

Solving South Africa's skills shortage



Centre for Applied Innovation & Technology

**The Centre for Applied Innovation and Technology opens the way for company employees to improve their skills, and for unemployed individuals to enter mainstream education and the labour market.**

**Primarily for the science, engineering and technology sectors of the economy, CAIT – the workplace and skills development hub of Da Vinci Holdings – conducts a unique learner-preparedness programme.**

**It accredits prior learning acquired through experience, and provides introductory or elementary industry-specific career guidance and counselling.**

**At CAIT, we:**

- change perceptions of a career in technology, and promote lifelong learning and career growth;
- integrate designated groups into the mainstream of further, higher education;
- mainstream women into historically male dominated sectors of the economy;
- create pools of qualified technicians and artisans with rare skills; and
- increase chances of employability among young people, including black unemployed graduates with non-technical humanitarian degrees, girl-child cohorts, and school leavers who have never considered a career in technology.



# The Learning Continuum

## **Course accreditations**

All the CAIT courses are designed to transfer credit into the Da Vinci accredited offerings.

We make provision for an annual moderation, by an international panel, of courses accredited by Da Vinci, so our offerings meet the highest local and international standards of content, delivery and effectiveness.

The employee gains in personal growth and contributes to the betterment of industry operations.

## **Link between programmes and formal offerings.**

We design each programme with specific hurdle rates allowing for credit transfers from CAIT programmes to Da Vinci Institute accredited qualifications.

## **Integration within the work environment.**

Our courses are designed to meet the unique needs of participating industrial operations and recognise the need for both the organisation and the individual to benefit.

Each component of the programme is integrated with the work environment, so that the organisation gains immediately from the candidates being able to practise their newly acquired skills on work related problems.

The candidates, in turn, become more useful employees with a better appreciation of issues in their work environment

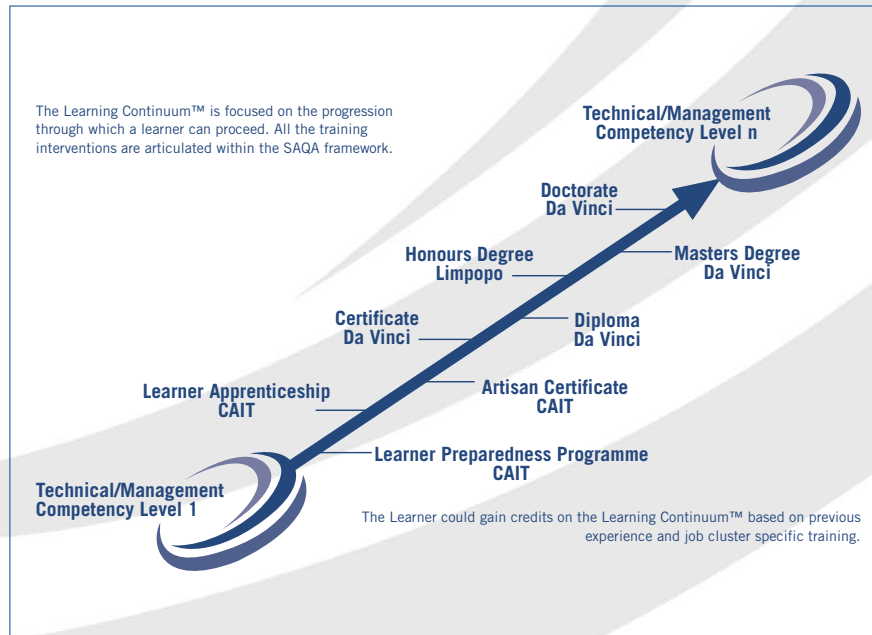
# The Learning Continuum

## Technical learning continuum

The learning continuum seamlessly integrates a number of training interventions – some of which combine local and international materials – and gives the trainee a clear route to progress learning.

We provide for credit transfers between each intervention.

The attractiveness of the process is the removal of artificial barriers between the technical skills training and more formal academic development.



# The Learning Continuum

## **Industry induction programme**

Our programme works in parallel with the PLATO experience.

Learners are taken on tours of various industrial sites to gain a perspective of the work environment and an introduction to 'industry speak'.

## **Computer Literacy and Computer Aided Design**

Candidates are enabled gain competence in basic computer operations and Computer Aided Design techniques.

## **Technical Skills**

A craft-skills development programme enables candidates to gain experience working with basic hand tools in:

- Control and Instrumentation
- Fitter Machining
- Specialist welding
- Code welding
- Underwater welding
- Single-phase or three-phase industrial electrics
- Specialised turning-manual equipment
- Any combination of the above (e.g. to create a mill-right)

# The Learning Continuum

## **Learner preparedness programme**

The programme, including a 'Broadening of Horizons' component, exposes candidates to some of the realities of fully engaging with the industrial world.

