlife possibilities and supports recovery with its tradition as a high altitude resort and its rejuvenating climate.



informations

Event website and registration: https://www.challenge-davos.ch/fr/

Destination Davos: http://www.davos

Complimentary guest programme:
http://www.davos.
ch/en/summer/
activities/davosklosters-active/





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On July 23rd, Trimax-Magazine did a live of Frederik Van Lierde 4th victory in Nice and the first victory there for Carrie Lester. But beyond sports, it's important to remember that this event was about to be cancelled. Thanks to passion, determination and self-sacrifice of the organization team that it could take place, by postponing it for one month. Only a few days after the national commemoration ceremony on the Prom' on July 14th, the Ironman was the first sports event to take place on the famous Street of Nice. It was a big symbol. Moments full of emotions, moments of passion and joy which will make this edition unforgettable.

o paraphrase one of our columnists: sport is very frivolous, such as art. Culture. But so important. Fundamental. Vital. The sign of a country in peace, of a democracy where we can be together and think about our fulfillment. To live. This come-back is emotional and important. So symbolic. Beyond the winners' name.

Without forgetting their performances, the courage of the thousands finishers, the engagement of the many volunteers, it seemed important to us to tell the story of the backstages of this event which will remain forever an edition like no other.

The tragedy which touched France on July 14th 2016 in Nice was a huge trauma for France and the citizens of Nice. Yves Cordier, IM France manager, will never forget the hundreds of phone calls he received that night from close friends and family who were worried about his silence. «That night, I was tired. It was quite cold and very windy and we decided to stay home. I went to bed early before the firework around 10:30pm and I didn't hear anything. Around 1:30am, I woke up and saw my phone. A lot of people tried to call me and they were all very worried that I didn't answer...»

The days that followed were synonymous of sadness, horror, feeling of injustice, broken families... How could the Prom' recover from such a tragedy? How could the sun shine again on that famous Avenue? Would it be a lack of respect to keep celebrating joy







in a place affected by such violence?

The decision came from the city of Nice a few days later... There would be no event on the Promenade des Anglais during one year... And the IM France was already going to take place during that period of mourning.

«It's very complicated to see that we cannot live «normally» because of crazy people. Regarding the IRONMAN, we had to work with the city of Nice to find a new date and then communicate it to the athletes. We had to be very responsive and compliant to meet the new demands on security.» Explains Guillaume Louis, responsible for communication of the event.



«When we chose July 23rd with the city of Nice, we didn't know that the commemorations would be so important. If we had known, we would have postponed it. But we managed to organize it despite the constraints! The disappointment for us is that many athletes were not nice to us about the date change... we would have liked a bit more understanding considering the circumstances.» Explains Yves Cordier.

Regarding security, there will a «before» and «after» July 14th for every event: the standards and requirements are very high, which frightens many organizers. Consequently, a lot of events were cancelled in 2016 and 2017 because of the requirements needed.

«We had worked with the services to offer a huge security like no other in Nice. However, the ceremony of July 14th stopped us on the completion of our file because the authorities focused on the commemoration! The authorities could only study our file after July 14th and the Prefect told us on July 18th to implement the same security measures as for the commemoration! We had to close all the Prom' from North to South, to implement 165 concrete blocks, permeability barrier vehicles, double fences, 200 security agents, volunteers, providers, VIP, media... identification of every car... A huge work that we didn't imagine in addition to the technical organization of the event. The bill is very high but it was important to hold on and to show that Nice and its Prom' could live again. For 2018, we will work with the city to anticipate the tools and techniques to implement.» Says Yves Cordier.

«To make the Prom' live again», it was the main goal of the organization and the Promenade des Anges, an association of help and defense of the victims and families. The president Emilie Petitjean pointed out during the press conference

that resilience could also go through sports. In the race, 10 legionnaires with a white shirt showing the name of the 86 victims forming a heart also wanted to participate to this event in tribute to the victims and to collect funds for the association.

The team didn't give up, and they had to... On July 23rd, the IM France 2017 could take place...

«The start of IRONMAN France Nice is the most full of emotions I've ever known. There was a mix of proudness, release and also sadness. I can say I had goosebumps and the tears in my eyes...» remembers Guillaume Louis.

« It's probably the strongest emotion I've known since I've organized this event, because we (my team) went beyond our capacities to be able to start the race! It was a continuing challenge to give back its glory to the Prom'! We will never forget what happened and the 86 victims. The three young singers from the Opera of Nice gave us a lot of emotion when they sang our national anthem!»

And then everything happened at once... The start which always give goosebumps, the rolling-start swim, the new bike course always difficult but even more beautiful and the run on this Prom' completely closed to traffic... After 8:31'31, brilliant as usual on this event which means a lot to him, Fred Van Lierde won for the 4th time. Less than 1 hour later, Carrie Lester won for the first time in Nice.

But beyond athletic performance of the elites and all the finishers during this sunny and very hot day, some images will remain forever in the memory of each member of the organization team and







each volunteer... «If I had to remember a moment, and the eyes of the 2000 athletes during these 3 I would choose the Marseillaise sung by 3 young minutes! I will never forget...» remembers Yves singers from the Opera, dressed in blue white red, Cordier.





«During the IRONMAN, I had more time between 13 and 14 hours of race. I decided to go see them and Contributing to the dream of many triathletes welcome them on the finish line. At that moment, each of them told me «thank you». It's a dream for them and I'm very happy to contribute to that.» Continues happened there... Guillaume Louis.

who desire to be finishers, contributing also to the rebirth of the Prom' and never forgetting what





THE MEDAL



year, the finisher medal has been modified for the return of the IM on the Prom'. The blue chair has been chosen to be the emblem for this edition. The chair has been Promenade as the sea... Since the terrorist attack, it has become the symbol of freedom.

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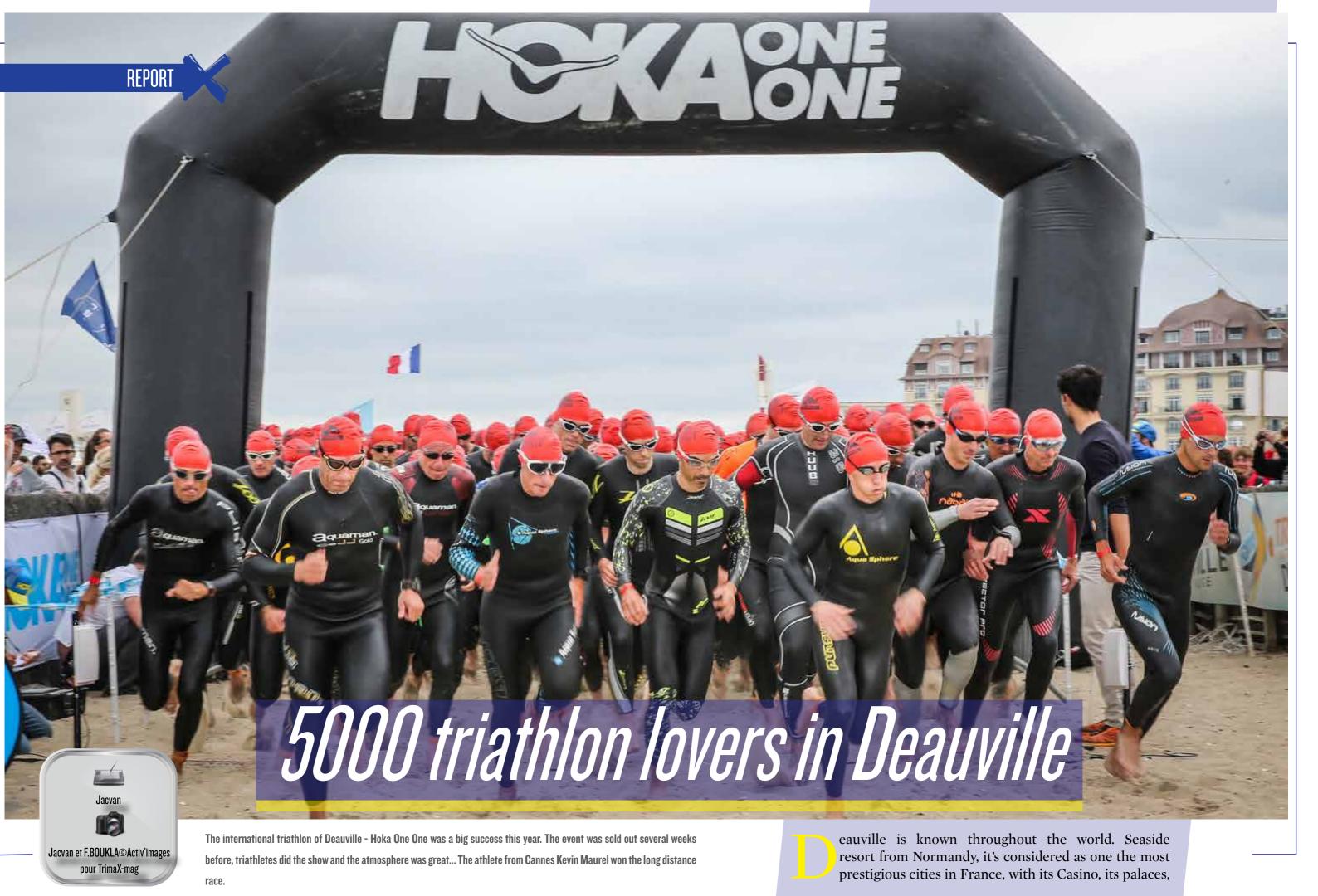








