



Under the microscope:

Female entrepreneurs in SECT Science, Engineering, Construction and Technology



Sumita Sinha

"Only 13% of architects are female, less than 1% are from ethnic minority groups, so statistically speaking I don't even exist!"



Claire Peter

"I felt a real sense of 'I'll show you' by starting my own company and I haven't looked back since."



Juliet Davenport



"A science degree is incredibly valuable in the business world."



Research has consistently shown that female entrepreneurs are more innovative than their male counterparts; they are more likely to be providing a product new to the market, more likely to be using technology in their products or services and more likely to be offering a product or service that has been developed in the last year¹.

Despite this the number of female owned companies in Science, Engineering, Construction and Technology (SECT) is staggeringly small. To quantify just how small, Prowess commissioned a report from the Labour Force Survey (LFS). It shows that across all the SECT industries there are over 10 times as many male owned companies². In many sectors the number of female owned companies/women in self-employment is too small to be statistically reliable, hence there are:

- 13,139 male owned mechanical engineering companies but no data available for women
- 4,334 male owned/self-employed IT Technicians but no data available for women

The figures are alarming because sectoral segregation is a significant factor in the growth discrepancy between male and female owned firms. Traditionally female entrepreneurship has dominated the 3 C's – catering, care and cleaning. To which we can now add a fourth C, 'chiropractic' – one of the few SECT industries in which the number of female business owners outnumbers that of men. Furthermore 76% of women with SET qualifications are not working in SET industries, this compares with 51% of men with SET qualifications³. SECT careers are perceived to be inflexible and not conducive to part-time working or career breaks. SECT enterprise may

enable more women to pursue a career in their chosen field, at a level that matches their skills and experience on a more flexible basis.

In recent years policy initiatives have focussed on how to increase the start-up rate of female-owned companies with some success. National policy makers and business support providers are increasingly focussing on how, not only to support more women into business, but how to ensure their businesses are sustainable and that support mechanisms for growth are in place. This is for example a key priority of the recently formed National Women's Enterprise Task Force⁴.

To understand more about female business owners in these sectors, the UK Resource Centre (UKRC) for Women in SET commissioned Prowess to carry out the first national survey of such businesses. The survey aimed to put these innovative female entrepreneurs 'under the microscope'; to find out about their motivations for self-employment, to explore what challenges and barriers they had experienced and to consider how more women could be supported to start businesses in these high growth sectors.

¹ Stairways to growth: Supporting the ascent of women's enterprise in the UK. Global Entrepreneurship Monitor/Prowess 2006 and 'Achieving the Vision', Female Entrepreneurship, British Chambers of Commerce, 2004

² Office for National Statistics, Labour Force Survey, Quarter 4 2006

³ Labour Force Survey 2004, SET not SECT (figures not available for construction in this case)

⁴ <http://www.womensenterprise.co.uk/>

To compliment this quantitative research Prowess carried out a number of in-depth interviews with female entrepreneurs, representing a broad spectrum of the SECT industries. Edited versions of twenty of these interviews are presented in this booklet.

The survey questionnaire was sent to a database of 300 relevant entrepreneurs, compiled by Prowess, and was also distributed through various enterprise networks and support organisations. Sixty-one entrepreneurs completed the survey, the sector breakdown was as follows:

- Technology 40%
- Science 23%
- Engineering 23%
- Construction 14%

The following information provides a summary of key research findings:

Role models

Promoting inspirational role models of women business owners has traditionally been seen as a way in which to encourage more women into enterprise and our research suggests that this is particularly critical within the SECT industries. Figure 1 demonstrates the percentage of respondents who selected each person as being their biggest inspiration.

'Another female business owner', was by far the most inspirational figure for women when deciding to go into SECT entrepreneurship. And unsurprisingly 92% of respondents felt that the promotion of female business owners in SECT would encourage more women to consider this as a career choice.

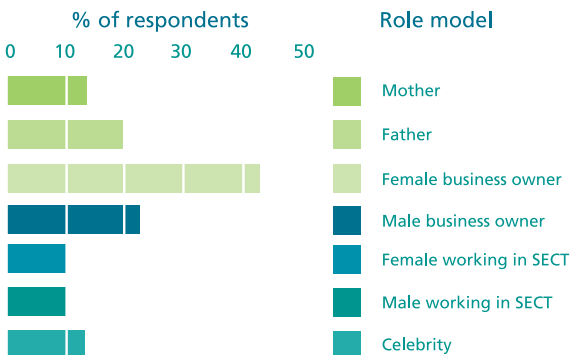


Figure 1

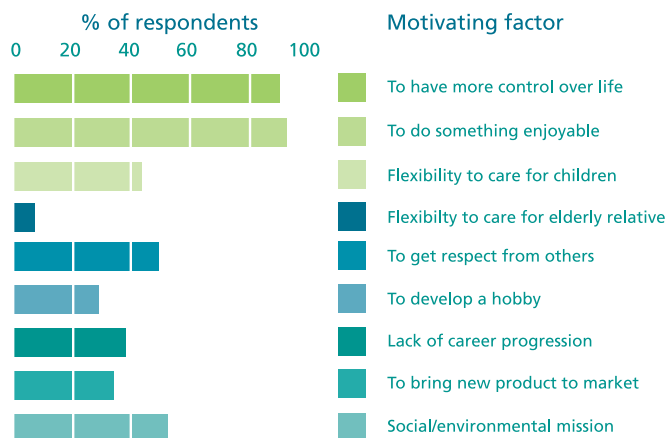


Figure 2

Motivations

When asking women what motivated them into SECT enterprise the most popular answer was ‘to do something I enjoy’, with 92% of respondents saying this was a strong factor. This is consistent with findings for female entrepreneurs’ motivations across all sectors.

