



CESA

Consulting Engineers South Africa



Your Partner in Enabling Consulting Engineering Excellence

CESA North West Presidential Visit 11 April 2019

Presidential Theme for 2019



Reshaping our Future Together

“We cannot change the past, but we can reshape the future. Young people have the opportunity to create a happier, better future. – [Dalai Lama](#)”

Reshaping our Future Together

All South Africans mobilizing, participating and actively reshaping our:

- Our Economy
- Our Country
- Our Projects
- Our Government
- Our Lives



Quick Recap: Presidential Theme for 2018



Effective Ethical
Leadership

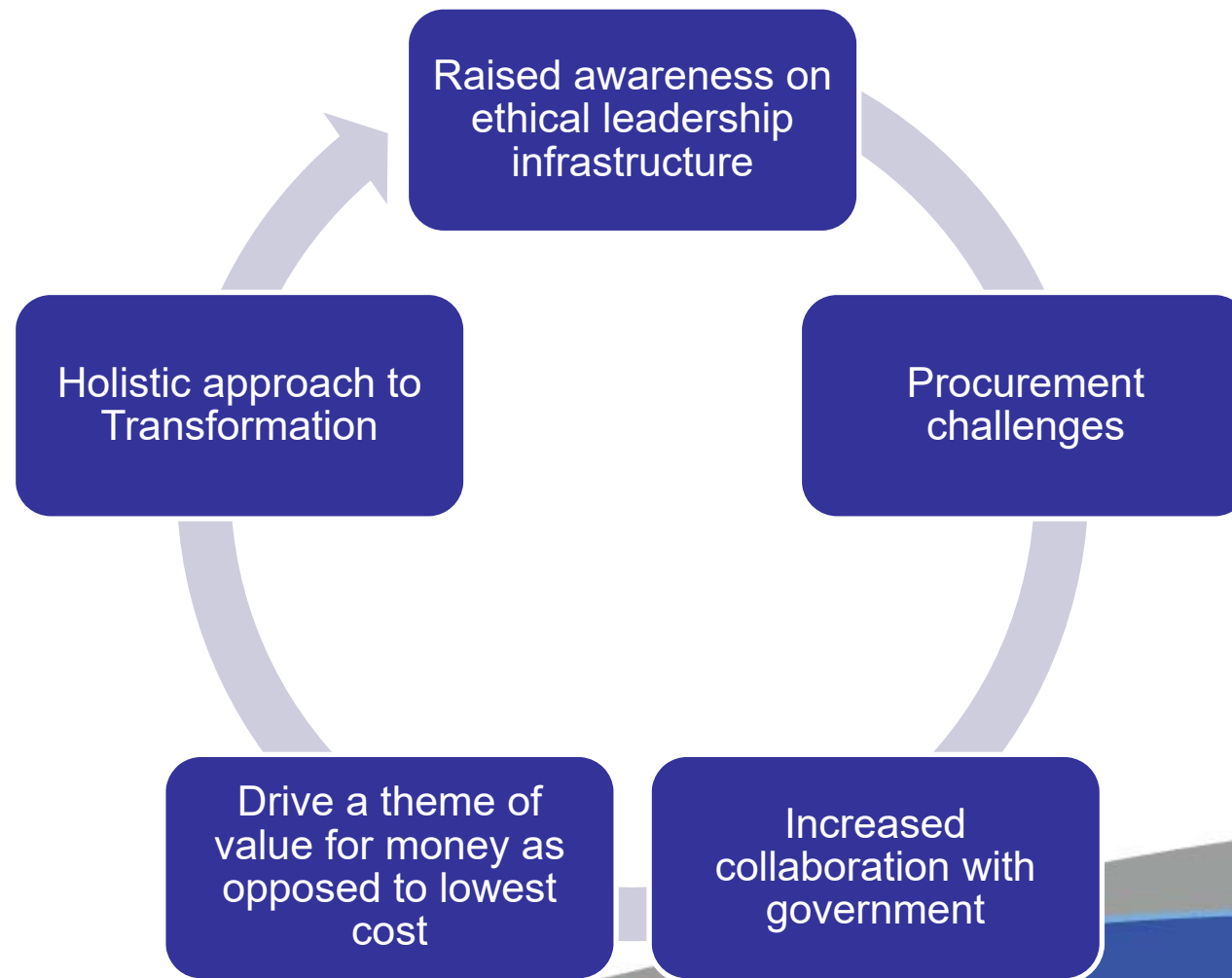
Industry
integration and
working
collaboratively

Transforming
the hearts and
minds of our
people

Embracing the
4th Industrial
Revolution and
the new world of
Digitisation

Working with
clients in
addressing
Corruption

2018 Key Actions:



A person stands on the head of a large, dark, metallic panther statue. The panther's head is turned towards the left, and its mouth is open, showing sharp teeth. The person is standing on the panther's head, looking out over a city. The city is visible in the background, with mountains and a cloudy sky. The sun is low on the horizon, creating a bright glow. The overall scene is dramatic and symbolic.

CESA's
Massive Transformative
Purpose

Building an industry that
meets the needs and
expectations of our
citizens

Reshaping CESA for our Future

CESA Operating Model

-
- 3
Pillars:
- External focus – Advocacy, procurement, Ethics, leadership
 - Internal Focus – Support, Knowledge Sharing, Capacitation
 - Monitoring & evaluation – Analysis, Research, Maintaining Credibility
-



Our Progress

Media has been briefed on the theme and objective

Have been featured in the Sunday Times and various other news papers and journals

Have been Interviewed live on Radio and using other social media platforms

Have started a concerted campaign in Infrastructure Journal, Engineering News, Contractor and most recently Financial Mail

