Triathlon Canada High Performance Plan (Olympic Stream): Road to 2024 and Our Vision for 2028

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1. Executive Summary

Triathlon Canada High Performance Mission

Our goal is consistent with the aspirations of the Canadian sport system, to achieve sustainable Olympic podium performances. We are setting a deadline of Paris 2024 to achieve this goal and to establish a performance culture to sustain us beyond Los Angeles 2028.

We focus our efforts and differentiate ourselves by prioritizing one critical performance factor – the athletes' availability to race at any given level and time.

Competitive hardiness is at the core of the culture, we need to achieve this critical performance factor.

Triathlon Canada (TC) began rebuilding its High Performance (HP) program in 2016. There were numerous fundamental and organizational gaps that required closing to ensure a stable platform for the HP plan to successfully be executed through to Paris 2024. Though the gaps continue to be a priority for the organization, the HP program has been able to achieve success over the past four years. Most notably,

- Major games medals at Commonwealth Games and Pan American Games
- Increased podium performances at all levels of International Triathlon Union (ITU) racing
- Increased number of athletes achieving podium performances at all levels of ITU racing
- Decreased injury rates of targeted athletes
- Established and revised policies that align with podium pathway
- Established a sustainable and performing centralized program
- Re-established a revised coaching education program
- Increased TC coaching staff numbers and IST engagement
- Successfully planned and executed Tokyo specific risk mitigation plan culminating in Test Event win

Though our successes have been positive, we continue to face challenges and have not met some of our goals that we set for the Tokyo 2020 quadrennial. These are as follows,

- Lack of mixed relay competitiveness
- Decreased competitiveness of the women's program
- Lack of aligned HP training environments/programs
- Lack of aligned HP coaches
- Continued attrition of athletes at the U23 level
- Inconsistent and unreliable talent ID or transfer success
- Lack of ITU level race and system knowledge

New strategies and refinement of previous strategies will be implemented as needed, to continue our progression through to Los Angeles 2028. The focus and priorities of the HP plan for 2024 and 2028 will be on the credible individual medal threats, mixed relay competitiveness, talent ID/transfer, HP coach development and continued refinement of the podium pathway.

Road to Paris Performance Goals – What we intend to achieve

2021 – Top 3 Mens Individual Event, Top 8 Mixed Relay – Tokyo Olympic Games

2022 – Top 3 Mens Individual Event, Top 5 Mixed Relay, Top 8 Womens Individual Event – Commonwealth Games; Top 5 Mens Individual Event, Top 15 Womens Individual Event, Top 8 Junior and U23 Individual Events, Top 8 Mixed Relay – WTS World Championships

2023 – Top 3 Mens Individual Event, Top 8 Womens Individual Event, Top 5 U23 Individual Event, Top 3 Junior Individual Event, Top 5 Mixed Relay – WTS World Championships; Top 3 Mens Individual Event, Top 5 Womens Individual Event, Top 3 Mixed Relay – Pan Am Games

2024 – Top 3 Mens Individual Event, Top 8 Womens Individual Events, Top 3 Mixed Relay – Paris Olympic Games

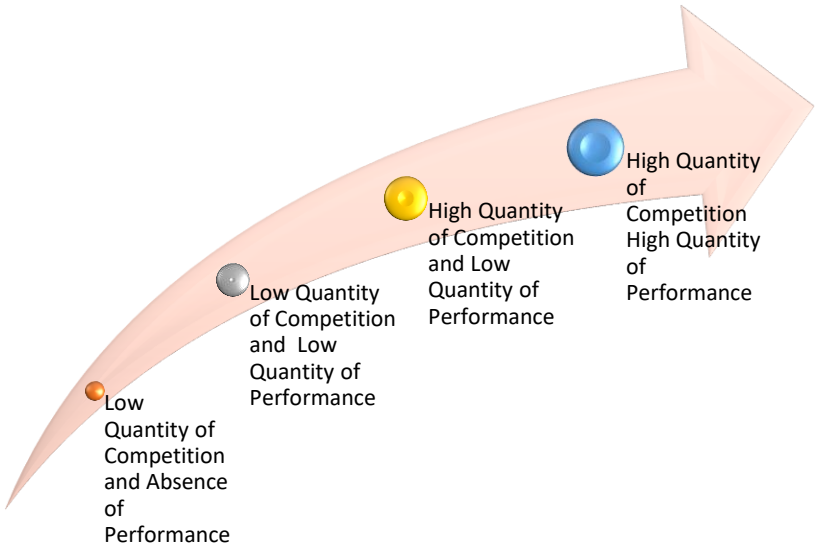
2. Tokyo Quadrennial Review

- To be completed post Games

3. Tokyo Quadrennial Performance Summary and Lesson's Learned

A critical success factor to achieving performance is increasing the upward pressure of the athlete pool. This is achieved in two ways. First is through quantity; an overall increase in number of athletes competing at appropriate levels of competition. Second is through quality (performance); an overall increase in the number of benchmark performances required for an athlete to improve to the next level of competition. Throughout the past four years, we have refined and revised key policies to ensure that both quantity and quality of athlete performances are continuing up the Triathlon Canada Podium Pathway.

Figure 1. Triathlon Canada Philosophy to Competitive Hardiness



Canadian Performances at all levels of ITU racing is highlighted below. There is evidence now of a consistent increase in quantity and quality of performances as well as a progression up the podium pathway.

Table 1. Canadian Athlete ITU Event Result – Quadrennial Progression (Brodie, 2020, pers.comm.)

	Continental Cup				World Cup				WTS			
Row Labels	Top 3	Top 5	Top 8	Top 15	Top 3	Top 5	Top 8	Top 15	Top 3	Top 5	Top 8	Top 15
2016	19	8	15	29	4		2	13			2	7
2017	36	20	37	91	6	4	5	15		2	1	1
2018	24	17	19	43	2	3	2	7		2	2	2
2019	37	33	43	106	3	1	9	11	2			6
2020*	2	3	1	7								

*ITU competition calendar cancelled due to COVID pandemic

Table 2. Notable Canadian Individual Podium Performance Highlights

Year	Athlete	Event	Performance
2017	Brown	New Plymouth WC	2
2017	Brown	Cagliari WC	3
2017	Brown	Huelva WC	2
2018	Mislawchuk	Antwerp WC	3
2019	Brown	Bermuda WTS	3
2019	Lepage	Chengdu WC	3
2019	Hoel	Monterrey Continental Champs	1
2019	Mislawchuk	Huatulco WC	1
2019	Mislawchuk	Mooloolaba WC	1
2019	Mislawchuk	Montreal WTS	3
2019	Mislawchuk	Tokyo Test Event	1

Table 3. Notable Major Games Performance Highlights

Year	Athlete	Event	Performance
2018	Brown	Commonwealth Games	3
2019	Ridenour, Henry, Lepage, Paquet	Pan Am Games	2

Triathlon performance (placing) is a key performance indicator. However, due to the multiple levels of ITU events, varying courses and quality of races, not all triathlon performances are equal, comparable or indicative of progression. In 2019, Triathlon Canada implemented a quality of field measurement to ensure athlete performances are evaluated appropriately. Triathlon Canada's Quality of Field and Depth of Field policy (Appendix A) is now implemented into athlete performance evaluations and selection criteria. This will ensure that athletes are accurately tracking towards podium success. Additionally, performance data is being tracked and will be incorporated into future policies to ensure accurate athlete evaluations.

3.1 Performance Trends

We continue to track all relevant performance factors. With the addition of Ryan Brodie at CSI Pacific and the revised data management plan, we have been able to identify key performance trends over the Tokyo quad. Coach Marc Antoine Christin has also contributed key data analysis through his Masters in Coaching studies.

3.1.1 Increasing Quality of Racing

Since 2006, the overall quality of racing (measured as percent of winner time) has been increasing across all three levels of ITU events. As noted in the tables below the performance needed to achieve a Top 15 or Top 8 placing has consistently increased over 14 years. Of note is the quality of racing difference between the men and women's fields as well the differences between ITU levels of racing. The annual averages are displayed below for male and female.

Table 4. Percent of Winner Time Annual Summary Male (Brodie, 2020)

ELITE MEN									
	CONTINENTAL CUP			WORLD CUP			WTS		
YEAR	3	8	15	3	8	15	3	8	15
2006	99.2%	97.4%	94.3%	99.7%	98.9%	98.1%			
2007	98.8%	96.7%	94.6%	99.6%	98.8%	98.1%			
2008	99.0%	96.5%	93.3%	99.6%	98.9%	98.0%			
2009	98.5%	95.9%	94.6%	98.9%	97.9%	96.8%	99.7%	99.0%	98.3%
2010	99.1%	96.9%	95.7%	99.7%	99.1%	98.5%	99.5%	99.1%	98.5%
2011	99.2%	96.9%	95.5%	99.7%	98.9%	98.3%	99.4%	98.9%	98.4%
2012	99.0%	97.3%	94.6%	99.7%	98.7%	97.7%	99.8%	99.4%	99.0%
2013	99.1%	97.2%	95.0%	99.6%	98.8%	97.7%	99.0%	97.9%	96.8%
2014	99.2%	97.6%	94.9%	99.6%	99.0%	98.2%	99.3%	98.6%	98.0%
2015	99.2%	97.2%	94.6%	99.7%	99.3%	98.7%	99.5%	98.7%	98.1%
2016	98.9%	97.0%	93.8%	99.4%	98.8%	98.1%	99.4%	98.6%	98.0%
2017	99.1%	97.1%	95.1%	99.6%	98.8%	97.8%	99.6%	98.7%	97.9%
2018	99.2%	97.1%	95.5%	99.7%	99.0%	98.3%	99.5%	98.6%	98.0%
2019	99.3%	97.7%	95.8%	99.7%	99.0%	98.3%	99.8%	99.3%	98.6%
2020	98.9%	96.4%	93.8%	99.6%	98.7%	97.8%			

Table 5. Percent of Winner Time Annual Summary Female (Brodie, 2020)

	ELITE WOMEN								
	CONTINENTAL CUP			WORLD CUP			WTS		
YEAR	3	8	15	3	8	15	3	8	15
2006	97.6%	92.9%	91.0%	99.1%	98.1%	97.0%			
2007	97.5%	93.7%	90.8%	99.4%	98.4%	97.2%			
2008	97.8%	94.8%	91.9%	99.2%	97.6%	96.4%			
2009	98.1%	94.6%	91.1%	99.3%	97.6%	95.4%	99.5%	98.9%	97.9%
2010	97.8%	94.9%	90.8%	99.2%	98.1%	97.1%	99.9%	99.1%	98.2%
2011	98.4%	94.7%	92.3%	99.4%	98.7%	97.7%	99.8%	99.1%	98.5%
2012	98.1%	95.5%	91.9%	98.8%	97.3%	94.4%	99.3%	98.5%	97.9%
2013	98.3%	94.7%	92.5%	99.2%	97.0%	95.9%	99.4%	98.2%	97.3%
2014	98.5%	95.4%	91.8%	99.5%	98.3%	97.4%	99.5%	98.5%	97.7%
2015	98.4%	93.7%	92.5%	99.6%	98.8%	98.0%	99.2%	98.5%	97.7%
2016	97.9%	95.2%	92.8%	99.3%	98.3%	97.0%	99.4%	98.5%	97.7%
2017	98.4%	95.2%	93.1%	99.2%	97.9%	95.3%	98.8%	97.8%	96.4%
2018	98.2%	95.7%	93.1%	99.4%	98.4%	97.0%	99.2%	98.1%	96.8%
2019	98.2%	96.2%	94.9%	99.4%	98.5%	97.5%	99.0%	98.0%	96.8%
2020	98.1%	95.2%	91.0%	98.6%	97.5%	96.4%			

Implications of this trend is that selection criteria and performance evaluation need to include specific percent of winner data that is reflective of these trends. Additionally. Triathlon Canada's revised policies will continue to evolve and align with these performance trends to ensure we capture the appropriate podium tracking of athletes.

