

AthTech: 2nd Athletics Data Conference

– Minutes –

Objectives of this conference:

European Athletics is putting efforts on the homogenization of competition data structures, building a common infrastructure that guarantees **data interoperability** between all stakeholders: regional/national federations, sports clubs, associations, event organisers, media agencies, and the public in general. This conference served as the discussion forum to define requirements, look for use cases, and present existing solutions to solve this challenge in sports management.

Therefore, we discussed the European and global requirements of Athletics management systems to implement **a standard to collect, process, publish and share Athletics information** (athletes, teams, governing bodies, participation in competitions, results, issues and results, etc.). This event served as a forum to search for a common solution built on top of the existing local platforms to share Athletics information in a common way.

Therefore, we pursued **four specific objectives** during this conference:

- 1) Exchange experiences and collect the different ways national federations are currently managing their data. We put a focus on the specific challenges they are facing and on solutions to solve these challenges to deduce best practice solutions for all member federations.
- 2) Provide update to federations and companies on the development progress of an agreed data standard.
- 3) Provide a platform for external companies to showcase their (new) technologies for timing, recording, measuring data and their systems for entries and competition management.
- 4) Address data protection requirements and provide guidance with regards to the EU-wide General Data Protection Regulations (GDPR) coming into effect in May 2018.

Wednesday, 4th October – pre-conference

15:00-18:00: W3C OpenTrack Community Group Face to Face Meeting.

Those of us working closely on the World Wide Web Consortium met face-to-face.

Members and non-members of the W3C OpenTrack Community Group were welcome to attend and to get down to the level of specific database fields, which kinds of country and event code to use, and support for APIs and programming languages. The work done to date is displayed here:

<https://w3c.github.io/opentrack-cg/spec/model/>

Thursday, 5th October – Conference Day 1

07:00–08:00 Morning run

09:15–09:30 Welcome

- European Athletics: Nicolas Launois
- Algarve Athletics Association: Rui Costa / Francisco Chumbinho
- Practical briefing: Ramona Doeren, 3con Consultants

09:30–11:00 What we mean by a standard

Mission statement, vision and benefits: Nicolas Launois, EA

- EA’s mission is to improve the way athletics data is handled by identifying weaknesses in the current proceedings and collecting best practice solutions
- EA’s overall goal is to inform, advise and offer solutions to Member Federations on data management, including:
 - Raising the IT standard of the federations
 - Giving them tools to manage their federations
 - Improving the way they manage statistics: hosting, publication
→ This will help federations with saving time and growing the sport
- Another reason for getting together is to create synergies and activate “the community”

Open Standard: Martin Alvarez, W3C Spain office

- A standard infrastructure for athletics data management will enable a common mechanism to gain effectiveness and efficiency in the process of collecting and sharing data on a global scale
- Thus, we would be able to: federate resources in an automatic way; establish universal identifiers for athletes, clubs, and other entities; access better reports; track competition issues and records; have centralised up-to-date rankings; create and publish live results; create new services and products on top of the data.
- The standard has been developed by the OpenTrack community and is based on existing official rules by the IAAF, EA, etc. and standards by IOC-ODF, IPTS Sports ML...
- This comprises a common set of standards to be provided to all stakeholders
 - Create universal IDs for athletes, clubs, teams, events, etc.
 - Create semantics on the web that show relations between athletes, clubs, competitions and performance data

Advantages	Drawbacks
<ul style="list-style-type: none"> ○ Flexible ○ Extensible ○ Universal standard applicable in every country 	<ul style="list-style-type: none"> ○ Loose scheme ○ Hard to implement ○ Not easy to understand for everyone

- To address the drawbacks, the community will keep developing the standard and finalise:
 - vocabulary: entities (athlete, venue, ...) & properties to describe entities (name, location, e-mail, ...)
 - taxonomies
 - common IDs

Open Reference Database: Andy Robinson, OpenTrack

- The draft standard is already being applied on the OpenTrack platform, e.g. in Estonia
- The mission is to
 - make data entries easier and so save time for all volunteers
 - make athletics more fun
 - help the sport grow
- The database contains all data on competing athletes and competition organisers
- It is an open database:



- It is based on common URLs for all resources (see “Data.opentrack.run”)
- Next steps will be to get feedback from federations and establish crowdfunding to develop the platform further

11:15–13:00 Federation management and athlete data

This session dealt with the standardisation of reference data (organisations / clubs, venues and competitions) and athlete membership systems. Therefore, examples from different countries were presented:

Netherlands: Mark van Tubergen / Maxim Moinat: “How we grew from a local club to a national standard”: www.atletiek.nu

Problems	Remedies
<ul style="list-style-type: none"> • Not all volunteers are experienced with software • Registration of athletes is done in a complicated way (excel sheet via e-mail) • Publishing results • Collection of payments not always managed well • Spelling mistakes in the data • Incomplete data • A standard exchange of data does not exist 	<ul style="list-style-type: none"> • Collect feedback from users and build user-friendly software • Setup of one central athletics platform on national level where everyone can upload results • Software is able to automatically correct spelling mistakes and to fix incomplete data

Spain: Anacleto Jimenez, RFEA: “Centralised, standardised, data protection in place”: www.rfea.es

Problems	Remedies
<ul style="list-style-type: none"> • Before the Spanish federation used this centralised platform for their data, almost everything was done manually or with different systems 	<ul style="list-style-type: none"> • As of 2012, it is mandatory for all (incl. autonomous) regions to use the nationwide platform rfea.es • Platform is free to use for everyone

<ul style="list-style-type: none"> • Due to a complex political structure, autonomous regions in Spain were not obligated to publish results and different obligations and freedoms applied to different regions 	<ul style="list-style-type: none"> • Tools within the platform are kept updated to comply with IAAF standards • Licences are managed via the Extranet Licence Management on their platform: both regional and national federation pay the licence fee via this platform • Performance data is managed via the Extranet Performance Management on their platform: this includes a full competition calendar, entries (PBs, SBs, events), ranking (national and regional clubs) as well as the possibility to search for athletes • Results can be published online or be converted to PDF or other formats
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Estonia: EA's Federation Management System: Andy Robinson, OpenTrack: "How do things work in a good data environment, starting with a clean design?" www.estonia.opentrack.run

- OpenTrack is a system to track data on:
 - Athletes
 - Clubs
 - Coaches
 - Competitions
 - Sports facilities
 - Rankings
- It provides open data on
 - Memberships status
 - Athletes' dates of birth
- The system works with unique IDs according to the standard
- Statistics from this database are available for everyone
- Data and statistics can be downloaded in several formats, such as excel, PDF...

UK Masters: Achieving Data Quality: Peter Kennedy, BMAF: "How do things work in the UK?"

Problems	Remedies
<ul style="list-style-type: none"> • The problem that not only persists in the UK is poor data quality, specifically flaws in <ul style="list-style-type: none"> ○ Completeness ○ Uniqueness ○ Timeliness ○ Validity ○ Accuracy ○ Consistency • Note: when improving quality of these data, cost effectiveness should be considered. There should be a balance between the use of increasing data quality and costs of doing so 	<ul style="list-style-type: none"> • Establishing data ownership: responsibility for / ownership of data is given to: <ul style="list-style-type: none"> ○ Athlete data: athletes ○ Club data: club webmasters ○ Competition data: competition organisers • Establishing data quality controls + metrics <ul style="list-style-type: none"> ○ "5 traffic lights" approach to track data quality (red: poor, green: good) with regards to personal details, interests, nationality and age, club membership, registration • Establishing clear data requirements • Defining data life cycles and processes • Preparing and executing data quality plans as part of overall project management

Germany: Udo Laub, DLV: *DLV Net*

Problems	Remedies
<ul style="list-style-type: none"> • Before the implementation of DLV Net, data management was in part manually done in MS Word (e.g. best lists) • In Germany there is a bunch of data, i.e. data on 8,000 clubs, 800,000 licenced athletes who are managed across 20 autonomous states for track and field • Various systems are working on different data models using different tools and formats which ultimately limits the interoperability • There are frequent changes to events and age group requirements • Data protection regulations are quite complex: need to get permission by states, athletes and clubs to use their data 	<ul style="list-style-type: none"> • DLV Net is the Germany-wide system that (as of today) brings together all (outside) events in one central database • Next steps are to bring all events, as well as athletes' data and results, to this central database

13:00–14:30 Lunch; transfer to IAAF Training Centre

The afternoon consisted of vendor sessions and demos of specific systems.

