



iDEX

INNOVATIONS FOR
DEFENCE EXCELLENCE

Enabling Indian **Innovation to substitute
Imports and transform **Indigenisation****

रक्षा मंत्रालय
MINISTRY OF
DEFENCE



रक्षा उत्पादन विभाग
DEPARTMENT OF
DEFENCE PRODUCTION



iDEX Innovations for
Defence Excellence



FORGE
Your Innovation
& Growth Partner

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DEPARTMENT OF
DEFENCE PRODUCTION




idex.gov.in

A platform for innovators, startups & MSMEs
to co-create innovative solution with Indian
Defence.

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DEPARTMENT OF
DEFENCE PRODUCTION





▲▲ Our aim is not to discuss but to draw right lessons,
Our intention is not to lecture but to listen,
Our goal is not to tinker but to transform.

”

TRANSFORM INNOVATION IN INDIAN DEFENCE SECTOR

 Culture of Innovation
through Co-Creation

 Develop Technologies &
Deliver Products, rapidly!

 Create Defence Tech
Companies

MISSION

Catalysing the development of breakthrough technologies & world-class products, by innovating for Indian Military, to create/mature next generation of Defence Technology Enterprises in India.



PRINCIPLES

- Co-creation
- Open Innovations
- Dual-use
- VC Model



PRINCIPLES

 Co-creation

 Open Innovations

 Dual-use

 VC Model

 Access to the 10X Engineer in India


 Rapid Innovation at Lowest Cost of Innovation

 Adoption of Commercial Technologies/Products

PRINCIPLES

- Co-creation
- Open Innovations
- Dual-use
- VC Model

 Challenges (Defence Products) vs Specifications (Sponsored Projects)


 Indigenous Innovation vs Indigenisation (Reverse Design & Engineering)


 Leveraging existing Assets/Infra, Capabilities, and Expertise

PRINCIPLES

- Co-creation
- Open Innovations
- **Dual-use**
- VC Model

 Mitigate the 'Only Customer' risk

 Promotes a stronger incentive for Entrepreneurs and Investors (VCs)

 Control Right-Of-Use vs Negotiating IP Ownership or Exercising Commercial controls;

PRINCIPLES

- Co-creation
- Open Innovations
- Dual-use
- VC Model**



Investment v/s Procurement (Expenditure)

Investment (Grant + Seed Capital) v/s Expenditure (CapEx/OpEx for acquisition/sourcing)



Innovation Portfolio

Product Management approach to proactively identify & manage risks + managing cost of failure) v/s

Project/Commercial Management (Safety indicators assumed as safeguards against risks, thereby negating ambitious exploration and agile product innovation)

ROAD TRAVELLED



April 2017

Defence Innovation Organisation (DIO)

Aug -Jan 2019

DISC I & II

Aug 2018

Partner Incubators(PIs)

Sep 2018

Global MoUs : USA

Feb-July 2018

Defence Innovation Hubs(DIHs)

ROAD TRAVELLED



Aug - Mar 2019

Sep - Oct 2019



Jan - Feb 2019



May 2019



On going ...



Aero India

Startup Pavilion

The Aero India 2019 show was held in Bengaluru during 20 February 2019 to 24 February 2019. The second edition of Defence India StartUp Challenge(DISC II) in partnership with Atal Innovation Mission was organised during the Show. As a part of the show, Forge organized a startup pavilion where 368 exhibitors showcased their products related to defence and aerospace.



368
Exhibitors



27630
Area Sq. M



57
Aircrafts on Display





'TRAILBLAZERS' a Coffee Table Book co-authored by Vish Sahasranamam, Cofounder and CEO, FORGE, was launched by Raksha Mantri Nirmla Seetharaman. The book featured product/technology expertise and achievements of emerging enterprises and promising startups of Indian defence and aerospace sector, and included a Directory of 140+ companies in the Indian Aerospace sector.



Startup Manthan

The startup manthan was held on 21st of September, 2019 as a part of Aero India 2019 Show. The key attendees were Mr. Sanjay Jaju, Joint Secretary, DoDP & CEO, DIO (iDEX) and Dr. Joe Felter, Deputy Assistant Secretary of Defence for South and Southeast Asia, DoD, US. The event had a panel discussion with prominent Industry leaders, Venture capitalists and Indian startups post which a giveaway of newly launched TRAILBLAZERS happened.



Mr Sanjay Jaju,
Joint Secretary, DoDP & CEO, iDEX



Mudit Narain,
Program Director, AIM, NITI Aayog



Dr. Joe Felter,
Deputy Assistant Secretary of Defence for
South and Southeast Asia, DoD, US.



Panel Discussion with Industry leaders, VCs and Startups



TRAILBLAZERS Book Giveaway by Chief Guest to Panel Speakers



DISC II Startup Felicitation



Startup Showcase



Startup Walkthrough and Networking

iDEX-US DIU Conclave

A 1-day getting together of key iDEX stakeholders from DIO (MoD, Govt. of India), Defence Services, DPSUs, iDEX Partner Incubators, Experts from Industry /Academia and Startups, to learn from the best practices through case-studies of US DIU and to develop a blueprint for a managed process of open defence innovation organized on 25th and 26th of February, 2019, hosted by FORGE at Coimbatore.. The session kickoff was done by Mr Mudit Narain, Program Manager, Atal Innovation Mission, New Delhi. The key speakers of the event were Mr Prakash Sesha from Lockheed Martin Corporation and Mr Matt Goldman from Defence Innovation Unit, USA.



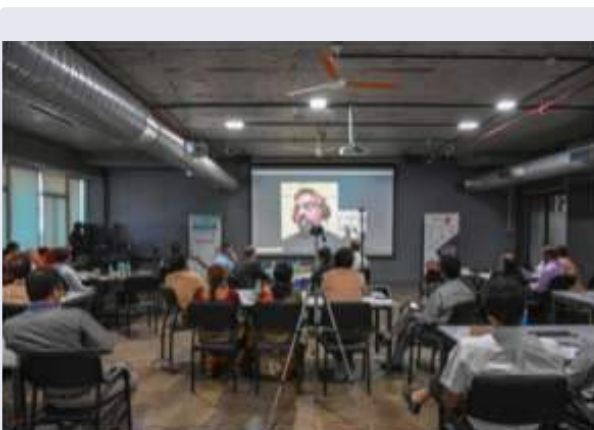
Dr Ajay Kumar, Secy, Defence Production (DoDP), GoI & Chairman, iDEX (Chief Guest), delivered the inaugural address of the conclave through video conferencing.



