



HOW IT'S DONE

Sport &
Supply
Chains



CONTENTS

How it's Done – Sport & Supply Chains	1
North American Sports Market by Segment	2
The Venues	3
The Events	4
The Logistics	5
The Merchandise	6
The Fans	6
The Performance	7
Wrap up	8

HOW IT'S DONE — SPORT & SUPPLY CHAINS

Sport is now big business. It is estimated to be worth US\$67 billion this year in North America alone.¹ The link between sport and supply chain may not be immediately evident, but it is big and rapidly evolving. Scratch the surface and supply chain management now plays a major role in the success of teams like the Toronto Blue Jays or Canada's NHL teams; or the smooth running of major sporting events like the Montreal Grand Prix, or Vancouver Olympics. Across different sports the value of supply chain management is obvious on reflection, it is also in many cases highly innovative.

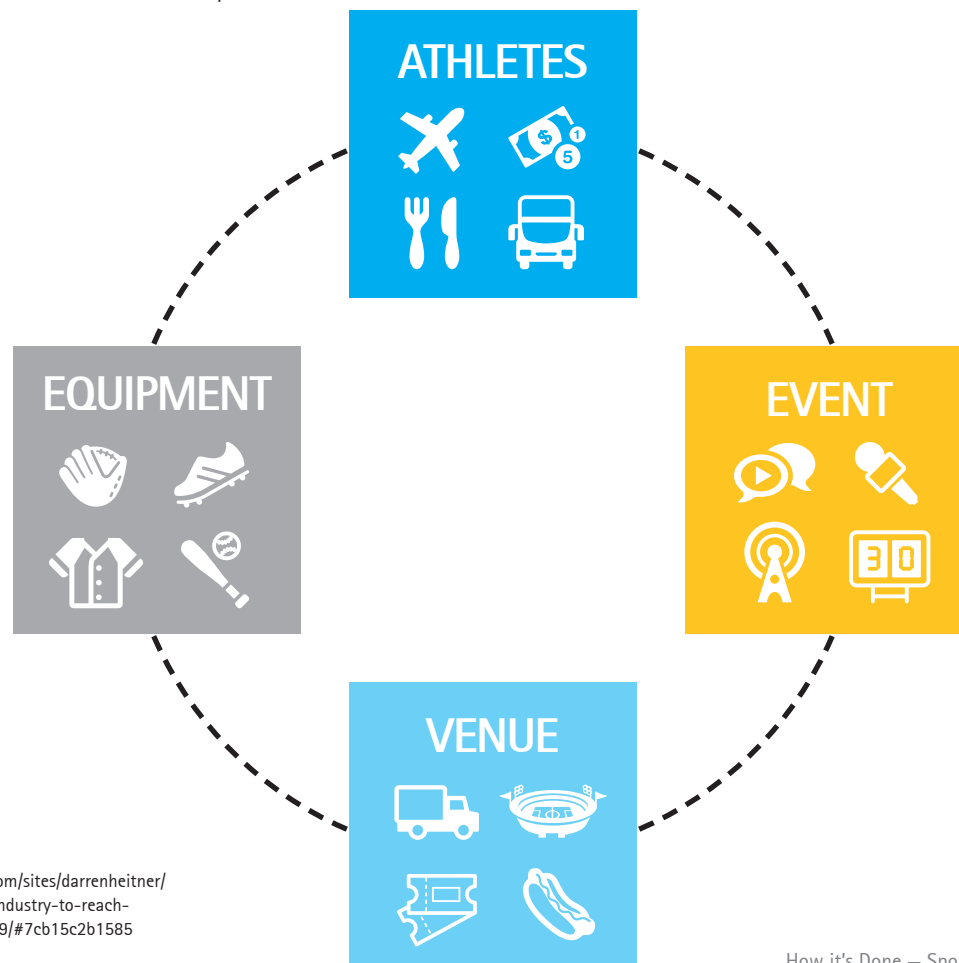
The obvious area is around the pure business side of sports. The management of the venue for example.

