

**TAEKWONDO**  
VLAANDEREN

# Top sport policy plan 2024

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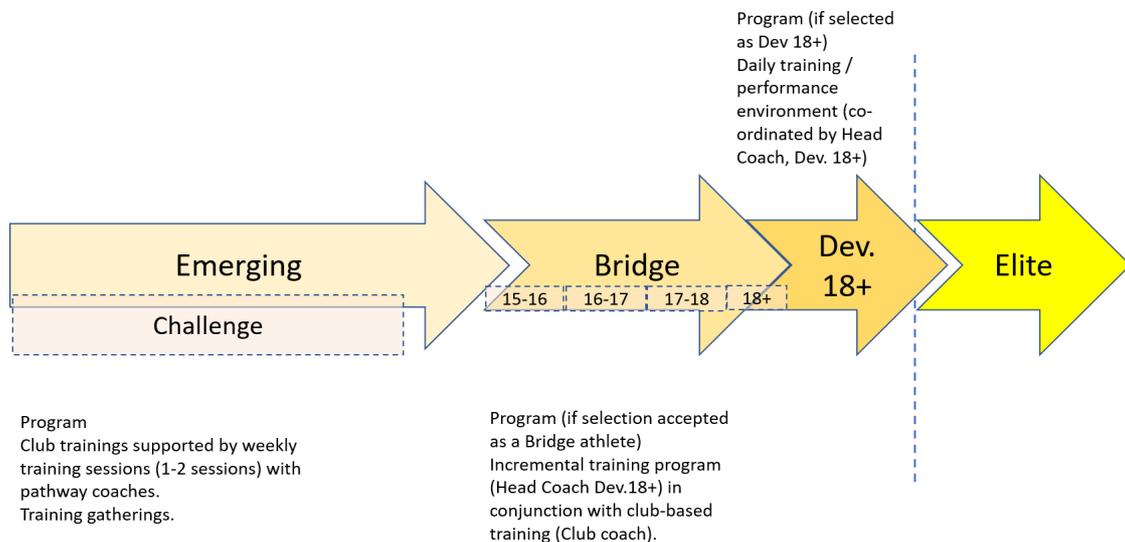
## 1.0 Overview of topsport

The current program has two inter-connected funded pathways, namely Development 18+ and Development -18 and is in-part connected by the Bridging approach adopted in 2022 (refer to §2.2). It is envisaged that the 2024 pathways continue to be classified as Beloftewerking with a continuation of the two funded programs.

### 1.1 Beloftewerking

With the aim of impacting the ecology and strata underpinning a Topsport process, development is fostered by a progressive pathway approach that encompasses a breadth of development at the younger age of 'identification'. In 2023, this was promoted by incorporating a 'challenge' group add-on with the aim of enhancing inclusion and reducing drop-out due to classification status ('good, not good' etc.) at early ages of development. Therefore, young athletes who may not necessarily be determined as having potential from detection tests but did illustrate drive, determination, curiosity etc. (in-part by their participation in gatherings and detection processes) were incorporated into some trainings and foundational aspects were fostered.

This approach aims to promote a system that does not exclude young athletes at ages where potential in sport taekwondo may yet not have emerged - an important consideration in small data sports. Figure 1.1.1 highlights the general schema underpinning the pathways of development.



Note: Emerging athletes can maintain this status up to and including age 18 years.

Figure 1.1.1 General pathway schema, TKDV Topsport

In total a cohort of 29 athletes characterised the whole pathways, of these 2 Cadets, 4 Juniors, and 2 Seniors made their respective debuts in International ETU/WT ranking competition within the 2023 season, 2 athletes are yet to compete at this level. These athletes represented 9 member clubs of TKDV6 were selected as Bridging athletes. Table 1.1.1 and 1.1.2 outline the result-based data from January 2023 to August 2023, inclusive, with respect to each age group.

Table 1.1.1 World Taekwondo / European Taekwondo sanctioned open international competition result profiles, January 2023 – August 2023

Group	Win %	Fights per competition	No. of competitions	Medals		
				G	S	B
Cadets	66 ± 23	2.3 ± 0.6	3.3 ± 1.2	6	3	4
Juniors inc. Bridge athletes	65 ± 19	2.6 ± 0.7	3.8 ± 1.3	7	3	4
Juniors exc. Bridge athletes	62 ± 19	2.5 ± 0.8	3.8 ± 1.5	5	3	4
Bridging Juniors (n = 2)	73 ± 28	2.8 ± 0.9	3.5 ± 0.7	2	0	0
Bridging inc. Dev 18+ (n = 6)*	41 ± 35	1.9 ± 0.9	2.7 ± 1.7	3	1	0
Development 18+ (n = 2)	51 ± 23	2.1 ± 0.8	4 ± 2	1	1	0

\*Two athletes made their debut in Senior WT ranked competition

Table 1.1.2 Major Championships competition result profiles, January 2023 – August 2023

Championship	Win %	Fights per competition	No. of competitions	Medals		
				G	S	B
Junior EK (n = 4)	50	2.8 ± 1.5	1	0	1	1
Junior EK exc. Bridge (n = 3)	42	2.3 ± 1.5	1	0	0	1
Junior EK Bridge (n = 1)	75	4	1	0	1	0
Senior WK (n = 1, Dev 18+)	50	2	1	0	0	0

As part of the programme Bridge athletes are required to train with TKDV Head Coach initially 2 times per week but as the program progresses this contact increased culminating in a full-time program. Training is presently divided between 2-3 locations. Junior and cadet athletes were required to train with the TKDV Development coach 1-3 times per week. Where location of training was problematic for this group, alternative sessions were factored in with Head Coach Alireza.

## 1.2 Topsport network

The direct network that supports the Topsport programs are complex in their relational workings and often ebb and flow between collaborative and conflicting. Approaches to fostering progressive network dynamics, although primarily effective, are presently somewhat superficial in their reality.

This is an area of the Topsport system that must be again approached, such that Technical Director, Head Coach and Development coach align in their vision, approaches, and priorities with respect to the development and progression of the present Topsport programs. In direct relation, it is important that a fluid and congruent development and performance ecology is facilitated such that the vision of senior elite performance is embodied as the overarching aim. Within this the role awareness of each of the actors in this network must be reiterated and actioned.

Each year respective coaches participate in review process with the Technical Director to evaluate responsibilities, performance, areas of improvement and future targets.

## 2.0 Projects and Proposals

### 2.1 Development 18+

The general aims of the Development 18+ program is two-fold,

1. Facilitate the steps to progress athletes towards a status as elitesporter in a prestatieprogramma.
2. Provide a real-time way-finder for bridging athletes and future potential.