Mr Vish Sahasranamam
CEO-Forge Accelerator, Coimbatore



Mr Mudit Narain
Program Manager, AIM New Delhi



Mr Prakash Sesha
Lockheed Martin Corporation



Mr Matt Goldman
Defence Innovation Unit, USA

IIGP-iDEX Startup Conference

Lockheed Martin Suppliers Summit

Lockheed Martin hosted an Aerospace and Defence (A&D) Start-up Supplier Conference in Bengaluru, to promote an ecosystem that enables startups in Defence and Aerospace to take their ideas to market through commercialization. Lockheed Martin suppliers interacted with Aerospace & Defence Start-ups, government officials, and university students to discuss global partnership opportunities and India Innovation Growth Program (IIGP) initiatives.



Defconnect '19

The Ministry of Defence had organised the inaugural session of 'Def Connect 2019' to showcase the accomplishments of the Innovation for Defence Excellence (iDEX) initiative in New Delhi on November 11, 2019. Defence Minister Rajnath Singh inaugurated the conclave and emphasized on the importance of 'Ideation, Innovation and Incubation' in cutting edge technologies to achieve the goal of indigenisation and self-reliance in the defence sector. The Defence Minister launched the new iDEX logo, its portal (www.idex.gov.in) and dashboard for real-time monitoring of the programme. A Compendium of iDEX Guidelines was also released.



The Defence India Startup Challenge (DISC) – III was launched under which three challenges from the Army, Navy and Air Force were thrown open to prospective startups. The iDEX Open Challenge was also launched to provide an opportunity to innovators to come up with their technologies that may be adapted to the country's defence requirements. The event brought together all stakeholders of the iDEX ecosystem i.e., MoD, iDEX selected startups, partner incubators, Defence Innovation Organisation (DIO), nodal agencies (Indian Army, Navy, Air Force), DRDO, DPSUs, Indian Ordnance Factories (IOFs), MSMEs and Industry associations to showcase the growth of the defence ecosystem in the country.





DISC – III Outreach

Coimbatore

The Defence Innovation Organization (DIO), under the aegis of Department of Defence Production, launched the DEFENCE INDIA STARTUP CHALLENGE (DISC III) at DefConnect 2019 by Defence Minister Rajnath Singh, to catalyse an open innovation program that brings Startups & Innovators to co-create breakthrough technologies and innovative technology-powered solutions to cater to the needs of the Indian defence and aerospace sectors. To create awareness among start-ups & innovators about the DISC challenges, the iDEX Partner Incubators across the country hosted meet-ups for outreach & sensitization of the challenge under the banner iDEX Roadshow.



Forge, being one of the Partner Incubators for the iDEX program, organized the iDEX Roadshow on 07 December 2019 at Forge. Factory, Coimbatore to create an actionable awareness of the challenges launched under DISC [Defence India Startup Challenge]-3 and iDEX Open Challenge. Wg.Cdr.Pervaiz Aslam elaborated about the requirements and intricacies of the Challenge statement- Portable Spoof Emitter for surveillance and ground-based Air Defence. Stakeholders of Startups, Academia and Industry in and around Coimbatore were present in large numbers.



The Road Ahead

#1 iDEX Portal & Grants Management & Monitoring System

#2 Product Management Approach to Technical & Financial Appraisal

#3 Entrepreneur-in-Residence(EiR) Model

#4 Value Propositions for iDEX Startups

#5 Support for Prototype And Research Kickstart (SPARK II)

#6 Open Challenges

#7 Linking iDEX with Procurement

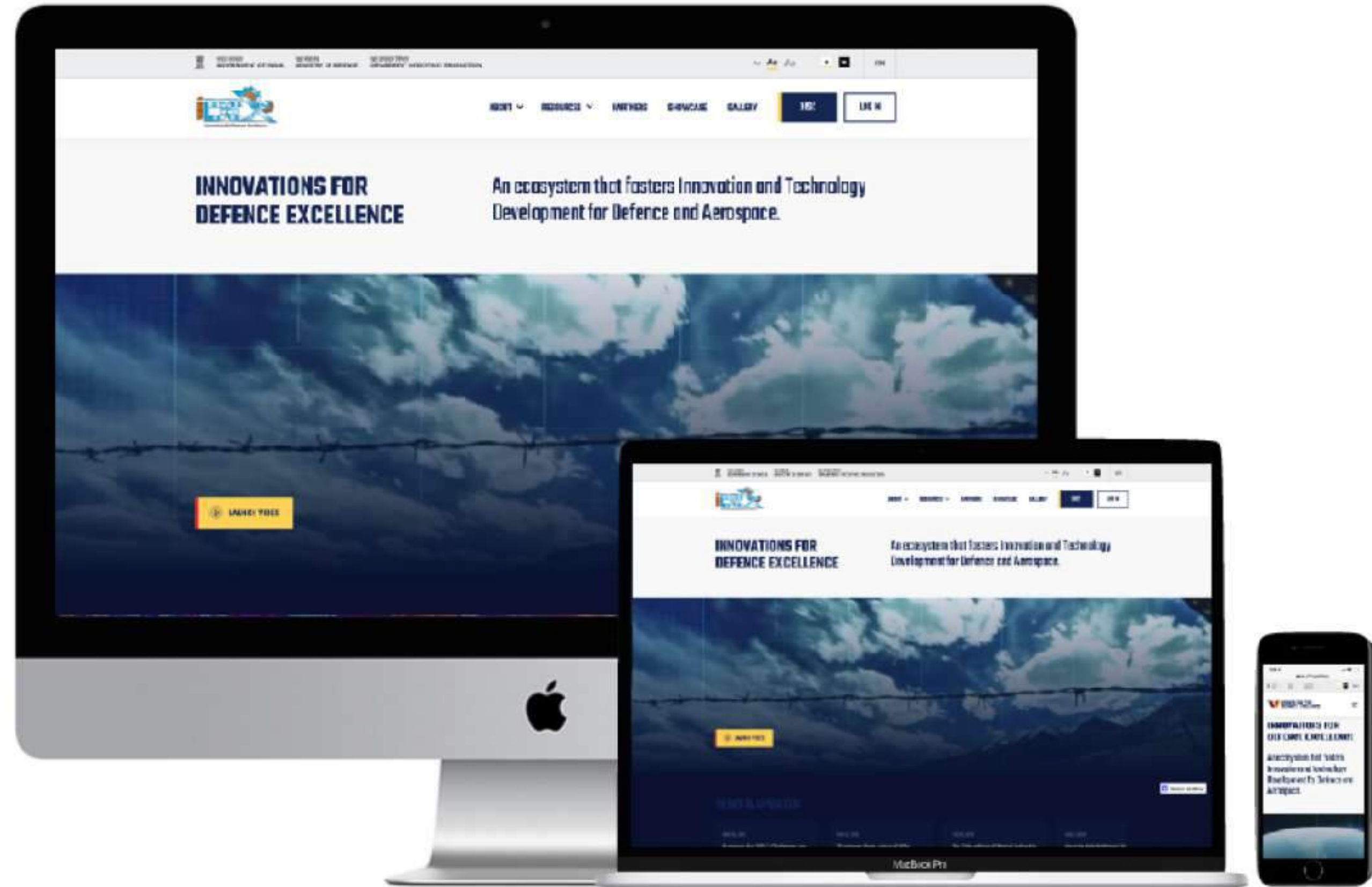
#8 DPSU Capacity Building

The Road Ahead

#1 iDEX portal and Milestone based Project & Grants Management System

A comprehensive Portal documenting all Guidelines, Publications & a platform for launching future challenges with Real time Milestone based monitoring Dashboard for SPARK Grantees

