



ROCK-HARD GO-KARTING IN ITALY

An International Specialised Skills Institute Fellowship.

ROCKY MOLLUSO

Sponsored by the Italian Australian Foundation

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i. Acknowledgements

The Fellow would like to thank the following individuals and organisations who generously gave their time and their expertise to assist, advise and guide him throughout his Italian Australian Foundation Fellowship.

Awarding Body – International Specialised Skills Institute (ISS Institute)

The ISS Institute plays a pivotal role in creating value and opportunity, encouraging new thinking and early adoption of ideas and practice by investing in individuals.

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Since its establishment 28 years ago, ISS Institute has supported over 450 Fellows to undertake research across a wide range of sectors which in turn has

led to positive change, the adoption of best practice approaches and new ways of working in Australia.

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The Fellow sincerely thanks the Italian Australian Foundation (previously known as the Italian Services Institute) for providing funding support for this Fellowship and to the ISS Institute. The Italian Australian Foundation was established, inter alia, to advance the education of Australian residents who are of Italian descent. The Fellowship provides the opportunity for successful Fellows to advance their skills and knowledge. The Italian Australian Foundation and ISS Institute work with the successful recipients upon their return to share and publicise the learnings and recommendations from their Fellowship investigation.

Personal Acknowledgements

Firstly, I would like to truly thank and acknowledge the following people for making it easy and helping us initiate visits to the Go-Kart manufacturing companies in Italy.

- » Remo Racing (Aust),
- » IAME
- » Jason Lindstrom from IPK,
- » FK Karts (Australia) and
- » Greg from Tony Kart (Australia).

Secondly, I would like to thank and acknowledge the Italian Go Kart manufacturing Companies. They are:

- » IAME, (Bergamo)
- » Luisa Tonelli from IPK and FK Factory (Verona) and
- » Elena Gossetti (Tony Kart) Brescia.

Thirdly, my wife Grace and daughters for all their support before I left for my journey, and my talented racer/ driver son Antonio who sparked the drive in me to apply and take on this challenge with him.

1. Executive Summary

My fellowship focused on learning about the automotive and training industry - in particular working alongside and mentoring a number of apprentice VCAL/VET students in the area of general mechanics and engineering. Additionally, the Fellowship occurred alongside working with my son who has begun Go-Kart racing and is competing at the national level by competing in the Australian Championship round 2018/ 2019. His entering racing inspired me to:

- » enhance my skills,
- » investigate how and where Go-Kart frames and engines are manufactured,
- » investigate the technical data setting up of chassis, frames and engines to suit Australian conditions.

I am also setting up an Australian/ Italian motor sports team MOLLUSO MOTORSPORTS that will race in the Go-Karting Industry, and be involved in the manufacturing, preparation and maintenance of these highly sophisticated machines. It is envisioned that this organisation will play a key role in the local area in supporting young people studying VCAL and their apprenticeship.

As I anticipated the experience overseas expanded my skills as I got to visit firsthand the Italian manufacturers Tony Kart, IAME, IPK/FK Karts in Italy. At these locations I was able to speak about our racing in Australia and the conditions, climate, tracks etc. These organisations gave my son and I a personal tour of their factory plants. They don't normally allow this but were warm and welcoming to us because we came from afar. Our Italian heritage played a significant role in this warm welcome. Organisations were curious about Australia and wanted to learn a lot about Australia and our racing circuit. In addition, during my Fellowship I got a chance to visit the Lamborghini factory, the Ferrari factory and the Ducati factory.

I have already had the opportunity to share my experiences and skills with the trainees coming through my workshop. It is beneficial for them to get a chance to work on another type of motor alongside the other engines they work on. As a long term goal, I would like to expand the MOLLUSO MOTORSPORTS team and give future apprentices the chance to be achieve career success at the top level of racing or simply to achieve qualifications in their chosen vocation of mechanics.

Personally, from a migrant child's point of view, the Fellowship impacted me as someone who struggled for most of his schooling life. It showed me that with determination, and years of hard work, it is possible to realise a lifelong dream. Professionally, as a result of my Fellowship, I plan to continue working in the Yarra Valley and develop future generations through Rock-Hard Motors to take pride in their chosen vocational work. I will continue to work closely with Ringwood TAFE training to help promote the automotive industry and the wider racing sector.

2. Fellowship Background

Fellowship Context

The Fellowship area I am involved with is in the automotive trade industry, training apprentices from the age of 17-21. After my young son took an interest in professional Go-Karting in 2018 and started his own MOLLUSO MOTORSPORTS race team, a keen interest ignited in me to further investigate Go-Kart motors and work alongside my son on this journey of racing and Go-Kart manufacturing.

