



Eu
2022-5

On your back
The best articles from
European recumbent
cyclists.

Supino

Ligfiets.net



Ligfiets.net



bhpc.org.uk



hpv.be



hpv.org



future bike.ch



propulsionehumana.it

Contents

3 Editorial

by Roel van Dijk, NVHPV, the Netherlands

3 Meeting Of The European Recumbent Clubs

by Roel van Dijk

4 Autumn Tour Colle Fauniera

by Michael Ammann from Switzerland

8 The National Cycle Path Plan

by Maarten Sneep from the Netherlands

10 In Defence Of The *SnelfietsWeg*

by Brian Robertson from England

12 The Wrong Way To Buy The Right Bicycle

by Peter Brown from Vancouver, Canada

16 Nicci Walde's 24 Hours World Record

by Nicci Walde herself, from Germany

20 30 Hours And A Little Wiser

by Holger Seidel from Germany

22 Presentation Of The Project 441

by Charles Henry and Andy Gerber from Switzerland

26 Mike Burrows And The Windcheetah

by Andreas Pooch from Germany

28 The Windcheetah

by Pieter Veltman from the Netherlands

30 The First Velomobile In Paris–Brest–Paris

by Carl Georg Rasmussen from Denmark

31 Recumbent Clubs On The Internet

32 Kreuzotter 5 Carbon Reborn

by Andy Gerber from Switzerland

35 On The Bike To Sicily

by Wilfred Brahm from the Netherlands

40 Live From The HPV World Championships

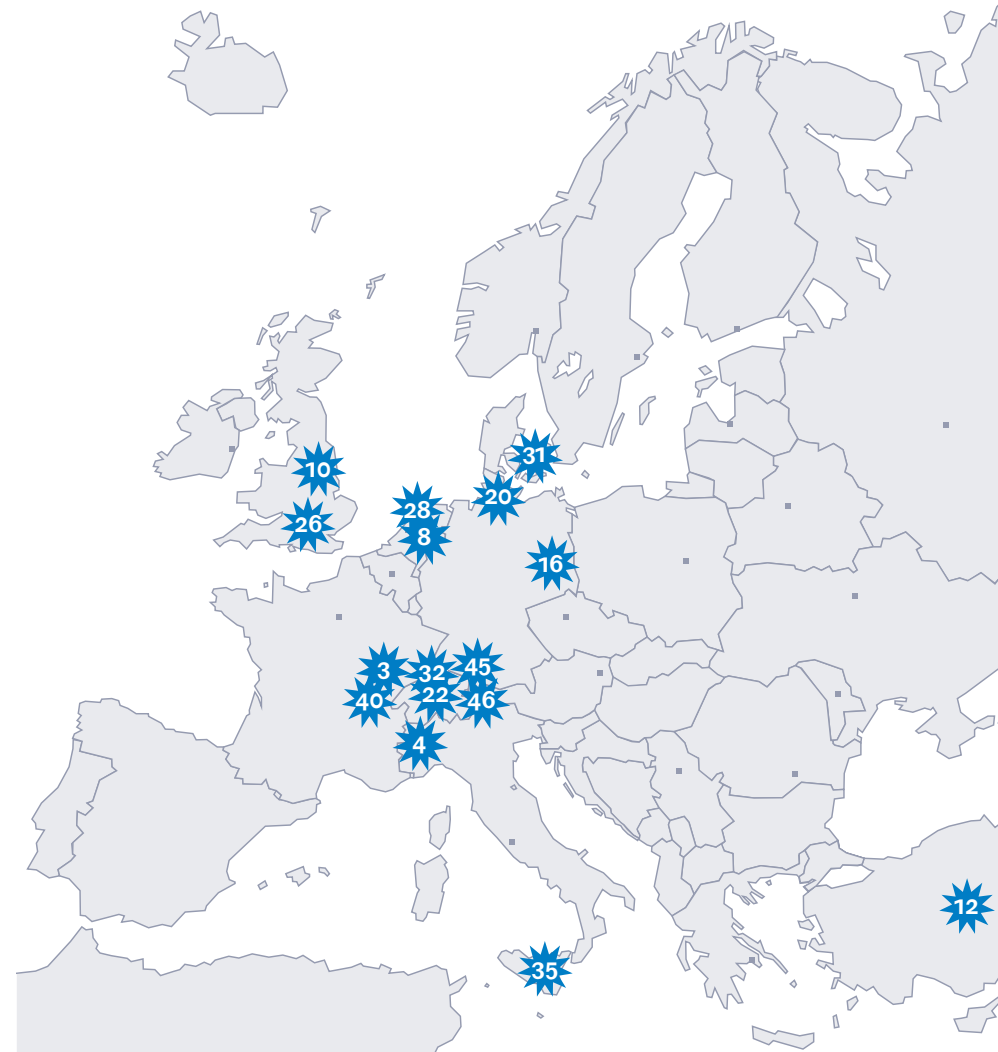
by Marc Lesourd from AFV, France

45 In Memoriam Christoph Moder

by Werner Klomp from Austria

46 Spezi And HPV World Cup 2023

by Andy Gerber from Switzerland



The fifth Supino

Arriving at Domodossola,
photo Sandro Bollina



EuSupino, a digital European magazine for recumbent riders, was created by contributions from various authors from different countries. The copyright is left to the authors.

Editorial board

Roel van Dijk, *NL*,
final editing.
Giovanni Eupani, *IT*.
Jiří Hebeda, *CZ*.
Jan Kranczoch, *D*,
ad interim.
Marc Lesourd, *F*.
Carl Georg Rasmussen,
DK.
Brian Robertson, *UK*.

Lay-out

Hans Nieuwstraten, *NL*.



By Roel van Dijk

This edition of EuSupino is the fifth, so it is an anniversary edition. I would like to thank all authors for their submissions.

The articles are largely from the magazines of the recumbent associations from Germany/Switzerland, Great Britain and the Netherlands. Unfortunately, fewer and fewer articles are received from recumbent riders from other countries, although they are very welcome.

Fortunately, the corona crisis has had little negative impact on our lives and the World Championships in France could continue as usual. We are looking forward to next year because the World Championships will then take place in Austria near Lake Constance.

Once again I would like to thank Brian Robertson for his support in checking the texts for correct use of English. And Simon Bailey for managing the website. I also thank Honza Galla for allowing us to copy an article from his beautiful website www.recumbent.news (page 22). <

Meeting Of The European Recumbent Clubs

On July 16, recumbent cyclists from European countries gathered during the World Championships in Orgelet, France. It was a pleasant meeting with representatives from Belgium, Germany, Switzerland, Austria, Italy, France, the Czech Republic and the Netherlands.

The main topic was next year's World Championships. France-HPV had already indicated some time ago that it wanted to organize the World Championships in 2023, not only for recumbents but also on water and in the air. Unfortunately, no one from France-HPV was present and no response was received to the invitation for this meeting in Orgelet. However, someone from the organization 'Lunéville 21ème Cycle' was present and told us that instead of championships, an event will be organized on land (road and rail), on water and in the air. But there is no prospect of combining this with World Championships.

The meeting gratefully accepted Werner Klomp's proposal to see – with a reservation – whether next year's championships could be organized in Austria near Lake Constance. The Swiss have offered to help Werner and his team. <

Autumn Tour Colle Fauniera

By Michael Ammann,
pictures Sandro Bollina,
Michael Ammann



future bike ch

September 24–October 2
2022, Future Bike
Switzerland



From Info Bull 228

"We drive to Cuneo and do the tour from Granfondo Fausto Coppi. Once again really high, steep and wild. But doable for everyone," was Sandro's announcement for the autumn tour.



We started from different places on Saturday and met in Vercelli late in the afternoon. No matter if it was only a short distance or a longer one that had to be ridden, what everyone had in common was the incessant drenching rain. Freshly dried, we meet for an aperitif. Later we have pizza, vino rosso and tiramisu. We have arrived in Italy. Breakfast is in the room. For lack of a table in bed. It's still grey, the cloud cover hangs just above the helmet but at least the roads have dried and so we roll on quite pleasantly towards the southwest. The first climbs take us to Moncalvo for coffee. Another short climb up the vineyards, then follows what I call a transfer stage: on main roads through suburbs. Arriving is the goal. The Piazza Michele Ferrero in Alba is a hive of activity. Wine from the region is being tasted at small stands between the narrow streets. For us there is a glass of wine, accompanied by chestnuts from the fire and later in the evening a dish with fresh porcini mushrooms or white truffles.



Verduno.

It is cool. Breakfast, or to be more precise a brioche and café, is served outside under the arcades. That's enough for a start and we soon find a way out of town. On side roads we zigzag up and down again. We cross the Tanaro river and have to go up again to Cherasco.

Summer is back. A nut cake with hazelnuts from Piedmont and a few other delicacies provide energy. A few corners further on we follow a small canal. Small villages, mainly small farms. Shortly after midday we reach Cuneo.

It's another 10 kilometres to the day's destination. For the wild three there is still a steep bonus up



Time for gelati. otherwise we'll reach the finish too early and the others will think the pass was too easy.



Rain in Domodossola.



the Coletto del Moro. When the climb really gets going in the dense forest, it averages over 13%, which makes the rear wheel spin on the partly damp road. After about 30 minutes, the extremely pointless slog is over. Once around the hill, we go straight to the gelateria at the starting point before meeting up with the others again).

Although we deny ourselves the 3000 metre altitude tour, we set off early.

We split up: Dagmar, Rosmarie and Heinz choose the easier tour. The others head directly west up the valley. After 15km the fun begins: through a small village of quarry stone houses with stone roofs and dewy lush green meadows. When we leave the forest and the first hairpin turns (switch-backs) lie before us, we have overcome almost 1000 metres in altitude. The alpine pasture is grazed, the light grey rocks pile up on the ridge. At 2000 metres a basin opens up in front of us, the edge of which we have to climb. Today there are passes in multipack: Colle Valcavera, Colle Fauniera where we really made it, Colle Valonetto and Colle d'Esischie.

The brisk wind makes us cool down quickly and so we retreat to a refugio before we take the long descent into the valley.

Then we have to cope with another transition. With up to 17% we climb another 500m to Piatta Soprana, a small church. A short flat section and around the corner, then the valley opens up and lets the view - on the left the Alps, in the middle the Po plain and on the right the Ligurian Alps. With the last rays of sunshine we reach the old stone bridge in Dronero (picture 5). It is the starting point for hiking in the Vale Maira - antipasti and old paths - but this is another story.

The next morning we ride on small roads steadily



The cauldron in front of Colle Valcavera.

up to the Santuario di Valmala and immediately down into the valley to Brosasco. These are the small restaurants I love so much in Italy. We have a simple lunch menu with several courses. Usually the mother cooks, here the son serves. Well positioned and always giggling.

From here the route goes to col d'Agnello in France, but we choose the other direction and take a small crossing to the north or simply drive around the mountain. Back on the flat we try to catch up with the flat group, which we actually succeed in doing.



Dronero.



Descent from the Santuario di Valmala.



Turin is soon reached.



Colle del Madalena.

The obligatory aperitif follows at the foot of the Rocca die Cavour. We spend the night at the Hotel Post. On an old scale we measure who has the most luggage.

Turin is soon reached. A quick coffee and a Brioche con Marmellata before we climb up the local mountain to Colle della Madalena (picture 8). We take the winding road to the pilgrimage church Basilica della Natività di Maria Vergine in short Superga. In order not to end up in the hustle and bustle of Turin again, we choose a path over a dirt



Superga.



Farewell in Omegna.

road that is no longer quite so good. Chivasso is reached, what follows is an aperitif in the sun!

Grey wet has spread overnight. It is raining. The path leads us mostly flat through small villages. At lunch we are more or less soaked, spread our dripping clothes around the restaurant - they won't dry, but maybe they will get a little less wet? I don't know what I ordered, but I get a fine gnoggi

with broccoli, which tastes good and warms you up from the inside.

Before we reach our destination for the day, there are still two small passes to master. We are back in the Alps. But the weather gods are not merciful and punish us with a good rain shower on the second ascent, before we reach Lago d'Orta.

In Omegna we have coffee and cake again. We say goodbye to Rosmarie and Heinz, who are going to Domodossola. The route takes us into a valley away from Lago Maggiore. A farmer just says that it's steep back there. I've heard that before, I think to myself as I look for a restaurant. The road winds up the mountain in several hairpin turns, but it is only really steep on the straights and when these steep sections are finally overcome, there is a restaurant with a view of a cable car from which the tourists hang on their climbing harnesses and shoot down into the valley at 120 km/h. For us, it is another 300m up to Monte Morissolo, from where we enjoy the view over Lago Maggiore.

The journey home by SBB has to be planned: When the weather is good in Ticino, the rare bike places are quickly booked up. Anna May and I split up to be back home in good time. Early in the morning we glide along Lago Maggiore in the sunshine, then branch off into a side valley and ride up our last pass through the dense forest on a still damp road. The descent through the Centovalli follows with countless bends to Locarno. One more hour to enjoy the last summer day at the lake, then the autumn tour is over.

"One more time..." Sandro wrote in the announcement. It was the twelfth and last autumn tour. After a good 100 passes, it's over. What remains are the memories of countless beautiful experiences and time in autumn for something new... Thank you Sandro. <



Ascent to Monte Morissolo.