As per 2022, there were two athletes identified in the Development 18+ program for the 2023 season (Lies Vicca, LV and Manuel Pollet, MP), and this year has thus far illustrated a marked progression in the overall profile of this group; however, it must be noted that this is dominated by the progression of MP. This respective athlete illustrated both a performance and result profile (more) akin to that of a Topsport high-level athlete (refer to Table 2.1.1 and Appendix A1 for a more detailed result profile), representing at the Senior WK, G14 and qualifying for the European Games, G4\*.

Table 2.1.1 Result profile, WT International competitions 2023 (January – August)

Athlete	Win %	Fights per competition	No. of competitions	Medals		
				G	S	B
MP	67	2.5 ± 0.8	6	1	1	0
LV	33	1.5 ± 0.7	2	0	0	0

\*It must be noted that during preparations for the European Games, Manuel sustained an injury that prevented him from representing Belgium in this competition.

Unfortunately, the development profile and associated result profile for LV has again been perturbed by both injury (requiring hand surgery in March 2023) and relational breakdown between Athlete and coach. As such, LV withdrew from the program in its present form in June 2023, returning to a club-based approach. Funded support for health and wellbeing was continued for this athlete.

It is proposed that the Development 18+ program be continued for 2024 for identified athletes, to provide the necessary support to grow, develop and perform in a long-term perspective. As per 2023 priority for the future progression is international collaboration to ensure a broad range of training and sparring partners, although this was improved in 2023 compared to 2022, it is of greater priority as athletes' transition into Olympic weight categories etc.

### 2.2 The Bridging programme

The concept of the Bridging program is specifically to facilitate the transfer from top-level Junior athletes / top-level recreational athletes into elite level Senior athletes. These athletes are aged between 16-21 years of age (in line with respective data for top 8 achievement). Transition into a full-time, elite status athlete is a complex process that in turn requires a controlled development approach that is both adaptive and systematic. The Bridging approach aims to facilitate this process by providing an environment that is performance driven but human focused, where a graded hormetic approach with respect to physical and mental stressors is coordinated.

The general framework for Bridge working is graded based on age to ensure a hormetic rather than saturation approach to the psychophysical stressors (Table 2.2.1).

Table 2.2.1 Bridge trainings with system head coach

Age (years)	Session frequency / week
15-16	2
16-17	2-3
17-18	3-4
18+	4-5*

\*If part of the 18+ program then the athlete is expected to attend a minimum 5 sessions per week with the head coach

An individual is considered for inclusion if they display appropriate performance level, growth potential, and characteristics identified as important for the process of developing excellence (this is assessed by a multi-dimensional approach incorporating both quantitative and qualitative assessment). Each respective athlete is tracked and profiled through training and competitions to enable a comprehensive assessment of development and progression. This enables each athlete to be progressed and reviewed in an environment of deep practice and progressive exposure to high performance senior load profiles. This is a primary driver of the Bridging approach, that of concurrent exposure to the senior 'world' actively directed and managed with respect to an athlete's capacity and capabilities. Such an approach serves to enhance the chronic 'loading' profile of a developing athlete, providing resilient foundations for future progress (Gulbin *et al.*, 2013).

Each athlete documents a target process, competition performance profiles, as well as being incrementally introduced to load monitoring measures (refer to Appendix A2).

Bridge athletes 2023: Caroline Volders (Ontwikkeling), Azzam Haj-Kasem (Ontwikkeling); Lies Vicca (Development 18+) and Manuel Pollet (Development 18+); Troy Cammaerts; Andes Cammaerts.

Table 2.2.2 Bridge group profile, 2023

Athlete	Age (years)	Program	G-rank / E-rank results profile 2023	Representative results profile 2024	World Rank (Aug. '23)	Olympic Rank (Aug. '23)
Manuel Pollet	21	Dev. 18+	2nd place Austria Open G1; 1st place European Games qualifier; 1/4 final Slovenia Open G1; 1/4 final Dutch Open G1; Top 16 Belgian Open G2.	Top 16 WK G14; Qualified European Games (withdrawn due to injury)	-87 kg: 44	+80 kg: 91
Lies Vicca	20	Dev. 18+	1/4 final Slovenia Open G1; 1st round Luxembourg Open G1	n.a.	-62 kg: 170	-67 kg: 237
Troy Cammaerts	17	Bridge+	Multiple A-Class gold; 1st round Solidarity Open G1*; 1st round Tallinn Open G1	n.a.	n.a.	n.a.
Andes Cammaerts	18	Bridge+	Multiple A-Class gold; 1st round Luxembourg Open G1*; 1st round Tallinn Open G1	n.a.	n.a.	n.a.
Caroline Volders	16	OntWik.	Junior: 1st place Belgium Open E2; 1st place Dutch Open E1. Senior -57 kg: 1/4 final Austria Open G1*; 1st round Solidarity Open G1	Junior: 2nd place Junior EK G2**	Junior -55 kg: 5 Senior -57 kg: 341	-57 kg: 531
Azzam Haj-Kassem	16	Ontwik.	Junior: 1/4 final Slovenia Open E1; 1/4 final Dutch Open E1; 1/4 final Belgian Open E2; 1/4 final Austria Open E1 Senior -68 kg: 1st round Luxembourg Open G1*	n.a.	Junior -63 kg: 50	n.a.

\*General Non-funded status

\*Senior G-rank debut

\*\*Ranking points are transferable to senior rankings

*Continuing Bridge athletes 2024:* Caroline Volders (Ontwikkeling), Azzam Haj-Kasem (Ontwikkeling); Manuel Pollet (Development 18+); Troy Cammaerts (Development 18+); Andes Cammaerts (Development 18+).

Table 2.2.3 Bridge group profile trajectories, 2024-2026

Athlete	Year	Program	Target Event	Target Result
Manuel Pollett	2024	Development 18+	Europees Kampioenschap	Top 8
	2025	Development 18+	Wereldkampioenschap	Top 8
	2026	Prestatie	Europees Kampioenschap	Top 3
Caroline Volders	2024	Ontwikkeling	Wereldbeker G-rank	Top 3
	2025	Development 18+	Europees Kampioenschap U21	Top 3
	2026	Development 18+	Europees Kampioenschap	Top 8
Azzam Haj-Kassem	2024	Ontwikkeling	Wereldbeker G-rank	Top 3
	2025	Development 18+	Europees Kampioenschap U21	Top 3
	2026	Development 18+	Europees Kampioenschap	Top 8
Troy Cammaerts	2024	Development 18+	Wereldbeker G-rank	Top 3
	2025	Development 18+	Europees Kampioenschap U21	Top 3
	2026	Development 18+	Europees Kampioenschap	Top 8
Andes Cammaerts	2024	Development 18+	Wereldbeker G-rank	Top 3
	2025	Development 18+	Europees Kampioenschap U21	Top 3
	2026	Development 18+	Europees Kampioenschap	Top 8

Refer to Appendix A3.1 for brief athlete profile commentary.