Fellowship Methodology

The contacts made through the racing circuit (the Australian Go-Kart Championship Round 2018) opened doors not only here in Australia but in Italy in three of the top Go-Kart Manufacturing companies in Italy.

The Fellowship began in Australia in February 2018 and took us from Melbourne to NSW to S.A to Albury on a racing circuit.

In November 2018, after my son completed his Year 12 VCAL education, I travelled to Italy to Milan, Brescia, Verona and Bergamo. At these locations I visited a range of go-kart manufacturers.

Fellowship Period

The period for the Fellowship was from October 23rd to November 16th 2018.



Figure 1: New 2019 FA Go-Kart

Fellow's Biography

In order to understand how this story, and journey began I need to start at the beginning of my working life and childhood too.

Never in my imagination did I think that I, a child of an Italian immigrant farmer, could have this opportunity to live out his dreams, as well as help set out a future for his son and other young apprentices.

I began my business from humble beginnings my parent's farmhouse garage, where they, as southern Italian immigrants, worked from the land that I grew up on in the Yarra Valley. Growing up on the farm there was no shortage of tractors, motor bikes, engines and old cars to tinker with. However the struggles of running a farm didn't allow me to pursue my dreams of car racing.

I then became an automotive apprentice at the age of 16 as my father thought it would help on the farm with servicing our tractors. It became apparent that not just blood, but oil ran through my veins! I had a drive and a passion for cars and anything with motors in it.

By the age of 23 I had started my own little business - Rock-Hard Motors. I have now been running it for 24 years. I have had the privilege to mentor many apprentices and VCAL students and to service the local community, farmers and other agribusiness workers, and overseas students / backpackers too. In recent years I got the chance to build my own race car - an LC Torana 1971. Being able to race down a drag strip several times meant I realised a dream I had in my youth - to be a race car driver.



Figure 2: Tony Kart factory engine assembly room

1995 was the year I started Rock-Hard Motors. This was the same year I met my wife, who also played an important part of this Fellowship. My wife Grace read an advertisement in the Italian newspaper Il Globo about the ISSI Fellowship and encouraged me to apply and go on this adventure alongside my son. It is a testament to my determination and one I want to instil in my son and other young people that a dream can be achieved at any age.

At the age of 17 we started a new race team - MOLLUSO MOTORSPORTS Race Team. In the future he would like to progress this team, achieve life-long skills, and introduce new members. I anticipate passing on my experiences overseas including new skills and learnings to new trainees and apprentices as part of this process.

It is my intention to race in the highest level of Go Karting in Australia throughout 2019. That is, in the Australian Go-Kart Championship Round of 2019. There are five rounds all over Australia - in Queensland, NSW, S.A and Victoria. There will be two rounds in Queensland. To achieve the best results in each round and continue to improve, we will engage in driver training with Matt Mclean - the current No 1 ranked driver in Australia.

The Go-Kart Industry is growing - local clubs are increasing in their members year by year. It is a popular motorsport. It is where all the Australian V8 Super Car drivers and Formula 1 drivers practise (including Daniel Ricciardo) and began their racing careers. It is a very expensive motorsport, so my belief is the more you learn about the mechanics of these Karts, the more advantaged you have. I anticipate we will be able to apply this knowledge to our own Kart. Furthering my skill in this area and that of my son too will make a positive impact.

We have also established great contacts and relationships with Matt McLean (driver and current Australian Champion), as well as James Sera (former Australian champion and owner of Melbourne Karting Centre who imported our new FA Kart). This Kart we actually saw built in the factory during our Fellowship to Italy. It was a very satisfying experience knowing we had actually been there and witnessed it being built.

In the two years we have been part of the Go-Karting Industry, we have gained an enormous amount of knowledge and skills. I have come to understand the mindset of a race car/Go Kart driver/racer needs to be calm, focused, composed and assertive in order to be successful in this motorsport - both on and off the track.

3. Fellowship learnings

The Fellowship has given me a first-hand, private look at the make, build and running of the Go-Kart from the very start of the assembly line to the finished product. We also got to watch a race in Italy and participated in an indoor Go-Kart event where my son Antonio came second against other local Italian drivers.

We left Australia for Milan on the 23rd of October 2018, the day after my son finished his VCAL/ Year 12 secondary school year. No schoolies for him - God / the ISS Institute had bigger plans for him! After arriving in Milan on the 25th of October we had a few days to settle in to our hotel and hire a car to be able to drive to the companies we had made contact with and appointments to on particular days. We are blessed to have had family, (cousins) who helped us organise a car and get us to our accommodation. They also took us to their Church that evening where we could pray, meet the local community and be grateful for this wonderful experience/ adventure we were about to embark on.