15:00–17:15 Technology: new possibilities in timing, recording, measuring, entries and competition management

Part 1 of the afternoon led us outside to the track. Several companies had hands-on technology or useful mobile apps for track, field and cross-country. We broke into smaller groups and rotated around the vendors, so everyone got to see everything.

Part 2 consisted of a look at entry and competition management systems. Each vendor with a system had a table, and small groups could circulate, so everyone could see all the available systems.

The following vendors showcased their systems/technologies:

- Humotion (<http://www.humotion.net/?lang=en>)
- Timetronics (<http://www.timetronics.be/>)
- Atletiek.nu (<https://www.atletiek.nu/>)
- OpenTrack (<https://estonia.opentrack.run/>)
- Seltec (<http://www.seltec.at/>)
- Juventude Vidigalense (<http://www.juventudevidigalense.pt/>)

All participants used the opportunity to mingle, to exchange views and experiences on systems and technologies and to get more information on topics/systems/technologies that were relevant to them.

17:30–18:00 Synthesis and conclusions

We had a short recap of the day and clarified open questions. Furthermore, we discussed the agenda for the second day before we concluded the first day and split up to meet again for the official dinner later that evening.

Friday, 6th October – Conference Day 2

07:15–08:15 Morning run

09:30–09:45 Welcome, planning the day

After a short introduction and summary of the discussions and experiences of day 1, we addressed the topic of data protection.

09:45–13:00 Data protection and the GDPR

The General Data Protection Regulations will come into force across Europe in May 2018. This is a challenge for the sport: we need to build athlete databases and exchange data between them at many levels. But we need to be compliant with the data protection regulations.

This session addressed a first brainstorming on the safeguards, opt-ins and disclaimers needed to let us keep operating.

Part 1: Jan Kleiner, Kleiner & Cavaliero (Swiss-qualified attorney-at-law, specialised in sports): *What the GDPR means for sport*

What is the GDPR?

- EU regulation coming into effect on May 28th, 2018
- A standardised law which applies directly in all European member countries in addition to national laws (in some points national laws are even stricter, but in general, the EU-wide GDPR will cover most of the relevant issues)
- Goals and purpose of GDPR:
 - Protect personal data itself
 - Establish rules of processing personal data
 - Regulate (free) movement of personal data
 - Protect fundamental freedoms and personality rights
- What are personal data? Any information in relation to a specific or identifiable person, such as:
 - Name, date of birth
 - Weight, height
 - Personal records
 - Price money, contracts
 - Online identifiers
 - Fines, penalties, doping results
- What are sensitive data? Data relating to:
 - Racial or ethnic origin
 - Political opinions
 - Religious or philosophical beliefs or trade union memberships
 - Genetic data or biometric data
 - Data concerning health
 - Data concerning a person's sex life or sexual orientation
 - ➔ Sensitive data are even more protected than personal data
- Where does GDPR apply?
 - If the person *processing* data is established in the EU
 - If personal data of an EU resident is *processed* (by processor in- or outside of EU)
 - If behaviour of individuals within the EU is monitored (by processor in- or outside of EU)

