



# **Skill and Leadership Development in Energy Sector**

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# Need for Skill and Leadership Development in Energy sector

- Specialty of Energy Sector
- Industry Scenario Changing Faster Than Anticipated - A too rapid pace of digitalization, Automated process, AI, Cloud computing, Digital twins, IOT
- **Aging workforce:** Gen Baby Boomer retiring all by 2024, Gen-Z (aged 12 years to 27 years) expected to “have jobs that do not exist today”
- Preparing for VUCA regime: **Volatile**, **Uncertain**, **Complex** and **Ambiguous**
- Paradigm shift in business management: from “What do you do, to what skill do you have”
- Change in Technology, high attrition rate and worldwide skill shortage have made change in mindset
- **Transitioning From Traditional to Innovative Learning Models**

# Skill to Catch up The Forces for change

## FORCES OF CHANGE



# Skill Based Talent Management in Energy Sector

- **Skill Profile:** Representation of the skill associated with a person, a team, an organization or some larger aggregation like community/village
- **Inputs to Skill Profile:**
  - Underlying skill data together with the estimates of the level of expertise
  - Way to organize the data
  - Visual and interactive presentation of organized data
- **Skill Profiling Helps:**
  - In skill planning
  - Link people to similar profile
  - Link people to role and projects

# Skill Based Talent Management in Energy Sector

- **Skill based talent Management :**
  - Identify skill required for job
  - Hire the people with those skill
  - Develop that skill set
- ❖ **Skill based talent management is not as HR concern, it is a whole company's initiative**
- **Flow Chart:**
  1. Business Strategy: define the skill required (functional & soft skill) and competencies like coaching, mentoring, deal with/manage the change
  2. Skill assessment: use modern tools
  3. Recruiting
  4. Work force development

# Skill Based Talent Management in Energy Sector

- **Benefits to Employees:**
  - Increased career mobility
  - Recognition for contributors, **not background** based
  - A future proofed career
- **Benefits to Employers:**
  - Increased organizational agility
  - Greater employees engagement
  - Improve organizational alignment
  - A future proofed workforce
- ❖ **“Organization that cannot connect skill to work are at risk of being outplaced by those that can more rapidly deploy mission- critical talent”**

# WE ARE IN A VUCA WORLD

- VUCA is about constantly changing challenges brought on by **Political Scenario, Economics, Society and the Environment**.
- VUCA is an acronym used by the American Military to describe extreme conditions in Afghanistan and Iraq. It stands for **Volatile, Uncertain, Complex and Ambiguous**.
- **How to respond to VUCA world:**
  - Be curious. Uncertain times bring opportunities for bold moves. Grab the chance to innovate.
  - Anticipate risks but don't invest too much time in long-term strategic plans.
  - To retain a clear vision against which judgements can be made, with agility to flex and respond appropriately to rapidly unfolding situations.
  - Clear direction and consistent messaging against a backdrop of continually shifting priorities, using new virtual modes of communication.
  - Capitalize on complexity. If the talent management strategy is working, that means there are right people in the right place.
  - To trust in new specialist expertise and their judgement.
  - To get used to being **uncomfortable**. Resist the temptation to cling on to outdated, inadequate processes and behaviors. Take leaps of faith and enjoy the new adventure.

