

IPOM



Topic 13: The Role of ARIPO Protocols in Fostering Innovation and Business in Africa

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Workshop on the Promotion of ARIPO Protocols

organised by The African Regional Intellectual Property Organization (ARIPO)

in Collaboration with:

The Intellectual Property Rights & Innovation in Africa (AfrIPI), and

The Ministry of Foreign Affairs, Regional Integration and International Trade, Mauritius, and

The Industrial Property Office of Mauritius (IPOM)

Balaclava, Mauritius, 31 May – 2 June 2023



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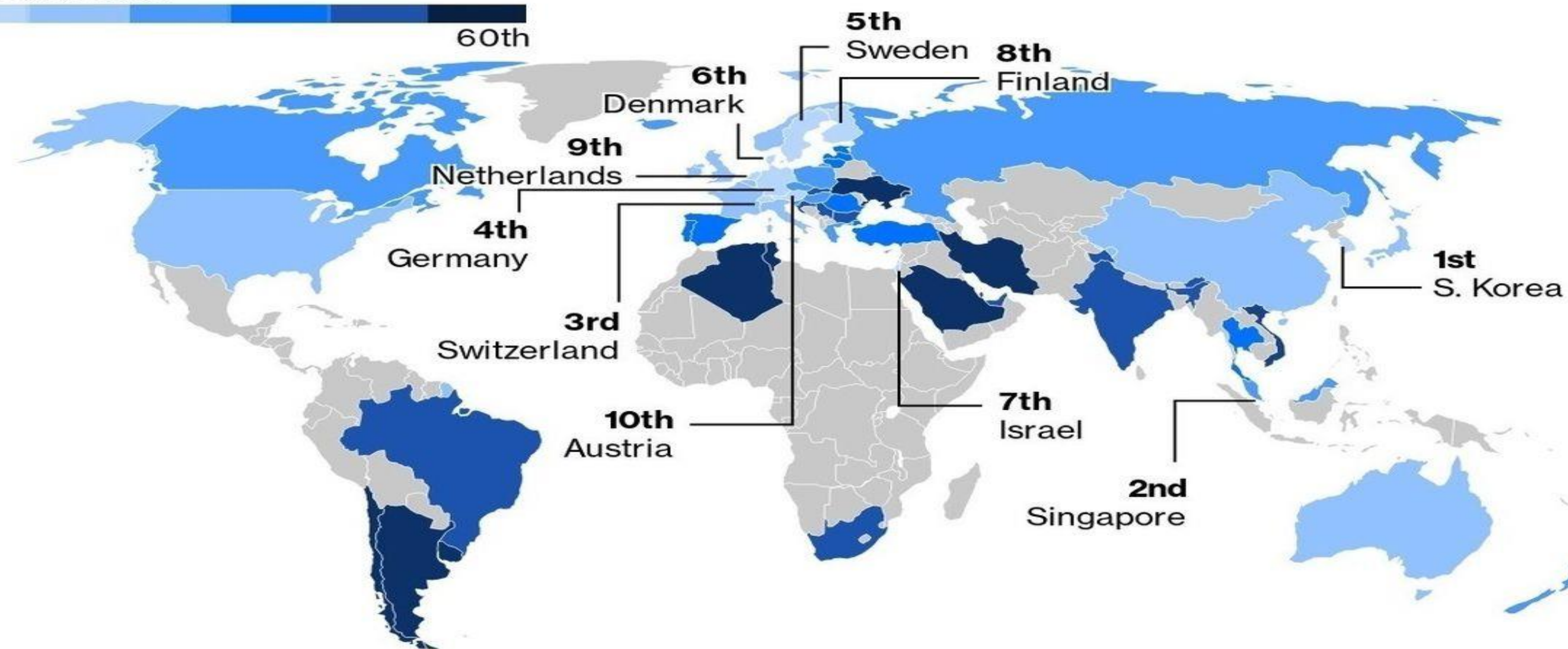
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Introduction

World's 60 Most Innovative Economies

South Korea, Singapore and Switzerland lead the index in 2021

Innovation Rank



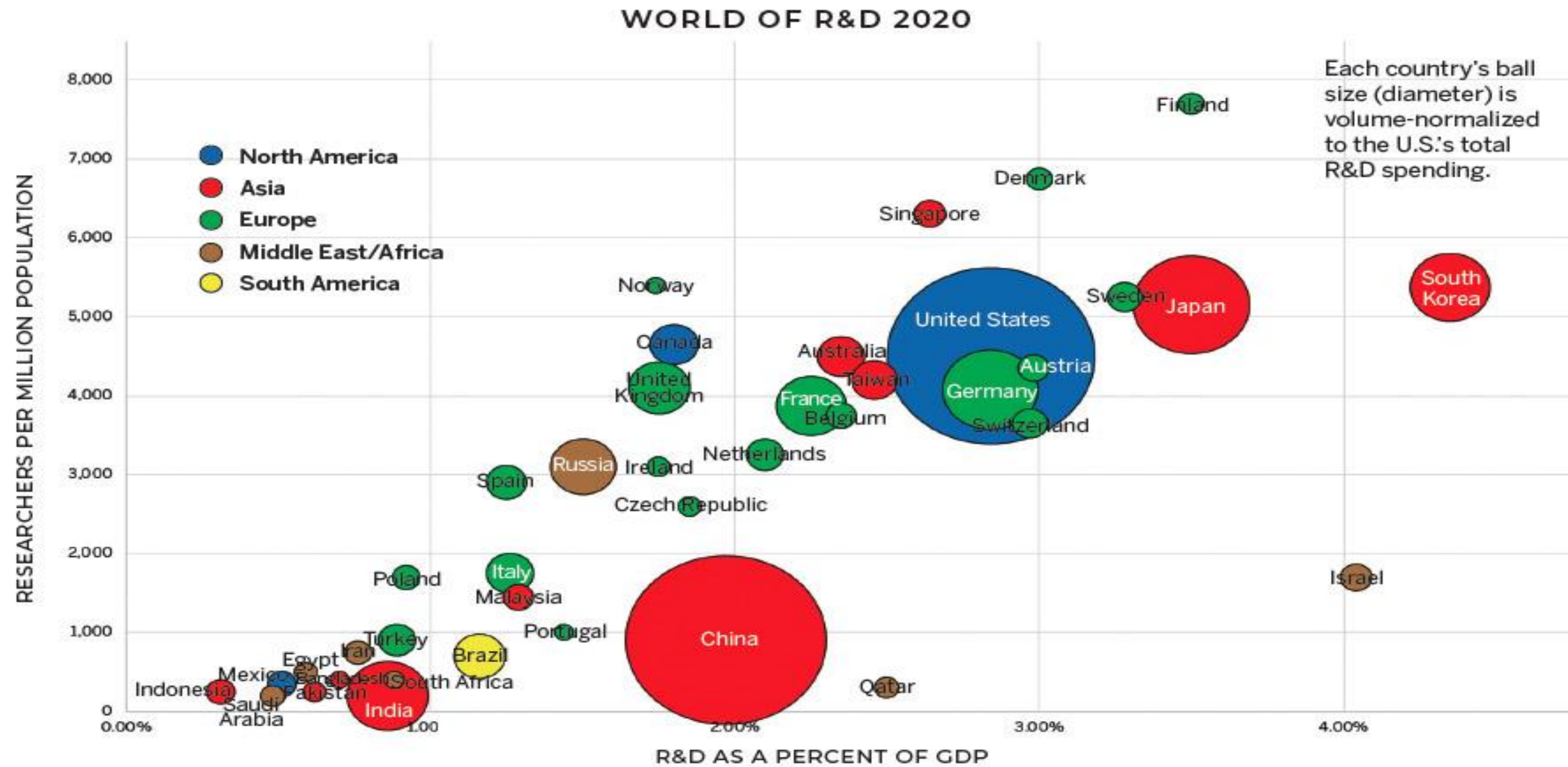
Sources: Bloomberg, International Labor Organization, International Monetary Fund, World Bank, Organisation for Economic Cooperation and Development, World Intellectual Property Organization, United Nations Educational, Scientific and Cultural Organization

