



UNIVERSITEIT  
iYUNIVESITHI  
STELLENBOSCH  
UNIVERSITY

**100**  
1918 - 2018

REPORT TO COUNCIL  
THE VICE-RECTOR RESEARCH, INNOVATION AND  
POSTGRADUATE STUDIES

VERSLAG AAN DIE RAAD  
VISEREKTOR: NAVORSING, INNOVASIE EN NAGRAADSE STUDIES

**PROF TE CLOETE**

**FORWARD  
TOGETHER**

**MASIYE  
PHAMBILI**

**SAAM  
VORENTOE**



*The Research, Innovation and Postgraduate Studies portfolio has gone from strength to strength in the past five years, positioning Stellenbosch University (SU) as the leading research-intensive university in South Africa. I attribute this to an incredible team effort. I therefore wish to acknowledge and credit the deans and vice-deans for research, the senior directors in my responsibility centre as well as SU researchers in general for their initiative and dedication. I also appreciate the support of the Rectorate and Council.*

*Die portefeulje Navorsing, Innovasie en Nagraadse Studie het gedurende die afgelope vyf jaar van krag tot krag gegaan en die Universiteit Stellenbosch sodoende as die voorste navorsingsintensiewe universiteit in Suid-Afrika geposisioneer. Ek skryf dit toe aan 'n merkwaardige spanpoging. Daarom wil ek graag erkenning en krediet gee aan die dekane en visedekane vir navorsing, die senior direkteure in my verantwoordelikhedsentrum sowel as US-navorsers in die algemeen vir hulle inisiatief en toewyding. Ek waardeer ook die ondersteuning van die Rektoraat en die Raad.*

## VISIE

Die Universiteit Stellenbosch sal Afrika se voorste navorsingsintensiewe universiteit wees wat wêreldwyd as uitnemend, inklusief en innoverend erken word en waar ons kennis tot diens van die samelewing

## VISION

Stellenbosch University will be Africa's leading research-intensive university, globally recognised as excellent, inclusive and innovative, where we advance knowledge in service of



100

1919-2019

## MISSIE

Die Universiteit Stellenbosch is 'n navorsingsintensiewe universiteit wat uitmuntende studente lok, talentvolle personeel aanstel en 'n wêreldklasomgewing bied; 'n plek wat met die wêreld verbind is en gemeenskappe plaaslik, op die vasteland en in

## MISSION

Stellenbosch University is a research-intensive university where we attract outstanding students, employ talented staff and provide a world-class environment; a place connected to the world, while enriching and transforming local, continental and global



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1919-2019

# KERN STRATEGIESE TEMAS

# CORE STRATEGIC THEMES

'N FLORERENDE  
UNIVERSITEIT  
STELLENBOSCH



A THRIVING  
STELLENBOSCH  
UNIVERSITY

'N TRANSFORMERENDE  
STUDENTE-ERVARING



A TRANSFORMATIVE  
STUDENT EXPERIENCE

DOELGERIGTE  
VENNOOTSKAPPE EN  
INKLUSIEWE NETWERKE



PURPOSEFUL PARTNERSHIPS  
AND INCLUSIVE  
NETWORKS

GENETWERKTE EN  
SAMEWERKENDE  
ONDERRIG EN LEER



NETWORKED AND  
COLLABORATIVE  
TEACHING AND LEARNING

NAVORSING VIR IMPAK



RESEARCH FOR IMPACT

VOORKEURWERKGEWER

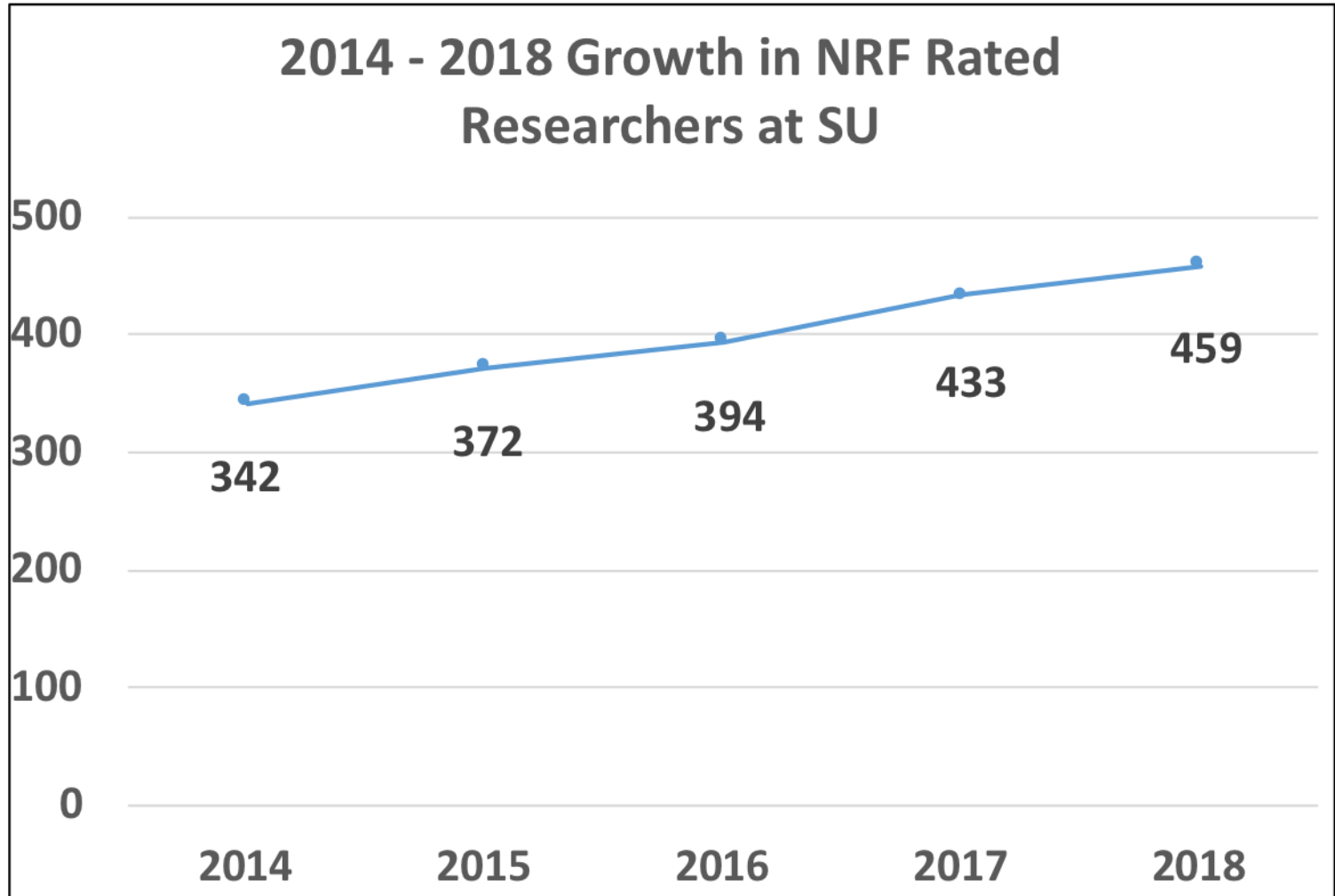


EMPLOYER OF CHOICE

VOORKEURWERKGEWER



EMPLOYER OF CHOICE





## A-Rated Researchers

## A-ge-evalueerde Navorsers

### **PROF LJ BARBOUR**



Prof LJ Barbour, Dept Chemistry  
and Polymer Science

### **PROF MF COTTON**



Prof MF Cotton, Dept Paediatrics  
and Child Care

### **PROF A ENGELBRECHT**



Prof A Engelbrecht, Dept Industrial  
Engineering



## A-Rated Researchers

## A-Ge-evalueerde Navorsers

### **PROF G MIDGLEY**



Prof G Midgley, Dept Botany  
and Zoology

### **PROF H PRODINGER**



Prof H Proding, Dept  
Mathematical Sciences

### **PROF L KLUMPERMAN**



Prof L Klumperman, Dept Chemistry  
and Polymer Science

## A-Rated Researchers

## A-Ge-evalueerde Navorsers

### **PROF JD JANSEN**



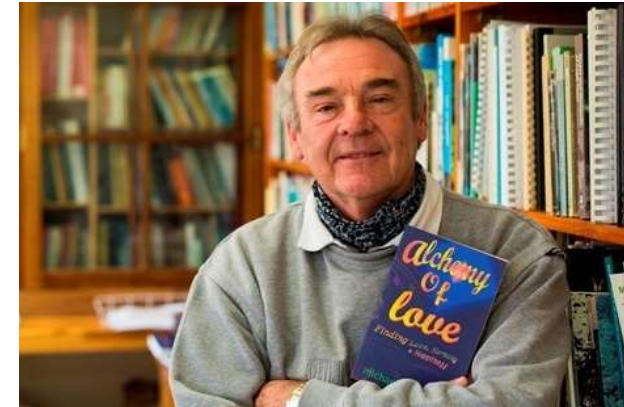
Prof JD Jansen, Dept Education  
Policies

