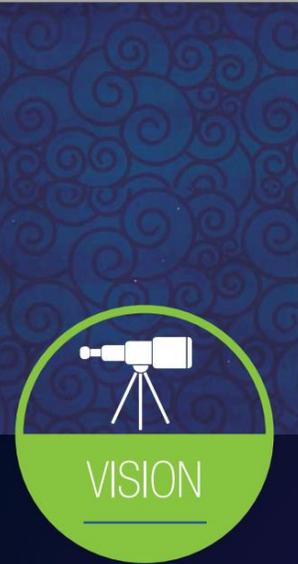




**WRC ANNUAL REPORT
PRESENTATION
FOR THE
2019/20 FINANCIAL YEAR**

**2 0 1 9 / 2 0
ANNUAL
REPORT**



VISION

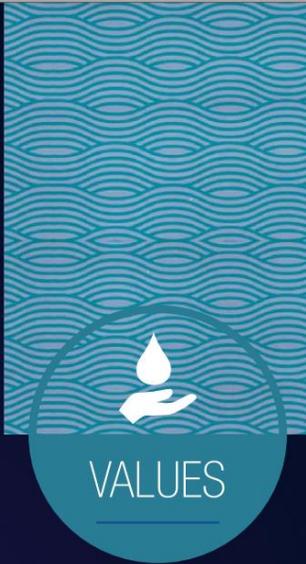
To have highly informed water decision-making through science and technology at all levels, in all stakeholder groups, and innovative water and sanitation solutions through research and development for South Africa, Africa and the world.



MISSION

To be a global water knowledge node and South Africa's premier water knowledge hub active across the innovation value chain that:

- informs policy and decision making
- creates new products, innovation and services for socio-economic development
- develops human capital in the water and sanitation science sector
- empowers communities and reduces poverty
- supports the national transformation and redress project
- develops sustainable solutions and deepens water and sanitation research and development in South Africa, Africa and the developing world



VALUES

- A culture of learning and sharing
- Innovation and creativity
- Integrity and fairness
- A spirit of professionalism and service orientation
- Facilitating empowerment and social change
- Good governance



PARADIGM

- Impact orientation (Knowledge Tree)
- Development focus (R d <-> r D)
- Narrowing the implementation journey
- Multiplier effect

PARTNERSHIP

- Across stakeholder groups
- Public and private
- Local and international
- Funding
- Implementation
- Development
- Research



CORE PRINCIPLES



PEOPLE

- Transforming and expanding the water R&D community
- Growing the new W&S cohort
- Building the youth cadres
- Community practitioners and entrepreneurs
- WRC leadership development
- Gender and youth foci



POSITIONING

- Relationship with Executing Authority and DWS
- Recognition as key development player
- Leadership in Science and Innovation landscape
- Water sector leadership
- Increasingly important partner in the international sphere



1

Promote coordination, cooperation and communication in the area of water research and development



2

Establish water research needs and priorities



3

Stimulate and fund water research according to priority



4

Promote the effective transfer of information and technology



5

Enhance knowledge and capacity building within the water sector

The WRC Knowledge Tree



1

Strategic outcome-oriented goal 1: Inform policy and decision-making

The WRC informs policy and decision-making by commissioning research projects that generate appropriate evidence-based knowledge that guides decision-making, influence the development of policy, practice or service provision, shape legislation and alters behaviour. Policy and Ministerial briefs are generated and distributed to government departments to provide decision-makers with research-based knowledge. This allows for the deeper understanding of policy issues and the reframing of debates with the use of appropriate knowledge.



2

Strategic outcome-oriented goal 2: Develop new products and services for economic development

With the knowledge generated from its research projects, the WRC can capitalise on projects that produce new intellectual property or can introduce innovations that create new or improved technologies, products and services that can be used in the real economy. Effectively, this is the WRC's contribution to job creation and economic development through water science innovations.



3

Strategic outcome-oriented goal 3: Enhance human capital development (HCD)

Each project that is selected and funded by the WRC is required to have high levels of student participation in the project. The WRC strives each year to increase the number of postdocs, PhD and Masters students on its projects, which further increases development in the sector. The WRC also focuses on providing support to historically disadvantaged institutions through mentorship. Emphasis is also placed on building capacity in the science community, both in South Africa and Africa, by encouraging black project leaders to manage WRC projects.