Bloomberg

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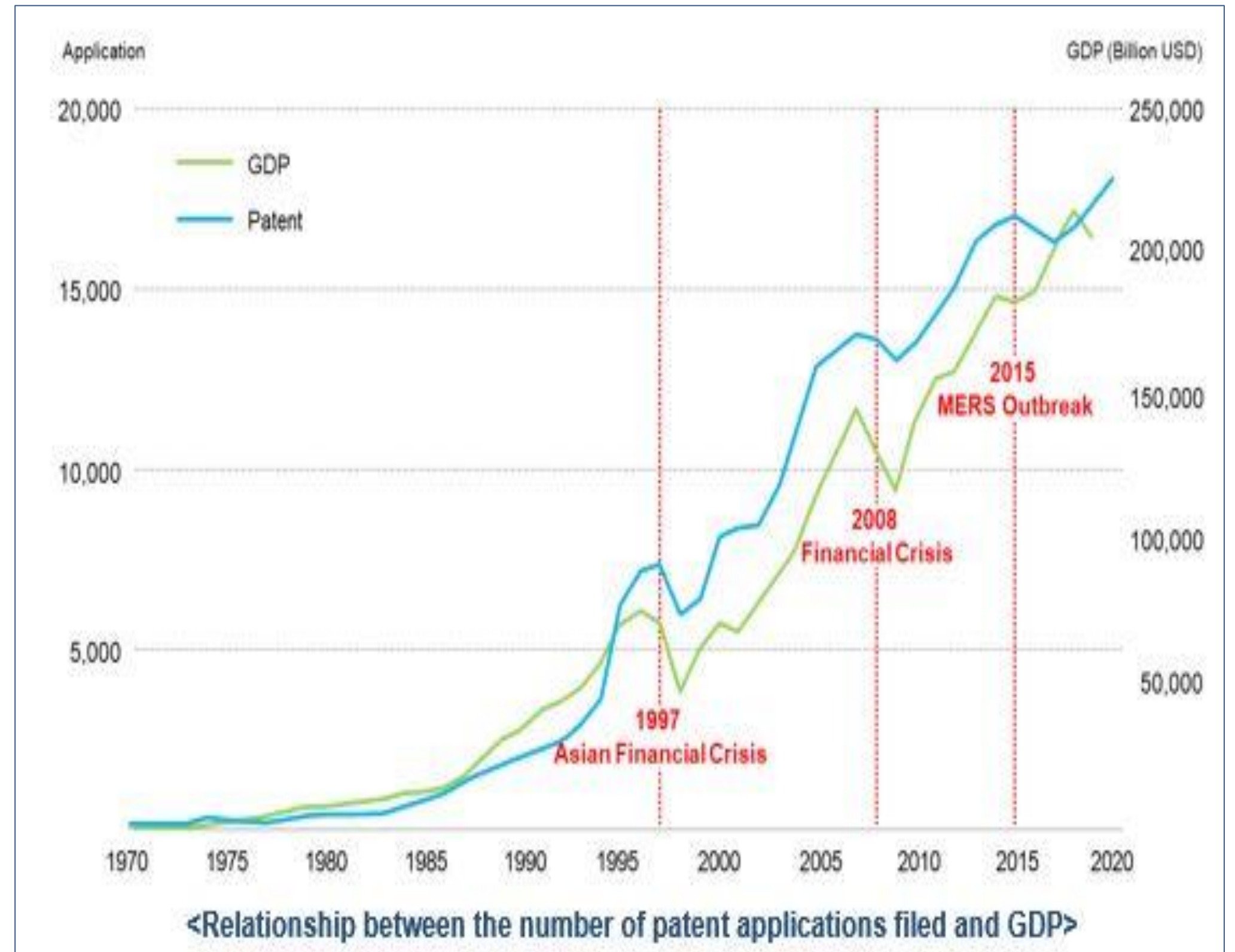
Introduction

R&D investment



Introduction

R&D investment, Patents and GDP Growth



<https://www.businessinsider.com/south-koreas-rd-spending-2014-6?r=US&IR=T>

<https://www.lexology.com/library/detail.aspx?g=cd8c2659-cebe-438c-805c-86e1f29b06be>

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Introduction

Context to ARIPO Protocols

Thika Road

#TBT

BEFORE

NOW



www.usernameproperties.com



Username
Stay Home, Save Lives

- IP protocols provide a roadmap for IP protection
- Different forms of IP require different protocols
- Define:
 - Context for protection
 - Subject matter
 - Scope of protection
 - Process for obtaining rights
 - Other key

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Harare Protocol

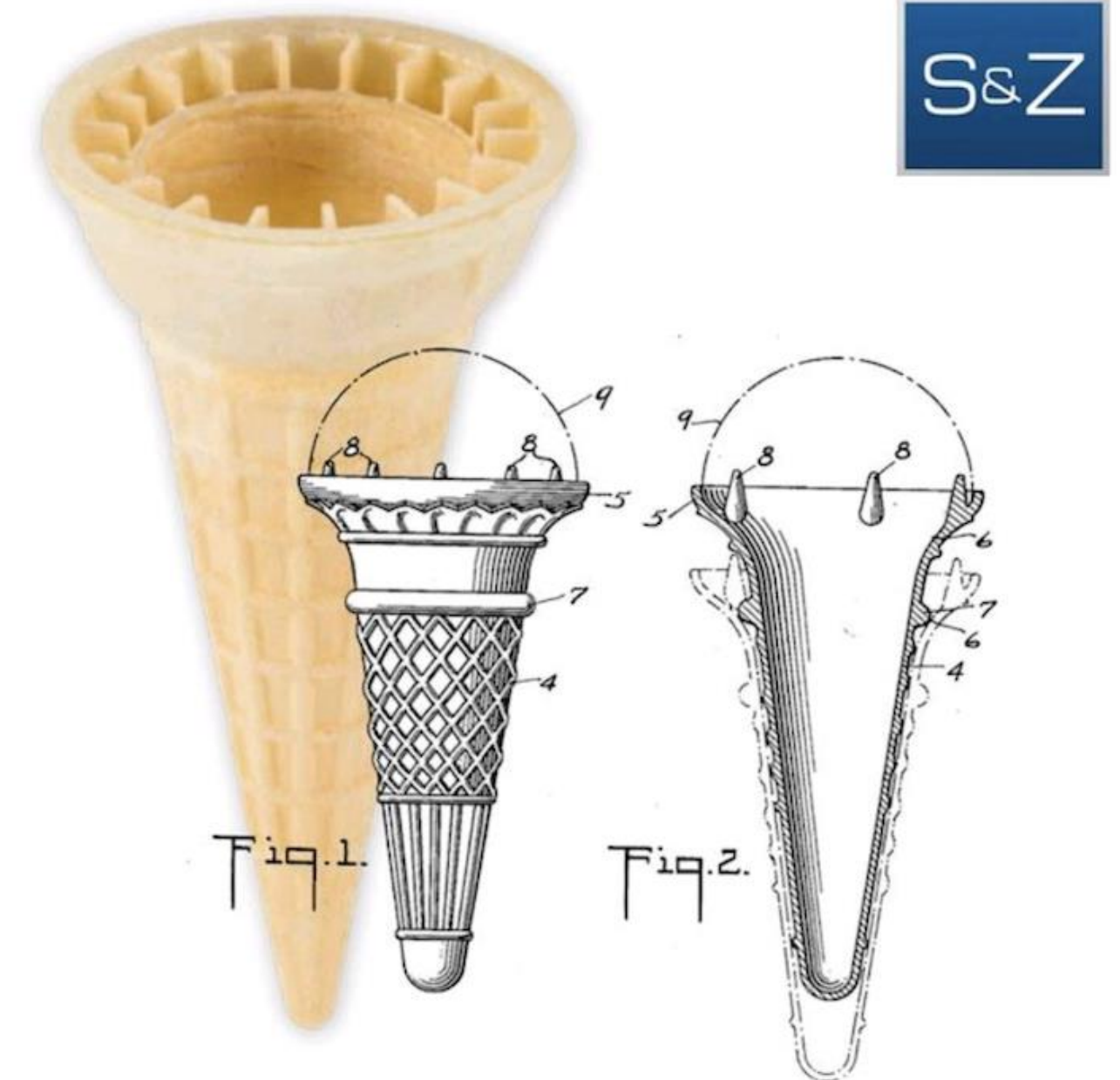
Overview

- Patents and Industrial Designs (adopted 1982, pre-WTO / TRIPS era)
 - ... strengthen co-operation between the States in respect of protection and exploitation of patents, utility models and industrial designs
 - provide quality IP services for the social, economic and technological development of Member States
- Patents - for an invention in all fields of technology, subject to novelty, inventiveness, industrial application
- ... subject to provisions of the applicable national law on compulsory licences, forfeiture or the use of patented inventions in the public interest

(US2061260)

