

The Purpose of Professional Registration with ECSA & the Value to the Construction Industry

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Who is ECSA?

- ECSA: The **Engineering Council of South Africa** is a statutory body established under the Engineering Profession Act (EPA) 2000
 - EPA is successor to: Engineering Professions Act 1990, and SA Council for Professional Engineers Act, 1968
(Professional Registration of Engineers, Technologists & Technicians in the Engineering component of the Built Environment)
- ECSA has
 - 30 000 registered persons (9000 Candidates)
 - A Council of 50 persons
 - A corps of ~350 volunteer professionals who serve on committees and do evaluation work
 - A 60-strong operational organisation



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Why does ECSA exist?

- Engineering serves the needs of people, society and the economy by applying engineering sciences and technology
- Engineering activity has risks:
 - health, safety,
 - environmental, sustainability,
 - economic
- Engineering must be carried out competently, ethically and accountably
- Engineering is a regulated profession and ECSA is the regulatory body for South Africa



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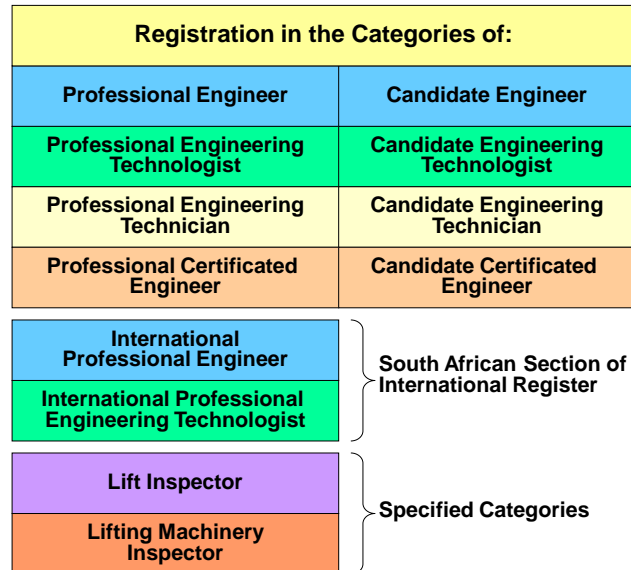
ECSA Protects the Public Interest by:

- Identifying and recognising the competency levels of practitioners, including educational standards;
- Determining standards of conduct in the profession
- Providing recourse to public in case of misconduct
- Requiring registered practitioners to maintain competence
- Provisions to prevent incompetent, unaccountable persons from performing engineering work (pending)



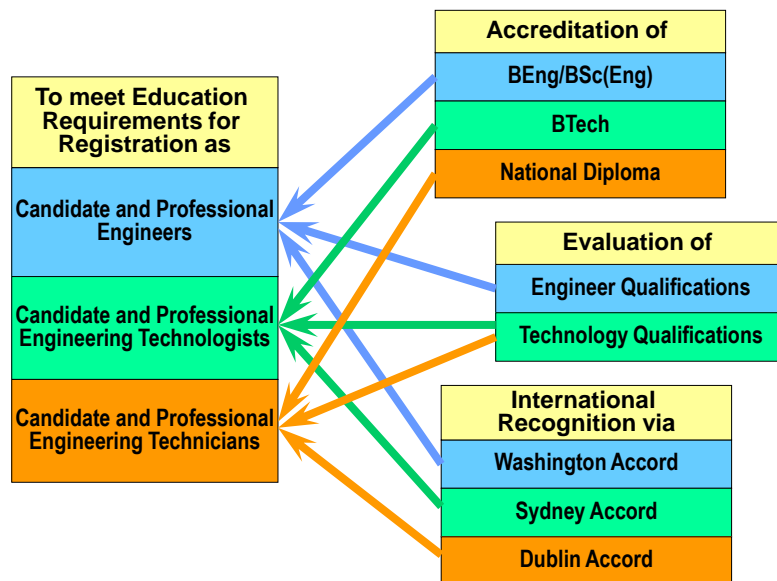
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Core Function 1: Registration