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REPORT

its villas, its racetracks, its marinas, its convention center, its American cinema festival, its golfs and night clubs. It attracts every year thousands of tourists but also many people from Paris who are looking for a place to re-energize especially for the weekend. With its geographic proximity with Paris, it's the favorite holiday place for Parisians especially in the summer.

Movie stars are also very attracted by this resort and its famous Barrière Normandy – hotel. Finally, its beaches with the boards and colorful umbrellas that surround them make it a postal card landscape. At first sight, Deauville doesn't have a predisposition to become a sports capital and especially a triathlon capital during a weekend....



But if you look closer into it, it's actually the ideal place to indulge in your passion and the organization team of the International Triathlon of Deauville - Hoka One One clearly understood the stake five years ago when it took over the event! Unlimited sand beaches allowing to welcome thousands

triathletes, uncommon swimming course with a running part before diving, such as a motor racing start, a bike course which triathletes makes discover the Pays d'Auge with its half-timbered houses and its neverending apple trees. Finally, the running course is historical as it offers a pastoral walk throughout the city, from the traditional





Deauville boards to the finish line facing the Barrière Normandy hotel. Atypical and prestigious, It could be nothing but a success.

With 800 participants during the first edition, the ex æquo team felt the potential

of this event which «tells a story». It offers a weekend of triathlon with different format, it has become throughout the years a place of meeting for triathlon lovers: short, long, open tri, for young and «old» athletes... It's such a success that today, all the events are complete several weeks before the event.

The 5000 available bibs have been taken up for months!

This weekend which gathers elite athletes and beginners is above all a festive weekend around triathlon.

Regarding racing, the long distance event is the major





race and a few elite athletes meet. Lastminute guest, Kevin Maurel showed his strength. We saw him last year in Vichy and in Grasse for the Trigame (where he had beaten Marcel Zamora after a strong bike and a solid run), Kevin Maurel had a card to play, especially thanks to the famous Saint—



Florent hill, main difficulty of the race which was an advantage for him whereas for others it was a disaster. Maurel managed to take the lead on the American Scott de Filippis after the first lap and he arrived at T2 with a comfortable

lead. And even if the American, very good runner, was a real danger for him, the 21k were not enough to reduce the 10-minute gap between them. In any case, is it really surprising that an athlete from Cannes win the International Triathlon of Deauville? It's difficult to do better for two cities implied in the cinema! And regarding cinema, the French actor Paul Belmondo was at the start of the race. Triathlon lover for years,

challenger at heart, he wanted to have fun but also to surpass his limits. The triathlon of Deauville offers many possibilities!

So Kevin Maurel won the first prize in front of Scott de Filippis and Antoine Méchin.

In the females race, we expected a match race between the Swiss Emma Bilham and the Australian Carrie Lester. As the latter

was sick on race day, she couldn't fight against Bilham who was starting an upand-coming season with many podiums and victories! She won with strength and finished 8th overall!

The triathlon of Deauville - Hoka One One has widely managed his bet to become the festive







meeting of triathlon!
After the music festival
of June 21th, Deauville
offers the triathlon
festival!











Find the video report by clicking here









More than 1050 triathletes have participated in the most international edition of recent years.





he third edition of the Challenge Salou, with more than 1050 participants, was held on Sunday morning in Salou, the beach of Europe, under a blazing sun that tested the physical form of the participants triathletes.

The swimming course left a first group formed by Pablo Dapena, David Mcnamee and Jeremy Juerkiewicz and a pursuit group formed by five athletes. The cyclist course only had one

32 **TRI**

STORY

name and was the one of the British David Mcnamee, dominating from beginning to end the segment. When he got off the bike his advantage was more than three minutes and his foot race was a walk as he did not see his final victory in danger at any time, making a fabulous time of 3:26:04. The great comeback in the foot race was the Valencian Emilio Aguayo, surpassing up to six rivals in this segment and reserving forces for a last change of pace that allowed him the second place with a time of 3:28:26. The third place was for the South African James Cunnama (3:28:30) with paths traced in both cycling and walking.

In women, the first to leave the water was the Englishwoman Catherine Jameson, leading the race during the cycling sector. When going down to run had an advantage of more than six minutes with respect to its persecutors. This advantage has vanished in the running on foot where a spectacular Sara Loher made the best run segment that earned him to take the victory of the Challenge Salou with a final time of 3:59:01. The podium was completed by Scottish Nikki Bartlet (4:00:42) thanks to her good bike and the Hungarian Erika Csomor (4:05:20).







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MICHELLE VESTERBY, TRIATHLETE AND GOLD MEDALIST. CHOOSES R5B DONNA.*





In Gravelines, 2000 competitors have already taken up the challenge of the 226 on July 2nd. A record for the 10th edition and improvements are already expected for 2018...

hristophe couldn't hide how much he was pleased. His words are strong and expressive « «It's the best Ch'Triman I've ever known, on a lot of aspects,» says the organizer. Regarding participation, 2000 competitors against 1700 last year have started the race. It has been a long time since the Long Distance hadn't known such a craze. It was unexpected. It shows, however, the good health of the event.»

REPORT

This triathlon meeting during a success weekend. From this French National the Championships in Dijon, Triathlon of Paris to the Half of Beauvais, the Ch'Triman can be proud! A lot of Belgian athletes were present on the race. A loyalty which lasts and shows the «Chti» know-how, settled for 7 years in Gravelines. «The playground is great. It's very easy to adapt, the rowing



artificial lake is a strength f the course. It's like a 2500m long swimming-pool on 140m wide.» A «swimmingpool» such as a megastructure with cables holding the buoys which offer an important landmark for athletes in this clear and stable water. « It's a great advantage in our vision of accessibility for all», explains Legrand. The ambition is higher and higher on this race.

Towards on evolution of the supply...

«This is sure, and even more because the bike course has





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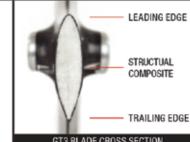
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been modified this year. The 4 laps of 45km are also easily accessible.» Benders on the edges of Aa, on July 2nd, the Belgian Stijn Roelens won in Gravelines in 9:11. Brutal effort, uncompromising on the 226 (3,8km swim, 180km bike and 42km run). Pieter Sacré and Stéphane Lebon complete the podium 3 and 15 minutes after him.

2017 will remain a wonderful year, and Christophe Legrand explains his



intention to develop and increase the number of a strong tendency which should be confirmed. This entertainments on the Ch'Triman. «Racing in this specialty hasn't met the demand. This is the real and closed and private site is another privilege which allows only disappointment of the year, and it makes us want to to manage the marathon with only 14 volunteers. We evolve on this point. Only 50 competitors is not enough still need to boost our races and increase the capacity and it implies a change in the logistic,» regrets Legrand of the transition zones.» An evolution of the supply . «It might be the end of the duathlon!» which could make the duathlon suffer. « This is



Other certainty: the stations, celebration meals (as a competitor said!), will be the other attraction on the Ch'Triman. «Here is another strength», says the organizer, who is careful to give an impeccable comfort to all the athletes, from the first to the last.