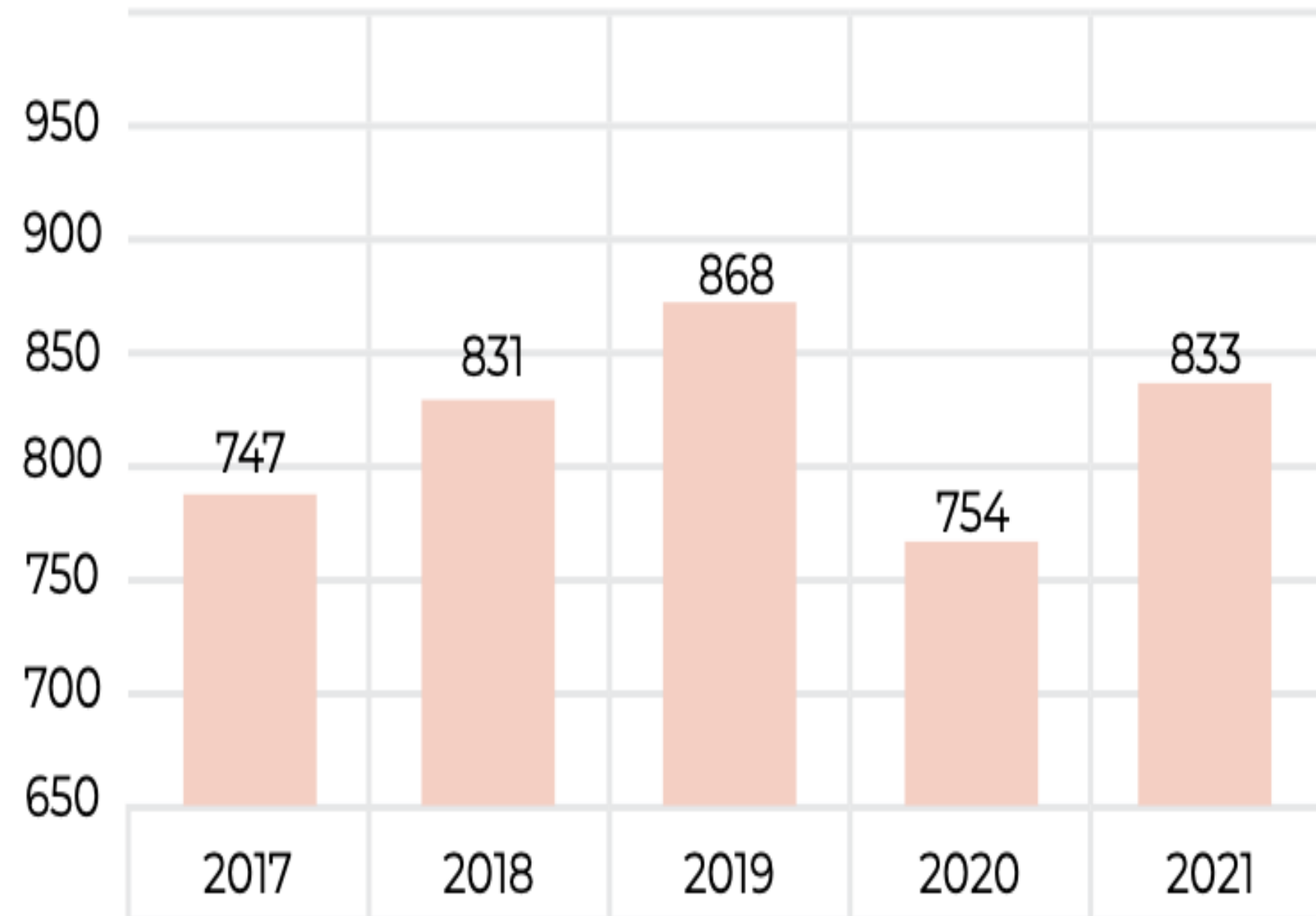
S&Z / GlobalIPCo - the #1 filer of South African patents.

[#food](#) [#foodrecipe](#) [#foodrecipes](#) [#patent](#) [#patents](#)



Harare Protocol

State of Patenting using Harare Protocol

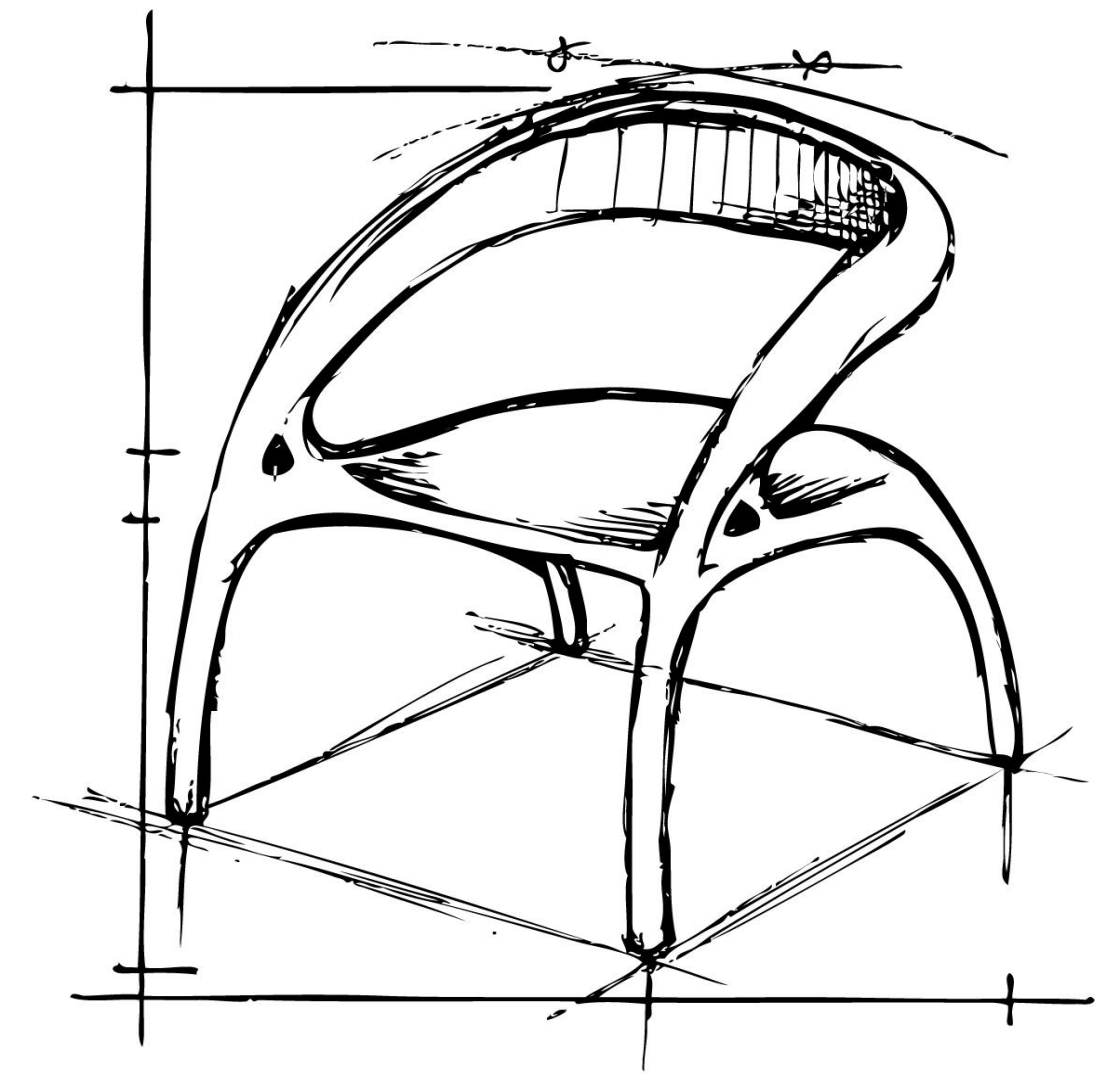


- Growth until 2019
- Decline in 2020— linked to Covid pandemic; Recovery in 2021
- Numbers still lower than South Africa annual filings
- Increase R&D investment and level of industrialisation in member states
- Increased awareness - workshops with academic & research institutions, MSMEs, incubators, start-up organisations, VCs