The National Cycle Path Plan

By Maarten Sneep

From *Ligfiets&* 2022-1



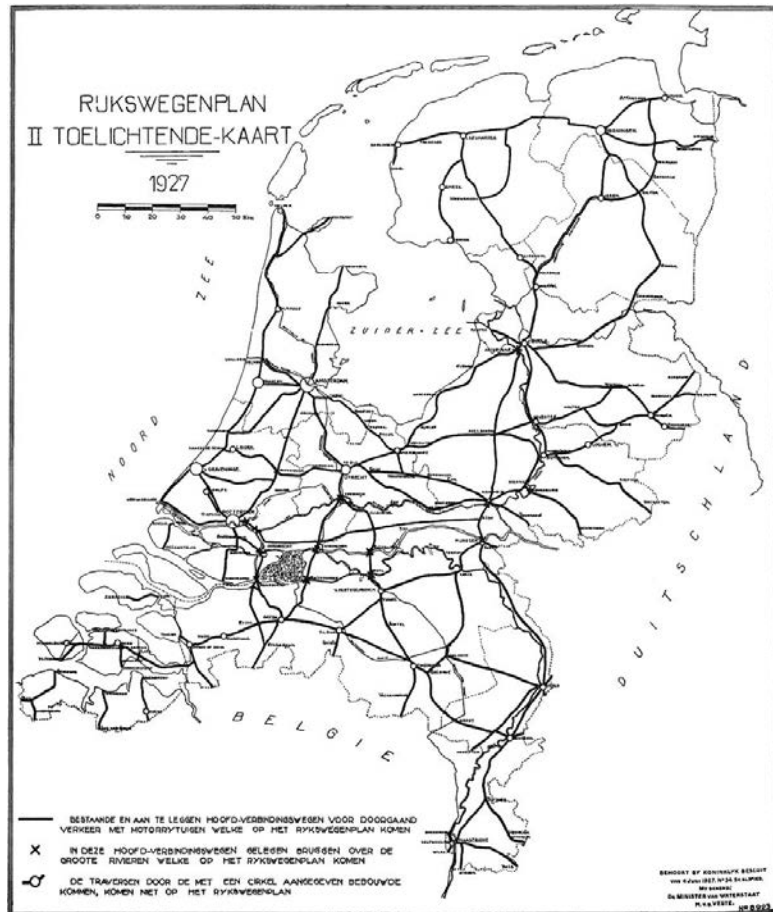
In 1927 the first *Rijkswegenplan* (National Road Plan) was presented. It contains a network of highways interconnections, at a time when there are less than a hundred thousand motor vehicles in the Netherlands – about a third of these motorcycles. Those aren't highways yet, but the plan does present a complete network. In the years that followed, this plan was refined in detail – but it is remarkable how future-proof the 1927 plan is turned out to be.



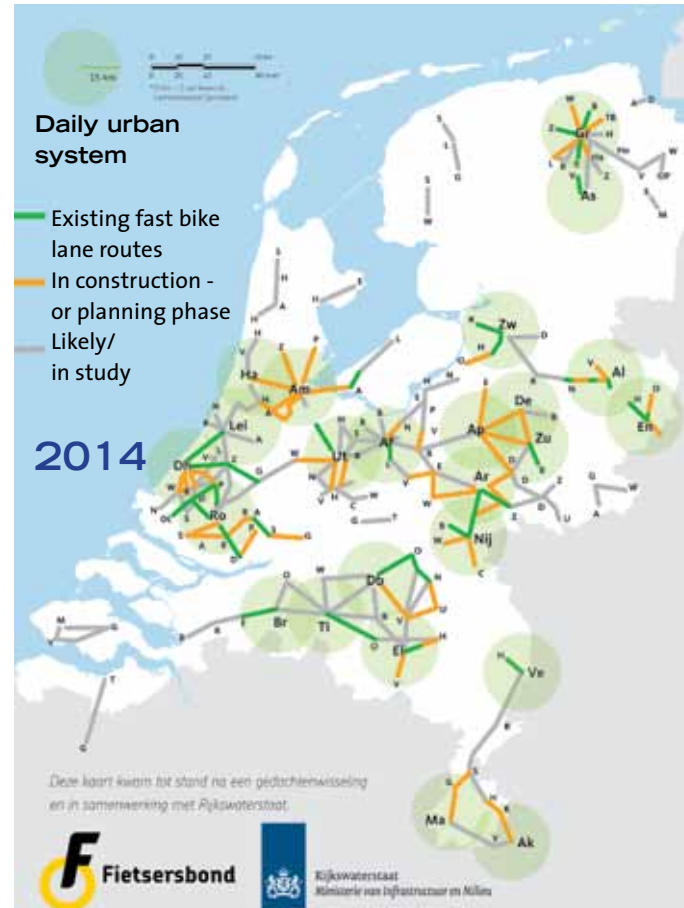
The National Road Plan is executed in steps and is almost completed, although fortunately there are roads that were not built in the end. The A3, which goes directly from Amsterdam to Rotterdam should have crossed through the Green Heart of Holland, but was never built. In Dordrecht a part of it has been constructed that is now known as the N3. And near Amstelveen for many years a dike body was due to be located where that road should have passed through. On the

topographical map from 1990 it is still clear to see where this road should have gone, only around the year 2000, houses were built on the route. A plan can survive for a very long time in a dormant state.

In the past 10 years, a lot of work has been done on a network of 'bicycle highways', later 'fast cycle paths', then 'fast cycle routes', 'through cycle routes' and nowadays 'high-quality regional cycling routes'. This is of course, under different names, the same thing:



Het Rijkswegenplan uit 1927.



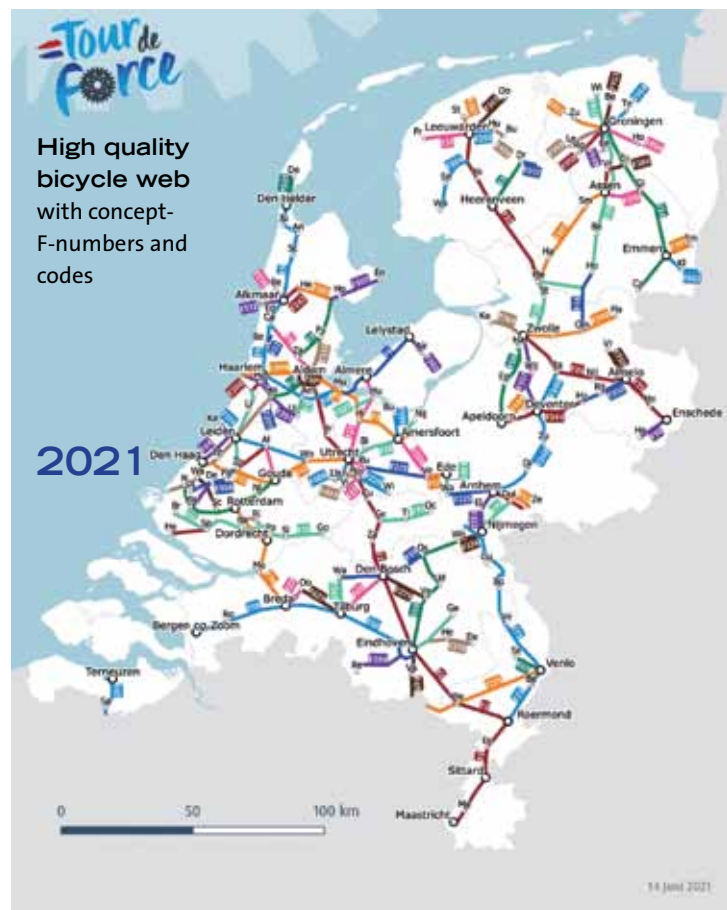
good cycle paths to cover longer distances. The name has been changed to remove resistance from local residents, who use a 'bicycle highway' associations with motorways: wide four- or six-lane roads, with grade-separated intersections and where you can't just cross. In *Ligfiets&* 2021- 11 wrote *Getting around in the Netherlands* about signposting 'high-quality regional cycling routes.' This signage is the result of one of the working groups of the *Tour de Force*. This is a collaboration between government parties, consultancies and

interest groups to take cycling in the Netherlands to a higher level. Unfortunately there is no budget available from this group, so it's mainly about coordinating and directing plans of others – provinces and municipalities – and making expertise available.

Over the past 12 years, in various places 'high-quality regional cycling routes' have been constructed. Sometimes with support from the national government to help local commuters to get out of the car, sometimes

at the initiative of a province or a regional cooperation – see also the interview with Sjors van Duren in *Ligfiets&* 2015-2. There is no overarching plan, but in the meantime a lot has already been built, is in progress, or is being worked on hard before implementation. See below the progress in the maps/cards from 2014, 2016 and 2021. In the latter 2021 map the F numbers have been added, to improve recognisability. Multiple recumbent riders are involved in these developments with different roles.

Among other things, through close contacts with the 2021 High quality bicycle network including the concept of F-numbering and number coding as well as active roles undertaken by the *Fietsersbond* (Cycle Union) makes up the key idea for a nationwide network of high-quality cycle routes. The idea of making the routes with a F and the nearby highway number originated, as far as we can tell, within the sections of the NVHPV. This remnant of the idea of the bicycle highway network helps for the geographic orientation, because the highway numbers are well known. If you look through your eyelashes you can almost see a complete network arise. It seems to me very beautiful that every century celebrate the National Road Plan with a successor: e.g. a *national cycle path plan*. The editor is open for documented trajectory proposals. Which connections makes the network stronger? How finely meshed does the network have to be to make it useful too? Once that plan is in place, the execution will eventually come. <



In Defence Of The *SnelFietsWeg*

By Brian Robertson
from England,
photos Wilfred Brahm
and others

The name chosen for high quality active travel routes often seems to be controversial, especially among cycle campaigners. In the Netherlands a series of such high quality cycle routes have been built called *SnelFietsWeg* (Fast Cycle Ways). Coming from the UK I have always admired the quality and the signage of the cycle routes in the Netherlands. They are probably fifty years ahead of the UK in their network of active travel routes.



The plan for a network interconnecting cities, called *Rijkswegenplan*, began in 1927. This plan was made when less than one hundred thousand motor vehicles were in the whole country – one third of them motor cycles [*Rijksfietspadenplan*, Maarten Sneep, *Ligfiets&* 2022–1, page 22. See the previous article].

The *SnelFietsWeg* is perhaps returning to this far-sighted vision from 1927. The UK followed the Netherlands lead and in the 1930s started building a network of segregated cycleways. Examples of these still exist today and can be seen in Oxford beside the Marston Road. This initiative was sadly halted by WW2 and afterwards by the new push for 'motorways'.

The UK has made recent efforts to develop its own *Rijkswegenplan* network. Sustrans is a non-government organization with a national map or plan for a *UK National Cycle Network* (NCN). There are three problems with this network. First it is not 'snel' as the routes are indirect, often the surface is gravel, mud, or of a poor quality. NCN journeys are often 25% longer than they need to be. Second it is not 'fiets' as anti-cycle gates ensure that handcyclists, velomobiles, and trikes are excluded and these cycle types are further excluded because of tree roots and surface undulations. Thirdly it is not 'weg' either, a major NCN route will be simply closed for East-West rail company engineers who do not wish to

share their track to the temporary car park with 'unshowered' cyclists.

Other European countries have also built long distance quality cycleways. They see direct benefits, for example in attracting tourism. Other benefits are an increase in safety of a continuous segregated route which allows users who would otherwise be excluded such as: children, or handcyclists. The *EuroVelo 6*, stretching from the Atlantic Ocean all the way to the Black Sea is a good example. There are 19 EuroVelo routes. What explains the UK intransigence in not following the lead of other countries to build such routes (as have the Netherlands, Denmark, Germany, Austria and Ireland)? There are faint flickers of hope in the UK: Oxford is planning a network of *Quickways*, Cambridge has a *Greenway* beside their busway – originally built as a maintenance track for buses.

My own preference for a good cycleway is to have a 'Non-Stop' attribute. For this reason one of my most favourite journeys, on a hired bike, was between Lindau in Germany to Dornbirn in Austria to attend the *2015 Velomobile Seminar*. On this journey I had to stop once at a traffic light. I was astonished to ride through mountain tunnels of 100 meters in length which had been built just for active travel. To follow a gentle path underneath a busy roundabout made for a relaxed and peaceful ride, and no need for a heart attack. There are two ways to get to a destination quickly: with a top speed, or by not stopping.

It came as some surprise when I met Marco, one of the authors of the excellent book *Movement* [by Marco te Brömmelstroet and Thalia Verkade, ISBN 978-1-911344-97-1]. Marco te Brömmelstroet is an urban mobility expert and professor in social science research at the University of Amsterdam. He told me he disapproved of building the *Snel-*

FietsWeg in the Netherlands. Mysteriously he would not say why and referred me to his book. I have read this book over and over again. While I completely agree with the position about over reliance on the car I still cannot understand his opposition to a *snelfietsweg*. I wondered if the professor was too spoilt. Even the average cycleway he will use has been well designed, well maintained, and likely conforms to a good design specification. Is it possible that the professor lives in a bubble? Both he and I have had the privilege to ride in the circular track at Sloten park near Amsterdam. These tracks are very expensive to build. But what if this money was instead spent on making linear tracks that everybody could use? This would be fairer.

It is possible to find opposition to the building of *snelfietsweg* in the Netherlands. Small groups can be found reporting in local papers their opposition to the building of a 4 meter-wide path through a nature park. There is some quite irrational fear that fast cyclists are extremely dangerous when the statistics prove otherwise. Sometimes some sympathetic design such as a small hedge is all



1930s Cycle Path at Marston Road, Oxford.



that is required to segregate between walkers and cyclists. Others make unfair comparisons of the *snelfietsweg* with motorways when the low: speed, weight, and size of active travellers means that suitable infrastructure is far simpler and cheaper to build. Often a simple underpass or bridge is all that is required to make a safe crossing of a busy road and the cost of this should be borne by the vehicles providing the danger, to mitigate their cutting-up of our public space.

In the cities of Oxford and Cambridge a small army of people are required to work, serving at table, tidying rooms, or making coffee while being paid a minimum wage. With the cost of accommodation sky high this means commuting to work from further and further away. In both cities public transport is very expensive and it is unreliable.



There is a need to provide for active travel over longer distances from the city centre. At present active travel outside these cities is dangerous. Outside Oxford the world famous cyclist Marianne Vos was hospitalised by a badly repaired pothole. Outside Cambridge a five month-old baby was killed by a van being knocked onto a footpath. Within these cities the situation is no better because of the need for cyclists to share the road with motor vehicles. Any good cycle tracks are made worse by being cut up and having to give way to new roads with very little traffic. Examples of this are the Marston Ferry path at the entrance to the new Swan school in Oxford, and the busway cycle path at Clay farm in Cambridge.