3.1.2 Quality of women's field is increasing but still not deep

Utilizing the percent of winner time data, we have been able to confirm that the women's field is significantly less deep. The overall data indicates that the performance required to achieve benchmark placings is not indicative of podium performance tracking until an athlete is achieving consistent Top 3 performances. This could be a reason for our historical error in tracking female athlete trajectories.

Table 6. Gender Based Percent of Winner Times 14 Year Average (Brodie, 2020)

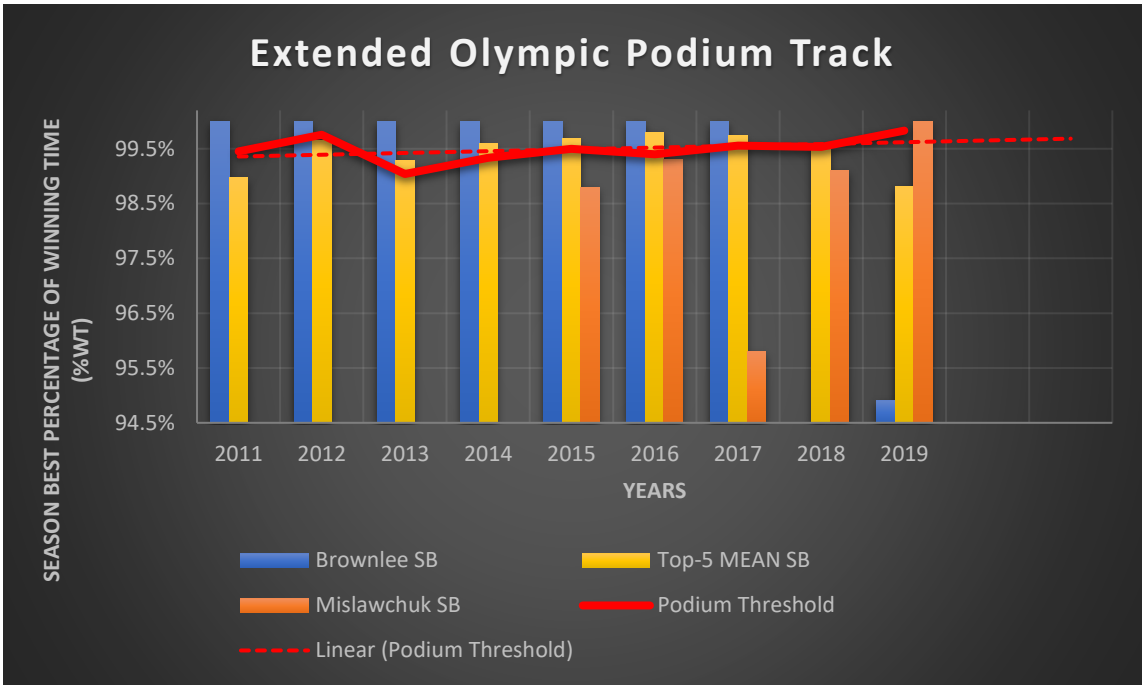
Average Percent of Winner Time						
	ELITE MEN			ELITE WOMEN		
LEVEL	**3**	**8**	**15**	**3**	**8**	**15**
CONTINENTAL CUP	99.1%	97.0%	94.8%	98.1%	94.9%	92.3%
WORLD CUP	99.6%	98.9%	98.1%	99.3%	98.1%	96.7%
WORLD TRIATHLON SERIES	99.5%	98.8%	98.1%	99.4%	98.4%	97.5%

3.1.3 Podium Trends

Due to the multifaceted nature of triathlon, it has taken a few years to identify valid podium trends. World Ranking, percent of WT, quality of field, single sport performance, ITU point scoring are all contributing factors. Using those factors, we can now begin to track podium potential more accurately. What we are seeing is,

- There is a minimum percent of WT needed to be on the podium
- Consistency does not equate to podium success (but there needs to be a minimum performance level)
- Progression of world ranking is indicative of podium tracking
- WTS ranking (high performing WTS) does not necessarily equate to podium

Figure 2. Percent of WT of Olympic Top 5



*Note: Table from Christin, Marc Antoine (2020), Podium Tracker: Masters Project, *University of British Columbia,* In progress.

Figure 3. Progression of ITU Points Scoring (Christin, 2020)

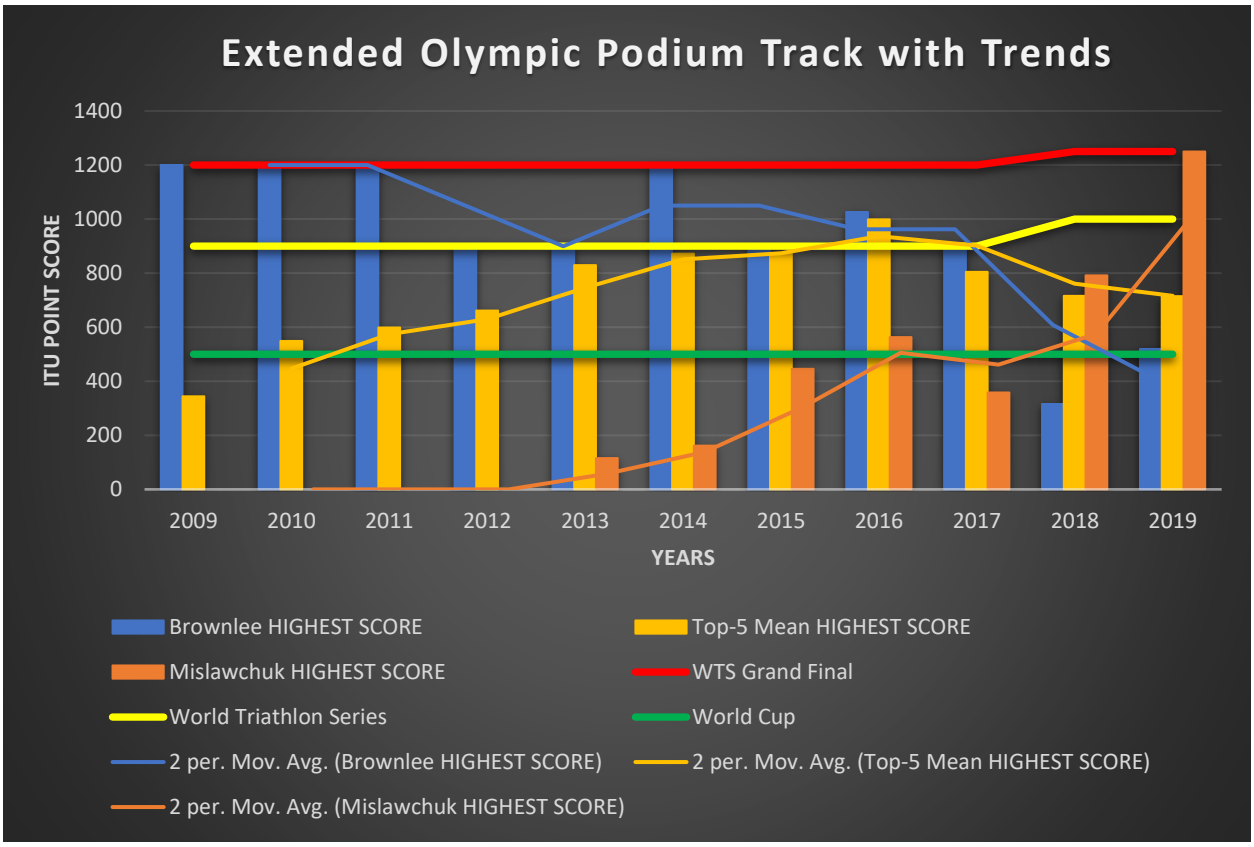
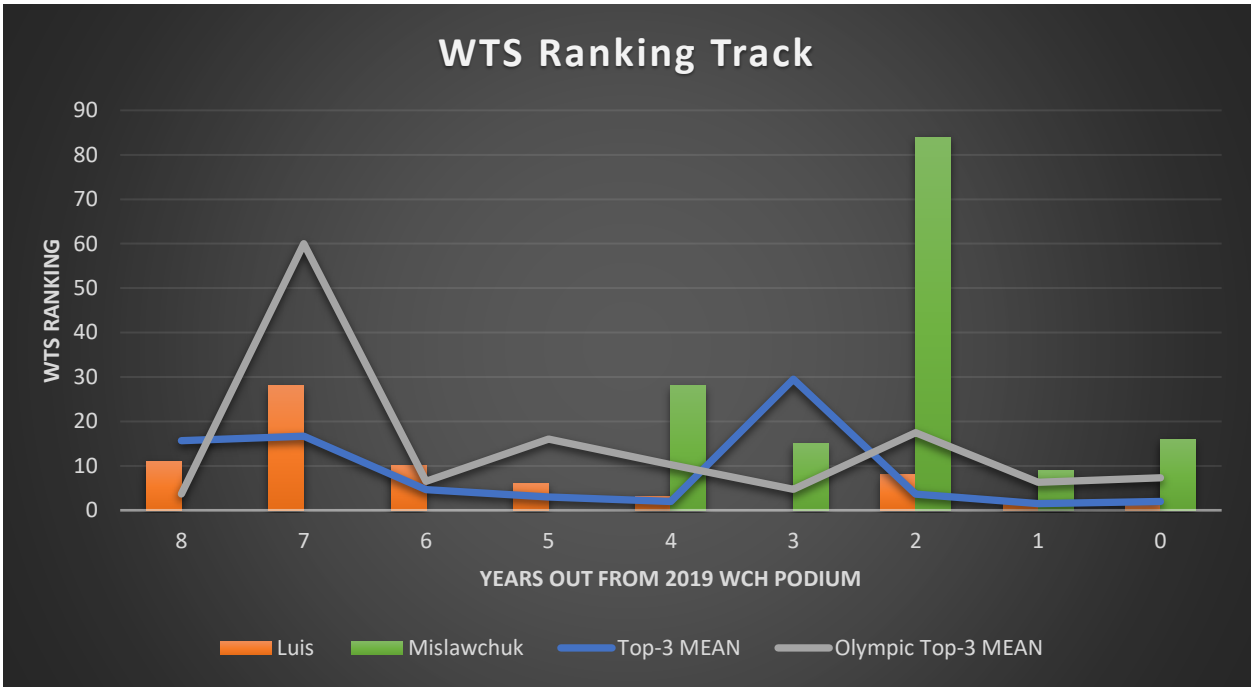


Figure 4. WTS Ranking Tracking (Christin, 2020)



3.1.4 Impact of Individual Leg Performance

The sport of triathlon is constantly changing, and trends are somewhat dependent on the top athletes. However, through data analysis we have been able to isolate performance trends of each individual leg for each level of event. More importantly, this data shows us the impact of the swim in relation to other legs. This does not determine if one leg is more important than the other, but it does emphasize the importance of good swimming (within a percentage of WT) in relation to the other two legs. An athlete needs to be competitive in the swim to maximize the run. But if you are a poor runner, swimming well will not lead to success.