Other motivating factors are indicated in Figure 2, which shows the percentage of respondents who agreed that each factor motivated them to start a SECT business.

Forty-three percent of the women in the survey agreed that ‘the flexibility to care for children’ was a motivating factor in their decision to start a business. This could indicate that companies are losing talent through failing to implement family-friendly work practices.

When looking at factors which applied when starting a business, 46% of respondents said they had left a previous employer to start a business offering a similar service.

We can speculate that this is a ‘push’ factor, i.e. women going into enterprise because they do not feel their skills are

being rewarded by their employer or they are obstructed by a glass ceiling. Some of the in-depth interviews confirm this interpretation, one woman said:

“I was working for a small business for six years, working very long hours – far longer than my boss! The company was doing very well but I didn’t feel I was being rewarded for the long hours I was doing.”

Another interviewee said:

“I was fed up with not being taken seriously and this wasn’t by clients but rather by the people I worked with. They were not interested in what I had to say. I felt a real sense of ‘I’ll show you’ by starting my own company and I haven’t looked back since!”

This is of course only one interpretation and it could equally be said that if someone is inclined towards entrepreneurship in the first place they are very likely to start a business in a sector in which they have had previous experience.

Growth and procurement

Ninety-eight percent of survey respondents wanted to grow their business in the next year and 84% were interested in expanding their procurement opportunities.

Public authorities represent a vast proportion of small business trade and gaining a contract can mean the success or failure of a new or growing enterprise. It is estimated that women-owned businesses in the UK access less than 3% of all procurement opportunities.

In the United States in a determined bid to drive up the number of women owned firms the 'Federal Acquisition Streamlining Act' was introduced in 1994, this required a Government-wide procurement goal for women-owned businesses of 5%. This is a low, yet significant target which ensures women-owned firms have access to Government contracts.

As a starting point, at least, in the UK, public bodies should be required to collect gender disaggregated statistics regarding the ownership of businesses they contract with and this data should be reviewed and disseminated on a national basis.

It is estimated that 83% of all consumer purchases are chiefly instigated by women⁵. A supplier base that reflects the diversity of customers makes business sense and it is vital that corporations and the public sector tap in to the desire of female SECT business owners to expand their procurement opportunities.

Is being female a barrier in itself?

Forty percent of women we surveyed felt that they had experienced difficulties in starting a business in SECT because of their gender, some typical comments included:

"I had difficulty penetrating networks."

"There are assumptions in the industry that women are not as technically competent as men."

"I've had difficulty raising funding, business angles were concerned about my ability to be a mum and an entrepreneur."

Women in 'construction' were far more likely to feel that being female had been a disadvantage in starting a business, 63% felt this compared to 33% in 'Science', 34% in 'Technology' and 41% in 'Engineering'.

⁵ Re-imagined Tom Peters, Dorling Kindersley 2006

Interestingly 48% of women felt that their gender had been an advantage in starting a SECT company, predominately because as business owners in very male dominated industries their companies were more memorable. Also some respondents said that their female clients found it refreshing to receive technical support from another woman and they felt comfortable to ask more questions.

Business support

Seventy-two percent of respondents felt there was not enough business support for women looking to start businesses in SECT, the key areas where they said they needed more support were in:

- Marketing
- Access to finance
- Understanding the legalities of starting a business
- Confidence building

When rating the business support they have received the publicly funded support agency Business Link proved relatively popular with 65% of respondents who had used their services rating it as either good or excellent. However the most highly rated source of business support was 'friends and family'.

Women's Business Networks were also rated positively as sources of support, with over 70% of respondents saying their experience had been either good or excellent.

The qualitative findings from the in-depth interviews reveal that although women value business networks they would like to be able to access networks more specific to their sector. With typical comments including:

"I have tried joining business networks but never really stuck with them. Our business is based around a high tech product and my experience has been that the other people attending the network are involved in completely different business ventures. Our needs and experience have been worlds apart."

"I find general business networking events of little value because I rarely learn anything new. I find it more useful to network with people running similar types of companies."

Summary

The results of our survey and the anecdotal evidence from interviews suggest a number of key ways in which more women could be encouraged to start businesses in SECT:

- More sector specific business support and networks
- More information on the range of finance support available at growth and start-up stage
- Promotion of role models
- Encouraging more girls into SECT degrees in the first place
- Practical guides on procurement and tendering and initiatives to enable female owned companies to become supply ready

Alice Kent,
Writer/Researcher
Prowess

The information presented here is a summary of the full research report: Under the microscope: Female entrepreneurs in SECT (Science, Engineering, Construction and Technology), for details contact admin@prowess.org.uk



Carry Marsh Mydeo

What is your business?

The Mydeo concept is all about making what has traditionally been a complicated and expensive process, buying streaming video hosting, very simple and very affordable - in doing so we are bringing a much needed service to a whole new market of consumers and small businesses.

Where did you get the idea for your business from?

