



Cycling**CANADA**Cyclisme

Cycling Canada Cyclisme

CYCLING Overall Quadrennial Plan 2013-2016

Date: October 2012

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Introduction

We have written this quadrennial plan to be a **living document** that we will use to guide our decisions and actions over the next four years and into the 2020 quadrennial. As such, we have organized it according to the **four pillars** that Own The Podium have determined to be fundamental to world class performance:

1. Technical Leadership
2. Daily Training Environment
3. Science and Medicine
4. System Development and Talent Identification

Within each section, we have outlined the lessons learned from the 2009-2012 quadrennial, including the London Olympics and Paralympics, and then explained how we intend to address these lessons in the next four to eight years. Lessons learned are presented as summary text, but are based on in-depth one-to-one debriefs with all coaches, riders, and IST staff who were involved with the Olympic and Paralympic Games, as well as on performance comparison data gathered over the past 2-4 years.

We have broken this plan into six chapters, so that the “story” of why we will be making the changes we have planned as clear as possible:

1. Overall: covers High Performance Department structure, multisport strategies, and cross-sport initiatives
2. BMX
3. MTB
4. Para
5. Road
6. Track

Performance goals and medal predictions are given **according to the data** we have on our existing riders. We will be monitoring these goals on an on-going basis, and will revise them (up or down) throughout the quadrennial according to new evidence.

Why do we support Cycling with a National Team?

We at Cycling Canada are **passionate** about the sport of cycling in all of its forms, and want to provide the best possible experience with the sport for riders who want to do it at the highest level. We want them to be **proud** to wear a National Team jersey, to **trust** the staff they work with, to have **access to excellent coaching**, to have the **support services they need**, to have a **positive and healthy daily training environment**, and to be educated about the **consequences of doping** and fierce in their stance against it. We want them to have a **clear pathway** from discovering the sport to becoming part of our team. This is their life and career, and ours as well, and we want to give them the **best opportunity to succeed**.

To do this, we will use the following philosophies to guide our decisions in the upcoming quadrennial:

1. **Performance fairness:** Decisions will be made openly and transparently, according to procedure, with the goal of producing the best performances possible
2. **Respect:** We will earn the respect of our riders and staff, and expect respectful behaviour amongst our team
3. **Team:** We are ONE TEAM, and we will promote a sense of unity and cooperation between our cycling sports
4. **Process:** We will focus on creating excellent processes that increase our chances of reaching our outcome goals
5. **WHY:** We will decide “why” something should be done FIRST, and will then determine the “how” and the “what”. What differentiates countries that succeed on a regular basis is that every action and decision is based on a *shared* understanding within the organization of *why* those decisions are made.
6. **Physical and Mental Wellness:** We will support the health and wellness of our team, riders and staff, by creating positive training environments and providing support to address any physical or psychological needs

Performance Goals:

- Target 5 medals at the Rio Olympic Games and 4 medals at the Rio Paralympic Games
- Aim for peak performance in 2020, given the time required to fully develop our system
 - Target at least one medal from each of our cycling sports in 2020

STRATEGIC PRIORITIES

- **Enhance** the technical leadership and coaching structure to best ensure optimal service to our athlete pool whilst safeguarding our technical leaders from burnout
- **Implement** best possible training environments that promote group synergies that lead to development of medal potential; whether through the elaboration of training groups or facilities-based.
- **Optimize** the use of value-added IST, such as mental performance, aerodynamics, physiology, etc.
- **Encourage** and **facilitate** cross-cycling sport knowledge transfer
- **Establish** clear roles and responsibilities for all High Performance and Performance Development players

London 2012 Highlights

The **bronze medal** won by our **Women's Team Pursuit** team was an incredible achievement in an event with strong competition. It was our outstanding highlights of the Olympic Games. The **gold medal** from **Robbi Weldon and Lyne Bessette** in the **Women's B/VI Road Race**, along with the **bronze medal** from **Marie-Claude Molnar** in the **Women's C4 Road Time Trial** were the highlights from the Paralympic Games.

The rest of our performances did not meet our expectations in terms of results, although we were extraordinarily **proud of the grit and determination that all of our riders demonstrated**. Not one of them gave up. Not one of them gave less than everything to their performance. Even when hope of an anticipated medal was lost, they fought to the end. We **stand strong behind them in their success, and beside them in their loss**.

We stand now at a **critical point** for our sport: If we are to build a system that breeds consistent international success, we must learn from Beijing and London and make the most of the opportunities in front of us. We are determined to make the necessary changes **towards consistent excellence**. Those changes are outlined throughout the six chapters of this quadrennial plan.

Technical Leadership

With the best coaches at all levels of athlete development, we can consistently develop the best athletes. We have a mix of home-grown and internationally grown talent, and are building succession into our coaching model to develop our next generation of coaches and build depth down the development pathway.

Technical leadership extends past our coaching staff to our entire structure. Our coaches are supported by administrative staff who are crucial to allowing the coaches to spend time with the riders. Science and medicine staff create a support network around the coaches and athletes. Leadership for these people creates a culture of excellence, clarity of roles and responsibilities, and consistency in the services they deliver.

2009 - 2012 Review

In 2007, Cycling Canada commissioned a High Performance Review to provide an objective assessment of the existing high performance strategy and structure, and to make recommendations about how to improve it. As a result of the findings of this report, CC restructured the high performance department, hiring discipline-specific coaches and appointing a High Performance Director and IST Manager. With so many new staff starting at the same time, the culture shifted very quickly from “project-based” athlete support to full-time programs, with science and medical staff around each team. Within the first year, trust was beginning to be rebuilt, and teams were growing. So much so that our coaching capacity has been stretched since then. To address the administrative demands that were being put on the coaches, a Coordinator was hired for each cycling sport, which allowed the coaches to spend more of their time coaching, although their workload was still heavy given the number of athletes and events they were working with.