No doubt that the Ch'Triman, with its

popular infatuation, is ready for a peaceful future All the results on: and asserts its fame.

Note that on the 113, Quentin Dalaiden won in 4:02 in front of Arne Devliegher (4:03) and Guillaume Montoisy (4:07).

http://www.chtriman.com/inscription/ resultats-2017/

CHTRI;MAN_IN_VIDEC

Find the official clip of Chtri'Man by clicking on the image ...





Aernouts and Ryf take 2017 victories at DATEV Challenge Roth



Bart Aernouts (BEL) and Daniela Ryf (SUI) have put their stamp on DATEV Challenge Roth, taking out the 2017 victories.





ernouts literally ploughed through the field in the hot, humid conditions. Exiting the swim in 23rd, he worked his way up the field on the two-lap bike course and headed out on the run in 5th place. There, together with Joe Skipper (GBR) he set the fastest pace and took the lead at the 26km mark. He did not slow down until the finish, clocking the fastest marathon time in the process (2:44:10

CHALLENGE

hours). Finishing in 7:59:07 hours he was the only athlete in the 3,400 strong individual field to go under the eight hour mark.

"We had a really close field on the men's side and this showed in the run where there were quite a few position changes. I surprised myself a little bit – I am not the best swimmer and I was alone on the bike most of the time and I felt the headwind quite a lot. They say Roth is a fast race – it's not that fast! It's not flat and today it was quite windy. I know a lot is possible in the run – it's long and hard, especially with the new course. *I* had to be patient at the beginning and then took the risk and pushed at the halfway point to get the lead and made it to the finish line. I'm always looking for great race and I think it's going to be hard to find a better race now than this one!"

While not the fastest race, it was certainly exciting. Before the 33-year-old Belgian took the lead, Nils Frommhold looked certain to regain his number one position but a crash with another competitor at 160km put paid to this. While it didn't destroy him, it did break his handlebars and he was out of the race.

Frommhold's bad luck also benefitted long distance rookie, Maurice Clavel (GER), who went from second to first and even extended his lead during the first kilometres of the run. However from the 20km mark it showed that a middle distance champion does not automatically become a long distance champion, at least





















not for now. But the youngest pro managed to hang onto third (8:04:53) despite several walking and stopping breaks, «I had to go through hell,» he said.

He was overtaken by Joe Skipper, who had a similar racing strategy as Aernouts: mid pack in the water, strong on the bike, fleet of foot on the run. His finish time could have been 30 seconds faster but he stopped to take selfies with family and friends just before the finish line!

Not only the top three received standing ovations in the Challenge Roth stadium. The fourth was especially emotional: Timo Bracht, 41, finished his professional career at the finish line. «I had a super race,» he said. In the last race of his career he even achieved a personal best performance on the bike route.

Daniela Ryf once again showed how to chew through kilometres at lightening speed. There was little doubt about her success beforehand. And while she celebrated her win in 8:40:03 in front of thousands of fans, Chrissie Wellington's world record remains intact. The difficult windy, humid conditions, combined with a back injury for Ryf earlier this year, meant it was not a world record day.

"I am very happy with my race," she said. "Like I said before the race I didn't think it would be realistic to get the record. But that didn't stop me trying. I started the run well – the crowds were amazing and they pushed me really hard and I took that energy and I was going well but the last 25km was very hard – I was struggling. It was one of the hardest races for my legs. They got really challenged which is a good thing – that is why we do sport because we like to challenge ourselves and I

definitely did that today. I didn't walk, I just ran really slowly! My legs were so heavy and I tried to lift them but they didn't work smoothly! Sometimes you get a race where you can push it through and today was not easy and I really had to fight for it. I like that the Roth team changed the run course to make a better atmosphere, not to make it faster – it's not all about the records. When races make courses as fast as possible so people come, that's not how it should be. I'm just going to keep focusing on getting better and if the record happens, I will be really happy and if it doesn't, Chrissie Wellington is an awesome record holder."

Second place went to Laura Siddall (GBR) in a personal best of 8:51:38 which also included her fastest ever bike and run splits. The women's podium was rounded out by Lisa Roberts (USA) in 8:57:14 who clocked the fastest female run time of the day in 2:56:34.

Résultats 5 hommes :

1.Aernouts, Bart (BEL)	07:59:07
2.Skipper, Joe (GBR)	08:03:00
3.Clavel, Maurice (GER)	08:04:53
4.Bracht, Timo (GER)	08:07:01
5.Bozzone, Terenzo (NZL)	08:11:34

Résultats 5 femmes :

Nesareaes 5 Tenunes .
1.Ryf, Daniela (SUI) 08:40:03
2.Siddal, Laura (GBR) 08:51:38
3.Roberts, Lisa (USA) 08:57:14
4. Van Vlerken, Yvonne (NED) 09:07:40
5. Hengartner, Corina (SUI) 09:25:28

TRI





The solid and powerful German has shown all year long that he was becoming even stronger, even more complete... with a small delay on the lead after the swim, he pushed very hard on the bike as he's used to and continued his way on the marathon... we'll have a close eye on him in Hawaii this year!

he precious package for the Ironman Frankfort on July 9th offered to pro a 150.000\$ prize money, 4000 points for the KPR and the title of IM European champion. As each year, the field was strong with lots of German athletes. The favorite was Sebastian Kienle who already won twice there and who was looking for a third title... His compatriots were also



in a very good shape: Andi Boecherer, Patrick Lange (3rd in Kona in 2016) and Mickaël Raelert. Face to them were Patrick Nilsson (SWE), Jeff Symonds (CAN), James Cunnama (SA) and the French Cyril Viennot in the search for points for Kona.

Last year Kienle was 4 minutes behind the lead after the swim, this year he managed to keep in touch, especially with his closest rival of the



day Andy Boecherer. Kienle came back on the lead after the second part of the bike course which was 3 km shorter this year because of road works. Boecherer kept pressuring on him and the two German athletes began the marathon together. Kienle was stronger and took the lead with a 2:45 marathon. We have to keep on eye on him for the IM World Championhips this year. He could be on the podium or even better...

As last year, the second was Andy Boecherer who was close to the win only during a few kilometers of the marathon. Thanks to the best running split (2:40'58), Patrick Nilsson finished third.



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of the cyclist. Just enter the weight and height in the screen, and the software automatically calculates the value. This is important to determine the force exerted on the seat. By clicking on SEND, the software will choose the most suitable saddle and will also suggest possible variants.



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After doing each step as indicated, the software processes the detected data giving as result the saddle that best suits the physical characteristics of cyclist.

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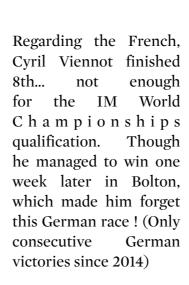


Measure your ischial bones

In this step you will need to measure the space between the tuberosity of the ischial according to the gender and individual characteristics. To make this detection on 'My Own Station', sit and keep the knees at 90 degrees, hold the handles on the side and press your weight on the gel.



To end the process, the software asks the BMI (body mass index)







In the females race, the field was also very strong and open especially with the German Anja Beranek (4th in Kona 2016), the British Lucy Charles (Lanzarote winner), Liz Liles, Sarah Crowley and Corinne Abraham.

First out of the water, Lucy Charles was quickly passed by Anja Beranek, which made us think the

race was going to be a confrontation between the two triathletes! But with a marathon in 3:05'12, the Australian Sarah Crowley showed she was the best! She managed to win in front of Lucy Chales and

Alexandra Tondeur. The German Beranek didn't manage to find her pace on the run and finished 7th...













	_		
Top	5	m a	•

1.	Kienle, Sebastian	DEU	07:41:42
2.	Boecherer, Andi	DEU	07:46:07
3.	Nilsson, Patrik	SWE	07:50:16
4.	Cunnama, James	ZAF	07:51:02
5.	Lange, Patrick	DEU	07:52:06

ron	5	females:	
$_{\rm L}$	~)	TelliaTe9.	