- Processing data includes any operation performed on data, e.g. storing, recording, changing, ... data
- Relevance of GDPR for sport:
 - Publication of results
 - Management of doping test
 - Marketing of sports events
 - Websites/mobile apps which collect and use data
 - Ticketing information
 - And many more...
- Legal requirements under the GDPR
 1. Lawfulness, fairness & transparency
 - Legal permission or subject's consent needed to process personal data in a compliant way
 - Subject must be able to understand what is happening to their data, for which purposes and to what extent they are processed
 - Special requirement for children's and sensitive data
 - Consent can be given by written declaration or tick box (actively ticking, not pre-selected)
 - Request for consent declaration must be visible (e.g. in bold and big font size) and in clear and plain language
 2. Purpose limitation:
 - Personal data shall only be collected for specified, explicit and legitimate purposes (e.g. only in the context of sporting competitions and not for other use such as marketing purposes)
 3. Data minimisation:
 - Data protection shall be adequate, relevant and limited to what is necessary in relation to the purpose for which the data is processed
 4. Integrity & confidentiality: appropriate security of data shall be ensured
 - Data subject has the right to withdraw consent at any time, get access to his data, rectify data, have data deleted ("right to be forgotten"), restrict the processing of their data
 5. Data transfer to third countries
 - If a third country does not have an adequate level of data protection, data shall only be transferred if special safeguards are in place
 - Note: Switzerland is not considered as a third country
 6. Data breach notification (in case you "get hacked")
 - Notification to a) authorities and b) people whose data have been obtained within 72 hours after discovery

Conclusion on GDPR:

- Where do you have to be careful?
 - Make sure to be transparent about the data you collect and about the purposes of data processing
 - Do you inform all data subjects about the data collection, the purposes thereof, contact details of the data controller, the recipients of the data, the retention period, rights of the individuals, etc...?
 - Make sure you have the required consent and all the provided information on record
 - Make sure the data is secure
 - Is the data stored on servers outside the EU?
 - Do you collect „*special categories*“ of data, i.e. sensitive data?
 - Recommendation: only collect data that you really need

- Publication of doping sanctions
 - Even if anonymized, processing of „*personal data*“ very likely
- What if the athlete concerned asks you to remove the publication?
 - Even if there is initial consent, the consent may be withdrawn
 - (Was this consent freely given?)
 - Do you have other grounds to continue the data processing?
 - Can you rely on legitimate interests?

Part 2: Workshop: world café on GDPR

In this session, we broke into 6 working groups and brainstormed on 1) what data need to be exchanged? Between what systems? How much of that is “private” and how much can be “open”? 2) What fears and/or constraints exist when exchanging these data? 3) What best practice solutions are there to address some of these fears/constraints?

Note: this overview summarizes the results of the working groups and should be seen as input for further discussions. Especially the indication if data can be open or shall be private is not finalised and will be addressed in more detail following this conference.

<p>1) What athlete data need to be exchanged? Between what systems? How much of that is “private” and how much can be “open”?</p>	<p>Open? First and last name DoB/YoB/age (purpose of the sport: to identify applicable age group) Birth place Gender Picture Club/organisation/school Nationality/ies Federation (region, country) Height / weight Name of coach / doctor Results / statistics / rankings Sponsors</p> <p>Private? Contact details (e-mail, address, phone number) Next of kin IPC category Doping offence (after sentence is over) Licence/ID/registration Membership status Medical data, e.g. allergies, injuries, insurance Shoe / clothes size</p> <p>Systems: Competition management system Licensing system Federation database (national / EA / IAAF) Club membership system Statistics platforms (e.g. Tilastopaja) Doping agency Government systems (ministry of sport) Media/public</p>
<p>Which fears/ constraints exist when exchanging this data?</p>	<p>Fear of getting sued if processing data is not compliant with GDPR Fear of data misuse, getting hacked, someone stealing data Fear of incorrect / insufficient / incompatible data</p> <p>Questions to address:</p>

	<p>Is it possible to track athletes (when location of competitions and start lists are publicly available?) Especially relevant with kids' data Image right: how to obtain consent of athlete to publish their photo? Right to be forgotten (in case athlete requests data to be deleted): is that possible when data is publicly available? After exchange of data, is it possible to retract? After exchange of data what is our responsibility if that other party does not comply with GDPR? Can you make data that is covered by GDPR open data? Can you have anonymous NB? Who owns the data? How long can we keep the data? Where to locate the server / security of server? How to provide data backup?</p>
<p>Best practice solutions</p>	<p>One system for all would make exchange easy Data backup should be established Check for data accuracy Good data security in place / secure protocols Centralized major results Only collect data that is necessary Establish an audit trail Log of changes/notification service Protected website connection when processing sensitive data (https)</p> <p>➔ Member federations feel a need for:</p> <ul style="list-style-type: none"> • A disclaimer (template) • A unified, standardised consent form • A transparent process to know how to process data in a "legal" way and how to manage potential issues • More education on the topic (incl. teams on national level) • Conferences to learn from others