<https://idex-d7fcae.webflow.io/>



ABOUT IDEX

INTRODUCTION, BACKGROUND & CONTEXT

One of the first aims of India as a nation since Independence has been to achieve self-reliance in the field of defence and defence production.

India is the world's largest defence equipment importer and is expected to spend around USD 220 Billion in the coming decade to modernize its armed forces.

RESOURCE
Operationalization plan for DIO & DEX

Download here

In the recent years, the government of India has initiated various reforms like Make in India, Startup India, and Innovation Mission (AIM) etc. to encourage innovation and entrepreneurship in the Indian commercial ecosystem.

This has also made it increasingly evident that achieving the goal of self-sufficiency for the Indian military will require a focus to incorporate innovation capability in the weapons procurement process.

Ministry of Defence aims to create an ecosystem which fosters innovation and encourages technology development in Defence by engaging R&D institutes, academia, Indian MSME, start-ups and other individual innovators.

India to emerge as defence manufacturing hub: Top 10 highlights from PM Modi's address at defence expo



Prime Minister Narendra Modi today inaugurated the 10th International Defence Exhibition and Conference (IDEX 2023) in New Delhi. He highlighted the importance of defence manufacturing in India's growth strategy and announced several initiatives to boost the sector.

DEFENCE INNOVATION ORGANISATION (DIO)

iDEX will be funded and managed by a "Defence Innovation Organisation (DIO)" formed as a "not for profit" company as per Section 8 of the Companies Act 2013 for this purpose.

RESOURCE
Operationalization plan for DIO & DEX

Download here

The location of organization of DIO will be changed by a specialized team known as the Innovation for Defence Excellence (IDEX) within the DIO. DIO will provide high level policy guidance to IDEX. IDEX will have functional autonomy.

The CEO of DIO will be selected and recruited by the DIO and will be a professional person of sound technical, scientific and engineering background with relevant knowledge and experience in innovation and research. CEO of DIO would also be CEO of IDEX thereby providing the linkage between the high level policy guidance given by DIO and its implementation in a professional manner through IDEX.

To execute the above functions, the IDEX team will need to undertake the following activities:

- [A]** Undertake all activities of the DIO under the banner of Innovation for Defence Excellence (IDEX).
- [B]** Communicate with innovators through the Defence Innovation for Excellence (DIO) and provide them with necessary support.
- [C]** Organize various challenges/competitions to identify promising technologies and provide them with necessary support.
- [D]** Undertake all up, mid and down stream activities to commercialize technologies and provide them with necessary support.
- [E]** Evaluate technologies and provide them with necessary support to commercialize them.
- [F]** Undertake all up, mid and down stream activities to commercialize technologies and provide them with necessary support.

WHAT IS IDEX?

An ecosystem to foster innovation & technology development in Defence and Aerospace by engaging innovators & entrepreneurs to deliver technologically advanced solutions for modernizing Indian Military.

IDEX will engage Industries including MSMEs, start-ups, individual innovators, R&D institutes and academia and provide them grants/funding and other support to carry out R&D development which has good potential for future adoption for Indian defence and aerospace needs.

ABOUT IDEX ABOUT DIO

CORE OBJECTIVES

FACILITATE

Facilitate rapid development of new, indigenized, and innovative technologies for the Indian defence and aerospace sector, to meet

Tweets by @India_IDEX

IDEX India Retweeted

Sanjay Jaju (@saju1)

"There is no failure in science"- Innovators work with #isrosprit

44 winners @India_IDEX are the flag bearers of the strategic mission to connect @startupindia @AIMtoInnovate with @DefenceMinIndia @DefProdIndia @SpokespersonMoD

livemint.com/companies/star...

CHALLENGE CATEGORIES

- DISC #1**
Approximately 500 applications were received in the first leg of the challenge, of which a total of 28 winners have been shortlisted to be considered for grant of funds for prototype development and possible commercialization thereafter.
- DISC #2**
DISC-II was launched with four Problem Statements that require to be taken up by innovators to provide for development/fabrication of state-of-the-art technological solutions.
- DISC #3**
The 3rd iteration of the Defence India Startup Challenges calls applications in response to 3 new and exciting challenges from the Indian Army, Navy, and Air Force.



Open Challenge

India is witnessing the rise of the next generation of Engineers, capable of developing technologies in autonomous systems, intelligent machines, advanced materials, predictive algorithms, or even nuclear programs for the most sophisticated applications in defence and aerospace domains.

RESOURCES

- PUBLICATIONS
- GUIDELINES
- DEFCONNECT

PUBLICATIONS

February 25, 2023

Trailblazers – Indian Innovators in Global Aerospace

GUIDELINES

- Grant Utilization Guidelines
- EIR Guidelines
- SPARK 2 Framework for Partnering
- IDEX - Operationalization Plan
- SPARK - Support for Prototype and Research Kick start (In Defence)
- Framework for IDEX Partners

PORTFOLIO OF STARTUPS

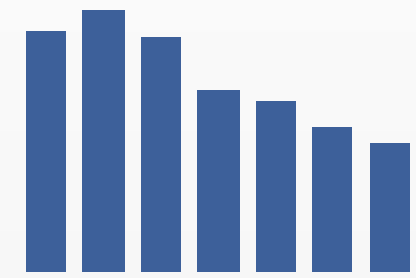
- Aerospace & Defence
- DISC #1
- DISC #2

- Tatvabodh Technology Pvt. Ltd.
Individual Protection System with built-in sensors.
READ MORE
- Nyokas
READ MORE
- Dimension NXG
See Through Armour
READ MORE