### **PROF DM RICHARDSON**



Prof DM Richardson, Dept  
Botany and Zoology

### **PROF MJ SAMWAYS**



Prof MJ Samways, Dept  
Conservation Ecology and  
Entomology

**PROF HS  
SCHAAF**



Prof HS Schaaf, Dept Paediatrics  
and Child Care

**PROF PD VAN  
HELDEN**



Prof PD van Helden, Biomedical  
Sciences

**PROF JWV VAN  
HUYSSTEEN**



Prof JWV van Huyssteen,  
Systematic Theology and  
Ecclesiology

**PROF CG VAN  
DER MERWE**



Prof CG van der Merwe, Dept  
Private Law

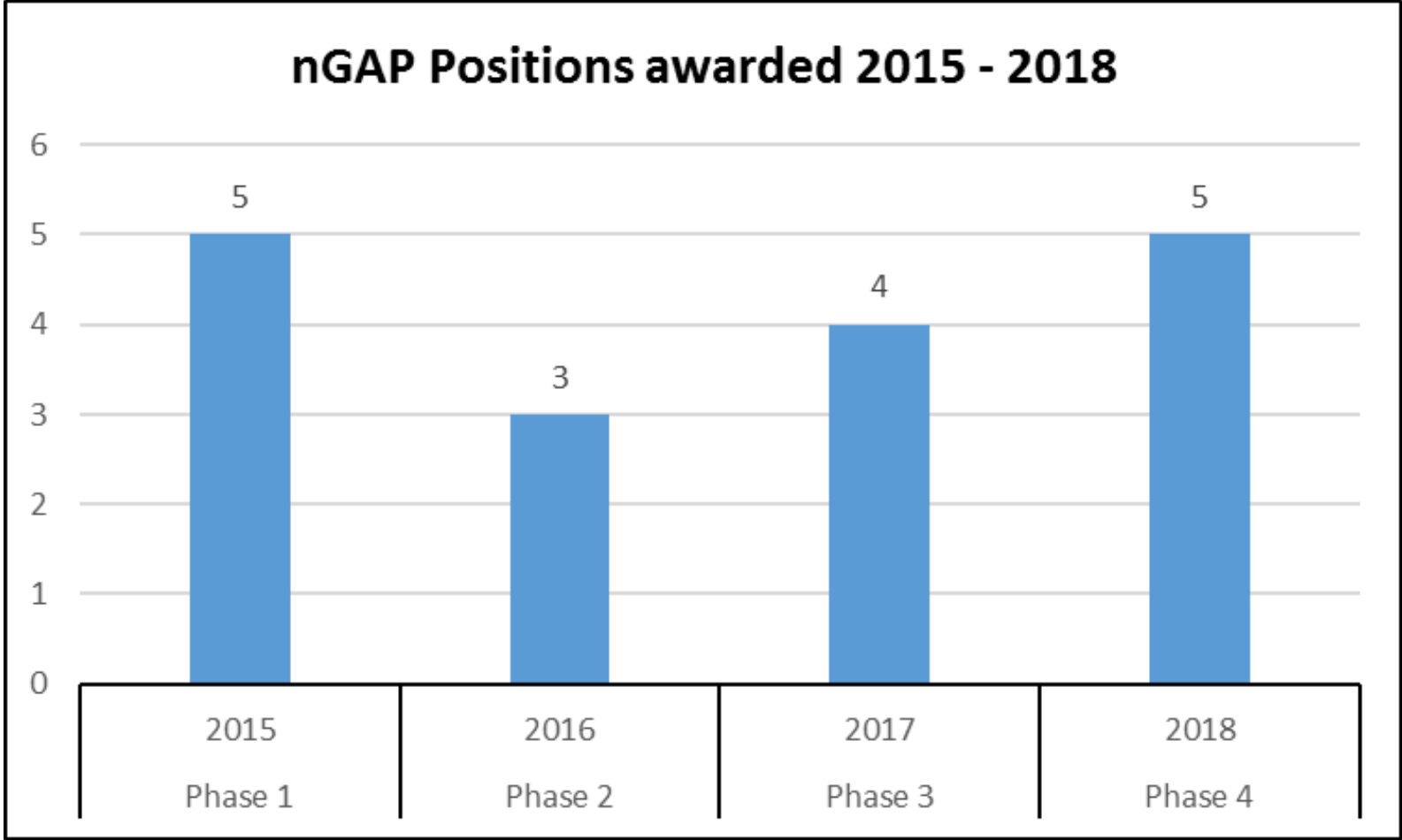
**PROF WC  
VISSER**



Prof WC Visser, Dept  
Mathematical Sciences

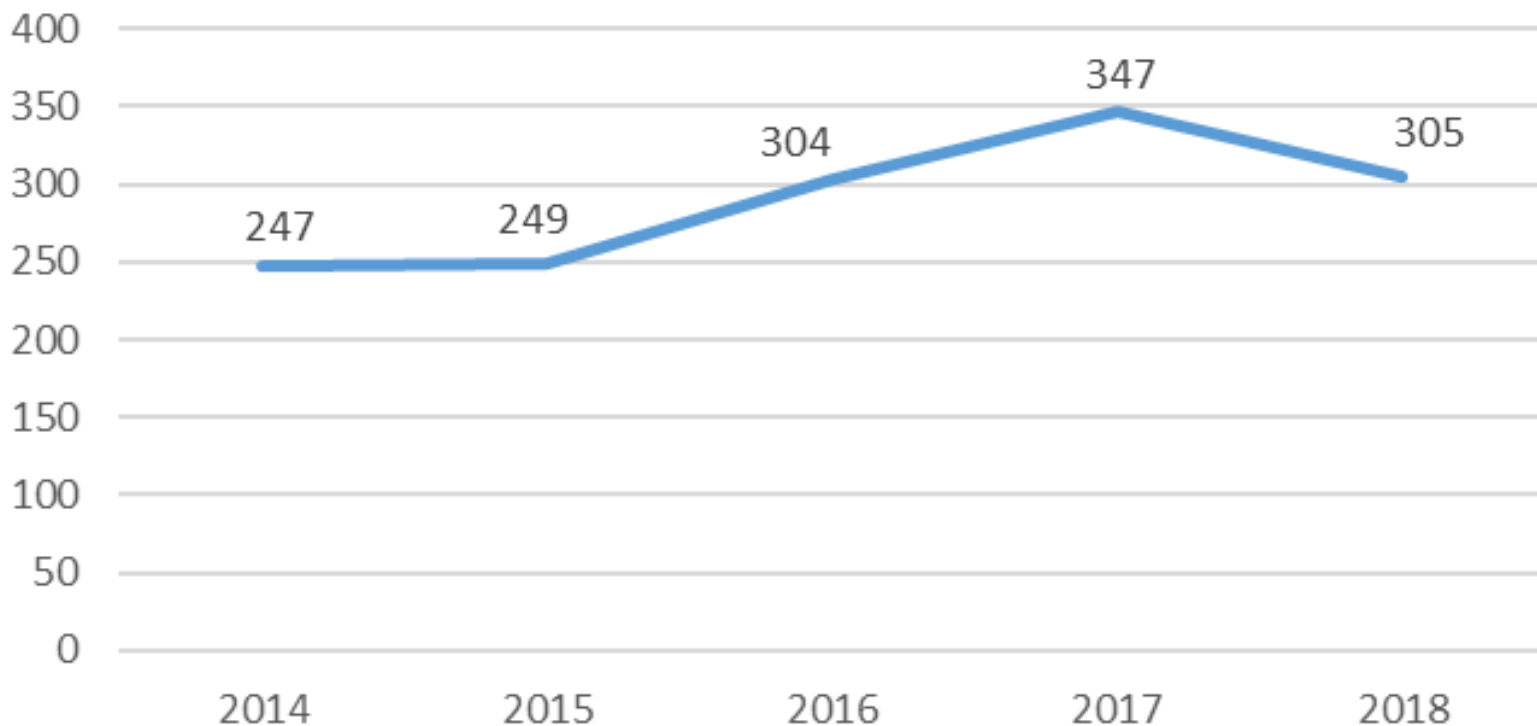


### nGAP Positions awarded 2015 - 2018





## Postdoctoral Fellows



**44% International**



# ROYAL SOCIETY OF SOUTH AFRICA AWARDS

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## PROF GUY MIDGLEY



Prof Guy Midgley (Botany and Zoology) is the first recipient of the newly instituted Marloth Medal.