# Forces That Will Radically Change How Organization Work : The Global Context

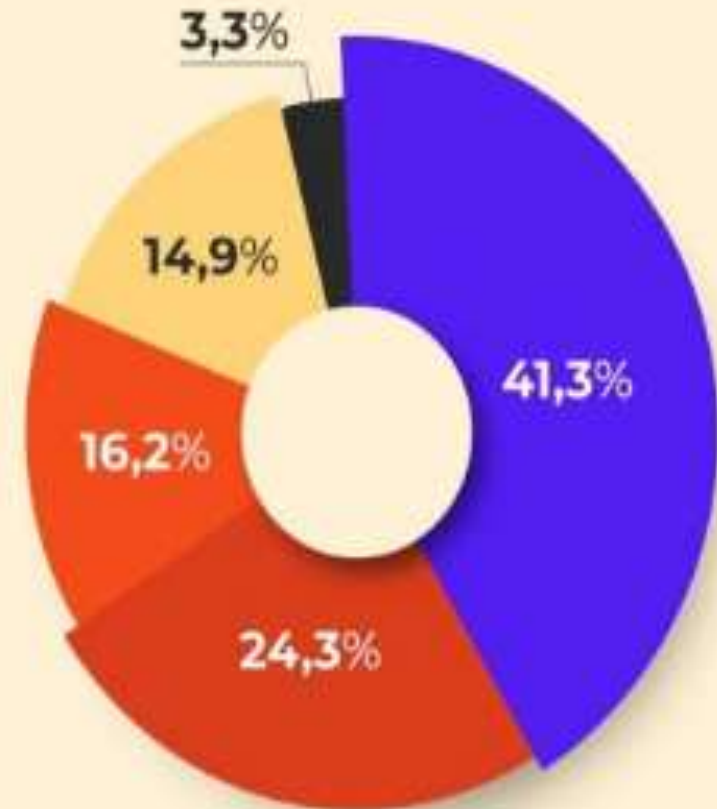
- The world is experiencing a decoupling of energy production and economic growth. Even if demand for fossil fuels persists, the Fourth Industrial Revolution (4IR) will transform the oil and gas (O&G) value chain. Many economies are still tightly coupled with O&G complicating predictions of what the future workforce may look like.
- The increasing rate of change of technologies will demand and place more emphasis on the ability of workers to adapt continuously and learn new skills and approaches within a variety of contexts. The workforce must be ready to reinvent itself.
- The ideal candidate will not be the one with the skills for today, but the one with the attitude to develop, implement and adapt to the skills of the future. T&T's low competitiveness and labor productivity indices.
- There are countries with no mineral resources which rely solely on developing their workforce and have succeeded in creating first world economies. Israel Experience – No much O&G but prepared for technology transfer



# There is a Skill shortage in Energy Sector

## The reasons behind skill shortage in the O&G industry

- Education and training
- Inadequate succession planning for knowledge transfer/skill retention
- Strict immigration laws preventing access to talent globally
- Loss of expertise due to the aging workforce
- Other



# Identifying Skill Gaps

- Examining your business strategy and write down key goal
- Note what professionals are required to reach goals
- Describe what professionals are required to reach such goals
- Describe what skill set each of these persons needs
- Make a list of the skill the existing professionals have
- Compare these two lists and calculate the skill gap
- Fill the gap by choosing proper person
- Train existing employees (Up skilling) if they can fill the skill gap

# Identification of Gap

## Effective approaches to address the O&G skill gap problem



Launch training programs for the existing workforce



Hire people with transferable skills from other industries



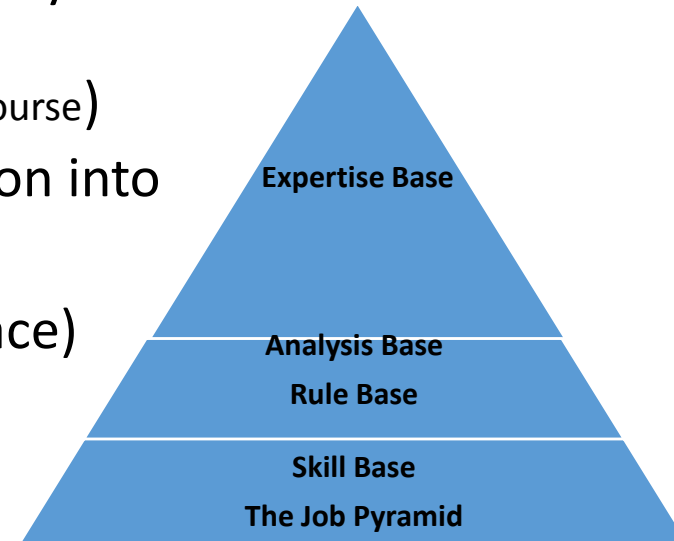
Partner up with colleges to attract top graduates



Launch initiatives to hire more women

# Skill development and capacity building: Changing Faster Than Anticipated

- Preparing young mind for job tomorrow ( The Dynamics : 65% of children of primary school will start the job that does not exist today.)
- Job Hoppers ( Frequent Change in Jobs) : Only 12% employees serve tenure exceeding 10 years in a single role
- Technological Innovation (Plus inclusion of Social Science in Tech Course)
- Design Thinking ( The Transformation of existing condition into preferred one)
- (Creative & Innovation Culture with People , Process & Place)
- Three Big Skills (Collaboration, Critical Thinking, Communication)
- Changing From SMART GOAL to STRETCH GOAL
- MOOC [Massive Open Online courses] ( Learn to new way of learning)



(It was an initiative of Yale, Harvard and Massachusetts Institute of Technology (MIT). And picked up by Indian Education institutes / Universities. Best of the course at minimal or zero cost)