The WRC Knowledge Tree



4

Strategic outcome-oriented goal 4: Empowerment of communities

The WRC's each year strives to increase the number of projects funded that include communities that are not only the end- users of research but also active participants in the research. The aim is to have a direct positive impact on the livelihoods of the communities in which the research project is conducted by transferring knowledge that builds capacity to assist with post-project sustainability.



5

Strategic outcome-oriented goal 4: Promote transformation and redress

Each year the WRC actively strives to increase the number of female and youth project leaders on its funded projects and with the knowledge generated from the research, aims to promote socio-economic development by providing solutions that reduce poverty and inequality in communities. In addition, the WRC emphasis on food security will result in several projects being undertaken that aim to increase food security in communities.



6

Strategic outcome-oriented goal 6: Drive sustainable development solutions

The WRC's prioritises those projects that provide solutions for sustainable development. These projects must produce knowledge that contributes to providing sustainable solutions in the areas of environment, economy, and community.

The WRC Knowledge Tree



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WRC ORGANISATIONAL STRUCUTRE



Research and Development -

which focuses on the generation of new knowledge as well as the mechanisms needed to support this, including human capital development and skills development



Impact and Innovation -

which entails a redefined focus on technology, product and industry development, business development and innovation realisation on the one hand, and enabling mechanisms such as knowledge dissemination, communication and marketing on the other.



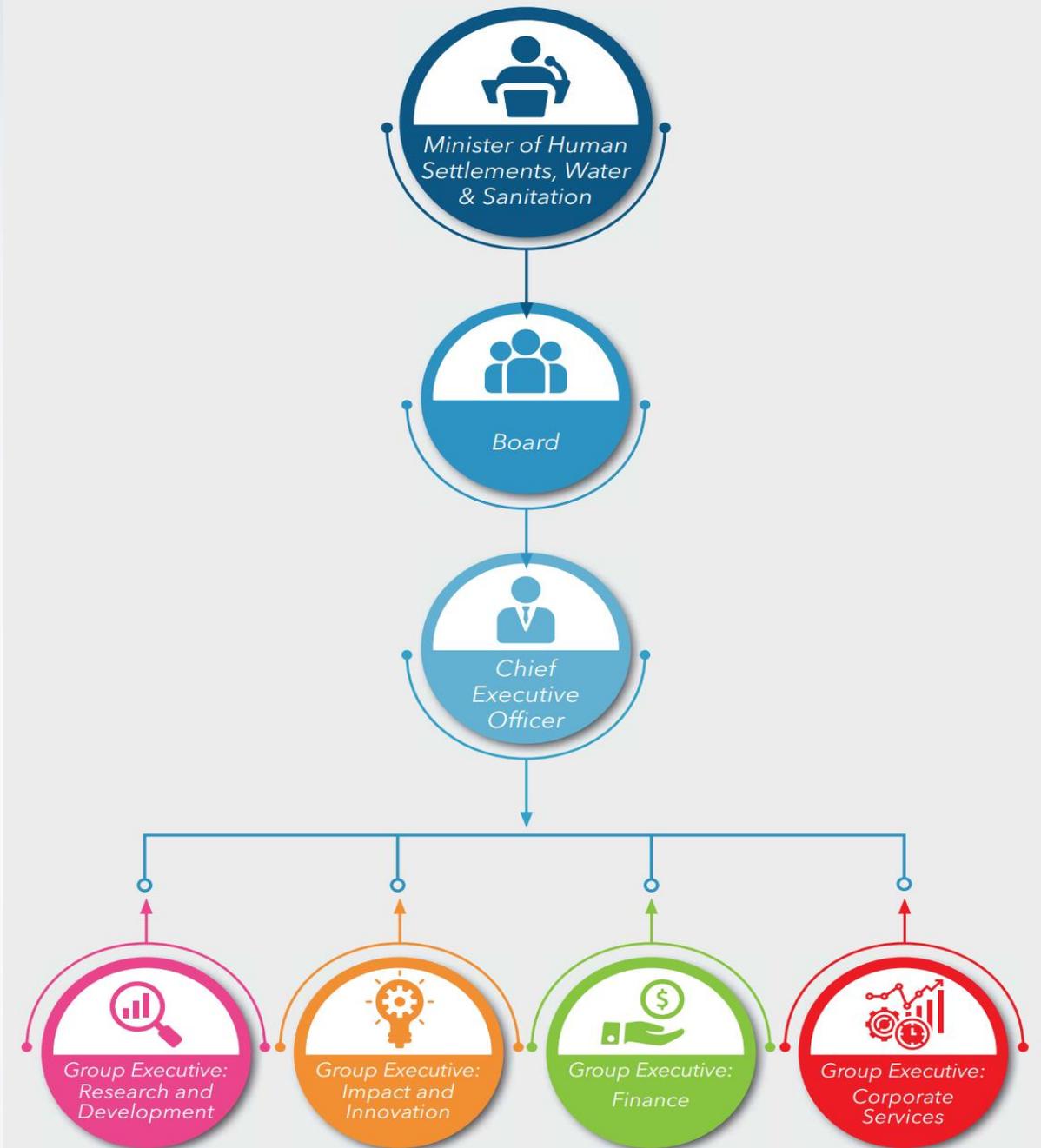
Finance - which focuses on improved efficiencies and effectiveness within the WRC's supply chain and the enhancement of financial planning capabilities which will contribute towards creating an appropriately funded and financially stable environment.