The *Movement* book is good because it is provocative, but the authors should be questioned on a few things. Marco questions the need for workplaces to provide showers. The sad reality is that in the modern workplace you are expected to arrive looking and smelling like Marie Antoinette, which



is difficult after a 40 minute cycle ride. Further, he asks why drivers stuck in traffic jams should be a concern. That may be a valid point when the Netherlands provides nice alternatives using active travel or low cost public transport, but the UK is backwards and needs to have active travel infrastructure encouraged and prioritised. *Movement* co-author Thalia mentions that she is a regular cyclist but not expert on the design of active travel infrastructure. For too long we have relied on 'experts' ignoring the fact that frequent cyclists like Thalia really are experts. Furthermore it is essential that parents are able to drive improvements and influence future designs. The authors are correct that solutions to these issues are political but if the politicians are beholden to multi-national corporations then options for solutions to the movement issue may be unavailable to ordinary users.

In summary, I applaud the *snelfietsweg* concept, by eliminating junctions they make a journey much safer. With no junctions the need to stop is eliminated and so journeys are much quicker. These routes are much more equitable because they are safer for vulnerable and less confident users. With a high specification undesirable features such as steep inclines can be avoided. In the *Movement* book a 2nd edition could usefully have a section that looks at inter-urban transport especially using recumbents, velomobiles, handcycles and other wheeled transport such as inline skates. Could I urge the authors of this excellent book to borrow some velomobiles after Christmas and join in the 2022 Oliebollentocht tour 28 December starting in Utrecht. An even better suggestion is that if the *snelfietsweg* is not a good idea for the Netherlands then please could 'high-quality regional cycling routes' be built in the UK. After all Vermuyden did a good job draining the East Anglia Fens back in the 1650s. <



The Movement book,
ISBN 978-1-911344-97-1.

The Wrong Way To Purchase The Right Bicycle

By Peter Brown
from Vancouver, Canada

Due to covid, I haven't done as many cycling trips in the last couple of years. So let me reach into the archives and tell you about my 2014 cycling trip around Chicago.

After a long day of cycling, me with my helmet on... and me with my helmet off!



Like most people, my mind works in a multi-tasking sort of way. Each of the tasks is usually processed in its own separate little compartment in my brain. For example, in the middle of April 2014, the activity in a few of these compartments included: Compartment 162 has been ruminating that I need to collect more air miles before the end of this month to keep my Star Alliance Gold status (I really like using the lounges when I fly for work!). But I don't have any business trips planned and I don't have any holiday time available, so how will I do that?

Compartment 47 is what turns my hair gray. I have been working on programming a system of sensors installed at a very large construction job site in the north of Turkey. Between some installation errors in the field, a few defective sensors giving wrong signals, and my own mistakes in writing the

computer program. The last week of trying to make the system work correctly has been quite stressful. I have two weeks more to complete this work before my next project starts. Will it be enough time?

Compartment 91 has stored the perhaps unnecessary piece of information that my wife has a whole bunch of airline points that will expire at the end of this month.

Compartment 84a is my dreaming compartment. I have been researching on the internet about bikes, thinking for the last few months that I would really like to buy myself a new recumbent bike. But how? When? Where?

Unfortunately its annoying neighbour, compartment 84b, is my financial reality compartment that usually kills compartment 84a's dreams by asking questions like "You already have 3 recumbent bikes, why do you need another one?" Sigh... Compartment 16 is the Complaints Department. That is where I wrote an e-mail to VelocityUSA complaining that the almost brand new rim on our tandem rear wheel broke last month on our second tour, telling them that there was no way I could find suitable replacement rims in Turkey, and asking what they can do about it.

Usually all these different compartments are busy working away on their own, but once in a rare while they do talk to each other.

For example, two nights ago I got a reply to my e-mail from VelocityUSA saying "We are sorry to hear about your broken tandem rim, and we will be happy to supply some stronger rims and rebuild your wheels at no cost under warranty, if you bring the wheel hubs to us." OK, a very nice reply, but they are in Grand Rapids, Michigan, and I am in Ankara, Turkey. Filed under the category of 'Probably Useless Information' in Compartment 16.

And then, a surprise. This morning I loaded Revision 13 of my program into the Turkish job site computer. Like a miracle, it all worked. Every single sensor gave the correct result. I was stunned. I looked at the results, and twiddled my thumbs for a few minutes wondering what to do for the next two weeks, because this project was now finished for me. Then suddenly all my compartments started shouting together at the same time: "You can fly to Chicago for free on your wife's about-to-expire airline points, that flight will get you the air miles you need to keep your Gold Card status, you can buy a new recumbent bike at the shop you found near the Chicago airport, then you can cycle up to Grand Rapids and take your tandem hubs to VelocityUSA so they can rebuild the wheels! A perfect plan! But, you have to leave right now since you have only two weeks free time before the next project starts!"

I immediately phoned Matt at VelocityUSA to confirm that they have the right rims in stock, and he said, "Yes we do, but I am sorry that you will have to drive all the way up from Chicago to our shop just to get the rims replaced." I didn't say anything, but I look forward to seeing the look on his face when I tell him the real story! So I booked some tickets to fly to Chicago for the next day! The first night I stayed in a Chicago airport hotel. After breakfast, I took a taxi to the recumbent bicycle shop on Saturday morning just as they were opening. As soon as I walked in the door, I noticed a spectacular shiny German-made bike: a bright metallic orange *HP Velotechnik Street Machine*.

I knew that with a few accessories they would be well over 3000 Euros in Germany, so it must be at least US\$4000 here. Beautiful bike, but too expensive for my budget (which was maximum \$2000). Oh well, they had lots of other bikes to look at.

I smiled and told the sales guy "My goal is to buy a recumbent from you and start on a cycling trip to Grand Rapids by 1 PM today." I pointed at the cycling shorts I was wearing and held out my packed panniers to prove I was serious. He smiled back at me and said "Unfortunately that's not going to happen. First, nobody buys a recumbent bike on their first day. Most people come back 3, 4 or even 5 times to test bikes before they finally buy one. And second, I can't sell you a bike today. These bikes here are all demonstrators. We don't sell them. You test ride them, find the one you like, and then we order it from the factory for you. Takes about two weeks to get one delivered. Would that be suitable for you?" Ooops. This didn't match my plan.

*Orange Beauty,
about 5 minutes after
I purchased her.*

I didn't know what to do. I didn't have a back-up plan. So I wandered around the store for a few minutes, hardly seeing the bikes in front of me, wondering what my alternatives were. Finally I noticed one bike that was not brand new, with a price tag on it. I asked him about it. He said "I thought you were only interested in buying a new bike. About half of the bikes in our shop are used, on consignment. Of course you can buy one of those bikes today, if that is what you want." Well that changed everything!

I looked at a *Bachetti Giro 20*, an *EasyRacer*, a *Sun*, etc. In all, I test rode 7 bikes, and was slowly deciding which one I liked the best that would fit my

budget. I was just about to choose the very basic Giro at \$1750, however just for interest, I asked the price on the apparently brand-new *HP Velotechnik Street Machine* in the other rack. He pulled out his list and said "\$1500. The owner bought it from us 4 years ago, brought it in yesterday (while I was on the airplane!) and said "I never use this bike, I need to clean out the garage, please put it on sale at a price so that it will sell quickly." The salesman didn't need to say another word. I pulled the cash out of my pocket and shook his hand. Later when I looked at the odometer, it showed 300 km on it. When I sent a photo of my new bike to my wife that night, she immediately named it as "Orange Beauty."



It was the bike of my dreams. I loved every minute of owning it. A few highlights of cycling on that trip. In the first hour of the first day of riding, I was cruising along a lovely asphalt bike path through farmland. I was going pretty fast down a small hill and too late I saw a deep pothole that was the full width of the bike lane. I hit it pretty fast and very hard. Both the front and rear suspension bottomed out. If I had bought a bike without suspension (like the *Giro*), I think I would have damaged the frame (and/or me!).

Cruising along, rolling through the forest, with warm sunshine, on a flat smooth asphalt pathway, with the nicely padded seat hugging me, I could almost fall asleep while pedalling. I wonder if anybody has invented a cruise control for a bike?

Tonight's hotel had no restaurant. The only place within walking distance was a bar/restaurant. They did have a beer from Belgium specifically for bicyclists called *Fat Tire*, which gave me a good impression of the place right away. So I ordered their "beef strips and vegetables rolled in a whole wheat wrapper". Sounded quite healthy. I was



Generally nice roads, but some with quite narrow bike lanes and dangerous soft sandy shoulders.



At many American hotels, in the breakfast room they provide a waffle maker and a big pot of batter. You can make as many waffles as you can eat! Perfect for hungry cyclists!

hungry and could hardly wait. However, I had forgotten that I was in America. The meal came exactly as described in the menu, except that the whole thing had been deep fried and they had poured lots of mayonnaise-based salad dressing on top of it. Rather unhealthy, but I was too hungry to care. In the first few days of cycling there have been at least 10 people who have said "Wow, cool bike!" or similar. This includes a 4 year old girl, two 80 year old ladies sitting next to me at the restaurant, and an older guy on the street who appeared to be homeless, but we had quite a good discussion about the various styles and brands of recumbent bikes. At the end of 100 km today I am exhausted. I am dizzy from sweating so much and from getting sunburned. I was too tired to undress, so I simply walked into the shower with my cycling gear on. I let the shampoo from my hair run down onto my

t-shirt, dropped a bar of soap down the front of my cycling shorts, and started to dance a bit in the shower to clean the clothes. Worked pretty well. However, I have just now realized that in my enthusiasm for cleaning up, I washed both my bicycling shorts and my only other pair of pants. I wonder what I will wear for dinner? Oh well, there is beer and peanuts in the minibar fridge. I guess that will be dinner tonight.

I have enough energy for cycling each day, because I'm following the "ABC diet." AB is for American Breakfast which this morning at the hotel was a vegetarian omelette (which included ham, because as the server said, "It's just better that way") along with a separate plate of hash browns plus two pancakes. Enough for two people for two days. But good. And the C is for cookies. No other country in



I can't understand how I got lost a few times while returning to Chicago....



After VelocityUSA put new rims on our tandem bike hubs, I had to carry the new wheels for the rest of the trip. I received lots of strange looks as I biked back to Chicago. Perhaps the only bike around to have 3 wheels on the back!

the world makes chocolate chip cookies as good as the USA. You can find them everywhere, and one is almost big enough to be a meal.

After a few days of cycling, I finally met Matt at VelocityUSA, and finally told him that I didn't just drive up from Chicago to get the wheels repaired. I told him the whole story of having our tandem bicycle back rim fail, my wife's airline points that needed to be used, getting two weeks of unexpected holiday time, me needing to fly to collect some air miles, thus flying from Turkey to Chicago, buying myself a recumbent bike, and finally cycling up to see them in Grand Rapids. I thought he would be quite surprised with this story, but Matt was very cool. I don't know, maybe he hears similar stories every day?

While they rebuilt my wheel, I walked around the neighbourhood and picked up a cherry pie from the local bakery and gave it to Matt and his crew as a thank you. I think the cherry pie got Matt quite a bit more excited than my story of flying halfway around the world to get here. Oh well....

I waved good bye to them and, despite being warned, cycled off to Gary, Indiana and up through South Chicago, which is a whole different world and a whole different cycling story, maybe for next time.

2019 Update

After getting back home to Vancouver, Canada, I enjoyed riding Orange Beauty for about 5 years. Then one day I met a friend's teenage son who used to be a keen bike rider, but had recently been diagnosed with cancer. After getting surgery and metal pins placed in his backbone, he hadn't been able to ride his regular bike for more than a year. I offered him to try riding my bike, since the hardshell recumbent seat provides very good support for the back. He loved it, and so I decided he needed it more than I did.

I may have purchased Orange Beauty in an unusual way, but it turned out to be exactly the right bike (for someone else), and I am happy that it eventually found its way to the right owner! <



At the airport with Orange Beauty in her cocoon stage, preparing to fly.

Nici Walde's 24 Hours World Record


By Nici Walde, pictures
by Werner Klomp,
David Rzanny, Richard
Schaffenroth

From *Ligfiets&* 2022-3



Nici Walde and the
M velomobile.

In our successful world record attempt in 2018, Opel and the team made possible an attempt at an endurance record. It couldn't get any more perfect than this, I thought. Unfortunately, the weather and my health were not optimal. A record was set, but far below our expectations. This then had to be improved. I had no idea if I would be fit enough and if a race track would be available. You can't trial run a 24-hour record because of all the logistics involved. In addition, I was very busy at work.

 Many racetracks were unavailable until we came into contact with Dekra's Lausitzring in mid-March. They immediately gave the green light for the record attempt, but they took time to reply. The Dekra team had generously offered that we would pay for the job for a day, but could add additional hours. For a 24-hour record you need the track for at least 36 hours.

The final date was not set until early June. That was actually too late for all kinds of requests to IHPVA, WUCA and the Guinness book, putting together the team, finding sponsors and the PR. Fortunately, exactly the right people helped me with all kinds of things that I am not very good at myself. Unfortunately, in the middle of June I was in bed with a severe fever. I couldn't do anything, and certainly not train. I almost went crazy, five weeks before the big day seemed to fail completely. It wasn't until the end of June that I was able to ride a little again. VO₂ max had dropped from 68 to just 63.

Five weeks before I was in bed with a severe fever.

Actually, I wanted to cancel the whole attempt, but I couldn't back out. Dekra had already cancelled a few regular customers for me. Then I trained very carefully, organized all kinds of small things, the stress rose. The team was absolutely crazy, they worked together like clockwork. Although I can't do much initially, I trust my instinct. It was planned to start with 95 to 96 Watt, just like in 2018, 54 to 55 kilometres/h. The first twelve hours without a breakdown would be a great start. With such a schedule, endorphins are mandatory. You should be able to take a few breaks at night, when the pace drops and the cold slows you down. On Monday before the big day, Daniel Fenn will join the team, for three intensive days of getting acquainted with the *M velomobile*. No normal person could imagine the thousands of details that you must and can optimize to ride a record. A new light at the front, testing tires for days at different temperatures. The seat has to be removable because larger people also test rode the velomobile. Perfect tracking, testing how the rear wheel actually runs without play, finding a taillight that fits and lasts for 24 hours, and so on.