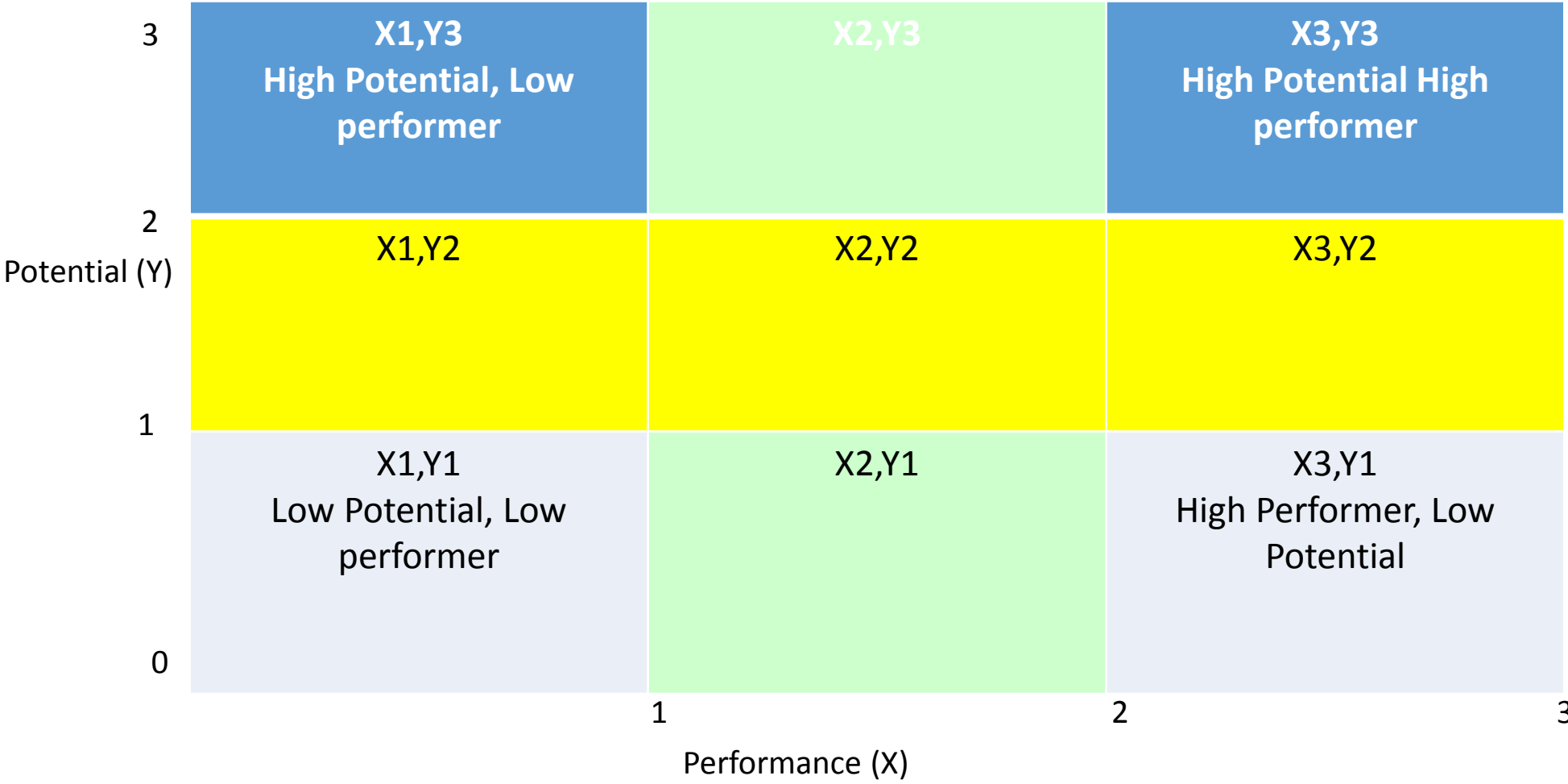
The MOOC market to grow from \$2 Billion (2015) to \$ 8 Billion ( 2019).

# Types of Skill

- **Adaptability**
- **Strong Communication Skills**
- **Project Management Skills**
- **Critical Thinking**
- **Problem Solving**
- **Leadership**
- **Time Management**
- **Team Player**
- **Global Thinking**
- **Conflict Management**