Actually building a big stadium and operating it to make sure customers get what they want to eat and drink is something all teams need to do well. There is also the merchandise which in itself is big business and helps fund investments in teams. When the new team uniform is released that requires massive supply chain planning and execution. Increasingly partnerships are developing between sports teams and suppliers to provide a better fan experience – giving the customer what they want and keeping them entertained.

Then, finally there is the performance of the team itself. There is, of course, the logistics of getting teams around

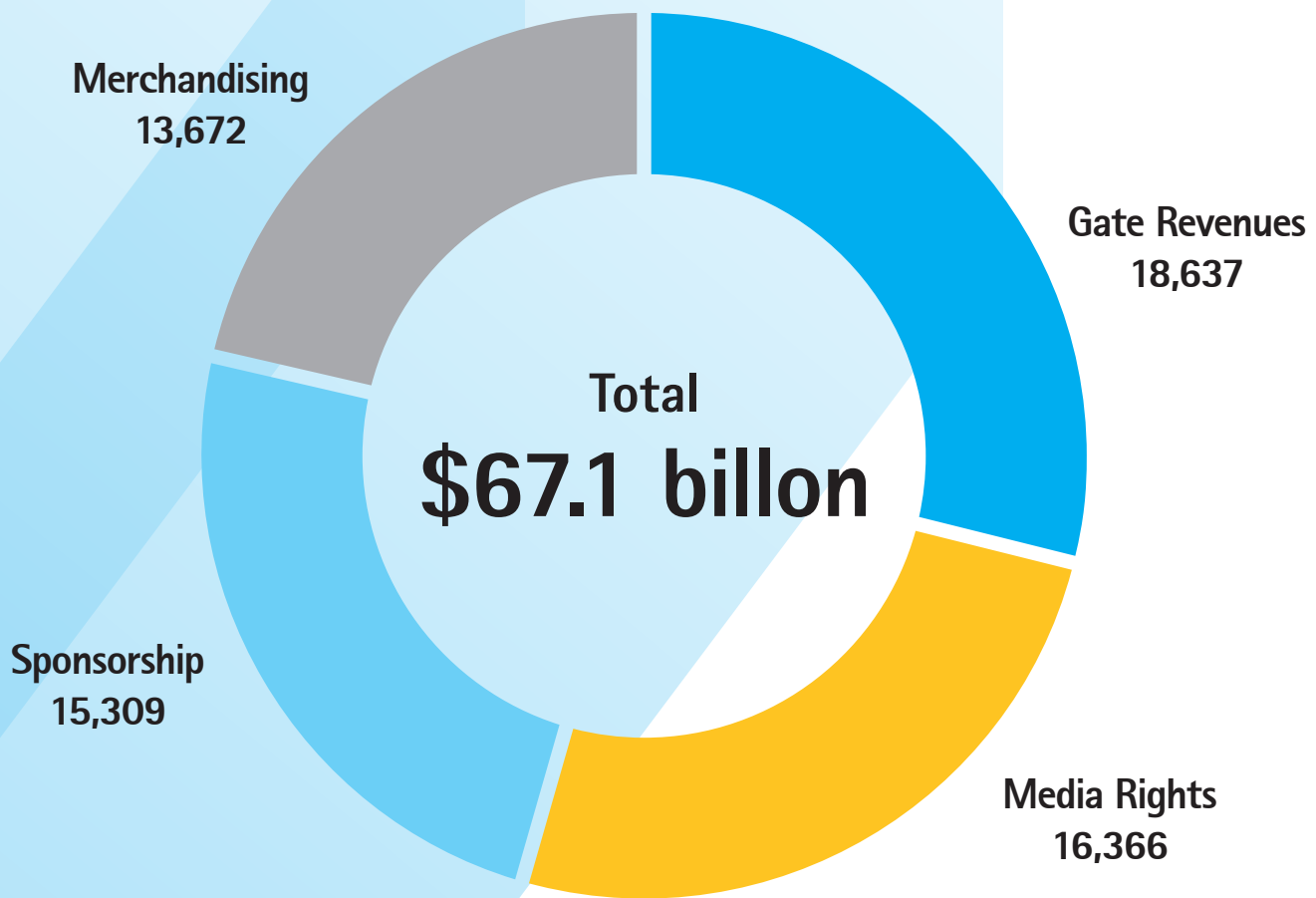
North America on time and well rested, but there is so much more happening. Huge amounts of money are spent to make sure a team is at the top of its game, and teams now look at every aspect of performance to squeeze out every ounce of potential. That means working with everyone from transport providers, to nutritional experts, to uniform suppliers, and technology companies.