Regression analysis has determined that every 1% loss in the swim leg (vs winner's swim leg) results in a decrease of 0.2% in the overall race time.

Table 7. Historical Percent of Winning Time – Individual Leg (Brodie, 2020)

Average performance												
	ELITE MEN											
	Top 3				**Top 8**				**Top 15**			
LEVEL	**OA %**	**Swim %**	**Bike %**	**Run %**	**OA %**	**Swim %**	**Bike %**	**Run %**	**OA %**	**Swim %**	**Bike %**	**Run %**
CONTINENTAL CUP	99.10%	99.40 %	99.60%	99.10 %	97.00 %	97.90 %	98.50 %	95.40 %	94.80 %	96.50 %	97.30 %	91.50 %
WORLD CUP	99.60%	99.70 %	100.00 %	98.90 %	98.90 %	99.00 %	99.80 %	97.30 %	98.10 %	98.70 %	99.50 %	94.40 %
WORLD TRIATHLON SERIES	99.50%	99.30 %	99.80%	98.90 %	98.80 %	99.30 %	99.60 %	97.00 %	98.10 %	98.40 %	99.50 %	95.30 %
	ELITE WOMEN											
CONTINENTAL CUP	98.10%	98.70 %	98.80%	99.30 %	94.90 %	96.70 %	96.70 %	91.40 %	92.30 %	94.90 %	95.40 %	87.40 %
WORLD CUP	99.30%	99.60 %	99.80%	98.20 %	98.10 %	99.30 %	99.20 %	95.50 %	96.70 %	98.20 %	98.50 %	92.50 %
WORLD TRIATHLON SERIES	99.40%	99.70 %	99.80%	98.40 %	98.40 %	99.40 %	99.50 %	96.00 %	97.50 %	98.60 %	99.00 %	94.20 %

Implications of this data suggests that athletes must work to be in the front pack of swimming AND be excellent runners to be podium potential at all levels of racing. Race strategy does need to reflect this.

3.1.5 Mixed Relay

With the limited number of top level mixed relay events, we continue to gather and analyze data. What the data has indicated though is a significant performance difference between the Top 3 teams and the rest. To finish in the Top 3 requires all legs to be competitive with critical KPI's being,

- Leg 1 swim and bike to keep in the race and increase economy in the bike
- Increasing percent of winner in the run and decreasing percent of winner in the swim and bike (this is due to economy of being in the pack)
- Importance of Leg 3

Table 8. Overall Mixed Relay Percent Back of Winner (Brodie, 2020)

TEAM OA RANK	SWIM%OA_leg	BIKE%OA_leg	RUN%OA_leg
3	96.1%	97.2%	96.9%
5	95.4%	96.8%	93.4%

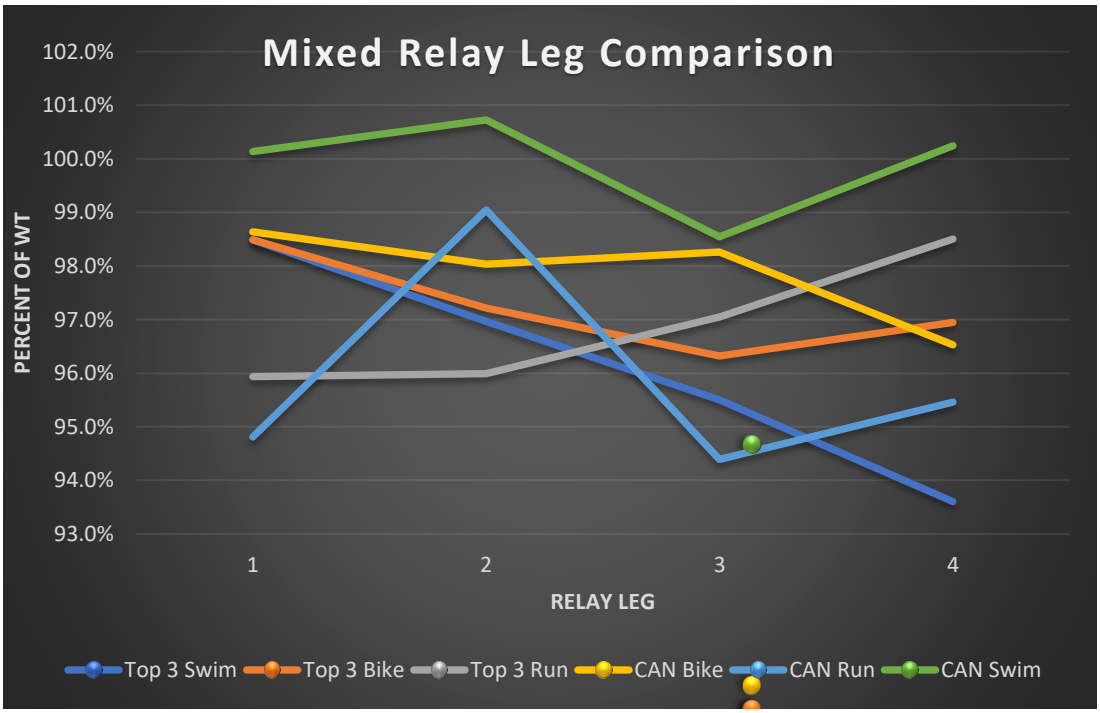
Table 9. Mixed Relay Percent Back of Winner By Leg (Brodie, 2020)

TEAM OA RANK	LEG	SWIM%OA_leg	BIKE%OA_leg	RUN%OA_leg
3	1	98.5%	98.5%	95.9%
	2	97.0%	97.2%	96.0%
	3	95.5%	96.3%	97.0%
	4	93.6%	96.9%	98.5%
5	1	96.8%	97.2%	92.5%
	2	96.2%	97.1%	93.7%
	3	93.4%	97.3%	95.2%
	4	95.1%	95.5%	92.3%

Analysis of CAN performances against the Top 3 indicates,

- Top level swim and bike in all legs for CAN
- Leg 1 and 3 show significant gaps in run
- Race evaluation suggests that Leg 2 and 4 must make up considerable gaps to be competitive

Figure 5. Mixed Relay Leg Comparison (CAN and Top 3)



It is clear that we need to target specific athletes that can execute at the Leg 1 and Leg 3 positions.

We continue to analyze the importance of single sport performance in relation to Mixed Relay performance. Benchmarking continues to indicate that the following single sport performances are indicative of good relay performance.

- 1500m run
- 3000m run
- 200m swim
- 400m swim

Targeting athletes with single sport benchmarks will mitigate the areas of concern.

Further data analysis and race observations will provide benchmark times for those events. However, the current data does point to the following winning style of play:

- Strong Leg 1 with focus on swim bike to ensure time gaps are mitigated and bike economy increases
- Leg 2 athlete that can maintain the gap differential throughout their leg
- Leg 3 athlete that is run focused
- Leg 4 athlete that maximizes economy and has strong run finish

4. Paris 2024 HP Plan

With the postponement of the Tokyo 2020 Games to 2021, the review of the Tokyo Games and updates to Paris 2024 plan will occur thirteen months later. However, Triathlon Canada's HP strategies have always been targeting Paris 2024 as the podium goal. Key strategies to address critical gaps are highlighted below.

4.1 Critical Success Factors for Paris 2024

Upon conclusion of the Tokyo 2020 Games, there will be 35 months to prepare for Paris 2024. Evaluation of our current athlete pool, potential performance impact factors leading up to Paris 2024 and Paris 2024 Games environment, we have identified the following factors to maximize podium success.

- Consistently healthy athletes throughout 2021-2204
- Effective adaptation to environmental and cultural factors
- Efficient management of COVID related factors
- Effective planning, testing and execution of Games plan (Test Event, staging, heat protocols)
- Proactive targeted coach support

Strategic initiatives to address these factors are identified below.

Athlete Health

- Continued athlete monitoring requirements and revisions to athlete agreements
- Implementation of competition strategy focused on specific peaks as opposed general consistency
- Coach education through various mediums to communicate demands of competition, volume adjustments and athlete injury rates
- Strategic engagement of mental health resources for coaches and athlete
- Implementation of Triathlon Canada Return from Injury/Illness protocols

Environmental and Cultural Adaptation

- Continue strategic heat immersion protocols in targeted regions for extended periods of time
- Cultural immersion (Quebec and France) plans for targeted athletes

COVID Management

- Continued revision and communication of domestic/international COVID policies and protocols
- Implementation of COVID specific travel/competition/ERP plans (Appendix B and C)
- Competition strategies for epidemic and pandemic (domestic racing, regional racing)

Games Plan

- Evaluation of staging possibilities beginning fall 2021 (France, Portugal, QC)
- Strategic heat blocks planned for 2022, 2023 and 2024
- Continued evaluation of domestique strategy
- Revision and evolution of Mixed Relay Strategy

Targeted Coach Support

- Coach and athlete education regarding Safesport, HP culture
- Engagement of field experts in mental performance, sport policy and Safesport
- Increase number of HP aligned coaches per year
- Assistant coach support for NPC Head Coach

Key Deliverables of 4.1

1) Podium performance at Paris 2024 in Individual Mens Event
2) Top 3 performance at Paris 2024 in Mixed Relay Event
3) Top 8 performance at Paris 2024 in Individual Womens Event

4.2 System Gap Analysis

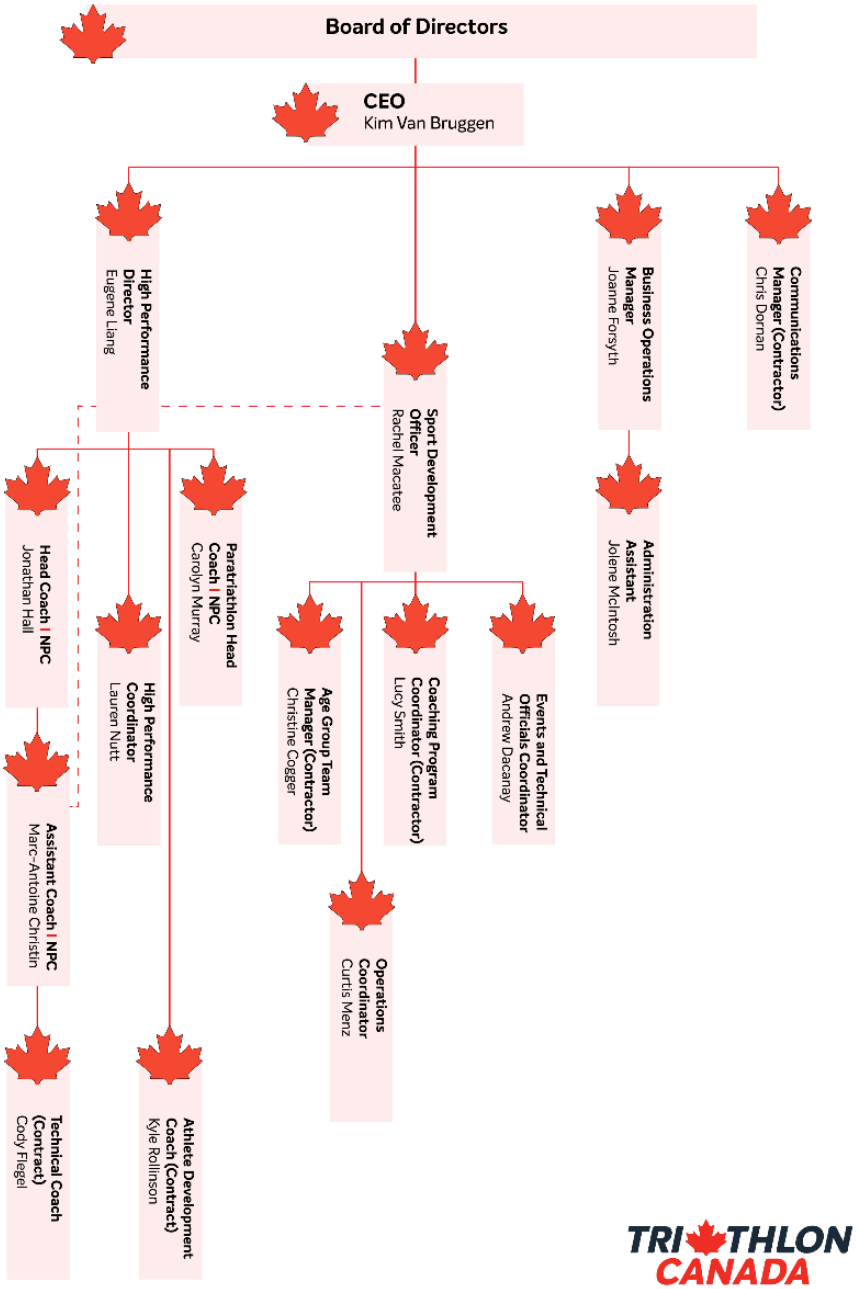
Triathlon Canada continues to close the following key system gaps.