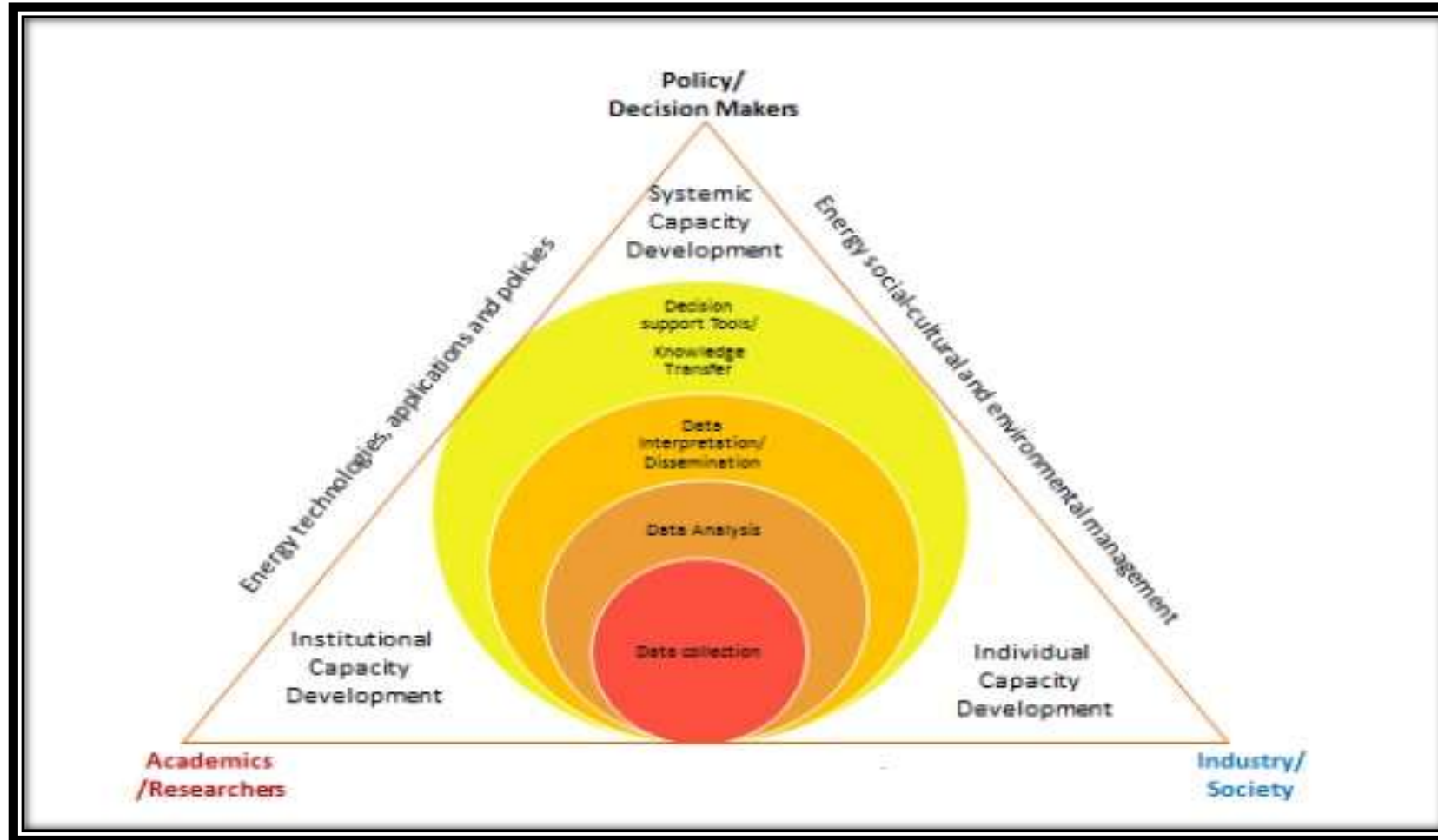
# Potential V/S Performance (Mckinsey Model)