## PROF BERT KLUMPERMAN



Prof Bert Klumperman (Chemistry and Polymer Science) won the 2018 John FW Herschel Medal.



# ASSAF MEMBERSHIP

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## PROF MARK TOMLINSON



Prof Mark  
Tomlinson  
(Psychology)  
received ASSAF  
membership.

## PROF TARYN YOUNG



Prof Taryn Young  
(Epidemiology and  
Biostatistics) received  
ASSAF membership.

## PROF ASHRAF KAGEE



Prof Ashraf Kagee  
(Psychology) received  
ASSAF membership.

# ASSAF MEMBERSHIP

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## PROF CHERRYL WALKER



Prof Cheryl Walker  
(Sociology and Social  
Anthropology) received ASSAF  
membership.

## PROF LESLIE SWARTZ



Prof Leslie Swartz  
(Psychology) received  
ASSAF membership.

# 2018 NRF AWARDS

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## PROF MICHAEL SAMWAYS



Prof Michael Samways  
(Department of Conservation  
Ecology and Entomology)  
obtained a special award for  
having received an A-rating from  
the NRF.

## DR REHANA MALGAS-ENUS



Dr Rehana Malgas-Enus  
(Chemistry and Polymer  
Science) was honoured with  
the Excellence in Science  
Engagement Award.

## PROF SIMON SCHAAF



Prof Simon Schaaf  
(Department of Paediatrics  
and Child Health) obtained a  
special award for having  
received an A-rating from the  
NRF.

# SA WOMEN IN SCIENCE AWARDS 2018

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## DR EVODIA SETATI



Dr Evodia Setati (Institute for Wine Biotechnology) is a winner in the category: Distinguished Woman Researchers in Natural (Life and Physical) and Engineering Sciences.

## PROF SORAYA BARDIEN



Prof Soraya Bardien (Division of Molecular Biology and Human Genetics) finished third in that category.

## PROF KAREN ESLER



Prof Karen Esler (Department of Conservation Ecology and Entomology) finished second in that category.



# Suid Afrikaanse Akademie vir Wetenskap en Tegnologie Toekennings

## PROF BAREND HERBST



Prof Barend Herbst (Professor Emeritus of Applied Mathematics) is awarded the Havenga Prize for Chemistry.

## PROF LIZETTE JOUBERT



Prof Lizette Joubert (Chief Researcher at the Infruitec-Nietvoorbij Research Institute and Extraordinary Professor in the Department of Food Science) received a medal of honour from the Academy's Faculty of Science and Technology.

## PROF EMILE VAN ZYL



Prof Emile van Zyl of the (Department of Microbiology) is awarded the Havenga Prize for Life Sciences.

# Recipients of the SU Learning and Teaching and Research Excellence Awards 2018

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## NEW SARChI CHAIRS AWARDED TO SU (2018)

Incumbent	Host Department	Host Faculty	Chair Title
Prof Johann Görgens	Process Engineering	Engineering	Sugarcane Bio-refining
Prof Quinette Louw	Health and Rehabilitation Sciences	Medicine and Health Sciences	Innovative Rehabilitation
Prof Xikombiso Mbhenyane	Global Health	Medicine and Health Sciences	Food, Environments, Nutrition and Health





**SARChI AND OTHER SPONSORED RESEARCH CHAIRS AT SU**

	2014	2015	2016	2017	2018
SARChI research chairs	19	24	24	25	28
Other sponsored research chairs	9	11	17	18	19
<b>TOTAL</b>	<b>28</b>	<b>35</b>	<b>41</b>	<b>43</b>	<b>47</b>