The programme is extensive and includes issues such as:

- Business principles
- Supervisory skills
- Basic finance
- Negotiation skills
- Communications
- Change preparedness and being change agents
- Personal effectiveness
- Personal leadership
- Spiritual awareness
- Thinking skills, including problem-solving tools

## **Practical experience on site**

During each module, learners are allocated to a specific site where they spend time gaining hands-on experience in a work environment.

The site work is carefully monitored to ensure learners gain appropriate experience.

# Our Approach

## **Training to specific job requirements**

We believe any training intervention that ignores the learner's job description will fail to deliver the required outcomes to ensure performance and optimum productivity.

As the point of departure, we use the job profile derived from several different sources, but primarily the job tasks and outputs, competency requirements, behavioral indicators, measures and results.

It allows us to understand the critical performance requirements for a particular task, a role or function in the organisation, or any peculiar performance challenge.

## **Balancing soft skills with technical skills**

Historically, soft skills have been less important in many technical disciplines. In today's fast-paced, global marketplace, they are more important than ever.

Companies use technical capabilities to operate more efficiently, and their strategy is derived from, and integrated with, their technical competencies. But increased strategic focus raises the stakes and puts pressure on technical professionals to master a broader range of skills.

Increased competition puts pressure on companies to operate more efficiently and effectively, to show a positive return on technology resources and investments and show a higher rate of project success.

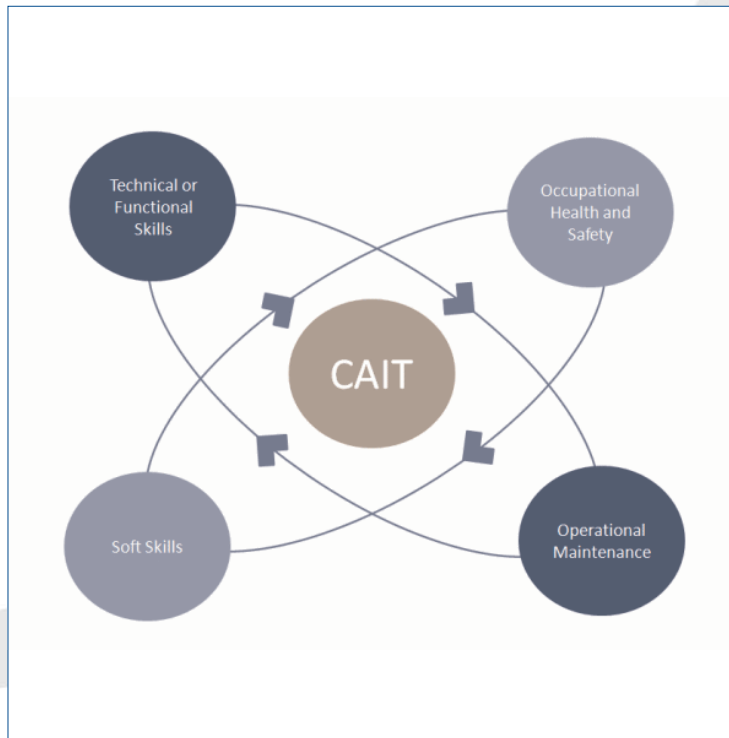
Technology-intensive projects, for example, tend to have high failure rates. Projects are never completed, or completed significantly over budget or beyond deadline. So resources are wasted, the bottom line shrinks and, in extreme cases, competitive marketplace advantage is lost.

Historically, technical disciplines have also been poor at grooming future leaders for their own disciplines or corporate leadership positions.

To move into management or supervisory positions, candidates must show that they have skills in such areas as communication, interpersonal skills, teamwork and leadership.

### The CAIT difference

What makes us different is our ability to integrate technical or functional training with the soft components, to incorporate occupational health and safety and operator first-line maintenance.



# The Learning Continuum

We also have extensive experience in:

- Strategically focused skills development
- Curriculum and instructional design and development
- Research
- Skills auditing and assessment
- Equivalence mapping
- Learnership design, development, implementation and management
- Learning quality assurance
- Knowledge management
- Project management

We have intimate knowledge of the current and relevant legislation, Skills Development Act, Skills Development Levies Act, Employment Equity Act and the SAQA act.

Our track record in the design, development, implementation and management of accredited learning interventions on projects and long-term outsourcing makes us ideal for your project.

Our clients include Johannesburg City Council, Eskom, CityPower, FNB, AEL and various SETAs.





Da Vinci Centre for Applied Innovation  
and Technology (Pty) Ltd

Tel: + 27 11 608 1331

Fax: + 27 11 608 1332

[www.davinci.ac.za](http://www.davinci.ac.za)