- Inexperienced HP coaches
- Lack of alignment in athlete development
- Lack of meaningful and appropriate competition

4.2.1 High Performance Coaching and Technical Leadership

Triathlon Canada stabilized and re-invested in key HP personnel. The reinvestment continues to reinforce our strategy to expose the Canadian HP community to high level coaching and performance culture. This was supported by our hiring of Coach Marc Antoine Christin and investment through mentorship or contracting of other coaches. Additionally, a HP Manager role was created to ensure our coaches have the logistical support needed to achieve their key deliverables. Lastly, HPD Eugene Liang is now into his fourth year with Triathlon Canada. Of note, that is the longest running HPD in Triathlon Canada history. This stability in HP staff is critical to mitigating the system gaps. The current organizational structure is represented in Figure 5.

Figure 6. Triathlon Organizational Chart



Though Triathlon Canada HP staff is progressing, the nations HP coaches' lack of exposure to the realities of the high performance culture continues to be an identified gap. The strategic initiative continues to be targeted investment in non-staff coaches with the following identified performance indicators,

- Willingness to learn from Triathlon Canada staff coaches and HPD
- Capacity and ability to work within an institutionalized sport system
- Ability to commit to a full-time career pathway in HP coaching
- Is not conflicted with age-group/non-elite coaching

Since implementing the strategy in 2018, we have been successful in,

- Hiring or rehiring, three full time coaches
- Contracting three part time coaches
- Contracting two part time technical coaches
- Investing via mentorships in multiple coaches through camps and events
- Supporting new hires with continued education in the Coach Enhancement Program and the Masters in Coaching at UBC

Triathlon Canada continues to plan and invest in future coaches. Initiatives to be implemented for Paris 2024, in addition to the continuing strategies, are as follows,

- Competition Coach Bursary Program – identifies new/young coaches and provides financial support to fast track through Triathlon Canada's Competition Coach Education Program
- Competition Exposure Program – identify and support coaches to expose them to specific pathway competitions (Continental Championships, 2021/2022 World Championships in Edmonton and Montreal)
- Triathlon Canada HP Club Accreditation Program – nationally endorsed club/coach endorsement program to assist athletes in identifying programs that meet specific criteria

Lastly, targeted professional development for Triathlon Canada staff coaches as well as the overall coaching community will continue to be implemented but be focused in the following ways.

Staff Coaches

- Mental and emotional support to mitigate the continued pressures of being staff coaches
- Post secondary education support (UBC Masters, CEP)
- Cross/Trans sport mentorship (corporate, other NSO's)

Coaching Community

- Targeted PD forums that educate coaches on demands of competition, HP culture, and mental performance
- Inreach programming with NPC, NPC academy and National Team projects
- Outreach programming with NPC coaches

Key Deliverables of 4.2.1

1) Increase Triathlon Canada coach personnel by one full-time staff - 2023
2) Establishment of Triathlon Canada HP Club Accreditation Program - 2021
3) Ensure 'new' Competition Coach certification are increased by 6 coaches - 2023

4.2.2 Athlete Development Alignment and NPC Led Performance Philosophy

With the Canadian federated model, we continue to face alignment issues with athlete development. With the varied provincial funding metrics, coach conflicts-of-interest and legacy of Canadian long-distance triathlon culture, ensuring a targeted and aligned national athlete development strategy continues to be a gap.

Much of the development focus and resources is distributed and measured differently across the country. This continues to result in redundancies and inefficiencies in the podium pathway.

Systemically, multiple stakeholders are addressing novel initiatives to greater align the federated model relative to a few critical pieces; HP being one of them.

Triathlon is committed to the following initiatives to ensure greater alignment and accountability in athlete development.

- Finalizing PTSO/NSO MOU regarding Provincial Programs and their accountability to the National HP Plan
- Publication of HP benchmarks and development pathways specific to primary, secondary and tertiary performance characteristics
- Continued investment in a centralized National Performance Centre and associated Academy
- Active engagement of NPC and Academy with community through inreach and outreach programming

The National Performance Centre continues to produce the majority of World Cup, WTS and Major Games podium performances.

Table 10. World Cup and WTS Podium Athletes

Date	Placing	Name	Event	Training Environment
2016-08-07	2	Sharpe	2016 Montreal ITU Triathlon World Cup	NPC
2017-04-02	2	Brown	2017 New Plymouth ITU Triathlon World Cup	NPC
2017-06-04	3	Brown	2017 Cagliari ITU Triathlon World Cup	NPC
2017-09-24	2	Brown	2017 Huelva ITU Triathlon World Cup	NPC
2018-06-17	3	Mislawchuk	2018 Antwerp ITU Triathlon World Cup	NPC
2019-03-16	1	Mislawchuk	2019 Mooloolaba ITU Triathlon World Cup	NPC
2019-05-12	3	Lepage	2019 Chengdu ITU Triathlon World Cup	NPC
2019-06-09	1	Mislawchuk	2019 Huatulco ITU Triathlon World Cup	NPC
2019-04-27	3	Brown	2019 MS Amlin World Triathlon Bermuda	Between Filiol, Taylor and Daveys
2019-06-29	3	Mislawchuk	2019 Groupe Copley World Triathlon Montreal	NPC
2019-08-13	1	Mislawchuk	2019 Tokyo Test Event	NPC

Table 11. Major Games Podiums

Date	Placing	Name	Event	Training Environment
2018-04-08	3	Brown	2018 Commonwealth Games Gold Coast	NPC
2019-07-29	2	Ridenour, Henry, Lepage, Paquet	2019 Pan Am Games Lima	NPC (Ridenour) NPC (Henry) NPC (Lepage) Gigou (Paquet)

The critical success factors of the NPC are,

- World class coaching
- Facility access
- Aligned program compliance and HP philosophy
- Strategic interventions reflective of the demands of competition
- Supporting athlete pool and environment in the NPC Academy
- World class IST

Triathlon Canada will evolve the NPC's influence and impact through 2024. The Tokyo Quadrennial demonstrated the success of an immersive environmental strategy to mitigate the heat risks. Paris 2024 and LA 2028 will be predicted to have similar environmental concerns. Additionally, Triathlon Canada recognizes the performance impact of cultural immersion. We will strategically immerse the NPC into environments that best acclimatize athletes, coaches and staff to the games. With Paris 2024, Europe and QC look to be the best environments. For LA 2028, Victoria, BC will be the hub again for the NPC.

Key Deliverables of 4.2.2

1) Approved PTSO MOU – 2021
2) Publication of revised Podium Pathway and GMP – 2021
3) Continued investment in NPC and Academy
4) Immersion of NPC into French speaking and heat environments

4.2.3 Meaningful and Appropriate Competition

Triathlon Canada re-established the National Development Series to ensure developing athletes have meaningful domestic competition.

HP athletes and coaches continue to be directed towards appropriate levels of competition. Evolution of Triathlon Canada policies have resulted in increased success at all levels of competition and tangible conversion to podium performances. Data evaluation and communication of specific critical success factors (quality of field, managing ITU world ranking, etc.) continue to be communicated to athletes and coaches.

However, our athletes are still facing low world rankings and continued education of athletes/coaches to maximize ranking (which leads to race opportunity) is still needed. Additionally, compliance to specific performance requirements continues to absorb significant resources.

We will focus on the following initiatives,

- Evolution of National Development Series to have direct connection to National Championships and ITU racing
- Continued revision and evolution of Triathlon Canada polices to reflect a focus on academic success, U23 development and appropriate racing
- Collaboration with North and South American National Federations to establish accessible and meaningful competition calendars
- Targeted competition calendar to maximize success (performance and ranking) in the mixed relay and individual athletes

Key Deliverables of 4.2.3

1) Continued existence and evolution of National Development Series
2) Increased number of PATCO Continental Cups in North America
3) Establish one successful elite international event in Canada that reflects our athlete pool and needs
4) Increase number of athletes ranked in the top 75
5) Increase number of athlete focused Town Halls and HP Forums

4.3 Individual and Team Gap Analysis

The World Triathlon Series (WTS) is the highest level of racing. With the deepest field of competitors, the current Canadian athletes meeting criteria to race the WTS are as follows,

Table 12. WTS Eligible Athletes and Rankings

Male	Olympic Ranking	World Ranking	Female	Olympic Ranking	World Ranking
Tyler Mislawchuk	5	5	Joanna Brown	22	75
Matthew Sharpe	41	52	Amelie Kretz	87	82
Alexis Lepage	86	112			

Utilizing five key performance indicators (KPI), we can track the status and progression of the above athletes. These KPI's are,

1) ITU Olympic/World Ranking
2) Percent back of winner in overall time
3) Percent back of winner in run time
4) Event placings (World Cup and WTS only)
5) Event QOF/DOF

4.3.1 Tyler Mislawchuk

Podium tracking of Tyler's performances continue to show a trending towards world class performances. His ITU points scoring and Percent of WT are similar to Top 3 finishers' progression leading into Rio.