## NAVORSING VIR IMPAK



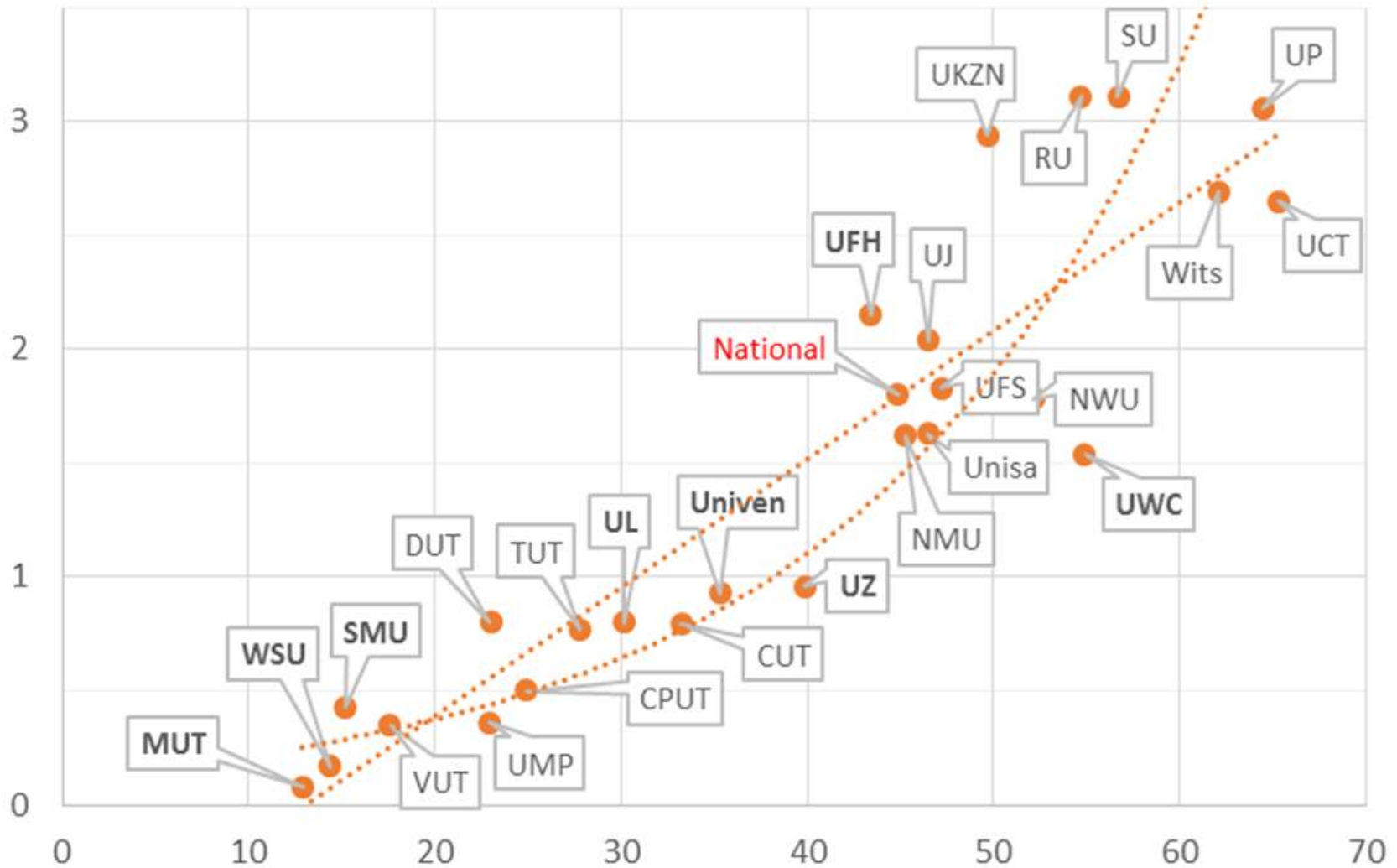
## RESEARCH FOR IMPACT

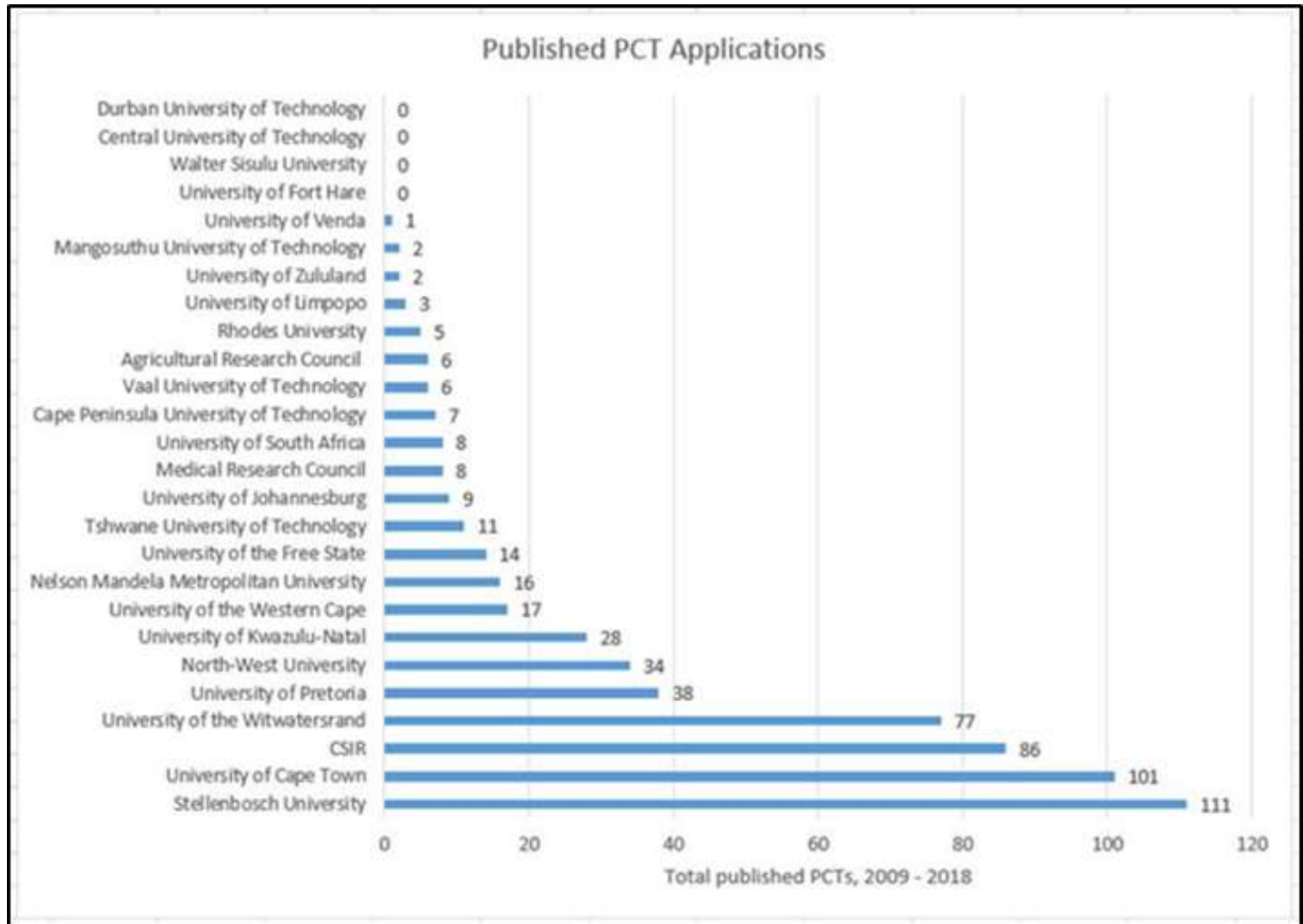


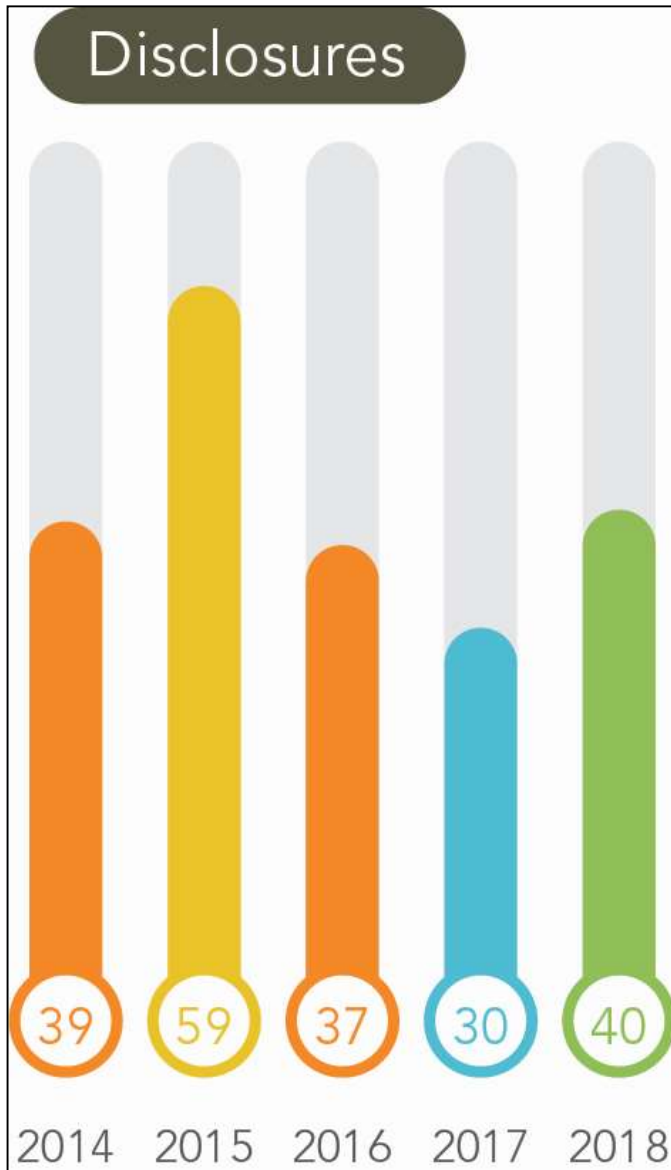
<b>RESEARCH OUTPUTS</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Weighted research output <i>per capita</i>	<b>2,97</b>	<b>3,03</b>	<b>2,92</b>	<b>3,11</b>	<b>3,23</b>
Research publication output <i>per capita</i>	<b>1,47</b>	<b>1,50</b>	<b>1,32</b>	<b>1,58</b>	<b>1,63</b>



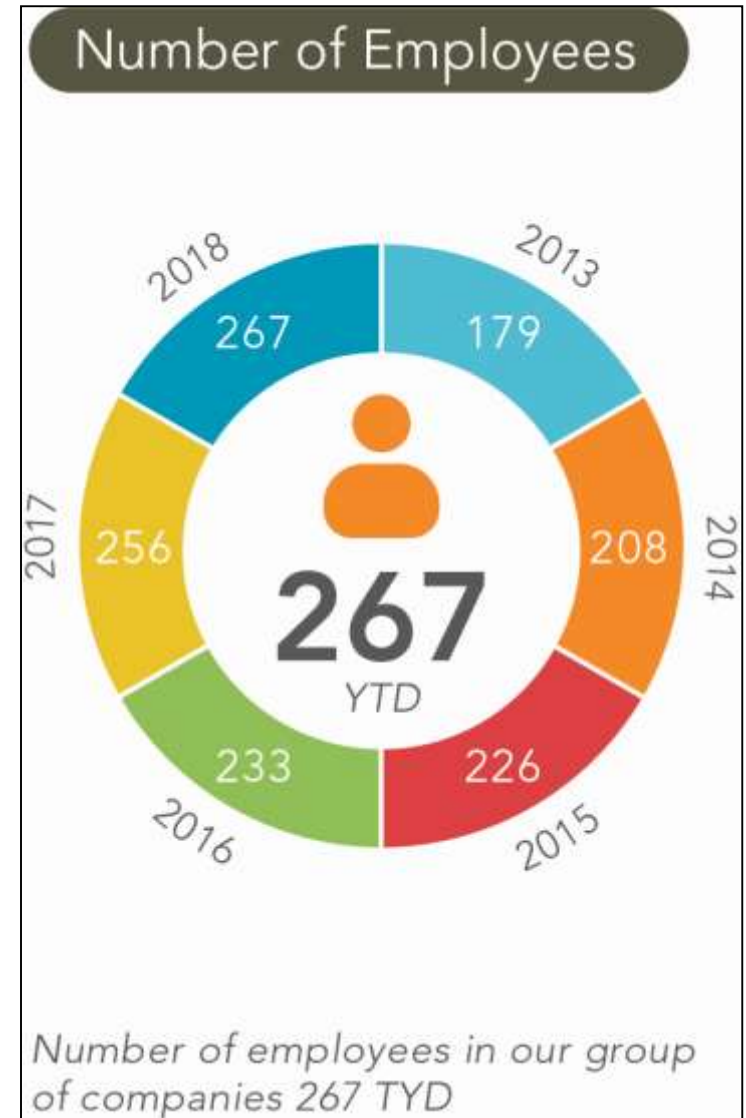
**Weighted research output per capita (y-axis) vs % of permanent instructional staff with PhDs (x-axis) by university (2016)**







