



CoPPICom

IP Management Tool for Leveraging Technology Transfer & Commercialization

Dr B K Sahu, NRDC India

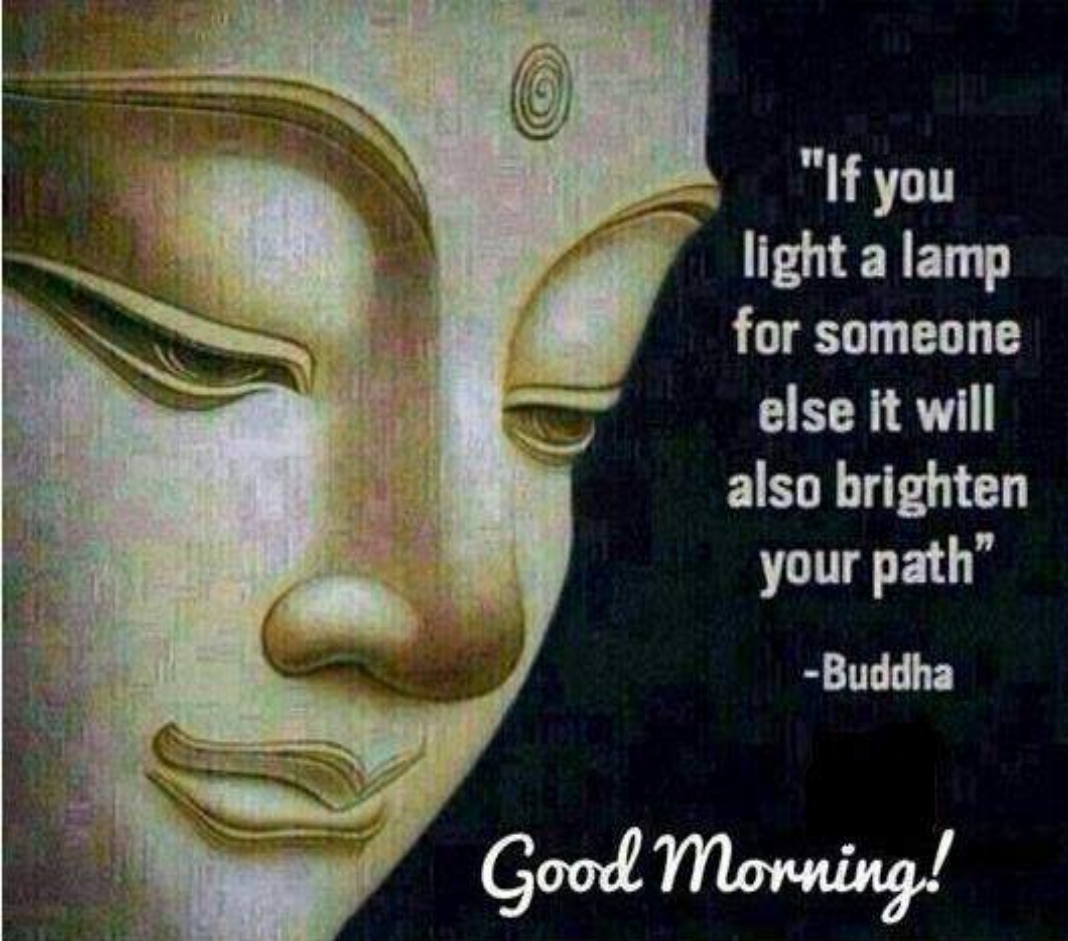
A CoPPICom conta com apoio do Danida Fellowship Centre e do Ministério das Relações Exteriores da Dinamarca. O financiamento foi concedido por meio do Danida Fellows Networkers Grant 2025.

Apoio:



Financiamento:





Celebrating **16th JAN, 2025**
NATIONAL STARTUP DAY



“India becoming an
‘Innovation hub’ is a
symbol of the fact
that we are not going
to stop”

- An Excerpt from Mann Ki Baat

Shri Narendra Modi
Hon'ble Prime Minister



“Education Disseminates Known Knowledge, Research Converts Money into Knowledge, Innovation Convert Knowledge into Money;- **Dr R A Mashelkar, Former DG CSIR & Secretary DSIR, Govt of India**

“The illiterate of the 21st century are not those who cannot read and write, but those who cannot learn, relearn, co-learn and unlearn”- **Alvin Toffler**