Additional athletes may be included within the Bridge pathway for 2024 upon assessment by the Technical Director, Head Coach and Development Coach with respect development and performance profiles (see Appendix A3.2). Furthermore, invitational training to athletes of interest will also be a feature of the 2024 pathway.

### 2.3. Talent detection and development

Detection and development processes serve to provide an informed perspective of the young potential in a population and further, to provide environments that foster learning, development, coping and initiative. Within this process the role of competitions and associated results are obvious drivers, but it is important that these 'themes' are not the sole basis by which an individual is valued and / or selected into any grouping. After a detection process, athletes are selected into the different stages of the Topsport pathway, with all cadet applicants invited to development sessions, in turn placing an emphasis on creating environments where young athletes feel that there is real focus on their development and effort rather than early selection.

Furthermore, to facilitate a development process that gives value to the "developmental health needs of emerging individuals" (Cupples, 2020, p.18), recommended guidelines with respect ethical and healthy approaches to development are shared with TKDV clubs (refer to §6.0). In-line with this approach, for cadet ages of development the competition experience and exposure that is an integral part of sport development will be gained from a European perspective. In practice this means that Cadet major championship exposure is provided by the European cadet championships, for those at a level where such exposure would be positive developmental experience. In this respect, Taekwondo Vlaanderen does not send cadet athletes to Cadet World Championships (from a Topsport perspective there is limited association for world championship results and subsequent senior performance for European athletes).

In summary, both Cadet and Junior years, are actioned in a manner that fosters development and growth to enable a 'healthy' maturation into a future athlete capable of performing as a top-level senior. In this way it is the aim to promote development phases of exploration rather than simply increased pressure and an adultification / professionalisation of young athletes.

#### 2.3.1 Talent detection

The proposed approaches used in the top sport process serve to engage with the contemporary perspectives of identifying potential in developing Taekwondo athletes. In this sense talent detection will be viewed as a continual, evolving part of the development process and not simply an isolated feature. It is proposed that potential athletes (13-18 years) are in general selected based on a two-stage detection period,

##### *Talent Detection (TD) Stage 1*

- i. Prospective athletes will compete in modified-rule formats of Taekwondo competition to help reveal such characteristics as willingness to experiment, adaptability and decision making. (A systematic observation approach will be used to help qualify assessment)
- ii. All prospective athletes will complete a modified Psychological Characteristics for Developing Excellence questionnaire to provide an insight into the individual's capacity to effectively cope with the anticipated challenges inherent in sport (Hill *et al.*, 2019).

##### *Talent Detection (TD) Stage 2*

- i. Prospective athletes will compete in a combination of test matches and situational training to in-part assess the athletes' ability/willingness to transfer information from training to the competitive environment. (A systematic observation approach will be used to help qualify assessment)
- ii. All prospective athletes will complete a battery of physical assessment protocols to provide an indication of present physical literacy/athleticism. The test battery will differ for each age

group to move along the continuum of measures of development potential towards measures of performance potential (Moreira *et al.*, 2014).

The testing stages of detection are performed in combination of gatherings and trainings throughout the year enabling the biopsychosocial maturation rates to be taken into consideration. In this way it is important to note that selection is not determined solely by the result profiles of the respective tests, rather the tests serve as important discussion points when considering the multi-dimensional assessment of each prospective athlete. Furthermore, test results will serve as a platform for feedback to all athletes and respective coaches to enhance the future development process.

Table 2.3.1.1 Talent detection overview for 2024

Action	Frequency	Measurement	Responsibility
Talent detection assessment	1 / year <i>(Performed Nov. 2023)</i>	Testing session 1: Systematic Observation and PCDE	David Cook / Jelle Vicca / Alireza Nassrazadany
		Testing session 2: Systematic Observation and physical score	<i>Results will be discussed in the Topsport committee</i>
Detection gatherings	4 / year	Systematic observation	David Cook / Jelle Vicca / Alireza Nassrazadany

### 2.3.2 The Development Process

Although the overarching target of the Top Sport plan is to achieve the best results possible at the highest level of performance, such an outcome-oriented perspective should be driven throughout by an embedded development focus. This is a challenging perspective in that the system must not only foster sustained high-level performance (specifically at the elite level) but must also give value to the “developmental health needs of emerging individuals” (Cupples, 2020, p.18). To foster such an approach, where possible, the direct and indirect influences on developing excellence should be identified, given value, and developed. Such a perspective aligns to that put forward by contemporary research (e.g., Woods *et al.*, 2020; Till & Baker, 2020).

The development and refinement of an athlete's characteristics (motoric, physical, mental, and social) is a long-term commitment and must be performed on a gradual, age-appropriate basis, considering the characteristics of musculoskeletal growth and responsiveness to stressors. The role of development gatherings, workshops and 'inspire' sessions are paramount to this process. It is important that this complete process is undertaken in a manner that not only considers but promotes the health and well-being of the respective athlete(s). This is an important area for education and guidance with respect to the ecology of development.

All identified development athletes are required to attend a specific number of trainings and workshops per calendar year with the Flanders development coach, Technical Director, and respective experts. This group, in a similar way to the Bridge athletes, are tracked, profiled and in collaboration with their respective clubs, development will be fostered. In general development athletes participate in between 1-3 sessions per week dependent on stage of development and sessions are based on themes identified by respective Topsport coaches. Trainings are flexible with respect to the competition calendar.

In addition, several development gatherings take place throughout the year, directed by Topsport coaches and Technical Director. These gatherings foster exploration of movement solutions, technical proficiency, and physical qualities.

Proposed framework for development trainings, 2024,

Table 2.3.2.1 Development trainings, 2024

Action	Frequency	Measurement	Responsibility
		Attendance	
Development gatherings	4-5 / year	Feedback reporting	Jelle Vicca / David Cook / Alireza Nassrazadany
		Tracking of competition profiles	
Weekly development training	1-2 / week	Attendance	Jelle Vicca / Alireza Nassrazadany / David Cook
		Feedback reporting	

### 2.3.3 The Topsport toolbox

#### 2.3.3.1 Coach (general)

Much of the direct impact ecology for development athletes' centres around their respective club environments therefore it is important that the development strategy enhances the competency of this impact. In line with Sport Vlaanderen (§4.6 Topsportactieplan Vlaanderen V (2021-2024)), the development of coaches is seen as an integral part of a long-term perspective to developing future elite athletes. This component of the proposed framework focusses on enhancing the 'toolbox' of the respective coaches by educating and training them such that they can adequately implement the processes of development advocated by Top Sport Taekwondo Vlaanderen. Taekwondo is a rapidly changing sport that is influenced greatly by technological advancements, as such the knowledge base underpinning development and performance is regularly 'moving'. This highlights the need for not only well-trained and knowledgeable athletes but also coaches at all levels of the development process. Such an "integration of coaching, training and continuing education programs" (Till & Baker, 2020, p.8) in to a high-performance (funding) strategy serves to go beyond the short-term focus that is the norm for many systems.