I was working buying storage and bandwidth from Content Delivery Networks for small businesses to allow them to add videos to their websites. When I went on maternity leave to have my first child we built him a website and wanted to put a video of him on the site for our relatives in Holland to see. I called a friend at a network and asked him to host the video for me as a favour which he did. I realised there must be hundreds of people wanting to share these special videos with loved ones, I felt the process should be really easy and straightforward.

What have been the highlights of starting the business?

The mydeo service has been recognised for Innovation at three awards so far in 2007:

IWA Best Streaming Innovation, ISPA Best Streaming Service and Red Herring Europe 100, this recognition is a massive boost. I am proud of the trusted brand we have developed that has allowed us to win partnerships with Microsoft, BT, Orange, Tiscali, Canon and Corel.

Have you encountered any particular difficulties?

In the early stages of starting the business, when I was seeking investment a female investor asked me why I only worked a four day week. I said I could only afford childcare for four days, the investor said "any entrepreneur worth their salt always works five days". I pointed out I'm a mum as well, which to me is a 24 hour a day, seven day a week job! Luckily she was the exception not the norm, we managed to raise finance through:

£56,000 DTI Grant for Technical Innovation.

£60,000 Business Angels.

£150,000 Small Firms Loan Guarantee Scheme.

We are in the process of raising £1m in series A funding.



Jeanette Forbes

PCL Group

What is your business?

A national and international single source solution provider to the ICT industry, operating in four main industry sectors: Offshore, Marine, Commercial and Industrial.

As part of corporate social responsibility we also run a home user service at a subsidised rate.

What motivated you to start your own business?

In the evenings at Aberdeen College I was studying for a Diploma in Management and one of the lecturers suggested I run my own business. In 1999 due to another downturn in the Oil Industry I was made redundant and I thought seriously about self-employment.

There were no women working in IT at the time when I got started, I would go into rooms and be in the only woman, I felt uncomfortable and inferior. I was determined to prove that I was good at what I was doing.

If I go out to a rig to fix an IT problem and I am not as good as a man I'll get kicked off, no questions asked and I'll lose that client. You are only as good as your last job.

“I wouldn't expect any engineer to do a job I wouldn't do myself.”

Have you used any business support?

You don't just wake up one day and think I'll start a business and then have the tools to do it you have to do a lot of research into the support available. It is a big decision, I didn't want to take staff on only to lay them off a week later. I had to have it clear in my head first and I spent time doing that.

Scottish Enterprise Grampian and Enterprise North East Trust gave me honest and sound advice, constructive criticism is the key.

What more can be done to support women into SECT?

Technology needs to be promoted as a broad concept, people may think I just sit as a desk fixing computers all day but this is just one small part of what I do. I go out on rigs, out on to boats, fix cables etc. I get respect from staff and clients for this. I wouldn't expect any engineer to do a job which I wouldn't do myself.

“Be confident in your business and others will feel this confidence too.”



Anne Duncan Yellowfin

What is your business?

We have developed the Variable Surface Drive; the most advanced propulsion system available for marine craft. It offers a 100% improvement in manoeuvrability. It is also highly efficient offering the same top speed with half the power. Emissions are reduced by 50% and there are no fumes on start-up making it an environmentally friendly innovation.

What motivated you to start your own business?

I am a serial entrepreneur and have started many businesses. What drives me is the desire to change an industry, with this product there is also an environmental drive.

Have you used business support?

The quality of business support has improved immeasurably. It is important to find an adviser that is right for you, don't stick with the first person you are assigned if you don't feel they understand you or your business, find somebody who does.

Do you think there are particular barriers to women starting businesses?

I don't like the term barrier because it implies something can't be overcome. I think it may be more difficult for women though, getting finance can be harder. You must be confident in your business and others will feel this.

Do you think attitudes towards women in business and in these sectors are changing?

Yes, when I first came into engineering I was one of very few women. Engineering was and still is a very male dominated industry. I never found it to be a big issue, I have experienced subtle prejudice in the past. I never let it deter me.

Do you feel more role models of women owning business in SECT would encourage other women to think about this option?

Yes, I try to share my experiences whenever possible. I am part of the South East England Regional Development Agencies' women entrepreneur's advocates programme, which aims to encourage more women to think about enterprise.

Could the government do more to support businesses in these sectors?

There has been a lot of support for start-up companies and funding for companies to test new innovations. You can still be a long way from production after this stage, funding, grants and loans are needed for the later stages of growing and developing a business.



“I firmly believe people can only be productive when they have balance in their lives, I have had to learn a lot about time management.” **Sonja Marjanovic DiagnovIS**

What is your business?

DiagnovIS has developed an affordable, accessible and accurate method for diagnosing a range of infectious diseases. Our core product in development is a compact automated diagnostic unit that uses digital microscopy and artificial intelligence software to screen tissue samples for infectious agents. It is intended for use in both the developing world, where 14 million people die each year from infectious or parasitic diseases, and in developed countries.

What motivated you to start your own business?

The product we are developing could really make a significant contribution to global healthcare, and this is a very big motivator.

Have you accessed any business support? Has it been useful?

We have had continuous support from Cambridge University, through Cambridge Enterprise, Cambridge University Entrepreneurs, Cambridge-MIT Institute, and St. Johns Innovation Centre.

