



# Fostering careers in the steel industry

**With a shortage of skilled candidates in the trades sector, combined with an ageing workforce, there is a need to promote structural steel fabrication among young people to showcase the career prospects within the industry.**

One way to address this is to partner with local secondary schools to educate students about the structural steel trade and what a career in the sector looks like. One such initiative was set up by Johno Williams, Managing Director, Patton Engineering. The structural steel fabricator partnered with the Technology department at Hastings Boys' High School to expose students to different career pathways, while giving them hands-on experience in the field of heavy engineering. As part of the partnership, Patton Engineering donated new welding equipment to the trades department and mentored 30 Year 12 students who showed an interest in trades.

Such collaborations with schools work to improve the overall quality of skills entering New Zealand's workforce, while recognising local talent and inspiring students to enter trades at the grassroots level. The learnings from Williams' initiative form the basis of this fact sheet, which aims to both inform and support structural steel fabricators who are looking to set up similar initiatives.

L-R: Johno Williams, Managing Director, Patton Engineering; student, Hastings Boys' High School; Rob Sturch, Headmaster, Hastings Boys' High School; Lawrence Yule, National Party MP. Photo courtesy of Patton Engineering.

**"Having Patton Engineering involved with our workshop has opened my eyes to what engineering is all about. I have gained welding and fabrication experience through this partnership that I could never have dreamed of. My goal for this year is to complete my BBQ project at school and hopefully start my apprenticeship next year."**

Manahi Goulton  
Year 12, Engineering Student  
Hastings Boys' High School



**"The initiative has provided our students with great opportunities to learn and experience engineering in a school workshop environment as well as during industry placements. Through the initiative, the technology workshops at school have seen an impressive upgrade in resources and machinery and a decrease in material costs."**

Salla Delport  
Head of Department – Technology  
Hastings Boys' High School

## Benefits of a school partnership

### Industry

- Enhances the reputation of New Zealand's structural steel industry.
- Presents structural steel fabrication companies as great places to work with a wide range of roles.
- Encourages companies in the wider construction industry with the same vision to consider similar initiatives to offer work experience and apprenticeships.

### Fabricator

- Provides platform for fabricator to 'give back' to the industry.
- Opportunity to do its bit to futureproof the sector.
- Seen as a passionate contributor to the community.

### Students

- Trains students at grassroots level.
- Exposes them to the structural steel industry, and provides opportunities and work experience.
- Sparks interest in young people about the structural steel industry and educates them about a potential career direction.

## Six-step programme

### Step 1: Define your level of commitment

There are different levels of commitment, so it is important to first work through what your business objectives are. Consider what it is that you essentially want to get out of partnering with a school and how much time and resources you realistically have to invest in building and fostering the relationship with the school and the students.

Here are some things to consider, to help define your level of commitment:

#### 1.1 Giving back to the industry

Do you simply want to help promote the steel industry to secondary students to target future quantity surveyors, engineers and apprentices? If so, this is an opportunity for structural steel fabricators to help students or school leavers understand the wider industry via a presentation about the industry, and about your company and the roles that exist within it. Such presentations can help shift perceptions while building student awareness of what the industry can offer them. The presentation can also serve as a means of promoting your business and what it can offer school leavers in terms of a future career in steel fabrication.

## **1.2 Support schools with resources**

Many schools, while they may have existing technology programmes, are often short of materials and equipment is often very outdated. This is an opportunity for structural steel fabricators to ensure students have access to quality materials and equipment to work with. Having high-quality materials will support student learning while giving them hands-on experience with steel fabrication and in turn work to inspire a career in the industry. The level of commitment will vary according to the financial capability of the fabrication company and whether a charitable trust is brought on board to help subsidise the initiative. See more about partnering with a trust below.