Figure 7. Mislawchuk Rolling Average Percent of WT (Christin 2020)

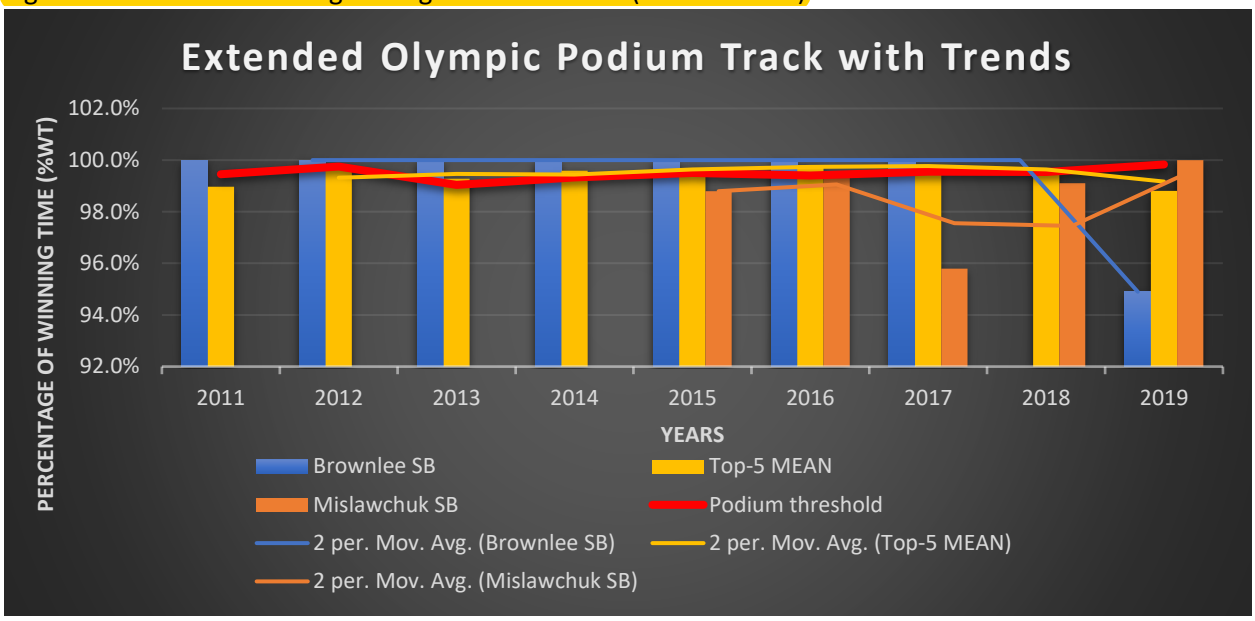
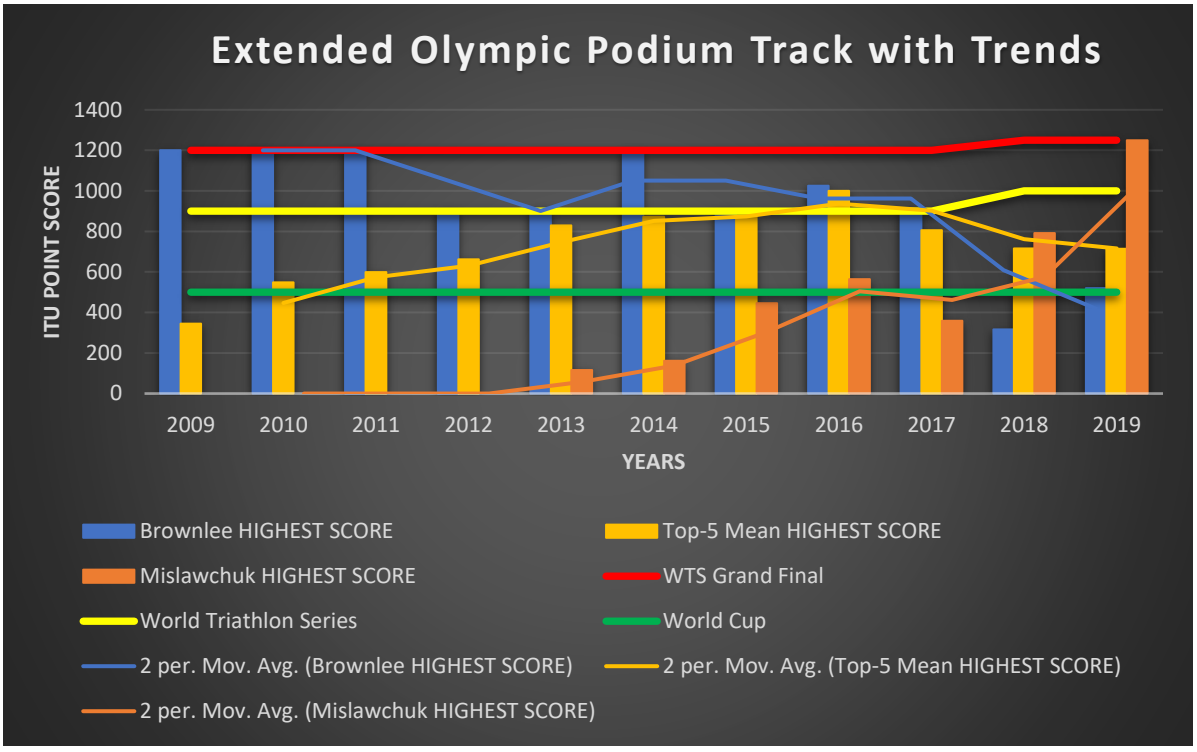
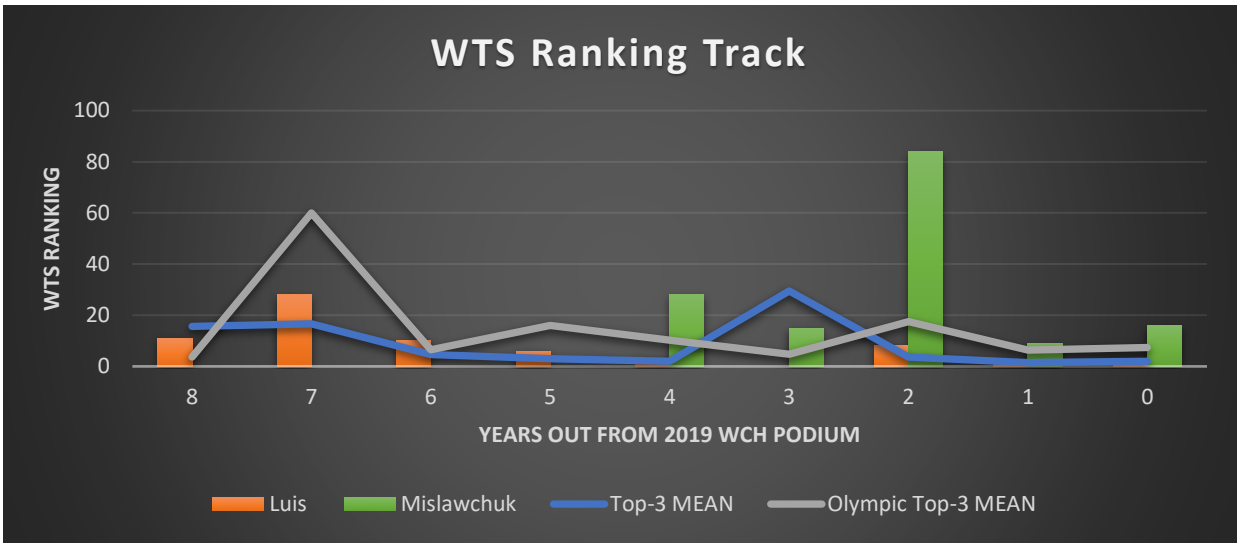


Figure 8. Mislawchuk ITU Highest Points Score Tracking (Christin, 2020)



Though Tyler has continued to be more consistent, we are evaluating the value of overall consistency vs consistent performance on demand. Data suggests the latter and we will have more data after the Tokyo Games.

Figure 9. Mislawchuk WTS Points Ranking Trends (Christin 2020)d



His Soft Skills Matrix assessment (Appendix D) has continued to improve and now is scoring at 37. He continues to grow as an athlete both physically and mentally. 2020 was a difficult year to assess but his limited performances at the European Duathlon Championships and his single sport time trials indicate he is within the highest percentile of the top athletes.

- 3000m run – 8:11 (09/20)
- Wt/Kg 20 TT Bike – 5.73 (09/20)
- 1500m run – 3:49 (02/20)
- 5km road race – 14:17 (04/19)

We have identified critical threats to Tyler's continued progression. They are,

- Lack of high level training partners
- Financial security needed to support demands of international competition
- Lack of competitive peers in Canada
- Cold weather racing

With the strategic plan to test and evaluate Tyler's progression over the past 4 years we have been able to identify that Tyler is extremely competitive in hot and humid environments. We will continue to monitor and target specific races reflective of the predicted elements in Paris and LA.

Key Deliverables Tyler Mislawchuk

- Podium performance Commonwealth Games 2022
- Podium performance Montreal World Championship 2022
- Podium performance Test Event Paris
- Podium performance Paris 2024

4.3.2 Triathlon Canada Mixed Relay

The mixed relay continues to be a Next Gen opportunity for Triathlon Canada as we continue to evaluate the performance trends of the event as well as identifying key athletes that will contribute to our podium success. The Mixed Relay is currently a reflection of a country's top ranked and performing athletes. Countries that have been able to alternate their mixed relay rosters at top level events and are currently ranked in the Top 8, continue to do so with athletes that are ranked and performing within 99% of the winners time in individual events (World Cup and WTS). This is especially so for the women's legs (1 and 3).

Our elite team has continued to struggle against the top level competition especially in legs 1 and 3. However, there is indication that our Next Gen rosters are competing at the appropriate level and are progressing accordingly. This was indicated in the silver medal at 2019 Pan Am Games Lima and consistent performances at the U23/Junior Mixed Relay Championships.

In order for us to continue progressing in the mixed relay, identifying and developing athletes for leg 1 and 3 are critical. A focus on development relay opportunities will increase our roster development.

Additionally, team logistics and team chemistry continue to be identified gaps. Communication and validation of such is challenging with the systemic gaps we face. However, targeted Next Gen relay camps and stronger targeted support for centralized relay initiatives will increase exposure of athletes/coaches to National Program goals and operations.

4.4 Podium Pathway

Triathlon Canada's Primary Podium Pathway has been revised to align and reflect the KPI's of Event Placing as well as QOF/DOF. The Primary Podium Pathway is supportive and reflective of a centralized National Performance Centre at the highest end.

Additionally, the Podium Pathways reflects critical coaching strategies through the pathway and incorporates Triathlon Canada's Soft Skills Matrix Assessment (Appendix D). The podium pathway is as follows.