In 2003, we (two fellow PhD students Nic Ross and Ilian Iliev, Dr Charles Pritchard and myself) entered the Cambridge University Entrepreneur Business Plan competition and won

the People, Planet and Productivity category. We used the prize money as seed-corn funding, and this gave us a real boost. Through the competition, we also received a lot of advice about marketing and finance.

What are the highlights of running your own business?

Seeing the transition from academic research to products which could really make a difference in developing countries and the in UK is rewarding.

Have you encountered any particular difficulties?

I don't think any of us envisaged when we first started out, just how much of our time it would take. I firmly believe that people can only be productive when they have balance in their life, so I have really had to learn a lot about time-management.

Do you have any advice for other women thinking about starting a business?

Business is still more of a man's world, this is obvious just though looking at the stats. But if you expect to be treated differently, it is more likely to happen. Sometimes, women go on the defensive, which is counterproductive. I think it is important to recognise that you are equal and always expect to be treated equally.

Deborah Leary Forensic Pathways Ltd

Can you explain what your business is?

I attended a conference on forensics in Canada with my husband, a Chief Inspector. I was on holiday really but I sat in on some lectures out of interest.

Some speakers from the UK referred to the forensic stepping plates they use at crime scenes, the Canadians had never heard of them and I took note of that.

Back in England I got hold of one, they were very heavy aluminum things and didn't seem practical or portable for use at crime scenes. I felt that they should be lightweight and transparent – probably perspex. I had a prototype made and I found a company who would make them for £200,000. I was in a teaching job at the time earning £17,500 so that didn't seem likely! I shopped around and found a company in China who would do it for £60,000. I did a business plan went to the bank and got the money.

I gave up my teaching job in August 2003 and founded Forensic Pathways Ltd.

Have you used any business support?

Business Link Burton worked with me on cash flow as this was something I knew nothing about. I have used every agency possible at some point or other.

Support can be variable as it is only as good as the consultant you get assigned. I have had fantastic support from all the agencies I have used including

Business Link, Advantage West Midlands and the DTI - through the passport to export programme.

You won European Woman of Achievement in 2006, do you feel its important to promote role models of women business owners in SECT?

Certainly, there are very few of us. I think this is because people think they need all the knowledge about the products. I had virtually no knowledge about the technology behind the product when I started out. It is more important to have general areas of business knowledge and to have very strong interpersonal skills. You can employ people with the skilled expertise you need.





Diane Turner
Anthias Consulting Ltd

“You often hear about women who have good degrees and experience in science who are working in low paid jobs which don’t use their skills.”

What is your business?

I am a consultant in analytical chemistry, specialising in gas chromatography and related techniques. It’s a fairly small niche market used throughout many industries. It is a technique used to separate organic volatile compounds.

What motivated you to start your own business?

I was working for a small business working very long hours. The company was doing well but I didn’t feel my work was being rewarded. My life revolved around work and I was heading for burnout. I handed in my notice, with little idea of what I was going to do next. I decided anything was better than this! I took a holiday and printed off a huge amount of free information from the Business Link website and took it with me to read on the beach!

Did you access any business support?

Shell LiveWIRE who give start-up advice to people aged between 16 – 30 put me in touch with Cambridge Enterprise Agency, I had six days of business start-up training for £120. Each day focussed on a different area of business. The advice was fantastic and got me motivated.

Do you think we need more role models of women business owners in SECT?

Certainly, we are few and far between! It is very hard to find flexible or part-time jobs in science. It is also hard to return to the industry after having children. Things move very fast in these areas and your knowledge needs to be constantly up to date. You often hear about women who have good degrees and experience in science who are working in low paid jobs which don’t use their skills. Self-employment offers a solution.

Is networking important?

It can be lonely at first and it is really helpful to speak to other people. I work with Cambridge AWISE and the East of England Enterprising Women partnership. It is really helpful to meet other women in SECT and business owners and bounce ideas off each other.

I am more than happy to speak to women working in science who want some advice about self-employment. This is something that I am very passionate about.

Magdeline Pokar Research SEA Ltd

What is your business?

Our web-based subscription service supplies research news from leading universities and research institutions in Asia to the journalists around the world.

What motivated you to start your own business?

After completing my PhD in Geophysics in the UK I realised how little people knew about science research going on in Asia. I was writing for the New Scientist and I quickly realised that this was a real gap in the market. I was born in Malaysia and it's very close to my heart to let the world know about the world-class research in Asian universities. The system of distributing Press Releases via a web-based system works in the US and Europe, so I brought it to Asia.



Have you used any business support?

West Cornwall Enterprise Trust put me in touch with Act Now and a number of web developers, both contacts were crucial during the company formation. Without the grant from Act Now we may have never been able to launch. After I moved to Cambridge the UK Trade and Investment 'passport to export' initiative has been most helpful.

Do you think there are particular barriers to women starting businesses in SECT?

It's very difficult to get ahead as a woman in science, I found that my work wasn't judged on its merits alone. There was a choice of joining the male culture or being overlooked.

What are the highlights of running your own business?

Within 18 months we have 650 journalists from 78 countries signed up, that's not bad. I won an award at UK Trade and Investment last month and this acknowledgement is important because it can be lonely to work on your own.

I was pleased that 100% of our first year subscribers have renewed their membership and that a recent price increase was accepted by customers.

Have you experienced any particular difficulties in setting up your business?

I'm a scientist, not a sales person. So I find cold calls and chasing contacts up difficult.