1. Crowley, Sarah	AUS	08:47:58
2. Charles, Lucy	GBR	08:51:50
3. Tondeur, Alexandra	BEL	08:59:55
4. Lyles, Liz	USA	09:01:59
5. Herlbauer, Michaela	AUT	09:05:09

54 TRI



Challenge Danemark: all the city celebrates triathlon!



On Saturday evening, the last triathlete crossed the finish line at the official ETU European Middle Distance Triathlon Champion in the City Square of Herning, which was dressed in sunshine and festive colours. The swim started at IO a.m. at Lake Fuglsang Sø, and while German PRO athlete Patrick Dirksmeier crossed the finish line as the first athlete, whereby he won the official title of European Middle Distance Champion, around 1,500 athletes was fighting their way through 1.9 km svim, 90 km bike and 21.1 km run with massive crowds cheering for them along the way. The bike course took the athletes through the beautiful scenery around Herning, and the run course through a spectacular route in the city centre – straight through the New York-style public library and around the Søndre Anlæg City Park, in which an annual family culture event was taking place at the same time.



66 It has been an exciting and formidable European Championship in Triathlon. The athletes gave us a thrilling race, and the centre of Herning has been buzzing all day. I think this day has shown some of the many possibilities our municipality has to offer, and what we can accomplish when we work together. I'm happy that the people of Herning has supported this race as volunteers, as participants and as a cheering crowd,", says Lars Krarup, Mayor of Herning Municipality.



Massive crowds along the route

Garmin Challenge Herning wasarrangedbyRaceMakers, which is the organisation behind Challenge Denmark (Challenge Herning & Challenge Fredericia), and they also took notice of the large crowds of spectators along the race course. Race Director Claus Vesterby explains: : "It made a really big impression on me to see how many people were actually out there today cheering for the

athletes - along the course and at the finish line - even up until the last athlete crossed the finish line, making sure they were applauded too. That was just incredible!"

Regarding the conduction of the event, he continues: "The day went exactly as well as we'd hoped it would. And after such a day, there are a few people I need to mention, because we simply couldn't have brought such a big event to the city of Herning without our event partners and sponsors. I would therefore like to send a special thank you to Herning Municipality, Sport Event

Federation, Mads Freund, points out as being the main reason for a successful conduction of the event: "First of all, this EC in Herning showcases the support for triathlon as a mass sport. It is magical to see the European elite, the age groups and the open class-participants running side-by-side. That mix of elite and mass-participation is unique to triathlon. To top the day off we won a European Championship on the Women's side and two great medals on the

Denmark as well as the Danish Triathlon Federation and the European Triathlon Union plus our name sponsor Garmin. Also, a heartful thanks to all of the volunteers who chose to spend their precious time with us today. They make up the foundation of an event like this.»

Strong collaboration secures successful conduction of the race

The collaboration between several parties is also exactly what the President of the Danish Triathlon



Men's side, so it has been a great day for Danish Triathlon. The clubs supply the volunteers, the City of Herning lends us the city centre, and Sport Event Denmark is the indispensable partner that makes all this possible. Then there's Challenge Denmark and Race Makers that we have a great collaboration with. Today has indeed been a great day for Danish triathlon,", says Mads Freund, president of the Danish Triathlon Federation.





5x World **Championships coming** up for Denmark

The coming year will very interesting for Danish triathlon - not least because of the 5x World Championships in triathlon, aquathlon, duathlon, aquabike and cross-triathlon taking place at the island of Funen during the summer of 2018. Sport Event Denmark is also official partner of this event. "The Triathlon EC,

Championship as the full name goes, today created winners in the elite-field, in the age groups and amongst the open class-contestants. At the same time, the city of Herning created a regular street party for the spectators. We now look forward to next year, when Denmark once again welcomes the triathlon community, when we host no fewer than five world championships in just one week on the island of Funen," says Lars Lundov, director of Sport Event Denmark.

or Garmin Challenge ETU European Middle Distance In the Women's PRO race, Danish athlete Camilla Pedersen took the Eurepean Middle Distance title, and the Danish colours were also strongly represented at the podium among PRO Men - with the Danes Anders Christensen and Miki Mørck Taagholt finishing 2nd and 3rd and Danish female athlete Maja Stage Nielsen taking the title as Vice-European Champion among the Women. By all means, an impressive result for Danish triathlon on home soil.

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IVERSTIM!



Iraining on an empty stomaci



Initially, training on an empty stomach is a method which consists in training in the morning without taking breakfast before. It's now clear that nutrition can positively or negatively influence the physiological

Docteur en Sciences du Sport

(www.wts.fr)

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There is now several options of training that we will enumerate.

adaptations generated by training.

Physiology

In the morning after a night of sleep and without food, we note:

- A blood level (blood sugar) lower than usual.
- A high level of cortisol (stress hormone)
- Reduced hepatic glycogen reserves
- An empty stomach!

This context is especially a good time to influence the energetic metabolism. Indeed, with time and regular sessions on an empty stomach, the body will progressively get used to draw on the energy where you can find it in unlimited quantities, that is to say in the body fat while preserving glycogen reserves. Sessions after sessions, the body learns how to be more economical and to better use its glucose.

Recent studies (2011), conducted by the professor Peter Hespel's teams of the Louvain University in Belgium, have shown that after 6 weeks of training on an empty stomach (3 sessions of 1 to 2 hours per - Improving the endurance by getting the body week at 75% of VO2 max):

- The muscular glycogen is better preserved
- The oxidative capacity of the muscle is improved exercise. especially through the enzyme way
- Fat oxidation is positively modified especially through a better degradation of the intra-muscular triglycerides.

The main benefits of this method are:

- used to draw on fat reserves.
- Teach the body to stabilize its blood glucose in situation of carbohydrate deficiency and physical
- Foster weight loss by «over-consuming» body fat.

The dangers ...

This method of training on an empty stomach can be somehow risky though. Immediately, the risk of hypoglycemia is much higher when we don't have breakfast. It can be wise to take a gel for example in case of hypogly-

Right after this session, you're very likely to feel tired in the end of the morning.

In the longer term, the excess of training on an empty stomach will have a negative cellular impact:

- Trans fats, which compose the basis of the cellular membranes, experience an accelerated oxidation.
- The pool of amino acids will be damaged, especially in the muscles, which can bring about many nitrogenous wastes (urea, ammonia, ketone bodies...).

What you should avoid

- Riding a long time (more than 1,5h once the first ride)
- Riding with intensity (riding at more than 80% of the max heart rate)
- Stepping up the sessions on an empty stomach (more than 2 per week)
- Not eating after a session on an empty stomach.



The classical method: training on an empty stomach

Protocole:

- drink a big glass a still water when you wake up
- do not exceed 20 minutes of exercise
- increase progressively the intensity without exceeding 80% of the maximum heart rate
- plan a gel in case of hypoglycemia
- drink a big glass of water right after the session
- take your breakfast right after the session to rebuild your muscles.

the duration of your sessions (without exceeding an empty stomach. 2h) and when you do exercises of technical work (one leg, cadence, and so on...) and with low to The goal of this method is to get the body used average intensity (<80% of your max heart rate).

After several months of regular training on an empty stomach, it is possible to introduce small periods of intensive work. Many high-level athletes train like this, especially the African runners...

energy for the body.



1st option: Sleep « Low » and train on an empty stomach

The fact to train at the end of the day and to eat a low carb diner allows to tackle the session of the next morning on an empty stomach with the lowest levels of hepatic and muscular glycogen. The session on an empty stomach which follows put the body in a state of hepatic glycogenic You can essentially improve when you increase depletion even stronger than a regular session on

> to use its lipolysis and glyconeogenesis to produce energy for the body.

2nd option: Begin on an empty stomach and eat in the second part of the session

The goal of this method is to get the body used During a session on an empty stomach of more to use its lipolysis and glyconeogenesis to produce than one hour, it can be interesting to finish the session by eating carbs (energy drink for example). It allows to limit the negative impact of this kind of

> sessions while preserving a significative work of intensity. This method can also help to train the digestive tract to assimilate carbs in a particular context.