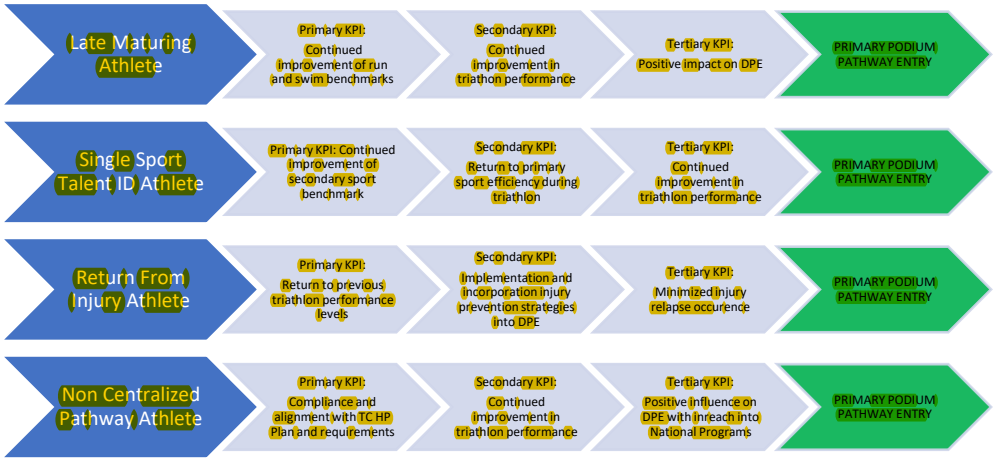
Table 13. Triathlon Canada Primary Podium Pathway

	APPROX LTAD STAGE	BENCHMARK	COACHING TOOLS	Daily Performance Environment
1	Competing to Win	Olympic Podium WTS GF Podium WTS Podium Olympic Top 5 Major Games Podium	* Race pace * Tactical focus; performance on demand * World Champ and Olympic focus * Full IST Support * Health and Wellness * Mental Performance focus on execution * Implementation of SSSM strategies * Curriculum score >35	National Performance Centre, Triathlon Canada Approved International HP DPE
2	Training to Compete	WTS Top 5 World Cup Win WTS GF top 12 World Cup Podium U23 World Podium WTS Top 12	* Maximizing physical capacity * Swim, bike, run, T1/2 tactics * International competition focus * World class training load * Health and wellness * Strategic IST usage (physiology, MP, injury prevention, S&C) * Exploration of SSSM strategies * Curriculum score > 30	National Performance Centre, Approved International HP DPE
3 4	Learning to Compete	U23 World Top 8 WTS Top 20 World Cup Top 12 Continental Cup WIN World Cup Top 20 U23 World Top 12 Continental Cup PODIUM Junior World Top 12	* Establish anaerobic threshold * Swim, bike, run, T1/2 technique and tactics * Strategic international exposure * Gradual increase in appropriate volume and intensity * Aerodynamics and bike fit * Appropriate training load * Health and wellness * Mental Health focus on support and coping strategies * Prioritized IST usage (injury prevention, MP, nutrition, S&C) * Curriculum score >25	National Performance Centre Academy, NCAA, HP Club DPE

5 6 7	Training to Train	Junior Continental Champ Podium U23 World top 20 Junior World top 20 Junior Continental Champ Top 5 National Championships WIN Continental Cup Top 5 National Championships Top 5 National Dev Series PODIUM National Championships Top 12 National Dev Series Top 5/CSG Podium	* Aerobic base building * Swim, bike, run, T1/2 technique * Training aids and equipment utilization * Gradual increase in appropriate volume and intensity * Health and wellness * IST introduction (injury prevention, MP, nutrition, S&C) * Load management (YTP, monitoring) * Domestic competition focus * Compliance and codes of conduct * Curriculum score >20	National Performance Centre Academy, Provincial Programs, HP Club DPE,Triathlon, Swim, Bike and Run Clubs
8	Learning to Train	International draft legal experience National draft legal experience Provincial draft legal experience Regional draft legal experience Non-drafting experience	* Swim, bike, run and T1/2 introduction and technique * Comfortable bike fit * Equipment familiarization * Variability of training impulse * Athleticism * Mult sport participation * Sport specific introduction * A4L, R2P, Respect in Sport	Triathlon, Swim, Bike and Run Clubs

Triathlon Canada recognizes that the sport of triathlon has multiple entry points to the sport as well as multiple development pathways. Though the Primary Podium Pathway reflects an accurate progression of race performance outcome, an Adjunct Podium Pathway captures additional KPI's that reflect the additional entry points into the Primary Podium Pathway.

Figure 10. Adjunct Podium Pathways



4.5 Gold Medal Profile

Triathlon Canada has been updating its Gold Medal Profile (GMP) over the past three years. With the data analyzed we have determined that there are four GMP's that are critical to triathlon in Canada. They are,

- Men
- Women
- Mixed Relay
- Coach

Each GMP is summarized below and we will be publishing a revised graphic GMP for the HP community.

Table 14. Men's GMP

Primary KPI's: Triathlon Performance	Assessment Tool	Secondary KPI's: Individual Sport Performance	Assessment Tool	Tertiary KPI's: Daily Training Environment	Assessment Tool	Quaternary KPI's: Tenets of Excellence	Assessment Tool
ITU World Ranking better than 15	ITU World Ranking	Swim leg >99.3% of winner	Percent of WT Tool	Fulltime HP coach delivering face-to-face coaching	National certification and endorsement	Competitiveness	Annual Gap Analysis and Soft Skills Matrix
Percent of WT <99.5%	Percent of WT Tool	Bike leg >99.8% of winner	Percent of WT Tool	Quality training partners	Coach driven	Intrinsic motivation	
		Run leg >98.9%	Percent of WT Tool	Accountability framework	National certification and endorsement	Physical and mental resilience	
		10km run time <30:00	Ratified times or races	Prioritized IST	Coach driven	Imagination	
		5000 run time <13:50	Ratified times or races	World class facility or training location access	National certification and endorsement	Attention to detail	
		3000m run time <8:15	Ratified times or races	Planned recovery	IST driven	Accountability	
						Ability to take critical feedback	
						Vision	
						Communication	
						Understands demands of competition	
						Academics	
						Self aware	

Table 15. Women's GMP

Primary KPI's: Triathlon Performance	Assessment Tool	Secondary KPI's: Individual Sport Performance	Assessment Tool	Tertiary KPI's: Daily Training Environment	Assessment Tool	Quaternary KPI's: Tenets of Excellence	Assessment Tool
ITU World Ranking better than 15	ITU World Ranking	Swim leg >99.7% of winner	Percent of WT Tool	Fulltime HP coach delivering face-to-face coaching	National certification and endorsement	Competitiveness	Annual Gap Analysis and Soft Skills Matrix
Percent of WT <99.4%	Percent of WT Tool	Bike leg >99.8% of winner	Percent of WT Tool	Quality training partners	Coach driven	Intrinsic motivation	
		Run leg >98.4%	Percent of WT Tool	Accountability framework	National certification and endorsement	Physical and mental resilience	
		10km run time <34:00	Ratified times or races	Prioritized IST	Coach driven	Imagination	
		5000m run time <16:15	Ratified times or races	World class facility or training location access	National certification and endorsement	Attention to detail	
		3000m run time <9:30	Ratified times or races	Planned recovery	IST driven	Accountability	
						Ability to take critical feedback	
						Vision	
						Communication	
						Understands demands of competition	
						Academics	
						Self aware	

Table 16. Coach GMP

Primary KPI's: Sport Performance	Assessment Tool	Secondary KPI's: Daily Training Environment	Assessment Tool	Tertiary KPI's: Strategy, Relevance and Knowledge	Assessment Tool	Quaternary KPI's: Tenets of Excellence	Assessment Tool
Athletes consistently ranked within podium trend	ITU World Ranking	Accountability framework (expectations, requirements, compliances)	Coach driven and NSO endorsed	Strategic mindset	Coach driven and NSO endorsed	Competitiveness	Annual Gap Analysis and 360 reviews
Podium performances at all levels of competition	Triathlon performance	Uncompromising performance philosophy	Coach driven and NSO aligned	Understands global context of the sport	Coach driven	Intrinsic motivation	
Serial podium success		Adaptable performance methodology	Coach driven	Knows and communicates demands of competition	NSO certification and endorsement	Physical and mental resilience	
		World class training facilities or locations access	Coach driven and NSO endorsed	Understands the rules, regulations and trends of the sport		Work fitness	
		Aligned and prioritized support staff (IST, coaching)	Coach driven	Guides athletes to best possible success	Coach driven	Attention to detail	
		Clear athlete/coach boundaries	Coach driven and NSO endorsed	'No' is an important tool		Empathy (as opposed to sympathy)	
		Full-time coaching in face-to-face environment	Coach driven	Evolves with the sport		Emotional intelligence	
		Culture of excellence		Performance decisions are prioritized	NSO certification and endorsement	Vision	
		Constant and clear communication		Constant risk mitigation	Coach driven	Communication	
		Low athlete injury rates	NSO monitoring tools and athlete agreements			Allocentric	
						Conflict tolerant	

5. Sport Science, Medicine, and Innovation Plan

5.1 IST Structure and Plan

Triathlon Canada's IST will continue to be managed and led by the High Performance Director. This is due to the specific working relationships the HPD has with the sport science and medicine community as well as the size of the targeted training groups. The NPC is currently based in Victoria, BC with key medical and science staff engaged through CSI Pacific. CSIP staff involved with the NPC are,

- Wendy Pethick, Physiologist
- Sue Boegman, Nutritionist
- Paddy McCluskey, Physician
- Brian Katz, Strength and Conditioning
- Ryan Brodie, Data Analysis

The NPC also engages private IST members to ensure support for athletes immersing in international training/competition environments. These IST members are,

- Jason Hettler, Strength and Conditioning
- Danelle Kabush, Mental Performance
- Beata Kumlo, Soft Tissue Therapist
- Dave Coleman, Mechanic
- Cycle Logic, Bike Fit Specialist

We will continue to prioritize IST services based on their immediate impact to performance and the cycle of preparation. Additionally, we have identified the important performance impact of mental performance and physician consult at competition. This is not just due to the performance factor but also the now necessary consult regarding any COVID related issues. Triathlon Canada's IST priority plans are as follows.

Table 17. IST Staffing Plans for Targeted Competition and Major Games (Commonwealth Games and Paris 2024)

Prioritized Staff	Support	Accessibility
Dave Coleman	Mechanic	At event
Beata Kumlo	Soft Tissue Therapist	At event
TBC	Mental Performance	Virtual
Paddy McCluskey	Physician	Virtual

Table 18. IST Staffing Plans for Daily Training Environment

Support Priority	Accessibility
Soft Tissue Therapist	2 x week
Strength and Conditioning	3 x week
Mental Performance	Virtual Athlete Consult
Physician	Virtual Athlete Consult and NSO Consult
Data Analysis	Virtual HPD/Coach Consult
Dietician	Virtual Athlete Consult
Physiologist	Virtual Coach Consult
Bike Fit	2 x year
Physiotherapist	As needed

5.2 IST Gaps and Challenges

Continuity of care and international accessibility is the most significant gap with our current IST model. This is due to the amount of travel required with the competition calendar and our strategic immersion of the NPC in key international arenas. This is most evident with Soft Tissue Therapy. We are currently building an international therapist support network to ensure we can have access in multiple world regions. However, another challenge then is created with international access; the ability to have proper athlete monitoring and reporting. We are currently working with Smartabase to find solutions.

An additional gap or challenge is the inconsistency of equipment selection and best practice. Triathlon Canada has addressed some of these gaps through the Team Logistics and Compliance Policy to ensure athletes attending Triathlon Canada targeted events and strategies comply with specific equipment selection. Additionally, we will continue to provide post event equipment reports through Dave Coleman to athletes and coaches.

Bike fit, though personal, does have validated benchmarks. We will continue to work with Cycle Logic to and disseminate the critical information from their industry best practice to targeted athletes/coaches.

Lastly, key performance equipment parts will be standardized for major games and world championships. These parts are,

- Ceramic bearings
- Tire selection
- Aero bars for Mixed Relay

Key Deliverables for 5.2

- Establish international therapist support network
- Acquisition and distribution of ceramic bearings (Kogel or Ceramicspeed)
- Increase professional development opportunities for coaches and athletes

5.3 Smartabase and Data Analysis

In 2019 Triathlon Canada and CSI Pacific partnered to create efficiencies in the data management through a parent/child site model for Smartabase. The result has been significant decreases in cost for

Triathlon Canada and greater integration between both parties. Additionally, the expertise of Ryan Brodie and his team at CSI Pacific has reduced the need for a specific data management staff member at Triathlon Canada.

