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| MEMORANDUM FROM THE PARLIAMENTARY OFFICE |

**NATIONAL ASSEMBLY**

**FOR WRITTEN REPLY**

**QUESTION 1344**

**DATE OF PUBLICATION OF INTERNAL QUESTION PAPER: 22/04/2022**

**INTERNAL QUESTION PAPER NO 14 OF 2022**

**Dr W J Boshoff (FF Plus) to ask the Minister of Higher Education, Science and Innovation:**

(1) With reference to his reply to question 933 on 4 April 2022, what total number of patents have been registered by the Council for Scientific and Industrial Research (CSIR) in the past two decades for which information is available in the field of (a) water technology and (b) process engineering;

(2) what total number of scientists have been (a) working at the CSIR annually in the past two decades for which information is available and (b) specifically working on water-related technology and/or solutions for each of the specified periods for which information is available;

(3) what total number of (a) patents have been registered in each year in the past two decades for which information is available and (b) those technologies have been successfully commercialised and implemented (i) inside and (ii) outside the Republic? **NW1604E**

**REPLY:**

1. Number of patents registered over the past 2 decades in the field of (a) water technology and (b) process engineering:

The response from the CSIR is that it has registered 883 patents over the last two decades. However, the information was not disaggregated into water technology and process engineering.

1. Number of scientists working at the CSIR annually for the past 2 decades.

(a)

|  |  |  |  |
| --- | --- | --- | --- |
| **Financial year** | **No. of Scientists** | **Financial year** | **No. of Scientists** |
| 2002 | No data | 2012 | 1537 |
| 2003 | No data | 2013 | 1578 |
| 2004 | No data | 2014 | 1691 |
| 2005 | No data | 2015 | 1869 |
| 2006 | No data | 2016 | 1969 |
| 2007 | 1490 | 2017 | 1966 |
| 2008 | 1512 | 2018 | 1850 |
| 2009 | 1551 | 2019 | 1608 |
| 2010 | 1547 | 2020 | 1367 |
| 2011 | 1560 | 2021 | 1474 |

(b) Number of scientists specifically working on water related technology and/or solutions each of the periods

The CSIR doesn’t have data in this level of details.

1. What number of:
   1. Number of patents registered each year at the CSIR for the past two decades:

|  |  |  |  |
| --- | --- | --- | --- |
| **Financial year** | **No. of Patents** | **Financial year** | **No. of Patents** |
| 2002 | 25 | 2012 | 55 |
| 2003 | 39 | 2013 | 29 |
| 2004 | 30 | 2014 | 41 |
| 2005 | 24 | 2015 | 59 |
| 2006 | 37 | 2016 | 87 |
| 2007 | 30 | 2017 | 43 |
| 2008 | 50 | 2018 | 48 |
| 2009 | 51 | 2019 | 46 |
| 2010 | 30 | 2020 | 76 |
| 2011 | 58 | 2021 | 25 |
| **Total** | **374** | **Total** | **509** |

* 1. Technologies successfully commercialised and implemented in (i) South Africa and (ii) outside South Africa in the past 4 decades.

Over the past four decades, the CSIR has entered into commercialisation agreements with over 100 entities. Depending on the technology and the commercial partner, these agreements have provided various exploitation rights such as domestic, foreign or worldwide commercialisation rights. Among the various technologies/products successfully commercialized include:

* Umbiflow
* Heavy vehicle simulator
* Qfrency
* Eucalyptus material
* High performance node
* In-shell pasteurization of eggs
* MEME
* Corocam
* BioFizz
* BioFloc
* BioActive
* Aloesin