EXPRESS OPINION

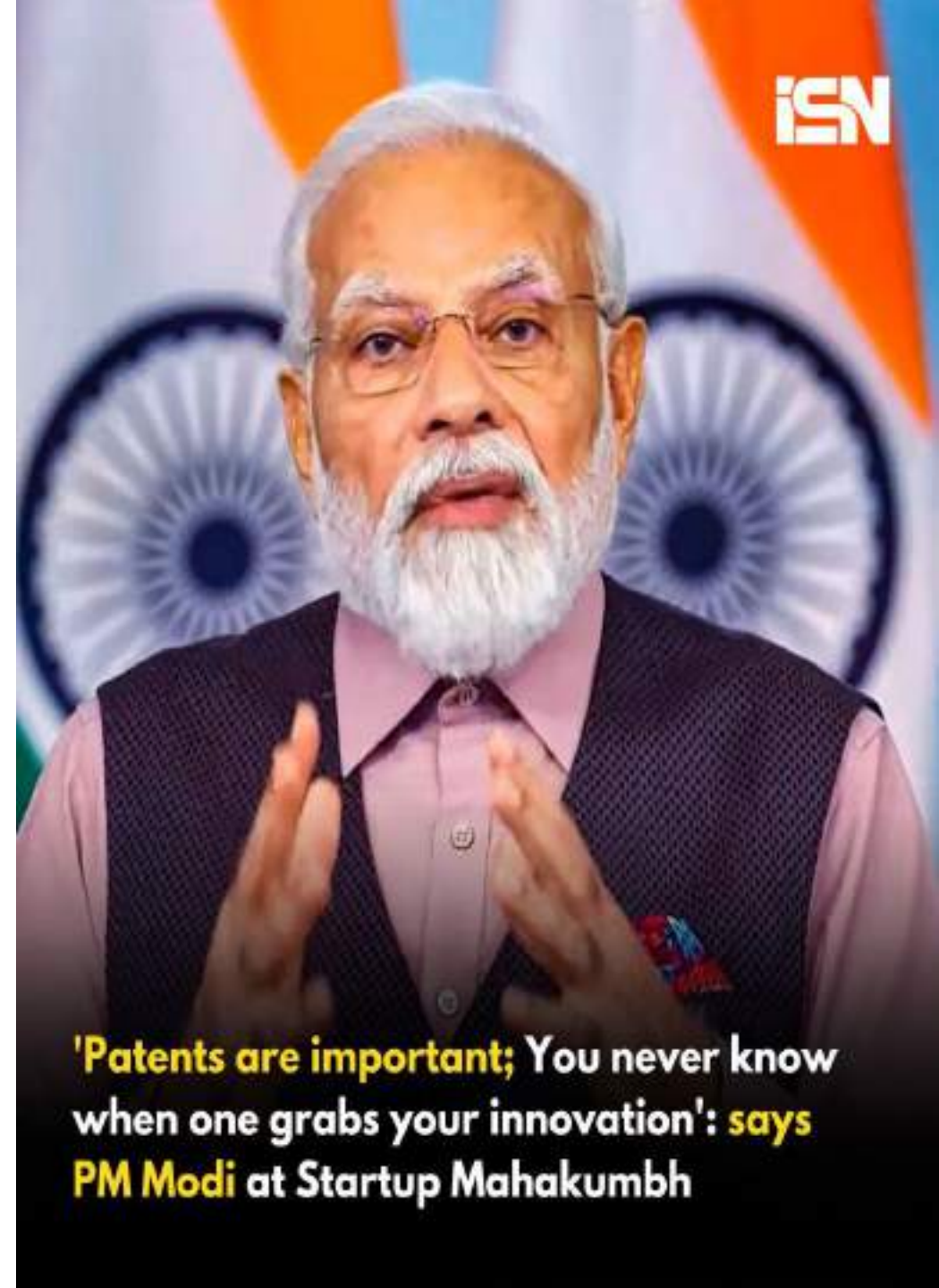
BECAUSE THE TRUTH INVOLVES US ALL

EDITORIALS

COLUMNS

How India can become the world's leading startup ecosystem*Favourable policies, a thriving culture of innovation, and collaborative efforts across sectors provide the foundation for scaling startups into global enterprises.*

Driving Innovation Through IP India produces approximately 24,000 PhD graduates annually, driving advancements in science and engineering with more than 15 lakh engineering graduate. However, the country paid **\$14.3 billion in IPR royalties in 2024**, while earning only **\$1.5 billion**, highlighting a significant gap.



'Patents are important; You never know when one grabs your innovation': says PM Modi at Startup Mahakumbh

Innovation – *the true definition*



More
from **Less**
for **More**

Gandhian Innovation



Dr. RA Mashelkar





Ritesh Agarwal Journey

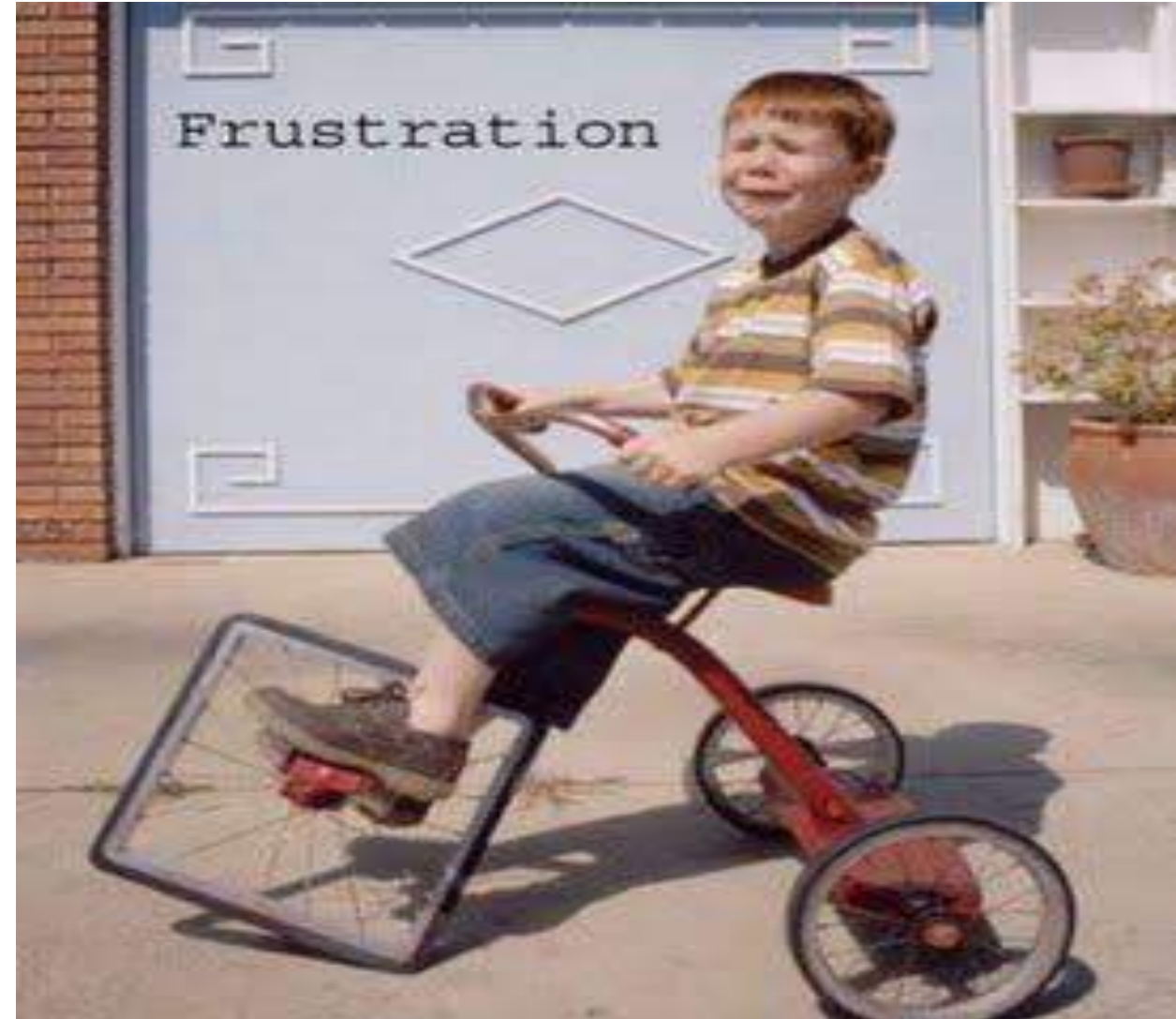
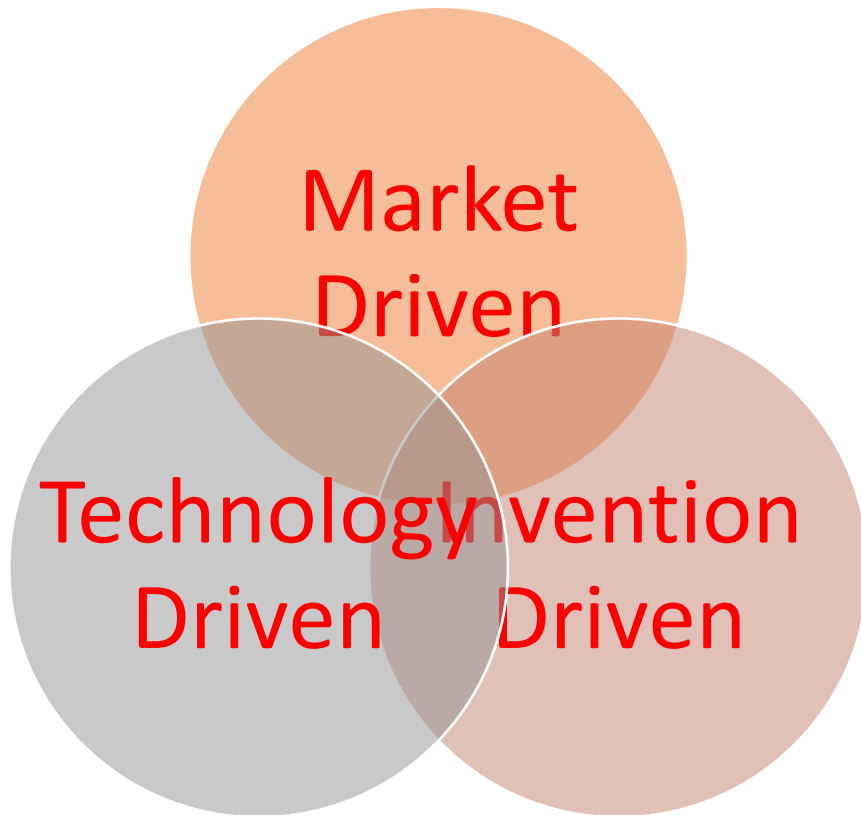
**CEO Of India's Biggest
Hotel Chain OYO**