Ryan and his team have been critical in developing Triathlon Canada's quality and depth of field evaluations that resulted in key policies. The next steps in this partnership is to utilize Smartabase to evolve and validate the GMP.

Current data tracking and analysis is focused on

- Percent of winning times and fastest leg times
- Mixed relay performance analysis
- World ranking, quality and depth of field
- Predictive performance

5.4 Research and Innovation Plan

Due to triathlon being a combination of three established sports and thus their collective research/innovation, we have been looking closely at the adaptability of their performance enhancing evidence into triathlon. Assessing the uniqueness of triathlon, we will be continuing to investigate the following key areas for innovation and research.

Bike

- Aerodynamics (fit and equipment)
- Wheel and tire profiles
- Pedal choices for mixed relay
- Cadence and crank arm length
- Ceramic bearings and coatings
- Team TT

Swim

- Stroke rate and distance per stroke
- Dive starts
- Race suit design

Run

- Shoe design
- Heat adaptation and cooling strategies

6. Next Gen

As noted in our Tokyo 2020 plan, the athlete pool in Canada is trending towards Paris 2024 and LA 2028. Opportunities have presented themselves in the mixed relay and Tyler Mislawchuk. However, the focus of Triathlon Canada is to ensure a robust athlete pool for the next two quadrennials. Identifying young athletes for 2024 or 2028 is a risky proposition. Although, there are some indicators of long term performance that we can utilize to make an educated decision.

- Age – Triathlon is a late maturing sport
- Single sport performance – evidence suggests that high performers in single sport (specifically run and swim) can evolve to be competitive triathletes
- Triathlon performance – this is aligned with Triathlon Canada's Primary Podium Pathway
- Appropriate training environment – DPE's that reflect the required monitoring and stimulus for development

Table 19. Next Gen Male Pool

Male				
Name	**YOB**	**Current World Ranking**	**Potential Event Focus**	**Notable Performance**
Sobey	1996	202	Individual	1st Richmond CAMTRI, 20 Antwerp WC
Hoel	2001	170	Individual/Relay	1st Continental Championships Junior, 7th Mixed Relay World Championships, 7th Junior World Championships
Longcroft Harris	1998	123	Relay	3rd Ixtapa CAMTRI, 7th Mixed Relay World Championships
Antoniades	200	373	Individual/Relay	8th Junior World Championships
Mainville	2000	314	Individual	5th Continental Championships Junior
Briand	1995	121	Individual	13th Weihai WC, 1st Kelowna CAMTRI
Paquet	1997	91	Individual, Relay	2nd Pan Am Games Mixed Relay, 5th Pan Am Games
Lepage	1994	112	Individual, Relay	3rd Chengdu WC, 2nd Pan Am Games Mixed Relay

Table 20. Next Gen Female Pool

Female				
Name	YOB	Current World Ranking	Potential Event Focus	Notable Performance
Ridenour	1999	386	Relay	2nd Pan Am Games Mixed Relay
Coursol	2001	214	Relay	7th Montreal CAMTRI
Britton	2003	359	Individual/Relay	15th Kelowna CAMTRI
Henry	1999	206	Relay	2nd Pan Am Games Mixed Relay
Roy	1998	222	Individual, Relay	6th Kelowna CAMTRI
Legault	1996	136	Individual, Relay	3rd Rayong ASCT, 16th Tonyeong WC
Reimer	2001	319	Individual, Relay	5th Montreal CAMTRI
Gupta Baltazar	2002	317	Relay	7th Bridgetown CAMTRI
Warly	1993	137	Individual/Relay	3rd Montreal CAMTRI
Lalancette	2000	374	Individual/Relay	10th Richmond CAMTRI

Critical success for the Next Gen athlete group and other development athletes will be reliant on five key factors,

- Coaching Development
- Talent Capture
- NPC Academy
- Domestic Racing
- NCAA

6.1 Coaching Development

The current Next Gen coach list (exclusive of provincial coaches) are,

- Luke Way
- Kyla Rollinson
- Lisa Mensink
- Marc Antoine Christin

Triathlon Canada's coaching education program is in its final approval with Coaches Association of Canada (CAC). A revised mentor program will identify the Provincial Coaches as key Competition Coach mentors to increase the capacity of the system to upskill coaches to the demands of elite competition. Additionally, we have identified the Pan Am Games and Continental Championships as key events for Next Gen coaches to experience elite competition.

Additionally, the ITU has split the world championships into sprint and standard. The Sprint World Championships will be focused on juniors and development. This will be a critical opportunity for coach development.

Key Deliverables for 6.1

- Nomination of Next Gen coach to Pan Am Games, Continental Championships and Sprint World Championships
- Increase number of Competition Coaches
- Increase mentorship opportunities for provincial and Next Gen coaches

6.2 Talent Capture and Development

Triathlon Canada is finalizing a Talent Capture initiative. This will provide coaches and programs with key benchmarks (run and swim) and pathways for single sport athletes. This program will direct potential talent capture athletes into specific daily training environments to upskill them into triathlon. Data analysis has confirmed that benchmark run times, PLUS a competitive swim background are critical to talent transfer into the sport of triathlon; with benchmark run times being the most important KPI.

Upon identifying possible athletes, strategic camps involving Next Gen athletes and talent capture athletes will be important to development. With the World Championships in Edmonton 2021 and Sprint World Championships in Montreal in 2022, they are opportunities for Next Gen camps to centralize accordingly. We will target those timeframes for specific camps.

Triathlon Canada has also engaged Coach Kyla Rollinson to validate specific benchmarking through the QC private school system. This data will be critical to the development and implementation of the talent capture project.

Key Deliverables for 6.2

- Validation of benchmarking for run and swim - 2021
- Implementation of Triathlon Canada Talent Capture Program – 2022
- Next Gen Camp – 2022/2021

6.3 NPC Academy

The NPC Academy is now into its 2nd year in Victoria, BC. The program is sustainable and fully aligned with Triathlon Canada's HP model. The program has helped develop a full-time HP Coach (Coach Marc Antoine Christin), and supported the performance and academic success of many development athletes. Athletes have gone on to NCAA scholarship programs and progressed through the podium pathway. The NPC Academy continues to be a target for athletes looking to develop through the U23 window. As a base for the NPC, the Academy has also been a program to support injured or transitioning athletes. It is directly integrated with CSI Pacific and other local IST.

Triathlon Canada sees the Academy as a model of success but needs to have more influence on development programs/models across the country. We are currently working with Triathlon BC to create a more integrated model with its provincial program that could lead to future development models in Canada.

An identified gap of the NPC Academy is that it has become the 'everything for everyone' model for those that cannot meet the demands of the NPC. This has created a perceived alternate pathway for HP athletes. We continue to refine the entry and exit protocols for athletes and provide guidance for opportunities outside of these two entities.

Key Deliverables for 6.3

- Implement viable MOU with PSO programs
- Increase number of athletes progressing successfully into and out of the NPC

6.4 Domestic Racing

Triathlon Canada, in partnership with its PSO partners, reinvigorated the National Development Series. This series targets junior and U23 athletes and creates an event calendar independent of the ITU. This allows athletes to race without concern for ITU rankings and allows for an adjunct podium pathway to strategically keep athletes in the sport and develop them through the U23 window.

Working together we have developed innovative race formats that focus on demands of competition, quantity of racing and skills development. We will continue to work with local race organizers to align the National Development Series with Triathlon Canada's ITU Event Selection Policies and Podium Pathway.

Additionally, Triathlon Canada has worked closely with Canada Summer Games to revamp the race formats and eligibility to reflect the development pathway of our athletes. Canada Summer Games will now include older athletes, multi event racing and smaller, more technical race courses.

Lastly, a national event hosting strategy has been proposed to Triathlon Canada leadership that targets ITU events reflective of our athlete pool's needs. This would be ITU World Cup and Continental Cup level races with technical and multi wave racing.

Key Deliverables

- Continued development of National Development Series
- Create series relevance by tying in annual results to ITU racing so athletes have an exit point
- Establish one sustainable World Cup and one Continental Cup

6.5 NCAA

Triathlon Canada faces a development gap at the U23 level. This is due to a multifaceted problem that includes,

- Academic year lies in our coldest months resulting in reduced effective training/competition
- Lack of competitive triathlon programs attached to Canadian universities
- Canadian scholarship system

Many junior athletes do not have high performance program options after their Grade 12 year. Currently the only programs that have full immersive HP training supporting post secondary education are,

- Universite Laval
- NPC Academy

However, there are 32 NCAA triathlon programs that provide competition and training that would otherwise not be available to many of our young athletes. Triathlon Canada is working to build relationships with key schools. Of the 32, four schools have been identified as having specific DPE's that could align with our HP plan. They are,

- Arizona State University
- University of San Francisco
- Texas Christian University
- University of South Dakota

We are currently in discussions to establish MOU's for our top junior athletes seeking athletic scholarships and pursuing elite triathlon racing.

Key Deliverables for 6.5

- Establish MOU with NCAA schools
- Develop NCAA athlete tracking tool

Appendix A
Triathlon Canada Depth of Field and Quality of Field Evaluation Process

The purpose of this document is to outline the process that Triathlon Canada will use to determine the Depth of Field (DOF) and Quality of Field (QOF) of an event, as well as how they can be used to evaluate athlete performance. DOF will be used to evaluate an event as a whole, and an athlete's performance will be evaluated relative to the QOF.

Triathlon Canada is aware that events (especially at the Continental Cup and World Cup levels) vary greatly in terms of competitiveness. The objective of using DOF and QOF is to ensure that athletes, and their coaches, can objectively assess their performances and progression through Triathlon Canada's Podium Pathway. In doing so, they can make the appropriate shifts in their planning to maximize performance.

Additionally, utilizing DOF and QOF, Triathlon Canada can continue to ensure the top athletes are prioritized for selection/nomination through objective comparison of performances.

TRIATHLON CANADA'S AUTHORITY FOR DECISIONS

All matters relating to the selection of athletes for ITU competition are the sole authority of Triathlon Canada.

DEPTH OF FIELD

Depth of field is defined as the overall competitiveness of an event. Triathlon Canada will determine the DOF within the week prior to the event start date. The process is as follows.

- Average ITU World Ranking of the Top 8 Women and Top 10 men on the start list of the event

Note: The ITU World Ranking points range between women is significantly larger than men. Additionally, the total number of women in ITU races is smaller than men. Therefore, Top 10 will be used for men and Top 8 for women.

Example 1.

Event	Program	DOF (Rank AVG)	Points (AVG)	Rank (Count)	Rank (Range)	Top-3 (Rank Avg)
2019 AJ Bell World Triathlon Leeds	Elite Men	5.5	5171.026	10	9	2
2019 AJ Bell World Triathlon Leeds	Elite Women	5.875	4980.40125	8	11	2
2019 Huatulco ITU Triathlon World Cup	Elite Men	38.9	2344.74	10	42	20.3333333
2019 Huatulco ITU Triathlon World Cup	Elite Women	33	2755.4775	8	45	11.6666667

QUALITY OF FIELD

Quality of field is defined as the relative competitiveness of the participants in an event. Whereas DOF uses the absolute ITU World Ranking, QOF takes into consideration the actual ITU World Ranking Points and the difference between the absolute rankings.