Any advice to other women looking to start a business?

If the idea in your head is just not going away then just take a deep breath and go for it. You don't know until you try.



Claire Peter
Earth-Tech Solutions Ltd

“I felt a real sense of ‘I’ll show you’ by starting my own company and I haven’t looked back since!”

Could you explain a bit about your business?

Earth Tech is a consultancy company focussing on ground stabilisation and contaminated land assessments.

When did you start your business?

March 2006. I had been working as an engineer since leaving university. I was contracted to do ground stabilisation for the first company I worked for but that company went bust. I was then made redundant from a second company in a similar field for financial reasons. In the space of 18 months I had lost two jobs, I was getting pretty fed up! A lot of people, including clients suggested I go it alone.

What motivated you to start your own business?

I was fed up with not being taken seriously and this wasn’t by clients but rather by the people I worked with. They were not interested in what I had to say. I felt a real sense of ‘I’ll show you’ by starting my own company and I haven’t looked back since!

What are the highlights of running your own business?

The freedom to do what you want, I work longer hours now than I did when I was in paid employment, but I choose the hours I work.

What’s been the hardest thing about starting a business?

The fear of whether you are to be able to pull it off! When the business is first launched you don’t have time to think about how scared you are! I don’t regret starting a business for a minute and I wouldn’t go back to working for someone else. I just wish I had done it sooner, but then I wouldn’t have had all the experience that I needed.

What advice would you give to other women thinking about starting a business?

Give yourself 12 months and see how it goes, that’s what I did. I said if it hasn’t worked out after 12 months I’ll look for a job. Fortunately it has worked out and I don’t need to!

“Create an honest and open atmosphere where people from across the company feel comfortable to express their views.”

Margot Cooper **Limbs & Things**



Could you explain a bit about your business?

We provide medical training products for use away from the patient and the operating theatre. We design and manufacture the synthetic soft tissue models ourselves. Some of the models are designed to be attached to real people so that students can practice on each other, learning about patient care and anatomy at the same time.

What motivated you to start your own business?

I am a medical artist by training and I wanted to make a lasting contributing to this discipline. I felt the way medical students were traditionally taught was absurd and that things could be improved.

Have you used any business support?

We started with a very low interest loan of £60,000 from a high street bank.

The company grew quickly after we established a development programme with the Norwegian Company Laerdal, who make the resuscitation dummy 'Resusci-Annie'. They shared a great deal of expertise and information about the production process. We now employ 55 people.

What are the highlights of running your own business?

Building the team; we invest a lot in staff training and are a really happy team. People are making good money and enjoying their work. I enjoy watching colleagues develop their skills and their lives.

Any particular difficulties or challenges?

Bridging disciplines which are not your areas of expertise can be difficult. When I needed to recruit people to work on the manufacturing side of things, I knew little about this. As you grow you can take on more people to focus on each area.

Key pieces of advice for women looking to start a business?

I like to be non-hierarchical in building a team and I find this makes for a happy company. Create an honest and open atmosphere where people from across the company feel comfortable to express their views.

In starting a business you continuously have to take risks and often put everything on the line, try to minimise that risk as much as possible by doing a huge amount of research and keeping focused on a realistic business plan.

“Inflexible employers probably drive women into self-employment.”

Orla McGinn
Glebe Veterinary Surgery

What is your business?

I run a small-animal veterinary surgery based in a converted barn on the organic farm, where my husband works and our family live, in East Cornwall.

When did you start the business?

Our launch party was in August 2004, over 250 people came for an open day barbecue. It generated a great deal of interest in the business and we got a lot of our first clients from this.

What motivated you to start your own business?

I was working for a large veterinary practice which focused on farm animals, the majority of the surgeries in Cornwall do. We would also treat small animals

but I felt the customers were getting a raw deal. If your cat needs treatment you want it to be treated by a small animals vet not a farm vet.

I did some research and found there were no small animal surgeries for miles. Also when working for another practice I found I was never doing the kind of work I qualified to do. I was forever doing TB testing!

Have you used any business support?

I have had fantastic support from Business Link Devon and Cornwall. They paid for a consultant to put in an application for us for Objective 1 funding. We received a good grant from this which got us up and running.

Do you think there are particular barriers to women starting businesses particularly in non-traditional sectors?

I don't think there is any problem in getting women to train as vets, in fact I think more women than men do. However women don't tend to reach senior positions in practices. Previous employers have been really inflexible when it comes to childcare. This inflexibility probably encourages women into self-employment.

Key pieces of advice for women looking to start a business?

Get good advice from an accountant, don't feel you have to do everything yourself. There are professionals who can do the sides of the business you don't like for you.



Could you explain a bit about your business?

I'm a hydrogeologist, I help customers with private water suppliers from wells, boreholes and springs. I work for private households, farms and golf clubs, but also bottled water companies or industrial customers.

What motivated you to start your own business?

I was fed up with commuting to the consultancy I worked for; and I also felt that the more I was moving into senior roles the more I was spending all my time with management tasks, form filling and office management. I missed using my core skills - which is what I actually enjoy.

Have you used any business support?

I attended some training days – the most valuable bit was the confidence boost I took away from them.

Do you think there are particular barriers to women starting businesses in science, engineering, construction and technology?