Corporate Services -

which focuses on the world of work within the WRC. This includes people and culture, information technology, corporate social responsibility, legal and compliance as well as facilities.

WRC ORGANISATIONAL STRUCTURE



Project Highlights



Project Highlights



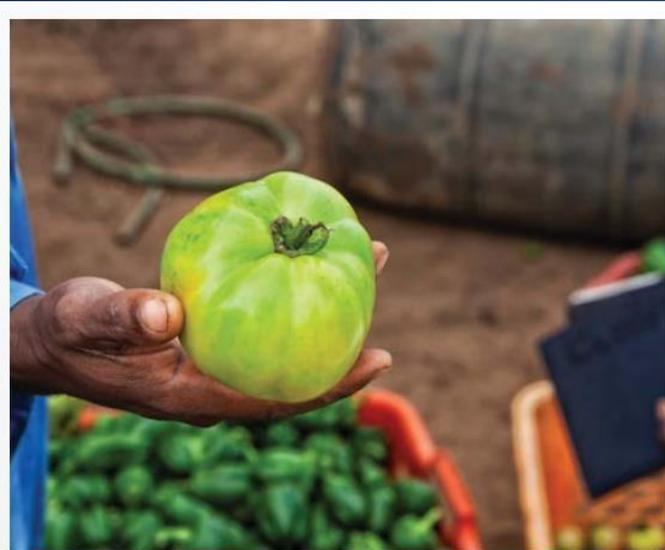
EMPOWERING COMMUNITIES

INCREASING KNOWLEDGE ABOUT THE NOVEL CORONAVIRUS



On 27 March 2020, the WRC held the first of a series of webinars on knowledge regarding the novel coronavirus (COVID-19). The title of this webinar was ‘Water quality, sanitation and hygiene in light of COVID-19’. Topics discussed included, among others, COVID-19 infection rates and factors to be considered for the containment of the virus; epidemiology of the virus and guidance on the effective mechanisms for virus containment in high-density and low-density communities; recommended hand sanitizing formulations and practices for communities without piped water; and risk of infection due to exposure to contaminated water.

Project Highlights



EMPOWERING COMMUNITIES

GROWING VEGETABLES IN NEEDY COMMUNITIES

School vegetable gardens play an important role in staving off hunger in needy communities. The WRC partnered with the Agricultural Research Council (ARC) to establish school vegetable gardens at two schools in Mamelodi, Pretoria, as part of its community social responsibility activities. In each school garden, received accredited training on basic crop production, seedbed preparation and irrigation maintenance was provided.