The toolbox is designed to give coaches a practical understanding of the complex interaction between the athlete, coach and environment and serves to enhance principles of development, transfer, and in-action coaching coupled with athlete health and well-being. 'Tools' will be provided via workshops/round table discussions, feedback as well as a library of documentation and media files specific to guiding principles of development and performance.

Proposed framework for coach toolbox, 2024,

Table 2.3.3.2.1 Coach toolbox, 2024

Action	Mode	Frequency	Profiling	Responsibility
Coach Toolbox (Coach the Coach)	Workshop/Lecture	4-5 / year	Attendance	David Cook
Coach Toolbox (Coach the Coach)	Library resource	2-3 videos / year	Media files	David Cook

### 2.3.3.3 Athlete

Progression to the truly elite level in sport is relatively infrequent and further highlights the need for an elite sport development approach that 'gives more' than simply a limited path to achieving an elite status. The contemporary athlete must traverse an ever-more challenging landscape that fluctuates between the inter-related elements identified in development ecologies. Therefore, to best prepare athletes to cope and hopefully thrive in such an environment it is important that athletes are provided opportunities to develop the tools necessary to progress not only in Sport Taekwondo but also complimentary tools that translate to life, education, and health. As such, the athlete toolbox should include such things as,

- i. Foundations of gameplay
- ii. Reflective approaches to performance (e.g., developing and evaluating game frameworks and target processes)
- iii. Pracademic approaches to performance, health, and well-being (e.g., Mental health, nutrition, optimising performance, injury prevention, sleep and recovery, biological signals/markers etc.)
- iv. Practical workshops relating to inter-related life skills (e.g. identity and value, cooking, shopping on a budget, injury, time management, career guidance etc.)

In a similar way to that of the coaching toolbox, 'tools' will be provided via workshops, seminars, practical/training sessions, as well as a library of documentation and media files specific to optimising the athlete ecology.

Proposed framework for coach toolbox, 2024,

Table 2.3.3.4.1 Athlete toolbox, 2024

Action	Mode	Frequency	Profiling	Responsibility
Athlete Toolbox	Workshop/Lecture	3 / year	Attendance Tasks w/ feedback	David Cook/ Subject xperts
Athlete Toolbox	Development gatherings	4-5 / year	Feedback	Jelle Vicca / Alireza Nassrazadany / David Cook
Athlete toolbox	Library resource	2-3 videos / year	Media files	David Cook

### 2.4 Development in line with education

Presently, TSS is not viewed as a necessary feeder system for the developing Topsport system in Taekwondo. This perspective will be reviewed on an annual basis as the development of the system progresses.

### 2.5 Training location(s)

At present Topsport is spread over several training locations largely on a booking timeslot basis. Such a .... Does not serve to foster a cultural identity that is a important element to a Topsport program, Therefore, there is still a drive to try and centralise the present pathways both in terms of location but also with respect to the catchment areas of TKDV. This process has been problematic, and options are limited, however it is seen as an integral part of the progression and sustainability of the present and future Topsport system within TKDV.

**Action:** Continue to search for an appropriate location and obtain the necessary funding for the effective implementation of a centralised approach.

### 3.0 Topsport structure

It is envisaged that 2024 will follow a similar structure to that of 2023, wherein the system is orchestrated by a Technical Director, under which there will be two coaching positions,

#### 1. Head Coach (1)

Primary roles being associated to Development 18+ and Bridging  
Secondary role associated to development athletes.

#### 2. Development coach (0.5)

Primary roles being associated to Development athletes

### 3.1 Topsportcommissie

The sports committee in-part helps to determine the top sports policy of Taekwondo Vlaanderen led by Technical Director Topsport. Fundamental issues and dossiers relating to top sport are discussed within this commissie.

Table 3.2.1 Taekwondo Vlaanderen Topsport committee

Role	Name
Technical Director Topsport (chairman)	David Cook
Representative board	Johan Alles
Head Coach	Alireza Nassrazadany
Development Coach	Jelle Vicca
Performance Manager Sport Vlaanderen	Tom Pelsmaeker
High performance Manager BOIC	Bob Maessen

This committee aims to sit bi-annually as well as regular interactive contact (email, messages, phone, digital meetings). In addition, from 2024 it is envisaged that the appointment of a member of the recognised medical team will be forthcoming for the commission.

### 3.3 Medische committee topsport

The Topsport medical committee is coordinated by the technical director such that the respective experts form an interdisciplinary network with for identified athlete.

Table 3.3.1 Medische committee for Topsport

Role	Name
Technical Director Topsport	David Cook
Head Coach	Alireza Nassrazadany
Doctor	Sam Moustie
Kine	Joris Jellasics / Lieze Frederickx
Dietician	Inge De Ridder
Sports Psychologist	Jef Brouwers