**96 Total active licenses**





'N TRANSFORMERENDE  
STUDENTE-ERVARING



A TRANSFORMATIVE  
STUDENT EXPERIENCE



Aantal M en D Studente

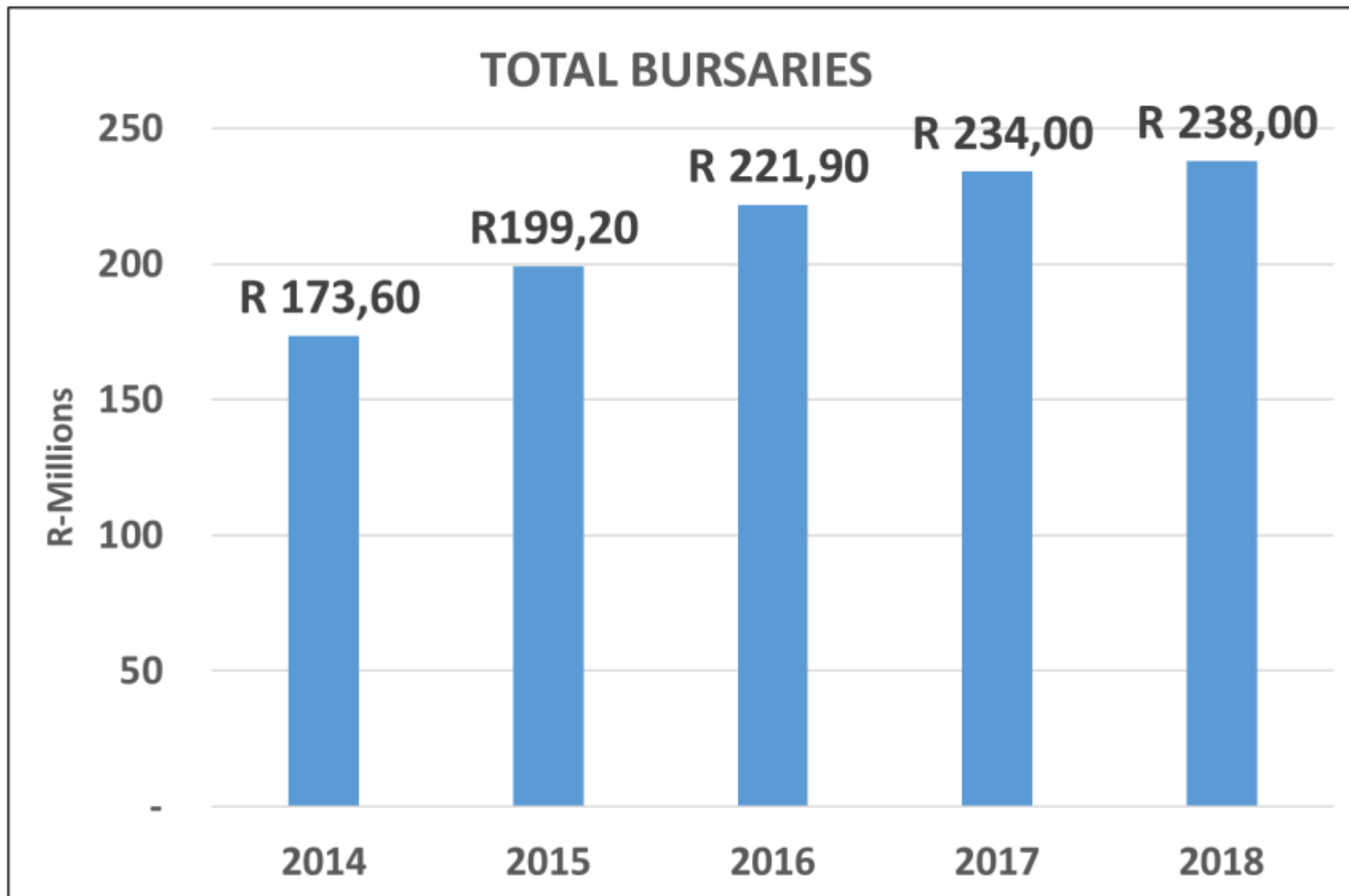
Total M & D Students

	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
<b>Meesters</b>	<b>4 761</b>	<b>4 940</b>	<b>4 961</b>	<b>4 897</b>	<b>4 888</b>
<b>Doktoraal</b>	<b>1 419</b>	<b>1 510</b>	<b>1 559</b>	<b>1 666</b>	<b>1 665</b>
<b>Totaal</b>	<b>6 180</b>	<b>6 450</b>	<b>6 520</b>	<b>6 563</b>	<b>6 553</b>

'N TRANSFORMERENDE  
STUDENTE-ERVARING



A TRANSFORMATIVE STUDENT  
EXPERIENCE





## NRF BURSARY ALLOCATIONS

2015	2016	2017	2018
<b>R60 466 158</b>	<b>R66 154 626</b>	<b>R64 302 218</b>	<b>R58 306 658</b>

## NRF BURSARIES AWARDED

	2014	2016	2017	2018
<b>Honours students</b>	<b>218</b>	<b>176</b>	<b>142</b>	<b>113</b>
<b>Masters students</b>	<b>429</b>	<b>445</b>	<b>391</b>	<b>329</b>
<b>Doctoral students</b>	<b>298</b>	<b>316</b>	<b>311</b>	<b>283</b>



**POSTGRADUATE STUDENT DIVERSITY, 2014–2018**

	2014	2015	2016	2017	2018
<b>BCIA</b>	46%	47%	48%	49%	50%
<b>International students</b>	17%	19%	19%	19%	18%

**MASTER'S AND DOCTORAL DEGREES AWARDED BY SU, 2014–2018**

	2014	2015	2016	2017	2018
<b>Master's degrees</b>	<b>1 293</b>	<b>1 378</b>	<b>1 468</b>	<b>1 622</b>	<b>1507</b>
<b>Doctoral degrees</b>	<b>234</b>	<b>267</b>	<b>278</b>	<b>305</b>	<b>308</b>