# **CAPABILITY DEVELOPMENT IN THE ENERGY SECTOR: BRIDGING THE SKILL GAP**

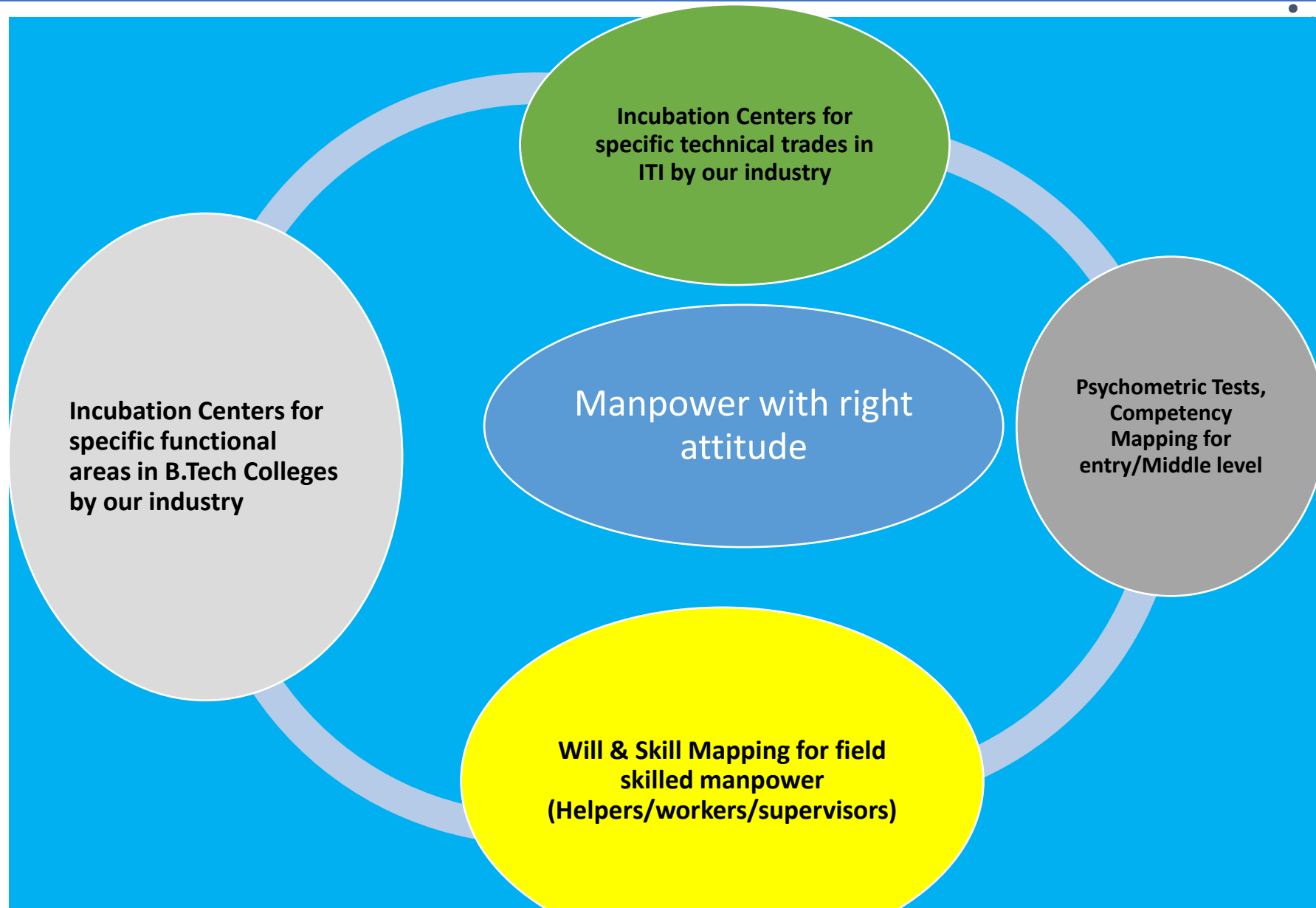
- Capability development refers to the process of enhancing the core concepts and skills of employees and groups in an enterprise. A strong training strategy is a critical component that not only helps companies to drive growth but also grow of their reputation and profile. Oil and gas companies face several training challenges, ranging from regulatory compliance mandates and training costs to an aging workforce and the need to improve production rates while eliminating environmental incidents and safety accidents.
- **An Aging Workforce and the Importance of Training**
- **Transitioning From Traditional to Innovative Learning Models**
- Training oil and gas professionals to create a competent workforce benefits the entire industry and should be a priority for oil and gas companies. However, most funds are dedicated for exploration or for developing new technologies, while training budgets are considered overhead and are considerably below what they should be. This makes it essential to effectively channel training costs into more cost-effective learning models.

# The Role of Academia in Capacity Building and Skill Development: Conceptual Framework





# A Proposed Model



# Indian Initiatives

- **Skill India Initiative**- launched by Hon'ble Prime minister on 15/7/2015
- **National Skill development Mission**- Hydrocarbon Sector Skill Council (HSSC) set up on 26/4/2016 to facilitate skill development requirement in Hydrocarbon sector. 6 Skill Development Institutes (SDI) at Bhubaneswer by IOCL, Vizag by HPCL, Kochi by BPCL, Ahmedabad by ONGC, Rae Bareilly by Gail and Guwahati by OIL
- **Pradhan Mantri Kaushal Vikash Yojana**- recognition of prior learning in dealership, product distribution network, LPG delivery, Tank trolley drivers. More than 1 lac manpower trained
- **Initiative of City Gas Entities**- Training ITI students in fitter and plumber trade, to make them suitable for LMC job in CGD
- **Professional Institutes** at Dehradun, Gandhinagar, Rae Bareilly, apart from IITs, IIMs, NITs and others