We are now in a position where the trust and communication issues that were so detrimental in the past have mostly been put behind us, and we can work on making minor changes and consolidating our “adolescent” system. We expect it to take two more quadrennials (2016 and 2020) to become a fully mature and stable system that can continue to function for the future.

After the 2012 Olympics and Paralympics were over, we conducted an anonymous **debrief** of all team members. The **findings from these debriefs were used to build our strategies throughout this quadrennial plan**, and will also be used for specific **planning of events, hiring** of staff, and the development of our **plans for the Rio Games**. While the Debriefs themselves are not included in our 2012 Own The Podium review submission due to the sensitive personal nature of some of the findings, they are available to our High Performance Advisors and other OTP staff upon request. After this quadrennial plan is submitted, we will **provide anonymous feedback to our coaches** from the debrief, will **follow up** on any items they would like clarification on, and will **identify professional development opportunities** for areas they would like to improve.

2013 – 2016 Plan

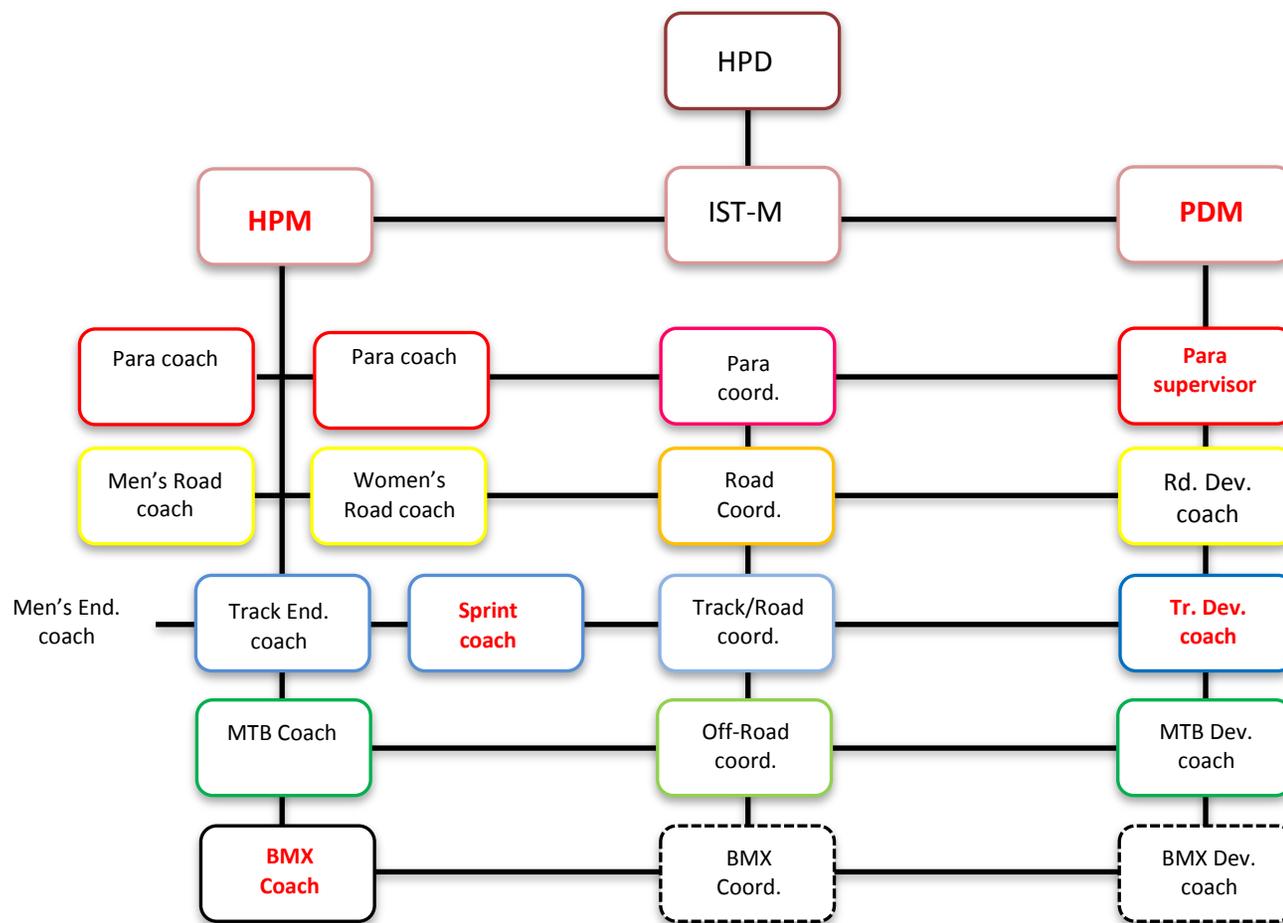
We have more than tripled our team size and the number of Olympic events that we target in the last four years. This is fantastic, since we are poised to succeed in a number of events we have never competed in before. To make the most of this opportunity, we need to **add another level of coaching staff** to our team to support riders who reach “performance development” minimum standards but not “Olympic” performance standards. This will allow the Olympic coaches more contact time with those athletes who are targeting medals in Rio, while the Development coaches bring the next cohort up to the Olympic standard for 2020 and beyond.

We need to tap into the **expertise and knowledge of our partners** such as Provincial Sport Organizations, Training Centres, and Canadian Sport Centres/Institutes, so that we can close the gap between our top-level Provincial riders and the National Team. Our Development Coaches, guided by our High Performance Director and Performance Development Manager, will be the link that closes this gap, once they build the open dialogue and relationships we need. By tapping into our PSO, Training Centre and CSC/I Academy coaches we also facilitate knowledge transfer and, therefore; reinforce our coaching network and create a better pathway to coach succession.

Following yearly performance reviews our coaches need to be given appropriate **professional development opportunities** that will enable them to continue to build on their acquired skill sets and that will also enable them to keep their finger on the pulse of what is being done internationally to maintain or acquire a gold standard level of coaching.