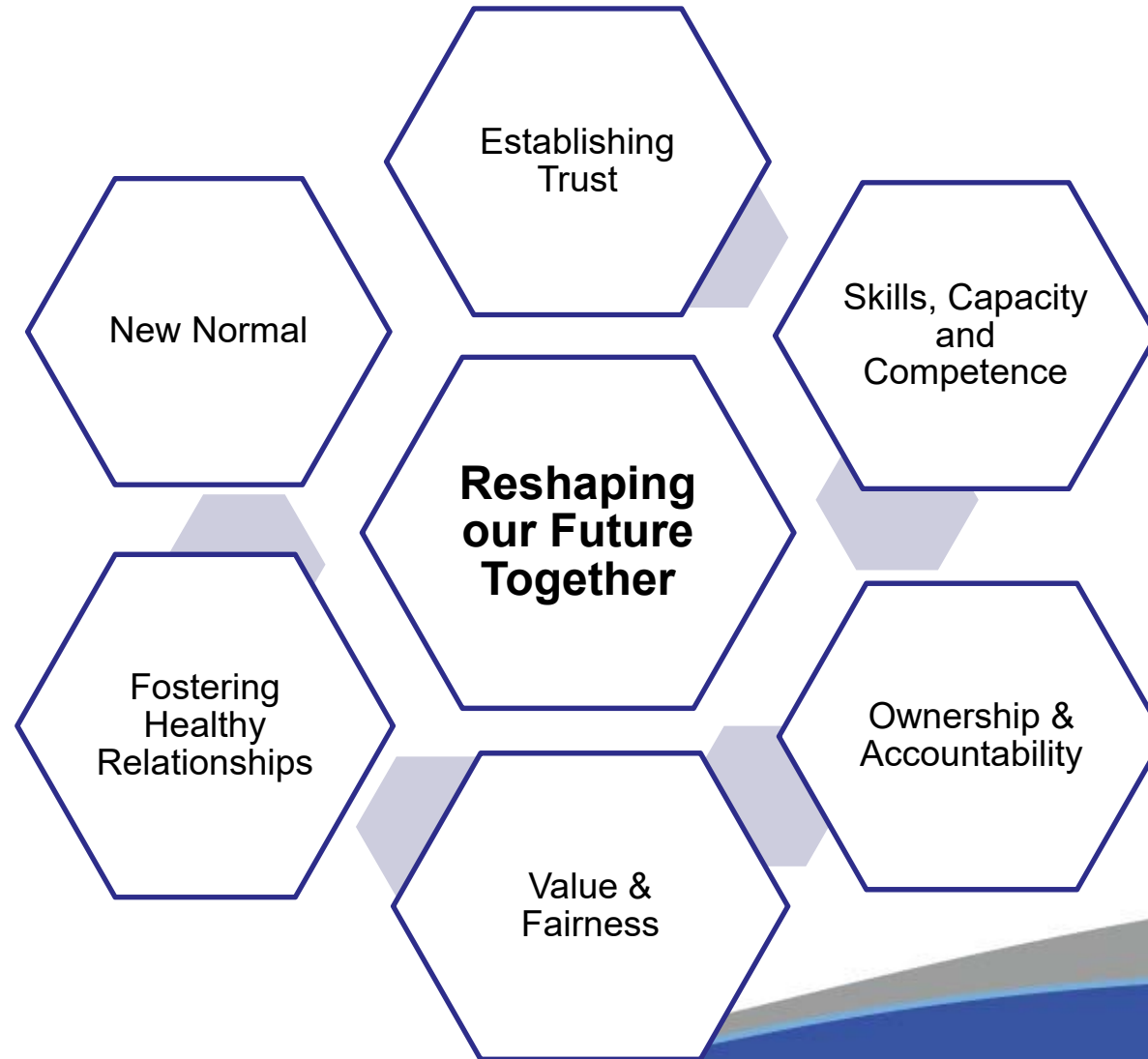
We entered into dialogue with the Parliamentary Appropriation's Committee

Have Met with ECSA, SATABCO, SAICE and BBBCBE in a bid for broad industry collaboration

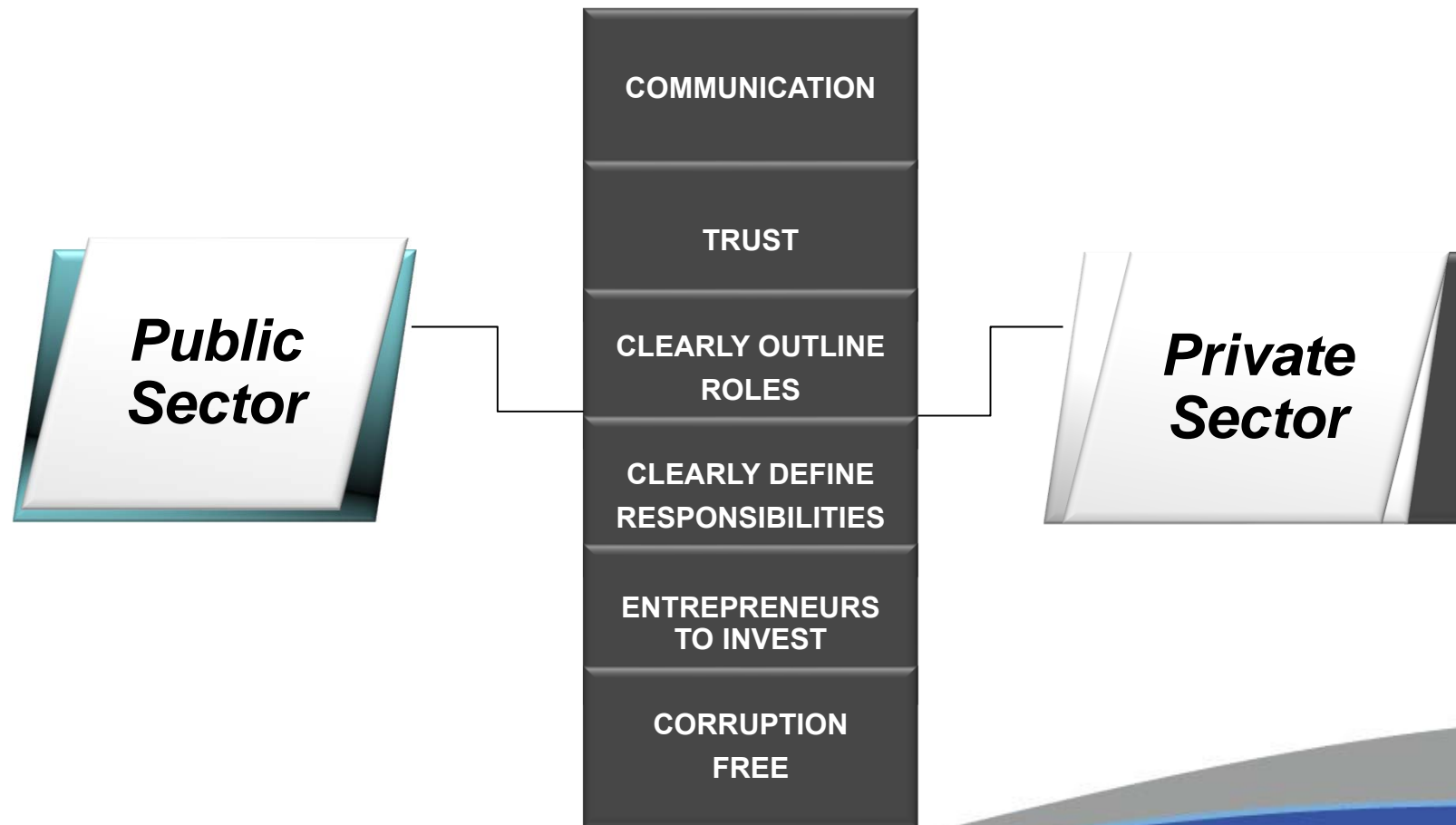
Have met the National Treasury – office of the Chief Procurement officer, SIPDM and IGR as well as the Auditor General's Office and Infrastructure team