Harare Protocol

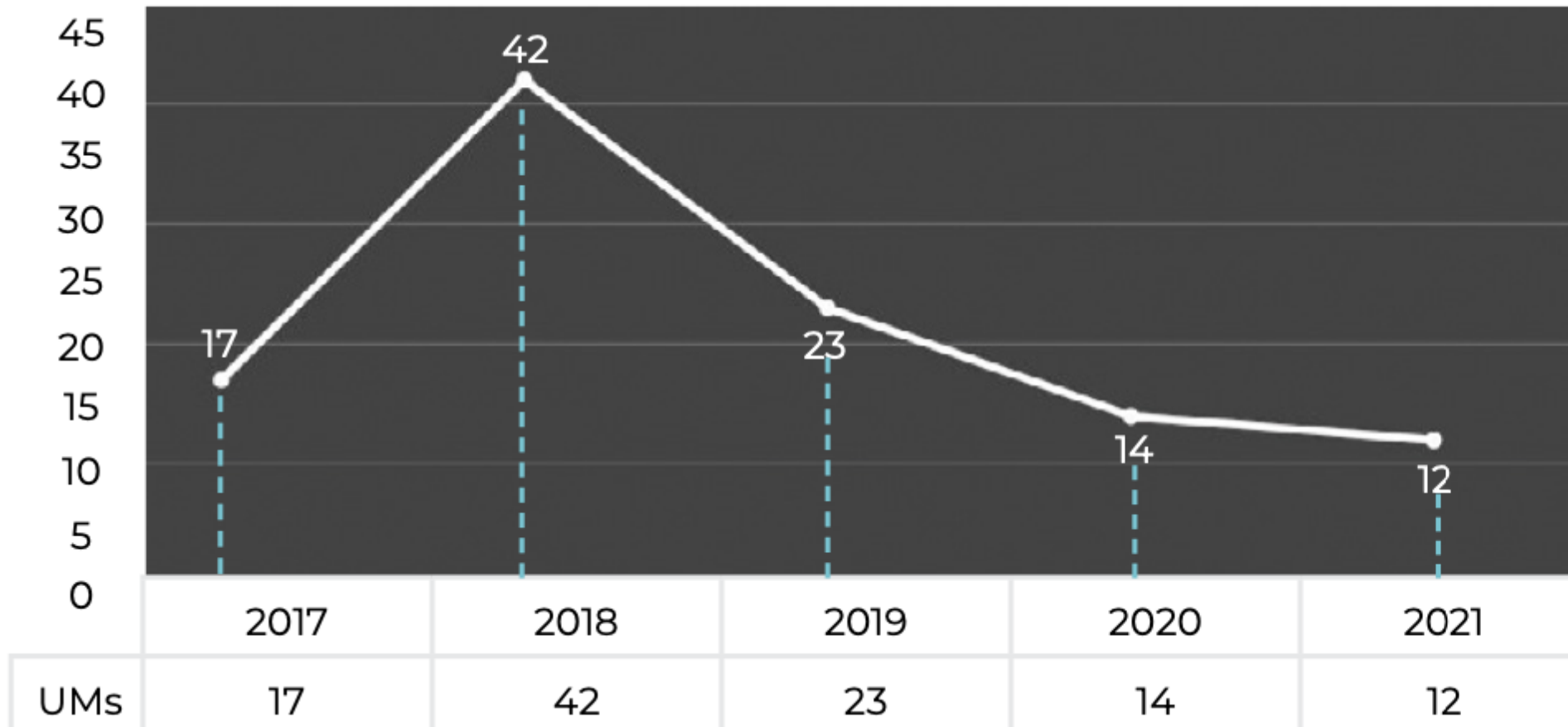
Utility Models

- “utility model” - any form, configuration or disposition of elements of some appliance, working tools and implements as articles of everyday use, electrical and electronic circuitry, instrument, handicraft, mechanism or other object or any part thereof
- ... capable of contributing some benefit or new effect or saving in time, energy and labour or allowing a better or different functioning, use, processing or manufacture of the subject matter or that gives utility advantages, environmental benefit, and includes micro-organism or other self-replicable material, products of genetic resources, herbal as well as nutritional formulations which give new effects

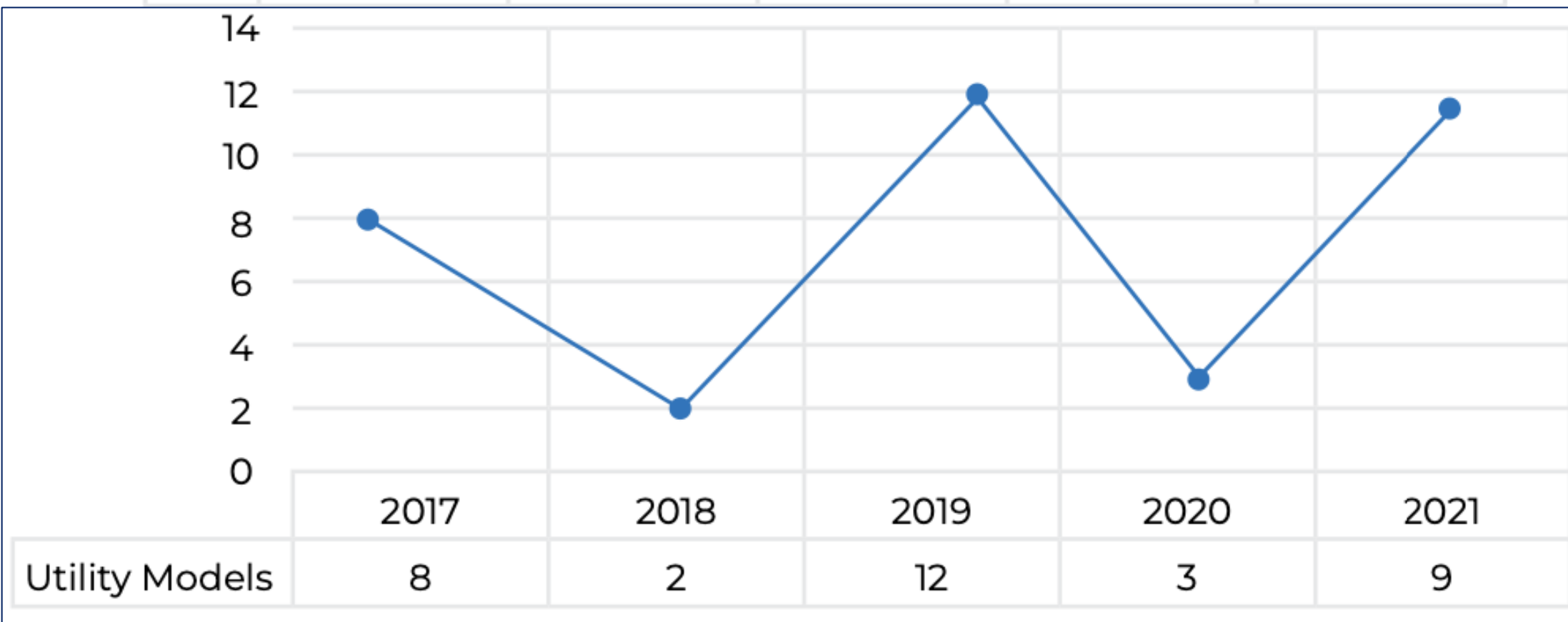


- Stimulates frugal innovation
- Access to the IP system at reasonable cost
- Aligned with the informal nature of businesses in Africa

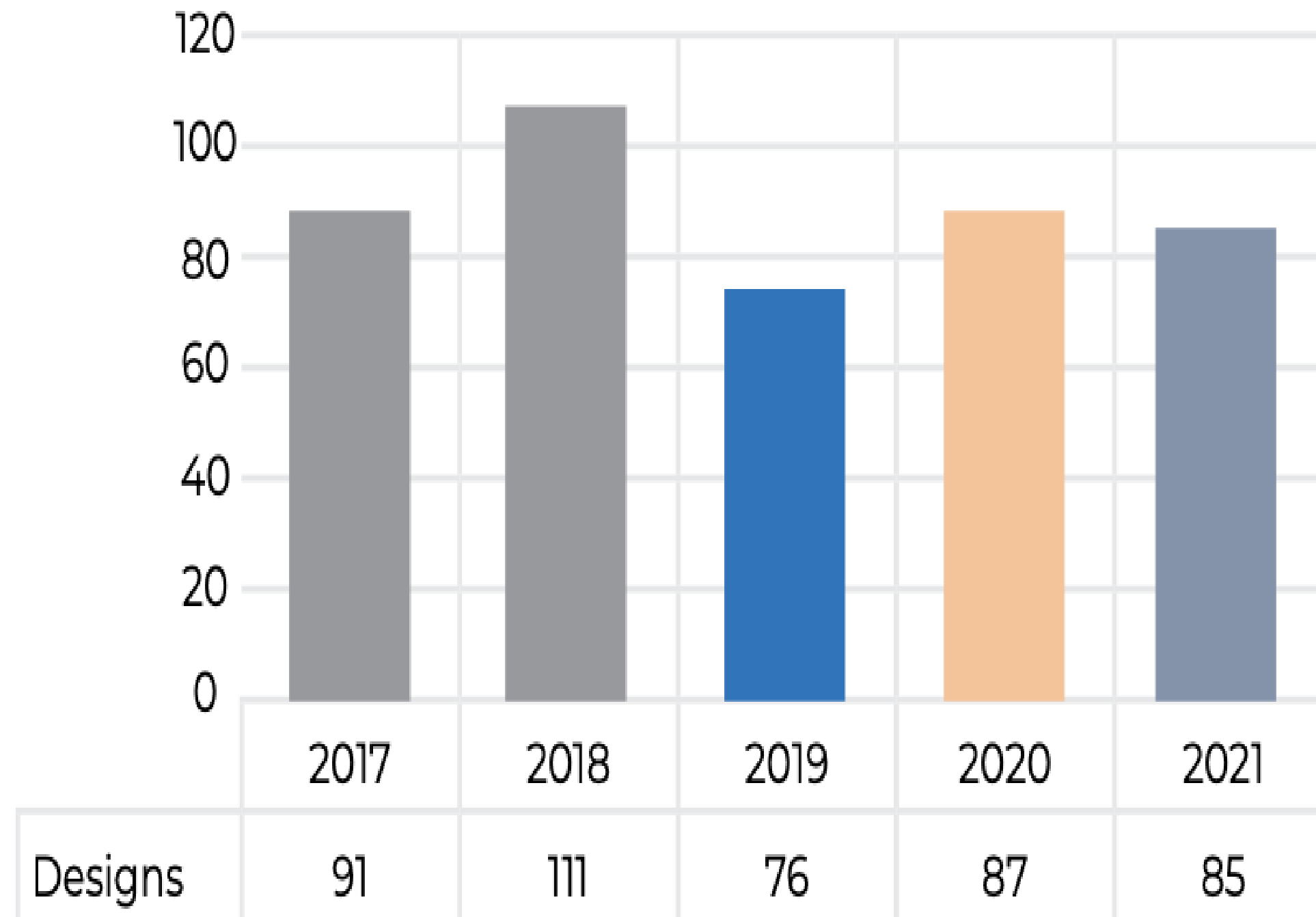
Harare Protocol Utility Models



- Poor utilisation of utility model system
- Increase awareness - Workshops with academic and research institutions, SMEs
- Utility models competitions
- Registration incentive to get innovators to make use of utility models
- Utility models guide