I have to test food rations, where do you buy them, what do I want to eat, what can I eat. This time no sandwiches with Nutella, but noodles, muesli with student oats (a mix of nuts and dried fruit) and yogurt. At night I actually wanted to have a lick of Nutella in the muesli, because my stomach couldn't stand the noodles and I wanted at least the muesli to taste good to me.

I planned to sleep in a hotel on Thursday night and in the bus the night before the record attempt. I thought I could relax in the hotel and brief the team there in the evening. Unfortunately the *M velomobile* wasn't



ready until late afternoon so we didn't get to the hotel until after midnight. I woke up way too early. Instead of relaxing we went to put the finishing touches to the *M* velomobile. Then I had a headache and I fell asleep on the bus in the afternoon. Everything hurt at night and I couldn't imagine riding a record today. Well, at eight o'clock AM Daniel woke up, we had to do it.

The greatest day in our lives. I am much less excited than I was in 2018 because I now know what my body can handle under pressure. There are zero journalists this time. As always, it takes forever to get everything ready to go. The team has to make do with one less observer because Krobi has to leave with acute thrombosis. And suddenly the WUCA recognition seems to require a car to follow me all the time. What the hell? Fortunately, I know that the team will pull off the impossible.

I had prayed to all weather gods to spare us the predicted rain and to ensure fairly mild temperatures, especially at night. Fortunately there was no sun, but there was wind. I hadn't counted on that. There I went, boarding, for a test run. The thing only drives 51 km/h, on the side and with headwind 47 km/h. At the start I stop again. This won't work at all, I won't even break my own record. But the bike is totally fine. The wind is simply too strong. So I don't feel like it anymore. Do I have to push myself to get a mediocre time? This is bad luck and no chance to ride a record. If we wait for the wind to die down, it might be night already. Then I have to drive so long after a sleepless night, I can't bear that. That is also too much for the team. Daniel urges me to keep riding. So I just grit my teeth. There

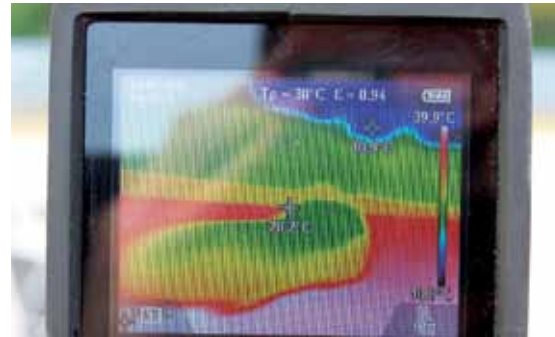
are no endorphins I had counted on, but a deja-vu feeling. My power meter reports 96 and sometimes 97 Watt. You may think that I am much weaker than in 2018. Some say the *M* velomobile is slower, but that is not true. This time I was sure that bike and rider function optimally. It doesn't help if circumstances slow you down.

These kinds of thoughts run through my head for the first few meters. But if I do go ahead with the project, I had better try to think positively. Or think about nothing and concentrate on riding. Not as nice as hoped, but it works. Nothing happens for the first few hours. My team writes encouragement on the news ticker. I deliver my 96 Watts every round. I try to keep the vehicle moving straight ahead despite the gusts of wind and hope the promised rain doesn't make it too crazy. When the first drops fall I prepare for the next misery. But it continues with a few drops and after a while there is not a cloud in the sky. Phew! This is good! My *M* velomobile rolls and rolls, no breakdowns, no rain, my own engine also runs smoothly, it's not all that bad after all. My mood is improving. The planning is to ride for twelve hours and then a break. That seems to work. My feet do hurt, but I can ignore it. Sitting becomes more annoying, but that is also surmountable. >



Noodles and muesli for the road.

> At night the pace will slow down a bit, but if I get through those 12 hours without a breakdown, it could be a record. By the tenth hour things are a bit difficult. Maybe I shouldn't have driven with 97 Watts for a while, instead of the planned 95. But driving slower could jeopardize the 12 hour record, so I force myself ahead. After twelve hours I want a pit stop, but the team is not ready yet. Because the team has to follow me by car, many helpers have more tasks than expected. My break is now very long because we are not yet fully attuned to each other. The result is that I am fit again when riding further. Three hours and then a break again, I imagine. But after a good two hours I hear a bang in the *M* velomobile. A blowout? I have to steer a little, then the *M* velomobile rides straight again without problems. What luck. My visor was fogged up and I hadn't wiped it clean yet so couldn't see anything. Whatever it was, an evasive manoeuvre could have ended badly.



Remote measuring: 28,2 degrees in the capsule.

I call to ask if they saw anything in the support car and if I should go to the pits. The next round I read "Animal Survives." It's nice that they write to me right away that I didn't kill anything. Although I am mentally still amazingly well, I would be much more sentimental in this situation than on normal days.



In a basket full of icecold water, to cool down during breaks.

Nici Rides 1 130 Kilometres in 24 Hours!

I continue riding without an inspection of the bike. Now something starts to tap on the roof. Softly at first, then it stops again. Then it starts again, this time much louder. I think some tape has come loose and drive on.

When three hours have passed I drive into the pits to relax my feet and buttocks again. We are again way too slow with everything. Daniel tells me not to take a break again so quickly, that takes too much time. Stupid, just now comes the hardest part of the night. I drive a little slower to save energy for a longer series of laps, but also because it is only 9 degrees. Unfortunately, after an hour my pace slows down. I could fight that with all my might, but it's still almost eight hours. If a nagging muscle in my buttock tightens my stomach, everything could go wrong. So I fight the decay only moderately. My wattage is decreasing, but at least I'm still riding. Actually I wanted to ride up to 1000 kilometres, but if I only ride 40 kilometres per hour I know it won't work out. I signal to the pits that I'm coming for a mini-stop. This time almost everything is ready, unfortunately almost everything again. What does it matter? It has become light very early. Only four hours left.

I start up again to get my 1000 kilometre record. It succeeds, just in the nick of time, but it is still a boost and the pits fortunately also put it on the news ticker. If my pace drops significantly two hours before the time, I make another 'power stop', without getting out, to briefly relax my buttocks. Unfortunately I decide to leave the air intake closed to be a bit faster. A little later it gets so hot that I can hardly breathe. Afterwards I hear that Daniel could have opened the air intake during the ride. Now all I think is: anyway, don't stop. I work myself out, kilometres after kilometres, no longer fast but just enough so that I don't collapse. Actually, this part of the ride should be the most fun, if you beat the 2018 record and the world record. I just think now: are we almost there yet. I should be proud, because I had no sleep and went through the last hour and a half without air. Somehow you have to be able to conjure endorphins from somewhere, regardless of the circumstances. But I couldn't, only in very short flashes when the records were broken. All in all, my mental fitness was the best of all my record attempts. So often I thought: hey, another fifteen minutes have passed in which I have thought of nothing.

At the finish I can barely walk, but otherwise I'm in good shape. The heart rate is not that high all the time. After my bath in the barrel and a few pictures we eat something, then sleep. In the evening I eat again and the next morning I wake up as if nothing had happened. Except I can't walk in a straight line. Everything else is good. In my mind I go over what could have gone better. Not much. But in better weather conditions... Daniel doesn't want to hear about that: the conditions are never perfect. I also don't need to ride another record if necessary. Although, I would still start with this team. And I had sworn beforehand that I would never attempt another record attempt. Now let's land with both feet on the ground again, beat the 12-hour record and then we'll see. Without a team, and certainly without Daniel, it would never have worked. So a huge thank you to everyone! <



Certificate of the World Ultracycling Association, WUCA.



View from the escort vehicle.



Early sunrise.



M, the velomobile.

1055 Km



Text and photos
Holger Seidel

From Info Bull 227



Across Germany in 29 hours and 57 minutes

30 hours And A Little Wiser

In the end, over a year of training, preparation and organization boil down to one day or, at least as we hoped, under 33 hours. However all questions remain unanswered until the very end. But if it is to become a record, these doubts must also be hidden. The final preparations began on Thursday, August 25th, 2022 with picking up the rental bus, loading the velomobile and material, "collecting" the first team members and driving to Oberstdorf. Naturally you look at the later transit routes while driving, some of which were in the immediate vicinity of the motorway. And yes, even by car, getting to the south is no small matter.

Friday is our day of preparation. Wow, there is still so much work ahead of us. Vehicle and replacement vehicle still have to be completely coordinated and pasted, the purchase made, cars prepared, agreements made... Actually, the day is much too short for a team that is not well-coordinated. But the test drive is approved, the starting location is inspected, the rest of the crew arrives, the first pictures are taken and then it's off to bed.

Saturday 4:00 AM the alarm clock rings, at 4:30 AM we leave for the start in Birgsau. The morning is all wet after rain but and the temperature is quite pleasant. We will then bring forward the exact start time, because waiting makes no sense. Let's go. The first few kilometers I ride very cautiously, it's damp and I don't want to risk skidding under any circumstances. So a nice run-in, which takes quite a long time for me. Then I saw the first supporters along the way. It was to stay that way until the finish, there were always people along the route with super motivating actions. Even if I didn't

recognize everyone, I was super happy! At the very beginning I have a bit of a stomach ache, but it soon goes away. Then I enter a constant rhythm. I have music in my ears and also have radio contact with the escort vehicle. What counts for me is: Concentration on the route as well as the values of the power meter and heart rate monitor. I only look at other values about 3 to 4 times in the next 30 hours. In my head I have a four-part route: Birgsau-Würzburg, Würzburg-Holle, Holle-Wischhafen, Wischhafen-Target. And I am always focused on my current segment and not already at the finish line or somewhere else. The body is running and it should stay that way. For the first 300 km there is a target heart rate of approx. 130, sometimes slightly more on inclines.

Were there any problems along the trip? No! Were there any tricky situations? Yes, some. GPS signal in the *Bülk* velomobile is lost, new construction sites appear, a few thunderstorms want to tease us, tire damage, small things on the *Bülk* velomobile, a raccoon on the road... But I'm focused, it can't hurt me, I have the best team with me. And so I fade out the 'difficult' parts. I don't really have the record in mind. Body and mind seem to have agreed on this one day and so I reel off the kilometers.

Then come the meters of altitude in the Main region and in the Rhön. I had the greatest respect for this section. Hartmut announces all the relevant climbs: length, incline percentage, duration and wattage to be pedalled. That is how we'll go through this until the last hills in the north. And that was a recipe for success. In between I always took something out and regenerated it. After the relevant meters of altitude, I notice that things are still going great. And it was precisely at this point that many feared that it might not work. I was only a



A last test on the day before, Holger Seidel with his Bülk velomobile.



Holger Seidel with his team on the evening before the record run.

few minutes ahead of the minimum time, but that didn't even register.

After the last few climbs in the foothills of the Harz Mountains, it was clear to me that I could now pick up the pace, so I slowly picked up the pace and shortened the planned break times. After the first break, food was only available in liquid form. I had no appetite for anything solid. Gel, liquid food, Isotrunk, and during the breaks cola and water were enough. Night came and I was not tired, no hallucinations, no significant drop in performance, and I still really enjoy what I'm doing.

From Celle it's going to be a festival. Ride through the best velomobile terrain in the early morning hours at 50-60 km/h. Then really step on the gas to the Wischhafen-Glückstadt ferry. This still runs irregularly in the morning hours, the waiting times can be 30-40 minutes in the worst case. Crew: "Can you do 22 km in less than 30 minutes (with the corresponding local crossings)?" Me: "I'll do my best!" Done, 7.20 precision landing on the ferry and the crew breathes a sigh of relief. At the beginning of the last stage, Fritz asks me if I want to track a target time. I understand: between 30 hours, 30 minutes and 30 hours, 50 minutes is realistic. But Fritz thinks I can crack the 30 hours. I don't think about that until the finish, and I didn't realize that it would be less than 30 hours. Crew: "Do you want to give it your all again?" Me: "Yes, of course, but in the first section after the ferry with small small detours that doesn't make any sense."

I pedal the last 2 hours again at full throttle. And that's exactly how it is. From the following vehicle then on the last 50 km regular announcements with the targeted average. But I still can't believe that it's roughly less than 30 hours. Time flies, we leave the last hills behind us, it's going down to the sea. The wind is blowing rather unfavourably, but I'm not interested today. The legs are still doing extremely well, no signs of cramps.

And so I'm at the finish line at the Danish border, still can't quite believe the great reception and am just amazed that my body has taken it so well. No pain, no agony, lots of joy and relief.

There can be days like these, but they are certainly not everyday or normal. And what sounds so easy was an enormous amount of work in advance. It's not just the training, it's the organization, the public relations, there are so many small things to be arranged. I would not have dared to hope that at the end there would be a new record of 29 hours and 57 minutes. You can say: Everyone did their best here! Many thanks to my entire support team. Many thanks also to all sponsors and donors who have made this company possible. And at this point a big thank you for the support to the HPV! Also a big thank you for the sparked enthusiasm, whether on the track or in the forum. These emotions carried me. <



Holger Seidel with his team after crossing the finish line.



Holger Seidel's arrival at the finish line at the Danish border.

Presentation Of The Project 441

By Charles Henry,
and Andy Gerber,
pictures Charles Henry,
Jürg Birkenstock

Published with permission
from Honza Galla
of www.recumbent.news
in Info Bull 227



Major brands have also long since noticed that there is a gap in the market between so-called light electric vehicles and electric bicycles, which they want to fill with 4-wheeled muscle power hybrid concepts (Canyon with Urban Mobility Concept and Schaeffler with Biohybrid). When it comes to converting human muscle power into motion as effectively as possible, however, aerodynamics, rolling resistance and, above all, weight are the decisive factors. In this respect, modern 3-wheeled velomobiles have set new standards for pedal-powered vehicles.



With the 441 prototype (pronounced *Four-For-One*), Charles Henry, in collaboration with Jürg Birkenstock, wants to show that it is possible to adapt 4-wheel chassis technology for lightweight velomobiles to make them safer, more comfortable, and thus more attractive to more people.