When I first went to university I really stood out because apparently 'girls don't

do geology'. I recently did some lecturing and I had there was a good 50/50 divide of female/male students.

Since I have started my business I have not had any obstacles due to being a woman, on the contrary it helps people to remember me.

Do you have any ideas on how women could be encouraged to start businesses in science, engineering, construction and technology?

Generally increasing levels of confidence in women will help. Society, and families in particular need to create an environment where women feel supported – I was lucky with my dad being quite an entrepreneur himself.

I have also helped to start a women only business network, the Vale Women's business network, as way of boosting motivation and confidence for women entrepreneurs. www.vwbn.org.uk

What are the highlights of running your own business?

I really enjoy meeting a whole range of interesting people through my work. I also enjoy the freedom I have over my working hours: If I work really hard from Monday to Thursday then I can go walking on a Friday.

Any advice to other women looking to start a business?

If you don't want to take a big risk, think about a gradual start or run several activities at the same time. I did some additional maths coaching when I first started – you don't have to put all your eggs in one basket.

Rebecca Exley
Groundwater Ltd





“The procedure for tendering for big contracts is daunting when you are just a small business.”

Moira Upton
TLC Health Screening Ltd

What is your business?

I provide on-site private health care services. We go to the work place and provide blood tests or screenings there, which is a benefit to the staff and saves time for the employer.

Have you accessed any business support?

I have used Cambridge Enterprise Agency and right now one of my staff is on a course with Business Link.

Do you feel there are particular barriers to women in SECT?

Yes. Women are perceived to be less competitive, to have different priorities, not as available and not as committed to their career compared to men.

Are networking events useful?

They work for me. I go to quite a few (FSB, Enterprising Women), it's always good to hear other women speak about how they have built their business. It's a great motivator.

Any other ideas on how more women could be encouraged to start businesses in these areas?

The Royal College of Nursing has a forum called 'nurse entrepreneurs', where nurses who are thinking about starting

their own business can find support. I think it's important to highlight the earning potential of self-employment.

What are the highlights of running your own business?

I love the freedom of choosing my own working hours. And I can also choose what services to offer to customers, I'm in control and don't have to ask anyone else before I can make a decision.

Have you experienced any particular difficulties in starting a business?

Working like this can be solitary. It takes self-discipline to sit down and get work done when there is no-one else around. Another challenge, that I've just come across this morning, is: Who helps you to tender for big contracts – the procedure seems very daunting for a small business like me.

What advice would you give other women thinking about starting or running a business?

Always be open to opportunities. Don't assume that contracts will renew automatically – I diversify all the time by adding services. Within the last few years I branched out into hypnosis and soon I'll open a new treatment room.

“A science degree is incredibly valuable in the business world.”

Juliet Davenport Good Energy



What is your business?

Good Energy is an electricity supply company licensed to supply domestic and business customers in England, Wales and Scotland. For every unit we supply we will buy a unit from a renewable energy source e.g. wind, hydropower, solar etc. We started training in 1999.

What motivated you to start your own business?

As part of my physics degree I studied atmospheric physics which related to climate change. This was when climate change was only just beginning to be talked about it was obvious it was a massive looming problem. I wanted to be part of the solution. Following my degree I worked for the European Commission in the Energy Sector. I chose to move into the commercial sector as the pace of change is quicker, it is easier to get things done.

Do you think there are particular barriers to women starting businesses in SECT?

Women are very much welcomed in science careers. Companies value the different facets you bring to the job. However there is a problem with getting women to study for SECT degrees in the first place. In my year at university out of around 300 physics, less than 10% were

female. I did an MA in Economics which was far more balanced in terms of gender.

Do you think more role models would help?

Encouraging women into science needs to be tackled at various levels. A science degree is incredibly valuable in the business world. Science graduates are always comfortable with numbers and economic modelling. It is important to promote the range of opportunities that a science degree opens up for you.

Science is presented in schools as a non-creative career option. But the greatest scientists throughout history have always been creative thinkers and philosophers. A public PR campaign is needed emphasising that science is a creative activity and we need to look at what is happening at all levels of education.

Have you got involved in business networks?

Regen South West hold brilliant networking events, the sector in this region is very well connected. I find non-sector specific general business networking events of less value because I rarely learn anything new. I find it more useful to network with people running similar types of companies.

What is the main activity of your business?

We manufacture precision metal components for the high tech industries – aerospace, defence, electronics, medical sectors and telecommunications. We also sell expertise in chemical etching. This process allows for a quick turnaround, reduced costs and ensures we have a niche market.

What motivated you to start your own business?

I founded the business together with my first husband, who was working for a competitor. We knew we could provide a more satisfactory service. Whilst our son was at nursery I researched the business. A colleague from my husband's previous company joined us and we built a plan around the three of us. This security was appealing and we were given an offer by the first bank we approached.

What are the highlights of running your own business?

Being able to make a difference to people's lives, I'm an old hippy at heart

and I want everyone to be happy and to fulfil their potential! It makes good business sense as well - we have high levels of staff retention. We invest in our staff, every single employee has had external training, such as literacy and numeracy courses and management training. Sadly my husband passed away four years after we started the business, so I understand the pressures of working as a single mum, this has influenced our ethos and flexible working practices.

Have you encountered any particular difficulties?