Harare Protocol Industrial Designs



- Stagnant growth
- Lost cousins of patents
- Final embodiment of commercial product
- Awareness of design registrations - academic and research institutions, SMEs, incubators, VCs / funding organisations, start-up organisations
- National and Regional Design Competition

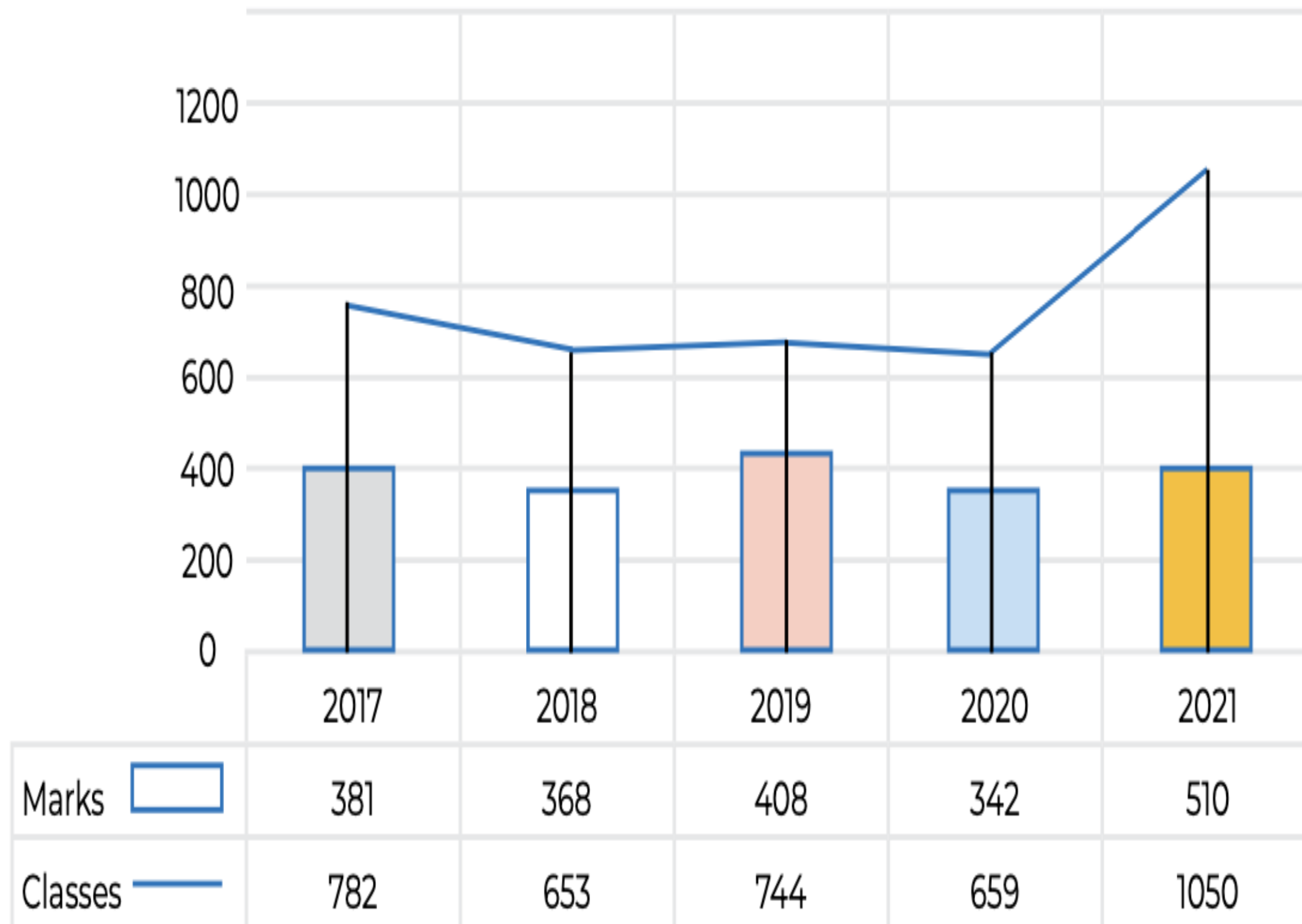
Banjul Protocol Overview

- Registration and administration of marks
- Includes colours, shapes, etc.
- Distinguish
- Identify
- Guarantee
- Advertise
- Critical for trading under the AfCFTA



Banjul Protocol

State of registration of marks



- Increase in marks being registered year on year
- Increase in classes registered
- Workshops with MSMEs, business chambers, etc.
- Registration campaigns
- Use of social media and mainstream media to increase awareness

Swakopmund Protocol

Overview

- ... intrinsic value of traditional knowledge, traditional cultures and folklore, including their social, cultural, spiritual, economic, intellectual, scientific, ecological, agricultural, **medical**, technological, commercial and educational value;
- ... equitable balance between the rights and interests of those who develop, preserve and maintain traditional knowledge and expressions of folklore, and those who use and benefit from such knowledge and expressions of folklore



Arusha Protocol Overview

- ... protection of new varieties of plants
- encouraging development of new varieties of plants for the benefit of the society
- Climate change impact



Kampala Protocol

Overview

- ... voluntary registration and notification of copyright and related rights
- ... creatives benefit from their works and are commercially incentivised through copyright to create more and explore new markets
- Provision for registration of change in ownership of a copyright or related right



Patents / Trademarks / Copyright

An Example – Skincare and Beauty - JO'M Cosmetics (est. 2005)



- Herbal or natural cosmetic range
- Trademark – JO'M
- South African Patent no. ZA201305629 entitled *"Hair Care Product"*
- South African provisional patent application no. 2015/06208 entitled *"Natural hair relaxer"*
 - a hair relaxing composition for relaxing human hair
 - a kit for making the hair relaxing composition
 - a method of relaxing human hair with the hair care product in accordance with invention



Trademarks / Trade secrets

I-Slices founded by Kerryne Krause

eye slices®
professional
relax ◦ restore ◦ revive®



CRYOGEL POLYMER

Globally unique technology

Medical grade polymer technology forms the basis of our range. It is a safe, non-toxic, dermal delivery system (silicone-free) that is:

- Cooling (without a fridge)
- Soothing
- Re-usable
- Effective
- Water-based

CSIR
our future through science

licence

eye slices®

- Chance meeting with a manufacturer led to licensing of a unique technology from CSIR (South Africa) Research Polymers Department
- Engineered polymer technology for delivering ingredients into the skin for the application originally for burns and wounds
- Application to cosmetics was unique
- Negotiated an exclusive license for the technology
- 10 years R&D scaling up technology from laboratory scale

<http://www.lionessesofafrica.com/blog/2015/7/31/the-startup-story-of-kerryne-krause-neufeldt>

<https://www.eyeslices.com/za/about-us>

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Trademarks / Trade secrets

Unique Processing Ltd (Rwanda)

