A Marathon, also for the IT department

Since 2006, the elapsed times for the Engadin Skimarathon have been measured automatically, using so-called transponder chips which are attached to the start numbers. The road to today's solution was long and not without mishaps.

When measuring time, no errors are permitted. If a faulty ranking or a wrong runtime is published, you will get to know the participants at their most demanding. That is why the Engadin Skimarathon has pioneered work in this area even in its earliest years, and used computerized support to determine results from as early as 1972. However, the wishes of the organizer to bring the needs of cross-country skiers and the expertise of electronics specialists to one common denominator was not always easy.

In the 1970s and 1980s, the system suffered from a variety of problems. For example, the time-keeping system failed once due to a power outage. Separated from their energy source, the timing clocks made crazy jumps so that individual runners were given a time 60 minutes too fast or 40 minutes too slow. Some took it with humor, while others effected were less understanding of the mishap. In 1979, more than 900 cards were not recorded by the electrical readers because the computer crashed seven or eight times during the race.

In the eighties, the times were recorded at the finish as follows: Each skier had a magnetic stripe card and a bar code sewn into their start number onto which their number was coded. At the finish, this sewn-on pouch was torn off by officials and passed on to the data entry personnel. The magnetic stripe card was then placed into a reader, whereby the race number was automatically stored with the runtime onto a thrice backed-up storage solution.

In addition, the barcode card was read with a scanner and the start number along with the runtime were stored on a portable, network-independent memory. After the end of the race, all the accumulated data were transmitted to Zurich via a rented telephone line to the central computer system of Helvetia insurance. Together with the hand-compiled durations of the first 100 male skiers and the ten best female skiers (time measurement in tenths of seconds versus second intervals for the others), these runtimes then served as the basis for creating the ranking.

Chip timekeeping with teething problems

The introduction of chip timekeeping in 2006 was a milestone in the history of the Engadin Skimarathon. With this change, the timekeeping procedure could be significantly optimized for the participants and the organizers. At the finish the data of each participant are recorded wirelessly by antenna and automatically transferred to the result system.

However, the premiere of the chip timekeeping system was not without problems; The magnetic field generated by the power supply of the nearby Rhaetian Railway disturbed the new chip technology, causing the entire chip reporting to fail. Fortunately, the old collection method was still in tandem operation as insurance. This saved the participants in the end from an "Engadiner" without times and rankings. Since 2007, the system has worked flawlessly despite the nearby railway.

In 2014, the Engadin Skimarathon introduced the net-time method: Now, participants within their category can freely decide how eagerly they want to start. Instead of running one race per category, each runners' time starts only when they cross the start line with the chip on their start number. The crowd at the start and the congestion on the track have since fallen off sharply. The fastest two categories do not use net-time however: Elite and Elite A still use field time measurement (gross time).

The thing about the leaderboards

In 1987, for the first time the ranking lists could be viewed and printed on Sunday evening at various train stations in Switzerland and in the offices of the Engadin tourist board. At that time, this was the fastest result service in the context of a large sporting event with over 10,000 participants. The official overall ranking list was then updated on Wednesday after the race, taking into account corrections due to complaints from the field and changes due to jury decisions (such as disqualifications). At the latest the ranking list was sent to each participant by mail two weeks after the race. In addition, it was also attached as a special supplement to the "Schweizer Illustrierten"(Swiss Illustrated) magazine.

Since 2012, for environmental reasons, the ranking list is no longer sent in printed form but is visible on the internet even during the race.