14:00–16:30: Results: standards and validation

Experience from Masters' Athletics – Peter Kennedy, BMAF

The Masters' Athletics circuit includes huge competitions – 8,000 to 10,000 athletes – and has many data needs. Challenges faced at club level in athletics were illustrated, including:

- Disconnected data across federation and club systems
- Entry: athlete eligibility, key data (name, nationality, age, registration number)
- Scoring: age grading of multi-events, down-ageing in relays and team events
- Results: filtering by country, age group, event, club, link to athlete's profile
- European/world Rankings per age category

There are additional data challenges in international events:

- Organisation: inexperienced local organisations; data quality left to national federations
- Data Entry: disconnection from athlete data in national systems, increasing the costs of entry
- Results: timeliness of publication, usually due to logistics of multiple competition locations

The European Data Capture System – Andy Robinson, OpenTrack

European Athletics has funded a solution to capture results more easily from the top 300 meetings in Europe next year. We demonstrated how this works:

- Open data are available as JSON files
- Results can easily be entered into the system (open system)
- Step 1: *Prepare*. Set up fixtures you want to track. Invite organisers. Online directory.
- Step 2: *Promote*. Open, public fixtures directory. Like/share/tweet about ranked meetings. Help organisers promote.

- Step 3: *Input*. 3 ways: a) Direct input (multi user, mobile devices, paste or key in) b) Excel (upload file in standardised format) c) Systems (e.g. HyTek, D3, national system).
- Tilastopaja platform with SBs, PBs and name recognition to provide lookups on competition microsities before meet organiser certifies and publishes data in open database
- Data from open database are downloadable in standard, open formats or displayed on EA website with “web widgets”
- There are also validation tools, e.g. for when results are entered that do not fit to the certain discipline (too slow, too fast, too high etc.) person trying to enter the results gets a notification and cannot enter the obviously false results
- It includes an audit trail
- Database can be transferred to other countries
- It used the common identifiers / standard developed by the W3C OpenTrack Community Group and uses Federation Management systems as catalysts

Validity of Data - Mirko Jalava, Tilastopaja

Tilastopaja is the official statistics supplier to European Athletics. Mirko Jalava also sits on IAAF working groups (age manipulation, results manipulation and transfer of allegiance). He covered the many ways in which data might go wrong, from typos to cheating. Examples included:

- There are result entries even though there was no competition at all
- There was a competition but the result that was entered is manipulated (e.g. allocated to wrong athlete)
- In age category events, the DoB is error-prone. Some examples show that DoB of some athletes range over several years and no one can determine the exact age
- Tilastopaja offers statistics that show the progress of results. Looking at results over a certain period can enable detecting manipulated results

16:30–17:00: Results: analysis, visualisation and display

This session took place in “lightning talk” format. Anyone was invited to speak about, or demo, anything with regards to results analysis, visualisation and display.

The Polish team demonstrated how their systems work and Bilen from OpenTrack showed innovative ways to visualise results (e.g. in a radar chart).

17:00–18:00: Next steps & Closing Remarks

We had a short recap of the two days of conference and clarified open questions. Furthermore, we discussed if the expectations of the conference’s participants have been met and what open topics there are to address after the conference. As a result, we defined next steps and allocated a responsible party before closing the conference:

Next steps & responsibilities

1. Keep working/finalising the standards considering input given during conference
→ W3C OpenTrack Community Group: everybody can join the community
2. Draft a concrete consent form for GDPR and inform / advise member federations
→ European Athletics
3. Further development of tools for competition management
→ European Athletics
4. Consider organising a “hackathon” at next year’s meeting
→ European Athletics + organisers