Careers in the Digital Economy

What have Data Centres Ever Done for Me?

Case study:
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1. What do you do?
I’m a Senior Mechanical Engineer at Equinix. My main role is to validate energy efficiency projects and supervising construction projects across the EMEA region, ensuring all our data centres are in line with our standards, requirements and company’s branding. I am a certified engineer with CIBSE.

2. A bit about what your organisation does.
The name Equinix combines words describing what the company founders wanted to provide to our customers. Equality, neutrality and internet exchange.

Since the Telecity acquisition we are the leading global colocation data centre provider. We are specialised in enabling global interconnection between organizations and our employees, customers, partners, data and cloud.

Since 2015 we have implemented our data centres with various renewable energy technologies and sustainability practices. Our data centre platform is powered with clean and renewable energy.

3. Your story – where you started from and how you got to where you are.
I still remember when I decided to become an engineer. I was in my early teens and I was trying to understand what engineers’ responsibilities and duties were. Not being familiar with this career path (no one in my family was an engineer) I sought advice from my college professor who was an engineer himself and he explained what he was doing, the level of responsibilities and opportunities he had.

Being a bit ambitious by nature I decided that my career would be in the engineering world. After graduating from college, I joined the university of Rome “La Sapienza” starting a Civil Environmental Engineering course.

Along the way I was getting more and more passionate about water treatments and renewable sources, therefore during my final years I specialised in water treatments, completing my studies with a thesis about arsenic removal from contaminated water via ionic exchange processes (resins). Prior to discussing my thesis I had a wonderful and promising job interview in Rome! They were looking for an environmental engineer with experience on arsenic removal from contaminated
water. The project was in a foreign country and in partnership with an Australian firm. They were already planning to send me on site and start working as soon as possible, how exciting...

BUT… my dream of starting this brilliant career was interrupted by the obvious question: “By the way! How is your English?” Sigh… they told me straight away that I couldn’t get the job because a good knowledge of English language was mandatory to succeed in the application...

For this reason I moved to London to start a 6 months English course. Once completing the English course, I joined an environmental consultants engineering firm where I thought I would work as environmental engineer. You would have thought so too… BUT (second one on my career) fate diverted my career path and I started working as a mechanical engineer! My first year was quite tough, mainly for two reasons:

1- I felt my English level needed to improve desperately (I still think so)
2- Mechanical engineering was a new world to me, so many new things to learn!

Then I decided to start a Masters in building services engineering hoping to fill my lack of knowledge in mechanical services. And there I was, a newbie mechanical engineer.

Initially I was mainly working on residential and office projects, and I did so for nearly 10 years. I should be saying that I always felt something was missing and I wasn’t completely satisfied with my career path. I worked in nice and challenging projects, sometime with “Archistars” but I always felt somehow limited and unsatisfied. I felt that architects and developers were missing the importance of having a mechanical service properly designed and the only thing that counted was build a lot, fast and spend less money. Quite often this philosophy was at the expense of mechanical services.

At last, the opportunity of changing my career direction came 6 years ago when I joined a data centre specialist consultants firm. I was impressed by the freedom we had as professional engineers to design mechanical systems efficiently and properly! I thought “why did I wait so long before making this move?”

I was amazed by the new reality of talking to clients with the same knowledge as mine (or better 😊) and by their willingness to embrace new ideas (when reasonable) aiming to improve their data centres. You really have the chance to challenge yourself, to think out of the box. Also, you do real engineering stuff! Mechanical systems are designed considering the most cost-effective solution, you don’t just provide the cheapest system and then the tenants will pay the bill! You continuously study new technologies, you dictate space requirements (always with common sense of course), you deal directly with manufactures and you tell them what you want, you don’t just take the equipment off the shelf – provided with the basic control available from the manufacturer.

If I could use a metaphor I would say “when I joined the data centres industry I felt like a child in a candy shop, free to grab every delicious sweet I could reach!”

4. What you have gained personally and professionally from working within the sector.

I’m continuously improving my technical knowledge and in a variety of disciplines (still a way to go, of course – we never stop learning!). I gained more self-confidence because I like what I do and I want to know more about it… I know that whenever I talk to a colleague, supplier, customer, there is always something new to learn. And self-confidence, enjoying what I do at work and keep challenging my knowledge make me feel more relaxed and satisfied with a positive “knock-on effect” on my personal life. After all, we spend most of our life at work and been happy and satisfied about what you do in your work environment it reflects on your private life. Another typical “gain” of been an engineer is “practicality”… and this is a definite addon in my private life.
You might learn similar things in other sectors, but from my personal experience in the data centre sector you learn them in much deeper detail…

5. Why you chose to work in this sector (if you did!)

Well, I didn’t choose it at first. I started my career in London and I decided to move back to Italy after nearly 5 years. I was extremely happy at first, then suddenly I started making comparison between London and Milan and I realised that I was missing London. Can you believe it!? Me neither… but hey! Weird things happen!

And one day the opportunity came along, the company I was working for was acquired by a Dutch firm with an office in London. I couldn’t ask quickly enough (basically after the introduction speech) to be relocated in the London office. I’ve been warned the London office was working on data centre projects, quite different from what I was doing… and I thought “even better! I will finally stop working on residencials and offices!”

Then (fate again) I moved to another consultancy firm which was doing all sort of projects and in a variety of industries… And in that moment, I decided to work on data centres only (it was a request I raised during my first appraisal).

The main reason that make me choose this sector was the pleasure of being an engineer rather than an accessory to Architects and Developers. The pleasure of being free to design and explore different/new systems aiming to provide an efficient and cost-effective solution, and the possibility (and requirement) of renovating my knowledge… It is a continuous learning process keeping up with new technologies.

6. Any learning points you would like to pass on to aspiring technical staff or, even better, why you would recommend a career in the sector to young people who think data centres are as dull as mince with no onions.

Well, it really depends on what your ambitions are and what you want to do in your professional life…

The way I see it…. working in the data centre industry is like enriching my career path, having the opportunity to continuously challenge myself in a constructive and enjoyable way. Having the pleasure of dealing with other professionals that are on my same professional level, learning from them and sharing my knowledge with them. And mostly be free to be an engineer rather than an accessory to Architects and Developers.

Data centres are not as dull as mince with no onion, not at all. In fact, I would say the opposite (no offence!). Being a specialist in this industry means putting into practice all you have studied for (and quite hard!) and having the opportunity to improve sometimes the manufacturer design, because while working in this industry you develop a 360° knowledge of the system you are designing. And this in addition to site specific requirements might allow you to see how equipment can be improved to satisfy the data centre’s needs. If you work in the data centre industry as mechanical engineer, you cannot be only a mechanical engineer! You need (and you will!) learn about other disciplines: electrical systems, control, fire, public health and more! How this can be as dull as mince with no onion? I really think that this industry is not promoted enough!

However, you do specialise in one sector, and this might be seeing as a limitation, and it might be true. During my career I have designed mechanical and public health services for many different type of buildings: offices, residencials, affordable houses, retails, parking spaces, green houses, schools, museums, herbariums, you name it! I (possibly) did it! But I never felt I was where professionally I
wanted to be, and this unpleasant feeling left me only when I joined the data centre industry (for all the reasons I have described along this little summary of my career).