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**CSIR/TIA/DSI Industrial Biocatalysis HUB (IBH)**

**Call for Expression of Interest (EoI)**

**Product and process development support to Enterprises**

**Invitation**

The IBH is a CSIR ([www.csir.co.za](http://www.csir.co.za))/TIA/DSI initiative to provide technical product and process development support to Enterprises in the biomanufacturing sector using Biocatalysis technologies, with the aim of creating and expanding biocatalysis capacity and uptake in the biomanufacturing industry.

The current EoI call is targeted at SMMEs entering the biocatalysis sector as well as established companies to grow and expand biomanufacturing capacity to meet market demands. Biocatalysis entails the use of enzymes and microorganisms to develop processes to produce products such as industrial biologics, biopharmaceuticals and bio-veterinary compounds, flavours and fragrances, food additives and extraction of natural compounds from plants which can be used in the formulation of dietary supplements, nutraceuticals, food and feed products and cosmetics. This initiative is aligned with the National Bio-economy Strategy of the Department of Science and Innovation which aims to drive economic growth and socio-economic development in South Africa.

**(Note: purchasing of equipment for enterprises or direct monetary support of enterprises is not provided for in this call.)**

1. **The CSIR/TIA/DSI Industrial Biocatalysis Hub**

The Department of Science and Innovation (DSI) has identified Biocatalysis as one of the key enabling technologies to support the development of a sustainable industrial bio-economy sector in South Africa. The DSI in partnership with the Technology Innovation Agency (TIA) awarded the IBH to the CSIR. The CSIR’s strategy focusses on industrialisation of technology and finds strategic alignment with the IBH objectives. Biocatalysis R&D and commercialization is an important focal area within the CSIR Chemical Cluster.

The Biocatalysis Group in the Chemicals Cluster has extensive research and development experience which resulted in complete technology demonstrators and technology packages for implementation in industry. Besides the Biocatalysis research group, the demonstration of developed technologies can be linked to the Biomanufacturing Industry Development Center (BIDC) in the CSIR. This facility on the CSIR campus offers bioprocess development infrastructure from laboratory to pilot scale, including upstream reactors from 1 L to 1000 L, as well as the necessary downstream processing, formulation and analytical support for process development.

The key objectives of the IBH are:

* Coordination and support of the country’s Biocatalysis industrialization activities
* Selection and support of Nodes to support Biocatalysis activities and capacity building
* Embarking on collaborative projects with Enterprises to localize and develop technology in Biocatalysis for implementation on commercial scale

The IBH has been capacitated with funding to offer the following:

* Utilisation of CSIR infrastructure and skilled human resource support (scientists, technologists, process engineers) related to Biocatalysis and Biomanufacturing
* Technology development, technology validation, scale-up support and techno-economic analysis
* Bio-based product development, formulation, and labelling/ packaging
* Mentoring and training in manufacturing skills.
* Expert Analytical support and method development (eg. UPLC-MS, GC and NMR)
1. **Submission requirements**

To apply, please complete the attached EoI form and e-mail the PDF versions of completed forms, CV’s, BBEEE certificate /affidavit and proof of CIPC registration to ibh@csir.co.za .

Please use the following naming convention for attached documents:

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| **Application:** | **CV’s, Certificates etc**: |
| Name of Enterprise\_EOI- May 2021 | Name of Enterprise\_CV Jane Smith\_May\_2021, Name of Enterprise\_CIPC proof of registration\_ May\_2021 |

The ability to co-fund this application and commitment to transformation will be an advantage.

**Exclusionary Criteria:**

* EoIs will **NOT** be considered if they do not involve Biocatalysis and is not planned to be implemented commercially.
* Enterprise not registered with the CIPC (proof of CIPC registration must be provided with the application or be excluded from the process)
* Applications not accompanied by a BEE certificate or affidavit will be excluded
* Applications not accompanied by CV’s will be excluded
* Applications sent to any e-mail address other than ibh@csir.co.za will be excluded

**Applications will be accepted until programme capacity has been reached and this round closes on 29 March 2024. Please submit at your earliest convenience to avoid disappointment.**

**For more information please contact:** Lara Kotzé-Jacobs

E-mail (ibh@csir.co.za) **Terms and conditions apply.**

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**CSIR/TIA/DSI Industrial Biocatalysis Hub (IBH)**

**Expression of Interest proposal**

***Successful bidders may be invited for a more detailed interview***

**Please e-mail PDF versions of completed submission forms to:** ibh@csir.co.za **.**

**Expression of interest round closes 29 March 2024 or when programme reaches capacity. Submit at your earliest convenience.**

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| **Enterprise name:** |  |
| **CIPC registration number:** |  |
| **Contact person(s):** | **Name and surname:****Position in enterprise:** |
| **Contact details** | **E-mail:****Landline:****Cell number:****Physical address of enterprise:****Postal address of enterprise:** |
| **Ownership arrangement** |  | Demographic | Gender |
| Black | White | M | F |
| **Directors/members** |  | Attach CIPC registration certificate |
| **Years in business** |  |
| **Annual Revenue**  |  |
| **Number of current employees** | Permanent:  |  | Temporary: |  |
| **Applicable industry sector:**(E.g. nutraceuticals (food, beverages etc), industrial (e.g. speciality chemicals), cosmetic, flavours and fragrances, biopharmaceuticals, veterinary products/technologies etc.). |  |
| **BBEEE status level** |  | Attach BBEEE certificate/ or affidavit |
| **Date of application:** |  |

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| 1. **Specify the project you are interested in for research and development using Biocatalysis and what support you would require from the Hub. Be as specific as possible.**
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| **2. Describe your core business and whether you are currently manufacturing and/or selling products. Provide your current turnover.** |
| **Core Business:****Current status of manufacture and scale at which manufacturing:****Current turnover:** |
| **3. Describe the market need addressed by your product/processes and the potential market size (try and be as specific as possible)** |
| **Market Need:****Market Size:****Route to market (identified or already in place?):** |
| **4. Describe the technology or product(s) you wish to manufacture and what differentiates it from competitor technologies/products.** |
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| **5. What is the expected development time to market?** |
| **What R&D has been done on the technology?****What is the expected time to market?****Do you own the technology or have you licenced it and from whom?** |
| **6. Please indicate the potential social and economic impact of the proposed development.** |
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| **7. Please list all sources and value of funding/support received to date.**  |
| **Source** (E.g. TIA, IDC, Government, venture capital, incubator support etc.) | **Programme** | **Nature of support** (funding/training/mentorship etc.) | **Value of support if known** | **Period of support** |
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| **8. If successful, will you co-fund the proposed project? Indicate source and amount of funding.** |
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| **11. Please attach short resumes/CV’s (1/2 page each) of key personnel in your enterprise** |

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| **12. Team composition (both business/technical management; if not identified, proposed):***List your team: What is the team’s background, expertise & experience (business & technical)* |
| **Name** | **Highest academic qualification** | **Position in proposed entity** | **Previous business management/technical positions/experience** | **Previous experience in proposed business area** |
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| **13. Please disclose any engagements or agreements you have with the CSIR regarding the proposed technology.** |
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