

## Drawing young talent to the natural gas industry

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### Background

The economies of developing countries face complex challenges in order to achieve the quality of life their populations deserve. In our country, Argentina, the situation is not different. Not only is energy a crucial element to this development, but efficiency and sustainability are also key factors to accomplish our objectives as well. Responsibility and care for the legacy to future generations are mandatory.

Globally, the Oil & Gas industry presents a generational gap, which can also be observed in our country. Moreover, there is an existent trend among new professionals in the technical academic branches to choose different engineering fields aside from those needed in the Oil & Gas industry. Much work is needed in this direction to get the attention of these junior professionals.

For that reason, this transformation will only be feasible, if we can involve talented young people, who can learn and gather experience in the energy industry, specifically in the natural gas industry, being the main source in our energy matrix. In this paper, we present a proposal of what can be accomplished when the path is set looking into the future.

### Aims

The aim of this paper is to present a plan to capture, grow, develop and foster the talent of young people in our country. In this way, we put forward a multi-phase plan to natural gas companies for the short, medium and long term, so that they can attain a high level of competent and fresh minds.

### Methods

With the purpose of delivering such a plan, it is first necessary to understand the current situation. This present picture should depict, on the one hand, what current actions are useful, and on the other hand, what reasons prevent the access of young talented people in this industry.

The following analysis of the strengths, weaknesses, opportunities and threats is shown taking in consideration our understanding of the people's perspective of the natural gas industry.



Figure 1 SWOT Analysis of the Natural Gas Industry

**Strengths:**

Even though natural gas is a fossil fuel, it is still the cleanest non-renewable available, producing less tones of CO<sub>2</sub> in power generation than any other fuel, such as coal, fuel-oil or gas-oil. In fact, until new technology is available and widespread for the development of renewable sources of energy, natural gas, with all its possible impacts to the environment, will continue to pose as a safe choice compared to, for example, nuclear energy.

Additionally, this source of energy is available in most regions of the world considering both conventional and non-conventional fields (tight-sands, shale gas, etc.). This additional portion of energy is changing the balance in the US, and also here in Argentina, where many operators are exploring current and new basins where these resources could be present.

The transition of these resources to reserves will be based on steady development, which in turn will drive huge investment, demanding both local and regional resources. Moreover, with the development of LNG (Liquefied Natural Gas) and its possibility of being transported like liquid fuels, natural gas marketing grew from a local standpoint to a world-wide extent. Thus liquefied natural gas is able to cover every region of the world, including those which are producers of fossil fuels (e.g. Kuwait, Argentina), attending to base or seasonal demand. Most importantly, the choice of use of natural gas is becoming less dependent on local availability and seasonal demand, and more conditioned to a domestic governmental resolution on energy matrix composition.

In any case, the development of natural resources involves capital projects with significant investments which create a centre of attention in professionals looking for participation in such projects as a career development plan.

**Weaknesses:**

On the other hand, from an environmental point of view, natural gas generates pollution to the environment, even if in comparison it is less than other fossil fuels. This piece of information should be taken in consideration in view of the fact that many young people are strongly concerned regarding to the environment and may not be willing to join the industry under this conception.

Furthermore, many of these young people perceive the natural gas business, unlike for example the telecommunications business, as a conservative or old-fashioned industry, which prevents them from being part of it.

Likewise, as natural gas is not fairly distributed world-wide for residential use, in turn this fact results in poor appreciation of this resource and its advantages against other sources of energy.

**Opportunities:**

The current global context within which the natural gas business is bounded, presents plenty of opportunities for this industry. Even in a world governed by a sustained economic crisis, there is still growth and development to be expected in the developing regions. Under these circumstances, natural gas could profit from its own nature and availability to take the lead as energy source creating a synergy with renewable resources, such as wind or solar, bridging the generation instability gap of these sources.

Besides, there are new fields of natural gas being discovered, mostly non-conventional, all over the world (e.g. Shale boom in the US, offshore pre-salt basing in Brazil).

All these new defiant projects pose technological challenges, which provide professional motivation to those involved to face them.

**Threats:**

Nevertheless, in a youth perspective, there is negative insight of this industry from a new eco-friendly standpoint.

Additionally, with research and development of new technology, there could be a strengthening competition from renewable sources of energy, levelling prices and increasing availability in most regions of the world.

All things considered, there are plenty of work lines that the natural gas industry could embark on in order to manage the talent of its workforce, to take advantage of the opportunities based on its strengths and polish those weak points that pose as threats.

Consequently, the proposed plan is presented in all necessary stages to attract talented young people to work in the natural gas industry. As any plan, it should be executed along with a monitoring programme to detect potential variations upon which to act.