IMPROVING THE NUTRITION AND HEALTH OF POOR, RURAL COMMUNITIES

The role of water in achieving food and nutrition security for improved human health cannot be understated. WRC project aimed to highlight these linkages with a particular focus on poor, rural households. This was done by placing emphasis on the use of nutritional water productivity as a suitable index for assessing the contribution of water use and agriculture to food and nutrition security.

Project Highlights



INFORMING POLICY AND DECISION-MAKING

WRC CONTRIBUTION TO CURBING PLASTIC POLLUTION

A study commissioned by the WRC revealed the presence of microplastic particles in surface water, treated drinking water and groundwater sources. Though, at lower levels compared to other developing countries, these findings signal a potential growing problem. Findings from this project have been used to strengthen the Department of Environmental Affairs, Forestry and Fisheries national plan of action on plastics. Findings on this project have also been presented to the Parliamentary Portfolio Committee on Environmental Affairs.

Project Highlights



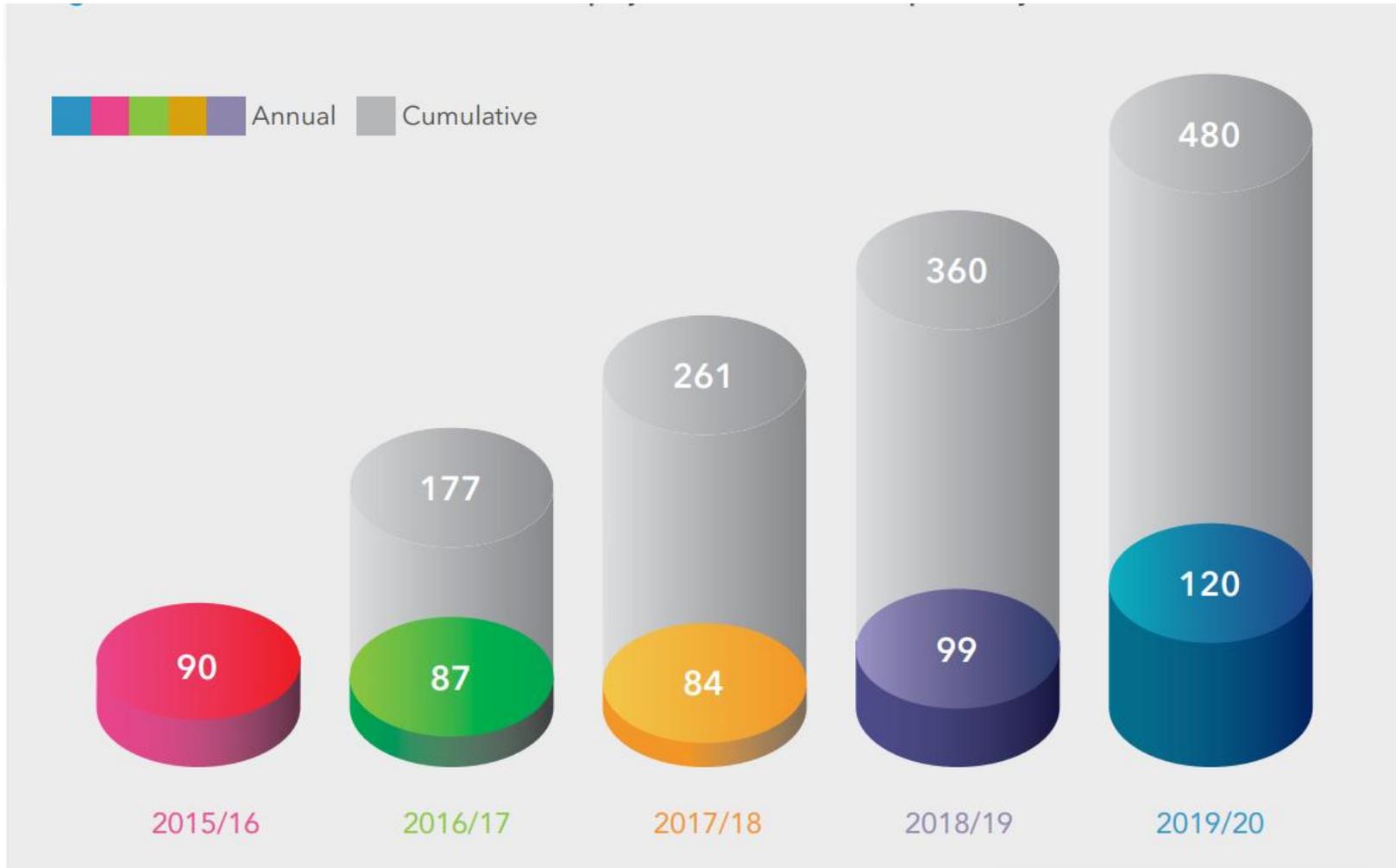
DEVELOPING NEW PRODUCTS AND SERVICES FOR ECONOMIC DEVELOPMENT

MORE CROP PER DROP – IMPROVING ON-FARM IRRIGATION

A WRC project followed a different approach to the traditional methods of research that have been conducted in irrigation water management. It attempted to include the users of the knowledge (farmers) in its generation and to address real-world problems by using a combination of disciplines. The project introduced simple low-cost tools (the Chameleon sensor and reader together with the Wetting Front Detector) that can be used by any farmer to improve crop yields through better management of irrigation water, soil nutrients and salt. These tools do not require expert knowledge to understand and interpret measurement data.