- First Asian to win “20 Under 20” awarded Thiel Fellowship, 2013.
 - Top 50 Entrepreneur (TATA First Dot Awards, 2013)
- 8 Hottest Teenage Start-Up Founders (Business Insider, 2013)
 - Youngest CEO at 17 (acknowledged at 16)
- TiE-Lumis Entrepreneurial Excellence Award (2014)
 - Forbes "30 Under 30" (Consumer Tech)
- Business World Young Entrepreneur Award

Technology Transfer and Commercialisation of 'HSP Subunit Vaccine in Adjuvant (DDA) against *Mycobacterium Tuberculosis*' – the Next Gen TB Vaccine : *Innovation for Nation Building*



Innovation



NAVRAKSHAK-PPE Technology – Innovation Translation for Mitigating Pandemic

More than 12 MSMEs & start-ups for commercial production user-friendly PPE named **NavRakshak** begin. Developed by a **Dr. Arnab Ghosh** at Indian Navy. The PPE fabric does not require lamination with polymer or plastic. This makes the PPE permeate heat and moisture from the skin of the user

The technology know-how transfred to *M/s Greenfield Vintrade Private Limited (Kolkata), Vaishnavi Global Private Limited (Mumbai), Bharat Silks (Bengaluru), Sure Safety (India) Limited (Vadodara) and Swaps Couture (Mumbai)* and others . They are produce more than 10 million PPEs per annum.



IPR: Bridge between Academia & Industry



"IPR"



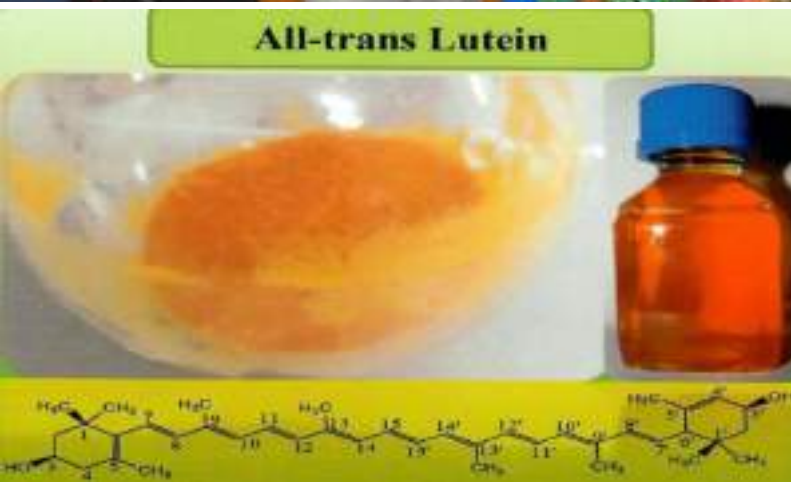
Act as Catalyst



IP Issues in Technology Transfer

Patent App (IN) 201641017567A EP- 3246311A1

Lutein from Marine Cholorophycean Algae



Confidence + Loyalty+ Trust

IP: Creating Value & Extracting Value



Exchange of Technology Licensing Agreement between
Ms Clean-chart Tech Private Limited - NRDC & CSIR-IMMT on
 Potash Enriched Biochar from Waste Biomass

Date - 12.08. 2025



ANWESHA ROUT
 DIRECTOR



REENA BEHERA
 DIRECTOR



PURAVI SATPATHY
 DIRECTOR



President, CSIR



One-Day Awareness Program
(Under MSME INNOVATIVE SCHEME)

INTELLECTUAL PROPERTY RIGHTS

Jointly Organized by

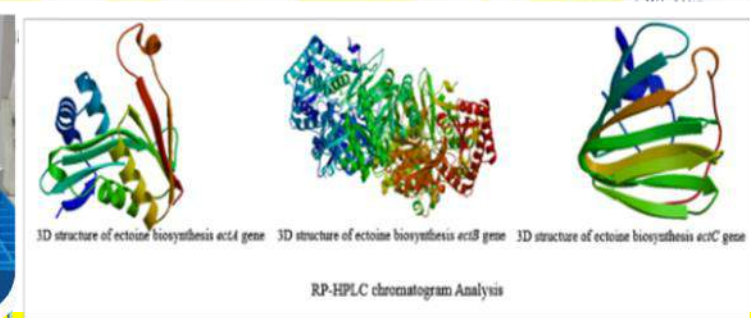
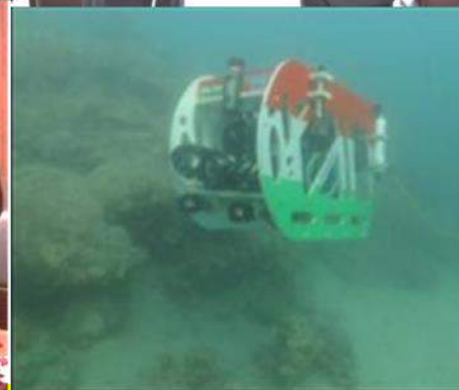
MSME Development Facilitation Office
(MSME-IPR-IMNT), Bhubaneswar

CSIR-Institute of Minerals & Materials Technology
(IR-IMMT), Bhubaneswar



Vice-President, CSIR





NRDC-SUCCESS STORIES OF GREEN TECHNOLOGIES TOT

Brevibacterium sp. (COD27)

Biosurfactant powder

Ectoine

CT CONTROL TECHNOLOGY (INDIA) Pvt. Ltd.
leaders in low level signal measurement

ROBO COASTAL OBSERVER

FEATURES

- GPS
- 5 Km/hr
- Autopilot
- HD camera
- Flash lights
- 5 hrs runtime
- Real-time data

APPLICATIONS

- Rapid Ocean Data Collection
- Fisherman's companion
- Lifeguard functionality
- Water Quality Monitoring
- Measuring Nuclear Radiation

Support Startup under TDVC : M/s Adiuvo Diagnostics Pvt. Ltd.



The funding was utilized to advance an integrative wound assessment multispectral imaging device, combining tissue oxygenation for AI-Based integrative assessment of diabetic foot ulcers and wounds. This innovation enables a comprehensive wound monitoring mechanism, marking a significant step forward in healthcare technology.



The Balance !

Everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.

and

Everyone has the right to share in scientific advancement and its benefits.