Example 2

Event	Program	DOF (Rank AVG)	QOF (Points AVG)	Rank (Count)	Rank (Range)	Top-3 (Rank Avg)
2019 AJ Bell World Triathlon Leeds	Elite Men	5.5	5171.026	10	9	2
2019 AJ Bell World Triathlon Leeds	Elite Women	5.875	4980.40125	8	11	2
2019 Huatulco ITU Triathlon World Cup	Elite Men	38.9	2344.74	10	42	20.3333333
2019 Huatulco ITU Triathlon World Cup	Elite Women	33	2755.4775	8	45	11.6666667

For an event such as the Olympic Games or WTS Grand Final, the DOF and QOF are reflective of the most competitive event. This is due to the understanding that the Top 8/10 athletes will be in attendance. Finish position is at those events are an accurate representation of the highest level of competition. The competitiveness of an event becomes more complex for those that do not have the Top 8/10 athletes in attendance.

For example, two events can have the same DOF but not necessarily the same QOF. This is where QOF will be one tool to evaluate athlete performance relative to the athlete pool in the event.

EVALUATION OF ATHLETE PERFORMANCE

To further improve the accuracy of assessing athlete performance, DOF and QOF will be utilized in conjunction with Triathlon Canada's Gold Medal Profile and race analysis.

DOF will be used to determine the competitive level of an event and if an athlete achieving selection criteria meets the performance standards. It can also be used to compare two performances with the same result but in different events.

Example 3

4th at Huatulco WC vs 4th at Banyoles WC

Event	Program	DOF (Rank AVG)	QOF (Points AVG)	Rank (Count)	Rank (Range)	Top-3 (Rank Avg)
2019 Huatulco ITU Triathlon World Cup	Elite Men	38.9	2344.74	10	42	20.3333333
2019 Banyoles ITU Triathlon World Cup	Elite Men	15.3	3917.7	10	28	3.333333

Banyoles WC would be considered the higher level event and thus the result in Banyoles is prioritized.

QOF will be used in comparing differing athlete results between two or more races.

Example 4

8th at Banyoles WC vs 6th at Huatulco WC

Event	Program	DOF (Rank AVG)	QOF (Points AVG)	Rank (Count)	Rank (Range)	Top-3 (Rank Avg)
2019 Huatulco ITU Triathlon World Cup	Elite Men	38.9	2344.74	10	42	20.3333333
2019 Banyoles ITU Triathlon World Cup	Elite Men	15.3	3917.7	10	28	3.333333

QOF is the average of the Top 10 athletes starting in the event (the final results of the athlete are highlighted)

Rank	Banyoles Top 10 ITU World Ranking Points	Huatulco Top 10 ITU World Ranking Points
1	6333.16	3513.06
2	6231.99	2765.62
3	4584.55	2663.22
4	4134.84	2431.39
5	3790.55	2181.9
6	3099.76	2160.73
7	2878.81	2093.05
8	2886.09	1966.62
9	2557.97	1842.62
10	2494.64	1829.19

Though the athlete achieved a higher placing in Huatulco, using the ITU World Ranking points as an indicator of athlete performance level, an athlete achieving 8th in Banyoles is in fact performing at a higher level. Or one can say that the athlete achieved a performance level of 2886.09 points in Banyoles and 2160.73 points in Huatulco. This evaluation can be done for any place as Triathlon Canada will have the full start list and rankings prior to the race.

Triathlon Canada's event selection policy outlines the priority criteria and achieving a higher priority criterion is still the primary measure of performance.

Appendix B

Triathlon Canada - COVID-19 Air Travel Protocols

Introduction

This document is an adjunct to all other COVID-19 Protocols released by Triathlon. It is to be followed by athletes/staff/contactors working in the field of play that are employed/contracted by Triathlon Canada or its partners. Any and all provincial, municipal government guidelines regarding COVID-19 are considered as the priority unless the protocols specified in this document or partner documents are above and beyond the governments.

It is assumed that all athletes will have signed any and all required waivers and agreements prior to air travel.

It is assumed that all required COVID training sessions will be completed for staff, coaches, contractors, and athletes.

It is assumed that all athletes, staff, coaches and contractors would have already self assessed as per government guidelines prior to arrival at the airport.

Any violation of Government or airline rules/regulations are a violation of Triathlon Canada's Code of Conduct and are subject to disciplinary action

Self Assessment (Mandatory)

- Athletes, coaches, staff and contractors must complete the Triathlon Canada Attestation prior to arrival at the airport
- Upon arrive at destination, adhere to all local government protocols regarding isolation, quarantine, and COVID-19 Protocols
- This document is in **addition** to any airlines protocols

Air Travel Protocols

- All athletes, coaches, staff and contractors must wear a non-medical mask while in the airport and on board the plane. Masks must cover your nose and mouth.
- Masks must be worn at all times except when eating
- Avoid close contact in airports by staying at least 6 feet apart from anyone who is not from within your household
- Wash your hands often with warm water and soap for 20 seconds. When this is not available, use hand sanitizer with at least 60% alcohol
- Avoid touching your eyes, nose, and mouth
- Disinfect the seat, arm rests and meal tray prior to sitting down
- Don't share food, drinks or utensils
- Minimize the amount of personal items you carry onto the plane
- Upon arrival at destination, disinfect luggage carts prior to collecting checked luggage
- Disinfect bike box upon collection from airline

Return to Canada from International Travel

- A 14-day **mandatory** quarantine is required by all athletes, staff, coaches and contractors upon returning to Canada. **This is federally mandated and can results in the following violations should it not be followed** (taken from The Government of Canada Covid-19 Website)

Violating any instructions provided to you when you entered Canada or failing to provide accurate information is an offence under the Quarantine Act and could lead to up to:

- *6 months in prison **and/or***
- *$750,000 in fines*

If you choose to break your mandatory quarantine or isolation, resulting in the death or serious bodily harm to another person, you could face:

- *a fine of up to $1,000,000 **or***
- *imprisonment of up to 3 years **or***
- *both*

The Contraventions Act gives police (including the RCMP, provincial and local police) more power to enforce the Quarantine Act. They can issue tickets to people who don't comply with the act or the emergency orders. Fines range from $275 to $1,000.

- Upon entering Canada, all athletes, coaches, staff and contractors:
    - Must declare is they have a cough, fever or difficulty breathing and will be required to acknowledge that you must:
        - quarantine for 14 days if you don't have symptoms **or**
        - isolate for 14 days if you have symptoms
    - Will be asked if you have a suitable place to isolate or quarantine
    - Required to provide traveller contact information through:
        - the ArriveCAN mobile app **or**
        - an accessible web-based form **or**
        - a paper form

Appendix D

Mislawchuk Soft Skills Evaluation

	✓	✗		✓	✗
Core Skill: Training Hygene and Load Management			**Complementary Skill: Technical Learning**		
Attend every planned training session	✓		Receive technical input in a receptive manner	✓	
Attend every planned training session on time and prepared with the appropriate equipment	✓		Display ability to make technical changes	✓	
Complete every training session as designed and assigned	✓		Display capacity to incorporate technical changes	✓	
Compete with intent and purpose in every training session as designed and assigned	✓		Display progression of technical changes in presence of external cues	✓	
Provide appropriate feedback via Training Peaks after every training session	✓		Display progression of technical changes in absence of external cues	✓	
Total Score			**Total Score:**		
Notes: 2020 has thrown up some obvious challenges. In early march when we were forced to shut down, Tyler was on track to perform better than any previous year without moving away from our plans or taking any risk. Tyler was trending well towards Tokyo. Tyler's performance in The European Duathlon Championships was truly world class as were some of his time trial performances in 2020.			Notes: Tyler responded very well to a changed method of skill delivery/progression as a result of COVID-19 during 2020. Tyler improved technically as well as physically and it would have been easy to use COVID-19 as an excuse not to improve technically, however we did not. Tyler's performance on demand pieces in September demonstrated Technical improvement and a move towards mastery given the physical training stimulus was not high. This is anecdotal but it is difficult to find another rational explanation.		

Core Skill: Health and Wellness			**Complementary SKill: Tactical Learning**		
Manage and maintain Mental Performance protocols through consult with coach and staff	✓		Receive tactical input in a receptive manner	✓	
Manage and maintain proper sleep hygiene	✓		Display ability to make tactical changes	✓	
Manage and maintain proper nutritional needs through consult with coach and staff	✓		Display capacity to incorporate tactical changes	✓	
Maintain assigned prehab and rehab protocols in a consistent and effective manner	✓		Display progression of tactical changes in presence of external cues	✓	
Attend and complete all required IST meetings, appointments and testing	✓		Display progression of tactical changes in absence of external cues	✓	
Total Score:			**Total Score:**		
Notes: Big gains in 2020 irrespective of the situation. I cannot recall a single day lost to injury or illness in 2020. This is the result of teamwork, but Tyler needs to be given credit for his adoption and belief in my methodology and principles as a coach.			Notes: I believe we have taken what opportunities we can from 2020 and one of these was thew added time we had to study other sports other forms or racing and how strategy and strategic decision making played out in Cycling in particular. Off the back of this we are in a great position to rehearse this new appreciation and understanding before we compete at the highest level.		
Core Skill: Professionalism			**Complimentary Skill: Performance Lifestyle (Pick only one)**		
Communicate in an effective and timely fashion through all mediums (email, phone, text etc.)	✓		Prioritizes non-performances decisions **Score = 1**	✓	
Complete all required logistics (daily monitoring, CCES, race entry, agreements etc.)	✓		Inconsistently prioritizes performance decisions with direction **Score = 2**		
Comply with all Triathlon Canada and PSO codes of conduct and agreements	✓		Consistently prioritizes performance decisions with direction **Score = 3**	✓	

Be a positive influence in the DPE and an exemplary representative of the PSO/Club/Triathlon Canada	✓		Inconsistently prioritizes performance decisions without direction **Score = 4**		
Engage coach and staff in an effective, respectful, and timely fashion regarding negative or difficult feedback	✓		Consistently prioritizes performance decisions without direction **Score = 5**	✓	
Total Score:			**Total Score:**		
Notes: Communication always needs improving. Communicates predominantly through Facebook messenger and is nearly always available using this medium. Having adopted a consistent style of communication, there have been few if any gaps in 2020. A good effort by Tyler to help himself in this area.			Notes: This was a strength of Tyler's and whilst hard to improve, the test this year has been to maintain his approaches under the pressure of change and the disappointment of a season of no racing.		
Core Skill: Goal Setting and Planning			**Mastery Skill: Performance On Demand**		
Complete long term goal setting appropriately and realistically	✓		Demonstrates consistent race preparation protocols	✓	
Complete short term goal setting appropriately and realistically	✓		Communicates clear and strategic race plan to coach	✓	
Display appropriate planning and execution towards long term goals	✓		Accepts and executes race strategy from coach	✓	
Display appropriate planning and execution towards short term goals	✓		Consistently demonstrates adaptability in the field of play (field vision)	✓	
Display appropriate planning and execution of foundational skills in absence of external cues	✓		Communicates clear and critical post race analysis	✓	
Total Score:			**Total Score:**		

Notes: Tyler has absolute clarity in this area and is laser focussed on what he wants to achieve short and long term. One of the few athletes who truly prioritizes Olympic pathway performances			Notes: Whilst we only had the single opportunity in competition this year at European Duathlon Champs, Tyler's execution was fantastic and his only flaw was that given he had nothing to lose he raced with full ambition and balls and nearly pulled off what would have been a great victory against a specialist. One need only check out the running pedigree of the French athlete to recognise that Tyler's performance in early March was truly words class, a progression from 2019 and on track for Tokyo should it has occurred.		