Dashboard



Start up Details



Product & Tech Brief

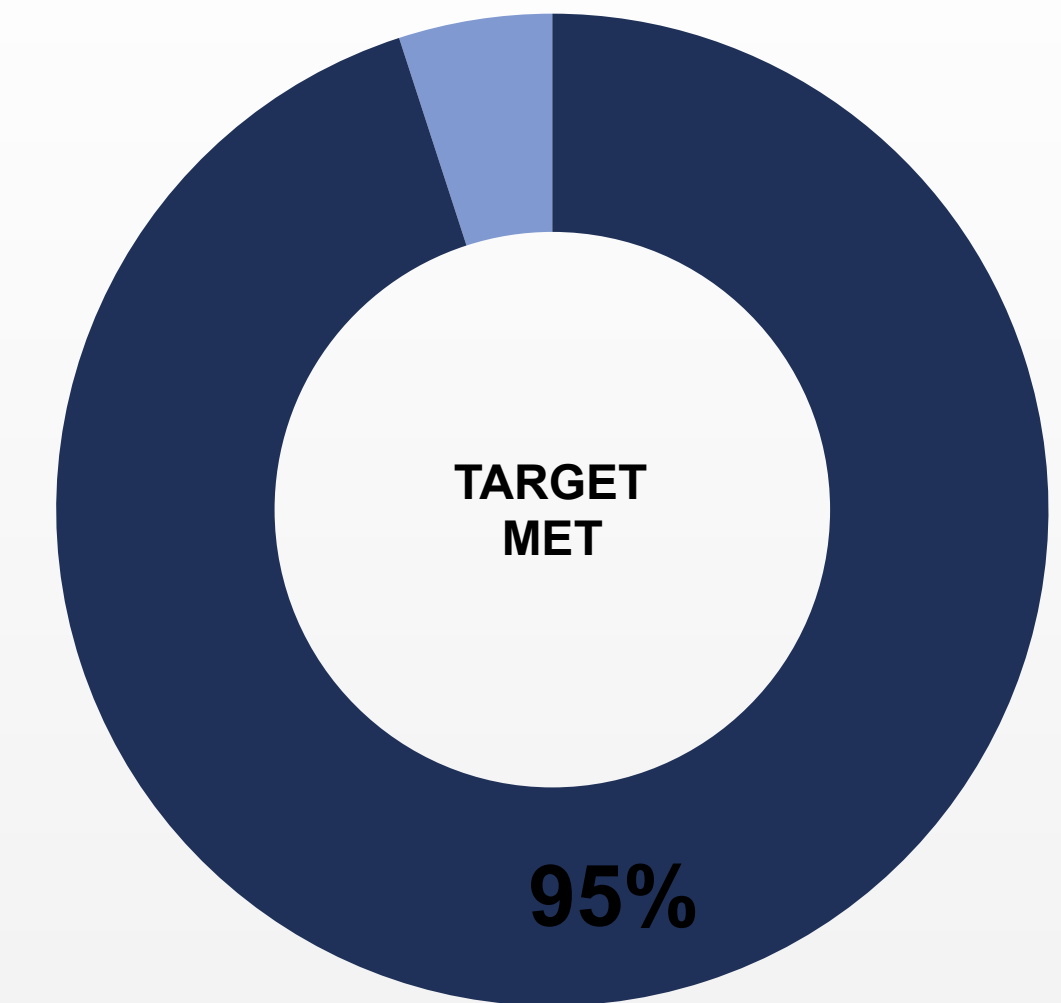


File Archives

Milestones



Progress



Total Project Cost

Rs 90 Cr

SPARK Grants Approved

Rs 30 Cr

Matching Controbution

Rs 60 Cr





Milestone Wise Monitoring of

- ✓ Due Date of completion
- ✓ Actual Date of Completion
- ✓ SPARK Grants Released
- ✓ PI & PD Remarks
- ✓ Milestone & Monthly Reports

Milestone Number	Proposed Date	Actual Date	Report	Grant Disbursement
Milestone 01 Passed	31 Feb 2019	29 Feb 2019	 M1 Report.pdf Download	 ₹ 24,91,820 #091903310-000912432-6897 02 Mar 2019
Milestone 02 Passed	20 April 2019	20 April 2019	 M2 Report.pdf Download	 ₹ 24,91,820 #091903310-000912432-6897 02 Mar 2019