Have met with the Minister of Education

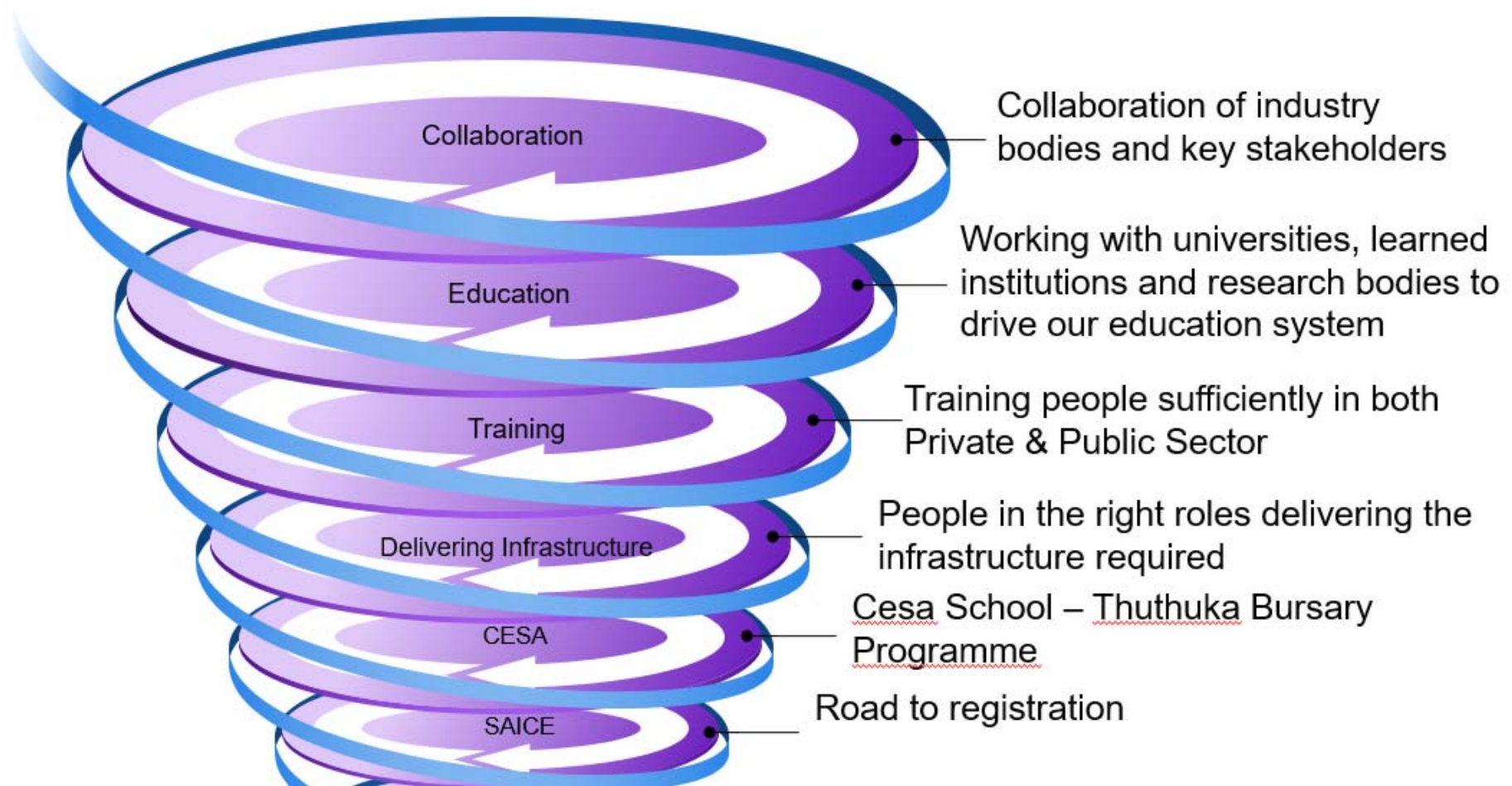
Key Objectives 2019



Delivering Purpose and Engagement

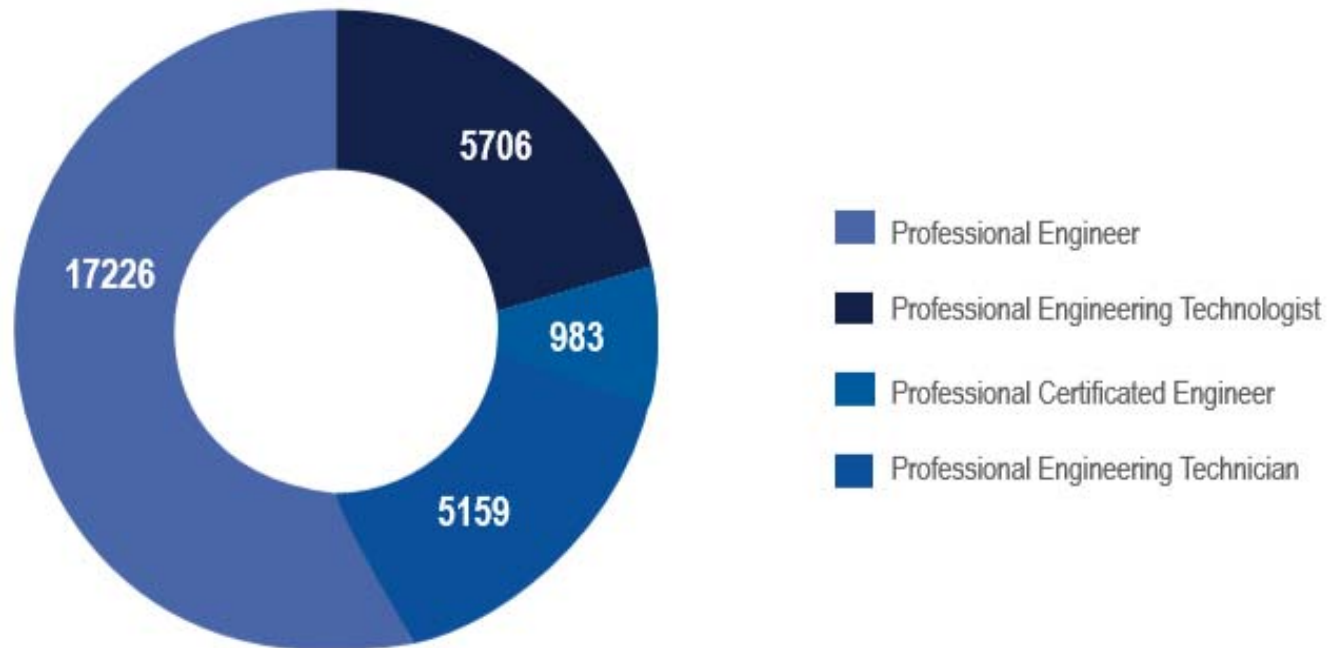


Skills, Capacity and Competence



Statistics in Engineering

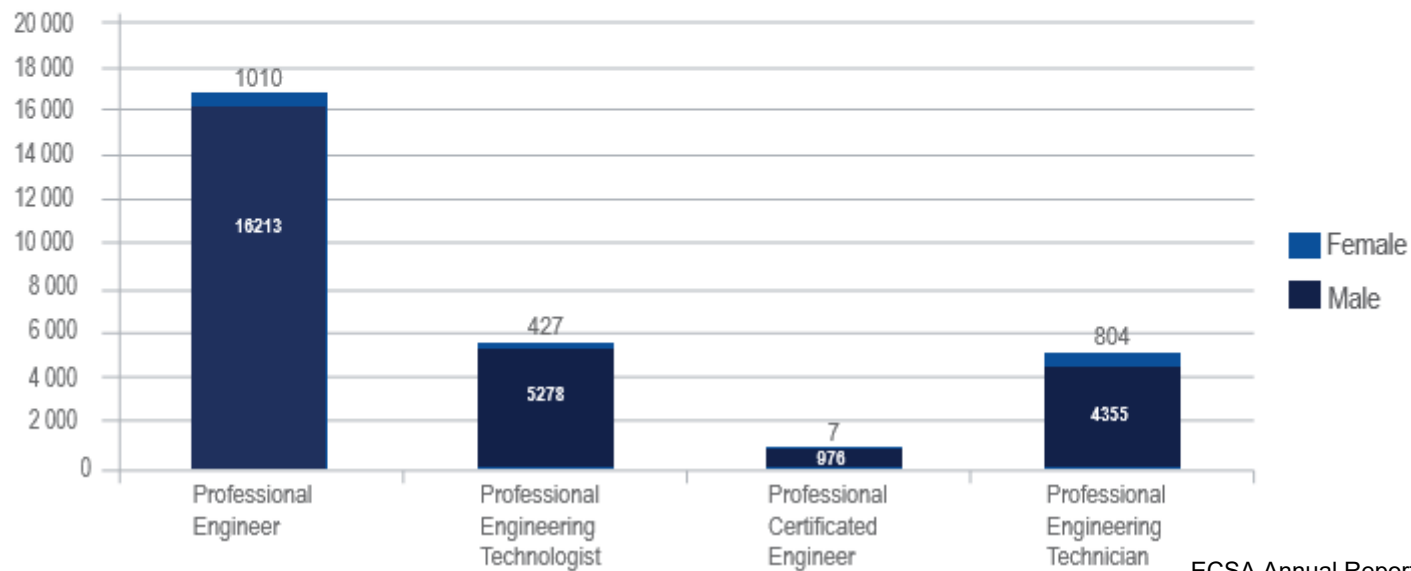
Professional Engineer	17226
Professional Engineering Technologist	5706
Professional Certificated Engineer	983
Professional Engineering Technician	5159