Challenge

The design of the chassis and drive system required a radical rethink of the 4-wheeled vehicle design. Proven solutions from automotive engineering were often more target-oriented than traditional

bicycle technology. Many parts therefore had to be developed from scratch. Digital tools such as CAD/CAM and 3D printing made it possible to plan complex solutions and implement them at relatively low cost. Nevertheless, there is no way around lightweight bicycle construction in order to achieve the driving performance, because the engine remains the human being.

Development and production

Development and construction of the 441 took place from 2019 in close collaboration with Birkenstock Bicycles. All design drawings Charly created with *Rhino 5* (3D CAD). They are the basis for the CAD-CAM processing of the aluminium parts, the 3D printing of plastic components and the Styrofoam master models for the casing, which was produced using a portal milling machine. Negative moulds were taken from the ground master models and the finished parts were laminated in them by hand. Steel and aluminium parts (e.g. trailing arm, bottom bracket mast, rear axle) were welded by Stefan from Fahrradbau Stolz (www.fahrradbaustolz.ch) in Wallisellen, Wolfgang Schröppel (www.dastore.biz) developed the microprocessor-controlled vehicle electrics.

Current status and objectives

The first prototype of the 441 was completed in time for the *Bike Lovers Contest* in May 2022. Charly won the audience award with it and was awarded second place by the expert jury. Currently, extensive testing is on the agenda. Compared to commercially available velomobiles, which can look back on a long evolution to reach today's high level, the 441 represents a revolution in many areas. During testing, several issues were identified that still need to be improved in order to meet the demands made of it. The main areas of concern are weight, aerodynamics and costs. The focus is currently on



Milled styrofoam parts.



3D printed derailleurs parts.



Cockpit interior.



441 Key Facts

General

Name 441 (Four-For-One)

Year of construction 2019 to 2022

Design & construction Charles Henry, Zürich
(www.velomobil.ch)

Production Birkenstock Bicycles, Jona
(www.speedbikes.ch)

Vehicle type prototype of a 4-wheeled velomobile for one person (body sizes from 1550 mm to 1950 mm) and a lot of luggage with optional additional electric drive up to 25 km/h.

Foldable top for easy boarding, driveable also as convertible for child transport and high summer.

Techniques used Completely designed in CAD, components CAD/CAM milled, Plastic parts (PA) 3D printing (Multi-Jet-Fusion)

Range of use

Suitable for everyday life, touring, sports

Turning circle 10.5 m (with tires 45-406)

Climbing ability inclines up to 30%

Fairing

Type of casing self-supporting (monocoque)

Construction Carbon/Kevlar laminate in negative form wet laminated or prepreg

Dimensions L 2500 mm, W 720 mm, H 1010 mm

Wheelbase 1220 mm

Ground clearance 104 mm

Weight approx. 35 kg (prototype)

Max. payload 120 kg

Chassis

- Front trailing arms (type 2CV)

- Rear rigid axle with parallel trailing arms and Panhard rod

Suspension/damping Rosta elements

Tires 28-406 to 45-406

Drive

Drive via primary and secondary chain 3 x 11 gears with thrower and self-made rear derailleur

Both rear wheels driven with 2 freewheels/anti-skid lock

Bottom bracket rise 220–280 mm

Min./max. deployment 2.09 m to 11.2 m results in 536% variation range

Efficiency >93%

Electric add-on drive up to 25 km/h optional (i.e. approved as a bicycle)

Seat

Seat height above vehicle floor 20–80 mm

Seat angle 35°–45°

Length adjustment 72 mm

Electrical system

Onboard electrics 16 Volt (by www.dastore.biz) microprocessor controlled, star wiring

Functions low/high beam, parking light, turn signal, brake light, horn, USB connection



The 441 next to a Quattrovelo.

Canopy mockup.



The 441 next to a DF.



weight. The front suspension is being converted to MacPherson struts, which will save 1.5 kg, is closer to production and cheaper. Improvements to the aerodynamics are being worked out using CFD analysis. They will be retrofitted to the first prototype and tested in real life at a later stage. Many details will only be finally tested with a second prototype, which should also allow a better assessment of the financial aspects of production.

How (or even whether) it will go further is still in the stars. A variant would be the production of a small pre-series as the next testing step before the start of a real series production. This is currently still only a far dream and it will surely take years rather than months until a possible realization. This is also because in terms of quantity the small team in Switzerland lacks comparable means and resources that are available to the successful and proven Velomobile-cluster around the Velomobile World production line in Romania.

About Charles Henry

Charly lives with his family in Zurich. He studied biology and is still working 60% as a scientific assistant for the canton of Zurich until his retirement. In his spare time, he has been intensively involved with muscle-powered vehicles since 1999 and is passionate about riding and designing recumbents and velomobiles. His creations are well known in recumbent circles and include the *Peregrin*, a compact, suspended carbon recumbent bike, which has been manufactured by Birkenstock Bicycles since 2006, and the *442* (Four For Two), a prototype of a quad bike for two pedalling passengers sitting side by side (so-called *Sociable*). In 2011, he was able to cover 1160 km within 24 hours in the Lausitz region with his fully connected recumbent bike *PoB*. With the same vehicle, he also won the World Championship of Human Powered Vehicles in Belgium in 2015 and in England in 2018. Since then, his focus has been on developing the single-seat four-wheel prototype 441. <

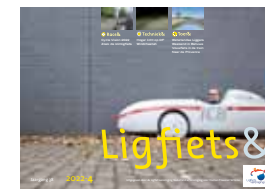


Jörg Birkenstock working on the 441 mould.

Support your HPV association!



future bike ch



Mike Burrows and the Windcheetah

By Andreas Pooch
from Germany,
photos LD-Verlag



The Aspro Clear Challenge in Brighton in 1980 was the first European HPV event. Mike Burrows was curious about what this movement had to offer. Although the Vector won the competitions, Mike and his team took the British Poppy Flyer as their model. After painstaking completion, the first test at the regional military airfield was disappointing.

They had expected 50 mph but they only managed 43 mph. After all, Mike Burrows held the British 14 hour record in this vehicle in 1981 and he finished fifth in the Aspro Clear Challenge that same year.

At Christmas 1981, the *Windcheetah* was born: oversized aluminum tubing, individually steered front wheels 20 inches and rear wheel 27 inches. Without much training, Andy Pegg took part in a 10-mile time trial for Christmas and had great fun with this vehicle, especially on ice and snow and when cornering at high speed. After Ian Barwell moved to Holland in February 1982 and took the *Speedy* with him, Mike Burrows launched the *Windcheetah Mark-2* for himself and Andy Pegg. *Mark-2*



convinced with its frame for a rear wheel mounted on one side. The individual elements were no longer welded but simply glued. In April 1982, Mike and Andy participated in a local Tricycle Association city criterium. They learned a great deal, took excellent places and improved from race to race. More and more interested parties are asking for a commercial product. But Mike felt more testing was needed. Imperial College's request presented a good opportunity for this. They wanted a *Windcheetah* for a 3,500-mile charity drive along the British coast.

The *Windcheetah Mark-3* had 17-inch Moulton front wheels, which allowed larger head angles with the same track width. Mike had reduced the rear wheel to 24 inches, which allowed better weight distribution and made the vehicle more compact. Except for the handbrake bracket, all technical elements were glued.

As a further improvement, the rear wheel of the *Wincheetah Mark-3a* was moved to the left side of the thick aluminum frame, the sprocket assembly

was on the right side. The first five commercial series vehicles have now been launched.

Now there was also a fairing to think about. Formwork for Imperial College's *Windcheetah* served as a template. The road traffic regulations, which stipulated a maximum width of 750 mm, was important in the planning. For this reason, the wheels had to end with the wall of the cladding.

Fast cornering required leaning out into the corner. This was only possible because a fabric door opening in the side wall allowed sufficient freedom of movement. Mike Burrows designed a fabric cover as a roof for racing. Looking back, Mike Burrows realized that the *Windcheetah* wasn't necessarily a commercial success for him.

With one variant, Mike should still be the record holder in lightweight construction today. The 16 kg version consisting of a chassis made of cast magnesium elements with many holes even had a streamlined complete casing! <



Windcheetah

Text and pictures
Pieter Veltman

From *Ligfiets&* 2022-4



Mike Burrows passed away on August 15 this year. He was an icon in the world of bicycle designers and has many innovations to his name. One of them is the *Windcheetah*, a sporty tricycle. The name derives from cheating the wind and fast as a cheetah.



I had been looking at recumbent tricycles for years, there weren't a lot for sale, and most of them I didn't like or considered technically not good enough. The *Windcheetah* stood out in my opinion. Both beautiful to look at and technically good.

In 2010 I decided to say goodbye to my corporate career and focus on smaller companies. As a parting gift I wanted to buy a nice recumbent tricycle. However, a new *Hypersport* cost about \$ 9000 at the time, which was too much. So I searched the internet for a good used one. I found this one in the USA. Now you would think that is not convenient, because viewing in advance is 'difficult' and shipping is very expensive. I had very good contact by email with the owner and what he said and showed in pictures gave

me the confidence that this would be a good buy and we agreed on the price. At my work we continuously sent large packages back and forth between the USA and the Netherlands, so getting it to Holland was no problem. I arranged with the owner that he would pack it up and told our shipping department where to pick it up. In the meantime, the payment was to be arranged with the owner. This turned out to be very difficult because the American and Dutch banking systems are completely different. Strangely enough, I don't remember how the payment was finally made. Fact is that I already had the bike at home while I was still busy making sure the owner would get his money. In the recumbent world we trust each other! Back to square one, why did I want a recumbent tricycle? In 1992 I studied in Delft and together with a roommate we decided to design an improved *Flevo-bike*. Old-timers from the recumbent world may know our bicycle, it is the bicycle with curved round oversized tubes that won the design prize of the NVHPV in 1993 or 1994 and also the Aluminium Award in the category bicycles.

The big disadvantage of a *Flevo-bike* is the fact that you don't really have a handlebar in your hands, you steer with your body, very nice in many situations, but when you go really fast (downhill) I had the feeling that I lost control. A tricycle doesn't have this, and that's why I thought it would be nice.

The *Windcheetah* is a great bike, it handles super tight, sits well and has a huge fun factor. I sometimes ride with the front fairing, usually without. Both are fine, the fairing is especially nice when it's cold or raining.

I live in Arnhem with beautiful cycling areas all around. There are many cycling paths on the Veluwe, but it is often busy and a tricycle is not ideal. People are also often startled, it seems as if they are overlooking me, despite my bright yellow helmet. Furthermore, I don't think climbing with this trike is ideal, it is possible, but seems to take a lot of effort and then when you descend it goes incredibly fast again.

The tricycle is pure pleasure over the dikes and paths of the Betuwe or cycling towards the Achterhoek and Germany.



At the time, Mike Burrows was way ahead of his time with the *Windcheetah*, now the bike is a bit outdated in some respects. The bicycle is constructed from tubes (alu and carbon) with cast aluminium connectors (actually exactly like the recumbent bicycle we had designed in Delft). Nowadays the frame would be welded or made entirely of carbon. The design is very clean, very sober and functional. All wheels have a single side mount. The front wheels are slightly angled inwards, only toe-in is adjustable. The seat is mounted on two carbon springs which work fine. The lack of wheel suspension is a point, some roads provide a very bumpy ride. The small 'steering lever' is also tricky at high speeds, the bike reacts very quickly to the smallest steering movement. The biggest flaw, in my view, is the braking. There are drum brakes in both front wheels. Good hydraulic disc brakes would make a huge improvement, but these were not available back in the early 80's when the bike was first designed. A handbrake would also have been useful. You should also have quite a few spare spokes for your front wheels. Originally these are expensive titanium

ones, but I now have a lot of steel ones in between. The spokes snap due to the enormous stress during sharp turns. The *Windcheetah* has an eccentrically (and unilaterally) mounted rear wheel. The tube to the rear (aluminium and not carbon) is in the middle and the wheel is mounted left and the pinion right of the tube. You notice this when riding, right corners can be taken faster than left corners. I don't really know what the norm is in recumbent races, track riding is always counter clockwise, car races are usually clockwise.

In some ways, the *Windcheetah* can be considered the forerunner of today's streamlined tricycles (velomobiles). I compare it with cars, for daily use you want a closed car, but with good weather nothing beats a convertible.

I have had the *Windcheetah* for about twelve years without much problems. I once reinforced the mounting points of the carbon fenders and rear fairing (or luggage box) with metal, and recently I have had to replace one of the carbon seat springs. For this I reinforced a piece of bamboo with carbon.

The biggest disadvantage of the *Windcheetah* (and most recumbents) is the invisibility in traffic. I try to avoid urban areas as much as possible, I am always nervous and constantly on the lookout for other road users who may not see me. After a knee operation I wanted to go to work independently (and without a car) as soon as possible. The surgeon had not allowed me to cycle yet. You should have seen her face when I asked if a tricycle was allowed! Anyway, I rode through town every day for more than six weeks, a bit nervous, but happy to be able to cycle.

Sometimes I consider putting my *Windcheetah* up for sale and buying a modern tricycle with disc brakes. But which one is of course the big question, I have no idea what's for sale now. But every time I ride my *Windcheetah* I realize, it's so beautiful, and it rides so nice. Besides comments like 'shall I set the alarm', the most common question is whether it is not tiring to sit back like that. I always ask whether watching TV on the couch is tiring. <



First Velomobile In Paris–Brest–Paris

By Carl Georg Rasmussen
from Denmark

Are you ready? If you want to challenge yourself on a long distance tour in an international atmosphere, the legendary Paris–Brest–Paris offers an exciting opportunity. Next year is a Paris–Brest–Paris year. It takes place every 4 years, organized by L’Audax Club Parisien. So start to prepare yourself.