3rd option: Train twice a day

When you train twice a day, the goal of the first session is to reduce the glycogen reserves and then to eat a carb-free meal. Then you do the second session with few muscular and hepatic reserves. Several studies have shown that this

type of training allows to improve fat metabolism 1. If the goal is to loose weight as much in the fats at the mitochondrial level.

4th option: Recover « low »

with carbs and proteins after a long and/or intense induced by the session, you should eat a regular session. The goal is to optimize the rebuilding of the glycogen reserves and to recover faster. In the case of the option of low recovery, you have to avoid eating carbs during 1 to 2 hours after the session. This process slows down recovery but can contribute to «push» some physiological adaptations in terms of genetic expression.

Menu « post training on an empty stomach »

You have two options when you end up a training on an empty stomach:

and in the muscles, you should just eat a light snack: recovery drink and small sandwich.

Of course, it's not advised to stay completely without food in the hours that follow the session.

Normally, it's fundamental to eat a recovery snack 2. If the goal is to quickly break up the catabolism complete breakfast.

- a. Fruit juice or fruit
- b. Cereals or bread (as much as you want)
- c. 20g butter + honey/jam
- d. 10g dried fruits (nuts, almonds, walnuts)
- e. 2 slices of ham or 2 fried eggs
- f. Hot drink

Regarding complementation, it's important to cover your needs in essential trans fats, omega 3 and branched amino-acids (leucine, isoleucine, valine).

Conclusion

Even if training on an empty stomach has been studied scientifically (250 studies on men on Pubmed), there is still a long way to go to understand how to integrate training and nutrition in order to optimize the performances of an athlete. Individualization of training AND nutrition is with no doubt one of the keys of improvement in the years to come!



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MATERIAL OF SIMON BILLEAU

Kiwami, Nopinz and Louis

Simon Billeau Simon Billeau

Garneau trisuit

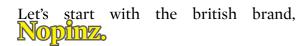
We all have in memory our old fashioned trisuit.

I do have nightmares just to think again about it. They were most of the time ugly, uncapable of drying and more importantly presented significant wind surface area.

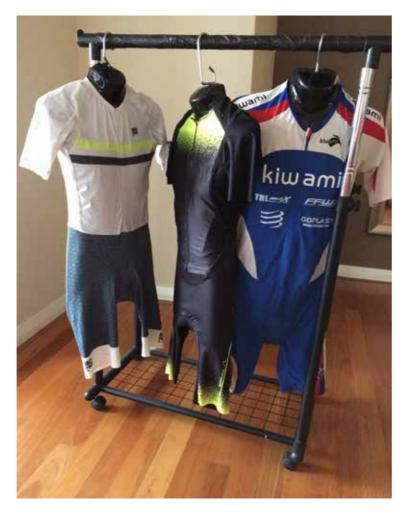
Luckily, this is a different time and we have the opportunity to get the best latest products from the manufacturers. Most of them are triathletes or athletes and are incredibly looking at every detail.

The new generation of trisuits are now comfortables, competitives and aesthetics.

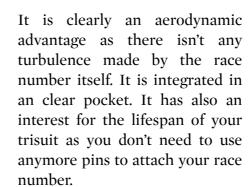
This month, we are excited to introduce to you three of the best trisuits on the market: the Trip Suit Aerocoach from Nopinz, the Rio LD Aero from Kiwami and the M2 from Louis Garneau.



The young Nopinz company is, managed by Blake Pond, is born in 2008. In just 7 years, Nopinz became popular in the cycling world specially for its race belt called the Speed Belt. It could be integrated in the Time Trial trisuit as it was used by the Pro teams Lotto-Jumbo or the FDJ.











After this success in cycling, Nopinz has diversified into triathlon with its trisuit which arose from a partnership between Aerocoach and Nopinz.

Aerocoach is already known from the Trimax Mag readers because the Axis saddle was introduced and approved by the redaction for its innovative design.

Aerocoach is a british company of coaches. Xavier Disley, who supersived all the team, is graduated with a PhD in biomechanic and exercise physiology.

This company has for example developed and registered the « ATS » trademark which is the integration of raised seams and shapes in order

to improve the airflow of streamlined and bluff bodies.

This trisuit is a high-tech product. On top of these seams quite visible on the back, which guide the

airflow along the side flanks and in line with the neck to fit the tail of a helmet, the italian specific materials and an italian pad are doing their job to perfection.





This trisuit has been designed from scratch. It's easy to tell this trisuit was the result of a long research and they started with a blank page. They have chosen the best material according to the anatomical areas. For example, the shorts is equipped of an Acqua Zero material which is known in the swimling world to be an excellent water repellent material.

In triathlon, it is mostly used for its anti-chafing and antiirritation properties.





Then, on the « PAPER » material is placed on the trunk. This material has breathability properties and also offer UV protection. This material is drying quickly.

Mesh panels have been placed under the

armpits and behind the neck all along the spine where the sweat is building up. This mesh is supposed to help with thermoregulation but also with shoulder flexibility for the swim and chafing under the arms during the run.

The ¾ length sleeves with the ATS Trip technology had proven its aero benefit. The low-profile silicone leg and arm grippers stop the suit from any movement up.

The frontal zip itself is totally invisible. Un zip flap prevents the zip to cause any irritation.

Then, the « La Fonte » pad is providing good balance between comfort and functionality. We can easily spend hours of the bike saddle and unobtrusive enough to not disturb the running pattern.

However, the picture isn't altogether favourable. There isn't any pocket for nutrition. It is to me an aero advantage but I do know long distance agegroupers like functional pockets even it costs few watts.

The sizing chart is big enough to fit the whole triathlon community. But according to their sizing

chart, I was between 2 sizes. I've asked Blake's opinion and he sent to me the S size.

The Trip Suit was totally fine for me about the quads compression but the length of the trunk was way too short and I was really happy to finish the race I've done with it.

N@PINZ SIZECHART							
MEN		XS	S	M	L	XL	XXL
JERSEYS / TRI SUITS / SKINSUITS	CHEST CM	72.5-77	80-85	87.5-92.5	95-100	102.5-107.5	110-115
BIB TIGHTS / SHORTS	WAIST IN	24-26	26-28	28-31	32-34	35-37	37-40
	WEIGHT KG	60-65	66-70	71-76	77-81	82-87	88-95
WOMEN		XS	S	N	T.	XL	
JERSEYS / TRI SUITS / SKINSUITS	BUSTCM	12.5-11	80-85	87.5-92.5	95-100	102.5-107.5	
BIB TIGHTS / SHORTS	WAIST IN	23-25	25-27	28-30	31-33	33-36	
	WEIGHT KG	55-59	60-64	65-69	70-74	75-79	
UNISEX ITEMS		XS	S	M	L	XL	
TRIP SOCKZ / SQUEEZE GUARDS	CALVE CM	31-33	33.535.5	36-38	38.5-39.5	40-43	
OVERSHOES	SHOE EU	36-37	38-40	41-43	44-45	46-47	

The suit is available in both men's and women's specific designs. There is few colours also to choice from. The trisuit costs around 250€.

I've been able to do many sessions with it and particularly a local triathlon with it. The swim was okay as there is any restriction on the shoulders even there is sleeves.

In the cycling race, I was pushing my way and took advantage of the suit which doesn't move at all. It was like a second skin. The Speed belt stood in my back. Then, due to the trunk height too short, it was a relief to finish the race as I reckon it's missign few centimeters to feel totally comfy.

In closing, I'd say the Nopinz Trip suit is a topend trisuit by its price and innovationd in term of energy saving, aerodynamism and functionality. It has been designed from lot of hours spent in a wind tunnel, CFD software and track.

The downside to me in the size chart which should includes the « height » criteria to avoid any wrong fitting. But Blake is quick to answer any enquiry and the service is close to perfection.

More informations on : http://nopinz.uk/ Then, we are back in France with the Kilwanni brand.

The leading brand of racewear and trisuit in France founded by French Hélène Saloman and Kiwi Craig Watson has one of the widest and best range on the market.