ECSA Annual Report 2018

Statistics in Engineering

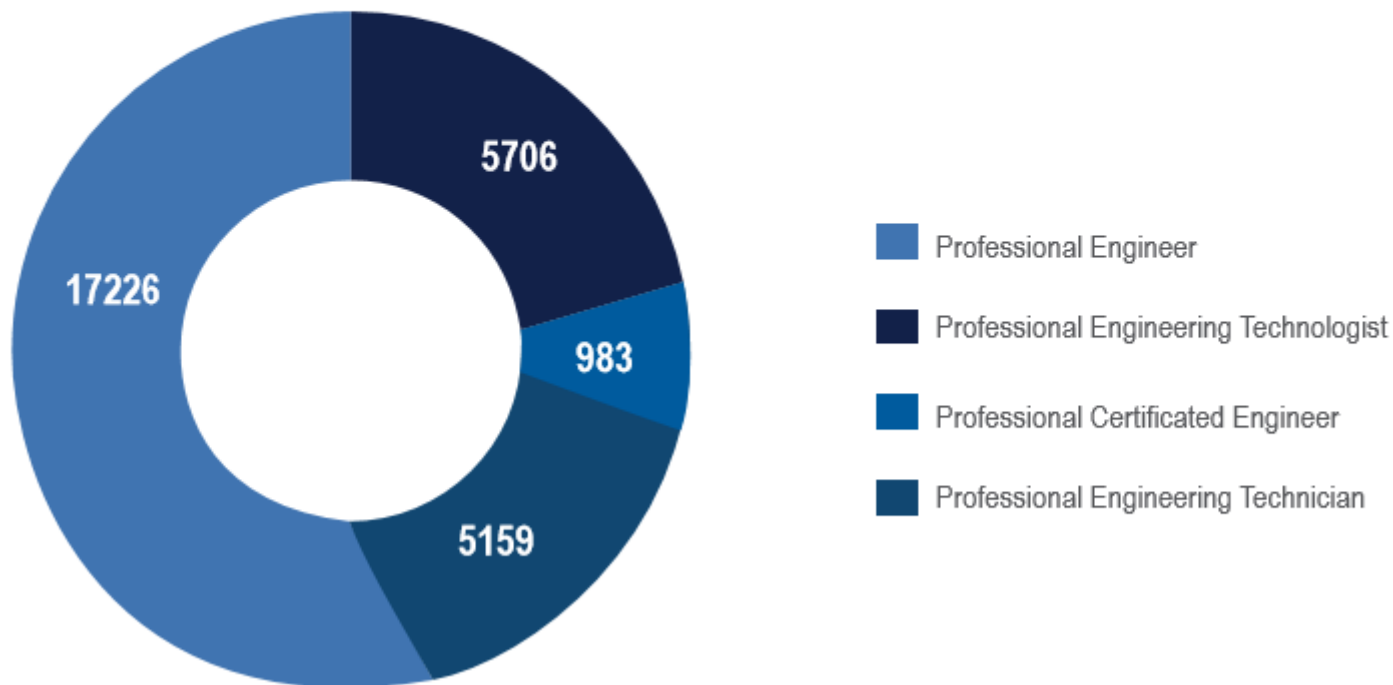
Professional Engineer	Male	Female
Professional Engineer	16213	1013
Professional Engineering Technologist	5278	428
Professional Certificated Engineer	976	7
Professional Engineering Technician	4355	804



ECSA Annual Report 2018

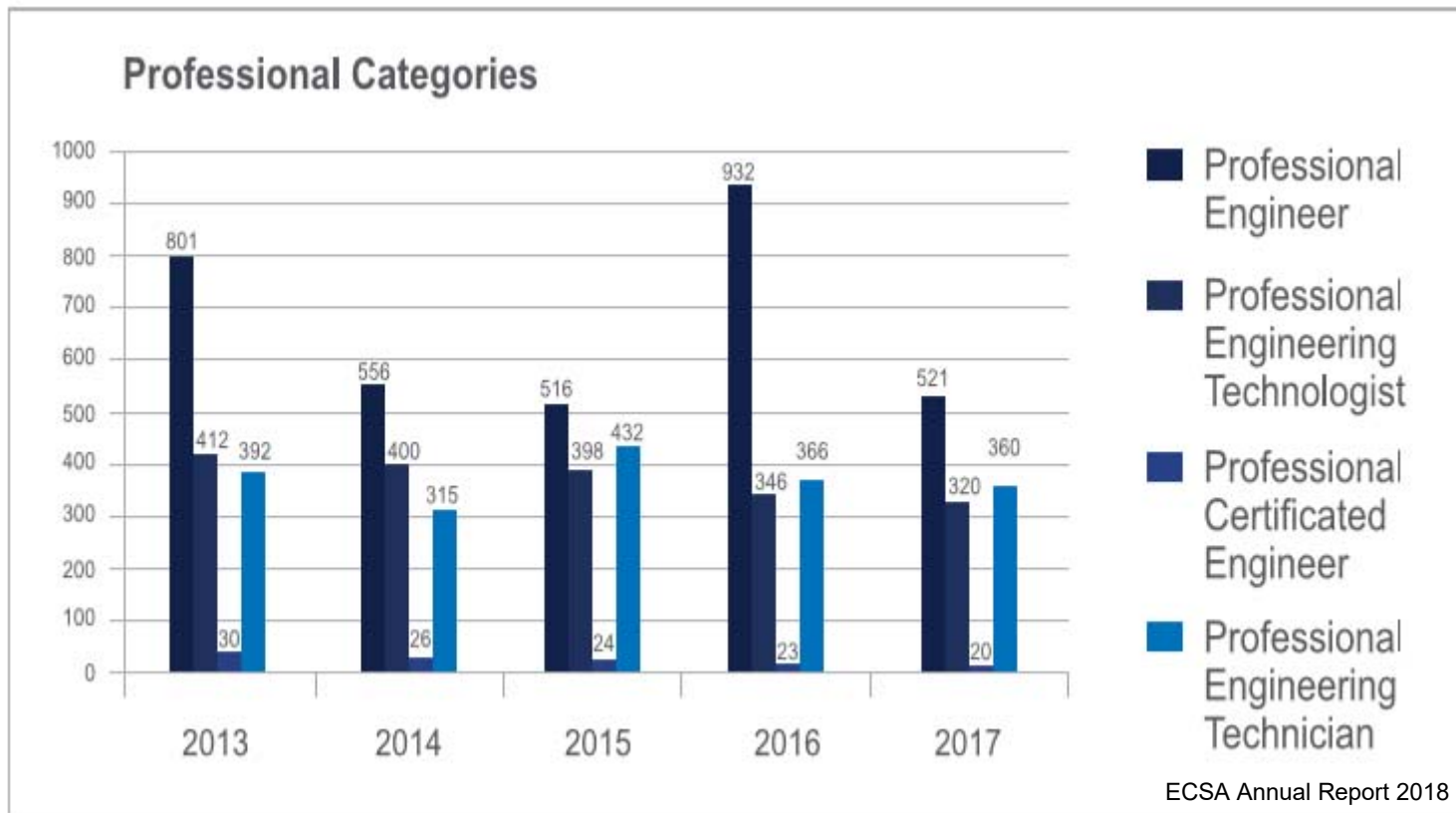
Statistics in Engineering

Category	Black	White	Asian	Coloured
Professional Engineer	1985	13903	1144	194
Professional Engineering Technologist	1729	3219	544	214
Professional Certificated Engineer	71	857	42	13
Professional Engineering Technician	2646	2017	293	203