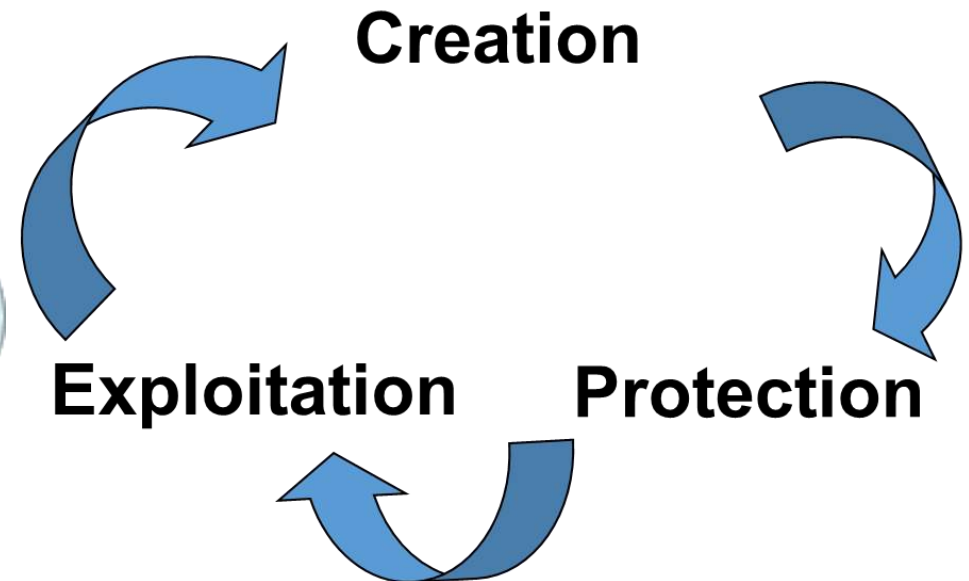
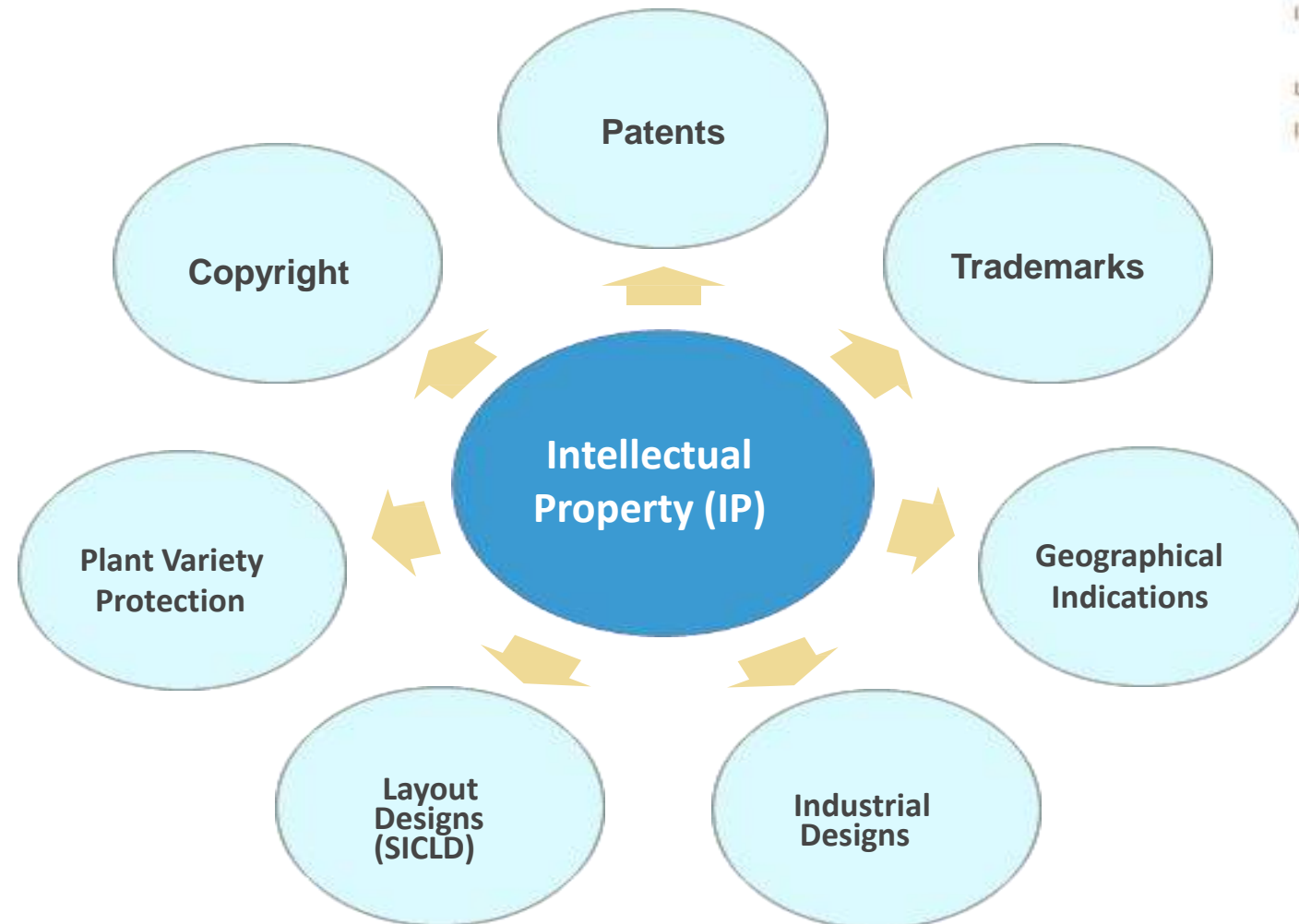
Article 27

(Universal Declaration of Human Rights, 1948)

INTELLECTUAL PROPERTY

Intellectual Property Rights give

- ❑ Legal rights to the creation of mind
- ❑ Art and Inventions
- ❑ Regulates existence of ownership and transmission of rights
- ❑ Ensure Incentives
- ❑ Guarantees credit and recognition



IP & Value Creation

Why to Promote & Protect IP?

**Commercial Commodity?
Commercialization?**

Valuable Business Asset?