## DOELGERIGTE VENNOOTSKAPPE EN INKLUSIEWE NETWERKE

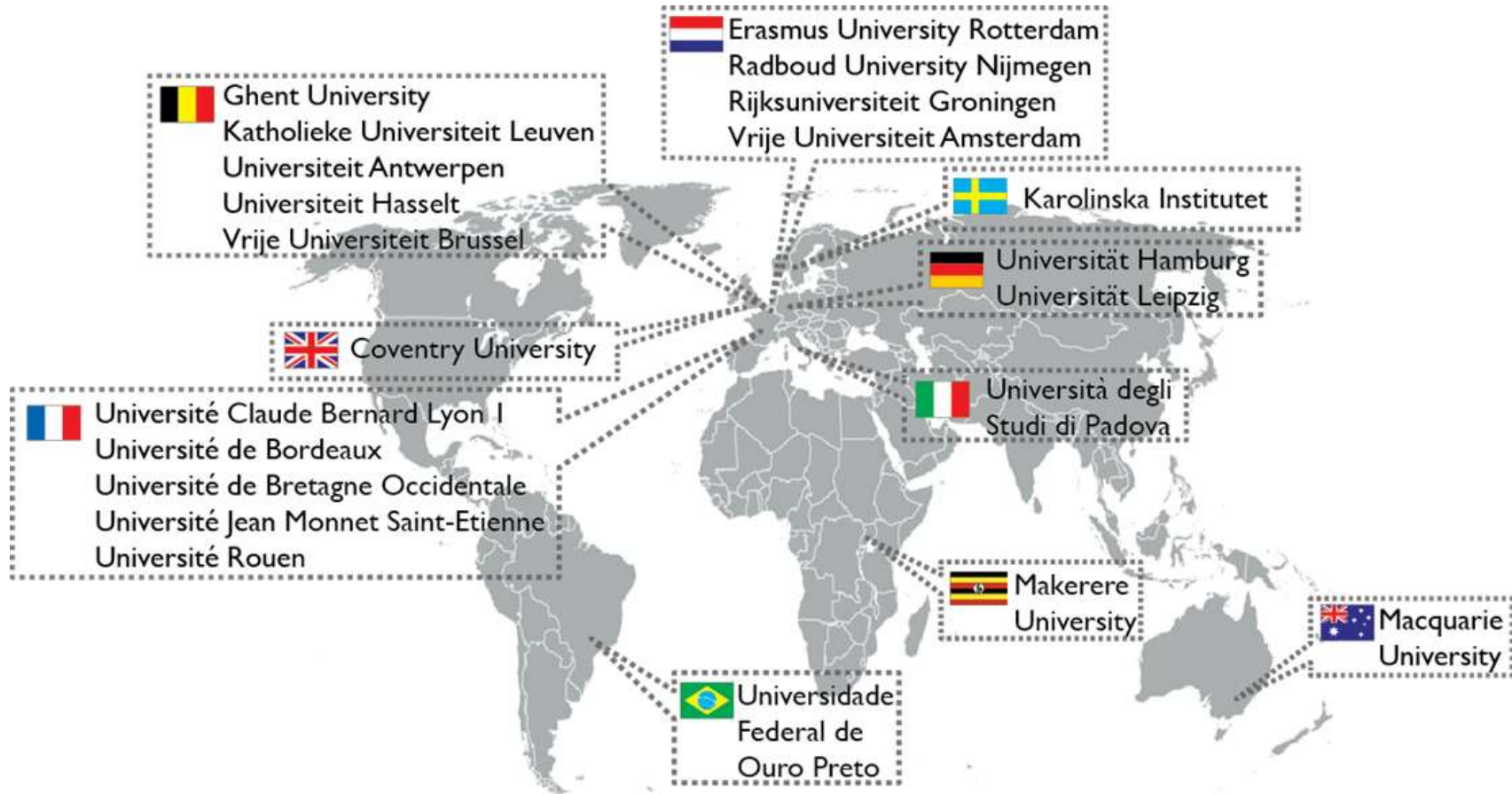


PURPOSEFUL PARTNERSHIPS AND  
INCLUSIVE NETWORKS



Gesamentlike Doktorsgrade

Joint Doctoral Degrees



**23 Joint Doctoral Degrees awarded**





- National Research Foundation (NRF)
- Andrew Mellon Foundation
- HB & MJ Thom Trust
- Wellcome Trust
- Medical Research Council
- ARUA
- DST Foundational Biodiversity Information Programme
- EU-related funding schemes
- CANSA

## GENETWERKTE EN SAMEWERKENDE ONDERRIG EN LEER



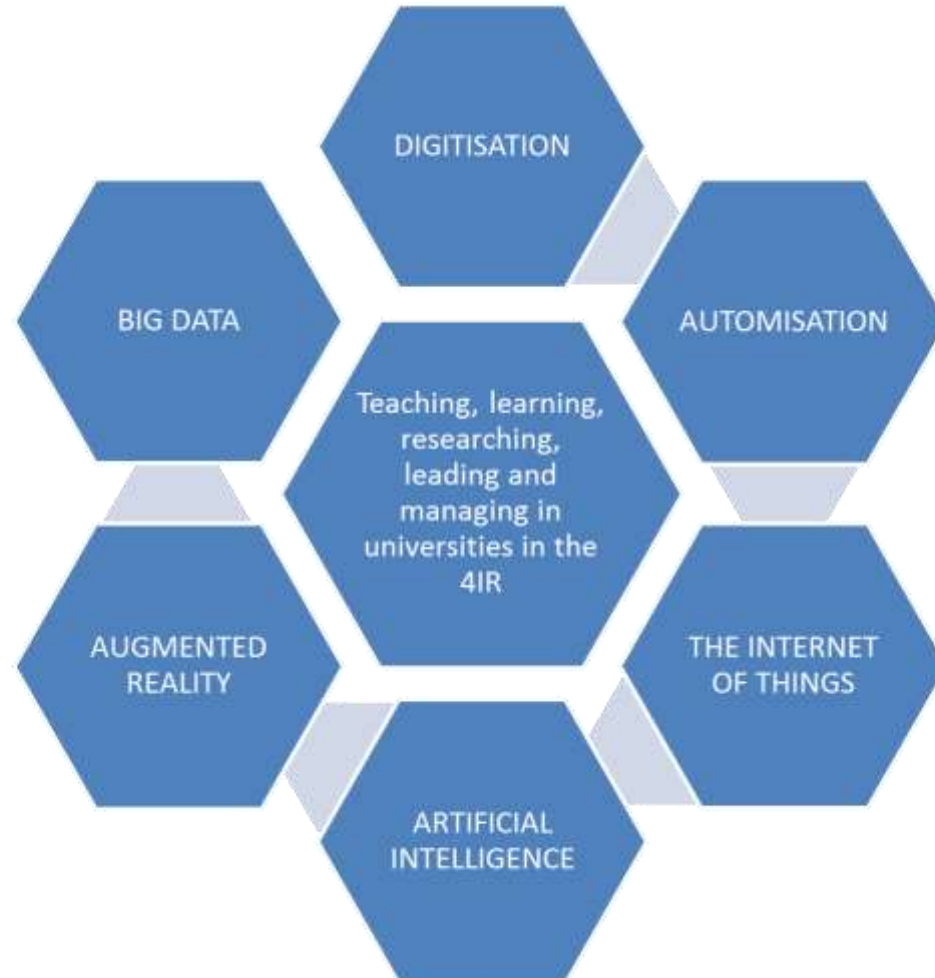
NETWORKED AND COLLABORATIVE  
TEACHING AND LEARNING



- African Wildlife Economy Institute
- African Microbiome Institute
- Centre for Food Safety
- Centre for Responsible Leadership Studies (Africa)
- Family Clinical Research Unit
- Centre for Cardio-metabolic Research in Africa
- South African Grape and Wine Research Institute
- Institute for Life Course Health Research
- ARUA Center of Excellence in Renewable Energy