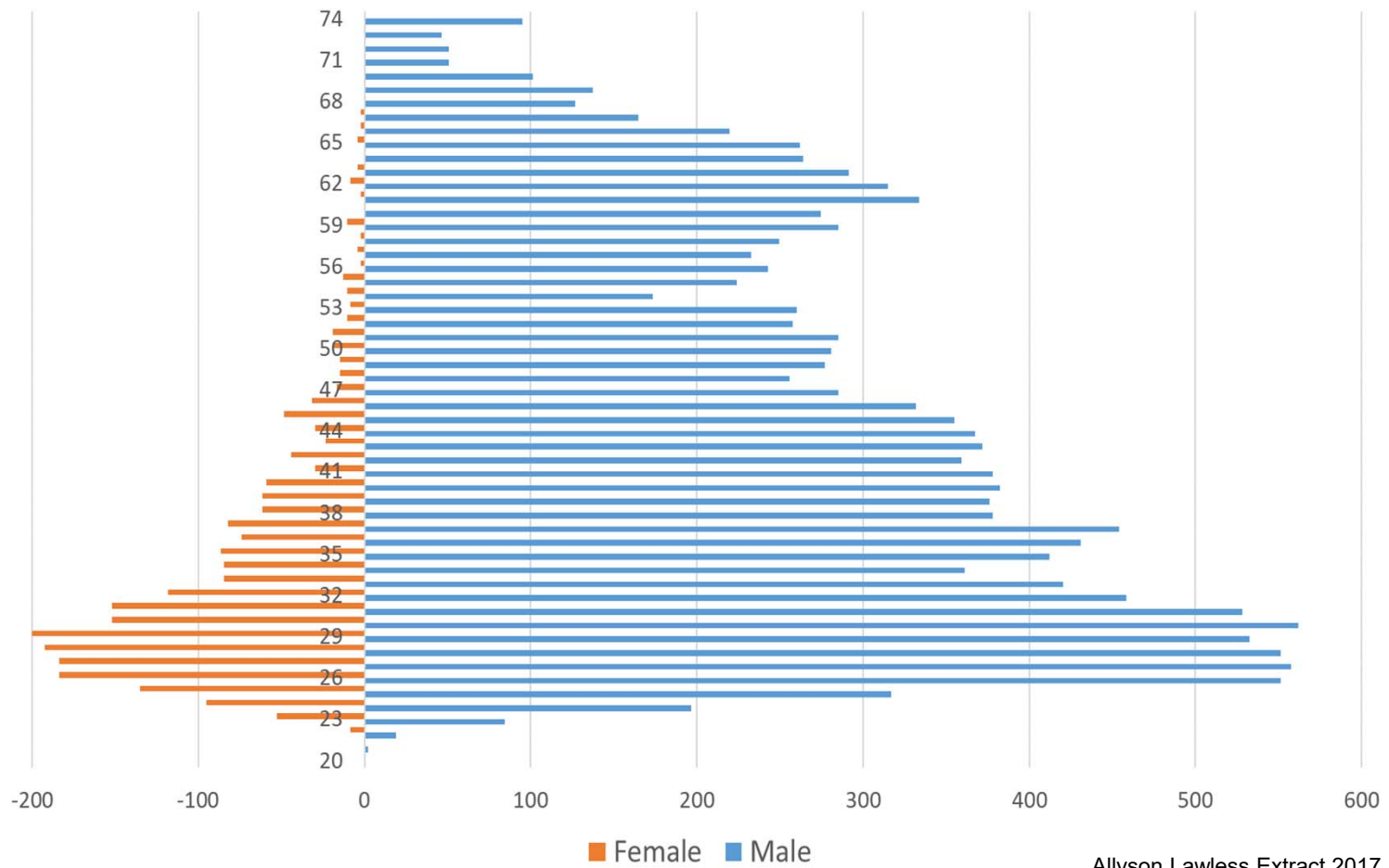


ECSA Annual Report 2018

Statistics in Engineering



Age profile in Engineering



Ownership and Accountability

Activism
Be vocal

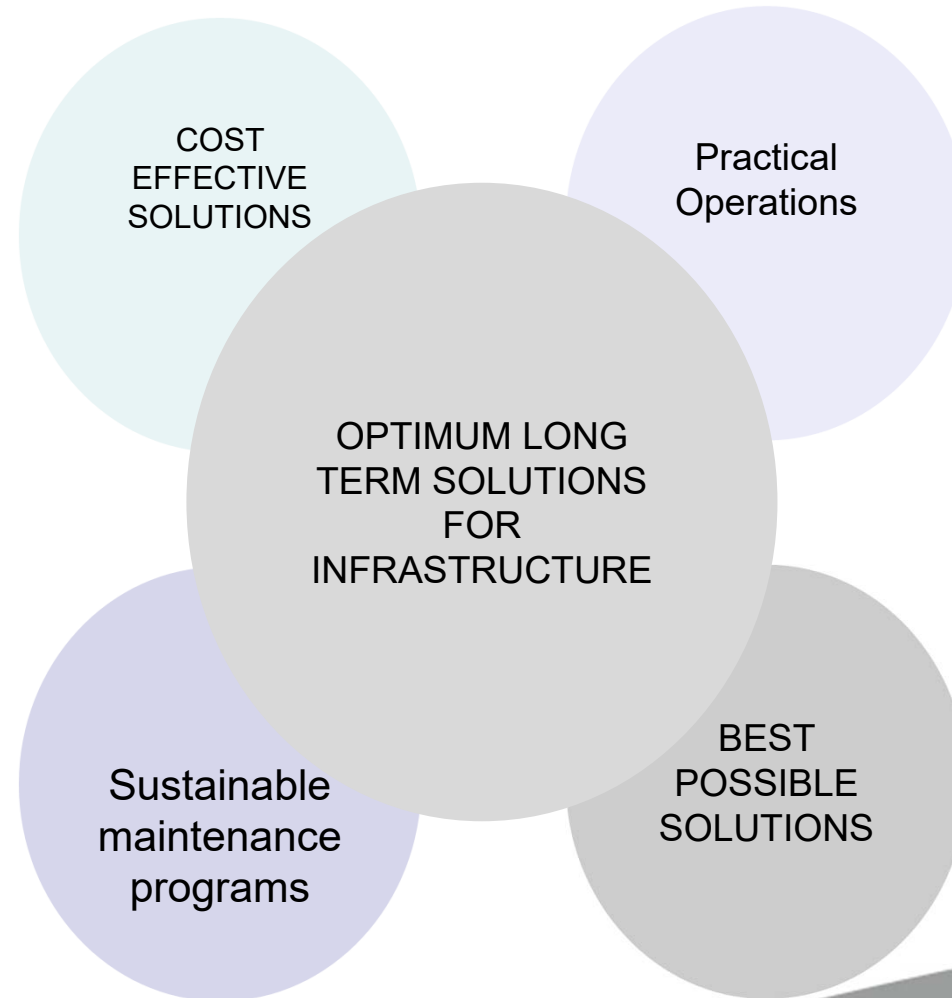
Volunteerism

Action

Our
Values

Be
Accountable

Value & Fairness



Infrastructure Assets