**Benefit Sharing &
Sustainability**

IP - Instills Stakeholders

Confidence

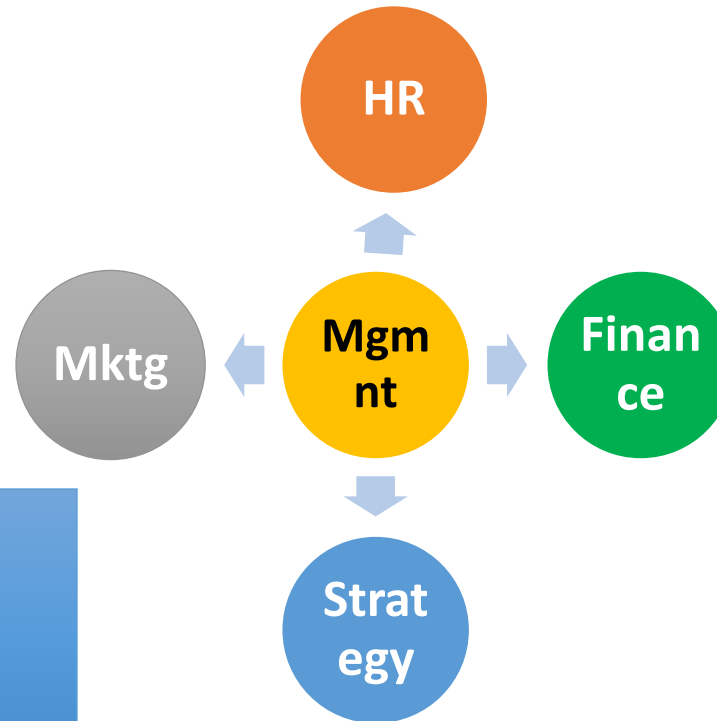
Loyalty

Trust

Integrating IP into Institutions

- Brand Building
- Use of goodwill in business
- Brand positioning

- Capacity Building
- Training in IP



- In competitive advantages
- Building patent portfolio
- For mergers & acquisitions

- IP Valuation in balance sheet
- IP Securitization
- IP Monetization

Innovation Commitment: Role of Leadership

“For 2024, we have a lot more exciting initiatives and socially relevant projects that would greatly benefit the nation. We are looking at closing this financial year (31st March 2024) with 366 patents. We will try our best to see one patent a day. It is a matter of great pride at IIT Madras that we do a lot more of innovation. We are also looking at starting 100 start-ups in 2024”



Prof. V. Kamakoti
Director, IIT Madras



Benefiting Society and the Economy

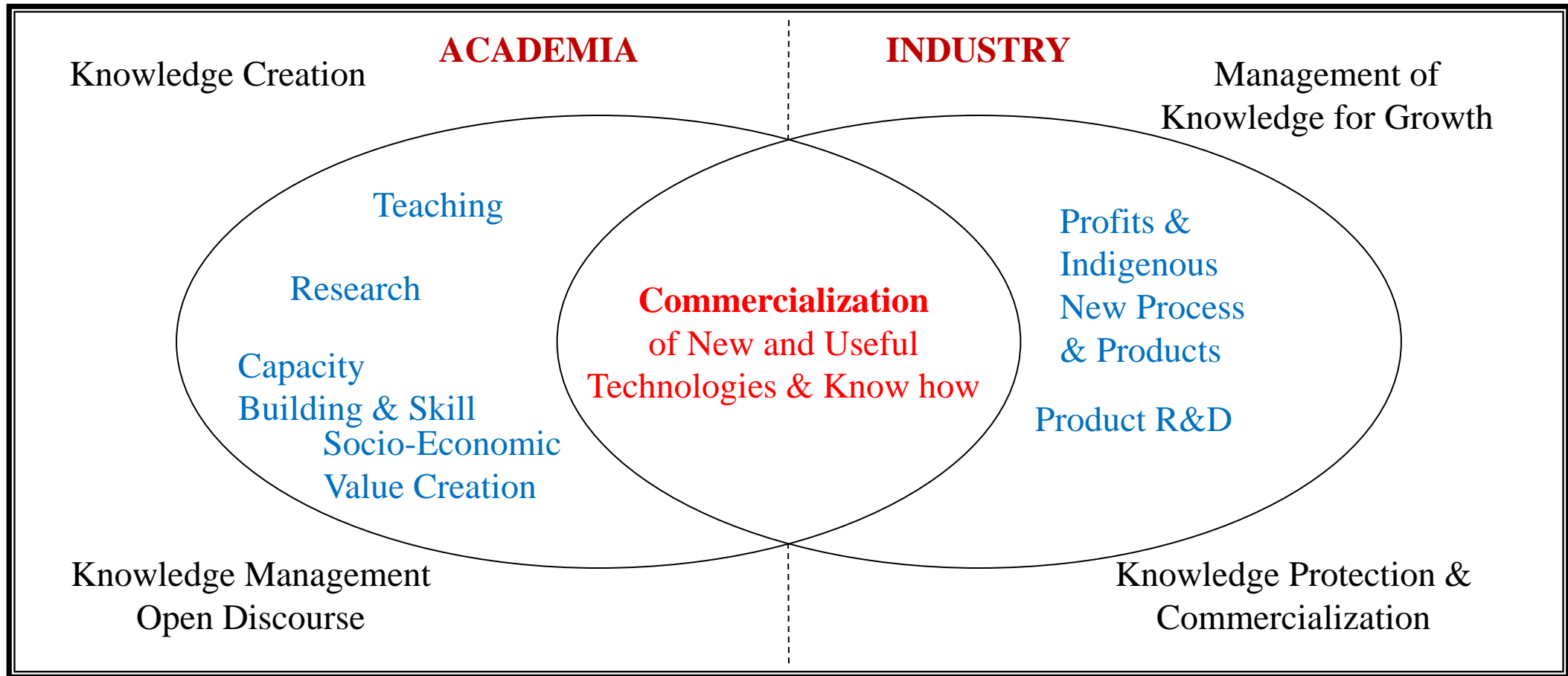
Academic Technology Transfer For 2021



University R&D Interaction with Industry

- *Sponsored / collaborative research* - long term, in basic and applied areas
- *Consultancy* - to solve immediate problems / needs
- *R&D Partnership* - to build capability in emerging areas
- *Technology Transfer / Incubation* - commercialisation of innovations

Academia & Industries Collaboration: Common Goal & Objectives under Self Reliant India