Coach burnout is something that will need to be monitored on a regular basis. By having the HPD more ‘in the trenches’ with our NT coaches it is anticipated that we will have increased ability to address any potential burnout issues before they become problematic.

The following High Performance/ Performance Development organisational chart demonstrates how we expect to build out our capacity through strategic hiring and, in some cases, personnel shifts.



New positions added in the next quadrennial:

High Performance Manager (HPM):

It's been noted that the existing High Performance Director will need to be closer to the NT coaches and programs in order ensure proper alignment and synergies across all cycling sports. In order for the HPD to foster alignment and continually challenge and support the coaches other responsibilities that the HPD previously had would need to be handed off to the High Performance Manager.

The High Performance Manager would be in charge but answer to the HPD in areas of financial monitoring, Sport Canada carding, Coordinator line management, selection policy implementation, etc. and when needed could go in the field to assist coaches and support personnel. In essence, the HPM would be in charge of ensuring High Performance system development and effectiveness.

Ideally the HPM would have at least Level 3 NCCP certification and have a good knowledge of all Olympic and Paralympic cycling sports.

Performance Development Manager (PDM):

As we need to broaden our pool of athletes starting from junior age and upwards the role of the Performance Development Manager will be to ensure proper alignment of our Talent ID strategies across all cycling sports. The PDM will be in charge of coordinating all Talent ID efforts with Provincial/Territorial Sports Organizations, Cycling Centres and Canadian Sport Institutes (Academies) with the NT development coaches being dispatched in the field to monitor and execute talent identification (TID) initiatives.

Para-cycling Supervisor:

The Para-cycling Supervisor will have a dual role of supporting the Para-cycling NT coaches in the execution of directed training sessions when in training camp environments and will also work closely with the Para-cycling Coordinator to effectively deliver the logistical support in the field to the athletes and coaches when in training camps and competitions.

The presence of the Para-cycling Manager will bridge the gap identified of two Para-cycling coaches not being able to manage the whole cohort of Para-cycling athletes effectively.

Track Endurance Coach:

This position is not a new position; it is more a one that has expanded from merely a Women's Team Pursuit focus to one that will lead all High Performance track endurance programs (Women's Team Pursuit and Omnium).

The Track Endurance coach will work closely with the Women's Road Coach to ensure that road programs are designed and followed through to best prepare our track endurance women for the track season. The Track Endurance Coach will also work closely with the Sprint Coach to ensure that proper aspects of sprinting are worked into the program for the targeted Omnium athletes.

Though the Track Endurance Coach's focus is on 2016, some time (25%) should be dedicated in assisting the Track Development Coach with endurance TID initiatives.

Track Sprint Coach:

This position is a new position that will have an eye on 2016 for some events while building the program up to succeed in 2020.

The Track Sprint Coach will lead the work with our existing identified male and female track sprinters – who have thus far shown competitiveness with very little guidance – with a 2016 focus on the women's and men's team sprint, keirin and sprint, while identifying and developing a stronger talent pool aiming at 2020 with the help of the track development coach.

Track Development Coach:

The Track Development Coach will be a position that will require a vast amount of experience in sprint and endurance events in both the high performance and development realms. The Track development coach will be someone who could mentor or manage other track coaches while offering great expertise in developing and executing TID strategies.

In the first instances the Track Development Coach will develop and lead, in collaboration with the road development coach and men's road coach, programs that will develop our men's track endurance programs.

BMX Head Coach:

The BMX coach will be in charge of creating an optimal national team training group environment out of Abbotsford, BC. When not in competitions or in warm weather camps, he will lead training for identified athletes.

The BMX coach will also be in charge of developing the talent pool of BMX athletes across the nation by working in collaboration with the HPD and PDM to align TID initiatives with the different P/TSO's and existing clubs.

	What	When
1.	Clearly define roles and responsibilities for all staff	Jan-March 2013
2.	Communicate quad plan and new structure to stakeholders	Jan-March 2013
3.	Hire/appoint Development Coaches	Before April 2013
4.	Hire/appoint additional Olympic coaches for Track	Before April 2013
5.	Hire/appoint Performance Manager	Before April 2013

Daily Training Environment

Olympic performances are the outcome of the training a rider is able to do on a daily basis. They need excellent quality training every day to maximise the cumulative effects. Daily face-to-face coaching during training provides this, and also increases the quality of feedback and trust between the riders and the coach. Because of this, we are trying to centralize our programs wherever this is appropriate, either around facilities or around training groups. Having a group of riders training in one location with the National Coach also makes science and medicine services more effective and more efficient.

2009 - 2012 Review

At the end of the 1990s a National Cycling Centre model was built with the goal of regrouping athletes from different regions of Canada around common Canadian hubs in order to enhance the **daily training environment (DTE)** and therefore promote athlete development and growth. These Training Centres were positioned in the Maritimes (Dieppe, NB), Quebec (Bromont, QC), Ontario (Hardwood-Hills, ON & Hamilton, ON), Alberta (Calgary “Oval”, AB) and British-Columbia (Victoria, BC, and Burnaby, BC) and had the mandate to work as a service provider to the PSOs in assisting in the development of national level athletes by creating positive group training environments lead by qualified coaches.

While these Training Centres are, for the most part, still operating to this date many have been left to their own devices; where some of the TCs have been able to continue producing nationally competitive train to compete level athletes some other TCs have either shut down operations or slightly changed their mandate.

At the beginning of the last quadrennial the idea was to revisit and nationally realign this National Training Centre model but due to the lack of capacity and prioritization at Cycling Canada’s leadership level this idea was tabled. Over the course of this 2016 quadrennial Cycling Canada, through its HPM and PDM, will be revisiting these NTC models to evaluate their effectiveness in providing adequate daily training environments.

At the national team level though Cycling Canada was able to make efficient use of at least two of the official training centres as they have been used to prepare athletes for major Para-cycling (Bromont) and track (Burnaby) events.