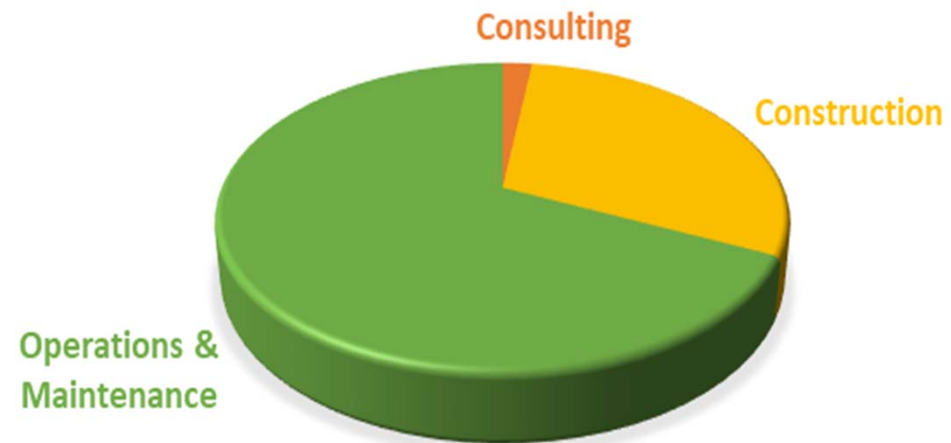
Question elaborate
tendering for Services

Value for Money vs
Lowest Cost

Attention focused on
solutions to address

Construction and the
Operations & Maintenance

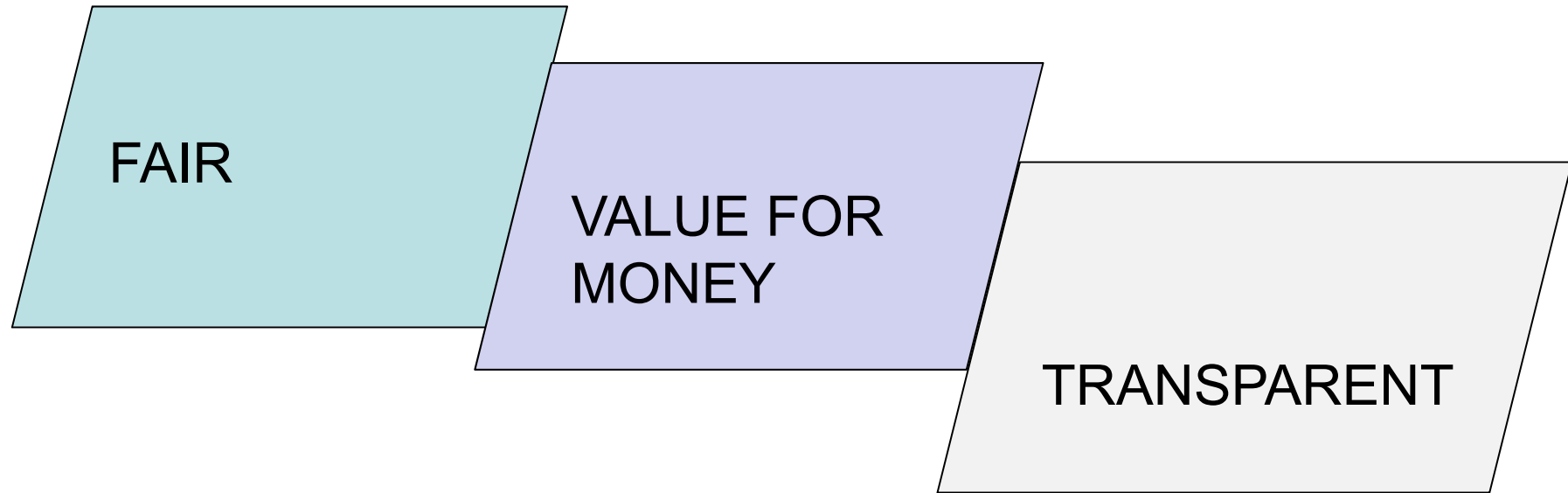
FIGURE 1: LIFE CYCLE COSTS



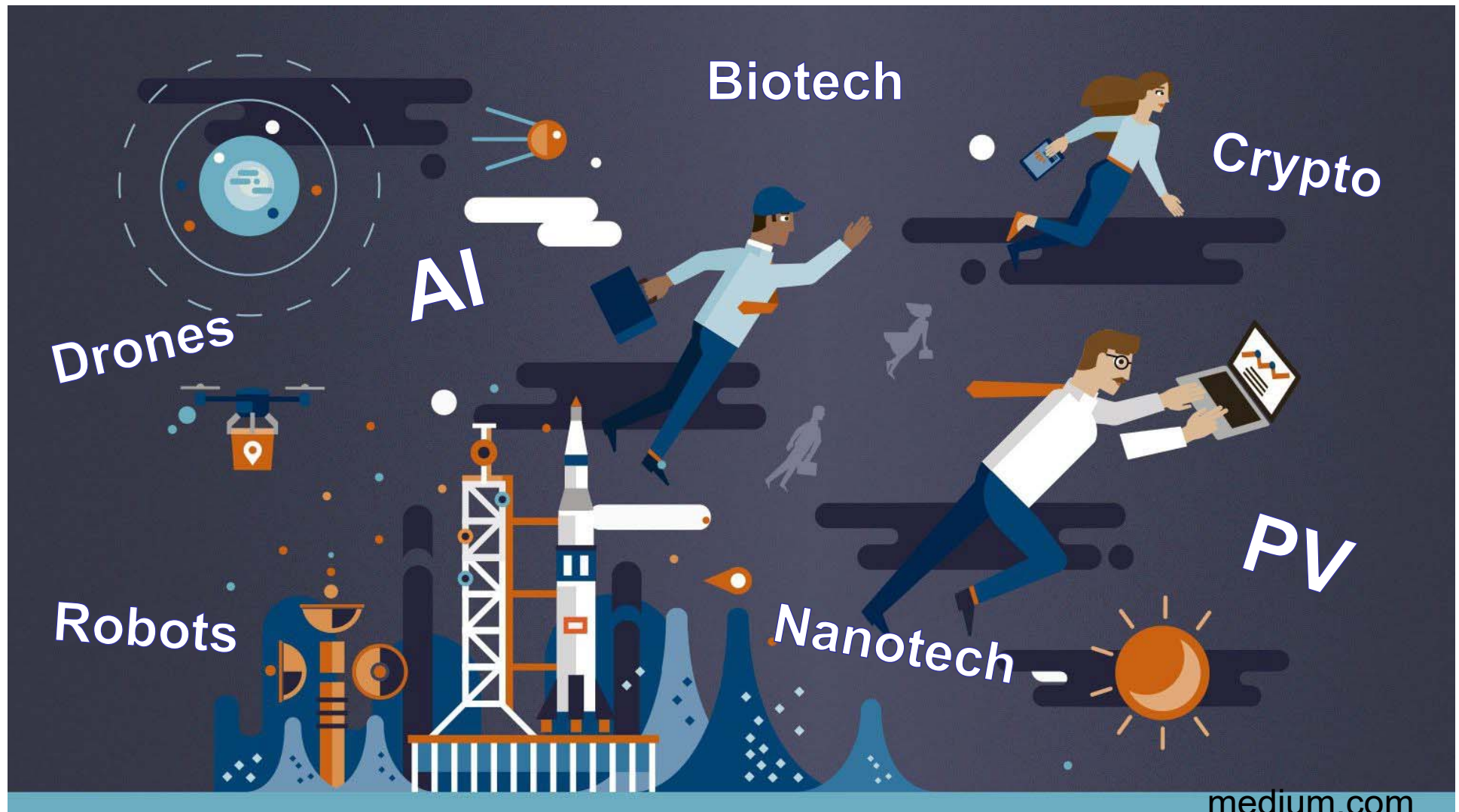
Doing what is right!