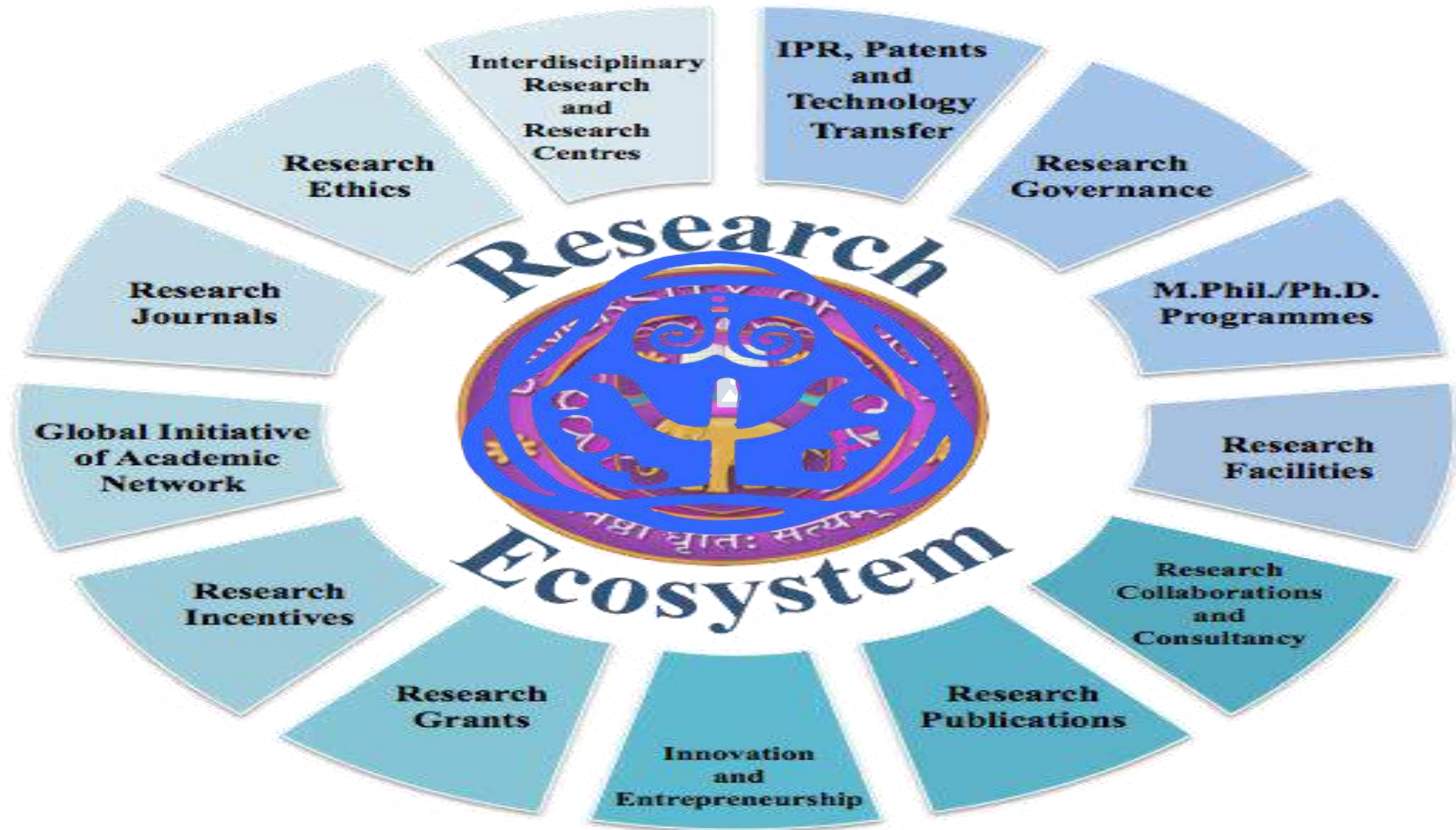


Institutional Policy for Intellectual Property Management in Academia & R&D Institutes

- Ownership
- Encouraging Entrepreneurship and Start-ups
- Transfer of ownership
- Rights and obligations of faculty & reserachers
- Rights and obligations of the Institute
- Social & ethical value
- Royalty sharing or Benefit Sharing
- IP Waivers

(MODEL GUIDELINES ON IMPLEMENTATION OF IPR POLICY FOR ACADEMIC INSTITUTIONS (DPIIT, Govt of India)

Research, IP & Innovation in University Ecosystem



University Interaction with Industry

- *Sponsored / collaborative research, grant in aid & sponsored* - long term, in basic and applied areas
- *Consultancy* - to solve immediate problems / needs
- *R&D Partnership* - to build capability in emerging areas
- *Technology Transfer / Incubation* - commercialisation of innovations





75
Azadi Ka
Amrit Mahotsav



Department of Scientific and
Industrial Research
Ministry of Science & Technology
Govt of India

Proud partner of
WIPO GREEN

TECHNOLOGIES AVAILABLE FOR TRANSFER AND COMMERCIALIZATION

PROMOTING WOMEN LED TECHNO-ENTREPRENEURSHIP THROUGH INNOVATIVE TECHNOLOGIES

“ नारी तू नारायणी ”

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Shri Sumit Swain

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Scan for Technology Details



NATIONAL RESEARCH DEVELOPMENT CORPORATION
[An Enterprise of DSIR, Min. of Science & Technology, Govt of India]
(PROMOTING INNOVATION TRANSFORMING LIVES)



NRDC exchanging MoU with OASME in the august presence of Hon'ble Governor of Odisha, Shri Raghuraj Das, Minister of Industries, Skill and Minister of MSME, Govt. of Odisha respectively, Principal Secretary Industry & MSMEs, CMD, NSIC and other distinguished dignitaries and industries leaders during OASME Annual Summit at Bhubaneswar.

NRDC and OASME join forces to support MSMEs, industries, and start-ups at OASME Summit 2024

In a landmark event for the micro, small, and medium enterprises (MSME) sector, the National Research Development Corporation (NRDC) and the Odisha Assembly of

Small and Medium Enterprises (OASME) have signed a Memorandum of Understanding (MoU) aimed at bolstering support for MSMEs, industries, and start-ups in the domains of intellectual property (IP) and technology transfer. The MoU was exchanged in the esteemed presence of Hon'ble Governor of Odisha, Shri Raghuraj Das, during the OASME Summit 2024 held at Bhubaneswar.

The summit, which took place on 12 August, was inaugurated by Governor Shri Raghuraj Das. The event saw the participation of key figures including the Minister of State (Independent Charge) for Industries, Skill Development, and Technical Education, Shri Sampad Chandra Swain; the Minister of State (Independent Charge) for Micro, Small, and Medium Enterprises, Shri Gokulnanda Mallik; and the Principal Secretary of Industry and MSME, among other distinguished dignitaries.

The MoU aims to enhance collaboration between NRDC and OASME, focusing on improving the capabilities of MSMEs through better access to IP management and technology transfer mechanisms. This strategic partnership is expected to provide substantial support to emerging entrepreneurs and established businesses, fostering innovation and growth within the sector.