Milestones based Project & Grants Monitoring Dashboard





Startups
63

Last updated 3 days ago

Challenges
32

Last updated 3 days ago

Total Grant Approved
₹ 36,24,91,820

Last updated 72 days ago

Grant Spent
₹ 15,24,91,820

Last updated 45 days ago




Grant Pending
₹ 21,89,12,768

Last updated 45 days ago

Grant Pending
₹ 21,89,12,768

Last updated 45 days ago

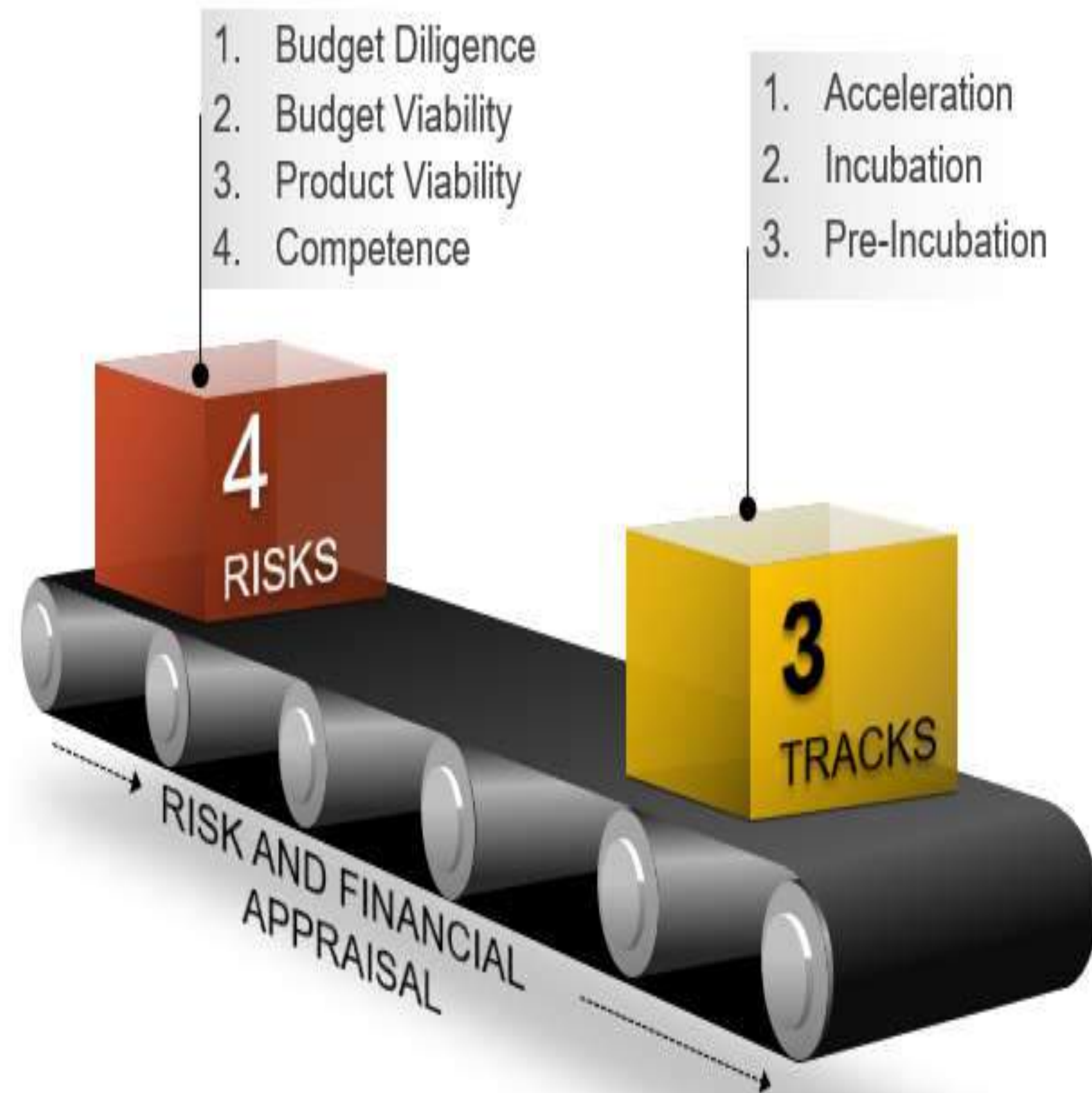
OVERVIEW











S.No.	Startup	Challenge	M1	M2	M3	M4	M5
01	<u>Tatvabodh Technology Pvt. Ltd.</u> Coimbatore, Tamilnadu	Individual Protection System with ... #DISC1	 ₹ 24,91,820 #524000-524000-6... 06 Dec 2019	 ₹ 24,91,820 #524000-524000-6... 06 Dec 2019	 Technical operations in progress	—	—
02	<u>Nyokas Pvt. Ltd.</u> Mumbai, Maharashtra	Individual Protection System with ... #DISC1	 ₹ 24,91,820 #524000-524000-6... 06 Dec 2019	 ₹ 24,91,820 #524000-524000-6... 06 Dec 2019	 Business plan in progress	—	—

The Road Ahead

Product Management Approach to Technical & Financial Appraisal

- First-of-its-Kind Matrix developed for Techno-Financial Appraisal of Startups
- Aim is to develop full fledged Companies, not merely execute Sponsored Innovation Projects



	Prime Cost	Primary overhead	Secondary overhead
SPARK Grant	MIN  75	MAX  25	NIL  0
Matching contribution (MC)-Cash	MIN  75	MAX  25	MAX  5
MC-In Kind	MIN  50	MIN  25	MAX  25
MC-Past Expenditure	ALL  100		

Blazons & Testimonials









Sanjay Jaju Retweeted

 **USISPF** @USISPFForum · Apr 23

Thanks to JS @sjaju1 & @JoeFelter for providing USISPF members with updates on #USIndia collaboration & innovation in defense. Initiatives such as Innovation for Defense Excellence (IDEX) and Hacking for Defense create great opportunities for both countries.



USISPF BRIEF:

SANJAY JAJU
JOINT SECRETARY
MINISTRY OF DEFENSE

APRIL 23, 2020



  3  14 

 **Sanjay Jaju** @sjaju1 · Jan 21

DAC accorded approval for inclusion of @India_IDEX in DPP 2016 opening avenues in capital procurement for armed services to start ups and innovators and provide a huge fillip to their budding efforts.

@drajaykumar_ias @DefenceMinIndia @rajnathsingh @DefProdIndia @SpokespersonMoD

 4  26  70 

Sanjay Jaju Retweeted



IDEX DIO @India_IDEX · Jan 4

Our CEO, Mr. Sanjay Jaju Sir had fruitful interactions with startups selected through IDEX DIO in DISC I & II as Planys, Gyandata, BIGCAT Wireless & companies with application for DISC III & Open Challenge at @IITMIC
#Lets_innovate4defence
@sjaju1 @rajnathsingh @drajaykumar_ias



Defence Production India and 6 others











Sanjay Jaju @sjaju1 · Sep 16, 2019

'There is no failure in science'- Innovators work with #isrospirit

44 winners @India_iDEX are the flag bearers of the strategic mission to connect @startupindia @AIMtoInnovate with @DefenceMinIndia @DefProdIndia @SpokespersonMoD



Defence ministry takes a shot at the startup game
More than 40 private tech firms are helping the government build underwater drones, see-through armour and more. There are vast gaps t...
[livemint.com](https://www.livemint.com)

5 25 68

Sanjay Jaju @sjaju1 · Oct 6, 2019

All efforts being made to ensure that this ambitious endeavour @India_iDEX to connect start ups with Defence continues to fly and soar and also scale.

Hope to launch some products during @DefExpoIndia @drajaykumar_ias @DefProdIndia @DefenceMinIndia @AIMtoInnovate @Codissia

Ajay Kumar @drajaykumar_ias · Oct 6, 2019

May2019 Report of MIT,USA on Innovation In Defence features DIO-iDEX & DIO's @CODISSIA Def. Innovation Centre
innovation.mit.edu/assets/Defense...

Gr8 progress for year-old initiative of @DefProdIndia & @AIMtoInnovate launched by Hon @PMOIndia @narendramodi in Apr2018
@sjaju1 @India_iDEX

6 17







 **iDEX DIO** @India_IDEX · Jul 31, 2019

iDEX startups selected for SPARK Grant recognised with mementos given away by @sjaju1 Jt. Secy, @DefProdIndia and Mr. Gopal IAS, Jt.Secy, MeitY, in the presence of President @ELCINA_INDIA



 **iDEX DIO** @India_IDEX · Jul 31, 2019

 Keynote speech by @sjaju1,JS @DefProdIndia & Mr.Goplakrishnan, JS @Gol_MeitY on policies and programs promoting innovation and startups developing products/technologies for strategic needs at #SES2019 organised by @ELCINA_INDIA in partnership with ...