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Core Function 2: Education



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Core Function 3: Engineering Practice

- Code of Conduct
- Code(s) of Practice (as required)
- Accountability for professional conduct
 - Complaints mechanism
 - Investigations
 - Tribunals
- Publish guideline fees
- Identification of Engineering Work



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Strategic Functions Empowered by EPA

- To advise Minister of Public Works, other Ministers and the CBE on engineering profession
- To protect public in their dealings with registered persons - to maintain integrity and enhance status of profession
- To improve standard of services of professionals
- To act if engineering activity prejudices public health and safety
- Create awareness of environmental protection among registered persons



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How did ECSA do Business in the Past?

- Emphasis fell on discharging mandatory functions:
 - Registration
 - Accreditation of Programmes
 - Evaluation of qualifications
 - Investigating complaints, conducting tribunals
 - Requiring Continuing Professional Development
 - Setting guideline fees
 -

ASSUMED NARROW FOCUS OF ITS MANDATE !!!!



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ECSA's new approach

- ECSA's Strategic and Business Plans have two thrusts:
 1. Continue to discharge mandatory functions
 - To improve processes and efficiency where this is necessary
 2. To emphasize strategic functions empowered by S14 of EPA
 - Engage in those initiatives which have national relevance and which are in the best interest of the engineering profession and society as a whole.



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Examples of initiatives :

- To influence transformation of the stereotypical profile of Professional Engineering practitioners for the future sustainability of Infrastructure in South Africa.
- Determine engineering skills requirements for the country and provide direction and solutions to the pipeline for engineering skills development;
- Determine challenges with registration of all categories of professionals and liaise with govt and industry on resolving;
- Ensure the marketing of the profession to educate and attract learners to build the future engineering skills pipeline (Engenius, OCTIC-Schools Career CD);



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Examples of initiatives : *(continued)*

- Improved liaison with:
 - Government (DoHE&T, DoFA, DST, DPW, DPE, DM&E, DoH);
 - University sector (staff & students);
 - State Owned Entities
 - Private Sector
- Contributing to the nation planning debate
- Establish collaboration with industry & chambers of commerce to develop programmes aimed at
 - Improved mentoring of graduates
 - Increasing volunteerism



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ECSA's Broader Role in Engineering in the African Diaspora

- Namibia: engagement with Engineering Council of Namibia and higher education providers on accreditation of programmes
- Botswana: provision of workshop on accreditation of programmes
- Zimbabwe: commitment to assist Engineering Council of Zimbabwe develop its accreditation system and improve engineering education



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Value of Compliance and Registration

- Axiom: The competence of engineering practitioners is essential to:
 - Ensure that engineering work is performed effectively and efficiently
 - Risks to the public are mitigated

Commonly Misunderstood issue - Engineering is an Applied Science, the Qualification alone does not render one Competent.

A Medical Doctor is liable for one patient at a time, An Engineering Professional is liable for hundreds of people in a building or on a bridge.....
- Registration is a quality mark for the individual registered person and ultimately a Construction Company.
- Employers of professionals are assured of competence and accountability



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Risks and liability of incidents due to not having professional engineering staff

- Many planning design, operational, and financial decisions require engineering knowledge, experience and judgement
- Making such decisions without competent engineering input can variously compromise:
 - Health and safety of workers and public
 - The environment
 - The effectiveness of the solution or product
 - Fulfillment of contractual conditions, with financial impact
 - Negative impacts beyond the scope of the contract



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CIDB's requirements for ECSA Registration

- CIDB specifies the minimum number of full-time equivalent:
 - Civil Engineers
 - Electrical Engineers
 - Mechanical Engineers
 who are registered with ECSA to achieve a particular level of **works capability** 6, 7, 8
- ECSA acknowledges the developmental processes driven by the CIDB in the Contractor Development Regime
- ECSA can assist in promoting better understanding of how the inclusion of registered professionals enhances the Developing Contractor's business, both in their own interest & in the interest of the public.



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THANK YOU !!!

