Big data
How analytics are impacting the HVAC&R world.
Shane Carmichael, M.AIRAH

This former AIRAH Future Leader award winner very quickly delivered on the promise recognised by the Institute. In quick time he took the helm at local manufacturer Air Change, and the presidency of AIRAH’s New South Wales division committee, both capacities in which he still serves.

Ecolibrium: When did you first decide you wanted to be a mechanical engineer, and how did you get to where you are today?
Shane Carmichael: From a very young age I had always wanted to be an engineer, the ability to design and create really appealed to me. A strong interest in fast cars and motor racing naturally pulled me towards mechanical engineering, and from there I discovered a strong interest in the HVAC field.

By starting at Air Change while it was in its infancy, I was able to grow my career and learn about the products as they were developed. Initially I was involved in the design of new product innovations, and later ventured into sales to get an even better understanding of the industry and how we could meet and exceed the needs of our customers.

Ecolibrium: How would you characterise your approach to work? What are the fundamentals to your philosophy and process?
Shane Carmichael: I believe it is important to understand fundamental concepts of HVAC, and from there you can extrapolate solutions for most decisions. It is this approach that has made it possible for Air Change to thrive on the customisation of units for the vast array of projects we undertake.

Eco: Do you have a checklist you always follow at the start of a project or initiative?
Shane Carmichael: Rather than a checklist, I have a systematic approach of gaining as much information as possible prior to commencing work on a project/initiative. This allows for more effective decision making and a better outcome for all involved.

Eco: Are you open to new ideas, or are the old ways the best ways? Do you like to collaborate?
Shane Carmichael: In this industry it is essential to be open to new ideas. As technology evolves it can open the door to entirely new ways of doing things.

However, it is important to be able to say the three simple words: “I don’t know”. And it’s only by communicating and collaborating that individually and as an industry we can learn and develop to find new solutions. I still believe experience is invaluable; however, you can miss out on opportunities if you don’t keep an open mind.
Eco: What are your favourite projects you’ve worked on and why? What are your favourite parts of your job?
SC: As Air Change specialises in customised HVAC solutions for unique projects we often have interesting projects we are involved in. This is ideal for me, as I prefer working on projects that offer something different or unique. One of the favourite projects I have worked on was a greenhouse application that needed critical climate control. The customer was a small farmer, and it was great to gain an insight into the challenges that they face.

Eco: Whom do you admire and why? Do you have a mentor? Do you gain any satisfaction from mentoring others?
SC: I have had several mentors over the years, each of them with very different qualities. I try to take the best of the qualities and apply them to my own attitudes and decisions. I also make an effort to share my learnings with my younger colleagues to ensure that the mistakes I have made may be avoided by others.

Eco: What advice do you have for emerging engineers who wish to follow in your path?
SC: Try to get involved within the industry as much as you can; go to the seminars, meetings and conferences to expand your knowledge. Sometimes we can become trapped in our comfort zone, but by extending yourself you can build character and experience, and in the long-term transform your career.

Eco: What’s the most important lesson you’ve learned throughout your working life?
SC: A career is built on constantly overcoming challenges, things are never perfect, and once you accept this you can really start to enjoy what you do.

Eco: What’s next for you, and what are your goals for the future?
SC: I’m very proud to work for an Australian manufacturer and the goal is to grow the business to become a greater force within the industry.

Eco: If I wasn’t a mechanical engineer, I’d be a …
SC: Professional arborist.

Eco: Do you have hobbies or diversions?
SC: Kiteboarding and triathlon.

Eco: My most valued possession is …
SC: My happiness and health.
Eco: Tell us something about yourself others might not know.

SC: I have two chihuahuas, Yogi and Bear.

Eco: In five years I’d like to be …

SC: As passionate and involved in the HVAC industry as I am now.