IPK FK factory

Our first visit was on Monday the 29th of October to the IPK FK factory in Verona via a beautiful scenic drive. We met Luisa Tonelli on arrival, who warmly greeted us and took us on a lengthy walk around the factory plant. We learnt that welding on the frames was all done by hand, all components made in the factory and everything was branded. This demonstrated clearly how passionate they are about their brand and how much pride they take in their work. They also had a large race team and we got to meet the CEO Daniele. They had Go-Karts displayed from the years 1907-2010. They started out as a race car factory plant then moved to Go-Karts.



Figure 3: Luisa showing us the chassis frame of the FK Kart

TONY KART

On Wednesday 31st October we visited the second factory plant Tony Kart, which is the largest Go-Kart Manufacturer in the world. This was in Brescia. When we arrived we were greeted by Elena Gosetti and Mario, who became our tour guide for Tony Kart. At Tony Kart we got to see the first Tony Kart ever built by Antonio (therefore named Tony) in their little museum. This manufacturer makes four types of karts - Kosmic, Tony, Exprity and FA. All are hand assembled with fully automated robotics state of the art factory.

The enormous size of these factories was mind boggling - the whole community work together, embracing these companies and helping to promote their towns. The Italians really take pride in their manufacturing business and support these companies who provide employment which in turn helps to boost their economy. They take very strict and serious precautions to protect their copyright and intellectual property, so security was high. For this reason, we were not allowed to take photos of the assembly line plant.

The spare parts section is in a warehouse underground in the factory plant. The design of the karts reflects their patronage, passion and pride that no-one can copy even if they tried. They use the Italian colours blended in their designs and Go-Kart race suits and wherever possible use the Italian flag. It was very special to see. The 'Made in Italy' label is highly respected and always known as number one for quality made products in the world.



Figure 4: Mario showing us the branding tags machine for the Karts.

IAME

Our third visit was the IAME (heart of the kart) factory plant in Bergamo where we saw the actual motor engine being built using highly technical computerised robots making these tiny high-powered engines. It was an extraordinary sight to see the most incredibly intricate detailed engines packed into such a small unit that can reach the speed of 120km in just seconds. Full engine assembly only takes 45 mins to make and this plant makes up to 25 motors a day to keep up with their high demand in exports.

Australia is their third biggest customers world-wide. This is because Australia has a huge audience and participants in motor sport Industry - it starts at a very early age for some young children as seen at these Go-Kart events. The engines are quality control checked every five motors and security is tight to prevent fakes or stolen ideas.

The business has been running for 50 years. We spoke with Marco, who has been an engine builder for IAME for the past 40 years. As with the other companies they are very proud of their motors and their logo is always represented on anything new they build. In this case the new 2019 model IAME engine ready for racing at any event worldwide.



Figure 5: Marco the sales executive for IAME Engines



Figure 6: Machinery in the OTK Factory



Figure 7: Finished machined parts on display at the OTK factory



Figure 8: An image from IPK's Go kart Showroom

4. Personal, Professional and Sectoral Impact

Personal

Personally, from a migrant child's point of view who struggled for most of his schooling life, with determination and years of hard work as an adult I was able to realise a long-time coming dream.

A key personal opportunity that this Fellowship afforded me was a chance to spend a weekend with my aunties in Modena. One of my aunties (Zia Rita) took my son, daughter & I to visit the Ferrari Factory, the Lamborghini factory and the Ducati factory - something we only ever dreamed of doing. Due to this Fellowship and the factories being so close to where they lived, it gave us this wonderful opportunity and what was a dream became a reality.

Professional

Professionally, I plan to continue working in the Yarra Valley and help develop future generations through Rock-Hard Motors to take pride in their chosen vocational work. I will continue to work closely with Ringwood TAFE training to help promote the Automotive Industry and Racing.

In addition, the Fellowship has enabled me to widen my professional skill set including:

- » taking a new avenue in the Automotive trade,
- » expanding my skills on intricate, highly sophisticated Go-Kart motors
- » applying this knowledge to the apprentices I teach and

- » applying this knowledge on the race track at the Australian Championship Go-Kart racing Round 2019.

As a long-term goal, I would like to expand the MOLLUSO MOTORSPORTS team and give future apprentices the chance to be achieve career success at the top level of racing or simply qualifications in their chosen vocation - mechanics. Our vision is including more members in our Molluso Motor Sport race team and drive into the future to see where this may take us and how positively we can impact the Motor Racing Industry.

I have also spoken to the TAFE in Ringwood. I have asked them to work with me to promote the Automotive, Manufacturing and Trade Industry to encourage new apprentices. I would like to show them and lead them to wherever they would like to take their career path - whether it be general automotive repairs, building and maintenance or at the highest level Motorsport Racing.