- Appeal to everyone's conscience
- Address our value system and the morality in society that has been eroded
- Politicians and leaders are benchmarked on material wealth as opposed to contribution in society
- Pride of South Africans need to be restored
- Fairness – deliver value and be remunerated appropriately

Procurement



Our Changing World



Our World is Changing

WORLD POPULATION

7,572,737,939 Current World Population

108,237,382 Births this year

200,748 Births today

44,831,090 Deaths this year

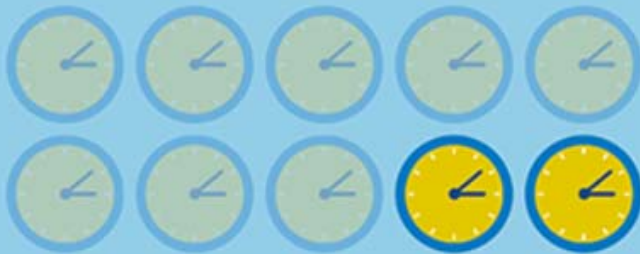
83,148 Deaths today

63,406,291 Net population growth this year

117,600 Net population growth today

THE CONSTRUCTION INDUSTRY IS RIPE FOR DISRUPTION

Large capital projects typically take



20% longer to finish...

...and are up to



80% over budget,

and R&D spending in construction runs well behind other industries.



Construction



Auto



Aerospace

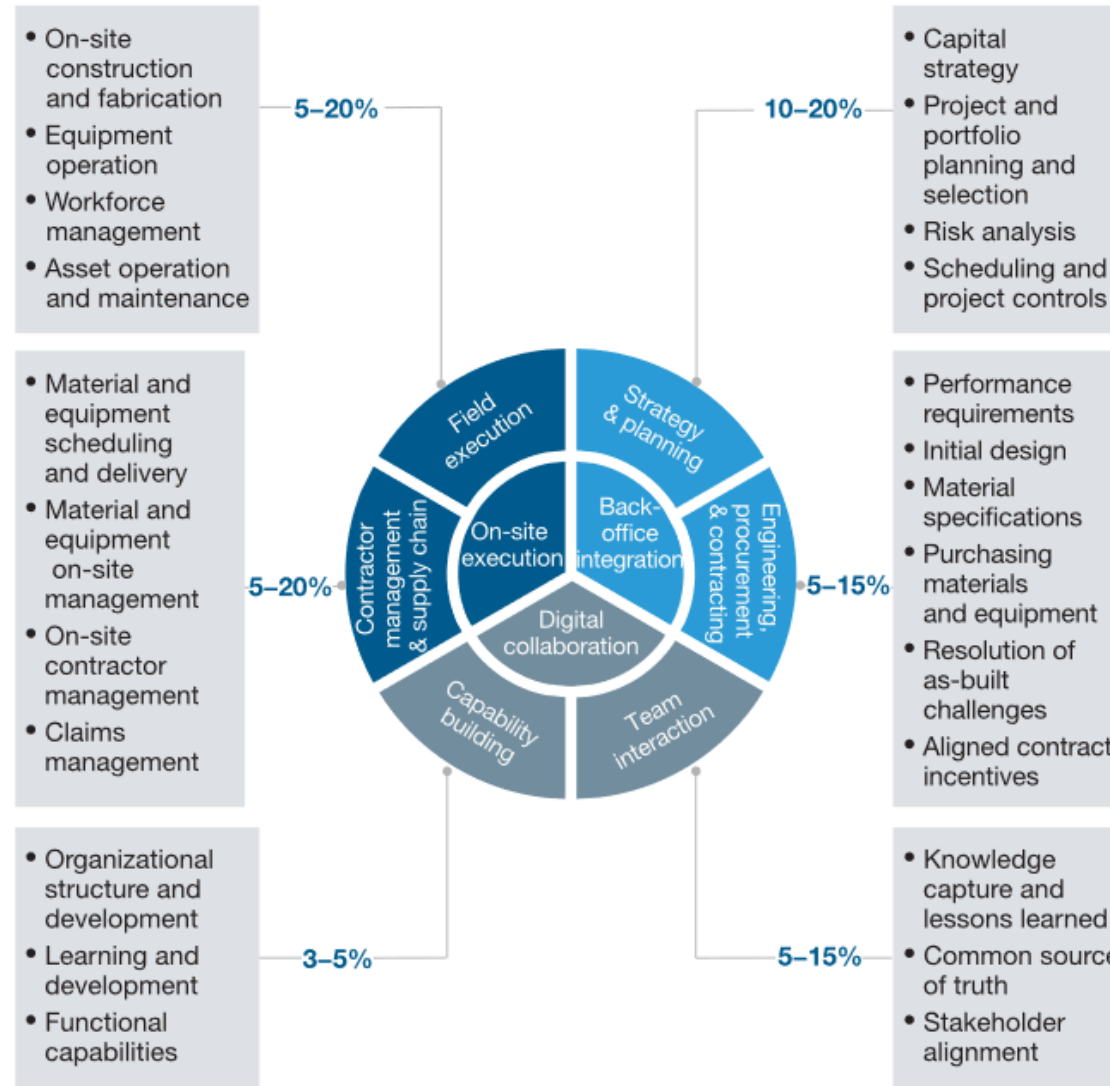
Note: Figure represents average percent of revenues

What can we expect?