## **1.3 Establish student workshops**

Setting up student workshops within the company for students to receive hands-on experience in structural steel fabrication gives students significant exposure to the trade with many roll-on benefits for you as an employer, the students' future career prospects and for the industry as a whole. If this is your first foray into student mentoring, you may want to consider starting small with a group of two to three students. Also, depending on time and resources, there are a number of factors that need to be considered before establishing on-premise workshops. For example, consider:

- Ensuring a health and safety company is engaged to mitigate any safety risks for students working on the factory floor.
- The number of students that can be accommodated with mentors.
- How the students will be transported to and from the school and the business.
- The duration and regularity of the workshops.
- The type of training the students will receive from their mentors.
- How the workshop sessions will build on the students' skills and, in turn, what each session will look like.

## **1.4 Establish an apprenticeship programme**

By partnering with local schools, structural steel fabricators can address the systemic skilled trades shortage while setting students up for a potential future in steel fabrication that they may not have considered. The level of commitment will vary according to availability of time and resource. Again, if you haven't run an apprenticeship programme before you may want to start small. Consider offering one apprenticeship at first and then build this over time to ensure that you are able to fully invest in properly mentoring the student. A student or students who perform well in the workshops, as outlined above, can be extended an apprenticeship as an option. The workshops are a significant opportunity to identify students with real motivation and skill who can be taken on board as apprentices to set them up for success in the structural steel industry.

## **1.5 Sponsor a student to attend university**

The level of commitment may be as simple as providing sponsorship to a local college student to attend university or this may be something that steel fabricators can choose to combine with any of the activity outlined above. The sponsorship offer could be designed with the school and the career counsellor in terms of determining the criteria for the ideal recipient.



**“We have a moral obligation as employers to mentor, inspire and teach the next generation of potential engineering candidates that share the same muse for engineering that we do. Now is our opportunity to persuade, excite and encourage these kids to galvanise their commitment to a nationwide problem.”**

Johno Williams  
Managing Director  
Patton Engineering

## **Step 2: Establish partnership with a local school**

Once the level of commitment is determined, it is important to carry out background research to find a school in your area that has a trades department and fabrication facilities. If the school doesn't have an existing trades programme, then the partnership may not work effectively. Find a school and teachers that are as passionate as you are. The partnership needs to be a good fit with mutual wins. Visit schools and meet the relevant teachers. When contacting schools for the first time your first port of call is the Principal. Ask to speak with the Principal and clearly outline how you would like to partner with the school and what your objectives are in doing so.

## **Step 3: Involve the school's career department**

Once a school that is a mutual fit has been identified, ensure that the school career department is involved from the outset. The career counsellors will be able to support your initiative as well as the students to ensure that there are long-term benefits for all parties involved. Career counsellors can identify students that would be best suited to an apprenticeship programme or for hands-on workshops. Then they can help to prepare students for the workforce by guiding them on how to write a resume, apply for jobs or apply for apprenticeship programmes once they have completed their schooling.

## **Step 4: Partner with a trust**

Bringing a trust on board is an effective means to help support any of your chosen initiatives. This partnership will be vital to fund resources for schools. Given that most equipment in schools is outdated, modern equipment relevant to the steel fabrication industry, including computers and engineering software, will not only serve to excite and motivate students, but also ensure that students entering the trade are familiar with the tools that will set them up for success. If you choose to go down the track of offering apprenticeship programmes and student workshops, funding can also go towards providing transportation for students to and from the fabrication plant if the school is unable to provide this.

## **Step 5: Health & safety**

Ahead of bringing students into the workplace, engaging a health and safety company will be key. Consider cordoning off an area on the factory floor where the students can work safely and ensure that they have protective gear and a mentor with them at all times.

## **Step 6: Mutual recognition**

Finally, as part of the partnership arrangement there is an opportunity for all involved to benefit from mutual publicity. It is important to address how this will be done and who will action it in the initial stages of establishing relationships with the school and the trust. Consider how to acknowledge and celebrate the various milestones, from forming the partnership to presenting to students, running workshops and appointing trainee apprentices. Communications channels can include Facebook, LinkedIn, newsletters, websites and even your local newspaper.

No matter how big or small the level of commitment to your local school, this will be a valuable opportunity to give back to the community and the industry.