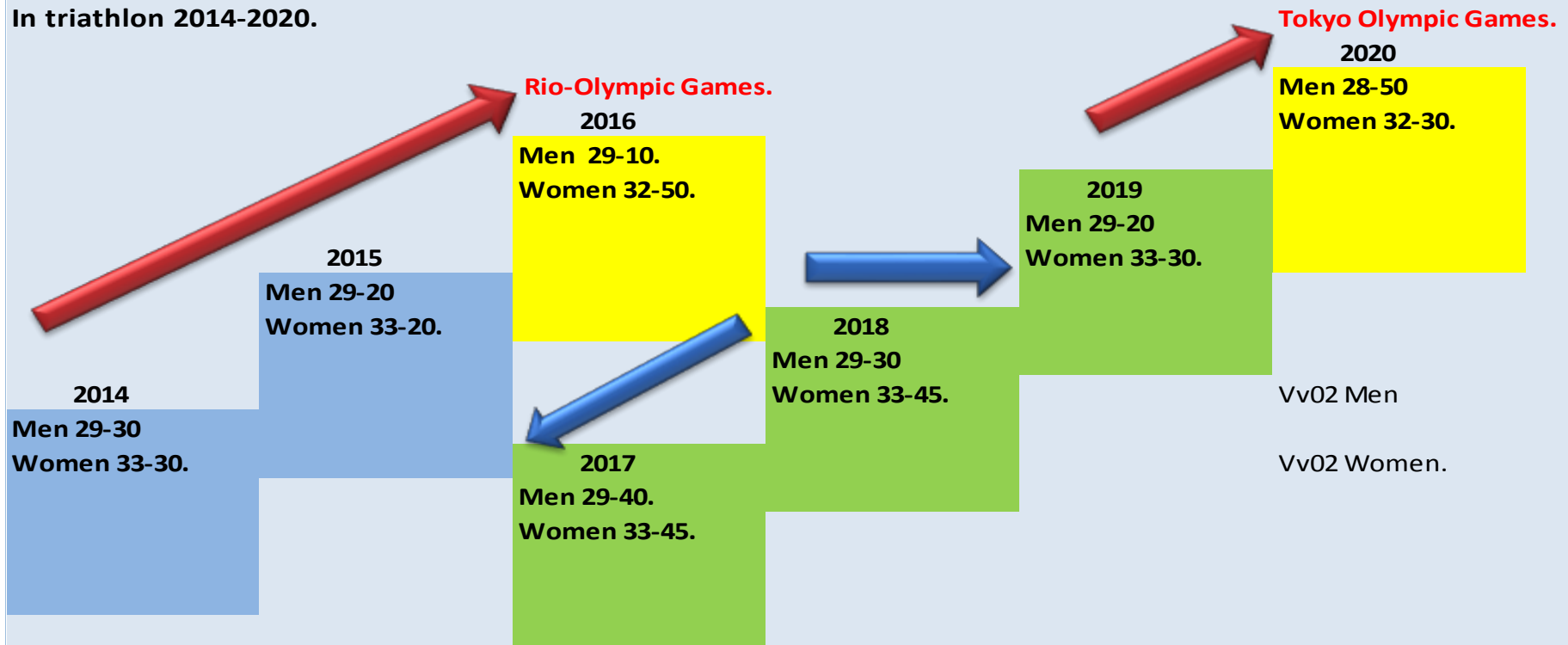


**Projected Running Performance
For The Sport Of Triathlon.**

Chris Jones.

Projected Triathlon Running Performance Over 7 years.

Hyperthetical Model Of
Projected 10k Running Performance .
In triathlon 2014-2020.



Physiological Limiting Factors To Performance.

- $\text{Vo}_2\text{-VvO}_2$ Max a limiting factor to performance.
- 10k velocity potential is approximately 93%.of VvO_2 .
- Athletes require a very high fractional utilization.(Metabolic support)
- Athletes require good running economy.
- Technical skill & mechanical power per stride.
- Athletes require the right % differential between 10k & triathlon velocity.

Projected Running Performance %.