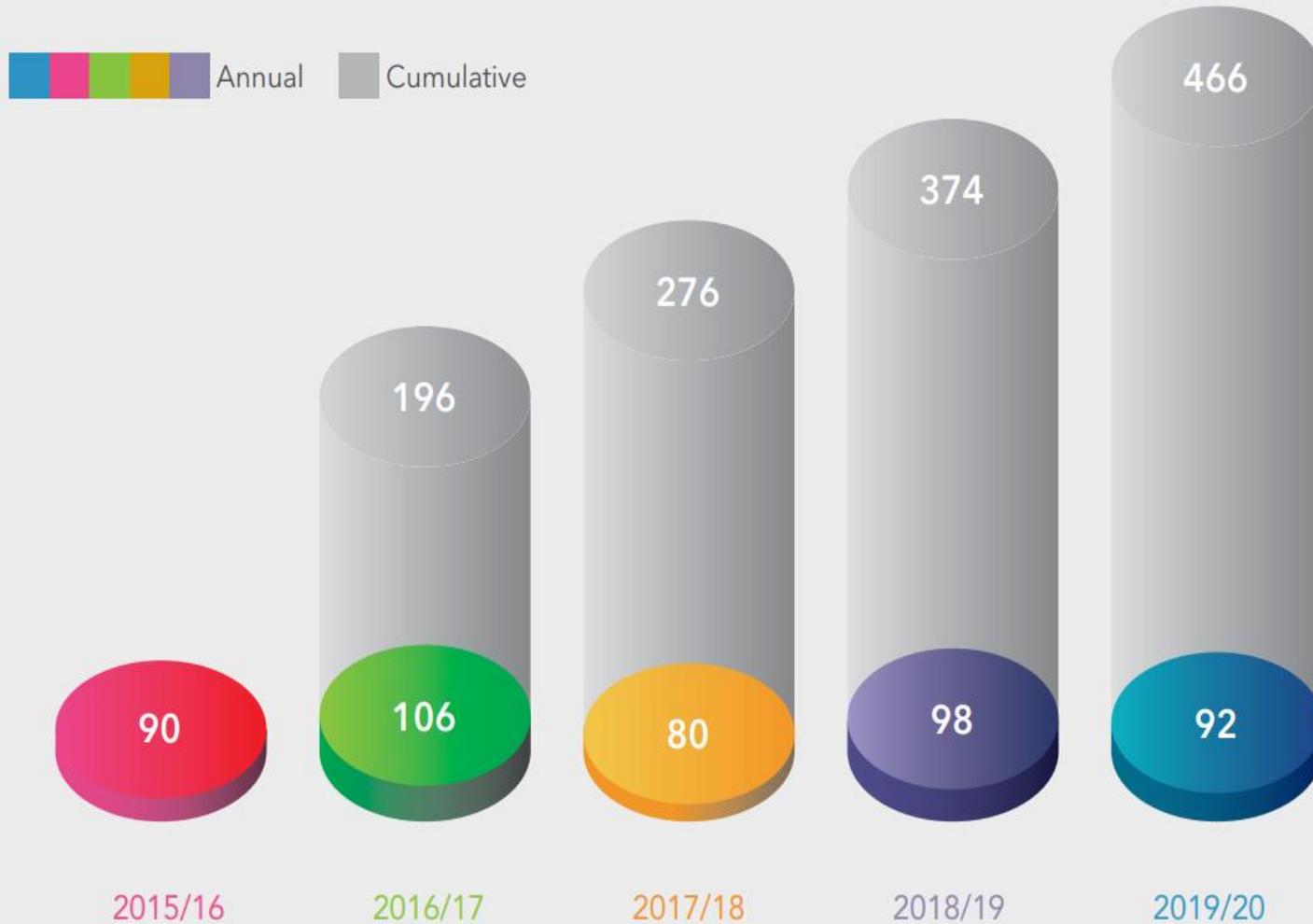


OVERVIEW OF PERFORMANCE



Annual and
Cumulative number
of project
finalizations over
the past 5 years

OVERVIEW OF PERFORMANCE



Annual and
Cumulative number
of project initiations
over the past 5
years

OVERVIEW OF PERFORMANCE

Number of students supported by WRC in 2019/20



Number of PhD and Masters students in 2019/20



Percentage of black female project leaders supported by the WRC in 2019/20



63%

Project Highlights



ENHANCING HUMAN CAPITAL DEVELOPMENT IN THE WATER AND SCIENCE SECTORS