Three years ago there was a sharp drop in orders from telecoms companies, at that time they were 45% of our turnover. We had to let 30% of our workforce go, which was extremely hard to do. After 12 months the orders came back in. The blessing behind this was we learnt to diversify, it is never a good idea to have all your eggs in one basket and telecoms now represent a more proportionate share of our client base.

“We have flexible and responsive PR procedures in place, it makes good business sense.”

Linda Rathbone Qualitetch



Ms Sumita Sinha **Ecologic Chartered Architects**

What is your business?

It is an architectural and ecological consultancy.

What motivated you to start your own business?

I was made redundant and realised that what I really wanted to do was set up on my own rather than search for another job.

Is architecture a male dominated industry?

There are only 13% female architects and less than 1% minority ethnic architects, so statistically speaking I don't even exist!

another architects practice because they didn't want to have to make any adjustments. Working with her has expanded my own life and understanding.

Have you experienced any particular difficulties in starting and growing a business?

Yes, initially I found people were reluctant to take on an Indian



“Only 13% of architects are female, less than 1% are from ethnic minority groups, statistically speaking I don't even exist!”

Do you have any other ideas on how women could be encouraged to start businesses in SECT?

There should be more effort made in schools to encourage girls into SECT. A big push should be made for well known women working in these industries to visit schools. The media needs to help raise the profile of the lives and work of these women.

What are the highlights of running your own business?

Managing my own time and being in position to encourage more women into architecture. I currently employ a member of staff who is deaf, she was finding it very difficult to find employment in

woman to design and manage their projects. I just persevered and kept going, taking no notice of this negativity. I have also found looking after my two children with no childcare and no family a big struggle.

Do you think attitudes towards women in business are changing?

Yes, but too slowly. Women are associated with interior design and 'changing rooms' glamour but rarely with plumbing, decorating and construction. Both of my two sisters work in science, one is a nuclear physicist and the other is a bio-chemist working in India – where surprisingly attitudes are more encouraging.

Pam Pelham AMP Wire Ltd

Could you explain a bit about what your business is?

We take mesh wiring and turn it into anything our customers may need. We specialise in short runs and quick turnaround, which gives us the advantage over competition from China.

What motivated you to start your own business?

I trained as a mechanical engineer and worked for a while as a cover manager. I learnt how to run every single department – a great preparation for becoming my own boss.

Have you used any business support?

Business support from our local chamber and Business Link has become



“Work in schools is crucial. Inquisitive minds must be encouraged to ask ‘Why does a PC work this way?’ rather than just ‘What game can I play on it?’”

increasingly fragmented and lost its consistency. Before I accessed lots of training and advice at the ‘Centre of Excellence’ and it was really valuable. Even today I employ some of the ‘old’ advisers on a freelance basis when I need their expertise.

Do you think there are particular barriers to women starting businesses in SECT?

If a woman answers the phone at an engineering company the usual request is: “Can we speak to someone on the technical team?” I am the most technically qualified person in the business.

Do you have any other ideas on how women could be encouraged to start businesses in SECT?

Work in schools is crucial. Inquisitive minds must be encouraged to ask “Why does a PC work this way?” rather than just “What game can I play on it?” We need to emphasise that maths and science skills are the building blocks that underpin all other studies. We are involved in activities in schools to raise the profile of SET careers, surely if we can do this larger companies can.

What are the highlights of running your own business?

Looking at someone I took on as an apprentice when they were 16, and who is now running a big project on their own, or the 73 year old in our office who is currently taking a NVQ2 in IT, those are my kind of highlights.

Any advice to other women looking to start a business?

Use other people to complement your knowledge, if you know your weak areas you can ask others for help and overcome this.

Amanda Shaw WiFi Solutions UK Ltd

Can you explain a bit more about your business?

We specialise in installing public and private wireless networks (WiFi). As a small company, we provide a personal and professional service and can compete with larger companies.

What motivated you to start your own business?

I studied computing at college 20 years ago and then worked for 13 years, after which I had a 10 year career break to bring up our three children.

Our youngest son has now started school and I needed a flexible career that would enable me to work around the school hours.

Do you think there are any particular barriers to women starting businesses in SECT?

Attitudes are changing and women are accepted in the world of technology. The barriers or challenges I have experienced have been more generic – red tape, and a lack of straight forward information on practicalities such as becoming VAT registered and setting up a limited company. A simple no jargon fact sheet would have been invaluable as I simply did not have the time to read through all the paperwork.

Do you think more prominent role models of women working in SECT would encourage other women to think about starting a business in this area?

Yes – certainly. There are some pretty dynamic women out there. I strongly feel that if they came into contact with more women in technology it would inspire them to think about a career in the industry.

What advice would you give to other women looking to start a business in SECT?

Network – this would be my key piece of advice. It can be daunting at first but get out there and talk about your business and meet people. I have had some very positive experiences with the local Chambers of Commerce who have promoted my company free of charge where possible, for example in magazines and on the radio.

There are also free networking events that you can attend, 08 Business Connect (www.08businessconnect.com) is a great way to network. There are no catches and it is completely free! It is also extremely inspiring to meet other women running businesses. I attended an event in West Lancashire recently – “Women Excelling in Business”. The women were so inspirational. I came away feeling ready to push my business forward and it made me certain that I will never give up.





“I’m a very hands on inventor!”

Wendy Brodie **Bodyflick**

Could you explain a bit about your business?