Technological Innovation: Key Players

Academia-Industries-Government

An Overview



Inventor



IPO



Commercial Entities

Net royalty income/equity
Invention disclosure & assignment of rights

Issued patent

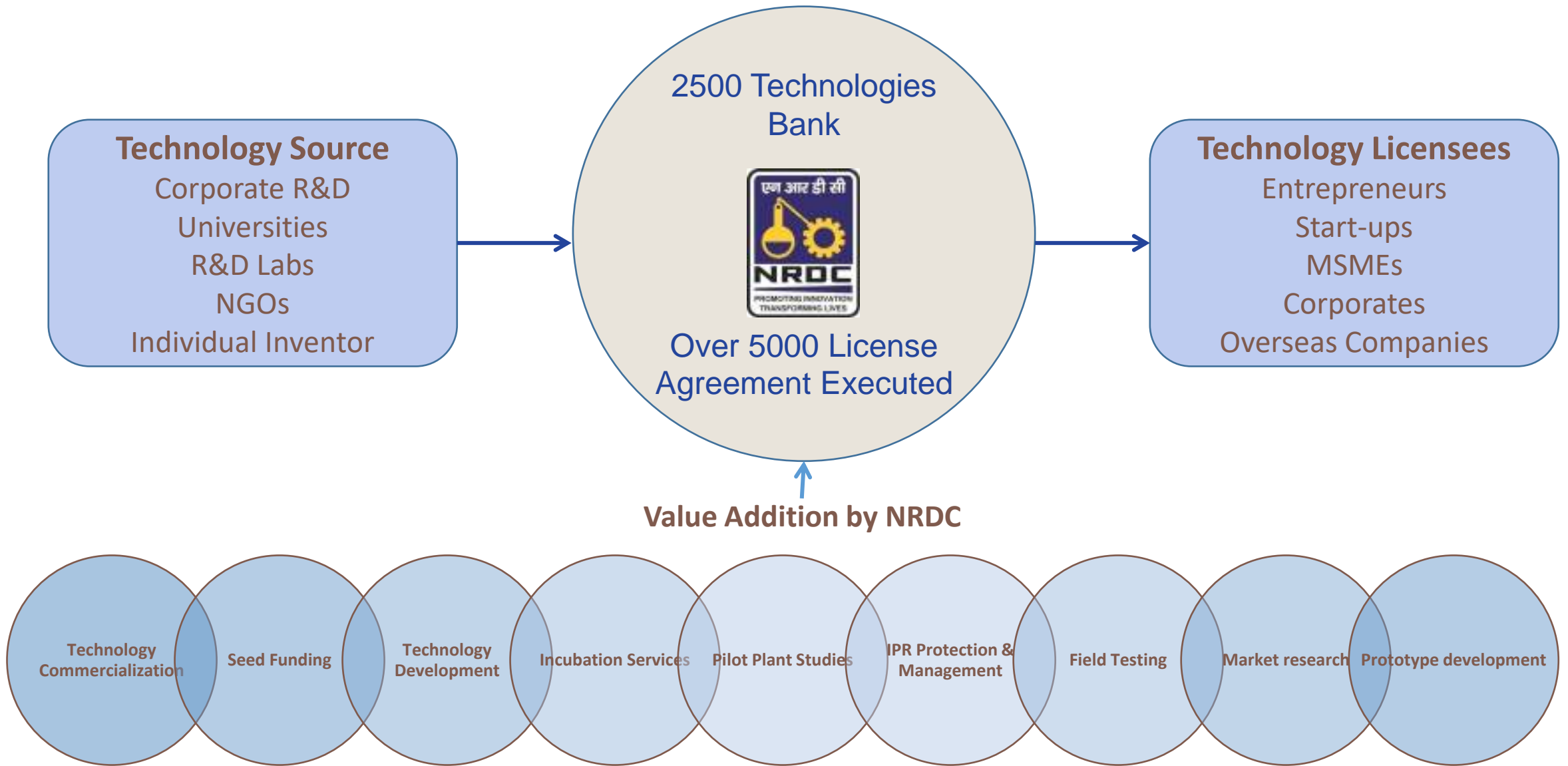
Patent application

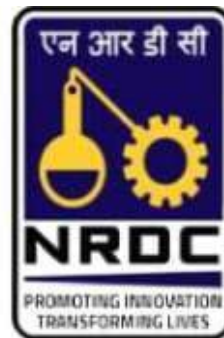
Royalties/equity
License agreement



NRDC

NRDC: Bridging the GAP – Academia-Industries





NATIONAL RESEARCH DEVELOPMENT CORPORATION

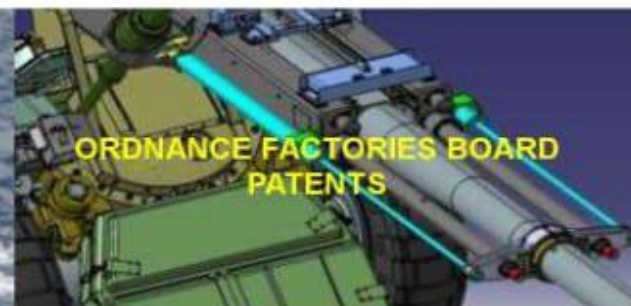
Role & Impact of IPR & Technology Transfer & Commercialization for Self Reliance



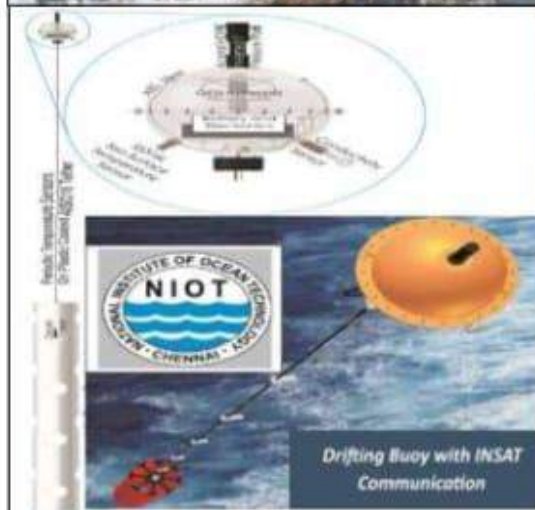
ROBOTIC WATER CRAFT



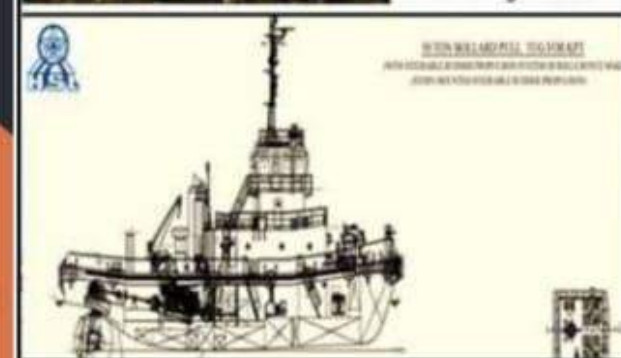
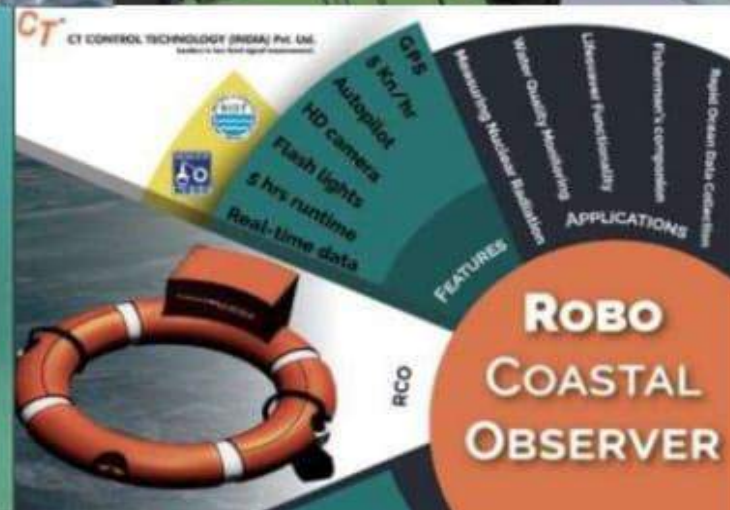
ROBO BOAT



ORDNANCE FACTORIES BOARD PATENTS



UNMANNED REMOTELY OPERATED VEHICLE



NRDC'S ROLE IN THE LANDSCAPE OF EMERGING TECHNOLOGIES

Technology Readiness Level Assessment



Proud Moment for DSIR!