#### 4.0 Integrated topsport model

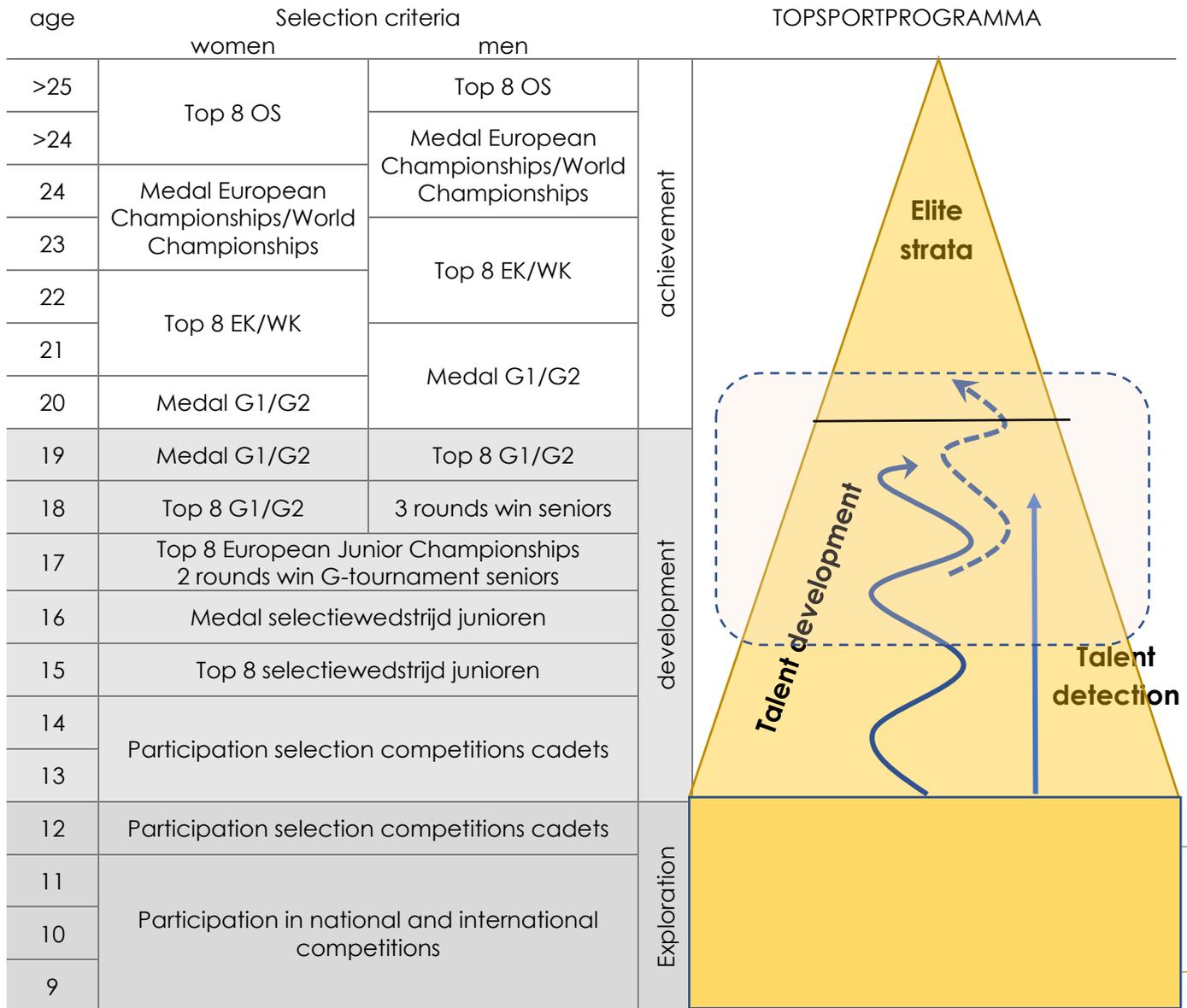


Figure 4.1 Integrated top sports model

## 5.0 Competition program

At present the general calendar for 2024 has not been released, however the representative (major) championships are outlined in Table 5.1).

Table 5.1 Representative championships, 2023

Representative Championships	Date, location
Senior Olympic Qualifiers	March, Germany
Senior European Championships, G4	TBD
Junior World Championships, G7	TBC, Korea
European U21 Championships, G1	TBD
Cadet European Championships	TBD

In general, the aim is to compete in 7-9 G-rank competitions for Development 18+ athletes in relation to progressive development and associated criteria for selection to target representative championships. Similarly, junior development athletes will look to use competition to develop under the stress of process and outcome expectations and where possible achieve selection for representative championships.

## 6.0 Healthy and Ethical sport

Sport Taekwondo, which largely falls under the banner of Olympic sport, has seen increasing popularity and globalisation since its inception to the Olympic program in 2000. Coupled with this, the facilitation of Taekwondo as an elite sport endeavour has resulted in perspectives of Topsport permeating from senior performance levels down through all age ranges of competition. Anecdotally, this is apparent by the championship events that span the competitive spectrum (i.e., Kids, 9-11 years through to Senior, 17+ years). It is well recognised that sport is a medium that can foster positive personal and social development (Clutterbuck & Doherty, 2019). However, when sport moves into the landscape of elite / Topsport then it is important to consider the additional psychosocial and physical stressors that an athlete may be exposed to. In this way strategies and approaches can be implemented to mediate any potential adverse responses within the environments of development and performance.

### 6.1 TKDV and Topsport pathways

It is a primary aim of Taekwondo Vlaanderen to promote Taekwondo at all levels in a manner that considers the ethics, integrity, and well-being of the respective athlete(s). With respect to this TKDV provides directive information and support through online resources that outline healthy and ethical sports (refer to Appendix A3).

As stated, it is important to mitigate the factors that can lead to adverse physical and psychosocial responses for athletes in the Topsport process (Agnew *et al.*, 2017). With respect to this a consideration in all sport is that of adultifying the development environments of young athletes, e.g., Frequency, intensity and volume of training, significant manipulation of body profiles etc. Biological growth, maturation and behavioural development are complex, on-going processes characteristic of adolescent development (i.e., ages 10-19, World Health Organisation, 2016). Therefore, it is important that young athletes are guided throughout these periods to reduce potential of adverse sport practice that can lead to health risks associated to nutritional status, growth, and development (Berkovich *et al.*, 2015). In this regards it is important that an increasing emphasis be placed on development of fundamental motor abilities,

psychological skills, and problem-solving in a manner that de-emphasises the notion of ‘win now’ for the young athlete. Instead, the pathways aim to foster a development trajectory that continues through the whole age spectrum of Taekwondo. Such approaches are grounded on exposure to variant perceptual-motor stimuli (e.g., exploration of movement solutions, situational problem-solving etc.) serving to develop functional and adaptive behaviours that foster a more resilient development outcome (Straiotto *et al.*, 2021; Ranganathan *et al.*, 2020; Flores *et al.*, 2019).

Therefore, to facilitate a development process that gives value to the “developmental health needs of emerging individuals” (Cupples, 2020, p.18), the following guidelines / recommendations have been published with respect to weight and the Topsport ‘pathways’,

- ≤14 years, no weight manipulation
- 15-16 years, ≤ 2.5% of respective WT weight category
- 17+, ≤ 5% of respective WT weight category

Furthermore, athletes and Topsport coaches within the development pathways are required to sign a code of conduct outlining behavioural expectancies for their respective roles.

A key to creating good practice habits within the development and performance environments is to facilitate educational approaches with respect to the direct impact ecology, i.e., coaches, family etc. In this regard coach, athlete, and parent workshop / roundtables are programmed in to the Topsport process wherein principles of good practice related to development, transfer, and in-action coaching coupled with athlete health and well-being are promoted (refer to Table 6.1.1 for exemplar sessions). In a similar way, sessions, directed by subject-specific experts (e.g., nutritionist, psychologist), are also scheduled within the calendar (e.g., Well-being and High Performance by Eline Berings).

