

# AI and the Future of Skills in The Tech and Energy Sectors

WEB SUMMIT RIO 2024



Airswift is an international workforce solutions provider to industries focused on Science, Technology, Engineering and Mathematics (STEM) with an unparalleled global reach.

*Transforming lives through the world of work.*





# The Future of Energy

*The AI Effect: What Does 2024 Look Like?*

## Technological Factors



Artificial Intelligence



Embracing Technology



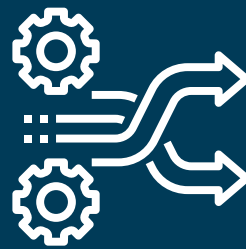
Innovation



Digital Technology



Process Automation



Change Acceleration

## Energy Transformation



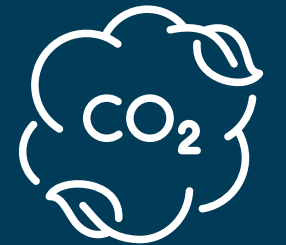
Energy Transition



Decarbonisation



Sustainability



Carbon Neutrality



Environment, Social & Governance



Paris Agreement



Rio G20 Summit

## Sectors Influenced



Oil & Gas



Energy



Mining



# AI Integration in Recruitment



AI has become ubiquitous across various facets of the staffing industry, from recruiting automation with chatbots to more complex AI applications in sales and marketing strategies.



# Challenges and Opportunities

*For Companies*

## CHALLENGES



Navigating AI Adoption



Maintaining Human Element



Ethical Considerations



Enhanced Efficiency



Cross-Functional Collaboration



Data-Driven Insights



## OPPORTUNITIES



# Challenges and Opportunities

*For Job Seekers*

## CHALLENGES



Adapting to AI-Driven Processes



Personal Touch



## OPPORTUNITIES

Accessibility of Opportunities



Skill Highlighting



Learning and Adaptation





# Top energy and tech employment trends



**GETI**  
Global Energy Talent Index

The Global Energy Talent Index (GETI) report identifies several key employment trends, reflecting the rapid evolution of these sectors due to technological advancements, sustainability goals, and the global energy transition.



# Top Trends



01

## Accelerated Adoption of AI & Digital Technologies

Both energy and tech industries are experiencing a surge in the adoption of AI, machine learning, and digital technologies.

02

## Growing Focus on Renewable Energy and Sustainability

A significant shift towards renewable energy sources like solar, wind, and battery storage technologies.



**32%**

use AI in their role.

03

## Emphasis on Cybersecurity

The demand for cybersecurity professionals has skyrocketed.

04

## Skill Gaps & Continuous Learning Need

Rapid technological advancements have led to skill gaps in the workforce.

05

## Flexible Working Arrangements

More companies offering flexibility in work locations and hours to attract and retain talent.



## 06 | Cross-sector Mobility

Professionals are increasingly moving across sectors, particularly from tech to energy and vice versa.

## 07 | Increased Demand for Soft Skills

Soft skills such as critical thinking, problem-solving, creativity, and adaptability are crucial for innovation, effective teamwork and leading.

## 08 | Focus on Diversity and Inclusion

Companies are implementing policies and initiatives aimed at attracting and supporting a more diverse talent pool.

## 09 | Data-Driven Decision Making

Professionals with the ability to interpret and leverage data for business insights are in high demand.

## 10 | Integration of ESG (Environmental, Social, Governance) Factors

Professionals with expertise in ESG reporting, compliance, and strategy are becoming essential to organizations in both sectors.





# 11

## Leveraging Productivity, Job Satisfaction, & Career Progression

**90%** of energy workers expect to see a demand for new skills as a result of AI

**87%** of respondents express optimism about the future impact of AI.

**78%** of professionals anticipate increases in productivity, 62% in job satisfaction, and 62% in career progression.

# 12

## Salary Trends

### Renewable Energy

- Salaries on the Rise

**51%** of professionals report a pay rise this year.

- Engineers Seeing Higher Increases

### Petrochemicals

High Salary Sentiment

**60%** of professionals report a pay rise this year.

### Oil and Gas

Stable Salary Growth

**48%** of professionals report a pay rise this year.

### Nuclear

Fewest salary percentage increases reported, which is lower than anywhere else in the energy industry.