**The Ministry of Micro, Small and Medium Enterprises (MSME)
Sanctions Grant-in-Aid for Technology Transfer Facilitation Centres (TTFCs)**

**We are delighted to share that 4 out of 6 TTFCs
have been awarded to DSIR institutions:**



NRDC



CSIR-CIMFR



CSIR-IMMT



CSIR-IICT



International Symposium

on

Technology Transfer - Commercializing Intellectual Property
for a Sustainable Future

Academic &
Event Partner



State Government
S&T Ecosystem Partner



International Symposium

"Technology Transfer - Commercializing
Intellectual Property for a Sustainable Future"

Date: 14th March 2024, 9:00 AM (IST)

Venue: Cambridge Institute of Technology, KR Puram, Bengaluru, India



NRDC @ Global Multilateral Forum- WIPO Geneva



Technology Symposium of WIPO Green and Advisory Board Meeting
with a focus to Identify Opportunities for Collaboration for Green Technologies

NRDC Efforts in Connecting the dots for Innovation Achievement



NRDC represented India in the recent WIPO Asian Regional Conference in Support of Accelerated Life Sciences Innovation- Skills Development and Capacity Building at Manila, Philippines from 11th – 15th September 2023

The National IP Award for NRDC-TISC for Year 2020 & 2023 in Innovation Translation



MSMEs, startups get a fillip

WIPO opens its third centre in Visakhapatnam

SANTOSH PATNAIK
VISAKHAPATNAM

The opening of India's third United Nation-World Intellectual Property Organisation (WIPO) Technology and Innovation Support Centre here will provide a big boost to MSMEs, startups and academics from Andhra Pradesh, Telangana, Odisha and other nearby States in getting guidance in trade-marking, patenting and technology transfer.

The WIPO has centres in Chennai and Chandigarh and the unit opened here at Sunrise Incubation Hub is the third one in the country.

"Though there were several applicants for WIPO centre, the Centre decided to open it here in recognition of efforts to strengthen the ecosystem for innovation," National Research Development Corporation Chairman and Managing Director H. Purushotham told *The Hindu* on Saturday.

MoUs for cooperation

He said over past three months, they had signed MoUs for cooperation with Kalam Institute of Health Technology, AP MedTech Zone and seven educational institutions.

The WIPO centre has so far filed patent applications for one in research in Telan-



United Nation-WIPO Technology Innovation Support Centre in-charge officer Bijaya Kumar Sahu explaining the objectives of the centre, in Visakhapatnam on Saturday. • K.R. DEEPAK

gana, five in A.P. and one in Odisha. The centre has sought trademark recognition for five innovations.

After due diligence, 15 patent applications were evaluated, some of them in digital protection of forests, automatic water level controlling, security system for communication terminal and portable automatic emergency braking system.

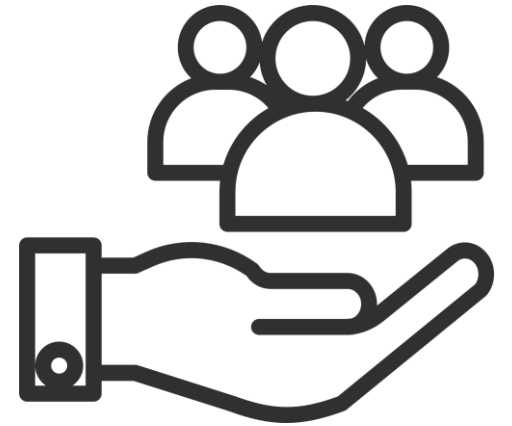
The centre is funded by Department of Industrial Policy and Promotion, Ministry of Commerce and Industry after India became a member-country of International IPR regime harmonisation agreement in 1997. WIPO headquartered in Geneva oversees enforcement of IPR regime. Bijaya Kumar Sahu, officer in-charge of

WIPO centre, Visakhapatnam, Sahu said the main objective of the technology innovation support centre was to provide innovators and entrepreneurs in the country with access to locally based, high quality technology information and related services and helping them exploit their potential and create, protect and manage Indications of Good (GI) for an effective IPR system.

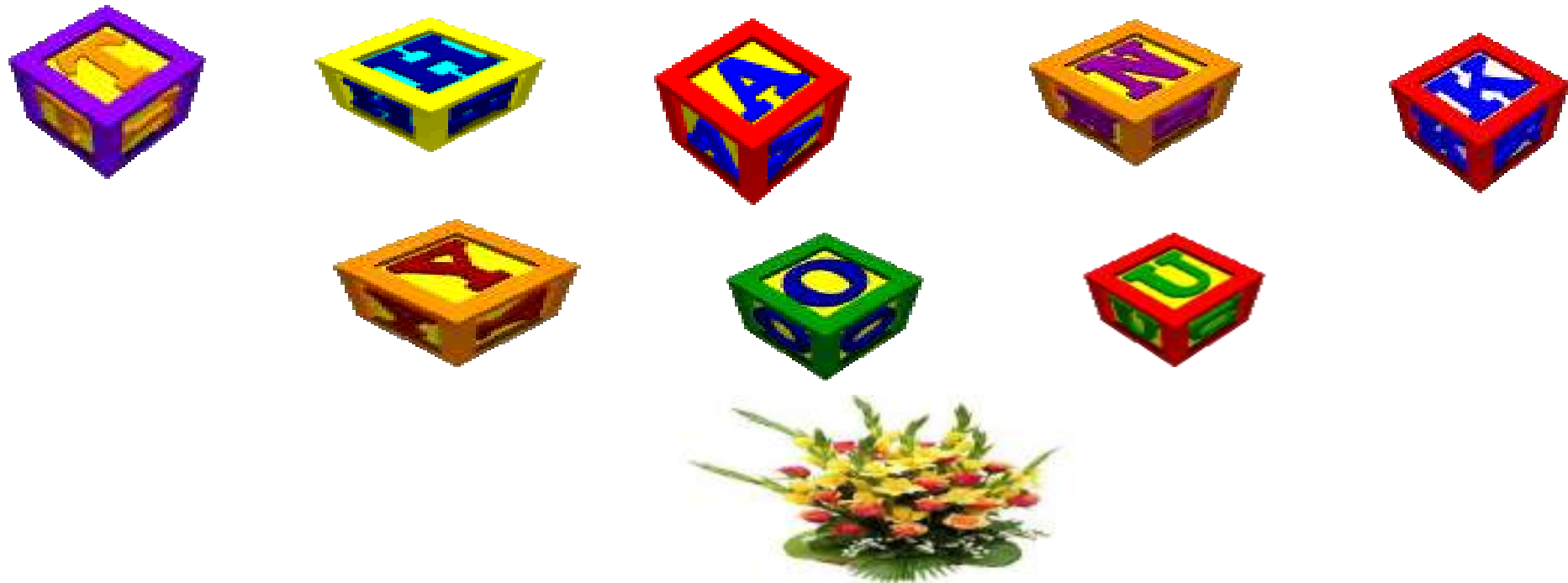
He said a successful IPR system would foster creativity and innovation to promote entrepreneurship. Mr. Sahu can be reached on email bksahu@nrdc.in or at office located at Sunrise Incubation Hub, AP Innovation Society, Hill No. 3, Madhurawada, Visakhapatnam.

Actionable Takeaways

- *Start early — even provisional filings build credibility*
- *Align IP with your business, product, or research strategy*
- *Leverage support from IP experts, institutional IP cells, or NRDC*
- *Treat IP as a strategic investment, not just a legal expense*



PROTECT → Manage → Monetize → Multiply



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