Sanjay Jaju Retweeted

 **iDEX DIO** @India_IDEX · Jul 31, 2019

Keynote speech by @sjaju1,JS @DefProdIndia & Mr.Goplakrishnan, JS @Gol_MeitY on policies and programs promoting innovation and startups developing products/technologies for strategic needs at #SES2019 organised by @ELCINA_INDIA in partnership with @India_IDEX @FORGE_FORCE







Sanjay Jaju Retweeted



IDEX DIO @India_IDEX · Jul 26, 2019

@sjaju1 Jt.Secy, @DefProdnIndia & CEO, Defence Innovation Org. @India_IDEX in BLR, met Founders of iDEX Startups sel. for grants under SPARK, DIO; Dr. Gadadhar Reddy, NoPo for Adv. Desalination chng of @indiannavy & Karan Behar for Illegal Drones chng of @IAF_MCC presented



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7



Sanjay Jaju Retweeted

PS.Ramesh @PSRamesh209 · Jul 26, 2019

It was a pleasure showing the aerospace activities. Thank you @sjaju1 for your insightful questions.

Dynamatic® Technologies Limited @DynamaticTech · Jul 26, 2019

Delighted to host JS Defence Prod'n, GOI @SJaju1 at Dynamatic Aerotropolis today. During his visit, he appreciated technology and skills deployed in building #Worldclass Aerostructures, and provided encouragement to our team. #MakeInIndia #Quality

14 24

Sanjay Jaju Retweeted

Shivaraman Ramaswamy @ShiviMasti · Mar 9, 2019

@BigBangBoomsoln wins iDex "See Through Armor" Challenge. We are super excited about working with the @DefProdInIndia, @adgpi, @FORGE_FORCE.

Thank you @drajaykumar_ias and @sjaju1 for your mentoring.

1 4 9

 **Sanjay Jaju**  @sjaju1 · Mar 1, 2019

An enthralling conversation with students @atdelhi @ramgopal_rao in the inaugural of their marquee tech event #TRYST exhorted our future generation to transcend from INFORMATION to KNOWLEDGE to IMAGINATION to EVOLUTION to ENTERPRISE and become global wealth creators.



  1  5 

 Sanjay Jaju Retweeted

 **CNBC-TV18**  @CNBCTV18News · Feb 21, 2019

What will it take for innovation in the Aero & Defence sec to really take off? Catch @Airbus India's Anand Stanley, @LockheedMartin's Phil Shaw, NASA-BAERI's Sreeja Nag, DIO (IDEX)'s @sjaju1, @USISPFForum's Vikram Singh, @Tonbolmaging's Ankit Kumar on @CNBCYoungTurks spl @ 5 pm

START-UP MANTHAN 

 ANAND STANLEY Airbus India	 PHIL SHAW Lockheed Martin	 SANJAY JAJU DIO (IDEX)
 VIKRAM SINGH USISPF	 SREEJA NAG NASA-BAERI	 ANKIT KUMAR Tonbo Imaging

 **TODAY @ 5 PM**

  9  8 

Sanjay Jaju Retweeted



Amitabh Kant @amita... · Sep 16, 2019

Gr8 initiative! Defence ministry takes a shot at the startup game



Defence ministry takes a shot at the startup game

livemint.com

6

110

375



Sanjay Jaju Retweeted



Defence Production India · Jun 6, 2019

Congratulation to the winners of Defence India Start Up Challenge I & II and advancing to next stage and develop functional prototypes under SPARK.

- @India_iDEX
- @SpokespersonMoD
- @FORGE_FORCE
- @IAF_MCC
- @THubHyd
- @CIIEIndia
- @SINEIITB
- @iitmadras
- @iitdelhi
- @drajaykumar_ias @rajnathsingh



Sanjay Jaju and 9 others



Defence Production In...  · Aug 30, 2018 

Watch Defence Startup Challenge under Innovations for Defence Excellence today & repeat at 7:35AM,1st September on [@DDNational](#)

[@nsitharaman](#) [@drajaykumar_ias](#)
[@SpokespersonMoD](#)

 **Additional DG Doordars...** · Aug 30, 2018

Wonderful opportunity for Startups. Pl watch a report on Defence Startup Challenge under INNOVATIONS FOR DEFENCE EXCELLENCE at 9:35PM today & repeat at 7:35AM,1st September [@DDNational](#) [@nsitharaman](#) [@drajaykumar_ias](#) [@DG_Doordarshan](#) [@shashidigital](#) [@SpokespersonMoD](#) [@startupindia](#)



  5  15 



Sanjay Jaju  @sjaju1 · Aug 3, 2018

Replying to @drajaykumar_ias @DefProdnIndia and 9 others



India emerging as defence hub despite challenges, says PM Modi at Defence Expo

Synopsis

The four-day-long DefExpo is being held in the outskirts of Chennai, close to the temple town of Mahabalipuram.



Watch: PM Modi addresses India's mega defence exhibition

THIRUVIDANTHAI: Criticising the previous UPA government over hampering defence preparedness through “policy paralysis”, Prime Minister **Narendra Modi** today at India’s primary defence exhibition, the defexpo 2018 being held here, also said that it is the NDA regime which is meeting the critical requirements of the defence forces such as fighter aircraft and will not spend 10 years on it.

Attending his first defexpo, he also stated that the government is taking forward the indigenous **defence manufacturing** capabilities and is “committed” to build a defence industrial complex. India is also looking at the future as well, as he added that emerging technologies such as artificial intelligence and robotics which are the most important determinants for any defence force will be utilised.

Modi while addressing the defexpo said, “There was a time when the critical issue of defence preparedness was hampered by policy paralysis. We have seen the damage such laziness, incompetence or perhaps some hidden motives, can cause to the nation. Not now, not anymore, never again,” he said.

He added, “You would also recall the long-drawn process of procurement of fighter aircraft that never reached any conclusion. We have not only taken the bold action to meet our immediate critical requirements, but have also initiated a new process to procure 110 fighter aircrafts.”

The PM also raised a similar issue with bulletproof jackets. “You would have seen how the issue of providing bullet proof jackets to Indian soldiers was kept hanging for years.

You would have also seen that we have brought the process to a successful conclusion with a contract that will provide a boost to defence manufacturing in India.”

Feedback



Earlier this week, the army had said that a major contract for the procurement of 1.86 lakh bullet proof jackets has been signed, meeting its impending requirements. The contract worth Rs 639 crore has been given to an Indian firm, SMPP Private Limited.

Taking forward the **Make in India** in defence initiative, Modi also said that the commitment to protecting India's territories is strong and for this steps will be taken to equip the armed forces, including setting up a strategic defence industrial complex. "I am aware that we need to do a lot more and we are committed to build a defence industrial complex that has room for everyone, including the public and private sector and foreign firms," he said.

He also said that steps have been taken to encourage innovation. "Today we launched the IDEX (innovations for defence excellence), which will setup a defence innovation hub throughout the country," he said.