Sectoral

Since returning from my Fellowship I have contacted other Go-Kart race teams and suggested to play the Australian National Anthem at major events. This is not currently done here in Australia at major Go-Kart events. This will increase the prestige and sense of occasion at these events.

I have also suggested that it may be a good idea to have a chaplain to gather the Go-Kart racers and children for a blessing before the event begins for protection over all drivers, officials and families as it is a motorsport with lots of risks involved. This is similar to what is done in Italy.

My opportunity to learn about Go Kart racing and construction in Italy will also impact on the delivery of VCAL and apprenticeships in my sector. I am already sharing my experiences and skills to the trainees coming through my workshop. Through working on Go-Karts they get a chance to work on another type of motor together with all the other engines they work on.

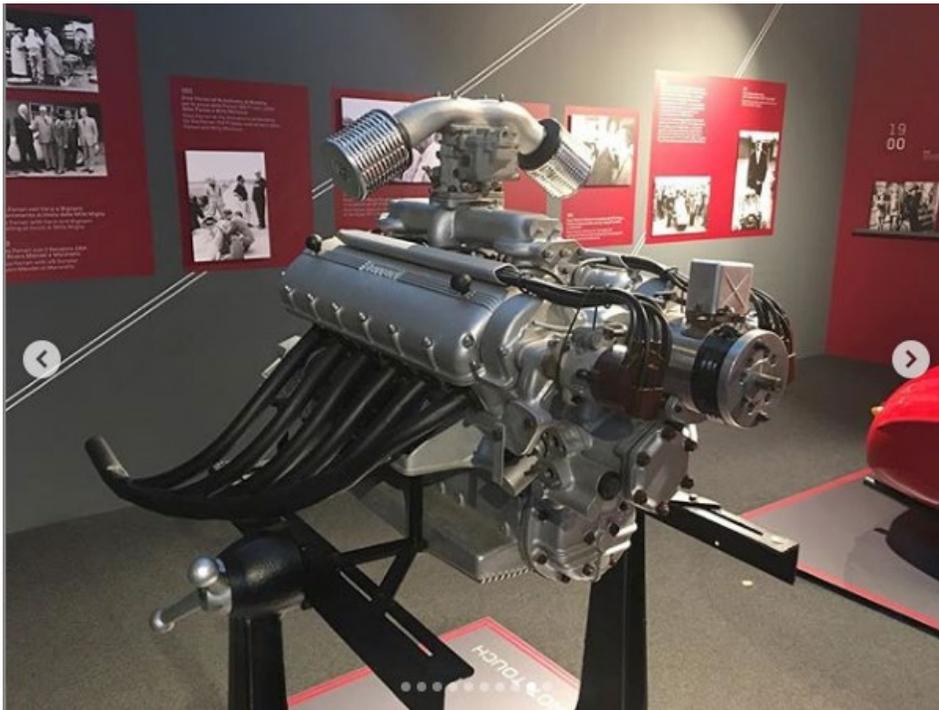


Figure 9: Ferrari engine on display in its rawest form



Figure 10: Italian Go-Kart track where they hold National and International Events

5. Recommendations

1. National Anthem

After participating in 2018 in the Australian Go-Karting round no National Anthem is played at the beginning of the race. I intend to take this to the official organisers to ask them to include this at their next event and to make it an on-going part of the National Round as it gives the drivers a sense of pride .

2. Chaplains at the racetrack

This would also be an on-going part of the official ceremonies as it brings protection over all the racers and official workers and families since the Motorsport Industry is a dangerous sport. It would give them a sense of comfort.

3. Supporting VCAL / Apprenticeships / Trainees

My intention is to enable new apprentices that come in and/or VET students to experience racing at the track by inviting them to come along to a local event and be part of the pit crew.

4. Formula 1.

On the big picture I intend to organise the Go-Karters to get on the Formula 1 circuit in Melbourne as it would encourage the Go-Kart drivers to keep striving harder and be part of something they could only imagine.

5. Australian Kart Championship Round 2019

We have already embarked on the current year championship round with a new

FA Kart that we saw being made on our Fellowship trip to Italy. To be able to watch my son race on the Go Kart here is inspiring. We have learnt a great amount of knowledge from our experience both overseas and here in Australia that we are putting in to practise and sharing with the other teams.

We have joined forces with Matt Mclean and James Sera both former No 1 Go-Kart Australian champions and will continue to grow, learn and face challenges together in the racing circuit . Obviously our dream is to succeed, get into the top ten or beyond in this coming year.



Figure 11: Italian national Go-Kart event day 2018



Figure 12: Trailer set up and FK Go-Kart 2018 ready for racing .



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