## School for Data Science and Computational Thinking



**Some 4IR themes that are relevant to higher education**

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UNIVERSITEIT STELLENBOSCH

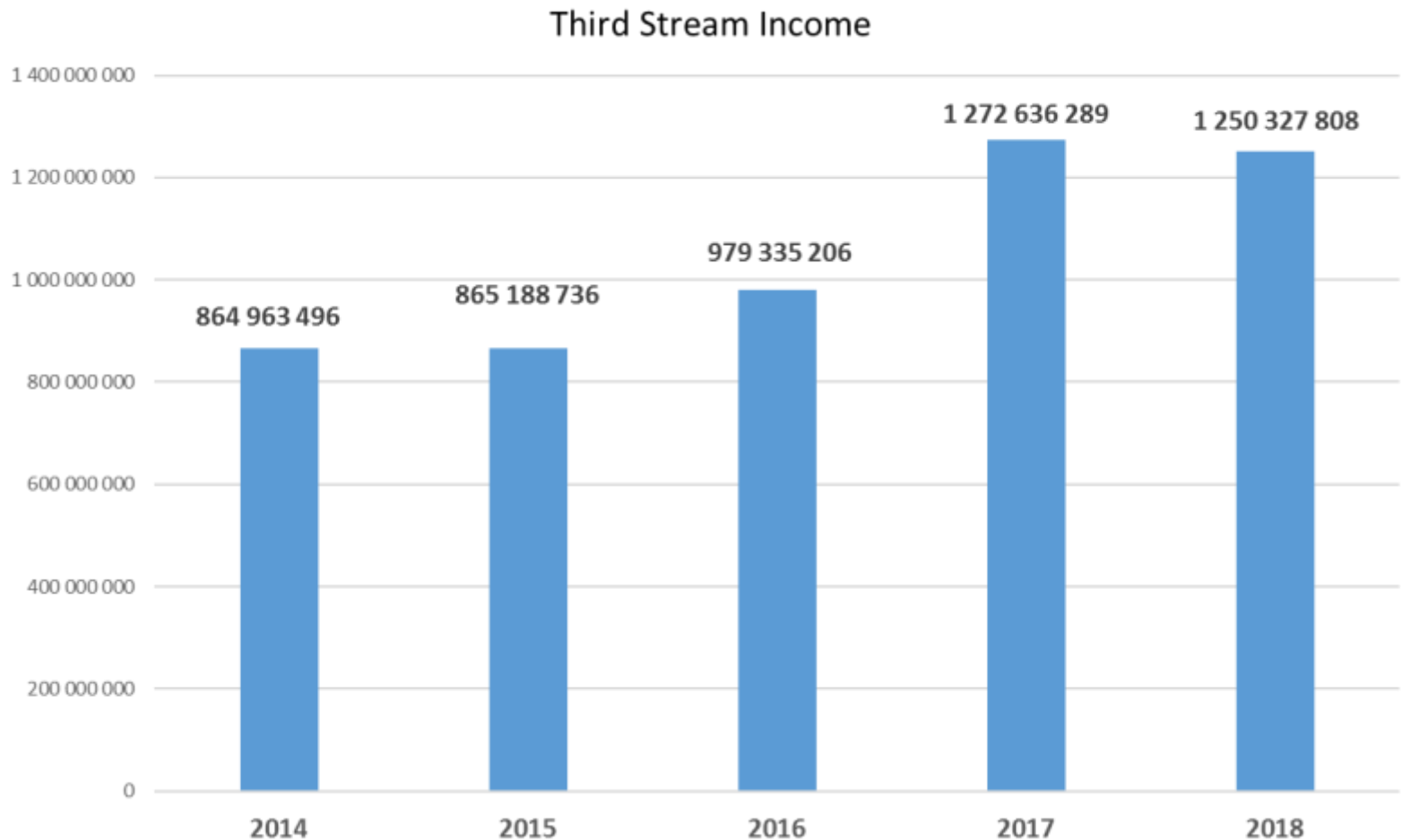


A THRIVING  
STELLENBOSCH UNIVERSITY



## Derdegeldstroominkomste (Rand)

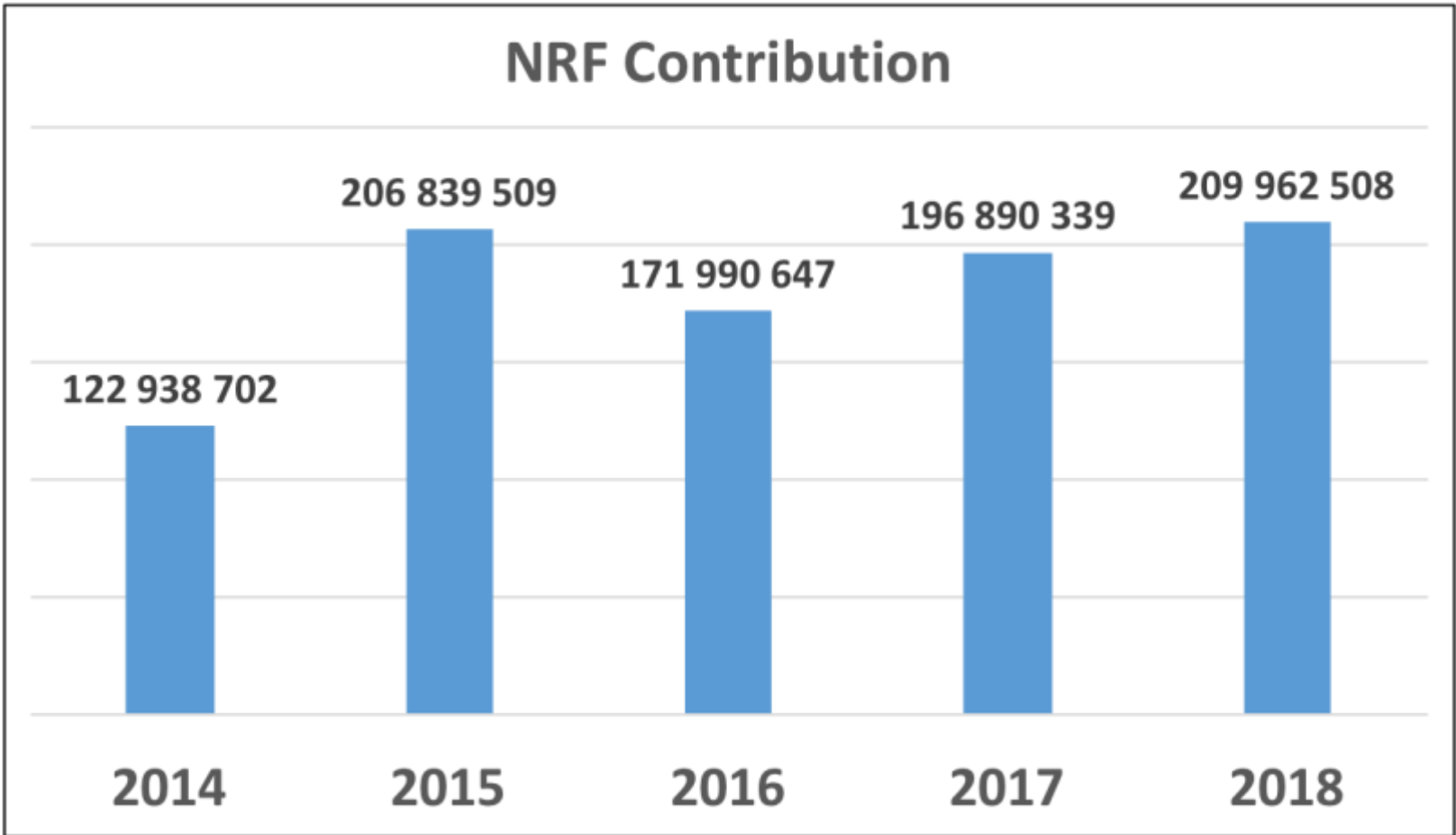
## Third stream income (Rand)