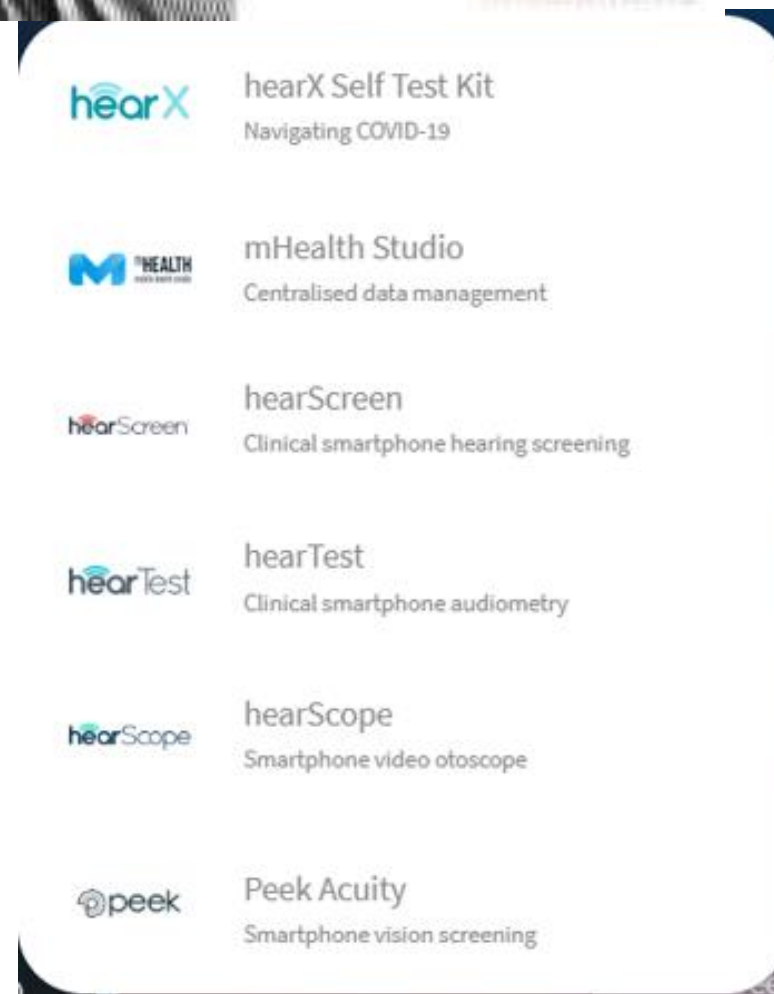
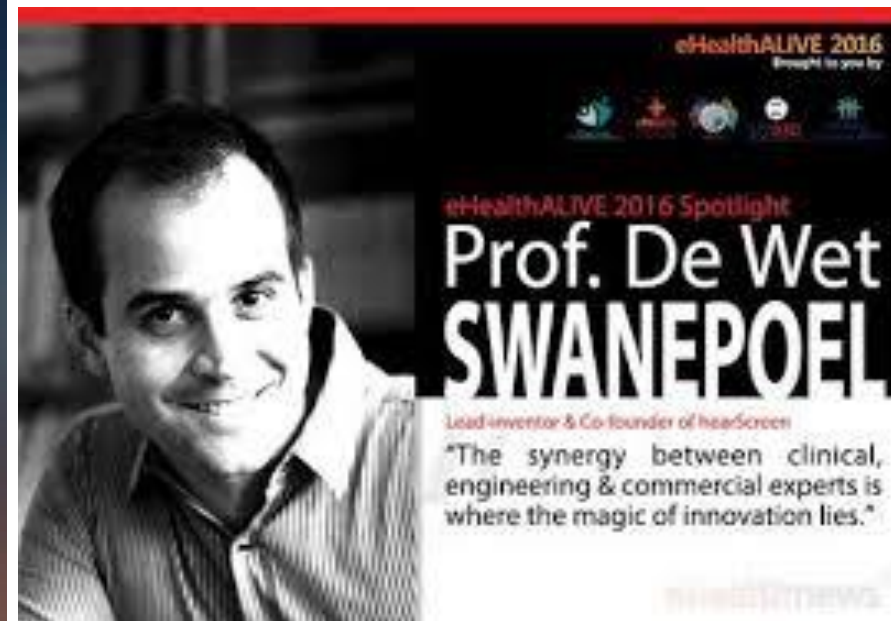
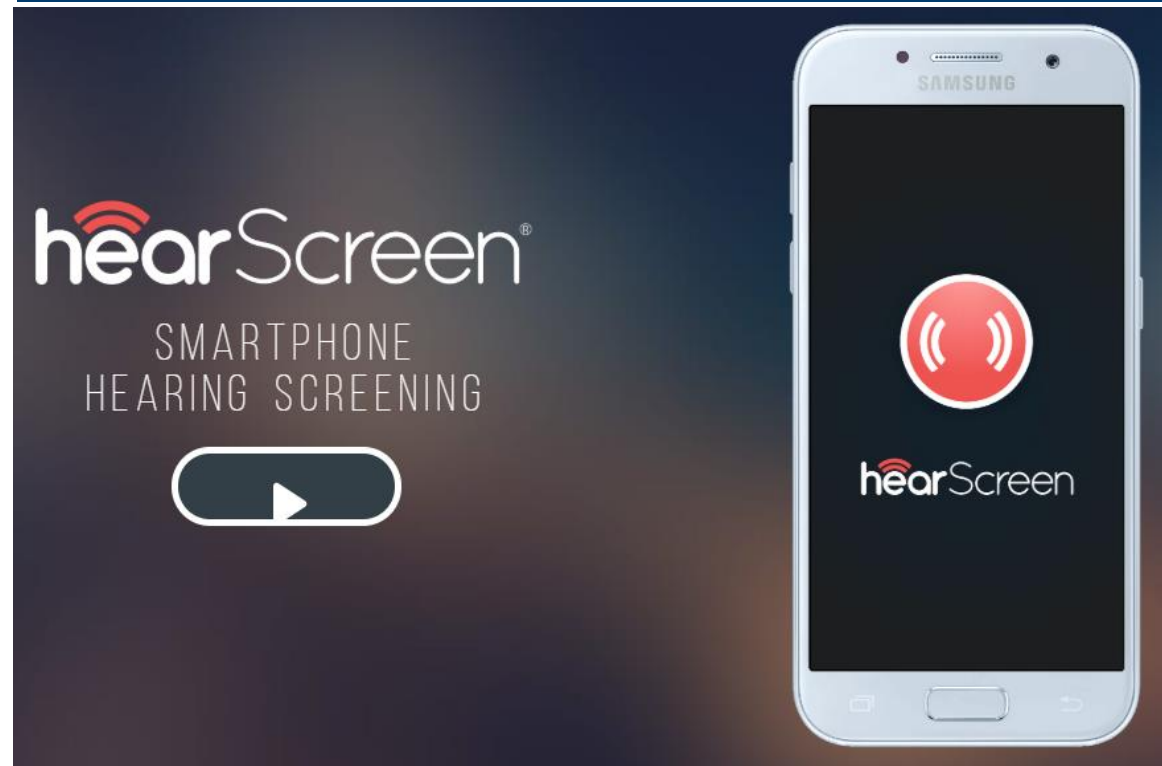
- Rwanda serial entrepreneur, Valentine Uwanyirigra
- Process chilli to make **Urwiza Chili Sauce**
- Marketed and sold in different supermarkets, shops, hotels, restaurants and boutiques around Kigali.
- Urwiza being sold to individual clients across continent, USA, Canada, European
- **IP:** trademarks applications at RDB for Unique Processing LOGO, Urwiza



Case Studies

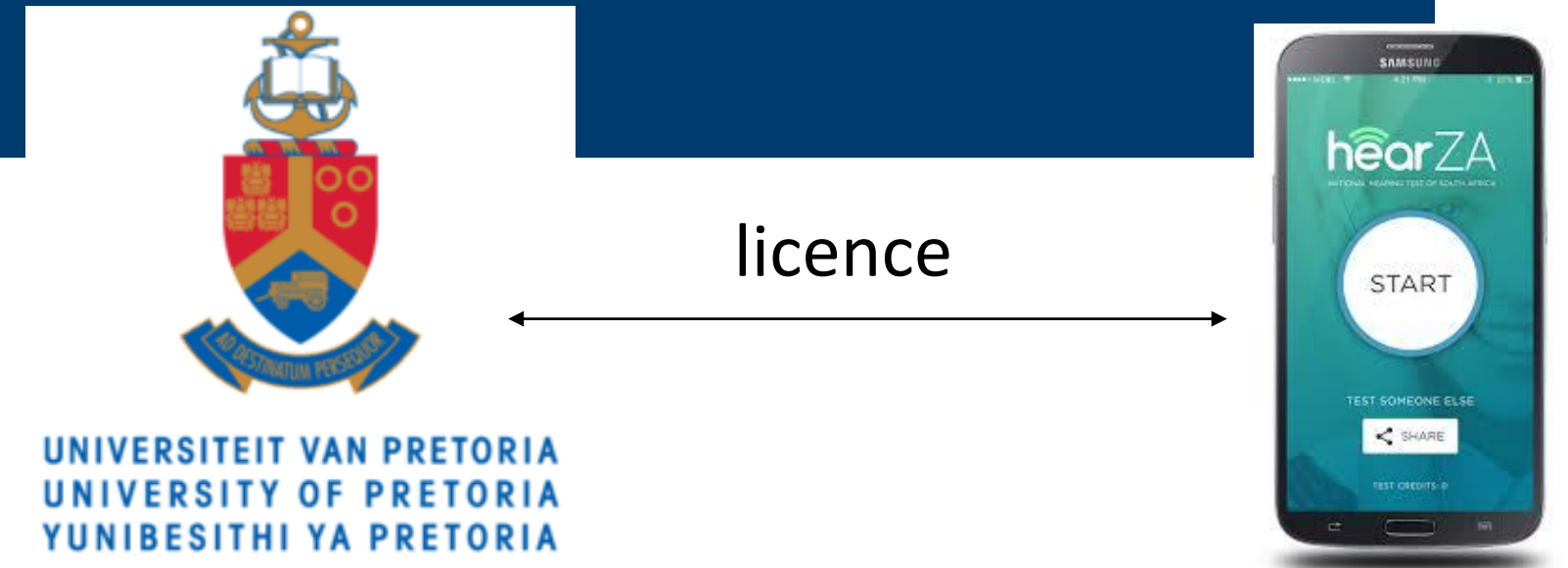
2

Licence from University



<https://www.hearxgroup.com/>

<https://innovationedge.org.za/hearscreen-a-case-study-in-repurposing-ideas/>



- Prof. De Wet Swanepoel – Lead Inventor and audiologist came up with idea as part of research at University of Pretoria
- Start-up HearZA established and licenced the IP from the university
- Further development and commercialisation
- Pivoted business to other uses; new IP (copyright, trademarks, know-how, etc.)