Consultations with all stakeholders will also be. "We will undertake consultation with all stakeholders, including Indian and foreign firms. This is not only to discuss, but to draw the right intention. Our goal is not merely to tinker but to transform. We want to move fast, but not take shortcuts."

In Video: **[Watch: PM Modi addresses India's mega defence exhibition](#)**

(Catch all the ***Business News***, ***Breaking News*** Events and ***Latest News*** Updates on ***The Economic Times***.)

Defence Ministry gives 11 challenges for start ups

Synopsis

The defence minister pointed out that rules have been amended to incorporate new ideas and give orders accordingly if they were tested with the defence ministry.



The challenge is part of IDEX (Innovation for Defence Excellence) announced by Prime Minister Narendra Modi in April.

BENGALURU: The **Defence Ministry** today threw up 11 challenges for startups to come up with potential solutions for technological needs of the defence establishment and said it would ensure their ideas and prototypes will get a market.

These challenges are individual protection system with built-in sensors, see through armour, carbon fibre winding, active protection system, secure hardware based offline encrypt or device for graded security, development of 4G/LTE based tactical local area network.

It also includes development of advanced technology based desalination system and bilge oily water separation system, artificial intelligence in logistics and SCM, remotely piloted **airborne vehicles**, **laser weaponry** and unmanned surface and underwater vehicles.

They were part of the 'Defence India startup challenge' launched by defence Minister **Nirmala Sitharaman** here today.

The challenge is part of IDEX (Innovation for Defence Excellence) announced by Prime Minister **Narendra Modi** in April.

Addressing the gathering, Sitharaman said there is a very vibrant atmosphere for startups in the country and urged them to come up with solutions, not just for the challenges posed, but for things they felt were relevant.

Ad Career Times

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"There is vibrant atmosphere for startups today. We will make sure that their ideas and prototypes will get a market. We are not going to disqualify startups when they approach us."

"We are not going to disqualify startups in anything you want to approach us with. Whether it is a bid, tender or suo motu proposal. All three avenues are open for startups."

The defence minister also pointed out that rules have been amended to incorporate new ideas and give orders accordingly if they were tested with the defence ministry.

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Feedback

'30% of startups working on defence projects are from Bengaluru'

Synopsis

"The ideas will be converted into technology, which will give us a product. The end is to make the product a military-grade one," said Sanjay Jaju, joint secretary, department of defence production, ministry of defence.



DIO and iDEX play the role of a bridge for civilian innovations to reach the armed forces.

BENGALURU: Almost 30% of the startups working with the defence ministry to deliver cutting-edge technologies to Indian armed forces are from Bengaluru and their number is growing every year. This, according to Sanjay Jaju, joint secretary to the department of **defence production, ministry of defence**, is natural given the city's startup culture.

"Bengaluru is the startup hub of India and we have seen a huge number of city startups participating in the Defence India Startup Challenge held by the Defence Innovation Organisation (**DIO**)," Jaju told on the sidelines of the fourth edition of

IIMBue Leadership Conclave.

Jaju was among the 14 speakers at the conclave hosted every year by the Alumni Association of IIM Bangalore (IIMBAA). On Friday, the first day of IIMBue, Jaju and Ankit Mehta, co-founder and CEO of **ideaForge**, a startup that specialises in Unmanned Aerial Vehicle technology, took part in a panel discussion on Innovation in Defence Technology and **Make In India**.

Jaju described DIO as a not-for-profit company that manages Innovations for Defence Excellence (iDEX) launched by the government in April 2018. Under the **iDEX** scheme, the first Defence India Startup Challenge was organised in 2018 drawing 500-550 applications. Its second round saw 150 applicants. After both the rounds, 44 participants were selected to work on various defence projects and 30% of them were from Bengaluru.

DIO has also introduced a Defence Innovation Fund for startups to work on their ideas. "The ideas will be converted into technology, which will give us a product. The end is to make the product a military-grade one," Jaju said.

Feedback

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DIO and iDEX play the role of a bridge for civilian innovations to reach the armed forces. "The gap is a huge challenge just in India but across the world. This is the government's attempt to solve it," Jaju said.

Ankit Mehta, a graduate from IIT-Bombay, said, "We have worked for security of Kumbh Mela, during the counter operations on ground and counter-insurgency operations in the red corridor of our country."

Defence start-up BBBS bags Rs 1.5 crore grant under iDEX

Synopsis

Innovations for Defence Excellence (iDEX) was launched by the central government in April last year to create an ecosystem to foster innovation and technology development in areas of defence and aerospace.



iDEX aims to engage with micro, small and medium enterprises (MSMEs), start-ups, individual innovators, research and development (R&D) institutes and academia.

NEW DELHI: Defence-tech start-up **Big Bang Boom Solutions (BBBS)** Wednesday said it has bagged a Rs 1.5 crore grant for winning the 'See Through Armor' challenge by the Ministry of Defence under **iDEX**.

The win entitles the start-up to a chance to co-develop the solution along with the **Indian Army**, and a grant of Rs 1.5 crore, BBBS Chief Executive Officer Praveen Dwarakanath told PTI.

Innovations for Defence Excellence (iDEX) was launched by the central government in April last year to create an ecosystem to foster innovation and technology development in areas of defence and aerospace.

The programme aims to engage with micro, small and medium enterprises (MSMEs), start-ups, individual innovators, research and development (R&D) institutes and academia, and provide them grant and other support to carry out R&D for solutions that have potential for future adoption.

Detailing out its entry at iDEX, Dwarakanath said the chosen solution can offer situational awareness to a soldier sitting in an armoured tank.

"When the soldier is in an armoured tank, they have visibility only about what's in front of them. Our solution gives the tank crew an ability to move naturally and almost feel that the armour around them is invisible," he said.



Dwarakanath said the solution leverages augmented reality and virtual reality technologies that have been co-developed with its partners.

The company works with researchers for developing these solutions, and the IP of the solution resides with the company.

The extension of the chosen solution will be into unmanned vehicles and other technologies of the future, Dwarakanath said.

He said the company would work with the defence ministry and is also open to engaging with defence agencies in other "India-friendly nations".

BBBS is working on several high-end technologies including new materials in armour, electronic warfare solutions, anti-drone technologies and armour piercing incendiary rounds. The company, Dwarakanath added, is also one of the finalists in the Illegal Usages of Drones Category of iDEX - the results of which are expected in a few weeks.

BBBS has also secured an undisclosed amount of funding in the form of convertible notes from strategic investors. The company will invest part of the proceeds into a hedge fund to generate higher returns, he said.

It will also be used for strengthening operations of the company and business development, he added.

"Our interest in defence stems from the fact that defence technology has always been critical to defining super powers of the world. Our ambition is complete independence for India from defence imports," Dwarakanath said.