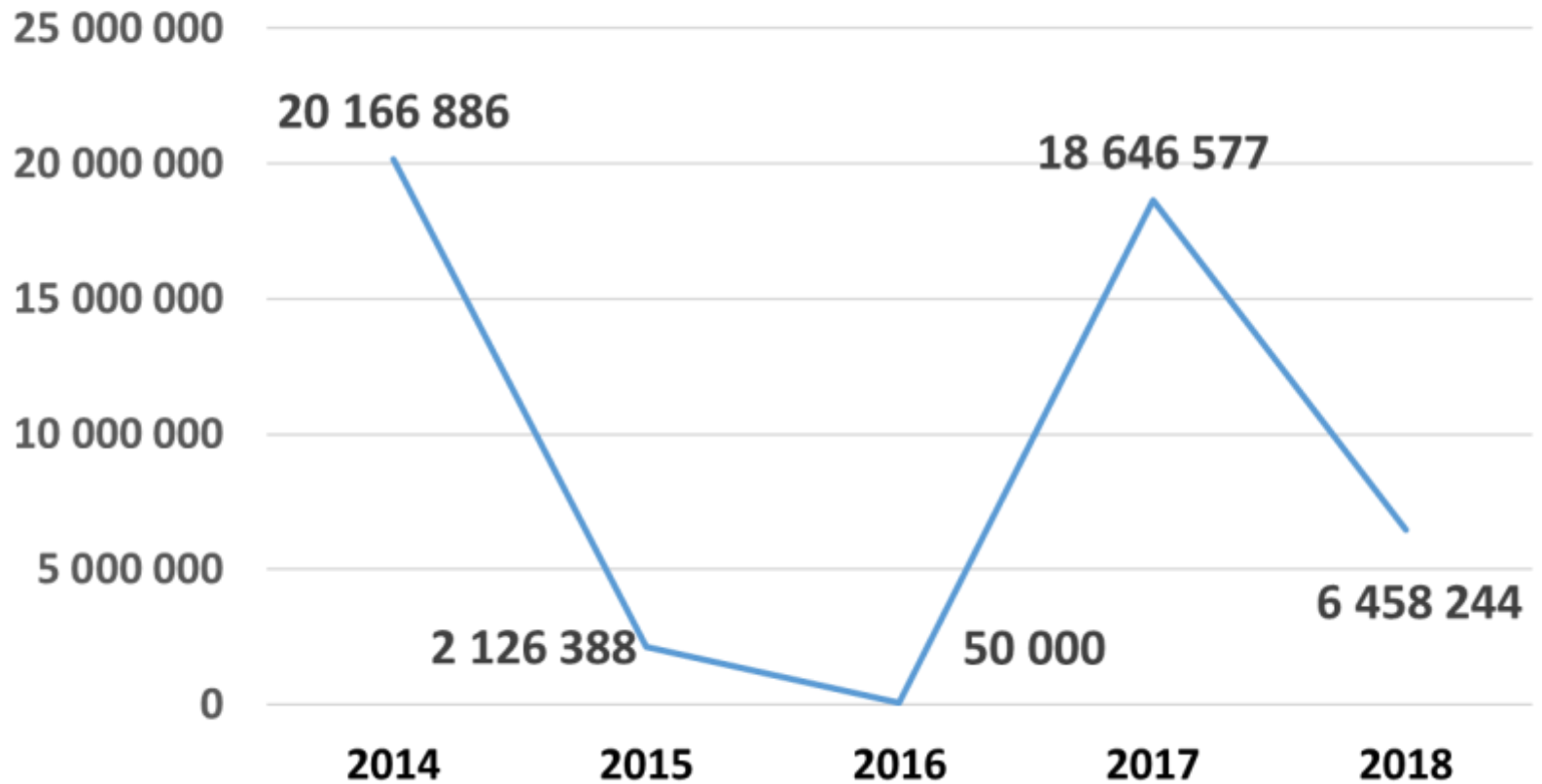


## NRF Contribution





## THRIP GRANTS



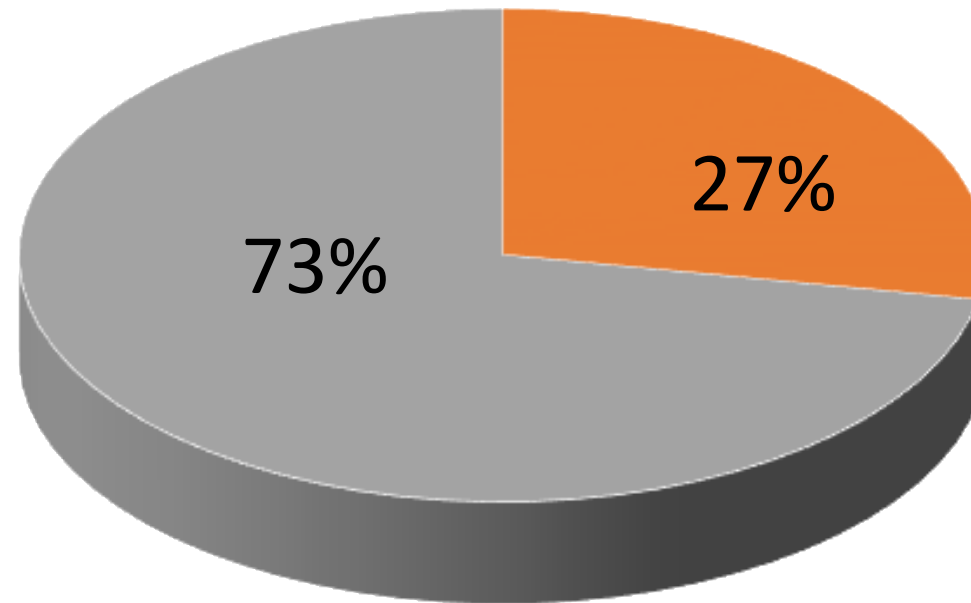


### External Funds to Research Institutes and Departments





Inkomende befondsingsgebaseerde opgetekende  
2018 kontrakte



■ Nasionaal

■ Internasionaal

**63 EU Projects, including 29 Horizon 2020 projects  
to the value of R234m**

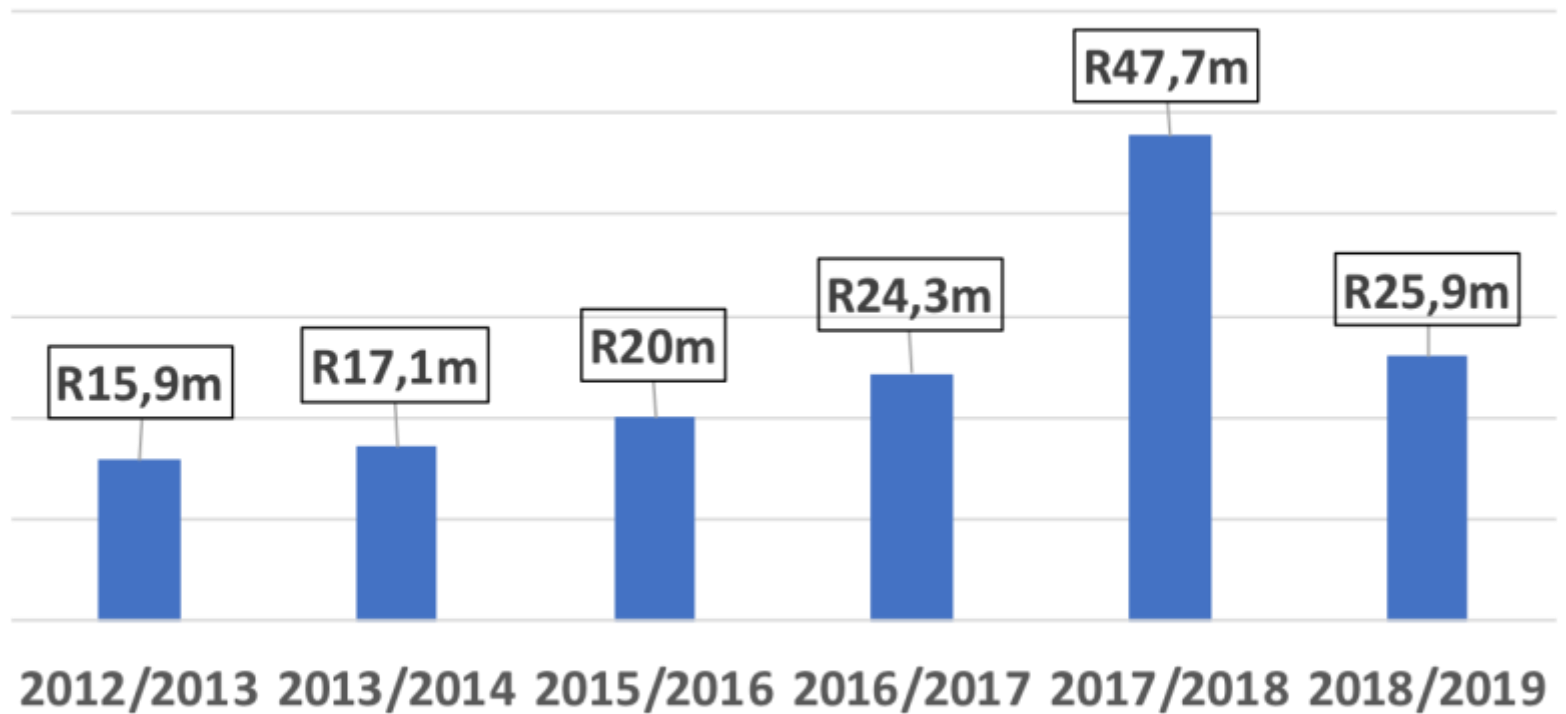
**Gesondheidswetenskappe  
Biblioteek**

**Health Sciences Library**





## NEP FUNDING ALLOCATION 2012/2013 – 2018/2019







**PET-CT Scanner**



## **HPTN 071 (PopART)**

Population effects of antiretroviral therapy to reduce HIV transmission

A community-based randomized trial

Impact of universal testing and treatment in Zambia and South Africa

<https://drive.google.com/file/d/1s0KM30ZQI2Qs2k-rICQIpjVWON-ViOCr/view>



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**100**  
1918 - 2018

**Thank you**

**Dankie**

**Enkosi**

**FORWARD  
TOGETHER**

**MASIYE  
PHAMBILI**

**SAAM  
VORENTOE**





## BEURSE /BURSARIES

Jaar	Hoofstroom- begroting (institusioneel)	Erflatings & Skenkings	Eksterne fondse	Totaal
2014	R18,1m	R7,8m	R147,7m	R173,6m
2015	R23,2m	R10,4m	R165,6m	R199,2m
2016	R24,5m	R16,3m	R180,9m	R221,9m
2017	R30,3m	R18,4m	R185,3m	R234,0m
2018	R18,8m	R19,0m	R200,5m	R238,0m



Derdegeldstroominkomste

Third stream income

<b>Statutêre Rade/Statutory Councils**</b>	<b>2014 Rand</b>	<b>2015 Rand</b>	<b>2016 Rand</b>	<b>2017 Rand</b>	<b>2018 Rand</b>
NRF	122 938 702	206 839 509	171 990 647	196 890 339	209 962 508
WNK/WRC	4 738 259	3 650 568	3 046 007	4 188 189	5 275 994
THRIP	20 166 886	2 126 388	50 000	18 646 577	6 458 244
MNR/MRC	20 793 884	17 337 093	17 285 113	23 610 329	18 783 675
External Funds to Research Institutes & Departments	696 325 765	635 235 179	786 963 438	1 029 300 856	744 847 387
<b>TOTAAL/TOTAL</b>	<b>864 963 496</b>	<b>865 188 736</b>	<b>979 335 206</b>	<b>1 272 636 289</b>	<b>985 327 808</b>