Patents / Trademarks

An Example – Anti-inflammatory ointment from plants



<https://www.globalhealthbiotech.co.za/>



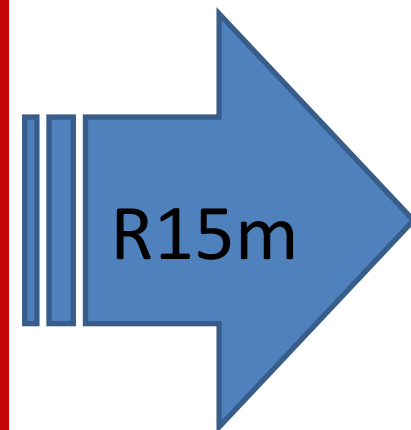
○ Prof. Keolebogile Shirley Motaung - Founder & CEO of Global Health Biotech (GHB)

○ Manufactures natural anti-inflammatory ointment/cream named La-Africa Soother (LAS) from medicinal plants



Patents / Trademarks

An Example – Anti-inflammatory ointment from plants



Consortium of

1. University of Johannesburg
2. University of Pretoria &
3. University of Port Elizabeth

Patent Portfolio

Exclusive licence
(territorially restricted)

Johanna Solar Technology and IFE are awarded the contract to build an ultra modern thin film solar module plant in China



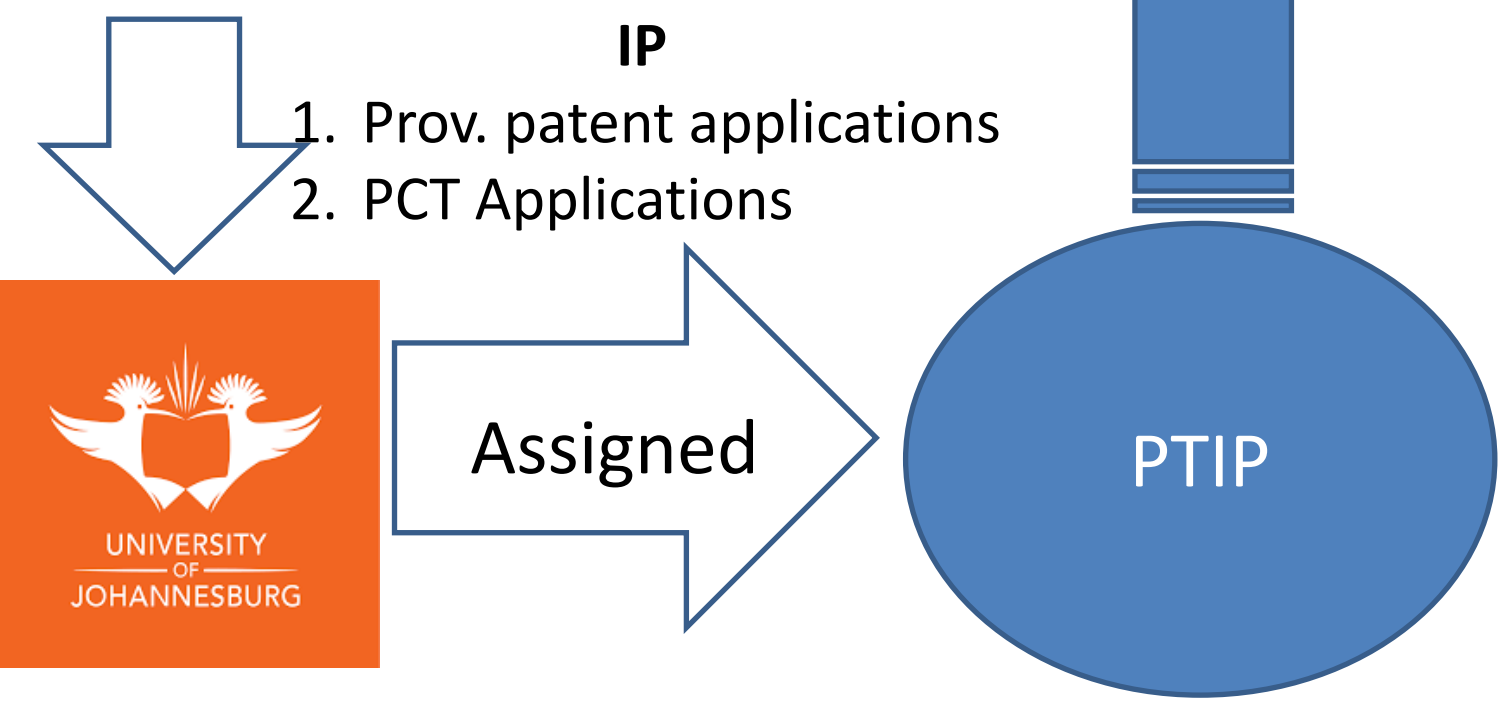
Thin film solar - UJ

REPUBLIC OF SOUTH AFRICA

PATENTS ACT, 1978

PROVISIONAL SPECIFICATION
(Section 30 (1) - Regulation 27)

OFFICIAL APPLICATION NO.	LOGGING DATE	DMK REFERENCE
21 04 2003/631622	14 August 2003	P27103ZA00



(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 February 2005 (24.02.2005)

PCT

(10) International Publication Number
WO 2005/017978 A3

(51) International Patent Classification?: **H01L 31/032**, 31/18

(21) International Application Number:
PCT/IB2004/051458

(22) International Filing Date: 13 August 2004 (13.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003/6316 14 August 2003 (14.08.2003) ZA
2004/2497 30 March 2004 (30.03.2004) ZA

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(75) Inventor/Applicant (for US only): **ALBERTS, Vivian**

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(74) Agent: **D M KISCH INC**; P O Box 781218, 2146 SANDTON (ZA).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

- Inventorship
- Ownership – inventor had been working on invention for many years – multiple universities – multiple funding sources – different countries
- Ownership – within consortium
- Royalty payments to the Innovation Fund

Patents / Trademarks

An Example – Eyeborn, orbital implant

Eyeborn – Restored Quality of Life for the Visually Impaired

by

W B du Preez¹, P W Richter¹, D Hope¹ and C Kotze²

1: CSIR Materials Science & Manufacturing, e-mail: wdupreez@csir.co.za, Tel: 012 841 4955

2: Cerdak (Pty) Ltd, Mtunzini, Kwa-Zulu Natal

Abstract

Eyeborn[®] is an innovative hydroxyapatite orbital implant used to replace the eyeball of a patient who has lost an eye. A prosthetic eye cap is fitted in front of the Eyeborn[®] implant, restoring the patient's appearance and improving his quality of life. The product was developed with funding from the South African Innovation Fund.