Table 6.1.1 Exemplar workshop / roundtable discussion forums

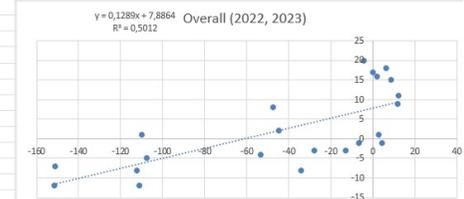
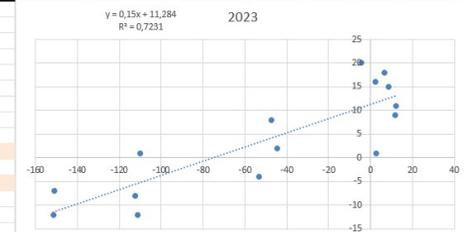
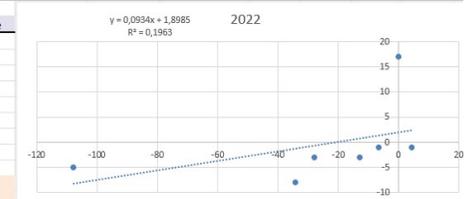
Population	Topic
Coaches	Ecological perspectives of development
Coaches	Designing and co-ordinating development environments
Coaches	Concepts of distance and movement
Coaches	Performance profiling
Coaches / Parents	Load: Friend and Foe
Coaches / Parents	What does Success look like?
Athletes	Ecological perspectives of development
Athletes	The spaces between places
Athletes	Performance profiling

To assist in athlete well-being coupled with development and performance the system utilises the expertise of a sports medicine doctor (Dr S. Moustie), a nutritionist (Inge De Ridder), and a psychologist (Jef Brouwers). In addition, where necessary direction is provided by physiotherapists with respect to injury profiles (e.g., GRIT Sports Clinic). To further enhance interdisciplinary discussion Development 18+ athletes engage in a process of load monitoring that provides information related to sleep, fatigue, soreness, and daily load to provide a more holistic perspective (refer to Appendix A2).

**Appendix A1: Detailed result profile, MP and LV**

**MP**

Match Performance v Match difficulty													Predictor Model	Difficulty	Performance
Date	Athlete	WT points	Weight Category	Competition	Country	Opponent	Points F	Points A	Match Performance	Result	Opponent WT points	Match Difficulty (points)			
19.03.22	Manuel	0	-87	Belgium Open G2	Spain	Garcia Martinez	8	11	-3	L	28	-28			
30.05.22		0	-87	Sweden Open	Sweden	Montazeri	23	6	17	W	0	0			
					Croatia	Sapina	15	20	-5	L	107,74	-107,74			
28.08.22		4,32	-87	Tallin Open G2	Poland	Wojtkowiak	5	13	-8	L	38,49	-34,17			
					Introduction of Best of 3 system		0	2	-2						
11.09.22		4,32	-87	Polish Open G2	Saudi	Almabrouk	9	12	-3	L	17,28	-12,96			
							0	2	-2						
15.10.22		4,32	-87	Dutch Open G2	Australia	Staben	24	16	8	L	0	4,32			
							1	2	-1						
11.11.22				French Open G2	Canada	Brunet	14	8	6	L	10,8	-6,48			
							1	2	-1						
26.02.23	Manuel	4,32	-87	Slovenia Open G1	BIH	Nuci	2	0	2	W	8,64	-4,32			
							24	4	20						
					Serbia	Khodabakhshi	0	2	-2	L	155,4	-151,08			
				1/4 finals			4	11	-7						
11.03.23		6,48	-87	Dutch Open G1	Germany	Cifti	2	0	2	W	4,32	2,16			
							23	7	16						
					China	Meng	1	2	-1	L	118,84	-112,36			
				1/4 finals			14	22	-8						
18.03.23		6,48	-87	Belgium Open G2	Germany	Jurgens, J	2	0	2	W	0,00	6,48			
							22	4	18						
					Uzbekistan	Rafalovich	0	2	-2	L	117,6	-111,12			
							0	12	-12						
01.04.23		11,66	-87	Austria Open G1	Ukraine	Bondar	2	0	2	W	56,32	-44,66			
							12	10	2						
					Slovenia	Divkovic	2	0	2	W	121,61	-109,95			
							7	6	1						
					Poland	Wojtkowiak	2	0	2	W	58,96	-47,30			
							21	13	8						
					Croatia	Sapina	0	1	-1	L (wd)	163,26	-151,60			
				Silver			7	13	-6						
08.04.23		11,66	-87	EG Qualifier	Georgia	Pashaev	2	1	1	W	0,00	11,66			
							14	5	9						
					Cyprus	Theocharous	2	0	2	W	9,07	2,59			
							14	14	0						
					France	Kinsansi	2	0	2	W	3,02	8,64			
				Gold			22	7	15						
31.05.23		16,58	-87	World Ch'ships G14	Romania	Snacov	2	1	1	W	4,23	12,35			
							25	14	11						
					Azerbaijan	Suleymanov	0	2	-2	L	70	-53,42			
							8	12	-4						