The outline of this plan consists of the following stages:

- i. *Creating awareness:*
- ii. *Attracting young people*
- iii. *Building capacity*
- iv. *Delivering productivity*
- v. *Stimulating awareness – closing the cycle*

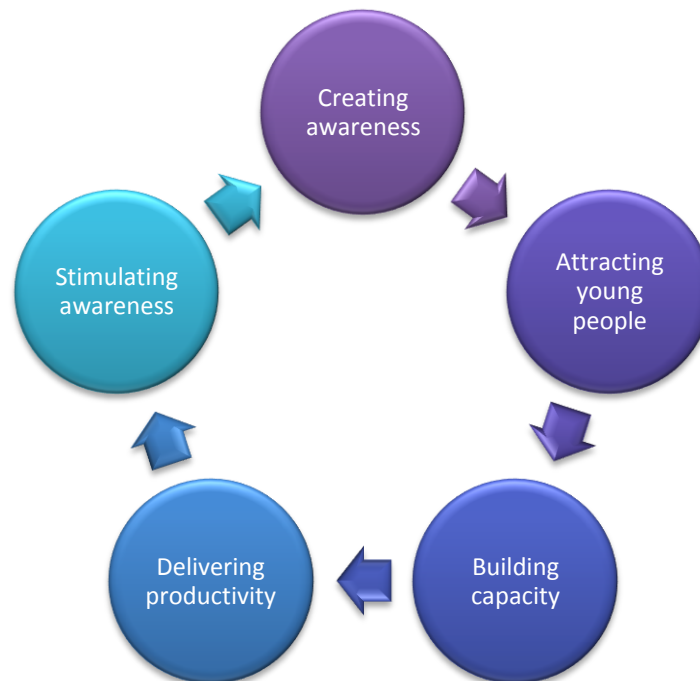


Figure 2 Five-stage talent development plan

### Creating awareness:

The first step of this plan is to present the industry to the community in general and make it visible to the next generations, which are to be the future professionals. In this way, we propose the following activities:

- Establish a communication campaign mainly through natural gas local institutions and distribution companies as they are the closest to the community in general.
- Implement employees' talks in primary schools, in order to make the industry visible in a positive way in the early years of education.

For this stage it is necessary to create and follow an effective communication plan built along side educational institutions so that the message reaches the target audience successfully.

### Attracting young people:

The next phase is to appeal to both high-school and college graduates, so that companies can select candidates, who not only are talented, but also that are familiar with the industry and are interested in joining it. Therefore, we put forward the following activities:

- Launch educational programs in secondary schools, both technical and commercial with the aim to plan and deliver a project to develop natural gas in their community.
- Create internship programs at University level, so that interdisciplinary teams deliver a project plan with both technical feasibility and a business plan. Each member of the team should have counsellor responsible for the project development. Counsellors should also enable college students to acquire both general and industry specific knowledge.

In this step, it is important to establish a strong relationship with Universities' academic offices in order to devise a common strategy to educate these college students.

### Building capacity

This step is central to achieving the goals of this plan, since it is at this stage where the talented candidates are selected and the crucial task of providing the necessary skills to accomplish their future job positions is performed. For this stage we suggest the following activities:

- Setup a master level educational program specialized in the gas industry, within the company as a “Young Professionals” induction, with different branches – upstream, midstream, downstream – depending on the scope of business of each company.
- Establish the master program graduation project in challenging areas defined by the company’s strategic plan followed by dedicated counselling.

Here the counsellor’s role gains real significance, as the creation of a strong bonding is advised between counsellor and counselee. It is essential that the counsellor be aware of his/her counselee’s strengths and limitations so that a career development plan is conceived to emphasise the former and overcome the later.

### **Delivering productivity**

At this stage the young professional initiates the “payback” phase, when he/she is able to put the acquired knowledge into practice and adding true value to the company. For that reason, we suggest the following activities:

- Begin the working period under different job positions, both at the office and on the field, following a defined career plan, with a designated counsellor.
- Select the most appropriate working area according to performance and business needs, assessed by the designated counsellor.
- Ramp up young personnel’s experience and return value to the company’s investment in training.

Once more the relationship between counsellor and counselee is vital to ensure that all previous effort and resources invested in talent capture and build-up are not lost.

### **Stimulating awareness – Closing the cycle**

This final stage seeks out the completion of the talent management cycle, where counselee turns to counsellor and sequence starts over again. This is the only way to guarantee sustainability of a talented workforce. Some activities recommended for this stage are:

- Assign the former young professionals as counsellors of the following master program classes.
- Promote knowledge and experience sharing with the community, in order to increase the industry appreciation.

As any plan, its key success factors are team work, where all stakeholders take an active role in order to achieve deadlines and required deliverables; as well as a monitoring programme follow the execution and possible deviations to the proposed plan, so that corrective actions could be enforced.

## **Results**

All things considered, there are many work-lines to be outlined, defined, planned and executed in order to prepare and guide our talented young professionals. There are three directions that we present as a means to restructure talent management:

- **Talent capture**, by becoming aware of the impact of the natural gas industry in everyday life and promoting understanding on the opportunities that it presents to young people.
- **Talent build-up**, by training young professionals in specific industry knowledge in order to drive business productivity.
- **Talent escalation**, by the synergy of current industry experts and young talented professionals, who can then identify competent graduate students in local academic institutions and tutor new professionals in the master program.

## Summary/Conclusions

- Argentina will face a challenge trying to cover energy demand in the near future, especially in the production of natural gas for power generation, transportation and residential use.
- In order to execute this plan, many competent professionals are needed, both to design and manage the projects, and to research and develop new technology.
- The shortage of talent is one the top business issues facing the entire Oil & Gas industry. Identifying those with specific technical skills or the aptitudes to learn more skills is crucial.
- Also, it is required to identify or generate the talent pool from which high potential candidates, to fill leadership roles in the future, could be picked.
- To put this plan into practice, it is mandatory that this talent is created, fostered and maintained over the years.