Outside of Canada we have, over the last quad, created a great DTE in Los Angeles for our track squad which was an essential part in the delivery of a bronze medal in London. We will continue to use this environment until we have access to the multi-million-dollar track facility that will open its doors to us in Milton, Ontario. In Belgium, our European Cycling Base located in Tielt-Winge continues to house our national team athletes coming from road, MTB, Track, BMX and Para-cycling at key times in the season while providing a home-away-from-home environment and coach-directed group training environment.

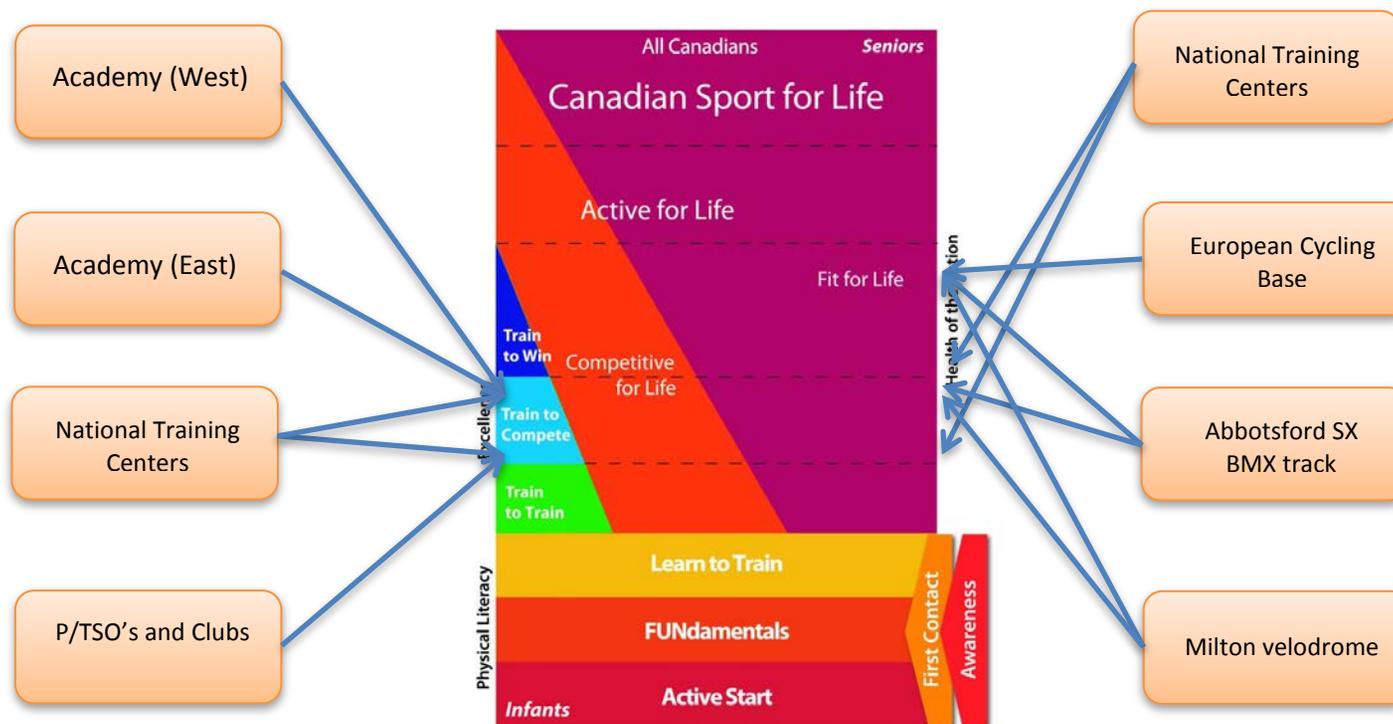
The aforementioned out-of-country training facilities are both viewed as being an important part of the success Cycling Canada has had at the London Olympic and Paralympic Games.

2013 – 2016 Plan

Realizing that one of our strategic priorities that will contribute to medals in 2016 and onward is to implement optimal daily training environments, Cycling Canada's role over the next quadrennial will be to steadfastly lead the process of alignment of initiatives that promote coach-led group training.

The Performance Development Manager, in collaboration with the HPM will have an important hand in this national alignment process as it will be the job of the PDM to work with the existing National Training Centres, CSCs, P/TSOs and clubs ensuring that each entity is given a clear high performance or performance development mandate that will contribute to development of athletes along the LTAD pathway.

Daily Training Environments and Long Term Athlete Development



Note: Where these arrows are pointing is merely an example as some entities may cover more than one LTAD level depending on the diversification of the programs offered.

pointing is merely an example as some entities may

	What	When
1.	Assessment and national alignment of centralised DTE entities	April 2013 (Completion date: December 2013)
2.	Creation of CSC/I based cycling academies	Started in Nov 2012 (Completion date: December 2013)

Sport Science & Medicine

When we consider that **Sport Science & Medicine (SS/SM)** is a big part of performance at each level of the athlete development pathway it is clear that SS/SM is an integral part of developing our system. It is our job at Cycling Canada to ensure that our **Integrated Science Team (IST)** is being used optimally at every level as the sustainability of our system depends on it.

Each of our riders has **unique strengths and individual needs**. When we have open dialogue with them and their coaches about their needs and how we can help address them, we have the potential to help them make real changes in their performance and their lives. Once the basics are acquired each performance is increasingly related to finding marginal gains, and we need our riders and staff to be aware of and capable of managing all of the factors that will significantly influence performance.

Our staff is just as important to us, and we aim to support them in the same way whenever possible, to help them manage the demands of their jobs. By understanding our science and medicine needs on an individual basis, we can build up our staffing and budget to meet these needs in the most effective and efficient way possible. The goal is to help more of our riders reach their full potential as medallists, and to help all of our riders have the best performance of their lives on the day they race at the Games.