Overall (2022, 2023)	-0,96
2022	-7,04
2023	0,99

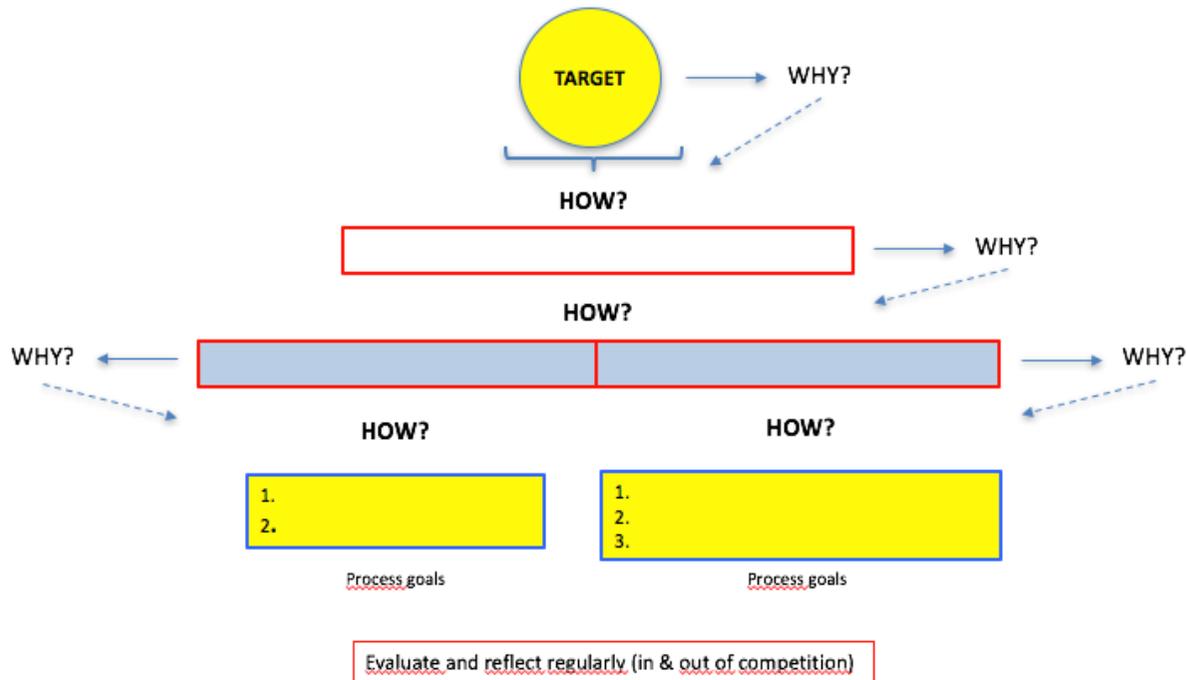
**August 2023: 31,4 points**

2022					2023							
Win %	Open	Mean no. Fights			Win %	Open	Mean no. Fights					
Category	Total Fights	Wins	Losses	Win %	Category	No. comps	no. fights	Mean	Category	No. comps	no. fights	Mean
-87	7	1	6	14%	-87	6	7	0,86	-87	13	9	2,60
Majors					Majors							
Category	Total Fights	Wins	Losses	Win %	Category	No. comps	no. fights	Mean	Category	No. comps	no. fights	Mean
-87	2	1	1	50%	-87	1	2	2,00	-87	1	2	2,00
Total					Total							
Category	Total Fights	Wins	Losses	Win %	Category	No. comps	no. fights	Mean	Category	No. comps	no. fights	Mean
-87	7	1	6	14%	-87	6	7	0,86	-87	15	10	2,50



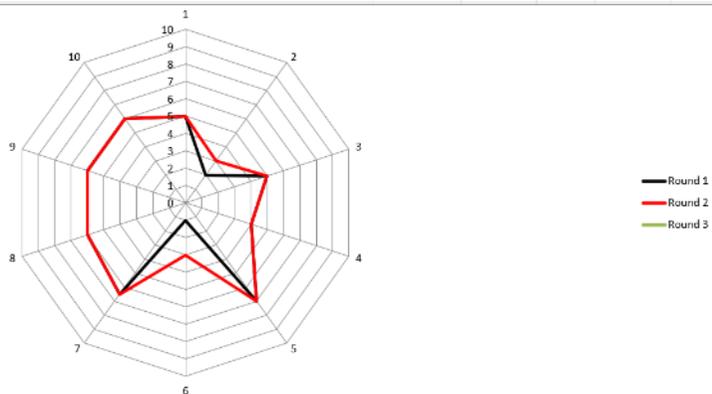
## Appendix A2: Exemplar templates for Target process, Performance profiling and Load monitoring

### Target Process



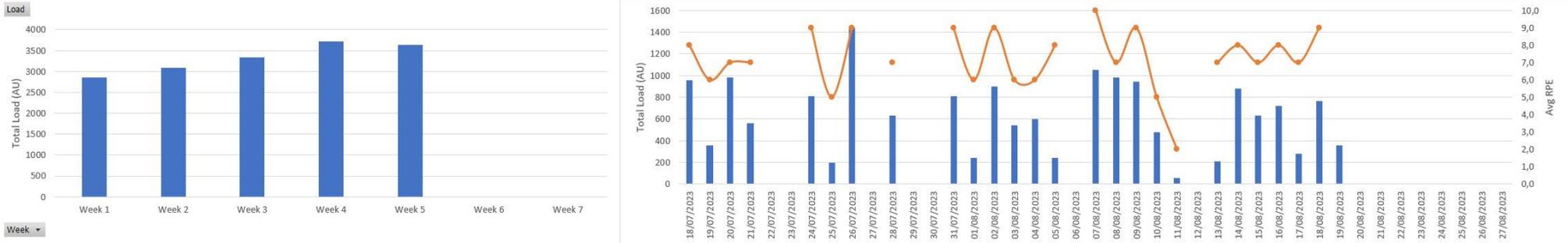
## Performance Profile

Performance profile		ATHLETE					Performance profile		COACH				
Performance Parameter	Operational Definition	Round 1	Round 2	Round 3	Mean	SD	Performance Parameter	Operational Definition	Round 1	Round 2	Round 3	Mean	SD
Ring Control and awareness	Dominating ring position; Creating and escaping 'choke' points; Timing of directional/ line changes	5	5		5	0.000	Ring Control and awareness	Dominating ring position; Creating and escaping 'choke' points; Timing of directional/ line changes	6	5		5.5	0.71
Game-play variations / Creativity	Ability to change game-play dynamics during a fight - variation in technique and/or tactical framework etc; Flexibility in action; Generation of multiple solutions	7	3		2.5	0.707	Game-play variations / Creativity	Ability to change game-play dynamics during a fight - variation in technique and/or tactical framework etc; Flexibility in action; Generation of multiple solutions	5	6		5.5	0.71
Responding to game-play characteristics	Acting on opponent characteristics; Reading and acting on the tempo/rhythm changes within a fight	5	5		5	0.000	Responding to game-play characteristics	Acting on opponent characteristics; Reading and acting on the tempo/rhythm changes within a fight	7	7		7	0.00
Technique selection and execution	Choosing the appropriate technique (associated to distance and timing); Effectiveness of technique.	4	4		4	0.000	Technique selection and execution	Choosing the appropriate technique (associated to distance and timing); Effectiveness of technique.	5	6		5.5	0.71
Attentiveness	Focused on the task in-hand; Responding to information.	7	7		7	0.000	Attentiveness	Focused on the task in-hand; Responding to information.	5	6		5.5	0.71
High points game	Use of spinning techniques and headshots.	1	3		2	1.414	High points game	Use of spinning techniques and headshots.	2	5		3.5	2.12
Application of guard arms	Covering the scoring areas; Use of active 'catch and play'.	6.5	6.5		6.5	0.000	Application of guard arms	Covering the scoring areas; Use of active 'catch and play'.	5	5		5	0.00
Distance of execution	Metric between players before respective attack.	6	6		6	0.000	Distance of execution	Metric between players before respective attack.	6	6		6	0.00
Movement	Effectiveness of movement patterns; Connection between movement and 'play'.	6	6		6	0.000	Movement	Effectiveness of movement patterns; Connection between movement and 'play'.	5	5		5	0.00
Decision making	Decisiveness; Game-play selections.	6	6		6	0.000	Decision making	Decisiveness; Game-play selections.	6	6		6	0.00
	Mean	48.5	51.5					Mean	52	57			
	SD	1.97	1.42					SD	1.32	0.67			