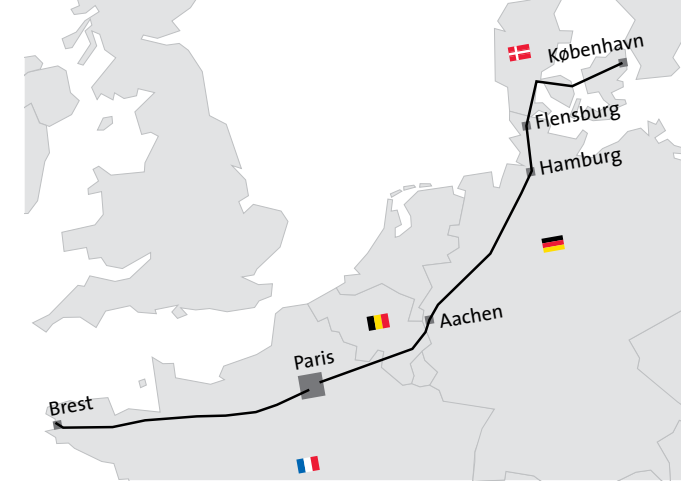
In order to qualify for this 1250 km long route in a hilly and beautiful varied landscape, you must complete a number of tours with time check, brevets, 200 km, 400 km and 600 km and get it approved by the organization *Les Randonneurs Mondiaux*. I decided to participate in a *Leitra* as the first velomobile rider in Paris–Brest–Paris and joined the first Danish team in Paris–Brest–Paris 11 (1987).

*The Paris–Brest–Paris
Leitra.*

We were 15 Danish cycle freaks, I as the oldest (52 years). While my colleagues chose to fly to Paris, I preferred to ride the *Leitra* the whole way from Copenhagen (and back).

You can actually bring your training condition up to a state, where you feel you can go on and on many hours day and night. In a velomobile you sit more comfortable than on a racing bike, and the air resistance is less, no problem with the weather. I had minimum luggage, just camping gear, some personal necessities, tools and spare parts.

After the start in Copenhagen I took a route via Flensburg, Hamburg, and Aachen, then across the Ardennes into France. Heading for Paris, arriving



late evening in the Champagne area, I camped in a park by the river.

In the morning I was woken by voices from early fishermen by the river, and I felt a strange sucking on my neck from behind. With a searching hand, I tried to remove it, and got the hand full of a sticky, soft object – a big black slug! When I opened the *Leitra*, the whole inner of the fairing was completely covered by snails, with or without shells, in many colours and sizes. During the night they had found a suitable shelter under the glassfiber shell.

Reaching a hotel in the Paris suburb of Mountmartre in the rush hours of a Friday afternoon requires some patience and attention. The dense car traffic moved slowly, and it was no problem to follow the traffic flow. Parking for the night in the street could be risky, so I took the seat out, locked the bike and found a corner in the narrow hotel yard. Next day we had to go to a technical check of the bikes. The French inspectors had never seen a velomobile before, but they accepted the *Leitra* as a fully worthy vehicle for Paris–Brest–Paris.

Next morning at 4:00 the first group of about 1000 participants, including my Danish friends, started in pouring rain and darkness. I had chosen a later start, at 10:00, which gave me time for breakfast and a calm start in dry weather. Escorted by police on motorcycles on the first stretch out of Paris,



the long row of cyclists slowly splits in smaller groups. I was soon riding alone, as it was difficult to communicate with other riders from a closed velomobile.

The route is rather hilly. The organizers have taken advantage of a ridge from Paris and half way to Brest, so we must climb and race downhill many times, often with steep turns. About 200 km from Paris, I came downhill at full speed, and suddenly met a hidden turn behind a rocky projection.

I applied full braking, but too late, causing the rear wheel to lock and skid and overturning the *Leitra*. Sliding on the left side it hits a crash barrier, and the top of the fairing with the rear mirror was pressed in 5 cm. When I ride the *Leitra*, I do not use a helmet. The top of the fairing gives me full protection, also in this case. Beyond the crash barrier I was looking down a steep slope into a valley. Lucky me for that barrier!

My first thought was: This is the end of Paris–Brest–Paris for me. I turned the *Leitra* upright, pressed the top back into position (the rear mirror still OK) and checked damages on the fairing and steering. Only the rear fairing was squashed. Wheels and steering looked OK, and I sat in it to continue with renewed hope. The rear wheel started hopping.

It was no longer perfectly round, because the tyre was deeply worn by the hard braking. With small

bumps from behind I could continue riding the next 1000 km. A small scrape on my left elbow was cleaned and dressed in the next restaurant – followed by a glass of cognac

As we approached Brest, the wind increased, and it was head-on against us. This is a situation, where the velomobile has it's great advantage. No one could overtake me on this stage.

Second night about midnight, my front light started to lose power. The battery capacity seemed to be too low, and I had to stop until the early morning. Too bad, as that could have been avoided by better planning.

It led me to a strange experience. The Paris–Brest–Paris organization had also arranged facilities for such a situation. For four hours I could relax in a barn with bundles of straw spread on the concrete floor. About thirty people were lying stretched out or in bizarre positions, snorting and groaning and with sounds of gas outlets.

I didn't get any sleep, but some relaxation, and in the sunset I was on my way towards Paris, where I arrived without further incidents several hours before deadline for the second group. I and a few others overlooked a Paris–Brest–Paris sign at a turn on the final lap and had to ride 10 km back to the goal.

The tour organization had done a lot to make the tour safe and exciting. Accidents were taken care of, a few participants were brought to hospital, some after a fall or a collision.

Next day I could set course in the direction of Copenhagen, after changing the worn rear tire. This was the first velomobile to complete the Paris–Brest–Paris, and there have been many velomobiles taking up this challenge in the following 20 years. Some have also shown impressive time performances. <

Paris–Brest–Paris 2023 will start on August 20 in Rambouillet, www.paris-brest-paris.org.

Recumbent Clubs On The Internet

Austria www.liegeradclub-vorarlberg.co.at

Belgium www.hpv.be

France www.afvelocouche.fr

Germany www.hpv.org

Great Britain www.bhpc.org.uk

Italy www.propulsioneumana.it/

The Netherlands www.ligfiets.net

Switzerland www.futurebike.ch, www.tandemclub.ch



In 1987 I was number 1053.

Kreuzotter 5 Carbon Reborn

By Andy Gerber
based on contributions
by @Fahrzeit in the
Velomobilforum.de,
pictures @Fahrzeit,
J. Birkenstock,
homepage Walter Zorn



From Info Bull 227

At the beginning of 2018, a Kreuzotter (German for Black Adder) 5 Carbon recumbent from the estate of Walter Zorn was offered on eBay. The Kreuzotter and its creator, who died in 2009, are still familiar names in the recumbent scene, partly because of the online calculator www.kreuzotter.de for bike speed and performance and partly because of the eponymous Kreuzotter 5, one of the first 'modern' carbon recumbent bikes built in the late 1990s. This article is intended to give an insight into the elaborate restoration project that was necessary to bring the Kreuzotter back into mint condition.



The original was
in a poor condition.



The original Kreuzotter on a picture from 19...

The offer on eBay was met with a lot of interest, but the poor condition and the fact that the bike was tailor-made for the first owner, who was about 2 meters tall, deterred many interested parties. The lucky buyer of the bike became @Fahrzeit (username Velomobilforum.de). It required several attempts and took over 3 years, until the bike looked again ready to ride in the splendour as seen in the pictures.

First unsuccessful renovation attempt

It was clear from the beginning that the bike had to be checked, repaired in the area of the seat mounting and repainted. In addition, all components such as the drive, brakes or wheels were to be checked and, if necessary, renewed. First,

an attempt was made to make the (Black) Adder rideable for the new owner by reupholstering the seat. Unfortunately, it turned out that the detailed technical implementation, starting with the seat position and then with the drive, etc., did not work as desired.

Successful renovation at Birkenstock Bicycles

After the unfinished first attempt, Jürg Birkenstock was called in for a second attempt. He is also well known in the recumbent world, on the one hand as a manufacturer of high-quality recumbents like the *Birk Comet*, the *Peregrin* or the new *441*, but also for his repairs of carbon frames or velomobiles. It was decided to re-size the bottom bracket to the body size of the new owner and to install >





The seat is remoulded.



The steering roll...



The new bottom bracket.



The new bottom bracket.



The new bottom bracket.

> completely new components. The goal was on the one hand to preserve the substance of the historically significant *Adder* as far as possible, but at the same time to make the bike technically up to date.

Riding impressions

Despite the relocation of the bottom bracket, the cranking freedom is still maintained. The steering angle is hardly impeded by the chain (also thanks to chain guide tube and front wheel fairing). The *Adder* rides without any problems. Unsurprisingly due to the great length, the steering geometry is flawless, the bike rides very stably and true to track, you glide nice and low and safe through the streets. In curves, no slipping is observed, the *Adder* behaves good-naturedly even if at times a sloping position is announced. The pictures don't show the impressive size and length of the bike very well, other recumbent bikes almost remind you of children's bicycles.

As for the cost of the extensive renovation, a new recumbent would probably have been cheaper, but at a certain point there was no turning back. The result is now, however, a beautiful and unique one-of-a-kind, which should shine in new splendour for a long time and will certainly give its owner a lot of joy and satisfaction for a long time to come. <



The Kreuzotter 5 Carbon next to a Birk Comet.

Cycling to Sicily

Text and pictures
Wilfred Brahm

There are globetrotters who make really adventurous journeys through Africa or along the Silk Road to Asia. I think a bike ride to Sicily is also quite adventurous. This year I went for the third time. In 2014 and 2016 I had done it on a randonneur, now for the first time on a recumbent. I was a bit apprehensive about that because I climb less easily with a recumbent bike and because you can't lose your body heat very well over a large surface area – your back.



Armed with the previous experiences, I prepared myself thoroughly. To begin with, I thought long and hard about the route. I wanted to go as far east as possible to cross the Alps, because to the east the passes are less and less high and steep. In the end, the Brenner Pass seemed the most suitable to me. From there you can go to the east coast of Italy and I followed that coast almost all the way to Sicily, only cutting off the heel of the 'Italian boot' at Bari. I planned the route using www.brouter.de, which is highly recommended.

Week 1

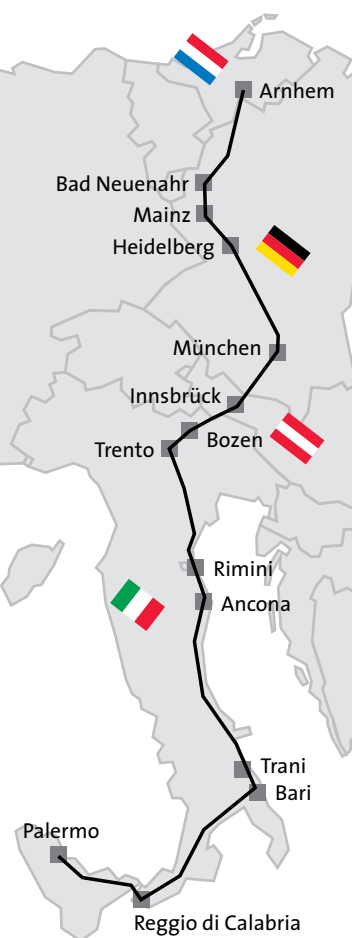
On the second day, not for the first time, I got stuck at the bicycle bridge over the Ahr where it flows into the Rhine. The flood at Bad Neuenahr was almost a

year ago now, but unfortunately the bridge had not yet been repaired. Incidentally, in the Netherlands not all damage from the floods of the Roer, among others, has been repaired.

Everything else up to the Mainz region was known and trusted. From there I rode to Heidelberg to follow the Neckar. I highly recommend that. The first kilometers I rode between the cars, but soon cycle paths came right next to the river. There were some bad parts of the bike path in between, but for the most part it was beautiful. In a romantic town I found a romantic hotel. The fourth day started again along the Neckar, then I followed the river Kocher and on the fifth day I cycled into Bavaria where I spent the night, just before Munich. Bavaria has been great for me. It is a sloping landscape, but I did not find any insurmountable rises. I passed Munich through the suburbs, which is very doable. After this I stopped for a cup of coffee on a terrace in the countryside where a brass band in traditional costume also happened to be having a beer. They regularly alternated the glass and the instrument at the mouth. That day I ended up in a town just before Innsbruck at an Inn which I entered just before a heavy shower.

On the seventh day I passed Innsbruck and started on the Brenner Pass. It started with a six to seven percent

increase, just manageable in the heat. Then I saw a parking lot in the shadows and I decided to take a break. There were some people walking and they wanted to give me some fresh water. I followed along, but after one step I was on the ground. I had tripped over a bollard that you can erect to prevent someone from parking their car there, in this case in a doctor's parking lot. I felt a big cut above my right eye and blood gushed out. So I closed the cut with my fingers. The doctor himself was of course nowhere to be seen, but coincidentally an employee from a hospital was



Bavaria.



Bicycle bridge over the Ahr had not yet been repaired.



Heidelberg on the Neckar.



Cycle path right next to the Neckar.

> present and she further staunched the wound. And also fortunately, I happened to have brought Steri-Strips, which she skilfully stuck on. Then she also had some bandages and so I could continue after half an hour. The next part was relatively flat for the most part and it was only at the end of the pass that there was a ten percent increase. I walked that part. After that it was mostly descending and so I arrived in Bozen at seven o'clock after 160 km.

If you continue descending from Bozen you will arrive in Trento and then in Verona. However, it is a good idea to turn left in Trento towards Lago di Caldonazzo. It is an even better idea to travel this short journey by train. However because I wanted to complete the entire journey on my own, I just started cycling and I must admit that I also had to walk a good part here because of the steep rises. Once you get to the lake, it's mostly downhill from there to Bassano del Grappa and you've saved yourself a lot of kilometers through the Po Valley. Up to there it is beautiful cycling, partly on beautiful cycle paths and partly on quiet roads. And on the way I saw a special image of a recumbent bicycle at an underpass.

Week 2

From Bassano I moved into the Po Valley. Looking back, I saw the town of Bassano literally at the foot of the mountains. A hot day followed where I was able to cross the Po.

The next day it became heavily clouded and then it started to drizzle. I stopped under a tree just after a turn to put on rain gear. A road worker's van stopped and drove towards me. He shouted to me: "*Va da via subito!*" (Get out of the road immediately).