**42%** of nuclear employees reported an increase in income over the last year.





*AI and the Future of Energy and Tech*

# How is AI reshaping job roles, skills in demand, and workplace policies?







AI is significantly reshaping job roles, skills in demand, and workplace policies across the energy and tech sectors, driving the energy transition.



## Reshaping Job Roles

- Transformation of traditional jobs
- More technologically driven
- AI integration is creating new job categories

AI Specialists

Data Scientists

Machine Learning Engineers

## Workplace Policies

- AI policies in development
- Training & development to bridge skills gap
- Opportunity to improve work-life balance
- Inclusion & diversity

## Skills in Demand

- **Technical Skills:** There is a growing demand for technical skills such as data science, machine learning, cybersecurity and software engineering.
- **Green Skills:** There is a growing demand for green skills, such as climate change, energy efficiency, renewable energy, and carbon emissions.
- **Soft Skills** like critical thinking, creativity, and problem-solving are more valuable than ever.
- **AI Literacy:** Employees are expected to be knowledgeable about AI capabilities and limitations within their specific roles.



# The Most In-Demand Roles



## STEM

### The Most In-Demand Roles

1. Data Scientists and Analysts
2. Artificial Intelligence & Machine Learning Specialists
3. Cybersecurity Experts
4. Renewable Energy Engineers & Technicians
5. Software Engineers & Developers
6. Mechanical & Electrical Engineers
7. Project Managers
8. Sustainability Specialists & Environmental Scientists
9. Robotics Technicians
10. Commercial Manager / Finance & Legal
11. Cloud Computing Professionals
12. User Experience (UX) & User Interface (UI) Designers
13. Internet of Things (IoT) Engineers
14. Blockchain Developers



# airswift DIGITAL



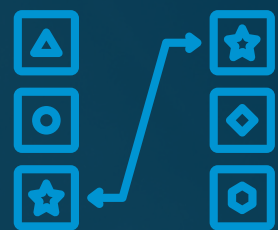
Airswift's cloud-based candidate portal.