INSPIRING YOUNG SOUTH AFRICAN WATER INNOVATORS

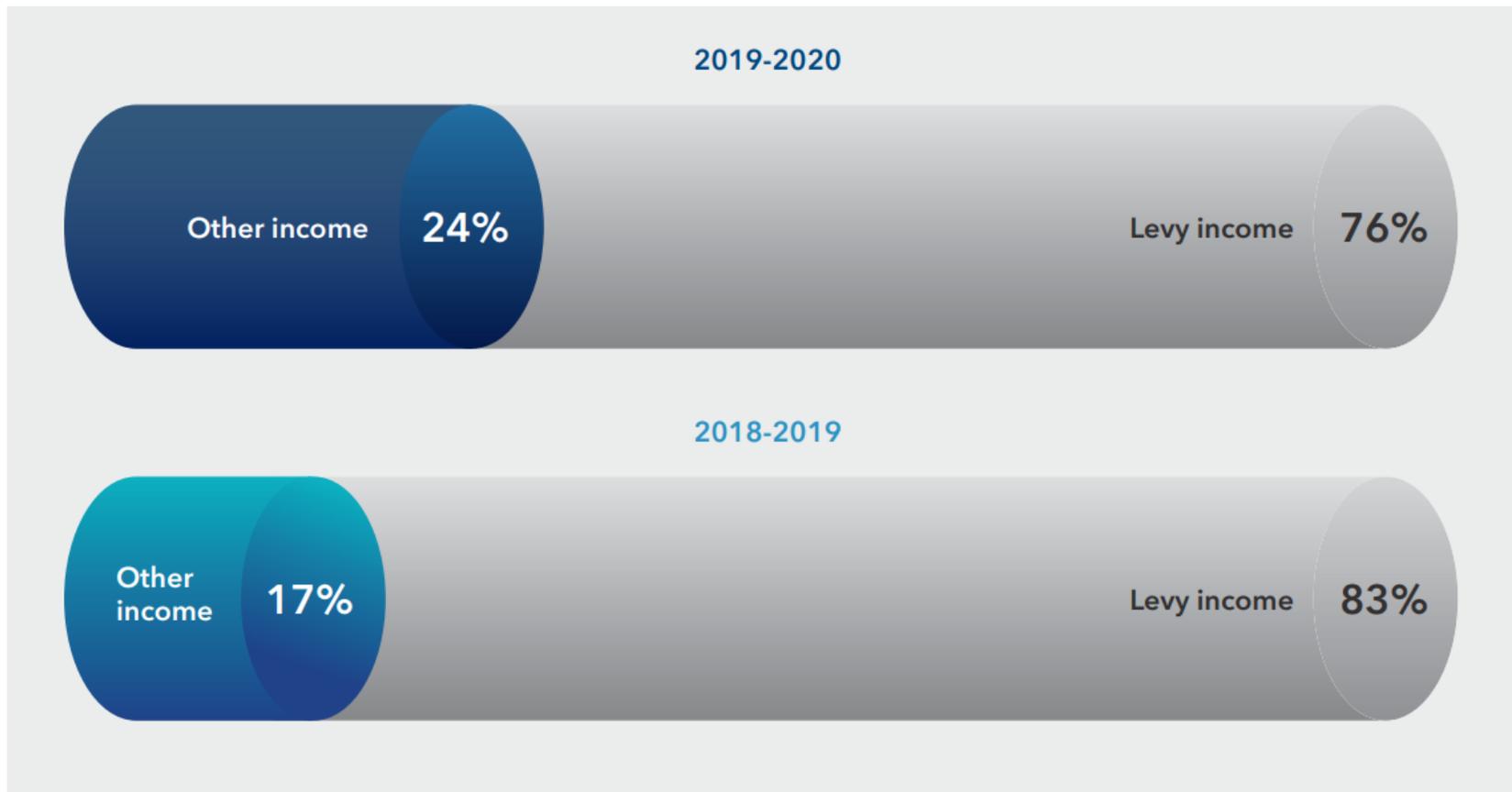
The WRC, in collaboration with researchers, science practitioners and implementing agencies, hosted a dialogue on 28 and 29 June 2019 to unpack some of the challenges and opportunities that lie in water monitoring. The event also included a Hackathon for youth, aimed at finding co-created solutions. The objective of the event was to create a platform for all to contribute to the water science agenda