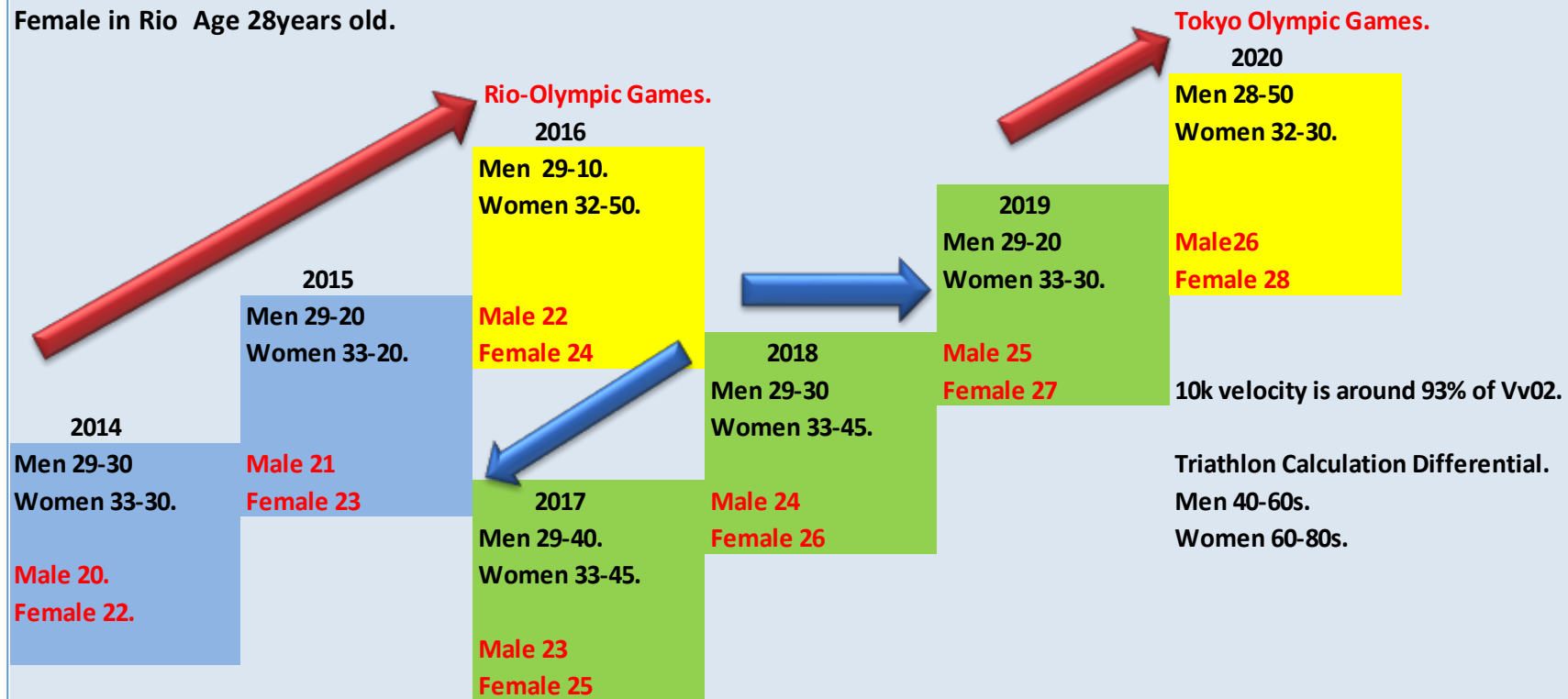
- **Triathlon Goal Time .**
- **10k Flat Performance Or Performance Indicator.**
- **3k Velocity 100% value.**
- **10k Performance potential 96-97% of VvO2.**
- **Critical differential drop of speed due to running in a triathlon event**

7 Year Projection ? Are We Already Too Late.

Projection

Male In Rio 26 years old.

Female in Rio Age 28years old.



Athlete Cycle Of Development.

- **Youth Athletes 15 year point.**
- **Priority.**
- Skill focus.
- % of VvO2 only 1k-2k .
- Work at basic speed & skill.
- Muscular conditioning .
- Aerobic development.
- Develop general base of all qualities.

- **These athletes would fall in to two category's .**
- Male/Female age 21 -22 2020 Tokyo Cycle .(would be exceptional)
- 2024 Olympic cycle age 25- 26.(Goal)
- 2028 Olympic Cycle. Age 29-30.(stretch performance goal)

Athlete Cycle Of Development.

- **Junior Athlete 18 years of age.**
- **Priority.**
- Strength & Conditioning.
- Functional control.
- Good technical model and a high level of running specific skill.
- VvO2 3k.+ 5k Performance indicator at 97%.(metabolic cost important).
- Further development of aerobic capacity .
- **Exposure to international competition at European & World level.**

- **Category.**
- Male /Female Age 24 2020 Tokyo Olympic cycle.(1st Priority)
- Age 28 2024 Olympic cycle. (2nd Priority)
- Age 32 2028 (stretch goal)
-

Athlete Cycle Of Development.

