

Business Standard

The essential guide to talent sustainability

With veterans disappearing from the workplace through retirement, there is a clear need for a sustained approach to capture, nurture and retain knowledge for the long-term future of the process industry

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[Talent](#) image via Shutterstock.

Organisations are reliant on their ability to embrace expertise and achieve competitive differentiation. A 2013 report by McKinsey Global Institute highlights talent as one of the five US game changers that could substantially boost GDP. In fact, talent is singled out as the most lethal game changer that could offer significantly greater impact by 2030. Across the globe, the general trend is that process industries are sitting on a 'demographic time bomb'. Veterans with comprehensive knowledge and vital skills in engineering, project planning, scheduling or operations management are soon to disappear from the workplace through retirement.

In the process industry, it is time to go back to basics and adopt the skills lifecycle methodology. This is an integrated system of T.A.L.E.N.T. (Training, Academia, Legacy, Evaluation, Networking, Tools), whereby companies can implement best practice to mitigate the loss of important skills and ensure the talent pipeline remains robust for the long-term. While some organisations are good at certain aspects of human resourcing, there is still disconnection between all the vital areas of the business. This is not a linear process – it is an on-going dynamic practice that helps improve operational efficiencies and maximise profitability.

Best practice for talent development, retention and utilisation:

- Implement continuous Training
- Build relations with Academia
- Safeguard the skills Legacy
- Enforce the disciplines of Evaluation
- Encourage the art of Networking
- Provide cutting-edge Tools

The T.A.L.E.N.T. methodology revolves around core integrated disciplines, which companies can simultaneously manage and easily apply to their business, either regionally or internationally.

Training

In order to address the skills shortage, several companies are taking greater measures to conduct their own in-house training and graduate programmes.

The cost of training new or existing engineering talent is often a point of contention. On the one hand, this requires time and investment, which comes with high employer expectations for immediate business returns. On the other hand, the loss of expertise due to the inability to develop skills has far wider implications. Companies need to keep pace with new techniques, product upgrades to systems and demonstrate market understanding in order to meet customer expectations. Training is a crucial part of nurturing and retaining talent. This needs to be an on-going process – if you don't train, there's no gain.

Academia

Developing close links between industry and academia is a vital pipeline to 'turning on the talent tap'. Many companies have successfully sponsored graduate programmes or initiatives to encourage engineering talent. For instance, ExxonMobil and GE have each contributed \$ 1 million to an educational initiative to support best practices for shale development. The training programs created by the initiative will be led by the faculty at each academic institution and are designed to ensure that regulators and policymakers have access to the latest technology and operational expertise to assist in their important

oversight of shale development.

In line with industry trends, AspenTech, a leading provider of optimisation software, recently established the AspenTech Academy, a corporate advisory group of world-renowned university professors. Its charter is to advise and guide AspenTech on the development of future aspenONE software products and is a catalyst for interaction between the world's leading process industry software company and top researchers and educators in the chemical engineering academic community.

These collaboration efforts between industry and academia also help students better understand engineering technology and gain insights to operational challenges and market trends. It helps graduates make a better transition from academia to industry and be better prepared for key roles when entering the workplace.

Legacy

A crucial strategy for process industry companies is to establish effective ways of capturing and retaining knowledge with the ability to pass it on to the next generation. The market has for some time recognised the growing issues of a skills gap where veteran engineers have retired or on the verge of leaving the profession.

According to international trade body the Society of Petroleum Engineers, the average age of a petroleum worker is 51. Nearly 60% are 45 or older. This represents a peak in the profile of existing workers and indicates that approximately 40% of the workforce will be lost over the next decade. In the engineering & construction (E&C) market, larger companies are growing either organically or via acquisition. The combination of experienced engineers retiring and younger talent being poached means the stronger are becoming stronger – the weaker are becoming weaker.

Employers continually drive organisational performance to deliver high return on investment, but it is remarkable how little is done to legislate for the loss of expertise due these retiring personnel. Handing down skills efficiently allows younger engineers to learn quickly and avoids 'the wisdom walking out of the door'. It's time to legislate for a better system of talent legacy. Therefore, make plans to retain the knowledge, secure the expertise and maximise business growth potential.

Evaluation

Engineering excellence is a crucial business differentiator for many small to medium sized companies. Large operators are under enormous pressure today to meet tighter project timetables. However, the process of evaluating staff performance and setting clear goals is often an under estimated discipline. Sometimes the practice of establishing clearly defining targets and reviewing career goals can be conducted with little attention in a highly pressured, time constrained environment.

Evaluation is a two-way process. It is an opportunity for the employer to assess performance and acknowledge added-value achievements and for the employee to express viewpoints and benchmark their skills against the industry standards to identify areas for improvement. Evaluation also builds loyalty. Implementing comprehensive programmes across the main areas of the business and assigning key business performance indicators helps to assess results. Through transparent metrics and realistic goal setting, both employers and employees can set clear expectations to best manage career aspirations. Companies need to constantly measure workforce performance and analyze measurements to keep talent strategies aligned to business goals and deliver results.

Crucially, the process of evaluation ensures staff are adding immediate value to projects and maintaining safety standards that deliver reliable, quality engineering to tackle complex projects.

Networking

Many companies succeed in business by building strong networks with industry leaders and professional institutions. Greater interaction brings greater benefits. Both individuals and employers will gain at all career stages. Ultimately, it is the proactive engagement of companies with eminent leaders, government and industry bodies that will help to nurture and reward chemical engineers across oil and gas, chemicals, manufacturing, engineering, construction and much more. Industry bodies, such as IChemE for example, build and sustain an active international professional community, united by a commitment to qualifications and standards that foster engineering excellence.

Networking helps connect the right people to discuss how to develop innovative ideas and feasible solutions that will address the increasing needs of the oil, gas and petrochemical industries and strengthen a collaborative approach to developing professional talent within the industry. From trade associations to industry events, trade communications to social media, networking nurtures positive interaction and entrepreneurialism.

Tools

Investment in technology is a strategic basis for harnessing talent and building expertise in key disciplines. Essentially, providing staff with the appropriate tools will enable individuals to demonstrate their skills and efficiently meet the tasks aligned to the company goals.

Today's generation of engineers embrace technology having witnessed a world where the use of software, mobile devices and cloud-based solutions are prevalent in all aspects of life. The use of intuitive optimisation software, for example, helps to improve decision-making and provides younger engineers with easy-to-use functionality including, state-of-the art visual analysis and powerful process design to reduce energy usage, minimise capital operating costs and improve product yield.

Process optimisation software helps to build efficiencies in the processes undertaken by engineers, so the development process of less skilled operators can use the tools to achieve the necessary tasks.

Conclusion



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There is a clear need for a sustained approach to capture, nurture and retain knowledge for the long-term future of the process industries. T.A.L.E.N.T. is a model that is scalable and can be used as a guide to address skills issues that exist in the industry today. This is not a linear journey – it is an on-going dynamic process that helps improve operational efficiencies and maximise profitability.

If we are to mitigate a skills shortfall across the process industries, then we need to apply best practice to the process of talent sustainability – from developing skills that will model our plants, through to operational management of highly technical and complex projects. The next generation of talented engineers will build our communities, develop infrastructure, design and construct new roads, inspire creativity in chemicals and manage our manufacturing industries.

Executing an integrated T.A.L.E.N.T. model and aligning it with the overall business strategy will allow process industry businesses to reap the rewards of enhanced loyalty and productivity, establishing a clear vision for transforming the way companies optimise their biggest asset – people.

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