2009 - 2012 Review

Cycling Canada hired an **IST Manager** in 2009 to develop the science and medicine system for the team. Because there was no existing system in place, the first two years were spent **getting the basics right**, making sure teams had the support staff they needed and the riders' highest priority individual needs were met. All of the **targeted riders were assessed** together with the National Coach and the rider's personal coach, and services were offered in a progressive manner to avoid overwhelming the athlete. We identified potential practitioners through maintaining relationships the coaches had already built, asking for suggestions from the CSCs, and listening to rider and staff feedback. At any point, if a rider or coach decided they did not want to work with someone again, an alternate provider was found. **Team needs** were also assessed and met, for instance with mechanics, soigneurs/therapists, a full-time scientist, and sport psychologist.

Out of this process, we found excellent service providers in most of the areas we needed, and offered these people annual **contracts** to try to give them a reliable source of income and encourage them to commit to our programs. This worked extremely well, and most of our staff was retained for three years, giving consistent and excellent quality services to our teams. Many of these people are interested in continuing with us towards Rio, and we will retain as many of them as possible while asking them to identify and train apprentices to plan for the future.

In the last two years of the quadrennial, we introduced a **Research and Development initiative** targeting equipment, clothing, and innovation, once the system was ready for it. We worked with a fantastic and inspiring team of experts to develop an Olympic Skinsuit, additional clothing, custom time trial handlebars, and a performance measurement and modelling system. We were able to tap into existing expertise in the system for altitude training plans and monitoring, as well as heart rate variability monitoring to help optimize training loads.

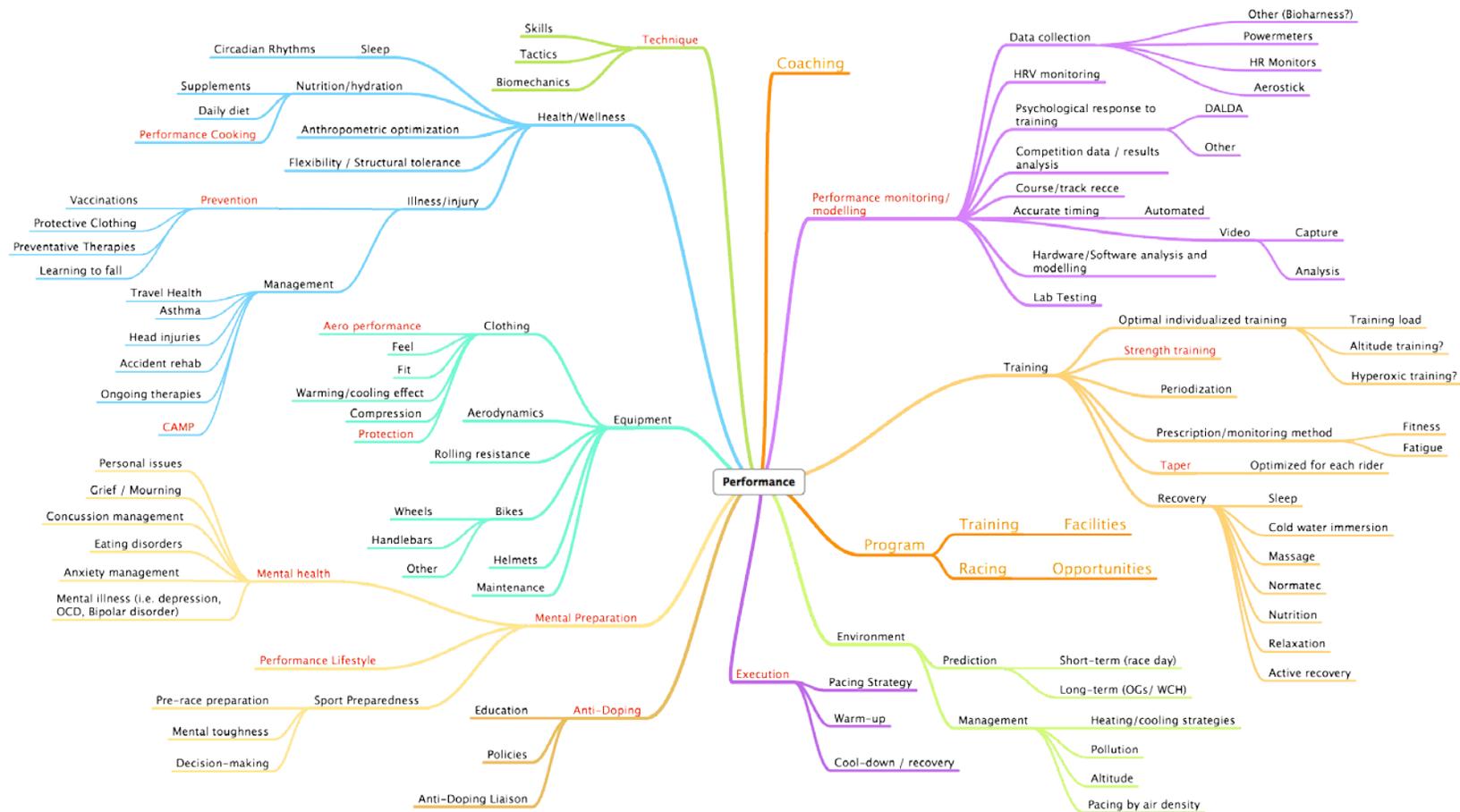
We also put in place communication systems to allow our team to share information on an on-going basis. The two systems we implemented are **Smartsheet** for **team-based information** and case conferencing, and **CAMP** for **medical information**. Both of these systems have proved useful, and we will be rolling them out further.

2013 – 2016 Plan

There have been varying degrees of uptake of science and medicine services by our different sports. This will be addressed by creating and distributing the job description and roles and responsibilities of the IST Manager, as well as increased face-to-face contact time between the IST Manager and the National Coaches.

The system is mostly in place, with staff in place from CSCs and external providers. This quadrennial we will focus on **improving the integration** of the science and medicine services into the programs in order to have a greater impact.