The nature of sport provides very clear winners and losers. Many of the teams leading the way have used an all encompassing approach to their performance which includes looking at areas such as supply chain management. Many of these lessons can be applied in other walks of life.



¹<http://www.forbes.com/sites/darrenheitner/2015/10/19/sports-industry-to-reach-73-5-billion-by-2019/#7cb15c2b1585>

NORTH AMERICAN SPORTS MARKET BY SEGMENT



Source: <http://www.forbes.com/sites/darrenheitner/2015/10/19/sports-industry-to-reach-73-5-billion-by-2019/#7cb15c2b1585>

THE VENUES

The Seattle Mariners baseball team introduced a number of energy efficient measures to their stadium and managed to save **\$2 million a year.**

Stadiums have an unfortunate track record of going way over budget when they get built. Toronto's Sky Dome and Montreal's Olympic Stadium are two striking examples of just that. The Sky Dome was expected to cost \$225 million but by the time the first ball was pitched, the cost had risen to over \$650 million.² Montreal has an unfortunate Olympic and World record, going almost 2000% over budget for its stadium.³

Supply chain management has been at the forefront of reducing those cost overruns and also extracting additional value. Ahead of the 2015 PanAm Games in Toronto there were issues with one of the stadiums hosting the football in Hamilton. Whereas once the government would have had to open its chequebook to

get the stadium built on time, for this venue the organizing committee had used a made-in-Canada public private partnership model. This procurement model put the builder on the hook for any delays or cost overruns, the government paid nothing.

More thought is also being given to the impacts of those stadiums on the environment and surrounding communities, but also on the operating costs. The Seattle Mariners baseball team introduced a number of energy efficient measures to their stadium and managed to save \$2 million a year.⁴ Other teams have focused on everything from waste reduction to using renewable energy. Big global events like the Olympics and FIFA World Cups look for a strong commitment sustainability of venues when making their decisions on bids.

Closer to home, 2015 SCMA award winners, the City of Edmonton, leveraged the redevelopment of the Edmonton Oilers arena to deliver savings and a redevelopment boost for the city. The city used the stimulus of the new stadium to negotiate a deal to provide new office accommodation for their 3,000 staff. This will save \$30-million in rental costs over the lifetime of the lease, and has helped stimulate \$500-million in related downtown commercial development.⁵

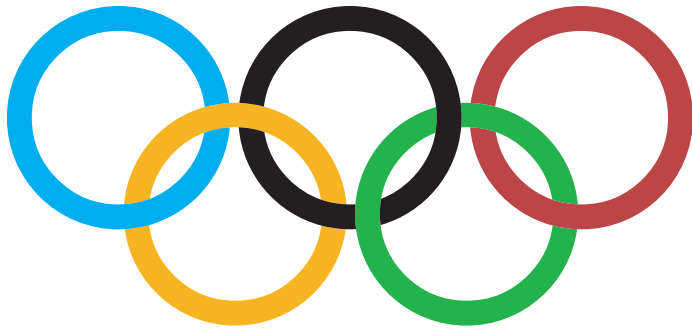
²<http://www.canadianbusiness.com/blogs-and-comment/public-private-partnerships-work/>

³<http://globalnews.ca/news/1622840/montreals-olympic-stadium-a-budget-buster-study/>

⁴<http://knowledge.wharton.upenn.edu/article/greener-sports-venues-reducing-costs/>

⁵<http://scma.com/en/news/scma-media-releases/scma-media-releases-2015/616-press-release-city-of-edmonton-and-representatives-from-manitoba-hydro-and-ontarios-ministry-of-health-scoop-national-supply-chain-awards>

THE EVENTS



An estimated **30 million** products costing a total of **US \$1.3 billion** were purchased for the Rio Olympics.