I was a lucky sponsored athlete of the Kiwami team. In a decade, I've been wearing nearly the full range and I've felt the evolution year after year. This time, I'm introducing the Rio LD Aero.



CThe Rio LD Aero is one of the many trisuits offering a sleeve on the arms. The sleeves don't move with the help of an elastic band which is to me a tiny bit too tighted.

On the quads, it's a silicone band and the result is perfect.

Kiwami was one of the earliest brand to offer long sleeves to improve aerodynamism. Innovation is part of the Kiwami DNA.

The frontal zip is top quality and the protective flap is hidden under an anti-irritation cover.

The back offer SPF 50 mesh panels which provide increased aeration and sweat evacuation at crucial areas. The mesh panels even help with a « cool effect ».

The big advantage long distance athletes would appreciate is the 5 ergo pockets :3 at the back hidden under an aero material and 2 on the legs. These 2 pockets are perfect to put small gel bottles or gels.

The Dual density LD pad offers Kiwami's unique anatomical shape and provides maximum comfort on the bike. The seams are flat and inobtrusive.

The Rio LD Aero has been made with water repellent material, which means that it's possible to swim with this trisuit. It means also during rainy racing days, the trisuit would stay mostly dry and protect from the cold.

The Rio LD Aero is available for 182,50€ but is currently on sale for 127,75€. You can choose between 2 colours in men's and women's specific cut.

I've tested this trisuit on lot of events and specially the Ironman France at Nice in 2016. I do like the anatomical cut and the aerodynamic gain made by the long sleeves. I was even happy to have long sleeves at the top of Coursegoules hill as the temepratures were unusually cool for this time of the year. I haven't felt any flexibility constraints in the swim because of the long sleeves. In the marathon, the large back in white mesh panel is very much appreciated when the sun rises on the Promenade des Anglais.

More informations on Kiwami wesbite: https://kiwamitriathlon.com/e-shop/en/

Kiwami has managed to offer a top end trisuit for a middle range price. When the quality meets the affordability, the triathlon community is having it both ways. The quality and knowledge of Kiwami make this trisuit a success for long distance triathletes who choose functionality as a n°1 criteria (5 ergo pockets, frontal zip, long distance pad, ...).

Finally, we are introducing the M-2 Tri Suit from the Canadian brand Louis Garneau.

The M-2 is structurally different from the competitors. The M-2 is closer to a cycling bib shorts on which a a long sleeves jersey has been integrated. This innovation is simply clever and revolutionary for long distance triathlon performance.



The bib shorts is equipped of a pad which is quite fine but comfy enough for long distance. This pad is just a state-of-the-art by itself.

The pad is the result of many hours of research. It is extensible in 4 directions to adapt to all patterns during a triathlon.

It's drying quickly and the breathability is impressive as some depressions called Ergo Air® regulate the humidity and sweat.

This pad is coated with a medical compound called the crabyon. This fiber is a composite of chitosan which is antibacterial and absord humidity.

This natural molecule is biodegrable and tested against allergies. It is a miracle molecule which allows to accelerate healing. It boosts the regeneration of human tissue and could be used against burn. One specific property is that fiber is able to distribute gradually and slowly the antichafing cream on the pad efficiently.



Moreover, the trisuit is made of material developed by Louis Garneau.

The main material is called CB Speedtech. It is a mesh with a honeycumb structure which improves aerodynamism.

The sleeves in CB M-2 allows a better laminar airflow which reduces the drag coefficient. These sleeves has been eveloped with Alphamantis in a wind tunnel.

Alphamantis is a company based in Montreal who proudly sponsor the Team Sky and works with the n°1 Louis Garneau ambassador, Lionel Sanders. The frontal zip enables to totally open the trisuit for a maximal ventilation. It could be handy when it's quite hot and also when you have to go to the toilet...

2 internal pockets have been placed close to the body. It helps to carry 2 gels without affected the aerodynamism or confort during the run.



The material is highly compressive. It's called « CB Gladiator », which maximises the muscular performance and recovery.

The material allows a good support on the legs and abs during the swim or on the bike.

The seams are linked (CB Lazer Rev). The compressive property of the material helps the muscular performance and recovery. It is also improving the aesthetic in comparison of visible seams.

The « Kite Mesh » is a light material which manage the humidity and keep the side flanks dry. I've done many events with this trisuit and it is my favorite.

On short distance where the neopren wetsuit was forbidden, I've been using the M-2 underneath a Huub swimsuit. The flexibility on the shoulders wasn't affected. And for long distance events, you can choose to fold the trisuit on itself or not. Even the compression isn't an issue, it's always better to feel absolutely nothing on the shoulders. And it's a child's play to put it back.

During the bike ride, the trisuit isn't moving and the pad is so comfy.

I'd have personally just enjoy a longer trisuit on the legs.

In the run, the frontal zip is a winner when it's hot. It's so good to e able to open the trisuit and to let the wind cooling down our body. Le side mesh panels allows also a good thermoregulation of the sweat.

The trisuit is available in 2 different colours in men's and women's specific cut for roughly 300€.

The M-2 from Louis Garneau is the absolute fatal weapon for long distance triathlon. They set the bar very high and since they have been imitated but never matched.

More informations : https://garneau.com/int/fr/

MAGAZINE MAGAZINE





Sram IX and Absolute Black IX DM single chainring

Brands don't have the choice if they want to keep up in the bike industry market.

It is not enough nowadays to have an aero bike and a good pair of wheels. To be faster than your competitors, it's necessary to pay attention to every detail. For a bike, it's worth it to choose every components.

Some brands like Sram and Absolute Black offer to the triathlon community some innovations related to the drivetrain.

It is widely agreed that the teardrop-shaped is the most aero design. We find this shape on most of the aero bike. The dimpled texture of golf ball is also known to affect the lift and the drag of its boundary layer. We all know the Zipp brand who has some patents in this domain. There is also recently a French bike brand called Héro n who has developed with the Nevers Magny-Cours windtunnel and the Aero Ace company this idea on some strategic positions of its bike.

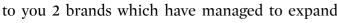
But the most aero is still the lack of component!

In 2009, when I was racing at the World Championship in Hawaii, I was already using a single chainring. But as it was a Rotor Q-Ring chainring for double, I've asked the assistance of a local and careful craftsman. He did a anti-derailing fork to prevent the chain to fall off.

√ince, t h e have finally evolved in this domain the and single front chainring is used with success in MTB and CX. h advantages of

advantages of a simplified drivetrain are obvious.

This month, Trimax is introducing





their range with a product specifically designed for the triathlon and time trial communities.

Sram and Absolute Black are 2 of the brands offering the single chainring. I personally bet the single chainring will become the standard in triathlon, at least on flat or lightly ondulating race.

Let's start with the English-Polish brand, Absolute Black. This company, created by a former designer from Trek, CAD design/Physics ingenior and maybe more importantly cyclist enthusiast, is specialised in non-circular chainrings (double and single).

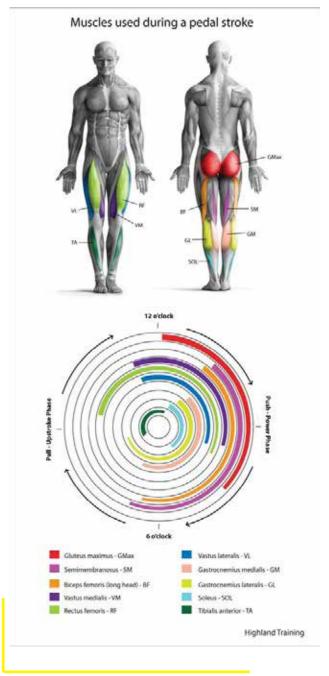
It's the second one we focused on. Its name: « Aero Oval 1X DM ». It's describing the Absolute Black's features. Everybody gets the « aero » and « oval » terms. 1X means single chainring and « DM » is for « Direct Mount ».

But before we are going into the details of this piece of art, I'd like to quickly launch out in a plebiscite for the oval chainring. While not unanimous, studies show that at least in a biomechanic point of view, there is an advantage to use an oval chainring by smoothening the dead points (high and low).

The pedaling pattern, which allows the 2 cranks to spin around the axle, is a complex pattern.