In order to prioritize service areas we can target to improve performance, we have identified the main factors affecting performance from a science & medicine perspective in the following diagram. Current priority gaps are in red.



These gaps have been identified through observation of our team, observation of best practice and inside knowledge from other nations, and debriefing of coaches, riders, and support staff over the past four years as well as specific debriefing from the Olympic and Paralympic Games.

1. MENTAL HEALTH AND WELLNESS

Mental health and wellness is the top priority moving into the Rio quadrennial. While we have worked hard on providing “mental training” skills to our riders and staff, we have not supported them in developing the psychological **skills to cope with anxiety and pressure** as well as we could have. To address this, we are building a network of **Sport Psychiatrists** and clinical sport psychologists across the country that can see athletes quickly upon referral by our Team Doctor. They have an interest in sport, and an understanding of the demands of the lifestyle our riders lead. They are trained in skills such as psychotherapy, cognitive behavioural training, therapeutic hypnosis, and progressive relaxation techniques, in addition to being able to diagnose any underlying issues. This service provides us with a **referral network** for a number of our issues, such as **eating disorders, concussion management, grief and mourning, trauma (from crashes), and unresolved personal issues** that may be holding riders back, both in our Para athletes and our able-bodied athletes. In the medium-term, we may also be able to introduce some **professional development** in this area for our Coaches, giving them new tools to help the riders in a race setting.

The new **Performance Lifestyle** service will play an important role in helping our riders balance the demands of school and racing, if they are doing both, as well as making sure that they have plans in place for their future. Financial management and organizational skills training will also benefit our riders, particularly the younger riders coming up through the system, allowing them to be fully prepared for their training and racing.

2. PHYSIOLOGY

A good physiologist can be the bridge between a team (coaches and riders) and other services, as has been the case for our Track Cycling team. We will be introducing people into this role for our other teams, being careful to select people who connect well with our National Coaches.

Their role will be initially to **collect and analyse data**, and to build their relationships with the members of the team. They are not being employed to write training programs or advise athletes directly. We have a gap in our knowledge about our National Team riders, despite them using power meters and training log with their personal coaches. The Physiologist can help us fill this gap, by collecting the data and sharing it with the appropriate people. They can also provide standardised testing in the field, rather than requiring athletes to travel to designated labs. By putting the

data into a system such as CAMP, we will begin to be able to learn from the group data to help our younger riders coming up through the system.

As the relationships build throughout the quadrennial, we anticipate these Physiologists taking on more of an advisory role to the Coaches, and beginning to suggest ideas and approaches that complement the direction of the program. They are also likely to grow into the role of “**IST Lead**” for each team, and a **key connection point to the CSCs/CSIs** if they are employed through one. We intend to build the IST Lead role into each team, however we do not want to force this role as we believe it will be more effective and successful if people are allowed to grow into it.

3. INJURY PREVENTION

Our riders race at up to 85km/h in nothing more than lycra, in most cases. Even in BMX, where they wear abrasion-resistant pants, their clothing provides them with minimal protection from the types of injuries they incur. Looking back at our benchmarks over the past four years, we have had 4 to 5 missed World Championships targets every year due to injury or illness, and we had **4 riders out of 16 (25%)** at the **Olympic Games** affected by injuries, as well as **2 out of 12 (16%)** at the **Paralympic Games**. We believe we can have a marked impact on our performance by reducing this number.

Our BMX riders and Coach are supportive of the development and use of breathable **chest and abdominal protection** that doesn't limit movement, which will reduce the severity and number of injuries in our BMX riders. This has been the single biggest factor in their performance progression over the past four years.

We will work with our clothing sponsor to develop road **cycling clothing** (for Road, MTB, Para and Track) with **abrasion protection** will help reduce “road rash” severity and incidence of cuts from bicycle parts/obstacles.

In addition to providing protective clothing, we are working with **Cirque du Soleil** to figure out how **to teach our riders to fall** correctly. They fall differently in each of our sports, so this is an interesting challenge. We believe that we can reduce the incidence of injuries such as broken collarbones and fractured wrists with this intervention. Given that we lost two potential medal performances in London due to broken collarbones incurred during Games training, this alone could have a measurable impact.

4. ANTI-DOPING

We will put a lot of emphasis on anti-doping education and awareness. We **MUST** speak openly about our **zero-tolerance** stance to doping, and what the implications of a National Team rider testing positive would be. Riders **MUST** be aware of their responsibilities, rights, and potential pitfalls and we must do a better job helping them to do this. Open, honest discussion about the realities of the sport, past and present, is necessary, as is a clear support structure for anyone who is feeling pressured. **Working closely with CCES** to educate and to give riders experience with the testing process out of competition will help them feel more comfortable when asked to provide samples at races and at random controls.

Additional support in this area is particularly important for our Junior and Under 23 riders, especially **male road riders**. They are the most vulnerable as they progress in their sport, and we must protect them by **giving them the tools to improve safely, legally, and ethically**. This means providing them with support services such as physiotherapy, nutrition, performance lifestyle, etc., in order to give them the tools they need to succeed in this sport without being seduced by the “easy” option.

5. OTHER SERVICES

The other science & medicine services are also important, and we will provide them as needed to each of our sports as outlined in their specific chapters. The services mentioned above are priorities across all sports, and are the services we have identified that we need to add to our current roster.

Long-Term Research & Development Strategy / Competitive Advantages

The London quadrennial was an exciting one with the introduction of research and development projects. We believe that our clothing development, helmet testing, bike positioning work, and field aerodynamic testing and performance modelling had a positive impact on performance in London. We would therefore like to build on this work towards Rio, while also leaving room for any new opportunities that we may come across.

SENSITIVITY ANALYSIS

Looking at the potential impact of different interventions can inform us about how to prioritize funding for R&D and other service areas, based on impact on performance. We will contract **an expert** on a non-exclusive basis for this area, as well as to mentor our Physiology staff.