I stayed cool and put on the clothes. He drove on and came back quickly. Now he saw my bright flashing rear light and waved at me kindly. The trip continued along a large lake and on the other side of the lake I saw impressive showers. I myself stayed dry, the dripping stopped again. In a ditch I saw a large group of flamingos. With the wind at your back it went very quickly. Then came a narrow road with a poor surface along the back of the lake. After a while, when I looked for

possibilities to shelter from the rain, I saw that there were none and that I still had to cross a river with a ferry. Would it go? I hadn't seen anyone on that road for half an hour! What now? Go back or take the risk? I decided to continue and fortunately, the ferry was sailing. Immediately afterwards I came to a small village where I drank coffee. There was also a German couple cycling in the opposite direction. They were soaked to the bone because of the pouring rain.

Later that day I drove into a rainy Rimini. It is Italy's main seaside resort, especially for young people. The number of hotels is huge.

After that day the weather was beautiful all the time. I



In Trento to the left, to the Lago di Caldonazzo.



A special image of a recumbent bicycle.



Impressive showers.



A large group of flamingos.



Fortunately, the ferry was sailing.

saw many beautiful bike paths along the beach of the Adriatic coast in bright colors of blue, green or red. A major obstacle was the city of Ancona, where you still have to climb hard. In the city I was addressed by two Italian cyclists with “*Ciao bello*” and they asked where I came from and where I was going. The truthful answers given were awe-inspiring. The next day was a great day. There was a strong wind blowing in just the right direction. And there were a lot of good bike paths. Last time I travelled through Pescara it was an unpleasant experience on a bad road in the filthy fumes of cars. Now I entered the city via a bike path close to the beach. A beautiful bicycle bridge



On the route of an old railway line.



Beautiful bike paths along the coast in bright colors.

had been built over the harbour and I also left the city via bicycle paths. That afternoon I came across the most beautiful bike path of my trip. It was twenty-five miles along the stretch of an old railway line, right next to the sea. Beautiful asphalt, almost flat and the railway tunnels were great. I stayed at the Strand hotel, indeed located on the beach and so named because of the same meaning in German, Danish and Dutch.

The next day the wind was also strong and in the perfect direction. I passed the ‘spur’ of the boot of Italy. It consists of a big bump and I thought I could ride around it. That was a fascinating experience! You could see very well where the boundary was, that bump rises from the flat land. And just when I thought I would still have to climb, the road turned right and I drove around the mountain with almost no difference in altitude. The day before I was already satisfied with 165 kilometres, this day I covered 188 kilometres. In the meantime I had arrived in Apulia and you notice that. The amount of waste along the road is the largest of all here. Not only a lot of small waste, but also entire sofas and refrigerators. I ended up in the beautiful little medieval town of Trani and slept in a medieval palazzo. Trani calls itself the pearl of Apulia, so it seemed pointless to me to also explore Bari extensively. The entrance to that city was already a huge disappoint-



The bicycle bridge of Ancona.



I drove around the mountain.



Small waste, but also sofas and refrigerators in Apulia.

ment with ugly roads, buildings and very dirty air. Perhaps the centre is beautiful but I turned right as quickly as possible to cut off the heel of Italy’s boot. That was quite a search in the heat. At a roadside stall I bought some small apricots. They were sweet and juicy and the skin came off easily: delicious! Later that afternoon I rested in a cafe in a small town where the mayor offered me a drink, which I had to pay for myself later anyway. Then it continued on a road of poor quality and after a long descent the road was suddenly closed. There was a huge hole where they were busy building a viaduct. I managed to carry the bicycle and luggage over a steep makeshift staircase and so I could still continue my planned route. That evening I ended up near the sea.

>

> Week 3

In the meantime I had arrived in the region of Basilicata, between the heel and the big toe of the boot of Italy. About five kilometres from the sea, a large thoroughfare runs parallel to the sea. Fine in itself, but what I did not find a solution for is that cyclists have to ride a long way inland in two places. I couldn't find a solution for it at home using the computer. When I arrived on site, it turned out to be related to the passing of two large rivers. A bridge had been made for the highway, but not for the parallel road.

At the first detour I came to a partly unpaved road with a steep rise. Not doable actually. I had just started when a truck came down. The driver told me that the road ahead was closed. And now? He said that many cyclists used the highway. Good idea and that was not too bad because there were roadworks on that part and the cars were not allowed to drive fast. When I drove back on the parallel road I was overtaken by an older Italian on a racing bike. He guided me further and even drove a little detour for me. When we said goodbye, all I had to do was ride to Policoro, a few miles away. But there was another river and again only a bridge for the highway. At the entrance to the highway there were two policemen who told me that I really had to make a detour to reach Policoro. Riding onto the highway under the watchful eye of these po-

licemen did not seem wise to me. So I slowly followed the road that the route planner had already devised. Only sixteen kilometres further I came across the bridge over the river. I was just over it when I noticed my front tire was flat. Luckily there was a large bowl with clear water and a running tap with nice cold water. Cars stopped again and again to fill up with water, one man even filled up with 75 litres! It was only when looking for the leak that I noticed how battered the tires were. When the leak was found, a weak point in my organization came to light. I only had two stickers left and with great effort I squeezed one last tough drop of solution out of the tube. It did work. There were also some significant increases back down. In the end I had been busy for hours and did ride more than fifty kilometres to cover a distance of barely ten kilometres as the crow flies. The route had been difficult that day, so I did not dare to go any further and decided to look for a B&B shortly after six pm. One after the other was closed, until I came to a beautiful B&B that hadn't opened yet. After a short pause, I was allowed to stay for € 50, well okay, for € 30. Everything was brand new and ready for the opening next week.

I got nice cold water and the hostess guided me to the restaurant where a terrace was made on a jetty that ran into the sea. When it got dark at nine o'clock the moon rose blood red, really beautiful.

Two nights later I had hardly slept at all. I had a lady visit and we had been chasing each other most of the night. I finally caught one of the ladies, the other mosquito had escaped. The next day I bought an electric fly swatter in an ipermercato for € 3.90. The shop assistant urged me to keep the receipt for the warranty. A few days later I arrived in Lazarro. The last few days were very hot and the dirty air started to irritate me more and more. Tears occasionally streamed down my cheeks. In Hotel Gardenia, the most beautiful hotel of this trip, I enjoyed the view of Mount Etna across the sea. I could see it clearly from my terrace between the palm trees. The hotel was a jewel with beautiful carvings at the desk, terrazzo floors and marble ceilings. The spacious room with a large terrace only cost € 65. The next day was Saturday and therefore it was pleasantly quiet to ride through the large city of Reggio di Calabria to the boat to Sicily. Once there I took the route along the north coast. That afternoon a few more climbs followed that were doable. The longest climb gave a continuous beautiful view of a basilica on top of the rocks: Il nuovo Santuario della Madonna del Tindari. The roads are often spectacular along the rocky coast. The next day it went smoothly and I was able to reach Termini Imerese. I found a nice hotel, but the lady refused to give me a room if she was not allowed to make a copy of my ID card. No problem, there were plenty of other hotels. Unfortunately, the Grand



When it got dark the moon rose blood red.



View from the hotel Gardenia: the Etna.



Il nuovo Santuario della Madonna del Tindari.

Hotel Termini did not exist even though the name still existed on a website. Other hotels and B&Bs were also closed and did not answer the phone. So then move on. To get out of the city I had to walk long distances, it is so steep there. Many streets are designed as stairs. Soon I found a hotel outside the city. The next day I drove into Palermo before noon. In the afternoon there was an opportunity to visit the Norman Castle with the beautiful Palatina Chapel, very worthwhile. From Palermo it was another two mornings of cycling to my destination on the western tip of Sicily. I look back on a wonderful journey of over 3,200 km in three weeks. The average daily distance was 153 km. Despite the fact that I was now eight years older, I covered a greater distance on average with the recumbent. And it was not too bad with the heat on the recumbent, although it must be said that the temperature only rose to almost forty degrees after my arrival. Before that it was about 35 degrees. I had a lot of attention with the recumbent and racing cyclists almost all reacted enthusiastically. Young boys also called out to me repeatedly: *"Bella bici!"*

Italy is changing, and so is the Netherlands! What struck me is that since the previous times I hardly saw any mini grocers anymore and also hardly any three-wheeled trucks that still brought vegetables home. And the gas station attendant at the gas stations had now disappeared almost everywhere. A lot of people now speak English and I was able to pay with my bank card quite often. And, the quality of the toilets has improved enormously. What could be wrong with a toilet, you may think? The light doesn't work, the lock on the door doesn't work, the toilet seat is missing, no soap or towel, no toilet paper, the flush barely works.

In various combinations I found these defects, but now hardly any more. One time I found there was a toilet without a bowl and only two 'footsteps'. Another time the toilet paper was missing and, of course, more often the toilet seat was missing, but generally it was satisfactory, if not perfect. Tip for Italy: bring your own toilet paper just to be on the safe side. Italy can be warm and dry, but in the spring there is also the splendour of flowers. And the bicycle as a means of transport can still gain a lot of ground in Italy. <



The roads are often spectacular along the rocky coast.



Arrival at my destination on the western tip of Sicily.



In the spring there is also the splendour of flowers.

Live From The HPV World Championships 2022 In Orgelet,

By Marc Lesourd
from France for AFV



November 2022. Soft voice: it is now time to join our special correspondents in France, who are going to bring to life one of this year's greatest sporting event. Maurice, it's up to you!



Maurice: Thanks a lot Cynthia. Indeed we are in Orgelet in the hilly countryside of what used to be, until a few days ago, a long forgotten part of the sleepy Jura region of Eastern France. Alongside me today, I have one of the greatest cycling champion of all time, Strangle Macron.

Strangle: Hello everyone! I'm delighted to be here, the atmosphere is great, plenty of sunshine and many competitors and spectators.

Maurice: Before we go into more details, tell me about the performances on the HPV scene.

Strangle: Well, you know, in my golden years, I could only become such a powerful athlete thanks to "state of the art" drugs and top notch medical preparation provided by greedy doctors. During the 3 days of racing in Orgelet, you just need to ride the latest velomobile, go fast as hell and win the title, it is as simple as that. I don't really like the way cycling and, more specifically, laid-back cycling is heading, but that's life!

Maurice: All right! Before we move to today's action with the mighty 100 km criterium, let's have a look at the results from the previous races. On Friday evening we had the hill climb race.

Strangle: Yes indeed. This is one of the signature race that the french organisers like to propose as a starter.

Maurice: For some of the participants, this might have been already difficult to digest. In particular since there were 2 heats for the 4 categories!

Strangle: Talking of heat, the temperature was high, but thankfully, the start was late in the afternoon and long shades cooled most of the course.

The starting line was right at the footsteps of the



Bellecin sport centre on the shores of the lake Vouglans which, incidentally, was the headquarters of the organisation. Initially relatively wide, the road narrowed down with twisty bends offering nice views.

Maurice: I guess most didn't have the leisure to appreciate the scenery! The climb averaged about 5% over the slightly less than 3 km length and 125 m of positive rise. But many spectators cheered everyone and the joyful mood was reminiscent of the Tour de France.

Strangle: With the exception that the spectators didn't have to suffer the view of hostess disguised as giant salamis, perched on top of speeding old 2cv, slamming plastic bags at them!

Maurice: Anyway, in the trike category, Jochem Leemans was stratospheric, leading the pack straight after the start and giving no chance to the

other competitors in both legs.

Strangle: You bet! He used both legs! He finished 3rd overall!

Maurice: Behind him, the race was really open with Olivier Vuadens, James Coxon and Philippe Descubes battling it out.

Strangle: The women in this category had also a very tight race with Patricia Venant winning. Next the velomobiles in their candy colours offered a very nice show with the beautiful lake and its shades of blue as a picturesque background.

Maurice: The fastest 'bonbon' was the orange flavoured DF of Simon Low followed closely by Bruno Cendrez and David Batschelet, both in Milan SL. The top seated were not so far off the pace of the best overall! Natacha Walter, in the women velomobile category, finished at a very honourable 16th place with Suzanna Eupani further back, but still in



Jura, France

front of her father Giovanni all on *DFI* For the unfaired bike, this was a duel between Alain Hinzen on a *Cruzbike Vendetta* and Marvin Tunnat on a *Troytec*. Alain Hinzen won both heats. David L'Hostis and his *Zockra HR* was very fast and could have been a contender for a win, but he had some issues with his clip-less pedals: very unprofessional of him!

Strangle: Let's not forget about the partly faired bikes. Although there is only 12 racers in that category, the race was really open. At this little game, Marc Lesourd, on his *Mosquito ST* wood bike, surprisingly won. Since he is also one of the organisers in charge of publishing the results, some terrible insinuations were heard in the peloton. *Maurice*: Oh yes, the same time of 6:56 in both heats, what are the odds? Ok, it's still far from the 6:15 of Alain Hinzen but, who needs steroids if you can gain a minute simply changing a cell value in a spreadsheet?

Strangle: Couldn't he have done both?

Maurice: At the end of the day, the standings gave good indications of the riders to keep an eye on in the criterium! Meanwhile, after the final heat, everybody enjoyed the descent back to Bellecin. Some decided to have a swim in the lake before the meal. Most appreciated the friendly atmosphere. Since the weather has been ideal all the week end, in the evening that is all the more enjoyable to cool down.

Strangle: So many different bikes to see and to test ride, the diversity is always striking, I guess Darwinism is not a validated theory in the HPV world.

Maurice: That's partly true, since not only the fastest survive. Covid, not only complicated the organisation of the previous championships, but former champions, could not come this year. At the end of the day, lack of fitness or motivation or cash probably explains the few Belgians, Dutch, English, Americans, Japanese, Finns and Italians partici-

pating. Mind you, it could also be the climbs and the heat that frightened them. We are in the 30°C range during the day and today's criterium has nearly 2000 m of positive climb!

Strangle: If they prefer riding on velodromes like hamsters, it's their choice. But let's not digress.

Maurice: Absolutely! Let's move on to the sprints, which were held on Saturday morning. The 4 km long straight line, just outside Orgelet could not be used entirely, but about 2 km remained available for the 200 m flying start. Unfortunately, the road surface was somewhat rough and did not give the best rolling efficiency. This was partly compensated by the warm welcome at Moutonnes where inhabitants set up a well attended "buvette" and decorated the starting line. More to the point, the

sprints require specific physical capabilities, don't they?