Ernst & Young – Sustainability in Supply Chains for the Olympic Games

Just about the most complicated thing you can do is deliver a major sporting event like the Olympics. The number of contracts to manage from the major venues, to the security, to the furniture for the athletes' village; all need to be ready before the world descends. There are literally thousands of contracts and subcontracts.

For the Rio Olympics the organizing committee purchased an estimated 30 million products costing a total of US\$1.3 billion. That included almost 2 million bits of sports equipment, 120,000 chairs, 88,000 lamps and 65,000 electronic scoreboards.⁶ One hiccup in managing the roll out and execution of these contracts can have a ripple effect that can put the whole schedule out of whack, leading to delays, additional costs, and huge embarrassment.

The Tour de France, is the world's largest annual sports event and comes

with one of the biggest logistical challenges which has been described as a mini city on wheels.⁷ 198 riders travel 3,500 kilometres across four countries. With them are a team of 300 support staff, and the race itself had over 400 employees from race judges to doctors. Broadcast all over the world there were 2,000 media along for the ride, plus the broadcasting alone requires 120 trucks and 60 km of cables, plus five motorbikes, three helicopters and two broadcast planes. Every day they have to pack up miles of barriers, hundreds of signs and banners and all that technical and team support equipment and move it along to the next stage.⁸ It is an immense challenge, but it is a very slick operation.

So much is on the line for these high profile events, and any disruptions can be very embarrassing for the host. It is the job of the supply chain people to make sure all the things behind

the scenes are robust and tested, and that there are adequate backups. One of the highest profile incidents saw the 34-minute power outage during the 2013 Super Bowl in New Orleans. The stadium's power company took the blame citing a faulty part, but thankfully back-up generators were on hand for just such an emergency.⁹

Organizations learn from putting on such extravaganzas. After the London Olympics in 2012, procurement models and approaches were successfully copied for other major infrastructure projects to increase local impact and tighten delivery timelines. Anticipating the surge in additional traffic that comes with the Olympics Transport for London worked with the freight industry to change delivery models and routes to become much more efficient, approaches that are still used today.¹⁰

⁶[http://www.ey.com/Publication/vwLUAssets/ey-rio-tackles-sustainability-in-supply-chains-for-the-olympic-games/\\$FILE/ey-rio-tackles-sustainability-in-supply-chains-for-the-olympic-games.pdf](http://www.ey.com/Publication/vwLUAssets/ey-rio-tackles-sustainability-in-supply-chains-for-the-olympic-games/$FILE/ey-rio-tackles-sustainability-in-supply-chains-for-the-olympic-games.pdf)

⁷<http://www.businessinsider.com/tour-de-france-2016-numbers-2016-6/#-1>

⁸<http://www.businessinsider.com/tour-de-france-2016-numbers-2016-6/#-2>

⁹<http://news.nationalpost.com/sports/nfl/super-bowl-power-outage-explained-faulty-electrical-device-is-the-culprit>

¹⁰http://www.fta.co.uk/export/sites/fta/_galleries/downloads/olympics/logistics_legacy_x_olympics_low.pdf

THE LOGISTICS



Getting teams and equipment around is a major challenge. The baseball season is one of the most gruelling in all sports. In the 2015 playoff season, the Blue Jays played a staggering 173 games, with 86 away games, and 32 trips between cities; a total distance of 67,000 kilometers. The logistics behind such an operation is mind boggling. In a season like that there is no time to rest. Planning for the season starts months in advance, with hotels and transportation providers being sourced, contracts with airlines negotiated, and contingency plans put in place in case of disruptions due to flight delays or game postponements.

The logistics for such operations are well tuned due to years of execution, but new challenges arise. In the push to make the game global, the NFL has been staging an increasing number of games outside of the United States. With three games in the UK in 2016 and plans for further international

expansion, including the potential of a full time team in London, logistics is one of the biggest challenges to making it a success. When the New York Jets played in London in 2015 planning took around 11 months, with a delegation of 220 people and an estimated 5,000 items to send over. Keen to minimize the disruption to their players even went as far as shipping over 350 rolls of thicker American toilet paper.¹¹

Although getting a baseball team around North America or a football team across the Atlantic is difficult, getting 233 prizewinning horses to Rio for the Olympics is epic. As well as the 4000 kilograms of food and 40 litres of water, the horses have to be housed in specially designed pens. This complex process involved three global transport hubs and meticulous planning to make sure the horses get rapid customs clearance, and arrive healthy, well-rested and have time to acclimatize ready to win medals.¹²



In the 2015 playoff season, the Blue Jays played 173 games, with 86 away games, and 32 trips between cities; a **total distance of 67,000 kilometers.** The logistics behind such an operation is mind boggling.