BIKE POSITION (AERODYNAMICS, PHYSIOLOGY, AND BIOMECHANICS)

There are large potential gains for some individuals by optimizing their bike position for performance and injury prevention. We have been using new equipment and software to determine optimal position and pacing, which can be measured accurately using the **reTul** system. We need to provide this service for development athletes as well.

CLOTHING

We would like to continue working with our existing team of experts on **aerodynamic race clothing**. We would also like to **test and develop preventative clothing** targeting common injuries. For BMX, this means impact protection for the chest and abdomen that doesn't restrict movement or cause overheating or loss of the sensations of riding. For our other sports, we would like to develop abrasion protection built into normal cycling clothing, in areas that are commonly abraded during crashes (i.e. hip, thigh, back, shoulder, upper arm).

EQUIPMENT AERODYNAMICS/ROTATIONAL INERTIA/TIRE DRAG

Rather than trying to compete directly with better-funded nations by building our own equipment from scratch, we will talk to **manufacturers** about **building a mutually beneficial relationship** where they provide innovative products in exchange for testing and feedback. This way we tap into their engineering departments' capacity, without investing out of proportion to the potential performance gains. We will build relationships for first two years, bringing our insights into potential modification to the manufacturers, and then implement equipment testing in the final two years of the quadrennial. Potential targets for improvement include forks and wheels, but decisions will be made based on the sensitivity analysis.

PERFORMANCE MODELLING AND ANALYSIS, TACTICS

We will continue to develop software and hardware, on an annual retainer basis.

DAILY TRAINING ENVIRONMENT ENHANCEMENT

We will continue to provide updates to performance monitoring equipment and software as developed. This tool allows hands-free accurate timing while also pulling in all performance variables for the coach to see real-time. Software will be purchased for video capture, analysis, and data basing/distribution. Our goal is to **ALLOW THE COACHES MORE TIME TO COACH**. We will need to **budget for installation and subscription fees for this system in Milton**, to ensure there is no gap in service when the team moves to Ontario.

We will also devote time to coding existing videos to establish the context, decision, and impact of different tactics. Potentially this could be a role for an interested Provincial Coach or an intern.

Timeline:

Year 1 (2013): Identify and give opportunities to new staff

Year 2 (2014): Move forward with 3-year contracts for selected staff, try new interventions

Year 3 (2015): “Dress rehearsal” year, move forward with approved interventions as planned for Olympic year

Year 4 (2016): Olympic year, repeat year 3 with small modifications based on findings/feedback from year 3

	What	When
1.	Re-write and distribute IST Manager’s job description	December 2012
2.	Re-write and distribute process for accessing services	January 2013
3.	Create a position statement on our approach to service provision and our guiding philosophies	January 2013
4.	Continue R&D projects and introduce new experts where needed	April 2013 – August 2016

System Development and Talent ID

When building a system capable of consistently producing medals at major games and world championships, buy-in from all identified stakeholders (P/TSO's CSC's, Clubs, etc.) is key. This requires mutual trust, which we will continue working to build.

2009 - 2012 Review

Following the 2007 High Performance Review by Road to Excellence, key success factors were identified that could lead to mutual trust. Over the course of the last quadrennial we have endeavoured to build trust by engaging in effective and open lines of communication with all its identified stakeholders by:

- Building and the timely distribution of clear selection policies
- The High Performance Committee appointed “selection experts” for each cycling sport that would become the coaches selection decision-making sounding board
- The creation of an athlete’s council that would give all our NT athletes a voice
- Creation and publication of a High Performance strategic plan
- Inclusion of provincial coaches in the building of national team programming
- Built out and circulated yearly surveys sent to our athletes to assess how we are doing
- Creating a more comprehensive website
- Using social media more efficiently
- Getting our story out more often using the services of our media liaison person

2013 - 2016 Plan

Through our recent athletes, IST members and coaches survey a few points have been identified that we need to action over the course of this quadrennial while continuing with the above mentioned initiatives that contribute to the enhancement of mutual trust between Cycling Canada and all identified performance stakeholders.

Moving forward we will:

- Align selection dates with training programs, and take some selection pressure off of athletes that have demonstrated repeated high level international performances.
- Clearly identify our HP coaching staff and IST members roles and responsibilities

Talent ID

When we focus only on riders who can already perform at the top level, we create a system where exceptional athletes compete for us for a time and then retire with no replacement. When we expand our focus to support riders who have the POTENTIAL to be top performers, we create a system that can consistently and repeatedly guide athletes to the top.

2009 - 2012 Review

Insufficient depth in the cycling athlete talent pool has plagued Cycling Canada for decades. There have been very talented, successful athletes that have competed for Canada across all of the disciplines, but there has never been a system in place to bridge that success into the training environment of the younger riders. Furthermore, there has been no systematic knowledge transfer from the experiences of these successful athletes and their coaches to the next generation. In other words, success for Canadian cyclists has been borne out of largely individual pockets of talent and expertise and once the athlete stops competing, nothing remains in the system. By 2012, a fledgling system had been developed, which was responsible for Canada sending the largest team ever of both staff and athletes to the Games.

2013 – 2016 Plan

While we are clear on what the requirements are for success at the very top level of Cycling, we have not yet built out the complete implementation plan for the performance pathway for our developing riders. We also need to work more closely with our Provincial Organizations to provide a consistent level of support for riders trying to make it onto the National Team. We will address this gap by adding Development Coaches and a Performance Development Manager to our system. They will be responsible for working with our partners to identify riders and to help them bridge the existing gap from national to international success.

GOLD MEDAL PROFILE

We are working on performance development guidelines for our sports, to help coaches across the country identify and support new riders. These guidelines are meant **to inform, not to exclude** young riders who may not be in the suggested ranges because of their developmental stage. They may also be useful in suggesting events that suit individual riders as they progress up the development pathway. They will also provide a base for our **program benchmarking** as indicators of whether we're on target to deliver on our goals.