The principle of an efficient pedaling pattern is to reduce at its minimum the time spent at the high and low dead points where no force can be transmitted to the pedals. At these 2 points, the cranksets are at the vertical.

It has been showed pedaling pattern revolution is composed of 4 phases in which every phase has a propulsive action. To decrease the impact of these 2 dead points, the phases including these 2 dead points should maintain as much rotationnal speed as possible. It is where the oval chainring can help. The oval shape allows to increase or to decrease some phases time lenght. The aim is to expand the time spent on the propulsive phases where big muscles produce the power.



Let's get back to the Absolute Black Chainring.

On top of its good looking appearance (which is under a patent pending), it's necessary to describe preciselly its features as it doesn't adapt to the whole crank range available on the market and also because of there is also some limitations due to the race specificities (ground elevation).





The first things that springs to attention is the spiral design on the outer face. It reminds me some hypnosis session!

This design inspired by the shape of golf's ball but adapted for the aluminuim machinery is more aerodynamic than a smooth outer layer.

The « Direct Mount » is also helping to reduce the drag. By the fact, the chainring is directly fixed to the crankset (so not on the spider) which is improving the airflow along the chainring.

Without a inner chainring, you don't need some components like the front deraillor and the deraillor hanger. By consequence, the drag is even more reduced than with these components by few watts.

Even I'm not able to attest that the power transfer is improved, I'm convinced that the direct mount allows a better power transfer from the pedal to the chain.

To install the chainring, it is quite simple. You just need to undo the 3 bolts supporting the crankset spider and to use them to fix the chainring directly onto the crank. It's obviously crucial to respect the torque and to apply grease on the crank axle.



This video is explaining step by step how to do it: https://vimeo.com/144228612#at=5

Switching to single chaining has also the advantage to reduce significantly the weight of

your bike. It is allowing you to save the weight of the shifting lever, the inner chainring, the front deraillor, the deraillor hanger, the cable and the spider. It's roughly a 400g on the scale. It's known that lightening a top range bike by 1g costs 1,5€ so this 1X system allows you to save 600€.

There is also less maintenance which is great to save money too. There is no more need to clean the front deraillor or the small chaining, to change the cable or to adjust the front deraillor.

I'm sure some readers are wondering what is the technology allowing the chain to stay on the drivetrain without falling off.

The chainring feature an unique narrow-wide teeth profile for chainguide free build. The chain is working normally with the narrow teeth and is maintained in place with the wide teeth until the links of the chain leave the chainring toward the cassette gear.



It's important to note that this chainring is available only in 50 teeth at the moment and should be sold during this year in 52 and 54 teeth.

Absolute Black don't hesitate to communicate about the characteristics of its chainring. For example, it's written that the ovality is 10,45% at the timing of 108,3° after the top dead center, which gives for a 50 teeth chainring a difference of 20mm between the biggest and smallest diameter.

On the picture below, the Absolute Black chainring is sitting on the Sram 1X of 54 teeth. We can see that the maximum diameter is close to a 53 teeth at 108,3° (for a short timelapse around 108,3° after TDC! Please don't



misunderstand and believe that an ovalized 50 teeth chaining is the same than a 53 teeth), and close to a 49 teeth for the smaller diameter.

This patent design takes in consideration the fact we are stronger during the pushing phase by using the gluts, then the hamstrings in synergy with the quadriceps that's why the diameter is at its biggest. On the opposite, as we are the weakest during the pulling phase, the diamater of the chainring is the smallest which allows to increase the frequency and consequently to gain some rotational speed to go through the top and low dead centers.

Finally, this chainring is made of cnc 7075 Txxx alloy. The weight of the chainring has been optimised to ensure the best weight to strength ratio and aerodynamics.

This chainring is a full-mold cast body and on the inner face, the stiffness is maintained by a 10 branches structure. All other the chainring, they have reduced the weight as much as they can to offer a 199g chainring (and if you remove the weight of the spider -62g- and the 5 bolts -10g-), the chainring can be considered at 127g for comparaison purposes.





I've personally used the Absolute Black chainring on lot of hours during training and I've never ever experienced my chain falling off even on rough roads. I was using a Connex by Wippermann chain and the drivetrain was normally silent like any other circular chainring or double chainring.

I've managed to do 4h45' on the challenging bike course of Challenge Wanaka.

LOne of the interests of single chainring is to me the fact it's simple to choose the gear ratio and to adapt depending on the ground elevation. There is no need to ask yourself if you drop the chain off on the small chainring. And with a cassette of 11-28, an 50-28 ratio isn't bigger than a 39-22...

By consequence, there is no more risk to have the

chain falling off when switching from big to small chaining or the opposite.

The only downside of the single chainring is it's specific to a particular race.

To me, it's a smart move to invest in a few chainrings with different number of teeth or different lenghts would vary with the number of teeth of the teeth, I believe Absolute Black, after leading the chainring or the gear ratio. For a mechanic, it's an MTB ovalized chainring market, would take the easy work to change a cassette, and/or chainring leadership for the road, TT and triathlon uses. and a chain. For others, it could be challenging.

At Challenge Wanaka for example, I'd have had https://absoluteblack.cc/aero-sram-direct-mount- enjoyed a 54 teeth on the flat sections and a 48 oval-criterium-chainring/ teeth on the hilly parts...

This other limitation I can see with oval chainrings brand. is the fact they limit the choice of power meter.

Most of the powermeters on the bike market are in the world from Chicago in the US. based on an analysis of the torque on differents the velocity on a revolution isn't regular with an oval chainring. There is a deceleration when the diameter is at its climax and an acceleration when the diameter is at its smallest.

The calculated power is consequently inaccurate. One of the only powermeter who would manage to assess the power output with oval chainring is the Pioneer as it measures the angular speed in 12 differents points and the torque.

But this one isn't compatible with the Absolute Black as it's only available with Shimano Dura Ace or Ultegra.

It is still possible to use a powermeter but you have to keep in mind the power output is an estimation, which is by the way also the case with a circular chainring...

The last limitation of this chain ring is that it's only compatible with the Sram crankset Force 22, Force 1, CX1, Rival 1, Rival 22, R1 and S900(GXP or BB30).

At 145€, it is a great value for money product. I really enjoyed

cassettes. It means also to have few chains as their it and if the range is expanding with the 52 and 54

More informations on:

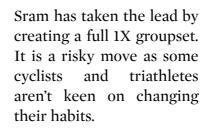
The second chainring is from the famous Sram

No need to introduce the best brand of components

points and at an averaged angular velocity. But After creating the brand in 1987 with the desire to offer the best shifting system at the time -the Grip Shift-, Sram expanded its activity by acquiring RockShok, Truvativ, Avid, Zipp and Quarq. Since they are doing the best groupset in the world, they keep innovating to make sure they remain the

> When Sram gets involved in the single chainring, they don't only offer a chainring, they built a full groupset 1X which works in synergy.



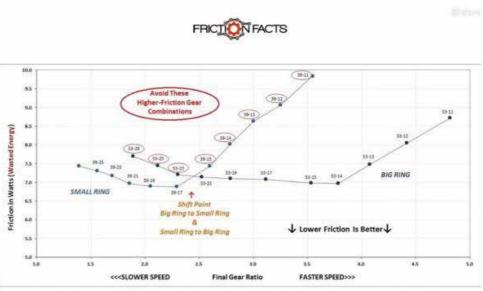


But the idea of having only a single chainring isn't new. Some guys already did use a single chainring like David Millar on the 2003 Tour de France on the first TT stage. His chain fell off as he didn't have a front



deraillor. His chainring was a standard chainring for a double chainring use.

Nowadays, lot of triathletes and specially talented ones are using the Sram 1X like Alistair Brownlee who won the WTS serie in 2015 with a Sram Force 1X, or Jordan Rapp, Luke Mc Kenzie, or more recently Tony Martin using a 58T prototype 1X on an Sram Etap groupset and a 11/32 cassette on the last Tour de France.



During the long production process of the 1X, the ingeniors of Sram had in mind to offer a full groupset which would be simple, silent and reliable.