Almost in a league of its own for complexity however is Formula 1. The 2014 season saw 19 races over eight months on six continents and cumulative travel of 62,000 miles (99,779 kilometers). Teams have to move their two cars, plus 50 tons of equipment to the next race track within 36 hours. All told the equipment needed for the 11 teams fills six jumbo jets.¹³

¹¹http://www.nytimes.com/2015/10/02/sports/football/jets-head-to-london-with-a-detailed-game-plan-and-thats-just-for-their-laundry.html?_r=1

¹²<http://www.timeoutdubai.com/sportandoutdoor/news/72593-how-emirates-airline-transported-233-horses-to-the-rio-olympics>

¹³<https://www.wired.com/2014/11/ship-f1-car-across-globe-36-hours/>

THE MERCHANDISE



Sports merchandise rakes in US \$14 billion a year in North America,¹⁴ it is highly profitable, but can be highly unpredictable. When Real Madrid signed David Beckham in 2003 they reportedly sold one million shirts in the first six months, and had recouped the £24.5 million transfer fee in shirt sales within his first season.¹⁵ To deal with such peaks it takes a huge amount of supply chain coordination, planning, and flawless execution.

Take Leicester City, unexpected champions of the Premier League in the UK. Given odds of 5,000 to 1 to win the title when the season started nobody expected much, but on May 7th, 2016 they were crowned Premier League Champions. The problem was they had run out of replica shirts four months before the season ended.¹⁶ Typically teams like Leicester would order replica shirts at the start of the season, but with odds like Leicester's some might say that contingency planning can only do so much.

When the Toronto Blue Jays started knocking the ball out of the park (literally) in their run to the playoffs in 2015 their merchandise sales went up 40 percent. With success also came extra people turning up to games with the average attendance going from around 29,000 to more near the capacity of 53,000.¹⁷ All those extra people need food and drink, and stock outs can cost the team dear in lost revenue.

THE FANS



The most important person in sport is the fan of course. And going to any sports event is now seen as more of an experience than ever before. That experience goes from getting to and from the venue, getting the tickets, buying food and souvenirs, the entertainment, and of course the game itself.

Sports teams work with a number of suppliers who contribute to that experience. Security has to be slick, with enough people on duty to clear queues quickly. Concession stands too need to make sure they have what their customers want. Broadcasters too are working with

a variety of suppliers to provide a greater fan experience for people watching at home.

Even entire sports need to compete against each other for fans. As a result, they themselves look for strategic relationships with suppliers to improve the game and enhance the fan experience. In tennis, technology provider Hawk Eye has been working with federations and tournaments to provide instant video replays around contentious line calls. It made its big breakthrough at the 2007 Australian Open and is now used at around 80 tennis tournaments as well as on sports like football and cricket.¹⁸

¹⁴<http://www.forbes.com/sites/darrenheitner/2015/10/19/sports-industry-to-reach-73-5-billion-by-2019/#7cb15c2b1585>

¹⁵<http://www.dailymail.co.uk/sport/football/article-467960/Beckham-sells-250-000-No-23-shirts-US.html>

¹⁶<http://www.bloomberg.com/news/articles/2016-04-26/soccer-s-biggest-underdog-made-plenty-of-fans-not-enough-shirts>

¹⁷<http://business.financialpost.com/news/retail-marketing/how-rogers-communications-inc-is-getting-bang-for-its-buck-as-blue-jays-go-from-snooze-to-sensation>

¹⁸<http://sportsworldintel.com/tennis-hawk-eye-what-is-it-and-how-does-it-work/>

THE PERFORMANCE



The average racing car has **80,000 components**, which represents a lot of opportunity to find a competitive edge and a lot that can go wrong.