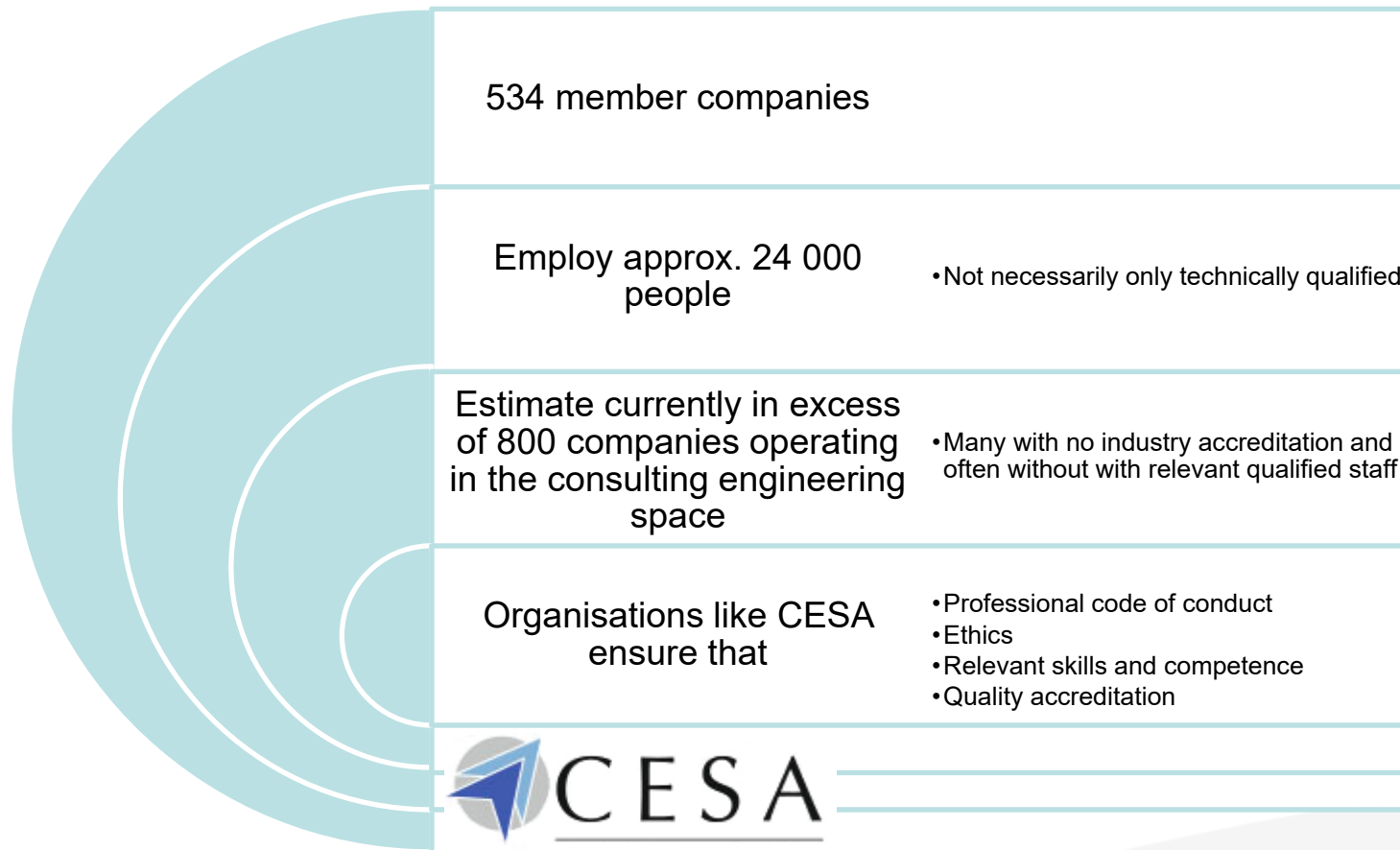
Potential Savings Realisable from the Use of Technology

X-X% Expected savings range

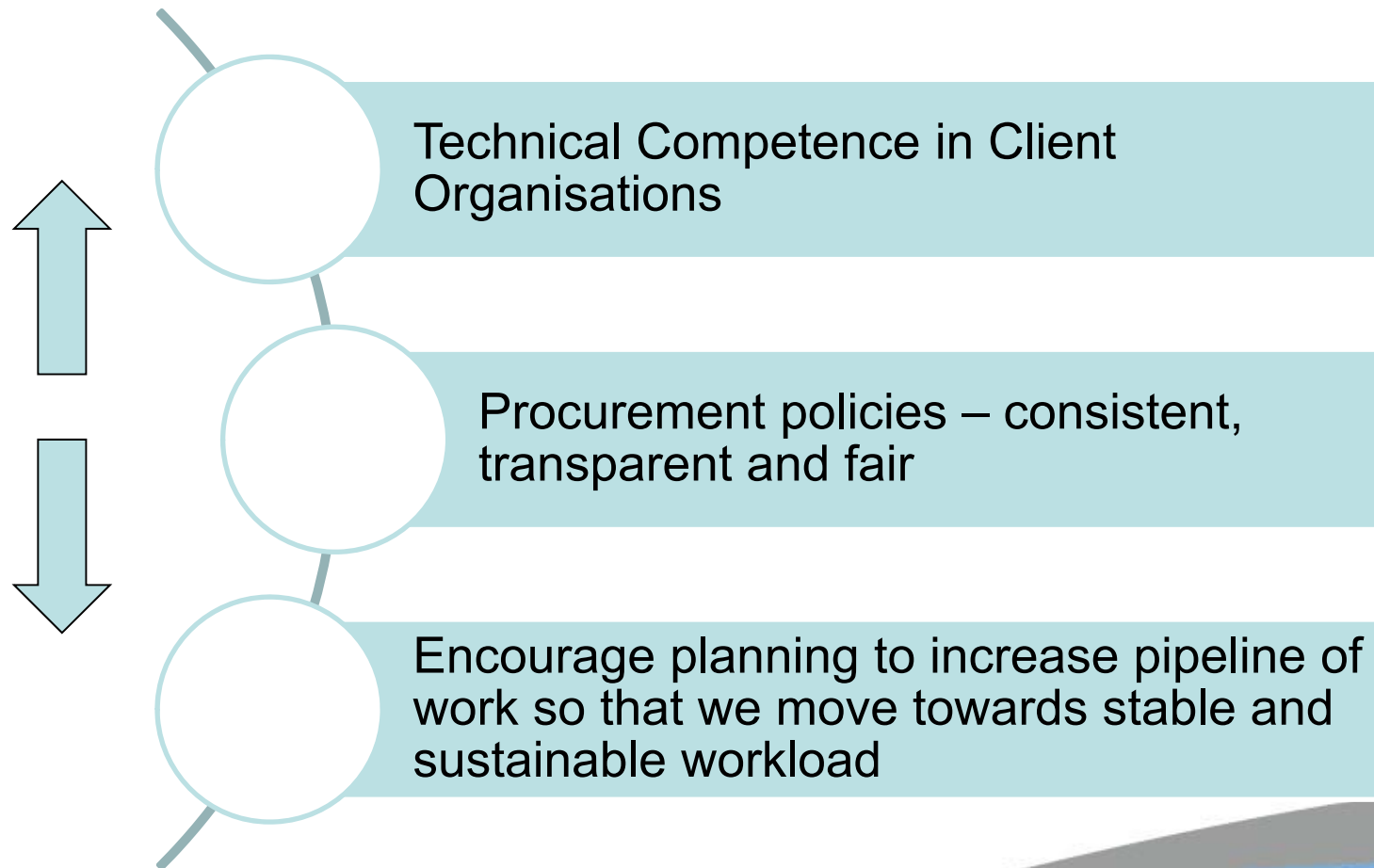


Source: McKinsey's Capital Projects & Infrastructure Practice's digital and innovation service line

Consulting Engineers South Africa



Immediate Actions



Infrastructure Roadmap

Independent Infrastructure Advisory Panel of experts to the Presidency – free of departmental and policy bias

National Treasury to focus on procurement policy and its consistent execution across all spheres of Government.

All organs of state to employ procurement and Infrastructure teams to set up rules and thereafter manage infrastructure delivery in an appropriate manner

Auditor General to ensure compliance to policy and governance by all organs of State through the Audit process

CESA companies to offer capacity, skill and competence either in capacity building roles, advisory roles or detailed execution roles in design and contract management

CESA Manifesto

Collaborate with voluntary organisations and regulatory bodies like SAICE, SAFCEC, SABTACO, BBCBE, IMIESA and ECSA to ensure that Quality standards at universities other professional bodies are driven

Collaborate with industry bodies for delivering increased programmes for skills development and training.

Develop pilot teams for capacity building – MOU with COGTA and other ministries

Working with CSIR and Universities to promote research and innovation in this sector

Through advocacy, support and publicity hold members, partners, stakeholders and clients accountable to the roles and responsibilities they have assumed in Infrastructure delivery.

Let's Help Each Other In:



***Reshaping our Future
Together***