After few months of testing, I can certify that this group gives full satisfaction and there is no limitation when the 1X chainring is used with the 1X groupset (either Force 1X, Rival 1X or Apex 1X).

The first advantage of the 1X groupset and so its 39 and 11-28. At a 6,60m gear-centimeters table the 1X chainring is that it simplifies highly every single question of guessing what is the most efficient gear watts in term of friction to the cyclist. ration in term of friction.

is straight. But not everybody knows the best performance output for a double chaining of 53-

best gear ratio is 53-17 and not 39-13 for exemple. session of training or races. There isn't anymore the The second gear ratio (39-13) costs roughly 2 more

The main idea is this study is that big chaining is Everybody knows a chain works better when it mostly all the time more efficient than the small chainring for a given speed, except for very steep



"As an elite triathlete, I need the right training and racing gear to

reach my full potential."



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CHOSEN BY CHAMPIONS











The Sram 1X is also more quiet than a classic groupset from the fact there isn't a front deraillor. You can't hear the chain rubbing on the forks of the front deraillor. The technology of the chain X-Sync with its narrow-wide teeths allows the chain to stick nicely on the drivetrain instead of slapping the frame when riding on a hole, a bump or just changing the gear.

With the Sram 1X chainring, we know we are using constantly the single chainring. For this reason, some people could imagine it is a groupset specifically designed for flat races. To make sure the 1X groupset is working out also for hilly races, they have invented a new range of gear ratio cassettes (from 11-26 to 10-42). It is an « XD » hub that allows the extra 10 teeth gear.

Note that a 54-38 is smaller than 39-27 (3,03m versus 3,08m).

The 1X chainring allows also to free your mind about the shifting process. No more worry about when is the best or should I say the least bad moment to change from small to big chainring or the opposite and to adapt the few speeds on the cassette...

Many riders have experienced the frustration of dropping a chain, which can cost precious seconds in a race, or even cause dramatic damages (chain stucked between the chainring and the chainstay). With 1X, though, the worries of dropped chains disappear.

I have so many memories of athletes struggling with their chain being dropped (including me) because of switching too lately in a steep hill or putting too much power on the drivetrain during shifting.

I've been testing the Sram 1X with 54 teeth during 1 year and half and I've done few competitions with it including the Ironman France in 2016. Equipped with a 11-28 cassette, I was fine on the hilly bike race of Nice. It allows me to have a full bike with a disc wheel and 3 spokes front wheel at only 7,2kgs.

It has been a very reliable chaining and I've never experienced a dropped chain when used with the



Sram X-Sync chain.

But, I experienced few dropped chains during training when I was riding in freewheel with my training chain (a cheap chain in a quite worn state) and with my training pair of wheels which has cheap bearing...

That's one of the reason why Sram highly recommend to use the 1X groupset all together.

Sram has a huge experience in MTB and CX. The single chainring has been adopted by their MTB riders since 2012 and CX riders since 2014.

The aerodynamics advantage is obvious. The lack of front deraillor, the deraillor hanger, the small chainring, the shifting lever, the cable, all these components that sit in the wind aren't on the bike anymore.

We would have just enjoy a bit more aero on the chainring itself like a Vision Metron for example. There are some gaps between the spider and the chainring that would be nice to remove.

That's why I've added an aero cover on top of the Sram 1X on my bike during races.

EFinally, the maintenance is also positively affected. There is no more cleaning or adjustment of the front deraillor or replacing the front deraillor cable

Sram has again made a revolution in the triathlon world. Its Force and Rival 1X groupsets offering single front chainring from 38 to 54 teeth allow athletes of different levels to use it on all types of races.

At roughly 100€, this chainring is affordable and is a game changer!



More informations on www.sram.com

1- SRAM is the only manufacturer offering single chainring for the road market at the moment. How long did the process take? Was it a request from some of your Pro riders or triathletes (like the Brownlee Bros using the 52T 1X)?

As soon we had a production 1x11 MTB drivetrain, we started modifying it and experimenting with other applications. Cyclocross was the obvious next step, in that riders have cobbled together single-ring CX drivetrains for decades. Triathlon was the next area of focus for a number of reasons: simpler shifting seemed right for these "steady-state" athletes, simpler mechanical system for athletes who often fly to races, aerodynamic gains, potential frame design gains, and some examples of DYI single-ring drivetrains. 1x was not requested by pro triathletes, but they are now its biggest proponents!

2- Could you describe what should a triathlete do switching to 1X with multi-use bike (mostly hilly local events and few flat long distance 70.3 or Ironmans)?

A triathlete switching to 1x should understand her relevant gear range. This bit belies the simplicity of 1x: the right setup requires some experimentation and some thought.

- First decide on which chainring, based on the highest gear. The rider should determine her top gear (50x11, or 4.5, is as big as most riders need).

Never equip a 1x bike with a gear bigger than the rider can comfortably & efficiently push; and if any sacrifice of range is made, it should be on the top end.

- Then decide on the cassette, based on the selected chainring and the lowest gear required for the intended course.

Don't worry about larger gear ratio jumps! Athletes find that 1x's shifting simplicity makes for greater efficiency – because they find the right gear quickly & easily – than having more ratios to choose from. See Ben Collins and Jordan Rapp 1x stories:

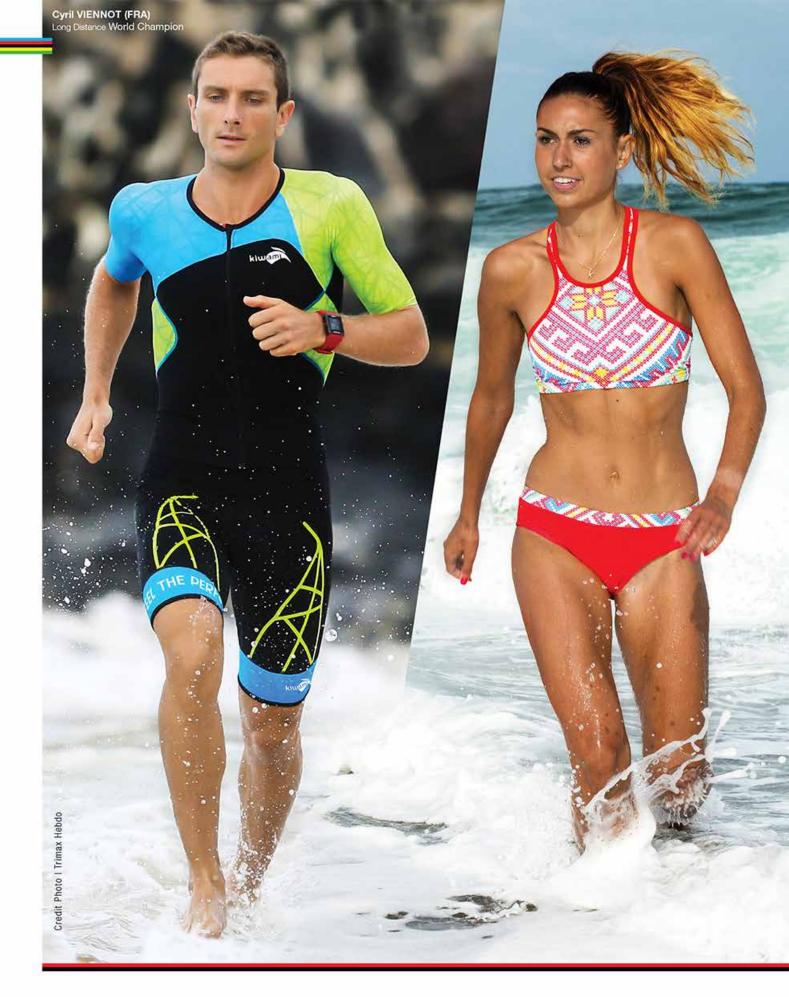
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https://www.sram.com/stories/sram-1x-shift-logic

3- But we don't see the 1x being available with the eTap groupset.

Could you please explain us why? Do you plan to create a E-Tap groupset compatible with 1X in a near future?

The Rear derailleur's contribution to a 1x drivetrain's chain management is critical. An electronic 1x RD is a distinct development from the 2x RD; and we chose to prioritize 2x, as it accommodates the vast majority of the market.



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