Bodyflick was established to promote and sell my innovation; Bodyflick – the human squeegee. It is an environmentally friendly, low-tech product designed for removing water from your body before towel drying. It keeps towels fresh and clean for longer and so cuts down on washing and tumble drying.

Bodyflick is made in the UK out of recyclable plastic and using it saves huge amounts in water, electricity and detergents. Doing just one less wash a year can save 5,000 litres of water.

How did you come up with the idea?

It always seemed such a drag getting dry after a shower, particularly if I was in hurry or at the gym. I thought about ways of removing water more efficiently and quickly. I bought a squeegee for cars and looked at the mechanics of how it worked. I decided what was needed for humans was a squeegee with curves. I found out later a similar kind of device called a Strigil was used in Roman times in bathing.

I created the first very rough prototype myself. I plunged a car squeegee into boiling water and wearing my rubber gloves I bent it into a new shape – I am a very hands on inventor!

Describe the process of getting the squeegee to market.

A friend’s husband was an industrial designer and had access to a plastic manufacturing company. He invited me to the factory and we spent along time working on CAD and designing the final product. I was really fortunate to get this help as it kept costs down, I was financing the business completely by myself.

I have done a lot of marketing and have had a lot of success, appearing on ‘This Morning’ and winning an award from the Global Women’s Inventors and Innovators Network.

Have you accessed any business support?

Aylesbury Vale Enterprise Hub gave me some useful one to one advice. I would like to work with a business angel, somebody able to make investment in the product and also work with me on its promotion and development. I am selling the squeegee via the internet all over the world, but it is just me taking orders and packaging it from my house. I am sure there is potential to grow much bigger.

“I have always tried to be a role model and mentor to other women.”

Carole Barnum
Staellium UK Ltd

Can you explain what the business is?

We have developed ‘stealth text’ technology for mobile phone text messages that self-destruct immediately after they have been read.

Our primary market is the national security sector and we also have a lot of interest from high profile individuals. Increasingly we are working with the banking industry in developing economies like China and India where there is a need for secure mobile technology.

What motivated you to start your own company?

I have always run my own company, even when working for major corporations I have run my own business in parallel. I have a degree in engineering and a background in digital technology and satellite transmission. I come from a family of engineers from as early as I can remember I was tweaking about with wires and cables with my father!

Have you experienced any difficulties in engineering because of your gender?

Yes, university was a lonely experience! I was one of only three women in my year studying engineering. I think things are slowly changing, although my daughter who has just gone into an engineering degree is one of only a few women. I think there should be more scholarships to encourage more women to study in these sectors.

Do you feel there should be more promotion of women who have started businesses in these sectors?

Role models are extremely important. I have always tried to be a role model and mentor to other women. In organisations where I have worked I have led female leadership programmes and coaching for women colleagues. This is something I am passionate about, many of the engineers at Staellium are female.

Have you used any business support networks?

I have been part of women in technology networks in the past which I have found very useful. I am trying to identify now a business network in the UK which is really dynamic and valuable for women in tech.

What key piece of advice would you give to women starting businesses in these sectors?

The key thing I would say is find out about intellectual property. Keep a strict log of the name of the product, the process, the blue print, every single piece of intellectual property, this is where the value to your company is.



“When people are negative I love the challenge of turning their negativity around.”

Janet Shelley MBE
Women Builders Ltd

What is your business?

We are a building company staffed mainly by women, we employ the largest female construction workforce in the UK. In conjunction we run a training programme called ‘Women Builders – Building Opportunities’, it’s the first of its kind aiming at tackling barriers to women’s employment in construction.

What motivated you to start your own business?

I had been in I.T. for 15 years and wanted a change. A small piece about my business idea was included in the local free press. Within 24 hours I had been contacted by 26 women all looking for the chance to start in the industry but didn't have any experience. I had an informal meeting with these women and was totally motivated to start the business and use it as a vehicle to get women into construction.

Did you access any business support?

Financing the business was difficult, we are a unique enterprise and didn't fit into any funding group. The banks were only willing to help us if we put up our house as equity which we were not prepared to do. Business Link told us about the European Social Fund. The bid document was very lengthy and complex but we managed to secure funding.

What are the highlights of running your own business?

When people are negative I love the challenge of turning their negativity around.

Any particular challenges?

The people most negative towards the business have been other women. I have heard women say that it is not a suitable trade for women to work in, that women are not strong enough etc. I have of course also encountered prejudice from men within the trade, from male assistants at B&Q incredulous that I should want builders gloves for women and that ‘no, gardening gloves would not do’.

Any advice to other women looking to start a business?

I would advise women to go into construction because at trade fairs you never have to queue for the toilet! More seriously be persistent and you will get there eventually. So many women I have spoken to since setting up this business have said what a good idea it is and how they had thought of something similar but never done it.



Prowess is the UK association of organisations and individuals who support the growth of women's business ownership. Our work encompasses capacity building, raising awareness, advocacy and information. Prowess has over 250 members who support 100,000 women in business each year. Our website is the leading portal for the women's enterprise sector in the UK; you can find information on all the latest research and policy news as well as details of business support providers and upcoming events.

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JIVE is a national partnership led by the UK Resource Centre for Women in Science Engineering and Technology at Bradford College. JIVE aims to address occupational segregation in the Science, Engineering, Construction and Technology (SECT) sectors.

www.jivepartners.org.uk

www.setwomenresource.org.uk

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