YOUNG ENGINEERS CHANGEMAKERS PROGRAMME KICKS OFF

On 6 May 2019, the Water Technologies Demonstration Programme (Wader), a collaboration between the WRC and DSI, launched the Young Engineers Changemakers Programme (YECP). The YECP aims to provide opportunities for young South African engineers currently employed at municipalities across the country to partake in testing potential innovative water and sanitation solutions at real-world sites and gain the necessary skills and knowledge required to drive municipalities of the future which are sustainable, liveable and build socio-technical

FINANCIAL OVERVIEW OF PERFORMANCE

Income indicators for 2019/20 compared to 2018/19



FINANCIAL OVERVIEW OF PERFORMANCE

Revenue collection

2019/20			
Sources of revenue	BUDGET (R'000)	ACTUAL AMOUNT COLLECTED (R'000)	(OVER)/UNDER COLLECTION (R'000)
Water Research Levies	259,685	258,967	718
Leverage	50,862	64,529	(13,667)
Investment income	5,167	6,773	(1,606)
Other income	9,445	9,699	(253)
Total	325,159	339,968	(14,810)

Expenditure analysis : Comparison of Budget versus Actuals

2019/20			
Expenditure	BUDGET (R'000)	ACTUAL EXPENDITURE (R'000)	(OVER)/UNDER EXPENDITURE (R'000)
Fixed costs	12,065	12,059	6
Running costs	11,590	9,732	1,859
Human resources	99,222	97,767	1,455
Research and development funding	195,309	175,835	19,473
Corporate expenses	2,612	2,851	(238)
Capital expenditure	4,361	4,452	(91)
Total	325,159	302,695	22,463

FINANCIAL OVERVIEW OF PERFORMANCE

ANALYSIS OF RESEARCH AND DEVELOPMENT EXPENDITURE

Figure 13: Utilisation of research funds

Percentage utilisation of research funds in 2019/20



OVERVIEW OF PERFORMANCE

Financial Information

**Unqualified Audit
Opinion achieved**

Performance Information

**Unqualified Audit
Opinion achieved**

Thank you