The first events we will work on are the timed events on the Track, as there are World Record standards to work towards. For our other sports and events, we will use percentage difference from winning times at World Championships and or appropriate World Cups.

COORDINATION WITH PROVINCIAL ORGANIZATIONS

Our new **Development Coaches** will **bridge the gap** between our top-level Provincial riders and the entry-point to the National Team. This gap has been too wide in the past for all but exceptionally naturally talented riders to cross successfully. Many of the Provincial Teams do not have the resources to coach these riders with the frequency of contact time that is needed, and so the Development Coaches have a niche to fill.

The Science and Medicine (IST) Manager will lead the IST team in developing service philosophies and recommendations for the different development stages, according to the published National LTAD plan for Cycling. We will liaise with the Provincial Coaches to determine what access to services they have at the moment, what they would like to work towards, and how we can help them reach these goals.

	What	When
1.	Create performance progression guidelines for Track	Jan-March 2012
2.	Use progression guidelines for 6 months, make changes if needed	April – Sept 2013
3.	Build progression guidelines for our other sports	Oct – Dec 2013
4.	Liaise with Provincial Coaches to establish IST system at the development level through existing resources	April – Sept 2013

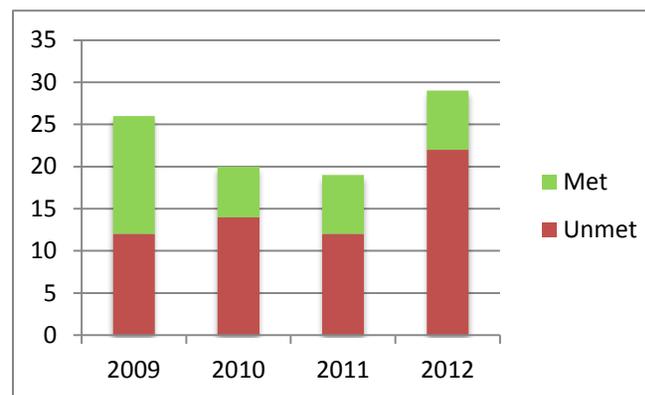
Olympic Quadrennial Timeline

2013	Annual performance reviews, implement new staffing structure, identify athlete pool, establish quality daily training environments, broaden the science and medicine team and plan for transition into Milton, national talent ID strategy, solidify existing structure, set up a dialogue with our performance pathway partners
2014	Transition Road and Track programs into Milton, continue implementing structural changes at the development level,
2015	Develop an Olympic & Paralympic debrief strategy
2016	Continuity of staff and athletes, Olympic team selection, “lock-down” of final plans by May 1 st , build 2020 quadrennial plan in January-February, Olympic debrief October 2016, coach performance reviews

REVIEW OF SCHEDULE B

Over the past quadrennial, we have hit an average of 36% (34 met out of 94 set) of our benchmarks overall in our able-bodied sports, and 49% in our Para events.

We have started setting a **single benchmark for team events**, regardless of which riders are selected, and counting that benchmark a single time. This impacts the Men’s and Women’s Road Races, Team Pursuits, and Team Sprints. We still identify the pool of potential riders for these events on the Schedule B, and indicate who rode, but only count the performance once. This reduces the total number of benchmarks set, and gives a more accurate indication of how we are performing compared to our expectations. In 2012, the number of benchmarks increased as we included the Olympic/Paralympic benchmarks in the total.



In addition to examining our Schedule B benchmarks in each sport-specific chapter, we present **“program” benchmarks** that we have begun developing and will solidify for the Rio 2016 quadrennial. These are meant to be indicators of progression in the areas that the coaches have identified as priorities, such as depth in certain events, number of riders being exposed to international competition, etc. They are specific to each program.

*We are also developing **“Overall” and “IST” program benchmarks** to help us see patterns across the sports, and ensure that the high performance structure is functioning as it should. We aim to finalize these by the end of January 2013, and will submit them when they are completed. Examples are shown below.*

Benchmark	Year 1 Target	Year 1 Actual	Year 1 Met?	Year 2 Target	Year 2 Actual	Year 2 Met?	Year 3 Target	Year 3 Actual	Year 3 Met?	Year 4 Target	Year 4 Actual	Year 4 Met?	Year 5 Target	Year 5 Actual	Year 5 Met?
Program Benchmarks	2012/ 2013			2013/ 2014			2014/ 2015			2015/ 2016			2016/ 2017		
% of coaches who had 360° performance evaluation				100			100			100			100		
% of riders rating Daily Training Environment as “good” or “excellent”				75			80			85			90		
% of riders and staff rating overall IST service as “good” or “excellent”				75			80			85			90		
% of stakeholders rating CC overall as “good” or “excellent” # of possible Olympic events targeted for 2016 (max 18 – 22?) # of possible Paralympic events targeted for 2016 (max 50: 32 Road/18 Track)		12		60 13			65 14			70			75		

ANNUAL REVIEW PROCESS 2013-2016

We will review all of our sports annually after their respective World Championships, using the following:

- Debrief of season performance, including World Championships
 - Review of results against Schedule B benchmarks
 - Revision of benchmarks as needed
 - Review of key performance indicators according to Program Benchmarks
 - Are we on target? If not, what do we need to change?
 - Review of our national team head coaches and development coaches performances
 - Are they servicing our athletes at a level that enables our athletes to stay on the performance pathway
- Survey of Program and IST quality and satisfaction by riders and staff
- Survey of CCC quality and satisfaction by IST providers
- Annual staff performance reviews

This is a simple list of items, but from it we will determine what is working and what needs to be changed with time to plan and budget for the next year.

	What	When
1.	Annual Review: Track	Annually in Feb/March
2.	Annual Review: BMX	Annually in July/Aug
3.	Annual Review: MTB	Annually in Sept
4.	Annual Review: Road	Annually in Sept/Oct
5.	Annual Review: Para Cycling	Annually according to WCH dates