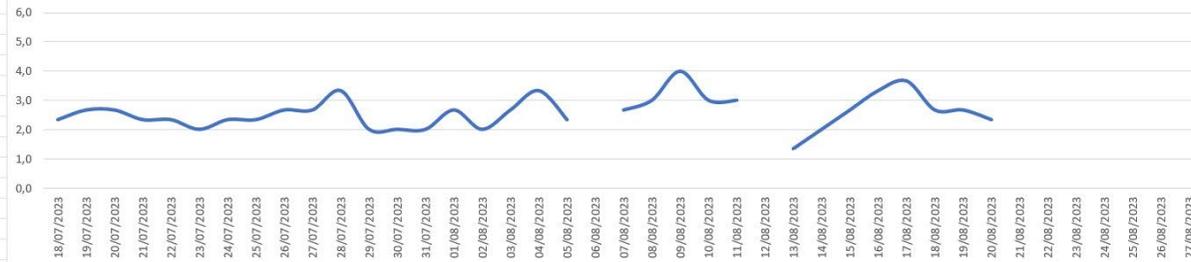


## Load Monitoring

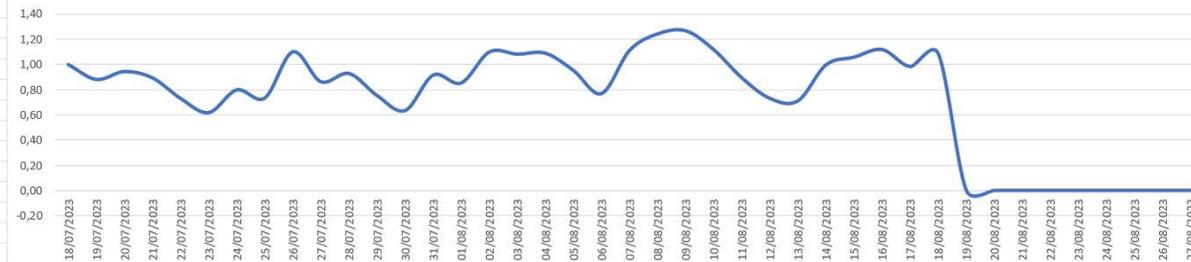
### Athlete monitoring report



Wellness Score



A:C emwa



### **Appendix A3.1: Bridge Athlete profile description**

Manuel Pollet:

This year saw Manuel progress significantly in his development profile, all built on the challenges that were provided to him in 2022. Although 2022 did not bring a winning profile it did provide Manuel with the necessary exposure to facilitate a more resilient and effective gameplay for the performance landscape associated to the senior category. In this year a higher level and more stable performance profile has been illustrated and this showed Manuel's development potential in Topsport. The result profile for 2023 (Jan '23 – Aug. '23) highlights a 67%-win ratio (compared to 14% in 2022) in world ranking competitions and having only been beaten by higher ranked athletes, all but one being an Olympian and/or world medallist). In this process Manuel has defeated 3 higher ranked international athletes, including the present European Games vice-champion and averages 2.6 fights per competition (compared to 0.86 in 2022). In addition, Manuel achieved the internal criteria to be selected for the World Championships (i.e., medal at G-rank competition, achieving 2<sup>nd</sup> place in Austria, winning 3 matches) where he performed well albeit losing his second fight in a close match to the no.4 seed from Azerbaijan. It must also be noted that unfortunately Manuel sustained an injury prior to the European Games G4 and as such was unable to compete for Belgium in this competition.

Caroline Volders:

Caroline has shown gameplay improvements that now characterise a greater maturity in her gameplay style more akin to that profiled in senior athletes. In her final year as a junior athlete, she has an impressive 86%-win ratio across all competition, averaging 3,5 fights per competition, all of which culminated in an impressive 2<sup>nd</sup> place at the Junior European Championships. Furthermore, as per the approach of the Bridging pathway, Caroline has already begun her transition into a senior athlete, winning several A-class competitions and debuting in G-rank competition at the Austrian Open, G1 (achieving a commendable ¼ final placing after 2 wins), she has presently competed in two G-ranked competition in -57 kg category.

Azzam Haj-Kasem:

Azzam entered the Bridge pathway towards the latter end of 2022 and has illustrated a clear willingness to engage with the process of transition to the Senior performance landscape. Azzam is in the final year of junior eligibility and although he did not medal in E-rank competition he showed consistent improvements in gameplay approaches (developing the concept of gameplay structure and game planning in connection with Coach Alireza). Statistically he had a 56%-win ratio in E-rank competition and debuted in senior G-rank competition in -68 kg at the Luxembourg Open G1 where his performance against a highly ranked French National Team athlete was commendable both in its gameplay but also in the positive mental approach taken. Azzam has faced an additional challenge in this period in that he is the only natural French speaking athlete in the Bridge group, however continuous work with Coach Alireza on this additional communication challenge illustrates his willingness to engage in a relational approach to the athlete-coach dynamic.

Troy and Andes Cammaerts:

Both athletes have illustrated a rapid progression in gameplay and competition performance since joining the Bridge pathway as non-funded athletes in 2022, especially as both had a dearth of experience in previous age brackets of Taekwondo performance (only Troy competed in junior level international ranking competition, n =2, achieving a bronze medal). Within 6 months of committed training both athletes progressed to a level that won all A-class competitions entered and both have now had their respective senior G-rank debuts this year, illustrating good performance potential in this arena. They are now at the stage of progression where consistent exposure to G-rank competition is a necessary feature for performance development. Furthermore, their basic anthropometry is well-suited to their future Olympic weight categories (-80 kg) with standing heights of 1.90 m (AC) and 1.93 m (TC), respectively - Mean (SD) standing height of medallists in -80 kg at the Tokyo Olympics 2020 was 1.91 (0.02) both have a gameplay style that is both contemporary and reward taking (high points scoring capacity).

### Appendix A3.2: Prospective Bridge pathway athletes, 2024

Table 2.2.2 Prospective Bridge athlete profiles, 2023

Athlete	Age (years)	Program	G-rank / E-rank results profile 2023	Representative results profile 2024	World Rank (Aug. '23)	Olympic Rank (Aug. '23)
Elien Rabaut	15	Ontwik.	Junior: 1st place Slovenia Open E1; 1st place Austria Open E1; 2nd place Belgian Open E2; 2nd place European Clubs E1; 3rd place Dutch Open E1.	1 <sup>st</sup> round Junior EK G2	Junior -49 kg: 6 Junior -52 kg: 32	n.a.
Hannah Laenens	16	Ontwik.	'Junior: 2nd place Austria Open E1; 3rd place Slovenia Open E1; 1/4 final Belgian Open E2; 1/4 final European clubs E1; 1st round Dutch Open E1.	¼ final Junior EK G2	Junior -52 kg: 21	n.a.

## Appendix A4

<https://www.taekwondo.be/nl/gezond-en-ethisch-sporten>

<https://www.taekwondo.be/nl/grensoverschrijdend-gedrag>

<https://www.taekwondo.be/nl/gedragscodes>

<https://www.taekwondo.be/nl/gezond-sporten>

<https://www.taekwondo.be/nl/antidoping>