The last frontier for supply chain in sport is in the performance of the teams and athletes themselves. The big trend in sport is towards something called marginal gains. This is the logic that if you examine everything you do and improve it slightly it will deliver a major cumulative impact. This approach has strayed beyond the traditional realms of sport into supply chain management.

Typically, the more complex the equipment, the greater the opportunity for the supply chain function to make a difference. The most striking example is Formula 1.

On average there are **2,000 injuries** reported a season in the NFL and avoiding those injuries through better training and equipment can be worth a lot.

Here the teams have to have deep strategic relationships with lots of suppliers to help save vital seconds. The average racing car has 80,000 components,¹⁹ which represents a lot of opportunity to find a competitive edge and a lot that can go wrong.

Cycling is an area that relies heavily on equipment too, and bike manufacturers like Canada's Cervelo work closely with teams to make sure they produce the best performances based on the individual riders' body shape and posture. But Tour de France winners, Team Sky, looked beyond the bikes and into all manner of areas to find an advantage, which included sleep. A study by Stanford University found that college basketball players' performances improved by increasing the amount of sleep they got.²⁰ Team Sky took this on board and sourced specially made pillows and mattresses for each rider to ensure they were well rested.²¹

The use of big data is growing and spawning many unexpected partnerships with suppliers. Much

was made of the relationship between sport and data analytics after the film Moneyball, which told the story of the Oakland Athletics baseball team using statistics to assemble a team that took them to the brink of a World Series. IT companies like IBM, SAS and SAP are now strategic partners for teams across a spectrum of sports. IBM for example works with the Toronto Raptors to analyze the performance of their roster and identify good potential draft picks.²²

One of the biggest impacts on individual and team performance however is injuries. On average there are 2,000 injuries reported a season in the NFL and avoiding those injuries through better training and equipment can be worth a lot.²³ English rugby team Leicester Tigers work with IBM to analyze their players' performance through sensors to look for tell tale signs they are fatigued and could be at risk of injuring themselves and help modify training.²⁴ The NFL is also working with GE and Under Armour to find innovative ways to reduce concussions for their players.²⁵

¹⁹<http://formula1.sporting99.com/trivia/car-facts.html>

²⁰<http://www.bbc.com/news/business-36959769>

²¹<http://road.cc/content/feature/187025-12-ways-team-sky-develops-those-marginal-gains>

²²<http://www-935.ibm.com/services/us/business-consulting/interactiveexperience/work/raptors.html>

²³<http://www.footballoutsiders.com/stat-analysis/2015/nfl-injuries-part-i-overall-view>

²⁴<http://www.ibmbigdatahub.com/infographic/preventing-injuries-analytics>

²⁵<http://www.cnbc.com/2015/12/04/nfls-answer-to-concussions-sports-science.html>



WRAP UP

Supply chain management is playing a much more prominent role in the success of all types of organizations, and sport is certainly not alone in recognizing this. But working with suppliers has its limits in sport. After a tsunami of world records in the pool was attributed to a revolutionary swimsuit designed by Speedo, the international swimming federation decided to ban its use from competition. Cycling's governing body stepped in to put parameters around bike design to prevent technology from becoming too much of a factor in deciding races. There are no such barriers to making the most of this kind of advantage in business, though.

Sport has successfully incorporated a range of skills much more common in the business world to find advantages. And business is now copying sport. This approach to partnering with suppliers has pushed the limits of what athletes can achieve. The most successful companies no longer look at suppliers as an opportunity to cut costs, but as partners in finding a competitive advantage or adding value to customers. There is a saying in business that companies don't compete, supply chains compete. Sport is helping companies see the real possibilities around fully adopting that ethos.

The Supply Chain Management Association (SCMA) is the premier association for individual supply chain professionals in Canada. Each day, over 800,000 supply chain professionals manage the smooth flow of goods, services, finance and information around Canada. We are the voice of the profession, and provide training, education, certification and professional development.

www.scma.com



Supply Chain Management Association
777 Bay Street, Suite 2701
P.O. Box 112
Toronto, Ontario, M5G 2C8

Telephone: 416 977-7111
Toll free: 1 888 799-0877
Fax: 416 977-8886
Email: info@scma.com

scma.com