BBBS intends to achieve this by creating indigenous tech, integrating tech from other start-ups in solutions, consulting to ramp up indigenous manufacturing, and facilitating tech transfer deals, among others, he added.

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Maker Village becomes innovation programme partner for Defence sector

Synopsis

The Maker Village CEO described the iDEX selection as a milestone for the pioneering startup initiative founded in February 2015 under the Union Ministry of Electronics and Information Technology, with Indian Institute of Information Technology as the host institute. iDEX provides the selected startups access to the defence markets besides grants of upto Rs 1.5 cr.

Feedback



Already, close to 10 startups at Maker Village are working with the defence establishment.

KOCHI: The union government has selected **Maker Village Kochi** as a partner for its **iDEX programme** that pursues an innovative defence ecosystem, thus facilitating the country's largest hardware deep-tech incubator to create solutions for the armed services.

iDEX, or innovations for defence excellence, gives innovators the strength to serve India's defence needs by funding and hand-holding them. The **defence innovation organisation** (DIO) under the Ministry of Defence chose Maker Village as a partner of the programme that also facilitates customer engagement.

iDEX, launched in April last year, primarily strives for an ecosystem fostering innovation and technology in the areas of defence and aerospace. **Startups** are among the enterprises made eligible under the programme that gives grant and other support for R&D solutions of potential adoption.

The Maker Village CEO Prasad Balakrishnan Nair described the iDEX selection as a milestone for the pioneering startup initiative founded in February 2015 under the Union Ministry of Electronics and Information Technology, with Indian Institute of Information Technology as the host institute.

iDEX provides the selected startups access to the defence markets besides grants of upto Rs 1.5 crore. "It will encourage young entrepreneurs from our ecosystem to propose new ideas and platforms that benefit the armed services," Nair said. This also creates opportunities for the iDEX winners from across the country to come and do their product development at Maker Village, he added.

Already, close to 10 startups at Maker Village are working with the defence establishment. Three of them had won the earlier edition of iDEX challenge and are developing their products, while an equal number of startups have supplied products to **DRDO labs**. Two others are working with innovations related to national security.

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Around 75 startups with cutting-edge technologies have been incubated at Maker Village, which functions at the integrated startup complex in Kalamassery near Kochi.

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India to fund 250 defence startups over next 5 years

Synopsis

The defence ministry will be earmarking at least Rs 500 crore for its Innovations for Defence Excellence (iDEX) initiative. Expressing his support for the initiative, defence minister Rajnath Singh said at a function on Monday that India could emerge as a \$10 trillion economy over the next 10-15 years if innovation talent is harnessed.



Agencies

Expressing his support for the initiative, defence minister Rajnath Singh said at a function on Monday that India could emerge as a \$10 trillion economy over the next 10-15 years if innovation talent is harnessed.

India will fund at least 250 **defence startups** over the next five years as it seeks new **technologies** to give a cutting edge to the armed forces. The plan is to achieve at least 50 'tangible innovations' by the startups that can be inducted over the coming years.

The defence ministry will be earmarking at least Rs 500 crore for its Innovations for Defence Excellence (iDEX) initiative and will try to bring together innovators with public and private sector industry and the armed forces to find new technology solutions.

Expressing his support for the initiative, defence minister **Rajnath Singh** said at a function on Monday that India could emerge as a \$10 trillion economy over the next 10-15 years if **innovation** talent is harnessed.

"Looking at the talent India possesses, I am pretty confident that we can become \$10 trillion economy in the next 10-15 years," the minister said at the government's 'Def Connect' seminar, emphasising that the need of the hour is to strengthen research and development in defence manufacturing.

Singh said India needs to change course from being a net importer to a net innovator and exporter of defence technologies in the near future.



(Catch all the ***Business News***, ***Breaking News*** Events and ***Latest News*** Updates on ***The Economic Times***.)

Defence India Startup Challenge kick-starts in Kochi

Synopsis

Several companies assembled at Maker Village in Kochi to engage directly with the military and showcase their technologies in the Defence India Startup Challenge (DISC 3), unveiled by Rear Admiral R J Nadkarni, Chief of Staff, Southern Naval Command. The Indian army is moving towards indigenisation in all spheres.



The companies are leveraging state-of-the-art technologies in third edition of the Defence India Startup Challenge

KOCHI: The third edition of the **Defence India Startup Challenge (DISC 3)** began at **Maker** Village here on Friday giving innovators a rare opportunity to engage directly with the military and showcase their technologies.

The programme got off under the **iDEX** (Innovation for **Defence** Excellence), where Maker Village is a partner, having been inducted one-and-a-half months ago as an official partner with the Defence Innovation Organisation (DIO) under the union government, a press release from Maker Village said.

Rear Admiral R J Nadkarni, Chief of Staff, Southern Naval Command, unveiled the Defence India Startup Challenges, while Development Commissioner of **Cochin Special Economic Zone** (CEPZ) D V Swamy launched the Defence India Open Challenge.

The event was attended by a team of 15 senior officers from Kochi-headquartered Southern Naval Command, the Army and the Air Force besides top officials from iDEX, the release said.

Also present were deep-tech startups from across Kerala and representatives from the industry.

Hailing the quality of the startups at Maker Village, Rear Admiral Nadkarni said the companies are leveraging state-of-the-art technologies.



Of late, we are moving towards indigenisation in all spheres, he noted at the function at the Integrated Startup Complex in Kalamassery, 20 km north of this city.

There are certain technologies which nobody in the world would like to part with. A programme like the iDEX can thus be of immense benefit to the nation. It also boosts employment opportunities in the country," he said.

Rear Admiral Nadkarni, stressing the need for stronger education, invited domestic companies to contribute towards the requirements of the defence sector.

Confidence is the hallmark of a successful entrepreneur, who will never wilt if there are difficulties, he added.

There are two challenges India faces: improving economic complexity index and quickening the pace of technologies required for a stronger defence, he added.

Maker Village CEO Prasad Balakrishnan Nair described iDEX as a unique venture to marry two seemingly contradictory establishments.

While defence is synonymous with discipline, an ecosystem like Maker Village usually works amid random bouts of creativity. Yet both can be congruent, as you see here in iDEX. It is a giant leap, he said in the welcome address.

The objective of iDEX is to facilitate rapid development of new, indigenised and innovative technologies for the Indian defence and aerospace sector.

It also seeks to meet the needs for these sectors in shorter timelines and create a culture of engagement with innovative startups by encouraging co-creation for defence and aerospace sectors.

The 2016-founded Maker Village is a joint initiative of Union Ministry of Electronics and Information Technology and the Government of Kerala (through Kerala StartUp Mission) with IIITM-K as the nodal agency.

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