(a)

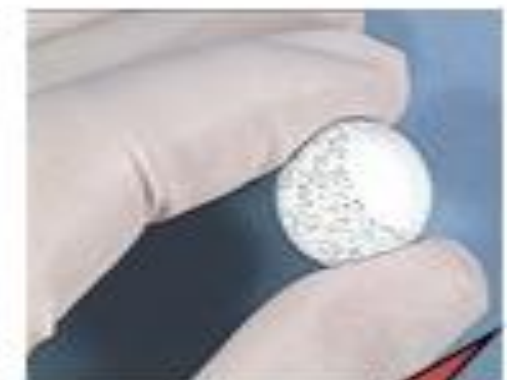
(b)

Fig. 5: A patient before (a) and after (b) having received an Eyeborn[®] implant

Case Studies

Commercialisation – Eyeborn Orbital Implant

IP: Patents, design registration, trademark



Manufacturing

IP development,
protection

Royalties and CE Mark



Technology Transfer
and Manuf. License

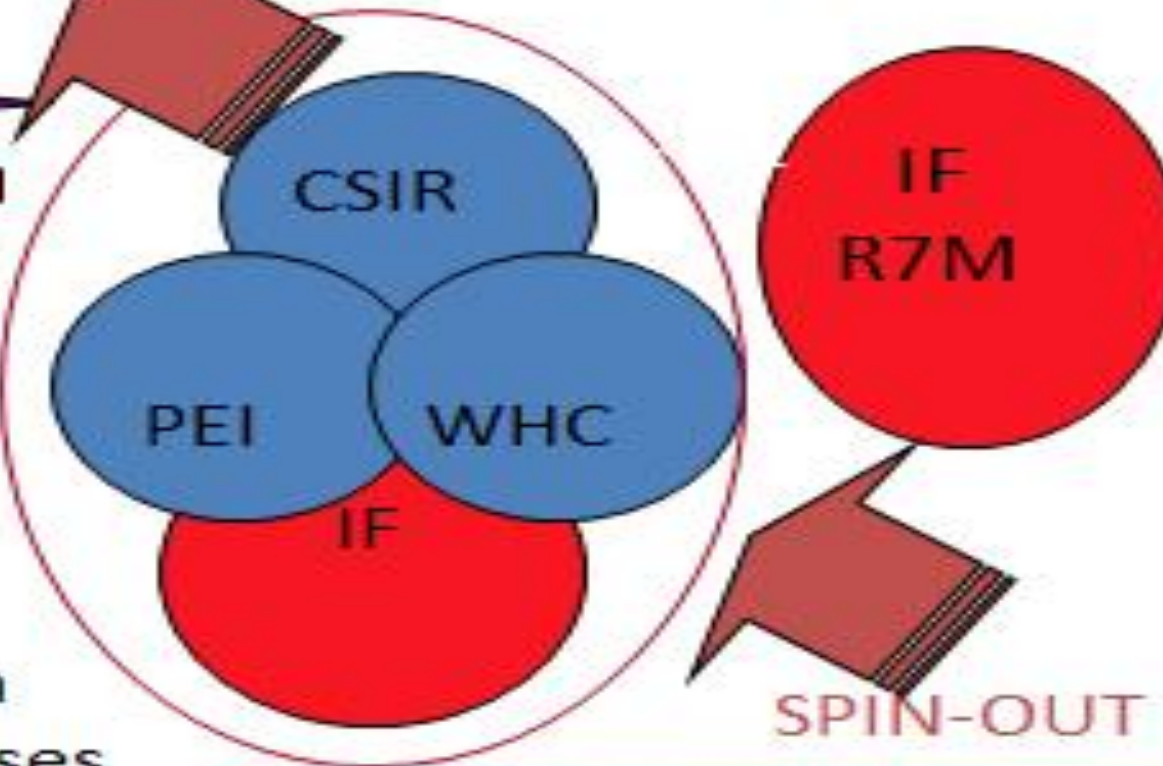
Royalties

Product

R



Distribution
Agreement with
Performance clauses



Marketing
and
distribution



EYEBORN

Patents / Trademarks / Utility Model / Plant Breeders

An Example – Cassava Processing



- **Problems in cassava flour processing**
- **PCT Patent application WO2012003225A1 – a process for producing a low cyanide, high fibre cassava with <less than about 10 mg HCN equivalents/kg**
- **Process for making the flour**
- **Flour with low cyanide levels**
- **New Plant Varieties – drought resistance / fast growing, etc.**

Patents / Utility Models

An Example – Skincare and Beauty (Moringa)

- **Miracle tree**
- **Products: tea, oil,**
- **China patent CN104586707A (Fresh moringa oleifera leaf liquid skin care product and preparation method thereof)**
- **Preparation method of fresh leaf of Moringa liquid skin care**
- **Product**



Patents

An Example – Moringa Skincare liquid – What is patented?

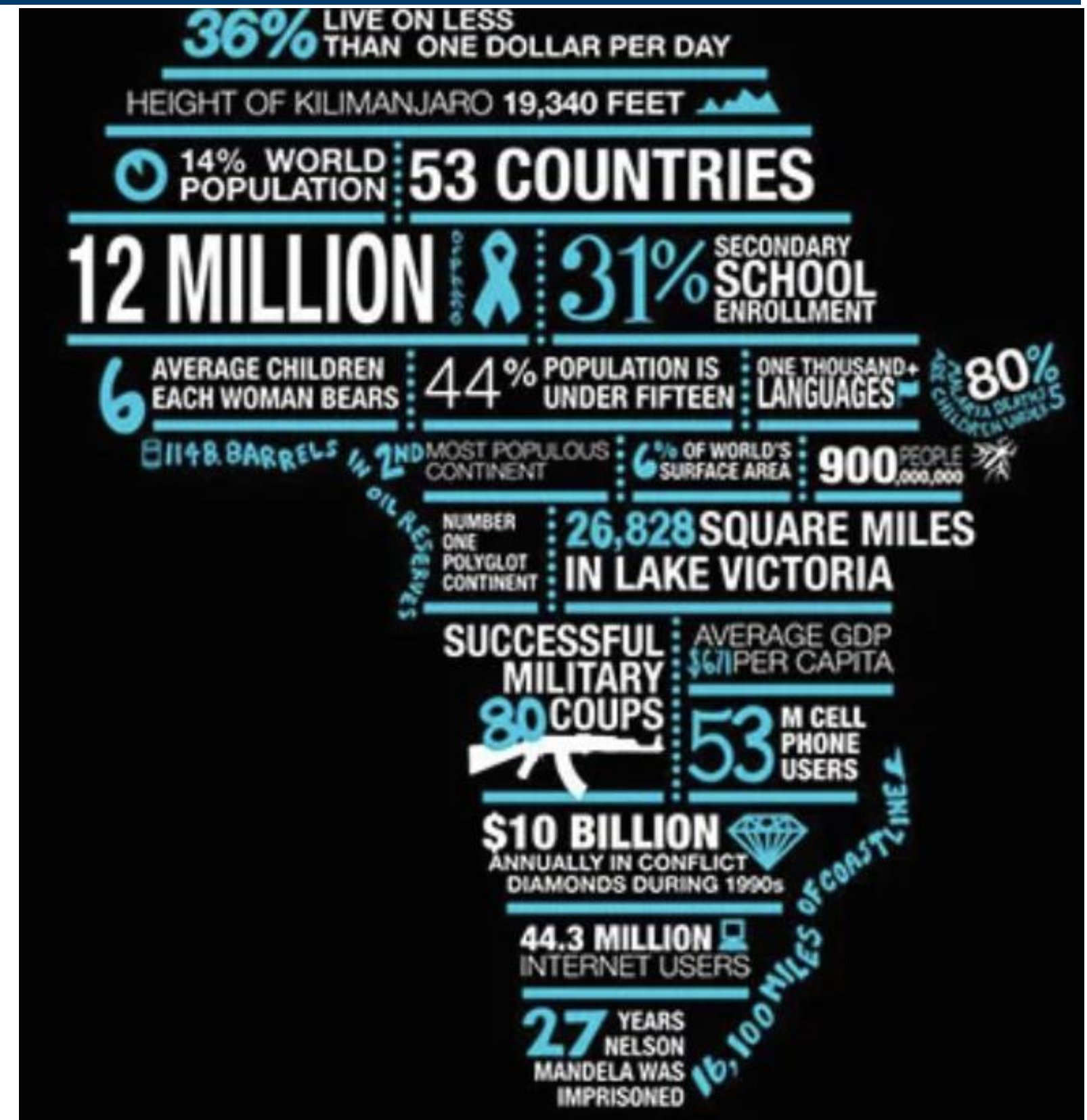
A preparation method:

- Clean fresh leaf of Moringa
- juice extractor in ratio of 1:1 ~ 3 fresh Moringa and water; and then filter juice
- Refrigerate juice 5-10 °C, leave standstill for < 3hrs
- juice can be divided into two-layer, and upper strata is milk yellow liquid, and lower floor is green liquid
- Bottle upper strata yellow liquid, sealing, sterilizing obtain natural fresh leaf of Moringa facial treatment milk;



Concluding Remarks

- IP is about business - to protect or not to protect is a business decision
- Multiple forms of IP possible in any business
- IP is like insurance: in case of success, and to position a business for success
- ARIPO protocols provide an enabling environment, predictability and certainty
- IP Offices have to be catalyst for identification, protection and use of IP to drive business growth



“We shall accumulate machinery and establish steel works, iron foundries and factories;
We shall link the various states of our continent with communications;
We shall astound the world with our hydroelectric power; we shall drain marshes and swamps, clear infested areas, feed the undernourished, and rid our people of parasites and disease.

It is within the possibility of science and technology to make even the Sahara bloom into a vast field with verdant vegetation for agricultural and industrial developments.”

– President Kwame Nkrumah - at the foundation summit of the Organization of African Unity, Addis Ababa, 24 May 1963



Thank You



Link for *Footprints* Kindle edition, on Amazon, is: <https://amzn.to/3Aedka8>

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