Strangle: Of course, in the 1 km standing start in particular, you have to be a real beast, bursting with glycogen. But mostly, it's the aerodynamics that prevails, and at this game, the velomobiles trusted the top 10 places. Richard Schaffenroth the winner of the last 2 editions in France gave it all to finish 1st ahead of Daniel Fenn in the 1 km. It was the other way round for the 200 m.

Natacha Walter was very good in both sprints with a 9th place in the 200 m. Kudos to Geoffroy Lelievre who managed to place is *Zockra* partly faired bike in the mix both in the 200 m and km. Marving Tunnat was very strong in the 1 km, finishing 8th overall. Only Alain Hinzen managed to beat him





with the smallest of margin in the 200 m. David L'Hostis' run on the 1 km looked fine but he had forgotten his transponder: very unprofessional of him! The trikes, as expected, were quite far off in the ranking, but this time, James Coxon, on his very aerodynamic machine, beat Jochem Leemans. *Maurice:* Some very good performances there, and some terrible failures also, which means that possible candidates for the overall podium are already no more in contention.

Strangle: The classification after the first two races is the basis for today's starting grid. A nice mix of categories, it would take a clever guess to find the winner.

Maurice: While the excitement is growing here in the tiny village of Rothonay, let's quickly listen to an interview done yesterday with the members of the organisation.

Journalist: I am now in Orgelet where the bike exhibition is taking place at the "Salle des fêtes."

Honza and his Azub team came from Czechia with many bikes to test ride and their booth is full of visitors. Velofasto, a french dealer, also has a number of trikes to try. In addition, the Mosquito open source wood velomobile is also on display, plus many other homemade bikes. Despite the heat, the crowd is cheerful and live music is played in the background. But let's enter the building and climb a few steps. Olivier Cresson, the president of the AFV, the association organising the event and Marc Lesourd, supposedly the race director, seem very busy. In fact they are gently arguing in front of computer screen. Let's interrupt them: I guess you have a lot of pressure on your shoulder right now. *Olivier:* We have to get our results correct in order to establish the starting grid for the 100km race Sunday. But Marc and his stupid point calculation formula makes our life more difficult.

Journalist: Tell me more about the event and why you decided to organise it.

Olivier: We are a small association but we have a strong core of volunteers who already organised events in 2014 in Saone and 2019 in Nandax. Marc was even in the team of France-HPV in 2006 in Allegre. The previous editions were very successful in terms of competition but also as a social gathering and implication of the locals. So it was relatively easy to build on our previous experiences.

Journalist: Getting your hands back in this time consuming and nerve racking business must be nevertheless a challenge, only 3 years after Nandax?

Olivier: No other country officially applied for the organisation in 2022. Alain Verrière, our hyperactive secretary, has strong links in Orgelet, in particular with the town's sport deputy, Stephane. There was a unique opportunity to use Bellecin sport centre this year only, since it will be used in 2023-24 for the Olympics. But it's the villagers and local representatives with their active support that made

this event possible. We really have to thank them warmly.

Marc in the background: Coquin de sort! Sacre bleu! I hate you Excel! Where is my bloody formula???

Journalist: I think I'd better let you guys finish your work. See you at the dinner tonight. Cheers!

Maurice: Back to live now!

Strangle: I'm always amazed by the sheer amateurism of these HPV people. How do they want to make their sport professional and attract huge money from sponsors?

Maurice: Maybe they don't?

Strangle: Losers!

Maurice: Everybody seems to be ready, it's 10:30 AM but the sun is already strong. Rethonay is holding its breath as Alain and Miriam, the polyglot speaker, make sure that everybody are placed on the starting grid as expected. This is slightly chaotic.

Strangle: Look at that! Daniel and Richard with their velomobiles on the shoulders walk their way to the front, like turtles with huge legs! Hurry up!

Maurice: 1, 2, 3! It's starting, it nearly took me by surprise!

Strangle: So did a few racers, mixing their legs and pedals!

Maurice: The view from the drone shows that the pace in the lead is bloody fast on the initial stretch of the road.

Strangle: Impressive! Although the first 3 km are relatively flat, can they maintain speeds in excess of 40 km/h for 3 hours?

Maurice: In the front, unsurprisingly, Marvin Tunnat is setting the pace closely followed by Alain Hinzen. For the moment the velomobiles are starting carefully.

Strangle: As we reach the 1st rising slopes, look at Jochem Leemans! He's pedalling at an amazingly low cadence. His knees must be made of cryo-cooled titanium!

Maurice: It climbs gently for about 1km, then a fast downhill with a nasty right bend leads to the hardest climb.

Strangle: Yes, 1km with initial grades of 8% easing

to 5%. This will be the real tester today. Honestly, I can't see a velomobile winning that race.

Maurice: Well, there's the very fast descent to follow. It's nearly straight for about 1 km, so velomobiles can make off for the lost time.

Strangle: Ridiculous! Look at that, Bruno Cendrez just exceeded 100 km/h in his *Milan!* According to the official rules everyone must obey the traffic laws. Fine him and send him to jail!

Maurice: Here's the 90° left bend, protected by giant hay balls.

Strangle: Is that the delicate smell of burnt rubber in the air? At least everybody seems to make it on this first lap.

Maurice: Now, 2 km of a mostly flat road, but you have to push hard to maintain 45 km/h. And then, the short, but steep, climb to the finish line. Some kids splash water from a hose there. No doubt it's





welcomed by riders. The crowd cheers as they pass the line. The peloton is already very stretched.

Strangle: To say the least: in front Marvin Tunnat leads by 20 sec over Alain Hinzen and the infamous Ymte Sijbrandij glued to Michael Bertin as the first velomobiles. Many minutes later there are still cyclists finishing the lap. Are they tourists or what?

Maurice: You know Strangle, that's the point. Everybody is there to have fun and ride to the best of his or her abilities, whether old or young and with any bike they want. For instance there are 3 tandems, many touring trikes and bikes and 2 hand bikes in the race. Obviously not all can ride at 40 km/h.

Strangle: I bet some cheat with an electric assist anyway!

Maurice: While we chitchat, there's been some changes at the front. Alain Hinzen could not follow Marvin Tunnat's pace. And now a chasing group is catching him. Bernard Böhler, Jochem Leemans, Geoffroy Lelievre, Bruno Cendrez, Marc L. and David l'Hostis. There's a significant gap behind them.

Strangle: It looks like David is on fire. He increases the tempo each time the slope rises. That's causing all sort of troubles. The only one holding the

pace is the incredible Jochem. I wouldn't like to be the frame of his VTX trike, it must suffer!

Maurice: Let's take a break for some advertising and we'll be back for the end of this absolutely crazy race!

Maurice: Welcome back! We are reaching the closing stages of the 100 km race, all is still at stake for the win and the title.

Strangle: Not really, Bruno Cendrez has overtook Marvin Tunnat while the latter was cruising for the victory. Bruno started relatively slowly and even derailed in the 3rd lap but managed to reclaim everyone. Can he nail it in the last lap?

Maurice: Well it's not the last lap yet!

Strangle: How is that? Alain Verriere, the official, just told Marc L. that only one lap remained, as he was crossing the line. That's ludicrous!

Maurice: That could be bad for him. He's notoriously known for busting in the last stretch of a long race. He's currently holding the 6th place and is first of the partly faired. Well, with friends like that who needs foes!

Strangle: Marc is obviously sprinting in the last lap, catching up with Sebastien Courteille, a legend in the long distance events. This guy would prefer

a 400 km race, he's only warming up right now!

Maurice: But what happened to David l'Hostis? He was 2nd for a long time.

Strangle: He missed the 90° bend and ended up in the grass. No damage done, but he lost quite a bit of time. He's 8th at the moment: very unlucky for him!

Maurice: There was another crash in that bend earlier. Mario Eupani, the youngster from Italy, miss-timed his breaking and hit the hay balls with some force. Fortunately, he's fine with only minor bruises.

Strangle: I can hear the bell indicating the real last lap...

Maurice: What bell?

Strangle: Exactly my point! No bell, no checker flag! Are we racing here or is it a sightseeing tour?

Maurice: I think everyone understood anyway, except the poor Marc L., who's been dropped by Sebastien C. and is agonising.

Strangle: The scorching temperatures now at 1 pm won't help, no more significant shade to hide from the blazing sun.

Maurice: Bruno Cendrez is arriving! What a win! Marvin Tunnat is not that far and takes a brilliant 2nd place.

Strangle: I definitely got everything wrong, since the 3rd is David Batschelet with a Milan VM as well. What about Jochem Leemans? Is a solid 4th, I'm speechless!

Maurice: In French his name is pronounced "l'im-mense" which means "the huge." How appropriate!

Strangle: Michael Bertin now! Another velomobile in 5th in his DF! I must eat my hat, the fully faired have been tremendous in this race.

Maurice: Look at that! Marc L. survived, only a few seconds in front of Bernhard Böhler who was more than 2 minutes behind at the end of the last lap. As a racer and organiser, that's an achievement. Olivier Cresson, who has also the two hats, was absolutely dreadful in this race, despite being a great champion. But they have no time to savour since they must now rush to their computer to print



the final results. Let's hope "unfortunate error" don't tarnish Marc's performance.

Strangle: Knowing this guy, you never know! Meanwhile, riders reach the line in various conditions ranging from relatively fresh but sweaty, to completely knackered and dehydrated.

Maurice: It's been a very intense race at all levels with epic battles in the lead as well as in the pack. All good mannered of course!

Strangle: I suggest we take a long break to taste the grilled sausages and french fries and drink as many beers as possible, while some thighs get massages. Let's hope the results are not "massaged", you know what I mean, by Marc and Olivier.

Maurice: Well it's over now. We had a very festive podium ceremony spiced with a very talented brass band. All the volunteers were cheered copiously. It even got emotional with the hand bike's prize, in particular. For most, it will now be a long

journey back home with fond memories... once the sore legs recover. But a few participants stay for some bike touring organised by the AFV on the charming roads of Jura.

Strangle: Not riding as fast as today I think. From what I saw, almost everyone was very satisfied with the event. I heard that next year's event will be held in Austria near lake Constance. Let's wish them well and we'll be there. Bye!

Maurice: All the results, pictures, videos of the event are available on the afvelocouche.fr site in the tab *Championnats du monde 2022*. Cheers! and it's all yours Cynthia! <



In memoriam Christoph Moder



Christoph, unfortunately you left us much too soon. You were so committed with your basic velomobile knowledge (book), you did many tours with your recumbent bikes, velomobiles and you were present at many events and it was always great to talk to you about this and that... It's a shame that you had to leave so early... thank you for the good times with you...

I offer my sincere condolences to his family and friends. Have a good trip Christoph, I and many others will miss you.

Werner Klomp



Spezi and HPV World Cup 2023

By Andy Gerber
from Switzerland

In 2023, two big HPV events are on the program. On the one hand, the Spezi at the end of April, which will take place in Lauchringen (Germany) near the Swiss border. And on the other hand, the HPV World Championships in mid-August in Lustenau (Austria) which will be organised by the Recumbent Club Vorarlberg together with Futurebike.ch.

Even if the two events do not take place at the same time, the venues are only about 140 km apart by recumbent bike. A lot of activities are planned around these two events. Please reserve the two dates in your agenda, the organizers are looking forward to many visitors and participants.

Spezi 29 & 30 April 2023 in Lauchringen

The Spezi is a festival, a meeting point, a reunion with 10,000 visitors and more than 100 exhibitors, in short the event of the HPV world which should not be missed.

After a long break due to Corona, the 25th Spezi International Specialty Bike Show is finally about to celebrate its anniversary. This new beginning will take place under the new management of the Wolf & Wolf team around Gabriel, Florian and Franz at the new location in Lauchringen in Germany.

As usual, the Spezi will bring the diversity of the cycling scene to light and present vehicles that are

The Spezi venue.



The Spezi organisers.

built for people and their individual needs. The fair offers recumbents, trikes, quads, cargo bikes, velomobiles, tandems, rehab bikes, folding bikes, etc. an international stage. There will be exciting presentations to listen to and there will also be space for start-ups with innovative ideas in our inventor lab.

Spezi will take place on the Lauffenmühle site in the municipality of Lauchringen. It is a 7.5 hectare former industrial site. The 'Spinnerei 2' hall, with over 5,500 m² the heart of the fair, offers space for the exhibitors, the 'Baumwollhalle' for social exchange while eating, drinking and listening to music, and the 'alte Schlosserei' for lectures. The 700-metre-long test course winds its way through the centre, well secured. If you take the optional turnoff, you can ride your test bike directly into the exhibition hall to the exhibitors.

An application for the necessary road closure is being processed for the extended test course of four kilometres and with 120 metres of altitude. Futurebike.ch and HPV.org are pleased that the Spezi will continue to exist in good hands and we wish the new team every success in maintaining the long-standing traditional trade fair. Further info, programme and updates can be found at <https://spezi.wolfundwolf.ch/spezi-2023>.

HPV World Championships 11 to 13 August 2023 in Lustenau, Vorarlberg Austria

The Parkstadion Lustenau is planned as the centre of the World Championships, currently the organisation team around Werner Klomp is in the process of defining the course and obtaining the necessary permits.

The following programme is planned: Friday evening Hill climb. Saturday morning Sprints. Saturday afternoon 1-hour race. Sunday 3-hour race.

The tracks of the two long races are expected to be winding and twisting and we hope to be able to offer challenging and exciting races.

For the mountain race, we hope to be able to race on the other side of the Rhine on Swiss soil.

For the sprints we will find long, flat and straight tracks, possibly along the Rhine dam.

Important: Deviations and changes reserved!

As of December 2022, the planning could not yet be finalised, we are optimistic but important definitive approvals are still pending. Further information, the programme and updates will follow on the homepage (currently still under construction): www.hpvwm2023.org/ or the World Championships thread at www.velomobilforum.de/forum/index.php?threads/hpv-weltmeisterschaft-oesterreich-vorarlberg-august-2023.67476/.