Automated Profile  
Creation



Candidates  
Save Time



Personalised  
Job Matches



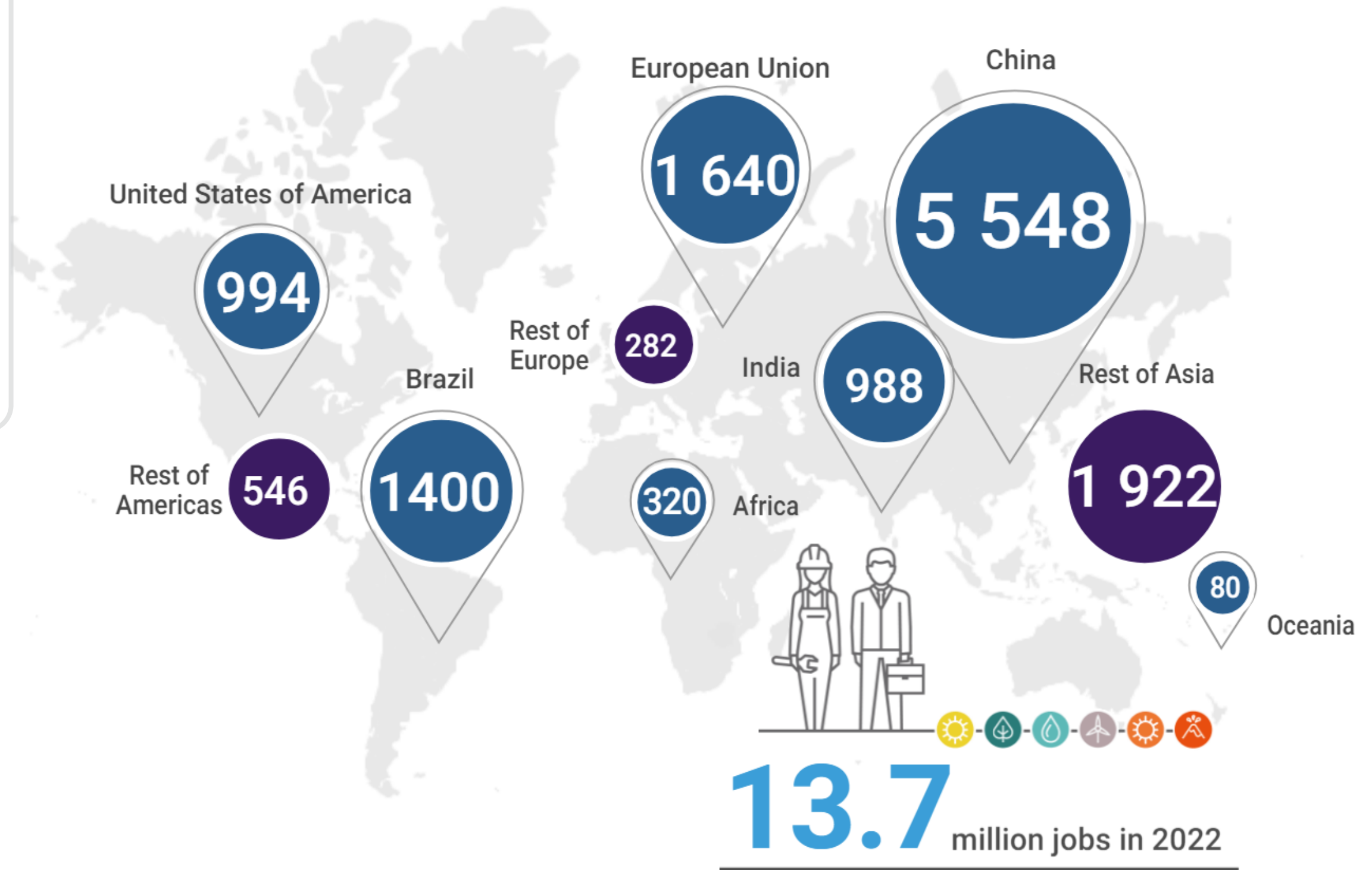
Available in  
5 languages

Create a profile on  
Airswift Digital





# Where Are We Now?





# Projects in North & South America



There are **2595** projects spread out in North and South America between alternative energy and emerging technologies, starting now and in the next 5 years, with a total value of **\$956bn**.

Find the top 15 locations in the Americas by investments:

Texas, USA

Ceará, Brazil

Bahia, Brazil

New York, USA

Piauí, Brazil

Minas Gerais, Brazil

Louisiana, USA

California, USA

Antofagasta, Chile

Wyoming, USA

Alberta, Canada

New Mexico, USA

Magallanes y la Antártica Chilena, Chile

Ontario, Canada

Virginia, USA



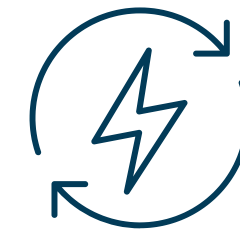
# Women in STEM



## FEMALE REPRESENTATION IN ENERGY



33% in the tech  
companies



16% in the  
energy



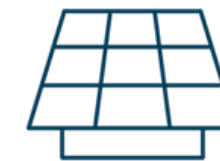
32% in the  
renewables sector



22% in the  
oil and gas industry



21% in the  
wind industry



40% in the  
solar industry

Sources: Workplace Gender Equality Agency (WGEA), International Energy Agency (IEA), and International Renewable Energy Agency (IRENA).



# Women in STEM Job Demographics



## AI TO Z PODCAST

**26%**

of positions are held by women.

**35%**

of higher STEM education students are women.