- **Junior Athlete 20 years old/1st year senior.**
- **Priority.**
- Further development of aerobic capacity.
- Increased training load.
- Increased investment in athlete potential .
- **Performance profile clearly shows potential at world level.**

- **Athlete Category .**
- Male /Female Rio Cycle 22/23 years old (exceptional potential).
- 2020 Cycle Tokyo 26/27 years old priority goal priority investment.
- Possible 2024 age 30/31 .
-

Olympic Medal Zone Athlete Projection

- VvO2 3k 100%.
- 5k =97%.
- 10k=93%
- Fractional utilization high.
- Male 85-87%
- Female 87-92%
- Submaximal metabolic profile.
- **Female Athlete Rio Cycle.**
 - **Olympic Projection 32-50 .**
 - (triathlon differential time)
 - 10k 93% Velocity
 - Capacity to run 32-10 to 32-30.
 - 5k 97% 15-25 to 15- 35.
 - VvO2 = 9mins -05/10s.
- **Female Athlete Tokyo Cycle.**
 - **Olympic Projection 32-30.**
 - 10k 93% velocity.
 - Capacity to run 31-40 to 32-00
 - 5k 97% 15-15 to 15-25.
 - VvO2= 8mins-55/05.

Establish Key Performance Indicators.

Endurance Performance									
Name		Age		Weight .					
Performance Indicators.									
VvO2 % Velocity.		%Velocity 400m.		Lactate Production .		Field Testing		Phase Of Training	
115%		60-30				Test For 10k		Date	
110%		63-00				4x2k at 93% +800m			
105%		66-6s						Phase1.	
Vvo2 3k		100% Time		8min-45.		Projected 70sec		Phase 2	
97%		72-06				Test For 5k.		Time HR Lactate	
95%		73-30				4x1200m at 97% +800m.		Time HR Lactate	
93%		75-54				1) 2k 6min-15s		6min-12 174 3-8.	
90%		77-00				2) 2k 6min-15s		6min15 176 4-2.	
85%		80-30				3) 2K 6min-15s		6min-14 176 5-3.	
80%		84-00				4) 2K 6min-15s		6min-13 177 6-8.	
						5) 800M		2min-12s. 184 7-3.	
HR						6mins -15secs.			
Aerobic Capacity Training Zones.		Lab Based Training Zones				93% VvO2 Goal Pace...			
HR AT Zone E3.		165-175		Bla 3-8.		Incremental Sub Max Field		Time HR Lactate.	
Aerobic Zone E22.		155-165hr		Bla 1-8		Test + Anaerobic Power.		Time HR Lactate	
Aerobic Zone E2		145-155hr		Bla 1-1		1) 1200m 15k Rest 60s.			
Aerobic Zone E1.		135-145hr		Bla 0-1.		2) 1200m 16k Rest 60s			
						3)1200m 17k Rest60s			
						4)1200m 18k Rest60s			
						(Just Under High AT)			
						5)1200m 19k Rest60s			
						(20mins recovery)			
						6) 600m Best Effort.			

The Principle Of Extension Will Confirm Your Athletes Potential.

- **Youth performance indicator .**
- 1500m. 100%
- **Junior**
- 3k Vv02.100%
- **2nd Year Junior.**
- 3x1200m at 97%.
- **3rd Year Junior**
- 2x 2k at 97%.
- **1st Year Senior.**
- 3x2k at 93% + Vv02 3k
- **2nd Year Senior**
- 4x2k at 93%.+ Vv02 3k
- **3rd Year Senior.**
- 3x3k at 93% +Vv02 3k

Athlete Confirmation Conditioning Sets.

- **Senior year performance sets.**
- 4 x 1k Vv02 4mins recovery.
- 2x3k 97% of recovery 2mins.
- 4x1600m 97% recovery 90s
- 5 x 1200m 97% recovery 75secs
- 6x1k 97% recovery 60s.

- 3x3k 93% rest 2mins.
- 4x2k 93% rest 90s
- 6x1600m 93% rest 75s.
- 8x1k 93% rest 60s.

Characteristics For Success In Triathlon Running Performance.

- Body Type/weight mass.
- Technical skill.
- Power transfer.
- Good fatigue resistance.
- Large aerobic capacity.
- Ability to take on large volumes of training .
- Athlete intelligence .
- Exceptional cycling conditioning to support your running performance.