Sources: United Nations Educational, Scientific and Cultural Organization (UNESCO).

**Julie Flowers** emphasised in our AI to Z Podcast the significance of technology and innovation in driving the energy sector forward. She shared Chevron's efforts to attract the best talent, focusing on skills-based hiring and the importance of an inclusive work environment that supports diversity.



**JULIE FLOWERS**

Head of Global Talent Acquisition  
*Chevron*



**ANNA FRAZZETTO**

Chief Revenue Officer  
*Airswift*







*How do we get there?*

# What companies can do to drive diversity in the workforce?







There are many strategies to ensure the needs of women and drive change.



Showcase female role models

*The power of representation*



Recruit, retain & develop female talent



Design & build infrastructure that meets the needs of women



Offer flexible work arrangements



Provide parental leave



Support women & girls in leadership, decision-making, business & STEM



Offer childcare support



*Tips & Advice*

# For New Jobseekers & Career Development



**01** | Cultivate a strong professional network & seek mentorship opportunities

Engage with peers, industry leaders, and participate in forums, both in-person and online. A mentorship in the energy field can provide invaluable guidance, support and insights into navigating your career path.

**02** | Stay up-to-date with latest trends & technologies in the energy sector

Stay updated with the latest trends and technologies in the energy sector. Pursue additional certifications, training, or education to enhance your skill set. This not only makes you more marketable but also demonstrates your commitment to personal and professional growth.



*Tips & Advice*

# For New Jobseekers & Career Development



## 03 | Prioritise a healthy work-life balance

This is crucial for long-term career success and personal well-being. Look for employers who value and support this balance, as it is essential for sustaining your career trajectory and personal development.

## 04 | Actively advocate for yourself when it comes to opportunities and promotions

Don't hesitate to make your achievements known and express your career aspirations. Understand the value you bring to the table and be prepared to negotiate for what you deserve, whether it's a new role, project, or salary increment.



*Tips & Advice*

# ATS Friendly Resumes



## Utilise Basic Word Format

- Use a simple format
- Avoid embellishments or complex layouts



## Use the Third Person

- Avoid using first person
- Eliminate pronouns
- Focus on accomplishments & skills



## Include Dedicated Skills Section

- Tailor section to specific skills mentioned in the job description
- Offers direct skills alignment



## The 'Basics' of Basic Info

- Include Name, Phone, Email, LinkedIn, & Portfolio
- Avoid personal details like, age, marital status & exact address
- Specify openness to relocation
- Do not include a photo



Tips & Advice

# Optimising LinkedIn





*Tips & Advice*

# Interview Preparation



Research the Company



Understand the Role



Do a Self-Assessment



Rehearse Common Interview Questions



Gather Necessary Documents



Prepare Questions to Ask



Dress Professionally



Review Interview Etiquette



*Tips & Advice*

# Online Job Search Resources



Use job search engines



Online freelancing platforms



Company websites



Professional associations



Social media



Create a profile on **Airswift Digital**

*scan the QR code*



Networking

Create a profile on  
**Airswift Digital**





Transforming lives through the world of work



Industries



Technology



Process



Energy



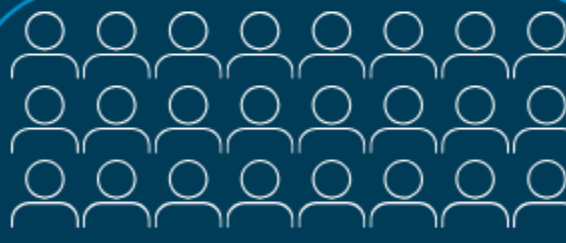
Infrastructure



Mining



operating in over  
70 countries



with over  
9,000 contractors



supported by  
1,000 employees

Services



Talent Acquisition



Executive Search



1.9M STEM  
Professionals



Global  
Employment &  
Mobility



Workforce  
Consulting



Latin America  
Clients



TEEKAY CORPORATION



Sotreq





# Contact us

*We are here to help.*



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THANK YOU